



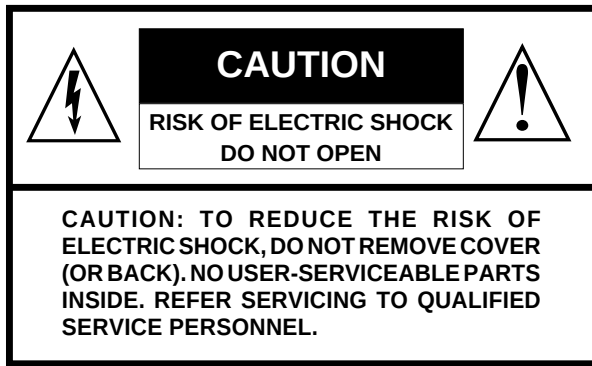
WK4

**WORLD
KEYBOARD**

OWNER'S MANUAL

Cod. 271054

English



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

IMPORTANT SAFETY INSTRUCTIONS

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS

1. Read all the instructions (Safety, Installation and FCC if applicable) before using the product.
2. Do not use this product near water (example, near a swimming pool, spa, tub, sink or wet basement) and do not expose to rain.
3. This product should be used only with a cart or stand that is recommended by the manufacturer, or should be used with the components supplied. If this product requires assembly before being played, take special care to follow the assembly instructions found at the back of the manual.
4. This product, whether alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for long periods of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. **WARNING:** Do not place this product or any other objects on the power cord, or place it in a position where one could walk on, trip over or roll anything over power or connecting cords of any kind.
6. This product should be located so that its location does not interfere with its proper ventilation.
7. This product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
8. This product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
9. This product may be equipped with a polarised line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the wall outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
10. The power supply cord of the product should be unplugged from the outlet when left unused for long periods of time.
11. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
12. This product should be serviced by qualified service personnel when:
 - a) the power supply cord or the plug has been damaged; or
 - b) objects have fallen, or liquid has been spilled into the product; or
 - c) the product has been exposed to rain; or
 - d) the product does not appear to operate normally or exhibits marked changes in performance; or
 - e) the product has been dropped, or the enclosure damaged.
13. Do not attempt to service the product beyond that described in the user-maintenance instructions. All servicing should be referred to qualified service personnel.
14. Some products may have benches and/or accessory mounting fixtures that are either supplied as part of the product or as optional accessories. Please ensure that benches are correctly assembled and stable and any optional fixtures (where applicable) are well secured before use.
15. Electromagnetic Interference (RFI) This electronic product utilises digital sample wave processing technology (S.W.P.) that may adversely affect radio/TV reception. Read the FCC note on the inside back cover of the owner’s manual for additional information.

SAVE THESE INSTRUCTIONS

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WK4
WORLD
KEYBOARD



IMPORTANT INFORMATION

1. The **WK4** should contain the following items from the factory:
 - a) Instrument;
 - b) 3 Floppy disks (1 Operating System (OS) -Disk, 2 Demo disks);
 - c) Owner's manual.
2. When contacting your retailer or authorized Generalmusic technical assistance center, always provide the model name and serial number of your instrument (found on the identification plate).

Generalmusic on Internet: <http://www.generalmusic.com>

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Make sure that all internal electronic options are installed by an authorized Generalmusic service technician. Check with an authorized Generalmusic dealer for information on the closest service center.

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User Guide

INTRODUCTION

Congratulations, and thanks for purchasing Generalmusic's **WK4** World Keyboard! Your World Keyboard is packed with high quality sounds and auto accompaniments, advanced professional features and a simple user interface with a graphic display allowing total control of all the performance and programming activities.

MULTIMEDIA FACILITIES

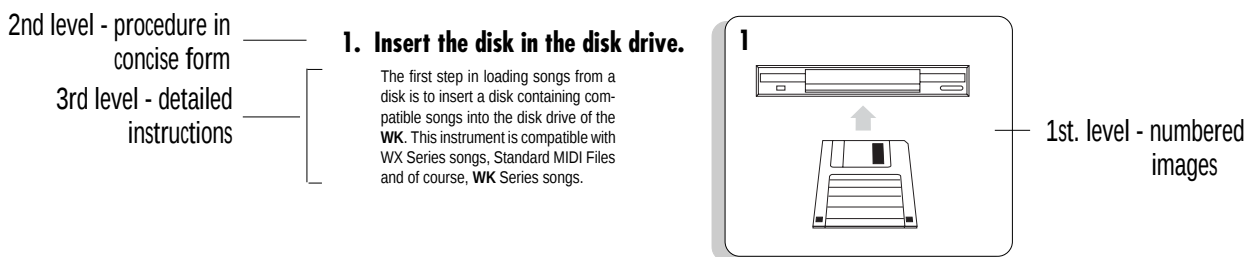
The **WK4** is a multimedia keyboard workstation which offers several ways of interfacing with the instrument. With the optional A/V board, a guitar player can connect to the audio inputs of the **WK4** and play the chords which appear on a monitor connected to the instrument's video outputs, and mix his sounds with those of the workstation (complete with effects processing!). At the same time a group of singers can follow the lyrics projected on a television (or other video projection device) by the **WK4** video interface.

THE OWNER'S MANUAL

The Owner's Manual is supplied as a 3-ring binder with instructions inserted inside.

How to use the manual

Do not use it as a paperweight: read it. If you understand how **WK4** operates, you can save a lot of time. You are encouraged to experiment with alternative operating methods: the **WK4** is sufficiently flexible to permit several approaches to obtain the same results. This **User Guide** offers information on three different levels of complexity: as numbered pictures or images, as brief instructions and as detailed instructions. You can limit yourself to following the images only, or by reading the bold black type, or by referring to the normal text containing detailed instructions.



The second part of the manual contains the **Reference Guides** which describe the instrument's functions in detail without discussing procedures. Experienced users can limit themselves to the reference chapters.

SPECIFICATIONS

- **Polyphony/multitimbral capabilities**

Maximum polyphony: 64 voices. Multitimbricity: 16 parts (Style/RealTime modes) or 32 parts (Song mode). Each part is assigned to a track. In Style/RealTime mode 8 tracks are assigned to the keyboard and the other 8 to the auto-accompaniment section.

- **Sound generation**

Based on sampled waveforms (Wave), modified by programmable digital filters (DCF, Digitally Controlled Filters). Waves are assigned singularly or in pairs up to a maximum of 3 Layers, to obtain Sounds consisting of a maximum of 6 Waves per voice.

- **ROM-Sounds**

ROM (permanent memory) contains 8 megabytes of samples, which are the source of over 600 ROM-Sounds.

- **RAM-Sounds**

You can load disk-based RAM-Sounds based on samples contained in ROM. RAM Sounds can be supplied by Generalmusic, by third parties, or can be created by the user with the optional sound editor program. Sounds can be loaded from **WK4** or WX/SX Series disks.

- **Performance-Sounds**

The "Edit Perf Sound" and "Edit Sound Patch" functions permits quick modification of Sounds and Drumkits to produce "Performance-Sounds". The modifications are stored in Performance tracks to allow Songs, Styles or Performances to load the correct sounds.

- **System-RAM**

System-RAM is the microprocessor memory zone, also used to store Songs, programmable Styles, Performances and RAM-Sounds after powering up the instrument. It is backed by a rechargeable battery. The amount of available memory to store the data is approx. 1.9 megabytes (1.6 Mb as standard System-RAM boosted to 1.9 Mb by a DRAM included with the instrument).

- **Backed S-RAM (optional)**

WK4 can be fitted with an optional 2 megabytes of RAM for samples (Waves), backed

by a Ni-Cd battery to retain data after turning off the instrument. Sample-RAM allows to load new samples (Waves) on which RAM Sounds can be based.

- **Volatile Sample RAM (optional)**

It is possible to install up to 32 megabytes of additional Sample-RAM via standard 30 pin computer SIMMs obtainable from most computer outlets.

- **Digital Effects Processor**

Four Digital Effects Processors, controlled in real time, enrich the sound with effects (reverbs and modulations). A flexible matrix allows different effects to be assigned to every track.

- **Sequencer**

The 32 track sequencer has a Microscope function (microscopic edit) and Score facility (to display Score, chords and Lyrics). The QuickRec recording method allows the rapid recording of a Song by using existing Styles. The standard System-RAM allows you to store up to 250.000 events distributed through 16 Songs.

- **Jukebox & Preload**

The Jukebox function allows you to chain the Songs in memory and play them one after the other with a single command. The Preload function allows you to create a list of disk-based Songs or MIDI file and play them all by means of a single command, without first loading all data in memory.

- **Automatic accompaniment**

Styles provide automatic musical accompaniments, consisting of 8 tracks. Every Style has 4 Variations. Up to 32 disk based Styles (User programmable) can be loaded and automatically stored in the battery backed system memory.

- **Disk drive**

Data can be stored on 3.5" HD floppy disks, in **WK4** expanded format (1.6 megabyte) or standard MS-DOS (1.44 megabyte). The Atari ST/Falcon format (720 Kb) can be used for MIDI file exchanges. **WK4** is able to initialize disks for every format. It is possible to load RAM-Sounds, Styles, and Songs from **WK4**, WX2,

.

ii Introduction

SX2 floppy disks. If a Sample-RAM is installed, it is also possible to load new samples from disk (as RAM Sounds). MS-DOS compatibility permits MIDI file exchange with other instruments and computers.

- **Hard disk (optional)**

It is possible to install a 2.5" IDE or E-IDE internal hard disk (max. 500 megabytes). The installation requires the Generalmusic HD installation kit.

The hard disk operating functions include an integral test and a data restoring procedure, to recover damaged data. Compared to a floppy disk, the hard disk has faster access speeds and provides for improved data protection. The installation kit is available from authorized Generalmusic stores and should be installed by a qualified service technician. A compatible IDE hard drive can be purchased from most computer outlets.

- **Multitasking operating mode**

The Multitasking operating system allows you to execute several operations simultaneously, such as modifying sounds while a song is playing, loading a song during song play, formatting a disk while playing.

- **Up-dateable operating system (OS)**

Since the operating system resides in a flash-ROM, it is possible to load updates from floppy disk. Operating system updates can add new functions to the instrument.

- **Score view**

The display can show the score, the lyrics and chord symbols of a song.

It is also possible to connect **WK4** to a video system (monitor, domestic TV, closed circuit video) by means of the optional Generalmusic Audio/Video board to display score and lyrics on a television. Lyrics can be projected onto a television or other video devices during a performance to allow others to sing with the player.

- **Audio inputs**

With the optional A/V board, it is possible to connect a microphone, another instrument, a mixer or hi-fi outputs to the **WK4** audio MIC/

LINE IN inputs. The optional Generalmusic Audio/Video board sends the input signals to the **WK4** internal Digital Effects processor.

- **Advanced MIDI operation**

WK4 has two independent MIDI circuits (A and B), offering up to 32 MIDI channels, with MIDI-merge and MIDI-thru functions.

- **Direct connection with a computer**

The Computer jack permits the connection of computers not fitted with a MIDI interface to **WK4** via a single serial cable.

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IMPORTANT PRELIMINARY NOTES

Observe these important preliminary notes before using your instrument

AVOID PLACING DISKS NEAR MAGNETS - Do not place floppy disks on top of speakers, near magnets, telephones, or other sources of electromagnetic fields. The disk contents could be damaged.

MODELS WITH OPTIONAL HARD DISK INSTALLED- the hard disk may appear to operate rather slowly the first time you open its directory. This is caused by operations relating to the organization of the internal data and tests on the integrity of the device. The delay is eliminated on all successive hard disk access operations. You may also find that the Hard Disk is write protected - this is merely a precautionary measure to avoid accidental erasure of any factory-loaded files. The protection is removed in the Disk Utility page.

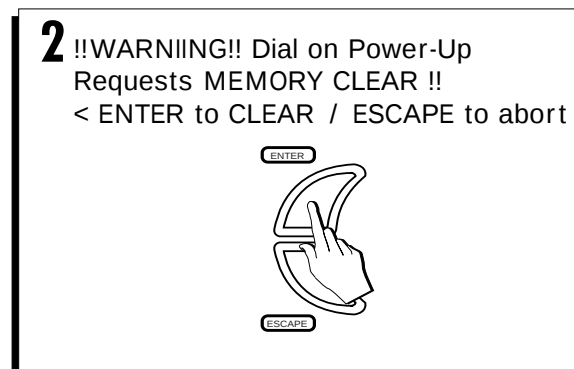
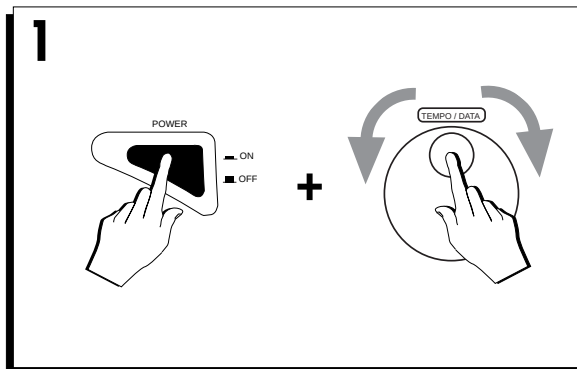
UP-DATEABLE OPERATING SYSTEM - A disk containing the operating system is supplied with the instrument. The disk can contain a more recent version of the operating system than the one contained in the instrument's Flash ROM.

To load the operating system contained on the floppy disk:

(1) turn off the instrument, (2) insert the floppy disk in the drive, (3) turn on the instrument, (4) When the message «Loading OS-disk clears all memory!! ENTER to load, ESCAPE to abort» appears, press ENTER to start the OS update, (5) wait while the operating system is being loaded, (6) when the message «Loading successful (Enter to continue)» is displayed, press ENTER. After completing this process, proceed with the power-up reset that follows below to insure proper operation.

RESETTING AT POWER UP - If the data contained in the instrument's memory has been damaged, either by being exposed to the effects of a strong magnetic field, or other unknown reason, the instrument may not operate properly. The remedy is a power-up reset:

(1) Turn on the instrument while simultaneously pressing the POWER switch and rotating the DIAL, (2) when the message «!!WARNIING!! Dial on Power-Up Requests MEMORY CLEAR !! < ENTER to CLEAR / ESCAPE to abort>» appears, press ENTER to clear the MEMORY.



BEFORE STARTING - CONSERVING DATA IN RAM

The rechargeable battery

The **WK4** conserves the data in RAM after turning off, thanks to a rechargeable battery. The battery is recharged while the instrument is turned on (not just plugged in!).

When the instrument is turned off, if the battery is at maximum charge level, the data in RAM is conserved for about two weeks. The charge of the battery increases by one day for every hour the instrument is left on, until the maximum level is reached. If the battery discharges, leave the instrument on for at least 15 hours to recharge it completely.

To increase the efficiency of the rechargeable battery, repeat the complete recharging operation at least once a month. In most cases, normal use of the **WK4** will keep the battery charged.

- **WARNING-** *Sounds based on sample RAM (RAM ~ -Sounds) are conserved after power down only if the Backed Sample-RAM is installed. If the volatile Sample-RAM is installed, the Sounds and samples will be lost at power down (much like typical computer memory). If desired, these Sounds can be reloaded from disk after powering up the instrument again*
- **Note:** *It is possible to load RAM ~-Sounds (totally new Sound Waves) only if the Sample-RAM is installed.*

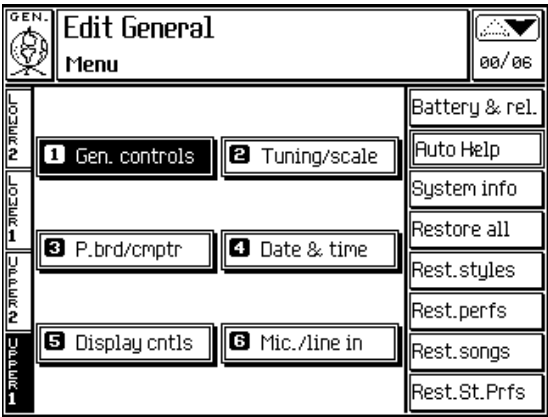
What remains in memory and what is cancelled

Stored after turning off	Not stored after turning off
Performances	
Modified Style-Performances	
User Styles (User buttons)	
Songs	
Setup (general settings)	
RAM-Sounds (based on samples in ROM)	
RAM~♫-Sounds (based on samples in Backed S-RAM)	RAM~♫-Sounds (based on samples in Volatile S-RAM)
Samples in Backed S-RAM	Samples in Volatile S-RAM

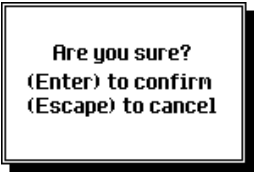
The status of the following buttons also remain memorized: ARRANGE ON/OFF, ARRANGE MEMORY, LOWER MEMORY, TEMPO LOCK, MIXER LOCK, BASS TO LOWEST and the ARRANGE MODE settings.

RAM reset

If you want to recall the factory settings, you can reset the backed RAM.
1. Press GENERAL in the EDIT section to enter the “Edit General” menu.



2. Press F4 to select the “Restore all” command. The following dialogue window is displayed.

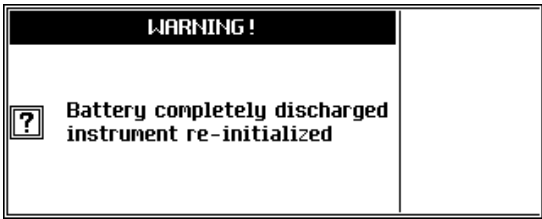


3. Press ENTER to confirm the initialization, or ESCAPE to cancel the procedure. If the procedure is confirmed, the instrument can be played after few seconds.

Battery discharged message

If the instrument has been left turned off for a long period of time, the battery will slowly discharge. When the battery discharges completely, it causes the total loss of all user programmed data.

If the battery has lost its charge completely, turning the instrument on will show the following message:



The message cancels automatically after 2/3 seconds. After the message cancels, be sure to save all of your edited work to disk until after the battery has sufficiently charged. Leave the instrument on for a few hours to recharge the battery (one day charge for each hour of recharging-maximum of 15 days charge).

If you foresee leaving the instrument turned off for a long period of time, be sure to save all user-programmed data to disk to safeguard your data against automatic erasure due to battery discharge.

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• 1 Quick Guide

POWER UP

1. Be sure that the power switch on the rear panel is in the "OFF" position before connecting the power cord.
2. Insert the instrument's power cord into a suitable grounded wall outlet.

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► **Note:** If you want to use external amplification, connect the stereo audio outputs (Left, Right) to your amp. system (mixer, powered speakers, etc.) using audio cables with standard 1/4" jacks. Use RCA jacks to connect to domestic stereo units. For mono reproduction, connect to either the Left or Right jack.
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3. Press the power switch to turn on **WK4**.

After a few seconds the instrument sets to the default situation.

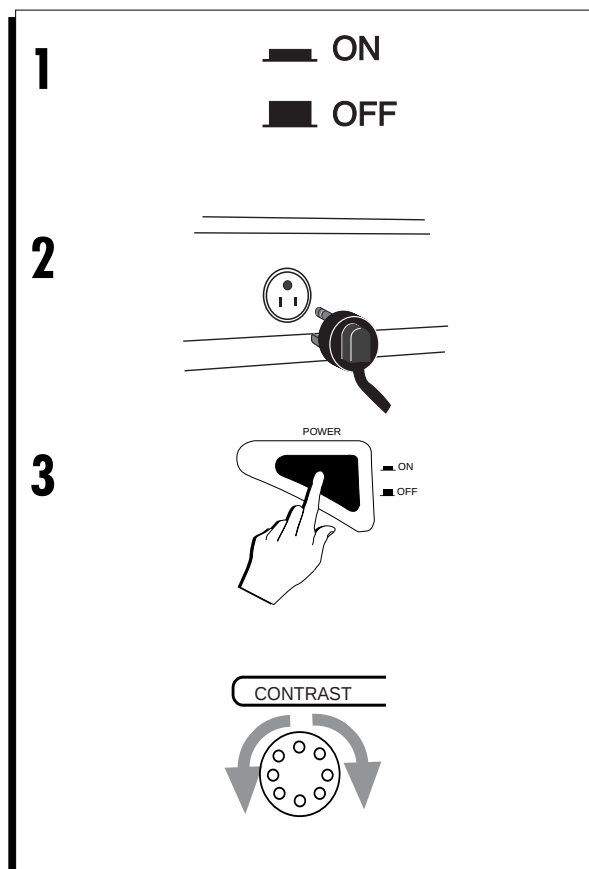
If necessary, regulate the display contrast with the DISPLAY CONTRAST panel knob on the left of the display. Different viewing angles may require an adjustment of the display contrast. The display reaches its maximum brightness a few minutes after turning on.

At this point, **WK4** is ready to play.

Automatic loading at power up

It is possible to load a Block of data automatically from disk at power up. Change the name of the Block to load in AUTOLOAD.BLK (use capital letters only). At power up, if the floppy-disk containing the AUTOLOAD.BLK file is inserted in the drive, the Block is loaded in RAM.

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► **WARNING** - The automatic AUTOLOAD.BLK loading procedure replaces all the data conserved in System RAM.
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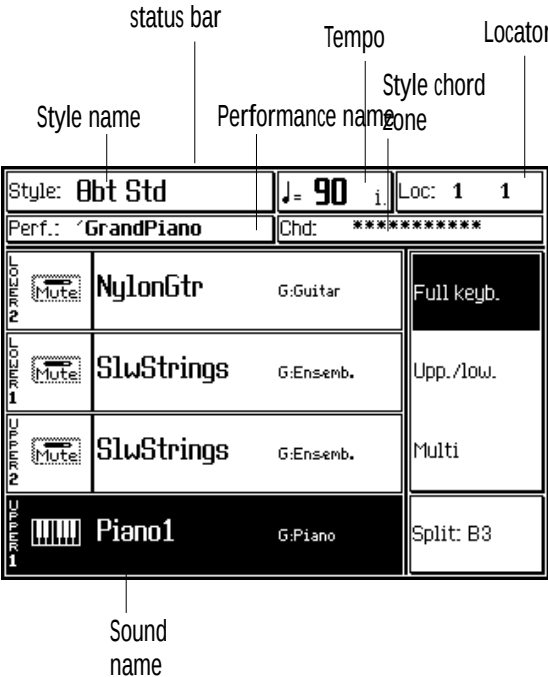
THE INITIAL STATUS (DEFAULT)

After turning on, WK4 sets to Style/Performance mode with the Grand Piano Performance ready to play across the full keyboard. This Performance corresponds to the first slot in bank 1 of the Performance Groups section. WK4 defaults to this mode every time you turn on the instrument.

The status bar shows the name of the current Style and Performance, the tempo, the locator and the current Accompaniment Chord selection.

The menu shows the track status options (Full Keyboard [selected], Upper & Lower, Multi) and the soft button to select the Split Point.

Let's go through some of the basic operations that you can carry out after powering up.



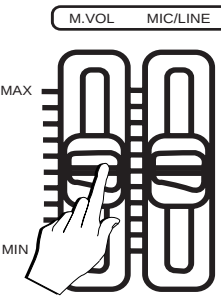
ADJUSTING THE GENERAL VOLUME

Adjust the general volume with the M. VOLUME slider.

If you are using headphones, a comfortable level is around half way of the slider's travel distance.

If you are using external amplification, better results are obtained by adjusting the volume with mixer or amplifier controls rather than lowering the volume of the instrument.

- **Note:** If the Audio/Video interface is not installed, the Master Volume slider does not affect the signal fed into the MIC/LINE IN inputs.
- **WARNING** - Playing at high volumes levels could be harmful to your hearing and could damage the amplifier and speakers.



PLAY WITH AUTO ACCOMPANIMENT STYLES

WK4 has 96 auto accompaniment Styles with four Variations four Intros, four Fills and four Endings for each Style. You can also load up to 32 disk based user-programmable Styles of your choice into the 4 PROG banks available.

1. Press SINGLE TCH. PLAY.

The ARRANGE ON/OFF and ARRANGE MEMORY buttons will activate if not already on.

When SINGLE TOUCH PLAY is on, the sounds memorized in the Style Performance are assigned to all the tracks. Selecting a Style changes the sounds of the accompaniment tracks as well as those assigned to the keyboard sections. Also recalled are settings relating to the keyboard mode and chord recognition mode for the current Style.

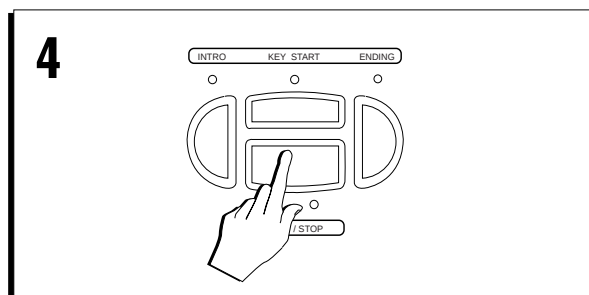
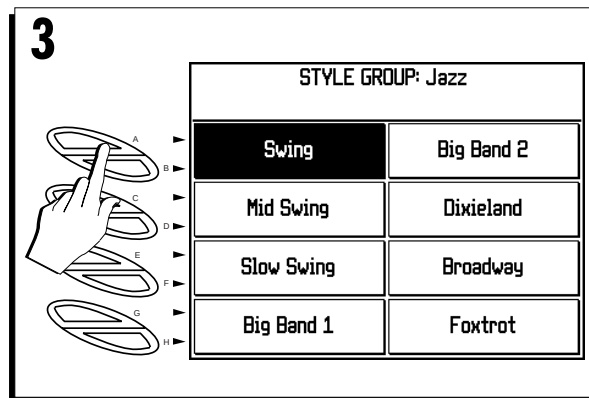
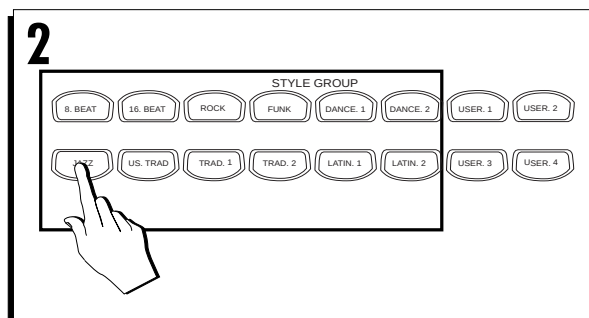
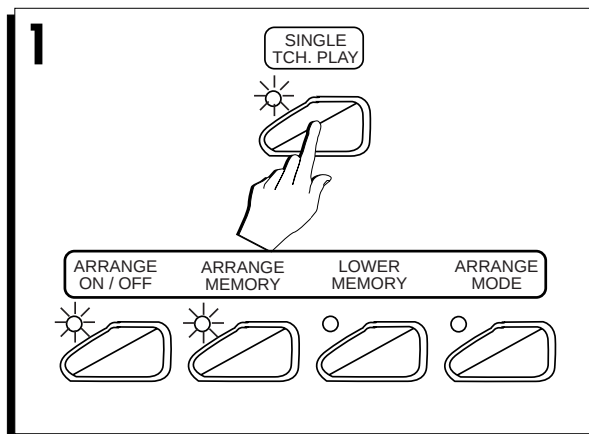
2. Press a Style button in the STYLE GROUPS (8 Beat, 16 Beat, Rock, etc.).

3. Select a Style.

Use the soft buttons near the Style name in the DISPLAY (SWING in this example).

4. Press the START/STOP button to start the accompaniment.

You'll hear the drum track playing.



5. Play a chord (at least three notes) below the Chord Split Point (note B3) to start Style play.

A fully orchestrated auto accompaniment pattern is triggered.

In default conditions, the keyboard's chord recognition mode is set to "Fingered 1". You can change the chord recognition mode to "One finger", "Fingered 2" or "Free 1 & 2", by entering the ARRANGE MODE options. See the ARRANGE MODE function in the Styles chapter 5.

6. Play a different chord.

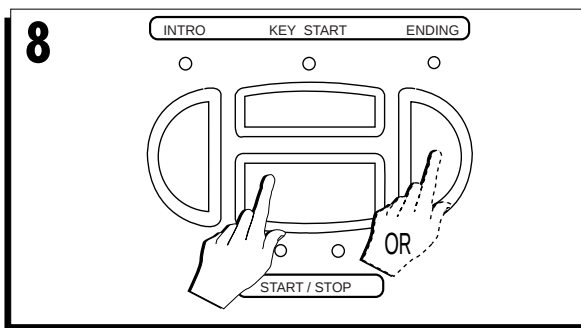
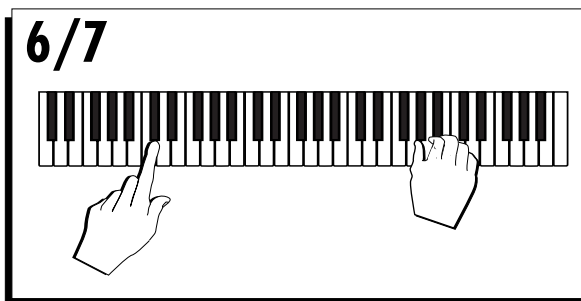
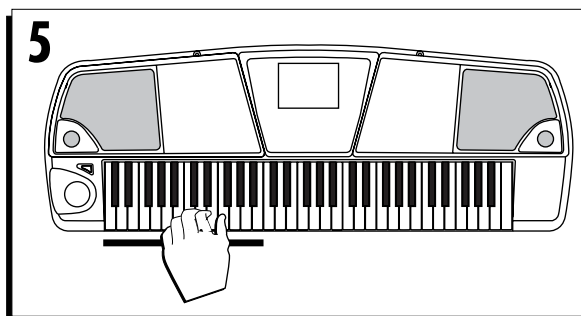
Note how the accompaniment pattern is transposed.

7. Start to play a melody with the right hand.

The combination of sounds that play and the current keyboard mode will depend on the Style selected.

8. Stop the Style with Start/Stop or Ending.

Styles are discussed in detail in the relative chapter afterwards.



Demo

Listen to the Demo Songs

You can listen to the automatic playback of your **WK4** to get an idea of what the instrument is capable of doing.

1. Press DEMO to open the Demo window.

The left part contains four Songs and the right part contains three Style medleys and the «ALL DEMO» command.

2. Select a demo song with the corresponding Function button.

The selected demo playback starts and shows up in negative highlight. When the end is reached, the demo stops.

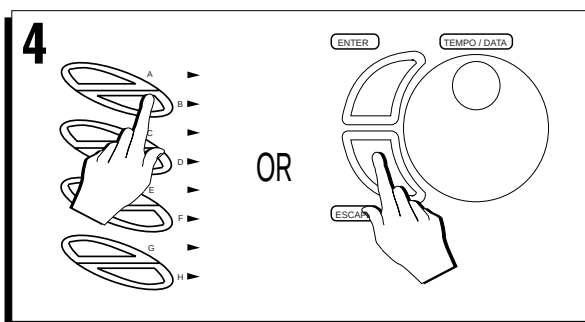
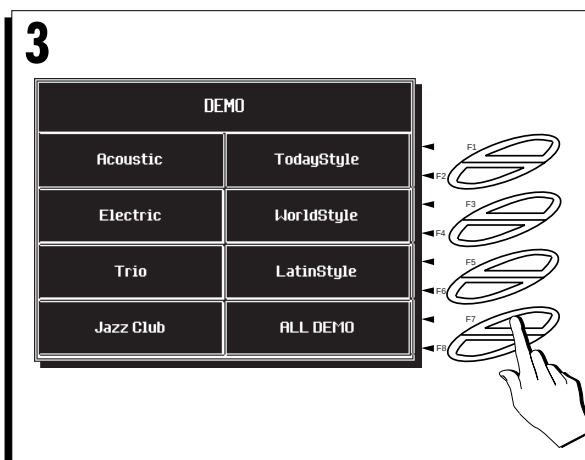
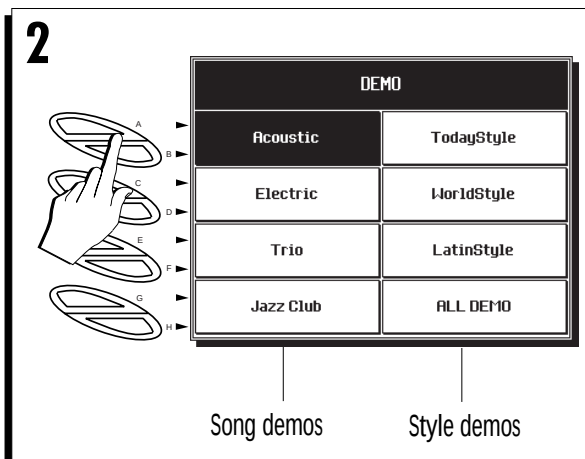
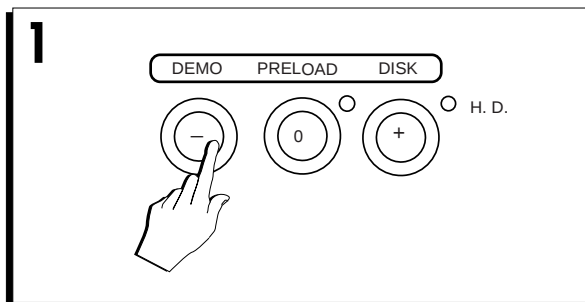
3. Select the «ALL DEMO» command to chain all seven demos.

Playback starts automatically from the first song shown in the top left hand corner. Demos not yet played are shown in negative highlight while those played return positive.

While a demo plays, all the buttons on the control panel (except DEMO, the Function buttons and ESCAPE) and the keyboard are disabled.

4. To stop a demo song without closing the DEMO display, press the corresponding Function button.

To stop the Demo Song and close the DEMO display, press ESCAPE.



Multimedia

WK4 can display Lyrics when playing **WK4** & PS Series Disks. There are a wide variety of disks that display lyrics when played. No other keyboard brings vision to your music like the Generalmusic **WK4** Series does!

1. Press the SONG BUTTON.

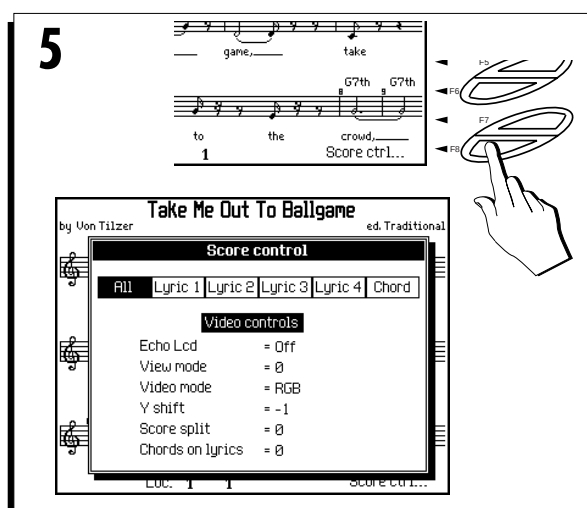
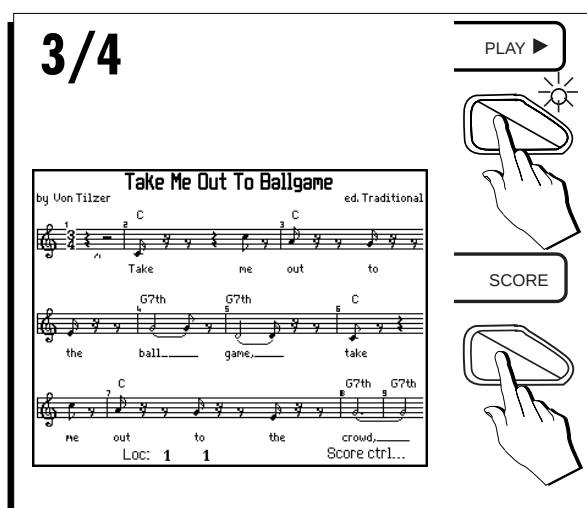
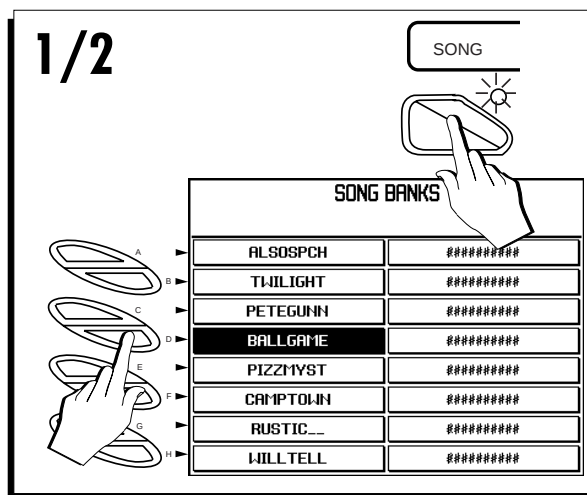
You will see up to sixteen Song choices in the display (autoload the four song demo disk provided with the instrument if necessary).

2. Select the desired SONG with the corresponding Soft button.

3. Press PLAY to start the SONG playback.

4. Press the SCORE button and the score will appear.

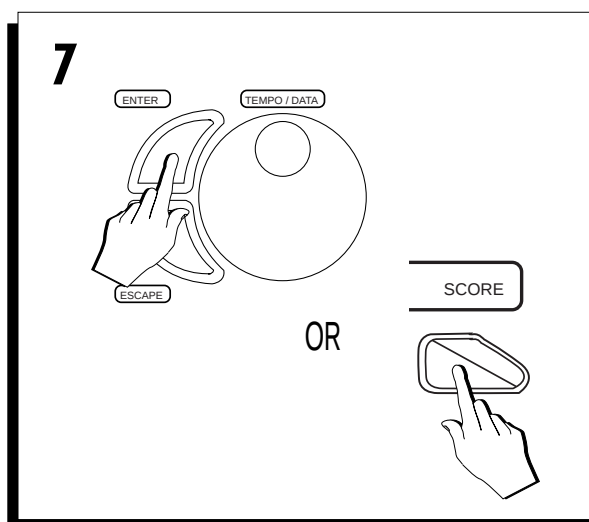
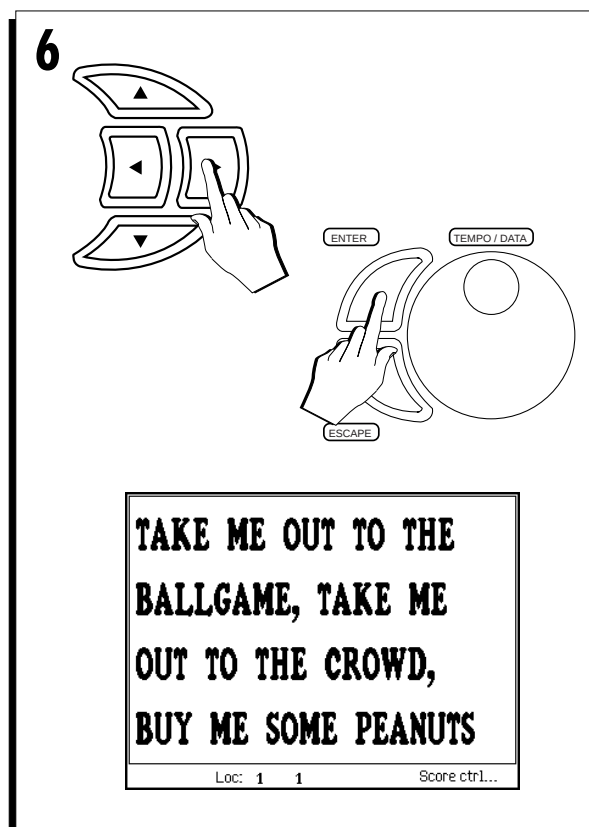
5. Press the F8 soft button to activate the SCORE CONTROLS.



6. Use the DIRECTIONAL ARROWS to highlight the desired viewing choices (All, Lyrics 1, 2, 3, 4, Chord).

Press the ENTER button to view the results.

7. Press ESCAPE or SCORE to return to the main Song Playback page.



SELECTING INSTRUMENT SOUNDS

WK4 has over 600 instrument Sounds, including orchestral, percussion and contemporary musical instruments. You can customize any sound to your tastes with the built in sound edit capabilities.

- 1. Press the STYLE/REALTIME button.

The display returns to the Style/RealTime mode, a real time play situation with instrument sounds ready to play.

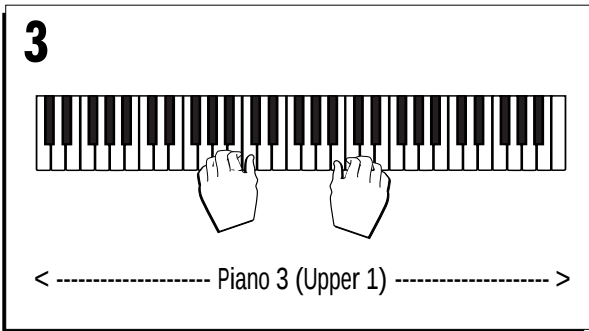
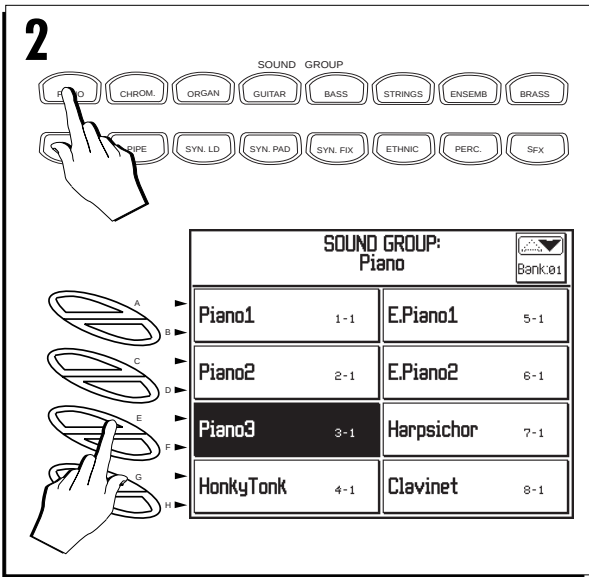
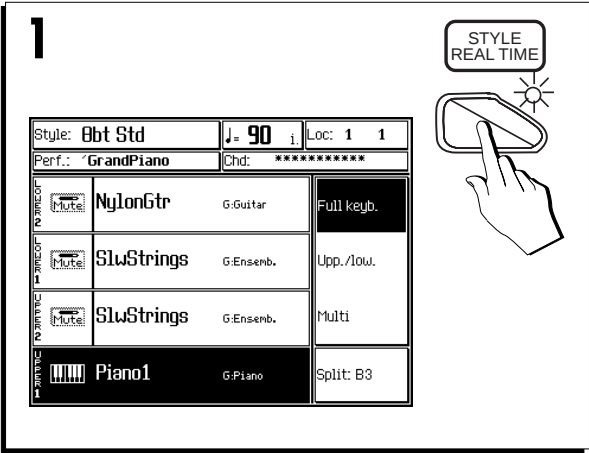
Pressing Style/RealTime returns you to the last selected Performance of the Performance Groups.

You may use the “Style/RealTime” button as a ‘return to start’ button whenever you wish to have one or more sounds active across all 76 keys.

- 2. Press a SOUND GROUPS button and select a Sound.

Select a Sound by pressing the Soft button near the Sound name in the display (Piano3 in this example).

- 3. Play on the keyboard and listen to the Sound.
- The Sound plays across the full keyboard.



- Repeat step 2 to make additional selections.

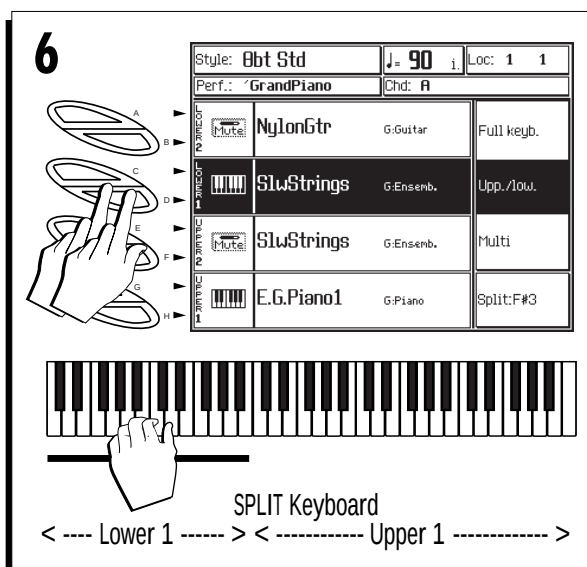
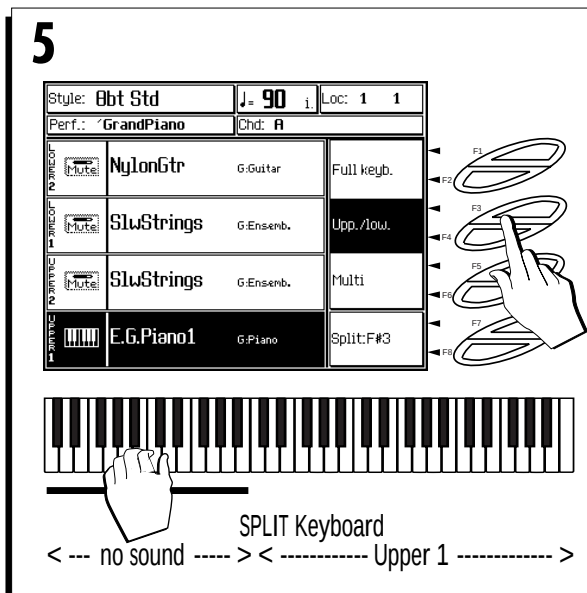
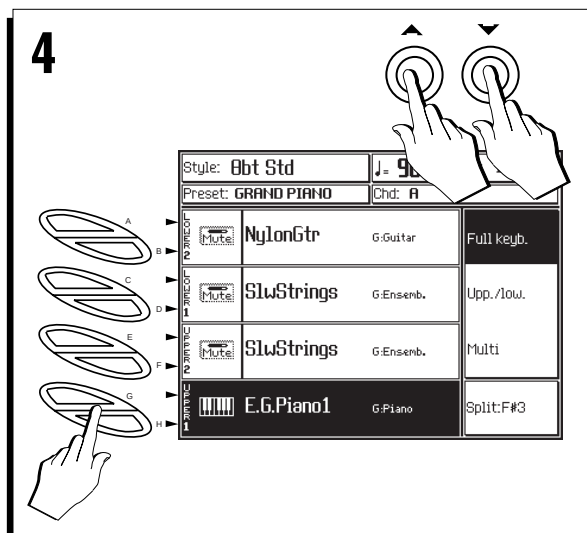
This time, after pressing a SOUND GROUPS button, select the Bank containing the desired sound using the ▲▼ (Page/Bank) buttons. Each Sound Group button consists of up to 16 Sound Banks, each containing up to 8 Sounds.

- Press the F3/F4 Soft button to select the UPP./LOW keyboard mode press a key below note B3.

No sound will play. The keyboard is divided at note B3 and the Sound assigned to the Lower 1 section is mute. The Sound assigned to Upper 1 plays from C4 to G7.

- Select the Sound assigned to Lower 1 (Slow Strings in this example) by pressing the corresponding Soft button TWICE and press a key below B3.

Pressing F3/F4 once selects the Sound, pressing the same button again activates the sound for play. You'll hear a different Sound with respect to that assigned to Upper 1.



7. Repeat step 6, this time selecting Upper 2 and play a key above note B3.

You'll hear two sounds for each single note played.

Activating Upper 2 introduces a second Sound (String) layered with the first.

8. Press the LOWER 2 soft button twice to select the corresponding Sound and play a key below note B3.

You'll hear a second sound layered with the Lower 1 sound.

If you play with both hands, you'll hear two sounds on the right hand and two on the left.

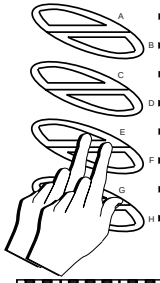
9. Press the SOLO button and play on the keyboard.

The Sound currently shown highlighted (in this example Nylon Guitar assigned to Lower 2) is isolated from the other sounds which are all muted.

The Sound plays across the full keyboard.

- Press the SOLO button again to return to normal operation.

7

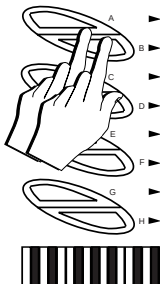


Style: Bbt Std		J= 117	Loc: 1 1
Perf.: GrandPiano		Chd: C	
Mute	NylonGtr	G:Guitar	Full keyb.
Mute	SlwStrings	G:Ensemb.	Upp./low.
Mute	SlwStrings	G:Ensemb.	Multi
Mute	Piano	G:Piano	Split:F#3

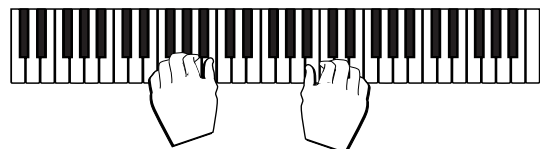


SPLIT Keyboard
< --- Lower 1 --- > < ----- Upp 1 + Upp 2 ----- >

8



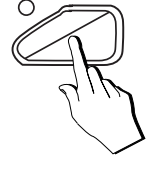
Style: Bbt Std		J= 117	Loc: 1 1
Perf.: GrandPiano		Chd: C	
Mute	NylonGtr	G:Guitar	Full keyb.
Mute	SlwStrings	G:Ensemb.	Upp./low.
Mute	SlwStrings	G:Ensemb.	Multi
Mute	Piano	G:Piano	Split:B3



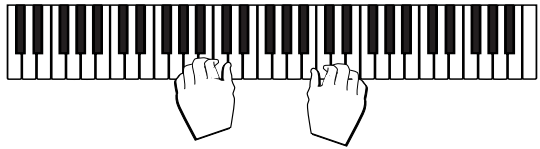
SPLIT Keyboard
< - Low 1+Low 2 --- > < ----- Upp 1 + Upp 2 ----- >

9

SOLO



Style: Bbt Std		J= 117	Loc: 1 1
Perf.: GrandPiano		Chd: C	
Mute	NylonGtr	G:Guitar	Full keyb.
Mute	SlwStrings	G:Ensemb.	Upp./low.
Mute	SlwStrings	G:Ensemb.	Multi
Mute	Piano	G:Piano	Split:B3



< ----- Lower 2 (full keyboard) ----- >

SELECTING THE PERFORMANCES

WK4 has 64 user programmable Performance locations, organized into eight different banks. These Performances feature single and layered sounds, custom effect settings, split keyboard combinations and more. You can create your own Performances or load new ones from disk.

1. Press the Bank 1 button in the PERFORMANCE GROUPS section.

The display shows 8 Performances to choose from, each with a different name.

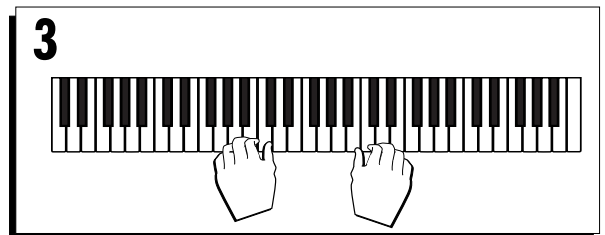
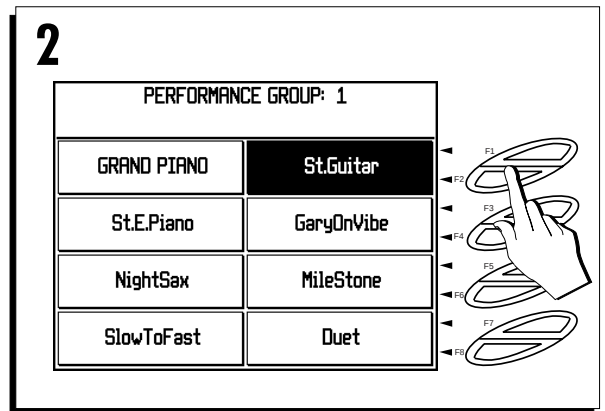
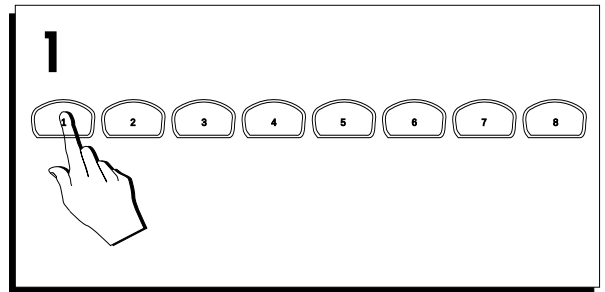
2. Select the Performance called "StGuitar".

Use the Soft button nearest to the name of the Performance to select it (StGuitar in this example).

.....
► Note: If you do not select a Performance within the first 2/3 seconds, the display returns to the previous situation with no changes.

3. Play on the keyboard and listen to the Sound.

Repeat steps 1 and 2 to make additional selections.



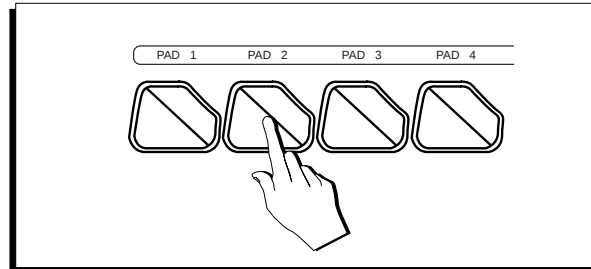
PLAY THE PROGRAMMABLE PADS

The four programmable Pads buttons (Pad 1, Pad 2, Pad 3, Pad 4) provide quick and easy ways of adding extra sounds to your playing. You can program each pad to produce an instrumental sound, a percussive sound or sample. The programmable Pads can also be assigned to the rotor slow/fast switching function.

- Strike the Pads freely.

While you play, add additional sounds from the pads in real time.

The configuration of the Programmable Pads can be stored in the Programmable Performances.



PLAY WITH EFFECTS OR BYPASS THEM

You can temporarily modify the way in which a Performance is processed by the on-board effect processor by changing the On/Off setting of the **Effects Bypass** button.

When the LED is off, the current Performance is processed by the effects; when on, the effects are bypassed.

Bypass

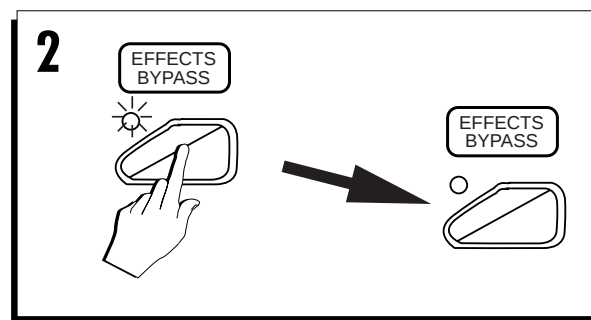
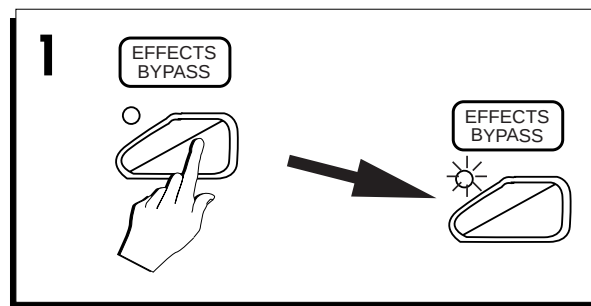
1. To bypass the effects, press the EFFECTS BYPASS button.

The LED of the button turns on, indicating that the current Performance is no longer processed by the Effects.

To activate the effects

2. Press the active EFFECTS BYPASS button.

The LED of the button goes off to indicate that the current Performance is processed by the Effects.



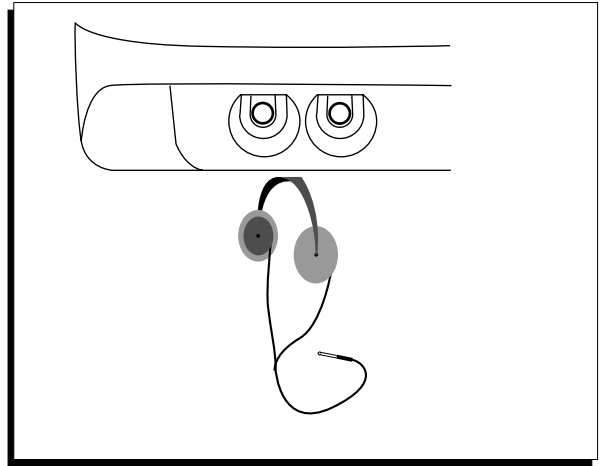
.....

PLAY WITH HEADPHONES

- Plug a set of headphones into the PHONES 1 jack.

The headphones jack panel is located on the left side of the instrument, under the keyboard. Inserting the headphones plug into the PHONES 1 jack excludes the internal speakers to allow you to play in total silence without disturbing others in the same room. Plugging into the PHONES 2 jack does not exclude the internal speakers.

Use the **Master Volume** slider to adjust the headphone volume.



PLAY WITH THE PEDALS

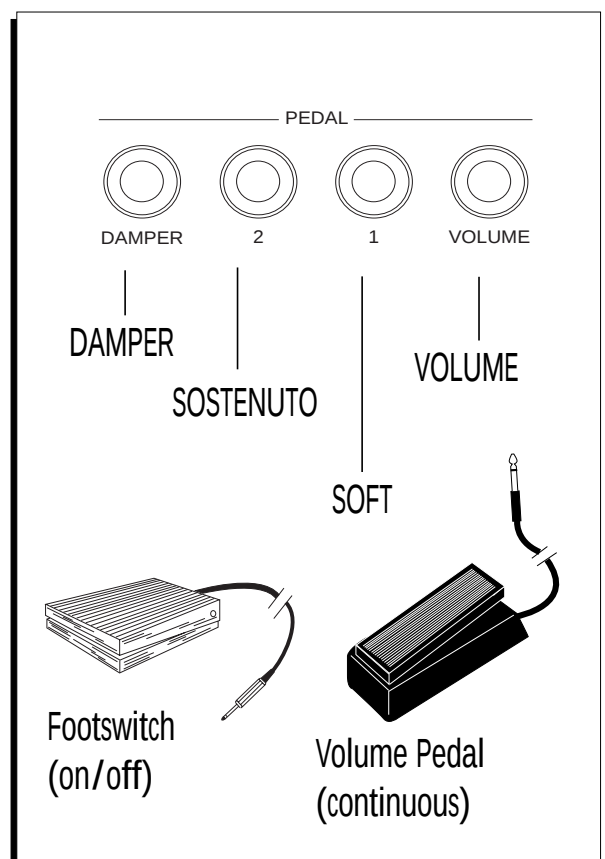
The rear connections panel includes four jacks for control pedals, denoted Volume, 1, 2, Damper. The Volume jack is a non-programmable port for a standard Volume Pedal (optional). The remaining three pedal jacks are programmable and pre-set to provide Performance functions.

The default configuration of the pedals is as follows:

- Ped1 = Soft
- Ped2 = Sostenuto
- Ped3 = Damper (sustain)
- Volume = Volume

The pedal jacks 1, 2 and Damper are function assignable and can be independently enabled or disabled to react with the keyboard tracks of a Performance.

All three pedals (1, 2, Damper) can be programmed to accept Switch action (on/off) or Continuous (graduated levels) control pedals (Volume type).



PLAY WITH THE TRACKBALL

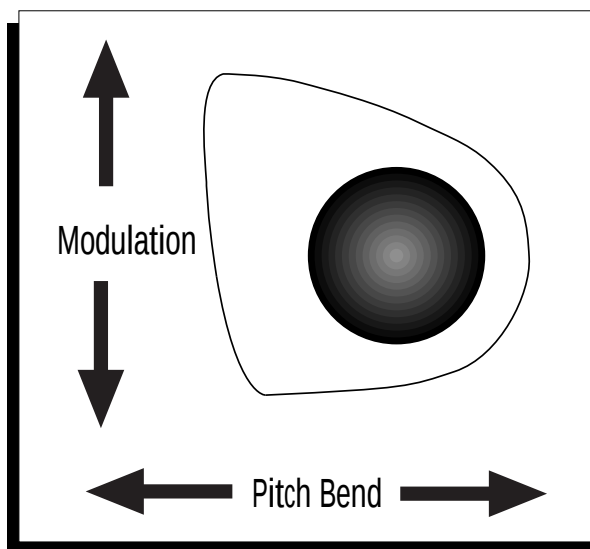
The on-board controlling devices include a Trackball on the left key block, preset for Performance functions.

The default configuration of the Trackball is as follows:

- Left/Right movement = Pitch Bend
- Up/Down movement = Modulation

The Trackball is spring loaded to return to the central position.

The Trackball can be enabled or disabled to react with the keyboard tracks of a Performance.

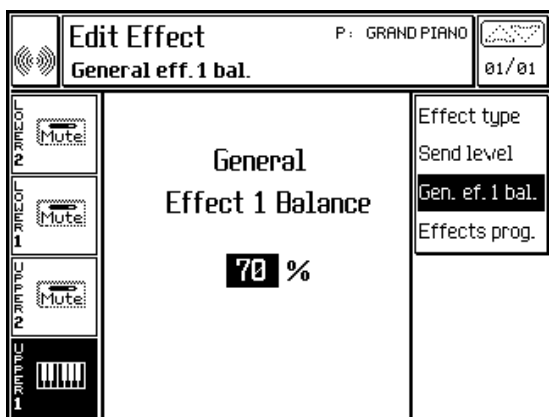


General reverb control and equalization

REVERB CONTROL

It is possible to adjust the reverb for the surroundings in which you play. Although Performances and Styles recall suitable reverb settings for the sounds used, there is a general reverb balance allows you to adjust the intensity of all the reverbs with a single command.

1. Press EFFECTS in the EDIT/NUMBERS section.
2. Press F3 ("Gen.Rev.Bal.").



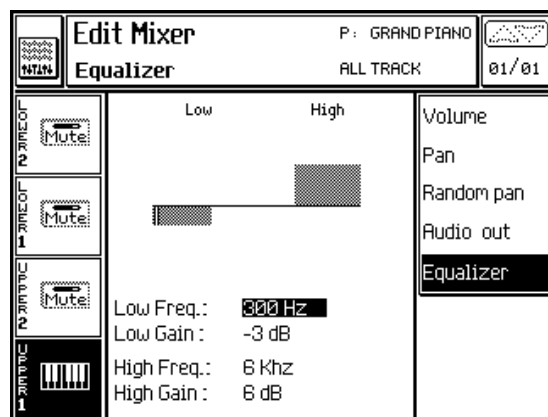
3. Adjust the reverb intensity with the DIAL.
4. Press ESCAPE to return to the main page.

The setting does not remain in RAM after turning off the instrument.

EQUALIZATION

It is possible to equalize the tone of the instrument for the surroundings in which you play.

1. Press MIXER in the EDIT/NUMBERS section.
2. Press F5 ("Equalizer").



3. Select the parameters with the cursor buttons.
4. Modify the frequency of the High and Low bands and equalize the High and Low Gain controls.
5. Press ESCAPE to return to the main page.

The settings remain in System RAM after turning off the instrument.

TRANPOSE THE INSTRUMENT (SEMI-TONES)

If you would like to play a song in a different key, or a song is too high or too low for a singer or another instrument, you can transpose **WK4** to play the song in an easier key.

The TRANPOSE b/# buttons allow real time semitone adjustments (transpositions) of the overall pitch (range ±24 semitones = 2 octaves).

- 1. Press TRANPOSE # to raise the pitch.

An insertion screen shows the Transpose value and the LED turns on to show that the instrument is in a positive transposed status.

Press the Transpose # button as many times as necessary until you reach the desired pitch.

- 2. Press TRANPOSE b to lower the pitch.

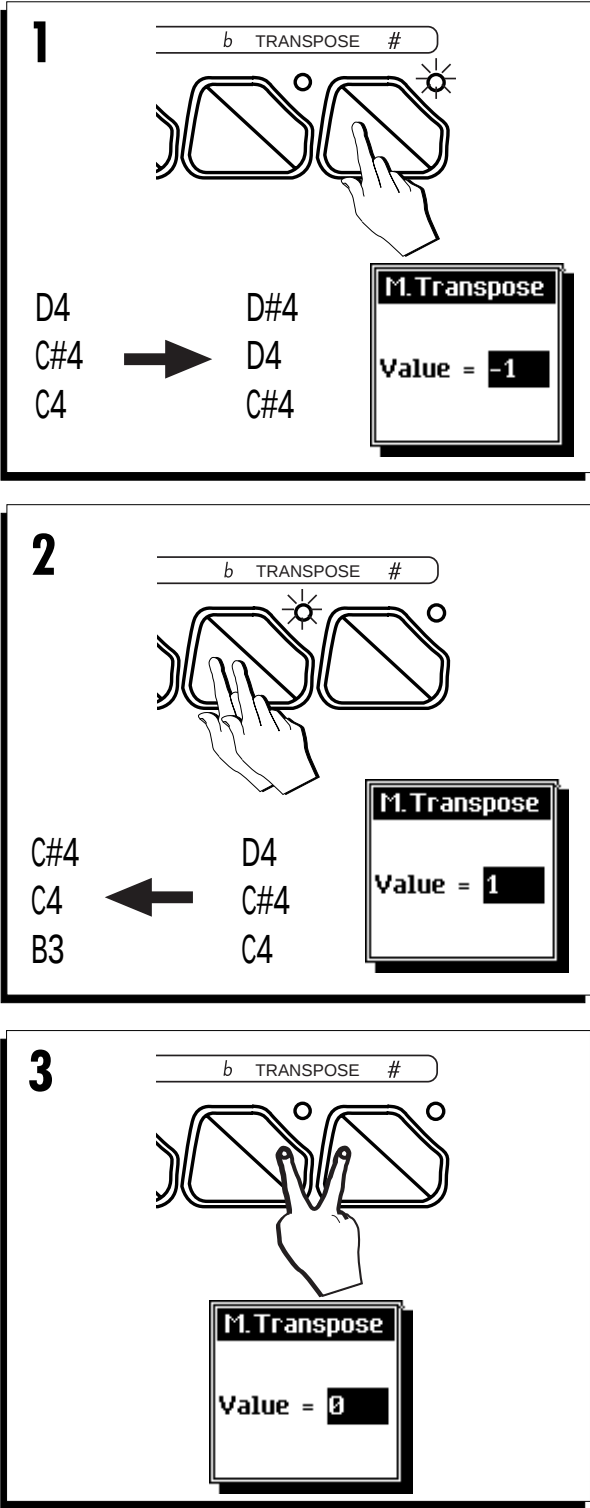
The current Transpose value is reduced by one half-step.

Continue pressing the TRANPOSE b button until the LED on the button turns on. (An eventual positive transpose status will be cancelled).

To clear the keyboard transpose setting

- 3. Press both TRANPOSE buttons simultaneously.

The LED on the active button goes off and the instrument's normal pitch is restored. The display shows the "0" setting for a few seconds then returns to normal.



TRANSPOSING TRACKS BY OCTAVES

Any track, if selected, can be instantly transposed in octave steps, within the range ± 5 octaves.

1. Select the track you wish to transpose.
2. Press the OCTAVE + to raise the octave setting.

An insertion screen shows the current Octave setting.

Press the OCTAVE + button as many times as necessary until you reach the desired setting. The value is expressed in semitones: 12 = 1 octave, 24 = 2 octaves, etc.. The insertion screen cancels automatically after 2/3 seconds.

3. Press OCTAVE – button to lower the octave setting.

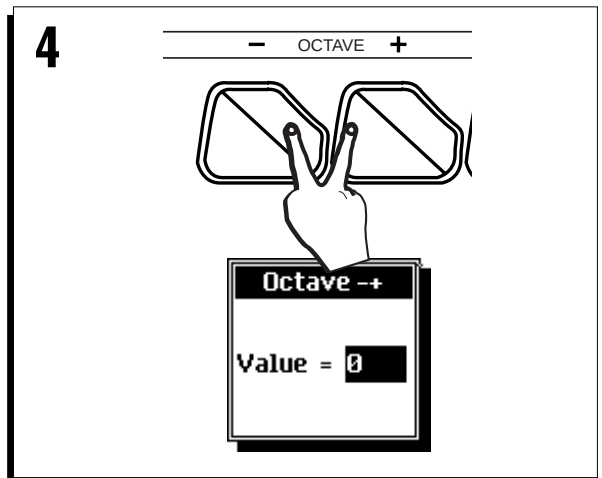
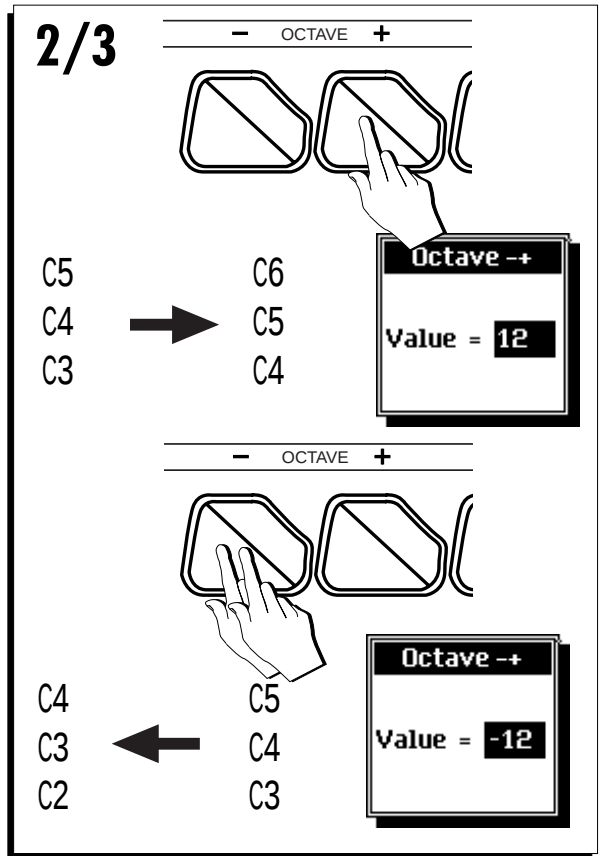
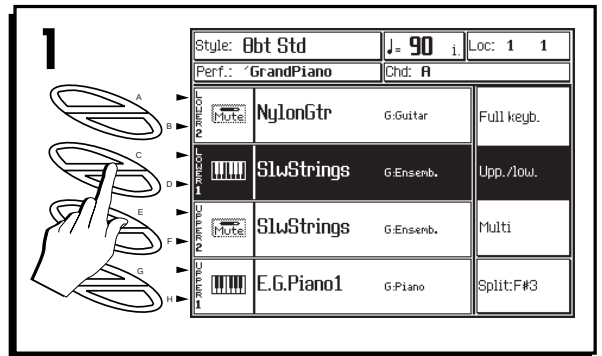
The current Octave setting is shown.

Continue pressing the OCTAVE – button as many times as necessary until you reach the desired setting. An eventual positive Octave status will be cancelled.

To clear the Track Octave setting

4. Press both OCTAVE buttons simultaneously.

The insertion screen shows the value of “0” and the track’s normal pitch is restored.



Preload

Use the PRELOAD button to play all the Songs or MidiFiles present on a disk.

Preload is also operational if your **WK4** is fitted with a Hard Disk which contains Songs or MIDI Files.

This feature works just like pressing play on a CD player! - No need to load all the data into memory before hand.

1. Insert an **WK4** Songs disk or MidiFile data disk into the drive.

Check the disk label for the type of data contained in the disk.

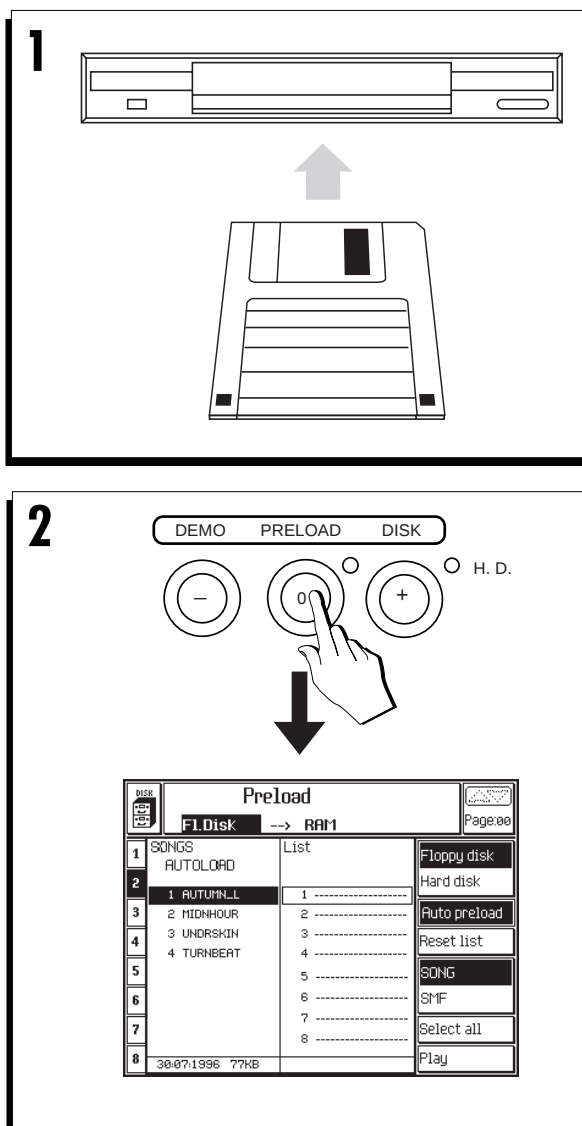
2. Press PRELOAD.

If you are preloading from a floppy disk, pressing Preload shows you the Song directory of the disk.

If you want to select the hard disk, press F2 to select HARD DISK. Selecting the HARD DISK option prompts you to select a Block file (identified by the ".BLK" extension).

If necessary, select the type of file to load (Song or MIDI File).

Press soft button F5 to select SONG or F6 to select SMF. SMF files are identified by the ".MID" extension.



3. Press option "Select All" to select all the Songs or MIDI Files of the selected directory.

The Preload list is compiled automatically, listing a maximum of 16 Songs or MIDI Files.

4. Press PLAY to start the playback.

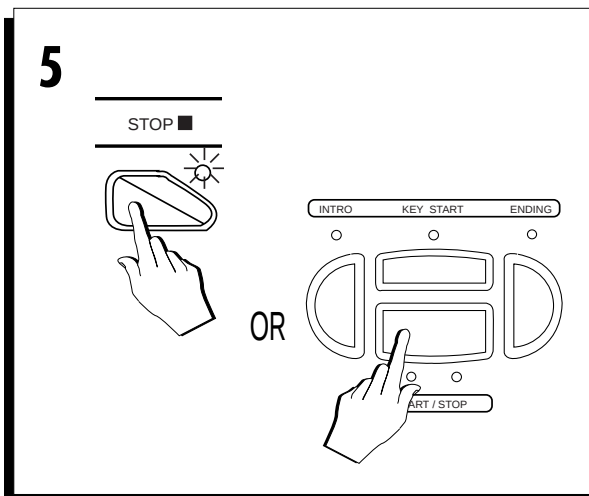
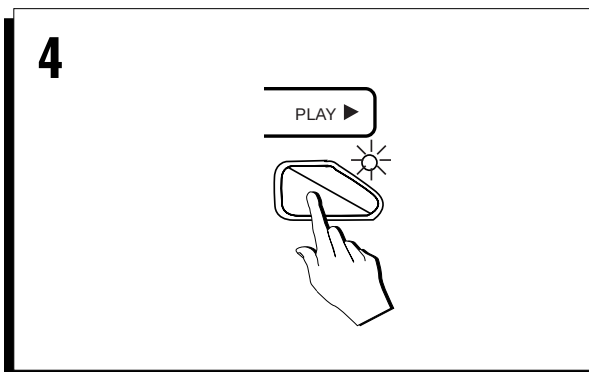
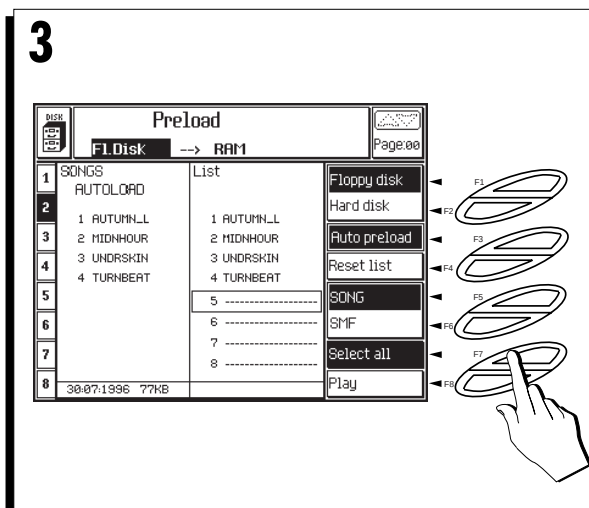
After a short period, a Song starts to play back.

When the first Song or MidiFile ends, a second sequence begins (there will be a short pause while the second song is accessed).

Playback continues non-stop until all the Songs or MidiFiles on disk have been played. When the last Song or MidiFile reaches the end, playback stops automatically.

5. Stop the playback at any time by pressing STOP or START/STOP.

Playback stops instantly and the Preload list is cancelled.



Record a Song

WK4 allows you to record a simple multi-track Song using the QUICK REC recording method when using existing Styles. In practice, the Quick Rec method can record from 1 to 8 real time tracks accompanied by all the backing tracks of a Style to create a multitrack Song of up to 16 tracks.

Quick Rec Recording

1. Press the SONG button.

The «Song Banks» display shows empty songs as follows (#####). If not, you can use the Restore All Songs function (in Edit General) to clear all songs in memory.

2. Select an empty location with the corresponding Soft button or Function button.

3. Select **QuickRec** with Function button F2.

The RECORD button turns on (LED on).

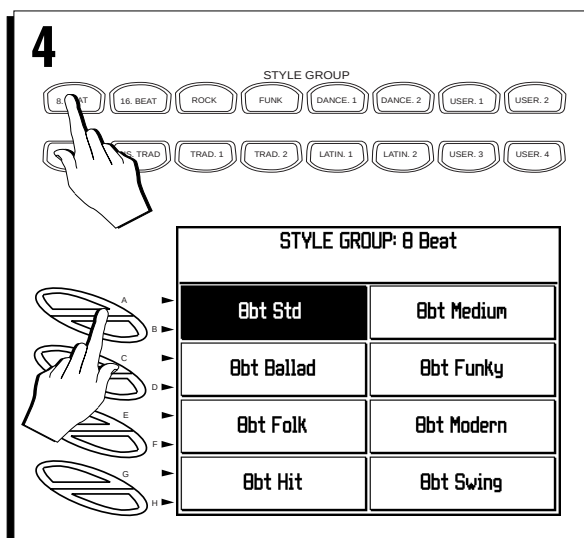
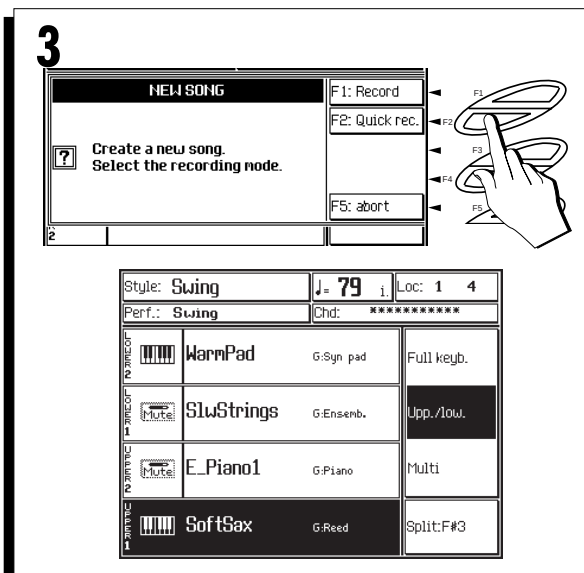
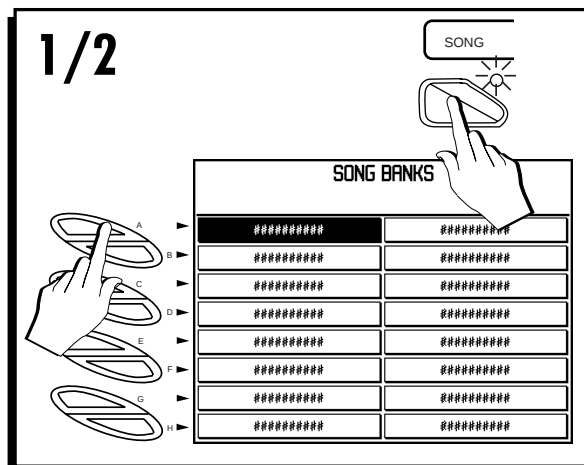
A new Song and Song Performance is created based on the Performance selected at the time of entering Quick Rec mode.

4. Select a preferred Style to use as the provider of the backings for the Song.

To maintain the same Performance, select the Style with SINGLE TOUCH PLAY Off then turn on the accompaniment controls (ARRANGE ON/OFF and LOWER MEMORY) if necessary.

If you want the Style to govern the Performance sounds, press SINGLE TOUCH PLAY before selecting the Style (Arrange On/Off and Lower Memory activate automatically if off).

Press KEY START if you want to trigger the start of the recording by playing on the keyboard



5. Press either PLAY or START/STOP to start the recording and start to play.

The PLAY button starts the recording for the real time tracks only.

The START/STOP button starts the recording and also engages the Style accompaniments tracks.

If you selected KEY START, this will allow you to start the recording (Style and real time tracks) by playing on the keyboard.

You can also start the recording with an Intro by preselecting the INTRO, FILL or ENDING button before record start. Use START/STOP or KEY START to trigger the Intro.

As the recording proceeds, you can select other Styles, introduce the Fills, change Performances, activate or deactivate other real time tracks, etc..

6. When you have finished, stop the recording either with STOP or START/STOP.

START/STOP stops the accompaniment tracks but not the sequencer, allowing you to continue recording the real time tracks.

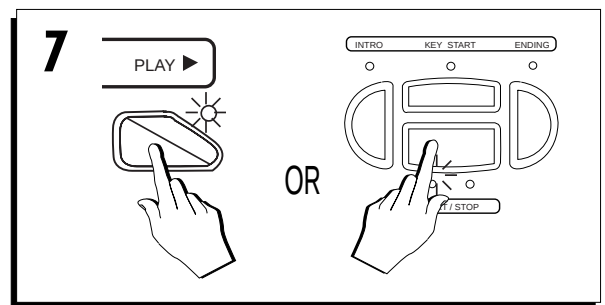
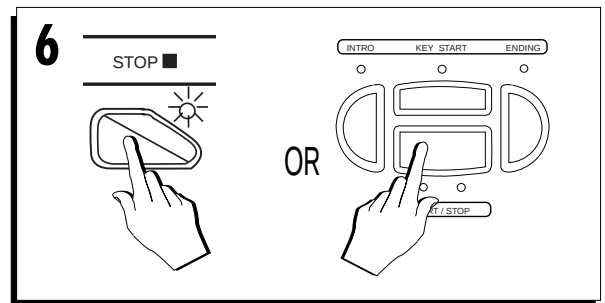
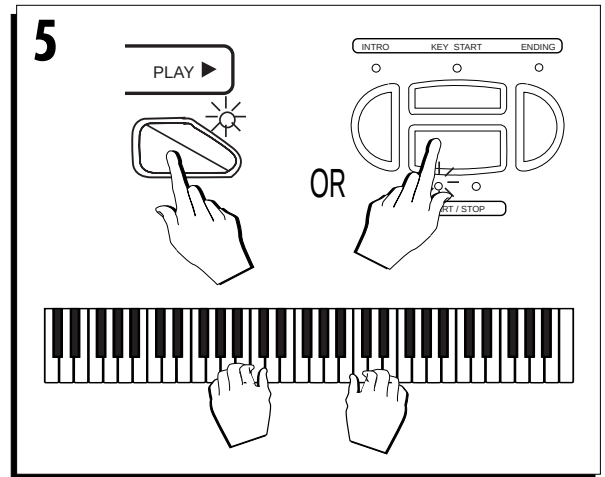
You must press STOP to stop the sequencer recording and take the song pointer (locator) to the starting position [1 1 1]. The RECORD button LED will now turn off.

7. Press PLAY or START/STOP to listen to the song playback.

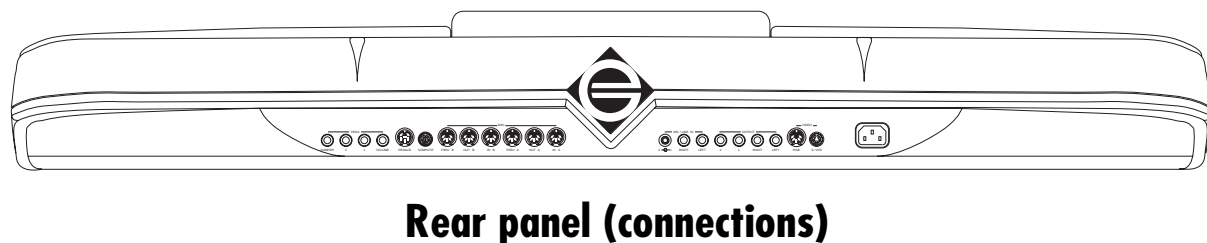
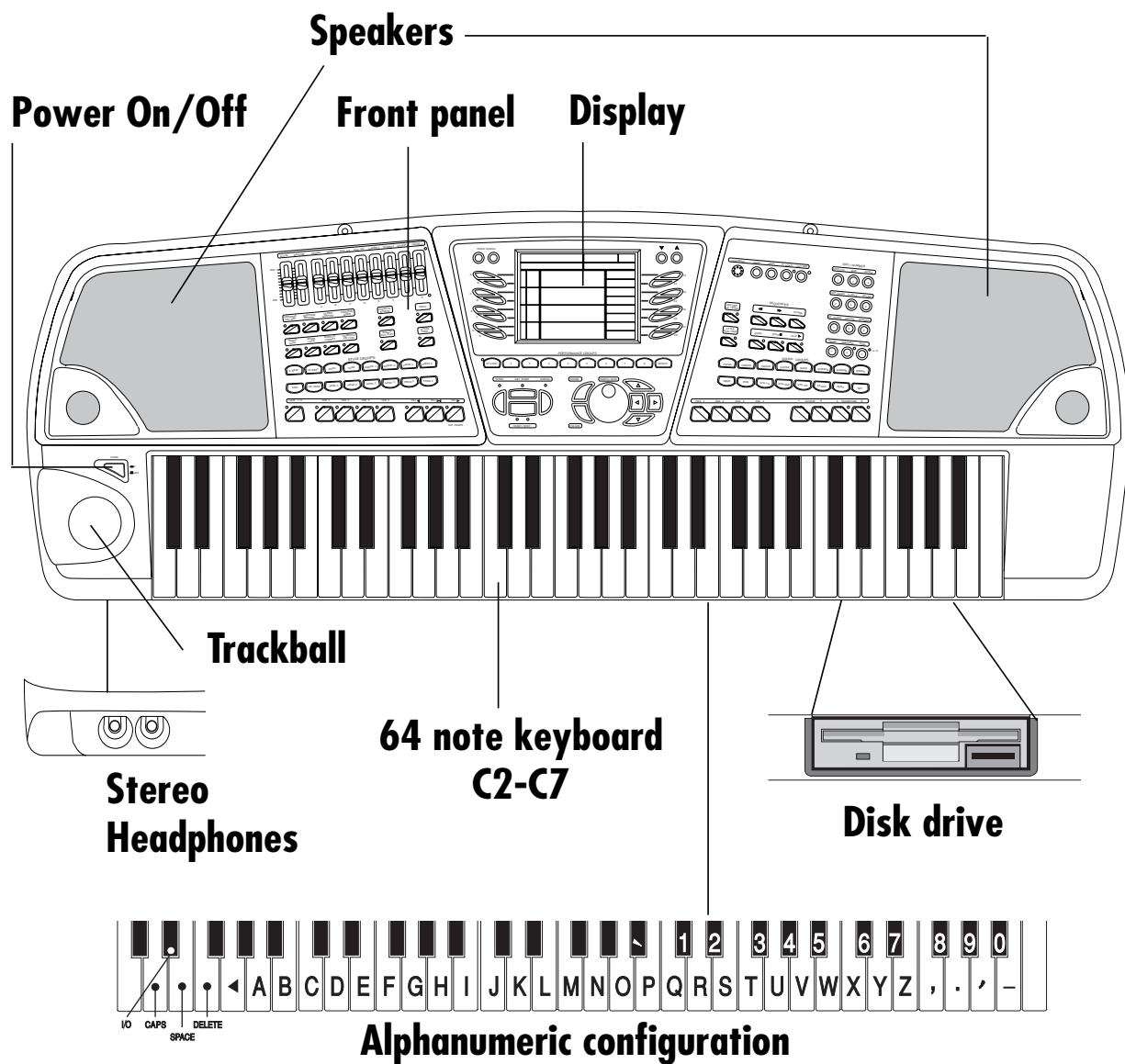
In playback, you can stop the song with STOP or START/STOP and start the song again from the stop point with PLAY.

If you press STOP or START/STOP twice during playback, the song returns to the starting point (locator 1 1 1).

In EDIT SEQUENCER, you can enter a name for the Song.

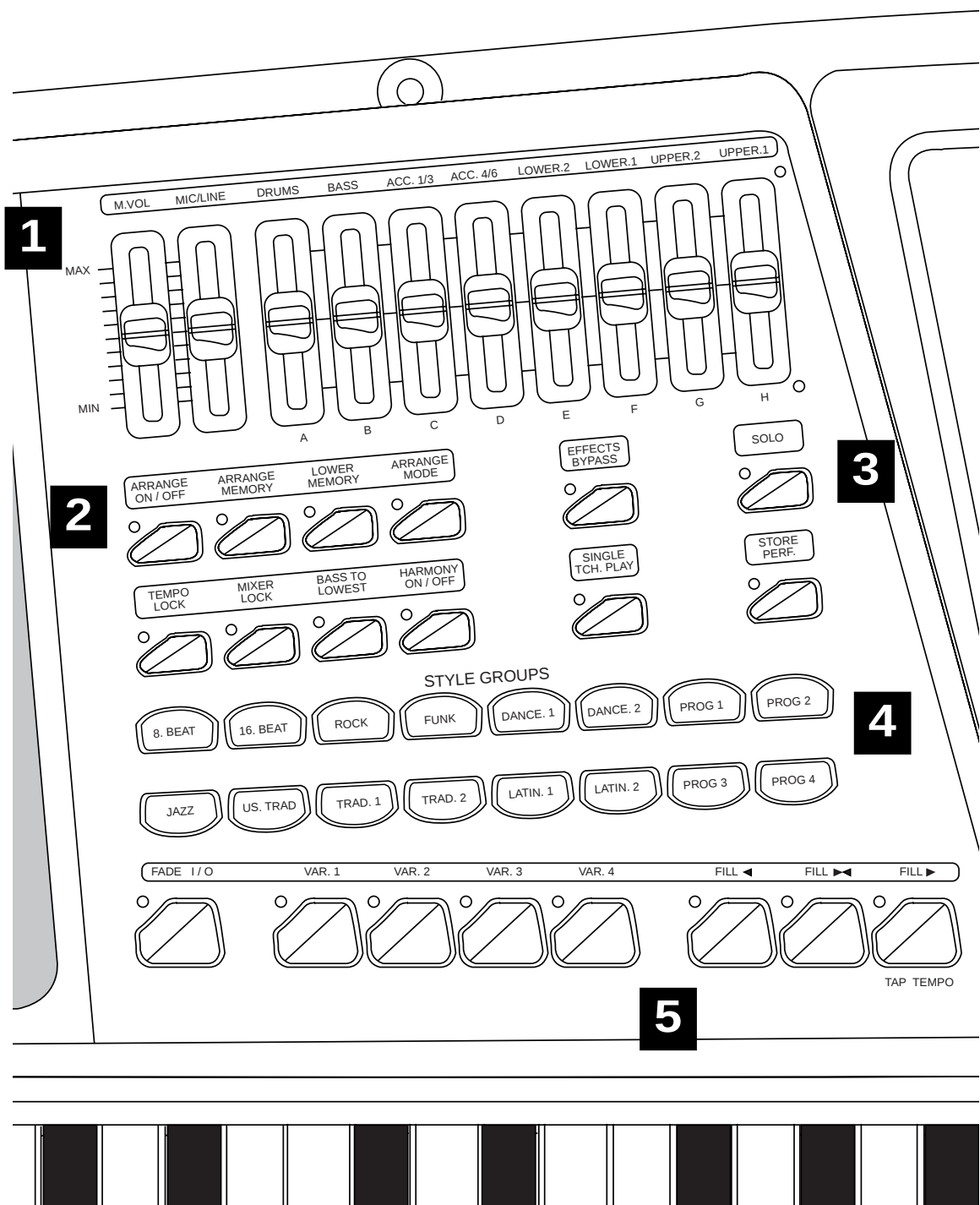


• 2 Front & Rear Panel



Front Panel

(left section)



Front Panel

SECTION 1 (SLIDERS)

MASTER VOLUME: Adjusts the general volume (headphones and outputs). Not transmitted or received via MIDI.

Mic/LINE: Controls the volume of the signal fed into the MIC/LINE IN1 or IN2 Inputs.

DRUM, BASS, Acc.1/3, Acc.4/6: In Full and Upper/Lower keyboard modes, the top led indicator turns on to show that the sliders adjust the track volumes of the relative sections shown above each slider.

A, B, C, D, E, F, G, H: In Multi mode, in Song Mode and when the accompaniment tracks are displayed, the bottom LED indicator turns on to show that the sliders adjust the volumes of the tracks corresponding to the same letters.

SECTION 2

The buttons in this group affect the Styles.

ARRANGE ON/OFF: Enables (On) or disables (Off) the Style accompaniments.

ARRANGE MEMORY: When ON, releasing the keys from the keyboard causes the Style auto accompaniments to continue playing; when OFF, all accompaniments except the Drum track stop instantly after key release.

LOWER MEMORY: When ON, the Sounds assigned to the Lower tracks continue playing after releasing the keys; when OFF, the Lower Sounds stop instantly after key release.

ARRANGE MODE: Gains access to the Arrange Mode programming page where you can choose between the Fixed Chord or Auto Chord Modes and program the Chord recognition modes for the Style accompaniments.

TEMPO LOCK: When ON, this button locks the current tempo setting for all Styles and Performance selections. When OFF, each Style or Performance recalls memorised Tempo data.

MIXER LOCK: When ON, this button locks the current Track Volume settings for all Style and Performance selections. When OFF, each Style or Performance recalls memorized mixer settings.

BASS TO LOWEST: When ON, the bass track of the Style auto accompaniment follows the lowest left note of the chord played, allowing real time changes of the bass accompaniment according to the lowest note played. When OFF, the bass track follows the programmed pattern of the Style, regardless of the chord inversion played.

Harmony On/Off: When ON, this button activates the melody harmony function. In the Upper & Lower Multi

modes, the Chord notes are coupled to the melody played with the right hand. When OFF, the Harmony function is disabled.

SECTION 3

SINGLE TOUCH PLAY: When ON: Style-Performance sounds are assigned to all the tracks. When OFF: selecting Styles recalls sounds for the accompaniment sections only while those of the Real Time keyboard sections remain unchanged.

EFFECTS BYPASS: When ON, this button deactivates the internal digital effects processor. When OFF, the Performances are routed to the effects processors according to the memorized situation.

SOLO: Isolates the selected track from the rest to allow you to listen to the assigned sound alone.

STORE PERF.: Saves the modifications applied to a Performance in RAM and allows the Performance name to be changed. The modification can be saved to the current Performance or any other Performance destination. The Performance can belong to the PERFORMANCE GROUPS section (Performance) or the STYLE GROUPS section (Style-Performance).

SECTION 4

STYLE GROUPS: Each button corresponds to a bank of 8 Styles (Rom or User) with respective Style-Performances. Press a button to display the contents of the Style bank and select a Style with the soft button near the Style name in the display.

SECTION 5

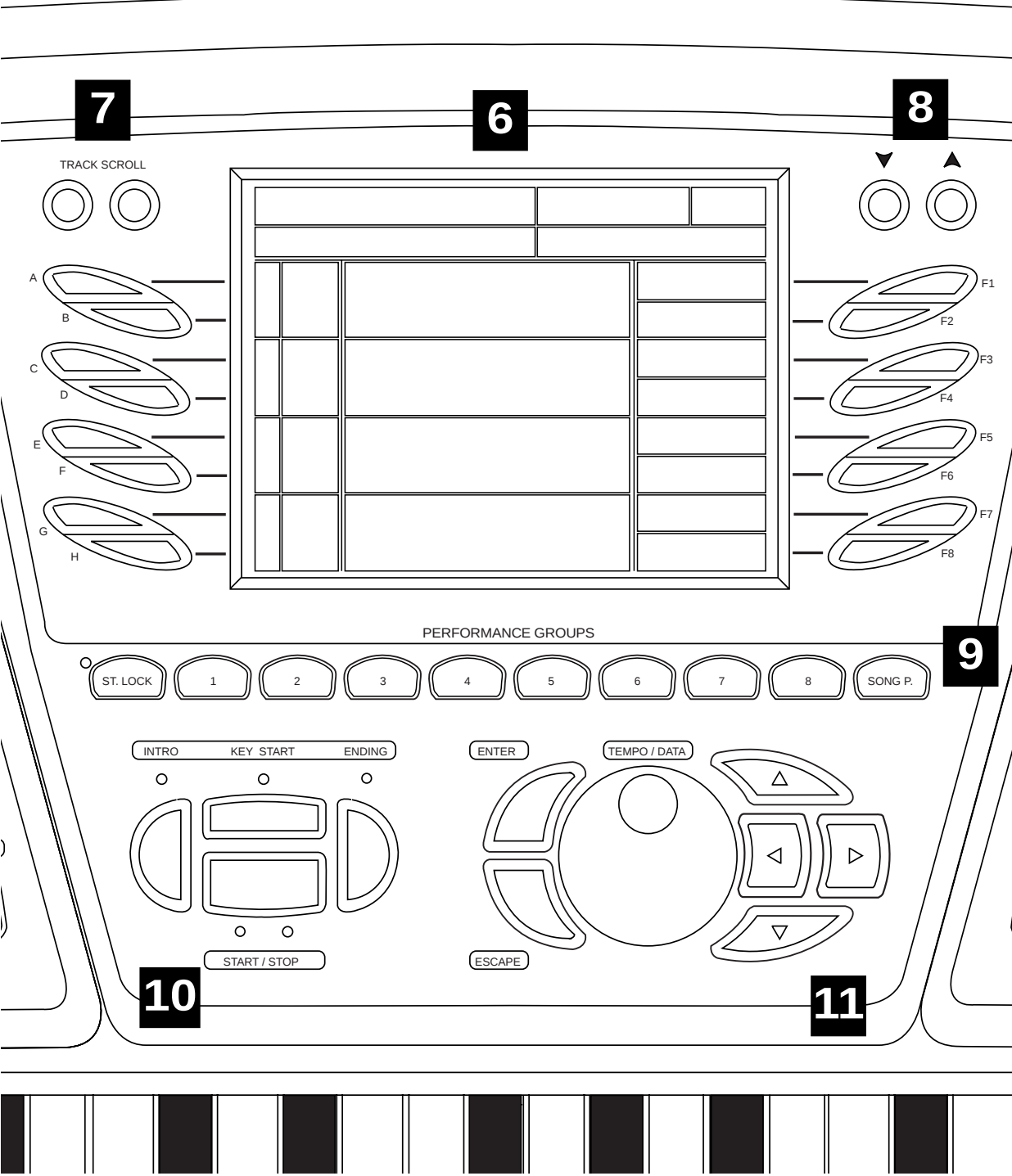
FADE IN/OUT: Starts and stops a Style with a gradual increase or decrease of volume. Starting requires pressing the Start button.

Var 1, Var 2, Var 3, Var 4: These buttons allow you to switch from one Style Variation to another.

FILL< (Fill-to-previous-variation): Recalls a Fill pattern then moves to the previous Variation.

FILL (Fill-to-current-variation): Recalls a Fill pattern then continues with the same variation.

FILL>/TAP TEMPO (Fill-to-next-variation): **FILL>** - pressed during Style play recalls a Fill pattern then moves to the next Variation. **TAP TEMPO** - sets the Style playing speed by tapping on the button and starts the Style auto accompaniments automatically.



SECTION 6

DISPLAY: The principal user-interface which shows the status of the instrument at all times. The user can interact with the displayed information through the navigation and data/entry commands and soft buttons.

SECTION 7

TRACK SCROLL: These two buttons bring the tracks currently out of view into the display area.

SOFT BUTTONS A...H: Software buttons which allows you to select the data displayed on the left part of the display corresponding to the relative button. These buttons select (a) the tracks or (b) data shown in dialogue windows (Sounds, Performance, Style, Song).

SECTION 8

PAGE/BANK BUTTONS (▲▼): In the simple edit environments, these buttons allow you to pass from one menu to another. In complex edit environments they allow you to pass from one item to another without accessing the directory. In the "Sound Group" selection window, they select a Bank.

SOFT BUTTONS F1...F8: Select the corresponding data on the right part of the display. These Software buttons allow you to select (a) options and commands or (b) the data in the dialogue windows (Sound, Performance, Style, Song).

SECTION 9

STYLE LOCK: When ON, selecting Performances recalls keyboard sounds only without changing Style. When off, Performances can change Style as well as the keyboard sounds.

SONG.P: Activates a selection window containing Song-Performances associated to the Songs.

PERFORMANCE GROUPS: These buttons gain access to the user-programmable Performances, arranged in 8 groups of 8 Performances each. Each Performance can memorize a configuration of keyboard sounds.

SECTION 10

START/STOP: Starts and stops the playback of a Style, or Song. In sequencer recording processes, the Start/Stop button and the Play and Stop buttons of the sequencer operate in the same manner.

INTRO: Places the introduction of a Style on "standby" before Style start.

ENDING: Stops a Style with an Ending.

KEY START: Synchronizes the start of a Style with a note (or chord) pressed on the lower keyboard area.

SECTION 11

DIAL (TEMPO/DATA): active for Tempo changes in Style or Song mode, or operates as a data entry control in Edit and Record situations.

ENTER: confirms specified data in edit situations and closes the dialogue window.

ESCAPE: cancels the entered data and closes the dialogue window. Allows you to pass from the current Edit page to index and/or to the main page of the current operating mode.

DIRECTIONAL ARROWS: Navigation controls which move the cursor in the display in the direction of the arrow. The cursor is shown in negative highlight (reversed in record modes).

SECTION 12 (PAGE 7)

CONTRAST: Adjusts the display contrast. Different display viewing angles and lighting conditions may require a slight adjustment of the contrast.

UNDO: In "Edit Song" or "Edit Style", Undo cancels the last edit operation.

HELP: An on-line Help which recalls brief explanations relating to the current mode.

D. HOLD: When ON: Display Hold locks the selection windows (Sound, Performance, Style, and Song) for multiple selection possibilities. ESCAPE cancels Display Hold. When OFF: the temporary selection window closes after a selection or after a few seconds if no selection has been made.

KEY PAD: When ON, this button activates the EDIT/NUMBERS section as a numerical keypad. When OFF, the EDIT/NUMBERS buttons recall the corresponding Edit environments.

SECTION 13 (PAGE 7)

EDIT/NUMBERS Each button gains access to the edit of the function specified on the buttons. If the KEY PAD LED is ON, the edit buttons are enabled as a numerical keypad.

EFFECTS: edit of the Effects parameters.

MIDI: edit of the MIDI parameters.

MIXER: edit of the Mixer parameters.

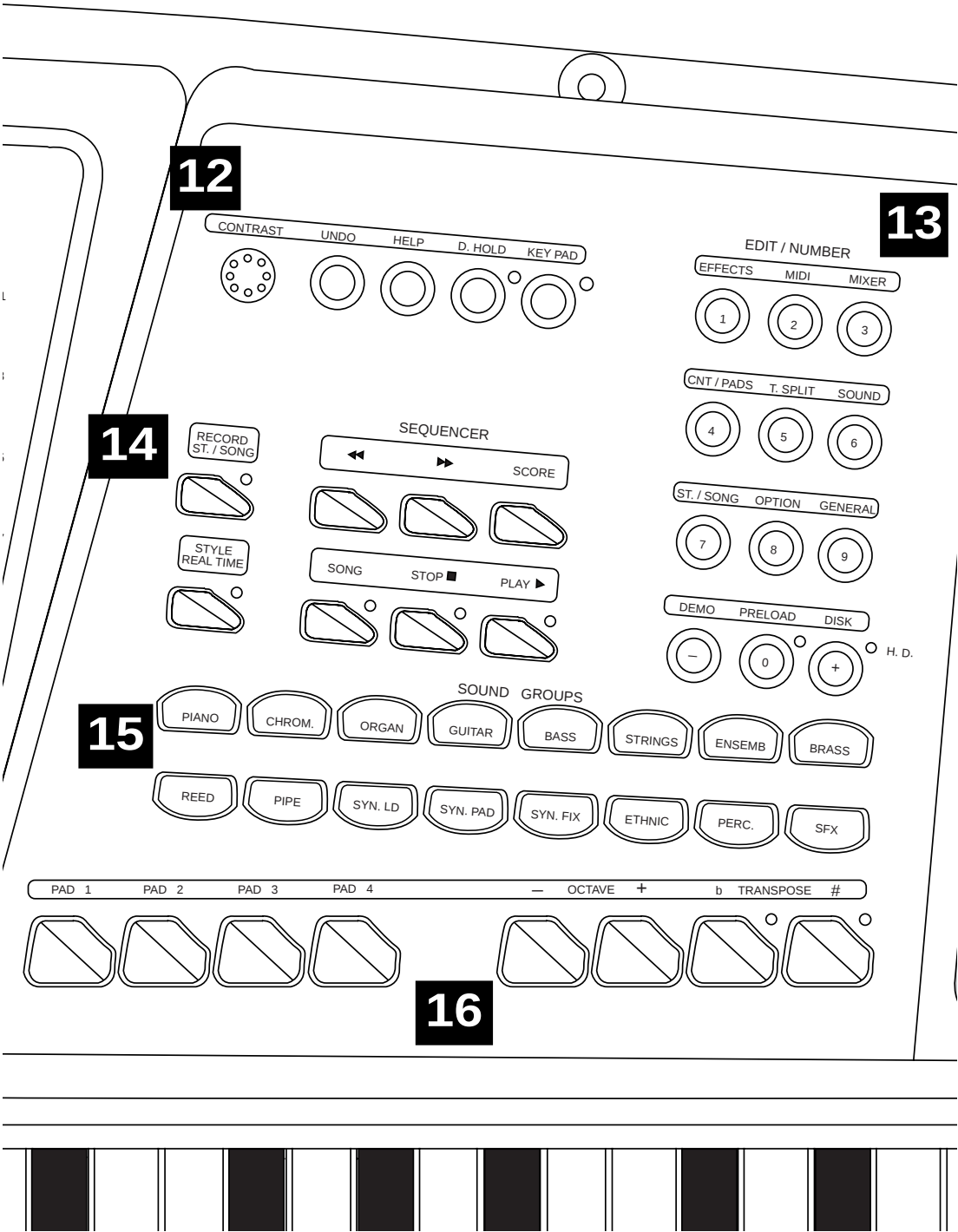
CNT/PADS: access to the Controllers and Pads edit parameters.

T. SPLIT: access to the Track and Split edit parameters. Sound; access to the Sound and Sound Patch/Drumkit edit parameters.

St/SONG: Access to the edit of Song and Style data.

OPTION: access to disk-loaded additional functions (e.g. advanced Sound Edit).

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GENERAL: edit of the General parameters which affect the instrument as a whole.

DEMO: access to the Demo Songs and Styles.

PRELOAD: allows a list of Songs or MIDI Files to be played back without loading all data to memory beforehand.

DISK: access to file handling operations and utility functions.

SECTION 14

RECORD St/SONG: Activates the sequencer for Style or Song recording.

STYLE/REALTIME: Sets the instrument to Style/Performance mode.

SEQUENCER: This section represents the on-board 32 track sequencer.

<<, >>: Fast forward (>>) or "rewind" (<<) buttons for Songs.

SCORE: Displays the lyrics track (words, music and chords) of a Song or MIDI File.

SONG: Activates Song mode - opens a Song selection window.

STOP: Stops the recording and playback process.

PLAY: Starts the recording and playback process.

SECTION 15

SOUND GROUPS: Each button comprises a group of 8 Sounds. Each Sound Group can consist of several banks which are selected in the selection windows with the ▲▼ buttons, or via MIDI with BankSelect messages MSB (CC00). Bank 1 Sounds conform to the General Midi standards, while all other banks contain sound variations of Bank 1 Sounds.

SECTION 16

PAD 1, PAD 2, PAD 3, PAD 4: 4 buttons which provide sounds or samples that can be played in real time in any mode. The configuration of the Pads is programmable and can be stored to the Performances.

OCTAVE +/-: Track octave transposer which affects the currently selected track over the maximum range of ± 5 octaves. Pressing both buttons at the same time resets to 0.

TRANPOSE #/b: Raises (#) or lowers (b) the pitch of the instrument as a whole in semitone steps, over a range of ± 24 semitones. Pressing both buttons at the same time resets to 0.

THE DISK DRIVE (ILLUSTRATED ON PAGE 1)

The Disk Drive, located on the right hand side, under the keyboard, handles 3.5" double density (2DD) or high density (2HD) floppy disks.

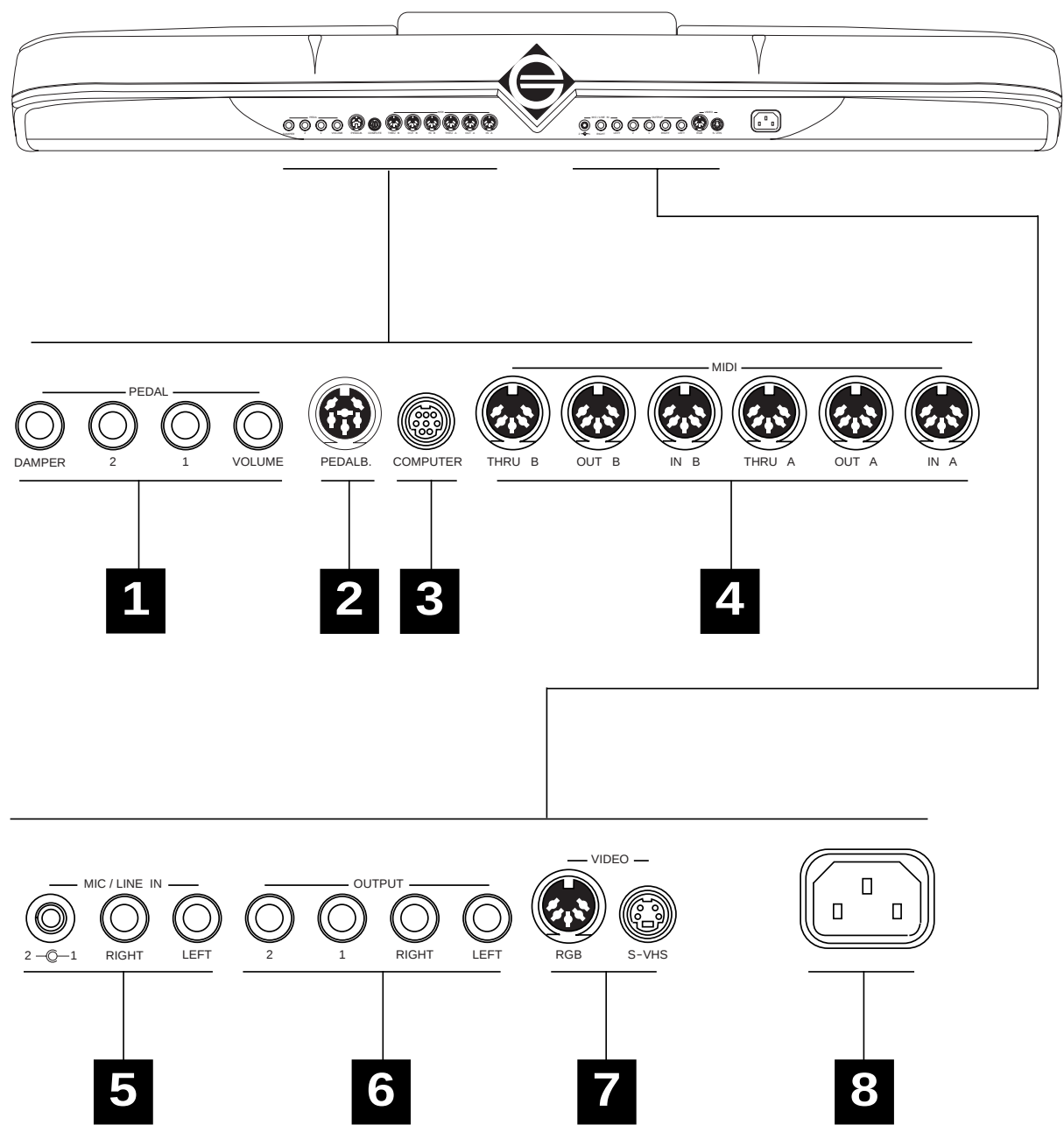
TRACKBALL (ILLUSTRATED ON PAGE 1)

Programmable Trackball, preset for Pitch Bend and Modulation, is spring loaded to return to the central position. Each track of every Performance can be programmed for the action of the Trackball for one, both or neither of the preset functions.

PHONES SOCKETS (ILLUSTRATED ON PAGE 1)

Jacks for 2 sets of stereo headphones. Inserting the phones cable into the left jack disconnects the internal speakers. The headphone volume is controlled by the M. Vol slider.

Rear Panel (Connections)



Rear Panel (Connections)

1. PEDALS

DAMPER, 1, 2, VOLUME: Three programmable jacks for continuous control pedals or switch action pedals (Damper, 1, 2) and a Volume jack for a standard Volume pedal. The footswitch polarity of the switch action pedals can also be reversed.

2. PEDALBOARD

PEDALBOARD: Connector for a pedalboard (optional). Enabling the pedalboard disables the computer port automatically. Pedalboard settings are enabled in Edit General.

3. COMPUTER

Computer port: Serial port which permits **WK4** to be connected directly to a computer (Apple Macintosh or IBM PC and compatibles.) Data interchange between **WK4** and PC or Mac requires appropriate setting in Edit General.

4. MIDI

MIDI IN A/B, MIDI THRU A/B, MIDI OUT A/B: Two series of independent connectors (A and B) used to control other MIDI instruments or to communicate with a Computer. IN: receives data from another instrument. OUT: transmits data to another instrument. THRU: retransmits data received at MIDI IN.

When using **WK4** on its own, these jacks are not required to be connected.

5. MIC/LINE IN

1, 2, GAIN 2/1: Jacks 1 and 2 are audio inputs for Microphone or Line signals (a musical instrument, cassette recorder, CD player or microphone). For mono connections use the IN 1 jack. The volume of the MIC/LINE signals fed into the IN 1 and 2 jacks can be regulated with the front panel MIC/LINE control. The gain 2/1 twin knob controls the volume of the signal fed into the Inputs. Gain 1 (the smallest central knob) regulates IN 1, gain 2 (the larger outer knob) regulates IN 2. All to the left (minimum) corresponds to the LINE impedance (stereo devices and musical instruments). All to the right (maximum) corresponds to the MIC impedance (microphones). The optional A/V board is required for most external processing applications.

6. OUTPUT

LEFT, RIGHT, 1, 2: Stereo Left-Right Outputs and auxiliary 1, 2 outputs to listen to the **WK4** sound through an external device such as a mixer or audio amplifier. For Mono reproduction, use either the RIGHT or LEFT jack. The auxiliary outputs emit "dry" sounds (i.e. with no effects).

7. VIDEO (AUDIO/VIDEO INTERFACE)

RGB. Video output in RGB/Composite Video standard.

SVHS. Video output in SVHS/Composite Video standard.

Both outputs are operational only with the optional Audio/Video Interface.

Models not fitted with the A/V Interface leave the factory with an adhesive applied below these outputs saying "NO VIDEO INTERFACE INSTALLED".

8. MAIN SOCKET

Insert the supplied power cord into this socket.

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• 3 Basic concepts

In this chapter, you'll find information regarding the principal elements that make **WK4** work, including useful information which will help you to understand the structure of the instrument.

PLAY MODES: STYLE/REALTIME AND SONG

WK4 offers two different play modes:

- **Style/RealTime mode:** to play with the Performances and use **WK4** as a conventional keyboard, or to play with the automatic accompaniments. **WK4** powers up in this mode every time it is turned on. Press the Style/RealTime button to activate Style/RealTime mode if the instrument is not currently set to this mode.
- **Song mode:** to play Songs or to work via MIDI with an external sequencer. Press SONG then select a song in order to activate this mode.

STYLE/REALTIME MODE

In this mode you can play with Styles, or play with the Performances and use **WK4** as a conventional keyboard. If the auto-accompaniments are playing, the Style mode is on: if not, Style mode is off and Performance (RealTime) mode is on.

Style and RealTime modes have a Performance in common, structured with the same number of tracks (sounds) which can be played simultaneously (16) and the same Performance editing tasks.

Style/Performances are always divided into two parts: the first 8 tracks are dedicated to the keyboard, the remaining 8 tracks are associated to the auto-accompaniment.

1-8 tracks contain...	9-16 tracks contain...
Keyboard Sounds	Auto-accomp Sounds
Keyboard effects	Accompaniment effects
	Programmable drumkit
	Tempo
	Selected Style

Sounds and accompaniments can be recalled by selecting a Style (STYLE GROUP buttons) or a Performance (PERFORMANCE GROUPS buttons).

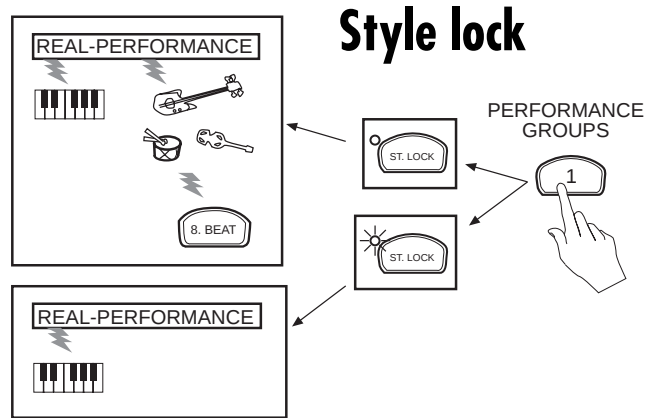
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The **STYLE LOCK** and **SINGLE TOUCH PLAY** buttons

In Style/RealTime mode the selection of the Sounds and the ACCOMPANIMENTS is determined by the status of **STYLE LOCK** and **SINGLE TOUCH PLAY** buttons.

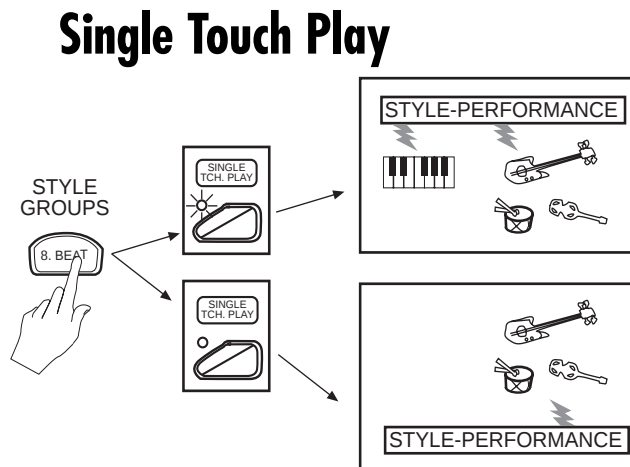
STYLE LOCK on. Selecting Performances selects live keyboard sounds only.

STYLE LOCK off. Selecting a Performance selects live keyboard and also accompaniment Sounds. The relative Style, Variation and Tempo are selected. Sounds are those stored in the Performance.



SINGLE TOUCH PLAY on. Selecting a Style changes keyboard and accompaniment Sounds. The Sounds are those of the Style-Performance. The Tempo stored in the Style is recalled.

SINGLE TOUCH PLAY off. Selecting a Style changes the accompaniment Sounds, Tempo data and the relative pattern. The live keyboard Sounds remain unchanged.



SONG MODE

A Song is sequenced data consisting of one or more tracks (instrumental parts). A Song can be loaded from disk as an **WK4** Song or as a Standard MIDI-file, it can be recorded one track at a time (multitrack recording), or in a single step by exploiting the existing styles (Quick Record).

Up to 32 tracks are available in Song mode. Via MIDI, **WK4** can be also used as a multitimbral (32 parts) sound generator for Song recording with an external sequencer.

PERFORMANCES

A Performance is a combination of sounds (for the keyboard, for the accompaniments, for a Song). It also contains the status of the effects, the assignments of the controlling devices (wheels, pedals, pads), MIDI channel configuration, track status, Tempo data. Selecting a Performance instantly changes all the sounds of the tracks and the relative Performance settings.

Performances are divided into two types: those residing in the PERFORMANCE GROUPS which govern the keyboard sounds and those associated to Styles and Songs which are recalled by selecting the respective element. The structure and programming procedures of both Performance types are practically identical.

Performance Groups (RealTime)

64 user-programmable Performances are stored in the eight PERFORMANCE GROUPS buttons. Performances contain the programmed status of the keyboard Sounds and the auto-accompaniment sounds. Given that the Performances store the current Style, Variation and Tempo at the moment of pressing the STORE PERFORMANCE command, the PERFORMANCES can also be utilized to recall a Style and a Variation.

Style-Performance

128 Performances associated to the Styles and stored in STYLE GROUPS. Style-Performances assign sounds to the auto-accompaniments and keyboard that suit the Style to which they are associated. If the SINGLE TOUCH PLAY led is on, the keyboard Sounds can be changed.

Song-Performances

Song-Performances can combine up to 32 sounds. They can be applied to two types of operating mode: the assignment of a sound to each track of the sequencer, or the reception via MIDI of 32 different parts. Song-Performances can also be used to create complex sound combinations on the keyboard for a performance in real time.



TRACKS

A Track is the smallest part of a Performance. Style-Performances and Programmable Performances have a maximum of 16 tracks (8 tracks for the keyboard and 8 engaged by the sequencer for the arrangements). A Song-Performance can contain up to 32 tracks.

A Performance is a configuration of several tracks, so that different Sounds can be combined to play at the same time. The Sound name and its ProgramChange and BankSelect numbers or the relative Group name appears on the main display.

Sometimes, a track is not assigned to an **WK4** Sound, but it controls an expander connected to the MIDI OUT. In this case, "MIDI" is shown as well as ProgramChange and BankSelect numbers (MSB-LSB) on the main display when set to Multi mode. In Full or Upper/Lower modes, the ProgramChange and Bank Select numbers do not appear.

Most of the operating modes display the tracks and their status icons are shown on the left part of the display. Tracks can be selected and can be programmed for Sound assignments, a transposition, an effect selection or a performance control.

The status of a track can be set in four different ways: in *key-play* if it can be played on the keyboard, in *mute* if the track is temporarily deactivated, in *record* if the track is in a record pending status, in *seq-play* if the track contains recorded notes. Each status is shown by an icon which appears in the track status column. Icons can be combined together to allow you to control the status of the various tracks under control. The MIDI status of the tracks can also be identified by a status icon.

THE TRACK ICONS

«key-play» icon (keyboard play)



The track can be played on the keyboard in Real Time.

«mute» icon



The track is temporarily deactivated, even if it is connected to the keyboard. The track does not receive or transmit MIDI.

«seq-play» icon (sequencer-play)



The track contains notes – i.e. it is engaged by Song or the automatic accompaniment of the Style. In either case, this type of track cannot play in real time on the keyboard, unless it is set to key-play. This track cannot receive data at MIDI IN.

«mute» icon (track with note)



The track is temporarily deactivated.

«record» icon



The track is in a recording status.

«MIDI-receive/transmit» icon



The track can receive (IN) and transmit (OUT).

«MIDI-receive» icon



The track receives MIDI messages (IN), but does not transmit them (OUT).

«MIDI-transmit» icon



The track does not receive MIDI messages (IN), but transmits them (OUT).

.....

SOUNDS

WK4 Sounds are divided in four different types:

- ROM-Sounds
- RAM-Sounds
- RAM  -Sounds (need sample RAM)
- Drumkits / SoundPatches

Sounds can be modified via the «Edit Perf Sound» or «Edit Sound» features. The **WK4** operating system contains a quick edit method which forms part of the Edit Performance functions and an advanced Edit Sound method which takes you deep into the heart of sound synthesis technology.

In the «Edit Perf Sound» environment, the resulting modifications are stored in the track to which the Sound is assigned, consequently, all Sounds subsequently assigned to the same track inherit the same modifications. Tracks that contain modified Sound parameters are identified by the symbol  shown as a suffix in the display.

In the more advanced «Edit Sound» environment, you intervene on the Sound parameters and the resulting modifications are stored to RAM. Sounds created with the advanced «Edit Sound» system are identified by an asterisk (*) after the Sound name.

Disk based edited sounds can be loaded into memory and conserved in the battery-backed Sample RAM.

ROM-Sound

Sounds contained in ROM. These sounds are permanent and cannot be cancelled. They are based on the internal samples archive (ROM-Waves).

RAM-Sound

Sounds loaded from floppy disk (**WK4** or WX/SX), or created by the more advanced «Edit Sound» method.

RAM -Sound

RAM-Sounds based on RAM samples. **WK4** has an incorporated Sample Translator which allows you to load disk-based Samples and edit them with dedicated parameters.

► **WARNING** - RAM  -Sounds are conserved in memory when the instrument is turned off provided that the Backed Sample-RAM is installed.

► **Note:** It is not possible to load RAM  -Sounds unless the optional Sample-RAM is installed.

Drumkit / SoundPatch

These are Sound combinations comprising the three sound types described above. Drumkits assign a different percussive Sound to each note of the keyboard. SoundPatches superimpose two Sounds, separated by a dynamic threshold (velocity switch).

The structure of the Drumkit and SoundPatch can be fused, in order to obtain, for example, a Drumkit in which a percussive instrument responds with two different Sounds, each on a different dynamic level.

A Performance can store a user-programmed Drumkit/SoundPatch which remains tied to the accompaniment part. When you change Performances, the DrumKit/SoundPatch follows the tracks of the accompaniment.

The Drumkit / SoundPatch changes when a Style or a Performance is selected with STYLE LOCK off.

Performances which contain a user-programmed Drumkit/SoundPatch are identified by the  symbol.

EDIT ENVIRONMENTS

Styles, Songs, Performances, Tracks and Sounds can be modified in the respective Edit environments. The respective operating modes allow you to modify of every single operating aspect of the **WK4**.

Three type of Edit environment are available:

- simple structure, in which the pages containing the variable parameters are accessed directly on the first edit level.
- complex structure, where the first edit level shows an index page (or menu) which allows you to gain access to “editors” (or “modules”) and a second level of edit pages.
- «Edit Disk», in which each page corresponds to a data handling function.

You can pass from one edit environment to another without escaping from the one you are currently working on. You can also select a Sound, Style, Song or Performance without having to escape the current edit mode first. The multitasking operating system allows several environments to be opened at the same time. Therefore, Sounds, for example, can be edited (with Edit Perf Sound) while a Style is currently being modified without having to escape «Edit Sequencer» before entering «Edit Perf Sound».

A slight exception is the advanced «Edit Sound» environment (only for models which have been installed with the optional update kit). If you are in «Edit Sound» and attempt to select a Song, Style, Sound or Performance, a user message will “remind” you that you are still in the middle of an unfinished sound editing task. In this case, to carry out your desired selection, you must abort «Edit Sound» using the “Abort” command, not Escape.

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Connections

This section takes a brief look at the types of connections that can be achieved with your **WK4** by means of the rear panel connectors.

POWER SUPPLY

Insert the instruments power cord into to a suitable grounded wall outlet.

OUTPUT RIGHT/LEFT, 1, 2

Right/Left Stereo outputs for amplified speakers, amplifiers or domestic hi-fi units. Outputs 1 and 2 are auxiliary outputs which emit sounds not processed by the internal effects processors ("dry" signals).

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► **WARNING** - Before connecting these outputs, be sure that the volume of the external amplification devices is turned down. Connecting to the jacks causes noise which can damage an amplification device.
.....

Connect the LEFT and RIGHT jacks for stereo reproduction. For mono reproduction, connect either LEFT or RIGHT.

Tracks can be independently assigned to the auxiliary outputs 1 & 2 in «Edit Mixer». Each Performance can be independently programmed for the audio outputs.

General equalization: regulate the General equalization in «Edit Mixer». Consult the instructions in the Reference Section.

PEDALS

Volume, Damper Ped 1 and Ped 2 are connectors for continuous or switch action control pedals. The Volume connector can only accept a continuous pedal to control main Volume. The remaining three connectors can be programmed to accept switch action or continuous control type pedals and are all function assignable.

The programmable pedals, denoted Ped 1, Ped 2 and Damper, are preset to provide the following three functions:

Ped 1	Soft Pedal (CC67)
Ped 2	Sostenuto (CC66)
DAMPER	Damper (CC64)

These three pedals can be independently enabled or disabled to react with the keyboard sections of a Preset.

Continuous control pedals offer graduated levels of change while Switch action pedals are of the on/off type.

The pedal polarity can be programmed in the «General Controls» editor of «Edit General».

MIDI

Use the MIDI ports of group A for simple connections.

Specific instructions for MIDI connections are found in the relevant chapters further ahead. The following setups show some of the principal connections.

- To pilot another instrument with WK4 connect the WK4 MIDI OUT to the MIDI IN of the other instrument.



- To pilot WK4 with a master keyboard connect the WK4 MIDI IN to the MIDI OUT of the master keyboard. If the master keyboard has to simulate the WK4 keyboard, the master keyboard must transmit MIDI on a channel that corresponds to the WK4 Common Channel (refer to the chapters dedicated to MIDI).



- To record Songs on external computers or sequencers connect the WK4 MIDI IN to the MIDI OUT of the external device, the WK4 MIDI OUT to the MIDI IN of the external device. This configuration is called a “closed MIDI loop”.

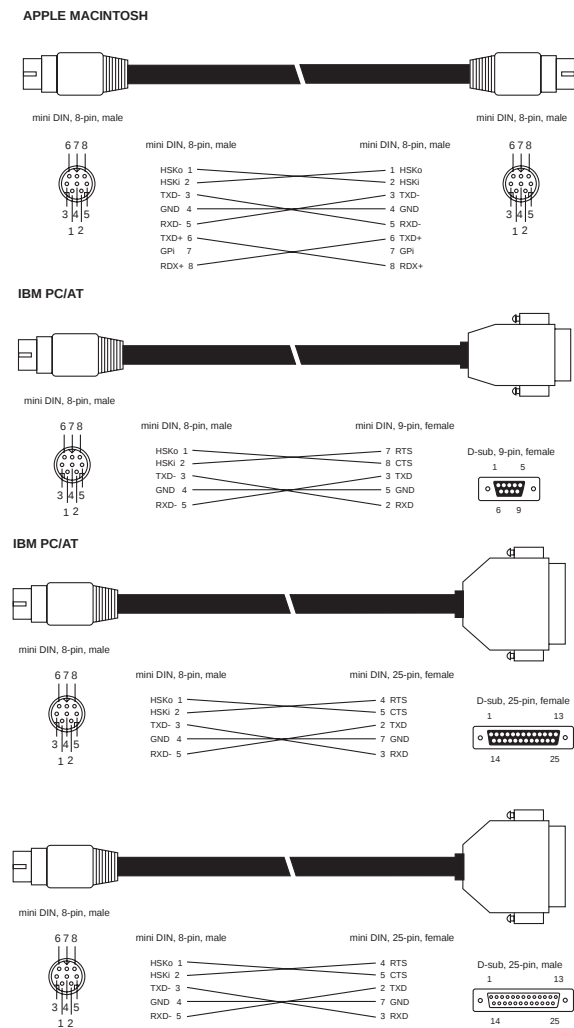


COMPUTER

It is possible to connect WK4 directly to a computer via the COMPUTER port. It is not possible to use the COMPUTER and PEDALBOARD ports at the same time. The selection between these two devices is made in «Edit General», «P.brd/ Cmptr» editor.

Macintosh and compatibles. Use a standard serial cable DB8-DB8 available from computer outlets. Program the sequencer to communicate with WK4 at a velocity of 1 MHz.

PC-IBM and compatibles. Use a standard serial cable DB8-DB9 or DB8-DB25 available from computer outlets. Two communication velocities are available for PC connection, PC1 and PC2.



PEDALBOARD

Connect the optional Generalmusic pedalboard to this port. It can be used to play bass parts (instead of auto-arrangement bass), or as a multifunction pedalboard to control the arrangements.

It is not possible to use the COMPUTER and PEDALBOARD ports at the same time. Pedalboard programming and the selection between these two devices is effected in «Edit General», «P.brd/Cmptr» editor.

MIC/LINE IN

You can connect the following devices to the audio MIC/LINE inputs:

- a microphone and a guitar (MIC impedance).
- an instrument with a stereo output (LINE impedance).

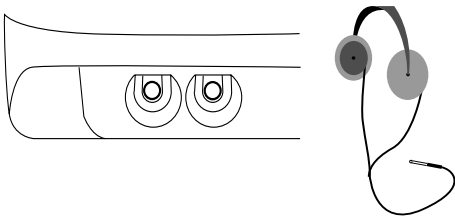
The impedance of the two inputs 1 and 2 is controlled by the twin knob **1** and **2**. All to the left corresponds to the lowest impedance (LINE), all to the right to the highest (MIC).

Regulate the output volume of the signal with the front panel MIC/LINE slider. The volume of the signal sourced from the audio inputs is not affected by the M.VOL slider.

If the Generalmusic Audio/Video card is installed, the Mic/Line input signal can be processed by the internal effects processor and directed to the main mix (outputs). The editing operations are in «Edit General».

PHONES

Two headphones jacks are available under the keyboard on the extreme left of the instrument. Each jack can accept a standard pair of stereo headphones.



Private listening is achieved by inserting the headphones into the HEADPHONES 1 jack (the internal speakers are not functional when this jack is used).

VIDEO (OPTIONAL)

Installing the optional Generalmusic Audio/Video card enables the video outputs. Connect an RGB monitor, a domestic television or a closed circuit video system to these sockets.

The domestic TV has to operate in AV mode. The possible connections are shown in the following table.

SOCKET	VIDEO	CABLE
RGB	Monitor RGB with SCART socket	RGB/SCART (Europe, Asia, South America, North Africa)
RGB	Television with SCART socket	RGB/RCA (Europe, Asia, South America, North Africa)
RGB	Television with Video-Composite socket	RGB/RCA (U.S.A., Korea, South Africa)
SVHS	Television with SVHS socket	Standard SVHS cable

The Display

The **WK4** display is the principal user interface which communicates the status of the instrument at all times. The negative highlight cursor can be moved by means of the cursor buttons, and the selected parameter can be modified with the DIAL or numeric keypad.

Parameters are shown in various different types of *pages* or *windows*:

- “Sound View” pages
- “Play View” or “Rec View” pages
- Edit pages
- Index pages
- Selection windows
- Dialog windows
- Warnings

“SOUND VIEW” PAGES:

This type of page shows the Sounds assigned to the tracks. «Sound View» is the default viewing mode.

The Style/RealTime and Song editing modes and the Style and Song recording modes each show a slightly different «Sound View” page.

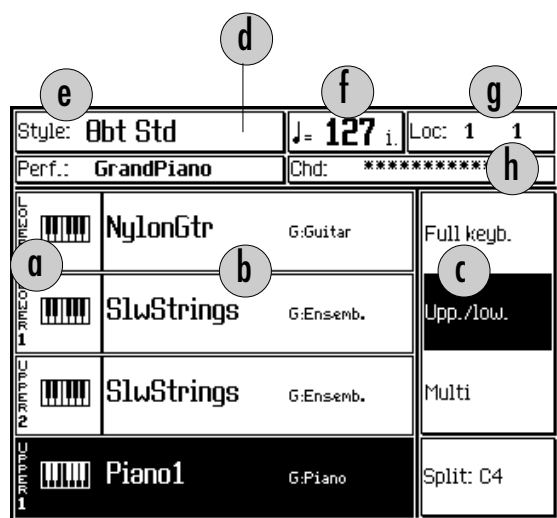


Diagram of the Style/RealTime Sound View page. Callouts: a points to the track list, b points to the track name, c points to the track type, d points to the top header, e points to the style name, f points to the tempo, g points to the location, and h points to the chord.

Style: 0bt Std		J= 127 i	Loc: 1 1
Perf.: GrandPiano		Chd: *****	
1	NylonGtr	G:Guitar	Full keyb.
2	SlwStrings	G:Ensemb.	Upp./low.
3	SlwStrings	G:Ensemb.	Multi
4	Piano1	G:Piano	Split: C4

Style/RealTime

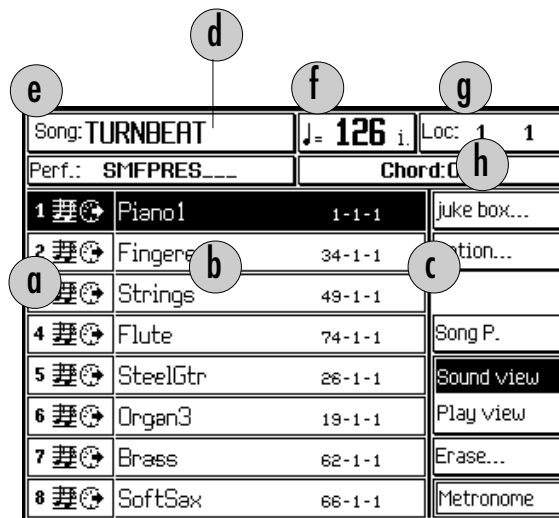


Diagram of the Song Sound View page. Callouts: a points to the track list, b points to the track name, c points to the track type, d points to the top header, e points to the song name, f points to the tempo, g points to the location, and h points to the chord.

Song: TURNBEAT		J= 126 i	Loc: 1 1
Perf.: SMFPRES__		Chord: C	
1	Piano1	1-1-1	Juke box...
2	Fingere	34-1-1	tion...
3	Strings	49-1-1	
4	Flute	74-1-1	Song P.
5	SteelGtr	26-1-1	Sound view
6	Organ3	19-1-1	Play view
7	Brass	62-1-1	Erase...
8	SoftSax	66-1-1	Metronome

Song

Program Style		J = f	i	Loc: g 1	
STYLE_01		Riff : Var. 1/Basic/Maj			
P	OK_STAND.1	113-2-1	Mode: h		
B	Mute FingeredBs	34-1-1	Rec.Riff...		
a	Mute SoftSax	b 66-1-1	c		
2	Mute Organ3	19-1-1			
3	Mute MutedGtr	29-1-1			Sound View
4	Mute SteelGtr	26-1-1			Rec View
5	Mute SlwStrings	50-1-1			Erase...
6	Mute Piano1	1-1-1			Metronome

Style Record

g: SONG_02		f	120	i	Loc:	g	1
Perf: 'Init_Perf		Chord: Off					
1	Mute	Piano1	1-1-1	h			
2	Mute	FingeredBs	34-1-1	Option...			
a	3	Mute	Strings	b	49-1-1	c	controls rec...
4	Mute	Flute	74-1-1	Select all trk.			
5	Mute	SteelGtr	26-1-1	Sound view			
6	Mute	Organ3	19-1-1	Rec view			
7	Mute	Brass	62-1-1	Erase...			
8	OK	SoftSax	66-1-1	Metronome			

Song Record

- Track status icons. Select the tracks with the Soft buttons A...H or with the cursor buttons ▲/▼.
- Sound names. The name of the Group to which the Sound belongs appears close to the Sound name, or (in order) the ProgramChange, BankSelect MSB, BankSelect LSB numbers. Tracks which are not assigned to internal sounds show a string of dashes (-----) instead of the Sound name.

If the track has been modified with «Edit Perf Sound», the symbol  appears after the Sound name.

- Menu. Contains options which can be selected with the Soft buttons F1...F8. In Style/Performance mode the soft buttons are coupled (F1/F2, F3/F4, F5/F6, F7/F8) and the menu shows the options to select:

- the track status.
- the Split Point. The keyboard area below the split point corresponds to the chord recognition zone for the automatic accompaniment.

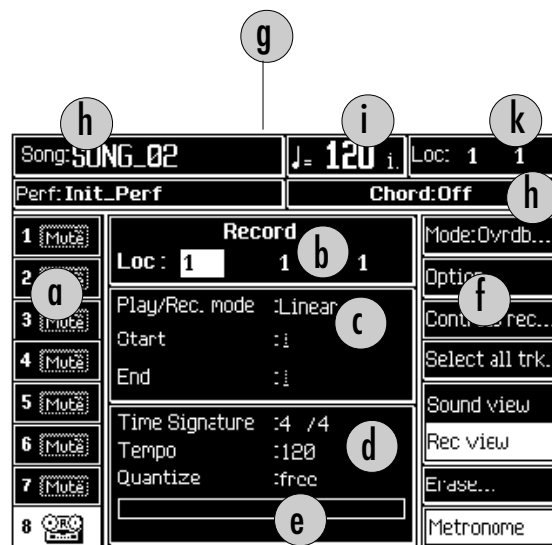
- Status bar showing general information.
- Style/RealTime mode: Style and Performance name (Performance or Style-Performance, depending on whether SINGLE TOUCH PLAY is on or off). Song mode: Song and Song-Performance name.

A Performance that has been modified but not saved with STORE PERFORMANCE is identified by the symbol [']. A ROM Style with a modified Style-Performance is identified by the symbol [*].

- Tempo (varied with the DIAL).
- Locator (measure and beat counter). In Style mode this parameter shows the cycle of the measures of the riff.
- The current recognized Chord.

“PLAY/REC VIEW” PAGES (SONG MODE)

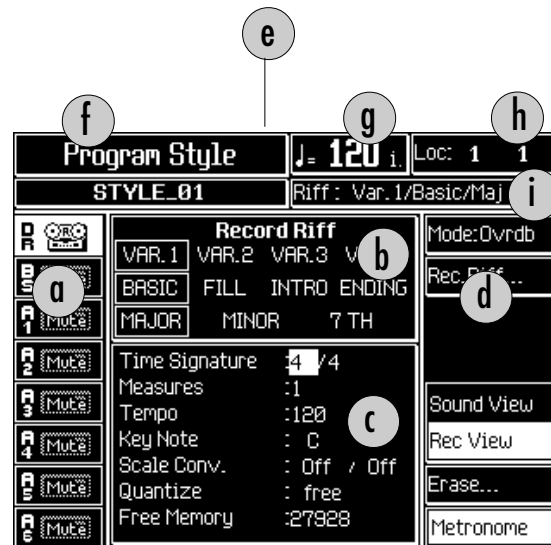
This type of page shows and allows you to edit the playing parameters of the Song.



- a. Track status icons. Select the tracks with the Soft buttons A...H. In record mode, the tracks identified by the *key-play* icon are set automatically in *mute*.
- b. Locator [Song Pointer] which monitors the position of the Song events expressed in measures, beats and sequencer resolution [or “tick”]. This parameter can be varied when the sequencer is off to change the starting point of a song.
- c. Song start and end locators for play, record or loops.
- d. Time Signature, starting Tempo of a Song, record Quantize value.
- e. Free memory indicator for the Song recording (max 400 kb).
- f. Menu. Contains options which are selected with the Soft buttons F1...F8. The menu contains the «Sound View» option, the metronome setting parameter, the track or song erase function.
- g. Status bar showing general information.
- h. Names of the Song and Song-Performance.
- i. Tempo (useful indicator for the «Sound View» page).
- k. Locator (measure and beat counter useful for the «Sound View» page).

“REC VIEW” PAGE (STYLE/REALTIME MODE)

This page allows you to program the Style parameters and to select the riff to record.

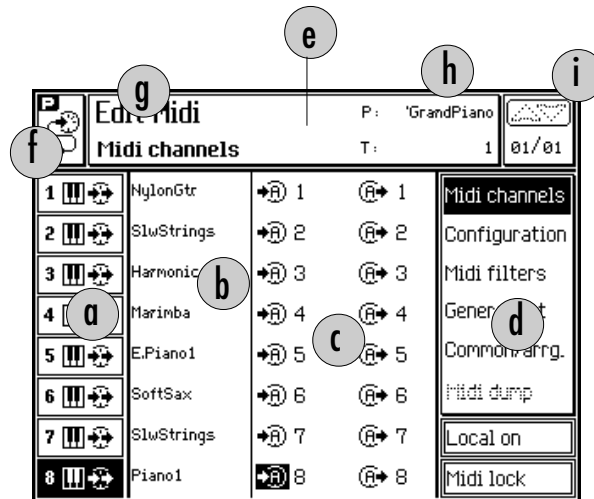


- Track status icons . Select the tracks with the Soft buttons A...H. When the Style is in Record mode (RECORD led on) only the auto-accompaniment tracks (9-16) can be selected (DR, BS, AC1...AC6).
In record mode, tracks shown with a *key-play* icon are set automatically in *mute*.
- Indicator of the riff currently in record. The first line indicates the Variation, the second the “cycle” or section (Basic, Fill, Intro, Ending), the third the chord (Major, Minor, Seventh). Can be selected with Soft button F2 («Rec. riff...»).
- Time Signature parameters, Tempo, length of riff in measures, reference key, Scale Converter, record Quantize activator.
- Menu. Contains options which can be selected with the Soft buttons F1...F8. The menu contains the «Sound View» option, the metronome setting parameter, the function to cancel the track, riff or Style.
- Status bar showing general information.
- Names of the Style and Style-Performance.
- Tempo.
- Locator (Measure and beat counter).
- Riff name.

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EDIT PAGES

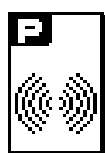
The edit pages differ, but have in common the presence of variable parameters in the edit zone at the centre of the display.



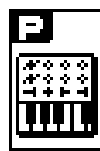
Simple structure

- Tracks status icons. The Soft buttons A...H or the cursor buttons / select the tracks. Not all edit environments shows this column.
- Sound area (only shown in some pages) containing the name of the Sounds.
- Area of programmable parameters.
- Functions. Items which can be selected with the Soft buttons F1...F8. Each function generally corresponds to a page of the respective edit environment. In some cases, On/Off options also appear.
- Status bar showing general information.
- Edit environment icon. The symbol appears if the page parameters can be stored in the Performance.
- Name of the edit environment and edit page.
- Name of the Performance and the track in edit (pages with parameters relating to the single track), or name of the Sound in edit.
- Icon corresponding to the / buttons. These buttons select other menus or other editors. If no other menus or editors exist, the arrows are shown as transparent elements which cannot be selected. If other menus or editors exist, one or both arrows will appear to indicate the presence of the next or previous item.

Every environment has a relative icon:



Edit Effects



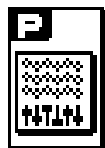
Edit Perf Sound/Drumkit



Edit MIDI



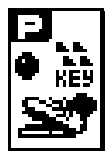
Edit Style/Song



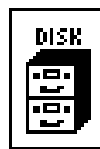
Edit Mixer



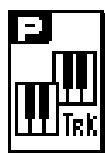
Edit General



Edit Controllers/Pads



Edit Disk / Preload



Edit Track/Splits

In «Edit Effects», «Edit MIDI», «Edit Mixer», «Edit Controllers/Pads», «Edit Track/Splits», «Edit Perf Sound» (simple structure) the buttons allow to pass to other functions within the same environment. (In some versions of the operating system, some of these environments will have one function only, therefore the ▲▼ buttons will not be active).

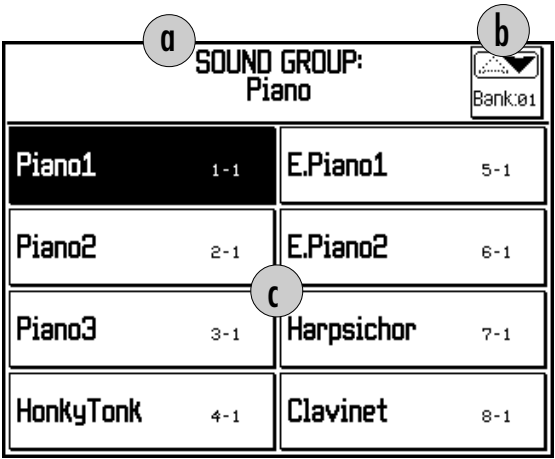
In «Edit Style/Song», «Edit General» (complex environments with several editors where only one menu is available) the buttons pass from one editor to another without returning to the main menu.

In «Edit Disk» the buttons pass from one disk operation to another (Load, Save, Copy, Move, Erase, Utility).

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SELECTION WINDOWS

These appear when a button of the SOUND GROUPS, PERFORMANCE GROUPS, STYLE GROUPS or the SONG button are pressed. The items shown in the selection window are selected with the respective Soft buttons.



- a. Title of the window.
- b. Bank selector (only in the Sound selection). Corresponds to the ▲▼ buttons.

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► **Note:** The bank can be selected either in this selection window or by means of a BankSelect message received via MIDI. Once the bank has been selected, the received ProgramChange selects Sound of the current bank. Via MIDI, the Bank remains selected until a different BankSelect number is sent
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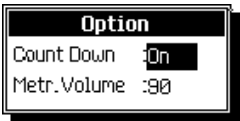
- c. List of items that can be selected.

DIALOG WINDOWS

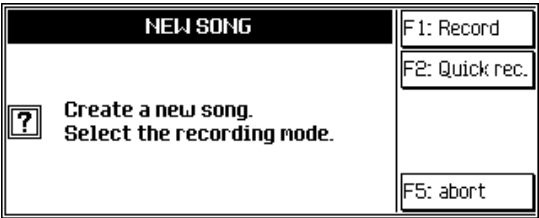
Several types of dialog window exist; generally an option requires selection or one or more parameters require modifications and confirmation with ENTER or a soft button. Some examples follow.



Select one of the options with the cursor buttons.
Press ENTER to confirm or press ESCAPE to cancel the modifications.
ENTER and ESCAPE close the dialog windows.



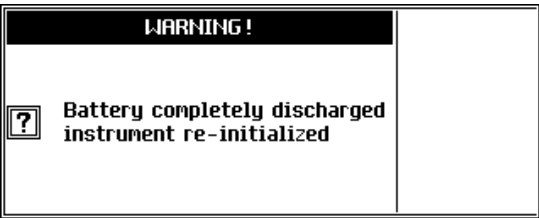
Select the parameter which has to be modified with the cursor.
Modify the value with the DIAL or numeric keypad.
Press ENTER to confirm or press ESCAPE to cancel the modifications.



Press the soft button corresponding to the option required.

WARNINGS

These are similar to the dialog windows, but they do not display options to select. They communicate specific messages to the user (wrong operations, information on the current operation, etc.).



Press F5, ENTER or ESCAPE to close the warning.

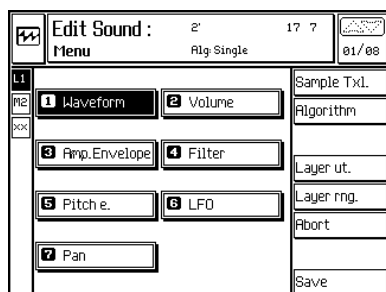
Data Entry

The **WK4** data entry devices are used to insert alphanumeric data, select options and navigate within the edit pages or the operating environments. The data entry devices consists of:

- DIAL;
- Numeric keypad (Edit/Number section when the KeyPad LED is on).
- Cursor buttons (directional arrows);
- Scroll menu buttons (▲▼);
- ENTER and ESCAPE buttons.

NAVIGATING THROUGH THE MAIN MENUS

Some operating environments show a main menu.



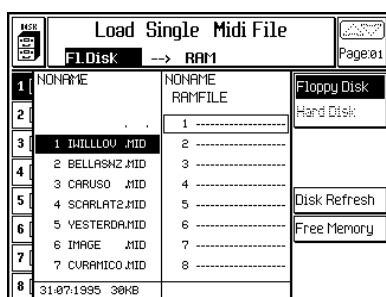
The main menu is a list of the 'editors' (or modules).

Select the elements with the cursor buttons and press ENTER to gain access to an editor.

OR, use the scroll menu buttons ▲▼ to enter directly into the editors and pass from one editor to another.

NAVIGATING THROUGH THE LISTS

Some operating environments show a data list.



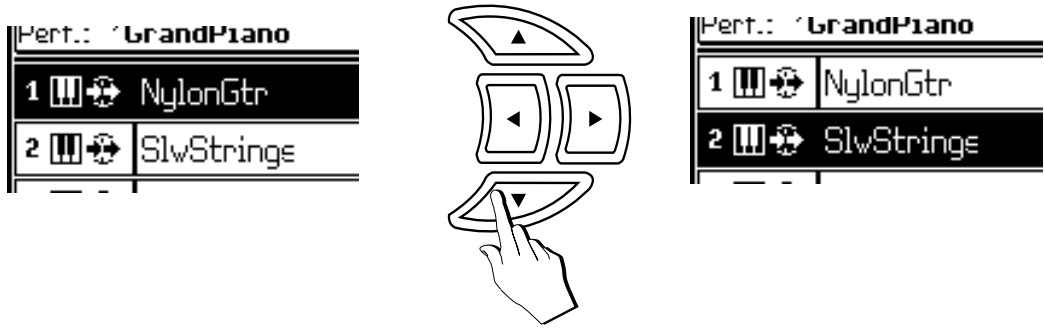
Select the elements with the cursor buttons. The black frame represents the cursor, the white frame the selected location. The display can show only a part of the list; when the first or last element of the list is reached with the cursor, the list scrolls upwards or downwards.

Press ENTER to confirm the selection.

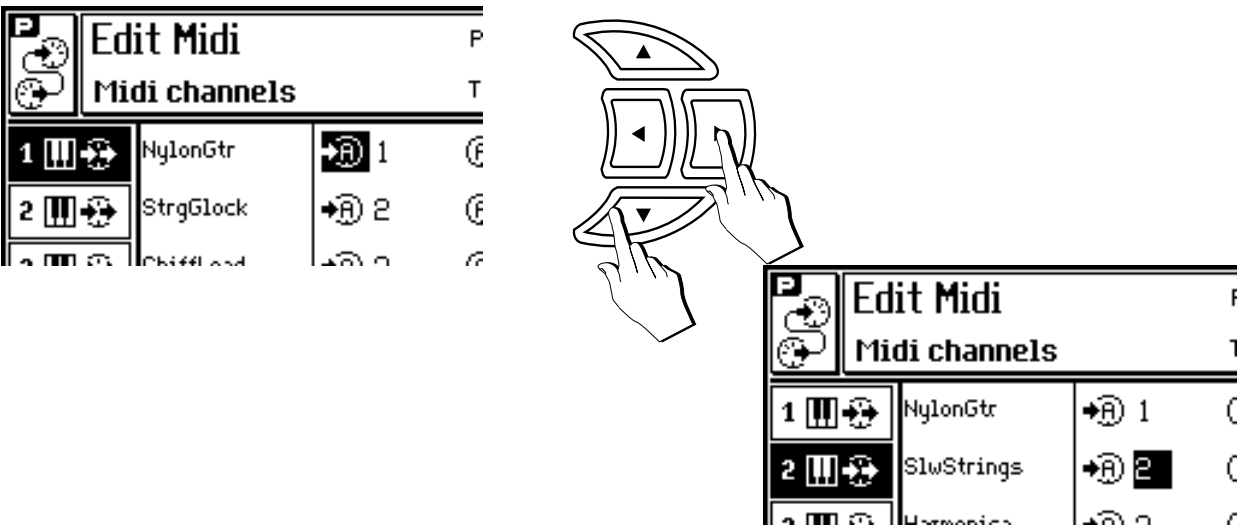
NAVIGATING THROUGH THE PARAMETERS

Move the cursor (the negative highlight zone) using the cursor buttons.

For example, after turning on, the display shows the Style/Performance mode. You can select the tracks with the cursor buttons ▲/▼.



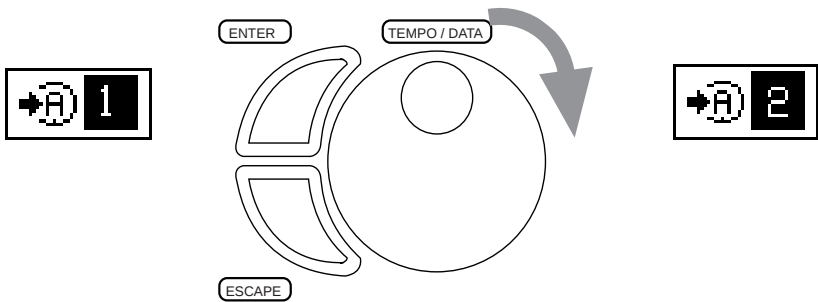
In edit pages, select the parameters with the cursor buttons and modify the parameter value with the DIAL.



MODIFYING PARAMETERS WITH THE DIAL

The value of the selected parameter can be modified by rotating the DIAL (TEMPO-DATA). Clockwise rotation for data increase and counter-clockwise rotation for data decrease.

► **Note:** In the main display of the Style/Performance mode, the DIAL is active for Tempo changes.

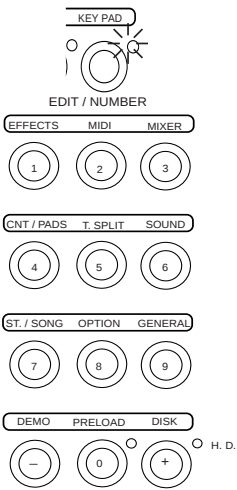


MODIFYING PARAMETERS WITH THE NUMERIC KEYPAD

The numeric keypad corresponds to the EDIT/NUMBERS section. To use this section for data entry purposes, press the KEY PAD button. The numeric keypad permits instant insertion of absolute numeric values.

The following example shows how to assign a sound to a selected track by specifying the corresponding ProgramChange/BankSelect MSB number on the numeric keypad. If **WK4** is used as a stand alone unit, it is not necessary to specify the BankSelect LSB number (the last digit).

- 1. Select the track to which a sound has to be assigned.
- 2. Press the KEY PAD button to activate the numeric keypad. An active zone appears for a numeric insertion.



- 3. Specify the ProgramChange number. For example, 49 corresponding to StringsEnsemble 1.



- 4. Specify the 'minus' sign [-] (a separating symbol). The cursor passes to the BankSelect MSB:



- 5. Specify the BankSelect MSB number. For example, 2 corresponding to "StringsEnsemble Bright" (49-2-1 number).



- 6. In cases where necessary, specify the "-" sign and the BankSelect LSB number for the last digit.

7. To correct an inserted number, move the cursor backwards with the DIAL or with the cursor buttons ◀/▶, then insert the right number in place of the incorrect one.
8. To confirm the modification press ENTER or KEY PAD. The value is confirmed and the desired sound is assigned to the track. The KEY PAD LED goes off and the EDIT/NUMBERS section is restored as the Edit environment selector. To cancel the entire operation press ESCAPE. The window closes and the data rests unchanged.

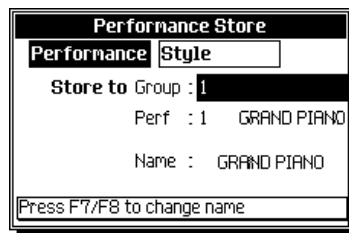
► **Note:** The active zone for data insertion closes after a few seconds of inactivity (as if ESCAPE has been pressed).

TEXT ENTRY

For text entry purposes, the keyboard activates as a source of alphabetical data where each note of the central zone of the keyboard corresponds to a letter. Use the ◀/▶ cursor buttons or the DIAL to navigate within the active zone.

The following example shows how to modify a Performance name.

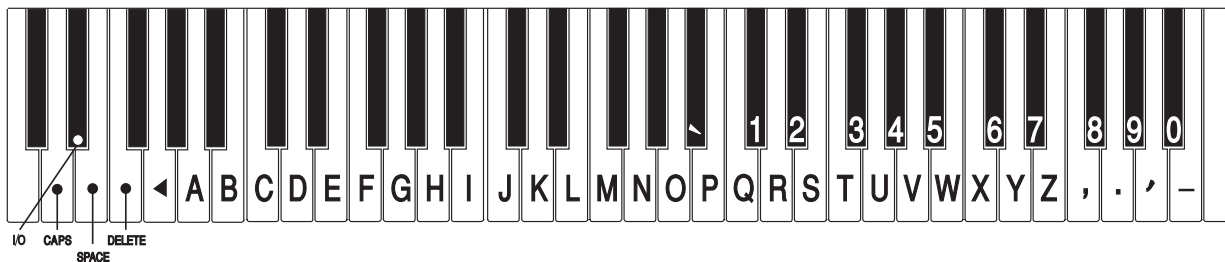
1. Press the STORE PERFORMANCE button.



2. Press F7 or F8 to activate the “Change name...” function. An active zone appears where the name can be inserted.



3. The name appears selected (shown in negative highlight). To cancel the selected name insert the first character. To change one or more characters only characters, move the flashing cursor with the cursor buttons.
4. Insert the desired characters using the keyboard. Each note corresponds to a character or processing command:



Two options appear below the name (“Caps On/Caps Off” and “Insert/Overwrite”) which can be activated or deactivated with notes D2 and D#2 respectively.

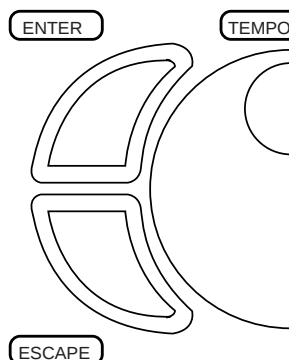
The notes on the extreme left of the keyboard zone provide word processing functions:

- D2: CAPS - Caps On / Caps Off;
 - D#2: INS/OVER - toggles between Insert / Overwrite mode;
 - E2: SPACE - inserts a space between two entries;
 - F2: DELETE - cancels the selected character or the one after;
 - G2: <— (BACKSPACE) - cancels the previous character;
5. Move back with the  cursor button and correct wrong characters. In Overwrite mode, the inserted characters substitute the selected characters (in negative highlight).
 6. Press ENTER to confirm and to close the active zone, or press ESCAPE to cancel and close the window.

ENTER/ESCAPE

ENTER confirms selections and values assigned to parameters in dialogue windows. In some edit pages, ENTER confirms the value assigned to the relative parameters and executes the function, such as the copy of notes or the quantization.

ESCAPE cancels operations and values assigned to parameters of dialogue windows. In edit environments, ESCAPE returns to the main menu or escapes edit and returns to the main page of the current operating mode.



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User Configurations

THE NON-VOLATILE RAM

When the instrument is turned on, you'll find the same data which was present when the instrument was turned off, thanks to the battery-backed RAM.

In practice, it is possible to reconfigure the instrument's memory with new data that differs to the factory supplied configuration by programming or loading new Sounds, new Performances and new Styles, etc..

WK4 defaults at power up with the Grand Piano Performance, corresponding to the first location of the Performance Groups 1 button. In practice, you can memorize a desired power-up status in this Performance.

Data conserved at power down

RAM Sounds.

RAM  -Sounds, provided that the battery-backed Sample-RAM is installed.

RAM-Samples, provided that the battery-backed Sample-RAM is installed.

The on/off status of the following buttons:
Arrange On/Off, Arrange Memory, Lower Memory, Tempo Lock, Mixer Lock, Bass to Lowest, Harmony On/Off and the Arrange Mode settings.

User-programmed Performances of the Performance Groups.

User Styles.

Songs.

Setup.

Data NOT conserved at power down

Status of the control panel.

RAM  -Sounds, if the battery-backed Sample-RAM is not installed.

RAM-Samples, if the battery-backed Sample-RAM is not installed.

THE BLOCK

The Block is a data set consisting of almost the entire contents of the instrument's memory. You can, therefore, configure the instrument's RAM according to your needs and save the Block to disk for future loading in a single operation.

The Block does not memorize the settings of the accompaniment control buttons; these remain in memory after power down but are not part of the Setup.

For example, you can load RAM-Sounds to memory in order to extend the on-board sound library. You can load User Styles in order to exploit all the USER slots. You can load Songs.

All the above mentioned data can then be loaded to disk in a single step by saving the Block using the «Save Single Block» procedure, and subsequently loaded back into RAM in a single step using «Load Single Block».

In order to fully exploit the features of the Block, however, it is more convenient to install the instrument with a Hard Disk owing to the limited capacity of floppy disks.

THE SETUP

The Setup is part of the Block which contains the global settings of **WK4**.

Contents of the Setup
Status of the TRANSPOSE buttons (general transpose in semitones).
«Edit General» - pages • «Tuning Scale» (tuning and temperaments). • «Pedalboard/Computer» status. • «Video Controls». • «Mic/Line In» (settings of the MIC/LINE IN audio inputs).
«Edit MIDI» • «MIDI Channels LOCK» options • MIDI channel settings for the LOCK — if the status is LOCK ON, when the Setup is loaded, the MIDI status is set automatically to LOCK ON and the tracks are assigned the programmed MIDI channels.
«Edit Effects - «General Effect 1 Balance» page.
«Edit Mixer» - «Equalizer» page.

A Setup is always present in memory and after power down.

SAVING THE SETUP

The Setup present in RAM can be saved in two ways:

- Save the Setup to a Block as a single file («Save Single Setup»), in order to create files for particular occasions (for example, you can create a Setup for home sessions, a Setup for live playing, one for piano-bar work, etc.).
- Save the Setup as a part of Block data («Save Single Block»). As in the case of the RAM, a Block can contain only one Setup.

LOADING THE SETUP

You can load a Setup in two different ways.

- Load the Setup only from a Block («Load Single Setup»).
- Load the Setup as part of the data of a Block («Load Single Block»).

• 4 Sounds and Performances

THE SOUNDS AND TRACKS

A Sound is assigned to each of the tracks that appear on the display. While you play, the tracks currently generating notes flash a small triangle after the track status icon.



The tracks can be configured to play on the keyboard in different ways, called keyboard modes:

- **Full keyboard mode** - the Upper tracks (7 and 8) play across the entire keyboard range. The Lower 1 and 2 sections are disabled for activation (for Full keyboard mode only).
- **Upper&Lower mode** - the Upper tracks (7 and 8) play to the right of the Split point while the Lower tracks (1 and 2) play to the left from the split point down.
- **Multi mode** - tracks 3 to 8 play to the right of the Split point while tracks 1 and 2 play to the left from the split point down.

The Soft buttons A...H to the left of the display select, activate or deactivate the tracks. For example, if an Upper track is muted and not selected, by pressing its corresponding Soft button twice, the sound assigned to the track will activate for play (press once to select, press again to activate).

The Sounds and the keyboard modes can be changed instantly by selecting a Performance or a Style.

WAYS OF SELECTING SOUNDS

WK4 allows you to select single sounds or a combination of different sounds.

- To select a single sound, select the track that will accommodate it, press one of the buttons of the SOUND GROUPS section and select a sound with the corresponding Soft button.
- To select a sound combination, select a Performance or a Style. Along with the sounds, the keyboard modes, the track status, the effects and the general settings also change.

Selecting single Sounds

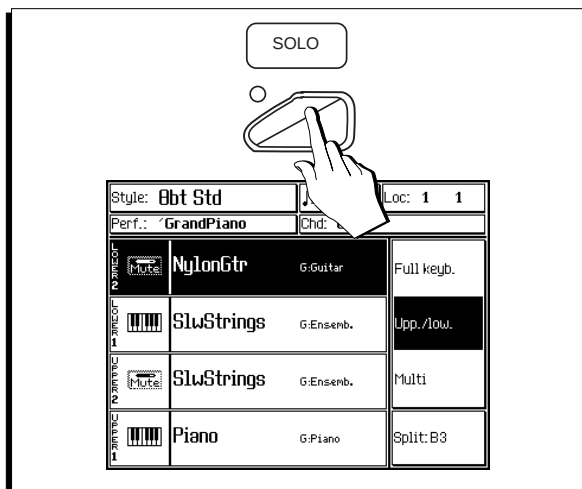
There are two ways of listening to single sounds:

- **Press the SOLO button.**

Activating this button isolates the selected track from the rest, regardless of its current active/mute status. All other active tracks are temporarily muted.

Use the SOLO button to isolate a track in order to listen to the assigned Sound and apply any eventual modifications.

Press SOLO again to restore normal playing.



- **Select Full Keyboard mode and mute one of the Upper sections.**

The procedure for this method is outlined below.

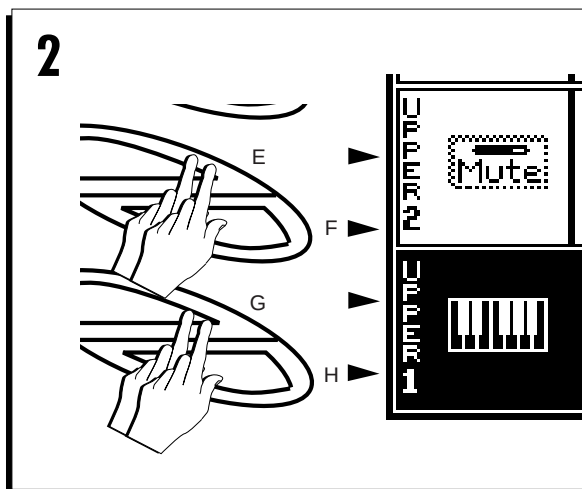
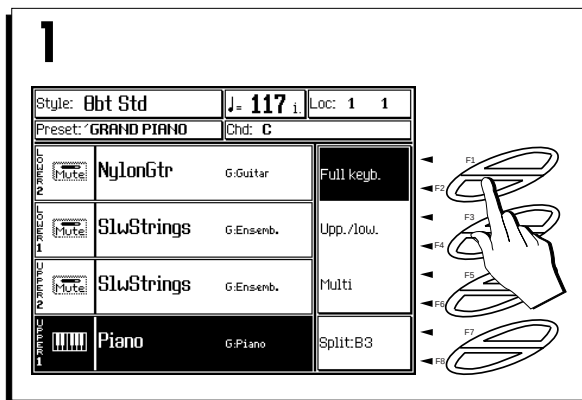
1. **Press F1 or F2 to select Full Keyboard mode.**

The Upper1 and Upper2 sections are assigned to the entire keyboard range while the Lower sections are temporarily disabled for activation.

2. **Set Upper1 to play and Upper2 to mute.**

Select Upper2 by pressing the Soft buttons E or F. Press the same button repeatedly to toggle between the «mute» and «key-play» status icon. Set the track to «mute».

Select Upper1 by pressing the Soft buttons G or H. Press the same button repeatedly to toggle between the «key play» and «mute» status icon. Set the track to «key-play».



3. With track Upper1 selected, press a button of the SOUND GROUPS section.

The display shows a bank of 8 Sounds belonging to the selected Group.

Each Sound is also displayed with the corresponding ProgramChange (PC) and BankSelect MSB (CC00) number, in the form PC-CC00. These are the relative MIDI messages for the corresponding Sounds.

4. Select the Bank containing the desired sound using the ▲▼ buttons.

Each Group can contain up to 16 banks. The bank number corresponds to the BankSelect MSB (CC00) MIDI message.

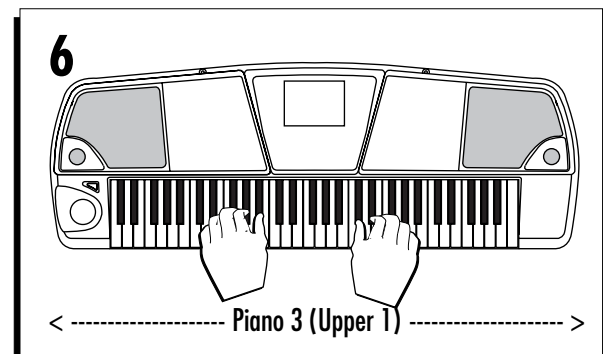
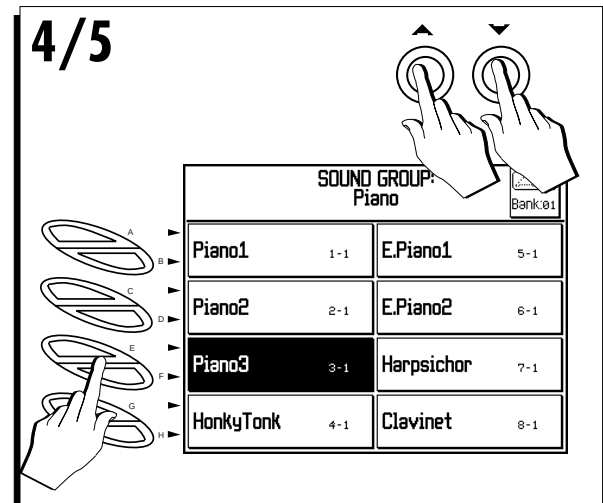
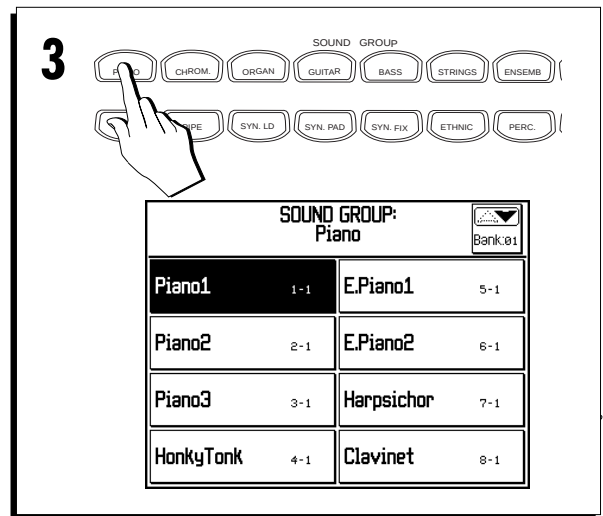
5. Select a Sound with the soft buttons.

In the Sound selection window, the soft buttons are paired. Either of the two buttons can be used for selection purposes.

6. The selected Sound is assigned to the currently selected track (in this case Upper 1).

Play and repeat the selection operations to listen to other sounds.

► **Note:** To avoid the closure of the selection window each time a Sound is selected, press D. HOLD (display hold).



Selecting Performances

Select a Performance when you want to change the whole sound combination, not just a single sound.

1. Press one of the PERFORMANCE GROUPS buttons.

The display shows 8 Performances to choose from.

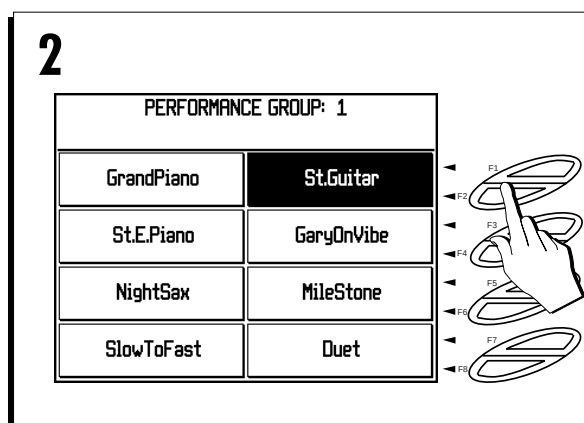
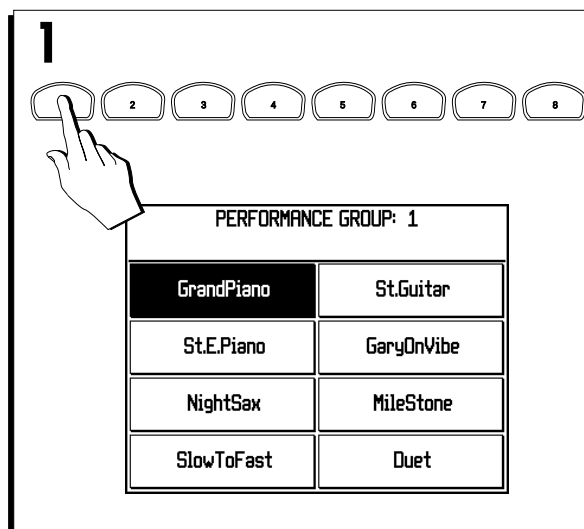
2. Select a Performance using the corresponding Soft buttons.

Once a Performance has been selected, the selection window closes and the display returns to its previous status showing the configuration and sounds of the selected Performance.

The settings recalled by the Performance include: the keyboard mode, the track status, the Sounds assigned to the tracks, the effects, the track assignments for the action of the pedals and the chord recognition mode.

The status bar shows the name of the selected Performance.

► **Note:** When a selection window shows a choice of 8 items to select from, the 16 Soft buttons pair up to become 8 buttons as follows: A/B, C/D, E/F, G/H, F1/F2, F3/F4, F5/F6 and F7/F8.



Select Sounds, Performances or Styles using Display Hold

Normally, after selecting an item from a selection window, the display returns to the previous status automatically.

If you activate D. HOLD (LED on), the selection window remains locked after selecting an item. This allows you to continue selecting other items until you are satisfied with the result.

1. Press D. HOLD.

The LED of the button turns on.

2. Press a button from the SOUND GROUPS, the PERFORMANCE GROUPS or the STYLE GROUPS section to open the relative selection window.

In this case a Sound.

3. Select an item.

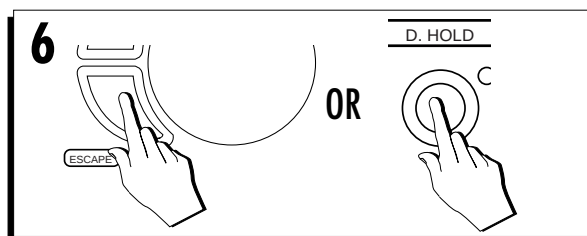
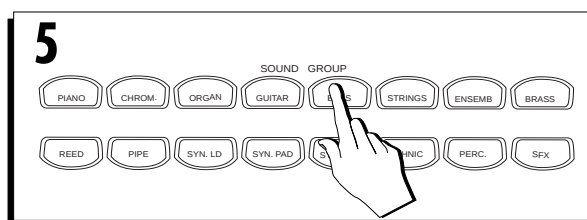
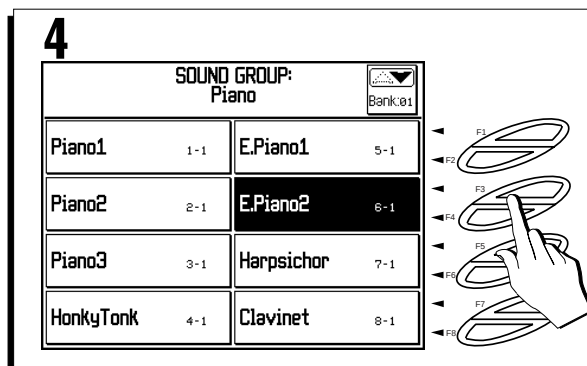
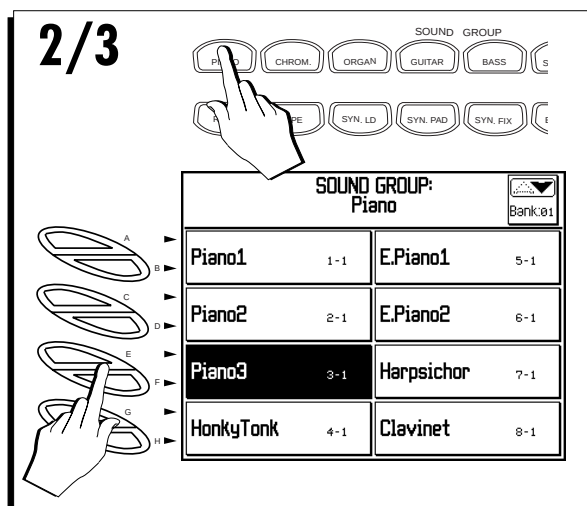
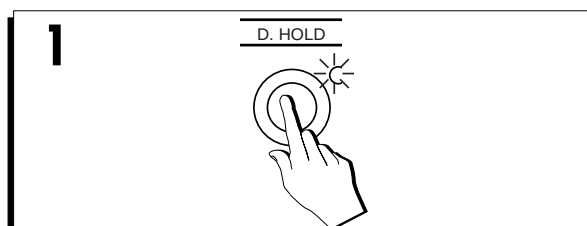
The selection window remains locked.

4. Select other items as required.

5. Press another Group button to open a different selection window and select another item.

6. Press ESCAPE to close the selection window without cancelling D. HOLD.

Press D. HOLD to cancel the function (LED off).



How to Program Performances

This section describes some of the most common changes that can be applied to the Performances.

Once a Performance has been modified, it can be saved to RAM by pressing STORE PERFORMANCE. Without saving, the modifications remain temporary and are lost when you select a different Performance, or reselect the same one.

► **Note:** The changes described in this section can also be applied to Style-Performances and Song-Performances.

HOW THE SOUNDS ARE ARRANGED

In default conditions, the Performances recall factory-set Sound combinations. You can change one or more Sounds of any Performance and store the resulting modifications to memory so that the Performance recalls your preferred Sound combination when it is selected.

The Sounds are arranged in 16 Groups of 16 banks each. Each bank can contain up to 8 Sounds.

The Sounds of Bank 1 are arranged according to General MIDI standards, while those that reside in other Banks are variations of the Bank1 Sounds. The table shown opposite lists the Sound Group names.

Sound Group name	ProgramChange
Piano	1 ... 8
Chromatic	9 ... 16
Organ	17 ... 24
Guitar	25 ... 32
Bass	33 ... 40
Strings	41 ... 48
Ensemble	49 ... 56
Brass	57 ... 64
Reed	65 ... 72
Pipe	73 ... 80
Synth lead	81 ... 88
Synth pad	89 ... 96
Synth SFX	97 ... 104
Ethnic	105 ... 112
Percussive	113 ... 120
Special SFX	121 ... 128

Sound map

ASSIGNING SOUNDS TO THE TRACKS

1. Use the Soft buttons to select a track.

The selected track is shown in negative highlight. A track can also be selected in other pages, provided that the track icon appears in the extreme left area of the display.

2. Press a button of the SOUND GROUPS section.

The display shows 8 Sounds to choose from.

3. Select a Sound Bank using the ▲▼ buttons.

Each Group contains up to 16 Banks. Scroll through the Banks using the ▲▼ buttons until the required Sound is displayed.

4. Use the Soft buttons to select a Sound.

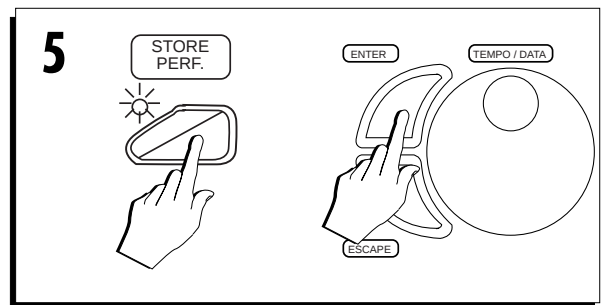
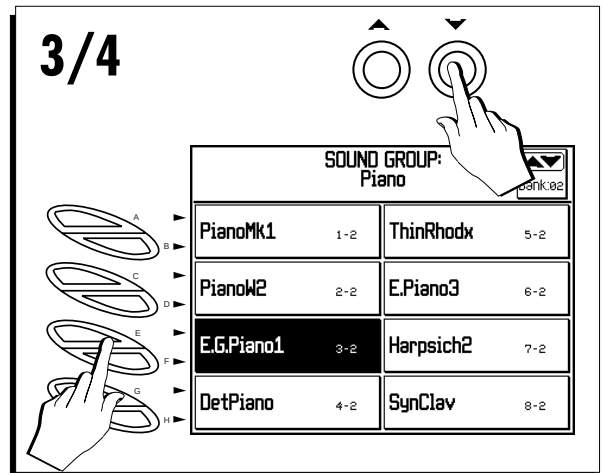
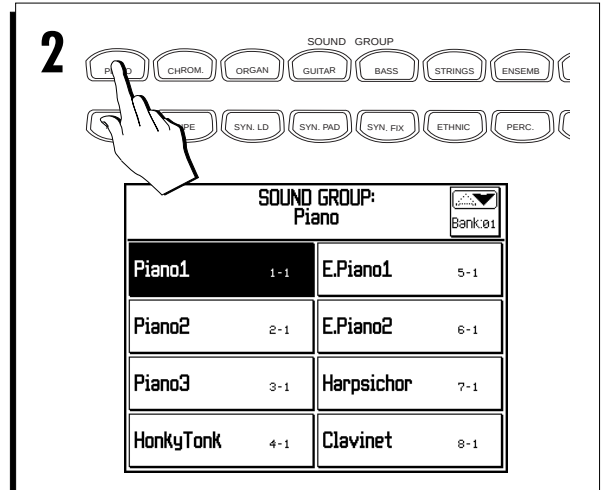
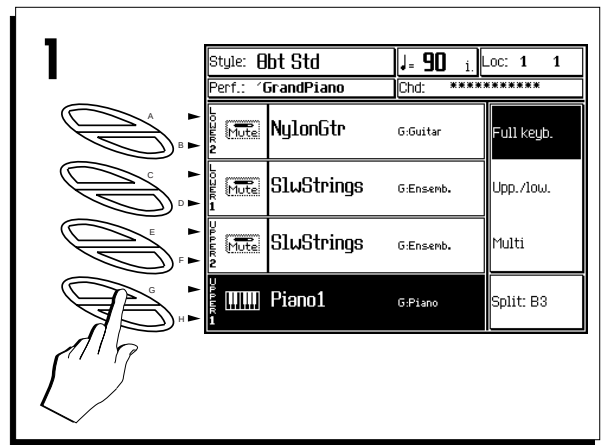
The Sound is assigned to the selected track and the selection window closes. The display returns to its previous status showing the updated situation.

The new situation remains in memory as a temporary status until changed again, or until you recall the default conditions by selecting the same Performance again.

5. To save the change press STORE PERFORMANCE followed by ENTER to confirm.

The new situation is permanently memorized.

You can restore the original settings of the Performance using the Restore Performance command, explained at the end of this chapter.



USING THE KEYPAD TO SELECT A SOUND

Each **WK4** Sound is identified by two numbers: the ProgramChange (PC) and the BankSelect MSB number, or ControlChange 00 (CC00). You can select a Sound by specifying the absolute values corresponding to the PC and CC numbers on the numeric keypad.

In MIDI setups, a third number corresponding to the BankSelect LSB, or ControlChange 32 (CC32), is sometimes necessary to select a sound of an expander connected to the WK4 MIDI OUT.

► **Note:** If you specify the ProgramChange on its own, the bank rests unchanged. For example, if the current Sound is 112-2-1, by specifying ProgramChange 96 or sending PC96 via MIDI, you will select Sound 96-2-1.

1. Select the track to which the Sound is to be assigned.

2. Press the **KEY PAD** button to enable the numeric keypad.

An insertion window activates showing the number of Sound currently assigned to the track.

3. Specify the ProgramChange of the required Sound.

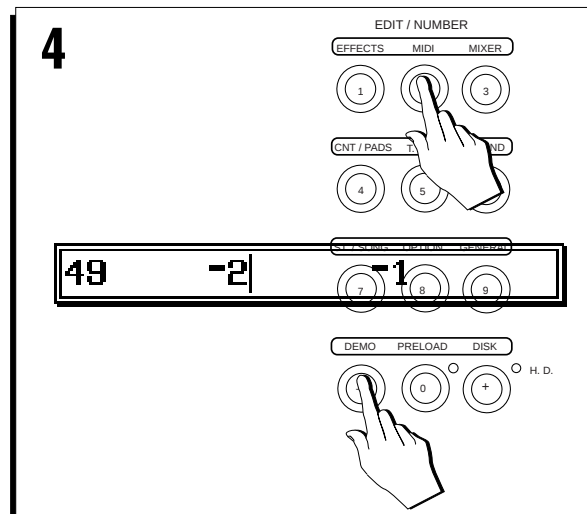
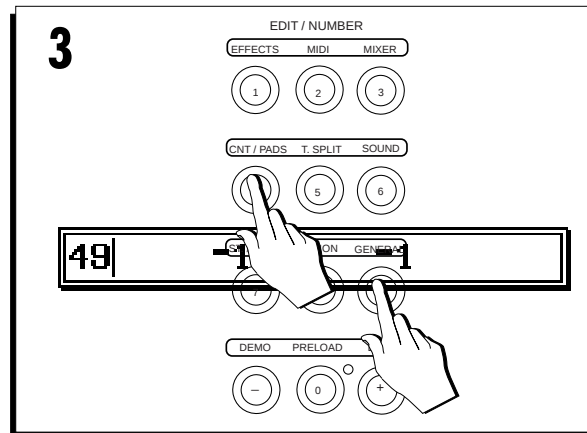
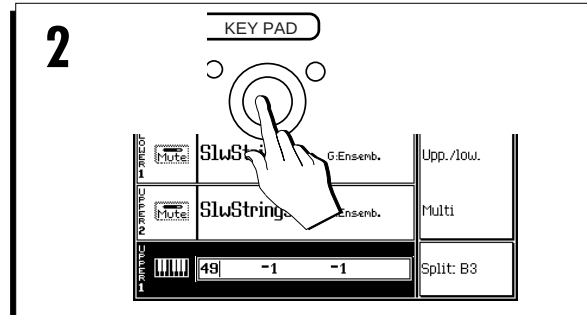
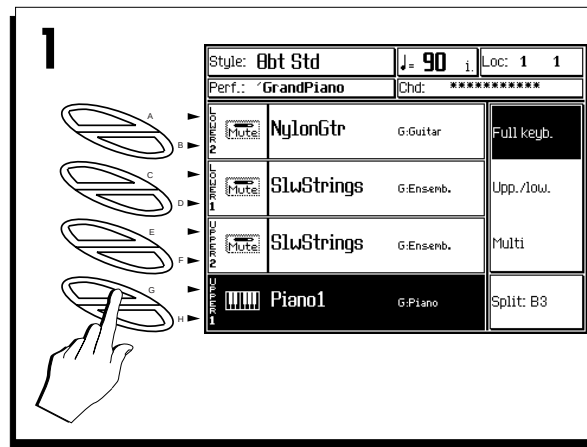
If the Sound belongs to a different Bank, key in a dash («-») which acts as a separator then specify the corresponding Bank number (Bank Select MSB).

If necessary, add a second separator («-») and the third part of the message (BankSelect LSB).

4. Confirm by pressing **KEY PAD** or **ENTER**, or press **ESCAPE** to cancel the operation.

The **KEY PAD** LED will go off.

Press **STORE PERF** then **ENTER** to save the change.



CHANGING THE TRACK STATUS

Tracks 1-8 of a Performance (the keyboard tracks) can be set to either *key-play* or *mute* status.

A track set to key-play status can play, while a muted one cannot. It is possible to toggle between the key-play and mute status in order to instantly add or remove a sound while playing.

How to toggle between the mute and key-play status is explained as follows.

1. Select a track shown set in key-play with the corresponding Soft button.

The selected track is shown in negative high-light.

2. Press the same Soft button again to mute the track.

The track changes status. The «mute» icon replaces the «key-play» icon and the track is temporarily deactivated for play and ceases to receive or transmit MIDI messages.

3. Press the same Soft button once more to toggle back to the key-play status.

The track status changes back to «key-play» showing the relative icon as before. The track activates for play and it is able to receive and transmit MIDI messages as before.

4. Press **STORE PERFORMANCE** and confirm with **ENTER** to save the change.

Pressing **STORE PERFORMANCE** saves the track status to the Performance. If you select another Performance before saving the current one, the changes will be lost.

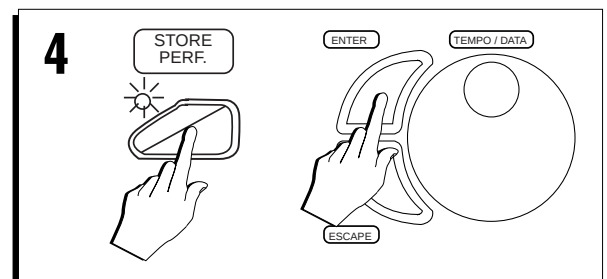
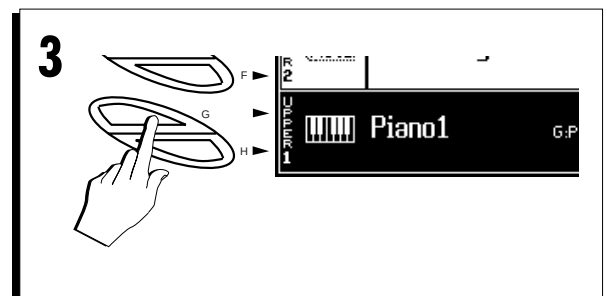
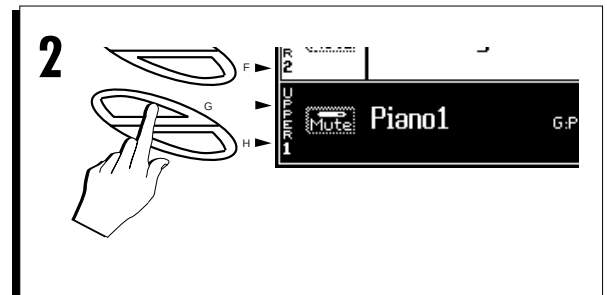
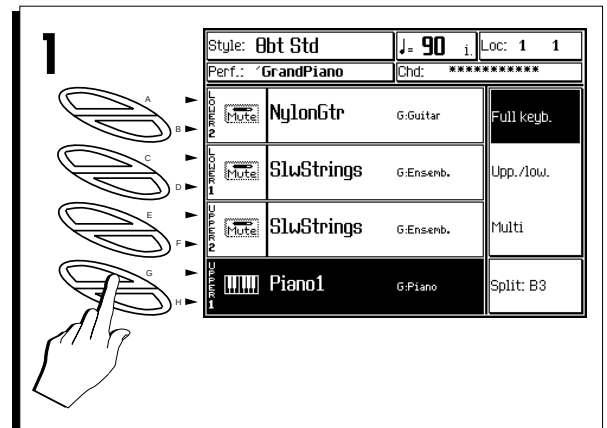
► **Note:** In Song mode and in the accompaniment tracks of the Style/RealTime mode, the track status is toggled in the following cyclic order: seq-play → mute → key-play → seq-play.....



«key-play» status icon



«mute» status icon



CHANGING THE KEYBOARD MODE

The keyboard Sounds can be set to various *keyboard modes*:

- Full keyboard;
- Upper&Lower;
- Multi

The following example outlines how to select the keyboard modes.

1. With the main page of the Style/RealTime mode showing, select the Full Keyboard mode with the Soft button F1 or F2.

Full keyboard mode assigns the Upper 1 and Upper 2 tracks to the entire keyboard.

Try playing and changing the track status of the Upper sections.

2. Select Upper & Lower mode using Soft button F3 or F4.

Upper & Lower keyboard mode splits the keyboard at note B3 and assigns the Lower 1 and Lower 2 tracks to the left split (from B3 down) and the Upper 1 and Upper 2 tracks to the right (from C4 up).

Try changing the track status to modify the combination of the sounds in both sections of the keyboard.

FULL Keyboard



< ----- Full keyboard (Upper1 &/or Upper 2) ----- >

UPPER/LOWER Keyboard



< - Low 1&/or2 -- > < --- Upper 1 &/or Upper 2 ---- >

MULTI Keyboard



< -- TRACKS 1-2 --- > < ----- TRACKS 3 - 8 ----- >

1

Style: Ebt Std		J= 90	Loc: 1 1
Perf.: GrandPiano		Chd: *****	
Mute	Nylon6tr	G:Guitar	Full keyb.
Mute	SlwStrings	G:Ensenb.	Upp./low.
Mute	SlwStrings	G:Ensenb.	Multi
Mute	Piano1	G:Piano	Split: B3

2

Style: Ebt Std		J= 90	Loc: 1 1
Perf.: GrandPiano		Chd: *****	
Mute	Nylon6tr	G:Guitar	Full keyb.
Mute	SlwStrings	G:Ensenb.	Upp./low.
Mute	SlwStrings	G:Ensenb.	Multi
Mute	Piano1	G:Piano	Split: B3

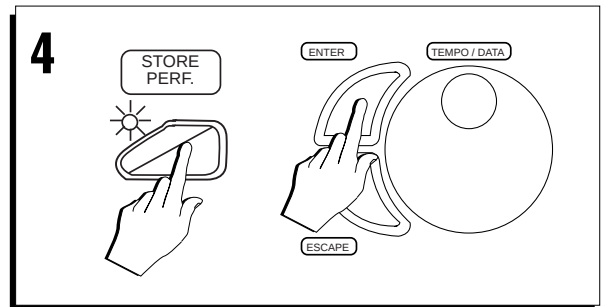
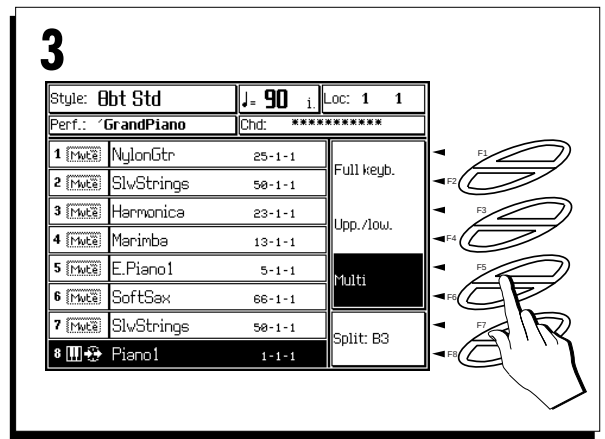
3. Select Multi mode using Soft button F5 or F6.

Multi keyboard mode splits the keyboard at note B3 and assigns Tracks 1 and 2 to the left split and Tracks 3 - 8 to the right.

Try changing the track status to experiment with the overall sound combinations that can be obtained.

4. Press STORE PERFORMANCE and confirm with ENTER to save the change.

When you press STORE PERFORMANCE, the last set keyboard mode is memorized to the Performance. If you select another Performance before saving the setting, your new data will be lost.



CHANGING THE SPLIT POINT

The Split Point is:

- (a) the point that separates the Upper and Lower keyboard sections in the Upper&Lower and Multi keyboard modes and,
- (b) the point below which the keyboard recognizes chords which trigger the Style automatic accompaniments (*in Fingered and One Finger chord recognition modes*).

The current Split Point setting appears in the main page as an option that can be selected with soft button F7 or F8. The setting can be modified as required.

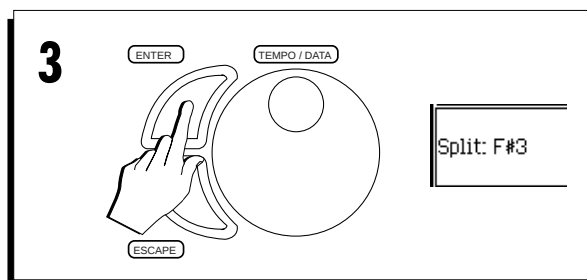
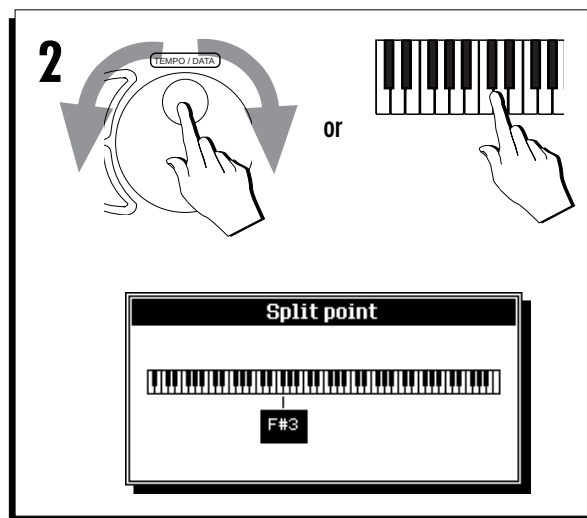
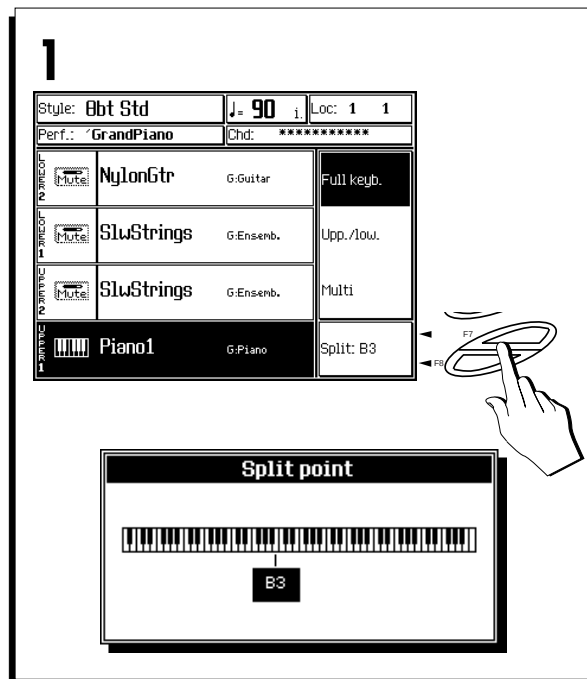
1. With the main Style/RealTime display showing, press either Soft button F7 or F8 to open the «Split Point» dialog window.
2. Rotate the DIAL or play a note on the keyboard (corresponding to the highest note of the Lower split zone) to modify the setting.

The new Split Point is shown in the dialog window. If you entered the wrong note, simply play another.

3. Press ENTER to confirm the new Split Point, or ESCAPE to cancel the operation.

If you press ENTER, the main page will show the new Split Point setting. If you press ESCAPE the original Split Point will be restored.

.....
Note: The Split Point is a general parameter (not linked to a particular Performance) which is conserved in memory when the instrument is turned off. The new setting is lost when the "Reset All" operation is carried out or if the backed-RAM loses its data due to the total discharge of the battery.



CHANGING TRACK VOLUMES

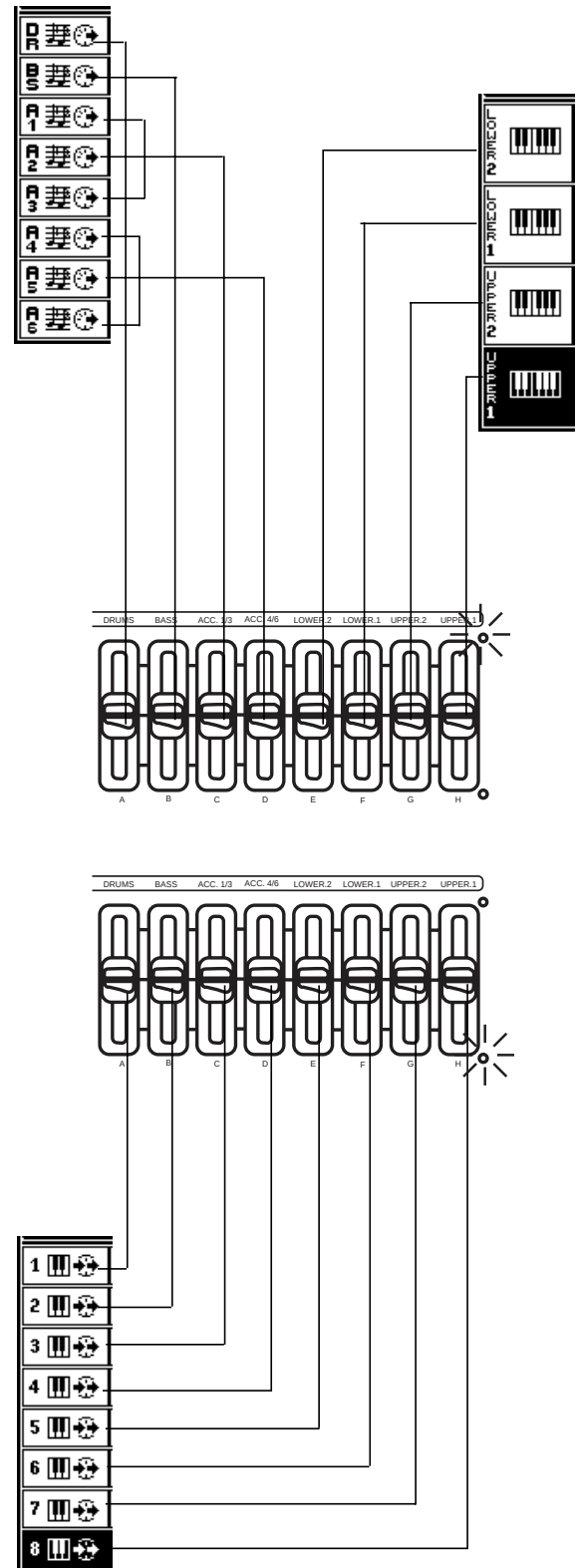
Performances also memorize the individual track volumes. Use sliders A to H to obtain the required mix and save the Performance with **STORE PERFORMANCE**.

The correspondence between the sliders and the tracks is indicated by the two LEDs shown on the right of the group of sliders. The sliders can affect a) the tracks identified by the silkscreened markings above the sliders, or b) the tracks identified by the silkscreened markings A...H below the sliders.

If the display shows four tracks, refer to the markings shown above the sliders. If eight tracks are displayed, refer to the markings shown below the sliders.

- In **Full Keyboard** or **Upper&Lower** keyboard modes, refer to the markings above the sliders. The sliders control the indicated tracks.
- In **Multi** mode or when the Style **accompaniment tracks** are shown, refer to the markings A...H. Each slider corresponds to one of the displayed tracks: slider A to track A, slider B to track B, ..., slider H to track H.

► **Note:** To conserve the obtained mix, save the Performance using **STORE PERFORMANCE**. The changes will be lost if you select another Performance (or the same one again).



TRANSPOSING TRACKS (BY SEMITONES)

The tracks can be independently transposed by semitones in the «Tracks/Splits» edit environment.

1. Press the T.SPLIT button in the EDIT section.

The main page of the «Edit Tracks/Split» environment appears.

If the «Transpose» page does not appear, recall it with Soft button F1 («Transpose»).

2. Select the track that requires transposing using either the soft buttons or the cursor buttons.

In certain edit pages it is possible to select the tracks by selecting the relative parameters with the sliders.

3. Rotate the DIAL to set the required transposition.

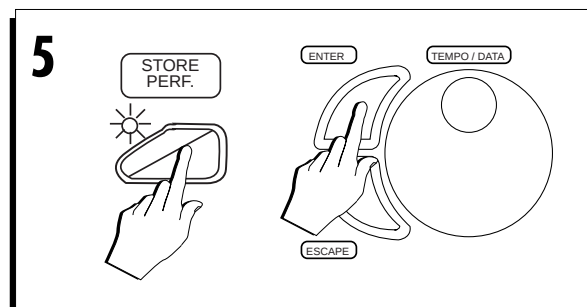
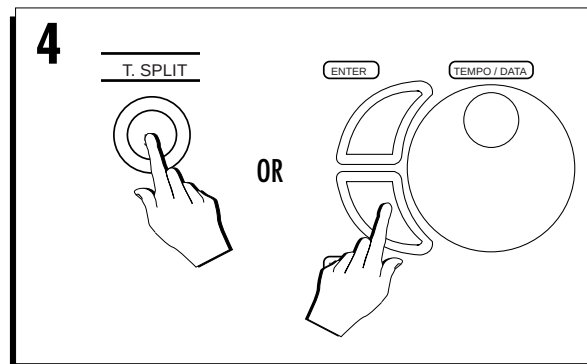
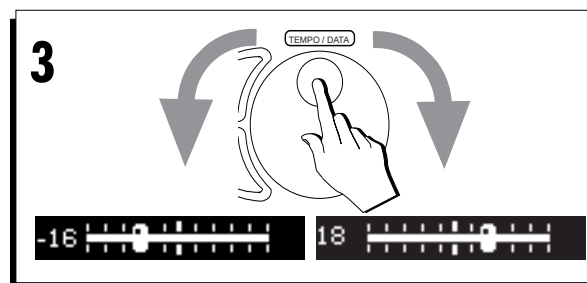
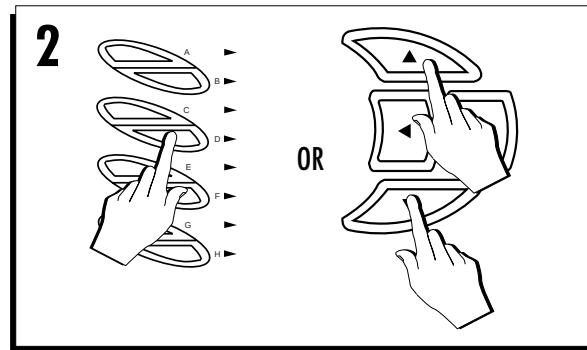
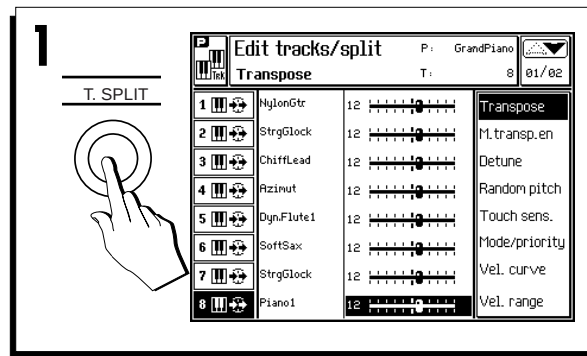
In the edit pages, the DIAL modifies the selected parameter. Rotate the DIAL to raise or lower the transposition in steps of one semitone. Negative values correspond to a lowering of the transposition.

4. Exit the «Tracks/Splits» editor by pressing ESCAPE or T. SPLIT.

ESCAPE returns to the main «Edit Performance» page; PERFORMANCE escapes from the edit and returns to the previous status.

5. Press STORE PERFORMANCE and confirm with ENTER to save the changes to the current Performance.

If you fail to save the modified Performance, the new setting will be lost by selecting another Performance (or selecting the same one again).



GENERAL TRANSPOSITION

Transpose all the tracks in semitone steps by using TRANSPOSE.

The General transposition effects the instrument as a whole and allows you to tune **WK4** to other instruments or to the voice of a singer.

1. Press the TRANSPOSE *b* button one or more times to lower the pitch by one or more semitones.

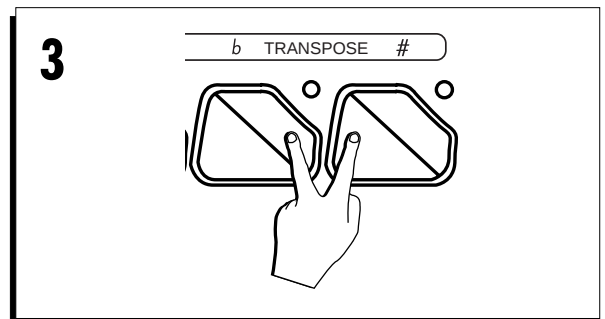
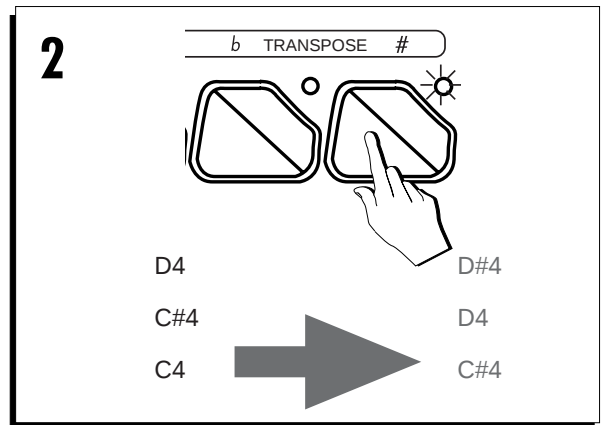
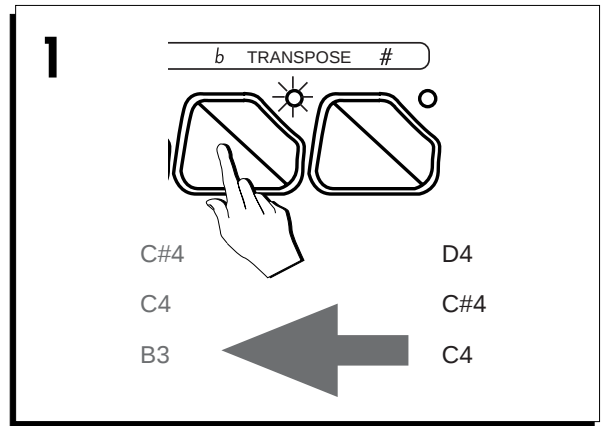
The *b* LED turns on (cancelling an eventual positive transposition if present).

2. Press the TRANSPOSE # button one or more times to raise the pitch by one or more semitones.

The previous transposition is cancelled. The *b* LED goes off and the # LED turns on.

3. Cancel the current Transpose setting by pressing both *b* and # buttons at the same time.

The LED goes off and the instrument is restored to normal pitch.



How to Store Performances

Use the **STORE PERFORMANCE** button to save a Performance, to create a new one or to change the name.

Save a Performance if you want to conserve the changes that have been applied. The temporary changes made to a Performance are lost if you select a different one or the same one again, select a Style, or if you press START/STOP or PLAY.

You can save the changes to the current Performance, or to a different one. The changes can be memorized to a Programmable Performance or a Style-Performance, regardless of the source Performance.

The following data are also saved:

Data saved to a Performance

EDIT parameters

Tempo

The number of the selected Style and Variation (Performance only)

Modified Performances not yet saved to memory are identified by a small dash before the name:

'GrandPiano

Styles with modified Style-Performances are identified by an asterisk (*):

Mazurka*

Performances containing Sounds modified in «Edit Perf Sound» are identified by the symbol  next to the name of the modified Sound:

Piano G:Piano

Performances containing a modified Drumkit or SoundPatch are identified by the keyboard symbol:

ORCHESTRA |||

► **Note:** The examples above show how to save a Performance. The procedures to save a Style-Performance or Song-Performance are identical.

► **Note:** The changes made do not alter the original **WK4** data in any way because they are changes made to RAM copies. The original data can be restored using the Restore function (Restore all, Restore Performance, Restore Style-Performance) in «Edit General».

► **WARNING** - *STORE PERFORMANCE* saves the Performance to RAM, not to disk. The data in RAM is lost when (a) the backing battery runs flat, (b) when the instrument is initialized (*Restore All* command).

Saving a Performance to a location cancels the Performance currently occupying the selected destination.

Save the Performances that you do not want to loose to disk. Use the Save Single Block, Save Single Performance or Save all Performance procedures in «Edit Disk».

SAVING CHANGES TO THE CURRENT PERFORMANCE

Save a Performance to itself if you want to conserve a recent change (e.g. a transposition or a track volume change).

- 1. Press **STORE PERFORMANCE** to recall the «Store Performance» dialog window.

To save changes to the current Performance, the displayed parameters can remain as shown.

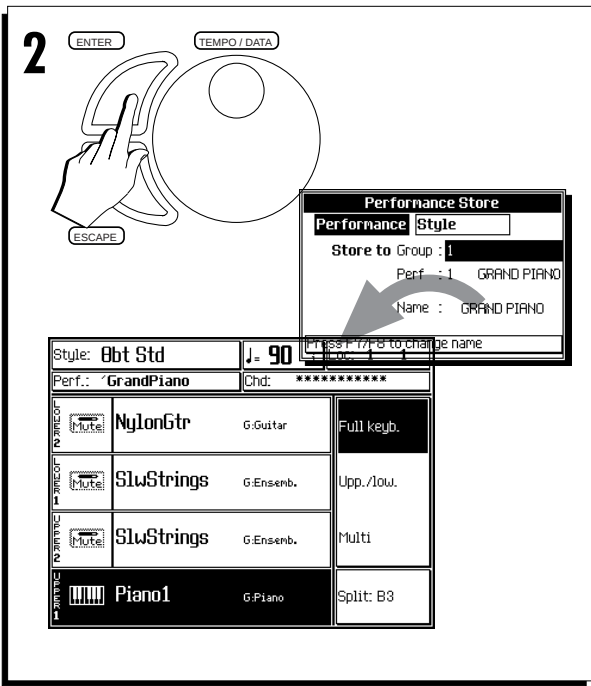
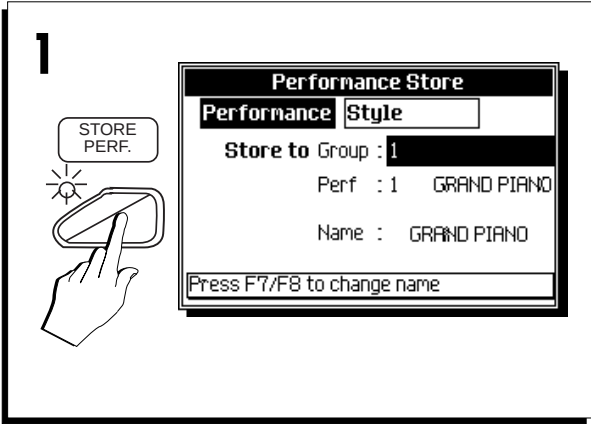
- 2. Press **ENTER** to confirm the operation, or **ESCAPE** to cancel.

With **ENTER**, the Performance retains the new settings. Each time this Performance is recalled, **WK4** will be configured with precisely the same settings as those memorized.

Saving to the power-up Performance

WK4 powers up in Style/RealTime mode with the GrandPiano Performance selected and ready to play. The factory-programmed status of the Grand Piano Performance can be modified in order that **WK4** powers-up according to a preferred setting. The factory-set situation recalled by the GrandPiano Performance is the following:
Piano1 sound assigned to the Upper 1 keyboard section and set to play across the entire keyboard range, the **ARRANGE ON/OFF** and **LOWER MEMORY** buttons activated (LED on), **VARIATION 2** of **Style 8 Beat Standard** selected from the 8 BEAT Style Group, the keyboard mode set to Full, the Upper 2 section mute and both Lower 1 and Lower 2 keyboard sections mute and disabled for selection.

Whatever modifications you make and save to the GrandPiano Performance are retained after power down, but, however, you can restore the original status of the Performance Groups using the **Restore Perfs** function in «Edit General».



SAVING CHANGES TO A DIFFERENT PERFORMANCE (OR CREATING A NEW PERFORMANCE)

- 1. Press STORE PERFORMANCE to open the «Store Performance» dialog window.

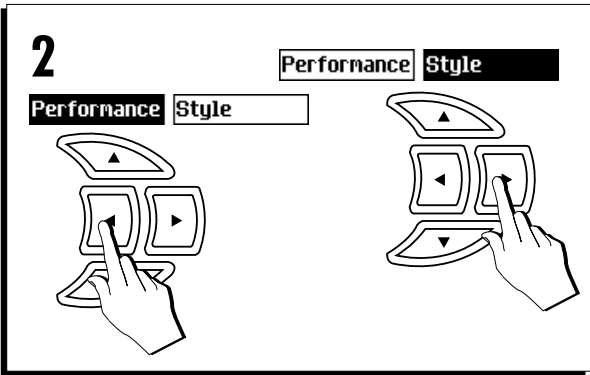
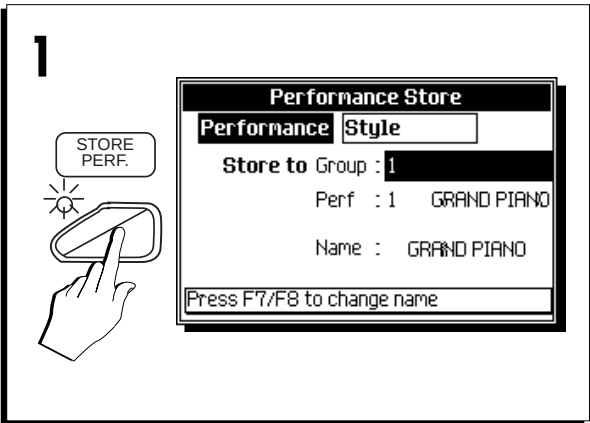
The dialog window shows the Group and the location within the group where the Performance will be saved. The Group corresponds to one of the PERFORMANCE GROUP or STYLE GROUP buttons.

- 2. Use the cursor buttons to select the type of Performance to save the changes to.

You can save the Performance as a Performance or a Style-Performance. The two types of Performance are perfectly compatible.

- To save the data as a Performance, select the Performance option with cursor button ◀.
- To save the Performance as a Style-Performance, select the Style option with cursor button ▶.

► **Note:** The type of Performance proposed by WK4 when the dialog window is recalled depends on the status of the SINGLE TOUCH PLAY button - if active a Style-Performance is suggested, if not active the type suggested is a Performance.



3. Select the destination Group and destination Performance.

The “Store to Group” display area corresponds to one of the PERFORMANCE GROUP or STYLE GROUP buttons. Rotate the DIAL to select the Group required.

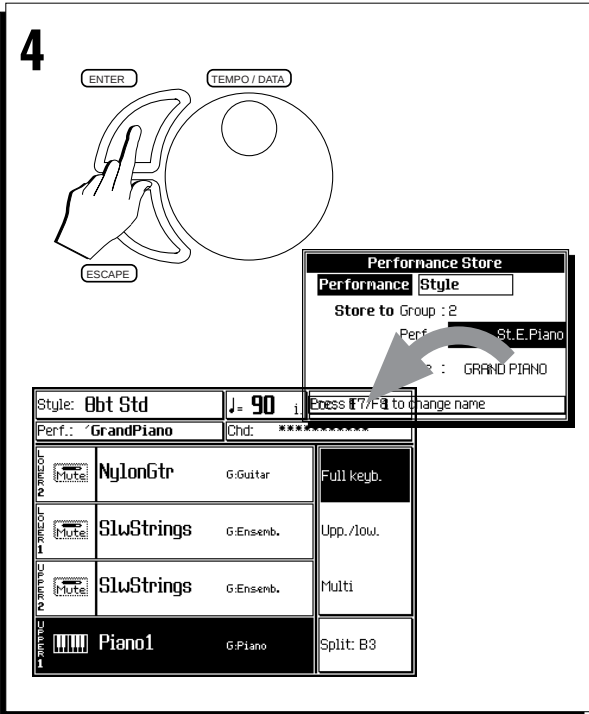
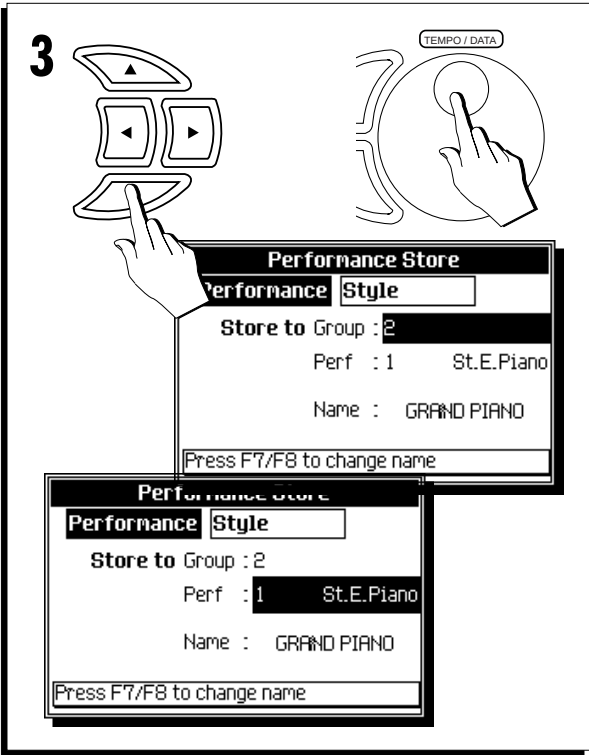
Use the down arrow to select the Perf area and rotate the Dial to select the destination Performance. If you are saving as a Style Performance, the Perf area switches to “Style” if you select the Style option in point 2 above.

Empty locations are identified by a location number while those already occupied show the name of a Performance or Style.

Styles with a modified Style-Performance are shown with an asterisk (*) after the name.

4. Press ENTER to confirm the save procedure, or ESCAPE to cancel.

After saving, the original Performance will remain selected (the modified version).



CHANGING THE NAME OF A PERFORMANCE

► **Note:** This procedure changes the name of the PERFORMANCE GROUPS only. To change the name of a Style-Performance, change the name of the Style it belongs to in «Edit Style».

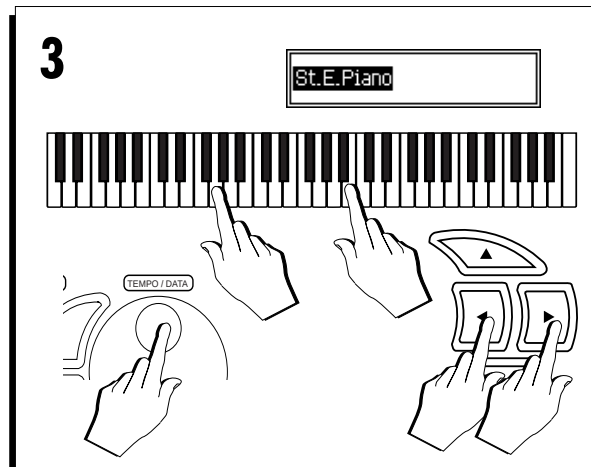
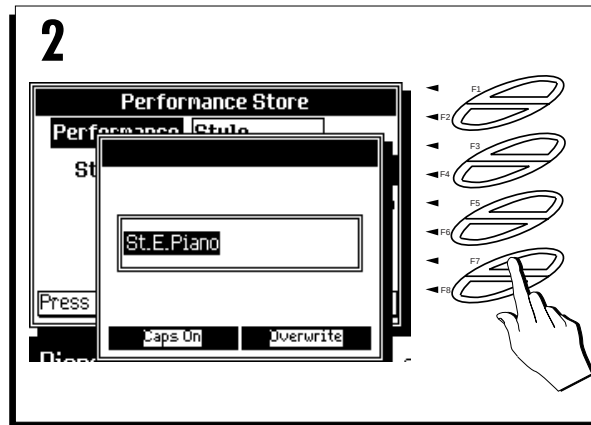
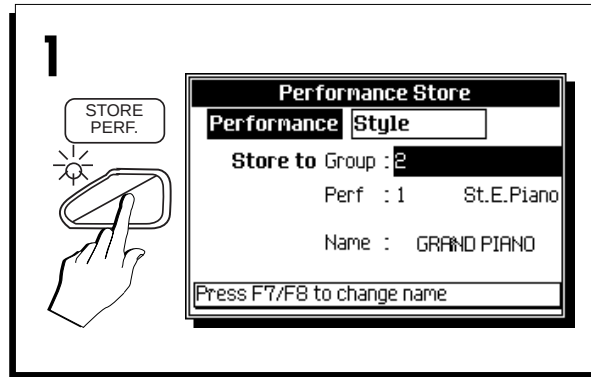
1. Press **STORE PERFORMANCE** to open the «Store Performance» dialog window.

2. Press **F7** or **F8** to open the «Performance name» dialog window.

The entire name of the current Performance is shown selected. Specifying one character will cancel the entire name.

3. Change the name of the Performance.

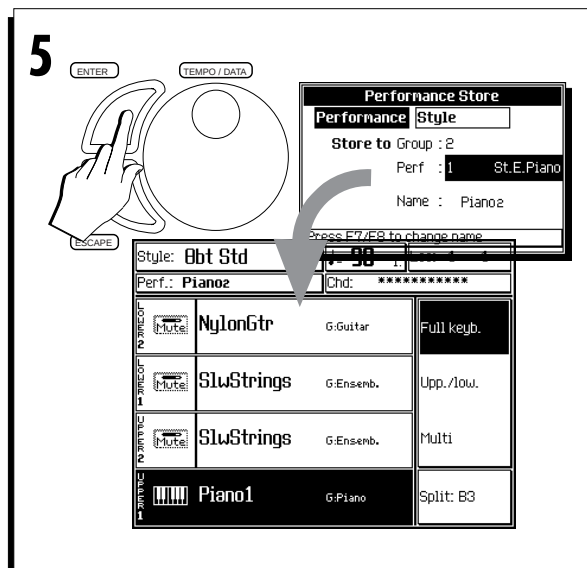
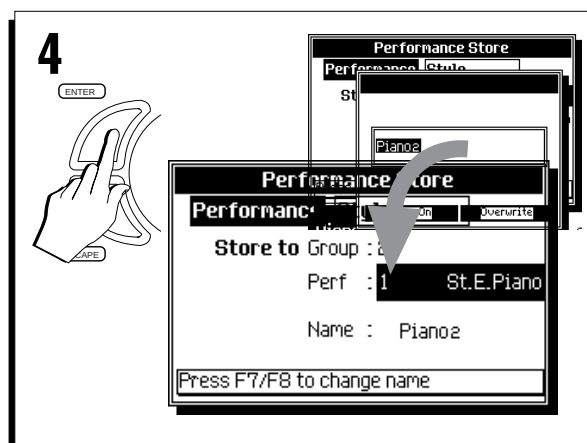
Modify the name using the data entry devices. Using the keyboard as a source of alphanumeric data is explained in the chapter entitled «Data entry».



4. Press ENTER to confirm, or ESCAPE to cancel.

After pressing either ENTER or ESCAPE the display returns to the «Store Performance» dialog window.

5. Press ENTER to save the Performance.



RESTORING THE ORIGINAL PERFORMANCE SETTINGS

It is possible to cancel all modifications made to the Performances and restore the factory settings.

1. Press **GENERAL** in the **EDIT** section to gain access to the «Edit General» environment.
2. Press **F6** («Restore Perfs») or **F8** («Rest. St.Perfs») to cancel the changes made to the Performances or Style-Performances in RAM.

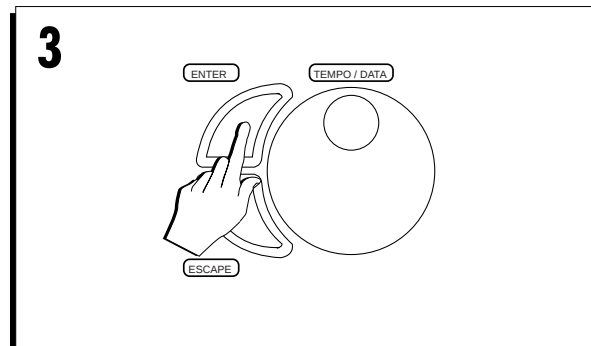
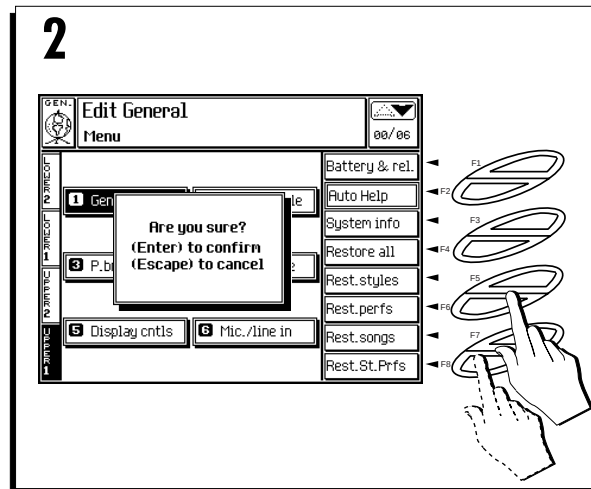
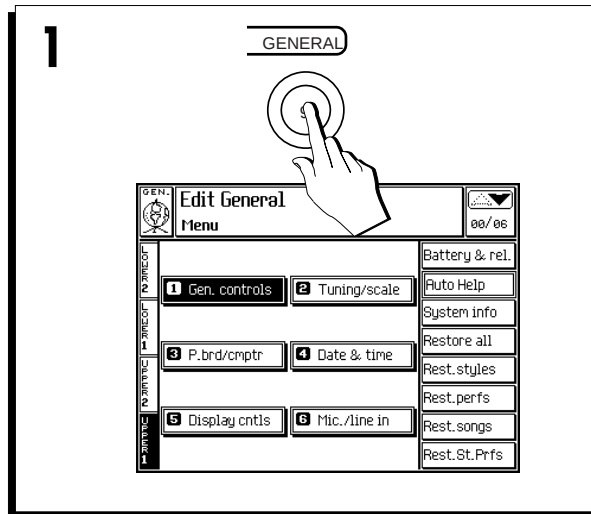
You are prompted with a request to reconfirm your choice.

3. Press **ENTER** to confirm, or **ESCAPE** to cancel.

With **ENTER**, the changes are cancelled and the original Performance settings (volume, sounds, transposition, tempo) are restored.

With **ESCAPE**, the new settings are retained.

► **Hint:** To cancel the entire contents of RAM in a single operation, use the «Restore All» command.



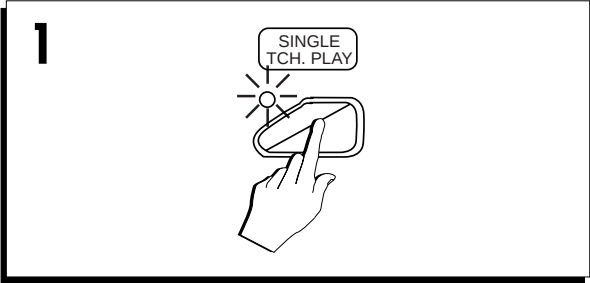
• 5 Styles

Selecting Styles

OPTION A: THE STYLE ALSO CHANGES THE KEYBOARD SOUNDS

1. Press SINGLE TOUCH PLAY.

When SINGLE TOUCH PLAY is on, the sounds memorized in the Style Performance are assigned to all the tracks. Selecting a Style changes the sounds of the accompaniment tracks as well as those assigned to the keyboard sections.



2. Press one of the STYLE GROUPS buttons.

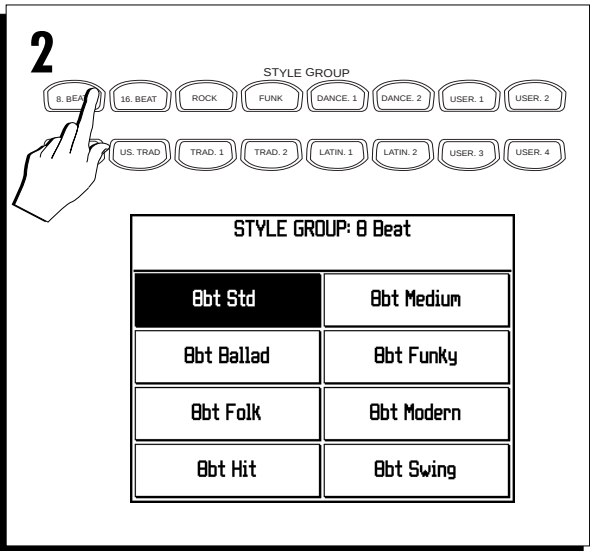
The «Select Style» selection window appears. The button pressed corresponds to a group of 8 Performance Styles which are displayed in the selection window.

► **Note:** The PROG1, PROG2, PROG3 and PROG4 buttons recall programmable Styles, which can be empty. If you select an empty location, WK4 prompts you to create a new Style:



Press ESCAPE or F5 to cancel and return to the previous display.

Do not press any of the PROG buttons for the moment.



3. Select a Style from the «Select Style» window with the corresponding Soft button.

Selecting a Style instantly changes the automatic accompaniment, the accompaniment and keyboard sounds and the effects. If TEMPO LOCK is off, the tempo also changes. If MIXER LOCK is off, the track volumes also change.

If the arrangements are playing, the new Style enters at the next measure (bar).

3

A

B

C

D

E

F

G

H

Obt Std

Obt Medium

Obt Ballad

Obt Funky

Obt Folk

Obt Modern

Obt Hit

Obt Swing

STYLE GROUP: 8 Beat

OPTION B: THE STYLE DOES NOT CHANGE THE KEYBOARD SOUNDS

1. Turn off SINGLE TOUCH PLAY.

When SINGLE TOUCH PLAY is off, selecting a Style changes the accompaniment patterns, sounds and effects of the accompaniment tracks. If TEMPO LOCK is off, the tempo also changes.

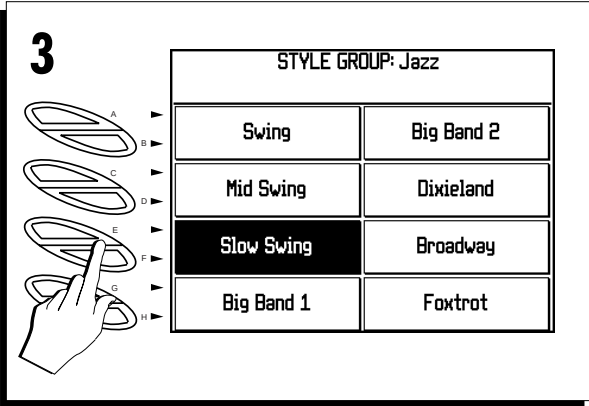
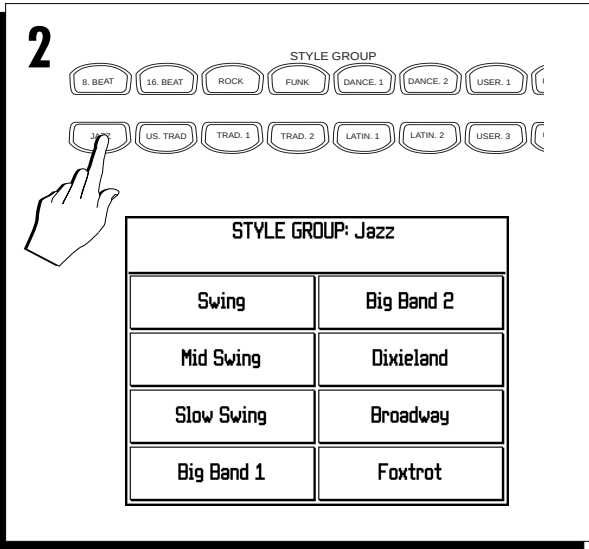
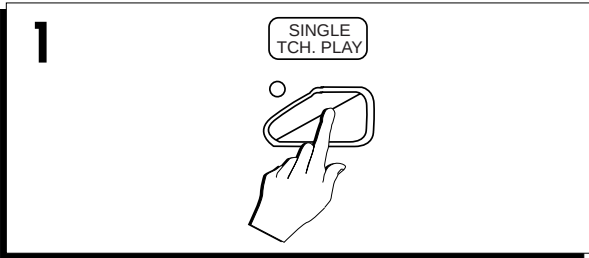
The sounds and effects of the live keyboard tracks remain unchanged.

2. Press one of the buttons of the STYLE GROUPS section.

3. Select a Style from the «Style Select» window with the corresponding Function button.

Selecting a Style instantly changes the automatic accompaniment pattern together with the sounds and effects of the automatic accompaniment tracks. The sounds and effects of the live keyboard tracks remain unchanged.

If TEMPO LOCK and MIXER LOCK are off, the tempo and track volumes also change.



SELECT A STYLE WITH THE PERFORMANCES

The Performances memorize the status of the instrument when the STORE PERFORMANCE button is pressed, therefore, they also ‘remember’ which Style and Variation were active at the time.

► **Note:** The Performances of the Performance Groups are factory-set to recall the “8bt Std” Style, therefore, you may not observe a change of Style.

1. Deactivate STYLE LOCK.

To change Style and Variation by selecting a Performance, STYLE LOCK must be off.

2. Press a bank button in the PERFORMANCE GROUPS section.

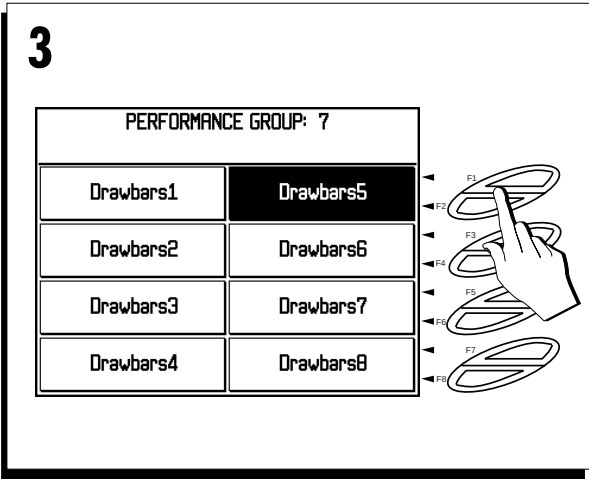
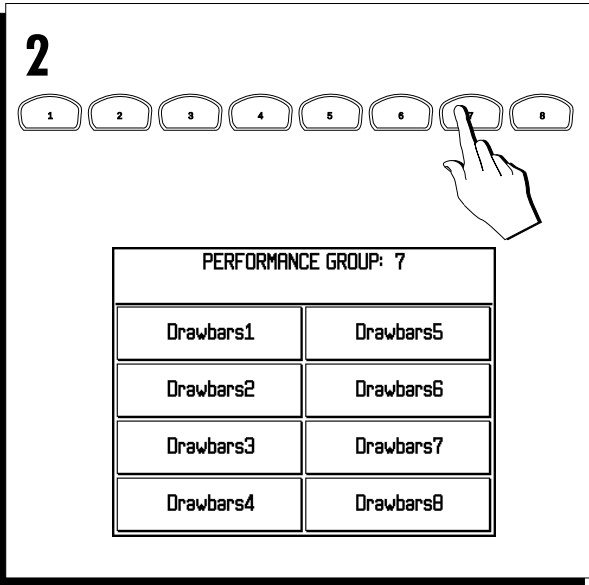
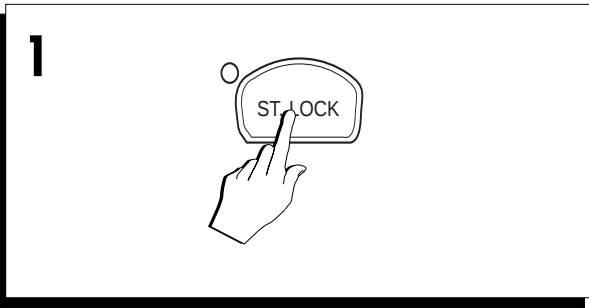
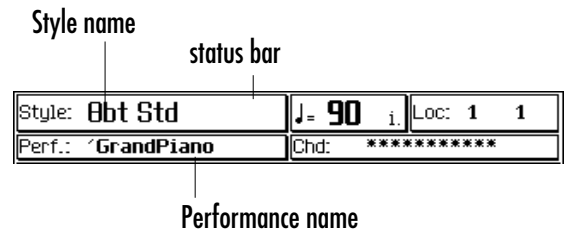
3. Select a Performance.

If on, SINGLE TOUCH PLAY deactivates automatically.

The sounds and effects of all the tracks change (reverts to those contained in the Programmable Performances).

The Style and Variation that were active at the time of saving the Performance are recalled. If TEMPO LOCK is off, the tempo also changes.

The status bar shows the name of the Style and of the selected Performance.



The accompaniment tracks

In the Style/RealTime mode, 8 tracks are assigned to the keyboard and 8 to the automatic accompaniment. The accompaniment tracks and the keyboard tracks can be changed in the same manner and saved in the Performance (Style-Performance or Performance).

Press the right TRACK/SCROLL button to bring the 8 automatic accompaniment tracks into view.

Each track corresponds to a precise part of the accompaniment and is identified by an abbreviation.

Track	Abbr.	Part	MIDI channel
9	DR	Drum	10
10	BS	Bass	9
11	AC1	Acc1	11
12	AC2	Acc2	12
13	AC3	Acc3	13
14	AC4	Acc4	14
15	AC5	Acc5	15
16	AC6	Acc6	16

Default configuration of tracks and MIDI channels

Style: Slow Rock	J= 69 i.	Loc: 1 1
Perf.: Drawbars5	Chd: *****	
DK_STAND.2W	113-3-1	Full keyb.
FingeredBs	34-1-1	
SlwStrings	50-1-1	Upp./low.
Piano	1-1-1	
Choir	53-1-1	Multi
Trombone	58-1-1	
CleanGtr	28-1-1	Split:B3
JazzGtr1	27-1-1	

The Style controls

Certain buttons on the control panel are dedicated to the control of the Styles and the selection of the variation, fill, intro and ending.

START/STOP

Starts or stops the accompaniment playback. The two LEDs under the button act as a visual metronome: the left LED flashes on the first beat of the measure (bar) and the right LED's flashes every successive beat.

Before pressing START/STOP to start the accompaniment, you can pre-select one of either INTRO, ENDING or FILL.

KEY START

Synchronizes the start of the automatic accompaniment with a note pressed on the keyboard without having to use START/STOP.

KEY START can be turned off by:

- pressing START/STOP to start the accompaniment.
- pressing ENDING while the accompaniment is playing.
- pressing KEY START once more to deactivate the function.

Key Start is not turned off by:

- pressing START/STOP while the accompaniment is running.
- pressing INTRO, ENDING or FILL before starting the accompaniment.

KEY START can be used in various situations. The most common use is as follows:

1. Make sure that ARRANGE MEMORY or LOWER MEMORY are on.

.....
► **Note:** If ARRANGE MEMORY or LOWER MEMORY are off, the accompaniment plays while your notes are pressed on the keyboard and stops instantly when the notes are released. If, instead, one of these two functions are active, the accompaniment of the drum track will continue playing after releasing the keys.
.....

2. When the accompaniment is not playing, press KEY START (if not already activated).
3. You can press one of INTRO, FILL or ENDING to Performance the relative function. The LED of the function activated remains on.
4. Play a chord with your left hand. The accompaniment starts immediately (eventually preceded by the introductory pattern if selected. The LED of the intro function selected remains on until the cycle of the relative intro function is complete).

.....
► **Note:** If the recognition mode in «Arrange Mode» is Auto Chord Mode, when the keyboard is split the chord will only be recognized below the Split point, while in the Full Keyboard mode, the chord can be played at any point along the keyboard.
.....

5. Stop the accompaniment with START/STOP. KEY START is still on.
6. Play a chord with your left hand. The accompaniment starts playing again.
7. Press ENDING or START/STOP to stop the accompaniment. ENDING turns KEY START off.
8. If you have stopped the accompaniment using START/STOP, press KEY START to turn it off.

INTRO

Selects an introductory pattern lasting one or more measures. After pre-selecting the INTRO, to start the Style you will need to press START/STOP (or play left hand notes if Key Start is selected).

Pressed while the Style is playing, the INTRO pattern can play as a fill.

ENDING

Stops the Style playback with an ending (a 'coda'). With the accompaniment stopped, you can pre-select the Ending to play as an introduction.

You can use the ending as a fill when passing from one Style to another. While the Style is playing, press ENDING and immediately select another Style. The ENDING cycle plays then passes directly over to the new Style.

THE DIAL (TEMPO/DATA)

In the main window of the Style/RealTime mode the DIAL is permanently active as a tempo control. Turn it clockwise to increase tempo or counter-clockwise to slow it down.

.....
► **Note:** If TEMPO LOCK is off when a Style is selected, the tempo also changes when selecting new styles.
.....

VAR 1, VAR 2, VAR 3, VAR 4

These buttons control the Style Variations. Each button recalls a different version of the same accompaniment.

Each variation includes different patterns for the Basic, Intro, Fill and Ending sections.

FILL<, FILL><,<, FILL>

FILL< plays the fill cycle then breaks into the previous variation. If variation 1 is selected, Variation 4 will be recalled.

FILL>< plays the fill cycle then continues with the current Variation. When the accompaniment is not playing, Fill can be Performance as an intro.

FILL> plays the fill cycle then breaks into the next Variation. If variation 4 is selected, Variation 1 will be recalled.

Normally the fill cycle plays once only. If you hold the FILL button pressed, it will repeat the Fill cycle continually until released.

TAP TEMPO

This button also acts as the TAP TEMPO function.

With the accompaniment off, beat time on the button. The tempo is established according to the timing of the last two taps, the relative Tempo value is displayed and the accompaniment starts automatically.

The tempo is established according to the current Time Signature, i.e. four times for 4/4, three times for 3/4, etc..

As an audio indication to the rest of the band, the time is tapped out with the sound of drumsticks.

FADE IN/OUT

FADE IN/OUT fades the accompaniment with a gradual increase or decrease of volume.

Press the button before starting the accompaniment. The Style track volumes are instantly set to zero. Use either START/STOP or KEY START to start the accompaniment. After the start, the accompaniment track volumes gradually increase and reach their programmed peak after a 2 measure (bar) cycle.

Press FADE IN/OUT while the accompaniment is running; all the track volumes gradually decrease and the accompaniment automatically stops at the end of the Fade Out cycle.

During the Fade cycle, the relative LED flashes.

.....

ARRANGE ON/OFF

When this button is on, all the accompaniment parts of a Style are enabled. If it is not on, you will only hear the Drum track when a Style is started.

ARRANGE MEMORY

When this button is on, the accompaniment continues to play after releasing the left hand from the keyboard. When off, releasing your left hand causes the accompaniment to stop.

LOWER MEMORY

If this is on, the notes of the track assigned to the left hand (Upper&Lower and Multi modes) are held even if the left hand is taken away from the keys..

The Lower Memory function is useful for holding on 'background' sounds without having to use a Damper pedal (which may be of more use with the upper sounds).

In the Upper&Lower and Multi modes, the function is used to keep the Drum part playing even when you have taken your hand off the keys.

ARRANGE MODE

Pressing this button gains access to the chord recognition modes for the accompaniments. Refer to the paragraph "The Chord recognition modes" on page 9 for more information.

TEMPO LOCK

If TEMPO LOCK is off, when a Style or a Performance is selected the tempo changes too. If the function is on, the tempo will not change.

MIXER LOCK

A Performance also memorizes the track volumes. If MIXER LOCK is off, when a Style or a

Performance is selected the track volumes change too. If it is on, all the volumes of the tracks assigned to the keyboard will change while the accompaniment track volumes will not.

BASS TO LOWEST

If BASS TO LOWEST is on, the bass part of the auto accompaniment of the current Style plays around the lowest note of the current chord. If you play a different inversion of the same chord, the lowest note also changes resulting in a different bass note being played.

If off, the bass will follow the original programmed pattern of the Style.

Bass To Lowest permits real time changes to the otherwise fixed bass pattern of a Style, by playing different chord inversions.

HARMONY ON/OFF

This button enables (LED on) or disables (LED off) the current Harmony Type selected in the HARMONY function of the «Edit Tracks/Split» environment.

Harmony can orchestrate your Style playing, making simple one-note melodies sound as if they are being played by a full orchestra. Harmony is associated to Styles only. Songs cannot exploit this function. For more information on the Harmony types available, see «Edit Track/Split» in the Reference Guide.

.

The chord recognition modes (Arrange Mode)

WK4 can recognize the chords used in the automatic accompaniment in various different ways. These are: One finger, Fingered 1, Fingered 2, Free 1 and Free 2.

.....
► **Note:** The symbols of the recognized chord appear on the main display screen. If the chord is not recognized, the chord symbol is shown as the lowest note played followed by several asterisks. For example: «C*****».

.....
► **Note:** In order for the chord to be recognized (and the relative symbol to be shown on the display) Arrange On/Off must be on.
.....

«AUTO CHORD MODE» AND «FIXED CHORD MODE»

The way in which the chords are recognized can be either fixed or can change when the keyboard mode is changed. Respectively, the options Fixed Chord Mode or Auto Chord Mode must be selected in «Arrange Mode».

- The “Fixed Chord Mode” option allows you to select a general chord recognition mode which does not take into consideration the keyboard mode (and consequently any Performance changes).
- The “Auto Chord Mode” option, active by default, changes according to the selected keyboard mode (Full Keyboard, Upper&Lower or Multi). Given that the keyboard mode is memorized in a Performance, the recognition mode can change along with the Performance.

The option selected remains memorized after power down.

The procedure which follows below explains how to select one of the two «Arrange Mode» options.

1. Press **ARRANGE MODE** to gain access to the «Arrange Mode» environment.

The page shows the parameters of either «Auto Chord Mode» or «Fixed Chord Mode», depending on the option currently selected.

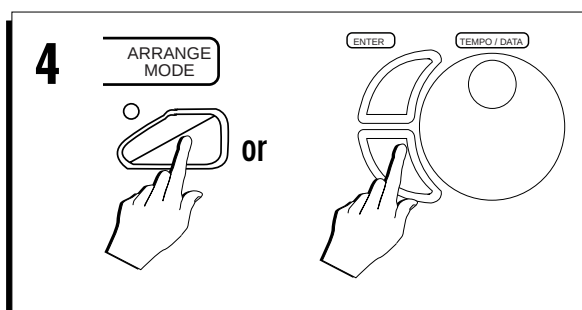
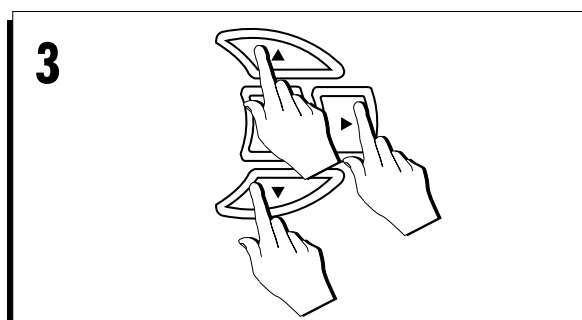
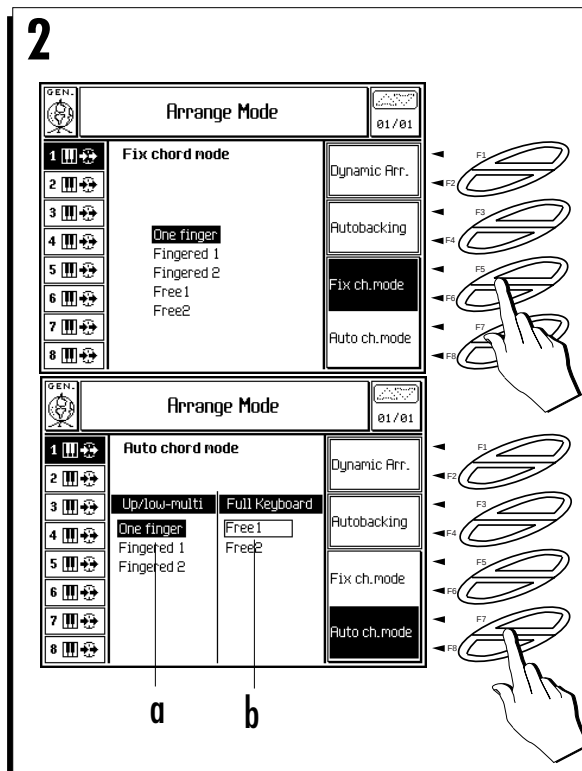
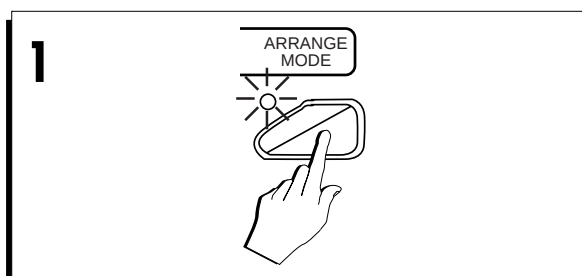
2. Use the **Soft** buttons to select one of the two options (**Auto Chord Mode**) or (**Fixed Chord Mode**).

- **Fixed Chord Mode** - the display shows a single list of recognition modes. Select the mode desired to establish, regardless of the keyboard mode.

- **Auto Chord Mode** - the display divides into two parts. The left part shows the options for Upper&Lower and Multi, while the right shows those for Full Keyboard. The black frame (a) represents the cursor which can be moved with the cursor buttons, while the white frame (b) shows that the element has been chosen but not yet selected by the cursor.

3. Select the preferred recognition modes with the **cursor** buttons.

4. Exit «Arrange Mode» by pressing either **ESCAPE** or **ARRANGE MODE**.



SELECTING THE CHORD RECOGNITION MODES

Independently of whether "Auto" or "Fixed" mode is selected, there are five possible chord recognition modes available.

- One Finger, Fingered 1 and Fingered 2 require the chord to be played below the Split Point.
- Free 1 and Free 2 allow the chord to be played anywhere on the keyboard, ignoring the Split Point.

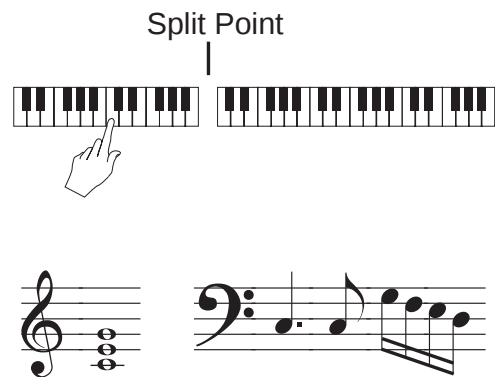
One finger - A single note played below the Split Point is interpreted as the root of a major chord.

To obtain a minor chord, play the root and the minor third (e.g. C and Eb). To obtain a seventh chord, play the root and the seventh (e.g. C with a Bb either above or below).

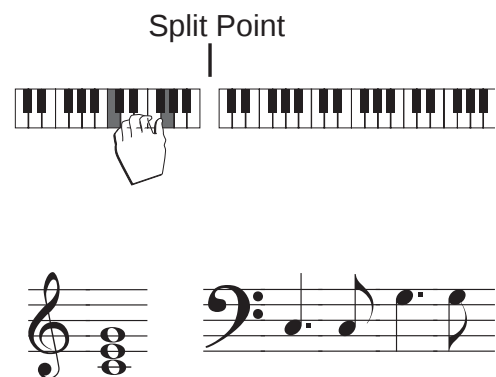
Fingered 1 - Needs at least three notes for the chord to be recognized. If less than three notes are played, the chord is not recognized and the notes played in the left hand are considered 'stray' notes.

Fingered 2 - At least three notes must be played to obtain the programmed pattern. If less than three notes are played, the arranger recognizes the chord but only triggers a light accompaniment.

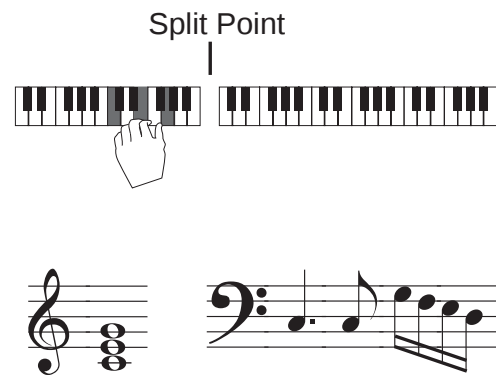
One Finger



Fingered 1



Fingered 2



Free 1 - The chord is recognized anywhere along the keyboard, even if played in the right hand or using both hands. The chord must comprise a minimum of three notes.

In order not to be considered as part of the chord, melody notes must be played at least a fifth interval (seven semitones) higher than the highest note of the chord.

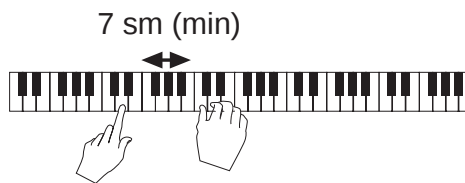
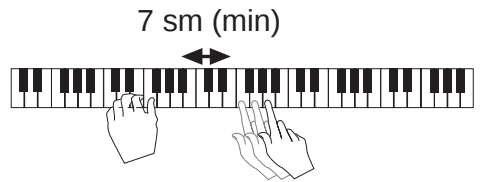
If the bass note of the chord is separated from the rest by more than a fifth interval (seven semitones), the chord recognized will be divided into two parts: the bass note itself, and the rest of the notes which make up the chord. The bass note is considered a 'Pedal note'. For example (see the illustration), if a chord of C major is played with a D in the bass, the chord symbol will be «C Maj/D».

While the instrumental parts in the accompaniment play in the recognized key (C major in our example), the Bass part will play around the lowest note (D in our example).

Free 1 recognizes up to 4 notes.

Free 2 - As above. Up to 6 notes are recognized.

Free 1/Free 2



C Maj/D

Dynamic Arrange

This function allows the accompaniment volume to be controlled according to the velocity applied to the chord.

When Dynamic Arrange is active, if you press the chord notes softly, the volume of the accompaniment tracks is lowered, if you press them harder, the volume increases.

The function can be found in the «Arrange Mode» page. Press ARRANGE MODE to access Dynamic Arrange.

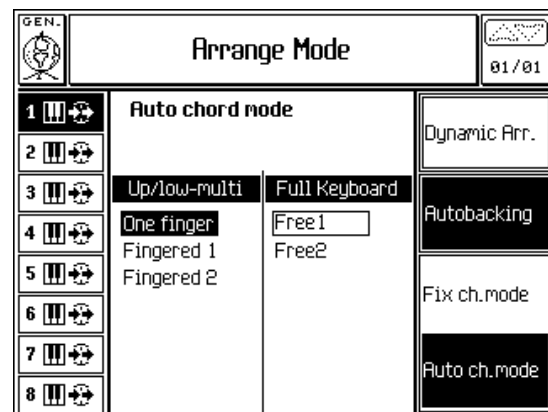
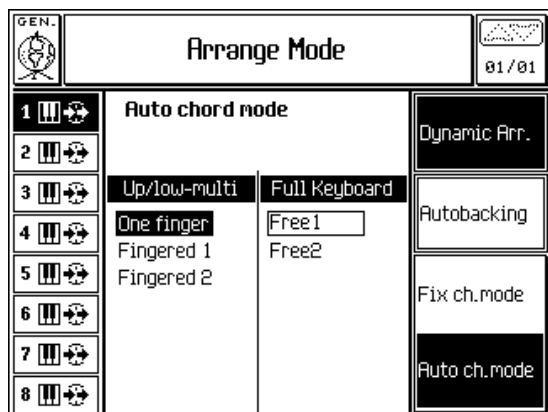
Autobacking

The Autobacking function permits the accompaniment to change pattern the instant you change chord.

When Autobacking is off, when you change chord, the accompaniment pattern does not update instantly but waits for the next note of the accompaniment before revising the pattern.

If Autobacking is on, changing chord updates the accompaniment pattern instantly without “breaks” in the pattern.

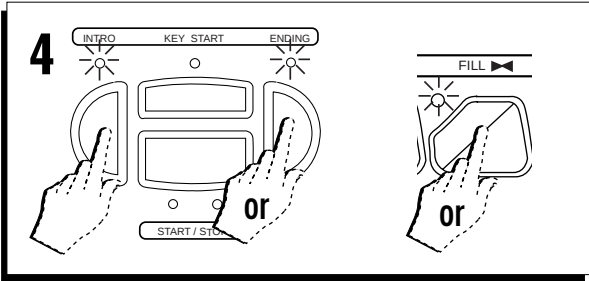
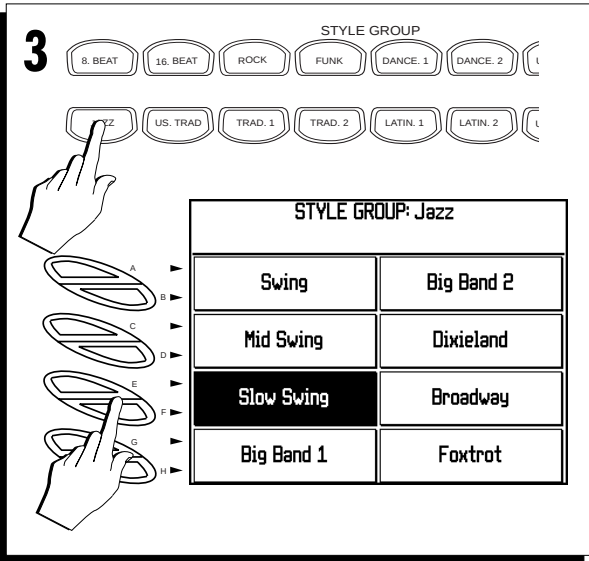
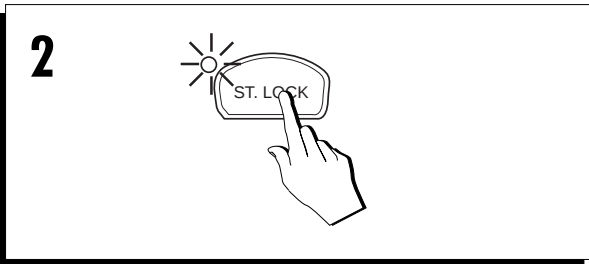
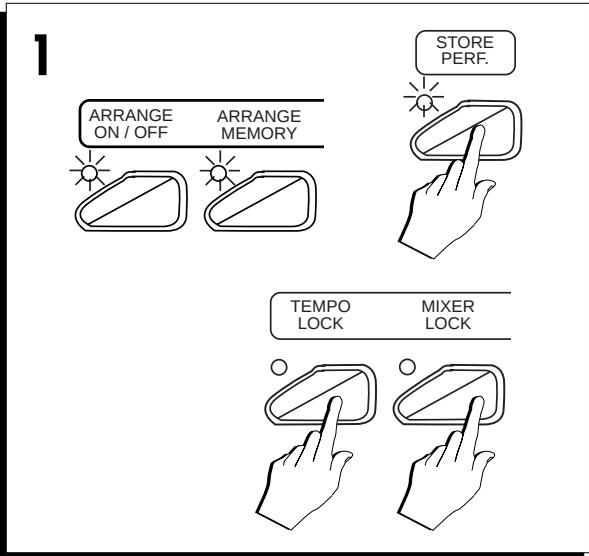
The function can be found in the «Arrange Mode» page. Press ARRANGE MODE to gain access to Autobacking.



SELECTING PERFORMANCES DURING STYLE PLAY

You can select Performances while the accompaniment is playing to change the combination of the keyboard sounds.

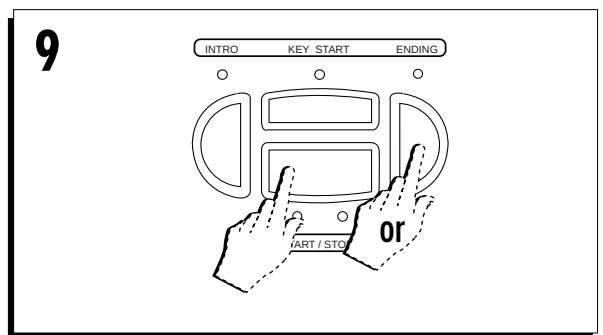
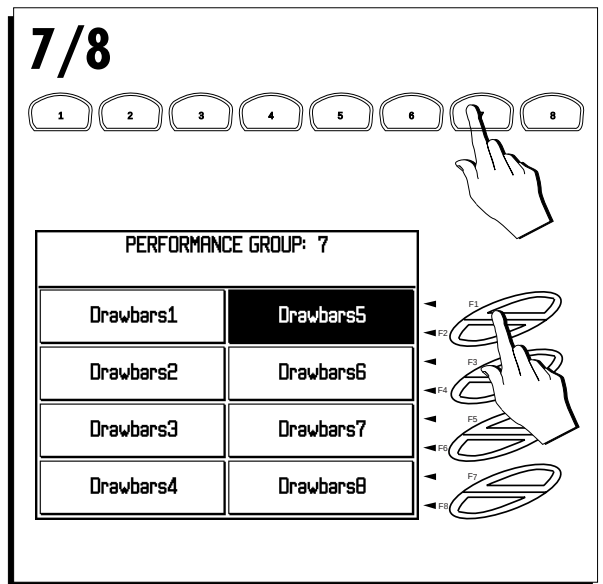
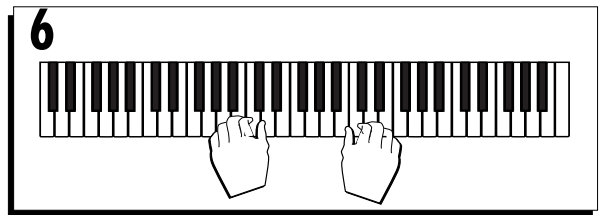
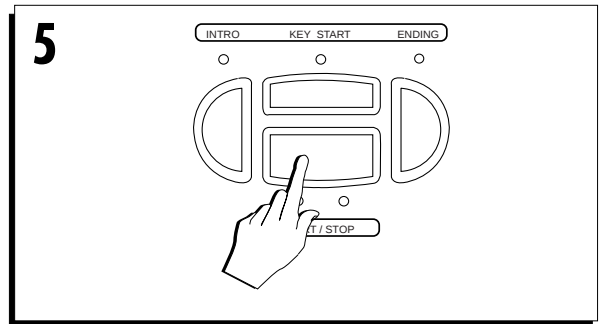
- 1. Activate SINGLE TOUCH PLAY. ARRANGE ON/OFF and LOWER MEMORY activate automatically if off. Turn off TEMPO LOCK and MIXER LOCK (if on).
- 2. Activate STYLE LOCK.
- If STYLE LOCK is on, the Style and tempo rest unchanged when you select a Performance.
- If STYLE LOCK is off, when you select a Performance, the Style, Variation and tempo memorized in the Performance are recalled.
- 3. Select a Style.
- 4. Press INTRO, ENDING or FILL>< to activate the introduction.



5. Press **START/STOP** to start the accompaniment running.
6. Play freely.
7. Select a Performance from the **PERFORMANCE GROUPS** section.

The **SINGLE TOUCH PLAY** button deactivates and the combination of keyboard sounds, the keyboard mode and the assigned effects memorized in the Performance are recalled. The sounds and arrangements of the Style accompaniment tracks rests unchanged.

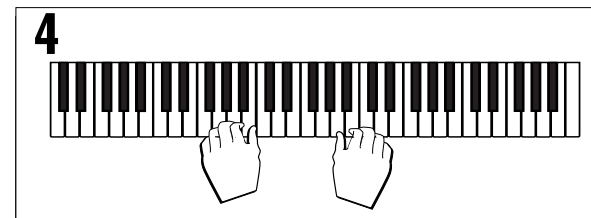
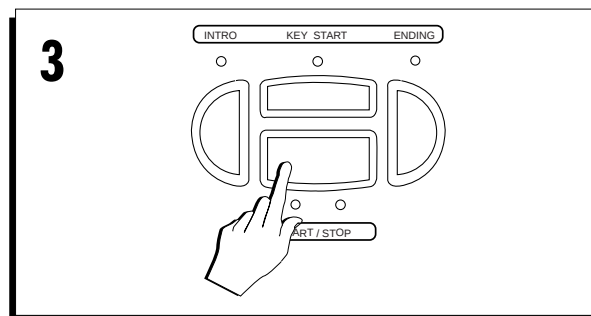
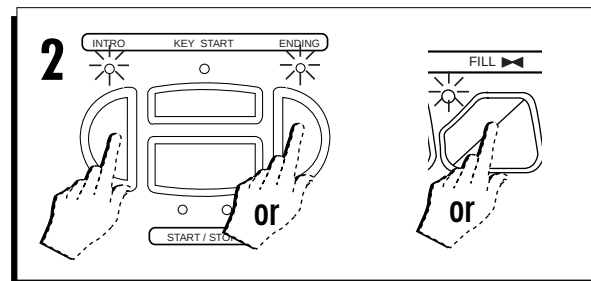
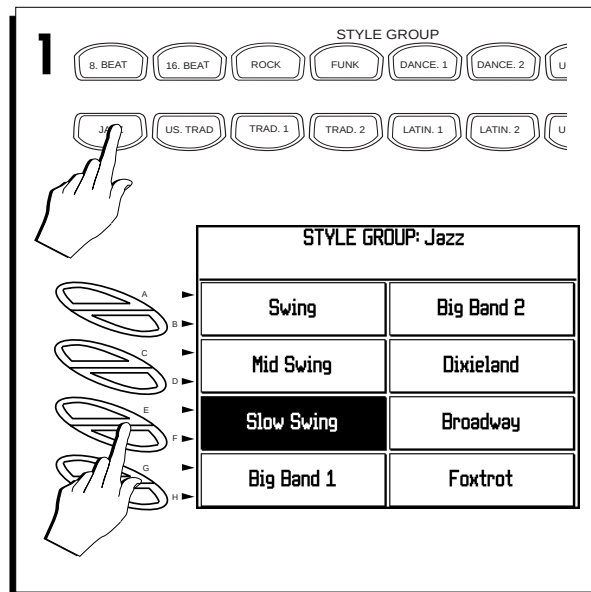
8. Select other Performances.
9. Stop the accompaniment with **ENDING** or **START/STOP**.



CHANGING STYLE WITHOUT STOPPING THE ACCOMPANIMENT

If you change Style while playing, the two Styles unite without loss of continuity. You can pass from one Style to another directly, or via a fill, an intro or an ending. The following explanation is a typical example.

1. Select a Style.
2. Press INTRO, ENDING or FILL to activate the intro.
3. Press START/STOP to start the accompaniment.
4. Play normally with the selected Style.



5. Press a button of the **STYLE GROUPS** section and select a different Style.

The new Style starts to play at the end of the current measure.

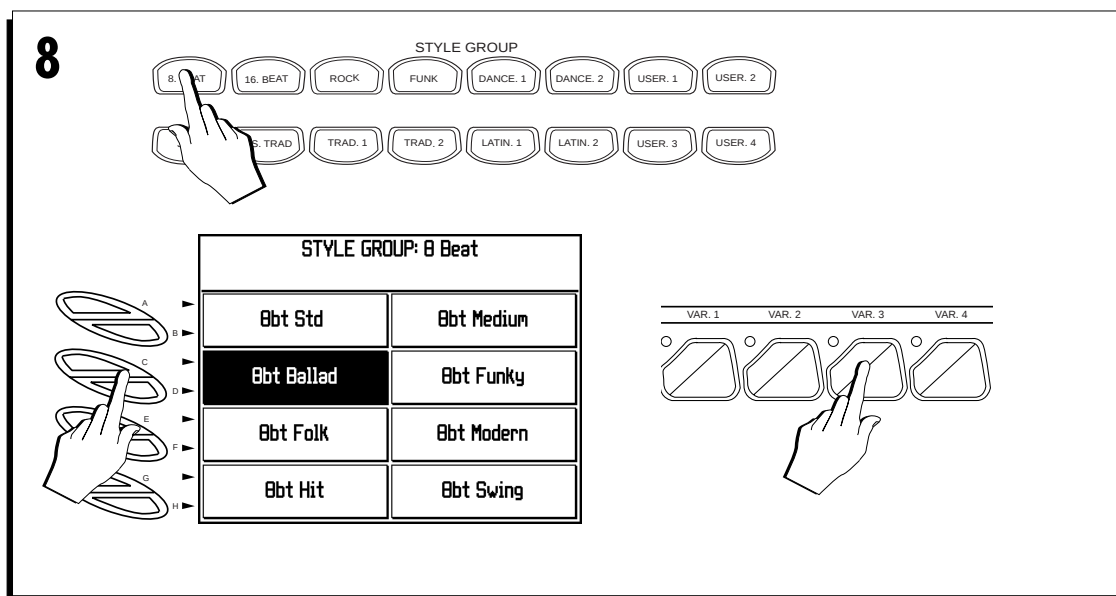
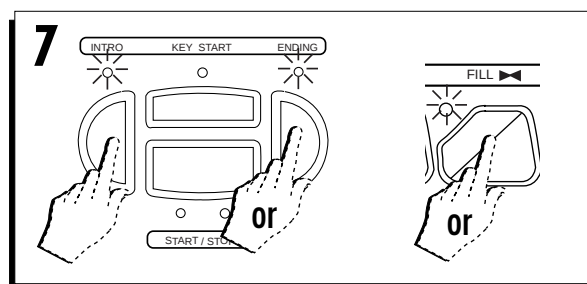
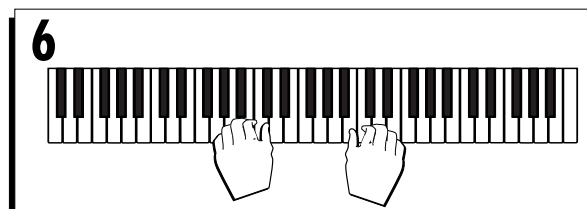
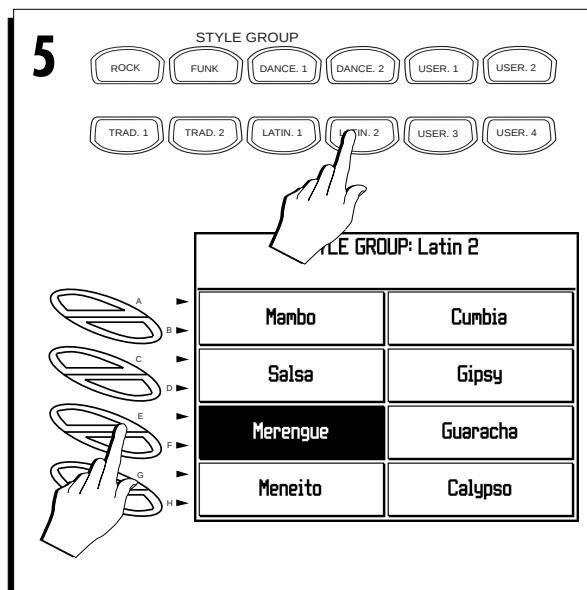
6. Play freely with the new Style.

7. Press **FILL**, **INTRO** or **ENDING**.

8. Before the Fill, Intro or Ending cycle finishes, select another Style and one of its Variations.

The new Style starts playing as soon as the Fill, Intro or Ending cycle terminates.

.....
► Hint: The fill breaks into the arrangement immediately and the relative cycle usually plays for one measure (bar) only, unless the **FILL** button is held pressed for a period. The Intro and Ending patterns start their relative cycles and the end of current measure and can last for more that one measure. Therefore, when changing Styles, the Intro and Ending give you more time to select a different Style.



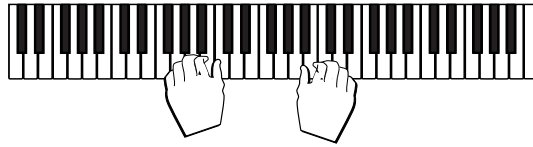
9. Play freely.

10. Select another Style and immediately press **INTRO** or **FILL**><.

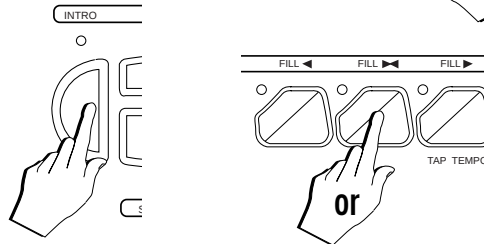
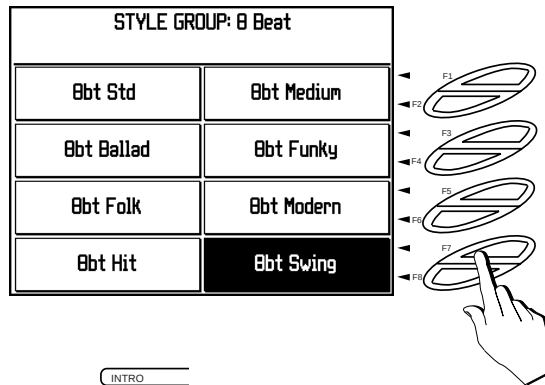
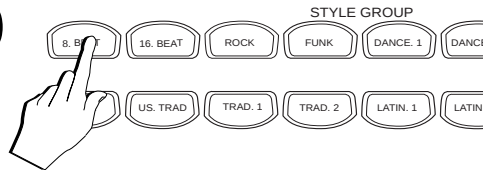
The Intro or Fill of the new Style are played before passing to the selected Variation.

11. Press **START/STOP** or **ENDING** to stop the accompaniment.

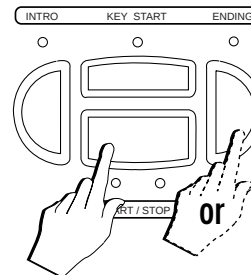
9



10



11



Tempo

The Style Tempo, shown on the main page, can be adjusted while playing by rotating the DIAL.

The current tempo setting can be saved to a Performance or Style-Performance.

By saving the Tempo to a Style-Performance, in practice you modify the tempo setting of a ROM Style.

Thanks to the battery-backed RAM, the tempo setting remains memorized after turning off the instrument.

CHANGING THE TEMPO OF A STYLE

Use the DIAL to change the tempo setting, either before or after starting the Style.

To recall the original tempo, select the same Style again.

.....
► **Note:** *If a different tempo has been memorized in the Performance, when a Style is selected the tempo will be that of the Performance and not the original.*
.....

SAVING THE TEMPO TO A PERFORMANCE

A tempo setting that differs to the default tempo data of the ROM Style can be saved to the Style-Performance or Performance.

1. Select a Style.
2. Modify the tempo with the DIAL.
3. Press START/STOP to listen to the Style. If the tempo needs further adjustment, rotate the DIAL until you obtain the desired tempo.
4. Press STORE PERFORMANCE to save the Performance. The «Store Performance» dialog window appears. If you want the new tempo setting to be associated to the Style, select the «Style» option. If the setting is to be associated to a Performance, select the «Performance» option.
5. Press ENTER to confirm or ESCAPE to cancel.

.....
► **Hint:** *Save the Performance to disk to conserve the changes. The Performances remain in RAM after power down but are cancelled when you save other Performances to the same locations.*
.....

RESTORING THE ORIGINAL DEFAULT STYLE-PERFORMANCES

To erase all modifications saved to the Performances, all the modified Performances currently residing in RAM must be cancelled to restore the factory Performance settings.

- 1. Press **GENERAL** in the **EDIT** section to gain access to the «Edit General» environment.
- 2. Press **F8** («Rest. St.Perfs») to cancel the changes made to the Style-Performances in RAM.

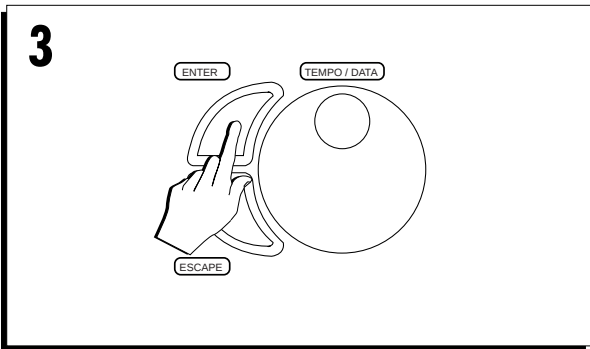
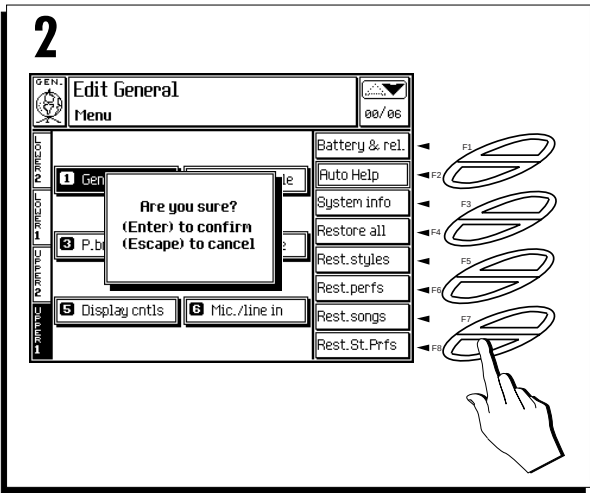
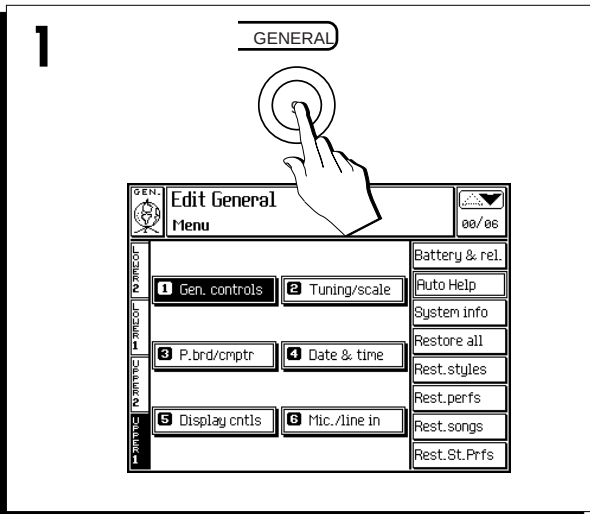
You are prompted with a request to reconfirm your choice.

- 3. Press **ENTER** to confirm, or **ESCAPE** to cancel.

With **ENTER**, the changes are cancelled and the original Performance settings (volume, sounds, transposition, tempo) are restored.

With **ESCAPE**, the new settings are retained.

► **Hint:** To cancel the entire contents of RAM in a single operation, use the «Restore All» command.



• 6 Disk & Hard disk

Working with disks provides you with a means of building a library of Performances, Styles, Sounds and Songs that you can load into the **WK4** RAM memory at any time. As you become more familiar with your **WK4**, you'll discover the practical uses of working with disks, because of the flexibility and power that they offer.

This chapter introduces you to the concepts of Files, Disks and RAM memory, explains the principal Disk functions by showing you how to load and save Songs, Styles, Performances and MIDI Files.

Other useful Disk functions (Erase, Copy, Move, Utility) are discussed in the Edit Disk chapter.

For first time Disk users

Those who are using floppy disks for the first time are recommended to read through all the preliminaries, right up to page 8, and refer also to the pages at the end of this chapter which discuss disk handling precautions, how to insert and extract disks and other general information.

To skip the preliminaries

If you want to skip the preliminary information, go straight to page 8 which starts with details about how to load files into RAM.

FLOPPY DISKS AND THE HARD DISK

The **WK4** can handle floppy disks and hard disks.

- **Floppy disks:** handles **3.5" high density (HD)** and **double density (DD)** type for MIDI files only).

- **Hard disk:** handles a 2,5" IDE or E-IDE unit - a more complex device. Installation requires the Generalmusic HDisk installation kit which also expands the System-RAM. A Hard disk has faster access times and a capacity of 500 Mb (max.). Clearly, a Hard disk is more convenient than floppies. If you have purchased your instrument with a factory installed Hard disk, you'll find that it is write-protected to avoid accidental cancellation of the files it contains. You can remove the protection by deactivating the Hard Disk Protection option in the Disk Utility page.

All the operations described in this chapter make reference to the Floppy disk - Hard disk operations are identical in every respect.

FLOPPY DISK FORMATS

WK4 recognizes the following formats: **WK4** expanded format (1.6 Mb) or standard **MS-DOS** (1.44Mb), the Atari ST/Falcon format (720 Kb). **WK4** is able to initialize disks for every format. It is also possible to load Ram-Sounds, Styles and Songs from **WK4**, WX and SX Series disks.

Song disks of other formats, such as the WK3 and PS1500 Series, are recognized if the data conforms to the **GMX format**, a General MIDI eXtended format by Generalmusic which renders the first three banks of **WK4** fully compatible.

WK4 cannot read Song, Style and Sound data disks originating from non-Generalmusic instruments. Song exchanges with other instruments requires that the Song be saved as a MIDI file on MS-DOS formatted disks (1.44 Mb or 720 Kb formats).

.....

FILES & THE BLOCK

Data is stored on disks in the form of **FILES**. A file can be a Song, a Performance, a Style, a Setup or a Block.

Files are organized in sub-directories which are contained in a **BLOCK**. The Block reflects the structure of the instrument's internal RAM, as illustrated below.

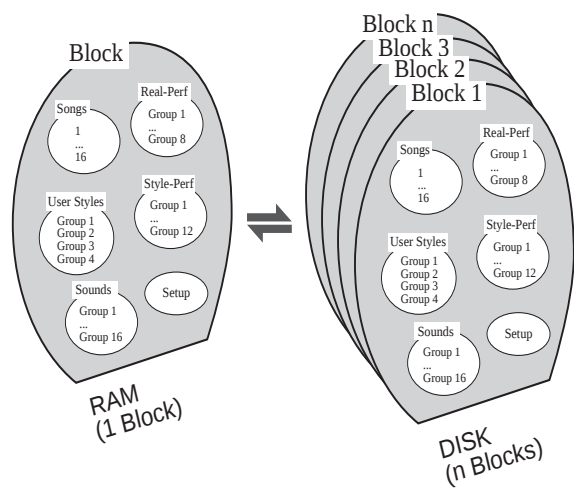


Illustration showing how data is organized in RAM and disks.

Floppy disks can contain more than one Block, but as a unit of storage, the Block is more suitable for Hard Disks.

When you load a Block using the Load Single Block command, the entire contents of RAM are updated.

FILE TYPES

The types of File encountered when working in the **WK4** Disk environment are identified by a name. In some cases, a file name includes an extension which is eliminated when the file is loaded into RAM.

The table which follows summarizes the file types encountered and, where applicable, the extension:

Type of File	Description	ID
Block	All file types except MIDI files	Name. BLK
Setup	General settings for MIDI channels video, pedals & pads	Name
Sound	RAM-Sound and RAM --Sound.	Name
Performances	Perf. Groups	Name
Style-Perf.	ROM Style Perfs. excluding USER	Name
User Style	USER Styles and relative Style-Perfs	Name
Song	WK4 format WX2/SX2 format.	Name "Name". WXS or "Name". SXS
MIDI file	MIDI files (SMF 0 and 1)	"Name". MID

THE MAIN DISK PAGES

Pressing DISK enters the «Disk» environment where all DISK operations are performed. The Disk commands a spread across 6 main pages, each identifying a principal Disk operation:

1. Load	Loads data to RAM.
2. Save	Saves data to disk.
3. Erase	Erases data from RAM or disk.
4. Copy	Copies data from floppy disk to hard disk or vice versa, from disk to disk or from RAM to RAM.
5. Move	Moves data from floppy disk to hard disk or vice versa, from disk to disk or from RAM to RAM.
6. Utility	Useful functions (formatting, disk name, data restore, etc.)

FILE QUANTITY

Files can be handled as Single elements, as a Group of files or as an entire set of file types (All), as shown in the following table:

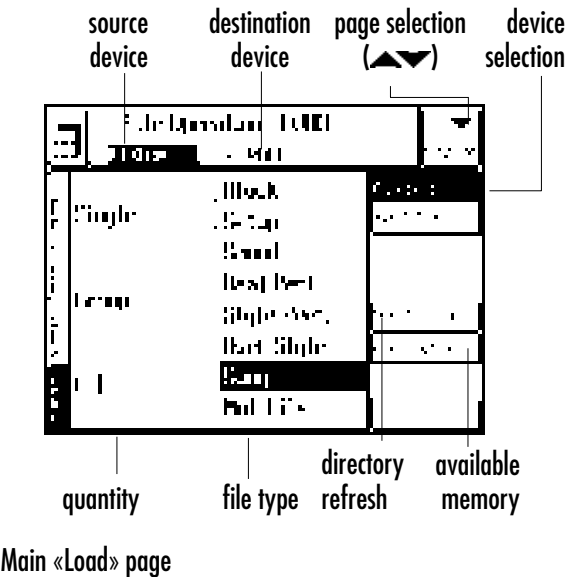
FILE QUANTITY	
Single	A single file.
Group	All the files assigned to one of the buttons of the Style Groups (ROM and User), Performance Groups or Sound Groups. It is also possible to load to 2 "virtual" Song Groups.
All	All Groups of a file type (all Sounds, All Performances, All Styles, etc.).

THE DISK COMMANDS

The «Disk» commands are specified in the main Disk pages by combining the File Quantity in one column with the FileType in the other:

- select the file quantity (Single, Group, All);
- select the file type (Sound, Performance, Song, etc.).

Example: To load a single Song, specify «SINGLE» and «SONG» in the main LOAD page.



THE FILE SELECTOR

The File Selector corresponds to the second level of disk operations and is accessed by confirming the command specified in the main page. Once in the **file selector**, you can select the source files and respective destinations.

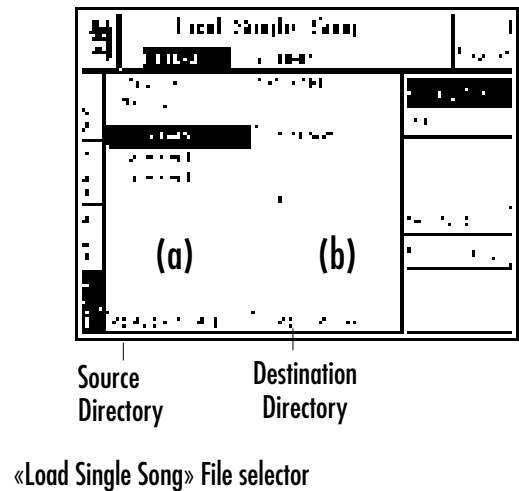
The **file selector** is divided into two columns showing (a) the source file **directory** (a contents list) and (b) the destination directory. All «Disk» operations, except the Erase command and the Utility, copy or move files from a source to a destination (e.g. from disk to RAM).

The direction of the copy or move operation is shown in the status bar by an arrow pointing the direction and the names of the **source** and **destination** files.



The source device can be a floppy disk, the Hard Disk or RAM. The device is selected with the Soft buttons F1, F2 and F3.

Empty locations are represented by a broken line. If you select a destination already occupied by a file, the existing file is replaced by the incoming one.



LOAD, SAVE, ERASE COPY, MOVE OPERATIONS

Data stored in floppy disk, hard disk or RAM can be Loaded, Saved, Erased, Copied or Moved using one of the following methods:

- as single elements (Single Song, Single User Style, Single Performance, Single MidiFile, etc.);
- as a Group of files (User Style Group, Song Group, etc.);
- as an “ALL” data set containing file types of all Groups (All Songs, All Sounds, All Style Groups, All Performance Groups, etc.).

Limitations

Some file types cannot be handled more than one at a time. MIDI Files, for example, can only be handled using the SINGLE MIDI FILE command. Some files can be handled as Single elements, Groups and All sets, while others are limited to Single and All sets only.

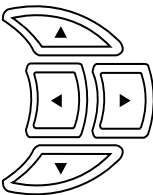
The table below shows the valid commands for each file type:

File Type	Command
Block	Single
Setup	Single
Sound	Single, Group, All
Real Perfs	Single, Group, All
Style Perfs	Single, Group, All
User Styles	Single, Group, All
Song	Single, Group, All
MIDIFile	Single

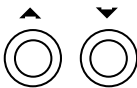
HOW TO NAVIGATE IN THE DISK ENVIRONMENT

Move around in the Disk pages with the navigational tools which are;

- the directional arrows [←/→ - ↑/↓]:



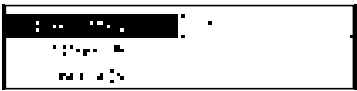
- the ▲▼ page selector buttons:



Execute the Disk commands with the ENTER button or abort with the ESCAPE button:



The cursor is represented by a negative highlight zone which moves vertically and horizontally and also serves to identify which part of the display is currently active (source or destination).



The part of the display not currently active shows an item “preselected” by a frame which also serves to identify the item that will be selected when the cursor is moved into the area.

The ←/→ navigating buttons move the cursor horizontally from source to destination and vice versa.

The source files or destinations are selected by moving the cursor vertically with the ↑/↓ buttons.

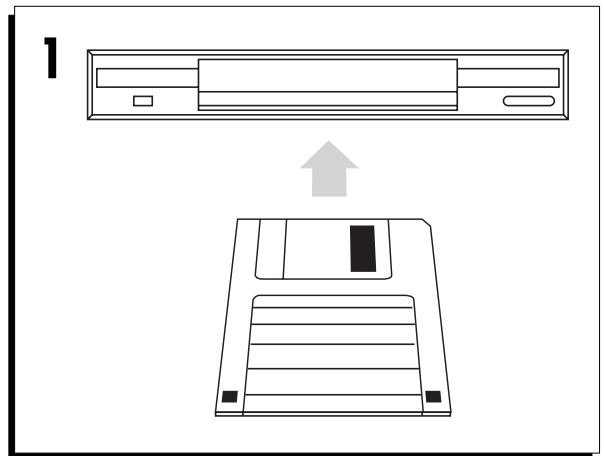
The general «Disk» procedure

Use the following procedure as a reference.

The procedure described is valid for All the Disk operations which are discussed in this chapter. Any variations are explained separately.

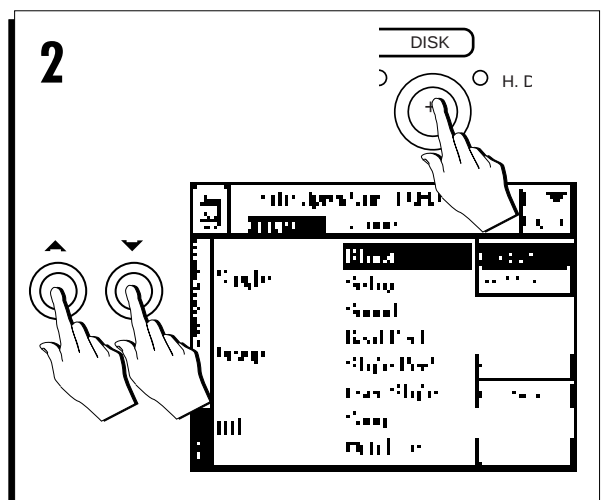
1. If you are working with floppy disks, insert a disk into the drive.

If you are working with the Hard Disk (optional accessory), simply press DISK.



2. Press DISK and go to the page relating to the desired Disk function (Load, Save, Erase, Copy, Move, Utility).

Use the ▲▼ buttons to scroll through the main disk pages. The example shows the main Load page.

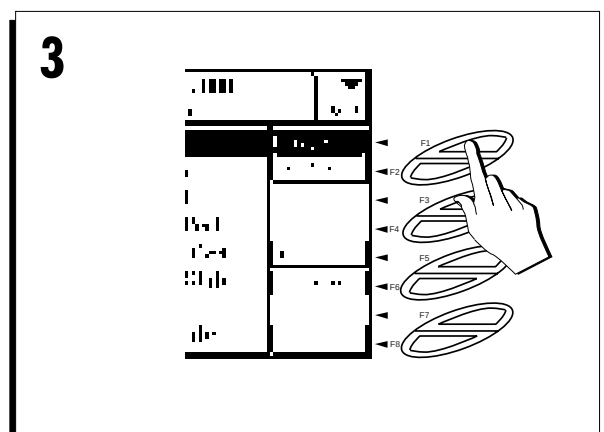


3. Select, if necessary, the device being handled with the soft buttons F1, F2, F3.

Load and Save operations show the Floppy Disk and Hard Disk options. If you are working with the Hard disk, the H.D. LED will turn on during the course of an operation.

Erase, Copy and Move operations show the RAM option in addition to Floppy and Hard Disk.

Utility is an exception, discussed afterwards.



4. Specify the desired command with the directional arrows (for example, «Load Single Song»).

Use the  button to move into the quantity column and select the file quantity (Single, Group, All) with the  buttons.

Pass over to the other column with the  button and select the file type (Sound, Performance, Song, etc.) with the  buttons.

5. Press ENTER to confirm the command and open the File Selector.

The “Wait Please” message appears for an instant before opening the File Selector.

The file selector now shows the source directory consisting of one or more Blocks to choose from, and the destination directory representing the sector of RAM corresponding to the file type being handled (in this case the Song memory).

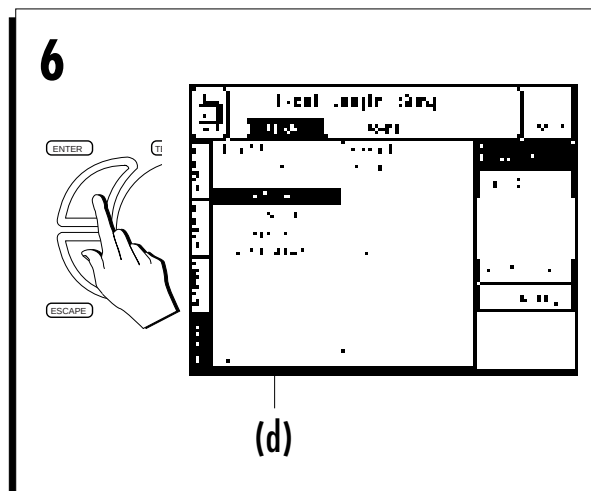
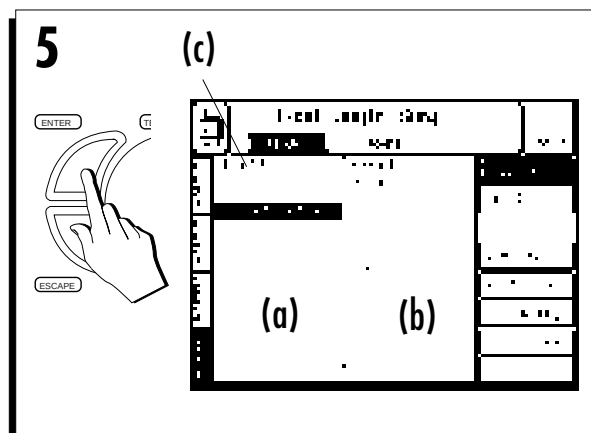
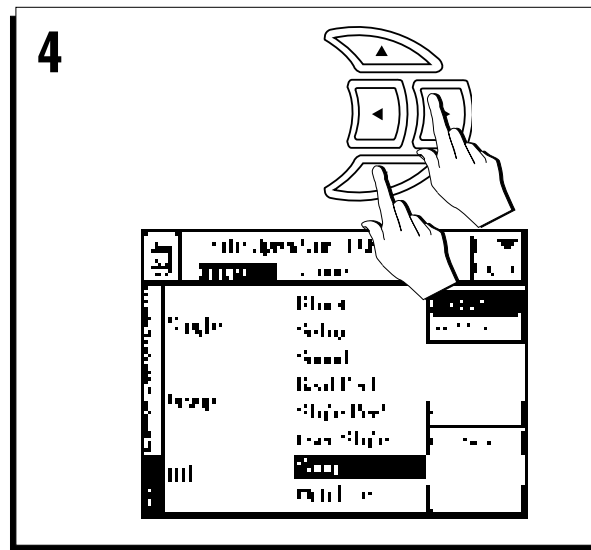
This display example shows the floppy disk directory (a) with a single Block file, and the instrument's RAM directory (b) showing the empty Song memory. The disk name is shown at the top of the left column (c). If the disk has no name, either “NO NAME” or “UNTITLED” or other will be shown.

► **Note:** At this point, to exit from «Edit Disk», press DISK. Escape exits the File selector.

6. Select a Block and press ENTER to gain access.

The contents of the opened Block reveals the file type selected in step 4 (in this case, several Songs in numerical order).

At the bottom of both columns, information regarding the selected file will appear. In this case, the left column shows the date that the file was created and its dimensions expressed in Kb (d). The right column is blank and represents the empty destination.



7. If necessary, select the source file.

Use the   buttons to select the source file from the active column. If you are not in the desired column, move over with the   buttons.

8. If necessary, select the destination.

Move into the destination column with the   buttons and use the   buttons to select a destination.

Empty locations are identified by a broken line. If you select an existing file, it will be erased by the incoming file.

9. Press ENTER to confirm your choice.

You will be prompted with "Are you sure?".

10. Press ENTER again to execute the command, or ESCAPE to cancel the operation.

With ENTER, the command is executed and a dialog window opens showing a message relating to the current operation: For example, if you are loading a single Song, the message will say: "Loading Single Song..." When the dialog window closes, the operation has been executed..

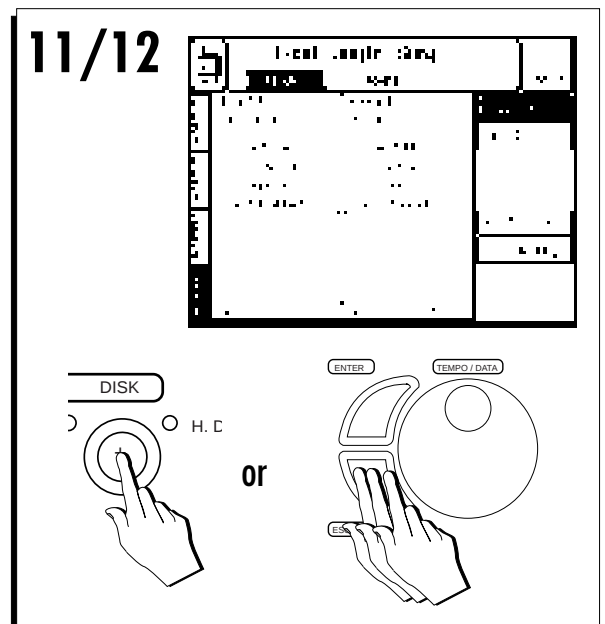
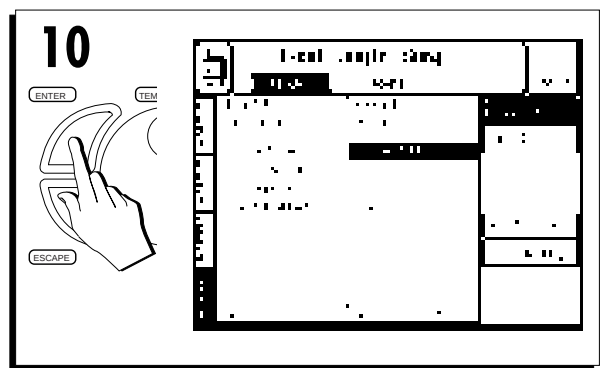
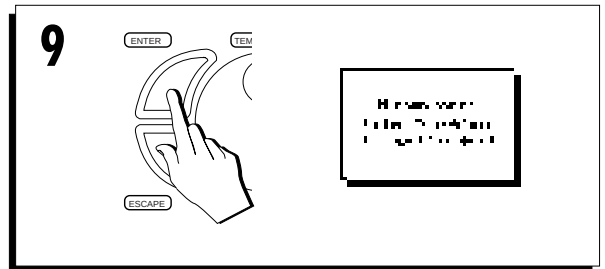
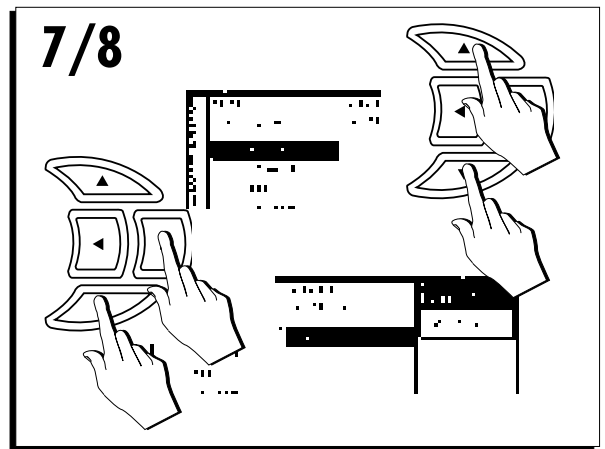
11. Repeat steps 7, 8, 9 and 10 until your destination is organized according to your requirements.

To select another file from a different block, return to the source column, press Escape to escape the current Block, press Escape again to exit the File Selector, select another Block, press Enter to gain access and continue as already described.

12. Press DISK (or ESCAPE three times) to exit «Disk».

Pressing DISK escapes the Disk operations and remembers the last page selected.

Pressing ESCAPE allows you to (1) close the current Block, (2) close the file selector and (3) escape from «Disk».



Load Operations

The load operations operate in the direction Source → RAM where the source can be Floppy disk or Hard disk.

Have a disk ready containing the data you wish to load. These can be WK4 format disks, disks of previous formats, such as WX or SX Series, and MIDI file disks.

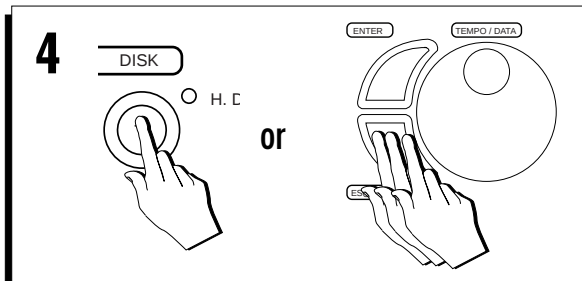
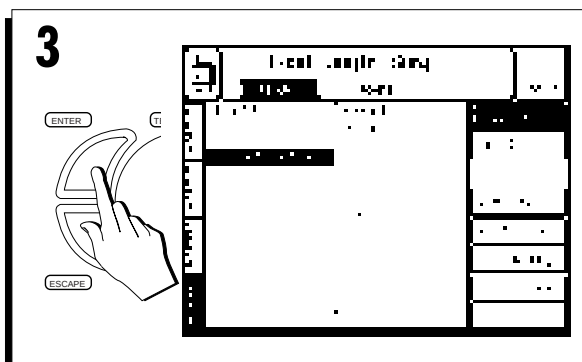
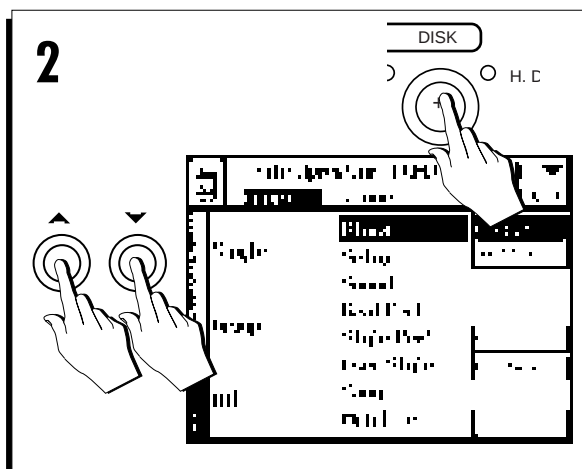
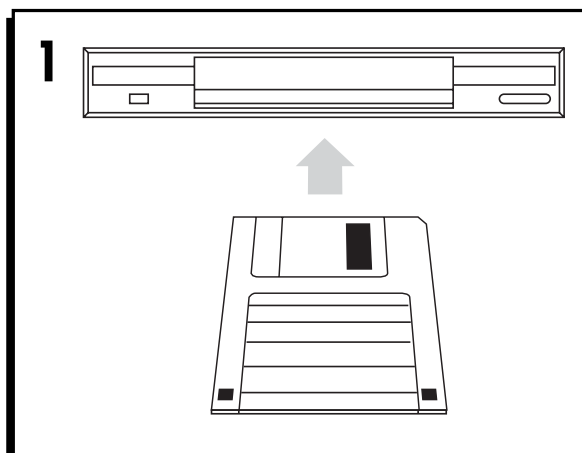
THE GENERAL LOAD PROCEDURE

1. Insert the floppy disk into the drive.
2. Press **DISK** to open the main Load page.
If the main Load page is not shown, use the left page scroll button (▲▼) to open it.
If you are working with the Hard Disk, press **DISK** and select the **HARD DISK** option with soft button **F2**.
3. Specify the load operation required (example, Load SingleSong) then press **ENTER** to open the File Selector.

From here, proceed as described for the Load operations on the pages which follow.

NOTE: All Load Single operations also feature a **SEARCH RESOURCE** function which allows you to search for a single element (Block, Sound, Real Perf, Style Perf, User Style, Song, MIDI File). How to use the Search Resource is explained in the Edit Disk chapter of the Reference Guide.

4. When you have finished, press **DISK** (or **ESCAPE** three times) to exit «Disk».



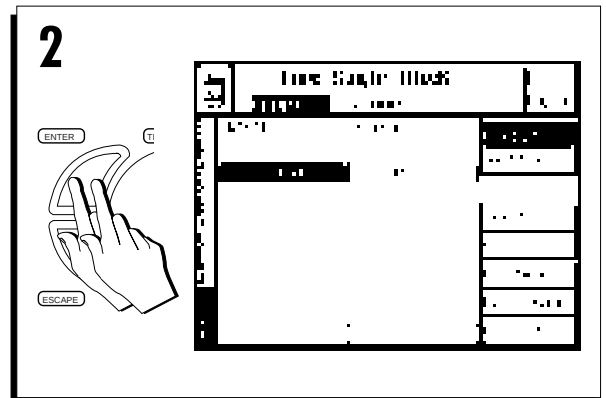
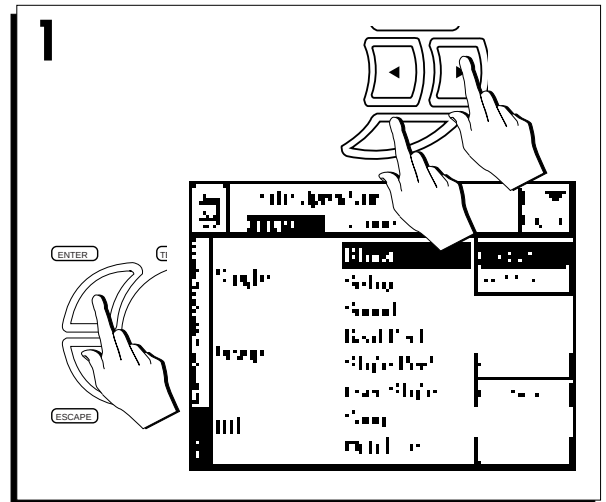
LOAD SINGLE BLOCK

Use «Load Single Block» to rewrite the entire contents of RAM. Block data contains: Sounds, Performances, Style Performances, User Styles (and relative Performances), Songs (and relative Performances) and a Setup file.

1. Select **SINGLE BLOCK** from the main Load page then press **ENTER** to gain access to the **FILE SELECTOR**.
2. Select the **BLOCK** to load then press **ENTER** twice to load into RAM.

The “RAMFILE” shown at the destination is replaced by the new file with the same identity (1 RAMFILE.BLK).

The Demo Disk supplied with the instrument contains a Block file with the name “AUTOLOAD.BLK” which is loaded automatically to RAM when you turn on the instrument with the disk inserted in the drive.



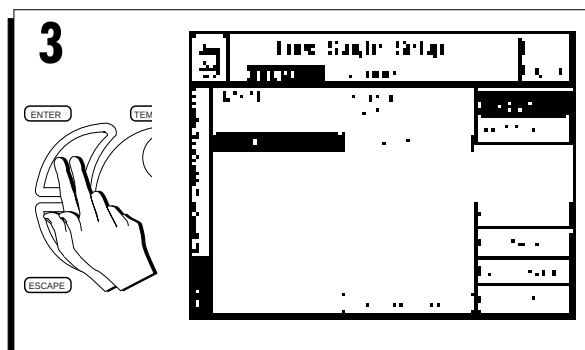
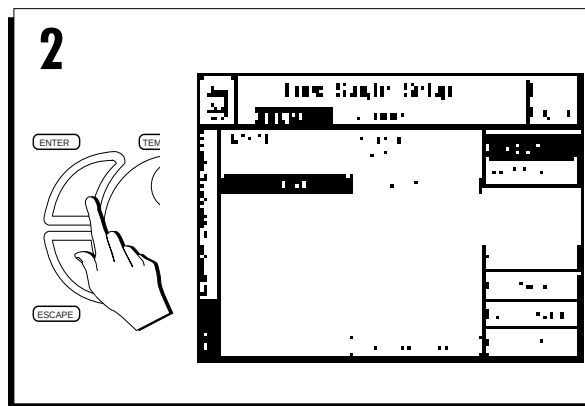
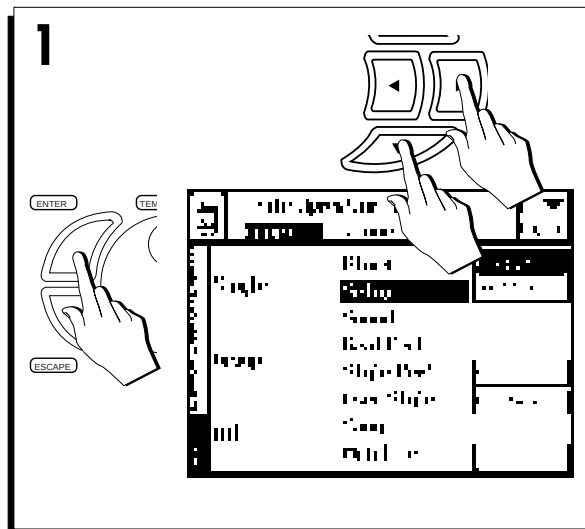
LOAD SINGLE SETUP

Use «Load Single Setup» to load a Setup file into RAM. To create some Set-up files, see “Save Single Setup” afterwards.

Load a disk-based Setup file when you want to change the general status of the instrument in a single step instead of programming the individual parameters that constitute a Setup file.

Setup files contain all information relating to the status of the instrument's general functions (Tuning/Scale, Audio Mic/Line settings, the MIDI Lock status, the locked MIDI channel configuration, the status of the Pedals/Pads Lock option and the Pedals and Pads configuration). Loading a Setup file into RAM does not affect other data. Only one Setup file resides in each Block.

1. Select **SINGLE SETUP** from the main Load page then press **ENTER** to gain access to the **FILE SELECTOR**.
2. Select the **Block** containing the Setup required then press **ENTER** to gain access.
3. Press **ENTER** twice to load the Setup to RAM.



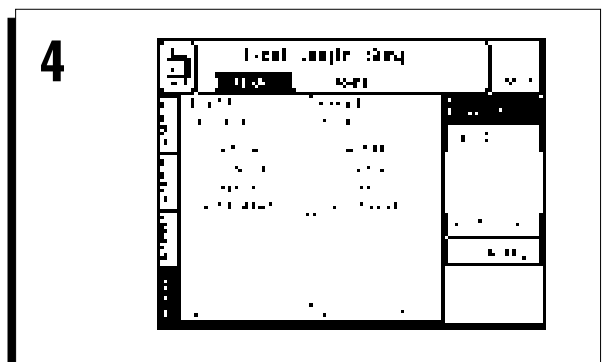
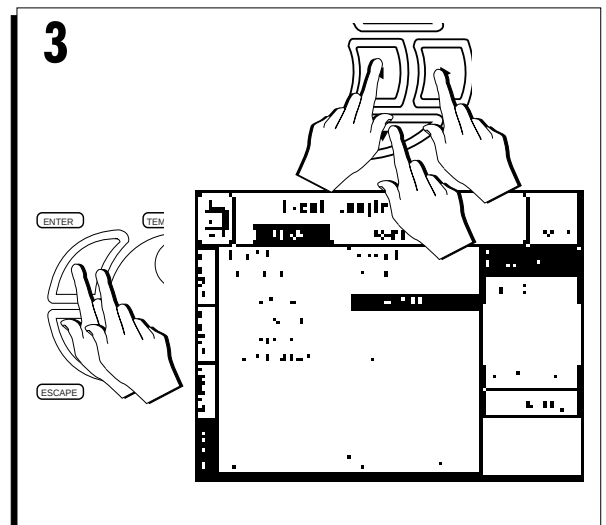
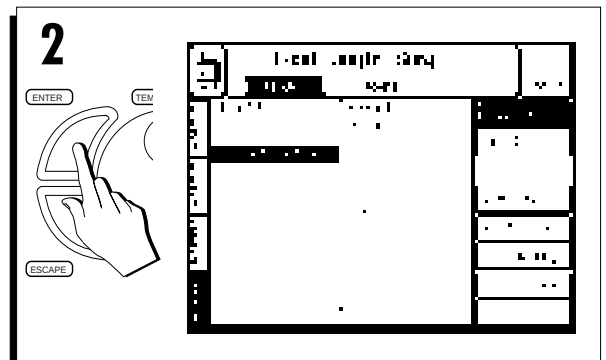
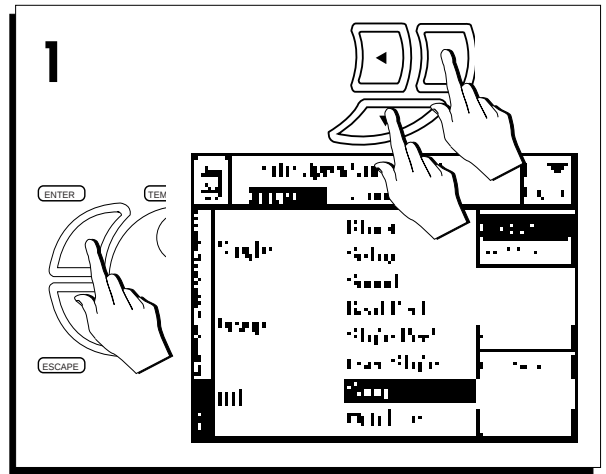
LOAD SINGLE SONG

Use «Load Single Song» to load Songs to RAM one at a time. The advantage of this operation lies in the fact that you can choose single Song files from various different blocks and load to RAM in a preferred order.

The «Demo» disk supplied with the instrument contains various Songs.

1. Select **SINGLE SONG** from the main Load page then press **ENTER** to gain access to the **FILE SELECTOR**.
2. Select the **Block** from the source directory containing the Song required then press **ENTER** to gain access.
3. Select the **Song** from the source directory and its destination in **RAM** then press **ENTER** twice to execute the command.
4. Repeat step 3 to load additional songs to memory.

To load a Song from a different Block, return to source column, press **Escape** twice to escape the File Selector and Block and repeat steps 2 and 3.



LOAD SINGLE SOUND

RAM-Sounds based on samples contained in ROM can be loaded to RAM to expand the **WK4**'s sonic power.

Owing to the fact that each Sound Group consists of 16 Banks, the number of RAM-Sounds that can be loaded into the instrument's memory is almost unlimited.

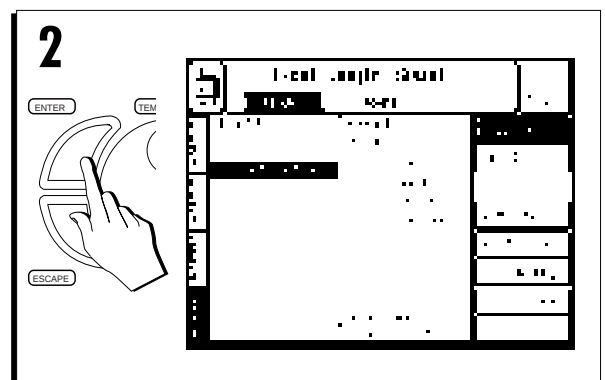
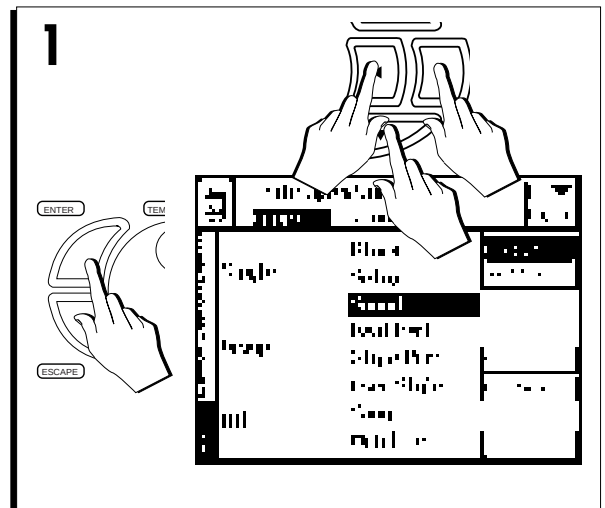
Use «Load Single Sound» to load single sounds to the Sound Bank destinations. Use this method to load disk-based Ram-Sounds as well as RAM-Sounds (the latter requires additional RAM to be installed).

The «Load Single Sound» procedure is characterized by an increased number of steps, owing to the fact that there are 16 Sound Groups, each consisting of 8 Banks of 16 slots.

You can choose to load your Ram-Sounds anywhere you want, but it is recommended that you load to the Sound Group that originally housed the sound when it was saved to facilitate future selection.

«Load Single Sound» also features a Sound Search function. Owing to the large **WK4** Sound library, you might find it easier to pass directly to a Sound bank by specifying the name of a Sound that occupies a particular bank. From there, you can then easily select a destination for the Sound being loaded. The Sound Search procedure is explained in detail in the Edit Disk chapter of the Reference Guide.

1. Select **SINGLE SOUND** from the main Load page then press **ENTER** to gain access to the **FILE SELECTOR**.
2. Select the Block containing the Sound required from the source directory then press **ENTER** to gain access.



3. Select the RAM-Sound that you wish to load and its corresponding destination in RAM.

The display opened will depend on the type of disk inserted in the drive. The display example shows 4 RAM-Sounds and a Percussive sound in the source directory.

Use the ▲▼ buttons to scroll through the Sound Groups (1, 2, ... 15, 16).

Use the directional ▲/▼ arrows to scroll the individual Sounds of each Bank (1-1, 1-2, 1-3 ... 1-15, 1-16, 2-1, 2-2, ... 15-16, 16-1, 16-2, ... 16-15, 16-16).

In the example, the selected RAM-Sound “19-7 SxOrgan” belongs to the ORGAN Group, as indicated by the information box at the bottom of the left column (a). The Organ Group contains eight Banks numbered from 17-24.

The number 19-7 also indicates that the RAM-Sound originally occupied Bank 19, slot 7 at the time it was saved to disk.

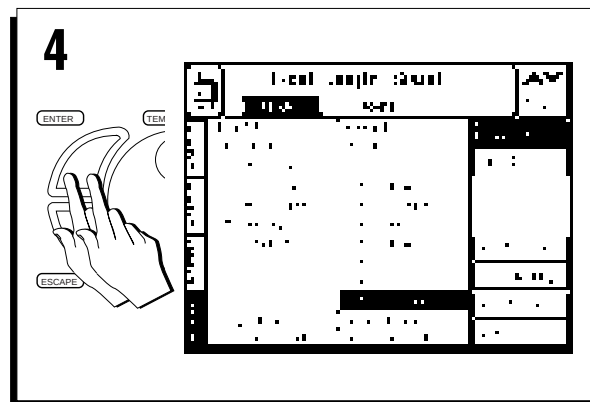
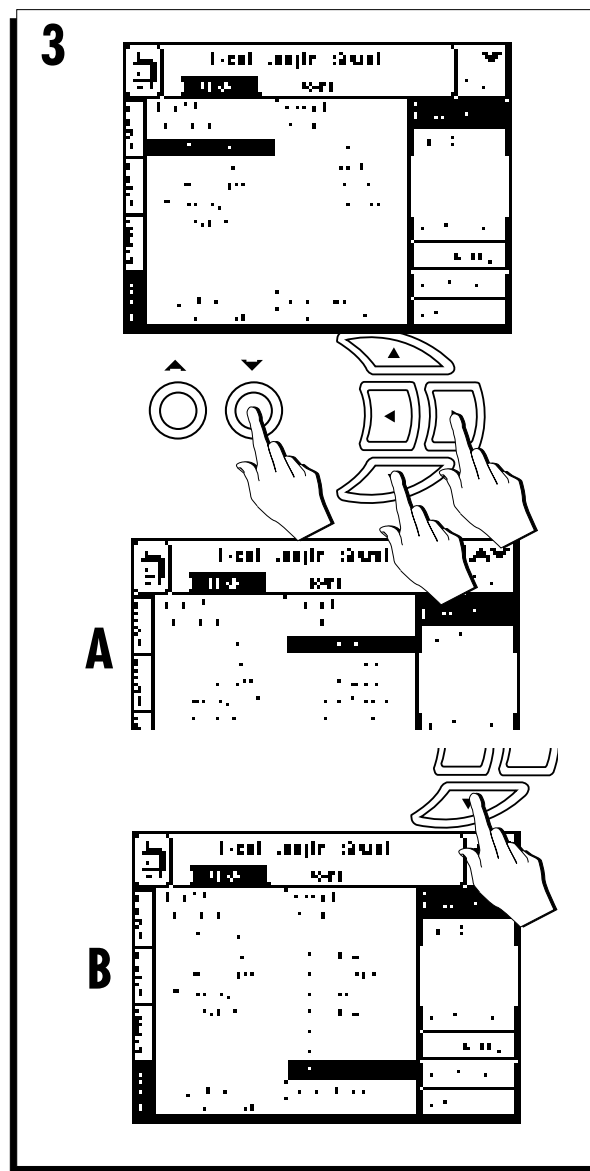
The display example **A** shows Group 17 selected. Display example **B** shows the original destination (now empty) of the RAM-Sound at the time of saving it to disk (19-7). It is recommended that you load your RAM-Sounds to their original positions but, you are free to load them wherever you please.

Bear in mind, however, that the RAM-Sound will take the number of the destination, therefore, if you load 19-7 SwOrgan to, say, destination 25-16, the Sound will be detected via MIDI with the new number, not the old.

► **Note:** You can also use the Sound Search function to pass to a particular Sound. Refer to the Edit Disk chapter in the Reference Guide.

4. Press ENTER twice to load the Sound file to memory.

Repeat steps 3 and 4 to load other Sounds to RAM.



LOAD SINGLE PERFORMANCE, SINGLE STYLE PERFORMANCE, SINGLE USER STYLE

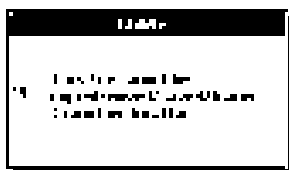
The «Load Single» procedure is also used to load a single Performance, a single ROM Style Performance or a single User Style to the respective locations in RAM.

Single Performances can be loaded to any of the 64 Performance Groups locations in RAM, overwriting the original factory-set Performances if you wish. You can also always restore the original settings and names using the Restore Performance operation.

Single User Styles can also be loaded to any USER 1, 2, 3 or 4 location.

ATTENTION! Single ROM Style Performances must be loaded to their original destinations in RAM - you will not be permitted to “switch” the ROM Style Performances. For example, ROM Style Performance 59 cannot be loaded to any other location in RAM other than slot 59 of the ROM Style Groups (59 corresponds to the U.S. TRAD Style Group, Style Gospel).

If you attempt to load to a destination other than the correct one, a user message will inform you of your error with the following message:



Press ESCAPE to close the user message and try again, this time selecting the correct destination.

The example described on the next page shows how to load a single Style Performance.

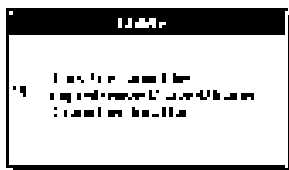
1. Select **SINGLE STYLE PERFORMANCE** from the main Load page then press **ENTER** to gain access to the **FILE SELECTOR**.
2. Select the Block containing the Style Performance required from the source directory then press **ENTER** to gain access.
3. Select the Style Performance that you wish to load and its corresponding destination in RAM.

In this case, Style Performance 59 (corresponding to STYLEBANK58) must be loaded to destination 59 of the ROM Style directory.

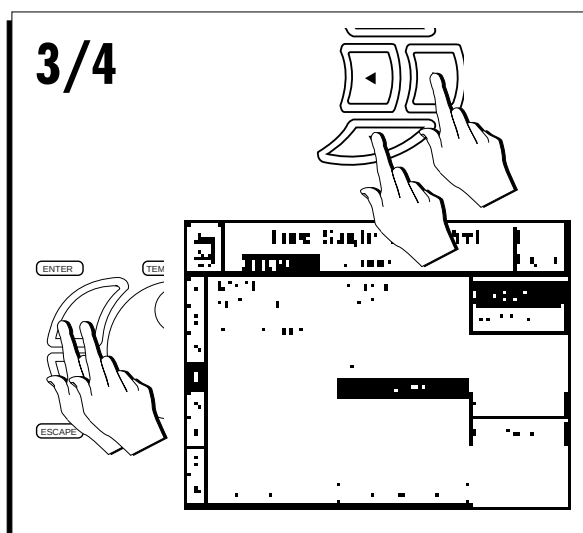
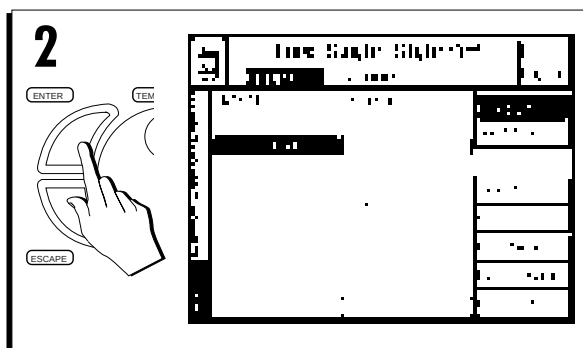
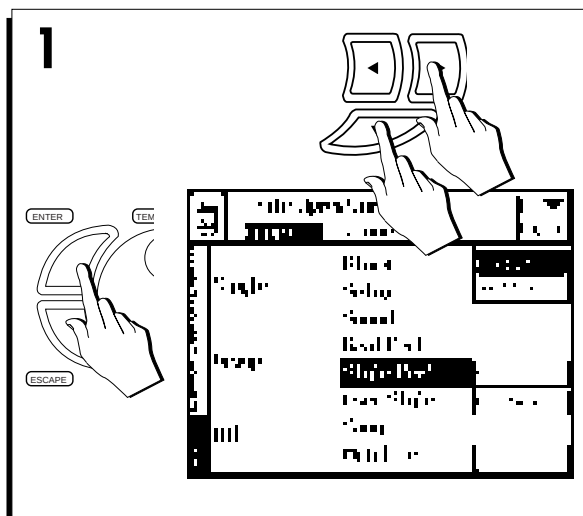
Use the  directional arrow to scroll to the destination required.

4. Press **ENTER** twice to load to the destination.

If you try to load to a different destination, a user message will inform you of your procedural error:



Press **ESCAPE** to close the window and repeat the operation, this time selecting the correct destination.



LOAD GROUP PERF, STYLE PERF, USER STYLE, SONG

Use «Load Group» to load a Group of User Styles (and associated User Style-Performances), Performances (Realtime), Style Performances (associated to the Rom Styles) and Songs. A Group consists of 8 elements which can be loaded in a single step. The Song "Groups" are virtual elements (found in the Disk environment only), corresponding to the first 8 or second 8 locations of the Song memory. In fact, when you press the Song button to select a Song, the song selection display shows two columns, left and right. The left column corresponds to Songs-Group 1 and the right to Songs-Group 2. This feature is particularly useful for the WX Series Songs disks which contain Song Groups containing up to 8 Songs each.

ATTENTION! A Group of ROM Style Performances must be loaded to the original destination in RAM - you will not be permitted to "switch" the ROM Style Groups. For example, Group 8 (US. TRAD) cannot be loaded to any other location in RAM other than Group 8.

If you attempt to load to a destination other than the correct one, a user message will inform you of your error with the following message:

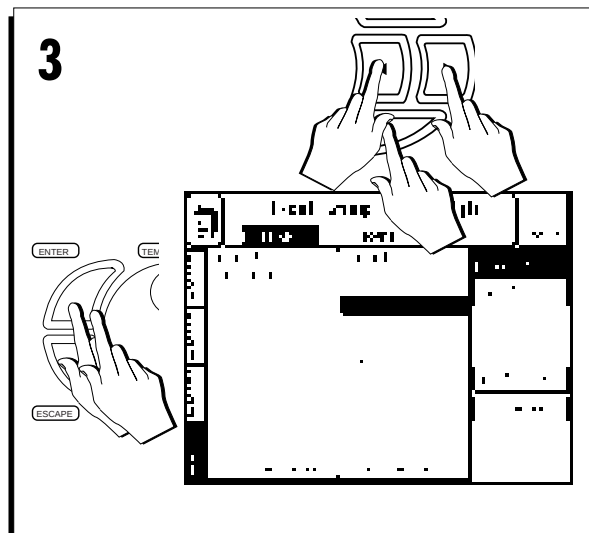
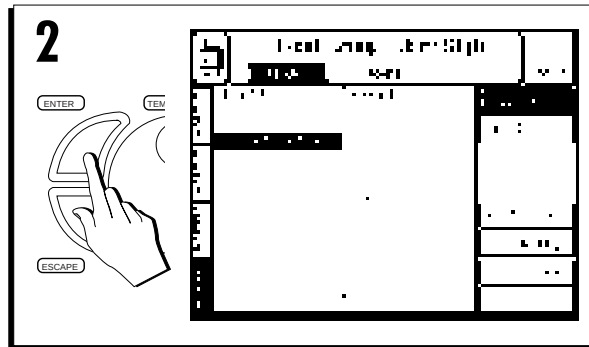
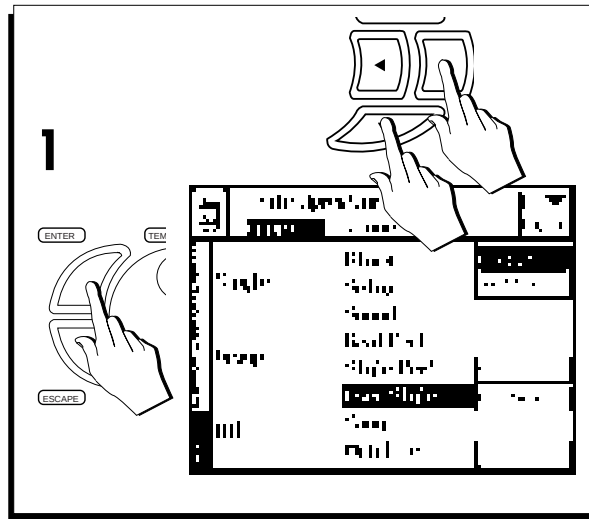


Press ESCAPE to close the user message and try again, this time selecting the correct destination.

The example on the following page shows how to load a Group of User Styles. Use the same steps for «Load Group Performance (Real)», «Load Group Style Performance» or «Load Group Song».

1. Select GROUP USER STYLE from the main Load page then press ENTER to gain access to the FILE SELECTOR.
2. Select the desired Block from the source directory then press ENTER to gain access.
3. Select the Group from the source directory and its destination in RAM, then press ENTER twice to execute the command.

.....
 ► **Warning:** The Group currently in memory is overwritten by the incoming Group. If the User Style Group you are loading contains only one User Style, all User Styles of the destination Group currently in RAM will be cancelled and replaced by the new Group. Be sure that your Group data are safely saved to Disk or Hard Disk before proceeding.



LOAD ALL

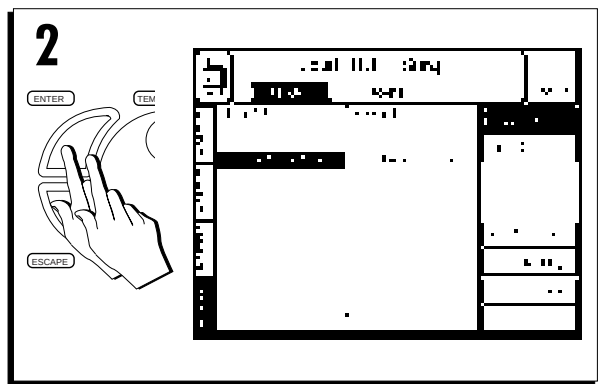
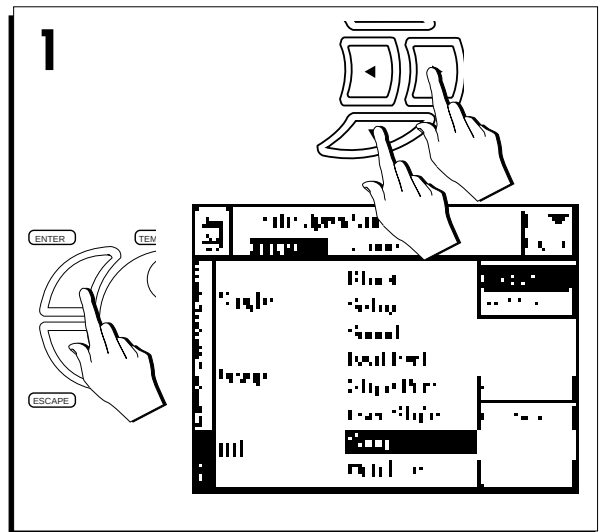
Use «Load All» to load an entire set of file types contained in a Block in a single step. This procedure allows you to load:

- up to 16 Songs (All Song);
- an unspecified number of Ram-Sounds and RAM--Sounds (All Sound);
- 8 Groups of Performances (All Performance Group);
- 12 Groups of Rom Style Performances (All Style Performance);
- 4 Groups of User Styles (All User Style).

The example refers to the Load All Song procedure. Use the same steps for other Load All operations.

1. Select ALL SONG from the main Load page then press ENTER to gain access to the FILE SELECTOR.
2. Select the Block containing the Songs required from the source directory then press ENTER twice to start the loading procedure.

.....
► **Warning:** Use "Load ALL" with care. If, for example, the disk-based «All User Style» data contains only one User Style, all your User Styles currently in RAM will be irremediably lost. Be absolutely sure, therefore, that your Sounds, Songs, Styles and Performances are safely stored to Disk or Hard Disk before using the "Load ALL" procedures.
.....



Loading WX2/SX2 Songs and Styles

WK4 can load Songs and Styles from the following previous format disks:

WX2, WX400, WX Expander, SX2, SX3

The loading procedures are identical to those used for **WK4** Songs and Styles. The Blocks however show the «.WXS» extension instead of «.BLK». Furthermore, WX2/SX2 disks contain one Block only.

WX Songs disks contain Song Groups consisting of up to 8 Songs each. For this purpose, the **WK4** Disk environment contains two virtual Songs Groups (1 and 2) specific for the WX Series disks. Refer to the Load Group procedure explained on pages 17 and 18.

Save operations

The Save procedures operate in the direction RAM → Destination where the destination can be Floppy disk or Hard disk.

The **WK4** RAM is backed by a rechargeable battery to safeguard the data when the instrument is turned off. For security reasons, however, it is necessary to store your data to floppy disk or Hard disk with the Save command. The RAM should be considered as a work area which can be continually updated, not as a data storage device.

Have a new or used disk ready to save data to. These can be **WK4** format disks or standard MS-DOS disks for the exclusive storage of MIDI files. You can also save MIDI Files to **WK4** format disks.

Check that the floppy disk is not write protected - if so, remove the protection beforehand. If you forget to do this, the instrument will prompt you with an appropriate message when you attempt to save to the disk.

Save operations are characterized by an additional option: the creation of a new Block if necessary.

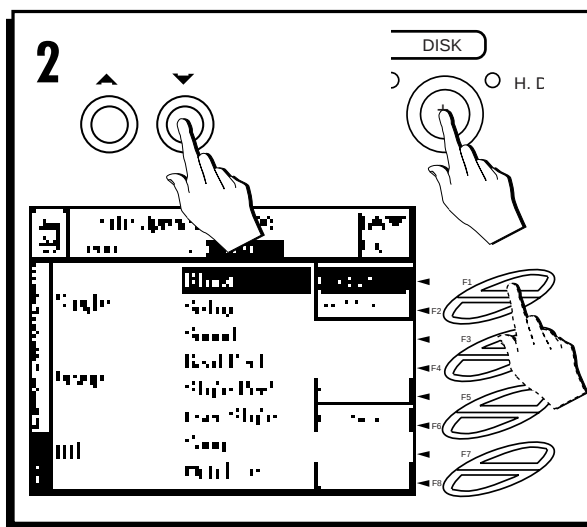
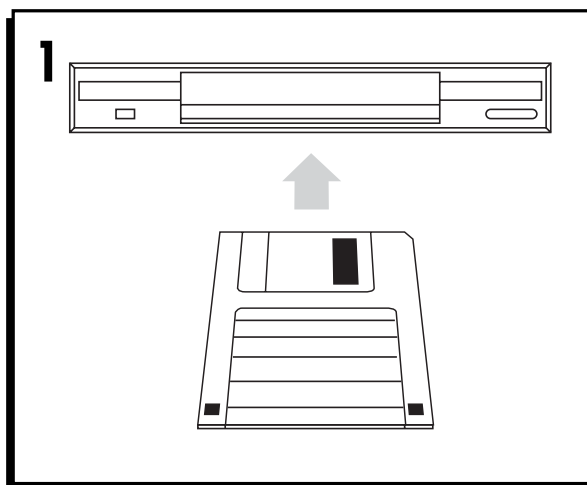
► **WARNING** - Do not save data to the original disks supplied with the instrument. As a precautionary measure against data loss, always check that your original disks are write protected.

THE GENERAL SAVE PROCEDURE

1. Insert the floppy disk into the drive.
2. Press DISK to open the main Save page.

If the main Save page is not shown, use the page scroll buttons (▲▼) to open it.

If you are working with the Hard Disk, press DISK and select the HARD DISK option with soft button F2.



3. Specify the Save operation required (example, Save All Song) then press ENTER to open the File Selector.

4. Select an existing Block to save to or empty destination to create a new Block.

Save to an existing Block to backup your data after a work session when the destination Block and RAM block are of the same origin.

Select an empty destination (shown as a broken line with .BLK extension) to create new block a name.

5. Press ENTER.

If you selected an existing Block, the operation will proceed depending on specified command.

If you save to an empty location, you'll be prompted to create a new Block. Use the keyboard and the numeric keypad as the sources of alphanumeric data to give the block a name (see Data Entry procedures in the Basic Concepts chapter). The extension ".BLK" is created automatically. Confirm the new name with ENTER.

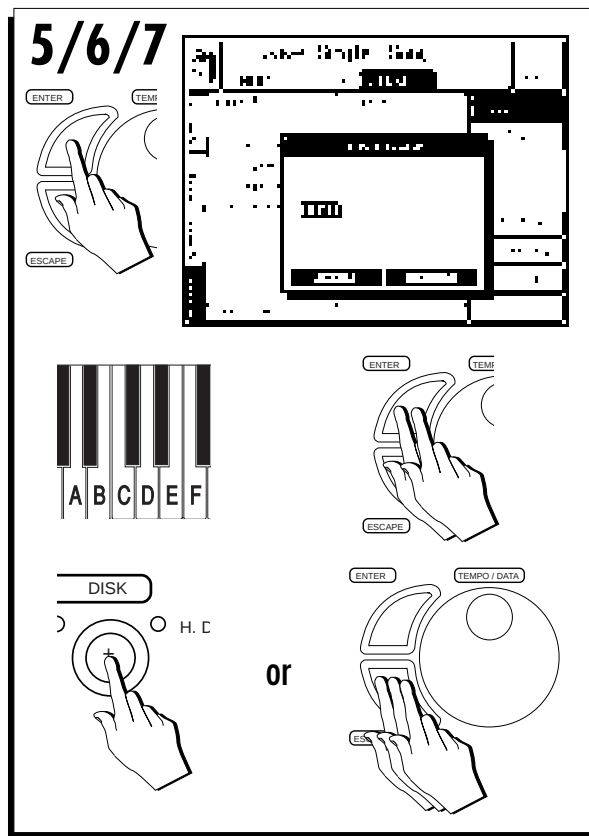
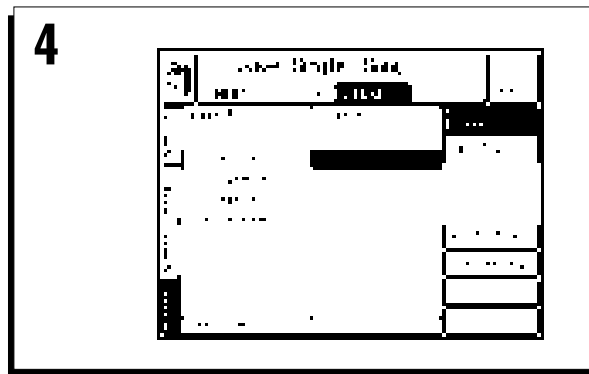
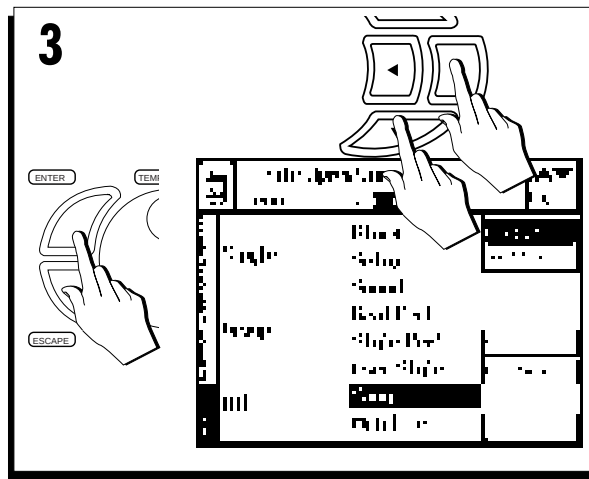
6. Press ENTER to confirm the Save operation.

The existing Block will be updated or the new Block will be created and the file(s) will be saved to the Block.

Remember that if you save to an existing file, it will be overwritten by the incoming one.

Whenever possible, try to save to an empty location (shown as a broken line) to safeguard existing data on the storage device.

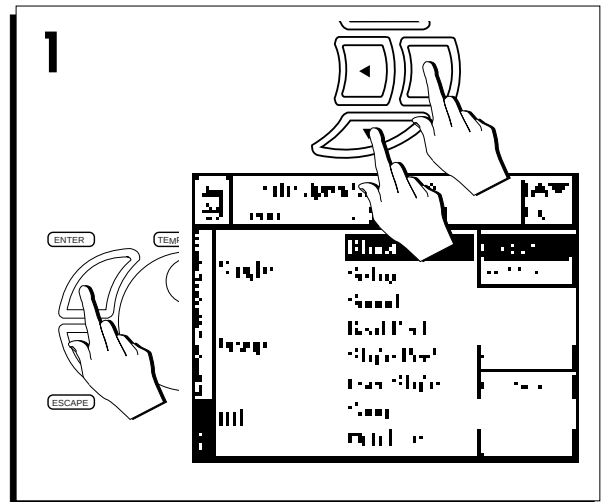
7. When you have finished, press DISK (or ESCAPE three times) to exit «Disk».



SAVE SINGLE BLOCK

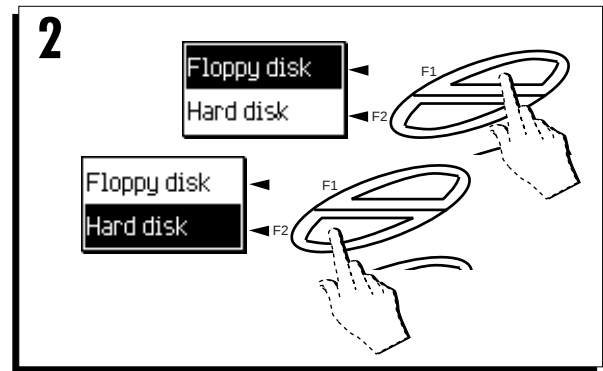
Use «Save Single Block» to save the entire contents of RAM to disk or Hard disk in a single step. Block data contains: Sounds, Performances, User Styles (and relative Performances) and Songs (and relative Performances), all housed in their respective Groups and a Setup file.

1. Select **SINGLE BLOCK** from the main Save page and press **ENTER** to gain access to the **FILE SELECTOR**.



2. Select the destination device (Floppy or Hard disk).

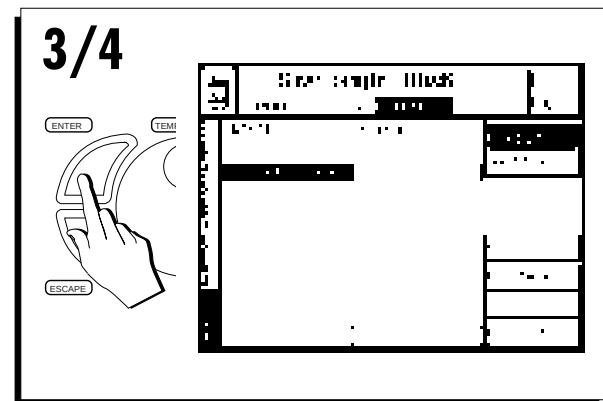
Press soft button **F1** to select the Floppy disk.
Press soft button **F2** to select the Hard disk.



3. Select an empty destination or an existing **BLOCK**.

An existing **BLOCK** will be entirely rewritten by the new one. Use this method to backup your data after a work session when the destination **Block** and **RAM** block are of the same origin.

Saving to an empty destination (shown as a broken line with **.BLK** extension) prompts you to give the block a name (refer to the General Save procedure for specific details about how to create a new block).



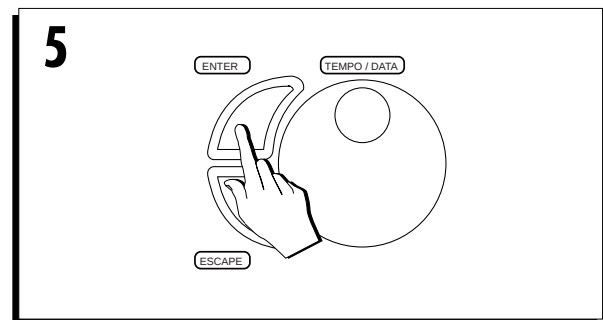
4. Press **ENTER**.

If you select an existing **Block** or created a new **Block**, you will be prompted to confirm the operation (Are you sure?).

5. Press **ENTER** to confirm the operation.

The existing **Block** will be updated or a new **Block** will be created.

► **Note:** If you assign a new block the name "AUTOLOAD", you can load the **Block** into **RAM** automatically on a future occasion by turning the instrument on with the floppy disk inserted in the drive. Naturally, only one **Block** with the name "AUTOLOAD" can exist in a disk.



SAVE SINGLE SETUP

Use «Save Single Setup» to save a Setup file to a Block on floppy disk or Hard Disk.

The Setup corresponds to the configuration of the instrument's global parameters (Edit General status) that determine how the machine operates, regardless of the contents of RAM (Song, Styles, Performances). Saving a Setup file to a Block overwrites the existing file without affecting other data. Only one Setup file can be saved in each Block.

Create Setup files for particular occasions. For example, one for home sessions, one for live shows, one for piano-bar work, etc.

1. **Select SINGLE SETUP from the main Save page and press ENTER to gain access to the FILE SELECTOR.**

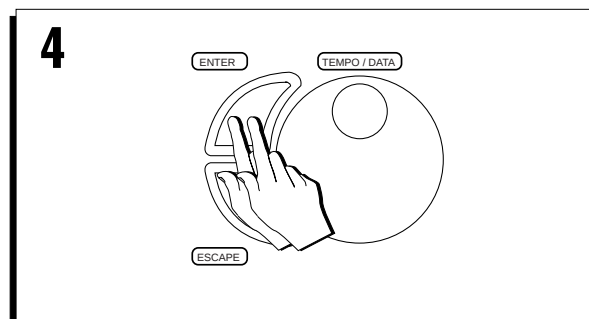
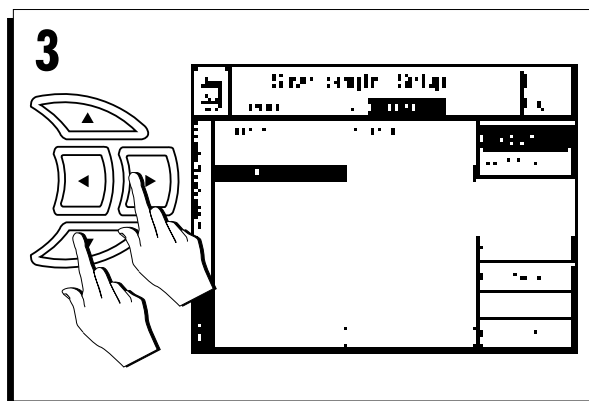
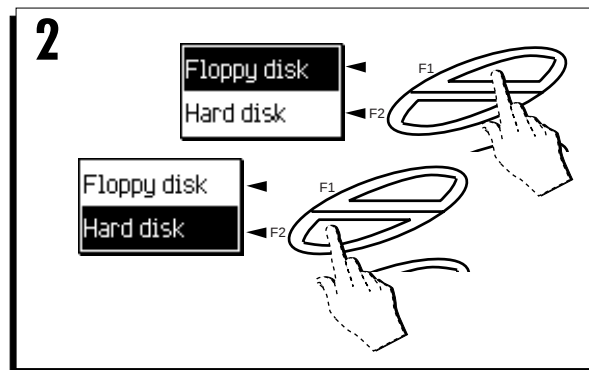
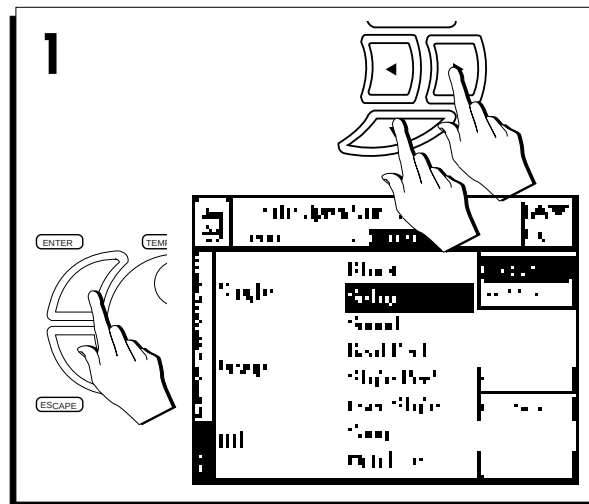
2. **Select the destination device (Floppy or Hard disk).**

Press soft button F1 to select the Floppy disk.
Press soft button F2 to select the Hard disk.

3. **Select the destination Block to save the Setup to.**

If necessary, select an empty location to create a new Block (refer to the General Save procedure for specific details about how to create a new block).

4. **Press ENTER twice to save the Setup.**



SAVE SINGLE SONG

Use «Save Single Song» to save Songs to disk one at a time. If you have already loaded some MIDI Files to RAM, use this procedure to convert the files to WK4 format songs.

1. Select **SINGLE SONG** from the main Save page and press **ENTER** to gain access to the **FILE SELECTOR**.

2. Select the destination device (Floppy or Hard disk).

Press soft button F1 to select the Floppy disk.
Press soft button F2 to select the Hard disk.

3. Select a destination Block then press **ENTER** to gain access.

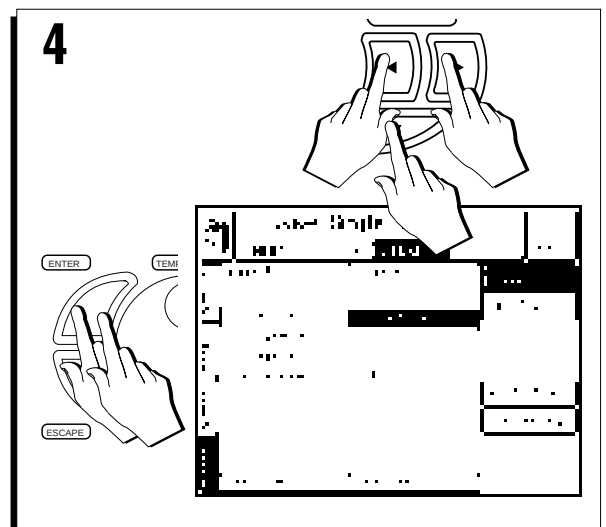
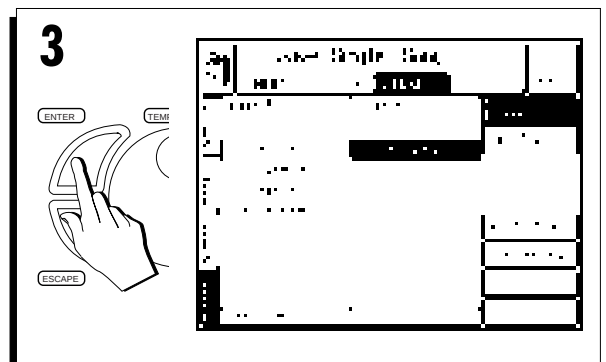
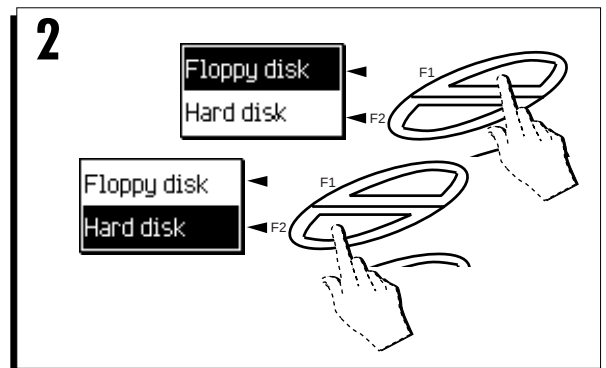
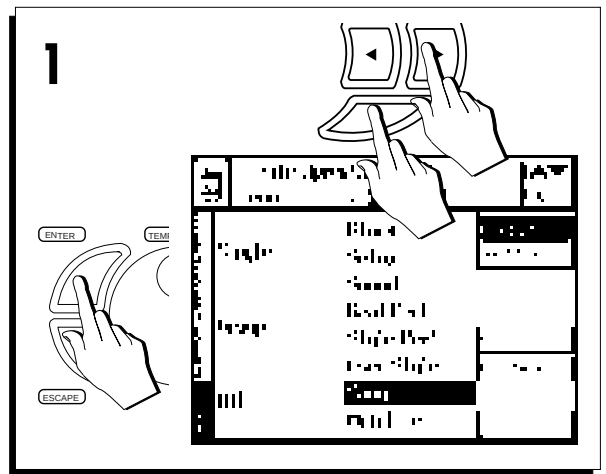
If necessary, select an empty location to create a new Block (refer to the General Save procedure for specific details about how to create a new block).

4. Select the Song from the RAM directory and its destination in disk then press **ENTER** twice to execute the command.

If you save to an existing Song, it will be overwritten by the incoming song.

If possible, save to an empty location (shown as a broken line).

.....
► **Hint:** A Block can hold up to 16 Songs divided into two virtual groups. If no empty locations are shown, it means that the block is fully occupied. In this case, either overwrite an existing Song that you don't mind losing, or close the Block with **ESCAPE**, then select an empty location and press **ENTER** to create a new Block.
.....



SAVE SINGLE MIDI FILE

Use «Single MIDI File» to save a PS Song to disk as a MIDI File in order to exchange the song with other instruments or computers. **WK4** saves Songs as SMF1 or SMF0 format MIDI files. Set the «SMF Save Format» parameter in the «General Set» function of «Edit MIDI».

If you want to save GM compatible MIDI files, set the «General MIDI» parameter to ON in the «General set» function of «Edit MIDI».

Performances are converted into track data (Bank Select MSB and LSB, Program Change, Volume, Pan, CC91 and CC93 for the depth of the effects).

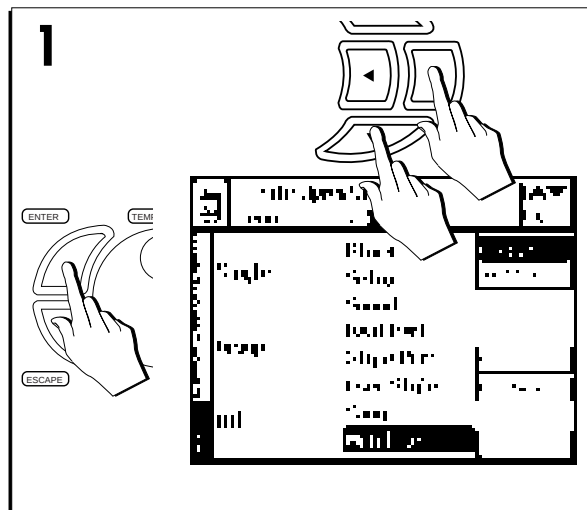
If a Score is present, the text is converted into Lyric events and the chord symbols into Text events.

The save procedure is almost identical to «Load Single Song». In this case you'll see a list of files in the destination directory with the **.MID** extension. In some cases, other names appear which represent sub-directories containing other MIDI Files. Empty locations are shown as a broken line with the .MID extension. The **.MID** extension is attached to the original PS Song name automatically.

Have an MS-DOS or Atari ST/Falcon format disk ready. Use the «Format MS-DOS disk (1.44 Mb)» and «Format MS-DOS/Atari (720 KB)» functions in the «Utility» Disk page to format your new disks.

.....
► **Note:** 3.5" **HD** disks can be formatted in either **WK4** or MS-DOS format, but 3.5" **DD** disks can only be formatted in MS-DOS/Atari format.
.....

1. Select **SINGLE MIDI FILE** from the main Save page then press **ENTER** to gain access to the **FILE SELECTOR**.



2. Select the destination device (Floppy or Hard disk).

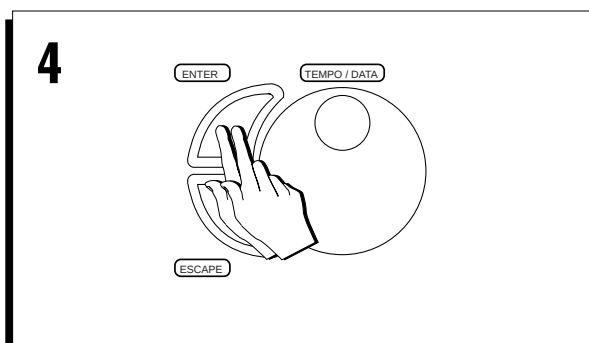
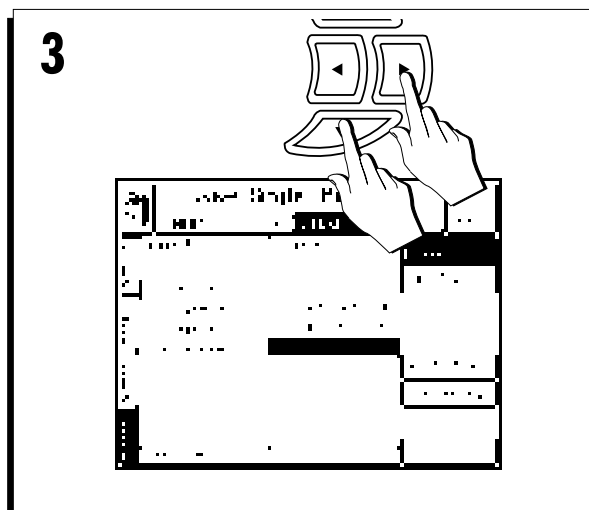
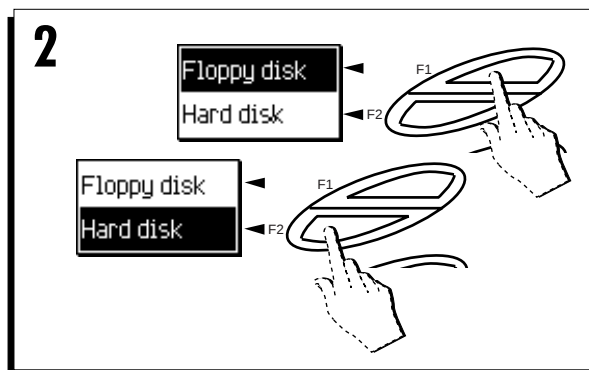
Press soft button F1 to select the Floppy disk.
Press soft button F2 to select the Hard disk.

3. Select the WK4 Song to save as a MIDI file from the RAM directory and select a ".MID" destination in disk.

If necessary, enter a Block (or sub-directory shown with the .<DIR> extension) to gain access to other MIDI File locations.

You can create a new Block in the destination device as already discussed in the General Save procedure.

4. Press ENTER twice to start the conversion process.



SAVE SINGLE SOUND

Use «Save Single Sound» to save single Ram-Sounds as well as RAM- Sounds to disk or hard disk to build a library of Sounds for future use.

The «Save Single Sound» procedure is characterized by an increased number of steps, owing to the fact that there are 16 Sound Groups, each consisting of 8 Banks of 16 slots.

You can choose to save your Ram-Sounds anywhere you want, but it is recommended that you save to the same location as the original RAM position to facilitate future selection.

1. Select **SINGLE SOUND** from the main Save page and press **ENTER** to gain access to the **FILE SELECTOR**.

2. Select the destination device.

Press soft button **F1** to select the Floppy disk.
Press soft button **F2** to select the Hard disk.

3. Select the destination Block and press **ENTER** to gain access.

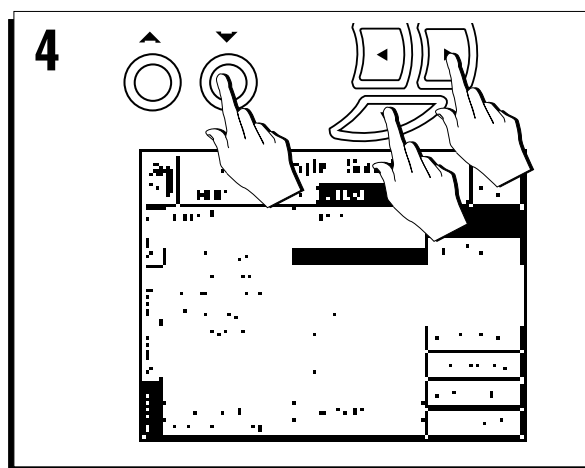
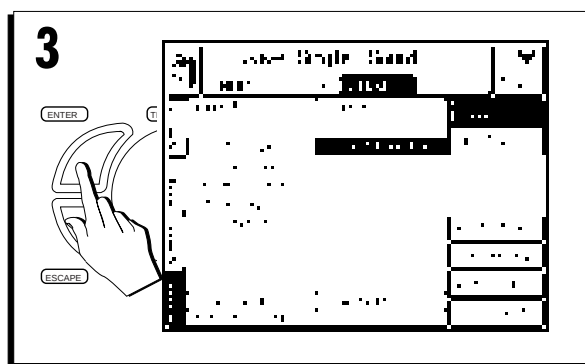
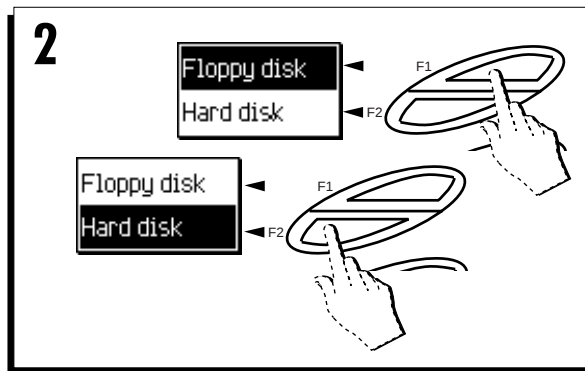
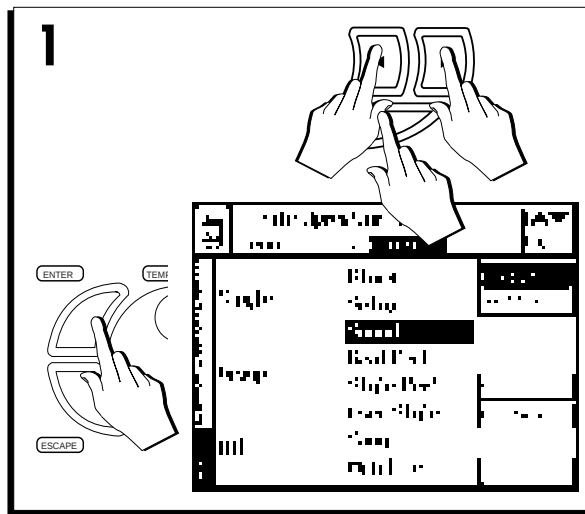
If necessary, select an empty location to create a new Block using the method already discussed in the General Save procedure.

4. Select the Sound from the **RAM** directory and its destination in disk.

To select the destination, use the   buttons to scroll through the Sound Groups (1, 2, ... 15, 16).

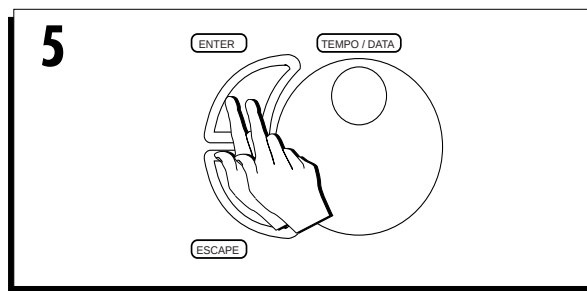
Use the directional   arrows to scroll the individual Sounds of each Bank (1-1, 1-2, 1-3 ... 1-15, 1-16, 2-1, 2-2, ... 15-16, 16-1, 16-2, ... 16-15, 16-16).

► **Note:** You can also use the Sound Search function to pass directly to a particular Sound and sound Bank. Refer to the Edit Disk chapter in the Reference Guide.



5. Press ENTER twice to execute the command.

Bear in mind that the RAM-Sound will take the ProgramChange number of the chosen destination, therefore, if you save 19-7 SwOrgan to, say, destination 25-16, the Sound will be shown with the new ProgramChange number on a future load operation, not with the old.



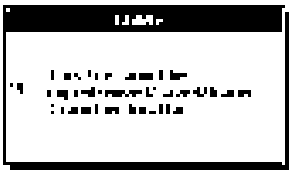
**SAVE SINGLE PERFORMANCE, SINGLE
STYLE PERFORMANCE, SINGLE USER
STYLE**

The «Save Single» procedure is also used to save a single Performance (Real), a single ROM Style Performance or a single User Style to floppy disk or Hard disk.

Single Performances (Real) can be saved to any of the 64 available Performance Groups locations in disk, overwriting those already present if you wish.

Single User Styles can also be loaded to any USER 1, 2, 3 or 4 location on disk.

ATTENTION! Single ROM Style Performances must be loaded to their correct destinations in the disk directory - you will not be permitted to “switch” the ROM Style Performances. For example, ROM Style Performance 59 cannot be saved to any other location on disk other than slot 59 of the ROM Style Groups (59 corresponds to the 16 Beat Style Group, Style 16 Beat Folk). If you attempt to load to a destination other than the correct one, a user message will inform you of your error with the following message:



Press ESCAPE to close the user message and try again, this time selecting the correct destination.

The example described on the next page shows how to save a single Style Performance.

1. Select **SINGLE STYLE PERFORMANCE** from the main Save page then press **ENTER** to gain access to the **FILE SELECTOR**.

2. Select the destination device (Floppy or Hard disk).

Press soft button **F1** to select the Floppy disk.
Press soft button **F2** to select the Hard disk.

3. Select the destination **Block** and press **ENTER** to gain access.

If necessary, select an empty location to create a new Block using the method already discussed in the General Save procedure.

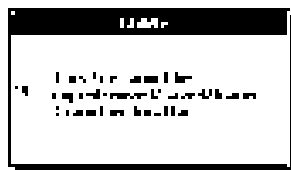
4. Select the **Style Performance** that you wish to save and its corresponding destination in disk.

In this case, Style Performance 59 (corresponding to **STYLEBANK58**) must be saved to destination 59 of the disk **Style** directory.

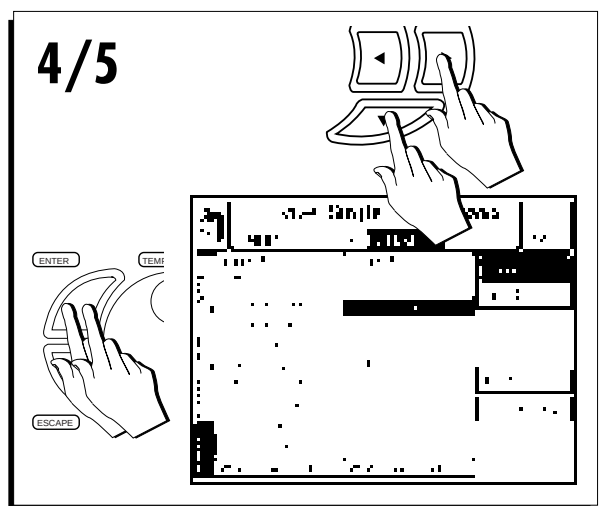
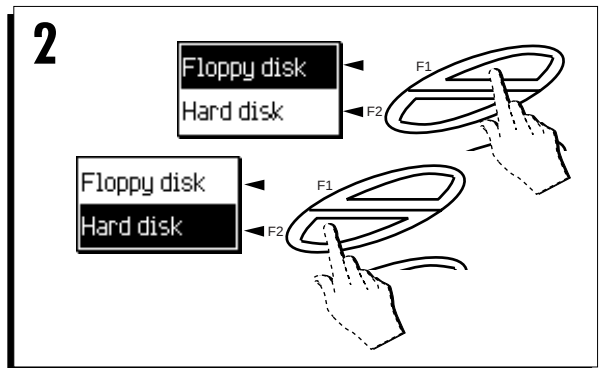
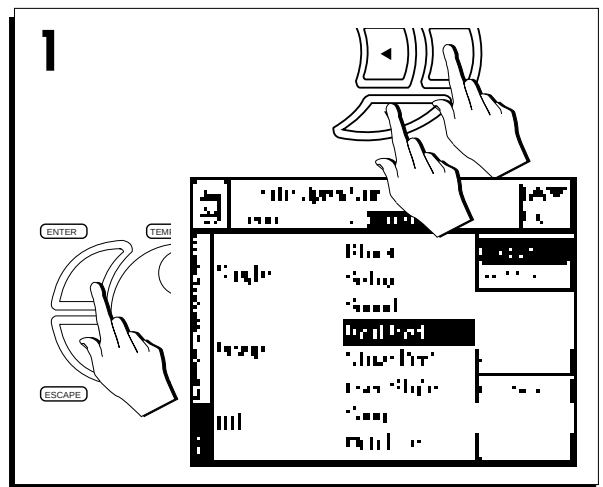
Use the  directional arrow to scroll to the destination required.

5. Press **ENTER** twice to save to the destination.

If you try to save to a different destination, a user message will inform you of your procedural error:



Press **ESCAPE** to close the window and repeat the operation, this time selecting the correct destination.



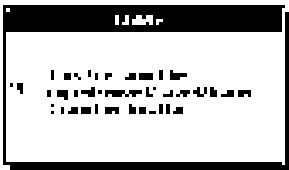
**SAVE GROUP PERF, STYLE PERF, USER
STYLE, SONG**

Use «Save Group» to save an entire Group of User Styles (and associated User Style-Performances), Performances (Real), Style Performances (associated to the Rom Styles) or Songs. A Group of 8 elements which can be saved in a single step.

The Song “Groups” are virtual elements (found in the Disk environment only), corresponding to the first 8 or second 8 locations of the Song memory. In fact, when you press the Song button to select a Song, the song selection display shows two columns, left and right. The left column corresponds to Songs-Group 1 and the right to Songs-Group 2.

ATTENTION! A Group of ROM Style Performances must be saved to the correct destination in the disk directory - you will not be permitted to “switch” the ROM Style Groups. For example, Group 2 (16 Beat) cannot be loaded to any other location in disk other than Group 2.

If you attempt to save to a destination other than the correct one, a user message will inform you of your error with the following message:



Press ESCAPE to close the user message and try again, this time selecting the correct destination.

The example on the next page shows how to save a Group of Style Performances. Use the same steps for «Save Group Performance (Real)», «Save Group User Style» or «Save Group Song».

1. Select **GROUP STYLE PERFORMANCE** from the main Save page then press **ENTER** to gain access to the **FILE SELECTOR**.

2. Select the destination device (Floppy or Hard disk).

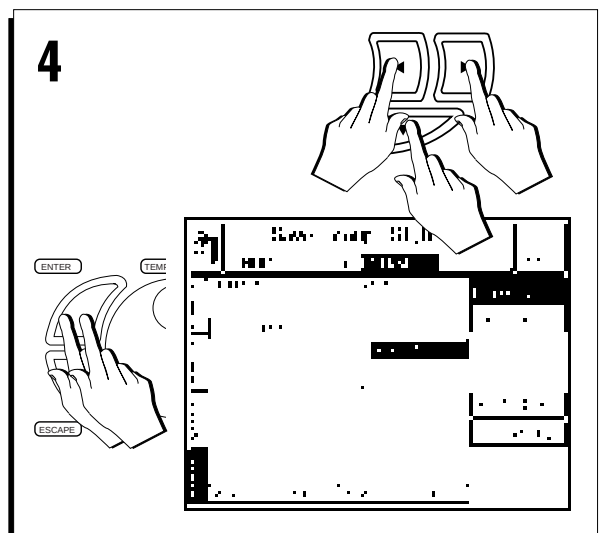
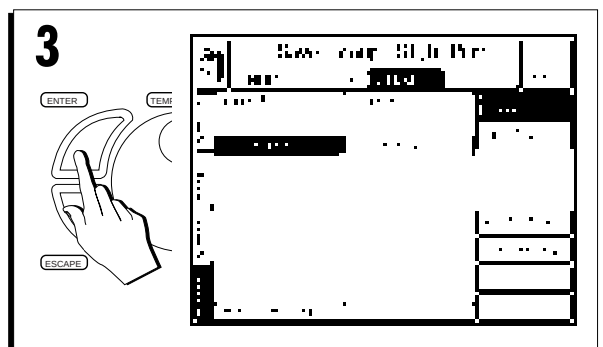
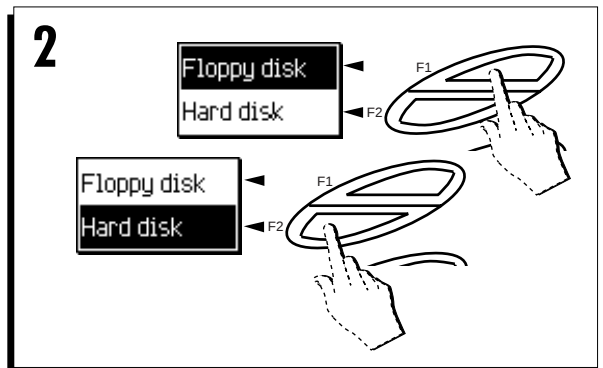
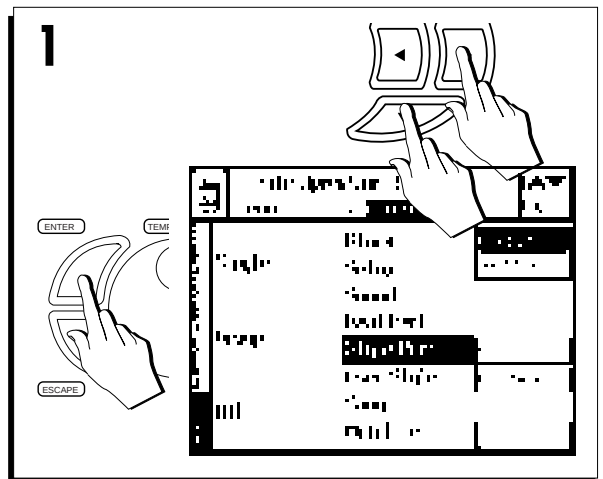
Press soft button F1 to select the Floppy disk.
Press soft button F2 to select the Hard disk.

3. Select the destination Block then press **ENTER** to gain access.

If necessary, select an empty location to create a new Block using the method already discussed in the General Save procedure.

4. Select the Group file from the RAM directory and its destination then press **ENTER** twice to execute the command.

.....
► **Warning:** The Group currently in disk is completely rewritten by the incoming Group. For example, if the User Style Group you are saving contains only one User Style, all User Styles of the destination Group will be cancelled and replaced by the new Group. Be sure of the contents of the Group data being overwritten before proceeding.
.....



SAVE ALL

Use «Save All» to save an entire set of file types contained in RAM in a single step. This procedure allows you to save:

- up to 16 Songs (All Song);
- 16 Groups of Ram-Sounds and RAM~ Sounds (All Sound);
- 8 Groups of Performances (All Real Performance);
- 12 Groups of Rom Style Performances (All Style Performances);
- 4 Groups of User Styles (All User Style).

.....
► **Warning:** Use "Save ALL" with care as this procedure overwrites all data at the destination. Be absolutely sure, therefore, of the file content in disk before using the "Save ALL" procedures.
.....

The example refers to the Save All Song procedure. Use the same steps for other Save All operations.

1. Select ALL SONG from the main Save page then press ENTER to gain access to the FILE SELECTOR.

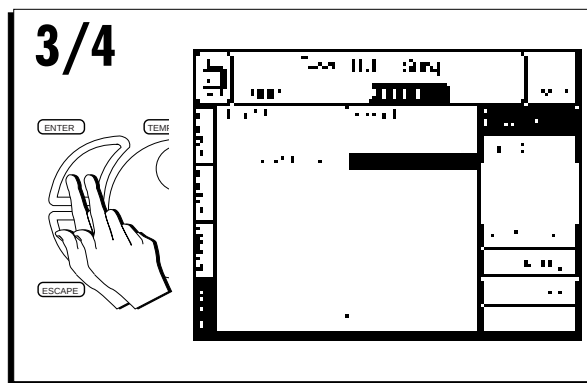
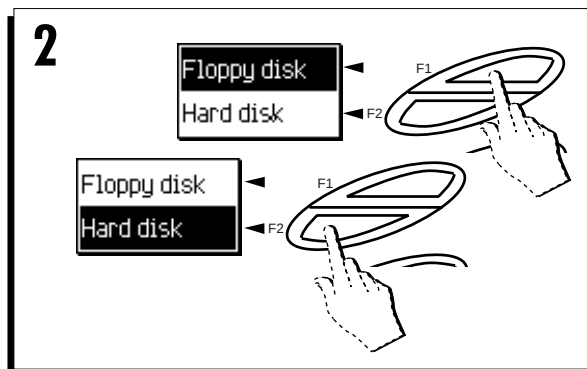
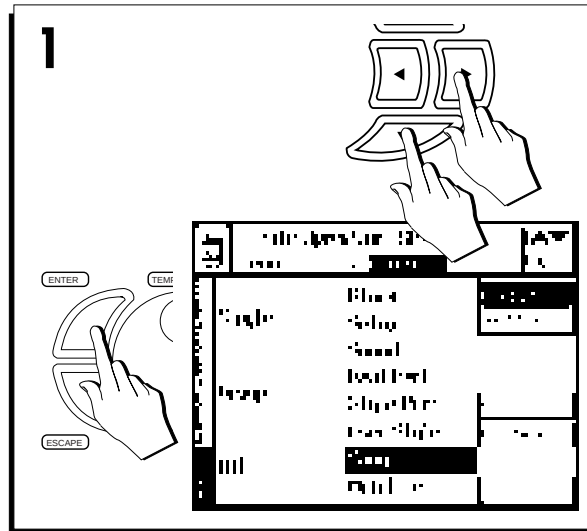
2. Select the destination device (Floppy or Hard disk).

Press soft button F1 to select the Floppy disk.
Press soft button F2 to select the Hard disk.

3. Select the destination Block in the disk directory.

If necessary, select an empty location to create a new Block using the method already discussed in the General Save procedure.

4. Press ENTER twice to start the saving procedure.

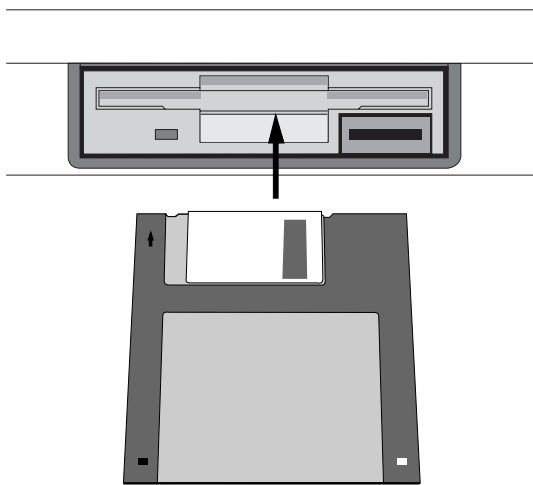


General disk handling information

If you're new to working with floppy disks and are not sure as to how you should handle these delicate accessories, please read this section for some useful information.

INSERTING A DISK INTO THE DISK DRIVE

Floppy disks must be inserted into the disk drive label side up and shutter first. Push the disk firmly into the drive until it "clicks" into place.



Avoid forcing a disk into the drive and hold the disk straight while inserting it.

EJECTING A FLOPPY DISK

Before ejecting a disk, make sure that the disk drive operating led is off and that the **WK4** display is not currently showing a "Loading" or "Saving" message.

To extract the disk, press the eject button and remove the disk.

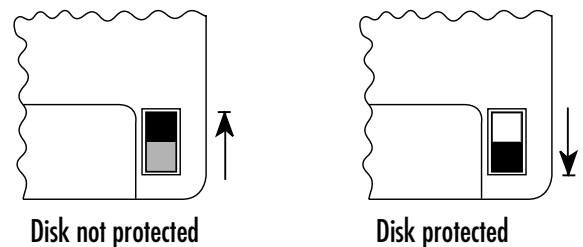


THE WRITE PROTECT TAB

Floppy disks contain a write protect tab which allows you to protect valuable data from being accidentally overwritten.

To prevent writing data to disk and so avoid accidental erasure, slide the tab fully down to "open" the window.

To permit writing data to disk, slide the tab fully up to "close" the window.



Use a pen or other pointed object to set the tab as shown.

.....

HANDLING FLOPPY DISKS

When handling floppy disks, certain precautions should be taken to avoid damage and/or data loss.

- Do not open the metal protection shutter or touch the surface of a disk
- If your **WK4** has to be transported, make sure that a floppy disk is not inserted in the disk drive. Vibration may cause the disk drive head to scratch the disk, rendering it unusable.
- Do not store or place floppy disks in close proximity of television sets, computer monitors, loudspeakers, power transformers, or other devices that are potential sources of magnetic fields. Doing so may render the disk unusable.
- Do not store or place floppy disks in locations subject to extremes of temperature and humidity, direct sunlight, or excessive dust and dirt.
- Do not place objects on top of a floppy disk.
- Return disks to their protective cases after use.

BACKUP COPIES

At the end of a work session, always remember to copy all elaborated data present on RAM or Hard disk to Floppy Disks.

Should you accidentally erase some files from RAM, or should the hard disk suffer damage and data loss, you will always be able to recuperate the data from your disks.

It is advisable to keep backup copies of all your disk data. "Backup" is technical jargon for "a second copy". Backup copies stored in a safe place are extremely important. Disks can become damaged or lost, so please backup your work.

DISK DRIVE HEAD CLEANING

After a prolonged period of use, disk save and load errors may become frequent due mainly to dirty disk drive heads, indicating that the disk drive head may need cleaning. This can be done using a good-quality fluid-type head cleaning kit for 3.5 inch (double-sided) disk drives. Do not use a cleaning kit intended for single-sided disk drives.

1. **Moisten the cleaning disk with cleaning fluid.**
2. **Insert the cleaning disk into the disk drive.**
3. **Execute a load function. An error message will appear. This is normal.**
4. **After approximately 10 seconds, eject the disk.**

Do not use the disk drive for about 5 minutes.

• 7 Songs & MIDI files

WHAT IS A SONG

A Song is a multitrack recording of several instrumental parts, each corresponding to a track.

WK4 can load Songs from disk in its own format (Song), in previous compatible formats (WX, SX), in standard MIDI file format 0 or 1 and in Tune1000™ format.

WK4 Songs are 'free', that is, tracks can be recorded starting from any point, without start or end segment limitations, which characterize most sequencers.

The "Edit Song" functions allow you to modify the recorded song, by copying or moving entire parts of a song, by correcting timing errors, by inserting events in 'event edit' environments (Microscope and Master Track).

Tracks contain MIDI events, that is, notes and control data. Control data can include PitchBend and Aftertouch messages, ProgramChange and BankSelect messages for sound changes, ControlChange messages to control the effects sends, Sustain pedal and other control parameters.

MIDI events recorded on tracks are not the internal Wave sounds, but messages which activate the **WK4** internal sound generator or an expander controlled by **WK4**. A Song is a MIDI event list – a list for each track.

General control messages are recorded in the Master Track. These messages relate to the instrument in general, such as effects change or Performance selections.

WHAT IS A STANDARD MIDI FILE

A Standard MIDI File is a storage format created to maintain data compatibility among different devices complying with the Standard MIDI File format. This format allows Songs to be exchanged between different instruments and computers. If a Song is saved as a MIDI file on an MS-DOS disk, you can be certain that all the most recent generation of instruments and sequencers/computers will be able to load and read that Song.

General MIDI

To facilitate compatibility between different makes of instruments, MIDI files should be in General MIDI standard, a common platform for sounds and the way they are selected.

General MIDI stipulates common standards regarding the listing of sounds, Program Change numbers for sound selection, the percussive sound configuration in the Drumkits, the assignment of MIDI channel 10 to the Drumkits, a minimum polyphony (24) and a maximum number of tracks (16).

In **WK4**, Sound Bank 1 and Drumkit Bank 2 are fully GM compatible. **WK4** recognizes GM compatible MIDI Files, thanks to a messages contained in the MIDI File (General MIDI ON flag). If this message is not detected, sounds that differ to a Drumkit may be assigned to MIDI channel 10.

To ensure correct loading of GM compatible MIDI files that do not contain the General MIDI ON flag, set the General MIDI parameter to ON in the "General Set" parameter of «Edit MIDI» before loading.

WK4 can save GM compatible MIDI Files when the General MIDI parameter is set to ON. MIDI

Files loaded into the **WK4** memory are converted to **WK4** Songs.

GMX format

GMX refers to the “General MIDI eXtended” format, specifically created by Generalmusic, which renders the first three sound banks of the **WK4** with previous series instruments (WK and PS) completely compatible.

To program **WK4** Songs that are perfectly compatible with all WK and PS Series instruments (e.g. **WK4** and WK3), use the Sounds of the first three Sound banks and record the Songs using 16 tracks only (MIDI channels A1...A16).

TRACK STATUS ICONS

The track status icons of a Song can appear as follows:

«key-play» icon



The track can be played on the keyboard. You can select it and assign other sounds to it. Remember that when you change Song-Performance, or press PLAY or STOP, the sounds return to those of the Performance. You can memorize different sounds to the Performance by pressing STORE PERFORMANCE button.

«mute» icon (track without notes)



Track is temporarily deactivated and cannot play.

«mute» icon (track with notes)



The track, even if it contains notes, is temporarily deactivated and cannot play.

«record» icon



The track is in a record pending status.

«seq-play» icon



The track, engaged by the sequencer, contains notes but cannot play in real time on the keyboard and cannot receive messages via MIDI IN. To play it on the keyboard, set it to key-play.

«MIDI-receive/transmit» icon



The track can receive (IN) and transmit (OUT) MIDI.

«MIDI-receive» icon



The track receives MIDI messages (IN) but does not transmit them (OUT).

«MIDI-transmit» icon



The track does not receive MIDI message (IN), but transmits them (OUT).

.....

SONG-PERFORMANCES

Normally, Sound change messages (ProgramChange and BankSelect) are inserted in the single track. Effects change messages are inserted in the Master Track.

Using the Song-Performance is an alternative and rapid method of changing Sounds and Effects. Song-Performances instantly reset the instrument, therefore, they are very useful during a real time Song recording.

Generally, when programming a Song from an external computer, it is convenient to insert all the messages in the tracks, while during a real time Song recording, it is better to program several Song-Performances and select them during the recording. The selection message is recorded in the Master Track as a ProgramChange.

Each Song contains up to 8 Performances, which are loaded and memorized with the corresponding Song.

When a MIDI file is saved, Performances are converted in track data (ProgramChange, Pan, Volume, effects send).

PROGRAMMING SONG-PERFORMANCES

The method used to program Song-Performances is identical to that used for the Performances of the Performance Groups (Real) and discussed in detail in the Sounds & Performances chapter 4 of the User Guide.

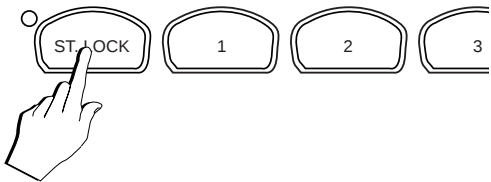
A Song has a maximum of 32 tracks.

► **Note:** After having programmed or modified a Song-Performance, press STORE PERFORMANCE to save it to RAM. The selection of another or the same Performance or pressing STOP and PLAY, will erase the modifications.

SELECTING SONG-PERFORMANCES

1. In Song mode, press the SONG P. button.

The SONG P. button is located to the left of the Performance Groups section.



The «Select Song-Performances» windows is opened:

SONG P. SELECTION	
MODI STO	FFFFFFFF
FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF
FFFFFFFF	FFFFFFFF

2. Select the desired Performance using the corresponding Soft button.

If you select it during the recording, the event is stored in the Master Track as a ProgramChange.

Selecting Songs

WK4 can store up to 16 Songs. Press the SONG button to select a Song and pass to Song mode.

Pressing the SONG button opens the selection window with the list of the memorized Songs. Once a Song has been selected with the Soft buttons, the Song is active and can be played.

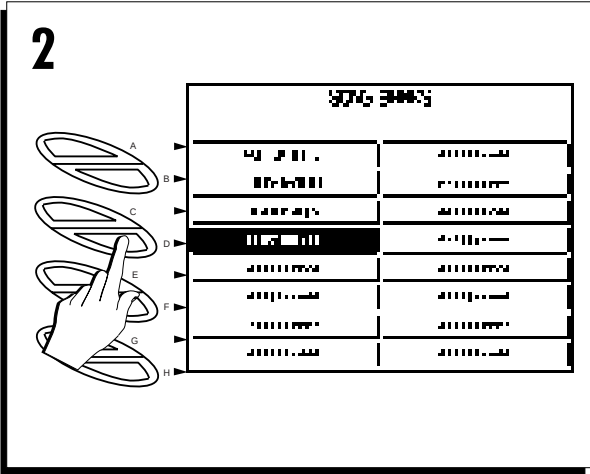
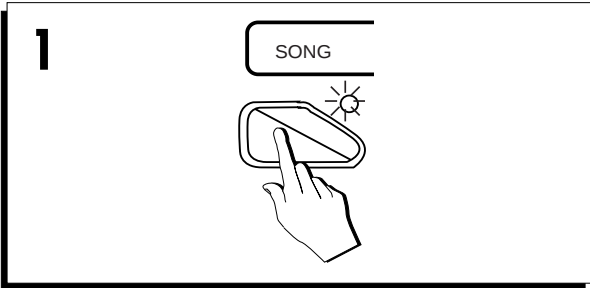
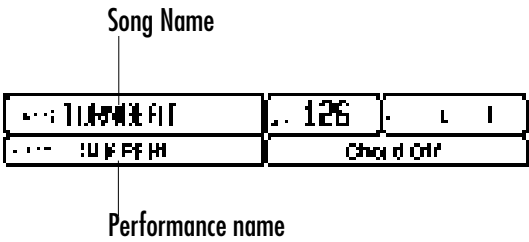
TO SELECT A SONG

1 Press the SONG button.

The «Select Song» window appears:

2 Select the Song with the Soft buttons.

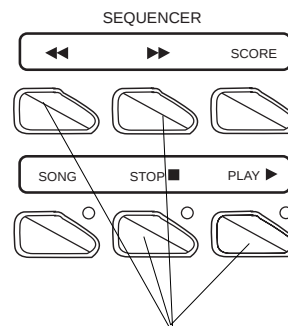
The Song is selected and you pass automatically to Song mode. The Song name appears on the status bar.



Song Playback/Jukebox

PLAYBACK CONTROL BUTTONS

The buttons which control the playback of Songs in memory are in the SEQUENCER section.



Song playback control buttons

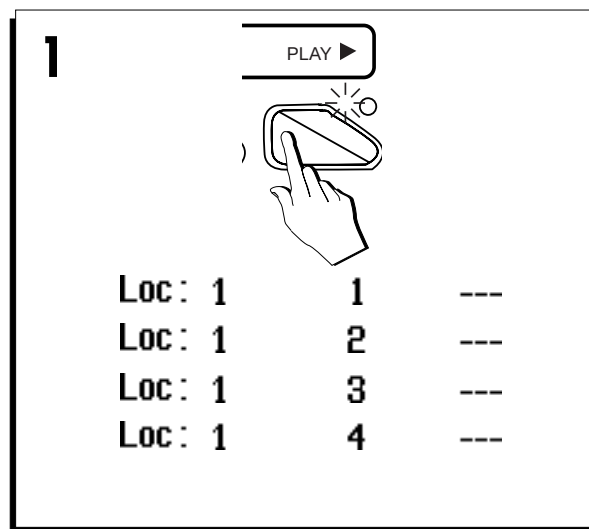
PLAY

1. After selecting the Song, press **PLAY** to start the playback.

This button starts the Song playback (or recording).

During the playback, the LED on the **PLAY** button is on. The location (LOC) in the display shows the current position of the Song.

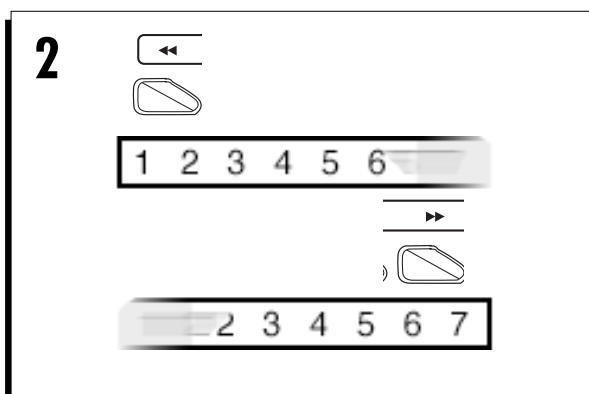
If the Song is not playing, pressing **PLAY** starts the Song from the current position.



<</>>

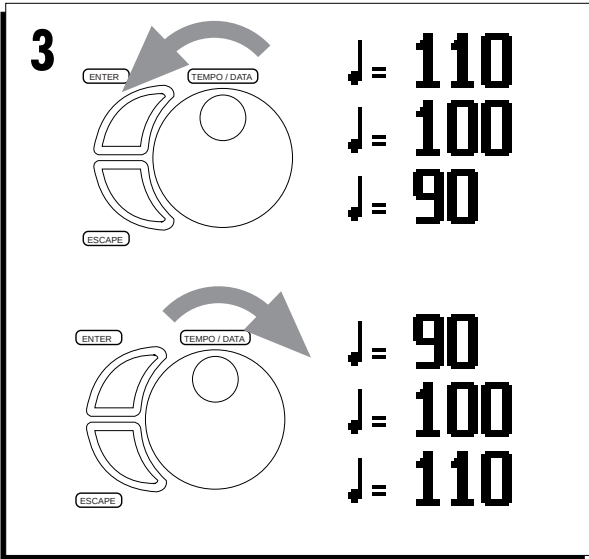
2. Press << rewind the Song and >> to advance.

The << and >> buttons rewind or advance one measure (bar) at a time. If you hold these buttons pressed, the Song rewinds or advances at high speed. These buttons are active either in Song play or stop status.



3. Rotate the DIAL (TEMPO/DATA) to change the tempo.

During playback, the DIAL changes the Song's playing speed (tempo).



STOP

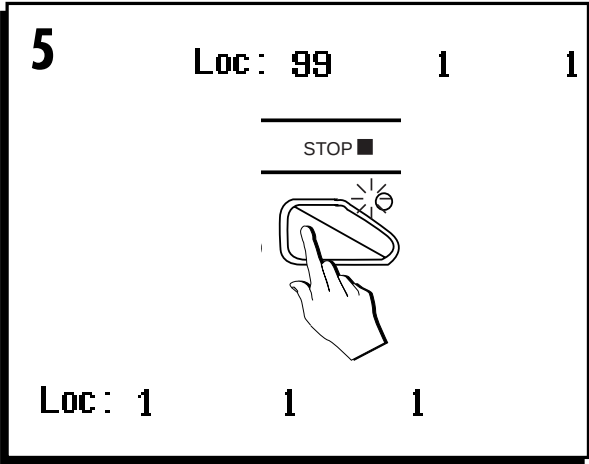
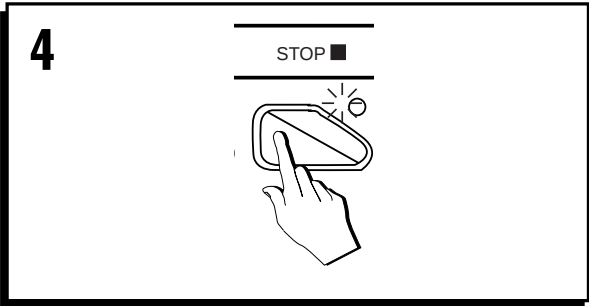
4. Press STOP to stop the playback.

This button stops the Song playback (or recording).

When the Song has been stopped at a position that differs to the initial Song start position, the LED on the STOP button flashes.

5. Press STOP again to return to the starting position of the Song, or rewind with the << button.

When the Song is not playing and at its initial starting position, the LED on the STOP button remains on.



«Play view» parameters

The main page of Song mode («Play View») contains position pointers and performance control parameters.

SONG VIEW/PLAY VIEW

You can opt to see the Song in «Play View» mode in order to modify the playing parameters, or in «Sound View» mode in order to see the sounds assigned to the tracks of the current Song-Performance. You can pass from one mode to another by pressing the corresponding Soft button (F5 or F6).



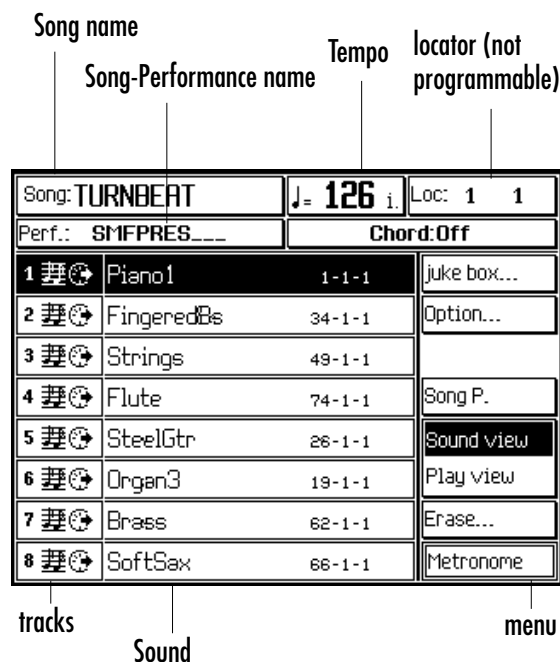
Tempo

Metronomic Tempo. The value represents the playing speed (beats per second) at the current song position. During the playback, the Tempo can be modified with the DIAL.

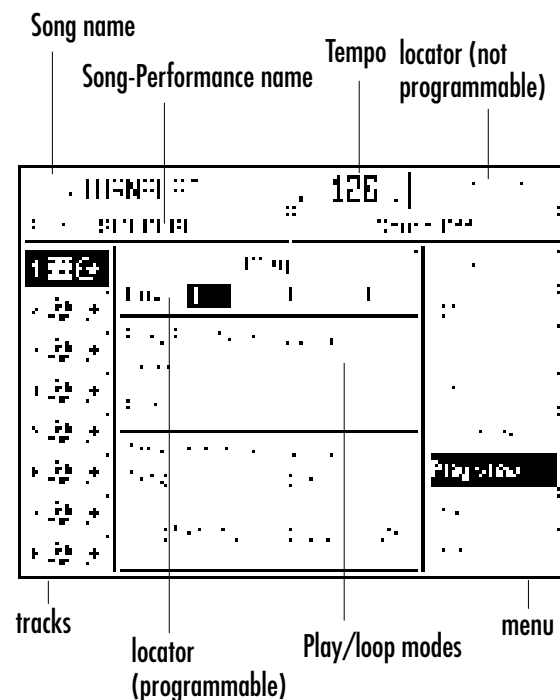
The [i] or [e] symbols, shown after the tempo value, are an indication of the status of the synchronizing MIDI clock: [i] = internal (**WK4**) or [e] = external (external sequencer connected to the **WK4** MIDI IN). The synchronization is programmed in «Edit MIDI», «General settings» page.



► **Note:** The starting tempo can be changed by modifying the Master Track in «Edit Song», or by using the DIAL in «Play View». The selected value remains in memory.



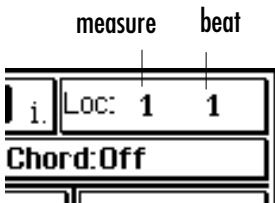
«Sound View» page



«Play View» page

Locator (Song position pointer)

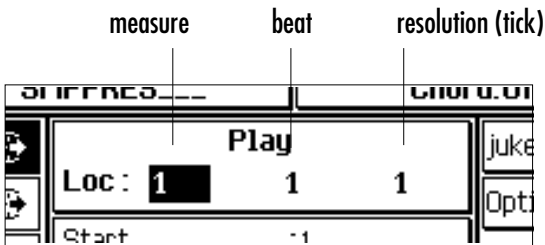
This section shows the current Song position expressed in measures and beats. When the Song is not playing, the Locator can be modified in the «Play View» page in order to select a starting point for the playback. It can be also modified with the [<<] and [>>] buttons regardless of the status of the sequencer (playing or off).



Locator (programmable)

Repeats the same information of the locator shown in the status bar, but also contains the sequencer resolution (or 'tick').

When the sequencer is off, the three parts can be individually modified (if selected) by rotating the DIAL.



Play/Rec mode

There are three Play or Record options to choose from:

- **Linear**

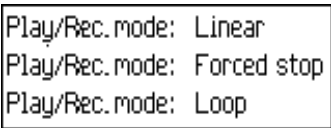
The Song starts at the point indicated by the locator and stops at the natural Song end.

- **Forced stop**

The Song starts at the point indicated by the locator and stops at the specified End.

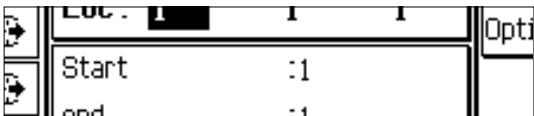
- **Loop**

The Song starts at the point indicated by the locator, stops at the End, then repeats from the Starting point. The loop repeats continuously until stopped with the Stop button.



Start

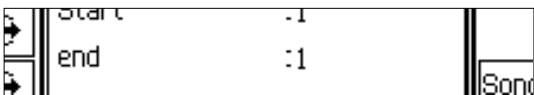
Determines the start measure and can be modified only if the Play mode is set to «Loop». If Loop is selected, this parameter indicates the starting point of the loop. Modify this parameter when it is in a selected state, or when the Song has already been recorded, by rotating the DIAL.



End

Determines the end measure and can be modified only if the Play mode is set to «Forced stop» or «Loop». If Loop is selected, this parameter indicates the point at which the sequence ends before looping back to the Start locator. If Forced stop is selected, it indicates the automatic Stop point.

This parameter can be modified when it is in a selected state by rotating the DIAL.

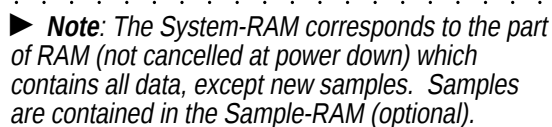


This parameter can only be modified before recording the Song.



Song memory (not programmable)

Shows the Song dimensions expressed in Kilo-bytes. Each Song is limited to 400 kb of memory, independent of the memory remaining in the System RAM.



JUKEBOX... (F1)

Recalls the Jukebox function (explained afterwards).

OPTION... (F2)

Metronome options.

Countdown - activates a one measure lead into the recording of a sequence during which events cannot be captured. *Options: On, Off.*

Metr. volume - Sets the metronome volume.
Options: Off, 10...127.

SOUND VIEW (F5)

Recalls the «Sound View» page, where you can see and change the sounds of the current Performance.

PLAY VIEW (F6)

Recalls the «Record View» page, where you can control the record/playback parameters.

ERASE... (F7)

Track or Song erase parameter.

Track- Cancels the selected track.

Song - Cancels all tracks (all Song) leaving an empty Song, ready to start another recording.. The Song-Performances are not cancelled.

METRONOME (F8)

Activates/deactivates the metronome.

PLAY SONGS USING JUKEBOX

The Jukebox function chains the songs of your choice and plays them back as a 'medley' with a single command.

1. With the Song «Play View» page showing, press F1 («Jukebox...») to access the Jukebox display.

The left part of the display shows the list of Songs in memory. The right part shows the Jukebox list.

The negative highlight cursor shows which song is selected in the Song list. The frame on the right shows the destination in the Jukebox list.

Pass from left to right and vice versa with the directional arrows.

2. Select a Song from the left part to include in the Jukebox list. Press INSERT (F5) (or ENTER) to insert the Song in the list.

The right part of the display shows the name of the Song added to the list and the frame advances one step automatically.

3. Repeat the procedure for other Songs and press INSERT (or ENTER) each time to compile the list.

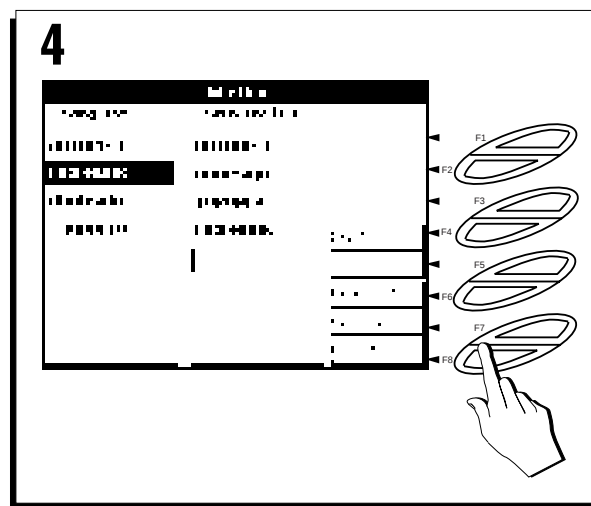
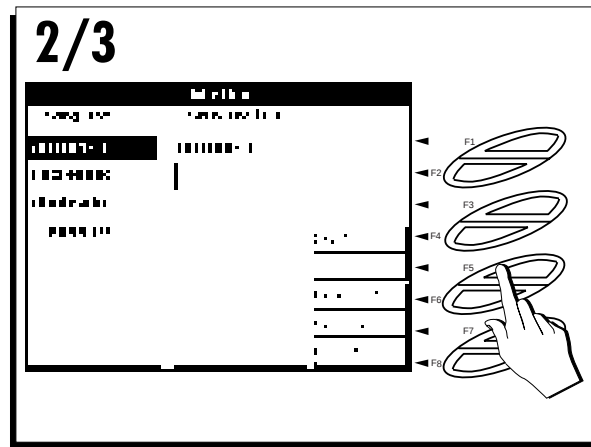
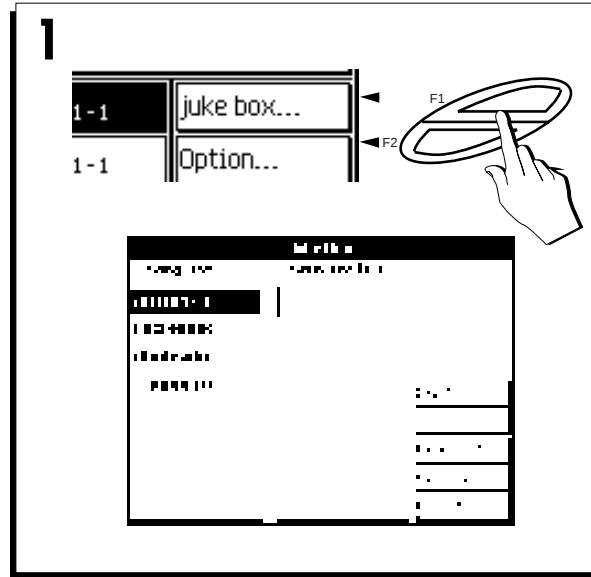
If you want to substitute one of the names in the Jukebox list, move the cursor to the right part of the display, select the name to change; move the cursor back to the left part, select the Song to insert and press INSERT or ENTER.

Take the cursor to the right and select a new location for the next Song. Return to the left part and carry out the selection.

4. Press F8 («Execute») to start the playback of the Jukebox list.

The Play View page of the Song appears and the status bar shows the indication: «Jukebox active».

You can interrupt the Jukebox at any time with STOP.



Jukebox Soft buttons

DELETE (F4)

Removes a selected Song from the Jukebox list.

INSERT (F5)

Inserts the Song selected in the left part of the display into the Jukebox list on the right, moving the names which follow afterwards one step forward. This command can be used instead of ENTER to insert a Song without cancelling another at the same location.

RESET LIST (F6)

Removes all the names from the Jukebox list.

ALL SONG (F7)

Includes all the Songs contained in memory to the Jukebox list. An existing list will be cancelled and substituted with the new.

EXECUTE (F8)

Starts the playback of the Jukebox. Once pressed, this button appears in the Play View page of the Song.

To stop the playback of Jukebox press STOP.

To display score, chords and lyrics (SCORE button)

While the Sequencer is playing a Song, the display or an external monitor or television can show the melody, chords and/or lyrics (the optional Generalmusic A/V card is need for external display).

It is possible to see the score of the main melody, or any other part of the score. For example, the bass part of the song can be muted and be played by a bass player, who can read the notes on a television transformed into a large screen music score.

The lyrics can be displayed together with the score, or alone in large type and in different colors while the Song is playing. In public venues, the lyrics can be projected on an external monitor or television for the audience to sing (in karaoke style).

.....

TO DISPLAY THE SCORE

► **IMPORTANT** Before displaying the score, chords and lyrics, you must first generate the Score part (in «Edit Song.», «Edit Score» function). The supplied demos and Songs found in commercial outlets may already include a Score.

1 Select the Song.

Press the SONG button, then select a Song with the Soft buttons.

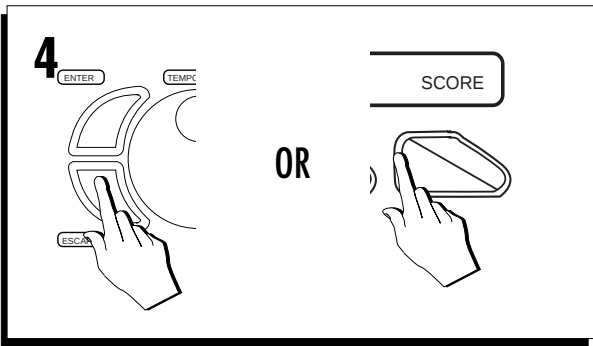
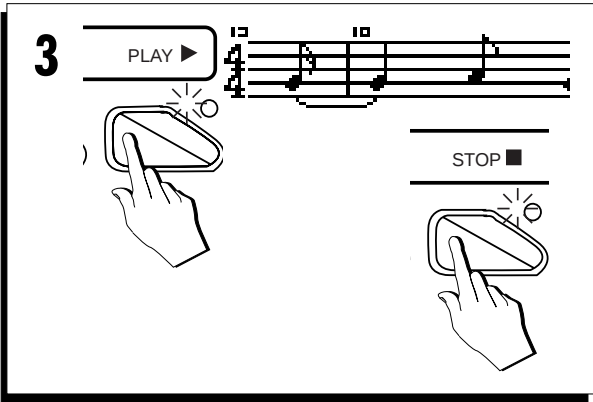
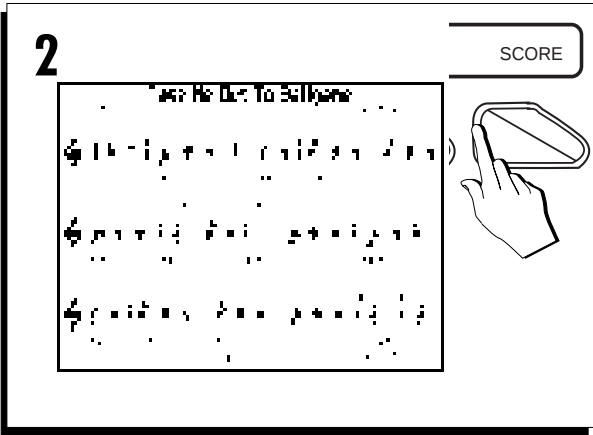
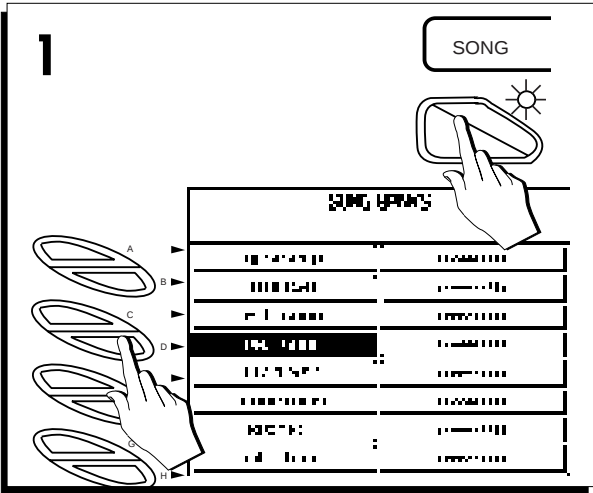
2 Press the SCORE button.

The Score View display appears. If the melody has already been created the notes will be shown, otherwise only an empty clef appears.

3 Press PLAY to listen the Song.

During the performance, an indicator box monitors the notes as they are played. If you are viewing lyrics only, you will see a change of color of the words in synchronization with the playback.

4 Press ESCAPE or SCORE to return to the main Song Playback page.



TO DISPLAY LYRICS IN LARGE TYPE

- 1 In Song mode, press SCORE to display the Score.
- 2 Press F8 («Score controls...») to open the «Score controls» dialog window.
- 3 Select the «Lyrics 1,2,3 or 4» option with the cursor buttons.

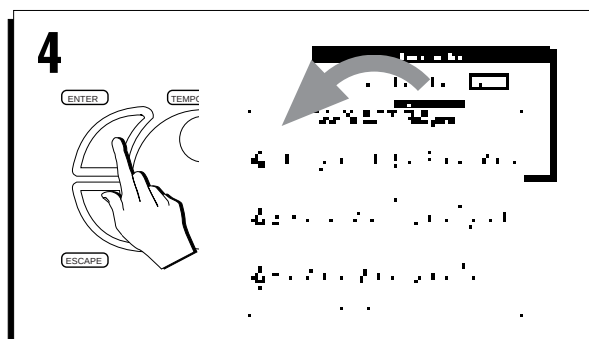
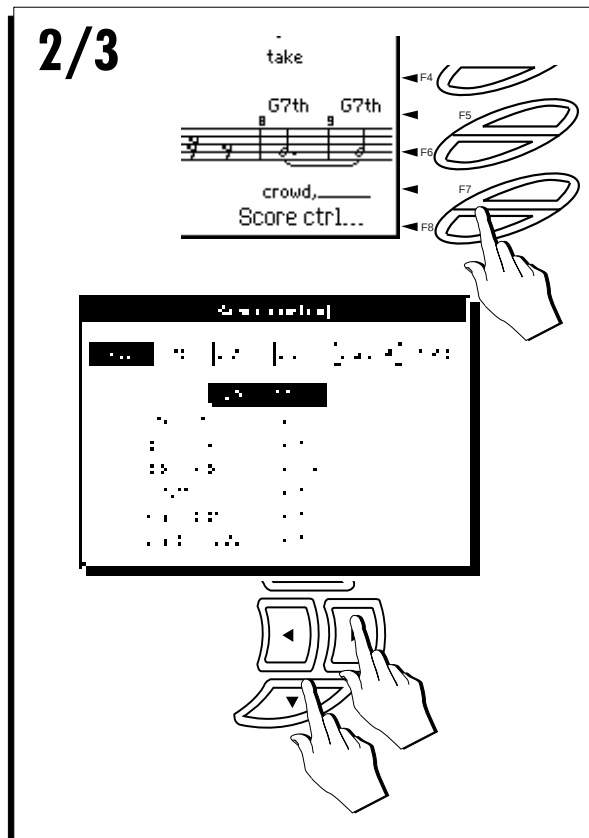
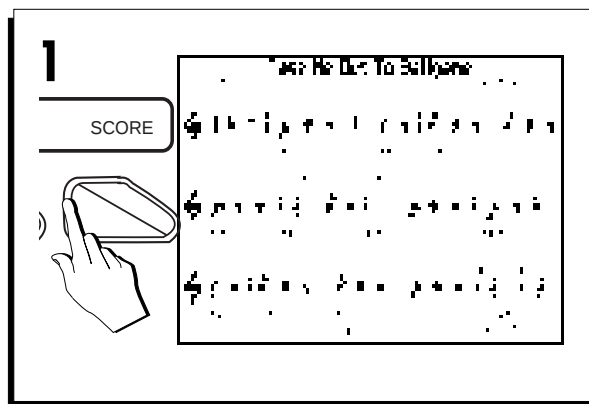
The options correspond to:

All - notes, chords and lyrics.

Lyrics 1, 2, 3, 4 - lyrics of various dimensions

Chords - chord symbols.

- 4 Press ENTER to close the dialog window and return to the Score View page.

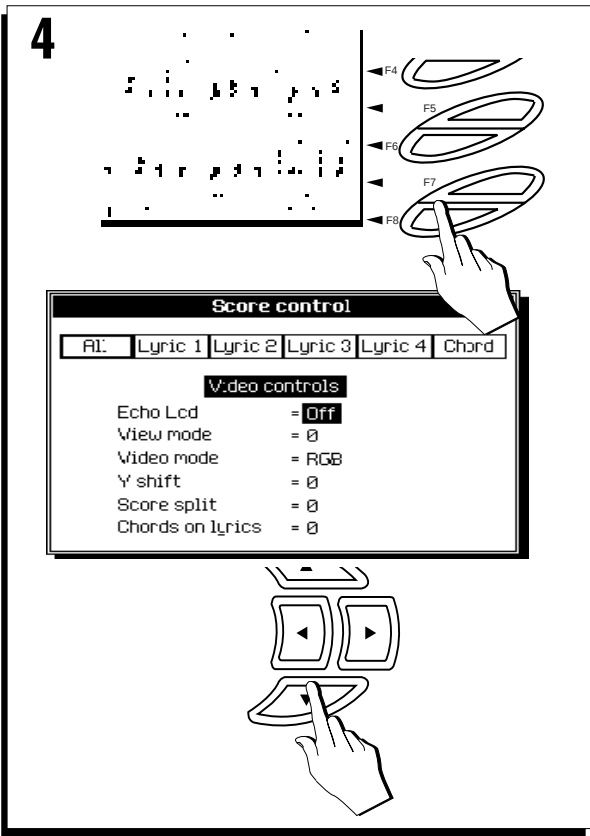
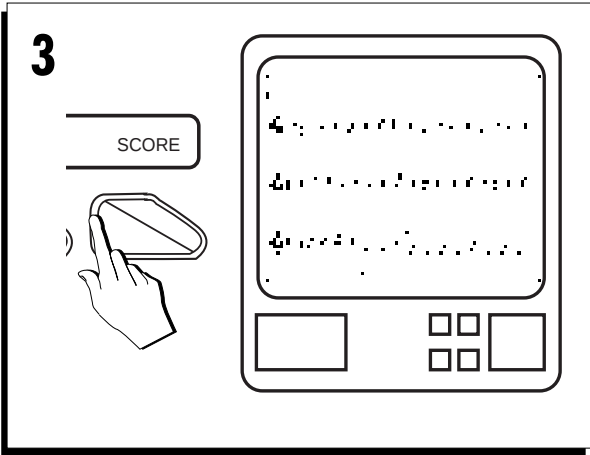
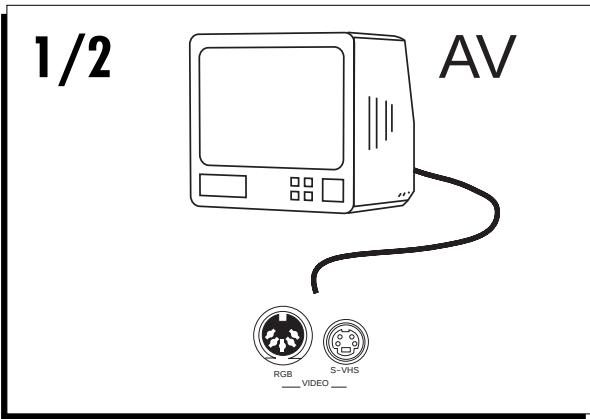


TO DISPLAY LYRICS ON AN EXTERNAL MONITOR

- **IMPORTANT:** A monitor can be connected only if the Generalmusic audio/video board is installed.
- 1 **Connect one of the video outputs to a domestic TV or to a monitor.**

The dedicated cable to connect an RCA connector is supplied with the optional AV board.
 - 2 **Tune the TV to the AV channel.**

To select the AV channel, consult the owner's manual of the television set. Computer monitors or televisions normally operate in AV mode.
 - 3 **In Song mode, press SCORE to display the Score.**
 - 4 **Press F8 («Score controls...») to open the «Score controls» dialog window and move the cursor to the «Echo LCD» parameter.**



5 Set the «Echo LCD» parameter to OFF.

«Echo LCD = OFF»: only the Score or the Lyrics is displayed on the external monitor.

«Echo LCD = ON»: the monitor displays exactly what is shown on the display, including all the controls.

6 Move the cursor to «View mode» and select a combination of colors for the lyrics and the screen.

If the Song includes a background image, the 16 option will display the image as a background for the lyrics on the external monitor.

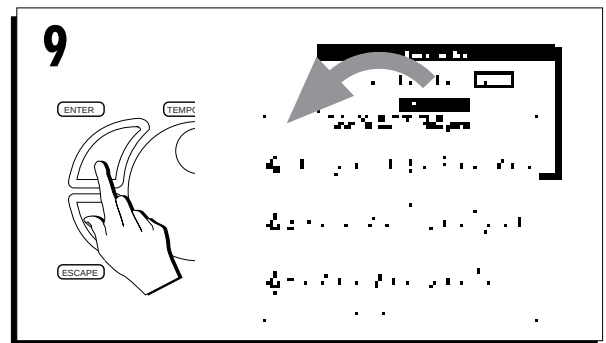
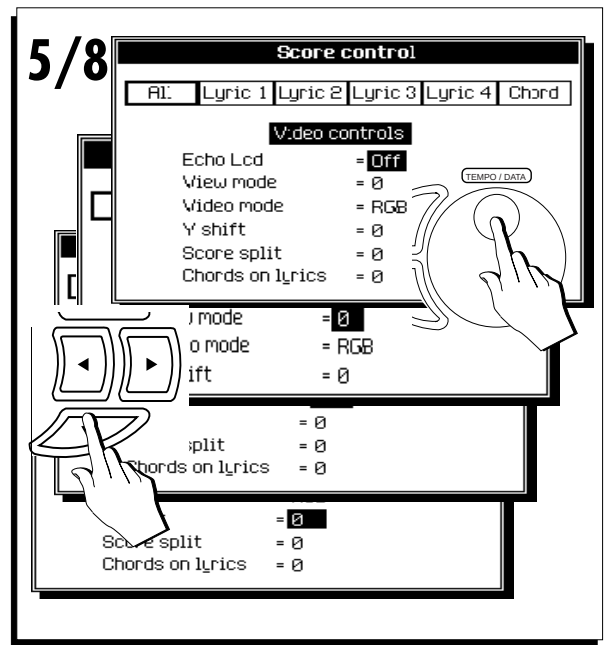
7. Move the cursor to «Video mode» and select the RGB or CV (Composite Video) mode.

To view on RGB monitors, set this parameter to RGB. U.S.A. models normally operate in CV and transmit in Composite.

8. Move the cursor to «Y shift» and regulate the vertical alignment of the image.

9. Press ENTER to close the dialog window and return to the Score View page.

The «Score controls» settings are memorized in System RAM. They are not saved in the Setup.



TO CREATE A SCORE PART (EDIT SCORE)

The Score (staff with musical notation, chord symbols and lyrics) must be created for new Songs. Record the melody track of a Song to generate the Score using the following instructions.

Edit Score also contains a Lyrics Editor which allows you to insert your own Lyrics and Chord symbols into the Score. Inserting Lyrics and Chord symbols is discussed in detail in the Edit Score chapter of the Reference Guide.

1. In Song mode press the ST./SONG button in the EDIT section to enter «Edit Song».

Select an existing Song, not an 'empty' one.

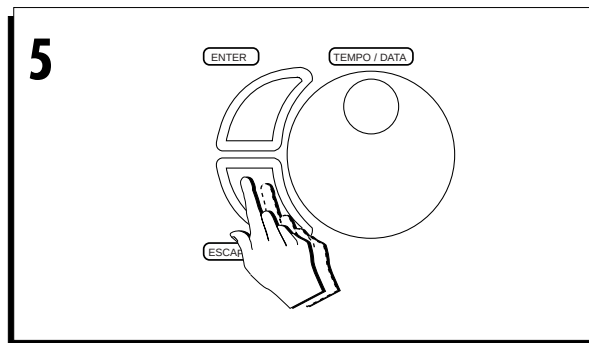
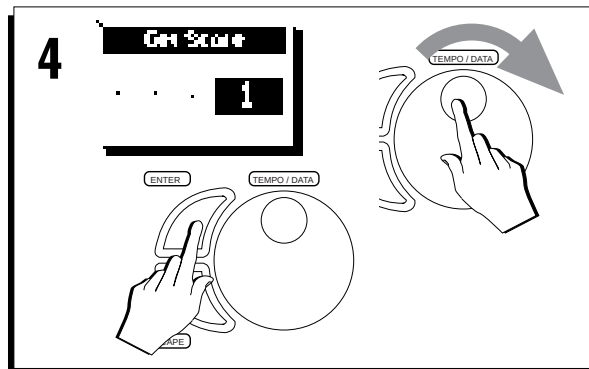
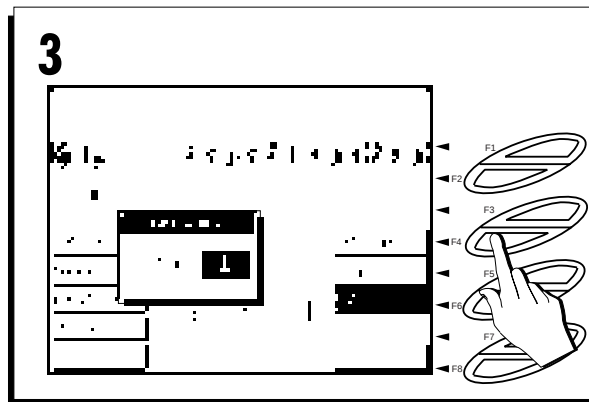
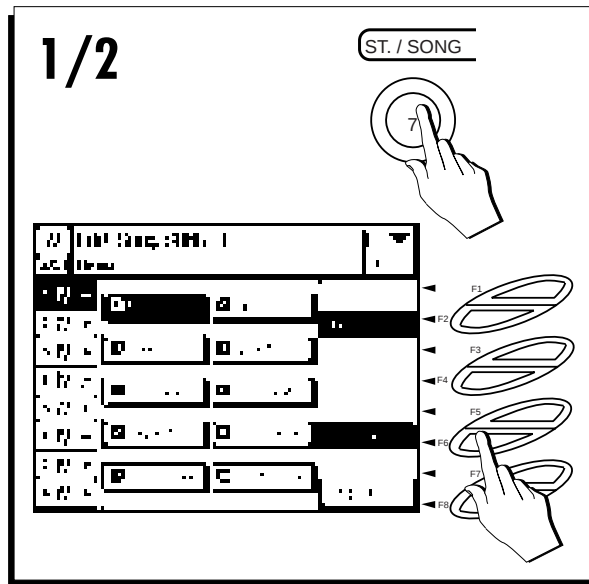
2. Press F6 («Edit Score...»).
3. Press F4 («Get Score...») to create the part from a track.

A dialog window appears which prompts you to select the track from which the Score will be created.

4. Rotate the DIAL to specify the different track number and press ENTER to confirm.

If the track contains chords, the melody analyser extracts the highest notes, those retained to belong to the melody. It is easier to obtain a good Score part from an exclusive melody track.

5. Press ESCAPE to exit «Edit Score». (Press ESCAPE again if you want to exit «Edit Song»).



Rapid Song recording (QuickRec)

WK4 allows you to record a Song in a conventional way - track by track including the Drum part using the 'manual insertion' method – or in a simple way, using the existing automatic accompaniments.

The simple method is called «Quick Record» («QuickRec») and permits you to record the Sounds assigned to the keyboard sections with automatic accompaniments. Once a song has been recorded, the result obtained is a normal Song which can be saved as a MIDI file and edited with the «Edit Song» functions.

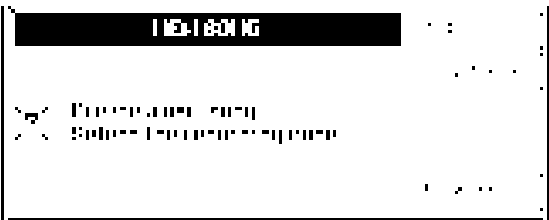
The Song recorded with the QuickRec method is identical to a Song created with the «Record» option.

.....
► **Note:** *The following procedure explains one of the several possible examples without referring to the different ways of starting the accompaniment or passing from one Variation to another, all actions, however, possible.*
.....

FIRST PHASE: ENTER THE 'RECORD PENDING' STATUS

- 1. In Style/RealTime mode, select the Style and the Performance with which you want start the recording.
- 2 Press SONG and select an empty location (i.e. a new Song).

A dialog window appears asking you to choose between the conventional («Record») and the «QuickRec» methods.

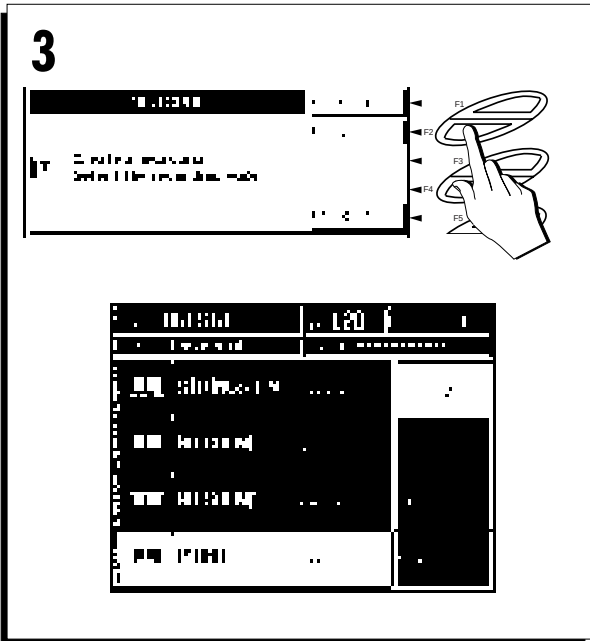
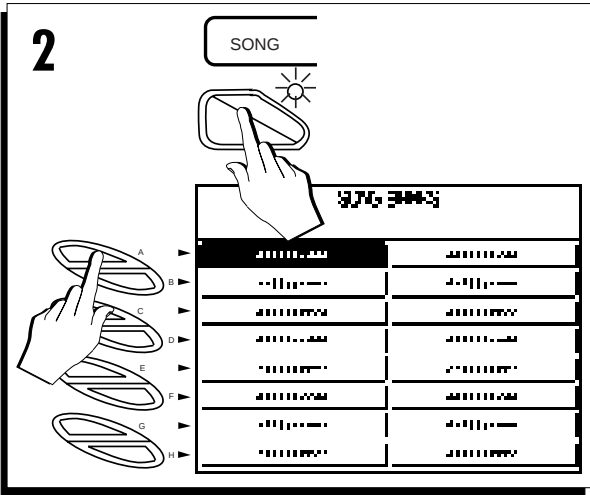
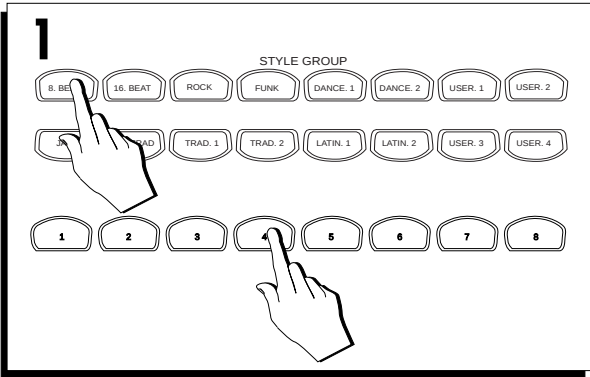


- 3. Press the F2 Function button to select the «QuickRec» method.

The LED of the RECORD button turns on and access to the «Quick Record» mode is achieved. The page is shown in negative highlight. The instrument is now in “record pending” status.

The page is very similar to the main Style/Performance page (with the Locator in the top right hand corner monitoring the measures of the Song rather than the Style).

For the recording, you can select any Style and use any accompaniment command (intro, fill, etc., exactly as if you were in Style/Performance mode.



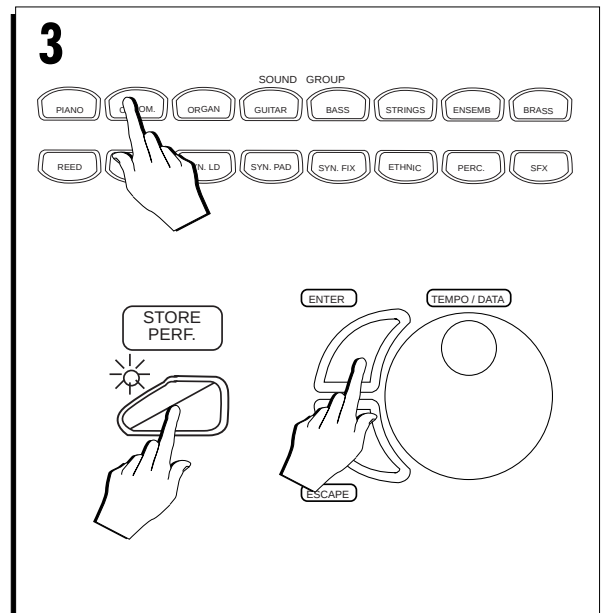
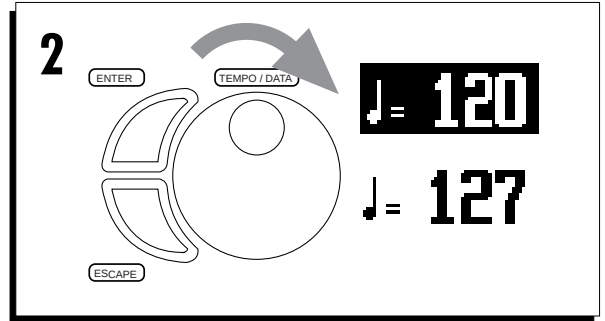
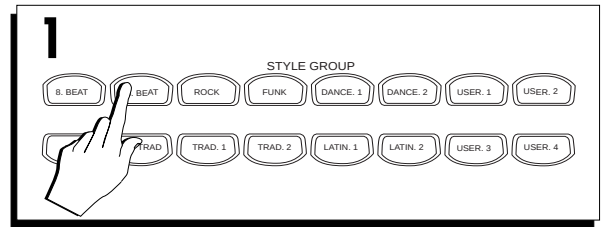
SECOND PHASE: PREPARATION

1. If necessary, select a different Style. Set the panel controls as preferred (ARRANGE ON/OFF, ARRANGE MEMORY, LOWER MEMORY, SINGLE TOUCH PLAY, STYLE LOCK buttons).
2. Adjust the Tempo.
3. Select the desired Sounds and save the Performance with STORE PERFORMANCE.

The sounds, effects, track settings, mute/play status, tempo regulations are memorized to the Performance.

.....
► Note: Do not disconnect the tracks from internal sound generation («Configuration» page of «Edit MIDI»). The QuickRec method allows you to record only the tracks connected to the **WK4** sounds.

.....
► Hint: To use one or more tracks to play only the sounds of an expander connected to MIDI OUT, after recording you can disconnect the same tracks from the internal sound generator in «Configuration».



THIRD PHASE: RECORDING AND ESCAPING FROM 'RECORD PENDING' STATUS

1. Preselect an INTRO, ENDING or FILL as required.
2. Activate KEY START, if desired.
3. Press START/STOP or PLAY.

Pressing START/STOP activates PLAY automatically. The recording starts immediately and the locator starts to monitor the measures (bars) of the Song being recorded.

.....
 ► **Hint:** If you want the Song to start with all the accompaniment parts (not only the Drum track), play a chord and press START/STOP at the same time, or use KEY START.

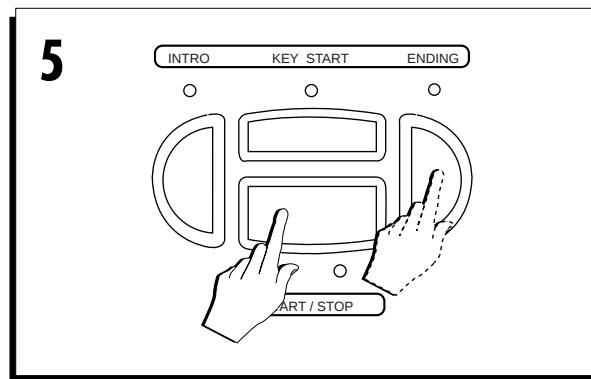
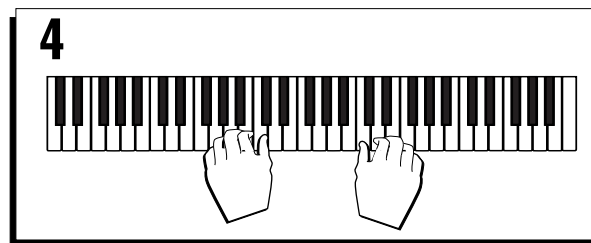
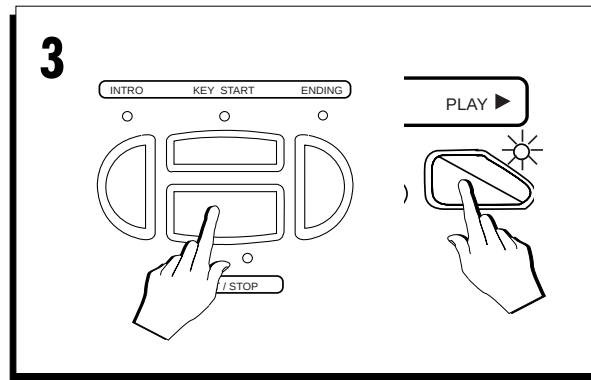
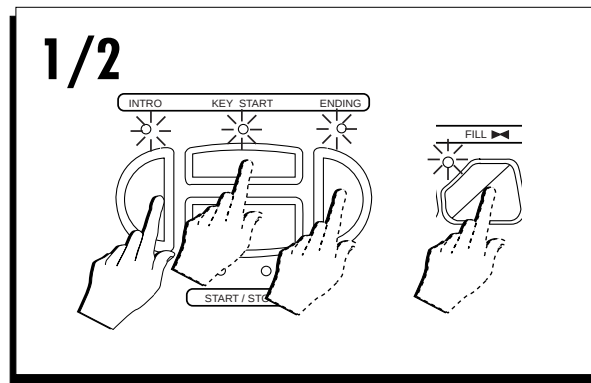
► **Hint:** To start the Song without arrangements, start the record by pressing PLAY and press START/STOP when you want to introduce the arrangements.

4. Start to play

You can stop the Style, select another one and restart, as if you were playing live.

5. Press START/STOP (or ENDING) to stop the arrangements.

The Song is still in record mode, allowing you to continue recording the keyboard sounds. The locator in the top right continues to monitor the measures (bars).

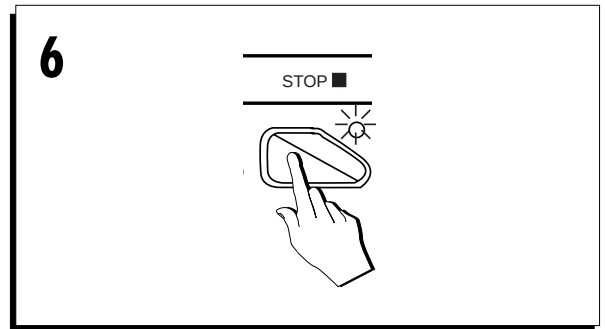


6. Press STOP to stop the recording and escape from QuickRecord mode.

The LED of the RECORD button goes off. At this point you can:

- add other parts to the Song with the Record method (conventional recording method).
- modify the Song in «Edit Song».
- save the Song to disk as an **WK4** Song.
- convert the song in MIDI file format (if you wish to transfer it to another compatible MIDI instrument or computer sound card)

.....
► **Note:** Avoid saving the Song as a MIDI file format only. The **WK4** format conserves a great deal more information (for example, the name of the composer and editor) and has faster file handling and loading times.
.....



RESTORING THE SONGS MEMORY

If you have loaded disk-based Songs or recorded Songs and used up all the memory dedicated to the storage of Songs, there is a quick and easy way of clearing memory to make room for other Songs using the Restore Songs operation. Naturally, you must remember to save your Songs to disk before proceeding with the restore procedure.

1. Press **GENERAL** in the **EDIT** section to gain access to the «Edit General» environment.

2. Press **F7** («Restore Songs») to cancel all the Songs (and relative Song-Performances) in RAM.

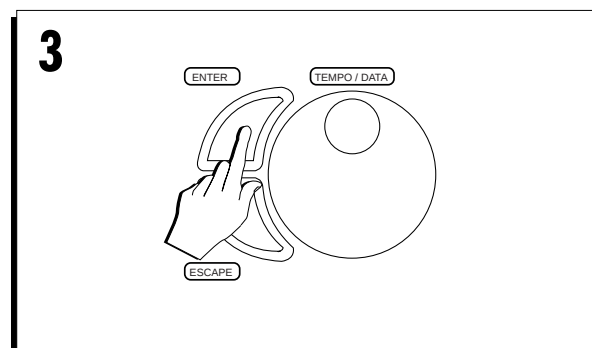
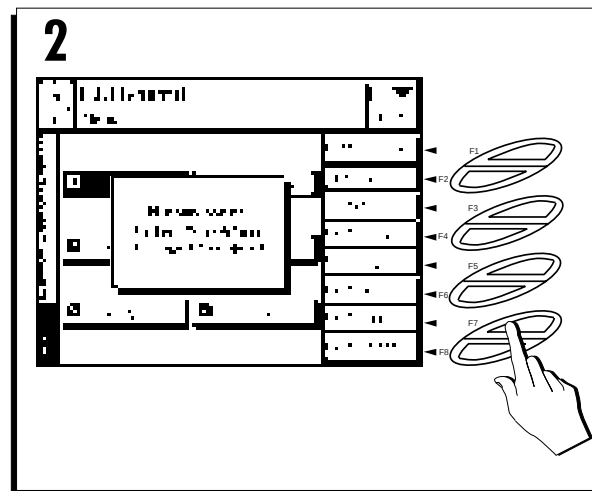
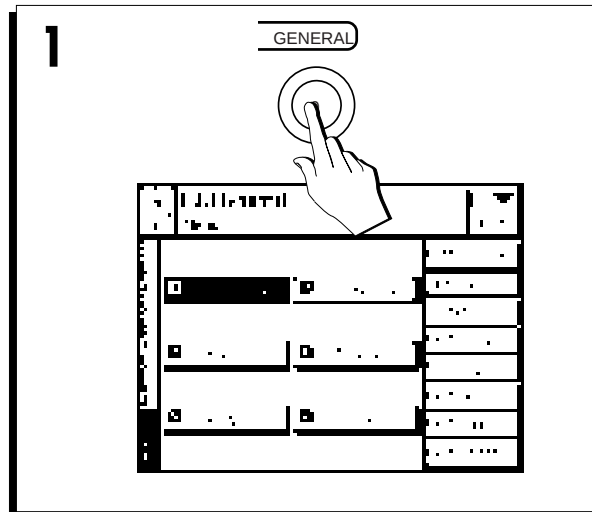
You are prompted with a request to reconfirm your choice.

3. Press **ENTER** to confirm, or **ESCAPE** to cancel.

With **ENTER**, the Songs are cancelled from memory.

With **ESCAPE**, the song data are retained.

.....
► **Hint:** To cancel the entire contents of RAM in a single operation, use the «Restore All» command.
.....



• 8 MIDI

WHAT IS MIDI?

MIDI (Musical Instruments Digital Interface) is a system of communication between electronic musical instruments and computers.

With MIDI it is possible to:

- control another musical instrument with **WK4**;
- control **WK4** with a master keyboard or other controlling device (guitar controller, wind controller, drum pads...);
- connect **WK4** to an external sequencer to program Songs and Styles.

WHAT TRAVELS VIA MIDI?

The MIDI ports do not emit sounds, but transmit instructions on how the instrument being controlled (slave) must emit the sounds.

For example, when a note is played on the **WK4** keyboard, the MIDI OUT port transmits a Note On message which plays the sounds of the instrument whose MIDI IN is connected to the **WK4** MIDI OUT.

There are several different types of MIDI messages:

- Note On, Note Off, Velocity - messages generated by the notes played.
- Program Change (abbreviated: PC) - messages which select Sounds, Styles, Performances and Songs (normally coupled with a BankSelect message).
- Control Change (abbreviated: CC) - messages which activate MIDI Controllers.

The list of MIDI messages is in the Appendix.

CONNECTION RULES

- An instrument which controls another instrument is called the **master**, while an instrument that is controlled by a controlling device is called the **slave**.
- The MIDI OUT of the master instrument is connected to the MIDI IN of the slave instrument.
- To program Songs on an external sequencer, the MIDI OUT of **WK4** is connected to the MIDI IN of the sequencer; the MIDI OUT of the sequencer is connected to the MIDI IN of **WK4**.
- Do not connect the same MIDI port between two instruments.

THE MIDI THRU PORT

The MIDI THRU port permits the connection of several slave instruments in series (as shown in Figure 1 on the next page).

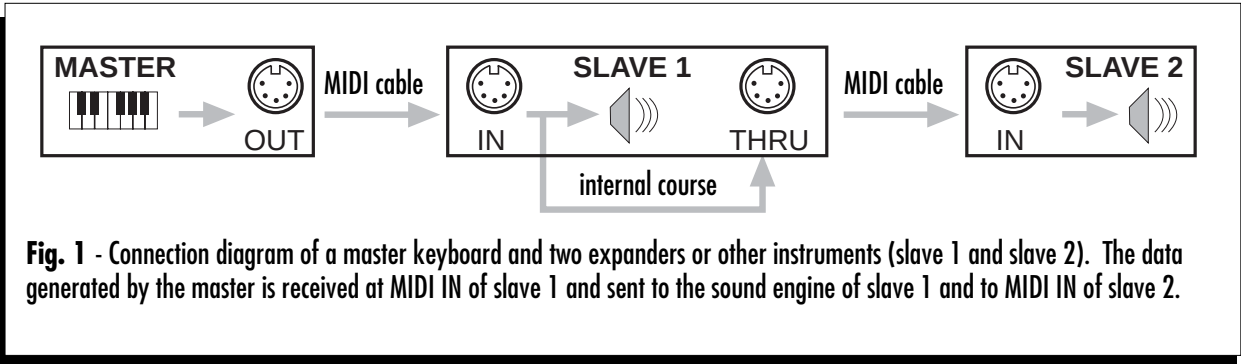
In the example, Slave 1 and Slave 2 are controlled by the single Master. Slave 2 does not receive Slave 1 data, which only acts as a through device.

THE COMPUTER PORT

The COMPUTER port can simultaneously act as a MIDI IN and MIDI OUT port and allows the connection of the instrument to a computer by means of a single serial cable.

When the COMPUTER port is in use, the MIDI ports can be used to connect to other musical instruments.

.....



If you have a computer capable of directing MIDI data to the serial port (specified as RS232 in IBM PCs and compatibles, MODEM in Macintosh) you can substitute the two MIDI cables with the single serial cable.

The connection via the COMPUTER port allows the control of 16 MIDI channels (group A), while MIDI connections can control 32 (groups A and B).

.....
▶ **Note:** The COMPUTER port and PEDALBOARD connector cannot be used at the same time. Connecting one excludes the other automatically.
.....

TRACKS AND MIDI CHANNELS

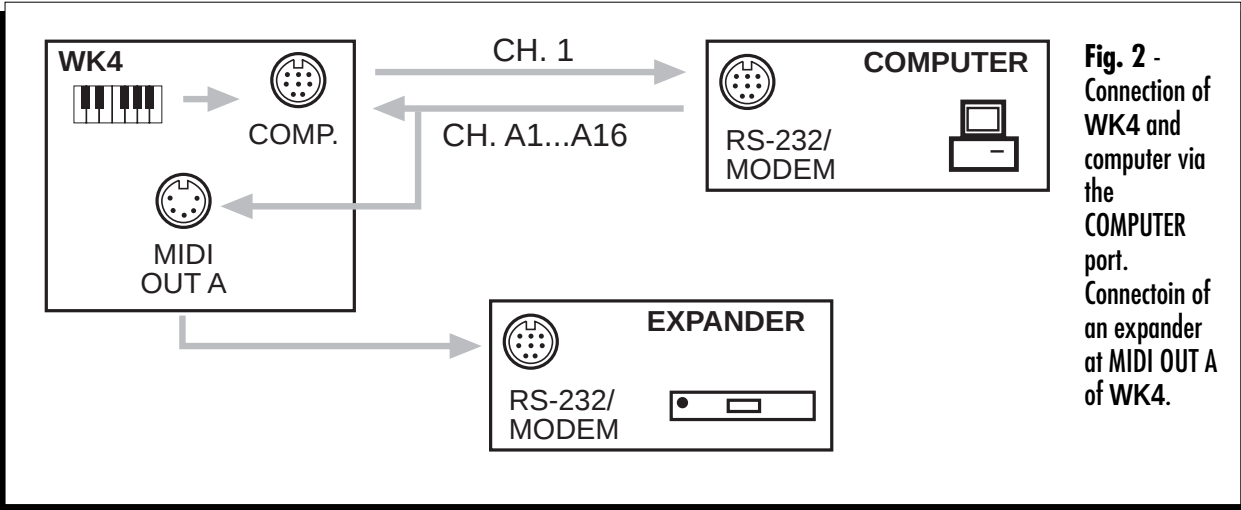
WK4 can transmit and receive via two groups of MIDI channels.

Group A corresponds to the MIDI A ports while group B to the MIDI B ports. Each group handles 16 MIDI channels.

One MIDI channel is freely assignable to each track of **WK4**, from the 32 channels available (A1...A16, B1...B16).

In Song mode, the factory set MIDI configuration is as follows:

Song track	MIDI channel
1...16	A1...A16
17...32	B1...B16



In Style/RealTime mode, the MIDI configuration of the Performances in ROM is as follows:

Style tracks	MIDI channels
1/Lower2	A1
2/Lower1	A2
3	A3
4	A4
5	A5
6	A6
7/Upper2	A7
8/Upper1	A8
DR	A10
BS	A9
A1	A11
A2	A12
A3	A13
A4	A14
A5	A15
A6	A16

When you connect external MIDI devices, the corresponding tracks must be tuned to the same MIDI channels as the **WK4** tracks. Some examples follow, with **WK4** programmed as shown in the previous table:

- If a single **WK4** track (Upper 1 - track 8) controls an expander, the expander must be programmed to receive on MIDI channel 8.
- If **WK4** controls a multi-timbral expander, the instrumental parts of the expander must be tuned to the same MIDI channels as the **WK4**. Assign MIDI channel 10 to the drum track, channel 9 to the Bass, etc...
- If **WK4** is controlled by an external controlling device, you must program the parts (tracks) of the controlling device to the same

channels as the **WK4**. Alternatively, program the **WK4** accordingly to react with the master.

THE COMMON CHANNEL

The Common Channel is used to:

- simulate the **WK4** keyboard with a master keyboard. The master keyboard must transmit on the same channel as the **WK4** Common Channel.
- dedicate a special track in a sequencer or other instrument for the selection and control of Styles, Performance, Songs and Effects. In the external sequencer, a track is reserved for the transmission of control data which travels on the same MIDI channel as the **WK4** Common Channel.

The track assigned to the Common Channel cannot be used for the normal tracks.

NUMERATION

The numeration of MIDI data usually adopts the system 0-127. Some instruments adopt the system 1-128. When devices are used that adopt a different numeric system, it is necessary to apply the conversion between one system and the other.

In **WK4** the Control Changes and relative values follow the system 0-127. For example, the Bank Select values range from 0 to 127.

The Program Change values, instead, follow the numeration 1-128.

Playing WK4 with a master keyboard

ACTIVATE THE COMMON CHANNEL

The master keyboard must transmit on the same MIDI channel as the Common channel assigned to **WK4**. The **WK4** Common Channel must be active.

By transmitting across the Common Channel, the master keyboard simulates the **WK4** keyboard.

1. Program the **WK4** Common Channel. Press MIDI in the EDIT section to enter «Edit MIDI».
2. Press F5 («Common/Arrg.») to go to the «Common/Arrangement» page.
3. Assign a MIDI channel and a MIDI port to the Common Channel.

Common Ch : 1 in:  out: 

The Common channel assignment is a general setting and it is not memorized to a Performance.

4. Press ESCAPE to exit «Edit MIDI».
5. Program the master keyboard to transmit on the same channel as the **WK4** Common Channel. Consult the owner's manual of the master keyboard for information regarding the assignment of the transmission channel.

SELECTING SOUNDS AND PERFORMANCES

If you are not able to select single **WK4** sounds from a master keyboard connected via the Common Channel, you can use the Bank Select (CC00) and Program Change (PC) messages to select the Performances.

These messages travel on the Common Channel only.

Values CC00 / PC	Performances
48 / 1-8	1-8 (Grp button 1)
48 / 9-16	9-16 (Grp button 2)
48 / 17-24	17-24 (Grp button 3)
48 / 25-32	25-32 (Grp button 4)
48 / 33-40	33-40 (Grp button 5)
48 / 41-48	41-48 (Grp button 6)
48 / 49-56	49-56 (Grp button 7)
48 / 57-64	57-64 (Grp button 8)

► **Note:** If ST. LOCK is off, when you select a Performance, the Style memorized by the Performance will be recalled.

SELECTING THE STYLES

To select a Style, send a Bank Select (CC00) and Program Change (PC) message from the master keyboard with the values shown in the following table.

The messages travel on the Common Channel only.

Values CC00 / PC	Style
32 / 1-8	1-8 (8 BEAT)
32 / 9-16	9-16 (16 BEAT)
32 / 17-24	17-24 (ROCK)
32 / 25-32	25-32 (FUNK)
32 / 33-40	33-40 (DANCE 1)
32 / 41-48	41-48 (DANCE 2)
32 / 49-56	49-56 (JAZZ)
32 / 57-64	57-64 (US TRAD)
32 / 65-72	65-72 (TRAD 1)
32 / 73-80	73-80 (TRAD 2)
32 / 81-88	81-88 (LATIN 1)
32 / 89-96	89-96 (LATIN 2)
44 / 1-8	1-8 (USER 1)
44 / 9-16	9-16 (USER 2)
44 / 17-24	17-24 (USER 3)
44 / 25-32	25-32 (USER 4)

► **Note:** If SINGLE TOUCH PLAY is active, selecting a Style will also change the keyboard sounds and effects.

CONTROLLING THE STYLES

The Style controls can be simulated by sending a Control Change 80 message to **WK4** with the values shown in the following table.

The messages travel on the Common Channel only.

Style control	Value CC80
Fill ><	00
Fill <	01
Fill >	02
Intro	08
Ending	16
Var 1	24
Var 2	25
Var 3	26
Var 4	27
Key Start ON/OFF	40
Rotary 1 Slow/Fast (GrpA)	61
Rotary 2 Slow/Fast (GrpA)	62
Start/Stop	64
Tempo increment	66
Tempo decrement	67
Next Performance	68
Previous Performance	69

SELECTING SONGS

To select a Song, send a Bank Select (CC00) and Program Change (PC) message to **WK4** with the values shown in the following table.

The messages travel on the Common Channel only.

Values CC00 / PC	Song
55 / 1-16	1-16

SELECTING THE SONG-PERFORMANCES

To select one of the Performances of the current Song, send a Bank Select (CC00) and Program Change (PC) message to **WK4** with the values shown in the following table. Before selecting a Song-Performance, select a Song as described above. *The messages travel on the Common Channel.*

Value CC00 / PC	Song-Performance
64 / 1-16	1-16

CONTROLLING A SONG

To control a Song via remote control, the **WK4** MIDI Clock must be set to External.

- 1. Press MIDI in the EDIT section to enter «Edit MIDI».
- 2. Press F4 («General set») to recall the «General settings» page.
- 3. Set the «MIDI Clock» parameter to External.
- 4. Press ESCAPE or MIDI to exit «Edit MIDI». The setting rests in memory after power down.

The START/STOP (or PLAY and STOP) command is a standard MIDI message. Press START/STOP on the master keyboard to start or stop the **WK4** sequencer (when **WK4** is set to MIDI External).

The **WK4** sequencer receives and transmits the Song Position Pointer. From the master keyboard, it is possible to control the song advance and rewind precisely (with a MIDI resolution of one 'tic' = 1/24th of a quarter).

WK4 used as a controlling device

LOCAL OFF - WK4 AS A MUTE MASTER KEYBOARD

When **WK4** is set for Local Off operation, the keyboard is disconnected from the internal sound generator. The keyboard transmits MIDI OUT on channel A1. The sound generator receives MIDI IN on all tracks of the Performance (play or mute).

Local Off operation simplifies the connection of **WK4** with an external sequencer, allowing the keyboard to be used as a controlling device and the internal sound engine as an expander at the disposition of the sequencer.

1. Press MIDI in the EDIT section to enter «Edit MIDI».
2. Press F7 («Local Off») to activate the Local Off function. Local Off is a general setting and is not memorized to a Performance. The keyboard and on-board controllers (pedals) now act as those of a mute master keyboard, which **transmits on MIDI channel 1 of group A**.
3. At the end of the work session, press F7 («Local Off») again to deactivate Local Off.

SUBSTITUTION OF THE WK4 SOUNDS WITH THOSE OF AN EXPANDER

An **WK4** track can be set to control an external expander instead of an internal sound. The tracks that limit themselves to transmitting on MIDI OUT are set to the *MIDI-transmit* status.

In Song mode, it is possible to define a keyboard zone to assign to the track («Key range» parameter in «Edit MIDI»).

1. Program the expander to receive data on the same MIDI channel as that assigned to the track. For example, if the **WK4** track transmits on channel 8, program the expander to receive on channel 8.

If the expander is multi-timbral, you can program it to receive on one channel only. Alternatively, you can program **WK4** to transmit on a single MIDI channel (in «Edit MIDI», «Configuration» page).

2. Select the **WK4** track that is intended to control the expander.
3. Press MIDI in the EDIT section to enter «Edit MIDI».
4. Press F2 («Configuration») to go to the «Configuration» page.
5. Select the internal generation icon and set it to OFF. Set the MIDI OUT icon to ON.
6. Press ESCAPE to exit «Edit MIDI».
7. Assign the track the ProgramChange corresponding to the sound of the expander. If the expander is General MIDI compatible, you can use the buttons of the SOUND GROUPS.
8. Press STORE PERFORMANCE to save the track configuration to the current Performance. Confirm with ENTER.

Programming Songs on an external sequencer

Consult the owner's manual of the sequencer for instructions regarding Song recording.

LOCAL OFF

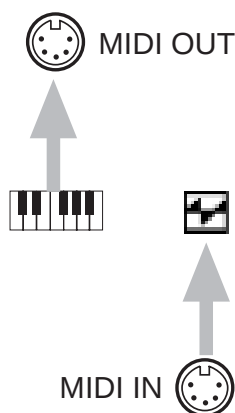
To program Songs with an external sequencer, **WK4** must be set for LOCAL OFF operation. The procedure is described in this chapter, under the section entitled: «**WK4** as a mute master keyboard».

Local Off operation disconnects the **WK4** keyboard from the instrument's internal sound generator and sends data to the external sequencer. The sequencer then returns the data to all the **WK4** tracks; in practice, the **WK4** keyboard acts as the computer's source of note data.

The tracks to record are selected in the external sequencer. The notes played on the keyboard are captured by the track currently in record, regardless of the assigned MIDI channel.

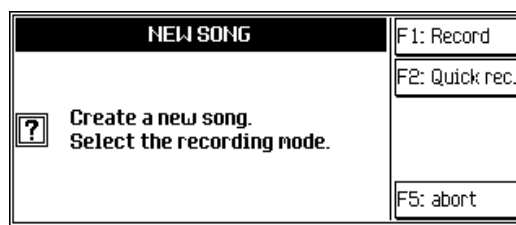
To listen to what is being played on the keyboard, the external sequencer must be set for MIDI THRU operation and the track corresponding to the **WK4** track to listen to must be selected.

In LOCAL OFF status, **WK4** transmits on MIDI channel 1 of group A.



PREPARATION

1. Connect the **WK4** MIDI OUT to the external sequencer's MIDI IN. Connect the external sequencer's MIDI OUT to the **WK4** MIDI IN ("closed MIDI Loop"). Consult the sequencer's owner's manual for additional information regarding MIDI communications.
2. Press MIDI in the EDIT section to enter «Edit MIDI». Press F7 («Local Off») to activate LOCAL OFF mode.
3. Press SONG and select an empty location (a new Song).



Select the Record option (F1) - the Record View page appears and the display is shown in negative highlight - the instrument is now in "record pending" status.

Press RECORD to escape from "record-pending" status.

4. In **WK4**, set the track that will be used to receive MIDI to key-play.



Press STORE PERFORMANCE to save the Song-Performance to memory.

5. You can play on the keyboard to send data to the external sequencer. The sequencer sends data to **WK4**.

THE COMPUTER PORT

You can use the COMPUTER port via a single cable instead of the MIDI IN and MIDI OUT ports. The COMPUTER port only handles the MIDI channels of group A (A1...A16).

Apple Macintosh

The Macintosh (or compatible) must communicate at the velocity of 1 MHz.. Consult the manual of the sequencer for information.

Use a standard Macintosh serial cable. Connect one end of the cable to the **WK4** and the other to the MODEM port of the Macintosh.

IBM PC

The IBM-PC (or compatible) can communicate at the velocity of 31250 baud (PC1) or 38400 baud (PC2).

Use standard Serial cables. Insert the small connector (DB9) to the **WK4** COMPUTER port and the larger connector (DP25) to the RS-232 port of the computer.

.....
► **Note:** The *COMPUTER* port and *PEDALBOARD* connector cannot be used at the same time. Connecting one excludes the other automatically.
.....

WK4-COMPUTER-EXPANDER CONNECTION

Connect the **WK4** to the computer in the following manner (closed loop):

- **WK4** MIDI OUT connected to the computer's MIDI IN.
- **WK4** MIDI IN connected to the computer's MIDI OUT.

Connect one of two expanders to the **WK4** MIDI THRU ports. These ports transmit exactly the same data as those received at MIDI IN:

- MIDI THRU A retransmits data received at MIDI IN A.
- MIDI THRU B retransmits data received at MIDI IN B.

Connect the expander's MIDI IN to one of the MIDI THRU ports.

Mute the **WK4** tracks that are assigned the MIDI channels dedicated to the expander.

● 9 Digital Signal Processor

WK4 allows you to route the Performances (Real Performances, Style-Performances and Song-Performances) to the on-board multi-effects processor to enrich the sounds with Reverb and Modulation effects.

The Digital Signal Processor consists of four real time controlled units which process the Performances with Reverbs and Delay/Modulation effects: two Reverb channels (A & B) and two Modulation channels (A & B) are available.

In Style/RealTime mode, channel A effects are reserved for the keyboard tracks and channel B for the accompaniment tracks. Each track can be processed by two effects. When a Style is selected with the SINGLE TOUCH PLAY off, only the effects assigned to the accompaniments will change (Group B). When a Performance is selected with STYLE LOCK on, only the effects assigned to the keyboard will change (Group A).

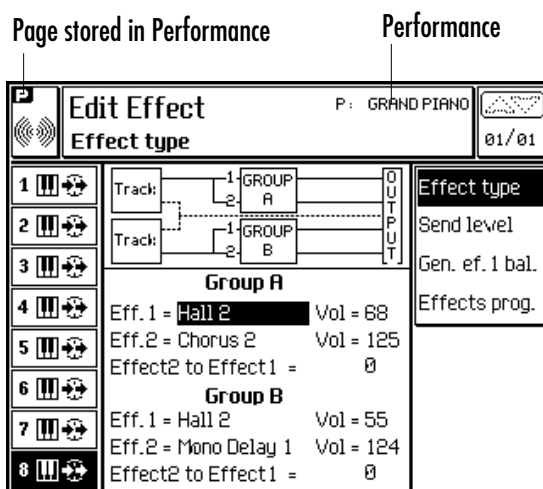
In Song mode, each track can be independently processed by either A or B channel effects.

Access to the DSPs is via the EFFECTS button in the Edit section.

Pressing the EFFECTS button the first time opens the main Edit Effect page showing the Effect Type function currently selected.

The status of the parameters on this page depends on the current mode (Style/RealTime or Song).

The display example opposite shows the configuration recalled by the default GrandPiano Performance.



Edit Effects - Effects type selection

Selecting the effect types

Regardless of the current mode (Style/RealTime, Song mode), the method used to select and assign the effects to the current Performance is identical.

HOW TO SELECT THE EFFECT TYPES

1. Press the EFFECTS button in the EDIT section.

The Edit Effects page opens showing the effect types assigned to the current Performance and relative Effect Volume levels.

2. Select the effect type that you wish to change.

If the EFFECT TYPE function is not shown, press the Soft button F1 to activate the correct page.

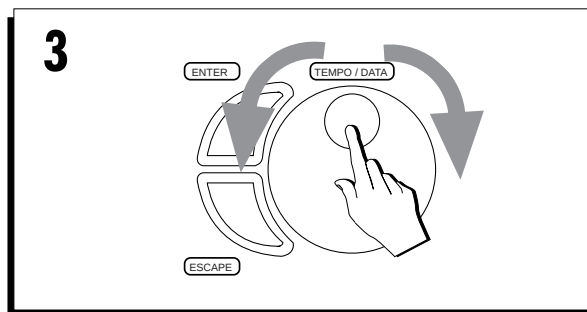
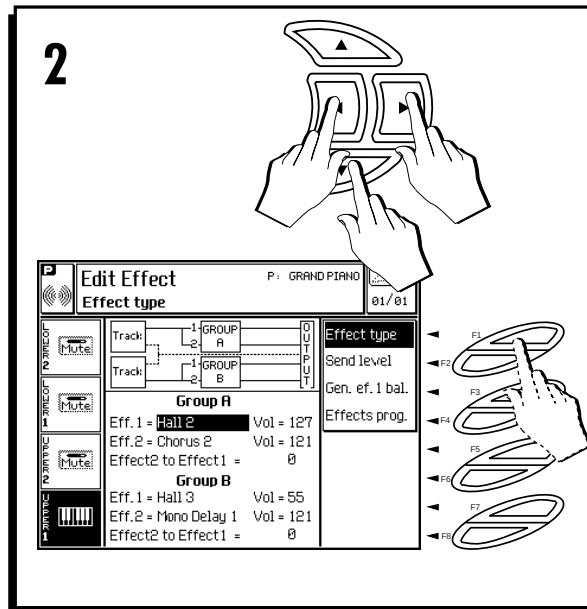
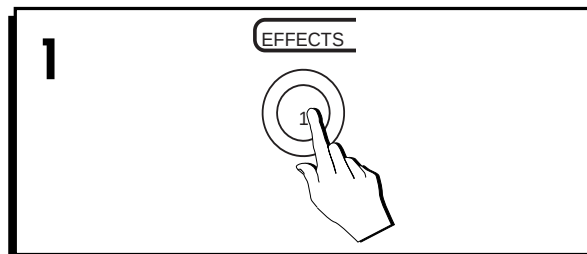
Use the  and  buttons to select the processor (Eff1 or Eff2) and the effect type (shown in negative highlight).

If **WK4** is set to Style/RealTime Mode, the Group A parameters will be assignable for the keyboard tracks and the Group B to the accompaniment tracks.

If **WK4** is set to Song Mode, the Group A and Group B parameters will be freely assignable (Group A and B assignments are carried in the Send Level page, explained in the Edit Effects chapter of the Reference Guide).

3. Rotate the DIAL to select a different effect type from each processor (Eff1 and Eff 2).

The DIAL scrolls through the available effects of the selected DSP. The Reverb DSP provides a selection of 24 effects. The Modulation DSP provides a selection of 32 effects.



4. Select the Vol parameter and regulate the general Effect Volume levels for the Performance.

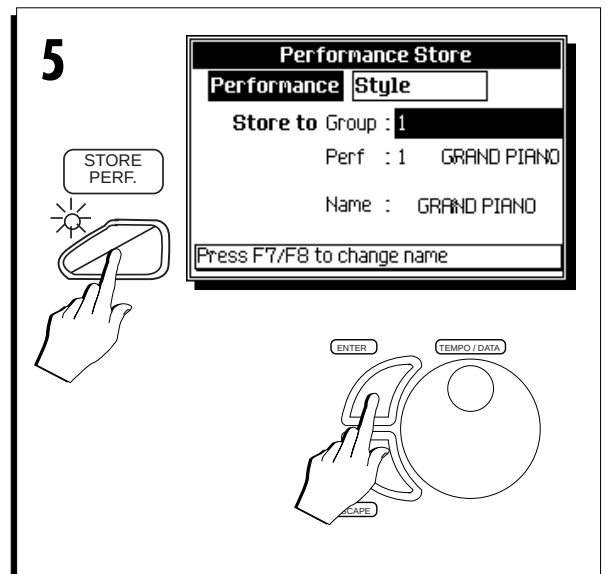
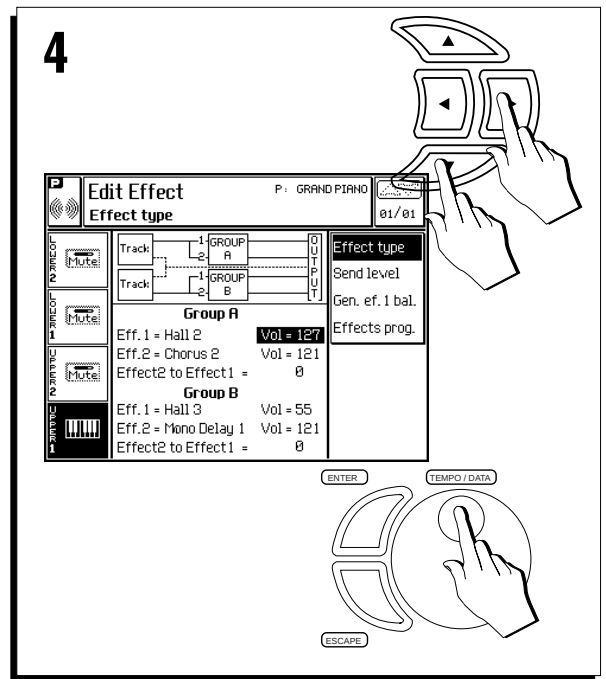
Use the directional arrows to select the parameters and the Dial to enter a value.

Select other tracks with the  cursor button.

5. Press **STORE PERFORMANCE** and **ENTER** to save the changes to the current Performance.

If you select a different Performance, or reselect the same Performance without saving the changes, the newly assigned effects will be lost and the original settings will be restored.

Press **EFFECTS** or **ESCAPE** to exit the Edit Effect page.



Bypassing the effects

While playing, you can bypass both effect types assigned to the current Performance.

The status of the EFFECTS BYPASS button shows at a glance whether the effects are inserted or bypassed.

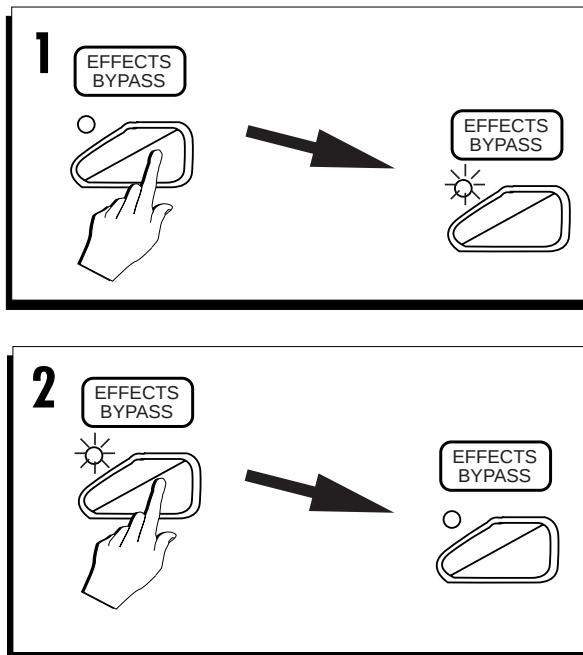
- LED on = effects bypassed.
- LED off = effects inserted.

1. Press the EFFECTS BYPASS button to bypass the effects.

The LED goes on to indicate that the current Performance is not routed to the DSPs.

2. Press the same button to reactivate the effect.

The LED goes off to indicate that the current Performance is routed to the DSPs.



Regulating the Send levels

Each track of the current Performance can be independently adjusted for the amount of Reverb or Modulation effect applied.

The SEND LEVEL function of the Edit Effects page gains access to the parameters.

1. Press the EFFECTS button in the EDIT section then press the Soft button F2 to activate the SEND LEVEL parameter.

The display shows the Send Level values of each track (depending on the current mode).

If Style/RealTime mode is selected, the Group parameter will be fixed.

If Song mode is selected, the Group parameter will be variable.

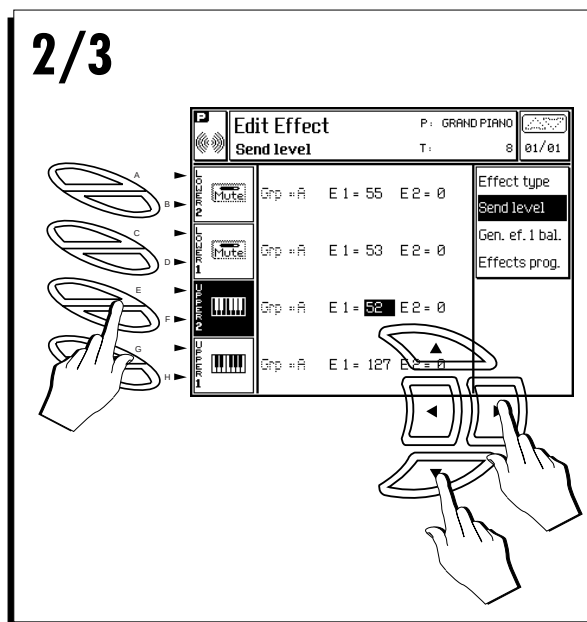
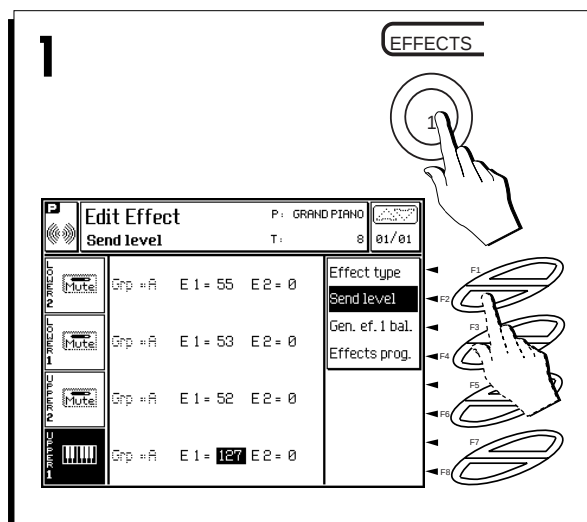
2. Select the track that needs to be modified.

Use the Track select soft buttons A ... H.

To bring other tracks into view, use the  directional arrow.

3. Select the Send level parameter that you wish to regulate.

Use the directional arrows to select E1 or E2 as required. E1 corresponds to the Reverb effects, E2 to the Modulations.



4. Adjust the Send levels with the Dial.

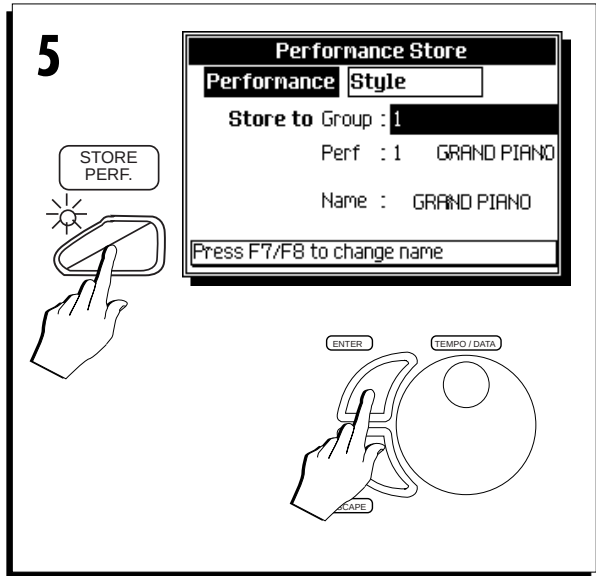
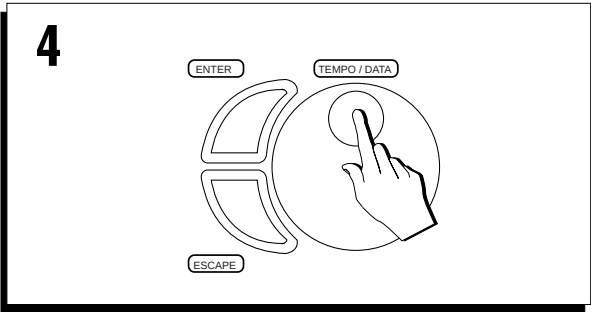
The value can vary from 0 (effect off) to 127.
Repeat steps 2, 3 and 4 to make other modifications.

5. Press STORE PERFORMANCE and ENTER to save the changes to the current Performance.

Press EFFECTS or ESCAPE to exit the Edit Effects page.

Effect Editing

Effect editing procedures are discussed in the Edit Effects chapter of the Reference Guide.



Reference Guide

- 10 Selection/Help
- 11 Recording a Song
- 12 User Style recording
- 13 Edit overview
- 14 Edit Effects
- 15 Edit MIDI
- 16 Edit Mixer
- 17 Edit Contr./Pads
- 18 Edit T./Split
- 19 Edit Perf Sound
- 20 Edit Sound (Option)
- 21 Edit General
- 22 Edit Song
- 23 Edit Style
- 24 Preload
- 25 Edit Disk



• 10 Selection/Help

Selection

SELECTING PERFORMANCES

Panel selection

Panel selection is preferable when playing live. If the STYLE LOCK button is off, selecting Performances from the Performance Groups also changes the Style, the Variation and Tempo.

1. Press one of the PERFORMANCE GROUPS buttons to open a «Select Performance» window.
2. Select a Performance with the corresponding Soft button.

► **Note:** When you select a Performance, **WK4** sends CC00 [value 48]-PC messages in rapid succession on the Common Channel. The BankSelect, ProgramChange, Volume and Pan messages of the tracks are sent on the normal MIDI channels.

Selection via MIDI

WK4 must receive the relative selection messages on the Common Channel. Send Control Change 00 (value = 48) and Program Change messages in rapid succession to **WK4**.

Message...	selects...
CC00 [48] - PC [1...8]	Performance 1...8
CC00 [48] - PC [9...16]	Performance 9...16
...	
CC00 [48] - PC [57...64]	Performance 57...64

Name of the selected
Performance group

PERFORMANCE GROUP: 1	
GrandPiano	St.Guitar
St.E.Piano	GaryOnVibe
NightSax	MileStone
SlowToFast	Duet

Performance (selected with the
corresponding Soft button)

SELECTING STYLES

Panel selection

- 1. Press one of the STYLE GROUPS buttons to open a «Style Select» window.
- 2. Select a Style with the corresponding Soft button.

► **Note:** When you select a Style, WK4 sends CC00 [value 32 or 44]-PC messages in rapid succession on the Common Channel . The BankSelect, ProgramChange, Volume and Pan messages of the tracks are sent on the normal MIDI channels.

Recalling Styles by selecting the Performances

If the LED of the STYLE LOCK button is ON when you select a Performance, the current Style rests unchanged. If STYLE LOCK is OFF, selecting a Performance also recalls a Style, Variation and Tempo.

As well as track data (Bank Select, Program Change, Volume, Pan) the Programmable Performances memorize (a) the selection of a Style, (b) the selection of a Variation of the Style, (c) the Tempo.

- 1. Deactivate the STYLE LOCK button.
- 2. Press one of the PERFORMANCE buttons to open a «Select Performance» window.
- 3. Select a Performance with the corresponding Soft button. The memorized Style and Variation will be recalled.

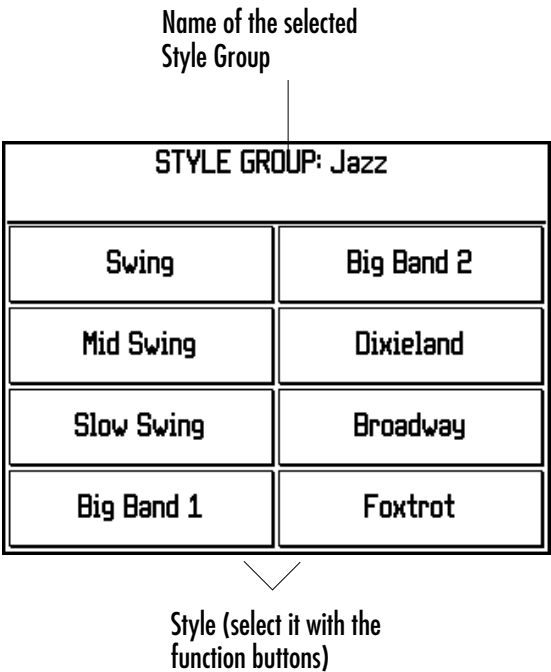
Selection via MIDI

WK4 must receive the relative selection messages on the Common Channel. The Common Channel is set in «Edit MIDI »

To select ROM Styles, send Control Change 00 (value = 32) and a Program Change.

To select USER Styles, send Control Change 00 (value = 44) and a Program Change.

Message..	selects...
CC00 [32] - PC [1...8]	8 BEAT - Style 1...8
...	
CC00 [32] - PC [89...96]	LATIN 2 - Style 89...96
CC00 [44] - PC [1...8]	USER 1 - Style 1...8
...	
CC00 [44] - PC [25...32]	USER 4 - Style 25...32



SELECTING SOUNDS

Recall Sounds by selecting Performances or Styles

Refer to the previous sections relating to the selection of Performances or Styles.

While playing, Sounds are instantly recalled by selecting Performances or Styles. Program your Performances or Style-Performances accordingly before you play.

Panel selection

1. Press one of the SOUND GROUPS buttons to open a «Sound Select» window.
2. Scroll through the Banks with the ▲▼ buttons. The Bank number corresponds to the Control Change 00 MIDI message (CC00/BankSelect MSB).
3. Select a Sound with the corresponding Soft button.

► **Note:** When you select a Sound, **WK4** sends CC00-CC32=32-PC messages in rapid succession on the MIDI channel assigned to the track.

Selecting with the Numeric keypad

It is possible to specify a Sound selection message on the numeric keypad (EDIT/NUMBERS section). This section can send a MIDI message consisting of Control Change 00 (CC00/BankSelect MSB), Control Change 32 (CC32/BankSelect LSB), ProgramChange (PC) to an external unit connected to the **WK4** MIDI OUT.

To select an **WK4** Sound, it is sufficient to specify the message CC00-PC. The CC32 message can be ignored.

The keypad insertion zone will close automatically after a few seconds of inactivity.



1. Select the track to which a Sound is to be assigned.
2. Press KEY PAD (LED on) to activate the EDIT/NUMBERS as a numeric keypad. An insertion zone opens in the display showing the number of the current sound assigned to the track.
3. Specify the Program Change number of the Sound to select.
If the Sound belongs to a different Bank, add a separating hyphen (symbol «-») followed by the corresponding bank number (BankSelect MSB).
If necessary, add another separating hyphen and a BankSelect MSB number (not necessary for WK4 internal Sounds).
4. Confirm the entry with KEY PAD or ENTER, or press ESCAPE to cancel the entry. The LED on the KEY PAD button goes off.
5. Press STORE PERF followed by ENTER to memorize the modification to the current Performance.

.....

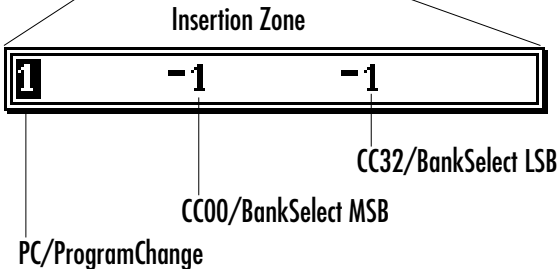
► **Note:** Sound selection messages are transmitted and received via MIDI in the order CC00-CC32-PC with the ProgramChange last. For practical purposes, the reverse order has been adopted for the panel selection procedure, given that the ProgramChange on its own is sufficient to select all the Sounds of the current Bank.

.....

When working with an external sequencer, messages must be entered in the order CC00-CC32-PC. If it is intended to select only the WK4 Sounds, the PC32 part of the message can be ignored.

.....

Style: 8bt Std		♩ = 90 i.	Loc: 1 1
Perf.: GrandPiano		Chd: *****	
1	Mute	NylonGtr	25-1-1
2	Mute	SlwStrings	50-1-1
3	Mute	Harmonica	23-1-1
4	Mute	Marimba	13-1-1
5	Mute	E.Piano1	5-1-1
6	Mute	SoftSax	66-1-1
7	Mute	SlwStrings	50-1-1
8	Mute	Piano1	1-1-1



SOUND GROUP: Piano		 Bank:01
Piano1	1-1	E.Piano1 5-1
Piano2	2-1	E.Piano2 6-1
Piano3	3-1	Harpsichor 7-1
HonkyTonk	4-1	Clavinet 8-1

PC/ProgramChange

CC00/BankSelect MSB

Selection via MIDI

The Sound selection message must be received on the MIDI channel assigned to the track to which the Sound is assigned.

To select a **WK4** Sound, you must send a Control Change 00 (CC00/BankSelect MSB) and Program Change (PC) message.

The relative numbers are also displayed in the main page (Multi mode) and the selection window that appears when you select a SOUND GROUPS button.

The Sound table in the Appendix lists all the **WK4** Sounds and corresponding MIDI selection messages.



SELECTING SONGS

Panel selection

Selecting a Song sets **WK4** to Song mode.

- 1. Press the SONG button to open the «Select Song» window.
- 2. Select a Song with the corresponding Soft button.

.....
► **Note:** When you select a Song, **WK4** sends CC00 [value 55]-PC messages in rapid succession on the Common Channel . The BankSelect, ProgramChange, Volume and Pan messages of the tracks are sent on the normal MIDI channels.
.....

SONG BANKS	
ALSOSPCH	#####
TWILIGHT	#####
PETEGUNN	#####
BALLGAME	#####
PIZZMYST	#####
CAMPTOWN	#####
RUSTIC__	#####
WILLTELL	#####

▼
Song (select with the Soft buttons)

SELECTION VIA MIDI

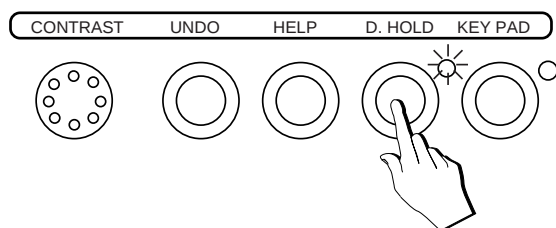
WK4 must receive the relative selection messages on the Common Channel. Send Control Change 00 (value = 55) and Program Change messages in rapid succession to **WK4**.

Message..	selects...
CC00 [55] - PC [1...16]	Song 1...16

Display Hold

You can select items from a selection display without closing the selection window by pressing the D. HOLD button.

The LED of the button turns on to indicate the activation of the function.



D. HOLD remains active (LED on) until the button is pressed again.

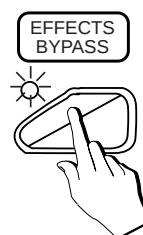
Use ESCAPE to close the current selection window without deactivating D. HOLD.

Use Display Hold when selecting Sounds, Styles, Programmable Performances and Songs.

Effects Off

You can choose to select and play your Performances, Styles and Songs without the programmed effects by activating the EFFECTS OFF button.

The LED of the button turns on to indicate the activation of the function. When the LED is on, the effects are bypassed and the current Performance, Style or Song plays “dry” (i.e. without effects).



EFFECTS OFF remains active (LED on) until the button is pressed again.

WK4 incorporates an on-line-help system which provides brief information on the basic functions of the instrument. This feature is particularly helpful if you get stuck and do not have access to the owner's manual at the time.

Also incorporated is a PANIC function which helps to unlock the instrument in MIDI situations.

Generally, pressing HELP opens a page showing information regarding the currently set mode.

Therefore, if you are in Style/Performance mode, press HELP to get information concerning the default situation (main page).

Similarly, if you are currently working in one of the Edit environments, (Edit Effects, for example), press HELP to get information on the Effects section.

Some Help pages consist of a General information page and one or more 'Detail' pages which provide detailed information regarding the current topic.

HOW TO USE HELP

1. Press the HELP button when you want general information regarding the current mode.

A GENERAL page will open showing information regarding the current operating mode.

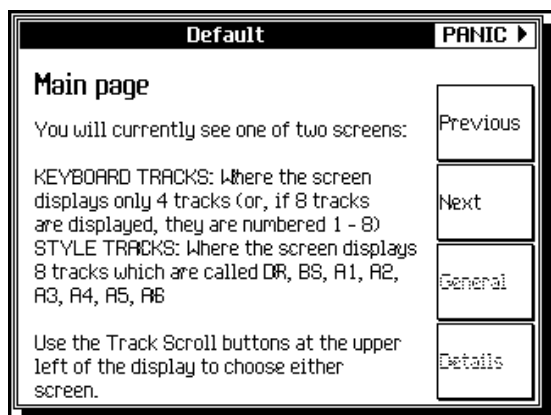
2. If available, press DETAILS (F7/F8) to open a sub-page with specific details concerning the current help topic.

Depending on the current mode, a NEXT page (F3/F4) may or not be available.

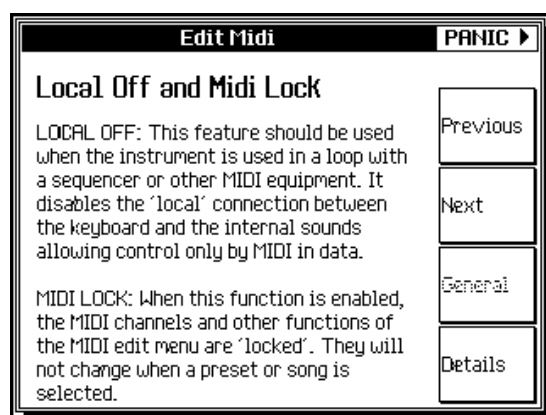
Once you have entered a NEXT page, the PREVIOUS option (F1/F2) will be available.

Options not available will be shown with broken lines.

3. To return to a GENERAL page, press F5/F6.
4. To pass to another HELP topic, regardless of the current operating mode, press NEXT (F3/F4) or PREVIOUS (F1/F2).
5. Press ESCAPE to close the current HELP page.



Help - General Default - main page information



Help - EDIT Midi - Details information

PANIC

MIDI communications can sometimes “lock” the instrument due to the transmission of an excessive quantity of data, or an incorrect MIDI message.

The PANIC function sends the “All notes off” and “Reset all Controllers” messages to all external MIDI devices connected to the **WK4** MIDI OUT port.

How to activate PANIC

- If your machine locks up while working with MIDI, press the two ▲▼ buttons to the right of the display.



WK4 sends the “all notes off” and “reset all controllers” messages to all connected MIDI devices.

• 11 Recording a Song

This section explains the two principal methods used to record a Song.

QUICK REC RECORDING

The easiest method, called “Quick Rec”, exploits existing Styles in order to record your keyboard tracks with automatic accompaniments. This method is a quick and easy way of recording which does not involve the more advanced options common to the more traditional Song Record method explained afterwards.

The Quick Rec method is an excellent way of recording backing tracks for vocalists.

RECORD METHOD

The more traditional “Record” method allows you to record one track at a time and does not exploit existing structures.

For example, to record a Drum track, you must build the drum accompaniment note for note using the individual percussive instruments of a Drumkit assigned to one of the tracks.

RESTORING THE SONGS MEMORY

If you have loaded disk-based Songs or recorded Songs and used up all the memory dedicated to the storage of Songs, a quick and easy way of clearing Song memory and making room for other Songs is to use the Restore Songs operation.

Naturally, you must remember to save the Songs that you don't want to lose to disk before proceeding with the restore procedure.

1. Press GENERAL in the EDIT section to gain access to the «Edit General» environment.
2. Press F7 («Restore Songs») to cancel all the Songs (and relative Song-Performances) in RAM.

You are prompted with a request to reconfirm your choice.

3. Press ENTER to confirm, or ESCAPE to cancel.

With ENTER, the Songs are cancelled from memory.

With ESCAPE, the song data are retained.

► *Hint: To cancel the entire contents of RAM in a single operation, use the «Restore All» command.*

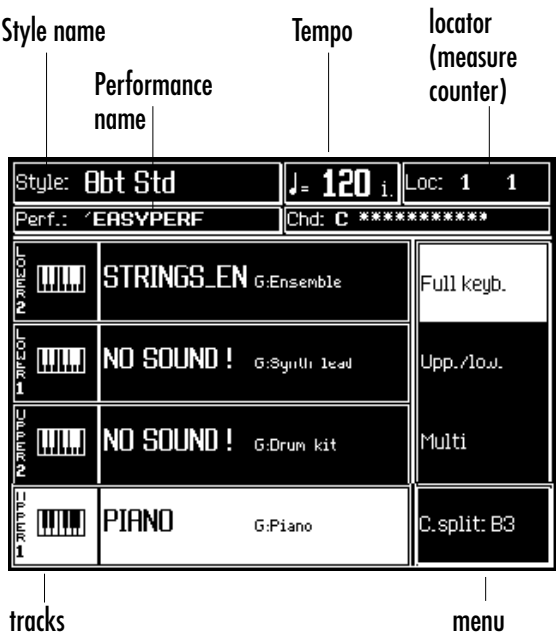
The Quick Rec method

- 1. Press SONG to open the «Songs» dialog window and select a free location (#####).
- 2. Select the QuickRec option from the «New Song» dialog window by pressing the soft button F2.

The RECORD LED lights up and the Quick Record page activates showing a negative highlight page.

A new Song and Song Performance is created based on the starting Performance (if modifications were previously applied, entering record mode saves the modifications to the new Song-Performance).

- 3. Select a Style and set the accompaniment controls (MIXER LOCK, TEMPO LOCK, ARRANGE ON/OFF, ARRANGE MEMORY, LOWER MEMORY, ARRANGE MODE OPTIONS).
- 4. Program the Performance as required and save the changes with STORE PERFORMANCE.
- 5. If necessary, activate KEY START, INTRO, FILL or ENDING.
- 6. Press START/STOP to start the recording. The PLAY button activates automatically.
- 7. Play the keyboard sounds with the automatic accompaniment, using the Fills and Intro at will.
- 8. Conclude your song (use the Ending).
- 9. Press STOP. The LED on the RECORD button goes off. At this point it is possible to modify the song recording in «Edit Song», or to record other tracks using the normal Record method described on the next page.

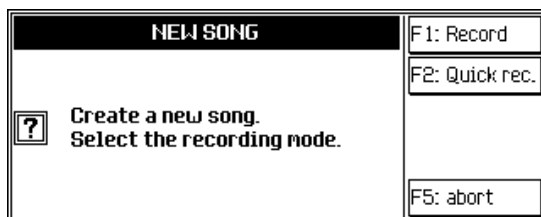


«QuickRecord» page

The Record method

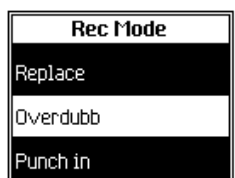
PREPARATION

1. Press SONG. In the «Select Song» dialog window and select an empty location (shown as #####).
2. In the «New Song» dialog window, select the Record option.



3. The LED of the RECORD (ST/SONG) button lights up and the display shows the «Record View» page for Song mode in negative highlight.
4. Program the recording options.

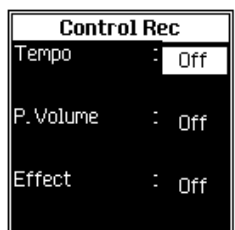
- Press F1 («Rec Mode») to open the «Rec Mode» dialog window, select the mode required and press ENTER to confirm.



- Press F2 («Option») to open the «Option» dialog window where you can program the metronome and countdown options. Press ENTER to confirm the settings.



- Press F3 («Controls rec...») to activate or deactivate the recording of the Tempo, Pedal Volume, Effect Change events. Press ENTER to confirm the settings.



5. Select and program the initial Song parameters:

- «Time Signature» to modify the time signature (metronome).

Time Signature :4 /4

- «Tempo» to modify the playing speed.

Tempo :120

6. Select the «Quantize» parameter to modify the pre-quantization (auto-correction of timing errors) during the recording phase.

Quantize :free

Songs in RAM

title bar



free locations

«Select Song» window

7. If necessary, select «Play/Rec Mode» to alter the Song Play/Rec mode:

Play/Rec.mode: Linear
Play/Rec.mode: Forced stop
Play/Rec.mode: Loop

- The **Linear** option causes the Song to play or be recorded once only, from the beginning to the point at which you press STOP.
 - The **Forced Stop** option causes the song to play or be recorded from the specified start locator to the end locator.
 - The **Loop** option allows you to play or record in a cyclic manner from the Start point to the End point.
8. If necessary, modify the Start and End locators. These parameters can be modified only if the Song contains recorded data (it will not be possible to specify the measures if no recorded events exist).

Start :i
End :i

The Start locator can be modified only when the Play/Rec mode is set to Loop. The End locator can be modified only if the Play/Rec mode is set to Forced Stop or Loop.

9. Select the track(s) to record and set it (them) for recording. Only tracks marked by the record icon will capture data and be heard:



To place all the tracks in record, press F4 («Select all tracks»). All the tracks will be activated for recording and the parameter changes to «Deselect all tracks».

10. To change sounds, select the «Sound View» option by pressing F5.

After assigning your Sounds, save the Performance with STORE PERFORMANCE. Press F6 («Rec View») to return to the «Rec View» page.

11. Activate the metronome with F8 («Metronome»).

Song name
Song-Performance name
Tempo
locator (measure counter)

Song: SONG_02		J= 120 i	Loc: 1 1
Perf: Init_Perf		Chord: Off	
1 [Mute]	Record		Mode: Ovrd...
2 [Mute]	Loc: 1 1 1		Option...
3 [Mute]	Play/Rec. mode :Linear		Controls rec...
4 [Mute]	Start :i		Select all trk.
5 [Mute]	End :i		Sound view
6 [Mute]	Time Signature :4 /4		Rec view
7 [Mute]	Tempo :120		Erase...
8 [Mute]	Quantize :free		Metronome

tracks menu

Song Mode - Record View display
(record/play parameters display)

Song: SONG_02		J= 120 i	Loc: 1 1
Perf: Init_Perf		Chord: Off	
1 [Mute]	Piano1	1-1-1	Mode: Ovrd...
2 [Mute]	FingeredBs	34-1-1	Option...
3 [Mute]	Strings	49-1-1	Controls rec...
4 [Mute]	Flute	74-1-1	Select all trk.
5 [Mute]	SteelGtr	26-1-1	Sound view
6 [Mute]	Organ3	19-1-1	Rec view
7 [Mute]	Brass	62-1-1	Erase...
8 [Mute]	SoftSax	66-1-1	Metronome

Song Mode - Sound View display

RECORDING

1. Press PLAY to start the recording. If Countdown=ON wait for the countdown to finish before playing (events are not recorded during the countdown phase).
2. Start to play after the countdown. Events will be recorded in the track or tracks active for recording.
3. When you have finished, stop the recording with STOP.

.....
► **Note:** Pressing STOP twice rewinds the Song back to the beginning.
.....

4. To add additional events to the same tracks, press STOP again to take the song pointer to the starting point and repeat points 1 - 3.

.....
► **Note:** To add notes to existing ones in a track, select the Overdub option. To substitute existing notes in a recorded track with new ones, select the Replace option.
.....

5. If you are satisfied with the recording, confirm the track or tracks by pressing the corresponding Soft buttons. The recording will be confirmed and the tracks set to «seq-play».
6. Repeat the recording procedures for other tracks.
7. Press RECORD to escape «Record» mode. The LED of the RECORD button goes off and the display returns to normal.

UNDO

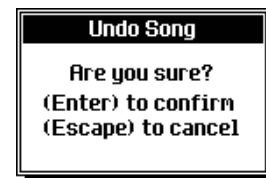
If, during the recording phase, you want to cancel the last performed recording task, use UNDO to cancel the last performed task. The UNDO button is located to the right of the display, just after the Contrast knob.

For example, after adding new events to an existing drum pattern, you might want to return to the original pattern and just cancel the new events. A quick and easy way is to use UNDO. Just press UNDO and confirm the request with ENTER or cancel with ESCAPE.

1. If, after recording a track, you wish to return to the previous situation, press UNDO.



You are prompted with a request to confirm the operation.



2. Press ENTER to confirm the last performed operation, or ESCAPE to cancel the request and retain the last operation.

The «Record View» page in detail

MODE... (F1)

Opens the «Record Mode» dialog window where you can select various recording options.

Replace - The new notes substitute “old” notes already present in the tracks being recorded.

Overdub - New notes are merged with those already present in the tracks being recorded.

Punch In/Out - A means of inserting a correction without repeating a recording. Punch recording is activated by pressing an appropriately programmed pedal (in «Controllers/Pads» of «Edit Performance»).

Activate the recording with PLAY. When the song reaches a position just before the point at which the correction must be inserted, press the pedal. At this point, the recording proceeds in “replace” mode. When the correction is complete, release the pedal to stop the replace recording.

OPTION... (F2)

Metronome options.

Countdown - A lead into the recording during which time no events can be captured..
Settings: On, Off.

Metronome vol. - Volume setting of the metronome tick. *Settings Off, 10...127.*

CONTROLS REC... (F3)

Recording options for Tempo, Master Volume, effects changes. These events are captured in the Master Track.

Tempo - To record the Tempo variations.
Settings: On, Off.

P.Volume. - To record the general Volume of the instrument using the Volume pedal . These events are recorded as CC07 (see Appendix). *Settings: On, Off.*

Effect - To record the changes of the effects assigned to the Performance and respective effect volume levels. These events are captured as CC16, CC17, CC48, CC49 (see Appendix). *Settings: On, Off.*

SELECT ALL TRACKS (F4)

► Select all tracks (F4)

► *Once pressed, the option changes to «Deselect all tracks».*

Activates all the tracks for recording. «Deselect all tracks» resets all the tracks in «key-play» or «seq-play» status.

SOUND VIEW (F5)

Recalls the «Sound View» page in which it is possible to see and change the sounds assigned to the Performance.

REC VIEW (F6)

Recalls the «Record View» page in which it is possible to control the record/play parameters.

ERASE... (F7)

Cancellation of the track or Song.

Track - Cancels the selected track.

Song - Cancels all the tracks (entire Song) and leaves an "empty" Song, ready to capture recorded events. The Song Performance remains intact.

METRONOME (F8)

Activates/deactivates the metronome.

LOC

Locator. Indicates the current position of the Song, expressed in measures, beats and resolution (tick).

Loc : **1** **1** **1**
 | | |
 measure (bar) beat resolution

The measure can be modified with the DIAL. It is not possible to select the next measure after the Song end point. For example, if the recorded Song terminates at measure 10, the Locator cannot be given a value greater than 10 -1 -1.

PLAY/REC MODE

Recording and playback options for the Song. The options are:

Linear - A linear recording or playback of the Song, starting from the current locator to the Song end. In record mode, new events are recorded as the recording proceeds.

Forced stop - The Song is played back or recorded from the current Locator to a specified End locator. With Forced Stop active, the

Loc and End indicators determine the start and end point of the recording.

Loop - Song playback or recording repeats continuously. When the Song reaches the end, it loops back to the beginning and starts again and continues to repeat until stopped with STOP.

► **Note:** The loop requires an additional memory buffer. When this mode is selected, the memory progress bar shows an increased amount of used memory.

START

Starting indicator. If Loop is active (Play/Rec Mode= Loop) this parameter indicates the point at which the Song starts to repeat. The parameter can be modified with the DIAL.

END

End point marker. If Loop is active (Play/Rec Mode= Loop) this parameter indicates the point at which the repeating song ends before looping back to the Start marker. If the Play/Rec Mode=Forced Stop, this parameter indicates the automatic Stop point.

The parameter can be modified with the DIAL.

TIME SIGNATURE

Metro. This parameter can be modified only before starting a recording. If the Song contains recorded events, the parameter cannot be modified.

TEMPO

Initial playing/recording speed. The parameter can be modified with the DIAL in the «Play View» or «Record View» page, or in the Master Track.

Tempo changes can be carried out during the recording by using the DIAL. The events are captured in the Master Track, provided that the appropriate option is active («Controls rec», dialog window F3).

The Master Track always contains the initial Tempo of the Song. The value can be modified but not cancelled.

QUANTIZE

An auto-corrector of timing errors during the recording phase. The selection values are normal, triplets or swing.

Value	Quantization
1/4	
1/8	
1/12	 triplet
1/16	
1/24	 triplet
1/32	
1/48	 triplet
1/64	(1/64)
1/96	(1/64 triplet)
free	no quantization
1/8 B...F*	  (swing)
1/16 B...F*	  (swing)
free	no quantization

* B ... F indicate an adjustment of the Swing feel.

MEMORY PROGRESS BAR

A bar graph which monitors the amount of memory being used up by the song as it is being recorded. In Play mode, the parameter changes to SONG MEMORY, expressed as a numerical value and is independent of the total amount of memory remaining in RAM. Each Song is limited to 400 kb.

If the RAM already contains a large amount of data, a dialog window may appear showing the message «Memory full!», which indicates that the recording cannot proceed further. The recording is instantly interrupted.

You can increase the amount of space in RAM by deactivating the Undo function.

• 12 User Style recording

The four USER buttons (1, 2, 3 and 4) of the STYLE/SONG GROUPS section recall User-programmable Styles, or free locations that allow you to record your own auto accompaniments. Up to 32 User Styles can reside in memory, 8 in each User Group.

A new Style can be created by recording every part yourself, or by modifying a copy of an existing Style. This second option is discussed in the Edit Style chapter.

Disk based User Styles can be loaded into memory and user-programmed Styles can be saved to disk, using the methods described in the Disk chapter 6 of the User Guide.

The table shown below lists all the Riffs that make up a Style.

The basic Riff is the principal pattern of the Style which repeats continually until stopped, or until it is "broken" by a Fill, Intro or Ending pattern.

The Fills, Intros and Endings are triggered by pressing the relative FILL, INTRO, or ENDING buttons.

A Riff can vary in length from one to sixteen measures long.

Each Riff consists of up to 8 Style tracks: Drum, Bass, Acc1, Acc2, Acc3, Acc4, Acc5, Acc6.

THE BASIC STRUCTURE OF A STYLE

Styles provide automatic accompaniments based on the system of chords. In particular, the Major, Minor and Seventh chords trigger three completely different arrangement patterns.

There are 4 Variations of the Major, minor and 7th chords and each Variation breaks down into several different elements: basic, Intro, Fill, Ending. These four elements form the basis of a structure consisting of 48 short sequences, or "Riffs", for each Style.

WHAT IS A RIFF?

A Riff is a musical motif capable of repetition (looping). It can also be expressed as a "phrase" or "lick", but it is important to understand that the Riff must be capable of repetition. In fact, when you play with Styles, you will note that the patterns are short repeating sequences.

Var1	Var2	Var3	Var4
Basic Major	Basic Major	Basic Major	Basic Major
Basic Minor	Basic Minor	Basic Minor	Basic Minor
Basic 7th	Basic 7th	Basic 7th	Basic 7th
Fill Major	Fill Major	Fill Major	Fill Major
Fill Minor	Fill Minor	Fill Minor	Fill Minor
Fill 7th	Fill 7th	Fill 7th	Fill 7th
Intro Major	Intro Major	Intro Major	Intro Major
Intro Minor	Intro Minor	Intro Minor	Intro Minor
Intro 7th	Intro 7th	Intro 7th	Intro 7th
End Major	End Major	End Major	End Major
End Minor	End Minor	End Minor	End Minor
End 7th	End 7th	End 7th	End 7th

Riffs of a Style

.....

Recording

PREPARATION

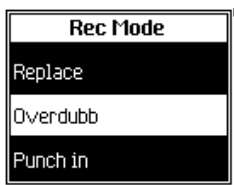
1. Select a USER Style. Select a free location (#####) to create a new Style.
2. You are prompted to create a new style. Press F1 («Ok»).



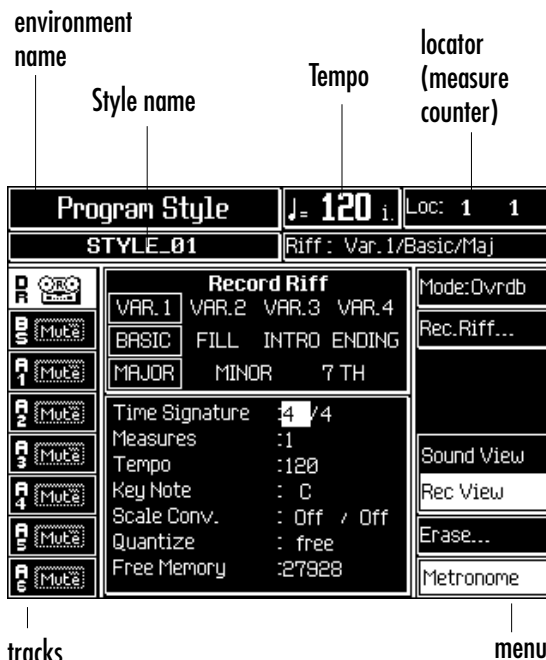
3. The Style «Record View» page activates and the «Select Riff» dialog window is also shown:



4. Select the Variation, element and chord with the cursor buttons and press ENTER to confirm. The LED on the RECORD button lights up and the «Record View» page is shown in negative highlight.
5. Once the dialog window closes, press F1 («Mode») to select the recording mode. The «Record Mode» dialog window opens where you can select the required mode.



Select the record mode and press ENTER to confirm.



Style Mode - Record View display
(record/play parameters display)



Style Mode - Sound View display

6. Select and program the basic Style parameters:

- «Time Signature» to modify the time signature. Time Signature :4 /4

- «Tempo» to modify the playing speed. Tempo :120

- «Key note» to specify the reference key. When a chord is played, **WK4** transposes the riffs. You must, therefore, indicate the key in which the riffs are programmed. Key Note : C

7. Set both parts of the «Scale conversion» parameter. The Scale Converter reconstructs the riffs of two chords starting from the complementary chord. For example, you can program the *Basic Major* riff and the Scale Converter engages the task of reconstructing the *Basic Minor* and *Basic 7th*. Refer to the Scale converter table at the end of this chapter. Scale Conv. : Min / 7th

8. Select the «Quantize» parameter to modify the pre-quantization setting (auto-correction of the timing) during the recording. Quantize :free

9. Select the tracks that you want to record and set them in Record mode. Only Tracks showing the record icon will capture events and be heard during the recording:



10. If you want to assign different Sounds, open the «Sound View» page with the F5 Soft button

After assigning the sounds, save the Performance with STORE PERF. Return to the «Rec View» page with Soft button F6.

11. Activate the metronome with F8 («Metronome»).

RECORDING

1. Press START/STOP to start the recording. A one-measure countdown with start.
2. Start playing after the lead-in. The recording proceeds in a cyclic manner: once the end of the riff is reached, the recording starts again from the beginning..
3. Stop the recording with START/STOP.
4. To add notes to the same tracks, repeat points 1 - 3.

.....
► **Note:** If the Overdub recording mode is selected, new notes will be added to the tracks each time the recording repeats. If Replace is selected, new notes will cancel those already existing on the next cycle. In Replace mode, the recording returns to Overdub mode at the end of the first cycle.
.....

5. Select the tracks shown in «record» and set them in «seq-play».



6. If necessary, repeat the procedure for other tracks.
7. Press RECORD to escape «Record» mode. The LED on the RECORD button goes off.

UNDO

If, during the recording phase, you want to cancel the last performed recording task, use UNDO to cancel the last performed task.

For example, after adding new events to an existing drum pattern, you might want to return to the original pattern and just cancel the new events. A quick and easy way is to use UNDO.

Just press UNDO and confirm with ENTER to return to the previous status, or ESCAPE to retain the last task.

RESTORING THE USER STYLES MEMORY

If you have loaded disk-based Style or recorded User Styles and used up all the memory dedicated to the storage of Styles, a quick and easy way of clearing User Style memory and making room for other Styles is to use the Restore Styles operation.

Naturally, you must remember to save the User Style that you don't want to lose to disk before proceeding with the restore procedure.

1. Press GENERAL in the EDIT section to gain access to the «Edit General» environment.
2. Press F5 («Restore Styles») to cancel all the User Styles (and relative User Style-Presets) in RAM.

You are prompted with a request to reconfirm your choice.

3. Press ENTER to confirm, or ESCAPE to cancel.

With ENTER, the User Styles are cancelled from memory.

With ESCAPE, the User Styles are retained.

.....
► **Hint:** To cancel the entire contents of RAM in a single operation, use the «Restore All» command.
.....

The «Record View» page in detail

MODE... (F1)

Opens the «Record Mode» dialog window where you can select various recording options.

Replace - The new notes substitute “old” notes already present in the tracks being recorded.

Overdub - New notes are merged with those already present on the tracks being recorded.

Punch In/Out - A means of inserting a correction without the necessity of repeating a recording. Punch recording is activated by pressing an appropriately programmed pedal (in «Edit Controllers/Pads»).

Activate the recording with PLAY. When the song reaches the point at which the correction must be inserted, press the pedal. At this point, the recording proceeds in “replace” mode. When the correction is complete, release the pedal to stop the recording.

REC RIFF... (F2)

Opens a dialog window where you can select a riff to record.



Select the Variation, section and chord with the cursor buttons and press ENTER to confirm.

SOUND VIEW (F5)

Recalls the «Sound View» page where you can see and change the sounds assigned to the Performance.

REC VIEW (F6)

Recalls the «Record View» page where it is possible to control the record/play parameters.

ERASE... (F7)

Cancellation of a track, riff, variation or Style.

Track - Cancels the selected track.

Riff - Cancels the selected riff.

Variation - Cancels the selected variation.

Style - Cancels the entire Style.

METRONOME (F8)

Activates/deactivates the metronome.

TIME SIGNATURE

Valid for the entire Style. This parameter can be modified only before starting a recording. If the Style contains recorded events, this parameter cannot be modified.

MEASURES

Determines the length of a riff expressed in measures (max 16).

TEMPO

The playing speed (metronomic Tempo). Valid for the entire Style.

KEY NOTE

Reference key. Indicates the key in which the original riff is recorded. When you play the indicated chord, the riff will play back in exactly the same manner as recorded. If other chords are played, the riff will be transposed accordingly.

.....

SCALE CONVERSION

If you program a Style accompaniment based on the Major scale, the **WK4** arranger will automatically convert a minor or 7th chord accordingly. This allows you to limit your User Style recording times by, for example, recording only the Major riff of Variation 1, in order that when you play with the recorded style, a minor or 7th chord will be automatically adjusted for the change. However, in harmonic terms, this type of ‘over-simplification’ creates errors when using the more complex chord structures. To overcome this problem, the **WK4** Scale Converter provides a selection of chord inversion systems, based on algorithms in order to render the conversion more musical.

You can program the Major chord only and set the scale converter for the other two chords (minor and/or 7th). If, on a future occasion, you wish to program also the respective riffs, the relative Scale Conversion will be ignored. The parameter consists of two variable parts, corresponding to the two complementary chords with respect to the one being recorded.

If the “Off” setting is selected, the arranger carries out the simplified conversion referred to. The tables at the end of this chapter show how the scale converter operates, both in the off status, as well as for the Minor and 7th chords. Several different solutions for each chord are provided for.

The tables refer to chord and bass patterns played in the key of C and shows which notes are converted. The changes are expressed in semitones, therefore, if the note C shows a conversion of – 2, the note is converted 2 semitones down (Bb). Notes not converted are shown blank.

QUANTIZE

An auto-corrector of timing during the recording phase. The selection values are normal, triplets or swing.

Value	Quantization
1/4	
1/8	
1/12	 triplet
1/16	
1/24	 triplet
1/32	
1/48	 triplet
1/64	(1/64)
1/96	(1/64 triplet)
free	no quantization
1/8 B...F*	  (swing)
1/16 B...F*	  (swing)
free	no quantization

* B ... F indicate an adjustment of the Swing feel.

FREE MEMORY (CANNOT BE MODIFIED)

The amount of memory remaining to record the riff. Each riff can occupy up to 30.000 bytes (30 kilobytes).

If the RAM contains a large amount of data, a dialog window may appear showing the message «Memory full!» indicating that the recording cannot proceed further. The recording is instantly interrupted.

You can increase the amount of space in RAM by deactivating the Undo function.

SCALE CONVERSION TABLES

Scale Converter in OFF status: C Major riff -> C 7th riff							
	C#	D#		F#	G#	A#	
	C	D	E	F	G	A	B
accomp.	-2					+1	-1
bass						+1	-1

Scale Converter in OFF status: C Major riff -> C minor riff							
	C#	D#		F#	G#	A#	
	C	D	E	F	G	A	B
accomp.			-1			+1	-1
bass			-1			+1	-1

Scale Converter active: C Major riff -> C 7th riff							
	C#	D#		F#	G#	A#	
	C	D	E	F	G	A	B
7th 1 accomp.	-2						
7th 1 bass							
7th 2 accomp.	-2						-1
7th 2 bass							-1
7th 3 accomp.	-2					+1	
7th 3 bass						+1	
7th 4 accomp.	-2						
7th 4 bass							

.

Scale Converter active: C Major riff -> C minor riff

	C#	D#	F#	G#	A#		
	C	D	E	F	G	A	B
min 1 accomp.			-1				
min 1 bass			-1				
min 2 accomp.			-1				-1
min 2 bass			-1				-1
min 3 accomp.			-1			+1	
min 3 bass			-1			+1	
min 4 accomp.		-1	-1				
min 4 bass		-1	-1				
min 5 accomp.		-1	-1				-1
min 5 bass		-1	-1				-1
min 6 accomp.		-1	-1			+1	
min 6 bass		-1	-1			+1	
min 7 accomp.		-1	-1		-1	-1	
min 7 bass		-1	-1		-1	-1	

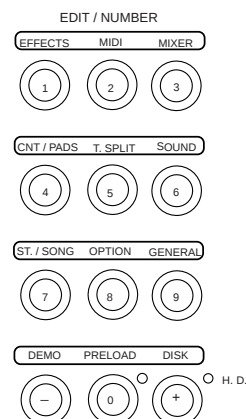
Complex chords

The logic applied to the conversion of the more complex chords follows similar lines to that used for the standard Major, minor and 7th chords indicated above. The user is invited to experiment with the Scale Converter in order to discover the most suitable conversion for the Style being programmed.

• 13 Edit overview

Edit section

The buttons of the EDIT/NUMBERS section gain access to a series of functions which determine how the instrument works. Each button corresponds to an edit environment. Most of the modifications can be saved to the Performance associated to the current mode (Style/RealTime or Song), by pressing the STORE PERFORMANCE button.



HOW TO NAVIGATE THROUGH THE EDIT PAGES

The navigational tools are the directional arrows [↔ & ↕/↖] and the ▲▼ page scroll buttons. The directional arrows [↔ & ↕/↖] move the cursor in all directions to select the parameter to edit.

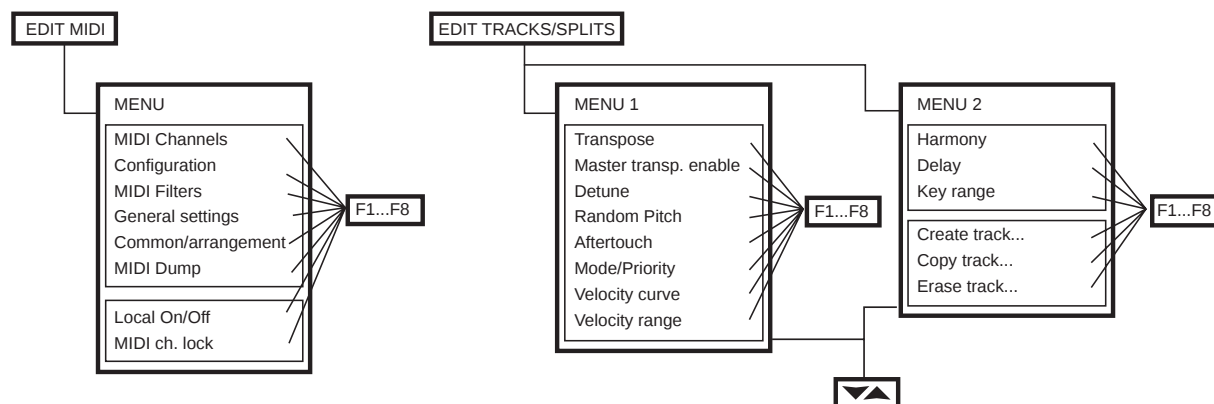
To enter a value for a selected parameter, use the DIAL or the numeric keypad (with the KEYPAD LED on).

To confirm an entry, use the ENTER button; use the Escape button to exit from a parameter without confirming a new entry.

THE STRUCTURE OF THE EDIT ENVIRONMENTS

The Edit environments consist of *pages* which contain related parameters (example, a page can contain a set of Effects parameters, or MIDI parameters, etc.).

The pages of the *simple structure* edit environments (Edit MIDI, Edit Effects, Edit Mixer, Edit Controllers/Pads, Edit Tracks/Splits, Edit Perf Sound) are arranged on a single level. The list of functions shown in the right column of the display contains the name of the pages which can be recalled with the corresponding Soft button.



Edit environments diagram with simple structure.

If an edit environment contains more than one menu (as in example, Edit Tracks/Splits) it is possible to pass from one menu to the other with the page scroll buttons ▲▼.

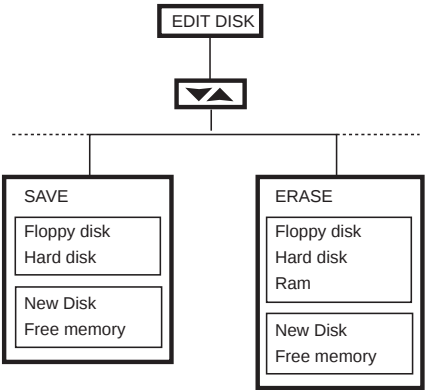
You can escape a simple structure edit environment by pressing the respective edit button, or ESCAPE.

The *complex structure* edit environments (Edit Style, Edit Song, Edit Sound, Edit General) consist of a series of related editors (*modules*) which can be directly accessed from the main menu. Once entered, you can pass from one accessed editor to another by means of the page scroll buttons ▲▼.

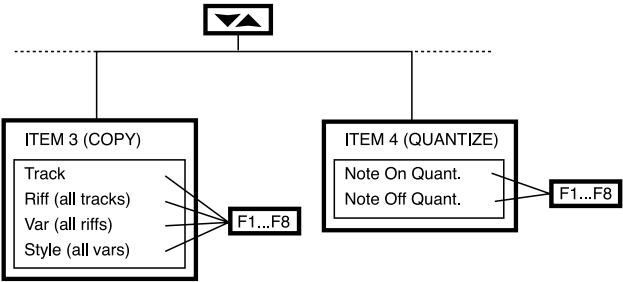
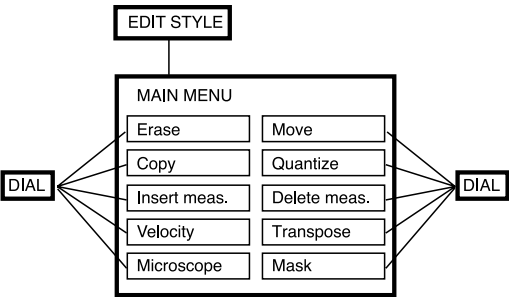
The functions of an editor are recalled with the soft buttons F1...F8, as in the simple structure environments.

To escape an editor, press the button corresponding to the edit environment, or press ESCAPE twice (once to return to the main menu, once to escape the edit).

In the «Disk» environment, each page corresponds to a function. Pass from one page to another with the page scroll buttons ▲▼. The Soft buttons are used to select the disk and activate various procedures.



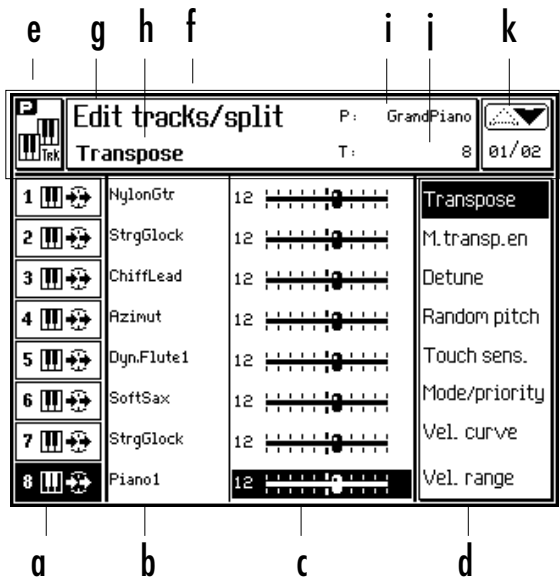
«Edit Disk» diagram.



Edit environments diagram with complex structure.

THE EDIT PAGES

Using the «Transpose» page of «Edit Tracks/Splits» as an example:



- a. Track status icons.
- b. Sound zone (not always present).
- c. Parameter zone. The parameters can appear in numeric or graphic form.
- d. Functions. Contains three types of options or commands: (a) items that alternate between one another; selecting one deactivates the other, (b) items that recall a dialog window, (c) ON/OFF switches.
- e. The icon identifying the Edit environment.
- f. Status bar.
- g. Name of the edit environment.
- h. Name of the edit page.
- i. Name of the current Performance in edit.
- j. Name of the current track in edit (pages containing parameters relating to single tracks).

- k. Menu selector/indicator corresponding to the buttons ▲▼. When these arrows are not active for selection, it is an indication that other menus are not available. Conversely, when one or both are active for selection, they indicate the presence of a menu before or after.

PASSING FROM ONE EDIT SECTION TO ANOTHER

While you are inside an edit environment, it is possible to pass to a different environment by pressing the corresponding button in the EDIT section. It is not necessary to escape an edit environment to pass into another.

MOVING THE CURSOR

The cursor is represented by the negative highlight zone which indicates that a parameter is selected and in a state to accept a modification. Move the cursor with the directional arrows.

EDIT PROCEDURE FOR SIMPLE STRUCTURE EDIT ENVIRONMENTS

1. To modify the parameters of a Performance, first select the Performance.
2. Press the button corresponding to the required edit environment in the EDIT section.
3. Select the editor required with the directional arrows.
4. If you are not able to find the page required, select it with the corresponding Soft button. If the required item does not appear in the menu, use the buttons ▲▼ to select the next or previous menu.

5. If you wish to modify a single track of the Performance, select the track with the Soft buttons A...H. You can also select the track by moving the cursor to it relative parameter with the directional arrows .

6. Select the parameter to modify with the directional arrows.

7. Modify the parameter with the DIAL or the numeric keypad.

8. Press ESCAPE or the button corresponding to the edit environment to return to the main display of the current operating mode.

9. If you have modified a Performance, save the modifications by pressing STORE PERFORMANCE.

7. If necessary, pass on to another editor. You can use the buttons , or return to the main menu with ESCAPE and select another editor with DIAL+ENTER.

8. Press ESCAPE twice, or the corresponding edit button to return to the main display of the current operating mode.

9. If you have modified a Performance, save the modifications by pressing STORE PERFORMANCE. If you have modified a Sound, save the Sound to the Sound Library.
- EDIT PROCEDURE FOR COMPLEX STRUCTURE EDIT ENVIRONMENTS**
1. Select the item that requires modifying (Performance, Style, Song).

2. Press the button corresponding to the required edit environment in the EDIT. The main menu containing a list of editors (modules) appears.

3. Select the editor with the DIAL, or with the directional arrows then press ENTER to gain access, or by specifying the editor number on the numerical keypad and confirming with ENTER.

4. If you are not able to find the page you require, select it with the corresponding Soft button.

5. Select the parameter to modify with the directional arrows.

6. Modify the parameter with the DIAL or the numerical keypad.
- ESCAPE THE EDIT ENVIRONMENT**
- There are three ways of escaping from an edit environment:
- press ESCAPE (as many times as necessary depending on the currently selected level).
 - press the button corresponding to the function in edit.
 - press another button of the EDIT section to pass to a different edit environment.
- MEMORISING MODIFICATIONS TO A PERFORMANCE**
- When you have completed your edit tasks, press STORE PERFORMANCE to save the modifications to the current Performance. If you fail to store your modifications, they will be irremediably lost when you select another Performance, or reselect the same one. The modifications will also be lost by pressing the START/STOP, PLAY, STOP, << or >> buttons.
- In the case of Sound Editing (advanced feature), the tasks do not pertain to the Performances, therefore, you must remember to store the modified Sound to RAM.
-

13•4 Reference Guide

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● 14 Edit Effects

Chapter 9 (The Digital Signal Processor) discusses how to assign the Effects to the Performances both for Style/RealTime mode and for Song mode.

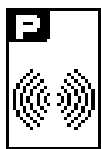
This chapter shows you how to edit the effect parameters and save the modifications.

Press the EFFECTS button in the EDIT section to gain access to the «Edit Effects» environment.

The «Edit Effects» environment contains general parameters that affect the instrument as a whole (amount of general reverb), Performance parameters (effects assigned to the DSPs), and track parameters (amount of effects sends).

The Effects edit environment consists of only one menu.

► **Note:** Save the modifications with **STORE PERFORMANCE**. The parameter configurations that are memorized to the Performances show the letter **P** in the top left hand corner of the Edit I.D. Icon.



EFFECTS



EFFECTS TYPE (F1) **P**

This function assigns the effects to the DSP. Each Performance can have its own effect and the general level (volume) can be regulated. The effect levels for each track are adjusted using the «Send level» function.

Group A & B

Eff1. The Reverb selector. Rotating the Dial when this parameter is selected scrolls through the 24 available Reverb effects.

Reverbs: refer to the table on page 5 for a detailed list of the Reverb effects.

Vol. General Reverb level (volume).

Assignable values: 0 ... 127.

Group A & B

Eff2. The modulation effect selector (delay/chorus/flanger, etc). Rotating the Dial when this parameter is selected scrolls through the 32 available Modulation effects.

Effects: refer to the table on page 6 for a detailed list of the modulation effects.

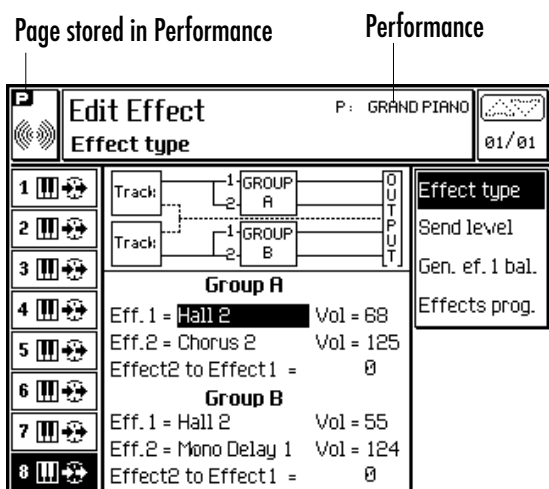
Vol. General Modulation effect Level (volume).

Assignable values: 0 ... 127.

Group A & B

Effect 2 to Effect 1: Determines the quantity of feedback of Eff2 into Eff1.

Assignable values: 0 (no feedback) ... 127 (maximum feedback of the signal).



Edit Effects - Effects type selection

SEND LEVEL (F2)

This function controls the effects level (volume) for each track. The zero level corresponds to a deactivated effect for the track.

Grp (Group)

In **Style/RealTime mode**, the Group parameter cannot be selected. The accompaniment tracks are processed by the Group B effects. The keyboard tracks are processed by the Group A effects.

In **Song mode**, the Group parameter can be switched from A to B and vice versa.

E1 (Effect 1 - Reverbs)

Regulates the send level of Effect 1 (reverb) for each track.

Assignable values: 0 (dry) ... 127 (wet).

E2 (Effects 2 - Modulations)

Regulates the send level of Effect 2 (modulations) for each track.

Assignable values: 0 (dry) ... 127 (wet).

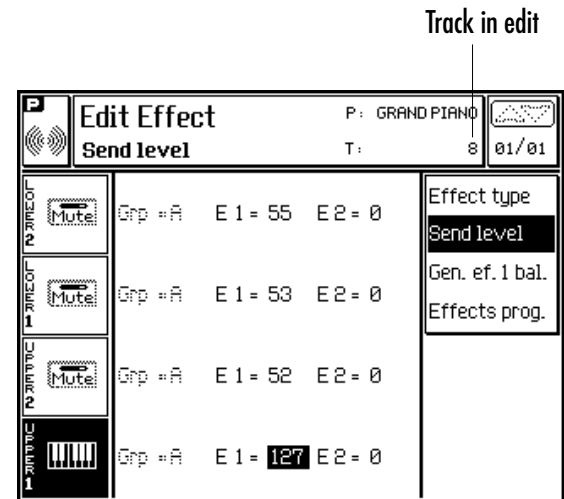
GENERAL EFF1 BALANCE (F3)

Value added or subtracted from the general reverb level, regardless of the selected Performance. Allows you to adapt the reverberation of the **WK4** to the natural reverb of the surroundings.

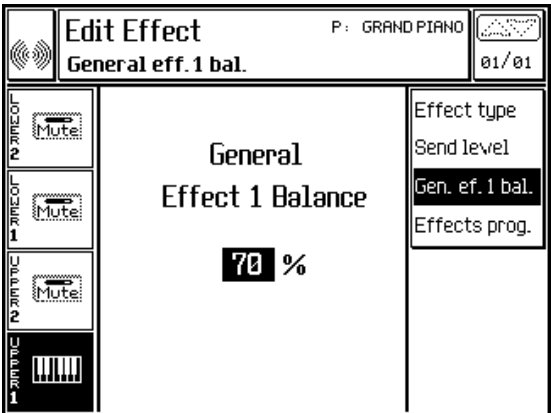
The reverb duration varies according to the dimensions and absorption characteristics of the surroundings in which you play. You can program the **WK4** reverb in order to obtain the best results over headphones, or for home listening, and then regulate this parameter to adapt the reverb to the surroundings in which you play in public.

The setting is not retained in memory at power down.

Assignable values: 0% (all dry) ... 100% (all wet).
The value of 70% corresponds to the factory set value.



Edit Effects - Send level (Style/RealTime mode)



Edit Effects - General Effect Balance

EFFECTS PROGRAMMING (F4)

Editor of the currently selected effect. The parameter values and parameter configurations vary according to the «Effect type» selected.

The tables at the end of this chapter list the Effect types and relative values of the parameters.

Rev.Time (Reverb Time)

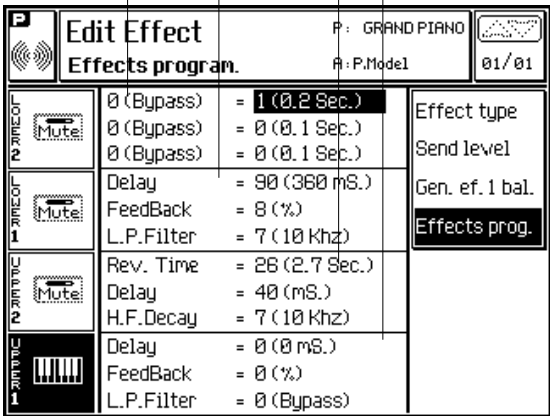
Decay time of the reverb.

Delay (reverbs)

Initial delay between the emission of the original sound (dry signal) and the reverb (wet signal).

H.F.Decay (High Frequency Decay)

of the high frequencies. The parameter indicates the final frequency of the filter. The decay of the high frequencies has a longer duration than that of the low frequencies.

DSP1 Parameters (GrpA-Eff1)		DSP3 Parameters (GrpB-Eff1)	
DSP2 Parameters (GrpA-Eff2)		DSP4 Parameters (GrpB-Eff2)	
			

Edit Effects - Effect programming
(Edit of the Effect assigned to the Performance)

Room Size

Dimensions of the simulated room. The time lapse between the first reflection and the remainder of the reverb.

Diffusion

Duration of the reverb (Early type reverbs).

L.P.Filter (Low Pass Filter)

Determines the cutoff frequency of the filter.

Delay (delays)

Velocity of the delay repetition.

Feedback (delays)

Interaction of the delay with itself. Determines the number of repetitions of the delay.

Feedback (phasers and flangers)

Interaction of the phaser or flanger with itself. Determines the harmonic amount of the effect.

Freq.Modul. (Frequency Modulation)

Modulation velocity of chorus and flanger effects.

Depth

Depth of the action of the effect.

Feedback (Distortion)

Saturation of the distortion.

Speed (rotary effects)

Time required to pass from slow to fast or vice versa.

Rotary

Slow/fast velocity.

Semitone

Transposition in semitone steps.

Detune

Detuning over a range of ± 100 Cents.

Low Gain

Enhancement of the low frequencies.

Medium Gain

Enhancement of the mid frequencies.

High Gain

Enhancement of the high frequencies.

Effect 1 - Reverb table

Effect 1 - Reverbs			
1 Hall 1	Rev.Time [0-0.1s ... 99-10s]	Delay [0ms ... 99ms]	H.F.Ddecay [Ø-bypass ... 10-16kHz]
2 Hall 2	"	"	"
3 Hall 3	"	"	"
4 Warm Hall	"	"	"
5 Long Hall	"	"	"
6 Stereo Concert	"	"	"
7 Chamber	"	"	"
8 Studio Room 1	"	"	"
9 Studio Room 2	"	"	"
10 StudioRoom 3	"	"	"
11 Club Room 1	"	"	"
12 Club Room 2	"	"	"
13 Club Room 3	"	"	"
14 Vocal	"	"	"
15 Metal Vocal	"	"	"
16 Plate 1	"	"	"
17 Plate 2	"	"	"
18 Church	"	"	"
19 Mountains	"	"	"
20 Falling	"	"	"
21 Early 1	Room Size [0 ... 64]	Diffusion [0 ... 127]	L.P.Filter [0-bypass ... 10-16kHz]
22 Early 2	Room Size [0 ... 64]	Delay [0 ... 127]	L.P.Filter [0-bypass ... 10-16kHz]
23 Early 3	Room Size [0 ... 64]	Delay [0 ... 127]	L.P.Filter [0-bypass ... 10-16kHz]
24 Stereo	Room Size [0 ... 64]	Rev.Time [0-0.1s ... 99-10s]	L.P.Filter [0-bypass ... 10-16kHz]

.....

Effect 2 - Modulation effects table

Effect 2 - Delay/Chorus/Flanger/Modulations			
1 Mono Delay 1	Delay [0-0ms ... 125-500ms]	Feedback [0% ... 99%]	L.P.Filter [0-bypass ... 10-16kHz]
2 Mono Delay 2	"	"	"
3 Stereo Delay 1	"	"	"
4 Stereo Delay 2	"	"	"
5 Multitap Delay 1	"	"	"
6 Multitap Delay 2	"	"	"
7 Ping-pong	"	"	"
8 Panmix	Delay [0-0ms ... 125-500ms]	Freq.Mod. [0-bypass ... 30-6kHz]	Depth [0 ... 100]
9 Chorus 1	Freq.Mod. [0-0kHz ... 30-6kHz]	Depth [0 ... 100]	L.P.Filter [0-bypass ... 10-16kHz]
10 Chorus 2	"	"	"
11 Ensemble 1	"	"	"
12 Ensemble 2	"	"	"
13 Phaser 1	Freq.Mod. [0-0Hz ... 30-6kHz]	Depth [0 ... 100]	Feedback [0% ... 99%]
14 Phaser 2	"	"	"
15 Flanger 1	Freq.Mod. [0-0kHz ... 30-6kHz]	Depth [0 ... 100]	Feedback [0% ... 99%]
16 Flanger 2	"	"	"
17 ChorusDelay 1	Delay [0-0ms ... 125-500ms]	Freq.Mod. [0-0Hz ... 30-6kHz]	Depth [0 ... 100]
18 ChorusDelay 2	"	"	"
19 FlangerDelay 1	Delay [0-0ms ... 125-500ms]	Freq.Mod. [0-0Hz ... 30-6kHz]	Depth [0 ... 100]
20 FlangerDelay 2	"	"	"
21 Dubbing	Delay [0-0ms ... 125-500ms]	Feedback [0% ... 99%]	L.P.Filter [0-bypass ... 10-16kHz]
22 Distortion	Depth [0% ... 100%]	Feedback [0% ... 100%]	L.P.Filter [0-bypass ... 10-16kHz]
23 DistortionDelay	"	Delay [0-0ms ... 125-500ms]	Feedback [0% ... 99%]
24 Pitch Shifter 1	Semitone [-12 ... +12]	Detune [-100c ... 100c]	L.P.Filter [0-bypass ... 10-16kHz]
25 Pitch Shifter 2	"	"	"
26 ShiftDelay	Delay [0-0ms ... 125-500ms]	Feedback [0% ... 99%]	Detune [-100c ... 100c]
27 Rotary 1	Speed [1s ... 11s]	Rotary [slow/fast]	L.P.Filter [0-bypass ... 10-16kHz]
28 Rotary 2	"	"	"
29 EQ Jazz	Low Gain	Medium Gain	High Gain
30 EQ Pop	"	"	"
31 EQ Rock	"	"	"
32 EQ Classic	"	"	"

• 15 Edit MIDI

The «Edit MIDI» environment contains general parameters and parameters pertaining to single tracks.

Press the MIDI button in the EDIT section to gain access to the «Edit MIDI» environment.



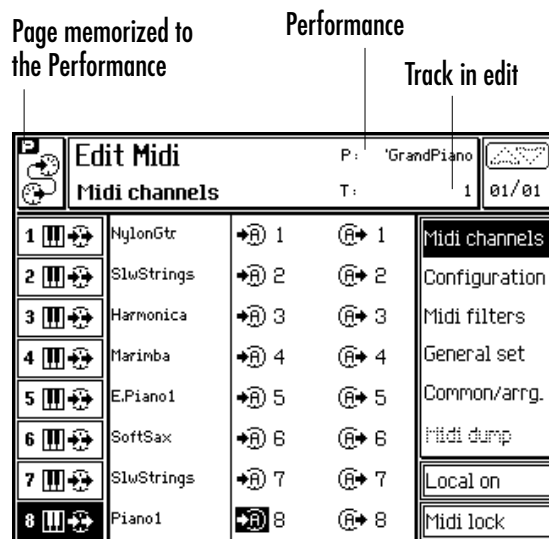
► **Note:** Save any modifications with **STORE PERFORMANCE**. The Performance memorizes pages whose icons shows the symbol **P**.

MIDI CHANNELS (F1)

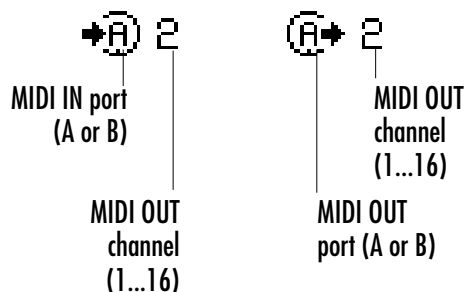
This parameter assigns the MIDI channel (1...16) and MIDI port (A or B) to each track.

The Performances are independently programmable for a MIDI configuration.

The «MIDI Lock» option (soft button F8) locks the current configuration for all Performances, overriding the individual MIDI configurations of the Performances when you change Style or Performance.



Edit MIDI - MIDI Channels
(MIDI Channels and ports for each track)



CONFIGURATION (F2)

This function sets the track configuration which determines how the tracks are connected to MIDI IN, to the keyboard, to the sound generator and MIDI OUT.

The keyboard icon also indicates the Common Channel (equivalent to the incorporated keyboard of the WK4).

Pass from one icon to another with the cursor buttons. Modify the status of the icons with the DIAL (when the icon shows, the parameter is on; when the parameter is deactivated, the icon is substituted by OFF).

MIDI IN icon

When on (icon showing), the track responds to MIDI data received at the MIDI IN port. When OFF, the track does not receive external MIDI data.

Keyboard/Common Channel icon

When on (icon showing), the track can be played from the keyboard. When OFF, the track cannot be played from the keyboard, but can receive data via MIDI, or it can be exploited by a Song or Style.

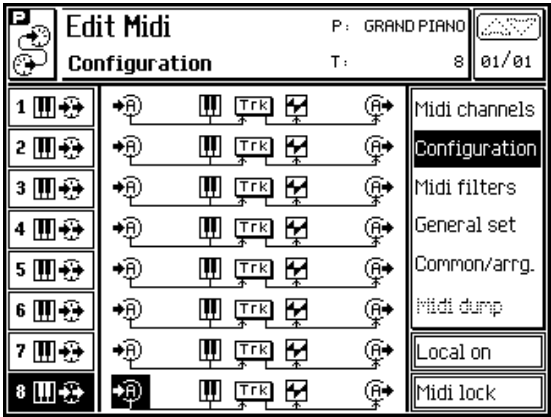
The icon also corresponds to a master keyboard connected via the Common Channel, which simulates the WK4 keyboard and on-board controllers (pedals, trackball).

Internal sound generator icon

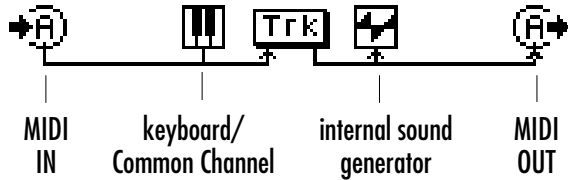
When on (icon showing), the events generated by the track are sent to the internal sound engine. When OFF, the track is not connected to the internal sound engine, but can send data to an expander via MIDI OUT.

MIDI OUT icon

When on (icon showing), the events generated by the track are sent to an external MIDI device via the MIDI OUT port. When OFF, the track does not transmit MIDI data to external units.



Edit MIDI - Configuration
(track configuration - internal/external connections)



MIDI FILTERS (F3)

This function programs MIDI Filters for data received at MIDI IN and data sent via MIDI OUT.

It is possible to program up to 7 MIDI IN filters and 7 MIDI OUT filters for each track.

Options: Off, Program Change, Pitchbend, Mono touch, Poly touch, ControlChange 00...31, ControlChange 64...127.

► **Hint:** To avoid transmitting ProgramChange data to an expander connected to the WK4 MIDI OUT, activate the MIDI OUT ProgramChange filter for the track.

GENERAL SETTINGS (F4)

This function provides settings that influence the instrument as a whole (saved to the Setup).

MIDI Clock

A MIDI synchronizer to synchronize WK4 with external rhythm units and sequencers.

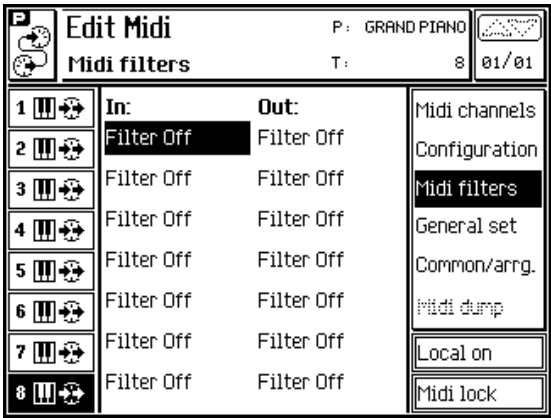
Setting “Internal” renders WK4 independent from the Clock of external MIDI devices.

Setting “External” places WK4 on stand-by, waiting to receive the PLAY, START or STOP command from the external device connected to the instrument's MIDI In port. The external device also controls the tempo.

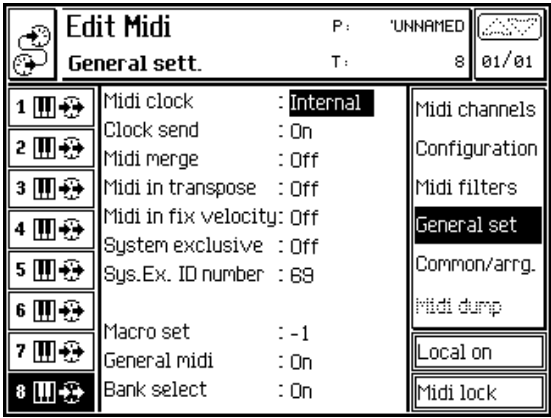
The Song Position Pointer is received and transmitted with the same precision as MIDI (1 tic = 1/24th of a beat). This parameter allows a Song to be stopped at a precise point.

Options: Internal, External.

► **Note:** WK4 receives or transmits MIDI Clock on the same MIDI port (A or B) as the Common Channel.



Edit MIDI - MIDI Filters
(filters of data in reception and transmission for each track)



Edit MIDI - General settings

Clock send

Determines whether or not the **WK4** MIDI Clock is transmitted to external MIDI devices. If deactivated, **WK4** does not control the tempo and the Start/Stop of MIDI devices connected to the **WK4** MIDI OUT.

Options: On, Off.

MIDI Merge

Enables data received at MIDI IN to be merged with data transmitted at MIDI OUT.

If Merge=Off, the data received at MIDI IN are directed to the internal sound engine and to MIDI THRU.

If Merge=On, the data received at MIDI IN are directed to the internal sound engine, to MIDI THRU and MIDI OUT. Unlike data sent from MIDI THRU, the data transmitted via MIDI OUT are processed by the tracks (volume, pan, transpose, velocity curve, MIDI filters).

Options: On, Off.

.....
► **Note:** The parameter cannot be programmed with the COMPUTER port is active («Computer» editor of «Edit General»).

MIDI IN Transpose

Enables the transposition of data received at MIDI IN. Deactivating this parameter can be useful to avoid unwanted transpositions when you program Songs with a computer.

A computer operates as a THRU device. After receiving data by a **WK4** track which has been transposed, the computer can return the notes to the same track which will transpose them further. This will not occur if MIDI IN Transpose is deactivated.

Options: On, Off.

MIDI IN fix velocity

Enables the Velocity switch. If this parameter is set to OFF, notes are received via MIDI IN with the correct velocity value. Other values set the indicated value to the notes received.

Options: Off, 1 ... 127.

.....
► **Hint:** Some accordions transmit velocity at a fixed level, not able to be regulated. With this parameter, it is possible to modify the velocity value received by the accordion.
.....

System Exclusive

NB: Not enabled in the current version of the WK4 software.

System Exclusive ID#

NB: Not enabled in the current version of the WK4 software.

Macro

NB: Not enabled in the current version of the WK4 software.

General MIDI

Represents the General MIDI compatibility switch which requires setting when loading or saving MIDI files.

Set this parameter to ON in the following situations:

- before loading a GM compatible MIDI file which does not contain the GENERAL MIDI ON flag.
- before saving a perfectly GM compatible MIDI file (the General MIDI On flag is inserted in the file and the Program Changes of the drumkits are converted to Program Changes compatible with General MIDI).

The table shows the drumkit Program Changes according to the status of the parameter.

Options: On, Off.

BankSelect

Enables the reception and transmission of the BankSelect MSB (CC00) and BankSelect LSB (CC32) message.

Options: On, Off.

MIDI channel 10, General MIDI On - conversion table (automatic)

PC-GM	PC-BS WK4	Drumkit GM	Drumkit WK4
1 ... 8	113-2	Standard	DK-STAND1
9 ... 16	114-2	Room	DK-ROOM
17 ... 24	115-2	Power	DK-POWER
25	116-2	Electronic	DK-ELECT
26 ... 32	117-2	TR-808	DK-HOUSE
33 ... 40	118-2	Jazz	DK-JAZZ1
41 ... 48	119-2	Brush	DK-BRUSH
49 ... 128	120-2	Orchestra	DK-ORCH

.....

COMMON CHANNEL/ARRANGEMENT (F5)

This page presents parameters common to all Performances.

The Common Channel is a MIDI channel dedicated to special operations:

- simulation of the keyboard and on-board controllers (pedals).
- transmission of Effects, Performance, Style and Song selected messages to **WK4**.
- transmission to **WK4** of chord data for the automatic accompaniment.

As an alternative to the Common Channel, chord messages for the accompaniment can be received on the MIDI channels specified by Chord to Arr.1 and Chord to Arr.2, conceived principally for the connection of a MIDI accordion.

Common Channel

Enables the Common Channel. This parameter is divided into three parts:

- Ch** - MIDI channel assigned to the Common Channel (IN and OUT).
- In** - MIDI IN port (A or B).
- Out** - MIDI OUT port (A or B).

The channel assigned to the Common Channel is no longer available for the tracks of the external sequencer. The Common Channel is reserved to special tracks dedicated to the control of effects and other parameters.

ProgramChange and ControlChange data received on the Common Channel select Style, Song, Performance, Effects and other parameters listed in the Appendix.

Options: Off, 1 ... 16.

Chord to Arr.1 / Chord to Arr.2

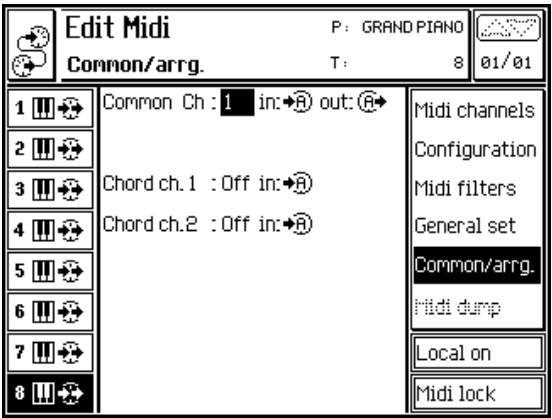
Enables the parameters dedicated to the control with a MIDI accordion. They are divided into two parts:

- Ch** - MIDI channel.
- In** - MIDI IN port (A or B).

Chord to Arr.1 is dedicated to the chords, **Chord to Arr.2** is dedicated to the Bass. The accordionist can send notes for the automatic accompaniment from the chord section, from the bass section, or from both sections.

The Common Channel unites to these two channels and their notes contribute to the formation of the chord for the automatic accompaniment.

Options: Off, 1 ... 16.



Edit MIDI - Common/Arrangement
(Common Channel and arrangement control)

MIDI DUMP... (F6)

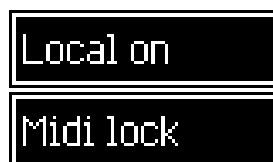
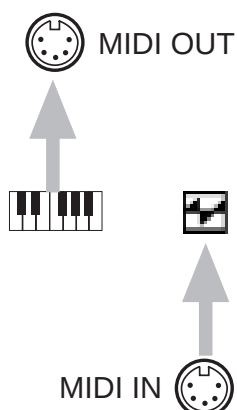
NB: Not enabled in the current version of the WK4 software.

LOCAL ON, LOCAL OFF (F7)

The Local On setting (the default status of the instrument) corresponds to the situation when the keyboard is connected to the internal sound engine.

Press F7 to set the instrument for Local Off operation (shown in negative highlight). Local Off operation disconnects the **WK4** keyboard from the internal sound generator. The keyboard sends data from the Group A MIDI OUT on channel 1. In Local Off mode, the internal sound engine responds only to data received at MIDI IN. **The keyboard cannot play the internal WK4 sounds directly.**

Activate Local Off to program Songs on an external sequencer. **WK4** transmits data to the external sequencer, and the sequencer returns the data to the **WK4** internal sound engine.



MIDI LOCK (F8)

When this function is selected (shown in negative highlight), the current MIDI channel configuration and filters of the tracks is locked for all Performances. The individual situations of Performances are overridden.

When the option is not selected, the tracks are reset to the settings of the current Performance.

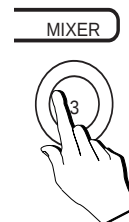
The MIDI Lock setting is conserved in memory after power down. It is saved to the Setup.

.....

• 16 Edit Mixer

«Edit Mixer» allows you to control volume, pan, effect send and output assignment for each track. Also included is an equalizer that is applied to all tracks.

Press the MIXER button in the EDIT section to gain access to the «EDIT MIXER» environment.



► **Note:** Save the changes with **STORE PERFORMANCE**. The Performances memorize the pages whose icon shows the symbol .

VOLUME (F1)

You can regulate the track volume with the DIAL or the sliders A...H.

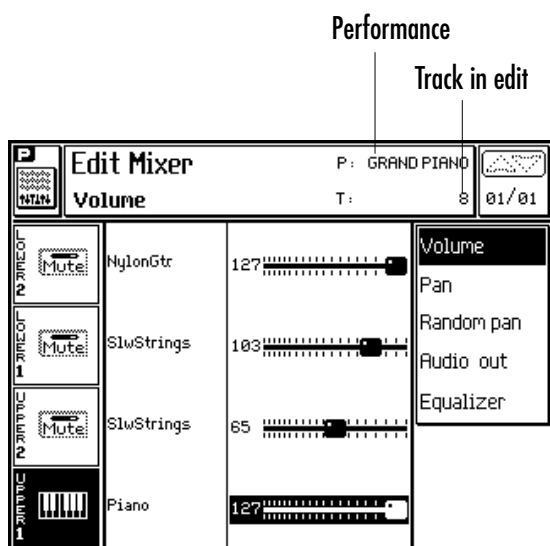
In edit, each slider corresponds to a track (the LED near the A ... H letters is on).

Value range: 0 ... 127.

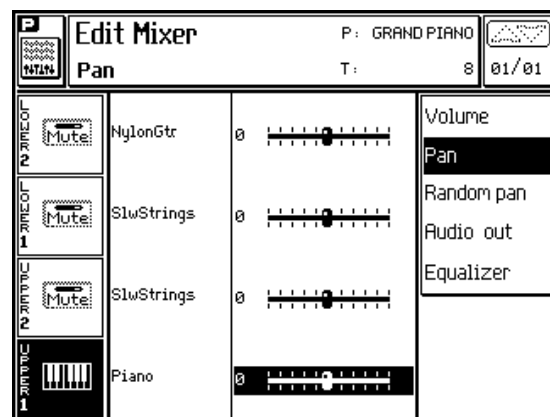
PAN (F2)

Track position in the stereo panorama. Moving the Pan all to the left or all to the right, you can direct the sound to one output instead of both outputs.

Value range: -31 (all to the left) ... 0 (center) ... +31 (all to the right).



Edit Mixer - Volume
(track volume)



Edit Mixer - Pan
(track position in the stereo panoramic)

**RANDOM PAN (F3) **

Random changes of the sound position in the stereo panorama. This change renders the sound more realistic.

Value range: 0 (no effects) ... 7 (maximum randomness).

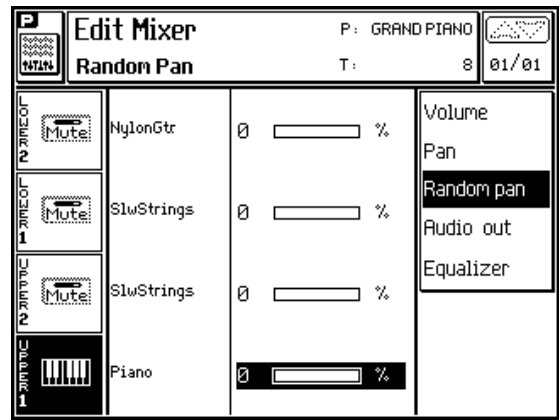
**AUDIO OUT (F4) **

Routing of the tracks to the audio outputs. The parameter is important only when the tracks are connected to the internal sound generation.

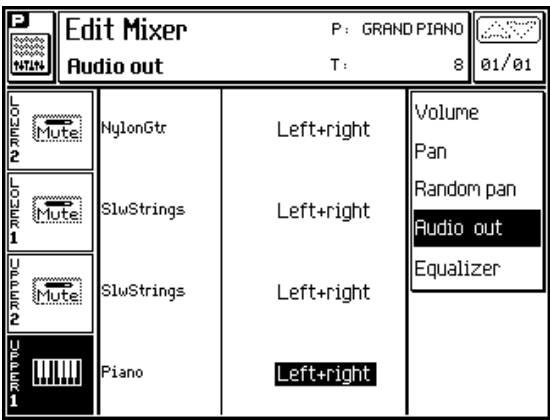
Normally the **WK4** sends sounds to both LEFT and RIGHT outputs, but it is possible to send some tracks to the auxiliary 1 and 2 outputs, for an external mixing operation and a wider sound 'opening'.

The outputs selection also affects the internal amplification.

Options: Left+Right, Out1+Out2, Out1, Out2.



Edit Mixer - Random Pan



Edit Mixer - Audio Outputs
(track audio outputs)

EQUALIZER (F5)

Two band general equalization, corresponding to the Treble/Bass controls of stereo devices.

The graphic representation shows the level and the intersection zone of the two bands.

Low Frequency

The highest limit of the Bass frequencies.

Value range: 100Hz ... 400Hz.

Low gain

Control of the Low frequencies.

Value range: -12dB ... +12dB.

High Frequency

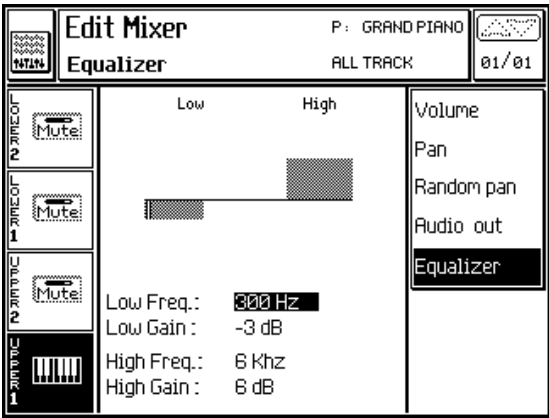
The lowest limit of the High frequencies.

Value range: 3Hz ... 15Hz.

High gain

Control of the High frequencies.

Value range: 3Hz ... 15Hz.



Edit Mixer - Equalizer
(High/Low general equalization)

• 17 Edit Controllers/Pads

In «Edit Controllers/Pads» you can program how the individual tracks of a Performance react to the Trackball, the programmable Pedals and programmable Pads.

Press the CNT./PADS button in the EDIT section to gain access to the «Edit Controller/Pads» environment.

► **Note:** Save the changes with *STORE PERFORMANCE*. The Performances memorize the pages whose icon shows the symbol .

TRACKBALL (F1)

Activates the action of the Trackball for single tracks.

Each track can be independently programmed for the action of the preset Pitchbend and/or the Modulation functions of the Trackball. This controlling device is spring loaded to return it to the central position.

PitchBend 1

Pitch Bend is applied by horizontal (left/right) movements of the Trackball. The parameter offers a maximum pitch excursion of 12 semitones and Off.

The same control can be assigned to a continuous control pedal. See “Pedals Programming (F2)”.



Modulation 2

Modulation is applied by vertical (up/down) movements of the Trackball. The parameter can be set to either On or Off.

The same control can be assigned to a switch action pedal. See “Pedals Programming (F2)”.

Options: Pitch Bend: Off, 1...12.

Modulation: Off, On.

Performance

Track in edit

 Edit Controll./Pads		P: 'UNNAMED'	
Trackball		T: 8	01/01
1 	NylonGtr	 : Off	 : Off
2 	StrgGlock	 : Off	 : Off
3 	ChiffLead	 : Off	 : Off
4 	Azinut	 : Off	 : Off
5 	Dyn.Flute1	 : Off	 : Off
6 	SoftSax	 : Off	 : Off
7 	StrgGlock	 : Off	 : Off
8 	Piano1	 : 2	 : Off
		Trackball Pedals prog. Pedals assign. Pads	

Edit Controllers/Pads - Trackball
Pitch/Mod assignment for each track

PEDALS PROGRAMMING (F2)

Here you can assign a function to the pedals 1, 2 and 3. All three Pedals can be set to operate as either Switch or Continuous controls.

Switch action pedals control on/off functions such as Soft, Sostenuto, Damper, Start/Stop, Fill, Rotary Slow/Fast, etc.

Continuous control pedals control functions such as Volume, Expression, Pitch and Modulation.

Type of pedal

The first column on the left of the display selects the type of pedal (Switch or Continuous).

Options: Switch, or Continuous.

Parameters assignable to the pedals

The control functions assignable to the pedals depend on the type of pedal.

- «SWITCH»: Off, Damper, Sostenuto, Soft, Start/Stop, Key Start, Intro, Fill <, Fill =, Fill >, Ending, Var 1, Var 2, Var 3, Var 4, Var >, Var <, Perf >, Perf <, Harmony, Bass to Low., Arrange On/Off, Fade In/Out, Tempo >, Tempo <, Punch, Rotary Slow/Fast, Minor, 7th, Dim, Min 7th, Maj 7th, Freeze Chord.

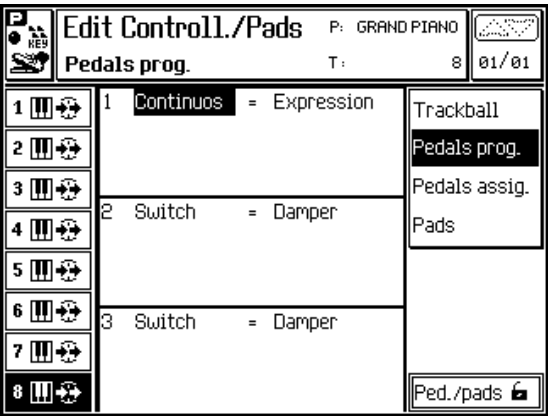
- «CONTINUOUS»: Off, PitchBend, Pitch+, Pitch-, Filter Cutoff Frequency (CC74), Resonance (CC71), Modulation (CC01), Breath controller (CC02), Volume (CC07), Pan (CC10), Expression (CC11)

Refer to the Pedal function tables at the end of this chapter for brief explanations of each function.

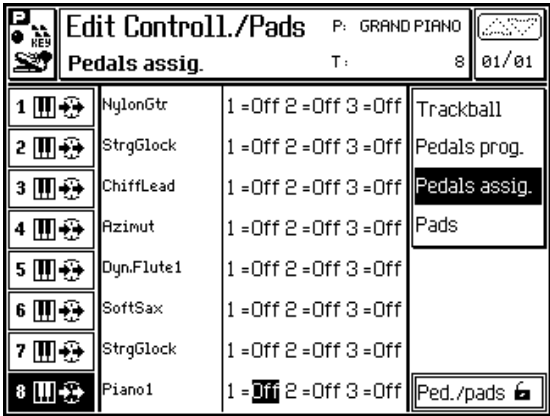
PEDALS ASSIGNMENT (F3)

This parameter enables or disables the tracks for the action of pedals 1, 2 and 3.

Options: On, Off.



Edit Controllers/Pads - Pedals programming
(Function assignments for the Pedals)



Edit Controllers/Pads - Pedals assignment
(pedal enable/disable)

PADS (F4)

The four PAD buttons are independently program-mable. Each button can be configured to react according to the settings of various parameters.

Pad #

Determines the Function to assign to the pad.

Functions assignable: Off, KeyAssign, Rotary slow/fast, Hardcopy.

Off - pad deactivated.

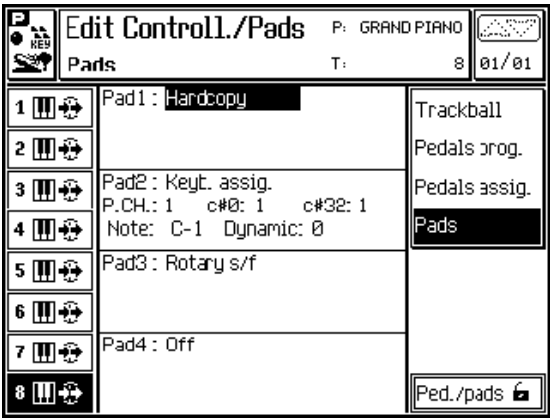
KeyAssign - The pad plays the assigned note. The Volume, Pan, Transposition and MIDI OUT channel settings correspond to those of track 6. The Note and ProgramChange are defined by the following parameters which appear only when this option is selected

PC - Program Change. Range 1...128.

C#0 - CC00: Control Change 00 (Bank Select MSB). Range 1...128.

C#32 - CC32: Control Change 32 (Bank Select LSB). This parameter does not require a setting to play an internal **WK4** sound. Range 1...128.

Note - Determines the note played. Range: C-1 to G9

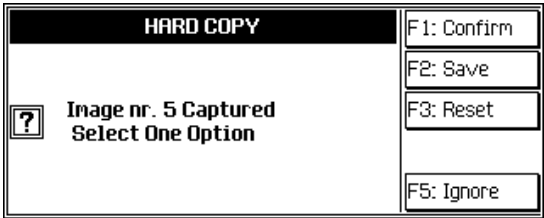


Edit Controllers/Pads - Pads
(pad programming tasks)

Dynamic - Note velocity. Range 0...127

Rotary slow/fast - Switches the Rotary velocity from slow to fast or vice versa.

Hardcopy - Captures a bitmap image of the current display (.BMP) into RAM. The images can be saved to an MS-DOS disk and elaborated by a graphic program running on a personal computer.



Confirm (F1) - confirms the captured display.
Save (F2) - saves the captured image to an MS-DOS disk.
Reset (F3) - cancels all captured images and liberates the RAM. Each image uses approx. 6 KBytes of RAM.
Ignore (F5) - closes the dialog window without capturing the image.

PED./PAD (**PEDALS/PADS LOCK**) (F8)

When selected, the Pedals/Pads Lock conserves the current pedal and pad programmed status for all Performance and Style selections.

To enable the recall of the Pedal/Pads parameters, make sure the Padlock is open (unlocked).

The Pedals/Pads Lock remains in memory after power down. It is saved to the Setup.

THE SWITCH PEDAL FUNCTIONS

(affect enabled tracks of the current Performance)

Off	No effect
Damper	Applies the sustain effect to released notes.
Sostenuto	Sustains only the notes played at the time of pressing the pedal; notes played after pressing the pedal are not affected.
Soft	Attenuates the sound.
Start/Stop	Simulates the Start/Stop button.
Key Start	Activates/deactivates the Key Start function.
Intro	Activates the Intro.
Fill <	Activates the Fill< function.
Fill =	Activates the Fill function.
Fill >	Activates the Fill> function.
Ending	Activates the Ending function.
Variation 1	Switches to Variation 1.
Variation 2	Switches to Variation 2.
Variation 3	Switches to Variation 3.
Variation 4	Switches to Variation 4.
Var. >	Switches to the next Variation.
Var. <	Switches to the previous Variation.
Perf. >	Advances to the next Performance. N.B. To select several Performances in increasing order, all the Performances you intend to recall must be programmed for the action of the Perf > function.
Perf. <	Returns to the previous Performance. N.B. To select several Performances in decreasing order, all the Performances you intend to recall must be programmed for the action of the Perf < function.
Harmony	Activates/deactivates the Harmony button.
Bass to Low.	Activates/deactivate the Bass to Lowest function.

Arrange On/Off	Activates/deactivates the Arrange On/Off button.
Fade In/Out	Activates/deactivates the Fade In/Out function.
Tempo >	Increases the Tempo setting by one unit at a time.
Tempo <	Decreases the Tempo setting by one unit at a time.
Punch	Activates/deactivates the Punch recording function during recording operations.
Rotary s/f	Changes the speed of the Rotary effect from Slow to Fast or vice versa.
Minor	Converts the currently held chord to the minor chord.
Dim	Converts the currently held chord to the diminished chord.
Min 7th	Converts the currently held chord to the minor 7th chord.
Maj 7th	Converts the currently held chord to the Major 7th chord.

THE CONTINUOUS PEDAL FUNCTIONS

(affect enabled tracks of the current Performance)

Off	No effect
Pitch Bend	Applies Pitch Bend to the notes. The Pitch Bend sweeps from the maximum negative to maximum positive value of the Pitch setting in the Wheels Pit/Mod function. The central position of the continuous pedal corresponds to 0 pitch.
Pitch +	Increases the Pitch up the value set in the Pit/Mod parameter.
Pitch –	Decreases the Pitch down the value set in the Pit/Mod parameter.
Filter	Opens/closes the Filter Cutoff parameter in Edit Perf Sound.
Resonance	Affects the Resonance parameter
Modulation	Applies Modulation (CC01) to tracks activated for the effect (in Pit/Mod).
Breath Cnt.	Generates Breath controller (CC02) data (useful for external MIDI devices capable of recognizing the controller).
Volume	Controls the general volume (CC07).
Pan	Controls the Pan (CC10) from left to right.
Expression	Controls the volume from 0 level to the maximum setting of the mixer levels.

• 18 Edit Tracks/Split

In «Edit Tracks/Splits» you can program parameters that are exclusive to the tracks and the Harmony function which is exploited by the Styles.

Press the T. SPLIT button in the EDIT section to gain access to the «Edit Tracks/Split».

This section consists of two menus. Pass from one to the other with the scroll menu buttons (▲▼).

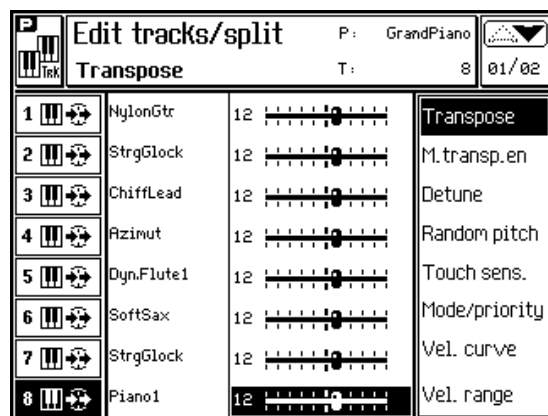


► **Note:** Save the changes with STORE PERFORMANCE. The Performances memorize the pages whose icon shows the symbol **F**.

TRANPOSE (F1) **F**

A track transposer which transposes in steps of one semitone. The maximum transposition obtainable is ± 5 octaves.

Assignable values: $-60 \dots 0 \dots +60$.

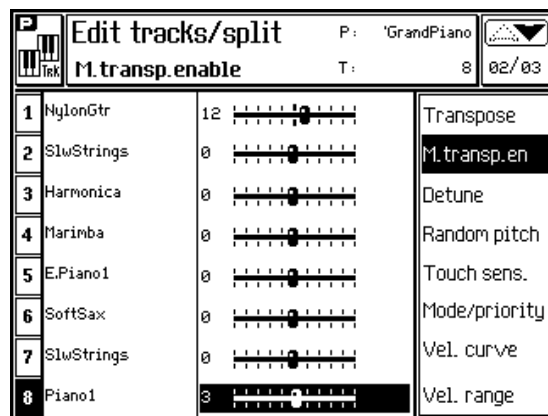


Edit Tracks/Split - Transpose (track transposition)

MASTER TRANPOSE ENABLE/DISABLE (F2) **F**

Master Transpose (general transpose) enable/disable for the track. Tracks set to Enable are tuned to the scale selected in «Edit General». Tracks set to Disable play with the Equal temperament.

The Master Transpose parameter is disabled for the drum track to avoid drum remappings due to transpositions.

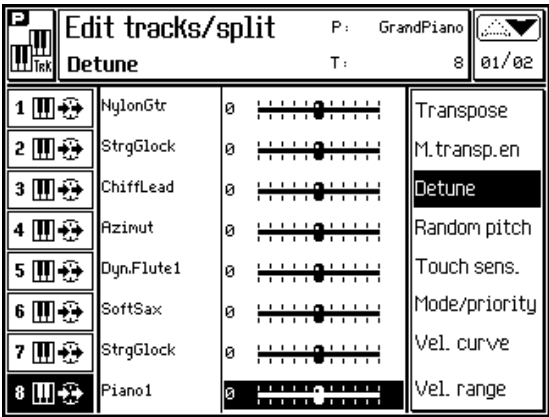


Edit Tracks/Split - Master Transpose enable/disable

DETUNE (F3)

A fine tune function for single tracks. Each step is equivalent to 1/64th semitone.

Assignable values: - 63...0...+63.

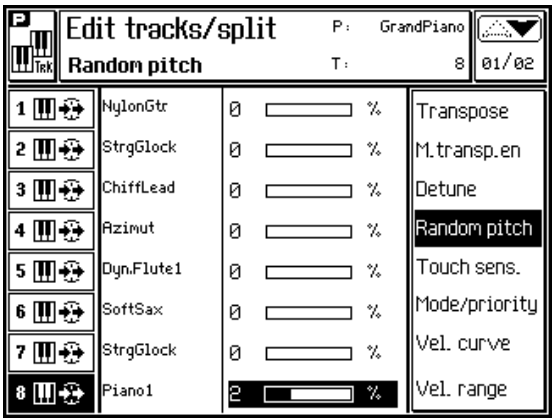


Edit Tracks/Split - Detune
(Track fine tuning operations)

RANDOM PITCH (F4)

Creates slight pitch variations freely and is useful to simulate the pitch instability typical of acoustic instruments. It is advisable to assign a value of 1 or 2 to wind instruments.

Assignable values: 0 (no effect) ... 7 (maximum randomness).



Edit Tracks/Split - Random pitch

MODE/PRIORITY (F5)

(1) Selects the polyphonic/monophonic mode for the tracks. (2) Activates/deactivates the Priority option (guaranteed minimum polyphony for the track).

Mode

This parameter sets a track to play monophonically (one note at a time) or polyphonically (two or more simultaneous notes). Mono R gives priority to the right note, Mono L to the left note, Mono T to the last note played.

Options: Poly, Mono L, Mono R, Mono T.

Priority

Priority guarantees a minimum polyphony to a track with respect to others and avoids “note-stealing”. In complex arrangements, a track set with Priority=Off can remain without notes, while those with Priority=On will not be subjected to “note-stealing”.

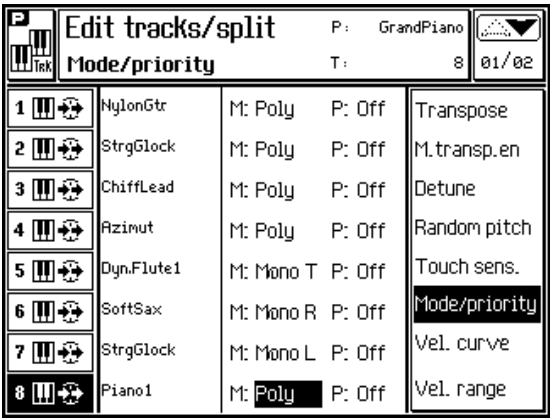
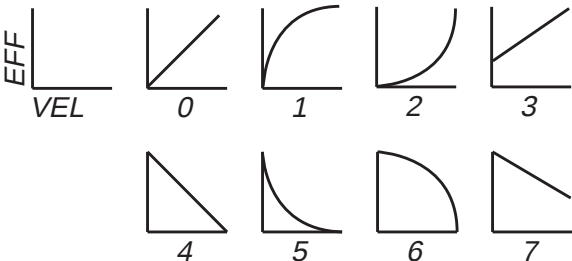
Options: On, Off.

► **Note:** Avoid assigning Priority=On to too many tracks, as this will cancel the function due to conflicts between the assigned tracks.

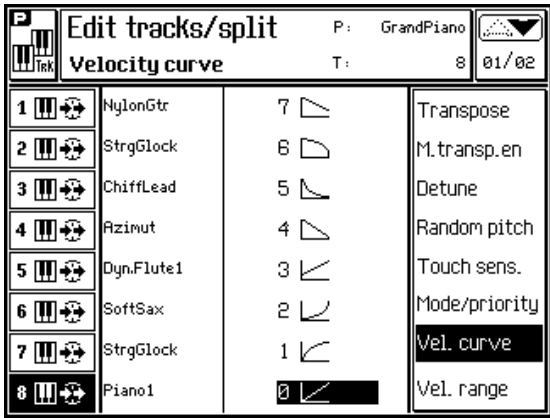
VELOCITY CURVE (F6)

Provides a selection of Velocity response curves. As well as modifying the velocity data, velocity curves allow the creation of crossfade effects between two tracks.

For example, it is possible to assign two tracks with opposing dynamic curves (for example, two opposing linear curves [ex. 1 & 4], or two opposing exponential curves [ex. 2 & 5]. The resulting effect is one of hearing the sound of the second track fade in by gradually increasing the keystroke velocity while the sound of the first track fades out. Playing softly triggers one sound and playing hard triggers the second. Playing with “in between” values creates a blend of both sounds.



Edit Tracks/Split - Mode/Priority
(polyphonic/monophonic Mode and Priority)



Edit Tracks/Split - Dynamic Curve

VELOCITY RANGE (F7)

Sets velocity limits for each track above and below which the sound will not play. These limits allow the creation of cross-switching effects by assigning tracks different velocity ranges.

For example, to one track, assign a piano sound softened by a closed filter, while to another track, assign the same piano sound with an open filter to enhance the higher frequencies. Program the first track to respond across a low velocity range and the second track across a higher range. The result obtained is a piano which changes timbre depending on the velocity applied.

Assignable values: Low range 0...127 - High range: 127...0.

Press the right button to pass to the second page of options.

HARMONY (F1)

Allows you to choose from a selection of harmony types. The Harmony function is enabled and disabled by pressing the HARMONY button on the control panel. Harmony is a function that affects the instrument set to Styles/Performance mode when the keyboard is split (Upper/Lower and Multi modes). Songs are not affected.

Harmony type

Provides a selection of harmony types (defined by the tables at the end of the chapter)

Close: the notes of a chord played below the Split Point harmonize the melody of the right hand. The harmonizing chord is a closed (or tight) position and the notes of the left hand are copied to the right hand (see table).

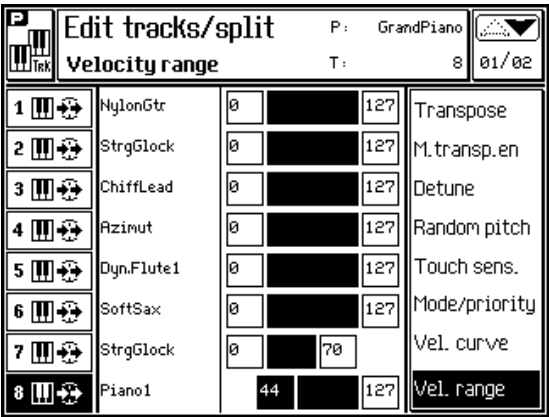
Open 1: an open chord (see table).

Open 2: similar to Open 1 (see table).

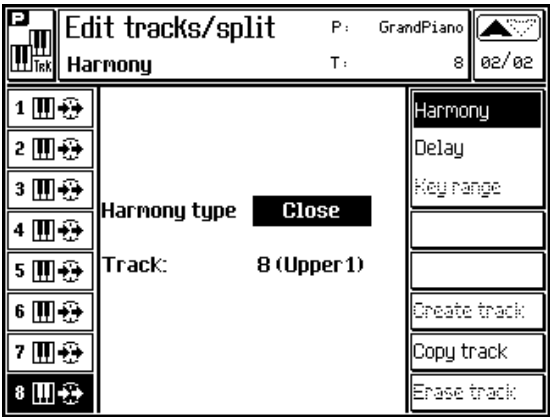
Smart: similar to Close, but based on the harmonizing tables.

Duet: similar to Smart, but limited to two notes.

Block: based on the harmonizing tables.



Edit Tracks/Split - Velocity Range



Edit Tracks/Split - Harmony

Octave 1: doubles the note of the right hand by playing an octave higher. No left hand chord required.

Octave 2: doubles the note of the right hand, one octave above as well as one octave below. No left hand chord required.

Peterson: doubles the note of the right hand with a note two octaves below. No left hand chord required.

Jazz: adds two notes above the note played by the right hand, at intervals of a fourth and a minor seventh. No left hand chord required.

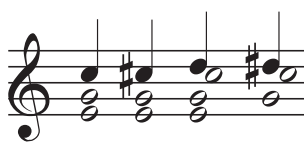
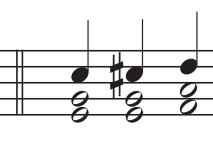
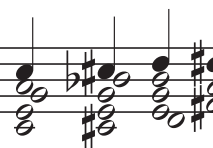
Rock: adds three notes of the perfect chord below the note played with the right hand. No left hand chord required.

Track

Selects the track to which the harmony type is assigned.

Options: tracks 3...8

HARMONY TYPE STRUCTURES

Close	Open 1	Open 2	Smart
			
Duet	Block	Jazz	Rock
			

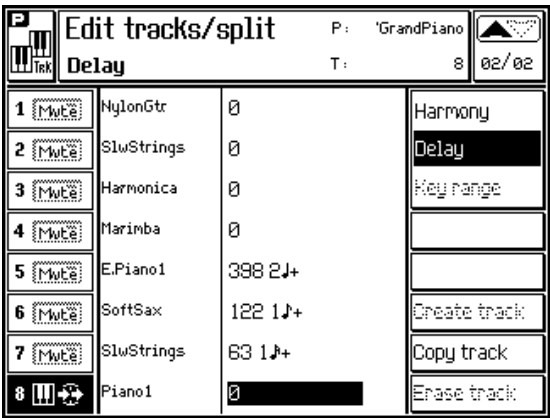
Harmony example. The left hand plays a chord in C Major. The black notes represent the melody, the white note the harmony added by the Harmony option.

DELAY (F2)

Allows to program a delayed entry for a sound after striking a key and is valid for tracks set for key-play. After striking the keys, the sound is reproduced after the time indicated by this parameter. The value is expressed in 1/192nds of a quarter note (crotchet) and the [+] sign appears when the value exceeds that of the indicated musical note.

Delay is synchronized with the Clock and affects the internal generation as well as MIDI OUT.

Assignable values: 0 (off)...192 (1♩) ... 384 (2♩) ... 576 (3♩) ... 768 (4♩).



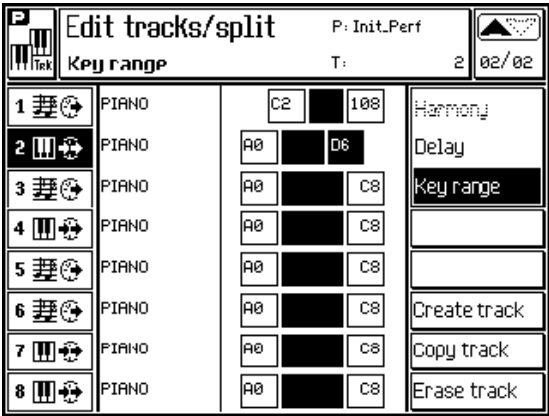
Edit Tracks/Split - Delay

KEY RANGE (F3)

This parameter is valid only when the instrument is set to Song Mode.

Assigns a keyboard extension (highest and lowest notes) to a track.

Assignable values: A0) ... C8.

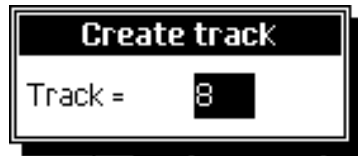


Edit Tracks/Split - Key Range

CREATE TRACK (F5)

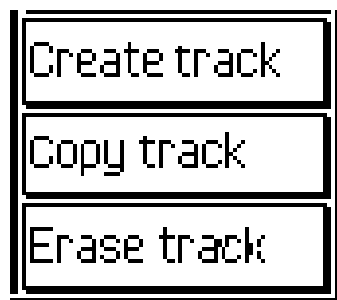
This parameter is valid only when the instrument is set to Song Mode.

Creates a track with default values. Pressing the Soft button F6 opens the «Create Track» dialog window:



Procedure:

1. Press F5 (Create track).
2. Specify the number of the track to create with the DIAL or numeric keypad. If the track that you specify already exists, the relative parameters are assigned default values.
3. Press ENTER to confirm or ESCAPE to cancel.



COPY TRACK (F6)

Copies one track to another. The destination track assumes all the programmed settings of the source track.

Press the corresponding Soft button to open the «Copy track» dialog window.



Procedure:

1. Select the track to copy.
2. Press F6 (Copy track).
3. Specify the number of the track to copy with the DIAL or numeric keypad.
4. Press ENTER to confirm the copy or ESCAPE to cancel the operation. The settings of the source track are copied to the destination track.

► **Note:** This operation does not copy the notes captured by the sequencer but only the settings such as sound, transposition, pan. To copy the notes, use the «Copy events» function (in «Edit Style» or «Edit Song»).

ERASE TRACK (F7)

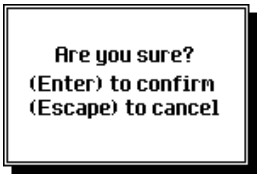
This parameter is valid only when the instrument is set to Song Mode.

Cancels the selected track.

Procedure:

- 1. Select the track to cancel. A track engaged by the sequencer cannot be erased.
- 2. Press F7 to cancel the track.

You are prompted to confirm the operation:



- 3. Press ENTER to confirm or ESCAPE to cancel.

.....

► **Note:** This command is valid for Song mode. In Style/RealTime mode, it is not possible to cancel tracks.

► **Note:** It is not possible to cancel track that contains note information. If a track shows the seq-play or mute icon with notes, it cannot be cancelled.

► **Hint:** Cancel Song tracks that are not used. The resulting Song file will occupy less memory on disk.

.....

• 19 Edit Perf Sound/Sound Patch

«Edit Perf Sound» and «Edit Sound Patch» are both edit facilities which permit the rapid modification of a Sound or a Sound Patch by means of 'macro' edit parameters.

The modifications are associated to the tracks and not to the Sound or Sound Patch, therefore, any **WK4** Sound that you assign to the edited track will inherit the same modifications. If the same Sound/Sound Patch is recalled by a different track or Performance, it will not play with the same modifications. Modified Sounds are identified by the symbol .

In Performances and Style-Performances, the Drumkit/Sound Patch is conserved in the accompaniment tracks. When you change Style or Performance and cause a change in the accompaniment tracks, the Drumkit/Sound Patch also changes. Performances which contain a modified Drumkit/Sound Patch are identified by the symbol .

Advanced Edit Sound

A disk-based Operating System update can be loaded into the **WK4** which features an advanced Edit Sound facility. This User Program, accessed via the Option button, allows you to intervene directly on the sound parameters, not on track parameters as in «Edit Perf Sound». For more information about the advanced «Edit Sound» program, contact your local Generalmusic dealer.

Sound and Sound Patch

The term "Sound" refers to all the **WK4** Sounds that are not Drumkits, nor contain a dynamic switch. "Sound Patch" is a generic term used to describe a Drumkit or a Sound containing a dynamic switch.

This section discusses SOUNDS in detail.

For details regarding Sound Patch editing, go to page 5 of this chapter.

THE GENERAL EDIT PROCEDURE:

1. Select or create a Performance containing the Sound or Drumkit/Sound Patch that requires editing.
2. Select the track to which the Sound/S.Patch to be edited is assigned.
3. Press SOUND in the EDIT section to enter the «Edit Perf Sound» or «Edit Sound Patch» editor.
4. Modify the parameters according to your requirements.
5. Press SOUND or ESCAPE to exit the editor.
6. Save the modifications to the current Performance by pressing STORE PERFORMANCE then ENTER.

During the editing tasks, you can periodically store to the current Performance by pressing STORE PERFORMANCE + ENTER.

7. Save the Performance to disk for future use.

► **Note:** If you fail to store your modifications, they will be irremediably lost when you select another Performance, or reselect the same one.

Edit Perf Sound

In «Edit Perf Sound», you can program the parameters that are exclusive to the tracks. Any Sound, therefore, that you assign to the track will inherit the modifications applied.

Select a track containing the Sound that you wish to modify and press the SOUND button in the EDIT section to gain access to the «Edit Perf Sound» environment.

► **Note:** Save the changes with **STORE PERFORMANCE**. The Performances memorize the page whose icon shows the symbol **P**.

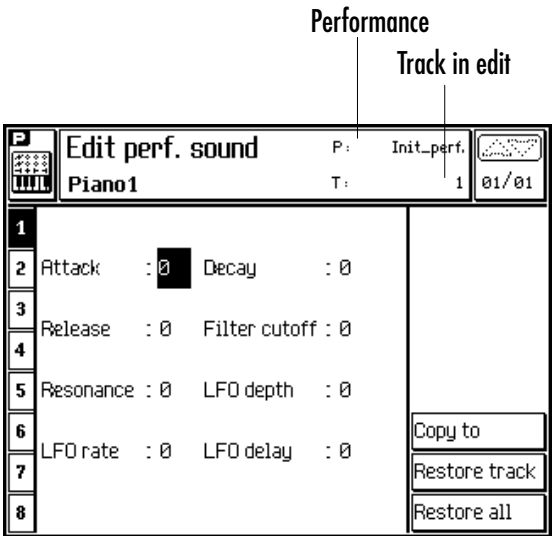
OSCILLATORS AND LAYERS

The **WK4** Sounds can comprise 1, 2 or 3 layers. The layers are sound generating units consisting of 1 or 2 oscillators and each oscillator elaborates a Wave sample. Consequently, each polyphonic voice can be generated by 6 simultane-

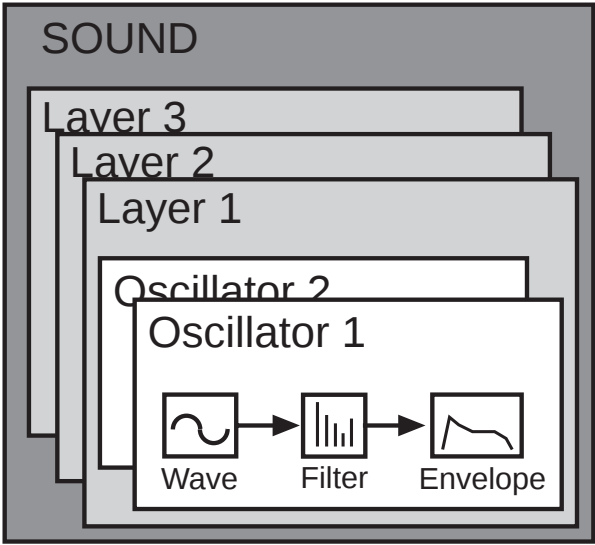
ous oscillators.

Given that the higher number of oscillators per voice the lower the overall polyphony of the instrument, most of the **WK4** Sounds comprise one or two oscillators.

The structure of the Sounds is represented in the diagram below. The «Edit Perf Sound» tasks modify all layers and all oscillators simultaneously. This allows all the parameters of a Sound to be edited by means of a few, simple operations.



Edit Perf Sound: the edit parameters



Sound structure. The number of layers and oscillators can change from a Sound to another.

THE PERF SOUND PARAMETERS

Attack

Represents the attack phase of the sound. This parameter modifies the time taken (rate) for the sound to pass from the silent state to maximum volume when a note is pressed. The modifications are expressed in relative values, subtracting or adding them to the normal attack of the Sound.

Assignable values: -63 (maximum rate) ... 0 (unchanged) ... +63 (minimum rate).

Decay

Represents the decay phase of the Sound. This parameter modifies the time taken (rate) for the sound to pass from its maximum volume level to silence after the attack phase. The modifications are expressed in relative values, subtracting or adding them to the normal decay of the Sound.

Assignable values: -63 (maximum rate) ... 0 (unchanged) ... +63 (minimum rate).

Release

Represents the release phase of the Sound. This parameter modifies the time taken (rate) for the sound to pass to total silence after note release. The modifications are expressed in relative values, subtracting or adding them to the normal release of the Sound.

Assignable values: -63 (maximum rate) ... 0 (unchanged) ... +63 (minimum rate).

Filter Cutoff

Modifies the cutoff frequency. Changes the frequency at which the filter intervenes on the sound. The action of the filter varies according to the filter:

Low-pass - Cuts into the higher frequencies. As a result, if you use Sounds with a low harmonic content, the notes at the higher end will be cut. This parameter regulates the “brilliance” of the Sound. Lowering the cutoff frequency produces a mellow sound while an increase produces a bright sound.

High-pass - Cuts into the lower frequencies, making the sound brighter. The higher the value, the “lighter” the sound.

Band-pass - Allows the entire band to pass. Modifies the phase of the Sound and is useful when two oscillators that read the same Wave are used.

Parametric boost - Enhances the frequencies around the cutoff frequency, rendering a sound brighter and stronger at the higher end.

Parametric cut - Attenuates the frequencies around the cutoff frequency. Higher values renders the sound weaker at the high end.

Assignable values: -63 (maximum decrease of the cutoff frequency) ... 0 (unchanged) ... +63 (maximum increase of the cutoff frequency).

Resonance

Resonance creates a peak of emphasis at the cutoff frequency to the point of sending it in “auto-oscillation”. The higher values of resonance produced effects that were common in the analog synths.

Assignable values: -63 (least intensity) ... 0 (unchanged) ... +63 (highest intensity).

.....
► **Note:** The higher values of resonance causes the filter to enter into “auto-oscillation”. If used wisely, the auto-oscillation can create very suggestive synthetic sounds, but can also increase the output level excessively causing disturbing distortion.
.....

LFO Rate

The Low Frequency Oscillator is normally used to produce vibrato. In **the WK4**, the LFO can also create a cyclic variation of the parameters of the filter.

The «LFO Rate» parameter determines the velocity of the oscillation.

Assignable values: -63 (minimum rate) ... 0 (unchanged) ... +63 (maximum rate).

LFO Depth

«LFO Depth» determines the depth of the action of the LFO, and, therefore, its audibility.

Assignable values: -63 (minimum rate) ... 0 (unchanged) ... +63 (maximum rate).

LFO Delay

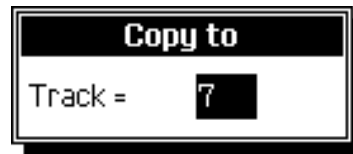
Determines the delay of the entry of the LFO. In acoustic instruments, vibrato generally enters after the attack phase, and mainly forms part of the sustain phase of the sound.

Assignable values: -63 (minimum rate) ... 0 (unchanged) ... +63 (maximum rate)..

THE PERF SOUND OPTIONS

Copy to... (F6)

Copies the modifications applied to the Sound of a track to a different Track of the same Performance. The parameter values are copied, NOT the Sound, therefore, if a Piano sound is at the source and a Bass is at the destination, the Bass sound will inherit the parameter modifications.

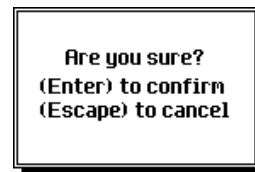


Track - Select the track with the DIAL. In Style/RealTime mode, the maximum number of tracks is 16, in Song mode, 32.

Restore track (F7)

Cancels the modifications of the selected track.

1. Press F7 to cancel. You are prompted to reconfirm the operation.

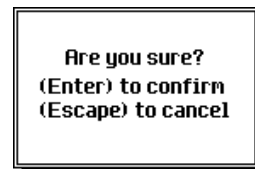


2. Press ENTER again to confirm, or ESCAPE to cancel.

Restore all tracks (F8)

Cancels the modifications applied to all the tracks of the Performance.

1. Press F8 to cancel. You are prompted to reconfirm the operation.



2. Press ENTER again to confirm, or ESCAPE to cancel.

Edit Sound Patch

In «Edit Sound Patch», you can program the parameters that are exclusive to the tracks. Any Drumkit or Sound Patch, therefore, that you assign to the track will inherit the modifications applied.

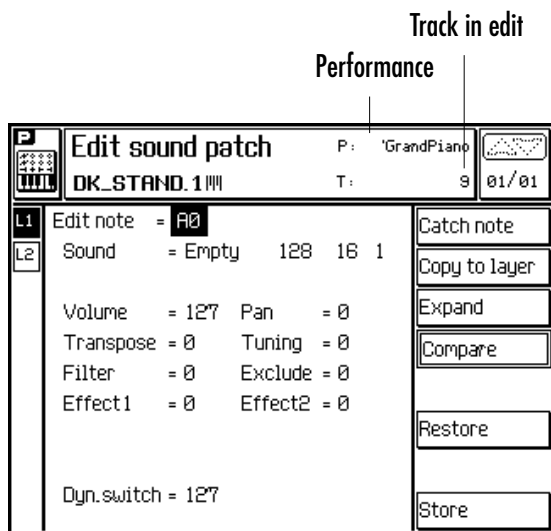
Select a track containing the Drumkit or Sound Patch that you wish to modify and press SOUND in the EDIT section to gain access to the «Edit Sound Patch» environment.

► **Note:** Save the changes with *STORE PERFORMANCE*. The Performances memorize the page whose icon shows the symbol .

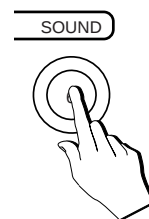
The parameters in «Edit Sound Patch» differ to those of «Edit Perf Sound».

Although structurally identical, Drumkits and Sound Patches differ as described:

- **In a Drumkit**, a percussive instrument is assigned to each note of the keyboard. This allows a Drumkit to be controlled across a single MIDI channel.



Edit Sound Patch: the parameters.

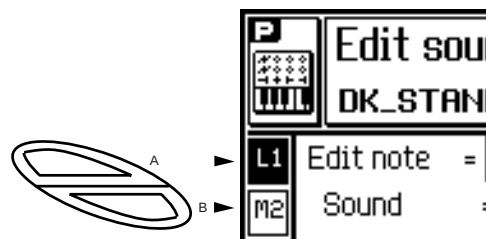


- **In a Sound Patch**, two different sounds are separated by a dynamic threshold in order that playing harder recalls the sound at the higher dynamic level. Try playing, for example, the sound ORCHESTRA 48-3; play softly first, then harder and listen to the change in timbre.

Sound Patches, therefore, allow you to vary the timbre of a Sound by varying the keystroke velocity.

SELECTING/MUTING THE DYNAMIC LAYER

Drumkits and Sound Patches have two dynamic Layers. Normally, Sound Patches exploit both Layers (1 & 2) while Drumkits limit themselves to Layer 1. The soft buttons A and B select and mute the Layers. In Switch sounds, this allows you to work on a Layer without hearing the sound on the other layer. Once you enter into «Edit Sound Patch» to select the Layers, it is not possible to select the tracks of the current Performance.



Dynamic Layer options to select and mute the layers. Press the same soft button repeatedly to toggle between L and M.

THE EDIT SOUND PATCH PARAMETERS

Edit note

Determines the note to edit.

Assignable values: A0 ... C8 (respectively the lowest and highest note in an 88 note master keyboard).

Sound

Determines the Sound assigned to the note. It is possible to select any sound from the ROM-Sounds, RAM-Sounds or RAM -Sounds.

Volume

Determines the volume of the note in edit. This parameter can be useful to balance Sounds which differ greatly in volume.

Assignable values: 0 ... 127.

Pan

Determines the position of the note in the stereo panorama. In Drumkits, it is important to pan single percussive instrument correctly. For example, the toms are normally positioned in order that a snare drifts from one stereo channel to the other.

Assignable values: -32 (all left) ... 0 (balanced) ... +32 (all right).

Transpose

Transposes the Sound assigned to the note. At the zero value, a percussive instrument can be distant from the sampled note, which is normally around note C4. If the note in edit is below C4, the Sound will require transposing upwards (positive), while if above will require transposing down (negative).

Assignable values -64 ... +63.

Tuning

Fine tune control, in steps of 1/64 of a semitone.
Assignable values: -64 ... +63.

Filter

Regulates the cutoff frequency of the filter.

Assignable values: -64 (maximum decrease) ... 0 (unchanged) ... +63 (maximum increase).

Exclude

A linking number between two notes that exclude each other. Playing a note will interrupt another note with the same exclude number. For example, if a Closed Hi-Hat and an Open Hi-Hat have the same exclude number, they interrupt each other, exactly as occurs in reality.

You can create as many linked percussive instrument groups as there are Exclude numbers assignable.

Assignable values: Off, 1, 2, 3.

Eff. 1 (Reverb)

Effects send for the reverbs. The maximum value corresponds to a perfect balance between the original sound and the processed one.

Assignable values: 0 ... 127.

Eff 2 (Delay/Chorus/Flanger/Modulation)

Effect sends for the modulation effects. The maximum value corresponds to a perfect balance between the original sound and the processed one.

Assignable values: 0 ... 127.

Audio Out

Allows you to direct the sound assigned to the note in edit to a preferred output.

Assignable values: Main, Left+Right, Out1+Out2, Out1, Out2.

.....

Dynamic switch

Threshold that divides Layer 1 from Layer 2. When you play with a low velocity, the Sound assigned to Layer 1 is triggered. By playing harder, the Sound assigned to Layer 2 is triggered. The value "0" causes the Sound assigned to Layer 2 while the value "127" causes the Sound assigned to Layer 1.

Assignable values: 0 ... 127.

THE SOUND PATCH OPTIONS

Catch note... (F1)

Selects the note to place in edit by playing it on the keyboard.

1. Press F1 («Catch note...»).

The following message appears.



2. Play the note to place in edit.

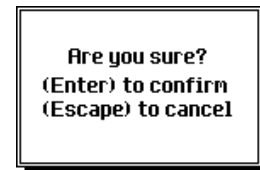
The dialog window closes and the «Edit note» parameter is modified.

Copy to Layer... (F2)

Copies an entire Layer to the other.

1. Select the Layer to copy with the soft buttons A and B.

2. Press F2 («Copy to Layer...»). You are prompted to reconfirm the operation.



3. Press ENTER to confirm or ESCAPE to cancel.

► **WARNING** - The copy will cancel the programmed data in the destination Layer.

Expand... (F3)

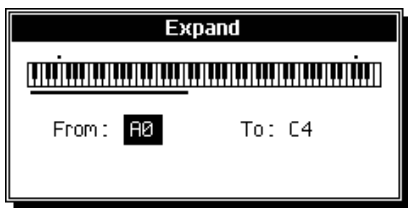
Extends the programmed parameters of the note in edit to a specified keyboard zone.

1. Select the note whose parameters require copying.
2. Press F3 («Expand...»).

The «Expand» dialog window opens:



3. With the «From» parameter selected, rotate the DIAL, or play a note to specify the lowest note of the required keyboard zone.
4. Pass to the «To» parameter with the cursor button ▸. Rotate the DIAL, or play a note to specify the highest note of the required keyboard zone.



5. Press ENTER to confirm the Expand command, or ESCAPE to cancel.

Confirming extends the programmed parameters of the original note to the specified keyboard zone.

Compare... (F4)

ON/OFF switch. When active, the original parameter values of the Drumkit/Sound Patch in edit are temporarily recalled in order to compare them with the current edited ones.

Restore (F6)

This option restores the original Sound Patch or cancels the last modifications applied after saving to the Performance.

1. Press F6 to open the following dialog window:



2. Select the function required with the directional arrows and press ENTER to confirm or ESCAPE to cancel to abort.

S.P. Performance - Restores the Drumkit/Sound Patch in edit to its original status (cancels all editing operations applied to all notes).

Current edit - Cancels the current modifications and recalls the last saved parameter settings of the Drumkit memorized in the Performance.

Store... (F8)

This option allows you to save the modifications to a Performance or creates a new Drumkit/Sound Patch file that can be used by any Performance.

To conserve the modifications, save them before selecting a Performance. Selecting a Performance before saving cancels all modifications applied.

Save the modifications as a new Drumkit/Sound Patch file

1. Press F8 («Store...»).

The «Store» dialog window opens:



2. The "File" option is shown selected. Press ENTER to confirm.

An insertion zone appears:



The insertion zone shows the Program-Change and BankSelect MSB (CC00) to which the new Drumkit/SoundPatch will be saved.

3. Press ENTER to confirm the current location, or use the DIAL or numeric keypad if you wish to select a different location.
4. If you want to change the name of the file, press the soft button F7 or F8.



5. Insert a name using the method described in the Data Entry chapter of the User Guide. Press ENTER to confirm the name and return to the Store window.

6. Press ENTER to save the new file to the selected location.

The new Drumkit/SoundPatch is now available as a RAM-Sound.

As any new RAM-Sound, the new Drumkit/SoundPatch will remain in memory after power down. To conserve it and safeguard it against future cancellation, save it to disk using the Save Single Sound, Save All Sound or Save All procedures.

Save the modifications to a Performance

1. Press F8 («Store...»). The «Store» dialog window appears:



2. Select the Performance option with the cursor button ▼ and press ENTER to confirm.

The «Drumkit store» dialog window opens:



3. Select the Performance or Style-Performance option with the ◀/▶ cursor arrows.
4. Rotate the DIAL to select the Performance or Style Performance Group to store to.
5. Move down to the Perf option with the ▼ cursor button and select the Performance to save to with the DIAL.
6. Press ENTER to confirm or ESCAPE to cancel.

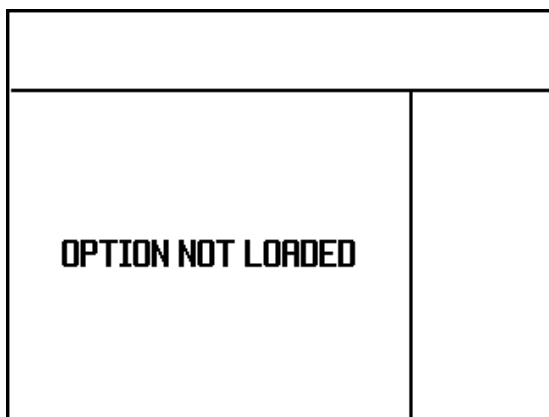
• 20 Option

Option

The OPTION button is at the disposal of functions implemented by future software updates.

In the software version on which your owner's manual is based, no software updates are implemented through the OPTION function.

When you press this button, the following message appears:



Press ESCAPE to close the window.

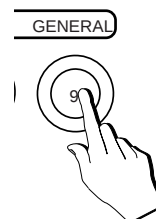
• 21 Edit General

«Edit General» is where you can modify global parameters that affect the instrument as a whole and which are not memorized to a Performance. A part of the general parameter settings are conserved in RAM and saved to disk as a Setup.

Press the GENERAL button in the EDIT section to gain access to the «Edit General» environment.

«Edit General» is a complex structure environment. When you press GENERAL for the first time, the main menu page appears where you can access one of the 6 editors using one of the following methods:

- rotate the DIAL to select the editor and press ENTER;
- use the directional arrows to select the editor and press ENTER;
- use the page scroll buttons ▲▼ to pass directly from one editor to another;
- specify the editor number on the keypad (with the KEY PAD LED on) and press ENTER.



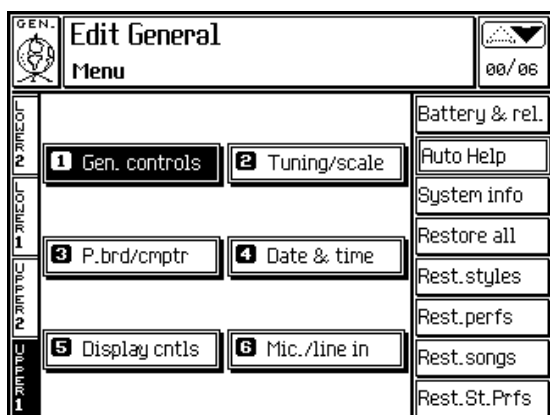
DESCRIPTION OF THE MAIN MENU PAGE

The menu page shows 6 editors at the centre: General Controls, Tuning/Scale, Pedalboard/Computer, Date & Time, Display Controls and Mic/Line In.

On the right hand side are 8 options which can be selected with the corresponding Soft buttons F1...F8: Battery & Release, Auto Help, System Info, Restore All, Restore Styles, Restore Performances, Restore Songs, Restore Style Performances.

After entering the editors, the options shown in the options column change according to the editor.

The description of the main menu options is at the end of this chapter.



Edit General - Main menu

General Controls

KEYBOARD SENSITIVITY

Determines the response of the keyboard to velocity changes.

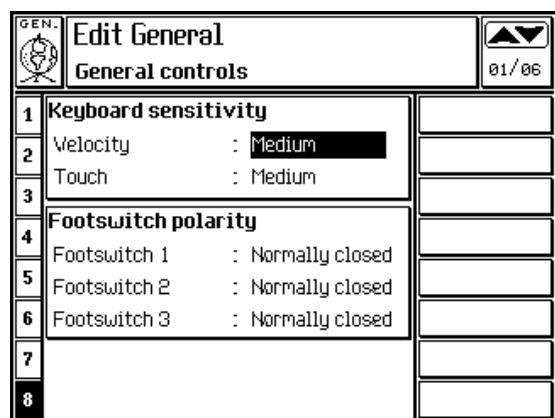
Assignable values: Soft, Medium soft, Medium, Medium hard, Hard.

FOOTSWITCH POLARITY

Footswitch 1, 2, 3

Sets the polarity of the programmable pedals 1, 2, 3. Generalmusic pedals are of the NC type.

Options: NC (Normally Closed), NO (Normally Open).



Edit General: General controls

Tuning/Scale

MASTER PITCH

Fine tunes the instrument as a whole in fractions of 1/64 of a semitone.

Assignable values: -63...+63.

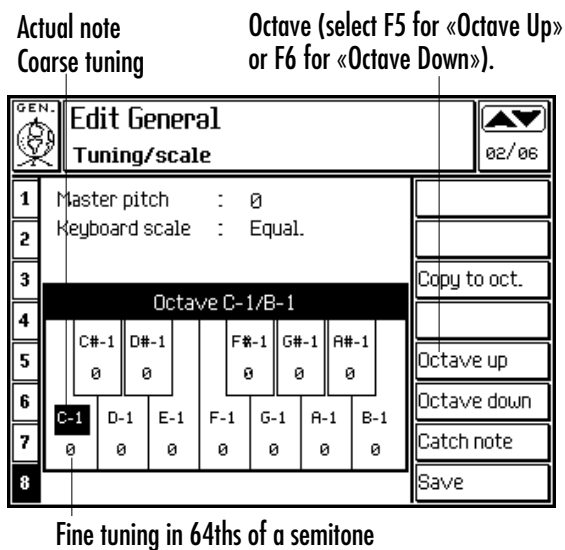
KEYBOARD SCALE

Provides a selection of Temperaments (Scales).

Options: Equal, Inverse, Meantone, Werkmeister III, Arabian 1, Arabian 2, User1 ... User8.

USER PROGRAMMABLE SCALES

You can program your own scale using the keyboard map shown at the bottom of the display. This graphical representation shows the current pitch of the notes of an octave. The octave currently in edit is shown in the title bar directly above the keyboard (e.g. Octave C-1/B-1). Each note shows the coarse tune and fine tune status. The



Edit General: Master pitch & Keyboard Scale

programming tasks allow you to alter the pitch of one or more notes by modifying the coarse and fine tuning parameters of the current scale. The final configuration can then be copied to selected octaves of the keyboard, or to all octaves.

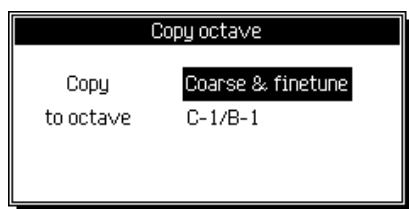
Example - to program a scale by fine tuning one or more notes:

1. With the "Octave Up" function (F5), select the octave to program.
2. Use the directional arrows to select the fine tune parameter (in this case "0") and rotate the dial to fine tune the note according to your requirements. While tuning, play the note repeatedly.
3. Repeat the microtuning operation for other notes.
4. Select the "Copy to oct." function (F3), select "Fine Tune" in the "Copy" parameter and "ALL" in the "to octave" parameter, then press ENTER to confirm.
5. When the scale has been programmed, save it to the Setup by pressing F7 («Save»). You will be prompted to select a User location.

THE TUNING/SCALE OPTIONS

Copy to octave... (F3)

Copies the current setting to another octave. The «Copy to octave» dialog window is opened where you can specify the elements to copy and the octave to copy the user programmed data to.



Coarse&Fine - Copies both the coarse tuned notes as well as the fine..

Coarse - Copies only the coarse tuned notes.

Finetune - Copies only the fine tuning.

To octave - Selects the octave to copy to. Select the ALL option to copy a programmed octave to the entire keyboard.

Octave Up (F5)

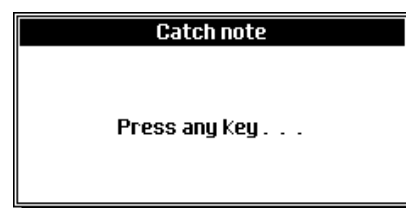
Selects the next highest octave to edit.

Octave Down (F6)

Sets the next lowest octave to edit.

Catch Note... (F7)

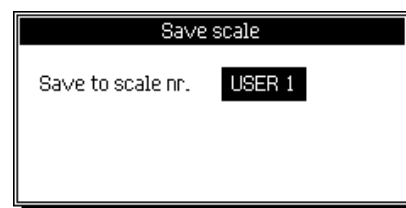
Selects the note to edit. Press F7. The following message appears:



Play the note to edit.

Save... (F8)

Saves the User programmed scale to the Setup. The «Save» dialog window is opened where you can choose from 8 User scale destinations.



Select the User scale with the DIAL. Press ENTER to confirm or ESCAPE to cancel.

.....

Pedalboard / Computer

The PEDALBOARD and COMPUTER connectors cannot operate at the same time. Selecting one renders the other inoperative.

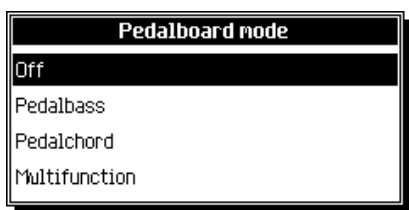
To activate one of the two connectors, select the corresponding option («Pedalboard» or «Computer») with the cursor buttons.

PEDALBOARD

If you have purchased Generalmusic's optional 13-note pedalboard, connect it to the Pedalboard connector and program the unit for how it will be used by pressing F8 («Mode»).

Mode (F8) for Pedalboard options

Options for the pedalboard.



Off - Pedalboard deactivated.

Pedalbass - The automatic bass of the auto-accompaniments is deactivated and the BASS track is assigned to the Pedalboard, allowing you to play the bass with the pedalboard.

Pedalchord - Chord recognition on the keyboard is disabled and passed over to the pedalboard. To play minor and sevenths, play two bass notes at the same time. Alternatively, you can program the Pedals 1, 2, or 3 to select minor and sevenths.

Multifunction - Each note of the pedalboard recalls a function associated to the Styles:

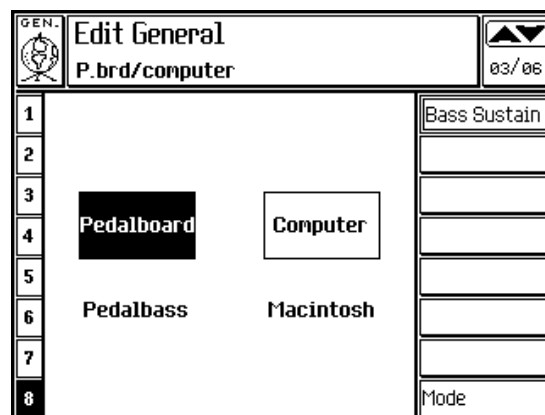
Note	Function	Note	Function
C2	Start/Stop	C#2	Tempo -
D2	Intro	D#2	Tempo +
E2	Ending	F2	Var 1
F#2	Fill <	G2	Var 2
G#2	Fill =	A2	Var 3
A#2	Fill >	B2	Var 4
C3	Key Start		

Bass Sustain (F1)

Sustain for the notes of the pedalboard.

COMPUTER

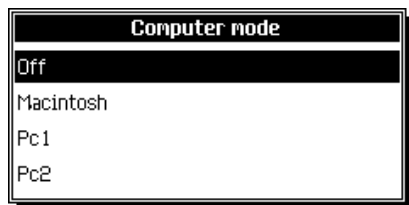
Instead of using the MIDI interface, you can connect via a single serial cable to a computer. Program the connector for the type of computer used by pressing F8 («Mode»).



Edit General: PedalBoard/Computer

Mode (F8) Computer options

Options to communicate with a computer



Off - Connection deactivated.

Macintosh - To connect to an Apple Macintosh™ computer. A standard Mac serial cable is required to connect to the Modem port. In the computer software, set a communication velocity of 1 MHz.

PC1 - Allows serial connection with an IBM PC™ computer or compatible, with a communication velocity of 31250 baud. A standard PC serial cable must be connected to the RS-232 port of the computer.

PC2 - As above, but with a communication velocity of 38400 baud.

Date & Time

Sets the internal calendar and clock.

SET DATE (F1)

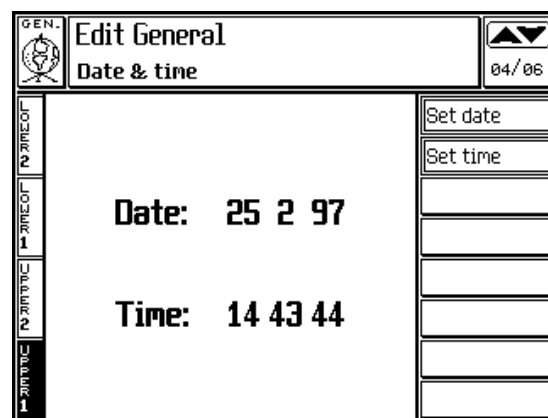
Sets the date in edit. Take the cursor to the day, month and year and specify the value of each parameter with the DIAL.

Confirm with ENTER or F1.

SET TIME (F2)

Sets the time in edit. Take the cursor to the hour, minute and seconds with the cursor buttons and specify the value of each parameter with the DIAL.

Confirm with ENTER or F2.



Edit General; Date & Time

Display controls

Viewing controls for the display. The settings are conserved to memory after power down. They cannot be saved to disk.

CHORD LANGUAGE

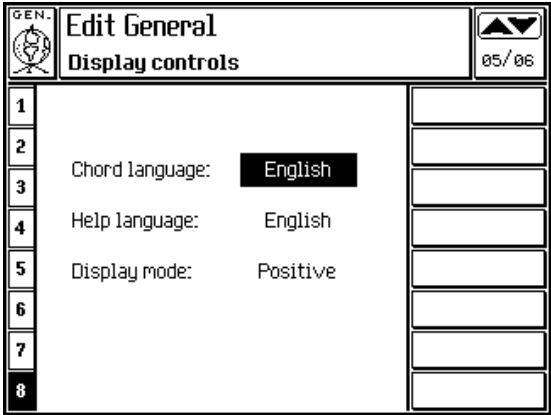
Determines the viewing language (English/Italian) of the chord notation in the Score..

HELP LANGUAGE

Selects the language for the Help file.
Your model may not contain a file in a different language.

DISPLAY MODE

Offers the choice of viewing black text on a white background (Positive) or white texts on a black background (Negative).



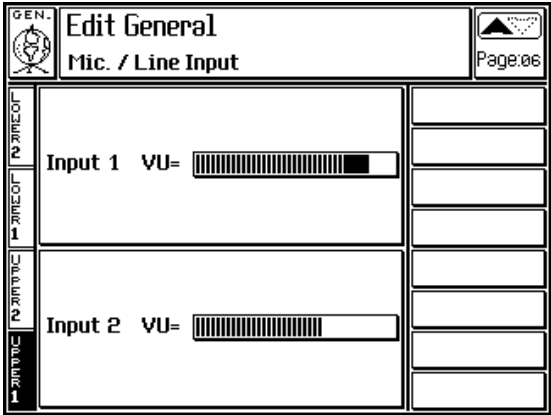
Edit General - Display controls

Mic/Line Input

This page contains bar graphs to monitor the level of signals fed into the Mic/Line inputs 1 and 2.
The contents of the display change according to the absence or presence of the optional Audio Video card.

AV CARD NOT INSTALLED

You can plug a microphone or musical instrument (or other audio source) into the Mic/Line jacks (IN1, IN2) to play through the instrument's internal pre-amplifier. The input signals are directed to the instrument's internal speakers and to the LEFT and RIGHT audio outputs, but are not processed by the on-board Digital Effects processor.
You can regulate the signal gain with the twin GAIN knob located to the left of the Mic/Line jacks. An optimum signal level can be obtained when the input signal, at maximum volume, almost reaches the extreme right of the VU bar graph (the clipping zone).
Regulate the volume of the signal at the LEFT and RIGHT outputs with the MIC/LINE front panel slider. The M. VOL slider will have no effect on the MIC/LINE signal.



Edit General - Mic/Line In (AV interface not installed)

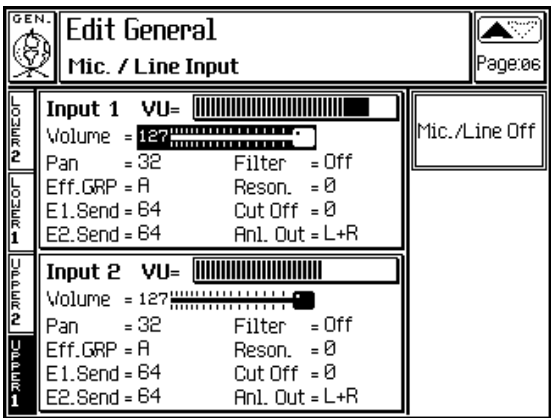
A/V INTERFACE INSTALLED

By installing the Audio/Video Interface (available as an optional accessory), the page shows a completely different picture with several parameters to control the input signals.

The input signal is directed to the internal sound generator and effects processor before being directed to the LEFT and RIGHT outputs and the speaker system.

You can regulate the signal gain with the twin GAIN knob located to the left of the Mic/Line jacks. An optimum signal level can be obtained when the input signal, at maximum volume, almost touches the extreme right of the VU bar graph (the clipping zone).

Regulate the maximum volume with the MIC/LINE panel slider. The M. VOL slider regulates the sum of the internal sound generator output level (WK4 sounds and signal of the MIC/LINE IN inputs).



Edit General - Mic/Line In (AV interface installed)

PARAMETERS WITH OPTIONAL AV INTERFACE

Input VU

Monitors the level of the input signal. Controls the signal gain of the two signals fed into the Mic/Line IN1 and IN2 jacks with the twin knob 1 and 2 located to the left of the inputs.

Maximum volume levels can produce “clipping”, a distortion which can be eliminated by controlling the gain.



The VU-meter indicates the level of the input signal. The dark zone to the extreme right represents clipping (distortion).

Volume

Separate volume control for each input. Assignable values: 0 ... 127.

Pan

Determines the position of the input signal within the stereo panorama. Assignable values: -32 (all to the left) ... 0 (centre) ... +31 (all to the right).

Eff Group

Selects the Group of effects A or B.

E1 Send

Determines the amount of Reverb effect to apply to the signal. Assignable values: 0 ... 127.

E2 Send

Determines the amount of modulation effect to apply to the signal. Assignable values: 0 ... 127.

Filter

Selects a filter type. *Assignable values:* Off, LP (Low Pass), HP (High Pass), BP (Band Pass), PB (Parametric Boost), PC (Parametric Cut).

Cutoff

Sets the cutoff frequency. *Assignable values:* 0 ... 191.

Resonance

Sets the filter resonance. *Assignable values:* 0 ... 127.

Audio Out

Directs the signal to the audio output or outputs. *Assignable values:* L+R (Left+Right), L, R.

MIC/LINE ON/OFF (F1)

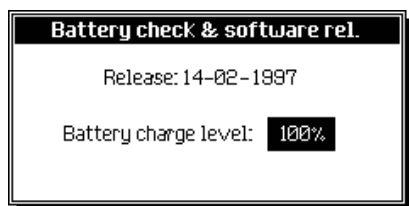
Switch to activate/deactivate the Mic/Line IN1 and IN2 jacks. When the inputs are active, the overall polyphony is reduced by two voices; if you do not intend using the Mic/Line inputs, deactivate them in order to direct the two voices to the internal **WK4** sounds.

The Edit General Main Menu Options

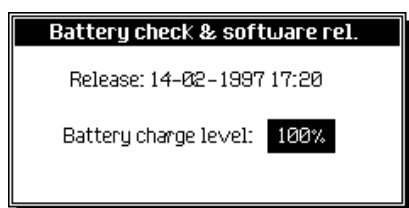
BATTERY & RE.... (F1)

This option shows the date and time of the latest release of the operating system and the charge level of the rechargeable backing battery.

Press F1 once to show the release date and battery charge level:



Press F1 once again to show the date and time of the release:



If the battery charge level is low, leave the instrument turned on for at least 15 hours to recharge the battery completely.

AUTO HELP (F2)

When this option is active, an error message is displayed when you attempt to select a Performance or a Style while the instrument is in Song mode, or when you attempt to select a Song-Performance while the instrument is set to Style/RealTime mode.

SYSTEM INFO (F3)

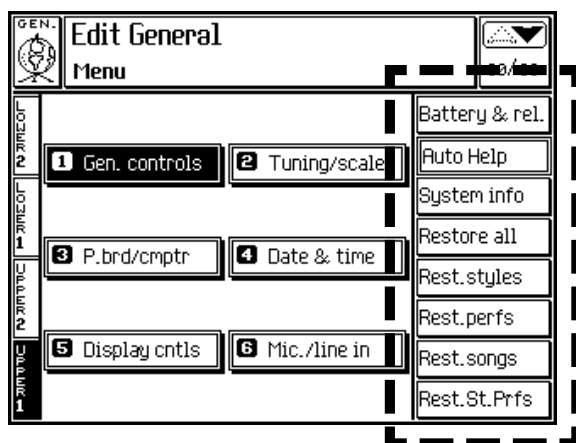
This option displays information regarding the presence or absence of the various accessories that can be installed in **WK4**.

System Information	
Volatile Ram Size	Not present
Backed Ram Size	2048 KB
Hard Disk	Present
Video	Not present

RESTORE

The «Edit General» environment offers several dedicated RESTORE commands which are useful to restore part or all the instrument's RAM to the factory set status..

User-programmed data (Performances, User Styles, Songs, Performance-Sounds) can be cancelled, either as an individual block (Performances, Style-Performances, User Styles, Songs) or entirely (All) by means of a single command. Cancelling user programmed data from memory restores the instrument's original default parameter status.



Edit General main menu options column

For example, if you use the Restore Performance command, you will cancel all user-programmed Performances and restore the original factory settings.

.....
► **WARNING:** use the *RESTORE* commands with caution because user-programmed data is irremediably lost. Make sure that you have saved any data you so not wish to cancel to disk or Hard disk before proceeding with a restore operation.
.....

RESTORE ALL (F4)

This operation cancels all user programmed data currently in RAM (Performances, User Styles, Style-Performances, Songs) and restores the instrument to its factory-set status (RAM empty). Pressing F4 prompts a request to confirm the operation with ENTER or cancel with ESCAPE.

RESTORE STYLES (F5)

This operation cancels all User Styles in RAM (including User Style-Performances) residing in the User 1, 2, 3 and 4 buttons of the STYLE GROUPS. The User slots are restored to the factory-set conditions (empty #####). Pressing F5 prompts a request to confirm the operation with ENTER or cancel with ESCAPE.

RESTORE PERFORMANCE (F6)

This operation cancels all user-programmed Performances in RAM residing in the 8 buttons of the PERFORMANCE GROUPS. The status of the Performance parameters are restored to the factory-set values. Pressing F6 prompts a request to confirm the operation with ENTER or cancel with ESCAPE.

RESTORE SONGS (F7)

This operation cancels all Song in RAM. The Songs memory is restored to the factory-set status (empty #####). Pressing F7 prompts a request to confirm the operation with ENTER or cancel with ESCAPE.

RESTORE STYLE-PERFORMANCE (F8)

This operation cancels all user-programmed Style-Performances associated to the ROM STYLES. The status of the Style-Performance parameters are restored to the factory-set values. ROM Styles associated to modified Style-Performances are identified by an asterisk (*) after the Style name. Pressing F8 prompts a request to confirm the operation with ENTER or cancel with ESCAPE.

• 22 Edit Song

After recording a Song using either the «Record» method or the «QuickRec» method, it can be edited by entering «Edit Song».

ST./SONG



HOW TO ENTER «EDIT SONG»

Select the Song that requires editing.

The name of the Song will appear in the title bar of the display.

Song name

Song: TURNBEAT	J= 126 i.	Loc: 1 1
Perf.: SMFPERF_	Chord: Off	

Press the ST./SONG button in the EDIT section to enter «Edit Song».

Entering this section the first time opens the main menu (page 00/10). On all successive occasions, the last page selected is recalled.

page name	Editors	Locator
Edit Song: TURNBEAT Menu	L: 1 1 00/10	1 Erase 2 Move 3 Copy 4 Quantize 5 Ins. Meas. 6 Del. Meas. 7 Velocity 8 Transpose 9 Microscope 10 Master Trk
		Undo Edit score Song name

Edit Song: Main menu

THE EDIT PROCEDURE

1. In Song mode, press ST./SONG to enter «Edit Song». The main menu appears.
2. Select the editor that you wish to edit using the DIAL or the cursor buttons. It is also possible to enter an editor by specifying the relative number on the numeric keypad.
3. Press ENTER to gain access to the editor.
4. Select the desired option with the soft buttons.
5. Select the parameters with the directional arrows. Modify the parameter with the DIAL or the numeric keypad.
6. Confirm the operation with ENTER.
7. Pass to another editor with the buttons ▲▼. Otherwise, return to the main menu with ESCAPE and select another editor.

ESCAPE «EDIT SONG»

To escape from «Edit Song» press ESCAPE (once or twice, depending on the currently selected level). To escape without closing the edit page, press the ST./SONG button. To pass to another edit environment, press the corresponding button in the EDIT section.

The main Menu Options

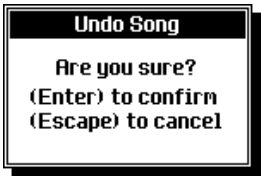
UNDO (F2)

When this parameter is selected (shown in negative highlight), the UNDO function is enabled. Undo cancels the last operation or series of operations carried out. This function consumes exactly the same amount of RAM memory as the Song. If there is a shortage of memory in RAM, it is a good idea to deactivate UNDO.

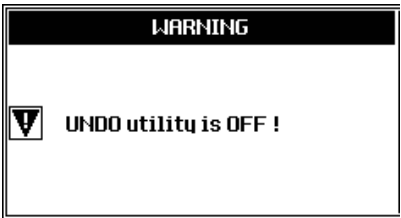
Press the UNDO panel button to execute the desired Undo operation.



You will be prompted with a request to confirm the operation with ENTER or cancel with ESCAPE.



If UNDO is disabled, pressing the UNDO button and confirming with ENTER activates the following user message:



Press ESCAPE to close the window and repeat the UNDO operation, this time with UNDO enabled.

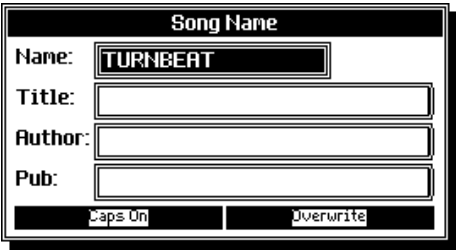
EDIT SCORE (F6)

Opens the Score Edit function.

Score Edit is described separately in detail in the «Score & Edit Score» section towards the end of this chapter.

SONG NAME (F8)

Modifies the name of the Song.



The method used to insert characters is described in the «Data Entry» chapter. You can move the cursor with the Soft buttons or the DIAL. Insert the characters with the keys of the keyboard.

Name - Name of the Song which appears in the **WK4** file selector. This name does not appear when the disk is read by a computer. Maximum character length: 10.

Title - Full name of the Song.

Author - Name of the composer.

Pub - Song Publisher.

Erase

Cancels the events from a single track or from all tracks.

► Set the parameters and press **ENTER** to confirm the cancellation.

SOFT BUTTONS F3 ... F8

Use the Soft buttons F1...F8 to select the track from which events will be cancelled. Depending on the type of track selected, the following parameters may or may not appear.

Track (F3) - Single track. Select the track with the Soft buttons A...H.

Master track (F4) - The Master Track records events pertaining to the general controls of the Song (Tempo, Time Signature, selected Performance, selected effects).

Chords track (F5) - Track for the chord symbols inserted in the score.

Music track (F6) - Track for the notes of the score (standard notation).

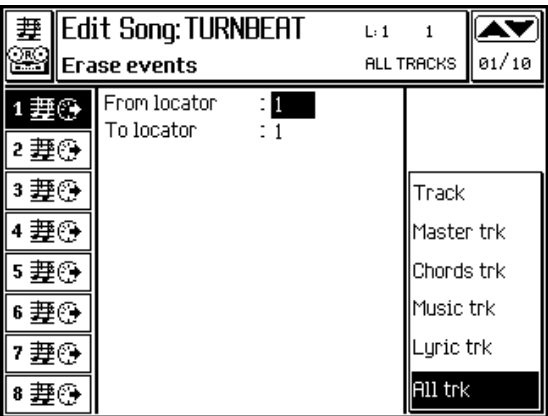
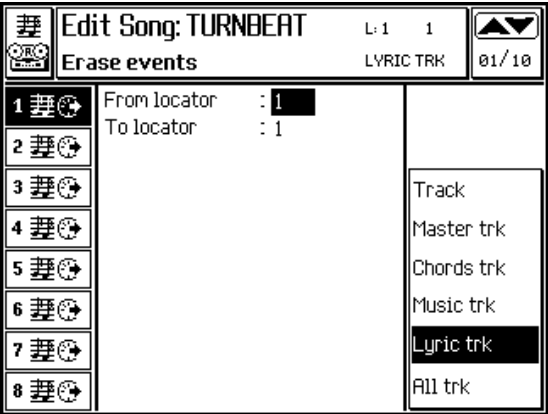
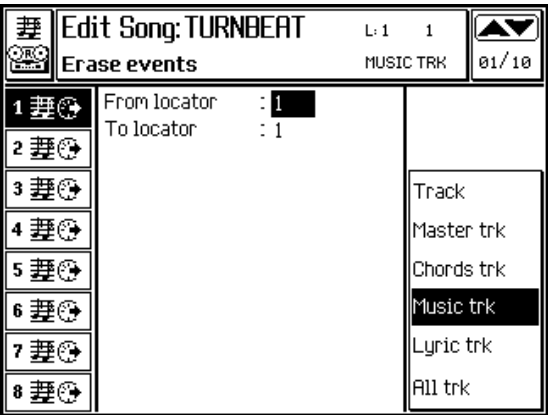
Lyrics track (F7) - Track for the lyrics of the score.

All tracks (F8) .

Edit Song: TURNBEAT		L: 1	1	▲▼
Erase events		TRACK	1	01/10
1 妻	EventType: All			
2 妻	Note range from :			
3 妻	to :			
4 妻	From locator : 1 1 1			
5 妻	To locator : 1 1 1	Track		
6 妻				
7 妻				
8 妻				
		Master trk		
		Chords trk		
		Music trk		
		Lyric trk		
		All trk		

Edit Song: TURNBEAT		L: 1	1	▲▼
Erase events		MASTER TRK		01/10
1 妻	EventType: All			
2 妻	From locator : 1 1 1			
3 妻	To locator : 1 1 1			
4 妻				
5 妻		Track		
6 妻				
7 妻				
8 妻				
		Master trk		
		Chords trk		
		Music trk		
		Lyric trk		
		All trk		

Edit Song: TURNBEAT		L: 1	1	▲▼
Erase events		CHORD TRK		01/10
1 妻	From locator : 1			
2 妻	To locator : 1			
3 妻				
4 妻				
5 妻		Track		
6 妻				
7 妻				
8 妻				
		Master trk		
		Chords trk		
		Music trk		
		Lyric trk		
		All trk		



ERASE PARAMETERS

Event type

(Only for tracks which capture note events). Selects the type of event to cancel.

«Duplicate note» eliminates the note with the lowest velocity value when two notes of the same pitch start at the same position.

Options: All, Duplicate note, Note, Pitch Bend, Mono touch, Poly touch, Velocity Off, ProgramChange, ControChange 00...31, ControlChange 64...127.

Note range from... to...

The highest and lowest limits of the note range to cancel. To cancel a single percussive instrument from the Drum track, assign the same value to the “from” and “to” parameters. For example, to cancel the snare (D2), set the parameter as «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start and end point of the part to cancel. In some cases it is possible to specify the measure, beat and resolution (tick), in others, only the measure.

Assignable values: within the limits of the Song. It is not possible to specify a point before the start or after the end of the Song.

Move

Shifts events from one point of the selected track to another.

► Set the parameters and press ENTER to confirm the movement.

PARAMETERS

From locator... To locator...

Determines the start and end point of the part to move. It is possible to specify the measure, beat and resolution (tick).

Assignable values: within the limits of the Song.
It is not possible to specify a point before the start or after the end of the Song.

Start locator

Determines the new position of the part that is to be moved.

Assignable values: any point, even after the end point of the Song.

妻

Edit Song: TURNBEAT

L: 1 1

▼

Move events

TRACK 1 02/10

1 妻	From locator	: 1	1	1
2 妻	To locator	: 1	1	1
3 妻	Start locator	: 1	1	1
4 妻				
5 妻				
6 妻				
7 妻				
8 妻				

Copy

Copies events from a single track or from all tracks.

► Set the parameters and press ENTER to confirm the copy.

SOFT BUTTONS F3 ... F8

Use the Soft buttons F1...F8 to select the track from which events will be copied. Depending on the type of track selected, the following parameters may or may not appear.

Track (F3) - Single track. Select the track with the Soft buttons A...H.

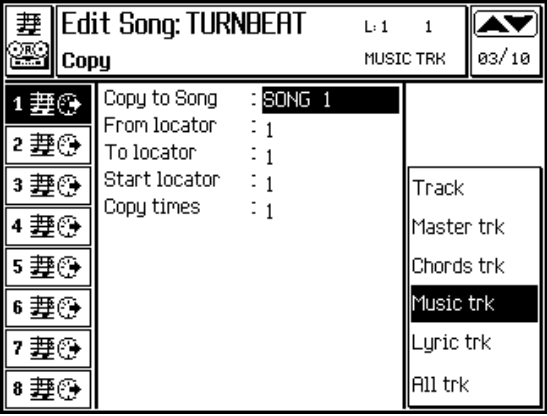
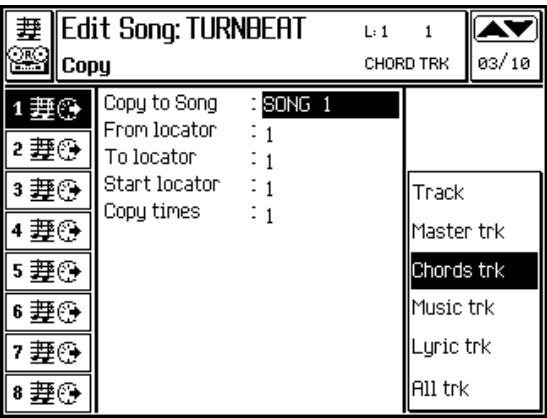
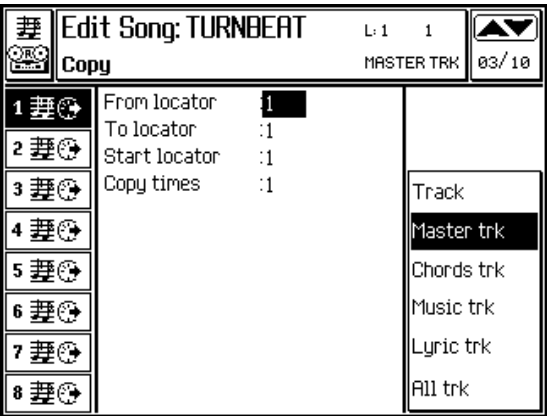
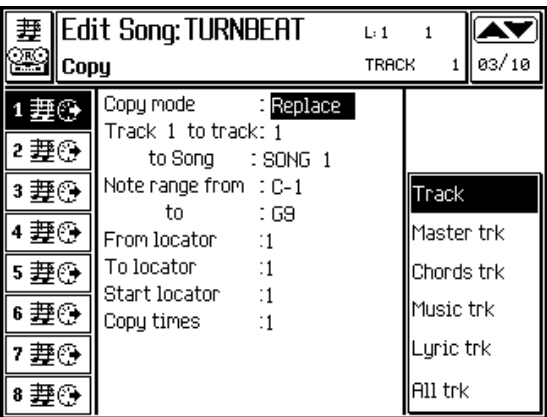
Master track (F4) - The Master Track records events pertaining to the general controls of the Song (Tempo, Time Signature, selected Performance, selected effects).

Chords track (F5) - Track for the chord symbols inserted in the score.

Music track (F6) - Track for the notes of the score (standard notation).

Lyrics track (F7) - Track for the lyrics of the score.

All tracks (F8) .



PARAMETERS

Copy mode

Determines the copy mode. «Merge» unites the copied events to those already present at the destination. «Replace» substitutes the events present at the destination with those copied.

Options: Merge, Replace.

From track... to track...

Specifies the source and destination track of the copy. The «From track...» part is selected with the Soft buttons A ... H. The «To track...» part is modified with the DIAL.

Assignable values: any track (1...32).

To Song...

Determines the destination Song for the copy. If the selected Song is non existent, it will be created by the act of confirming the copy command.

Assignable values: any Song (1...16).

Note range from... to...

Determines the highest and lowest limits of the note range to copy. To copy a single percussive instrument from the Drum track, assign the same

value to the “from” and “to” parameters. For example, to copy the snare (D2), set the parameter as «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start measure and end measure of the part to copy. Bars and Resolution cannot be specified.

Assignable values: within the limits of the Song. It is not possible to specify a measure after the end of the Song.

Start locator

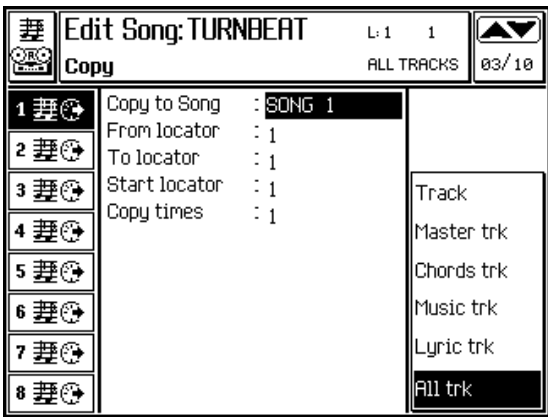
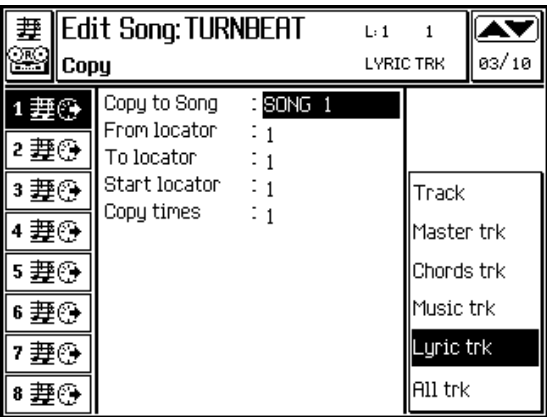
Determines the new position of the copied part.

Assignable values: any point, even after the end point of the Song.

Copy times

Specifies the number of consecutive copies. Each copy starts exactly where the previous one ends.

Assignable values: 1...998.



Quantize

An auto-corrector of timing errors. Includes triplet and swing quantize values.

► Set the parameters and press ENTER to confirm the quantization.

SOFT BUTTONS F1 AND F2

These select the «Note On Quantize» and «Note Off Quantize» parameters.

Note On Quantize - Quantization of the Note On event.

Note Off Quantize - Quantization of the Note Off event. After a Note On quantization, a Note Off quantization affects the duration of the notes, adapting them to the quantization grid.

Edit Song: TURNBEAT		L: 1	1	▼
Note on quantize		TRACK	1	04/10
1	⌨	Note on quantize :	1/4	
2	⌨	Note range from :	C-1	
3	⌨	to :	G8	
4	⌨	From locator :	1	
5	⌨	To locator :	1	
6	⌨			
7	⌨			
8	⌨			
		Note on qnt.		
		Note off qnt.		

Edit Song: TURNBEAT		L: 1	1	▼
Note off quantize		TRACK	1	04/10
1	⌨	Note off quantize:	1/4	
2	⌨	From locator :	1	
3	⌨	To locator :	1	
4	⌨			
5	⌨			
6	⌨			
7	⌨			
8	⌨			
		Note on qnt.		
		Note off qnt.		

PARAMETERS

Note On quantization

Determines the Note On quantize values.

Value	Quantization
1/4	
1/8	
1/12	 triplet
1/16	
1/24	 triplet
1/32	
1/48	 triplet
1/64	(1/64)
1/96	(1/64 triplet)
free	no quantization
1/8 B...F*	  (swing)
1/16 B...F*	  (swing)
free	no quantization

* B ... F indicate an adjustment of the swing feel.

Note Off quantization

Determines the Note Off quantize value. Same as Note On.

Note range from... to...

Determines the highest and lowest note range to quantize. To quantize a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to quantize the snare (D2), set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start and end point of the part that requires quantizing. Only measures can be selected.

Assignable values: within the limits of the Song. It is not possible to specify a point after the end of the Song.

Insert measures

Inserts a specified number of measures. The part of the Song after the insertion point shifts forward the same number of bars as those inserted. Given that the Time Signature of the inserted measures can differ to the Time Signature of the Song, the Insert Measures parameter permits the creation of a Song with multiple Time Signatures.

► Set the parameters and press ENTER to confirm the insertion.

Edit Song: TURNBEAT		L: 1 1	▲▼
Insert measures		ALL TRACKS	05/10
1 妻	Measures to ins. : 1		
2 妻	Time Signature : 4 /4		
3 妻	Insert from loc. : 1		
4 妻			
5 妻			
6 妻			
7 妻			
8 妻			

PARAMETERS

Measures to insert

Specifies the number of measures to insert. Assignable values: 1...999.

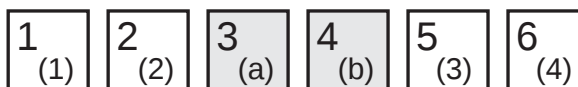
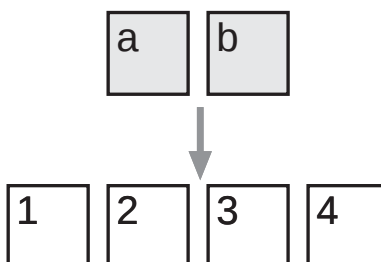
Time Signature

Determines the Time Signature of the measures to insert.

Insert from locator

Specifies the measure at which the new measures will be inserted.

Assignable values: from the first measure of the Song, to the first measure after the end measure of the Song (coda insertion).



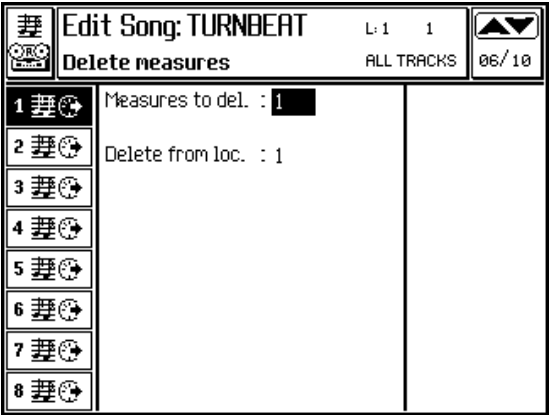
Insert measures example. Two measures are inserted at measure 3. Measure 3 and all successive measures are moved forward.

Delete measures

Cancels a specified number of measures. The measures directly after the point of cancellation shift towards the beginning of the Song and join with the measures preceding the cancellation point.

► Set the parameters and press ENTER to confirm the cancellation.

► **Hint:** To cancel measures without shifting those after the deletion point, use the Erase events function.



PARAMETERS

Measures to delete

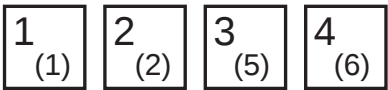
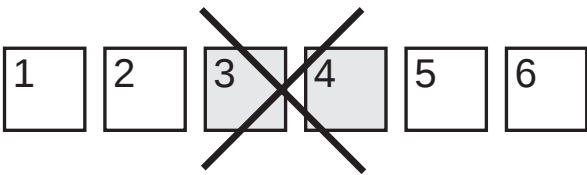
Specifies the number of measures to delete.

Assignable values: any number that does not exceed the total number of measures in the Song. For example, if the Song is 50 measures long, the maximum value that can be assigned is 50.

Delete from locator

This parameter indicates the first measure of those to be deleted.

Assignable values: within the actual limits of the Song. The parameter is linked to the previous one, which can be modified if the measures between the deletion start point and the end of the Song are less than those shown in «Measures».



Example of Delete measures. Measures 3 and 4 are cancelled. All the measures shift towards the beginning of the song.

Velocity

Modifies the key Velocity. This parameter represents the speed with which a note is played, or its intensity. Generally, the greater the velocity the higher the volume. Velocity also affects the filter of many sounds, rendering them brighter with increased velocity.

► Set the parameters and press ENTER to confirm the dynamic changes.

PARAMETERS

Velocity mode

Provides two velocity modes to choose from which affect the way the "Change Velocity" function operates.

Normal - The value indicated in «Velocity change» is added to or subtracted from the key Velocity values.

Fixed - The key Velocities are all set to the value specified in the «Change Velocity» parameter.

Change Velocity

Specifies the amount by which the velocity values can be changed. This depends on the option selected in «Velocity Mode».

Note range from... to...

Assigns the upper and lower limits of the notes to be affected. To modify the velocity of a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to change the snare (D2) set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9.

Edit Song: TURNBEAT		L:1	1	▼	
Velocity		TRACK	1	07/10	
1 妻	Velocity Mode	Fixed			
2 妻	Change Velocity	1			
3 妻	Note range from	C-1			
4 妻	to	G9			
5 妻	From locator	1	1	1	
6 妻	To locator	1	1	1	
7 妻					
8 妻					

From locator... To locator...

Determines the start and end point of the part to be affected. It is possible to specify Measure, Beat and 'tick'.

Assignable values: within the actual limits of the Song. It is not possible to specify a point beyond the end of the Song.

Transpose

Transposition by semitones.

► *Set the parameters and press ENTER to confirm the operation.*

Transpose value

Determines the value of the transposition (in semitones).

Note range from... to...

Assigns the upper and lower limits of the notes to be affected. To transpose a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to change the snare (D2) set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start and end point of the part to be affected. It is possible to specify Measure, Beat and 'tick'.

Assignable values: within the actual limits of the Song. It is not possible to specify a point beyond the end of the Song.

Edit Song: TURNBEAT		L: 1	1		
Transpose		TRACK	1	08/10	
1	Transpose	:	1		
2	Note range from	:	C-1		
	to	:	G9		
3	From locator	:	1 1 1		
4	To locator	:	1 1 1		
5					
6					
7					
8					

Microscope

The Microscope allows you to modify every single event recorded in the tracks. The Event List at the centre of the display shows all the events recorded.

ACCESSING THE EVENT EDIT MODE

1. Select the track whose events you wish to see in the Event List.
2. Use the / buttons to scroll through the events. The selected notes are played automatically.
3. Select the parameter to modify using the cursor buttons .
4. Use the DIAL to modify the selected parameter.

EVENTS AND PARAMETERS WHICH CAN BE CHANGED

The «Status» column shows the type of event. One or more parameters can be modified for each event.

Refer to the events table on the following page for an explanation of each event.

Event List track in edit

BAR	STATUS	1V	2V	3V	GATE
1 2	3 PR.CH.	51	1	1	---
1 2	4 CNTR.	7	127	---	---
1 2	4 CNTR.	10	44	---	---
1 2	4 CNTR.	11	127	---	---
1 2	5 CNTR.	91	115	---	---
1 2	5 CNTR.	93	0	---	---
1 3	1 CNTR.	101	0	---	---
1 3	2 CNTR.	100	0	---	---
1 3	3 CNTR.	6	12	---	---
1 3	4 CNTR.	101	127	---	---
1 3	4 CNTR.	100	127	---	---
2 1	1 NOTE	G4	96	96	39
2 1	1 CNTR.	11	127	---	---

measure beat Value 1 Value 2 Value 3 Gate

resolution event type (Status)

SHOW... (F2)

Recalls a dialog window where it is possible to select the events that will be displayed in the Event List.

Set the events that you want to mask to OFF.

Show Event	
Note	: On
Prog. Change	: On
Controller.	: On
Pich bend	: On
Mono after touch	: On
Poly after touch	: On

Set the parameters and press ENTER.

STATUS	VALUE 1	VALUE 2	VALUE 3	GATE
Note	Note name [C-1...G9]	Key On Velocity [1...127]	Key Off Velocity. [0...127]	Note length expressed as the Sequencer resolution (q=192). [0...65535]
Program Change	Program change message. The PC contained in the tracks and shown in the Microscope has priority over the PC recorded in the Performance. [1...128]	Bank Select MSB message. To select the WK4 banks, use numbers 1...16. [1...128]	Bank Select LSB message. Not necessary to select the WK4 sounds. [1...128]	
Control Change	Type of Control Change (or MIDI Controller). Example: CC00 = Bank Select MSB, CC32 = Bank Select LSB, CC01 = Modulation, CC07 = Volume. [1...128]	Control Change value.		
Pitchbend	Value of LSB (Least Significant Byte). [0 = Off, 1...127 = On]	Value of MSB (Most Significant Byte). Effective value of bending. [0...63 = down 64 = neutral, 65...127 = up]		
Mono touch	Channel Aftertouch intensity. [0...127]			
Poly touch	Note to which Aftertouch is applied [C-1...G9]	Note Aftertouch intensity. [0...127]		

.....

INS: (X) (F3)

Inserts the event specified in the “INS. TYPE” function at the current cursor position. To position the inserted event precisely, modify its locator accordingly (the parameters to the left of the Status).

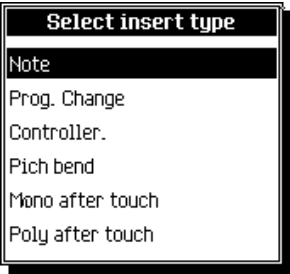
The events are inserted with the following default parameter values:

Status	1V	2V	3V	Gate
Note:	C4	64	64	128
P. Ch	1	1	1	
Contr.	1	0	----	
P.Bend	0	64	----	
M.Tch	0	----		
P.Tch	C4	0	----	

After inserting the desired event, modify its parameters accordingly.

INS TYPE... (F4)

Recalls a dialog window where you can select the type of event to insert manually with the «Ins(x)» function.



Select the event type and press ENTER.

DELETE (F6)

Cancels the selected event.

CATCH LOCATOR (F7)

Selects the event currently playing, or the event immediately after the current Song position.

GO TO LOC... (F8)

Takes the cursor directly to the first event of the specified locator (measure). The number can be specified with the DIAL.



Specify the locator and press ENTER to confirm.

Master Track

The Master Track editor allows you to modify the events recorded in the Master track which contains events pertaining to the general controls of the Song. This Track records changes in Performance, general Volume (Pedal Volume), Effect Changes, Effect Volume, Scale, Tempo changes, initial Time Signature and the Score Key.

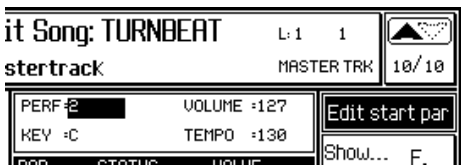
The structure of the page is analogous to the Microscope. The events are shown in the Event List at the center of the display.

Accessing the Event Edit Mode

1. Use the cursor buttons to scroll through the events.
2. Select the parameter to modify using the cursor buttons .
3. Use the DIAL or the numeric keypad to modify the selected parameter.

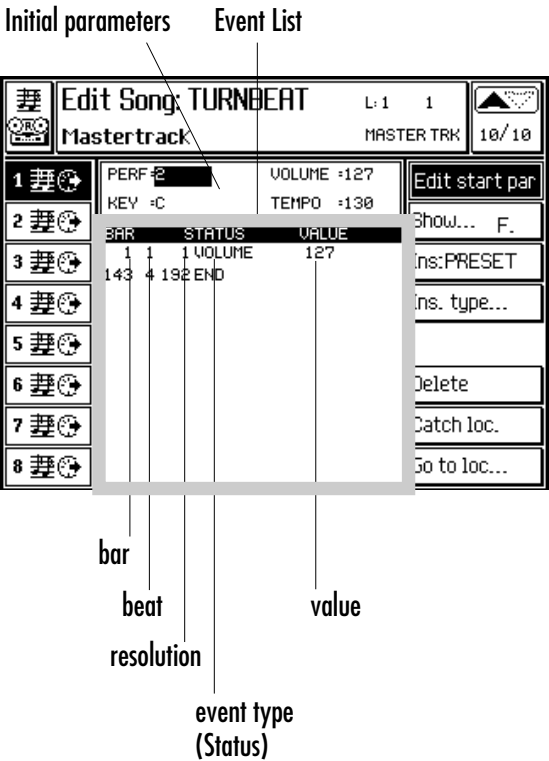
INITIAL PARAMETERS OF THE SONG

The events that define the Song at the start point can be modified but not deleted. To access and modify the events press F1 («Start param»).



PERF - Initial Performance. Sets the initial values of some of the track parameters (Program Change, Volume, Pan, Effects). If the same parameters are also found at the beginning of each track, sound, volume and pan settings are selected and controlled by the events contained in the tracks and not by the initial Performance.

Assignable values: one of the 8 (max) Song Performances..



► **Note:** When loading a MIDI file, normally the Performance settings are ignored, due to the fact that commercially available MIDI files contain initializing events at the start of each track

VOLUME - Overall volume, controlled by the Damper pedal set for continuous control and assigned the Volume function.

KEY - Key for the correct visualization of the score. Alters the score according to the specified key (inserts the correct accidentals), rendering the score easier to read. For example, if the score was captured in the key of C, you can display the score in the key of F# with all the correct accidentals shown in the initial key signature by setting the Key parameter to F#.

TEMPO - Metronome pulse. Can also be set on «Play View» or «Record View» pages.

PROGRAMMABLE EVENTS AND PARAMETERS

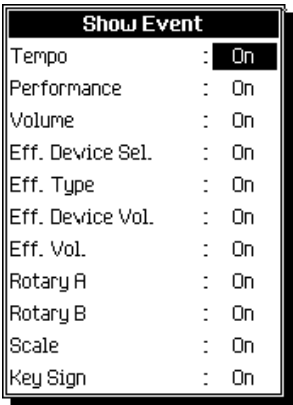
The «Status» column shows the type of event. One or more parameters can be modified for each event. The table shown opposite lists the events and parameters which can be modified.

START PARAMETERS (F1)

Enters the edit of the Song's start parameters. Press F1 again to return to the edit of the successive parameters.

SHOW... (F2)

Recalls a dialog window where it is possible to select the events that will be displayed by the Event List.
Set the events that you want to mask to OFF.



INS: (X) (F3)

Inserts the specified event type at the cursor position. To position the inserted event precisely, modify its locator (the parameters to the left of the Status).

STATUS	VALUE
TEMPO	Metronomic Tempo. If the Tempo Rec option is active during the recording tempo variations are recorded. [20...250]
PERFORMANCE	Change of Performance. [1...8]
VOLUME	Volume variation via MIDI (through the Common channel) or by means of the Volume Pedal. Does not record volume changes effected with the M.VOL control. [0...127]
EFF. DEVICE SEL.	Selection of a (DSP). Corresponds to CC18. The table of the available DSPs is in the Edit Effects chapter
EFF. TYPE	Type of effect assigned to the selected DSP. Corresponds to CC48. The table of the assignable effects is in the Appendix.
EFF. DEVICE VOLUME	General Volume of the selected DSP. The Effect Sends for each track is regulated in the microscope be means of the control changes CC91 & CC93.

The events are inserted with the following default parameter values:

Status	Value
Tempo	120
Performance	1
Volume	64
Eff. Dv. Sel	0
Status	Value
Eff. Type	0
Eff. Vol	0
RotaryA	Slw/Fst
RotaryB	Slw/Fst
Scale	1
Key Sign	C

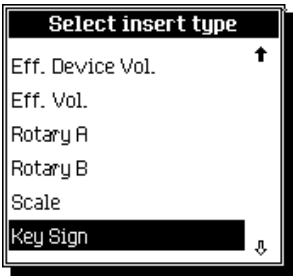
After inserting the desired event, modify its parameters accordingly.

INS TYPE... (F4)

Recalls a dialog window from which you can select the type of event to insert manually with the «Ins(x)» function.



Press the ▼ cursor arrow to bring other events into view.



Select the type of event and press ENTER.

DELETE (F6)

Cancels the selected event.

CATCH LOCATOR (F7)

Selects the event currently playing, or the event immediately after the current Song position.

GO TO LOC... (F8)

Takes the cursor directly to the first event of the selected measure. The number can be specified with the DIAL.

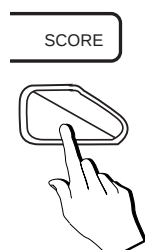


Specify the required number and confirm with ENTER.

Score & Edit Score

THE SCORE BUTTON

Press SCORE to view the notes, lyrics and chord symbols on the display and/or on an external monitor.



Press F8 («Score controls...») to select the viewing options and the video standard.

When a Song containing a Score is in playback, an indicator () monitors the position of the score.

Press ESCAPE to exit Score.

THE SCORE TRACK

The Score track is a “ghost” track that is added to the tracks of a Song. This track allows the insertion and viewing of notes (Music), words (Lyrics) and chord symbols (Chords).

The Score displays a **melody line** and not chords. A track of chords is analyzed, the highest notes are extracted and a melody line is generated.

The score can be viewed on the instrument's display, or projected onto an external monitor by pressing SCORE. To view on an external monitor, the **WK4** must be fitted with Generalmusic's optional Audio/Video card.

The Score is created in «Edit Song».

A screenshot of the "Score page - All mode" for the song "Take Me Out To Ballgame". The page shows three staves of musical notation. The first staff has a treble clef and a key signature of one flat. The lyrics "Take me out to" are written below the first staff. The second staff has the lyrics "the ball game, take" and the third staff has "me out to the crowd,". Chord symbols "C", "G7th", and "E" are written above the staves. At the bottom, there is a "Loc: 1 1" indicator and a "Score ctrl..." button.

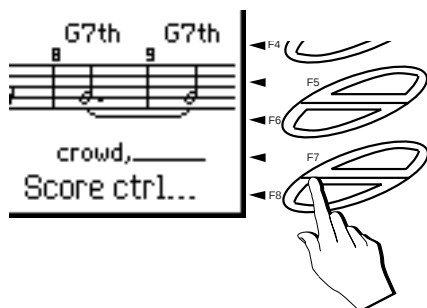
Score page - All mode
(notes, lyrics and chord symbols)

A screenshot of the "Score page - Lyrics 1 mode" for the song "Take Me Out To The Ballgame". The page shows the lyrics in large, bold, black capital letters: "TAKE ME OUT TO THE BALLGAME, TAKE ME OUT TO THE CROWD, BUY ME SOME PEANUTS". At the bottom, there is a "Loc: 1 1" indicator and a "Score ctrl..." button.

Score page - Lyrics 1 mode
(lyrics in large type)

Score Controls

In the «Score» page, press F8 to open the «Score Control» dialog window.



Score control dialog window
(viewing options for external monitor)

When finished, press ENTER to confirm or ESCAPE to cancel.

PARTS OF THE DISPLAYED SCORE

Select the parts of the Score to display with the cursor buttons ◀ / ▶.

All - Notes, lyrics, chord symbols.

Lyric 1...Lyric4 - Lyrics only across the display, with characters or various dimensions.

Chords - Traditional chord symbols without notes. This option refreshes the display very quickly which can be useful for guitarists and bassists.

VIDEO CONTROLS

Viewing options for an external monitor.

Echo LCD

ON: the external monitor displays exactly what is shown on the **WK4** display.

OFF: the monitor displays only the Score parts (music, lyrics, chords).

Options: On, Off.

View mode

Selects a color for the lyrics and for the background. This option is valid for the external monitor only.

Options: 1...16.

Video mode

RGB: the RGB port transmits RGB and Composite Video signals.

CV: the RGB port transmits Composite Video signals. For a correct Composite Video image, this option is recommended.

Options: RGB, CV.

Y shift

Controls the vertical alignment.

Score split

ON: the notes are displayed on a staff.

OFF: the notes are displayed on the treble clef only. Notes that normally occupy the bass clef are shown with the symbol « **B** ____ » (bass 8va).

Chords on lyrics

If ON, the viewing options Lyric 1 ...Lyric 4, the external monitor shows chord symbols together with lyrics.

SPECIAL SYMBOLS

At times, the music score will show special symbols.



The «octave lower» symbol.
The displayed note or notes are in reality one octave lower.



The «note too high» symbol.
The note at the position corresponding to the displayed symbol is too high to appear in the staff.



The «note too low» symbol.
The note at the position corresponding to the displayed symbol is too low to appear in the staff. This symbol rarely appears with a standard music staff («Score split» option in the «Score controls” window set to ON).

Edit Score

HOW TO ENTER EDIT SCORE

1. Press SONG and select a Song.
2. Press ST./SONG in the EDIT section to enter «Edit Song».
3. Press F5 («Edit Score») in the main menu of «Edit Song» to open Edit Score.

If the Song does not contain a score, select the «Get Score» command (F4) to create one (*this procedure is explained afterwards*).

HOW TO EXIT EDIT SCORE

Press ESCAPE to return to «Edit Song». Press ESCAPE once again to return to the «Play View» or «Record View» page.

INSERTING NOTES

To create a Score, notes are withdrawn from a Song track.

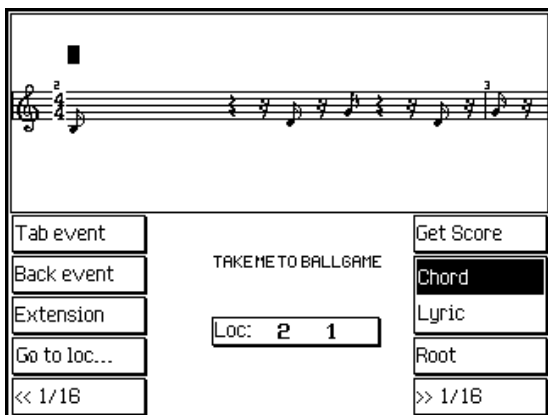
1. Press F4 («Get Score»):



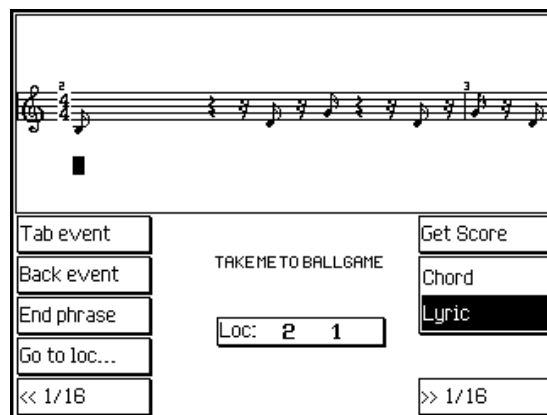
2. Use the DIAL to select the track to transcribe.
3. Press ENTER to confirm. Wait a few seconds for the score to be generated.

INSERTING CHORD SYMBOLS

Chord symbols correspond to the MIDI 'Text' event. These are loaded and saved with MIDI files. Chord symbols can be inserted into a new Song using the procedure explained on the next page.



Score Edit - Chord mode
(chord symbol edit)



Score Edit - Lyrics mode

1. Press F5 («Chords») to take the cursor to the chord line (above the staff).
2. Press the soft button G («Go to loc...») to go to a specific measure:



Specify the measure with the DIAL then press ENTER to confirm or ESCAPE to cancel.

3. Move the insertion point to the previous or next note using the soft buttons D («Next event») and E («Previous event»).
4. Each note is ideally subdivided into 1/16ths. In addition to a symbol at the beginning of a note (first 1/16th), you can insert symbols in one of the 1/16ths which follow. Press F8 to open the symbol insertion zone:

 Insertion of the symbol at the second 1/16th

 Insertion of the symbol at the third 1/16th

 Insertion of the symbol at the fourth 1/16th

The number shown on the left of the insertion zone indicates the current 1/16th. To move the insertion point to one of the other 1/16ths, use the soft buttons H («<<1/16») and F8 («>>1/16»).

To escape and return to the note, press the soft button E («Previous event»). To escape and pass to the next note press the soft button D («Next event»).

5. Play the chord below the Split Point. The chord symbol appears, in the following form: CMaj, Dmin, E7th...

6. If you want to indicate a bass extension, or a pedal note, press the function button F («Extension») and play the alternative chord. The bass extension will appear in the following form: CMaj/D, Dmin/G...

Press the soft buttons D («Next event» or E («Previous event») to pass to another event.

7. You can modify the selected symbol by playing a different chord.
8. You can modify a chord by transforming it, for example, from a major to minor chord to seventh. Press F7 («Root») repeatedly to alternate between the bass of the chord (the root: A, B, C, etc.) and the abbreviation of the chord (min, 7th, dim, aug...).

 The entire symbol is selected.
Press F7 («Root»).

 The root note is selected.
Press F7 («Root»).

 The chord abbreviation is selected.
Press F7 («Root»).

 The entire symbol is selected again.

Rotate the DIAL or play another chord to modify the selected element (the root or abbreviation).

INSERTING LYRICS

Lyrics corresponds to the MIDI Lyrics event. This type of event is loaded and saved with MIDI files. Lyrics can be inserted into a new Song in the following manner:

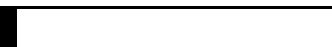
1. Press F6 («Lyrics») to take the cursor to the lyrics line (below the staff).
2. Press soft button G («Go to loc...») to go to a specific measure (bar):



Specify the measure with the DIAL then press ENTER confirm or ESCAPE to cancel.

3. Move the insertion point to the previous note or the next note with the soft buttons D («Next event») and E («Previous event»).
4. Each note is ideally subdivided into 1/16ths. In addition to syllables at the beginning of the note (first 1/16th), you can insert syllables in one of the 1/16ths which follow. Press F8 to open the syllable insertion zone.

 
Insertion of the syllable at the second 1/16th

 
Insertion of the syllable at the third 1/16th

 
Insertion of the syllable at the fourth 1/16th

The number shown on the left of the insertion zone indicates the current 1/16th. To move the insertion point to one of the other 1/16ths, use the soft buttons H («<<1/16») and F8 («>>1/16»).

To escape and return to the note, press the soft button E («Previous event»). To escape and pass to the next note press the soft button D («Next event»).

At this point, «Next event» and «previous event» pass from 16th to 16th instead of from note to note.

5. In this operating mode, the keyboard transforms into a source of alphabetic data (see the «Data Entry» chapter). Write the required syllable using the keys of the keyboard.
6. Press soft button F («End phrase») to terminate the verse. The end of the verse is indicated by the “end phrase” symbol ‘I’.

Do not write lines consisting of more than 20 characters. This is to avoid the incorrect syllabisation of words when you are viewing lyrics in large type. For example, the word “Ballgame” may syllabize to “Bal-lgame”, or “Ballg-ame” or other, instead of “Ball-game”.

7. You can modify a selected syllable by rewriting it entirely or partially.

To replace one character with another, remain in Overwrite mode (rectangular cursor). If you are in Insert mode (cursor in the form of a vertical line), press note D#2 («INS/OVER») to pass to Overwrite mode. Move the cursor with the DIAL, then insert the new character.

To insert a character without cancelling another, pass to Insert mode. Press note D#2 («INS/OVER»); the cursor will take the form of a vertical line. Move the cursor with the DIAL, then insert the new character. Press D#2 to return to Overwrite mode.

The «Edit Score» page in detail

CHORDS (F5)

Takes the cursor to the Chords line (above the staff).

LYRICS (F6)

Takes the cursor to the Lyrics line (below the staff).

NEXT EVENT (D)

Takes the cursor to the next event (note or pause).

PREV. EVENT (E)

«Previous event». Takes the cursor to the previous event (note or pause).

GO TO LOC... (G)

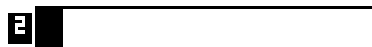
Takes the cursor to the beginning of the specified measure. Press soft button G to open the dialog window:



Specify the measure with the DIAL.
Press ENTER to confirm or ESCAPE to cancel.

>> 1/16 (F8)

Each note greater than a sixteenth (*demisemi-quaver*) is ideally subdivided into sixteenths; this button takes the cursor to the next sixteenth. For example, a quaver (8th) is divided into two 1/16ths, a crotchet (quarter) into four 1/16ths, etc.. The edit takes place in an active zone:



To escape and return to the normal edit of the note, press soft button E ("Previous event»). To escape and pass to the next note, press soft button D («Next event»).

<< 1/16 (H)

See above. Takes the cursor to the previous sixteenth

GET SCORE... (F4)

Creates a score from the selected track from which the melody is transcribed. Press F4 to open the dialog window:



Specify the track with the DIAL.
Press ENTER to confirm or ESCAPE to cancel.

If the track contains chords, the analyser withdraws the highest notes, attempting to eliminate notes not related to the melody. A score is obtained with excellent results from a track containing a melody line only.

EXTENSION (F)

This command allows you to add an alternative bass extension to the chord. Select a chord and press soft button F, then play a complete chord which contains the alternative bass root required to insert.

Emin 

You can modify the extension with the DIAL, or play a different chord.

Play the chords below the Split Point.

ROOT (F7)

This command allows you to modify the root note of a chord and its related abbreviation separately. Select a chord and press F7 repeatedly to place the chord parts in edit, first the root, then the abbreviation, then to return to the edit of the entire chord symbol.

Emin  Emin  Emin

You can modify the selected part with the DIAL, or by playing a different chord.

Play the chords below the Split Point.

END PHRASE (F)

This command inserts an 'End phrase' symbol ('I') at the end of a verse. In the viewing modes Lyrics 1 ... Lyrics 4, the verses end with the "End phrase" symbol is reached and the next verse starts on a new line.

We recommend that you write lines using not more than 20 characters, to avoid displaying incorrectly syllabized words when the Lyrics 1 option (large types) is used.

This symbol can be cancelled as any other character by selecting the syllable with D («Next event») or E («Previous event»). Select the symbol with the DIAL and cancel the symbol with note F2 (DELETE).

• 23 Edit Style

After recording a User Style, the Style riff can be modified in «Edit Style».

ENTERING «EDIT STYLE»

In Style/RealTime mode, select the Style you wish to modify.

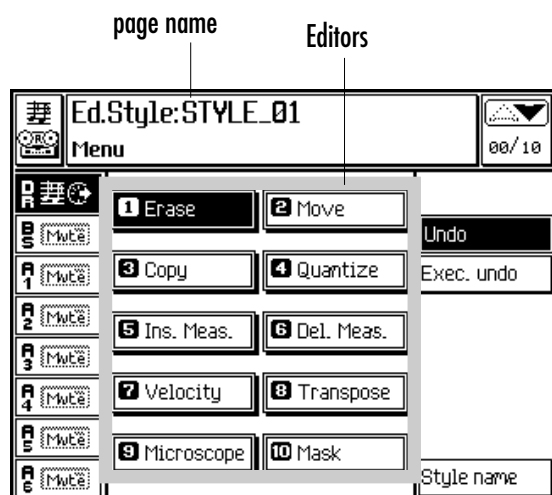
If you select a ROM Style, only the Copy function if Edit Style can be used.

If you select a User Style, all the Edit Style functions will be available. The Style name appears in the status bar of the display.

Style name			
Style: Obt Std	J= 90	Loc: 1 1	
Perf.: GrandPiano	Chd: *****		

Press the ST./SONG button in the EDIT section to enter «Edit Style».

Entering this section the first time opens the main menu page. On all successive occasions, the last page selected is recalled.



Edit Style - Main menu

ST. / SONG



EDIT PROCEDURE

1. Press ST./SONG to enter «Edit Style». The main menu appears.
2. Select the editor that you wish to edit using the DIAL or the cursor buttons. It is also possible to enter an editor by specifying the relative number on the numeric keypad.
3. Press ENTER to enter the editor.
4. Select the desired option with the soft buttons.
5. Select the parameters with the cursor buttons and modify their value with the DIAL or the numeric keypad.
6. Confirm the operation with ENTER.
7. Pass to another editor with the / buttons. Otherwise, return to the main menu with ESCAPE and select another editor.

ESCAPE FROM «EDIT STYLE»

To escape from «Edit Style» press ESCAPE (once or twice, depending on the currently selected level). To escape without closing the edit page, press the ST./SONG button. To pass to another edit environment, press the corresponding button in the EDIT section.

UNDO (F2)

When this parameter is selected (shown in negative highlight), the UNDO function is enabled. Undo cancels the last operation or series of operations carried out. This function consumes exactly the same amount of RAM memory as the Style. If there is a shortage of memory in RAM, it is a good idea to deactivate UNDO.

Press the UNDO panel button to execute the desired Undo operation.



You will be prompted with a request to confirm the operation with ENTER or cancel with ESCAPE.



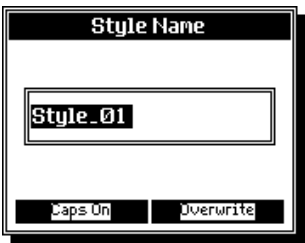
If UNDO is disabled, pressing the UNDO button and confirming with ENTER activates the following user message:



Press ESCAPE to close the window and repeat the UNDO operation, this time with UNDO enabled.

STYLE NAME (F8)

Changes the name of a Style. This function only applies to USER Styles; the names of the ROM Styles are permanent and cannot be modified.



The method used to insert characters is described in the «Data Entry» chapter. You can move the cursor with the soft buttons or the DIAL. Insert the characters with the keys of the keyboard.

«EMPTY TRACK» INDICATION - NOTES PRESENT IN THE TRACK

The presence of notes in a track is indicated by the seq-play icon:



In play mode, this status icon indicates the presence of notes in at least one riff. If the current riff of the track does not contain notes, the «empty track» message is displayed at the bottom of the Edit Style page:

-Empty Track-

In record mode, tasks are performed directly on a riff, and the icon indicates the presence of notes in the track and in the riff being recorded.

Erase

Cancellation of events.

► Set the parameters and press ENTER to confirm the cancellation.

SOFT BUTTONS F5...F8

Use the Soft buttons F5...F8 to select the part of the Style to cancel the events from. Depending on the part selected, the following parameters may or may not appear.

- Track (F5)** - Single track, the current riff.
- Riff (all tracks) (F6)** - An entire riff (all the tracks of the riff).
- Var (all riffs) (F7)** - An entire Variation (all the riffs of the Variation).
- Style (all vars) (F8)** - An entire Style (the 4 Variations of the Style).

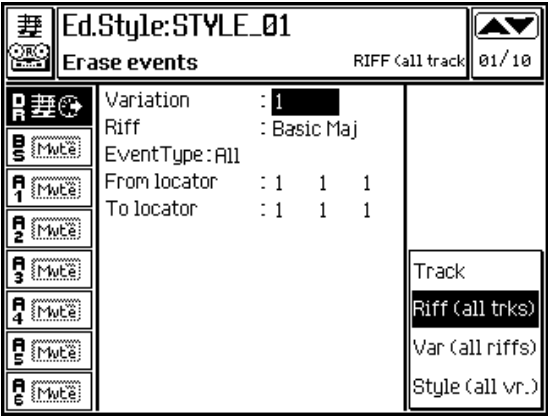
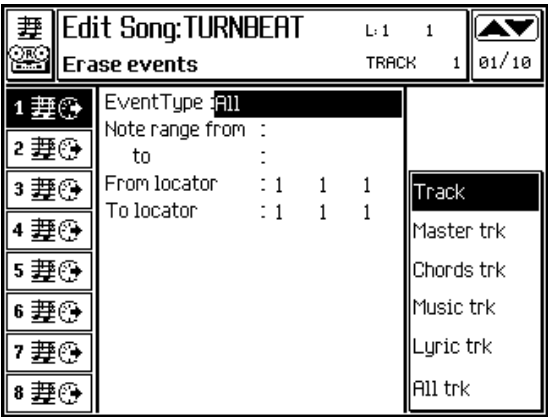
PARAMETERS

Variation

Selects one of the 4 Variations. Only Variations that contain at least one recorded riff can be selected.

Riff

Selects one of the riffs of the selected Variation. Only existing riffs can be selected. If the Style is empty, the phrase «No Riff» appears.



Event type

Determines the type of event to be erased.

«Duplicate note» eliminates the note with the lowest velocity value when two notes of the same pitch start at the same position.

Options: All, Duplicate note, Note, Pitch Bend, Mono touch, Poly touch, Velocity Off, ProgramChange, ControlChange 00...31, ControlChange 64...127.

Note range from... to...

Sets the upper and lower limits of the notes to cancel. To cancel a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to cancel the snare (D2) set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start and end point of the part to cancel. It is possible to specify the measure, beat and resolution.

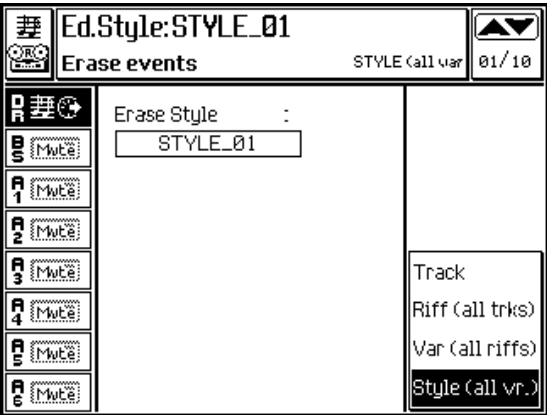
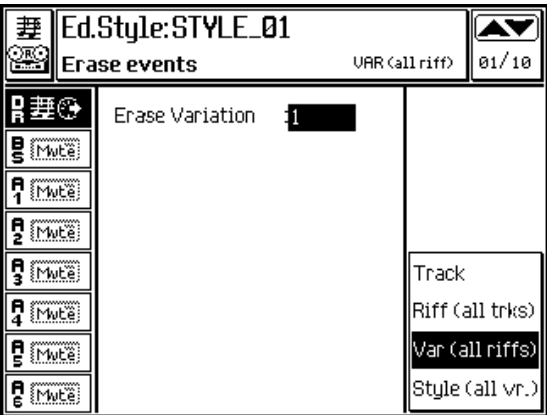
Assignable values: within the actual limits of the riff. It is not possible to specify a point beyond the end of the riff.

Erase Variation

Selects the Style Variation to cancel [«Var (all riffs)» option].

Erase Style

Selects the Style to cancel [«Style (all Vars)» option].



Move

Shifts events from one point to another within the selected track.

► Set the parameters and press ENTER to confirm the operation.

PARAMETERS

Variation

Selects one of the 4 Style Variations. Only Variations that contain at least one recorded riff can be selected.

Riff

Selects one of the riffs of the current Variation. Only existing riffs can be selected. If the Style is empty the phrase «No Riff» appears.

From locator... To locator...

Sets the start and end points of the part to be moved. The measure, beat and resolution can be specified.

Assignable values: within the actual limits of the riff. It is not possible to specify a point beyond the end of the riff.

Start locator

Sets the new position of the section being moved.

Assignable values: any point within the riff.

1

2

3

4

5

6

7

8

From locator

To locator

Start locator

: 1

: 1

: 1

1

1

1

1

1

1

1

1

02/10

Edit Song: TURNBEAT

L: 1

1

Move events

TRACK

1

Copy

Copies events from a single tracks or from all the tracks.

► *Set the parameters and press ENTER to confirm the operation*

SOFT BUTTONS F5...F8

Use the Soft buttons F5...F8 to select the type of track to copy events from. Depending on the type of track selected, the following parameters may or may not appear.

Track (F5) - Single track, the current riff.

Riff (all tracks) (F6) - An entire riff (all the tracks of the riff).

Var (all riffs) (F7) - An entire Variation (all the riffs of the Variation).

Style (all vars) (F8) - An entire Style (the 4 Variations of the Style).

PARAMETERS

Current Style... to Style...

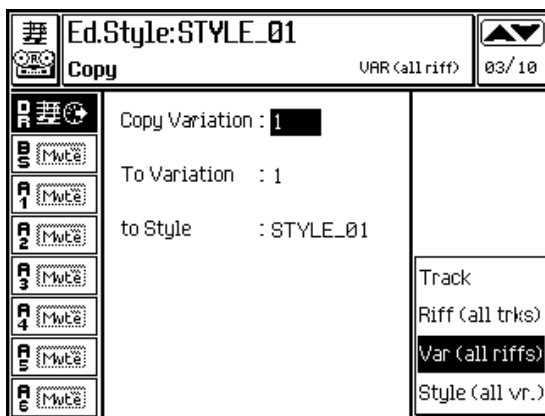
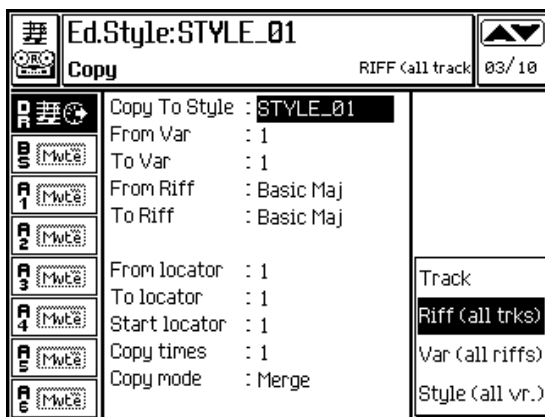
Selects the source Style to copy from and the destination Style to copy to.

Assignable values: any USER Style.

From var... to var...

Selects the source and destination Variations for the part to be copied.

Assignable values: 1 ... 4.



From riff... to riff...

Selects the source and destination riffs for the part to be copied. For example, it is possible to copy the patterns of a Basic Major riff to a minor Fill riff.

Assignable values: any riff.

Track... to track...

Specifies the source and destination tracks for the copied elements. «From track» shows the track selected using soft buttons A...H. «To track...» can be modified using the DIAL.

Assignable values: any accompaniment track (9...16).

From locator... To locator...

Sets the start and end point of the part to be copied. Only the measure (bar) can be specified.

Assignable values: within the actual limits of the riff..

Start locator

Sets the new position of the copied part.

Assignable values: within the actual limits of the destination riff.

Copy times

Sets the number of consecutive copies. Each copy starts exactly where the previous one ends.

Assignable values: depends of the length of the riff. The copy must not exceed the riff length.

Copy mode

Determines the copy mode. «Merge» unites the copied events to those already present at the destination. «Replace» substitutes the events present at the destination with those copied.

Options: Merge, Replace.

Copy Variation... to Variation...

The source and destination of the copied Variation («Var (all riffs)» option).

Assignable values: 1 ... 4.

To Style...

The destination Style of the copy.

Assignable values: any of the USER Styles.

Copy current Style to Style

Selects the USER location where the entire current Style is to be copied to («Style (all Vars)» option).

.....

Quantize

The Quantize function is an auto-corrector of timing errors. Includes triplet and swing quantize values.

► Set the parameters and press ENTER to confirm the quantize operation.

SOFT BUTTONS F1...F2

These select the «Note On Quantize» and «Note Off Quantize» parameters.

Note On Quantize - Post-Quantization of the Note On event.

Note Off Quantize - Post-Quantization of the Note Off event. After a Note On quantization, a Note Off quantization affects the duration of the notes, adapting them to a quantization grid.

PARAMETERS

Variation

Selects one of the 4 Variations. Only existing Variations can be selected (those with at least one riff recorded).

Riff

Selects one of the riffs from the chosen Variation. Only existing riffs can be selected. If the Style is empty, the phrase «No Riff» appears.

Ed.Style:STYLE_01		TRACK DRUM 04/10
Note on quantize		
P	Variation : 1	Note on qnt.
B	Riff : Basic Maj	Note off qnt.
1	Note on quantize : 1/4	
2	Note range from : A0	
3	to : C8	
4	From locator : 1	
5	To locator : 1	
6		

Ed.Style:STYLE_01		TRACK DRUM 04/10
Note off quantize		
P	Variation : 1	Note on qnt.
B	Riff : Basic Maj	Note off qnt.
1	Note off quantize: 1/4	
2	From locator : 1	
3	To locator : 1	
4		
5		
6		

Note On quantize

Specifies the Note On quantize values.

Value	Quantization
1/4	
1/8	
1/12	 triplet
1/16	
1/24	 triplet
1/32	
1/48	 triplet
1/64	(1/64)
1/96	(1/64 triplet)
free	no quantization
1/8 B...F	  (swing)
1/16 B...F	  (swing)
free	no quantization

*B ... F indicate an adjustment of the Swing feel.

Note Off quantize

Determines the Note Off quantize value. Same as Note On.

Note range from... to...

Sets the highest and lowest note range to quantize. To quantize a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to quantize the snare (D2), set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start and end point of the part that requires quantizing. Only measures can be selected.

Assignable values: within the actual limits of the Riff.



Insert Measures

Inserts a specified number of measures. The part of the Riff that follows the insertion point shifts forward the same number of measures as those inserted. The length of the Riff changes.

► Set the parameters and press ENTER to confirm the insertion.

PARAMETERS

Variation

Selects one of the 4 Variations. Only existing Variations can be selected (those with at least one recorded Riff).

Riff

Selects one of the riffs from the selected Variation. Only existing riffs can be selected. If the Style is empty, the phrase «No Riff» appears.

Measures to insert

Specifies the number of measures to insert.

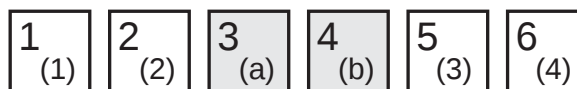
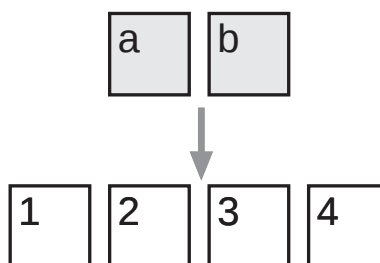
Assignable values: depends on the length of the riff (max 16 measures).

Insert from locator

Specifies the measure at which the new measures will be inserted.

Assignable values. from the first measure (bar) of the Riff, to the first measure after the end measure of the Riff (coda insertion).

Ed.Style:STYLE_01		TRACK	DRUM	05/10
Insert measures				
Variation	: 1			
Riff	: Basic Maj			
Measures to ins.	: 1			
Insert from loc.	: 1			



Insert measures example. Two measures are inserted at measure 3. Measure 3 and all successive measure are moved forward.

Delete measures

Cancels a specified number of measures. The measures directly after the point of cancellation shift towards the beginning of the Style and join with the measures preceding the cancellation point.

► Set the parameters and press ENTER to confirm the cancellation.

► *Hint: To cancel measures without shifting those after the deletion point, use the Erase events function.*

PARAMETERS

Variation

Selects one of the 4 Variations. Only existing Variations can be selected (those with at least one recorded Riff).

Riff

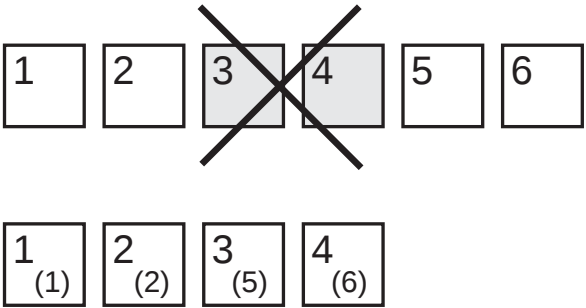
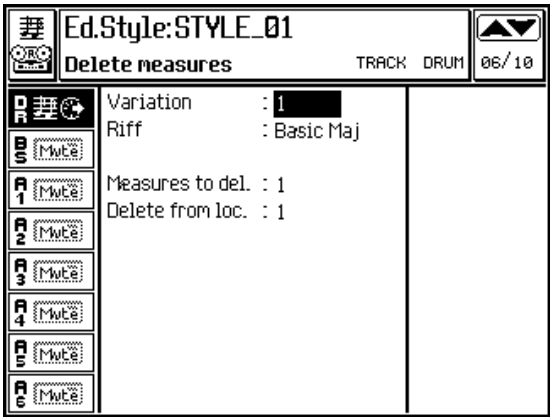
Selects one of the riffs from the chosen Variation. Only existing riffs can be selected. If the Style is empty, the phrase «No Riff» appears.

Measures to delete

Specifies the number of measures to delete.
Assignable values: a number that does not exceed the length of the Riff. For example, if the Riff is 4 measures long, the maximum assignable value is 4.

Delete from locator

This parameter indicates the first measure of those to be deleted.
Assignable values: within the actual limits of the riff. Dependent on the previous parameter.



Delete measures example. Measure 3 and 4 are cancelled. All the measures shift towards the beginning of the Style.

Velocity

Modifies the key Velocity value. This parameter represents the key-strike velocity, or its intensity. Generally, the greater the velocity the higher the volume. Velocity also affects the filter of many sounds, making them brighter with increased velocity.

► Set the parameters and press ENTER to confirm the dynamic changes.

PARAMETERS

Variation

Selects one of the 4 Variations. Only existing Variations can be selected (those with at least one recorded Riff).

Riff

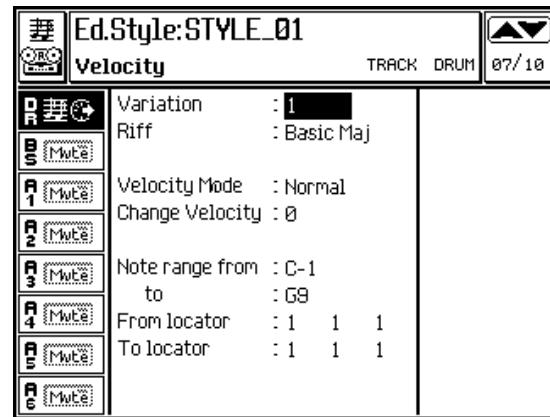
Selects one of the riffs from the chosen Variation. Only existing riffs can be selected. If the Style is empty, the phrase «No Riff» appears.

Velocity mode

Provides two velocity modes to choose from which affect the way the “Change Velocity” function operates.

Normal - The value indicated in «Velocity change» is added to or subtracted from the Velocity values of the notes.

Fixed - The note Velocities are all set to the value specified in «Velocity change»



Change Velocity

Specifies the amount by which the velocity values can be changed. This depends on the option selected in «Velocity Mode».

Note range from... to...

Sets the upper and lower limits of the notes to be affected. To modify the velocity of a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to change the snare (D2) set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9.

From locator... To locator...

Determines the start and end point of the part to be affected. It is possible to specify measure, beat and resolution.

Assignable values: within the actual limits of the Riff.

Transpose

Transposition in semitone steps.

Variation

Selects one of the 4 Variations. Only existing Variations can be selected (those with at least one recorded Riff).

Riff

Selects one of the riffs from the chosen Variation. Only existing riffs can be selected. If the Style is empty, the phrase «No Riff» appears.

Transpose

Determines the value of the transposition (in semitones).

Assignable values: -64 ... +64.

Note range from... to...

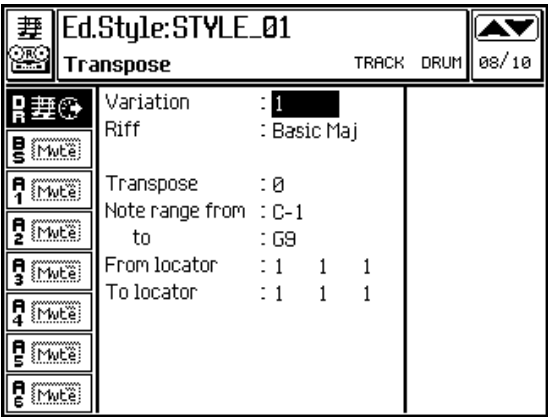
Sets the upper and lower limits of the notes to be affected. To transpose a single percussive instrument of the Drum track, assign the same note to the highest and lowest limit. For example, to change the snare (D2) set the parameter to «Note range from D2 to D2».

Assignable values: C-1 ... G9

From locator... To locator...

Defines the start and end point of the part to be affected. It is possible to specify the measure, beat and resolution.

Assignable values: within the actual limits of the Riff.



Microscope

The Microscope allows you to modify every single event recorded in the tracks. The Event List shown at the center of the display shows all the events recorded.

ACCESS TO THE EVENT EDIT

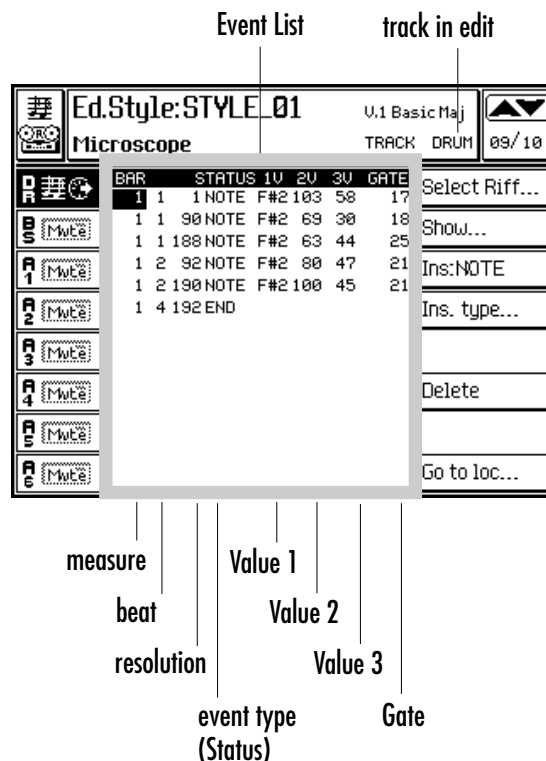
1. Select the track where you want to edit the events in the Event List.
2. Use the  cursor buttons to scroll through the events. The selected notes are played automatically.
3. Select the parameter to be changed using the  cursor buttons.
4. Use the DIAL to change the selected parameters.

PROGRAMMABLE EVENTS AND PARAMETERS

The «Status» column shows the type of event. One or more parameters can be changed for each event. See the following page for a table of events and their parameters.

SELECT RIFF... (F1)

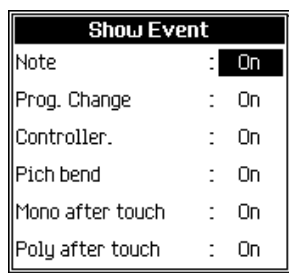
Selects the riff to edit. Select the variation and the riff in the dialog window



SHOW... (F2)

Opens a dialog window where it is possible to select the events that will be displayed in the Event List.

Set the events to mask to «Off»



Set the parameters and press ENTER.

STATUS	VALUE 1	VALUE 2	VALUE 3	GATE
Note	Note name [C-1...G9]	Key On Velocity [1...127]	Key Off Velocity. [0...127]	Note length expressed as the Sequencer resolution (q=192). [0...65535]
Program Change	Program change message. The PC contained in the tracks and shown in the Microscope has priority over the PC recorded in the Performance. [1...128]	Bank Select MSB message. To select the WK4 banks, use numbers 1...16. [1...128]	Bank Select LSB message. Not necessary to select the WK4 sounds. [1...128]	
Control Change	Type of Control Change (or MIDI Controller). Example: CC00 = Bank Select MSB, CC32 = Bank Select LSB, CC01 = Modulation, CC07 = Volume. [1...128]	Control Change value.		
Pitchbend	Value of LSB (Least Significant Byte). [0 = Off, 1...127 = On]	Value of MSB (Most Significant Byte). Effective value of bending. [0...63 = down 64 = neutral, 65...127 = up]		
Mono touch	Channel Aftertouch intensity. [0...127]			
Poly touch	Note to which Aftertouch is applied [C-1...G9]	Note Aftertouch intensity. [0...127]		

INS: (X) (F3)

Inserts the event specified in the “INS. TYPE” function at the current cursor position. To position the inserted event precisely, modify its locator (the parameters to the left of the «Status» column).

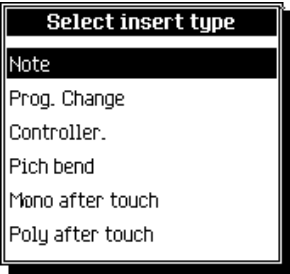
The events are inserted with the following default parameter values:

Status	1V	2V	3V	Gate
Note:	C4	64	64	128
P. Ch	1	1	1	
Contr.	1	0	----	
P.Bend	0	64	----	
M.Tch	0	----		
P.Tch	C4	0	----	

After inserting the desired event, modify its parameters accordingly.

INS TYPE... (F4)

Opens a dialog window where you can select the type of event to insert manually with the «Ins: (x)» function.



Select the type of event and press ENTER.

DELETE (F6)

Deletes the selected event.

CATCH LOCATOR (F7)

Selects the event currently playing, or the event immediately after the current riff position.

GO TO LOC... (F8)

Takes the cursor directly to the first event in the specified measure. The number can be entered using the DIAL.



Specify the locator and press ENTER to confirm.

Mask

The Mask function allows you to program the Basic elements of two Variations (Var 2 and 4) in order to automatically obtain the Basic elements of the remaining two Variations (Var 1 and 3).

The Basic Variation 2 generates the Basics of Variations 1 and 2. The Basic Variation 4 generates the Basics of Variations 3 and 4. To obtain the best results, program your Variations with all 6 accompaniment tracks (Acc.1,2,3,4,5,6) as well as Drums and Bass.

The idea is to reduce your Style recording times by recording 2 Variations and exploit the automatic features to create a Style with 4 Variations. Then, using the Arranger Tracks function, mask one or two accompaniment sections in one or two Variation to reduce the instrumental content of the respective accompaniments.

The Bass tracks rest unchanged and cannot be altered.

Program the Intro, Ending and Fill of the 4 Variations to create a complete Style.

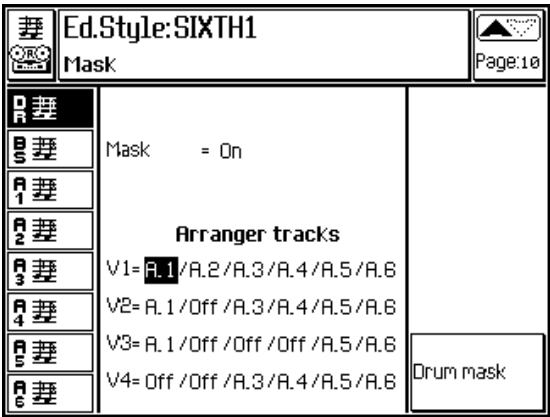
PARAMETERS

Mask

Activates the Mask function.

When the Mask parameter is enabled (ON), the Basic Variation 2 automatically generates Basic Variation 1, while Basic Variation 4 generates the Basic Variation 3.

Options: On, Off.



Arranger tracks

Deactivates the individual Arrangement parts (A1...A6) of each Variation.

For example, if you have programmed tracks A1...A6 of Variation 2 and you want to mask A4, A5 and A6 for Variation 1, A2 and A3 for Variation 2, program the first two lines as follows:

V1 = Off/Off/Off/A4/A5/A6

V2 = Off/A2/A3/Off/Off/Off

.....

DRUM MASK (F7/F8)

Opens the «Drum mask» dialog window.

As in the Mask function for the Arrangement tracks, the Drum Mask excludes individual percussive sounds from the Drum tracks of the Variations.

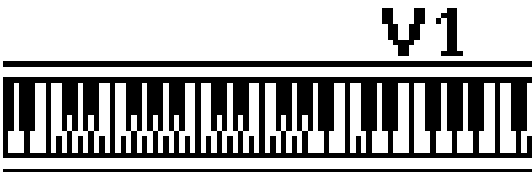
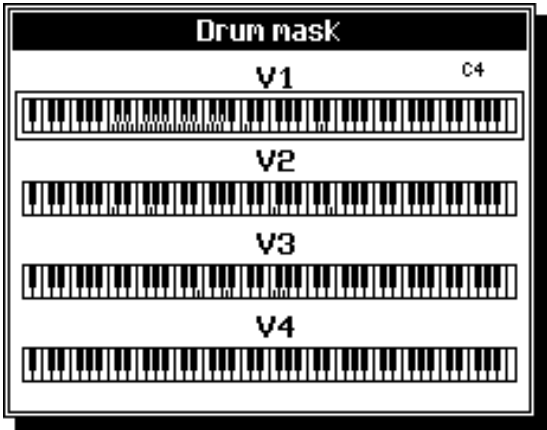
Four keyboards (or drumkits) appear in the dialog window, each representing the Drum track (DR) of the four different variations.

Select the variation with the cursor buttons ◀▶. Play the notes corresponding to the percussion instruments to exclude them from the selected variation.

The excluded notes are denoted by a small black line on white notes and a white line on the black notes.

Play the same note to cancel the line and to play the sound in the selected variation.

Press ENTER to confirm the programming, or ESCAPE to cancel.



Drum track of Variation 1 showing masked Percussive instruments

• 24 Preload

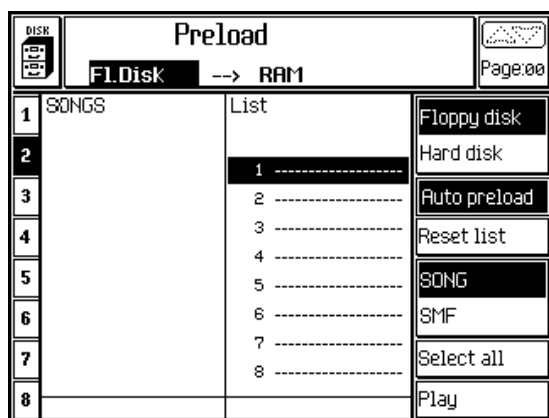
THE PRELOAD FUNCTION

The Preload function is a background loading facility which allows you to playback all the Songs and/or MIDI Files contained in a floppy disk or Hard disk with a single command, without having to load all the data to memory beforehand.

► **Note:** if the disk or Hard disk contains more than one Block, only the songs contained in the first Block will be played while those of other Blocks are ignored.

Furthermore, if the «Auto Preload» option is enabled, Preload loads a Song together with all associated RAM-Sounds and RAM ^ Sounds to ensure the correct playback.

It is also possible to prepare a “Preload” list consisting of Songs and MIDI files, provided that both files types are present on the source device (floppy or Hard disk); you can select files from different Blocks.



Preload: Song or MIDI File playback from disk

PLAYBACK ALL THE SONGS OR MIDI FILES ON DISK

If you have a **WK4** Songs disk, or have purchased a MIDI File data disk, or your Hard disk contains Song files, you can playback all the files in a Block with a single command, without having to load them to memory beforehand. Preload plays back up to 16 Songs or MIDI files one after the other.

1. Press PRELOAD.

After a short scanning period, the Preload window shows Songs or MIDI files present on disk on the left, and the Preload list on the right.

If your instrument is fitted with a Hard disk, pressing PRELOAD (without inserting a floppy into the drive) shows the Preload window with a list of Blocks in the Hard disk on the left and the Preload list on the right.

2. If necessary, select the device containing the required file with the soft buttons F1 («Floppy disk») and F2 («Hard disk»).
3. Select the type of file to view with soft buttons F5 («SONG») and F6 («SMF», Standard MIDI File).
4. If the source device contains more than one Block, select the Block or directory and press ENTER to open it.
5. Press F7 («Select all») to select all the Song or MIDI files shown in the left part of the display. The files are added to the Preload list on the right.

The Preload list can contain a maximum of 16 files.

- Press F8 («Play») to playback the Songs in the Preload list. The PRELOAD led starts to flash and during the preloading operation, the message «Preloading Song» is shown.

Playback continues non-stop until all the Songs or MIDI Files on disk have been played.

Playback stops automatically when the last Song or MIDI File reaches the end.

- During playback, press ESCAPE or PRELOAD to return to the Song View page. You can select a track and set it to key-play in order to play along with the Song. Use the << and >> buttons to advance or rewind the Song at will.

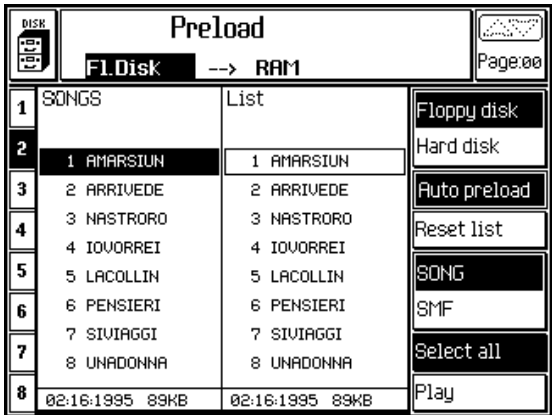
If you press STOP, you will stop the playback and cancel the Preload operation. You cannot select Song-Performances during a Preload playback.

- Press STOP at any time during playback to stop the current song and return to the Song Play view page. This will, however, cancel the Preload operation.

Create a Preload list

- If the Preload window is not showing, press PRELOAD with a disk inserted in the drive (or without if you are using the Hard disk). The Preload window shows the Songs or MIDI files disk directory on the left, and the destination directory on the right, represented by the Preload list.
- Press RESET LIST (F4) to cancel the previous list if present.
- If necessary select the source device using the Soft buttons F1 («Floppy disk») and F2 («Hard disk»).
- Select the type of file to include in the list using the soft buttons F5 («SONG») and F6 («SMF», Standard MIDI File).
- Use the cursor buttons to select the Song or MIDI file to include in the list and press ENTER. The selected file is added to the first available space in the list and the destination frame moves one step forward.

If the disk contains more than one Block, press ESCAPE to exit from the current directory, select another block and press ENTER to gain access.



Preload display showing a list of 8 Song files

5. Select other files and press ENTER each time to include them in the list.

► **IMPORTANT:** If you are working from Floppy disk, do not extract the disk during the file insertion procedure; doing so will provoke the cancellation of the list.

6. If you want to change an inserted file, take the cursor over to the right of the display, select the file that needs replacing, return the cursor over to the left, select the file to insert and press ENTER.

Return the cursor to the right again and select an empty location for the next file on the list. Return the cursor to the left to select the next file and continue as before until your list is complete.

You can fill the list in a single step using the «Select All» function (F7).

7. Press F8 («Play») to start the playback of the Songs in the list.

During playback, the Song View page is shown. You can select a track and set it to key-play in order to play along with the Song. Use the << and >> buttons to advance or rewind the Song at will.

Press STOP only if you want to stop playback, otherwise you will cancel the Preload operation.

The Preload functions

FLOPPY DISK (F1)

Selects the floppy disk. The list on the left corresponds to the disk directory showing the files contained in the disk (Block files or Song/SMF files). The files that appear depend on whether the SONG (F5) or SMF (F6) option is selected.

HARD DISK (F2)

Selects the Hard disk (if installed). The list on the left corresponds to the Hard disk directory showing the files contained in the disk (Block files or Song/SMF files). The files that appear depend on whether the SONG (F5) or SMF (F6) option is selected.

AUTO PRELOAD (F3)

When this option is selected (negative highlight), Songs are loaded into memory together with all associated RAM-Sounds and RAM ^ Sounds. If there is not sufficient memory in RAM to accept the associated Sounds, ROM Sounds will be used instead and the Song may playback incorrectly.

If the Auto Preload option is not selected, the Songs associated RAM-Sounds and RAM ^ Sounds will not be loaded.

RESET LIST (F4)

Cancels the current list and stops the playback instantly.

SONG (F5)

When this option is selected, the left part of the display shows WK4 or WX/SX format Songs only.

.....

SMF (F6)

When this option is selected, the left part of the display shows the MIDI files contained in the disk, identified by the extension '.MID', together with any other sub-directories present (shown with the '<DIR>' extension).

SELECT ALL (F7)

Selects all the files shown in the left part of the display and inserts them directly into the list. The list can contain a maximum of 16 files.

If the SMF option is selected, Select All inserts all MIDI files present in the current directory. The list will show the Song names without the '.MID' extension.

PLAY (F8)

Starts the playback of the Songs contained in the list, after a short period. If the songs shown originate from Midi files, the preloading period takes more time due to the conversion process.

During playback, you can advance or rewind the Song using the '<<' and '>>' buttons. You can select one or more tracks, set them to key-play and play along with the Song. It is not possible, however, to select the Song-Performances.

To stop the playback, press the STOP button.

The instant you start the playback, all Songs currently residing in memory are cancelled, except the one currently playing.

Preload exploits locations 1 and 2 for playback and stand-by of the background loaded files.

If the «Auto Preload» option is selected, a Song will load with its associated RAM Sounds and RAM ^Sounds contained in the Block housing the Song. If there is not sufficient memory in RAM for the operation, the Song will play incorrectly using ROM-Sounds.

.....
► *Hint:* When the samples of a Song are loaded, the Auto Preload utilizes the free Sample-RAM, then starts to substitute the samples of the Song in playback with the samples of the new Song. At a certain point, the Song in playback will start to play incorrectly. It is advisable, therefore, to avoid using an excessive amount of samples (not more than half the available Sample-RAM).
.....

• 25 Edit Disk & Hard Disk

This chapter discusses the file handling operations not discussed in the Disk & Hard Disk chapter 6 of the User Guide (Erase, Copy, Move, and Utility), the disk (Refresh disk, Free Memory, Sample RAM, etc.), and provides information regarding the optional Hard disk.

ERASE, COPY, MOVE AND UTILITY COMMANDS

Erase, Copy and Move commands are executed with the same procedures as those used for the Load and Save commands.

In this chapter, you'll find general information relating to Erase, Copy and Move operations - the user is encouraged to apply the same logic to these operations as that applied to the Load and Save operations already discussed.

Refer to the Disk & Hard disk chapter 6 for detailed information regarding the Load and Save commands.

Utility operations (disk initializing procedures) are an exception and are discussed separately on page 8.

Erase

Use the Erase command to cancel files no longer needed from a data storing device (Disk or Hard Disk) or from RAM to make room for other files.

When you pass to the Erase page, you can choose the device to erase data from with the corresponding soft buttons:

- Floppy disk = F1
- Hard Disk = F2
- RAM = F3

The Erase File Selector does not operate between source and destination directories as in the load and save file selector, but on a single directory contained in the device you are cancelling files from.

The example which follows shows how to Erase a single Song from RAM.

1. Press DISK to open the main Erase page.

If the main Erase page is not shown, use the page scroll (▲▼) buttons to open it.

2. Select the ERASE command required from the main page.

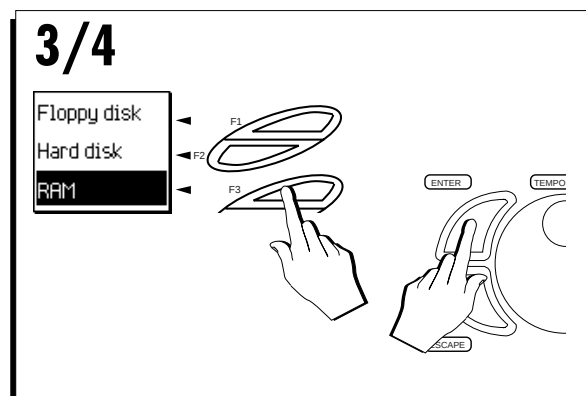
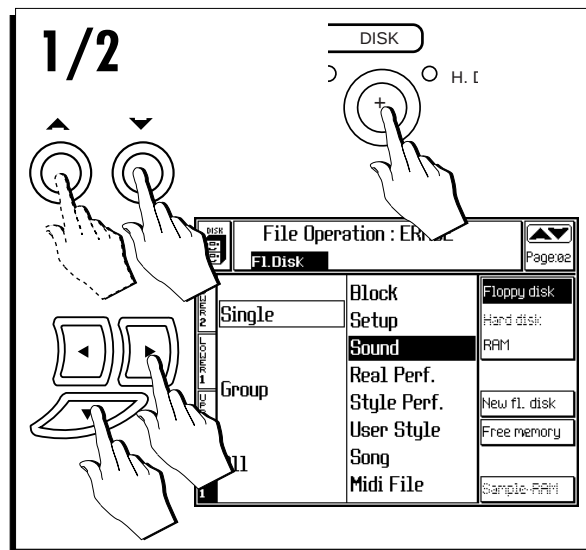
3. Select the source device to erase from.

In this case, select the RAM option with soft button F3.

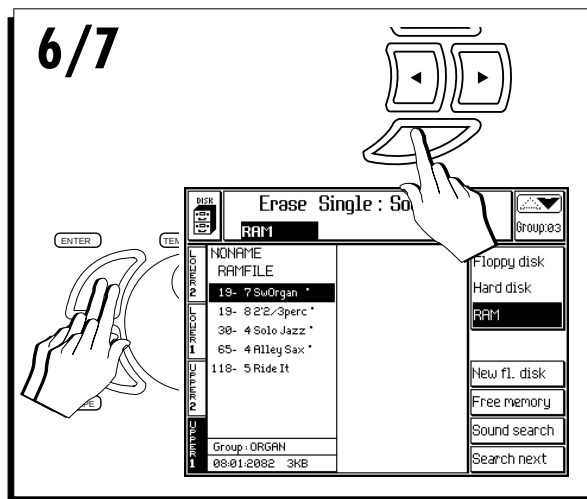
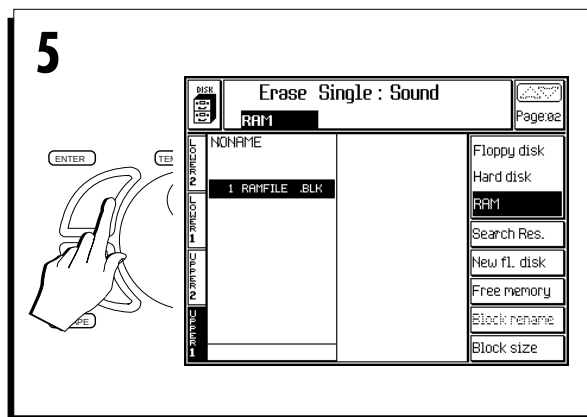
If you are erasing from a floppy disk, insert the disk into the drive and check that the "Floppy Disk" option is selected (soft button F1).

If you are erasing from the Hard Disk, select the "Hard Disk" option with soft button F2.

4. Press ENTER to enter the file selector.



5. If necessary, select the Block containing the file to erase then press ENTER to access the Block.
6. Select the file to erase.
7. Press ENTER twice to erase the file from the directory.



Copy

Use the Copy command to copy a file from one location to another within the same device, or from the Hard Disk to floppy (bypassing the RAM) and vice versa. The source file remains intact.

Models without a Hard disk can copy from floppy to floppy or from RAM to RAM.

To copy a file from one floppy disk to another, first load the file to RAM, then save it to the other floppy.

The example which follows shows how to copy a single Sound file from Floppy disk to Hard Disk, and provides sufficient information which you can apply to all Copy situations.

1. Press DISK to open the main Copy page.

If the main Copy page is not shown, use the page scroll (▲▼) buttons to open it.

2. Select the COPY command required from the main page.

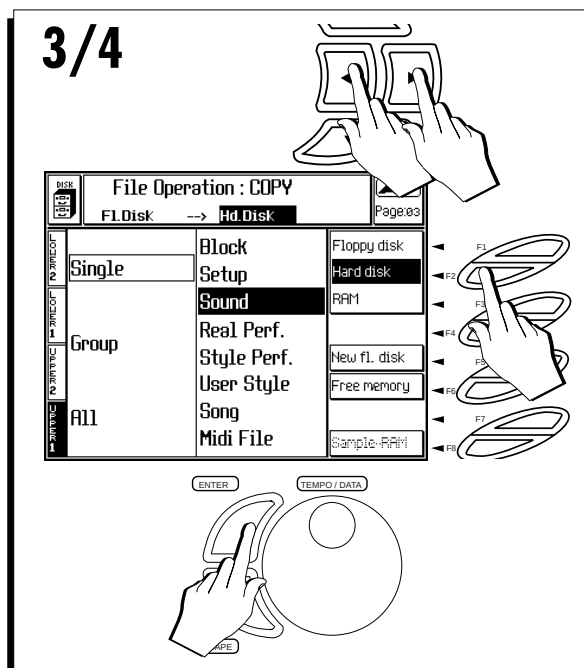
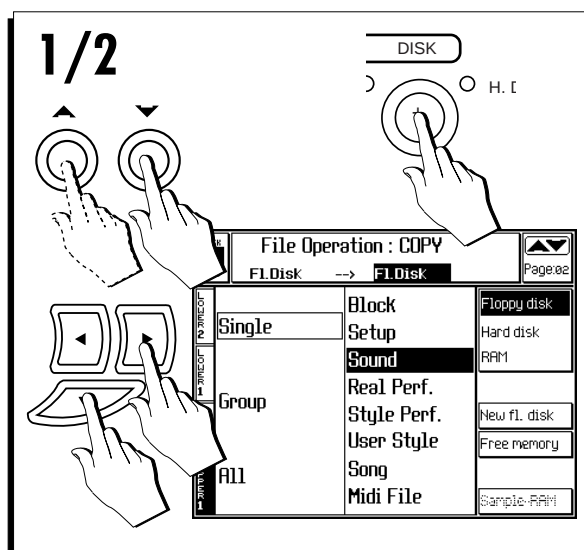
3. Select the source and destination devices with soft buttons F1, F2 or F3 and directional arrows.

In this case, use the ◀ button to pass to the source directory and, if necessary, select Floppy Disk (F1).

Then use the ▶ button to pass to the destination directory and select the Hard disk (F2) as the destination. Entering the Hard disk for the first time takes some time, depending on the number of files already present. A "Please Wait" message appears during the scanning period.

Selecting «Floppy disk» or «RAM» automatically assigns the same device to source and destination.

4. Press ENTER to enter the file selector.



5. If necessary, select the source Block containing the desired file and press ENTER to gain access.
6. Select the File to Copy from the source directory.
7. Pass into the destination directory to select the destination

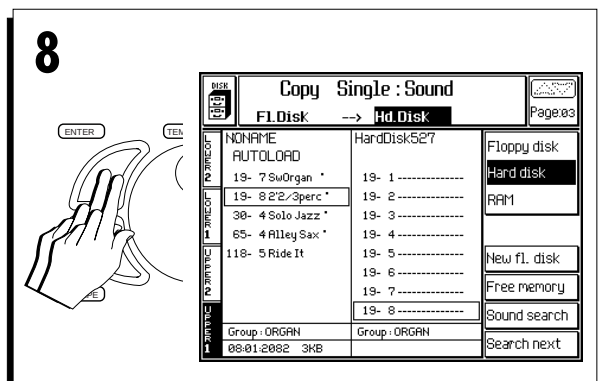
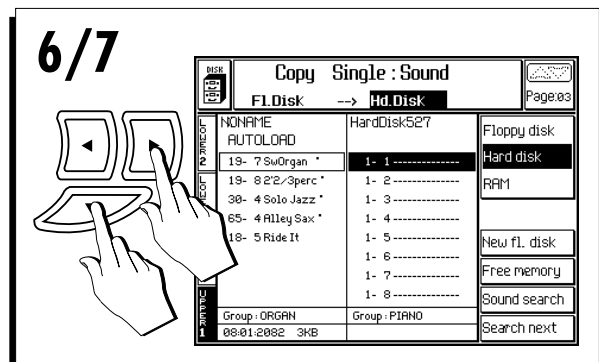
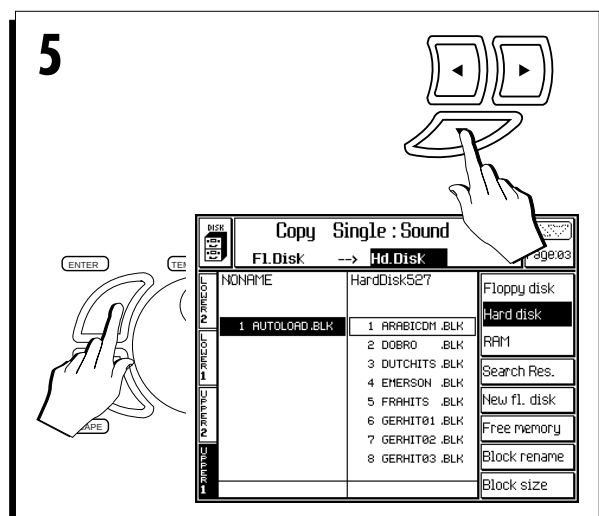
If necessary, select a Block in the Hard disk and press ENTER to access then select a destination.

8. Press ENTER twice to copy the file to the destination.

► **Note:** It is not possible to copy a file to itself. Attempting to do so prompts the following message:



Press ENTER or ESCAPE to close the window and repeat the operation by copying to a different destination.



Move

Use the Move command to shift a file from one location to another within the same device, or from the Hard Disk to floppy (bypassing the RAM) and vice versa. This option cancels the file at the source.

► **WARNING** - Use the Move function only in cases where the original file is to be cancelled.

Models without a Hard disk can move files from within the same floppy or within RAM.

To move a file from one floppy disk to another, first load the file to RAM, then save it to the other floppy.

The example which follows shows how to use the Move operation within RAM (Move Single Sound), and provides sufficient information which you can apply to all Move situations.

1. Press DISK to open the main Move page.

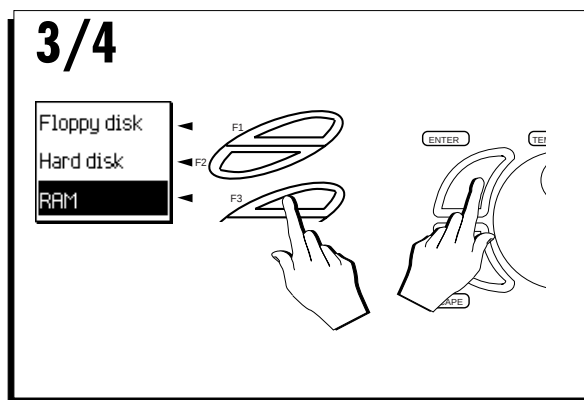
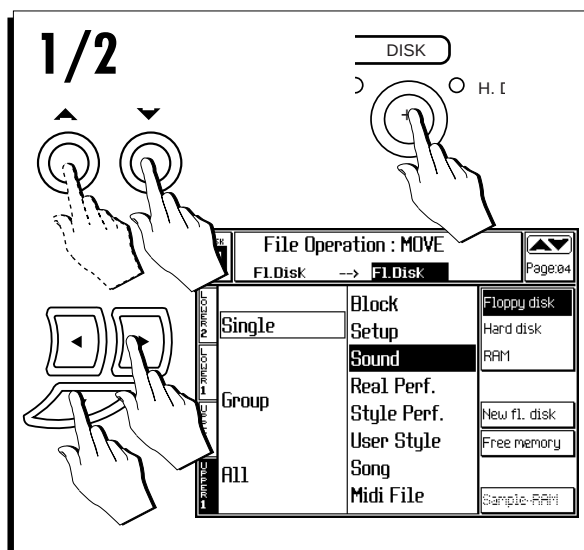
If the main Move page is not shown, use the page scroll (▲▼) buttons to open it.

2. Select the MOVE command required from the main page.

3. Select the source and destination devices with soft buttons F1, F2 or F3.

In this case, select RAM as the device to work in. Selecting «Floppy disk» or «RAM» automatically assigns the same device to source and destination.

4. Press ENTER to enter the file selector.



5. If necessary, select a Block containing the desired file then press ENTER to access the Block.
6. Select the File to Move from the source directory.
7. Pass into the destination directory and select the destination.

In this case, use the Page scroll ▲▼ buttons to scroll through the Sound Groups and the ↵/↵ directional arrows to scroll through the individual Sound Group locations.

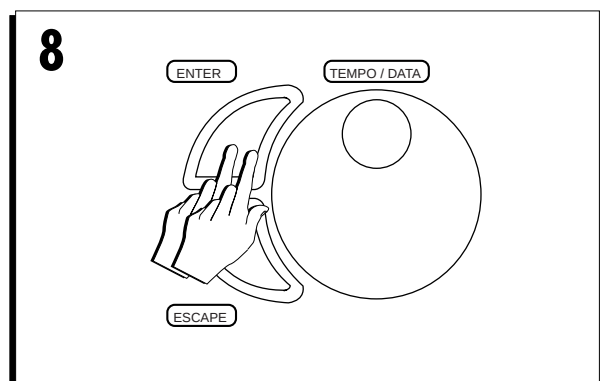
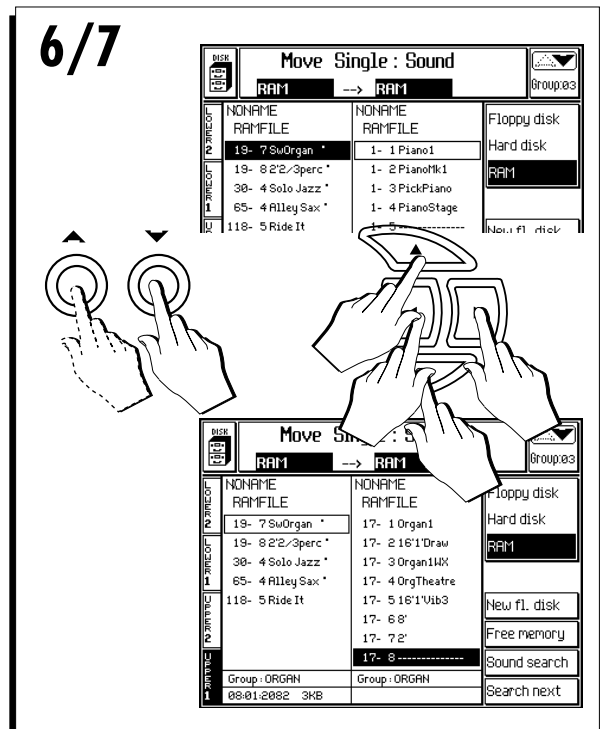
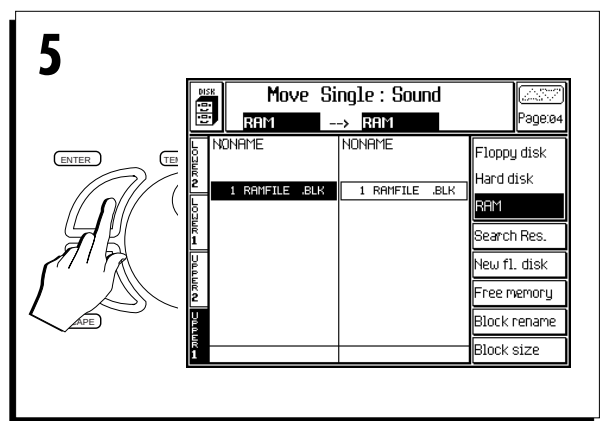
8. Press ENTER twice to Move the Sound file to the selected destination.

The file at the original location (in this case, 19-7) is cancelled and moved to the new location (in this case, 17-8).

► **Note:** It is not possible to move a file to itself. Attempting to do so prompts the following message:



Press ENTER or ESCAPE to close the window and repeat the operation by moving to a different destination.



Utility

After pressing DISK, use the page button to pass to the last Disk page: Utility.

This page provides useful functions for disk formatting and servicing.

The UTILITY page options include:

- Format Work Disk (1.62 MB);
- Format Ms-Dos Disk (1.44 MB);
- Format Ms-Dos/Atari (720 KB)
- Change Disk Name

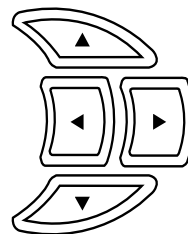
Hard Disk operations

- Format Hard Disk
- Hard Disk Check-Recovery
- Hard Disk Sleep Time
- Hard Disk protection

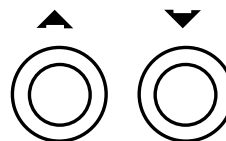
NAVIGATING IN THE UTILITY PAGE

Move around in the Disk pages with the navigational tools which are;

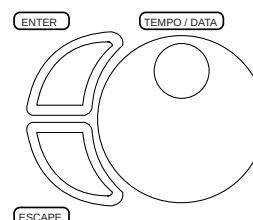
- the directional arrows [↶ - ↷]:



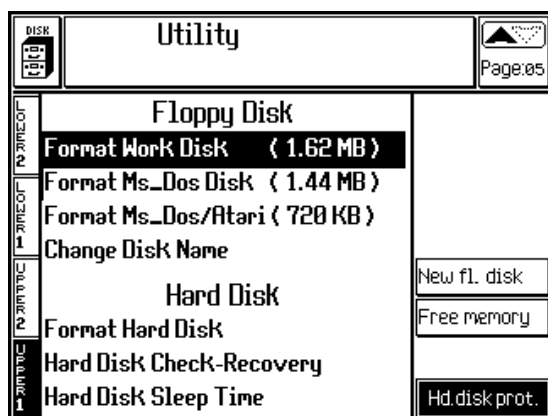
- the ▲▼ page selector buttons:



Execute the Disk commands with the ENTER button or abort with the ESCAPE button:



The cursor is represented by a negative highlight zone which moves vertically and serves to identify which display operation is selected.



Utility page

FORMAT WORK DISK (1.62 MB)

This operation force-formats a 3.5" HD floppy disk for **WK4** use.

This extended format procedure prepares the disk with a capacity of 1.62 megabytes (compared with the standard 1.4 of MS-DOS disks). This format cannot be read by computers.

1. Insert a new floppy disk into the drive.

You can also use a formatted disk, provided that you are not interested in conserving its contents.

2. Select «Format work disk (1.62 Mb)».

The following dialog window appears:



3. Press ENTER to start the formatting procedure.

.....
► **WARNING:** All the Disk initializing procedures cancel the entire contents of a used disk - be absolutely sure that the contents include files that you don't mind losing.
.....

FORMAT MS-DOS DISK (1.44 MB)

This operation formats a 3.5" HD floppy disk in MS-DOS format (capacity: 1.44 megabytes).

This format permits file exchange with computers running MS-DOS, Windows, OS/2, Macintosh, Atari, Amiga, and all computers capable of reading MS-DOS format disks.

The procedure is identical to that described for the «Format work disk (1.62 Mb)» operation.

FORMAT MS-DOS/ATARI DISK (720 KB)

This operation formats a 3.5" DD floppy disk in MS-DOS / Atari ST format (capacity: 720 kilobytes), suitable in particular for MIDI file exchanges.

The procedure is identical to that described for the «Format work disk (1.62 Mb)» operation.

CHANGE DISK NAME

Use this operation to assign a name to a floppy disk. Giving your disks a specific name allows quick recognition of the contents during a search through disks without labels. If you write the disk's name on the index label, you can reduce the search times even further.

WK4 assigns a generic code name to disks formatted with the Utility formatting procedures - the name depending on the size.

For example, a 1.62 Mb work disk will be assigned a code name such as the one shown below:



Use the standard name entry procedure to give your disks a name.

Confirm the entry with ENTER or cancel with Escape.

FORMAT HARD DISK

This operation formats the Hard disk and is used in two cases:

- 1) as an essential operation after installing a new Hard disk kit (if you install a Hard Disk supplied by Generalmusic, do not format the unit as it will contain factory loaded files);
- 2) when a rapid cancellation of the HD contents is required.

1. Enter «Edit Disk» and go to the «Utility» page.
2. Select the «Format hard disk» function.

The following dialog window appears:



3. Press ENTER to confirm or ESCAPE to cancel.

As a security measure, a second confirmation request appears (for security reasons):



4. Press the Soft button F1 (not ENTER) to start the hard-disk format procedure, or ESCAPE to cancel.

► **Note:** A hard disk can be installed with an IDE interface with a capacity not greater than 500 Mb. The installation requires the Generalmusic HD kit.

HARD DISK CHECK/RECOVERY

This procedure can restore a damaged Hard Disk to its original status. Damage to the Hard Disk can be caused by:

- a power failure during a Save operation;
- physical defects of the disk.

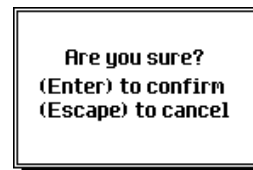
If the Hard disk is damaged, attempting to access it prompts a message similar to the following:



Use the following recovery procedure as soon as possible.

1. Enter «Edit Disk» and go to the «Utility» page.
2. Select «Hard disk check/recovery» .

The following dialog window appears:



3. Press ENTER to start the recovery of the data.

Shortly after, another dialog window appears similar to the one below:



In this case, the message shows no errors. In cases where errors exist, make a note of the numbers shown in the dialog window as

they are useful to provide information for technical assistance.

- **Check version** - Version of the test program and data recovery.
- **Error found** - Code relating to the error found. "None" appears in cases where no errors are encountered.

Backup copies

At the end of a work session, always remember to copy all newly elaborated data present on Hard disk to floppy disks. Should the Hard disk suffer damage and data loss, you will always be able to recuperate the data from disks.

If you work with floppy disks only, it is a good idea to prepare a second copy of the disk at the end of your work session. To copy data from one disk to another, you must first copy the original data to RAM then save (or copy) to the backup copy disk.

.....
► **WARNING** - Never turn off the instrument while the Hard disk or disk drive are writing data (Save, Copy, Move, Erase operations).
.....

HARD DISK SLEEP TIME

To avoid hearing the noise caused by the rotation of the hard disk, you can set this parameter to turn the hard disk off after an operation.

Options: Off (always on), 5 sec ... 60 sec.

HARD DISK PROTECTION (F8)

As a safety measure to prevent unwanted file loss, all **WK4** instruments with factory fitted Hard Disks leave the factory with the Hard Disk Protection active (shown in negative highlight).

Hd.disk prot.

In order to use the Save, Erase or Move operations on the Hard Disk, the protection must be removed.

Simply press the soft button F8 to deactivate the protection. The option turns positive.

.....

Additional functions

This section explains the various options found in the main Disk pages and in the File Selector, some of which are permanent, others specific to a particular command or disk page.

NEW FL. DISK (F5)

Updates the current directory after changing a disk inserted in the drive, allowing the instrument to recognize the disk change.

Pressing the F5 Soft button opens the following dialog window:



You can also see the new directory by closing the «Edit Disk» environment with ESCAPE then re-entering «Edit Disk».

FREE MEMORY (F6)

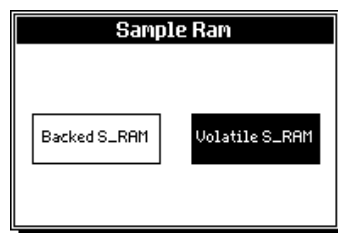
This option displays the amount of memory remaining in the floppy disk, Hard disk, System-RAM, volatile Sample-RAM and in the Backed Sample-RAM.

Free Memory		
Floppy disk	=	465 KB
Hard disk	=	510465 KB
System RAM	=	1581 KB
Backed sample RAM	=	2047 KB
Volatile sample RAM	=	Not present

SAMPLE-RAM... (F8)

This option is active only if the instrument has been installed with one or both optional Sample RAM kits.

The Sample-RAM option, which appears in all the main Disk pages except Utility, selects the type of Sample-RAM required to access.



Select the type of Sample-RAM with the cursor buttons and press ENTER to confirm.

Once a RAM -Sound is loaded into memory, a 'flag' is applied to it to indicate which Sample-RAM contains the sound's associated sample.

When you save the RAM -Sound, the 'flag' is retained in the disk. When you load the Sounds again with the Load All Sound or Load Single Block operations, the RAM -Sounds are directed to the Sample-RAM indicated by the 'flag'.

► **Note** - The samples saved in a Block with successive Save Single Sound operations may be too large to reside in the Backed S-RAM. In this case, the instrument attempts to load all the samples into the Volatile S-RAM. If in this case also the samples are too large for the available memory, the loading operation will be interrupted.

BLOCK RENAME (F7)

This option, which appears in all File Selectors, allows you to modify the name of the selected Block. Use the standard method of name entry as described in the Data Entry chapter.

BLOCK SIZE (F8)

This option, which appears in all File selectors, determines the dimensions of the currently selected Block. The information appears under the directory of the active File Selector.

The dimensions of the same Block residing in RAM and in disk can differ by a few kilobytes, due to the fact that some Setup data in RAM is not saved to disk.

SEARCH RESOURCE (F4)

This option appears in all second level pages of all Single File operations. The second level pages are those that appear after confirming a File Selector selection.

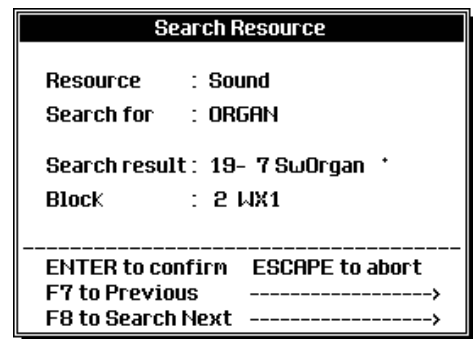
The Search Resource function is particularly useful if your instrument is fitted with a Hard Disk containing a large number of files.

For example, if you do not remember in which Block of the Hard disk you stored a user-programmed Sound, or you want to go directly to a Block name without scrolling through the entire Hard Disk contents, press the Sound Search option to open an insertion window where you can specify a name.



The name can be of the particular file you are looking for, or part of the entire name. For example, if your Sound name includes the word "organ" or a Block contains a particular sequence of letters, you can search for all files which include the inserted name.

Press ENTER to start the search and the first Sound which includes the written name will appear, showing its location:



If the displayed file is not the one you are looking for, use the “F7 to Previous” and “F8 to Next options” are required.

When you find the file you are looking for, press ENTER to pass directly to the file location or ESCAPE to abort the search operation.

Sound Search will also inform you of the absence a specified name by showing “Not Found”.

SOUND SEARCH... (F7)

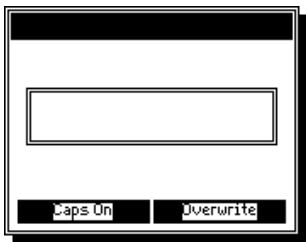
The Sound Search function appears in the third level directory displays for the following operations:

- Load Single Sound;
- Save Single Sound;
- Erase Single Sound;
- Copy Single Sound;:
- Move Single Sound.

The function recalls the nearest Sound having the string of characters specified in the active zone.

1. Press Soft button F7.

The following dialog window appears:



2. Insert the string of characters that relate to the Sound you are looking for.

2 or 3 letters are sufficient.

3. Press ENTER.

The cursor goes directly to the first Sound found containing the specified characters.

.....

SEARCH NEXT (F8)

This option recalls the next Sound on the search list containing the string of characters specified in the Sound Search option.

PRECAUTIONS TO OBSERVE WHEN USING WK4 DISKS WITH A COMPUTER

In name write situations, the **WK4** allows you to assign names of up to 10 characters for all files, except the Block, which cannot contain more than 8 characters, in compatibility with the MS-DOS and Windows 3.1 operating systems. Furthermore, Block files include the extension «.BLK» after the name. If your files are to be used in MS-DOS devices (IBM PC's and compatibles), bear in mind the 8 character limit of these systems when giving your files a name.

In the Macintosh, OS/2 and Windows 95 systems, file names can include more than 8 characters. When a name is modified on a computer, the following rules should be remembered:

- do not change the Block file extension because it identifies the file type and therefore, the structure of the **WK4** Block.
- do not write Block names longer than 8 characters (excluding the extension).
- the maximum number of files in a Block cannot exceed the limit imposed by the **WK4** RAM.
- do not change the names of the permanent files contained in the Blocks (e.g. the ROM Style Group names). **WK4** requires standard names to recognize the structure of the data.

Furthermore, owing to some limitations of MS-DOS, Windows 3.1, Atari it is essential to bear in mind the following advice:

- do not insert spaces within a file name (e.g.: «MY FILE.BLK»). MS-DOS is not able to handle file names containing spaces. To separate a name into two parts while retaining the MS-DOS compatibility, you have a choice of two methods:
 - 1) separate two parts by the “underscore” symbol (e.g.: MY_FILE.BLK).
 - 2) Use Uppercase (capital) letters for the first letters of both parts of the name, lowercase for the others (e.g.: «MyFile.BLK»).
- do not assign two files the same name, one with uppercase letters and the other with lowercase (e.g. «MYFILE» and «myfile»). MS-DOS, Windows 3.1 and Atari make no distinctions between uppercase and lowercase characters, regardless of the fact that MS-DOS and Windows are able to read both types.

The aspect of the Blocks are as folders (Macintosh, Atari) or sub-directories (MS-DOS, Windows, OS/2). Other sub-directories or folders can be found in a Block.

Appendix

- Sound tables
- Drum tables
- Style tables
- Performance tables
- Effects tables
- MIDI Implementation
- MIDI Controllers
- Glossary
- Index (alphabetical)

WK4
WORLD
KEYBOARD



	1	2	3	4	5	6	7	8
PIANO group								
1	Piano1 ²	PianoMk1 ²	PickPiano ²	PianoStage ²				
2	Piano2 ²	PianoW2 ²	PianoOctave ²					
3	Piano3 ²	E.G.Piano1 ²	E.G.Piano2 ²					
4	HonkyTonk ²	DetPiano ²	Western ²					
5	E.Piano1 ²	ThinRhodx ²	E.Piano4 ²	RhodbFilt ²	E.PianoMk ²	E.PianoX ²		
6	E.Piano2 ²	E.Piano3 ²	E.Piano5 ²	E.PianoSft ²	DetuneE.P. ²	DynE.P. ²		
7	Harpsichor ²	Harpsich2 ²	Harpsich3 ²					
8	Clavinet ²	SynClav ²	WowClav ²					
CHROM PERC. group								
9	Celesta ²	CelestaPlk ²	ToyPiano ²					
10	Glockenspl ²	GlockVibes ²	GlockChoir ²					
11	MusicBox ²	WineGls1 ²	MusicBell ²					
12	Vibraphone ²	Vibes2 ²	SynVibes ²					
13	Marimba ²	Marimba2 ²	Mallet ²					
14	Xylophone ²	Xylophone2 ²	XyloTribal ²					
15	TubularBel ²	SoftBell ²	Oohlalaa ²					
16	Santur ²	BarChimes ²	Climbing ²					
ORGAN group								
17	Organ1 ²	16'1'Draw ²	Organ1WX ²	OrgTheatre ²	16'1'Vib3 ²			
18	Organ2 ²	16'8'5'Drw ²	JazzOrgan3 ²	Organ3W ²				
19	Organ3 ²	SwOrgan ²	SynOrg1 ²	OrganC3 ²				
20	ChurchOrg1 ²	Church2 ²	Organ3WX ²	Organ1W ²	PipeOrg3 ²			
21	ReedOrgan ²	PipeOrgan ²	Organ4 ²	PipeChiff ²				
22	Musette ²	Accord1 ²	Accord2 ²	Accord3 ²				
23	Harmonica ²	Blusette ²	WestHarmon ²					
24	Bandoneon ²	Cassotto ²	OrganLfo ²					
GUITAR group								
25	NylonGtr ²	SoloGtr ²	VocalGtr ²	PedalSteel				
26	SteelGtr ²	12StrGtr ²	SteelGtr1 ²	SteelGtr2 ²	Mandolin ²	Mandolin2 ²		
27	JazzGtr1 ²	OctJzGtr ²	Hawaiian ²	JazzGtr2 ²	Pedal Steel			
28	CleanGtr ²	ElGuitar1 ²	ChorusGtr ²	ElGuitar2 ²	Dyn.Clean ²			
29	MutedGtr ²	Muted2 ²	Dyn.Muted ²	MutedWha ²				
30	Overdrive ²	WhaGtr1 ²	5thOverdr ²					
31	DistGtr ²	FuzzGtr ²	HeavyGt ²	LeadDist ²				
32	HarmonxGtr ²	SlowHarmx ²	HarmGtr3 ²					

[GrandPiano^{2W}] means: ² = 2 oscillators per voice. ^W = compatible with WX sounds.

1003

	1	2	3	4	5	6	7	8
BASS group								
33	AcoustcBs1 ²	AcoustcBs2 ²	AcousticBs3 ²	Dyn.AcoBs ²	HarmAcBs ²			
34	FingeredBs ²	Dyn.Fingrd ²	Dyn.Bass1 ²	Dyn.Baxx ²				
35	PickBass ²	Dyn.Bass2 ²	PckBass2 ²	PkBsMute ²	HarmElBs ²			
36	Fretless ²	AcidBass1 ²	Flanged ²					
37	SlapBass1 ²	Dyn.Bass3 ²	SlapSynBs ²					
38	SlapBass2 ²	WXBass ²	StopBass ²	ThumBass ²				
39	SynBass1 ²	SynBass3 ²	TecknoBass ²					
40	SynBass2 ²	SynBass4 ²	RaveBass ²	SynthBass2 ²				
STRINGS group								
41	Violin ²	SlowViolin ²	ViolinOrch ²	Violin 2				
42	Viola ²	BowedViola ²	ViolaPad ²					
43	Cello ²	SlowCello ²	CelloEns ²					
44	Contrabass ²	BowedBass ²	Staccato ²					
45	TremoloStr ²	OctTremolo ²	Plectra ²					
46	Pizzicato ²	OctPizz ²	EchoPizz ²					
47	Harp ²	HarpDelay ²	Spacehar ²					
48	Timpani ²	TimpaniEFX ²	Dyn.Orch l'l ²					
ENSEMBLE group								
49	Strings ²	StereoStrg ²	StrgGlock ²	DualStrgs ²	Strings 2			
50	SlwStrings ²	StrgOrch ²	St.SlwStrg ²					
51	SynStrg1 ²	SynStrg3 ²	SynStrg5 ²					
52	SynStrg2 ²	SynStrg4 ²	Strings3 ²					
53	Choir ²	VoiceUuh ²	SlowUuh ²					
54	VoiceOohs ²	VoiceAah ²	SlowAah ²					
55	SynVox ²	SkatVoices ²	Vocoder ²					
56	OrchHits ²	Rave ²	Dyn.St.Hit ²	HitsRev ²				
BRASS group								
57	Trumpet ²	FlugelAttk ²	FlugelHorn ²					
58	Trombone ²	Trombone3 ²	WowTromb2 ²	TrombSwell ²				
59	Tuba ²	ShortTuba ²	WowTuba ²					
60	MutedTrp1 ²	MutedTrp2 ²	Dyn.MtTrp ²					
61	FrenchHorn ²	Dyn.FrHorn ²	TotoHorns ²	FrHrnSwell ²				
62	Brass ²	Brass2 ²	BrassRips ²	BrassFall ²	BrassTrp ²			
63	SynBrass1 ²	SynBras2 ²	SyntHorn ²	SynBrass3 ²				
64	SynBrass2 ²	SlowHorn ²	AttkHorn ²	SynBrass4 ²	SynBrass5 ²			

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REED group								
65	Soprano ²	Soprano2 ²	SoprFilter ²					
66	SoftSax ²	SaxNoise ²	SoftFilt ²	AltoSax ²				
67	TenorSax ²	OctaveSax ²	TenFilter ²					
68	BaritonSax ²	BaritDet ²	BariFilter ²					
69	Oboe ²	OboeChiff ²	OboeFilter ²					
70	EnglisHorn ²	EngHorn2 ²	HornFilter ²					
71	Bassoon ²	Bassoon2 ²	BassoonFilt ²					
72	Clarinet ²	ClarSolo ²	ClarFilter ²	LiscioClar ²				
PIPE group								
73	Piccolo ²	HardFlute1 ²	HardFilt2 ²					
74	Flute ²	Dyn.Flute1 ²	DynHiFlute ²					
75	Recorder ²	HardFlute2 ²	Bubbler ²					
76	PanFlute ²	PanFlute2 ²	Dyn.Pan ²					
77	BottleBlow ²	BottleNois ²	Tube ²					
78	Shakuhachi ²	Shakupad ²	ShakuVoice ²					
79	Whistle ²	Whistle1WX ²	Whistle3WX ²					
80	Ocarina ²	OcarinaPan ²	OcarinaSyn ²					
SYNTH LEAD group								
81	SquareWave ²	Pulse1 ²	Pulse2 ²					
82	SawWave ²	ObxFilter ²	Lyle ²					
83	SynCalliop ²	Azimet ²	SynLead1 ²					
84	ChiffLead ²	Chopper ²	Digital ²					
85	Charang ²	Jump ²	SoundTrk ²					
86	SoloVox ²	FiltRes1 ²	FiltRes2 ²					
87	5thSawWave ²	Decay1 ²	Decay2 ²					
88	BassLead ²	Obx2 ²	Obx3 ²					
SYNTH PAD group								
89	Fantasia ²	NewAge ²	PPG ²	Fantasy1 ²				
90	WarmPad	Obx1 ²	AnlgPad ²	Waveaura ²				
91	Polysynth ²	Fantasy2 ²	Fantasy3 ²					
92	SpaceVoice ²	VocBells ²	Angels ²	OcBreath ²				
93	BowedGlass ²	Prophet1 ²	Prophet2 ²					
94	MetalPad ²	Bright2 ²	Analogic ²	Bright3 ²				
95	HaloPad ²	Slave ²	Atmosphere ²					
96	SweepPad ²	Machiner ²	Decay3 ²	Waiting ²	Budweis ²	Tibet ²		

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SYN SFX group								
97	IceRain ²	Noiseres ²	BigRoom ²	Submarin ²				
98	Soundtrack ²	MoonWind ²	Slope ²	Ekoends ²	SynRain ²			
99	Crystal ²	Wind ²	SynLead2 ²	Jets ²				
100	Atmosphere ²	Arp26000 ²	GlockAthm ²	Smak ²				
101	Brightness ²	WithGas ²	PopUp ²	OnOff ²				
102	Goblin ²	Resonance ²	NoGravity ²	Synthex3 ²				
103	EchoDrops ²	Synthex1 ²	Synthex2 ²	Synthex4 ²	Synthex5 ²	Synthex6 ²		
104	StarTheme ²	StarTheme2 ²	PowerBad ²	StarTheme3 ²				
ETHNIC group								
105	Sitar ²	SitarDet ²	SynSitar ²					
106	Banjo ²	BanjoOct ²	EthnicGtr ²					
107	Shamisen ²	ShamSitar ²	SynSham ²					
108	Koto ²	Kanoun ²	TrpClarin ²					
109	Kalimba ²	ShrtKalimb ²	SaxTrump ²					
110	Bagpipe ²	BagpipeEns ²	BrassEns ²					
111	Fiddle ²	Hukin ²	FiddleBell ²					
112	Shanai ²	BacktoWS ²	VoiceSpect ²					
PERCUSSIVE group								
113	TinkleBell ²	DK_STAND.1 ²	DK_STAND.2 ²	DK_STAND.3 ²	DK_STD.2WX ²			
114	Agogo ²	DK_ROOM ²	DK_WS ²	DK_ROOM1WX ²	DK_ROOM2WX ²			
115	SteelDrums ²	DK_POWER ²	DK_STD.1WX ²	DK_POWER1WX ²	DKPOWER2WX ²			
116	Woodblock ²	DK_ELECT. ²	DK_DANCE ²	DK_ELECT1WX ²	DKELECT2WX ²			
117	Taiko ²	DK_HOUSE ²	DK_TECHNO ²	DK_HOUSE1WX ²	DKHOUSE2WX ²			
118	Melo.Tom1 ²	DK_JAZZ1 ²	DK_JAZZ2 ²	DK_JAZZ_WX ²				
119	SynthDrum ²	DK_BRUSH ²	DK_M1 ²	DK_BRUSHWX ²				
120	ReverseCym ²	DK_ORCH ²	DK_SY77 ²	DK_ORCH_WX ²				
SFX group								
121	GtFretNois ²	Gtr.WhaWha ²	GtrNoise ²					
122	BreathNois ²	Zapp ²	KeyClick ²					
123	Seashore ²	TickTack ²	Drop ²					
124	Bird ²	Scratch1 ²	Water ²					
125	Telephone1 ²	Telephone2 ²	Door ²					
126	Helicopter ²	SynPerc3 ²	Clackson ²					
127	Applause ²	HeartBeat ²	PickScrape ²					
128	GunShot ²	Explosion ²	Bomb ²					

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97	BDHOUSE1 ²	BDHOUSE2 ²	BDELECT1 ²	BDJAZZ ²	BDROOM1 ²	BDSTD1 ²	BDSTD2 ²	BDSTD3 ²
98	BDTEKNO ²	BDORCH ²	BDPOWER ²					
99	RIMSHOT1 ²	RIMSHOT2 ²	HOUSERIM ²	STICK ²				
100	SDELECT ²	DYNSDJAZZ ²	SDJAZZ2 ²	SDJAZZ3 ²	SDORCH ²	SDROOM1 ²	SDROOM2 ²	SDSTD1 ²
101	SDSTD2 ²	SDSTD3 ²	SDSTD4 ²	HOUSSD1 ²	HOUSESD2 ²			
102	HOUSECLAP ²							
103	ROLLSNARE ²	BRUSREV ²	BRUSRIG ²	BRUSHSLP ²	BRUSHTAP ²			
104	TOMELEC ²	TOMHIGH ²	TOMJAZZ ²	TOMROOM ²		TOMLOW ²	TIMPANI ²	OPSURDO2 ²
105	HHCLO1L ²	HHCLO1S ²	HHOPEN1 ²	HPEDAL ²	HHTGHT1 ²	HHTGHT2 ²	HOUSEHH ²	HHCLO2 ²
106	HHOPEN2 ²							
107	CRASHORC ²	CRASH ²	HOUSERIDE ²	RIDECUP ²	RIDECYM ²	SPLASH ²	CHINA ²	SMASH ²
108	TAMBOURINE ²	TAMBSLP ²	COWBELL ²	VIBRASLAP ²	HOUSECOWB ²			
109	BONGOISL ²	CONGALSLAP ²	BONGOLOW ²	CONGAHSLAP ²	CONGALSLAP ²	CONGAHIGH ²	CONGALOW ²	HOSETCON ²
110	TIMBALES ²	TIMBLOW ²	AGOGO ²	CABASA ²	CABASAL ²	MARACAS ²	WHISTLE ²	MUTBELL ²
111	GUIROLONG ²	GUIROSHORT ²	CLAVES ²	WOODBLOCK ²	QUICAHIGH ²	QUICALOW ²	TRIANLONG ²	TRIANSHORT ²
112	SHAKER ²	JNGLEBELL ²	WINDCHIMES ²	CASTANETS ²	MTSURDO ²	OPSURDO1 ²	DARBKHIGH ²	DARBKLOW ²
113	FINGERSNAP ²	DROP ²	NOISE2 ²	WATER ²	DOOR ²	KITCHEN ²	LOGDRUM ²	CLAKSON ²
114	VOICES1 ²	VOICES2 ²	VOICES3 ²	VOXHHCL ²	VOXTAP ²	VOXTIP ²	DOLLYVOX ²	BABYVOX ²
115	FINGBELL ²	ZAPP ²	SCRATCH1 ²	SCRATCH2 ²	TOMBRUSH ²		SQCLICK ²	
116	NOISEPERC ²	RASPYRIDE ²						
117								
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119								
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121	WhaWha1 ²	WhaWha2 ²	WhaWha3 ²	WhaWha4 ²				
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126								
127								Sinus
128								Empty ⁰

C5	72		WHISTLE 110-15	<	<	<	<	<	<
	73		GIROSHORT 111-10	<	<	<	<	<	<
	74		GIROLONG 111-9	<	<	<	<	<	<
	75		CLAVES 111-11	<	<	<	<	<	<
	76		WOODBLOCK 111-12	<	<	<	<	<	<
	77		WOODBLOCK 111-12	<	<	<	<	<	<
	78		QUICAHIGH 111-13	<	<	<	<	<	<
	79		QUICALOW 111-14	<	<	<	<	<	<
	80		TRANSNORTH 111-16	<	<	<	<	<	<
	81		TRANLONG 111-15	<	<	<	<	<	<
	82		SHAKER 112-9	<	<	<	<	<	<
	83		JINGLEBELL 112-10	<	<	<	<	<	<
	84		WINDCHIMES 112-11	<	<	<	<	<	<
	85		CASIANETS 112-12	<	<	<	<	<	<
	86		MTSURDO 112-13	<	<	<	<	<	<
	87		OPSURDO 112-14	<	<	<	<	<	<
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"<" = same as DK_STAND1 113-2-1

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	73		<	<	<	BONGLOW 109-11	<	<	
	74		<	<	<	CONGASLAP 109-12	<	<	
	75		<	<	<	CONGAHIGH 109-14	<	<	
	76		<	<	<	CONGALOW 109-15	<	<	
77		<	<	<	GUIROLONG 111-9	<	<		
78		<	<	<	QUICALOW 111-14	<	<		
79		<	<	<	TIMBALES 110-9	<	<		
80		<	<	<	TIMBALES 110-9	<	<		
81		<	<	<	AGOGO 110-11	<	<		
82		<	<	<	TRIANLONG 111-15	<	<		
83		<	<	<	WHISTLE 110-15	<	<		
C6	84		<	<	<	BDHOUSE1 97-9	<	<	
	85		<	<	<	NOISEPERC 116-9	<	<	
	86		<	<	<	HOUSSD1 101-12	<	<	
	87		<	<	<	VOICES1 114-9	<	<	
	88		<	<	<	Applause 127-1			
89					VOICES3 114-11				
C7	90					VOICES2 114-10			
	91					VOXHHCL 114-12			
	92					VOXHHCL 114-12			
	93					VOXTIP 114-14			
	94					VOXTAP 114-13			
C8	95					CLAKSON 113-16			
	96					DOLLYVOX 114-15			
	97					TAMBSLP 108-10			
	98					ROLLSNARE 103-9			
	99					SPORCH 100-13			
C9	100					HHCLOIS 105-10			
	101					CLAVES 111-11			
	102					CONGALOW 109-15			
	103					QUICAHIGH 111-13			
	104					AGOGO 110-11			
C10	105					STICK 99-12			
	106					STICK 99-12			
	107					STICK 99-12			
	108					STICK 99-12			
	C8	108					STICK 99-12		

25	<	DK_BRUSH 119-2-1	<	DK_ORCH. 120-2-1	<	DK_STAND.2 113-3-1	<	DK_WS 114-3-1	<	DK_STD.1WX 115-3-1	<	DK_DANCE 116-3-1
26	<		<		<		<		<		<	
27	<		<	HHTGHT1 105-13	<		<		<		<	
28	<		<	HHPEDAL 105-12	<		<		<		<	
29	<		<	HHOPEN2 106-9	<		<		<		<	
30	<		<	RIDECYM 107-13	<		<		<		<	
31	<		<		<		<		<		<	
32	<		<		<		<		<		<	
33	<		<		<		<		<		<	
34	<		<		<		<		<		<	
35	<		<	BDSTD3 97-16	<	BDSTD3 97-16	<		<	BDELECT1 97-11	<	BDELECT1 97-11
36	<	BDJAZZ 97-12	<	BDORCH 98-10	<		<	BPOWER 98-11	<	BDRROOM1 97-13	<	BDELECT1 97-11
37	<		<		<		<	SDELECT 100-9	<		<	
38	<	BRUSH1AP 103-13	<	SDORCH 100-13	<	SDSTD4 101-11	<	SDROOM2 100-15	<	SDROOM2 100-15	<	SDELECT 100-9
39	<	BRUSHSLP 103-12	<	CASTANETS 112-12	<		<	SDSTD3 101-10	<		<	
40	<	BRUSREV 103-10	<	SDORCH 100-13	<	SDSTD3 101-10	<	TOMHIGH 104-10	<	SDSTD3 101-10	<	SDROOM1 100-14
41	<	TOMBRUSH 115-13	<	TMPANI 104-15	<		<	TOMHIGH 104-10	<		<	TOMELEC 104-9
42	<	HHTGHT1 105-13	<	TMPANI 104-15	<	HHCLO2 105-16	<	CABASA 110-12	<	HHTGHT1 105-13	<	TOMELEC 104-9
43	<	TOMBRUSH 115-13	<	TMPANI 104-15	<		<		<		<	TOMELEC 104-9
44	<		<	TMPANI 104-15	<		<	TAMBSLP 108-10	<		<	
45	<	TOMBRUSH 115-13	<	TMPANI 104-15	<		<		<		<	TOMELEC 104-9
46	<		<	TMPANI 104-15	<		<	COWBELL 108-11	<		<	HHOPEN1 105-11
47	<	TOMBRUSH 115-13	<	TMPANI 104-15	<		<	RIMSHOT2 99-10	<		<	TOMELEC 104-9
48	<		<	TMPANI 104-15	<		<	BDJAZZ 97-12	<		<	TOMELEC 104-9
49	<	TOMBRUSH 115-13	<	TMPANI 104-15	<		<	BRUSRIG 103-11	<		<	
50	<		<	TMPANI 104-15	<		<	DYNSDJAZZ 100-10	<		<	TOMELEC 104-9
51	<		<	TMPANI 104-15	<		<	BRUSH1AP 103-13	<		<	
52	<		<	TMPANI 104-15	<		<	TOMJAZZ 104-11	<		<	ReverseCym 120-1
53	<		<	TMPANI 104-15	<		<	TOMJAZZ 104-11	<		<	
54	<		<		<		<	HHCLO1S 105-10	<		<	
55	<		<		<		<	TOMJAZZ 104-11	<		<	
56	<		<		<		<	HHPEDAL 105-12	<		<	
57	<		<		<		<	WOODBLOCK 111-12	<		<	
58	<		<		<		<		<		<	
59	<		<	CRASHORCH 107-9	<		<	HHOPEN2 106-9	<		<	
60	<		<		<		<	HOUSCLAP 102-9	<		<	
61	<		<		<		<	BDSTD1 97-14	<		<	
62	<		<		<		<	RIDECYM 107-13	<		<	
63	<		<		<		<	SDSTD1 100-16	<		<	
64	<		<		<		<	RIDECUP 107-12	<		<	
65	<		<		<		<	TOMROOM 104-12	<		<	
66	<		<		<		<	SPLASH 107-14	<		<	
67	<		<		<		<	TOMROOM 104-12	<		<	
68	<		<		<		<	CRASH 107-10	<		<	
69	<		<		<		<	VIBRASLAP 108-12	<		<	
70	<		<		<		<	CHINA 107-15	<		<	
71	<		<		<		<	FINGERSNAP 113-9	<		<	

C5	72	<	<	CONGAHIGH 109-14	BreathNois 122-1	<	<
	73	<	<	TIMBALES 110-9	VIBRASLAP 108-12	<	GUIRLONG 111-9
	74	<	<	TRIANSHORT 111-16	VOICES1 114-9	<	<
	75	<	<	TIMBALES 110-9	VOICES1 114-9	<	<
	76	<	<	TRIANLONG 111-15	VOICES1 114-9	<	<
	77	<	<	NOISEPERC 116-9	VOICES1 114-9	<	<
	78	<	<	NOISEPERC 116-9	VOICES1 114-9	<	<
	79	<	<	DOOR 113-13	VOICES1 114-9	<	<
	80	<	<	NOISEPERC 116-9	VOICES1 114-9	<	<
	81	<	<	SDSTD2 101-9	VOICES1 114-9	<	<
	82	<	<	ROLLSNARE 103-9	VOICES1 114-9	<	FINGERSNAP 113-9
	83	<	<	SDSTD3 101-10	VOICES1 114-9	<	CELESTA 9-1-9
	84	<	<		VOICES1 114-9	<	BARCHIMES 16-2-1
	85	<	<		VOICES1 114-9	<	<
	86	<	<		VOICES1 114-9	<	DARBKHIGH 112-15
	87	<	<		VOICES1 114-9	<	DARBKLOW 112-16
	88				VOICES1 114-9		DROP 113-13
	89				VOICES1 114-9		WATER 113-12
	90				VOICES1 114-9		VOICES1 114-9
	91				VOICES1 114-9		VOXTAP 114-13
	92				VOICES1 114-9		VOXTIP 114-14
	93				VOICES1 114-9		CLACKSON 113-16
	94				VOICES1 114-9		DOOR 113-13
	95				VOICES1 114-9		RASPY RIDE 116-10
C7	96				VOICES1 114-9		BABYVOX 114-16
	97						EMPTY
	98						
	99						
	100						
	101						
	102						
	103						
	104						
	105						
	106						
	107						
	108						
C8	108						

"<" = same as DK_STAND1 113-2-1

	DK_TECHNO 117-3-1	DK_JAZZ2 118-3-1	DK_M1 119-3-1	DK_SY77. 120-3-1	DK_STAND.3 113-4-1	DK_ROOM1WX 114-4-1
25	<	<			<	ZAPP 115-10
26	<	<			<	ZAPP 115-10
27	<	<			<	KITCHEN 113-14
28	<	<			<	SCRATCH1 115-12
29	<	<			<	<
30	<	<			<	<
31	<	<			<	<
32	<	<			<	RIMSHOT1 99-9
33	<	<			<	BABYVOX 114-16
34	<	<			<	
35	BDTEKNO 98-9	<			BDSTD1 97-14	<
36	BDJAZZ 97-12	BDJAZZ 97-12	<	BDSTD2 97-15	BDSTD2 97-15	<
37	HOUSERIM 99-11	RIMSHOT2 99-10	BDRROOM1 97-13	BDRROOM1 97-13	RIMSHOT1 99-9	<
38	HOUSSD1 101-12	SDJAZZ3 100-12	BDELECT1 97-11	BDELECT1 97-11	SDORCH 100-13	SDSTD2 101-9
39	<	<	BDHOUSE1 97-9	BDPOWER 98-11	<	<
40	HOUSESD2 101-13	DYNSDJAZZ 100-10	BDPOWER 98-11	TOMLOW 104-14	SDJAZZ3 100-12	SCSTS3 101-10
41	HOUSETCN 109-16	TOMJAZZ 104-11	SDSTD1 100-16	TOMLOW 104-14	<	TOMROOM 104-12
42	HHCL02 105-16	HHTGHT1 105-13	SDORCH 100-13	TOMHIGH 104-10	HHTGHT1 105-13	<
43	HOUSETCN 109-16	TOMJAZZ 104-11	SDSTD3 101-10	TOMHIGH 104-10	<	TOMROOM 104-12
44	HHTGHT1 105-13	<	HOUSSD1 101-12	BDHOUSE1 97-9	<	<
45	HOUSETCN 109-16	TOMJAZZ 104-11	SDROOM2 100-15	BDSTD2 97-15	<	TOMROOM 104-12
46	HOUSERIDE 107-11	HHOPEN1 105-11	RIMSHOT1 99-9	SDSTD1 100-16	HHOPEN1 105-11	<
47	HOUSETCN 109-16	TOMJAZZ 104-11	SDROOM2 100-15	TOMROOM 104-12	<	TOMROOM 104-12
48	HHOPEN2 106-9	<	TOMROOM 104-12	SDSTD3 101-10	<	<
49	HOUSETCN 109-16	TOMJAZZ 104-11	TOMLOW 104-14	TOMROOM 104-12	<	TOMROOM 104-12
50	ReverseCym 120-1	<	TOMROOM 104-12	RIMSHOT1 99-9	<	TOMROOM 104-12
51	<	<	TOMHIGH 104-10	SDELECT 100-9	<	<
52	<	<	HHCL01S 105-10	TOMROOM 104-12	<	<
53	<	<	HOUSEHH 105-15	HOUSECLAP 102-9	<	<
54	<	<	HHPEDAL 105-12	COWBELL 108-11	<	<
55	HOUSECOWB 108-13	<	HOUSERIDE 107-11	CABASA 110-12	<	<
56	<	<	HHOPEN2 106-9	HHCL01S 105-10	<	<
57	<	<	TAMBOURINE 108-9	TAMBOURINE 108-9	<	<
58	<	<	HOUSEHH 105-15	HHOPEN2 106-9	<	<
59	<	<	CRASH 107-10	CRASH 107-10	<	<
60	<	<	CHINA 107-15	ROLLSNARE 103-9	<	<
61	HOUSETCN 109-16	<	RIDECYM 107-13	RIDECYM 107-13	<	<
62	HOUSETCN 109-16	<	RIDECP 107-12	RIDECP 107-12	<	<
63	HOUSETCN 109-16	<	CABASA 110-12	TubularBel 15-1	<	<
64	DYNSDJAZZ 100-10	<	VOXHHCL 114-12	TubularBel 15-1	<	<
65	SDJAZZ2 100-11	<	HOUSCLAP 102-9	TubularBel 15-1	<	TIMBALES 110-9
66	<	<	BONGOLOW 109-11	KITCHEN 113-14	<	<
67	<	<	DARBKLOW 112-16	DARBKLOW 112-16	<	<
68	<	<	DARBKHIGH 112-15	DARBKHIGH 112-15	<	<
69	<	<	CONGALOW 109-15	BreathNois 122-1	<	VOXHHCL 114-12
70	<	<			<	
71	<	<			<	

C5	72	<	<	<	<	<	<	<	<
	73	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	
	74	<	<	<	<	<	<	<	
	75	<	<	<	<	<	<	<	
	76	<	<	<	<	<	<	<	
	77	<	<	<	<	<	<	<	
	78	<	<	<	<	<	<	<	
	79	<	<	<	<	<	<	<	
	80	<	<	<	<	<	<	<	
	81	<	<	<	<	<	<	<	
C6	82	FINGERSNAP 113-9	FINGERSNAP 113-9	CABASAL 110-13	FINGERSNAP 113-9	FINGERSNAP 113-9	FINGERSNAP 113-9	FINGERSNAP 113-9	
	83	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	
	84	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	
	85	<	<	<	<	<	<	<	
	86	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	
	87	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	
	88	DROP 113-10	DROP 113-10	DROP 113-10	DROP 113-10	DROP 113-10	DROP 113-10	DROP 113-10	
	89	WATER 113-12	WATER 113-12	WATER 113-12	WATER 113-12	WATER 113-12	WATER 113-12	WATER 113-12	
	90	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	
	91	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	
C7	92	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	
	93	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	
	94	DOOR 113-13	DOOR 113-13	DOOR 113-13	DOOR 113-13	DOOR 113-13	DOOR 113-13	DOOR 113-13	
	95	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	
	96	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	
	97	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	
	98								
	99								
	100								
	101								
C8	102								
	103								
	104								
	105								
	106								
	107								
	108								

"<" = same as DK_STAND1 113-2-1

C5	72	<	<	<	<	<	RIDECYM 107-13
	73	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	GUIROLONG 113-9	RIDECYM 107-13
	74	<	<	<	<	<	RIDECYM 107-13
	75	<	<	<	<	<	RIDECYM 107-13
	76	<	<	<	<	<	RIDECYM 107-13
	77	<	<	<	<	<	RIDECYM 107-13
	78	<	<	<	<	<	RIDECYM 107-13
	79	<	<	<	<	<	RIDECYM 107-13
	80	<	<	<	<	<	RIDECYM 107-13
	81	<	<	<	<	<	RIDECYM 107-13
C6	82	FINGERSNAP 113-9	FINGERSNAP 113-9	CABASAL 110-13	FINGERSNAP 113-9	FINGERSNAP 113-9	RIDECYM 107-13
	83	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	CELESTA 9-1	RIDECYM 107-13
	84	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	BARCHIMES 16-2	RIDECYM 107-13
	85	<	<	<	<	<	RIDECYM 107-13
	86	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	DARBKHIGH 112-15	RIDECYM 107-13
	87	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	DARBKLOW 112-16	RIDECYM 107-13
	88	DROP 113-10	DROP 113-10	DROP 113-10	DROP 113-10	DROP 113-10	RIDECYM 107-13
	89	WATER 113-12	WATER 113-12	WATER 113-12	WATER 113-12	WATER 113-12	RIDECYM 107-13
	90	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	VOICES1 114-9	RIDECYM 107-13
	91	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	VOXTAP 114-13	RIDECYM 107-13
C7	92	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	VOXTIP 114-14	RIDECYM 107-13
	93	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	CLAKSON 113-16	RIDECYM 107-13
	94	DOOR 113-13	DOOR 113-13	DOOR 113-13	DOOR 113-13	DOOR 113-13	<
	95	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	RASPYRIDE 116-10	<
	96	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	<
	97	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	EMPTY 128-16	<
	98						
	99						
	100						
	101						
C8	102						
	103						
	104						
	105						
	106						
	107						
	108						

"<" = same as DK_STAND1 113-2-1

	DK STAND2WX 113-5-1	DK ROOM2WX 114-5-1	DK POWER2WX 115-5-1	DK ELECT2WX 116-5-1	DK HOUSE2WX 117-5-1	DK RIDE IT 118-5-1
25	ZAPP 115-10	ZAPP 115-10	ZAPP 115-10	ZAPP 115-10	ZAPP 115-10	RIDECYM 107-13
26	ZAPP 115-10	ZAPP 115-10	ZAPP 115-10	ZAPP 115-10	ZAPP 115-10	RIDECYM 107-13
27	<	<	<	<	<	RIDECYM 107-13
28	KITCHEN 113-14	KITCHEN 113-14	KITCHEN 113-14	KITCHEN 113-14	KITCHEN 113-14	RIDECYM 107-13
29	SCRATCH1 115-12	SCRATCH1 115-12	SCRATCH1 115-12	SCRATCH1 115-12	SCRATCH1 115-12	RIDECYM 107-13
30	<	<	<	<	<	RIDECYM 107-13
31	<	<	<	<	<	RIDECYM 107-13
32	<	<	<	<	<	RIDECYM 107-13
33	RIMSHOT1 99-9	RIMSHOT1 99-9	RIMSHOT1 99-9	RIMSHOT1 99-9	RIMSHOT1 99-9	RIDECYM 107-13
34	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	BABYVOX 114-16	RIDECYM 107-13
35	<	<	<	<	<	RIDECYM 107-13
36	<	BDRROOM1 97-13	BDRROOM1 97-13	BDELECT1 97-11	BDHOUSE2 97-10	RIDECYM 107-13
37	<	<	<	<	<	RIDECYM 107-13
38	SDSTD2 101-9	SDSTD3 101-10	SDROOM1 100-14	<	SDSTD2 101-9	RIDECYM 107-13
39	<	<	<	<	<	RIDECYM 107-13
40	SDSTD3 101-10	SDROOM2 110-15	SDELECT 100-9	SDSTD3 101-10	SDJAZZ3 100-12	RIDECYM 107-13
41	TOMROOM 104-12	<	TOMROOM 104-12	TOMHIGH 104-10	TOMHIGH 104-10	RIDECYM 107-13
42	<	<	<	HOUSEHH 105-15	<	RIDECYM 107-13
43	TOMROOM 104-12	<	TOMROOM 104-12	TOMHIGH 104-10	TOMHIGH 104-10	RIDECYM 107-13
44	<	<	<	HOUSEHH 105-15	<	RIDECYM 107-13
45	TOMROOM 104-12	TOMROOM 104-12	TOMROOM 104-12	TOMHIGH 104-10	TOMHIGH 104-10	RIDECYM 107-13
46	<	<	<	<	<	RIDECYM 107-13
47	TOMROOM 104-12	TOMROOM 104-12	TOMROOM 104-12	TOMHIGH 104-10	TOMHIGH 104-10	RIDECYM 107-13
48	TOMROOM 104-12	<	TOMROOM 104-12	<	<	RIDECYM 107-13
49	<	<	<	<	<	RIDECYM 107-13
50	TOMROOM 104-12	TOMROOM 104-12	TOMROOM 104-12	<	<	RIDECYM 107-13
51	<	<	<	<	<	RIDECYM 107-13
52	<	<	<	<	<	RIDECYM 107-13
53	<	<	<	<	<	RIDECYM 107-13
54	<	<	<	<	<	RIDECYM 107-13
55	<	<	<	<	<	RIDECYM 107-13
56	<	<	<	<	<	RIDECYM 107-13
57	<	<	<	<	<	RIDECYM 107-13
58	<	<	<	<	<	RIDECYM 107-13
59	<	<	<	<	<	RIDECYM 107-13
60	<	<	<	<	HOUSETCN 109-16	RIDECYM 107-13
61	<	<	<	<	HOUSETCN 109-16	RIDECYM 107-13
62	<	<	<	<	HOUSETCN 109-16	RIDECYM 107-13
63	<	<	<	<	HOUSETCN 109-16	RIDECYM 107-13
64	<	<	<	<	HOUSETCN 109-16	RIDECYM 107-13
65	<	<	<	<	<	RIDECYM 107-13
66	TIMBALES 110-9	TIMBALES 110-9	TIMBALES 110-9	TIMBALES 110-9	TIMBALES 110-9	RIDECYM 107-13
67	<	<	<	<	<	RIDECYM 107-13
68	<	<	<	<	<	RIDECYM 107-13
69	<	<	<	<	<	RIDECYM 107-13
70	VOXHHCL 114-12	VOXHHCL 114-12	VOXHHCL 114-12	VOXHHCL 114-12	VOXHHCL 114-12	RIDECYM 107-13
71	<	<	<	<	<	RIDECYM 107-13

CC00	PC	Style
8 BEAT		
32	1	8bt Std
	2	8bt Ballad
	3	8bt Folk
	4	8bt Hit
	5	8bt Medium
	6	8bt Funky
	7	8bt Modern
	8	8bt Swing
16 BEAT		
32	9	16bt Std
	10	16bt Ballad
	11	16bt Folk
	12	16bt Pop
	13	16bt Funky
	14	16bt Hit
	15	16btMedium
	16	16bt Swing
ROCK		
32	17	Open Rock
	18	Metal Rock
	19	Hard Rock
	20	Slow Rock
	21	Soft Rock
	22	Boogie W.
	23	Shuffle R.
	24	LovelyRock
FUNK		
32	25	Funky Fun
	26	FunkyElect
	27	Funky Pop
	28	Funky Std
	29	Acid Funk
	30	New Age
	31	Funky Soul
	32	FunkySwing
DANCE1		
32	33	HeavyDance
	34	Disco Hit
	35	Dance Pop
	36	Down Beat
	37	Disco Pop
	38	Disco Fun
	39	Techno
	40	House

CC00	PC	Style
DANCE2		
32	41	Open Disco
	42	70' Disco
	43	80' Disco
	44	Soul B.B.
	45	SynthDance
	46	Rap
	47	Euro Pop
	48	Party Pop
JAZZ		
32	49	Swing
	50	Mid Swing
	51	Slow Swing
	52	Big Band 1
	53	Big Band 2
	54	Dixieland
	55	Broadway
	56	Foxtrot
U.S. TRAD		
32	57	Blues
	58	Slow Blues
	59	Gospel
	60	Western
	61	Bluegrass1
	62	Bluegrass2
	63	Country
	64	March USA
TRAD 1		
32	65	Slow Waltz
	66	Wien Waltz
	67	Waltz
	68	Romagna
	69	Mazurka
	70	Folk 2_4
	71	Polka 6_8
	72	ItalyMarch
TRAD 2		
32	73	Paso Doble
	74	Germ.Polka
	75	Tarantella
	76	Bajon
	77	HullyGully
	78	Twist
	79	Charleston
	80	Reggae

CC00	PC	Style
LATIN 1		
32	81	Bossa Nova
	82	Samba
	83	Cha Cha
	84	Rhumba 1
	85	Tango
	86	Bolero T.
	87	Rhumba 2
	88	Beguine
LATIN 2		
32	89	Mambo
	90	Salsa
	91	Merengue
	92	Meneito
	93	Cumbia
	94	Gipsy
	95	Guaracha
	96	Calypso
PROG 1		
44	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
PROG 2		
44	9	
	10	
	11	
	12	
	13	
	14	
	15	
	16	
PROG 3		
44	17	
	18	
	19	
	20	
	21	
	22	
	23	
	24	

CC00	PC	Style †
PROG 4		
44	25	
	26	
	27	
	28	
	29	
	30	
	31	
	32	
CC00 PC Song †		
55	0	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	
CC00 PC Song-Perf. †		
64	0	
	1	
	2	
	3	
	4	
	5	
	6	
	7	

† On MIDI Common channel only

CC00	PC	Performances†
Group 1		
48	1	GrandPiano
	2	St.E.Piano
	3	NightSax
	4	SlowToFast
	5	St.Guitar
	6	GaryOnVibe
	7	MileStone
	8	Duet
Group 2		
48	9	OscarClub
	10	Elektric
	11	WinSoprano
	12	ToneWheel
	13	W.E.inL.A.
	14	TooFunky
	15	Toto_IV
	16	Mr.Pad
Group 3		
48	17	BigStrings
	18	E.W.Brass
	19	BlockBand
	20	Dr.Lead
	21	HeavyFuzz
	22	PolyMatrix
	23	Church
	24	InToDeep
Group 4		
48	25	H.T.Barrel
	26	SilkyStrg
	27	St.Horns
	28	HI.Weather
	29	PizzaXprs
	30	BrassMatch
	31	Coupled
	32	Antarctica

CC00	PC	Performances†
Group 5		
48	33	E.G.Piano
	34	OntheRhodx
	35	E.L.P.
	36	Jazzzzzz
	37	Accordion
	38	Carribean
	39	Choir
	40	ChinaTea
Group 6		
48	41	EineKleine
	42	ChromaBell
	43	FanfareUSA
	44	EndTitles
	45	SlavetoGTR
	46	TheTemple
	47	Tutti
	48	Shine You
Group 7		
48	49	Drawbars 1
	50	Drawbars 2
	51	Drawbars 3
	52	Drawbars 4
	53	Drawbars 5
	54	Drawbars 6
	55	Drawbars 7
	56	Drawbars 8
Group 8		
48	57	
	58	
	59	
	60	
	61	
	62	
	63	
	64	

CC16	PC	DSP Effects †
0=Eff1 (Reverbs GrpA) 1=Eff1 (Reverbs GrpB)		
48	1	Hall 1
	2	Hall 2
	3	Hall 3
	4	Warm Hall
	5	Long Hall
	6	St. Concert
	7	Chamber
	8	Studio Room 1
	9	Studio Room 2
	10	Studio Room 3
	11	Club Room 1
	12	Club Room2
	13	Club Room3
	14	Vocal
	15	Metal Vocal
	16	Plate 1
	17	Plate 2
	18	Church
	19	Mountains
	20	Falling
	21	Early 1
	22	Early 2
	23	Early 3
	24	Stereo

CC16	PC	DSP Effects †
64=Eff2 (Mod. GrpA) 65=Eff2 (Mod. GrpB)		
48	1	Mono Delay 1
	2	Mono Delay 2
	3	Stereo Delay 1
	4	Stereo Delay 2
	5	Multitap Delay 1
	6	Multitap Delay 2
	7	Ping Pong
	8	Pan Mix
	9	Chorus 1
	10	Chorus 2
	11	Ensemble 1
	12	Ensemble 2
	13	Phaser 1
	14	Phaser 2
	15	Flanger 1
	16	Flanger 2
	17	Chorus Delay 1
	18	Chorus Delay 2
	19	Flanger Delay 1
	20	Flanger Delay 2
	21	Dubbing
	22	Distortion
	23	Distortion Delay
	24	Pitch Shifter 1
	25	Pitch Shifter 2
	26	Shift Delay
	27	Rotary 1
	28	Rotary 2
	29	EQ Jazz
	30	EQ Pops
	31	EQ Rock
	32	EQ Classic

† On MIDI Common
channel only

		Cntrl 80 (ONE SHOT): 0† Fill>< 1† Fill< 2† Fill> 8† Intro 16† End 24-27† Variations 0-1-2-3 40† Key start 61† Rotary 1 slow/fast [GrpA] 62† Rotary 2 slow/fast [GrpB] 64 Start/Stop 66,67† Tempo inc. dec. 68,69† Preset inc. dec.	0 = Fill>< Off, 64 = Fill>< On 1 = Fill< Off, 65 = Fill< On 2 = Fill> Off, 66 = Fill> On
	Cntrl 81 OFF [0,63] ON[64,127] 0,1,2† Fill><-Fill<-Fill> 61† Rotary 1 (Off=slow) [GrpA] 62† Rotary 2 (Off=slow) [GrpB]		61 = Rotary 1 Slow, 125 = Rotary Fast 62 = Rotary 2 Slow, 126 = Rotary 2 Fast
Program Change	True number 0-127 *****	0-127	0-127
System Exclusive	x	x	
System Common	Song Position 0 Song Select 0 Tune 0	0 0 0	
System Real Time	Clock 0 Commands 0	0 0	Start, Stop Continue
Aux Messages	Active sensing 0 All Sound Off 0 Reset All Contr. 0 Local ON OFF 0 All Note Off 0	0 0 0 0 0	

Notes

† These messages are available on the Common channel only

o: YES x: NO

Mode 1 OMNI ON - POLY
Mode 3 OMNI OFF - POLY

Mode 2 OMNI ON - MONO
Mode 4 OMNI OFF - MONO

MIDI Implementation Chart

Manufacturer: Generalmusic S.p.A.		Model: WK4 World Keyboard		Version: 1.00
FUNCTION		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1-16 1-16	1-16 1-16	2 MIDI IN; 2 THRU; 2 MIDI OUT EXTRA COMMON/CHORD CH.
Mode	Default Messages Altered	Multimode X X	Multimode X X	
Note Number	True voice	0-127 *****	0-127	true voice depends on selected sound
Velocity	Note ON Note OFF	0 0	0 0	
After Touch	Key's Ch's	x 0	0 0	
Pitch Bender		0	0	
Control Change	0,32	Bank change	0,32	Bank change recognized on common channel, only in reception: Bank P.change 1st 2nd Value C#0 C#32† 0-95 Internal styles. C#0 C#44† 0-31 User Styles C#0 C#48† 0-63 Programmable Performances C#0 C#55† 0-15 Songs C#0 C#64† 0-7 Song-Performances
	1	Modulation	1	
	6,38	Data Entry	6,38	
	7	Volume	7	
	10	Pan	10	
	11	Expression Contr.	11	
	18,50†	Tuning control	16,48†	
	64	Damper Pedal	17,49†	
	66	Sustain (Sostenuto)	Effects volume	
	67	Soft pedal	Tuning control	
	91	Reverb depth	Damper Pedal	
	93	Chorus depth	66	
	98,99	NRPN	67	
	100,101	RPN	71	
			72	
			73	
			74	
			91	
			93	
			98,99	
			100,101	
			RPN	

RECOGNIZED CONTROL CHANGE MES- SAGES (MIDI CONTROLLERS)

A ControlChange message activates a Controlller, determined by the first ControlChange value.

The ControlChange consists of three parts:

- *status byte* - (status) determines the status of the ControlChange message.
- *data byte 1* - (value 1) MIDI Controller activated by the ControlChange message. This is the number by which the ControlChanges are identified in the following tables.
- *data byte 2* - (value 2) value of the activated MIDI Controller.

CONTROL CHANGE ON TRACKS

CC00,32	Bank change.
CC01	Modulation.
CC06,38	Data Entry.
CC07	Main Volume.
CC10	Pan (panorama).
CC11	Expression.
CC16,48†	Effects selection
CC17,49†	Effects volume
CC18,50†	General Purpose (Tuning control)
CC32	BankSelect LSB.
CC64	Damper pedal.
CC66	Sostenuto (sustain) pedal.
CC67	Soft pedal.
CC71	Resonance.
CC72	Release Time.
CC73	Attack Time.
CC74	Filter Cutoff Frequency.
CC80	One Shot control
CC81	On/Off control
CC91	Effect 1 send (E1, reverb depth).
CC93	Effect 2 send (E2, modulation depth).
CC98,99	NRPN
CC100-101	RPN

† = travels on MiIDI Common channel only

Glossary

After Touch: MIDI message activated by applying pressure after a note on event. The **WK4** keyboard generates Channel Aftertouch messages and recognizes Channel and Polyphonic Aftertouch via MIDI. The relative events also can be manually inserted in the Microscope function in Edit Song. Aftertouch is extensively used in Edit Sound to control various sound parameters. Via MIDI, this message can control modulation or volume in an external MIDI device.

Block. Organization of data similar to computer directories or folders. The Block corresponds to the entire contents of the instrument's RAM. A floppy disk can contain several Blocks.

Bypass: To ignore, "go around". 'Effect bypass' refers to the deactivation of the effects. The EFFECTS OFF LED is on, the sounds bypass the four DSPs and is emitted without reverbs or modulations.

Common Channel: A programmed MIDI channel to, (1) simulate the **WK4** keyboard on a connected Master Keyboard, (2) send control messages (Bank change, Preset change, Style change, Effect change...) from an **WK4**-Series instrument to another instrument of the same series.

Control Change: See MIDI Controllers.

Controllers: Controlling devices (Pedals), which control the values of various Control Change messages.

Cutoff Frequency: Central Frequency of the intervention band of a Filter. Around the vicinity of the Cutoff Frequency, the action of a Filter gradually becomes less marked, creating a "bell" in the audio band.

Data Entry: Groups of controls used to insert or specify data and for editing. The Data Entry controls include: Dial, Cursor buttons, the numerical Keypad and the Keyboard (name writing).

Destination: Refers to all that to which a MIDI message generated by a Track can be directed. The **WK4** can direct MIDI messages to the internal Sound Generation, to MIDI Out and to the Sequencer. In the Disk environment, the Destination refers to the device to which data can be saved.

Dial: The Data Entry wheel located under the Display, active for Tempo changes in normal playing conditions and a Data Entry device in Edit situations.

Directory: "Catalogue" of the contents of a floppy disk, the hard disk or RAM.

Disk Drive: Device that "reads" a floppy disk. The **WK4** disk drive reads 3.5" HD and DD disks. Recognizes the following formats: **WK4** (1.6 Mb), Ms-Dos (1.44 Mb), Ms-Dos/Atari ST (720 kb).

Display: The 1/4 VGA monitor incorporated in the front panel of the **WK4**. Permits you view parameters, score and lyrics as well as all information relating to the instrument's operation

Drum Kit: Refers to the layout of the percussive sounds across the keyboard. A Drum Kit permits you to use a single Track for all the drum sounds. Each note of the scale corresponds to a percussive instrument sound. The **WK4** ROM Drum Kits are in banks 2,3,4 and 5 of the Percussive Group. Each Preset can contain a user-programmed RAM Drum kit created in «Edit Perf Sound».

Dry: commonly used expression related to a sound not processed by the DSPs.

DSP: (Digital Signal Processor). The effects processor - the **WK4** incorporates 4 DSPs: two reverbs and two modulations or chorus/delay.

Dynamic: See Velocity.

Edit: Modify. A section of the operating system capable of modifying the instrument's parameters. Each button of the EDIT section gains access to an edit environment.

Envelope: Term that represents (graphically) the change in the characteristics and quality of a Sound with time.

Filter: A device used to modify a sound by intervening on the harmonic content. The **WK4** can control up to 6 filters per sound. In «Edit Perf Sound», it is possible to modify the filter's cutoff frequency, resonance and other parameters via macro edit parameters.

Flash ROM: Up-dateable ROM ("Read only memory") which contains the instrument's operating system and the factory-programmed data which cannot be destroyed, other than by updating the contents with data contained in special OS disks.

Floppy Disk: A magnetic Data support, protected by a plastic container, in which **WK4** data can be memorized. The data handling operations are in «Edit Disk».

Footswitch: A "physical" switch-action controlling device. The **WK4** can accept 3 function assignable pedals which can be programmed to operate as switch action or continuous control devices. There is also a facility to change the pedal switch polarity.

Hard disk: Data storage device capable of high access speeds and available for the **WK4** as an optional accessory.

Headphones: Stereo listening devices used for private listening.

Loop: Cyclic repetition. A function found in «Edit Song» used to repeat a specified number of measures (bars) and in "Edit Sound", used to loop an envelope. Also the essential requisite for all Style patterns (riffs) which are short repeating sequences.

Master Keyboard: A controlling device (keyboard). Usually, a MK is a generator of MIDI events, incapable of generating Sounds. It is connected to the MIDI IN of an Expander, or another MIDI compatible musical instrument. The **WK4** can operate as an advanced Master Keyboard, with functions such as Split, Merge, various programmable controls including System Exclusive.

Menu: List of items. A menu appears in most edit displays and consists of several items which can be selected with the cursor buttons,

the dial or the numeric keypad.

Merge: See MIDI Merge.

Microscope: A page in «Edit Song» or «Edit Style» where every recorded MIDI event can be individually modified in terms of position as well as value.

MIDI: (Musical Instrument Digital Interface). A system of communication between different digital musical instruments. MIDI is based on the connection via three types of ports: IN, OUT, THRU. The MIDI system renders all electronic digital instruments completely programmable at a distance (e.g. from a computer).

MIDI data provides the receiving instrument with all information necessary to produce sounds.

MIDI Common: See Common channel.

MIDI Controllers: MIDI messages which transmit information relating to performance parameters (Modulation, Main Volume, Damper Pedal...).

MIDI Merge: The fusion of MIDI events originating from the keyboard or MIDI IN and transmitted together with MIDI OUT data after being processed by the **WK4** tracks. Without MIDI Merge, MIDI IN data are directed to the internal sound engine and to MIDI THRU, not to MIDI OUT.

MIOS: (Musical Instrument Operating System). Refers to the **WK4** Operating System, the program that makes the instrument work. MIOS is resident in FLASH ROM which can be updated with newer versions of the operating system via floppy disks.

Modulation: Dynamic modification over time. Activated by up/down movements of the Trackball or by an appropriately programmed pedal.

Multitasking: The operating system's ability of running several different operating modes at the same time.

Oscillator: The fundamental element that produces the sound. The **WK4** utilizes one or two oscillators per polyphonic voice.

Pan: Abbreviation for Panorama. The Pan is the position of the Sound between the Stereo audio channels.

Pedal: A switch or continuous physical con-

trolling device which can be assigned a controlling function (start/stop, fill, modulation, damper, etc.). The **WK4** can accept three switch action or continuous control pedals.

Performance: A configuration of tracks used to recall a sound combination for the keyboard (Performance Groups), a sound combination for the accompaniments (Style-Performance) and a sound combination for the Songs (Song-Performance).

Physical Controllers: On-board Sound controlling devices (Trackball, Pedals, etc.). See also Controllers.

Pitch: Intonation, frequency.

Pitch Bend: Dynamic modification of the pitch. Activated by left/right movements of the Trackball or by an appropriately programmed pedal, or a MIDI message.

Playback: The term that describes the Sequencer's capability of reproducing a Song.

Preload: "Background" Song loading while the Sequencer is playing another Song.

Program Change: A MIDI Message used to change a Sound, Performance, Style or Song. Frequently used in combination with the BankSelect (ControlChange 00) message.

Quantize: Correction of imperfect timing errors committed during Song and Style recordings (including Rhythm patterns).

RAM: (Random Access Memory). A type of Memory which can be updated with new data. The **WK4** can be fitted with three types of RAM: System-RAM, Volatile Sample-RAM, battery-backed Sample-RAM. RAM memory does not retain data after turning off, unless backed by a special battery.

RGB: (Red, Green, Blue) The signal emitted by the output of the same name and generated by the **WK4** for the purpose of projecting the display images and Song lyrics to an external monitor (a colour computer or domestic TV).

ROM: (Read Only Memory). A part of the **WK4** memory which cannot be modified, and in which factory programmed data is conserved, including the Operating System MIOS. In the **WK4**,

the ROM is a flash-ROM, up-dateable with OS-disks containing later versions of the operating system. ROM memory is not cancelled when the instrument is switched off.

Sample: Refers to a portion of the sound recorded in numeric form. The combination of several samples along the music scale is called a multi-sample. In the **WK4** multi-samples are called Waveforms which constitute the principal element of the Sound.

Scart: The connector through which a domestic TV or colour computer monitor can receive the **WK4** display data, including the Lyrics and Music Score of the **WK4** Songs.

Score: The **WK4** function which permits you to see the Lyrics and Music Score across the display. The **WK4** can also transmit the data to an externally connected domestic TV or colour computer monitor, both fitted with the SCART connector.

Search: The function found in Edit Disk (Single Sound operations) which permits you to look for a Sound in a long list by specifying two or more letters that are contained in the Sounds name. Also found in Edit Sound to permit the search of the Wave samples.

Sequencer: A system of recording MIDI data. The Sequencer permits you to record a polyphonic song sound by sound, and reproduce the song after applying eventual corrections. The quality of a sequencer recording is maintained and does not decay, even after many recordings and modifications. The Sequencer does not record sounds, it records MIDI data (events). The **WK4** incorporates a powerful 32-track sequencer with extensive edit functions.

Song: A piece of music, recorded or reproduced (played back) by the Sequencer.

Sound: In the **WK4**, the Sound is the basic source, based on samples elaborated by envelopes and filters. The Sounds, assigned to Tracks, make up the Performances.

Sound Patch: A Sound consisting of several other sounds. The Sound Patch can assign two different sounds separated by a dynamic

threshold, or a different sound to each key of the keyboard (in this case called a Drumkit).

Source: A provider of MIDI events that can be directed to the **WK4** Tracks. In the **WK4**, the sources of MIDI events are; the keyboard (local), the MIDI In and the Sequencer. In the Disk environment, the Source refers to the data storage device which contains File to select and load or save to a Destination.

Track: A single timbre part of a Performance or single instrumental part of a Song or Style. Each Track is individually programmable for the assigned Sound, volume settings, pan, MIDI channel, etc..

Transpose: The change in pitch of a note with respect to a standard value.

Tweak: A term that describes the slight modification of one or more of a Sound's parameters. You can tweak a sound in real time, for example, using the programmable pedals to which the Edit Sound parameters have been assigned (Filter, Attack, Release, etc.).

User Interface: All that which appears within the Display. The means with which the user communicates with the musical instrument - that is, the availability of information relating to the status of the data - and in general with all computers. The **WK4** User Interface is a graphic system of superimposable windows containing parameters in graphical and text form.

User: Generally, this term indicates all that can be programmed by the operator.

Velocity: MIDI message always coupled to the activation of a note. Velocity controls the sound's intensity, proportionally to the velocity with which the keys are struck. Velocity is also used to control various parameters in Edit Sound.

Wet: commonly used expression related to a sound processed by the DSPs.

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FEDERAL COMMUNICATIONS COMMISSION

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this instrument does cause harmful interference to radio or television reception, which can be determined by turning the instrument off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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