AKAI MX1000 MIDI Master Keyboard Owner's Manual

Thank you for purchasing the MX1000 MIDI master keyboard.
The MX1000 will be an excellent MIDI master controller when connected with various types of MIDI slaves, such as the S1100 digital sampling module or other MIDI-compatible equipment. Also, its sophisticated design and operational transparency/flexibility allows you to best perform your duties in every situation—on stage, or in studio. Additionally, when installed with the optional PM76 piano sound board, the MX1000 can be played as an authentic digital piano.
To make best use of the MX1000's various features, read this Owner's Manual thoroughly before playing. Also, keep the manual in a safe and easily accessible place for future reference.

Features

- **76-key, weighted keyboard**
  Expands your musical expression with adjustable MIDI note on velocity curve and after touch (channel pressure) range.

- **4 Key Groups/100 Programs/4 Program Chains**
  Enables you to control several MIDI slaves at a time. 76 keys can be split into 4 Key Groups, each of which can be assigned with various MIDI parameters. One Program includes these 4 Key Group settings and the MX1000 can memorize up to 100 Programs. Moreover, these Programs can be selected and arranged in up to 4 Program Chains.

- **Back-lit LCD (Liquid Crystal Display)**
  Supplies an excellent graphical user interface with up to 320 character display capability and enables easy programming by 6 soft keys.

- **Assignable MIDI parameter controls**
  Consists of 2 types: slider and switch types. 4 MIDI control sliders can be individually assigned with MIDI control change, bend up/down, after touch, and 4 MIDI control switches with MIDI note on/off (4-note chord x 10 types), MIDI program change. Furthermore, additional controls are available by 4 foot pedal controls, 4 foot switches, 1 sustain switch, and program up/down switches connected to the rear panel jacks.

- **6 preset Velocity Curves**
  And 8 user-programmable curves are available.

- **Velocity Key Follow Feature**
  Corrects the heard difference between higher and lower notes' levels (volumes) by velocity adjustment.

- **4 individual MIDI-OUT jacks**
  Enables direct MIDI connections between the MX1000 and slaves, to eliminate the possibility of MIDI delay.

- **"Panic" Key and MIDI Monitoring feature**
  Useful to solve a sudden problem when using MIDI. For instance, the Panic key will mute hanging notes caused by the disconnection of MIDI cables, and the latter will give a list of assignments to MIDI control sliders/switches.

- **External Data Storage for the MX1000's Internal Memory**
  Available by saving onto an optional IC memory card AKAI BR-16, or an external MIDI sequencer or the like which can deal with MIDI System Exclusive messages.

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Before Starting Operations

Power requirements

Power requirements for electrical equipment differ from area to area.
Please ensure that your MX1000 meets the power requirements in your area. If in doubt, consult with a qualified electrician.

220V~230V, 50Hz for Europe except U.K.
240V, 50Hz for U.K. and Australia
120V, 60Hz for U.S.A. and Canada

Turn off the power after use.

Turn the power off after use to be safe and to conserve energy. Do not leave the MX1000 connected to AC socket if it is not going to be used for a while.

How to handle the AC power cord

Never pull the power cord itself or, it may damage the plug's internal connections. Always hold the plug cover to remove it from the socket for safety purposes and to prevent electrocution. Do not touch the AC power cord/plug cover with wet hands.

Prevent from spilling water or dropping metal objects in the MX1000.

Watch carefully especially for mischievous acts by children. Do not drop needles, hairpins, coins, or other metal objects, or flammable objects such as paper into the MX1000.

Modification is dangerous and may result in the MX1000 malfunctioning.

Contact your nearest "AKAI professional" dealer for all the after-sales servicing.

About the location

To promote optimal use of the MX1000, be conscious of where it is placed. The following locations are not advisable:

1. Around heaters or heat releasing machines, and places exposed to direct sunlight
2. Humid and dusty places
3. Locations easily affected by vibrations
4. Locations with no air circulation
5. Sloped or slanted locations
6. Extremely cold places

The MX1000's affect on other electrical equipment

The MX1000 may cause TV and radio interference noise when used close to TVs and radios. In such cases, move the MX1000 away from those units.

Be careful of aerosol spray insecticides.

Be careful since insecticides may damage the surface of the panel.

Cleaning the keyboard and panel surface

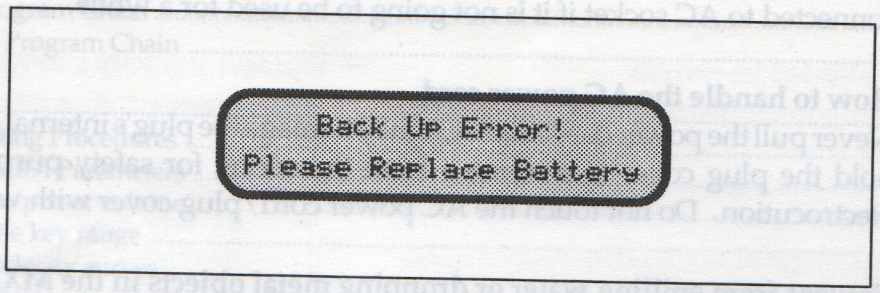
Wipe dust off with a dry cloth, and if it is heavily soiled, wipe the MX1000 with a soft cloth which is slightly damp with a dilution of dish washing soap or a neutral detergent. Refrain from using chemical solvents such as paint thinner or benzine that may damage the finish.

About relocating the MX1000

Always disconnect the MX1000 from AC socket and any other units before moving the MX1000.

Back Up Battery

The MX1000 contains a lithium battery for memory back up while the power is turned OFF. Battery life is approximately 3 years, with the following warning being displayed at the time the power is turned ON if the battery voltage is low:



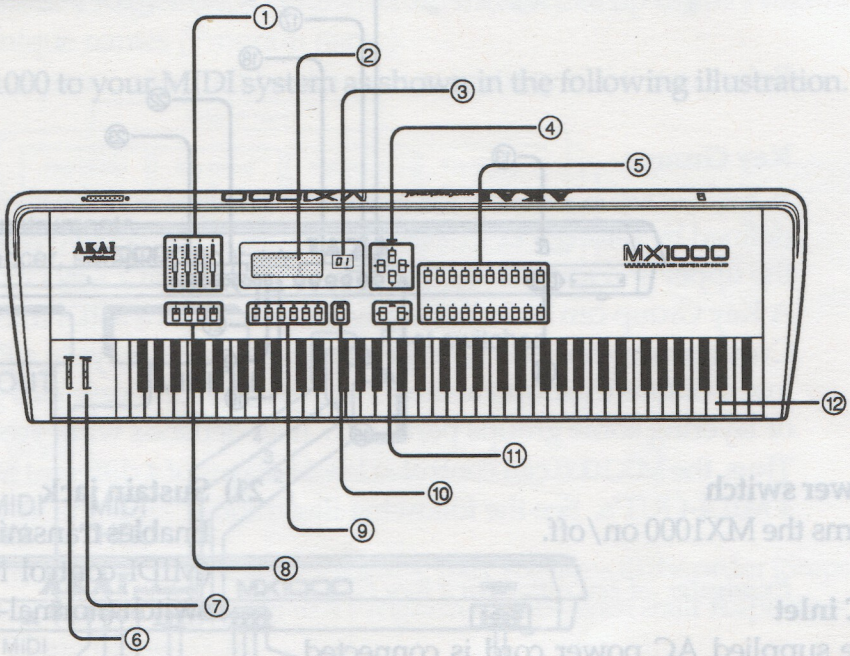
When this message is displayed, contact your nearest "AKAI professional" dealer to have the battery replaced with a new one. Additionally, when this message is shown, all the bank memories have been initialized to factory presets. To prevent the loss of data in this way, we recommend you back up the memory contents to the AKAI BR-16 IC memory card or your MIDI sequencer regularly.

After-sales service

Please consult the after-sales service department of the dealer where you purchased the MX1000 for details concerning repairs during the Warranty Period and other after-sales servicing. If you are travelling or unable to reach that dealer, contact the nearest "AKAI professional" dealer.

Panel Description

Front Panel



1) **MIDI control sliders 1~4**
Allows individual controls of external MIDI slaves. Parameters such as MIDI control change (modulation wheel, main volume, etc.), pitch bend, after touch, etc., can be assigned to the sliders.

2) **LCD**
Displays the various programming screens with 6 soft keys. Up to 320-character (40 character x 8 lines) display and graphic editing capability.

3) **2-digit LED**
Displays the Program number selected.

4) **Cursor keys**
Move the cursor in 4 directions (up/down/right/left) among displayed parameters.

5) **Ten keys (upper/lower)**
Selects a Program number or Step number (in the Program Chain mode).

6) **Pitch bend wheel**
Allows pitch bend up and down over a programmable range.

7) **Modulation wheel**
Controls the modulation range (MIDI control No.1) over a programmable range.

8) **MIDI control switches 1~4**
Enables individual control of external MIDI slaves using parameters such as MIDI control change, MIDI program change, etc..

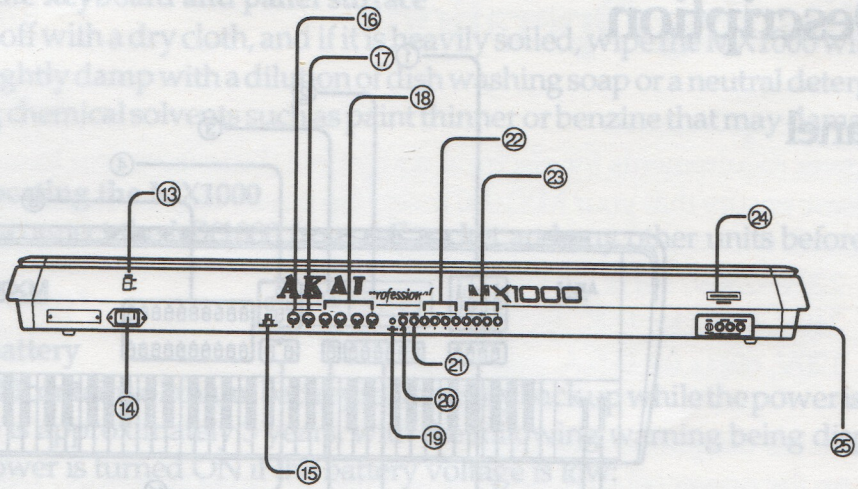
9) **Function keys F1~F6**
Select the displayed functions (as software keys) corresponding to those keys.

10) **Panic key**
When pressed, transmits "all notes off" message in all MIDI channels to mute hanging notes.

11) **Data keys**
Increases/decreases a parameter value.

12) **Keyboard**
76-key (E0-G6) weighted keyboard equipped with adjustable note on velocity and after touch.

Rear panel



13) Power switch
Turns the MX1000 on/off.

14) AC inlet
The supplied AC power cord is connected here.

15) Memory protect switch
Enables/disables the MX1000's internal memory protection.

16) MIDI-IN jack
Receives MIDI messages from an external master to control the MX1000. It is especially useful when merging the MIDI messages of both the MX1000 and external master or sequencer.

17) MIDI-THRU jack
Transmits the same MIDI messages as received by the MIDI-IN jack.

18) MIDI-OUT jacks A~D
Transmit the MIDI messages generated by the MX1000. Each MIDI-OUT is separate and individually assignable.

19) LCD contrast adjuster
Adjusts the brightness of the LCD for clear view of the displayed information.

20) Program up/down jack
Enables you to select a Program by foot when a foot switch (normal-close type) is connected here.

21) Sustain jack
Enables transmission of damper information (MIDI control No.64) by depressing a foot switch (normal-close type) connected here.

22) Foot switch jacks 1~4
Enables control of external MIDI slaves by depressing foot switches (normal-close type) connected here.

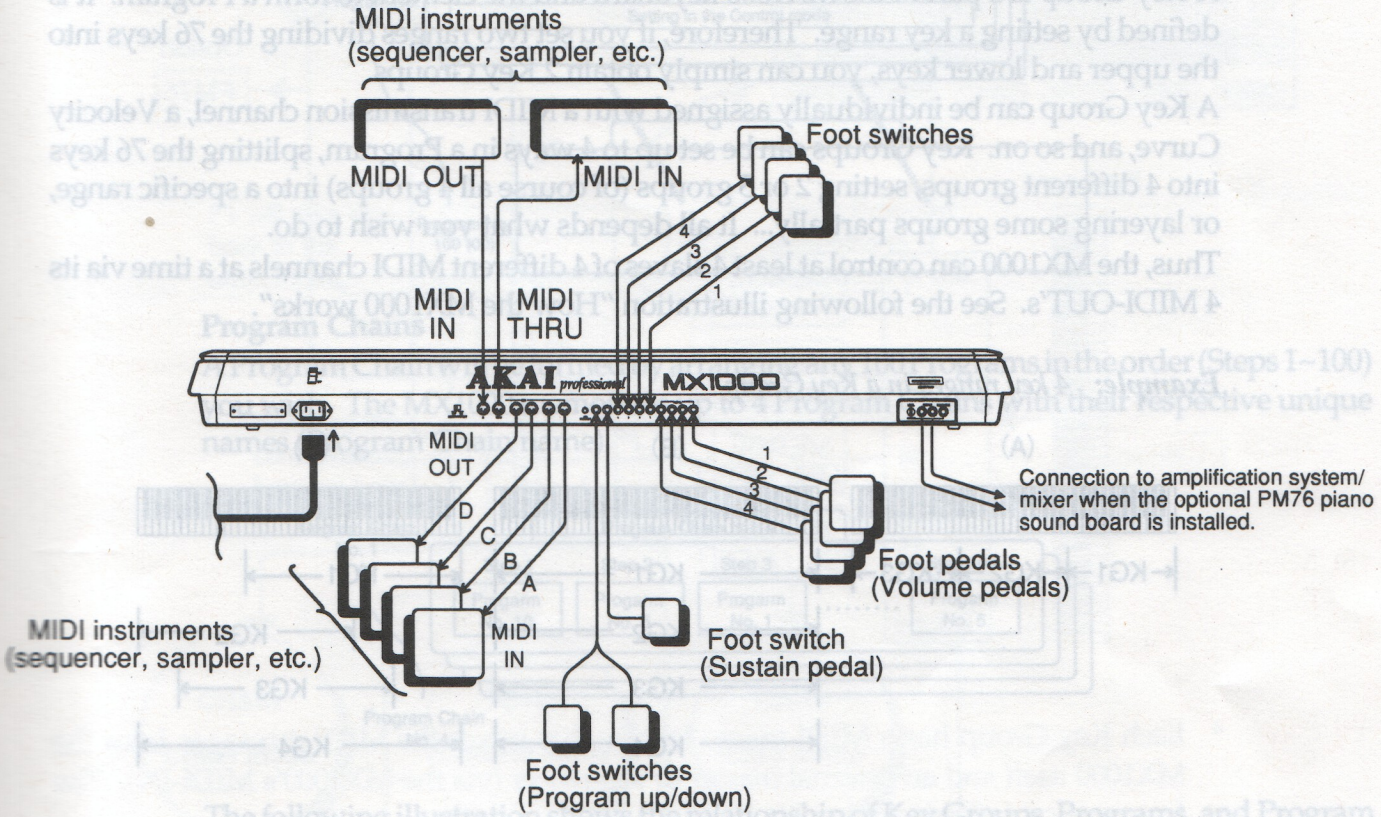
23) Foot pedal jacks 1~4
Enables control of external MIDI slaves by depressing variable foot pedals connected to these inputs. Each foot pedal can be assigned with the same MIDI messages (MIDI control change, pitch bend up/down, after touch, etc.) as the MIDI control sliders 1~4 on the front panel.

24) Memory card slot
An optional memory card AKAI BR-16 can be inserted here.

25) Audio output jack space (for optional PM76 piano sound board)
When the MX1000 is installed with the optional piano sound board AKAI PM76, its headphones jacks and audio output jacks appear here. Without the optional board, it is covered with a blank panel.

Connection

Connect the MX1000 to your MIDI system as shown in the following illustration.



* Before connecting, always turn off the MX1000 and all the instruments/devices.

* In overseas use, contact your nearest "AKAI professional" dealer to ensure that your MX1000 meets the power requirements in that area.

Relationship among Key Groups/Programs/Program Chains

Before use, it is important to understand the basic concepts of the MX1000.

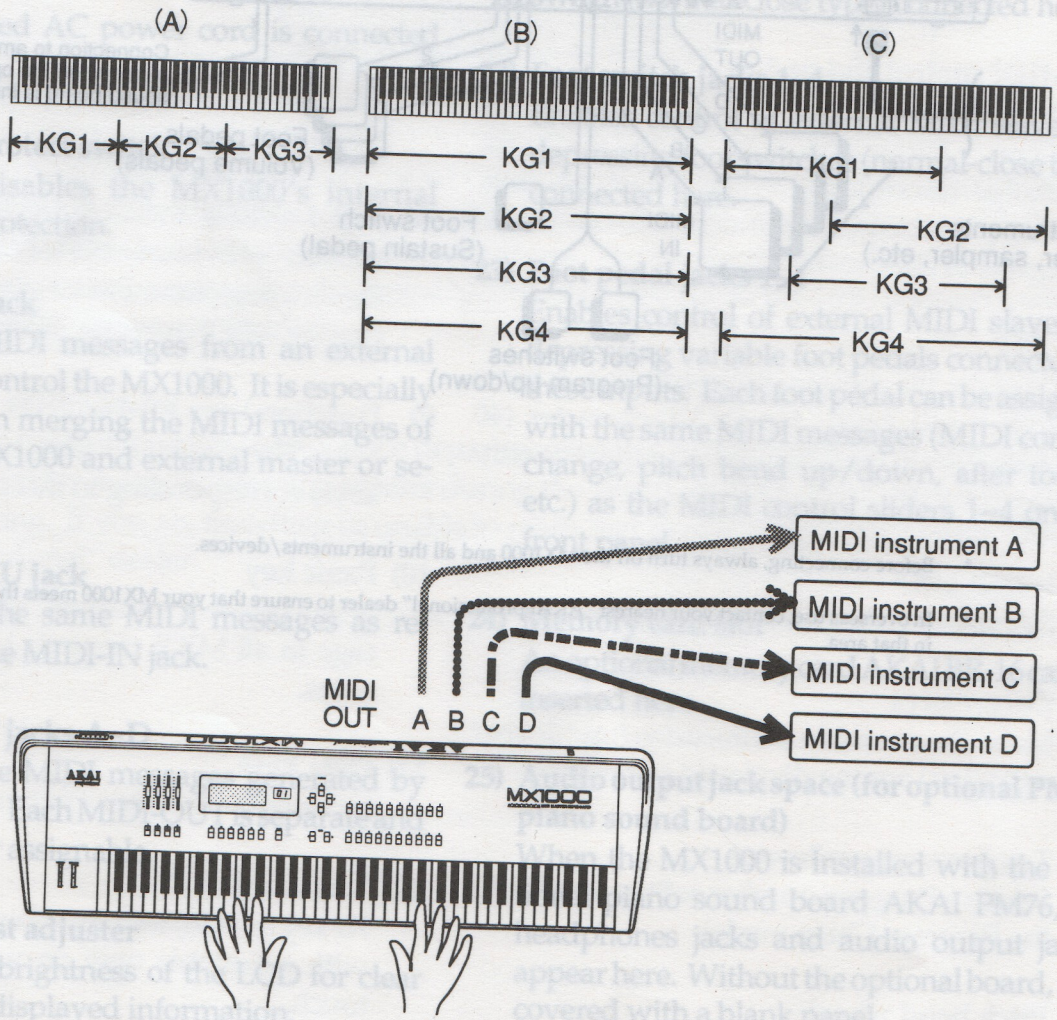
Key Groups

A Key Group is a part of the MX1000 keyboard and the element to form a Program. It is defined by setting a key range. Therefore, if you set two ranges dividing the 76 keys into the upper and lower keys, you can simply obtain 2 Key Groups.

A Key Group can be individually assigned with a MIDI transmission channel, a Velocity Curve, and so on. Key Groups can be set up to 4 ways in a Program, splitting the 76 keys into 4 different groups, setting 2 or 3 groups (of course all 4 groups) into a specific range, or layering some groups partially... It all depends what you wish to do.

Thus, the MX1000 can control at least 4 slaves of 4 different MIDI channels at a time via its 4 MIDI-OUT's. See the following illustration "How the MX1000 works".

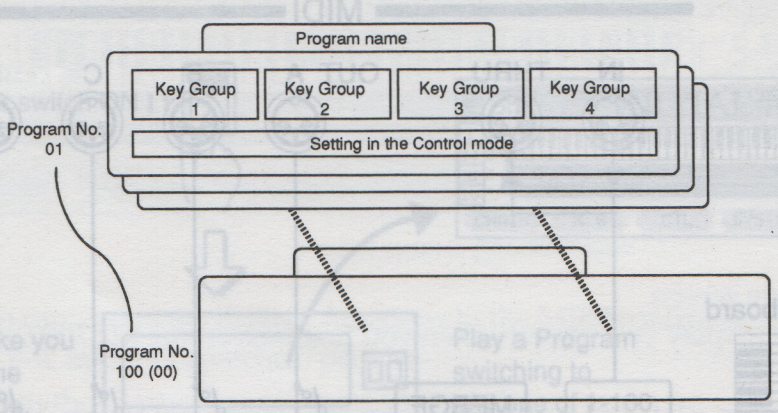
Example: *4 key ranges in a Key Group*



How the MX1000 works

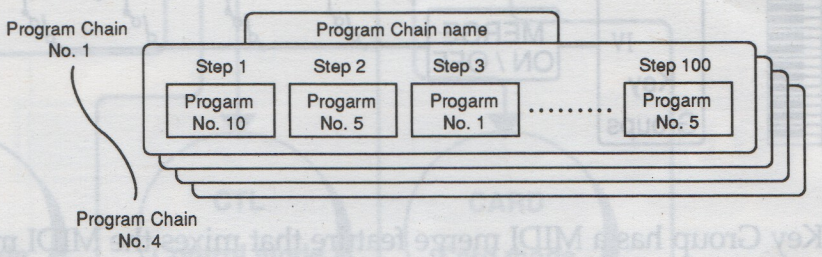
Programs

A Program consists of 4 Key Groups. The MX1000 memorizes up to 100 Programs with their respective unique names (Program name).

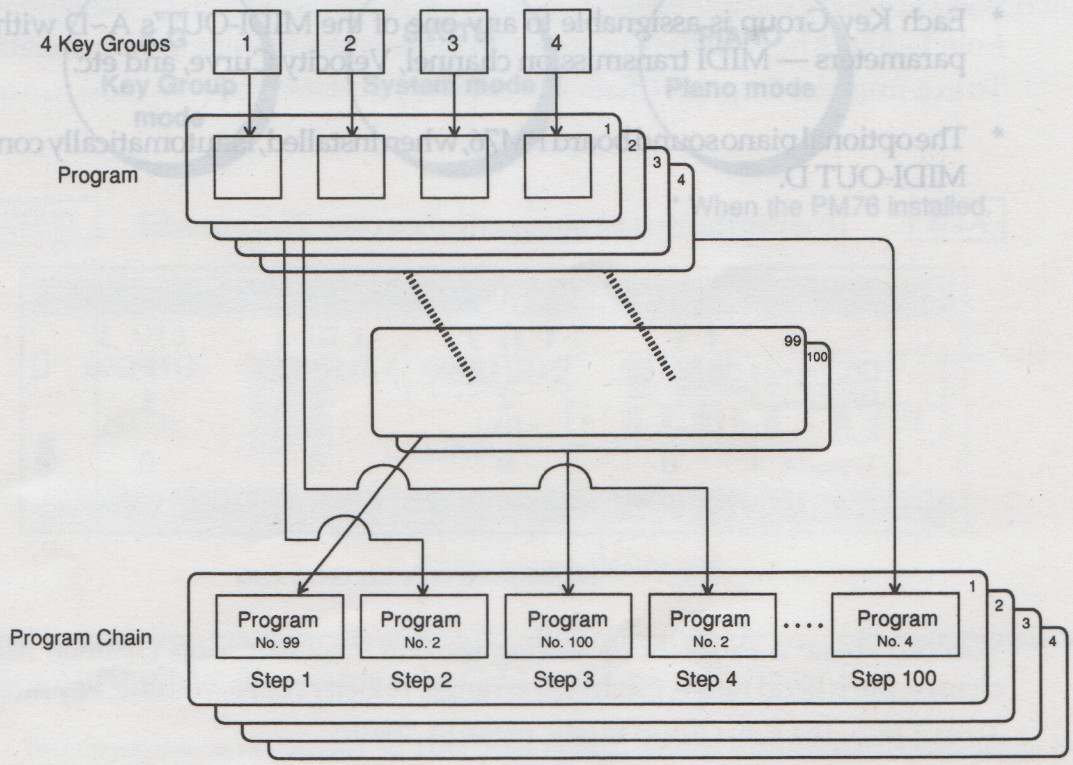


Program Chains

A Program Chain will be formed by arranging any 100 Programs in the order (Steps 1~100) you wish. The MX1000 memorizes up to 4 Program Chains with their respective unique names (Program Chain name).

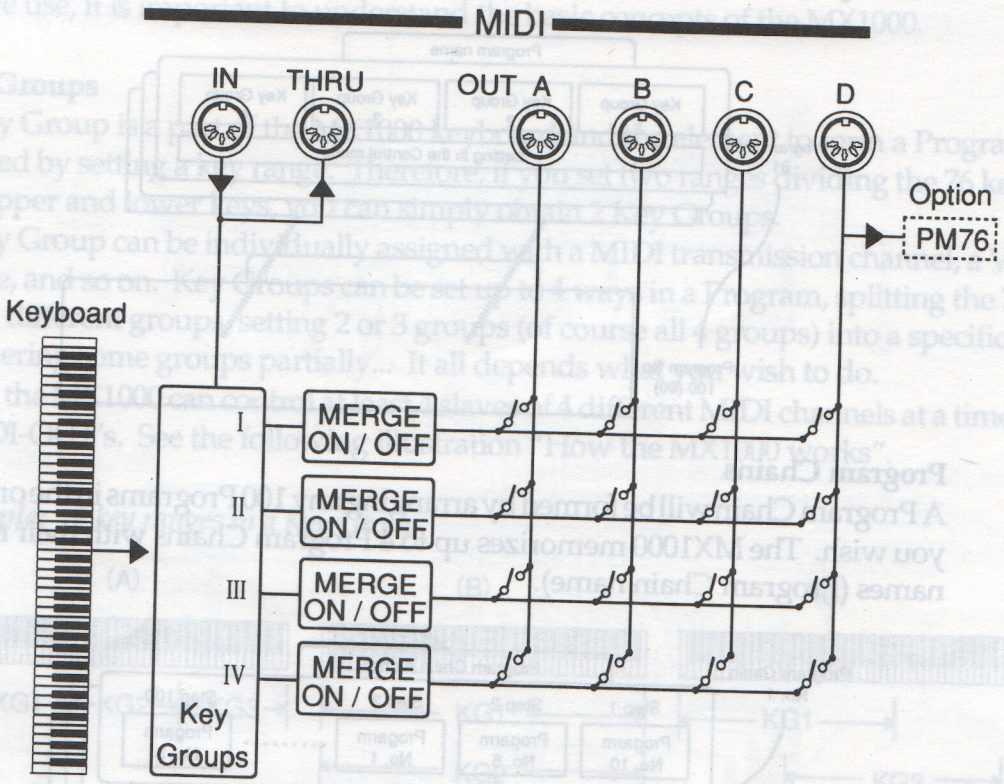


The following illustration shows the relationship of Key Groups, Programs, and Program Chains:



MIDI Signal Flow in the MX1000

The following illustration shows how the MIDI signals flow in the MX1000:

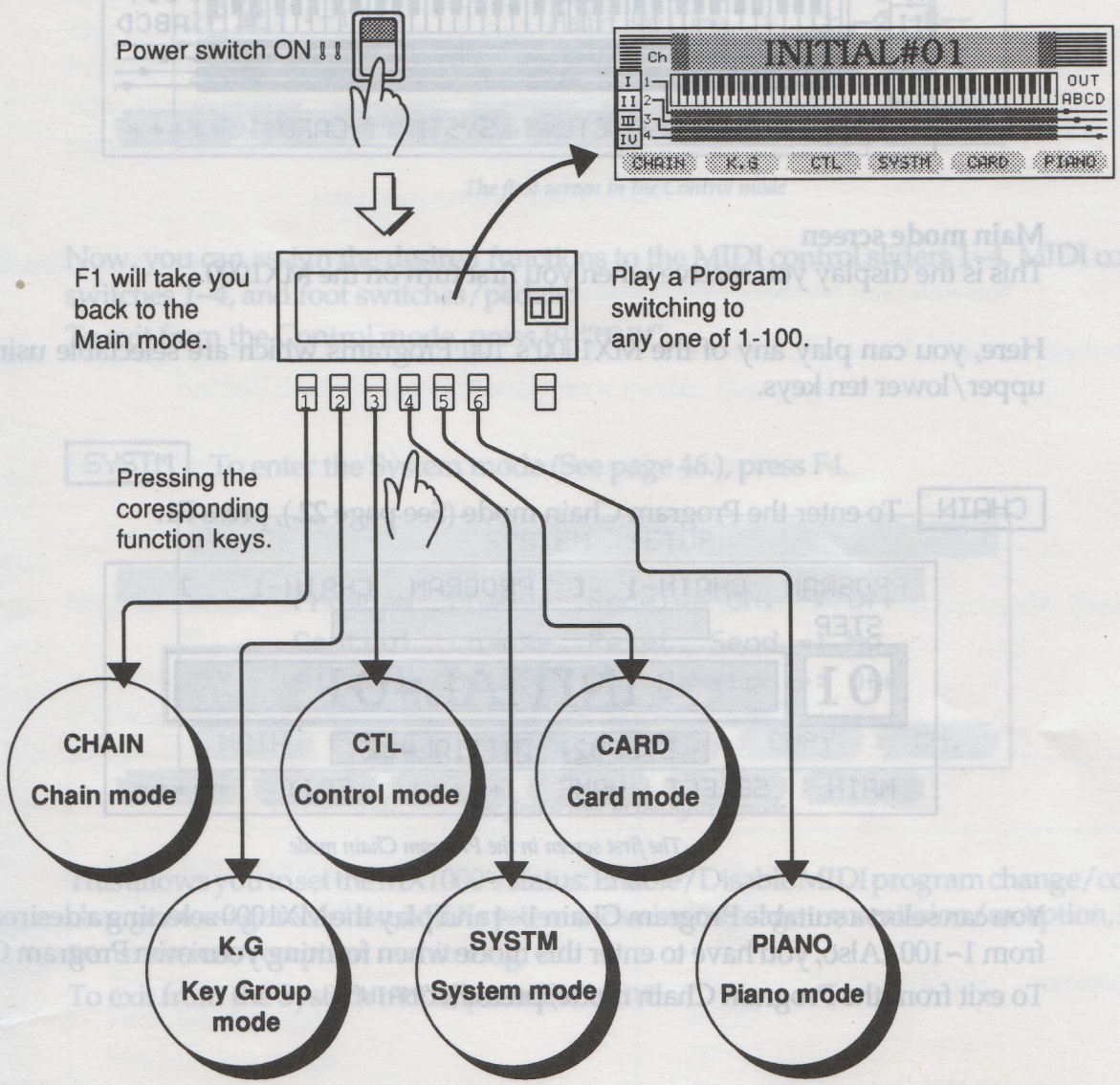


* Each Key Group has a MIDI merge feature that mixes the MIDI messages from the MX1000 itself and an external master or sequencer (via the MX1000's MIDI-IN). The feature is on/off selectable.

* Each Key Group is assignable to any one of the MIDI-OUT's A~D with other MIDI parameters — MIDI transmission channel, Velocity Curve, and etc.

* The optional piano sound board PM76, when installed, is automatically connected to the MIDI-OUT D.

Operation modes



* When the PM76 installed.

Main mode (See page 21.)

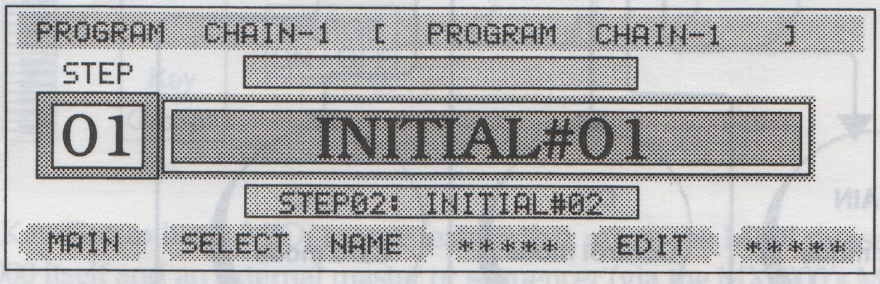


Main mode screen

This is the display you receive when you first turn on the MX1000.

Here, you can play any of the MX1000's 100 Programs which are selectable using the upper/lower ten keys.

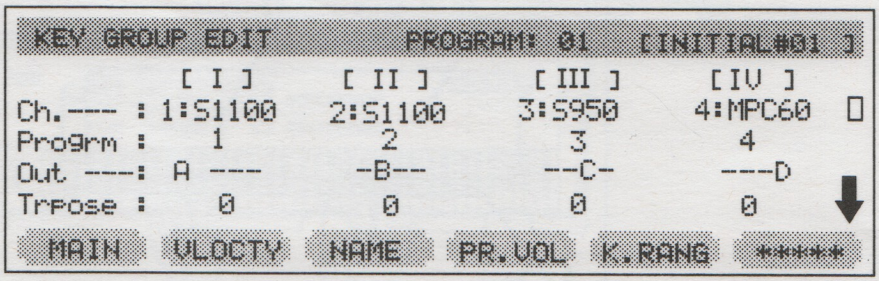
CHAIN To enter the Program Chain mode (See page 22.), press F1.



The first screen in the Program Chain mode

You can select a suitable Program Chain 1~4 and play the MX1000 selecting a desired Step from 1~100. Also, you have to enter this mode when forming your own Program Chain. To exit from the Program Chain mode, press F1 "MAIN".

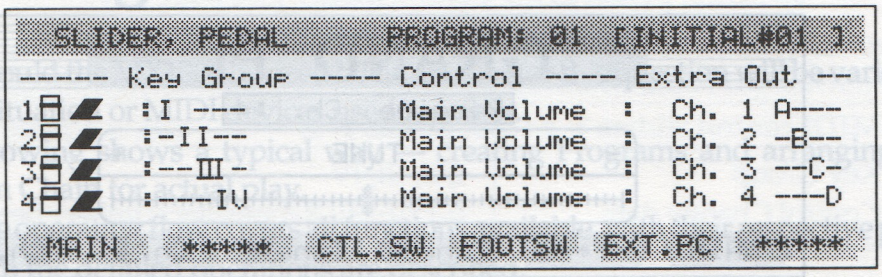
K.G To enter the Key Group mode (See page 27.), press F2.



The first screen in the Key Group mode

You can create a Program by setting the MIDI transmission channel, MIDI program change, pitch bend range, modulation range, velocity curve, volume, key range, and so on. To exit from the Key Group mode, press F1 "MAIN".

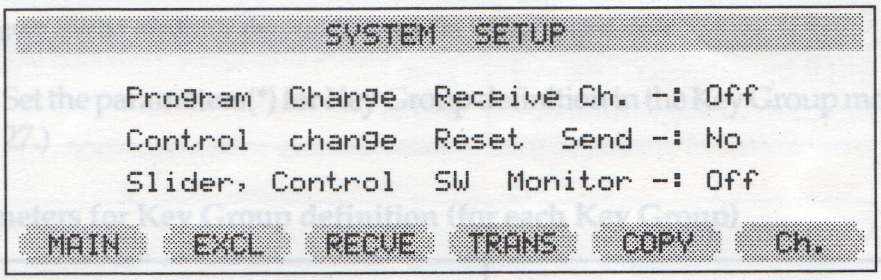
CTL To enter the Control mode (See page 38.), press F3.



The first screen in the Control mode

Now, you can assign the desired functions to the MIDI control sliders 1~4, MIDI control switches 1~4, and foot switches/pedals.
To exit from the Control mode, press F1 "MAIN".

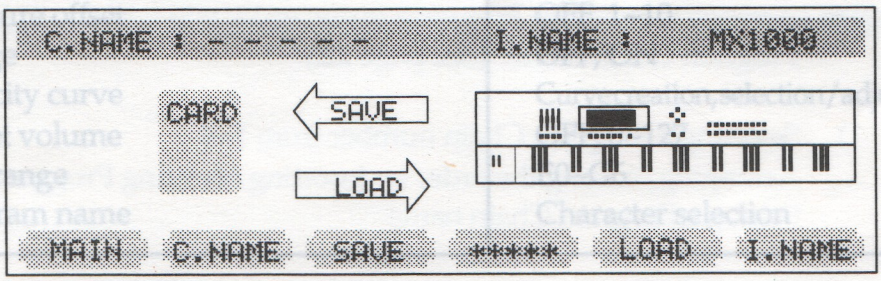
SYSTM To enter the System mode (See page 46.), press F4.



The first screen in the System mode

This allows you to set the MX1000's status: Enable/Disable MIDI program change/control change message reception, MIDI system exclusive message transmission/reception, MIDI transmission/reception monitoring, etc.
To exit from the System mode, press F1 "MAIN".

CARD To enter the Card mode (See page 52.), press F5.



The first screen in the Card mode

In this mode you may execute saving/loading operations from/onto an optional memory card AKAI BR-16. To exit from the Card mode, press F1 "MAIN".

* The LCD will show an error message "No Card!" when trying an operation in this mode without inserting the card.

PIANO To enter the Piano mode (See page 54.), press F6.



Your MX1000 works as a digital piano.

* You can enter the Piano mode only when the optional piano sound board PM76 is installed. If the PM76 is not installed, the Main mode screen only shows "*****" instead of "PIANO".

Basic Operating Procedure

How should the MX1000 be used? The answer for this question will be varied depending on the situation or MIDI devices used together.
The following shows a typical way — creating Programs and arranging them into a Program Chain for actual play.
Also, the operating flow covers all functions available, with their respective page numbers on which the detailed operations are described.

<< Creating a Program >>>>

Step 4: Assign the desired functions to MIDI control sliders/switches, and/or foot switches/pedals in the Control mode. (See page 38.)

Parameters for Controller definition

MIDI control sliders 1~4 (Foot pedals 1~4)	
Key Group	I, II, III, IV
Control Change data	0-121(:MIDI controller number), Bend up, Bend down, After touch (channel pressure)
Extra Out	MIDI transmission channel 1~16/MIDI-OUT A~D

MIDI control switch 1~4/Foot switches 1~4	
MIDI transmission channel	1~16
MIDI-OUT	A~D
Controller type	Control Change: CC⎍, CC⎍ Note On/Off: ♪⎍, ♪⎍; Program Change

Extra program Change	
MIDI transmission channel	1~16
Program Change number	1~128

Chord definition	up to 10 types

Step 5: Create another Program repeating steps 2~4.

* In the Key Group/Control mode, even while creating a Program, you can select another Program number. This enables you to create several Programs comparing them with one another.

<< Creating & Playing a Program Chain >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Step 6: Arrange the existing Programs in any order you wish, and playing using it in the Program Chain mode. (See page 22.)

1) Selecting a Program Chain number from 1~4
   Arranging/editing the order by inserting/deleting Programs
   Setting a Program Chain name

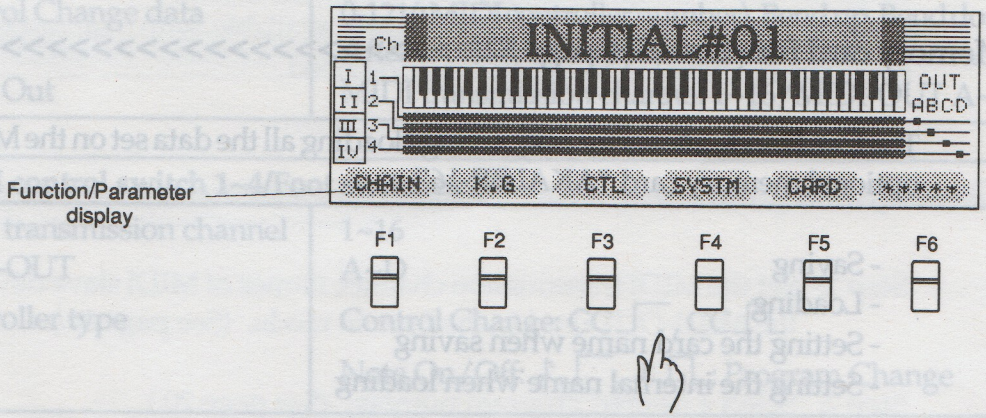
2) Playing a Program Chain

<< Playing in a Program >>>>

Basic Key Operation

Soft Keys

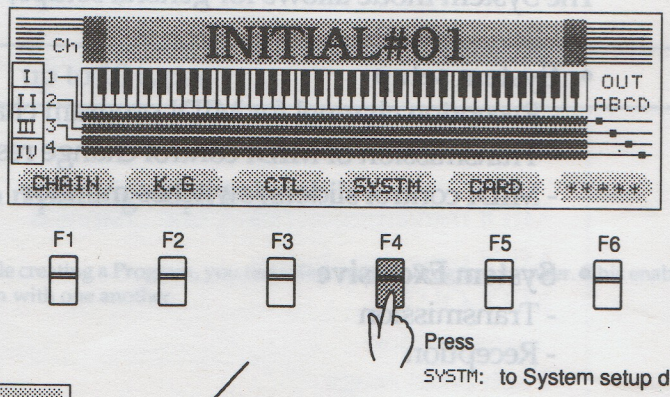
In every screen, available functions / parameters are displayed as soft keys that correspond to the function keys (F1~F6).

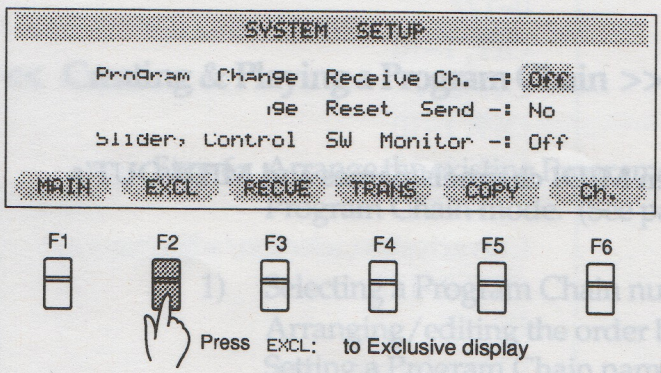


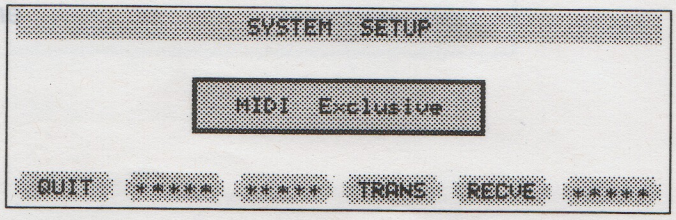
You can get access to a desired function by pressing the appropriate function key (F1~F6).

* When switching to the Main mode to Program Chain mode or vice versa, press hold down the F1 key for a few seconds to avoid malfunction caused by unperfect mode change.

For instance, this shows how you reach the Exclusive screen in the System mode from the Main mode.







Exclusive screen

Typical Software Keys

The following are the typical software key representations.

********* Not available.

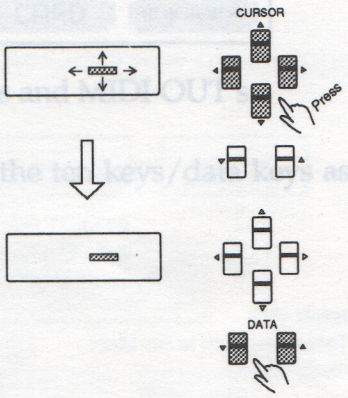
MAIN Takes you back to the Main mode.

QUIT Takes you back to the last screen you were using.

Setting a Value (by Numerals/Characters)

In almost of all cases, you set a parameter value by 2 data keys moving the cursor among various parameters with 4 cursor keys.

* Some parameters require their unique procedures for value setting.



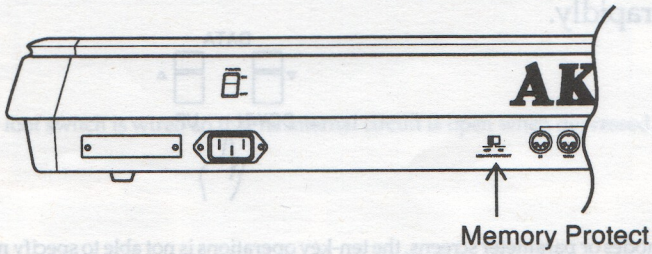
Panic Key Feature

When you press the panic key, the MX1000 will transmit MIDI all notes off message on all MIDI channels (1~16) from all MIDI-OUT jacks A~D.
This will solve a sudden problem such as hanging notes caused by disconnection of MIDI cables.



Memory Protection

The MX1000 is equipped with the memory protect on/off switch on its rear panel for its internal memory protection. To save the edited parameter values or when loading data from the memory card into the MX1000's internal memory, you have to set the memory protect switch to the OFF position.

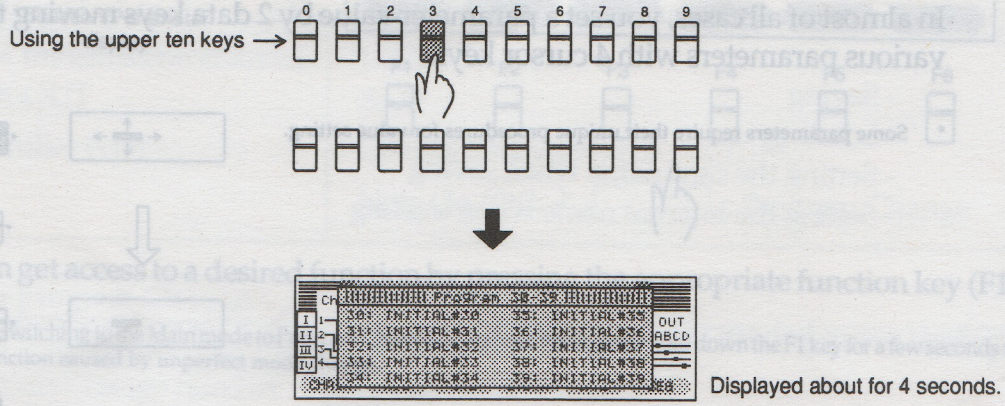


Specifying Program/Step Numbers

The following steps show how to select a Program (in the Main/Key Group modes) or a Step (in the Program Chain mode) by the ten keys.

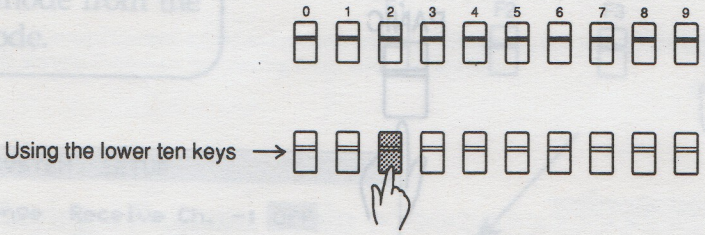
Step 1: Press one of the upper ten keys to specify bank 1~10 for your desired Program/Step number. At this time, the LCD will show that bank's 10 Programs/Steps for about 4 seconds.

Example: *When "3" of the upper ten keys is pressed in the Main mode (Program numbers 30-39 to be selected)*



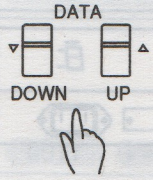
Step 2: Next, press one of the lower ten keys to specify which of the 10 Programs you want from the selected bank. This determines a specific Program/Step.

Example: *If "2" of the lower ten keys is pressed, Program number 32 will be selected.*



Step 3: When selecting another Program/Step, if the bank is the same as the last one, you only need to select another Program using the lower set of keys. Otherwise, begin in step 1.

If you wish, the data keys allows for increment/decrement of the Program/Step number one by one. If you press and hold down either of them, the number will be increased/decreased rapidly.



* In several modes or parameter screens, the ten-key operations is not able to specify numbers. In those cases, the ten keys/data keys works differently.

Main mode

When the MX1000 is turned on, it enters the Main mode automatically, and the Main mode screen will be displayed.
The Main mode screen informs you about the current Program as follows:



That is, 4 Key Groups with their respective key ranges and MIDI-OUT's.

You can select any of the 100 Programs freely with the ten keys/data keys as already explained. (See page 20.)

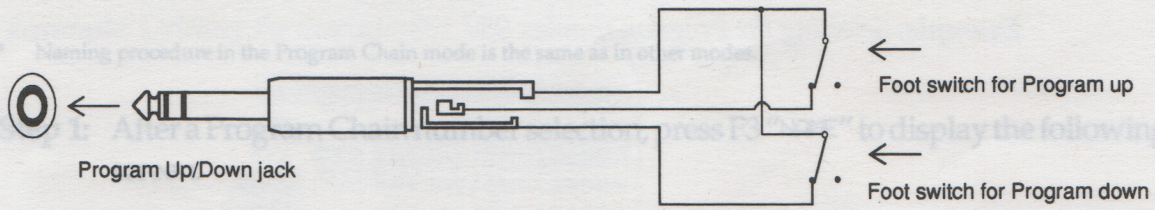
Selecting a Program by the Foot Switch

(This can be applied for the Step selection in the Program Chain mode.)

When a foot switch (normal-close type) is connected to the MX1000, Program(/Step) selection can be made by foot.

- When using a foot switch, you can increase (up) the number one by one. Simply connect the foot switch to the Program up/down jack on the rear panel of the MX1000.

- When using two foot switches, you can both increase and decrease the number. Use the foot switches wired as follows:

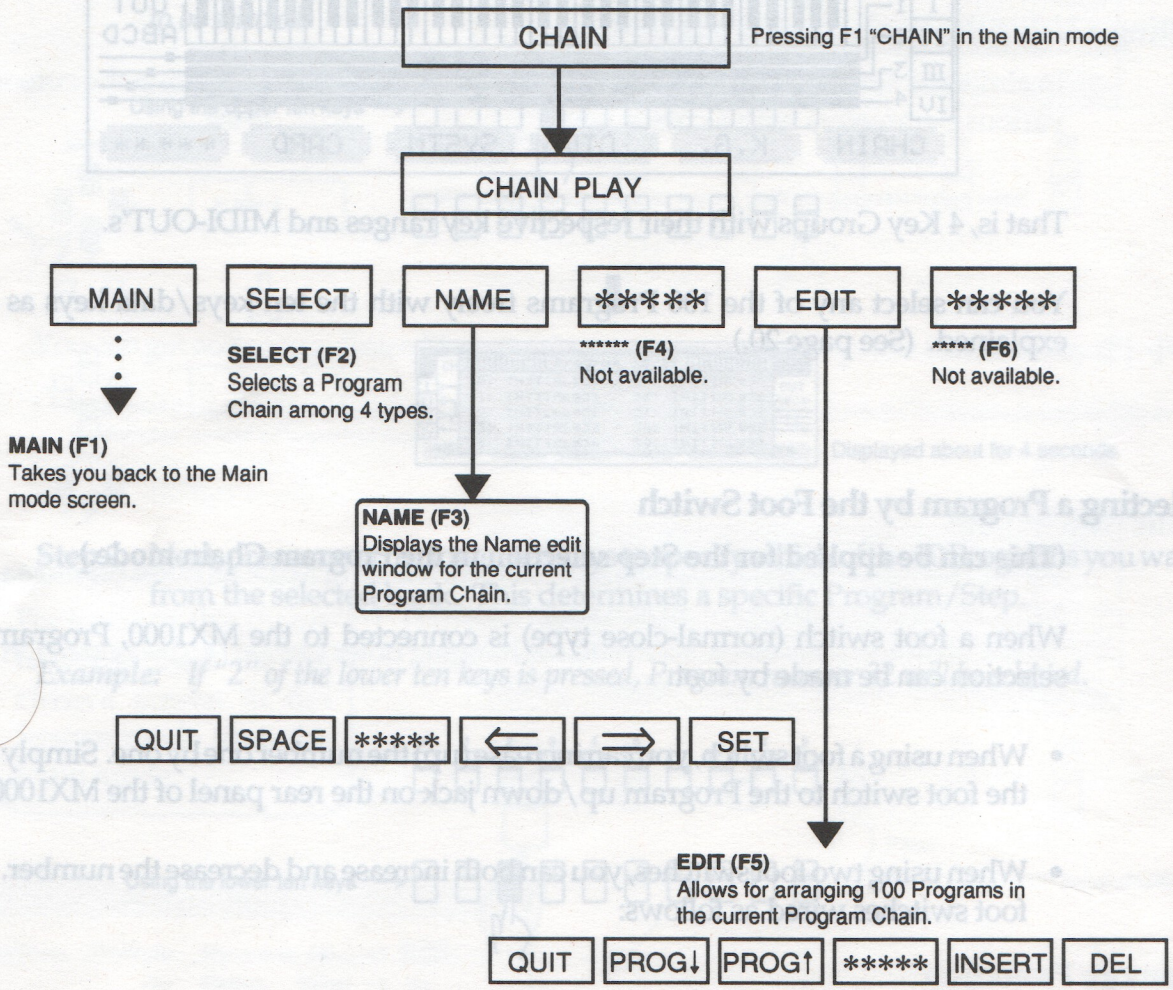


* A normal-close type foot switch is wired so that its internal circuit is open when depressed.

Program Chain mode

You can determine up to 4 "Program Chains" and store them in the MX1000's internal memory.

The hierarchy in the Program Chain mode is as follows:



Basic Operating Procedures

Editing a Program Chain (Creating a Program Chain)

- Program Chain number selection (See below.)
- Naming a Program Chain (See below.)
- Arranging the Programs (See page 24.)

Repeat above 3 procedure to create 4 Program Chains.

Entering the Program Chain mode

When you press F1 "CHAIN" in the Main mode screen, the Chain play screen appears, and you now enter the Program Chain mode.



* In the Chain play screen, it is possible to select or name a Program Chain.

Program Chain number selection

Every time you press F2 "SELECT" in the Chain play screen, the Program Chain number will change with the corresponding name.

* The cursor keys (up/down) can be used for Program Chain selection.

Naming a Program Chain

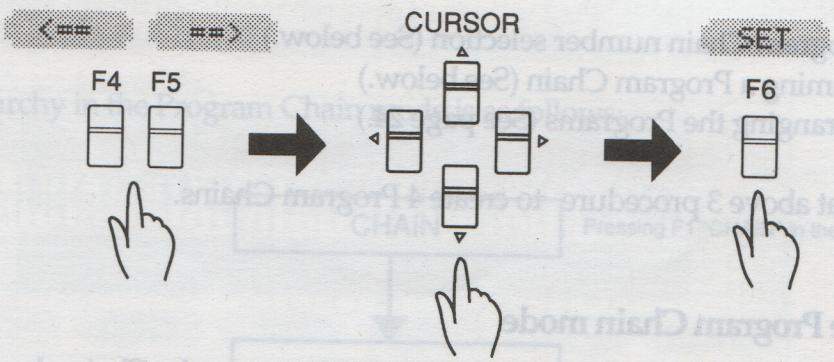
You can give a name to each Program Chain with up to 16 characters comprised of characters/numerals/symbols.

* Naming procedure in the Program Chain mode is the same as in other modes.

Step 1: After a Program Chain number selection, press F3 "NAME" to display the following screen.



Step 2: First move the cursor on a character of the Program Chain name with F4 "<==" / F5 "==>". Next, in the Name edit window, move the cursor on a desired character using the cursor keys, and then press F6 "SET" to determine it. When inputting a space, press F2 "SPACE".

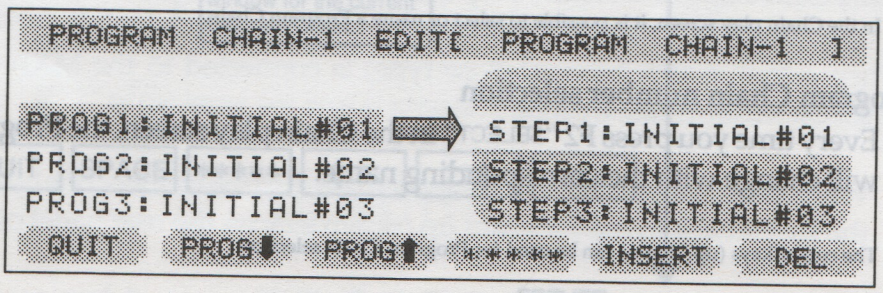


Step 3: To finish naming, press F1 "QUIT".

Arranging the Programs

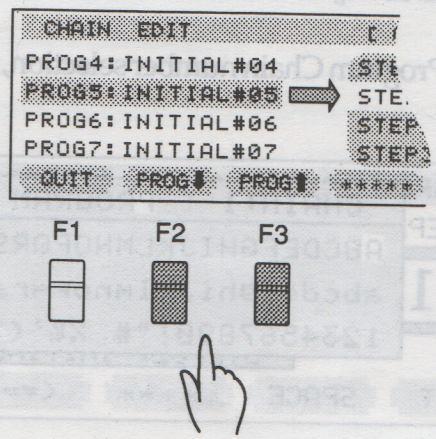
The following explains how to actually "chain" together the 100 desired Programs in the required order.

Step 1: After selecting a Program Chain number, press F5 "EDIT" to display the following screen.



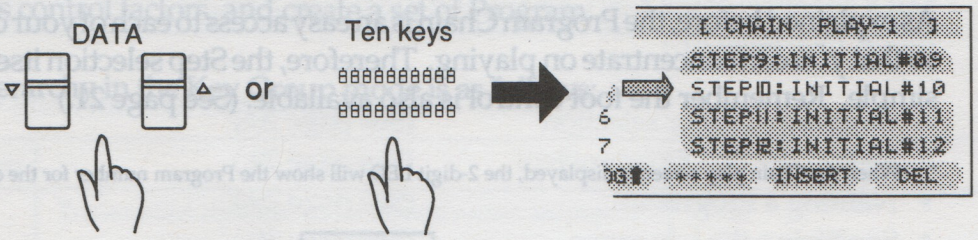
Step 2: Press F2 "PROG⬇" /F3 "PROG⬆" to select a required Program (this will be shown and highlighted to the left of the screen).

Example: *Selecting the Program number 05*



Step 3: Use the data keys or ten keys to select a Step you wish to assign the Program selected in the step 2, and line it on the right of the arrow in the screen.

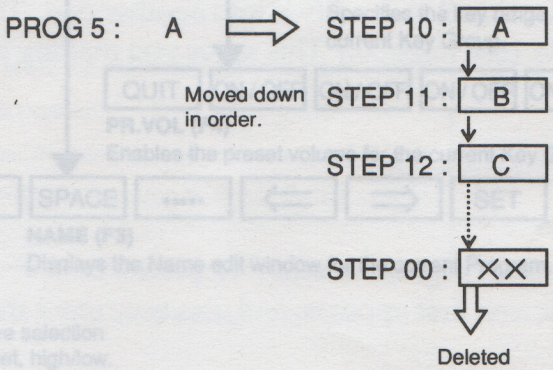
Example: *Selecting the Step number 10*



* The 2-digit LED shows the Program number assigned to the current Step.

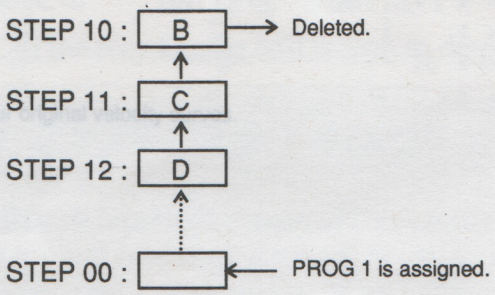
Step 4: Press F5 "INSERT" to assign the Program selected in the step 2 to the Step selected in the step 3. At this time, the old Program assigned to the Step and the latter ones will be moved down in order, and the 100th Program (Step number 100) will be automatically deleted.

Example: *Assigning to the Step number 10*



Step 5: If a Step is unnecessary, press F6 "DEL." to delete the Program assigned to the Step. At this time, the latter ones will be moved up in the order, and the Program number 01 will be automatically assigned to the Step number 100.

Example: *Deleting the Step number 10*



Step 6: To finish arranging, press F1 "QUIT" to return to the Chain play screen.

Playing in a Program Chain

Once selecting a Program Chain number in the Chain play screen (See page 23.), you can play the MX1000 selecting a Step among 100 by the ten keys/data keys. (See page 20.)

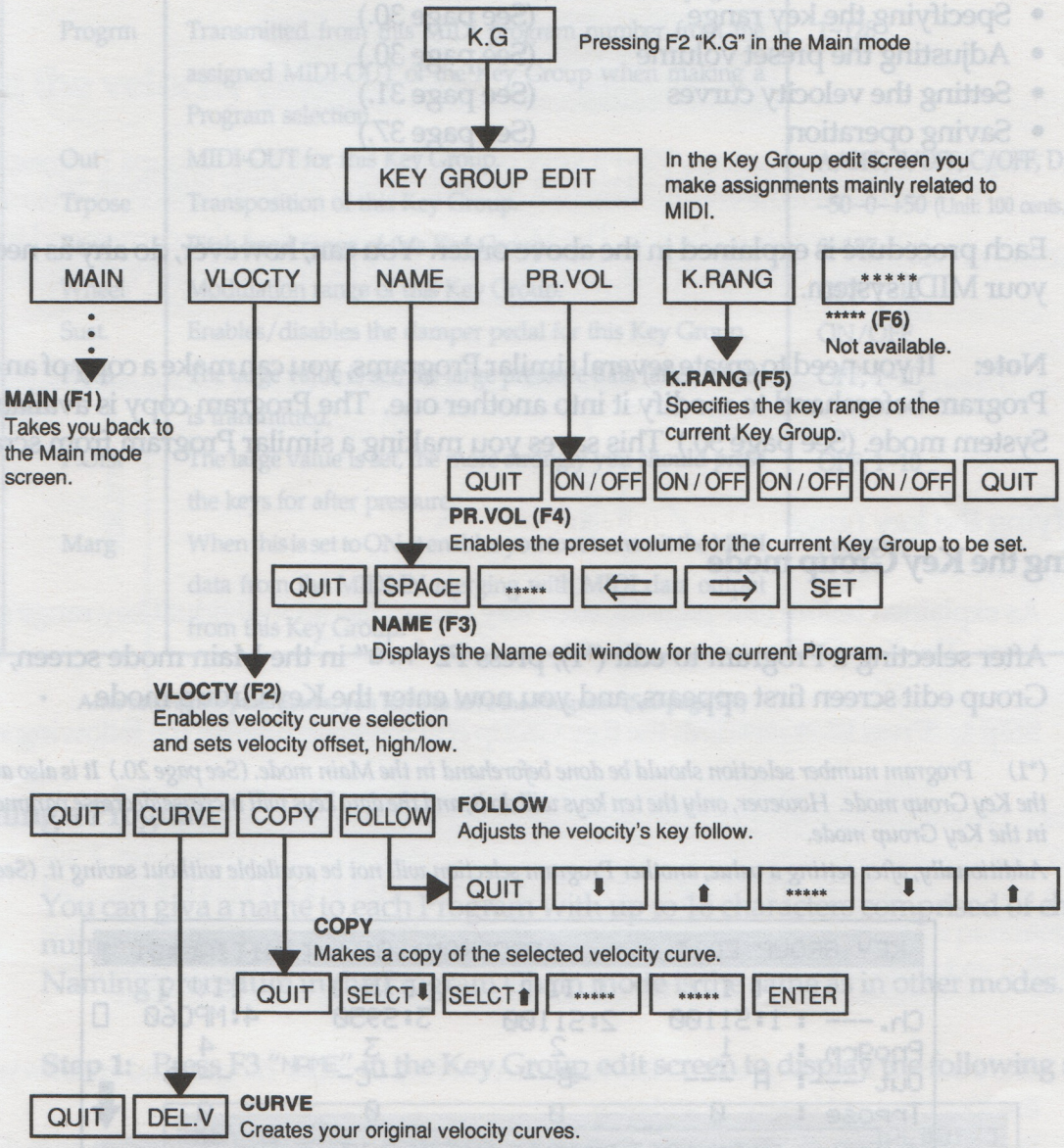
As explained before, the Program Chain is an easy access to each of your desired Programs, so that you can concentrate on playing. Therefore, the Step selection itself should be more simple. Remember the foot control is also available. (See page 21.)

* When the Chain play screen is displayed, the 2-digit LED will show the Program number for the current Step.

Key Group mode (for creating/editing Programs)

Here you can split the 76 keys into 4 groups specifying their respective key ranges and various control factors, and create a set of Program.

The hierarchy in the Key Group mode is as follows:



Note: Before/after working in the Key Group mode, you have to respectively set the MIDI channels of the Key Groups, and the slaves' names to the Key Groups in the System mode. (See page 51.)

- Program number selection (See page 20.)
- Setting the MIDI parameters (See page 29.)
- Naming a Program (See page 29.)
- Specifying the key range (See page 30.)
- Adjusting the preset volume (See page 30.)
- Setting the velocity curves (See page 31.)
- Saving operation (See page 37.)

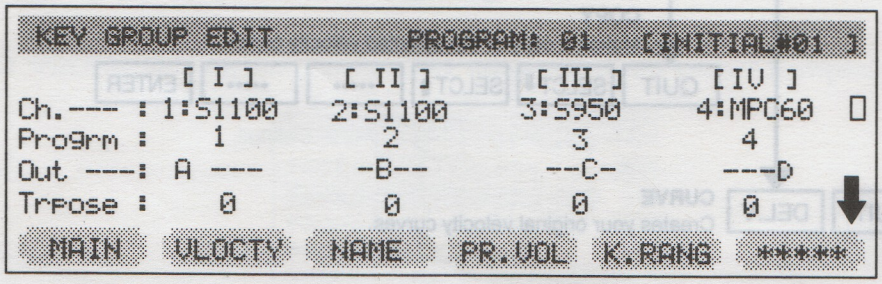
Each procedure is explained in the above order. You can, however, do any as needed for your MIDI system.

Note: If you need to create several similar Programs, you can make a copy of an original Program beforehand to modify it into another one. The Program copy is available inthe System mode. (See page 50.) This saves you making a similar Program from scratch.

Entering the Key Group mode

After selecting a Program to edit (*1), press F2 "K.G" in the Main mode screen, the Key Group edit screen first appears, and you now enter the Key Group mode.

*(*1) Program number selection should be done beforehand in the Main mode. (See page 20.) It is also available in the Key Group mode. However, only the ten keys will do it, and the data keys will increase/decrease parameter values in the Key Group mode.*
Additionally, after setting a value, another Program selection will not be available without saving it. (See page 37.)



The Key Group edit screen is a matrix chart and describes 4 Key Groups respectively as [I], [II], [III] and [IV]. Also, in the far left vertical line are the Key Group parameters. A Key Group will be specified by 10 parameters. One screen offers 4 sets of parameter display, and for each Key Group you can access all by scrolling up/down with the cursor keys (up/down).

* In other screens the Key Groups are described as [I], [II], [III], and [IV].

Setting the MIDI parameters

Move the cursor to a value field for a parameter by the cursor keys, input a desired value by the data keys.
The following shows all the Key Group parameters and their respective values.

Specify them for each Key Group.

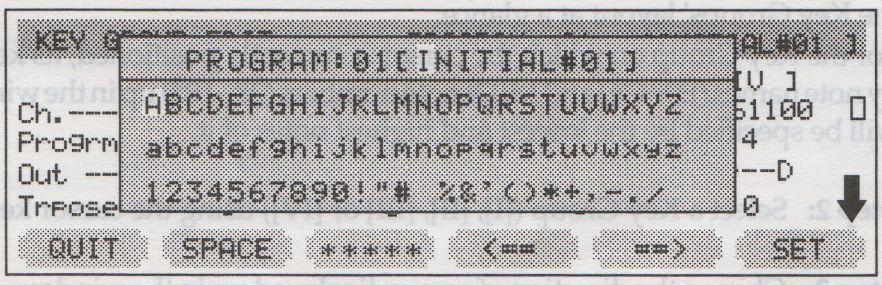
Parameter	Summary	Value
Ch	Transmission channels. As for channel names, see page 51.	1~16
Progrm	Transmitted from this MIDI program number from the assigned MIDI-OUT of the Key Group when making a Program selection.	1~128
Out	MIDI-OUT for this Key Group.	A/OFF, B/OFF, C/OFF, D/OFF
Trpose	Transposition of this Key Group.	–50~0~+50 (Unit: 100 cents/1 semitone)
Bend	Pitch bend range of this Key Group.	0~127
Wheel	Modulation range of this Key Group.	OFF, 1~10
Sust.	Enables/disables the damper pedal for this Key Group.	ON/OFF
Press	The large value is set, the large pressure data (after touch) is transmitted.	OFF, 1~10
P.Ofst	The large value is set, the more strongly you should press the keys for after pressure.	OFF, 1~10
Marg	When this is set to ON, it enables you to retransmit the MIDI data from the MIDI-IN merging with MIDI data output from this Key Group.	ON/OFF

* After setting the parameters, you have to save the Program. (See page 37.)

Naming a Program

You can giva a name to each Program with up to 16 characters comprised of characters/numerals/symbols.
Naming procedure in the Program Chain mode is the same as in other modes.

Step 1: Press F3 "NAME" in the Key Group edit screen to display the following screen.

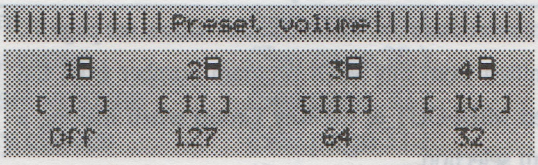


Step 2: The following operation is exactly the same as in the Program Chain mode. See page 23 for details.

Adjusting the preset volume

The preset volume feature enables you to set the suitable output levels of MIDI slaves beforehand by adjusting the default volume levels for 4 Key Groups respectively. And, you only switch the Program to a required one. It is possible to switch between full volume and a preset volume at any time.

Step 1: Press F4 "PR.VOL" in the Key Group edit screen to display the following screen.



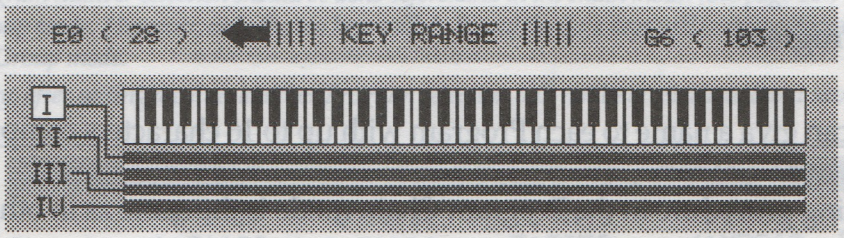
Step 2: Here in this screen, F2~F5 keys correspond to the Key Groups 1~4 respectively, and switch the volume function on or off. When the feature is on, the current preset volume value is shown. The MIDI control sliders 1~4 also correspond to the Key Groups 1~4 respectively, and you can set the level if the preset volume is switched on.

* For the Key Group(s) set to "OFF", the maximum value "127" is automatically specified. You may switch between full volume and the value set, by switching the preset volume function on/off by F2~F5 "ON/OFF".

Specifying the key range

As explained before (See page 8.), each Key Group has an individual key range on the 76 keys. The Key Group is based on this essential factor.

Step 1: Press F5 "K.RANG" in the Key Group edit screen to display the following window.



The 4 bands' lengths are described as 4 current Key Groups' ranges, and enables you to see the Key Groups' layout at a glance.
For the Key Group on which the cursor is currently positioned, its key range is displayed by note names (E0~G6) and MIDI note numbers (28~103) up in the window. The key range will be specified by the lowest and highest notes of it.

Step 2: Select a Key Group ([I], [II], [III] or [IV]) using the cursor keys (up/down).

Step 3: Change the direction of arrow displayed up in the window using the cursor keys (left: low/right: high).

Step 4: Specify the highest/lowest note by directly pressing a key on the MX1000 keyboard. The note name and MIDI note number of the key will be displayed.

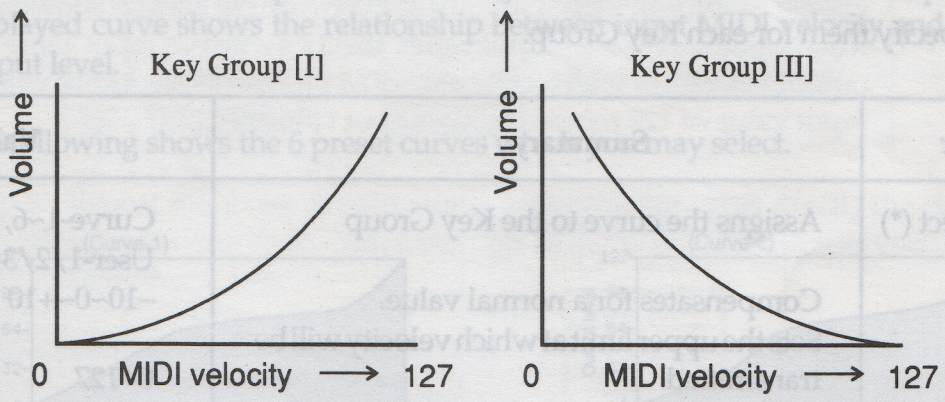
Repeat the step 3 once more to determine a key range. Also, repeat the steps 2~3 four times for all Key Groups.

Step 5: After setting the key range, press one of F1~F6 "QUIT" (all).

Setting the velocity curves

The available velocity curves total 14: 6 preset and 8 user-definable ones.

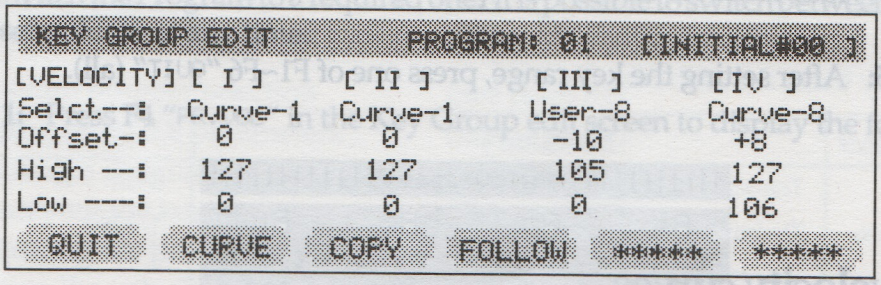
For instance, consider when a curve as in the illustration (A) is assigned to the Key Group [I], and another curve as in the illustration (B) to the Key Group [II].



In that case, when a key is pressed weakly/slowly, you can hear the sound controlled by the Key Group [II] over the sound by the Key Group [I], or vice versa (velocity crossfade). Moreover, using the velocity parameters "HIGH"/"LOW", you can even control the sound reproduction/muting at your fingertips (velocity switch). Other parameters for the velocity control are: the offset value setting, curve creation, velocity's key follow, or etc.

Velocity general screen

Step 1: Press F2 "VLOCTY" in the Key Group edit screen to display the Velocity general screen.



Here in the screen available are the velocity curve selection for the Key groups, and setting "OFFSET"/"HIGH"/"LOW" parameters for the selected curve.

Step 2: Move the cursor to a desired field, and then specify the value by the data keys.

The following shows all the Key Group parameters and their respective values.

Specify them for each Key Group.

Parameter	Summary	Value
Curve Select (*)	Assigns the curve to the Key Group	Curve-1~6, User-1/2/3/4/5/6/7/8
Offset	Compensates for a normal value.	–10~0~+10
High	Sets the upper limit at which velocity will be transmitted.	0~127
Low	Sets the lower limit at which velocity will be transmitted.	0~127

(*) Each velocity curve can be edited in detail. See the following pages.

Detailed curve editing is available by pressing:

F2 "CURVE" to Curve edit screen
F3 "COPY" to Curve copy screen
F4 "FOLLOW" to Key follow screen

Curve edit screen

Here in this screen you can test a velocity curve by actually pressing a key using a combination of graphic curve display and a numeric velocity value display. You may also create your own velocity curves by setting "power points", peaks and dips in the velocity curve.
The curve displayed in the screen is the one selected in the Key Group you are currently editing.

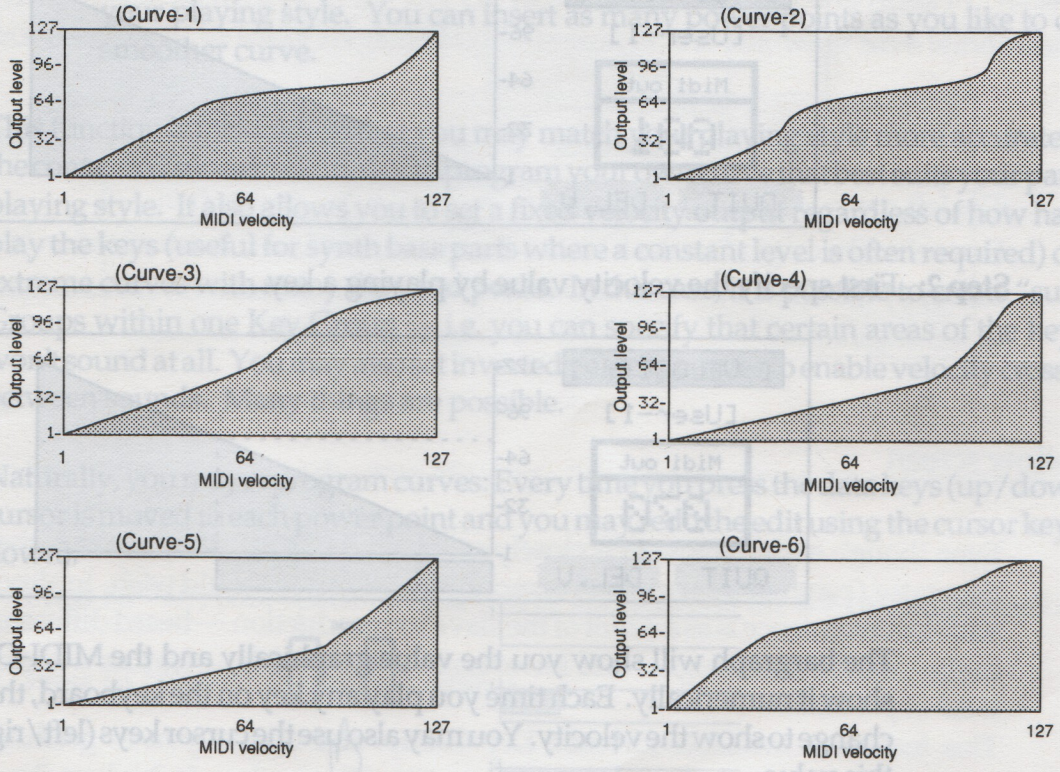
Curve selection and testing

It is possible to select different curves for testing and editing using F5 and F6 keys although these are not labelled as such.

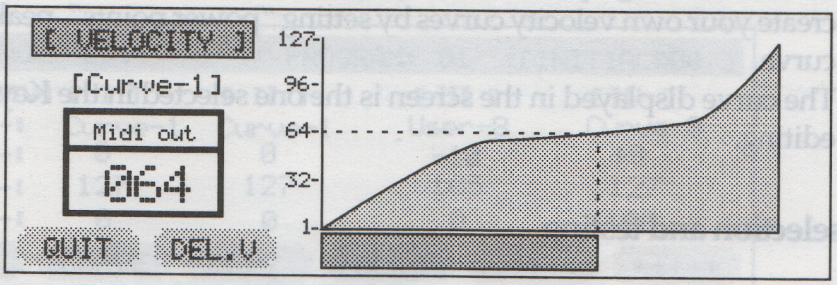
* The selection of different curves using F5/F6 in this screen is linked to the "Curve select" parameter in the Velocity general screen and selecting a new one here will automatically change the selection made in that page.

In the Curve edit screen, the velocity curves are displayed on a graph in which the horizontal axis is the input MIDI velocity and the vertical axis, the output level. The displayed curve shows the relationship between input MIDI velocity and the resultant output level.

The following shows the 6 preset curves which you may select.



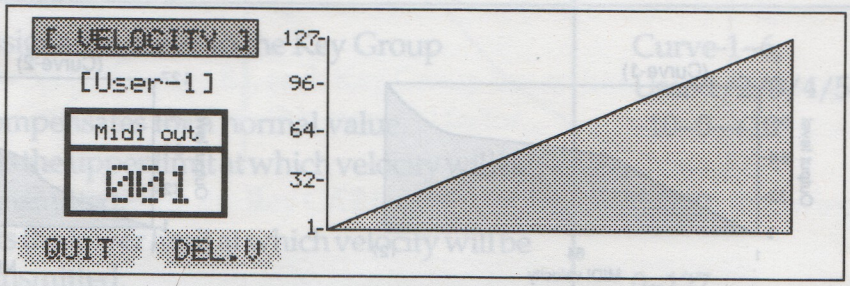
Underneath the graphic display is an input MIDI velocity "meter". As soon as you play a key, this will change to show the MIDI velocity level of that note. Also shown will be a numeric read out of that value. This is used not only for checking and testing but for the creation of your own velocity curves.



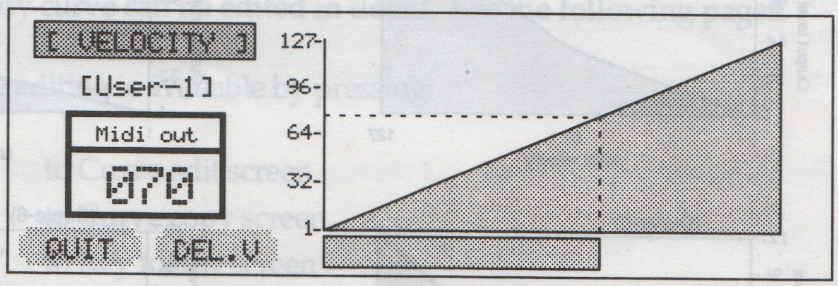
Curve creation and editing

To create a curve, you have to set the relationship between the input velocity and the output level. This is done graphically on the screen.

Step 1: Select one of the 8 user curves (User-1 to 8). The default setting for these is linear and the graph will show a straight line between the 2 points showing that the input MIDI value equals the output value. In other words, a input value of 1 represents output velocity of 1, an input value of 64 represents an output value of 64 and an input value of 127 represents an output value of 127.

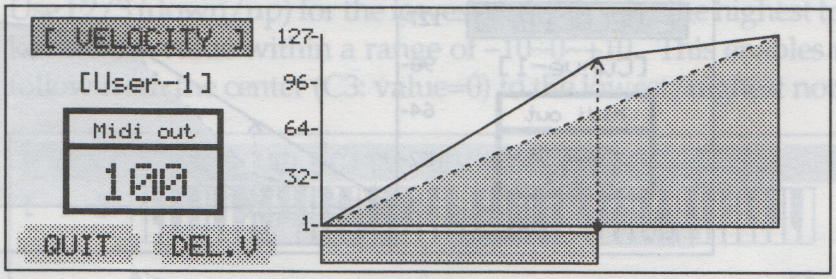


Step 2: First specify the velocity value by playing a key.

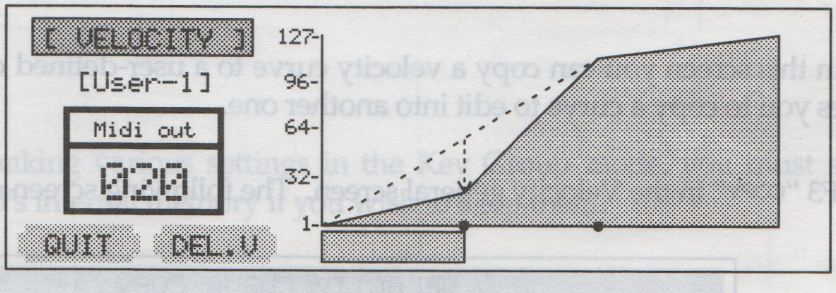


The bargraph will show you the value graphically and the MIDI-OUT box will show it numerically. Each time you play any key on the keyboard, the values will change to show the velocity. You may also use the cursor keys (left/right) to adjust this value.

Step 3: You may now "draw" your curve by pressing the cursor keys (up/down) — you will see the curve change forming a "hump" or a "dip" around the velocity value according to whether you increment or decrement this value with the cursor keys (up/down).



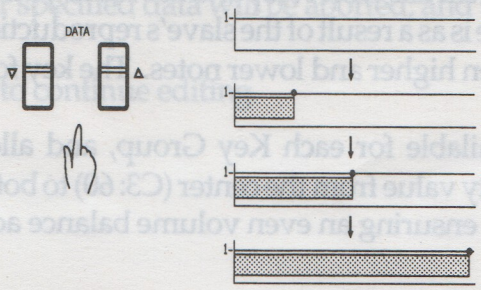
Step 4: You may now set another point in the curve. Play a key (or use the cursor left/right keys) to set a lower MIDI-OUT level. Now adjust the curve using the cursor keys (up/down). You may end up with a curve such as is shown below.



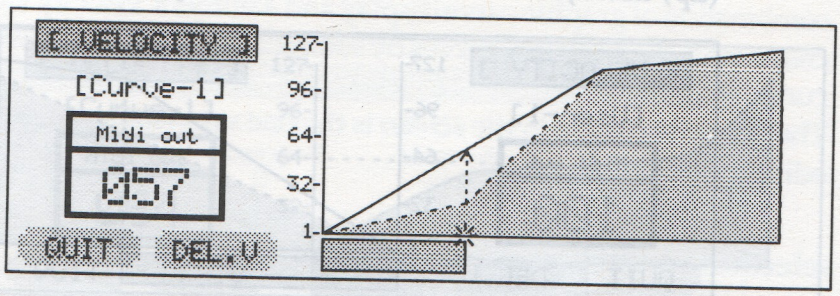
Step 5: Repeat the above as many times as you like to create exactly the curve that suits your playing style. You can insert as many power points as you like to create a smoother curve.

This function is included so that you may match your playing style more accurately with the connected sound modules or to program your own curve that best suits your particular playing style. It also allows you to set a fixed velocity output regardless of how hard you play the keys (useful for synth bass parts where a constant level is often required) or to set extreme curves with many dips and peaks. In this case, it is possible to create "sub" Key Groups within one Key Group — i.e. you can specify that certain areas of the keyboard won't sound at all. You may also set inverted velocity curves to enable velocity crossfading between sounds. Many things are possible.

Naturally, you may reprogram curves: Every time you press the data keys (up/down), the cursor is moved to each power point and you may redo the edit using the cursor keys (up/down).



If an existing power point is not needed, first select the desired point by the data keys, then press F2 "DEL.U". The power point is deleted, and the curve is redrawn on the remaining co-ordinates.

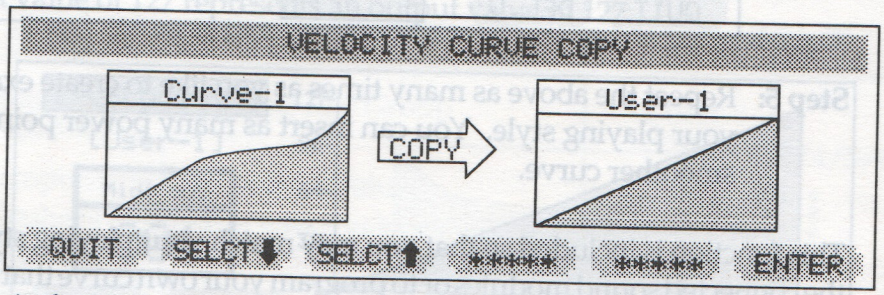


* You cannot specify the output MIDI velocity value to the preset curves. When you wish to edit and use them, you first copy the desired one for a user-defined curve.

Curve copy screen

Here in this screen you can copy a velocity curve to a user-defined curve. This feature enables you to copy a curve to edit into another one.

Press F3 "COPY" in the Velocity general screen. The following screen appears.



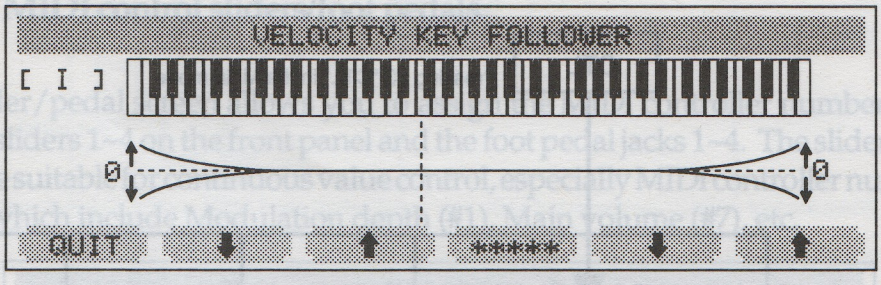
The left curve is the copy origination, the right is the destination.
First select the origination by F2 "SELCT⬇" / F3 "SELCT⬆", next the destination (a user-defined curve) by the data keys. Then press F6 "ENTER". The destination curve is exactly the same as the origination.

Key follow screen

Even though each parameter is closely set up on the MX1000, sometimes the slave sound generator/program in use won't respond as well as you would wish. In almost of all cases such inconvenience is as a result of the slave's reproduction — heard difference of volume, timbre, etc., between higher and lower notes. The key follow feature will easily solve this kind of problem.
This feature is available for each Key Group, and allows you to gradually increase/decrease the velocity value from the center (C3: 60) to both ends (highest/lowest notes) on the keyboard, thus ensuring an even volume balance across the keyboard range.

Step 1: First display the Key follow screen by pressing F4 "FOLLOW" in the Velocity general screen, and select a Key Group by the cursor keys (left/right). A selected Key Group will be shown upper-left in the screen.

Step 2: Use F2/3 (down/up) for the lowest end, F5/6 for the highest to set the velocity's key follow value within a range of –10~0~+10. This enables the velocity's key follow from the center (C3: value=0) to the lowest/highest notes.

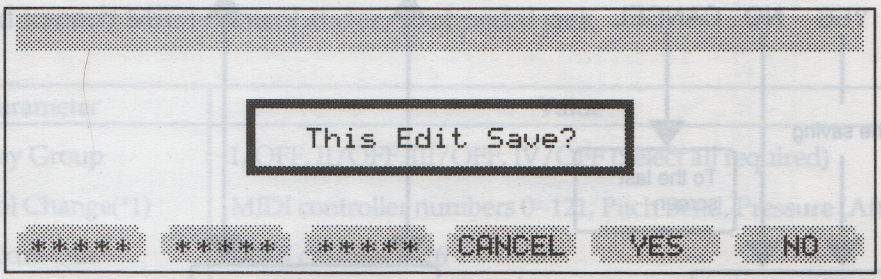


Saving operation

After making various settings in the Key Group mode, you must store them in the MX1000's internal memory if you wish to keep them.

* This operating process is exactly the same as in the Control mode.

After a value is changed in the Key Group/Control modes, if you press F1 "MAIN" to exit from the mode, or select another Program number, the following Save window appears.



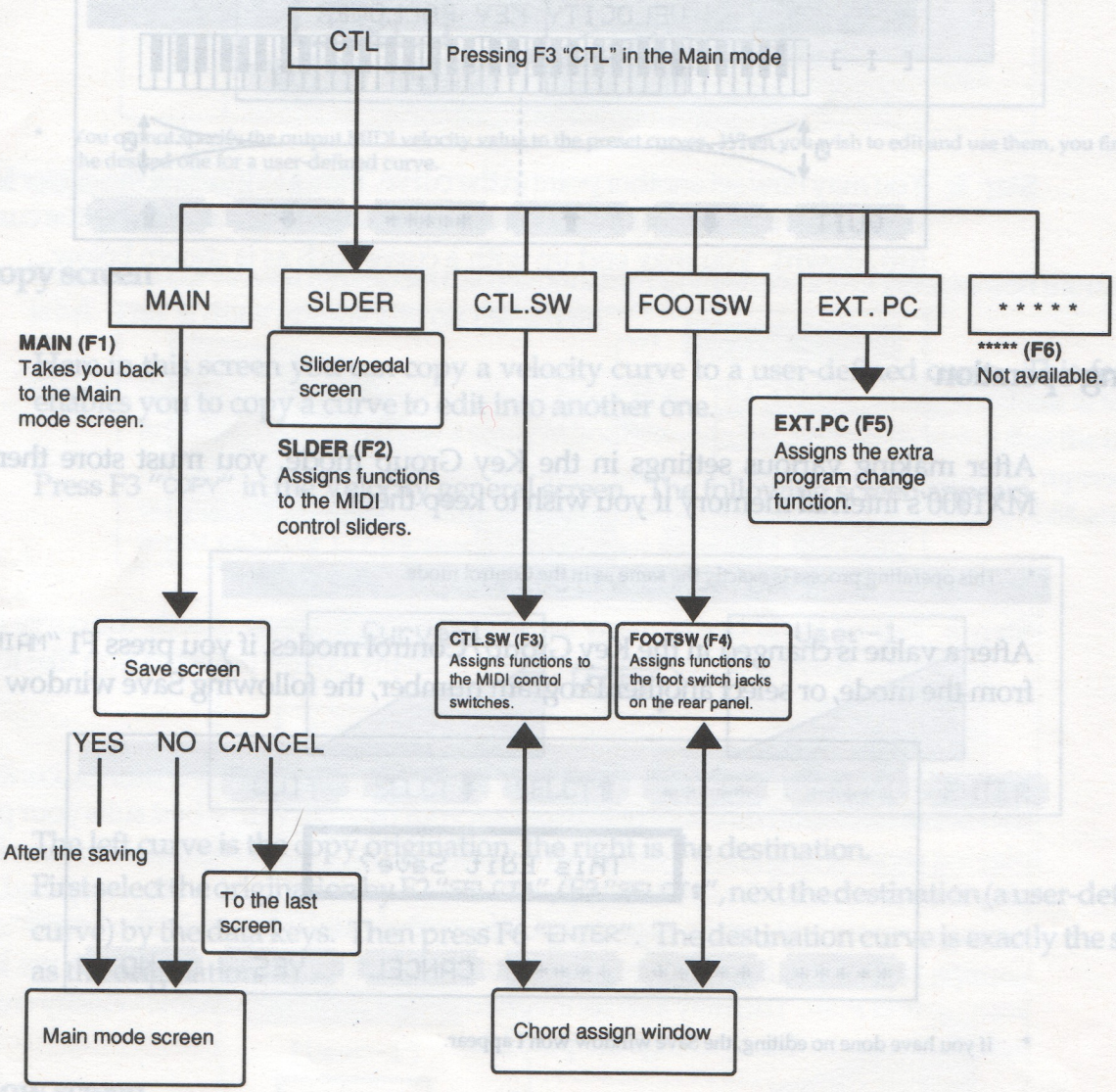
* If you have done no editing, the Save window won't appear.

- Press F5 "YES" to save the data, "Saving...." will be displayed for a few seconds, and the selected screen will appear.
- Press F6 "NO", your specified data will be aborted, and the selected screen will appear.
- Press F4 "CANCEL" to continue editing.

Control mode

You can control the MIDI slaves using the built-in control switches/sliders. Here it is explained how to assign different MIDI function, to them.

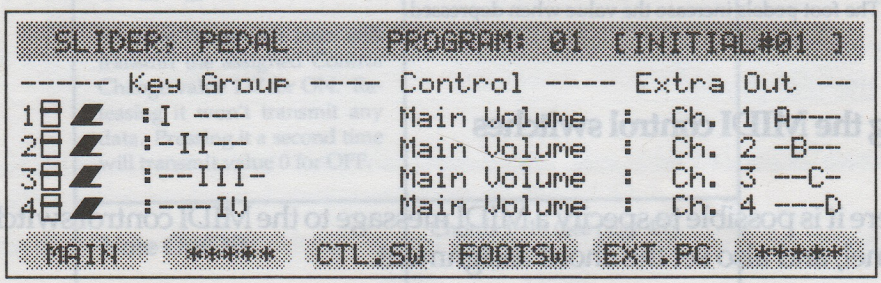
The hierarchy in the Control mode is as follows:



When pressing F3 "CTL." in the Main mode screen, the Slider/pedal screen appears first and now you are in the Control mode. By pressing F3 "CTL.SW" /F4 "FOOTSW" /F5 "EXT.PC", their corresponding screens will respectively appear.
The hierarchy of the Control mode is quite simple so that you can move from one screen to others, even to the Main mode screen directly.

Assigning the MIDI control sliders/foot pedals

The Slider/pedal screen allows you to assign the MIDI controller numbers to the MIDI control sliders 1~4 on the front panel and the foot pedal jacks 1~4. The sliders/foot pedals are more suitable for continuous value control, especially MIDI controller numbers 00~31/32~63, which include Modulation depth (#1), Main volume (#7), etc.



Procedure: Move the cursor onto the desired parameter using the cursor keys, and specify the value by the data keys.

The following shows the available parameters and their values.

Assigned to each MIDI control slider/foot pedal jack.

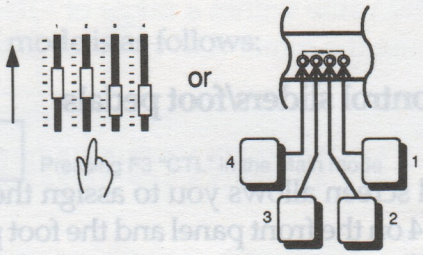
Parameter	Value
Key Group	I/OFF, II/OFF, III/OFF, IV/OFF (Select all required)
Control Change(*1)	MIDI controller numbers 0~121, Pitch Bend, Pressure (After Touch)
Extra Out	MIDI channel 1~16
MIDI-OUT	A/OFF, B/OFF, C/OFF, D/OFF

(*1) Consult the controller number list on page 45.

* After the assignment, it is necessary to save these parameters. (See page 37.)

Application: The sliders can be used to control the volume of connected MIDI instruments as a convenient mixer or can be used as extra performance controls. The foot pedals can be used as performance conrols if both of your hands are busy.

* If the monitor feature is active, you can monitor the slider/pedal status in the LCD. (See page 47 for details.)



* When the foot pedal(s) are connected to the rear panel jack(s), the 4 MIDI control sliders do not work.

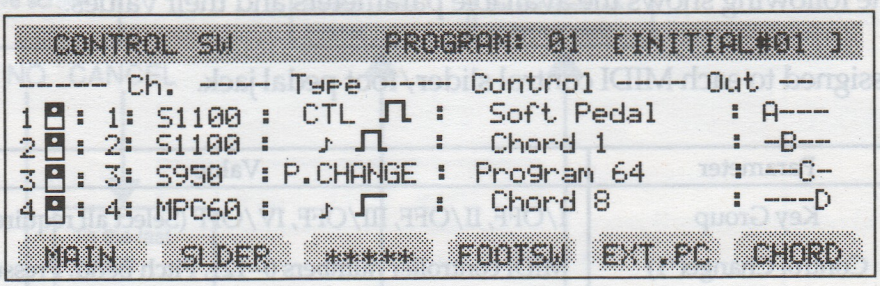
* The foot pedals increase the value when depressed.

Assigning the MIDI control switches

Here it is possible to specify a MIDI message to the MIDI control switches 1~4 on the front panel, and also set the chord assignment.

* Chord assignment is also available in the Foot switch screen. See page 43 for detailed operations.

Pressing F3 "CTL.SW" in the Control mode displays the Control switch screen.

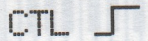
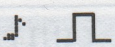


Procedure: Move the cursor onto the desired parameter using the cursor keys, and specify the value using the data keys.

The following chart shows the available parameters and their values.

These can be assigned to each MIDI control switch.

<table>
<tr><th colspan="4">Parameter</th></tr>
<tr><th>MIDI Channel</th><th>Message Type</th><th>Controller</th><th>Out</th></tr>
<tr><td rowspan="3">1~16</td><td>Control Change
CTL 
Every time you press the switch, it will transmit the assigned Control Change value 127 for ON, and releasing it will transmit the value 0 for OFF.

CTL 
Pressing the switch once will transmit the assigned Control Change value 127 for ON. Releasing it won't transmit any data. Pressing it a second time will transmit value 0 for OFF.</td><td>Control Change data
(: MIDI controller number)
00~127</td><td rowspan="3">A/OFF
B/OFF
C/OFF
D/OFF</td></tr>
<tr><td>Note On/Off

Every time you press the switch, it will transmit the Note ON data for the assigned chord, and releasing it will transmit OFF.


Pressing the switch once will transmit the Note ON data for the assigned chord. Releasing it won't transmit any data. Pressing it a second time will transmit OFF.

* The chords you assign to these keys are selected in the field to the right. (See page 43 for details.)</td><td>Chords 1~10 (See page 43.)</td></tr>
<tr><td>Program Change
P.CHANGE
* Every time you press the switch, it will transmit the assigned program change data.</td><td>Program Change data
(: MIDI program number)
Program 1~128</td></tr>
</table>

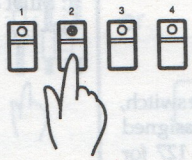
* Assigning MIDI controller numbers 0~31/32~63 (for continuous data control) to the switches: The slaves are controlled by a maximum value when the switches pressed. When the switches released, the slaves are controlled by a minimum value .

* After assigning these functions, it is necessary to save them. (See page 37.)

Application: Use these switches for special effects (i.e., pre-programmed brass stabs, etc.) or for switch control of external devices such as "Hold", "Mute", etc. Also, remember these functions can be recorded into your sequencer.

* If the monitor feature is active, you can monitor the slider/pedal status in the LCD. (See page 47 for details.)

Example: *When the MIDI control switch #2 is pressed*

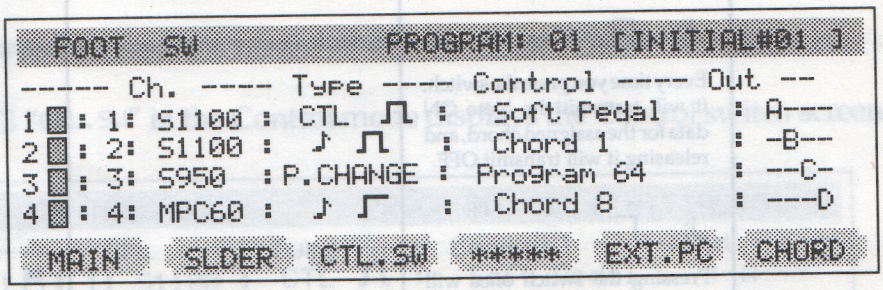


Assigning the foot switches

Here you can assign the MIDI functions and chord assignments to the foot switch jacks 1~4 on the rear panel.

* Chord assignment is also available in the Control switch screen. See page 43 for detailed operations.

Pressing F4 "FOOTSW" in the Control mode displays the Foot switch screen.



Procedure: Move the cursor onto the desired parameter using the cursor keys, and specify the value by the data keys.

Assigning procedure for the foot switch jacks is exactly the same as in the Control switch screen. See page 40.

* After assigning the functions, you will need to save them. (See page 37.)

Application: As for front panel switches but more useful if both hands are occupied.

* If the monitor feature is active, you can monitor the slider/pedal status in the LCD. (See 47 for details.)

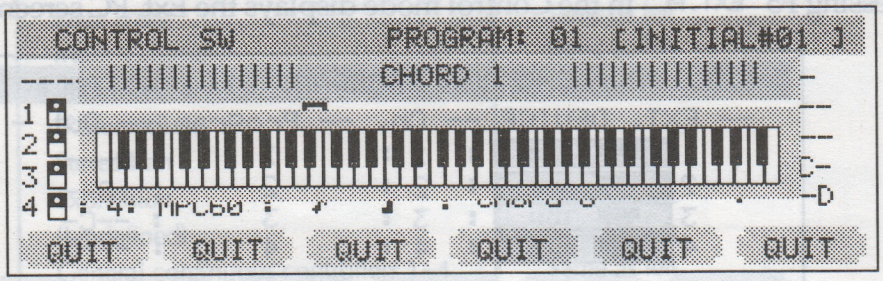
* Use foot switches of normal-close type. (See page 21.)

Specifying chords

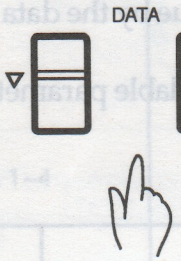
If you assign Note On/Off to the Message Type for a MIDI control switch/foot switch, you have to set the notes to be transmitted as chords. (up to 10 types)

Step 1: Press F6 "CHORD" in the Control switch/Foot switch screen to display the Chord assign window.

* Chords can be specified only in those screens.



Step 2: Select a chord number by the data keys. The selected chord number is shown above the keyboard representation on the LCD.



Step 3: Play directly any one chord comprised of up to 4 notes. It will be displayed in the graphic keyboard representation on the LCD.

Example: *When a C major chord played*



* Chords will be specified using the last note priority.

Repeat the steps 1~3 as many times you need. Up to 10 chords can be memorized.

As mentioned before, your chords can be played by assigning them to the MIDI control switches/foot switches. This enables you to play a sound effect or the like from just one key.

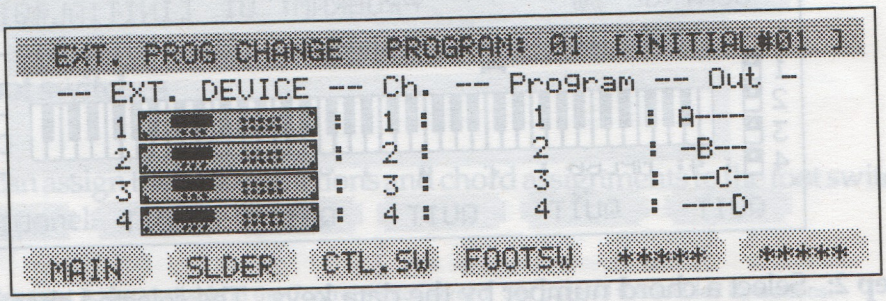
Step 4: After specifying the chords, press any function key (F1~F6 "QUIT") to return to the previous screen.

Assigning the extra Program Change messages

An "extra" Program Change belongs to each Program and will be transmitted when a Program is switched to another, for switching the program on an external MIDI-compatible effects unit/patch bay/etc..

Here it is explained how to assign the MIDI transmission channel/program number/MIDI-OUT for the message.

Pressing F5 "EXT.PC" in the Control mode displays the Ext. PC screen.



Procedure: Move the cursor onto the desired parameter using the cursor keys, and specify the value by the data keys.

The following shows the available parameters and values.

Assigned to each Program.

Parameter	Value
MIDI channel	1~16
Program number	1~128
MIDI-OUT	A/OFF, B/OFF, C/OFF, D/OFF

* After assigning these functions, it is necessary to save the data. (See page 37.)

The assigned Ext. PC message will be automatically transmitted when you select a Program as well as when you select a Step in the Program Chain mode.

Saving operation

After making various settings in the Control mode, you have to store them in the MX1000's internal memory if you wish to keep them.

* This operating process is exactly the same as in the Key Group mode. See page 37 for details.

Assignable Controllers to MIDI control sliders/switches/foot switches

MIDI Controller No.	Control Change data for Sliders/Pedals	Contorol Change data for Switches/Foot Switches
0	(Reserved)	
1	Modulation Wheel/Lever	Same as left
2	Breath Controller	Same as left
3	(Reserved)	
4	Foot Controller	Same as left
5	Portament Time	Same as left
6	Data Entry	Same as left
7	Main Volume	Same as left
8	Balance	Same as left
9	(Reserved)	
10	Stereo Pan	Same as left
11	Expression	Same as left
12~15	(Undefined)	Same as left
16~19	General continuous controllers 1~4	Same as left
20~31	(Undefined)	
32~63	(Same respectively as 0~31)	Same as left
64	Damper Pedal	Same as left
65	Portament	Same as left
66	Sostenuto Pedal	Same as left
67	Soft Pedal	Same as left
69	Freeze	Same as left
70~79	(Reserved)	
80~83	General switch controllers 1~4	Same as left
84~90	Reserved	Same as left
91	External Effect Depth	Same as left
92	Tremelo/Tremolo Depth	Same as left
93	Chorus Depth	Same as left
94	Celeste/Detune Depth	Same as left
95	Phaser Depth	Same as left
96	Data Increment	Same as left
97	Data Decrement	Same as left
98	NRPN's LSB	Same as left
99	NRPN's MSB	Same as left
100	RPN's LSB	Same as left
101	RPN's MSB	Same as left
102~120	(Undefined)	
121	Reset All Controllers	Same as left
122	***Bend Up Range (*)***	Local Control
123	***Bend Down Range (*)***	All Note Off
124	***After Pressure Range (*)***	Omni Off
125	—	Omni On
126	—	Mono On
127	—	Poly On

(*) Bend up and down ranges and After Pressure range will be transmitted using their corresponding standard MIDI status messages, not Control Change status.

Assignable Controllers to MIDI control sliders/switches/foot switches

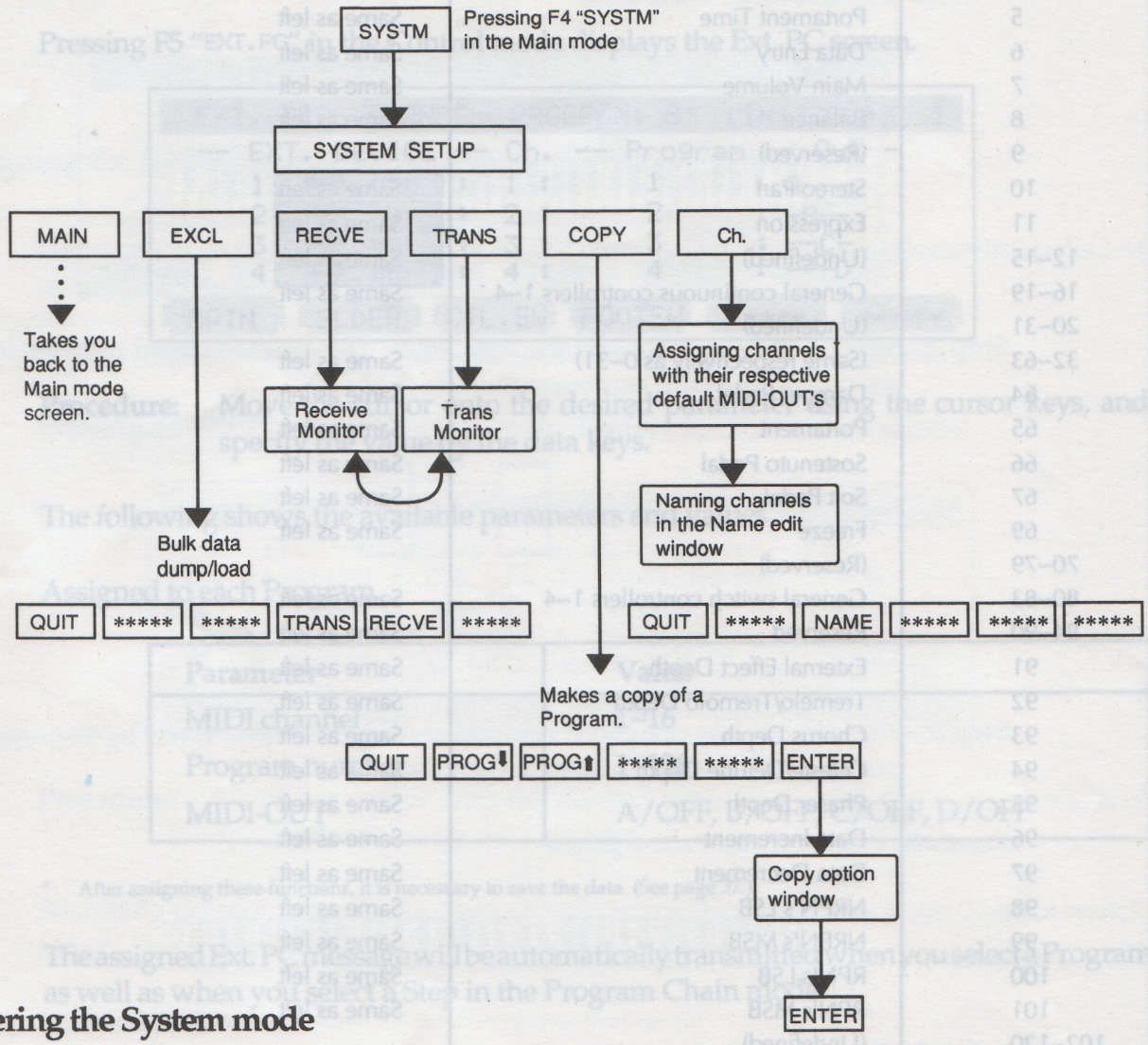
MIDI Controller No.	Control Change data for Sliders/Pedals	Contorol Change data for Switches/Foot Switches
0	(Reserved)	
1	Modulation Wheel/Lever	Same as left
2	Breath Controller	Same as left
3	(Reserved)	
4	Foot Controller	Same as left
5	Portament Time	Same as left
6	Data Entry	Same as left
7	Main Volume	Same as left
8	Balance	Same as left
9	(Reserved)	
10	Stereo Pan	Same as left
11	Expression	Same as left
12~15	(Undefined)	Same as left
16~19	General continuous controllers 1~4	Same as left
20~31	(Undefined)	
32~63	(Same respectively as 0~31)	Same as left
64	Damper Pedal	Same as left
65	Portament	Same as left
66	Sostenuto Pedal	Same as left
67	Soft Pedal	Same as left
69	Freeze	Same as left
70~79	(Reserved)	
80~83	General switch controllers 1~4	Same as left
84~90	Reserved	Same as left
91	External Effect Depth	Same as left
92	Tremelo/Tremolo Depth	Same as left
93	Chorus Depth	Same as left
94	Celeste/Detune Depth	Same as left
95	Phaser Depth	Same as left
96	Data Increment	Same as left
97	Data Decrement	Same as left
98	NRPN's LSB	Same as left
99	NRPN's MSB	Same as left
100	RPN's LSB	Same as left
101	RPN's MSB	Same as left
102~120	(Undefined)	
121	Reset All Controllers	Same as left
122	***Bend Up Range (*)***	Local Control
123	***Bend Down Range (*)***	All Note Off
124	***After Pressure Range (*)***	Omni Off
125	—	Omni On
126	—	Mono On
127	—	Poly On

(*) Bend up and down ranges and After Pressure range will be transmitted using their corresponding standard MIDI status messages, not Control Change status.

System mode

In the System mode, you can set up the general things related to the MX1000 and your MIDI system: MIDI data transmission/reception functions, MIDI monitor function, etc.

The hierarchy in the System mode is as follows.



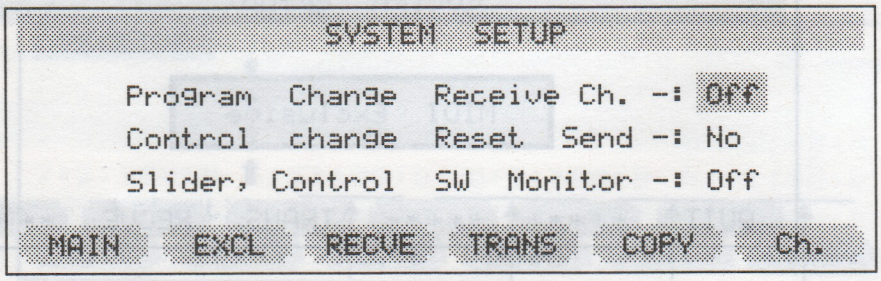
Entering the System mode

When you press F4 "SYSTM" in the Main mode screen, the System setup screen appears and you now enter the System mode. As in other modes, you can switch to another screen by pressing:

F2 "EXCL" for the Exclusive screen
F3 "RECVE" for the Reception monitor screen
F4 "TRANS" for the Transmission monitor screen
F5 "COPY" for the Program Copy screen
F6 "Ch." for the Channel/MIDI-OUT assign screen

System setup screen

The first screen in the System mode enables the MIDI reception channel selection for the external Program Change, reset of Control Change data, and monitor of assignments to the MIDI control sliders/switches.



Procedure: Move the cursor onto the desired function using the cursor keys, and specify the value by the data keys.

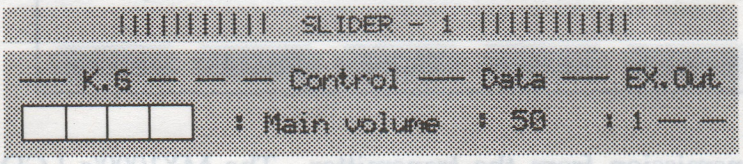
The following shows the available parameters and values.

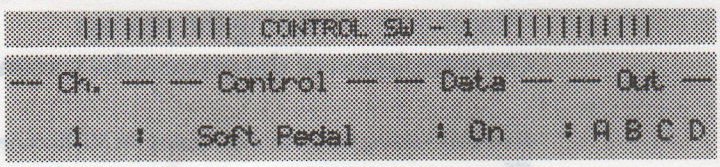
Function	Value
Program Change Receive Ch.	OFF, 1~16
Control Change Reset Send	YES, NO
Slider, Control Sw Monitor	ON, OFF

Program Change Receive Ch.: When making the Program/Step selection from an external MIDI master, match the reception channel with the master's transmission channel.

Control Change Reset Send: When selecting a Program on the MX1000, if you reset the MIDI slaves to that default setting from under the control of the MIDI control sliders/switches/foot pedals, set the value to "YES". This enables an automatic transmission of "Reset All Controllers (MIDI controller number 121)" in a Program selection.

Slider,Control Sw Monitor: If this parameter is set to ON, while using the MIDI control sliders/switches/foot switches, you can view the current assignments and statuses of them respectively by the monitor windows as follows.

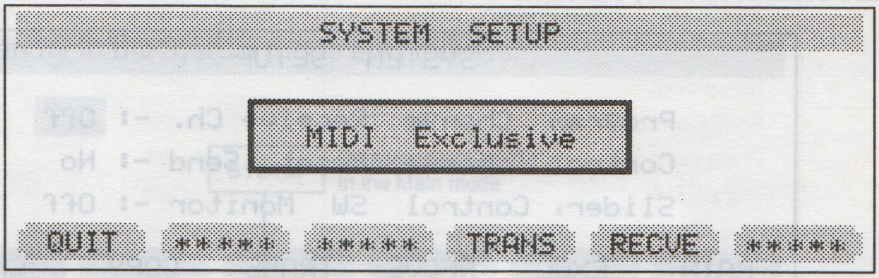




* These displays remain active for about 4 seconds and are useful for checking controller and switch assignments without having to enter the CTL screens.

Exclusive screen

In this screen you can dump/load the bulk data of the MX1000 as the MIDI System Exclusive message, to/from an external MIDI-compatible sequencer or MIDI data filer.



Bulk dump (transmission)

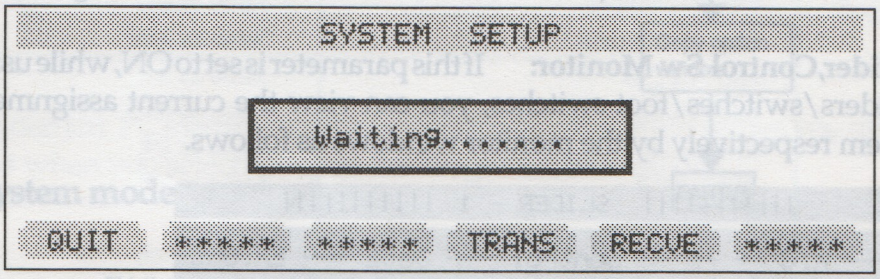
After making the required preparation on the receiver, press F4 "TRANS" to start the bulk dump process. During the process, "Sending....." will be displayed in the screen. On the completion of the process the screen will show the previous display.

* Bulk data is transmitted from the MIDI-OUT's A~D simultaneously.

Bulk load (reception)

Note: *First set the memory protect switch on the rear panel of the MX1000 to "OFF" position. If you fail to do this, "PROTECT !" will be displayed, and bulk loading is not available. Also, after the bulk loading process, all the current internal data will be lost. If required, save them onto an external medium beforehand.*

After connecting the MX1000's MIDI-IN to the transmitter's MIDI-OUT, press F5 "RECVE". The MX1000 is now on standby to receive the bulk data.

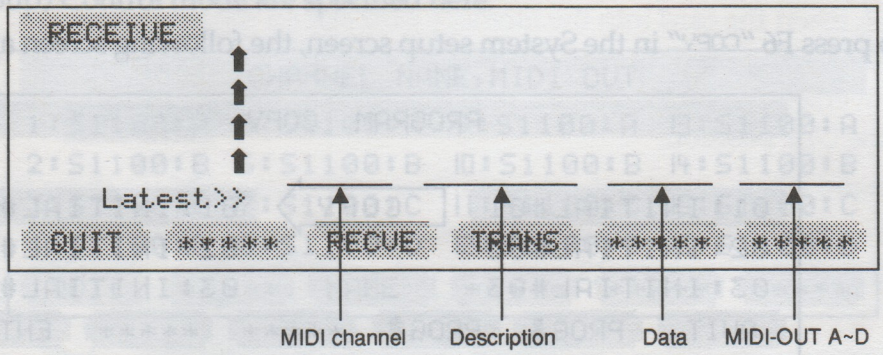


Start the data transmission from the transmitter. The MX1000's LCD will show "Receiving....." during the process.
On completion of the process the screen will change to the Exclusive screen.

* If the bulk loading fails, after making sure the MIDI connection is secure, retry it. If it continues to fail, check MIDI channels, etc..

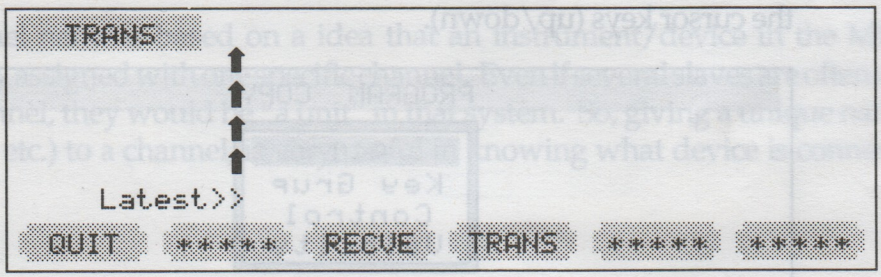
Reception monitor screen

This screen supplies the real-time display of the MIDI messages received at the MIDI-IN. The MIDI messages will be displayed scrolling up from the "Latest>>" message line in the screen.



Transmission monitor screen

Similar to the Reception monitor screen, this screen supplies the real-time display of the MIDI messages transmitted from the MIDI-OUT. The MIDI messages will be displayed scrolling up from the "Latest>>" message line in the screen.

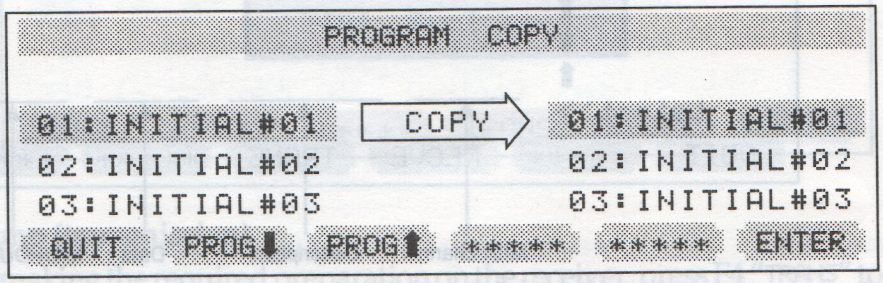


These two monitor screens are switched by alternately pressing F3 and F4 keys. This is useful for you to monitor another master in your MIDI system (e.g. a sequencer) and know if it is controlling any slaves not under the direct control of the MX1000 correctly, or not. Also, it is useful to find out if there is any unnecessary data which may cause a potential MIDI delay.

Program copy screen

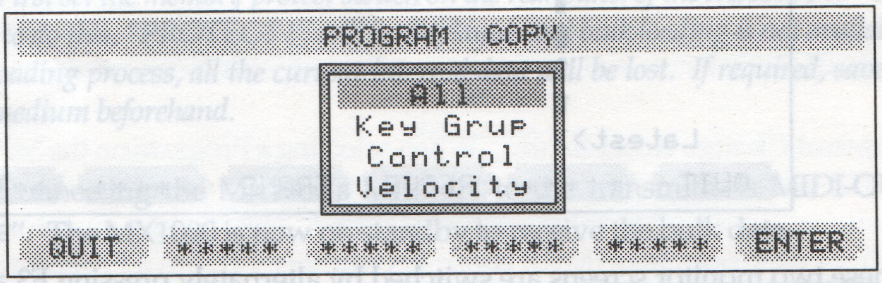
While you are creating Programs, you may often come across the situation when several similar Programs are required. This screen is used to save you from setting all the parameters from scratch for a single Program.

To press F6 "COPY" in the System setup screen, the following screen appears.



Step 1: First select a Program as a copy origination using F2 "PROG⬇" and F3 "PROG⬆". Next select another Program as a copy destination using the data keys or cursor keys (up/down). Remember the current setting in the destination Program will be lost when the copy process is completed.

Step 2: Press F6 "ENTER" to open the following window. Select the data you need using the cursor keys (up/down).

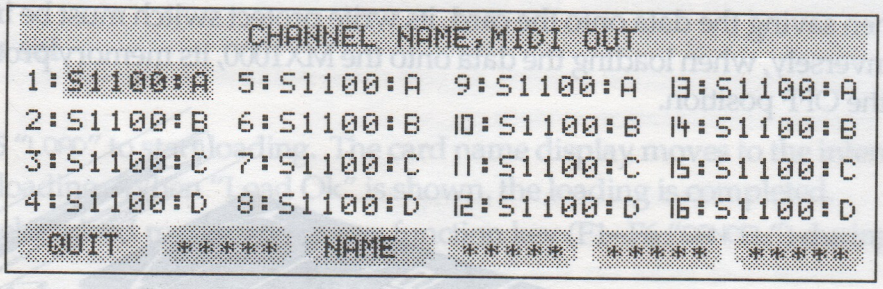


All: All data of the origination Program.
Key Grup: Data related to the 4 Key Groups of the origination Program.
Control: Assignments in the Control mode of the origination Program.
Velocity: Data related to the velocity of the origination Program.

Step 3: Press F6 "ENTER" again to execute the copy process.

Channel/MIDI-OUT assign screen

In this screen, you can respectively assign 16 MIDI channels to the 4 MIDI-OUT's. Also, you can give each channel a name comprised of up to 5 characters/numerals/symbols. The initial assignment of channels to MIDI-OUT's, and MIDI channel descriptions in the Key Group/Control mode are specified here.



Assigning MIDI-OUT's to the channels: Select a channel using the cursor keys, and assign a MIDI-OUT from A~D using the data keys.

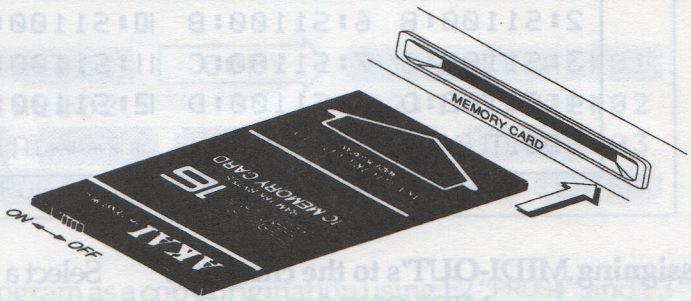
Specifying names to the channels: Select a channel using the cursor keys, and press F3 "NAME" to open the Name edit window. Give a name as described in the procedure explained on page 23.

A channel name is based on a idea that an instrument/device in the MIDI system is normally assigned with one specific channel. Even if several slaves are often assigned with one channel, they would be "a unit" in that system. So, giving a unique name (ex. S1100, MPC60, etc.) to a channel, is very useful in knowing what device is connected to which channel.

Card mode

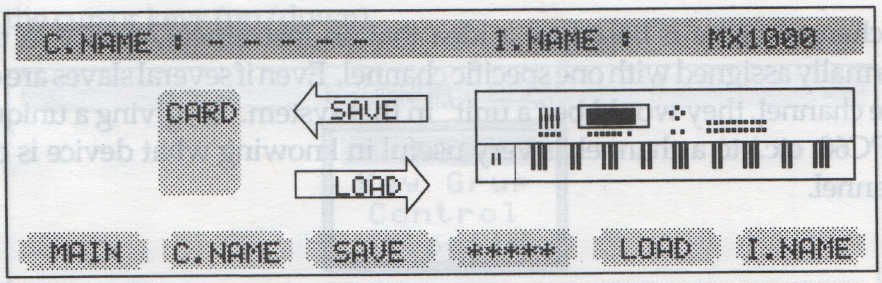
With an optional memory card AKAI BR-16, you can easily save/load a complete data set for the MX1000 to/from it at a time.

First, insert the card into the memory card slot on the rear panel.
When saving the data onto the card, its write protect switch must be in the OFF position. Conversely, when loading the data onto the MX1000, its memory protect switch must be in the OFF position.



Entering the Card mode

When you press F5 "CARD" in the Main mode screen, the following screen first appears, and you are now in the Card mode.



Naming a data set

In the Card mode, you can name the data set with up to 10 characters/numerals/symbols.

Press F6 "I.NAME" to open the Name edit window for the data set in the internal memory and to give the internal name (default is "MX1000"). This is available even without a card. On the other hand, if the card is inserted, pressing F2 "C.NAME" opens the same window for the data set on the card.

* When the memory/write protect switch is ON position, naming is not available.

Once you have opened up the Name edit window, the following operation is exactly the same as in all other naming procedures. See page 23 for details.

In the case of using several cards for data storage, these names will help you distinguish a data set from others.

Saving a data set

Press F3 "SAVE" to start saving. And, the internal name display moves to the card name field during saving. When "Save Ok" is shown, the saving is complete.
To cancel the save routine, press any function key (F1~F6 "CANCEL") during saving.

Loading a data set

Press F5 "LOAD" to start loading. The card name display moves to the internal name field during loading. When "Load Ok" is shown, the loading is completed.
To cancel the load routine, press any function key (F1~F6 "CANCEL") during loading.

Note: Battery Replacement

Specified battery (CR-2016) is included with the IC memory card BR-16. Data in the memory card sometimes can be lost when you change the battery. So, remember to load the data into the MX1000 before you change the battery, or replace the battery while the memory card is inserted into the memory card slot while the MX1000 is "ON".

WARNING: Lithium battery

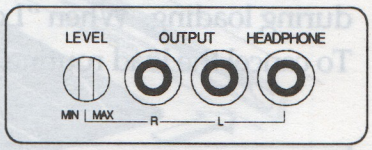
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer.
- Do not short cut, recharge, disassemble, heat, or dispose of in fire.
- Keep away from children.

Using the MX1000 with the piano sound board PM76

Connections

When the PM76 installed, the audio output jacks (L/R), headphones jack, and master volume control are attached on the MX1000's rear panel. The MX1000 is not equipped with any sound reproduction system, so you must make an audio connection for the PM76 to an external amplification system.

Also, if 3 foot switches (normal-close type) are respectively connected to the damper, foot switch 1~2 jacks on the MX1000's rear panel, you can use them as:



- **Damper pedal:** Foot switch connected to the sustain jack
- **Sostenuto pedal:** Foot switch connected to the foot switch jack 1
- **Soft pedal:** Foot switch connected to the foot switch jack 2

without special settings in the Piano mode.

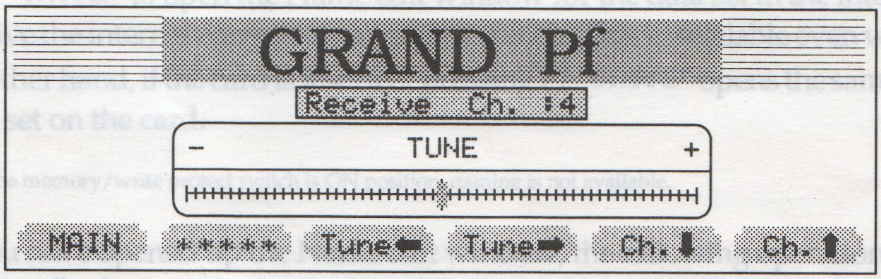
Applications

The PM76 can be played in 2 basic ways: as an authentic digital piano in the Piano mode or as one of slave sound modules in your MIDI system.

Using in the Piano mode:

Once the PM76 is installed, the MX1000's Main mode screen will display an additional mode menu "PIANO" on F6.

Step 1: Press F6 "PIANO" to enter the Piano mode. The following screen will be displayed.



In the Piano mode, ***the MIDI control slider 1 works as a master volume control so you should set the volume control on the MX1000's rear panel to a maximum position.*** From now on, you can adjust the output level of the PM76 using the slider.

Step 2: To play on the MX1000 keyboard, you may select 10 keyboard sounds as displayed on the LCD. The following 10 preset sounds are available. Select the desired one by the data keys.

GRAND Pf	:	Grand Piano
UPRIGT Pf	:	Upright Piano
EL.Pf 1	:	Electric Piano 1
EL.Pf 2	:	Electric Piano 2
MELLOW Pf	:	Mellow Piano
HONKY TONK	:	Honky-tonk Piano
VIBES	:	Vibraphones
CEMBALO	:	Cembalo
PIPE ORGAN	:	Pipe organ
ORGAN	:	Jazz Organ

These preset sounds are all touch-sensitive. Also, the MX1000 keyboard is automatically assigned with "Curve-1".

* The fine tuning is available by F3 "TUNE↓"and F4 "TUNE↑" using the graphic display.

* The F5 "Ch.↓" and F6 "Ch.↑" keys select the MIDI reception channel for the PM76. Use them when you are controlling the PM76 by MIDI.

Using as a slave in your MIDI system

As mentioned before (See page 10.), the PM76 is connected to the MIDI-OUT D. This means the PM76 can be a MIDI slave as well, controlled by your assignments in the Key Group and Control modes. For instance, you can assign other velocity curves adjusted to your touch, or create modulated organ sounds using the after touch, etc.. Of course, the best way is to finally store those settings as up to 10 Programs separate from the PM76 sounds.

Note: Remember to match the PM76 MIDI reception channel with the transmission channel assigned to the Key Group/MIDI control sliders/switches specified in each Program. Also, the MIDI-OUT D is always selected in any Programs to control the PM76.

However, the PM76 sound/reception channel selection must be made in the Piano mode.

Specifications

MX1000 MIDI master keyboard

Keyboard:	76 keys (E0~G6) with velocity dynamics, after touch
Display:	Liquid Crystal Display (40 characters x 8 lines)
	7-segment 2-digit display
Internal memory:	100 Programs, 4 Program Chain
	Battery backup
External memory:	Memory card BR-16 (optional)
	Available by transmission as System exclusive
Built-in controls:	Power switch, Pitch bend wheel, Modulation wheel
	4 assignable MIDI control switches/sliders
	Function keys (F1~F6)
	Panic key
	Cursor keys (up/down/left/right)
	Data keys (increment/decrement)
	Ten keys (0~9) x 2
	Memory protect switch, LCD contrast adjuster
Connection jacks:	MIDI-In/Thru/Out x 4 (individual)
	Foot switch jacks x 4
	Foot pedal jacks x 4
	Sustain jack x 1
	Program up/down jack x1
	Memory card slot
	AC inlet
	Audio output jack space
	(for the optional PM76 piano sound board)
	Output level control
	Output jacks (L/R)
	Stereo headphone jack
Rated voltage:	120VAC
Power Consumption:	12W (120VAC)
Dimensions:	1280 (W) x 110 (H) x 380 (D) (Unit: mm)
Weight:	20.5kg
Accessories:	AC power cord x 1
	Owner's Manual x 1
Optional items:	BR-16 IC memory card
	PM76 piano sound board

* Above specifications are subject to change without notice.

MX1000 MIDI IMPLEMENTATION CHART

Date : APR. 9 1991
Version : 1.00

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 - 16 1 - 16	X X	* Memorized.
Mode	Default Messages Altered	3 X *****	X X X	
Note Number :	True Voice	0 - 127 *****	X X	
Velocity	Note On Note Off	O 9nH V= 0 - 127 O 8nH V= 0 - 127	X X	
After Touch	Key's Ch's	X O	X X	
Pitch Bender		O	X	7 bit resolution.
Control Change		O O	X X	Selectable.
Program Change :	True No.	O 0 - 127 *****	X X	
System Exclusive		O	O	All programs.
System : : Common :	Song position Song select Tune request	X X X	X X X	
System : Real Time:	Clock Commands	X X	X X	
Aux : : Messages: :	Local ON/OFF All Notes OFF Active Sense Reset	X O X X	X X X X	
Note :				

Mode 1 : OMNI ON, POLY
Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY
Mode 4 : OMNI OFF, MONO

O : Yes
X : No