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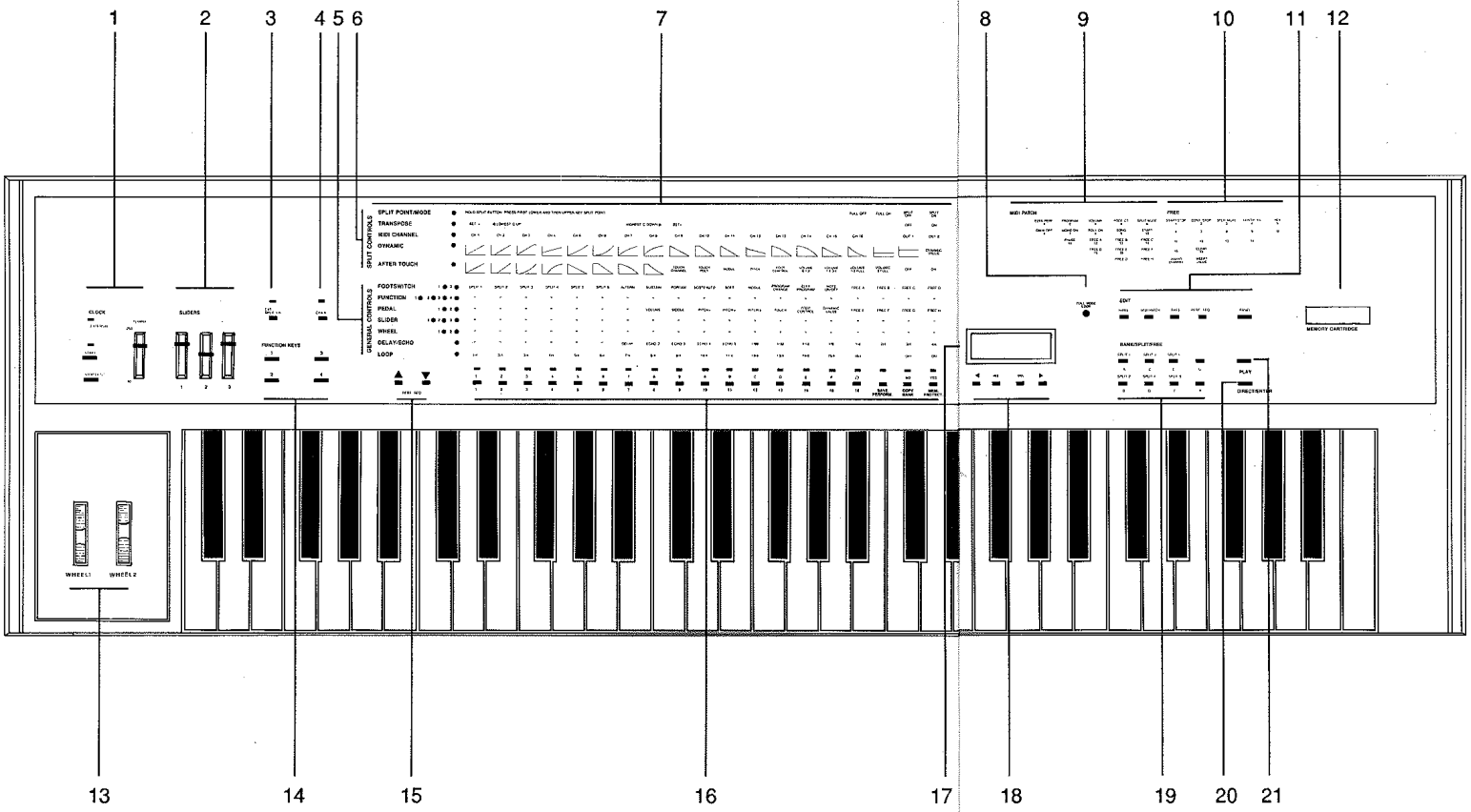
Professional

ELKA

MK88
MK55

MASTER CONTROL KEYBOARD

Operating Manual
Manuale d'istruzione



Nº	REFERENCE
1	CLOCK Controls
2	SLIDERS (1, 2, 3)
3	EXT. SPLIT 5/6 On/Off button
4	CHAIN function On/Off button
5	GENERAL CONTROLS
6	SPLIT CONTROLS
7	Control Matrix
8	FULL / LOOP Mode Indicator Led
9	MIDI PATCH section (Ref. Nº's)
10	FREE section (Ref. Nº's)
11	EDIT control buttons
12	CARTRIDGE insertion port
13	WHEELS 1 and 2
14	FUNCTION KEYS (1, 2, 3, 4)
15	PERF. SEQ. and UP / DOWN buttons
16	PERFORMANCE PRESET (1 - 16), SAVE PERF., COPY BANK, MEM. PROTECT, NO and YES selection buttons
17	LCD Display
18	INSERT, DELETE and scroll buttons
19	BANK / SPLIT / FREE selection buttons
20	DIRECT / ENTER button
21	PLAY mode On / Off button

PRECAUTIONS

To avoid damage and defective working, do not leave or use the instrument, for long periods, in direct sunlight, in extreme high or low temperature environments of humid, dusty or sandy areas.

Be sure to check that your AC power supply outlet provides the correct voltage for the instrument as shown marked on the back, near to the power cord socket.

The instrument is fitted with an internal Lithium battery, which keeps the internal memory active when the power is turned off. The life of this battery depends to a great extent on the ambient conditions; however the instrument's internal computer will give warning on the display, with the message **"Error Replace Battery"** when a new one is necessary. It is advisable to have this battery replaced by a qualified technician.

To clean the outside surfaces of the instrument, use only a soft dry cloth. **Never use petrol, alcohol or other solvents, as these will cause damage to the surface finishes and panel.**

PRECAUZIONI

Per evitare dei malfunzionamenti, non dovete usare o lasciare lo strumento, per periodi prolungati, esposto alla luce diretta del sole, in ambienti con temperatura ed umidità estremamente bassa o alta ed in luoghi polverosi o sabbiosi.

Siate sicuri di usare l'appropriata tensione di rete.

Lo strumento è dotato internamente di una batteria al Litio, per mantenere tutta la memorizzazione quando lo strumento è spento. La durata di questa batteria dipende molto dalle condizioni ambientali; comunque, il computer dello strumento avvertirà sul display, con la scritta **"Error Replace Battery"** quando è necessaria la sua sostituzione. È consigliabile che facciate rimpiazzare la batteria da personale specializzato.

Usate soltanto un panno morbido ed asciutto per pulire la superficie dello strumento. **Non usate mai benzina, diluenti o solventi in genere.**

Nº	RIFERIMENTO
1	Controlli CLOCK
2	SLIDERS (1, 2, 3)
3	EXT.SPLIT On/Off
4	CHAIN On / Off
5	GENERAL CONTROLS (Controlli Generali)
6	SPLIT CONTROLS (Controlli separazione tastiera)
7	Matrice di Controllo
8	Indicatore Led FULL/LOOP
9	Sezione MIDI PATCH (Numeri di riferimento)
10	Sezione FREE (Numeri di riferimento)
11	Pulsanti della sezione EDIT
12	Porta per l'inserimento della CARTRIDGE
13	WHEELS 1 e 2 (Ruote 1 e 2)
14	FUNCTION KEYS (1, 2, 3, 4) - Pulsanti Function
15	Pulsanti PERF.SEQ. ed UP / DOWN (Posizionamento Led)
16	Pulsanti PERFORMANCE PRESET (1 - 16), SAVE PERF., COPY BANK, MEM. PROTECT, NO e YES
17	Display a Cristalli Liquidi
18	Pulsanti INSERT, DELETE ed Avanti/dietro
19	Pulsanti BANK / SPLIT / FREE
20	Pulsante DIRECT / ENTER
21	Pulsante On/Off modo PLAY

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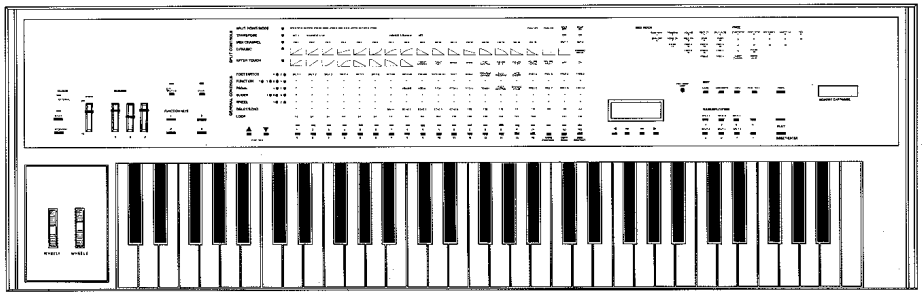
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MK88
MK55
MASTER CONTROL KEYBOARD

ELKA would like to thank you for choosing the **MK 88/55** Master Control Keyboard. Considered throughout the world as one of the most versatile, this instrument has been specially designed to control all types of MIDI equipment, present and future, and is indeed a real *"Operational Control Centre"*. This manual has been carefully compiled to ensure that you obtain the very best results from the **MK 88/55** and we recommend that you read it thoroughly before using the instrument.



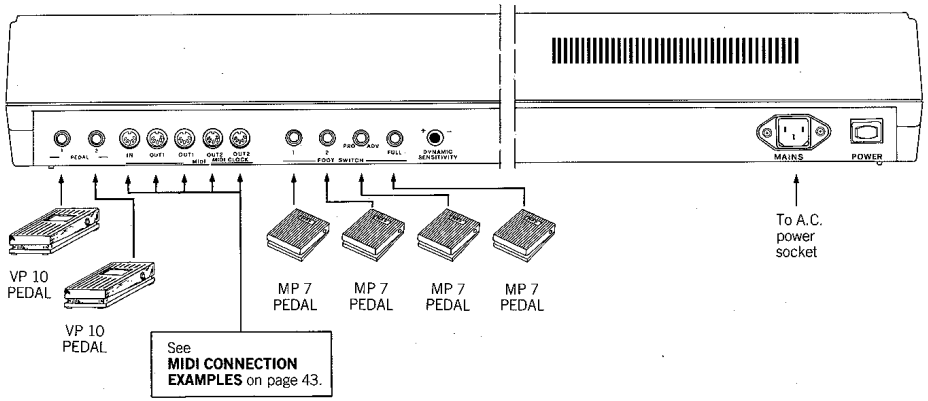
MK 55 (same controls on MK 88)

INTRODUCTION

The ELKA MK 88/55 is a master control keyboard specifically designed to control up to 32 compatible units by means of the MIDI data transmission system.
These units can include expanders, keyboard synthesizers, sequencers, rhythm units, pedalboards and any special effects units such as reverberation, etc. In this way a complete MIDI environment can be set up, controlled and played from the single keyboard of the MK 88/55.
128 programmable PERFORMANCE PRESETS are available. These are grouped into 4 internal banks of 16 and 4 external banks of 16 which are stored in a RAM cartridge.
Each PERFORMANCE PRESET memorizes all the programmable functions (SPLITS, MIDI CHANNELS, DYNAMICS etc.) and contains a "Set Up" memory which controls the whole MIDI environment (PROGRAM CHANGES, VOLUME SETTINGS, SONG SELECTION and so on).
A 32 character Liquid Crystal Display enables you to keep all the various changes under control, as each operation is automatically visualized.
The instrument makes use of numerous "REAL TIME" controls which permit the manipulation of any function in a MIDI system, including continuous control of RHYTHM UNITS and SEQUENCERS.
The keyboard can be split into 6 zones which can be overlapped as and when necessary. Each of these "Split Zones" can be programmed completely differently. HIGH RESOLUTION DYNAMICS with POLYPHONIC AFTER TOUCH, MIDI IN and FULL CLOCK CONTROL complete the specification which makes this instrument the most complete MASTER CONTROL KEYBOARD yet obtainable.

CONNECTIONS

FIG. 1 DESIGN OF BACK PANEL, SHOWING ACCESSORY CONNECTING DETAILS.



MIDI

Five separate DIN sockets will be seen under the heading MIDI. Two each for MIDI OUT 1 and MIDI OUT 2, and one for MIDI IN.

MIDI OUT

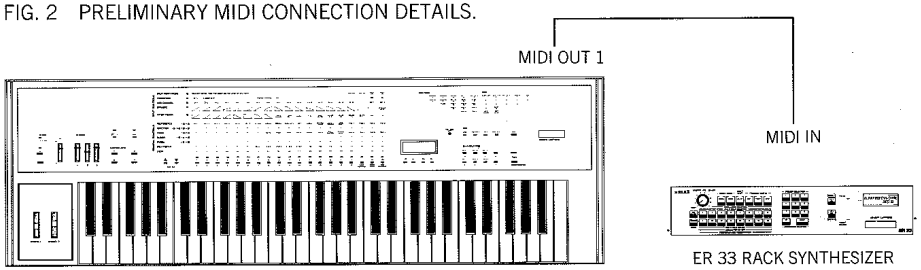
Being a Master Control Keyboard, this instrument does not have an audio output, in that by itself, it is not capable of producing sounds as such. The reason for this being that no sound generator is present in the instrument itself. All the sounds that are produced are dependent on the specifications of the instruments connected via MIDI.
These connections can be made by means of the MIDI OUT sockets, MIDI OUT 1 and MIDI OUT 2.
Two sockets for both MIDI OUT 1 and MIDI OUT 2 are provided. **(See MIDI CONNECTION EXAMPLES section for further information).**
From these two pairs of sockets, all the MIDI data necessary to set up, control and play the various functions of any MIDI compatible instrument (EXPANDER, SYNTHESIZER, PEDALBOARD, SEQUENCER etc.) will be transmitted on a total of 32 completely independent channels.
Furthermore, the MIDI OUT 2 sockets also provide a MIDI CLOCK output for use with RHYTHM UNITS and SEQUENCERS etc. **(See MIDI CONNECTION EXAMPLES for information on the connection of these units).**

MIDI IN

When an external MIDI CLOCK OUT is connected to this input, the DELAY/ECHO and LOOP functions of the MK 88/55 will be automatically synchronized with this and at the same time the internal clock will be disconnected.
The EXTERNAL CLOCK indicator (on the extreme left of the panel) **(1)** will show that an external clock signal has been connected.

This socket, when connected to the MIDI OUT of an external instrument will enable this same instrument (Keyboard or Pedalboard) to be added to the control system of the MK 88/55.
In this case, all the functions programmed into the **Split Zones 5 and 6** will be valid for this external instrument. This includes all the DELAY/ECHO and LOOP functions.
For more explicit information on the use of MIDI IN you should read the **MIDI CONNECTION EXAMPLES** section further ahead.
All connections made between the MK 88/55 and external units must be made with DIN standard MIDI connecting cables.

FIG. 2 PRELIMINARY MIDI CONNECTION DETAILS.



This is the connection recommended for the initial setting up procedures. Other more complex connection examples can be found in the relative section further ahead.

PEDALS

Two jacks marked PEDAL 1 and PEDAL 2 are to be found on the extreme left of the back panel.
(See FIG. 1).
These provide connecting facilities to the two analog pedal devices (VP 10, optional extra) which can be used to control various functions in the PEDAL SECTION of the GENERAL CONTROLS. These functions can be seen in the GENERAL CONTROLS section of the Matrix Control Panel **(5),** under the heading of PEDAL. Further explanation of the functions controlled by these pedals is to be found in the section **GENERAL CONTROLS,** further ahead.

FOOTSWITCHES

Up to four foot switches (MP 7 type, optional) can be connected to the MK 88/55. The functions controlled by two of these, FOOTSWITCH 1 and FOOTSWITCH 2 are programmable by making reference to the line of functions corresponding to FOOTSWITCH in the GENERAL CONTROLS part of the Matrix Control Panel **(5).** Further details are contained in the **GENERAL CONTROLS** section further ahead.
The remaining two sockets are used for the connection of two of the same type of footswitches, but in these two cases to perform specific functions. One of these is used to enable an advancement of the PERFORMANCE each time the switch is pressed (PERFORMANCE ADVANCE). The other socket marked FULL, is used to activate or disactivate this same function.

MEMORY CARTRIDGES

The RAM MK cartridges should be inserted into their appropriate port on the front panel **(12).** Each cartridge is capable of storing 64 PERFORMANCE PRESETS grouped into 4 banks of 16.

MAINS

Connect the power supply cable to an **A.C. voltage output socket** of the **correct voltage.**

CONTROLS

SPLIT CONTROLS (6)

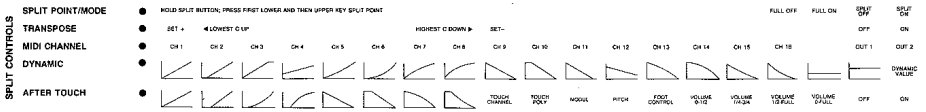


FIG. 3 SPLIT CONTROLS SECTION OF CONTROL MATRIX

After connecting the instrument to an expander or synthesizer via the **MIDI OUT 1** socket on the back panel, switch them both on.
The normal operating mode of the instrument is the SPLIT MODE. This means that the keyboard can be split into a maximum of six separate zones, which can be independently programmed.
The other mode is the FULL MODE which enables the voices of each split to sound over the full extent of the keyboard.
As all the SPLIT ZONES that you program can be activated in the SPLIT and/or FULL MODE, you have three possible ways to use each SPLIT ZONE.

1. **SPLIT ON/FULL OFF**
   The sound will only be active in the SPLIT MODE (in the relevant SPLIT ZONE) but not in the FULL MODE.
2. **SPLIT ON/FULL ON**
   The sound will be active in both the SPLIT MODE (in the relevant SPLIT ZONE) and the FULL MODE (across the whole keyboard).
3. **SPLIT OFF/FULL ON**
   The sound will be only be active in the FULL MODE.

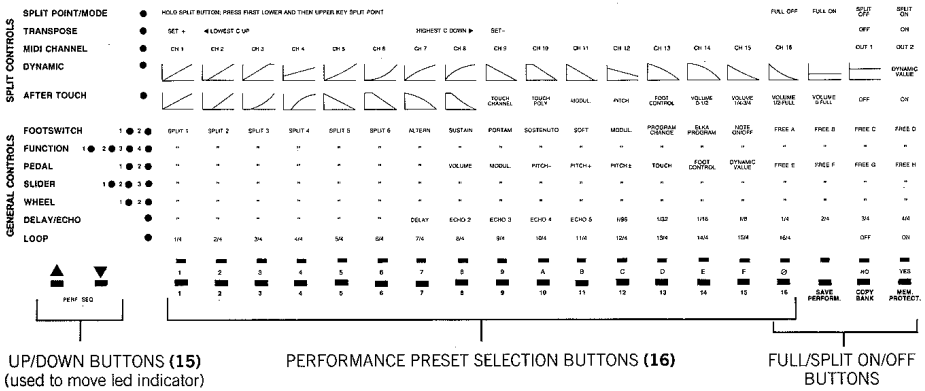
It is therefore possible to program the MK 88/55 and it's associated external units so that completely different sounds are active across the keyboard in the SPLIT and FULL modes.

To make use of the FULL MODE you should connect an MP 7 footswitch (optional extra) to the FULL socket on the back panel of the instrument.
In this way all the SPLIT ZONES that you program in the FULL MODE will be made to function on the entire length of the keyboard when you activate this footswitch. If one of the SPLIT ZONES programmed does not play, you should check that it has been activated correctly.
At this point you should follow the instructions below, very carefully, in order to obtain an initial setting. In this way you will be in a position to start playing on the keyboard and then proceed to all the other various setting up operations.
For the purpose of this initial setting up procedure, you will be programming the MK 88/55 with one SPLIT ZONE (SPLIT 1) and this will be transmitting on MIDI CHANNEL 1.

SPLIT POINT

1. Press one of the buttons **(1-16)** in the row of buttons under the central matrix of controls.
2. Press **PANEL** on the extreme right of the controls and bring the led indicator light to the SPLIT POINT position by means of the **UP/DOWN** buttons ▲ ▼ **(15) (see Fig. 4 on page 5)** found under the control indicator lights on the left of the central control matrix.

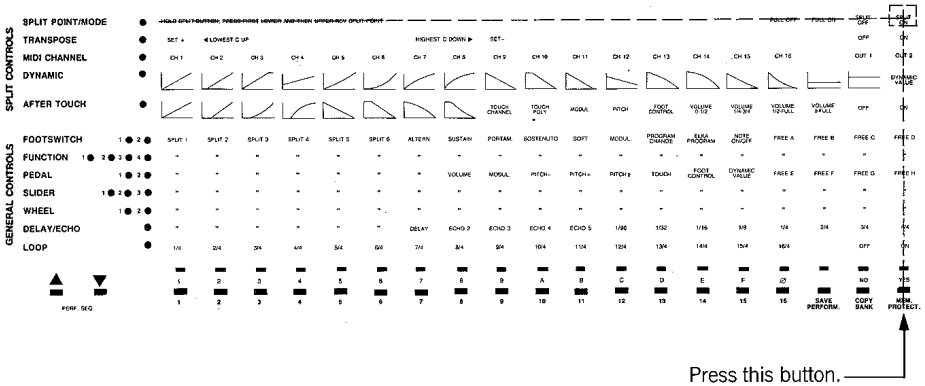
FIG. 4 PANEL DETAILS (WITH UP/DOWN BUTTONS ON THE LEFT, ALSO USED FOR PERF. SEQ.)



It should be remembered that to make any editing operation you should first press the PANEL button (11) and then move the indicator light to the desired section in parts (5) and (6) on matrix.

3. Press **SPLIT 1** in the BANKS/SPLIT/FREE **(19)** group of buttons on the lower right hand side of the control panel.
4. The SPLIT ZONE should now be activated in one or both of the two modes using the buttons corresponding to **SPLIT ON** and **FULL ON.** It should be remembered that the functions assigned in each SPLIT ZONE will only be operative when playing in an activated mode for each respective SPLIT, that is SPLIT, FULL or both.

FIG. 5 EXAMPLE OF MATRIX CONTROL SYSTEM, ACTIVATION OF *SPLIT ON* MODE.

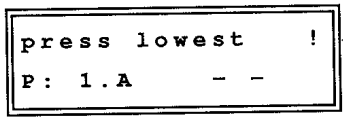


It is advisable that you use a SPLIT ZONE activated over the entire keyboard initially to help you to become familiar with all the various functions without becoming involved in the keyboard splitting process.
It should be remembered that in all the setting up procedures to be carried out on the main central matrix, having first activated the **PANEL** mode button **(11)** as explained earlier, you should then move the indicator light UP and DOWN accordingly to indicate the control that you want to set up. At this point you should take care to select the SPLIT ZONE that you want to programme, by means of the **SPLIT** buttons in the BANK/SPLIT/FREE group of buttons **(19)** and then follow the separate instructions for each function.

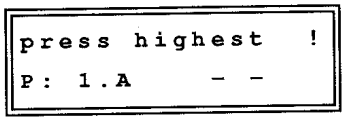
You can now proceed with the initial setting up of the keyboard as follows:

After assuring that the red indicator light is flashing in the SPLIT POINT position proceed as follows:

1. Press **SPLIT 1** in the BANK/SPLIT/FREE group of buttons **(19)** on the right of the display. Hold this button down until the display changes to:

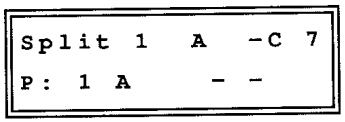


2. Press the lowest key required in the SPLIT ZONE and the display will change to:



3. At this point, press the highest key required in this SPLIT ZONE. Having done this, you will have set the lowest and highest limits of the ZONE and this extension will now be shown on the display as shown below:

This display example is showing a full keyboard extension for SPLIT 1 on the MK 88 model (A - C7)



For the initial setting up procedure, you can ignore the second SPLIT CONTROL, that is TRANSPOSE, and move directly down to the MIDI CHANNEL control by means of the **DOWN** button ▼ **(15) (see Fig. 4).**

MIDI CHANNEL

After assuring that the red indicator light is flashing in the MIDI CHANNEL position, you are now able to programme the transmission channel for each of the SPLIT ZONES on the MK 88/55. Remember that the MIDI CHANNEL must be the same on both the MK 88/55 and the external unit that is being controlled for each respective section. This will ensure the transmission of all the data that you programme.

1. Press the button corresponding to **OUT 1,** the penultimate from the right in the row of buttons under the central matrix **(16).** This is very important because, for the initial setting up procedure you should have connected to the MIDI OUT 1 socket on the MK 88/55 **(see Fig. 1 and Fig. 2 on pages 2 and 3).** No sound will be heard if the MIDI CHANNELS have not been programmed to the appropriate MIDI OUT socket.

2. Press the button corresponding to the MIDI CHANNEL that you want to assign to the SPLIT ZONE indicated on the display. (In this initial procedure, SPLIT 1).

Remember that you must assign a MIDI CHANNEL, from 1 - 16, to all the programmed SPLIT ZONES when completely programming the instrument, after having done the initial setting up which is essential to make the instrument play.

If you now play on the keyboard, you will hear the voice that has been programmed on the external unit (expander, keyboard, pedalboard etc.) that you have connected to the MK 88/55. **If you do not hear any sound, check that:**
a) the MIDI cable is connected correctly to the MIDI OUT 1 socket.
b) this cable is connected to the MIDI IN socket on the external unit.
c) SPLIT 1 has been activated **(SPLIT ON). (See point 4 in SPLIT POINT on page 5).**
d) the **MIDI ON/OFF** button has been activated if you are using an ELKA module.
e) the MIDI OUT and MIDI CHANNEL assignments have been carried out correctly.
f) the connections between the external unit and the power amplifier/mixer have been carried out correctly and that these units have been turned on.

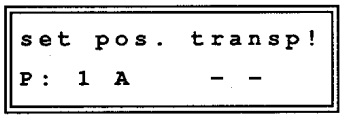
If all is well, you can proceed to the programming of the other SPLIT CONTROLS; TRANSPOSE, DYNAMIC and AFTER TOUCH.

TRANSPOSE

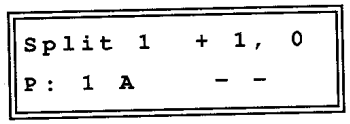
To programme a transposition you should move the indicator light to TRANSPOSE by means of the **UP/DOWN** buttons ▲▼ **(15)** and then proceed as follows:

1. First press **SPLIT 1** in the BANK/SPLIT/FREE section, **(19)** a make sure measure in case other splits have been selected during previous programming and make sure that it has been activated. **(SPLIT ON and/or FULL ON)**

2. If you want to carry out a positive transposition (raise the key) then press button **number 1 (16).** This corresponds to **SET** +. At this point the led indicator in button 1 position will be flashing and the display will show this message:

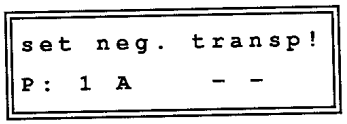


You should now press one of the keys on the keyboard to make a positive transposition using the **lowest C key** as a reference point. For example if you want to transpose the keyboard by one octave then you should press the key that is one octave higher than bottom C. Pressing the lowest F will show + 0,5 on display, second D = + 1,2 octaves and second G = + 1,7 etc. These readings are expressed in octaves and 1/12 octaves. Having done this, the SET + led will be turned off and the TRANSPOSE ON indicator turned on to inform you that a transposition has been programmed and the following display will be seen:

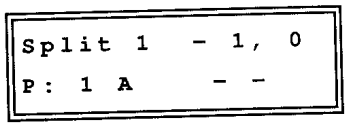


By the same means, if you want to make a negative transposition, proceed as follows:

1. Press **SET** –, corresponding to **button 9** in the central row of buttons (16). The display will now show:

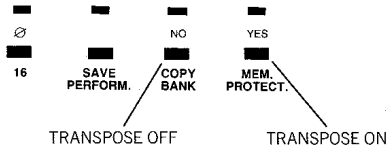


2. As in the positive transposition procedure, press one of the keys on the keyboard, but this time using the **highest C** as a reference point. For example if you require a negative transposition from C down to A, then press the A key immediately below the top key (C). **(Display will show – 0,3).** If you need to transpose down by one octave, then you should press the key that is one octave below the top C on the keyboard. **(– 1,0).**
   Having performed this negative transposition, of one octave for example, the display will show the following information:



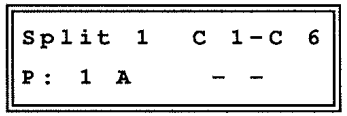
The transposition that you have programmed can be disactivated by means of the button marked **NO,** corresponding to TRANSPOSE OFF and be made operative again when required by pressing **YES,** corresponding to TRANSPOSE ON. See FIG. 6 (below).

FIG. 6 TRANSPOSE ON/OFF BUTTONS.

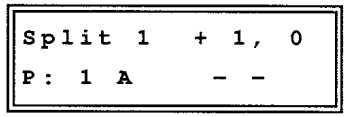


When disactivated the display will show the normal split range of SPLIT ZONE 1.

TRANSPOSE OFF



TRANSPOSE ON

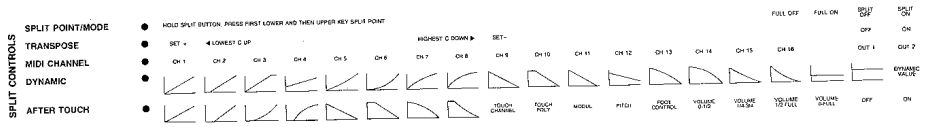


Display examples for a one octave positive transposition.

DYNAMIC

You have 19 different dynamic responses available for selection and assignment to each SPLIT ZONE.
The first 8 are positive curves, which means that the harder you play the higher the dynamic value.
The second 8 dynamic responses are curves which work in an inverse way, these are called negative curves. When you select one of these, playing the keyboard lightly will result in a high dynamic value whilst harder playing will decrease the dynamic value proportionally according to the curve chosen.
These are followed by two fixed levels corresponding to 1/3 and 2/3 of the maximum level and DYNAMIC VALUE, the control of which when selected can be assigned to the PEDAL, WHEEL **(13)** and SLIDER **(2)** controls. This procedure is fully explained in the GENERAL CONTROLS section.
The use of two superimposed SPLIT ZONES, one having a positive curve and the other a negative curve will result in the following.
Light playing will enable one effect to be heard, playing heavily will result in this decreasing and the other effect being heard, while playing with medium pressure on the keyboard will play both effects simultaneously.
The DYNAMIC SENSITIVITY of the keyboard can be varied to your liking by means of the relative control on the back panel. **(See Fig. 1 on page 2).**
With this control turned towards the – side, the keyboard will acquire a harder response to the curves programmed, whereas when turned towards the + side, this response will become more spontaneous and the keyboard will appear to be lighter.

To select these dynamic responses, you should press **PANEL (11)** and then move the flashing led indicator to the DYNAMIC position in the SPLIT CONTROLS section of the central control matrix. After selecting the SPLIT ZONE that you want to program by means of the **SPLIT** selection buttons in the BANK/SPLIT/FREE group of buttons **(19)** to be found on the right of the display, press the button corresponding to the DYNAMIC RESPONSE that you want to use.
N.B. If selected, DYNAMIC VALUE must be assigned to a control as explained in the GENERAL CONTROLS instructions.



SPLIT CONTROLS SECTION OF CONTROL MATRIX (Showing DYNAMIC and AFTER TOUCH curves)

AFTER TOUCH

The polyphonic AFTER TOUCH facility featured on this instrument is a means of controlling various parameters by varying the amount of pressure applied to the key after actually playing a note. This facility is divided into two sections:

1.....8 Response curves which tailor the effect to your individual requirements.

9...17 The various functions at your disposal.

N.B. N°'s 1 - 4 are positive curves whereas N°'s 5 - 8 are negative. This means that when using the PITCH BEND effect, for example, increased pressure on the key will cause a rise in pitch with curves 1 - 4 and a fall in pitch with curves 5 - 8.

The MK 88/55 incorporates the rare facility of being able to transmit POLYPHONIC AFTERTOUCH information which only affects the particular note or notes that extra pressure is applied to. If the external unit or units connected to the MK 88/55 do not have the specification to receive this POLYPHONIC information, then the TOUCH POLY mode should not be used as it will not function.
To check this, you should consult the relevant owner's manual.
To set up the AFTER TOUCH function you should follow this procedure:
After pressing **PANEL (11),**

1. Move indicator light to AFTERTOUCH by means of UP/DOWN ▲▼ buttons **(15).**
2. Select the SPLIT ZONE that you are setting up, by pressing one of the SPLIT buttons from **1-6** in the BANK/SPLIT/FREE group of buttons **(19).**
3. Activate the AFTER TOUCH function by pressing the button corresponding to **ON** (extreme right in the line of control buttons under the central matrix).
4. Select the type of response that you require by pressing one of the buttons **1-8** corresponding to the response curves of the AFTER TOUCH.

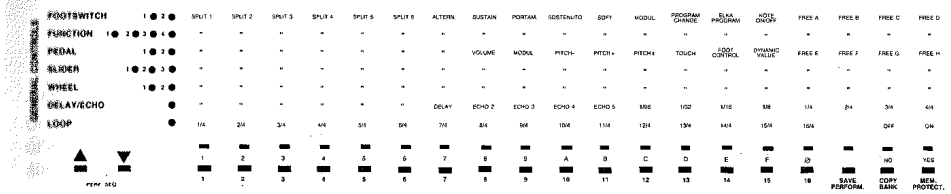
4. Choose the function that you want to control by pressing one of the remaining buttons excluding the last two; these are used to activate and disactivate the AFTER TOUCH function.

TOUCH CHANNEL	This function should be selected if you want to have a normal AFTER TOUCH control. This means monophonic control for each SPLIT ZONE.
TOUCH POLY	If you want to connect an external unit capable of receiving polyphonic AFTER TOUCH information you can use this function, otherwise you must use TOUCH CHANNEL.
MODULATION	The AFTERTOUCH will control the MODULATION function of any external unit when this button has been selected.
PITCH	PITCH will be controlled by the keyboard AFTER TOUCH if you have selected this function.
FOOT CONTROL	When selected this function will work as an expression pedal controlled by the AFTER TOUCH.
VOLUME 0 - 1/2 VOLUME 1/4 - 3/4 VOLUME 1/2 - FULL VOLUME 0 - FULL	These four VOLUME ranges when selected will be covered by the AFTER TOUCH facility and will act as a volume control on the SPLIT ZONE to which they have been assigned.
OFF, ON	Used to activate and disactivate the AFTER TOUCH as explained earlier.

N.B. The TOUCH CHANNEL and TOUCH POLY functions control the AFTERTOUCH effects which have been programmed into the relevant external units.
The other functions override the AFTERTOUCH effects that have been programmed into the external units, and activate the ones programmed into the MK 88/55.

GENERAL CONTROLS (5)

FIG. 7 GENERAL CONTROLS



The GENERAL CONTROLS section **(5)** of the Control Matrix is dedicated to the assignment of the 2 FOOTSWITCHES, 4 FUNCTION Keys **(14),** 2 PEDALS, 3 SLIDERS **(2)** and 2 WHEELS **(13)** to the control of various functions in the SPLIT ZONES 1 - 6 or the ALTERNATE MIDI channel.
In other words, it enables you to choose which controllers will transmit the various MIDI codes necessary to control the external units.

As mentioned, these controls can be assigned to activate the various functions in 6 SPLIT ZONES (one or more) or if needed, to transmit a MIDI code on an ALTERNATE channel which you can select. (Explanation further ahead).

FOOTSWITCH/FUNCTION

You can program the 2 Footswitches and 4 Function keys **(14)** to control the following functions: SUSTAIN, PORTAMENTO, SOSTENUTO, SOFT, MODULATION, PROGRAM CHANGE, ELKA PROGRAM, NOTE ON/OFF and FREE A, B, C, D. The FREE A, B, C and D functions are fully programmable and can be made to perform any function in the MIDI environment.

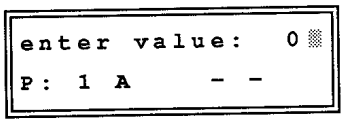
PEDAL/SLIDER/WHEEL

You can programme the 2 pedals, 3 sliders **(2)** and 2 wheels **(13)** to control the following functions: VOLUME, MODULATION, PITCH −, PITCH +, PITCH ±, TOUCH, FOOT CONTROL, DYNAMIC VALUE and FREE E, F, G and H.
The DYNAMIC VALUE function can only be assigned to one of the controllers if selected in the SPLIT CONTROLS section, instead of the Dynamic Curves. **(See DYNAMIC section).**
The FREE E, F, G and H functions (as A, B, C and D in the FOOTSWITCH / FUNCTION sections) are fully programmable.

To program these controls for the SPLIT ZONES follow this procedure:

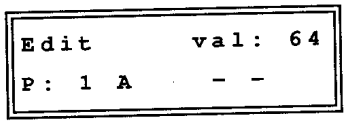
1. Press PANEL **(11)** to enter into the EDIT mode of the MK 88/55.
2. Position the flashing led indicator on the control to which you want to assign the function to be controlled.
3. Select the appropriate SPLIT ZONES using the buttons (1 - 6) **(16)** below the central matrix.
   (For ALTERNATE CHANNEL assignment see further ahead).
4. Press the button on the bottom row corresponding to the MIDI function that you want to abilitate with the control already selected in point 2.

In the case of SUSTAIN, PORTAMENTO, SOSTENUTO and SOFT, when programming the FOOTSWITCH and FUNCTION controls, you will not be asked to select a VALUE as these are simply ON/OFF functions, whereas for MODULATION, PROGRAM CHANGE, ELKA PROGRAM and NOTE ON/OFF, after selecting these functions, the display will show the following message:



5. You should now enter the VALUE required for the parameter, remembering that for the MODULATION and NOTE ON/OFF functions you can enter all values from 0 - 127 while for PROGRAM CHANGE and ELKA PROGRAM you can enter all values from 1 - 128. These values can be formed using the buttons to be found under the Central Control Matrix from **1 - 9** and the **Ø,** to be found fourth from the right in this row of buttons.
6. Press **DIRECT/ENTER (20).** The display will now visualize this message:

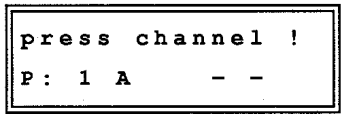
For the example we have entered a VALUE of 64.



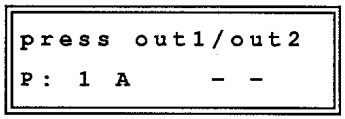
The VALUE that you entered will now have been memorized at the level shown on the display.

To program the various controls to transmit the MIDI codes on an ALTERNATE MIDI channel, follow this procedure:

1. Press **PANEL** (11) to enter the PANEL mode.
2. Position the flashing LED indicator on the control to which you want to assign a function, using the **UP/DOWN** buttons **(15) (see fig. 4 on page 5).**
3. Press **ALTERNATE (button 7** under the central matrix). The display will now show:

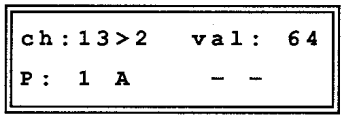


4. You should now select the MIDI CHANNEL required for the transmission, by pressing the corresponding button **(1-16)** under the central matrix **(7).**



5. At this point, press **OUT 1** or **OUT 2,** the last two buttons on the right under the matrix **(16),** according to which output you want to use. This will change the display to:

For the example we have entered CH. 13 and OUT 1.



Showing you that you have programmed CHANNEL 13 as the MIDI transmission channel and OUT 1 as the output socket.
You should now designate the function that you want to control, making your selection from the 16 functions and 8 free available, according to whether you are using the FOOTSWITCH/FUNCTION or PEDAL/SLIDER/WHEEL controls by pressing the appropriate button in the row of buttons under the central control matrix **(16)** in the same way as for the assignment in the SPLIT ZONES. You should also follow the same procedure when it is required to enter a value in the case of the MODULATION, PROGRAM CHANGE, ELKA PROGRAM and NOTE ON/OFF functions, using the buttons from **1 - 9** and **Ø.**

DELAY/ECHO

The DELAY/ECHO function in this instrument enables you to obtain one delayed replica of the original note played or up to five ECHOES. The delay time of both of these effects is synchronized to the clock frequency, both internal or external. When using the internal clock, the TEMPO slider **(1)** can be used as a delay time control.
8 different time delays are available, which are all based on functions of a bar played with respect to a fixed tempo. In this way, if you select 1/4, the delay time will be equivalent to a quarter of a bar played with the TEMPO set at that moment. This means that if you set the TEMPO at a lower speed the delay sound will be heard after a longer time period and viceversa if you raise the TEMPO speed.
To program DELAY or one of the ECHO effects into the SPLIT ZONES follow this procedure:

1. Move the flashing indicator light to DELAY/ECHO by means of the **UP/DOWN** buttons **(15)** once having programmed the instrument in the PANEL mode by pressing **PANEL (11)** as for all the matrix programming.
2. Press the **SPLIT ZONE** numbers corresponding to those where you want to use the DELAY/ECHO effect. (by means of buttons **1 - 6** under the matrix) **(16).**
3. Select DELAY or ECHO effect by pressing the respective button, from **7 - 11.** (16).
4. Press the button corresponding to the time delay that you require (button **12** onwards).

The sound will now be heard, when playing on the keyboard. This will either be one delayed note or up to five notes according to whether you have programmed DELAY or one of the ECHO effects.
The instrument will reproduce all the effects created with the SPLIT & GENERAL CONTROLS **(5/6)** on the delayed sound and the first note reproduced by the ECHO.

We advise you to select the DYNAMIC curves 7 or 8 for the most realistic sound when using the ECHO function.
N.B. The DELAY/ECHO function will not play the note at the instant that you play the key, but in fact with a DELAY. Therefore in order to use this function to the maximum you should program two SPLIT ZONES to superimpose one another. Then, when you play the key, one SPLIT ZONE will be playing the note immediately and the other, with the DELAY/ECHO time delay. You can, of course, program the "direct sound" SPLIT ZONE with a different sound to the DELAY/ECHO effect. This will result in a really original sound.

LOOP

The LOOP function enables you to temporarily memorize a sequence played on the keyboard up to a length of 4 bars (16/4).
This LOOP will be recorded using the sounds programmed into the SPLIT ZONES that are activated in the SPLIT MODE (with the FULL MODE / LOOP indicator light **(8)** off).
We advise you to connect a Rhythm Unit such as the ELKA DRUMSTAR 80 to the instrument by means of one of the OUT 2 sockets on the back panel. This socket will provide the CLOCK control for the Rhythm Unit which will begin playing when you press the START button **(1)** on the left of the MK 88/55 control panel, at the same time giving the START command for the recording of the LOOP.
With the Rhythm Unit playing you will then be able to record the LOOP in perfect tempo and make full use of the LOOP period that you have selected. A further essential accessory needed for the LOOP recording operation is the MP 7 Footswitch which you should plug into the FULL socket on the back panel. You will already be familiar with this footswitch as you will have used it in the activation of the SPLIT ZONES that are programmed in the FULL MODE.

In the LOOP recording process, the footswitch is used to terminate the memorizing of the LOOP and enter automatically into the FULL MODE enabling you to play over the LOOP with the SPLIT ZONES programmed in this mode.
This possibility to play on top of what you have recorded in the LOOP is possible on the entire keyboard except the lowest 15 keys on the MK 88 and the lowest 12 on the MK 55. These are used for the "REAL TIME" Transposition of the LOOP recording.
To record a LOOP sequence you should follow this procedure:

1. Press PANEL **(11)** to activate the instrument in the PANEL mode.
2. Move the flashing indicator light to the LOOP position by means of the **UP/DOWN** buttons **(15).**
3. Select the required LOOP length by pressing the appropriate button in the bottom line under the control matrix **(1-16) - (16).**
   You must remember that in order to record the LOOP sequence, you should have activated at least one of the SPLIT ZONES in the SPLIT MODE as explained earlier.

You should also activate at least one of the SPLIT ZONES in the FULL MODE if you intend to play on top of what you record in the LOOP. This is because when you press the footswitch to terminate the LOOP recording and enter into the FULL MODE, if no SPLIT ZONES have been activated in this mode these will remain silent.

FIG. 8 DELAY/ECHO AND LOOP LENGTH SELECTION BUTTONS



4. Press **START (1),** which will both start the Rhythm Unit playing and activate the MK 88/55 into the LOOP mode. The TEMPO of the Rhythm Unit can be varied by the **TEMPO** control **(1)** of the MK 88/55. At this point you are ready to begin the recording of the LOOP.

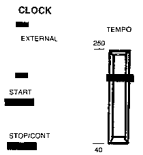


FIG. 9 LOOP CONTROLS (CLOCK)

5. Once you are satisfied with your performance, you should press the footswitch to enter the PLAYBACK mode; this will cause the FULL MODE/LOOP indicator light **(8)** to begin flashing.
   In this mode, the instrument will automatically playback all the notes played in the LOOP mode. The number of notes recorded will be dependent on the length of the LOOP selected in point 3.

You can now play on top of the loop recording, using all the sounds and effects programmed into the SPLIT ZONES activated in the FULL MODE. These sounds will have been automatically activated on entry into the PLAYBACK mode.

STOP/CONTINUE - START (1)

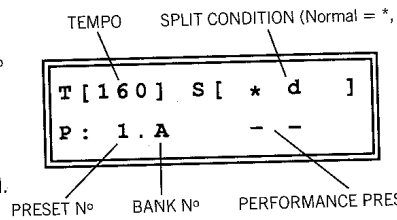
If you want to stop the respective playing of the LOOP without cancelling the recording, as is the case when you press the **FOOTSWITCH** a second time after having played the LOOP sequence, then you should press the **STOP/CONTINUE** button once to stop the LOOP and once again when you want to restart it again.
If you press the **START** button after pressing the **STOP/CONTINUE** button then the instrument will cancel the recording of the LOOP, come out of the FULL mode and at the same time start the Rhythm from the beginning. At this point you can begin recording a new LOOP sequence using the sounds of the SPLIT ZONES programmed in the SPLIT MODE.

TRANSPOSITION

During the playing of the LOOP, you carry out positive transposition of the recorded sequence by using the lowest C-B octave on the keyboard.
The lowest C is the normal key and each key upwards from this will make a positive transposition of one semitone.

When you have finished the programming of the above functions press the **PLAY** button **(21).** The display will now show the following message:

The dot after the PERFORMANCE PRESET N° is indicating that an EDIT operation has taken place. This will always be present when any editing has been done and not yet memorised.



The SPLIT CONDITION symbols will only appear when playing each respective SPLIT ZONE.

The numbers and references shown in this display are only for example purposes, the actual display that will appear after pressing the PLAY button **(21)** as mentioned above, will depend on the settings programmed by you. (Tempo, Preset N°, Bank N°, etc.)

You can now SAVE everything that has been set up in the previous programming procedures, while in the PANEL mode. This saving process also enables you to memorize the TEMPO speed. This speed can be varied by means of the TEMPO control in the CLOCK section **(1)** to be found on the left hand side of the front panel controls. The TEMPO speed memorized will be that shown on the display at the moment that you carry out the SAVE operation.
To SAVE anything that has been programmed while in the EDIT mode, follow this procedure:
Check once again that the instrument is in the PLAY mode, then press **SAVE PERFORM,** (third from the right in the row of buttons under the central matrix) keeping this continuously pressed while simultaneously pressing the button corresponding to the number of the PERFORMANCE PRESET into which you want to memorize the complete "Set up". (Remember that to select a PERFORMANCE PRESET N°, you should use the central row of buttons **(16).**

The set up will now have been memorized in the position selected as will be seen from the display. You will now not see a dot after the PERFORMANCE PRESET N° as was the case in the above shown display, before the memorizing operation, this indicating a memorized situation.
Complete information on the SAVE PERFORMANCE operation is contained in the appropriate section on page 24.

EDIT

NAME

When you press this button in the EDIT section, the instrument is automatically programmed in a mode which permits you to give a name to the "Set Up" that you can memorize in one of the PERFORMANCE PRESETS.
You can enter the NAME in the space on the right hand side of the Preset N° in the display **(17).** Letters and symbols are entered using the keys on the keyboard, and numbers using the buttons below the central matrix **(1 - 9 and Ø).**
The first (lowest) key on the keyboard is a space key, the next 26 are capital letters, followed by 26 small letters and various common symbols.
The same writing method and characters are used for both the MK 55 and MK 88 although in this latter model a more vast range of symbols has been included. This was made possible by virtue of the greater number of keys.

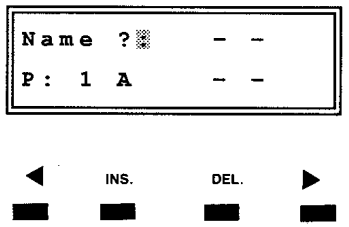
INSERT (18)

This button marked **INS** (Insert) permits you make an insertion in the name already written. To do this, you should position the point of insertion in the central cursor position using the arrow marked buttons, then press the **INSERT** button **(see Fig. 10).** At this point everything that has been already written from where the cursor is positioned to the right will be moved one place to the right, thus creating a space into which you can write anything you require.
N.B. It should be remembered that each time the display is moved one place to the right, the last letter, number or symbol on the right will be automatically cancelled.

DELETE (18)

The **DELETE** button is used to cancel an entry made in the name written. To make use of this facility you should move point where you want to make the deletion, to the central cursor position by means of the arrow marked buttons under the display **(17).** Now press the **DELETE** button **(18)** which will cancel what was written in that position, and move everything written to the right of the cursor one place to the left thus creating a space on the right. Repetitive pressing of the **DELETE** button will enable you to cancel everything from the selected cursor position to the right.

FIG. 10 INSERT/DELETE and CURSOR BUTTONS with DISPLAY



EDIT cont'd. (NAME)

If you need to change anything while in the process of writing a NAME, you can do so by moving the cursor to the position where you want to make the correction and just press the correct key or button. In this way the correct letter, number or symbol will be inserted in place of the wrong one which will have been automatically cancelled.
If the NAME has already been saved, then you first recall the Preset by means of the buttons on the row under the central matrix. Now press **NAME (11).**
You should now move the cursor to the position that you want to modify and then press the appropriate key or button to insert the correct letter, number or symbol in place of the wrong one which will have been automatically cancelled. You can now SAVE the corrected name as part of the Preset N° as described below.

1. Leave EDIT mode by pressing **PLAY (20)**
2. Press **SAVE PERFORM** and keep this pressed down. At this point with the led indicator flashing above this button, press the appropriate **PERFORMANCE PRESET N°** by means of the buttons in the row below the central matrix **(16).**

The new name will now have been saved as part of the PERFORMANCE PRESET N° shown on the display. (see the SAVE PERFORMANCE instructions on page 24).
N.B. It should be remembered that a PERFORMANCE PRESET memory contains all the information programmed in PANEL EDIT, MIDI PATCH, NAME, TEMPO, EXT. SPLITS 5/6 and CHAIN. When saving only a part of these functions after carrying out the programming (for protection against power failures etc.) or making a change in some part already programmed, all the remaining parts of the PERFORMANCE PRESET will be saved again without any change.

MIDI PATCH (9)

Each PERFORMANCE PRESET permits you to memorize not only the entire set up of the instruments, but also a series of commands for the setting up of a complete MIDI environment.
When you press one of the PERFORMANCE PRESETS that has been set up in a certain way, this will also set up the whole MIDI system in the way that you have programmed the MIDI PATCH.

To set up a MIDI PATCH you should do as follows:

1. Press **MIDI PATCH** in the EDIT section **(11).**
The following display will now be seen:

MIDI PATCH DISPLAY EXAMPLE



The MIDI PATCH is made up 12 slots, to each of which you can assign one of the functions specified in the MIDI PATCH.

MIDI PATCH (9)

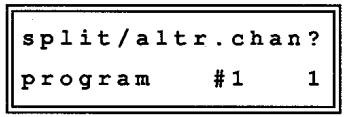
ELKA PERF. 1	PROGRAM 2	VOLUME 3	FOOT CT. 4	SPLIT MUTE 5
OMNI OFF 6	MONO ON 7	POLY ON 8	SONG 9	START 10
	PAUSE 11	FREE A 12	FREE B 13	FREE C 14
		FREE D 15	FREE E 16	FREE F
			FREE G	FREE H

N.B. The FREE F, FREE G and FREE H functions can be assigned by the SAVE PERFORM., COPY BANK and MEM. PROTECT buttons respectively. (In the row under control matrix) - (16).

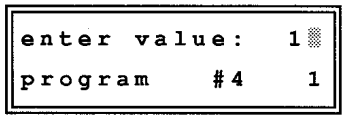
EDIT cont'd. (MIDI PATCH)

At this point you are now ready to program one of the functions from the MIDI PATCH section **(see design on page 18)** into SLOT N° 1 (pos.1).
For the purpose of this example, let us assume that you want to program a PROGRAM CHANGE for one of the external instruments in a particular SPLIT ZONE. To accomplish this you should do as follows:

2. Press button **N° 2** (in the central row of buttons **(16).**
This corresponds to PROGRAM in the MIDI PATCH **(see diagram on page 18).**
The display will now show the following message:



3. Select the SPLIT ZONE required by means of the buttons in the BANK/SPLIT/FREE section of buttons **(19)** on the right of the display.
For the example press **4,** thereby selecting **SPLIT ZONE N° 4,** when the display will change to:



4. You should now enter the value required, in this case the number of the PROGRAM CHANGE. You can enter any number from **1 - 128.** For the purpose of this example you can enter **48.**
Now press the **DIRECT/ENTER** button **(20).** The display will now have been modified to:



This is informing you of the complete situation of SLOT 1 (pos. 1) in the MIDI PATCH.

You have now memorized a PROGRAM CHANGE of your choice in one of the SPLIT ZONES and you can advance the MIDI PATCH to position N° 2 as follows:
Press the **right hand button** (marked with arrow) under the display **(see Fig. 11 below).**

FIG. 11



The display will now show the following:

```
MIDI PATCH pos 6
empty slot
```

You are now ready to proceed with the programming of SLOT N° 2 of the MIDI PATCH.

In SLOT N° 2 of the MIDI PATCH let us assume that you want to programme a function on a MIDI CHANNEL other than those of the SPLIT ZONES.
As an example, to programme a PROGRAM CHANGE on MIDI CHANNEL N° 14 connected to MIDI output OUT 2 that you want to use with a DIGITAL REVERB UNIT you should do as follows:
With the display showing pos. 2 as in the last display above, follow this procedure:

1. Press **button 2** in the central row of buttons **(16).** The display will now ask the following question:

```
split/altr.chan?
program    #1    1
```

2. At this point you should press the button corresponding to **ALTERNATE CHANNEL** (**N° 7** in the row of buttons under the central matrix).
   The led indicator in this position will now be flashing and the display will show the Press Channel command as shown below:

```
press channel !
program    #1    1
```

3. Now press the button corresponding to the MIDI transmission channel that you want to use for the PROGRAM CHANGE, in this example, **Channel 14.** (button **N° 14** in the row of buttons under the central matrix).
   The display will ask you to select the appropriate MIDI OUT socket, OUT 1 or OUT 2 as below:

```
press out1/out2
program    #1    1
```


4. Select the MIDI OUT socket that you want to use, for this example case, OUT 2. You should press the last button on the right in the central row of buttons **(16)** to perform this operation.
   The display will now appear in this form:

```
enter value:   1
program 14>2   1
```

5. As you can see from the display when showing the information in the above example, it is now asking you to enter the VALUE that you require for the function selected in point 1. As you have selected a PROGRAM CHANGE, you should enter the number of the Program that you require. This is done by using the numbered buttons from **1 - 9** and **Ø** in the row under the central matrix. For the purpose of the example you can enter **58.**
   Press **DIRECT/ENTER (20).**

It should be remembered when required to enter a VALUE, that for the ELKA PERFORMANCE and PROGRAM functions, the value can be from 1 - 128 inclusive while for the other functions it can be from 0 - 127 inclusive.
The display will now show the following information.

```
MIDI PATCH pos 2        <- MIDI PATCH N°
program 14>2   1
```

NAME OF FUNCTION — MIDI CH. — OUTPUT N° — VALUE (PROGRAM N°)

The complete situation of SLOT 2 (pos. 2) of the MIDI PATCH can be seen from this display as explained in the diagram above.
You can now move on to SLOT 3 by means of the Advance button ▶ **(18)** under the display, **(see diagram on page 17)** and then proceed by the same means to the other slots.

Not all the functions entered will require you to determine the same parameters. Instructions will be given on the display after you have selected the function that you require.

ELKA PERF. Recalls a performance memory Nº on external ELKA instruments. Only one ELKA PERFORMANCE Nº can be stored in each PERFORMANCE PRESET, and it will be transmitted from both MK 88/55 outputs and on all MIDI channels. It cannot be selected for each SPLIT ZONE independently.

PROGRAM CHANGE Changes the PROGRAM Nº of a selected external unit.

VOLUME Transmits VOLUME data (MIDI controller 7) on one MIDI channel. This will control the VOLUME level of the external voices that are set to the same MIDI channel as the relative SPLIT ZONE.

FOOT CONTROL Transmits FOOT CONTROL data (MIDI controller 4). This will function as a General Volume control on ELKA instruments.

SPLIT MUTE Stops the transmission of NOTE ON information for a selected SPLIT ZONE, particularly useful for the CHAIN feature.

OMNI OFF
MONO ON
POLY ON These change the MIDI status of the respective external units.

SONG Permits SONG selection on Sequencers and Rhythm Units.

START Executes the same function as the START button.

PAUSE Under exceptional circumstances, when the MIDI PATCH is transmitting a large amount of MIDI data, it may be necessary to insert some pauses in the data stream. This will avoid any possible overloading at the MIDI inputs of the external units. The PAUSE function allows you to programme pauses up to a maximum of 500 mS into the MIDI PATCH. The display shows the PAUSE length in units of 10 mS.

FREE A, B, C, D, E, F, G and H These functions can all be freely programmed, and also allow the user to preset the values of the FREE control functions **(see list of MIDI controller numbers in FREE section on page 34).**

To verify everything that has been programmed into the MIDI PATCH you should press the MIDI PATCH button **(11)** again when the following display will be seen:



At this point, all the commands programmed into the MIDI PATCH will be executed.

Should you now want to save the MIDI PATCH before proceeding further, follow the instructions below:

1. Leave EDIT mode by pressing **PLAY (21)**
2. Press **SAVE PERFORM** and keep this pressed down. With the led indicator flashing above this button, press simultaneously the appropriate **PERFORMANCE PRESET Nº** in the row under the central control matrix **(16).**

The MIDI PATCH will now have been saved as part of the PERFORMANCE PRESET Nº shown on the display.

MEMORY LAYOUT

PERFORMANCE PRESET

A PERFORMANCE PRESET is the final memorized result of all the separate programming that you have carried out in PANEL EDIT, MIDI PATCH, NAME, EXT. SPLITS 5/6, CHAIN and the TEMPO setting. This information will have been memorized during the SAVE PERFORMANCE procedure outlined on page 34.

BANK

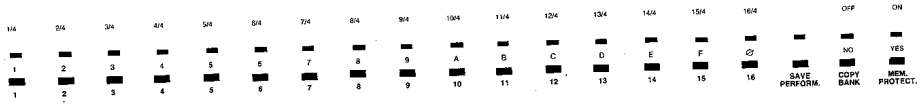
Each BANK memorizes 16 PERFORMANCE PRESETS containing the data described above, one complete series of FREE definable functions and one complete PERFORMANCE SEQUENCE.
The instrument governs 8 banks A, B, C, D, E, F, G and H, of which 4 (A, B, C, and D) are internally memorized and 4 (E, F, G and H) are memorized externally in a RAM Cartridge memory.
The active BANK name will always be that shown to the right of the PERFORMANCE PRESET Nº **(see diagram on page 16)** when not flashing. SELECT PERFORMANCE, SAVE PERFORMANCE and MEMORY PROTECT operations can be performed in this BANK.
When you select a BANK other than that shown on the display, the name will be seen to flash on the display. This indicates that this BANK has been put into a "Temporary Access" condition until you press one of the **PERFORMANCE PRESET** buttons.
The COPY BANK can only be performed when the BANK name is flashing. This will permit you to transfer the PERFORMANCE PRESETS from the BANK shown on the display to another BANK of your choice. This BANK when selected will be shown flashing on the display and at this point you can proceed with the COPY BANK procedure as explained in the appropriate section of the instructions further ahead in this manual.

SAVE PERFORMANCE

The SAVE PERFORMANCE function permits you to memorize all the programming that you have carried out (Split Controls, General Controls, MIDI Patch, Name, Chain, Tempo and Ext. Split) in a PERFORMANCE PRESET.

If a dot is seen between the PRESET N° and the BANK name, this indicates that a change has been made with respect to the original in the memory. When you save this PRESET N°, you will actually be saving the original PERFORMANCE with the changes that you have made.
You have the possibility to make temporary changes to any of the PERFORMANCES already in the memory, SAVE this modified PERFORMANCE in another PRESET position and then make a comparison between the original and the modified version by calling them up in turn by means of the **PRESET** buttons **(16). (see Fig. 12 below).**

FIG. 12



TO SAVE A PERFORMANCE PRESET, proceed as follows:

1. If you want to SAVE the PRESET in one of the positions of a BANK other than that shown in the display, you can select this BANK by means of the **BANK** selection buttons in the BANK/SPLIT/FREE section **(19)** on the right of the control panel (see Fig. 13 below).
   When selected, the name of the BANK will flash on the display.

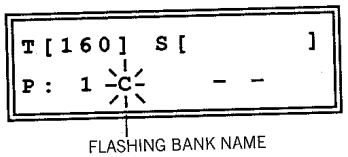
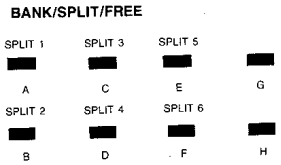


FIG. 13



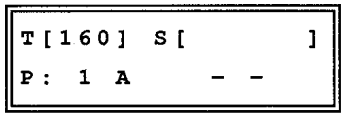
2. Once the BANK has been defined you can proceed with the saving process as follows:
   a. Press the **SAVE PERFORMANCE** button in the row of buttons under the central control matrix (16). The led indicator light will now flash.
   b. While keeping this button pressed down, select the position into which you want to SAVE the performance and press the corresponding button in the row of **PRESET N°'s. (see Fig. 12 above).**

The BANK name will stop flashing just as soon as you press a PRESET button, in the case that you have changed BANKS, indicating a definite entry into that BANK.

PERFORMANCE PRESET SELECTION

To select the PRESET that you require from the various banks available, you should follow the procedure below:

1. You should first assure that the display is showing this information, indicating that the instrument is in the PLAY mode:



2. If the above display is not shown, press **PLAY (21)** to enter into this mode and then select the **BANK** in which the PRESET that you require is stored by means of the appropriate buttons in the BANK/SPLIT/FREE section **(19)** on the right side of the control panel.
3. If you select one of the BANKS E, F, G or H contained in the RAM Cartridge, then check that you have inserted this cartridge. If this is not so, then the display will show the following message:

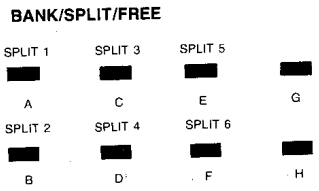


4. To cancel this message, you can either insert the RAM cartridge and then select a **BANK** from those contained in the Cartridge **(E, F, G, H)** or press any button on the panel. The function of the button pressed will not be effective and the operation will only have restored the normal PLAY mode display. You can now select one of the BANKS from those contained in the internal memory **(A, B, C, D).**
5. Press one of the 16 buttons under the central control matrix **(16)** to select the PRESET required. At this point the BANK letter will stop flashing indicating the entry into this BANK. The PRESET entered will always be from the BANK shown in the display irrespective of whether it is shown flashing or not.

At the moment that you select a **PERFORMANCE PRESET,** all the parameters programmed in the various functions will be made operative and all the MIDI PATCH data will be transmitted.

PRESET selection from the same BANK shown in the display **(17)** can be performed by simply pressing the respective button in the row under the central control matrix.
For selection of a PRESET from another BANK you should proceed as follows:

1. Select the **BANK** required by means of the buttons in the BANK/SPLIT/FREE section **(19)** on the right of the control panel. This will be shown flashing.
2. Follow point 5. of the PERFORMANCE PRESET SELECTION instructions (on page 25).



COPY BANK

The COPY BANK feature of the MK 88 and MK 55 enables entire banks of PERFORMANCE PRESETS to be copied from one BANK to another. During this transfer process, all the FREE and PERFORMANCE SEQUENCE functions will also be copied.
The most important use of the COPY BANK function is that of copying an internal BANK to one of the bank positions in the external memory of the RAM cartridge or vice-versa.
You should remember that the **entire** contents of the BANK will be copied and transferred to the other bank, so cancelling anything already memorized in that BANK.
If you want to copy single PERFORMANCE PRESETS you should use the SAVE PERFORMANCE procedure described on page 24.
For absolute protection of the contents of a BANK of special interest to you, we advise you to carry out the MEMORY PROTECT procedure in the respective section of the instructions. **(page 28).**

To perform a COPY BANK operation, you should proceed as follows:

Ensure that the display is showing the PLAY mode display as shown below:



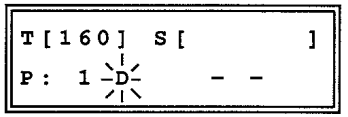
If this is not so, press **PLAY (21),** then proceed as follows:

1. Select bank that you want to copy by pressing first the bank in the BANK/SPLIT/FREE section **(19)** and then any one of the preset buttons, to conferm definite entry into this bank and stop the bank name flashing in the display.

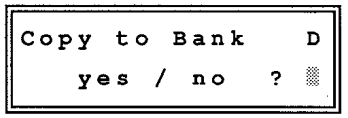
2. Select the BANK to which you want to copy by means of the **BANK/SPLIT/FREE** buttons **(19).**

At this point the BANK selected will be shown to be flashing on the display, as in the example below:

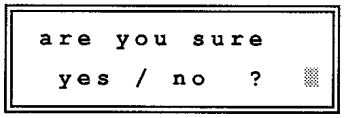
In this example you have chosen to copy to BANK D (flashing)



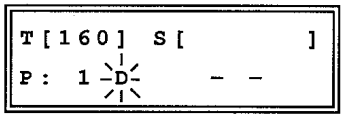
3. Press **COPY BANK.** This button is the second from the right in the line of buttons under the central matrix **(16).** At this point you will see the following display:



4. As you want to carry out the COPY BANK operation, you should press **YES** (last on the right in the row under central matrix) - **(16).** The display will now ask you, "are you sure", as seen below:



5. Press **YES** again when the display will return to that shown below:



This is indicating that no definite entry has been made into this bank and that the one being played on the keyboard is still the original.

N.B. When an internal bank (A-D) is transferred to the CARTRIDGE (E-H) - (Ex. COPY BANK A ⟶ H) the following message will appear on the display: **"please wait / writing to CARTRIDGE".**

Definite entry into the bank just copied (flashing on display) will be achieved when any PRESET button is selected.

COPY BANK cont'd.

If, when you press **YES** the second time, the following message appears:

```
> E R R O R ! <
Bank protected
```

this means that the BANK is protected and no further memorizing can be done in this bank until the MEMORY PROTECTION has been disactivated. To achieve this, press **MEMORY PROTECT** twice and follow the instructions in part 3 in the MEMORY PROTECT instructions below. Now repeat the COPY BANK procedure on page 27 from point 3 onwards.

MEMORY PROTECT

This feature, when activated, will enable you to protect any of the 8 internal or external Memory Banks. If you want to protect the contents of any of the banks against accidental cancellation, after ensuring that you are in the PLAY mode, you should follow the instructions below:

1. Select the **BANK** that you want to protect by means of the **BANK/SPLIT/FREE** buttons **(19)** on the right of the control panel. (BANK D in the example)
2. Press **MEM. PROTECT.** (Memory Protection). This is the last button on the right, in the line of buttons under the central control matrix **(16).**
   The display will now show the following messages:-

(a)

```
BANK  D  [ on]
protect(yes,no)?
```

or **(b)**

```
BANK  D  [off]
protect(yes,no)?
```

3. If the display is as in example **a)** above, then the BANK is already protected. To disactivate the protection on this BANK you should press **NO (See Fig. 14 below).**

FIG. 14



If though, the display is showing as in example **(b)** above, then you can protect the BANK indicated in the display by pressing the **YES** button (also marked MEM. PROTECT.).

The display will now return to the PLAY mode display as shown below, and the entire contents of the BANK that was showing on the display will have been protected.

```
T[160] S[        ]
P: 1 A     - -
```


PERFORMANCE SEQUENCE

This function which can only be activated when you are in the PLAY mode, enables you to programme a sequence of up to a maximum of 30 PERFORMANCE PRESETS which can be advanced one by one by pressing a footpedal **(see OPTIONAL ACCESSORIES).** This should be plugged into the PROG. ADV. socket on the back panel (see Fig. 1 on page 2). The sequence can also be moved backwards or forwards by means of the **PERF. SEQ.** buttons **(15)** situated under the control indicator lights on the left of the matrix, see Fig. 15 below.

FIG. 15



By combining the use of the footswitch and the **PERF. SEQ.** buttons **(15),** it is possible to play with only a part of the sequence, by moving either backwards or forwards to the first PERFORMANCE PRESET position that you need, then advancing the sequence by means of the footpedal or **PERF. SEQ.** buttons. (Remember that if this PRESET is in a higher numbered position than where the cursor is, then you can use either the footpedal or **right hand PERF. SEQ.** button to advance the sequence, but if it is in a lower numbered position then it is more convenient to use the **left hand PERF. SEQ.** button).
It is also possible, during the use of the PERFORMANCE SEQUENCE, to use any PERFORMANCE PRESET by pressing the appropriate button, from **1 - 16 (16).**

When you continue with the sequence, this will carry on where it left off, that is if the last number used was, for example 5, then the next time that you press the footswitch, the sequence will advance from 5, or move backwards from 5 if using the **left hand PERF. SEQ.** button.
At the end of the sequence, that is the last PRESET programmed, the sequence will automatically return to the first one programmed if using the footswitch. When, on the other hand, you move the sequence backwards with the left hand button, this will stop as soon as the first programmed PERFORMANCE PRESET is reached.

To programme a sequence you should use the following procedure:-

1. Press **PLAY (21)** if the instrument is not already in this mode.
2. Press **PERF. SEQ. (11)** in the EDIT section **(11).** The display will now show:-

a)

```
Perf.Sequ.   >: 1
```

If you have not yet programmed a sequence.

or **b)**

```
Perf.Sequ.   >: 4
> 4> 5> 6> 7> 8
```

Showing the last used position of the sequence already memorized.

In **(b)** (Page 29) the display is showing the situation in the last sequence programmed, that is position 4, with PERF. PRESET Nº 6 (flashing). The actual display shown will depend on the last used state of the programmed sequence.

You can now:

a) Programme a completely new sequence.

b) Substitute a PERF. PRESET in the sequence with another one of your choice.

c) Insert new PERF. PRESETS into the sequence.

d) Delete any PERF. PRESETS from the sequence.

a) TO PROGRAMME A COMPLETELY NEW SEQUENCE

1. Bring the sequence to position 1 (this will be shown in the top right hand corner of the display) by means of the ◀ ▶ buttons under the display **(18).**

2. Insert the number of the PERFORMANCE PRESET that you want to memorise in this position by selecting the appropriate button from **1 - 16** in the row under the central matrix **(16).**

3. Now advance the sequence, one position at a time, with the button marked ▶ under the display, inserting the **PERFORMANCE PRESET** required into each position up to a maximum of 30.

4. When you have completed the sequence, press **PLAY (21).** The display will now show:

```
T[160]  S[          ]
P:  1  A      - -
```

5. If you want to memorise the sequence just completed, press **YES,** otherwise press **NO.** The display will now return to the PLAY mode as shown below:

```
Bank protected
save  (Yes/No)  ?
```

N.B. Remember that the sequence can only be formed from PERFORMANCE PRESETS in the same BANK, and this sequence will be stored in that BANK.

You can memorize a total of 8 sequences in this instrument, 4 in the Internal Banks **(A - D),** and 4 in the Cartridge Banks **(E - H).**

b) TO MAKE A SUBSTITUTION

If, for example, you have programmed the PERFORMANCE PRESET Nº 14 into a certain point in the sequence, and you now want to substitute this with Nº 11, you should do as follows:

1. Making reference to the display **(17),** move the sequence to the position where you want to make the substitution, using the ◀ ▶ buttons under the display **(18).**

Remember that you can only change a PRESET Nº where the cursor is flashing, i.e. in the central position (see display below).

```
Perf.Sequ.   >:  7
>16>12>14>13>15
```

2. Now press the button corresponding to the **PERF. PRESET** that you want to put into the sequence, using the buttons **1 - 16** under the central matrix **(16).**
   At this point, you can repeat the operation for as many substitutions as are necessary.
3. When you have completed your substitutions, follow the instructions in points **4** and **5** of **a)** above.

c) TO MAKE AN INSERTION

The **INSERT** button **(18)** allows you to shift all the PERFORMANCE PRESETS, from the central cursor position, one place to the right. This will leave a space in the sequence (indicated by the number 1). You can now insert the required PERFORMANCE PRESET into that sequence position **(see display example).**

N.B. Although there is no limit to the number of insertions that you can make, you should remember that when using a sequence of the maximum length (that is 30 PERFORMANCE PRESETS), each insertion that you make will automatically cancel the last number in the sequence at that moment.

a)

```
Perf.Sequ.   >:20
>  5>  6>  8>  9>10
```

b)

```
Perf.Sequ.   >:20
>  5>  6>  1>  1>  8
```

If, for example, you have a situation as in display a) above, and you want to insert two new PERF. PRESETS into the sequence between Nº's 6 and 8, you should do as follows:

1. Press the button marked **INSERT (18)** twice, which will create two spaces in the required positions. The display will now have changed to b).
2. Insert the PERF. PRESETS required, using the ◀ ▶ buttons under display **(18)** to move the sequence forwards or backwards, and the **PERF. PRESET** buttons **(1 - 16)** to select the number of the PRESET.
3. When you have completed the insertions, follow the instructions in points **4** and **5** of **a)** on page 30.

d) TO MAKE A DELETION

As was the case in the NAME writing procedure **(page 17),** the DELETE button (18) allows you to delete any PRESET Nº that is in the central cursor position of the display. This operation effectively shortens the length of the sequence, by moving all the PRESETS to the right of the central cursor, one place to the left.

a)

```
Perf.Sequ.   >:20
>  7>  8>  4>12>15
```

b)

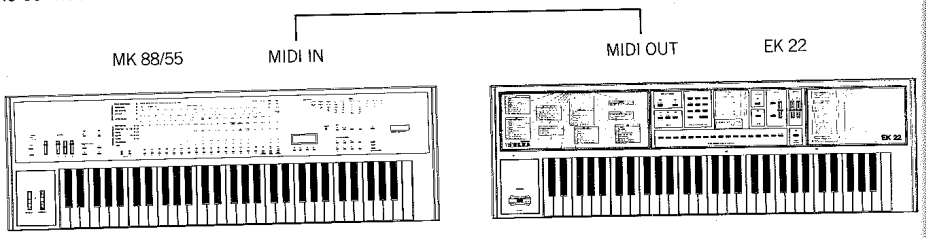
```
Perf.Sequ.   >:20
>  7>  8>15>  9>10
```

If, for example, in display a) above, you want to delete the PERF. PRESETS in positions 4 and 12; you should press **DELETE** twice. The display will now have changed to that of b).

When you have completed the deletions, follow the instructions in points **4** and **5** of **a)** on page 30.

MIDI IN

This facility enables you to activate SPLIT ZONES 5 & 6 from an external keyboard or pedalboard which is connected to the MK 88/55 as shown below.



In practise, this means that the external unit becomes an extension of the MK 88/55 and adds an extra number of keys to the keyboard. For example, if the display **(17)** referring to SPLIT ZONE 5 shows C7 - A8 (MK 88), this means that you have added an extra 22 keys to the Master Keyboard, which are playable on the external unit. The actual notes that the external unit plays, will be dependent on the programming of SPLIT ZONES 5 & 6 on the MK 88/55. The total Nº of notes programmable into these SPLIT ZONES is as follows:

MK 88 - 29 notes
MK 55 - 56 notes

IMPORTANT: The external instrument must be set to MIDI channel Nº 1 as the MIDI IN on the MK 88/55 receives only on this channel.

To programme the external SPLIT ZONES 5 & 6, proceed as follows:

1. Set the MIDI channel of the external instrument to MIDI CHANNEL Nº 1.
2. Press **PLAY (21).**
3. Press **EXT. SPLIT 5/6 (3)** and keep it pressed until the display **(17)** changes to:

```
press lowest C
on ext. device !
```

4. Press the **lowest C** note on the **external instrument** and the display will return to the PLAY mode, with a dot showing between the PERFORMANCE Nº and the BANK letter. This indicates that an EDIT operation has taken place.

```
T[160] S[        ]
P: 1 A     - -
```


MIDI IN cont'd.

5. **Press SPLIT 5** in BANK/SPLIT/FREE section **(19)** and keep this pressed until the display gives the following message:

```
press lowest    !
P: 1.A     - -
```

6. Press the **lowest key** required in the SPLIT ZONE 5 on the external instrument. The display will now show:

```
press highest   !
P: 1.A     - -
```

7. Now press the **highest key** required in this SPLIT ZONE. Having completed this procedure, you will have set the low and high limits, that is the extension of SPLIT ZONE 5 and this will now be shown on the display as shown below:

```
Split 5   C 7-A 8
P: 1 A     - -
```

This is indicating that you have programmed SPLIT ZONE 5 from bottom C (which is equivalent to top C on the MK 88/55) to A8. You should now carry out the same procedure to determine the extension of SPLIT ZONE 6.
If at this point, the sounds are not at the required pitches on the external keyboard, the TRANSPOSE function must be used.

N.B. The EXT. SPLIT 5/6 function can only be turned "on" and "off", when the MK 88/55 is in the PLAY mode.

FREE

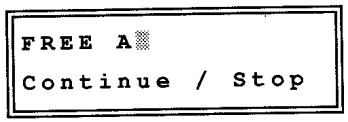
This section of the MK 88/55 contains the additional commands that can be assigned to the GENERAL CONTROLS **(5)** and the MIDI PATCH. You can programme 8 FREE functions in each BANK, remembering that A, B, C, and D can only be assigned to the FOOTSWITCHES and FUNCTION keys **(14)** and E, F, G and H can only be assigned to the PEDALS, SLIDERS (2) and WHEELS **(13).**

To programme the FREE positions, you should do as follows:

1. Press **FREE** in the EDIT section **(11).**
2. Select one of the **FREE** positions using the buttons in the BANK/SPLIT/FREE section **(19)** from **A - H.**
   The display will now show:



or



showing the command that was previously programmed in that position, in this case Continue/Stop.

3. You can programme the required command into that position by pressing the relative **PERF. PRESET** button in the row under the central matrix **(16).**
   This will erase any command previously programmed into that position.

The 5 different types of command that can be selected are as follows:

a) **START/STOP** (selected by **PERF. PRESET** button **Nº 1**)
   This command is used for the control of a Rhythm Unit or Sequencer.
b) **CONT/STOP** (selected by **PERF. PRESET** button **Nº 2**)
   This command is also used for the control of a Rhythm Unit or Sequencer.
c) **SPLIT MUTE** (selected by **PERF. PRESET** button **Nº 3**)
   When this command is activated, the sound in the SPLIT ZONE to which it has been consigned will be muted.
d) **CONTR. XX** (selected by **PERF. PRESET** button **Nº 4**)
   This command allows the user to assign any of the following MIDI control functions to any FREE position:

CONTROLLER NUMBER (2nd Byte Value)	CONTROLLER FUNCTION
0	Undefined
1	Modulation wheel or lever
2	Breath controller
3	Undefined
4	Foot controller
5	Portamento rate

CONTROLLER NUMBER (2nd Byte Value)	CONTROLLER FUNCTION
6	Data Entry
7	Main Volume
8 to 31	Undefined
32 to 63	Least significant byte for values 0 to 31
64	Damper (sustain) pedal
65	Portamento On/Off
66	Sostenuto
67	Soft pedal
68 to 95	Undefined
96	Data increment
97	Data increment
98 to 121	Undefined
122	Local Control on/off
123	All Note Off
124	Omni Mode Off
125	Omni Mode On
126	Mono Mode On - Poly Mode Off
127	Poly Mode On - Mono Mode Off

It is therefore possible to change an MK 88/55 controller (e.g. Foot controller) into another type of controller (e.g. Breath controller) at it's destination.

To access any of these functions, you should now press **PERF. PRESET Nº 4,** corresponding to **CONTR.XX.** The display will now show:



The flashing cursor on the right is telling you to enter the Nº of the controller function required, which you do by means of buttons **1 - 9** and **Ø** under the central matrix **(16).**
This procedure is concluded by pressing **DIRECT/ENTER (20).**
As an example, the following procedure will activate PORTAMENTO at a set rate on all instruments capable of receiving this command, whenever the relevant **PERF. PRESET** button **(16)** is pressed, and will allow **SLIDER Nº 1 (2)** to control the PORTAMENTO RATE:

1. Select **FREE** in the EDIT section **(11).**
2. Select **A** in the BANK/SPLIT/FREE section **(19).**
3. Press **PERF. PRESET** button **Nº 4,** to select CONTR.XX in the FREE section **(10).**
4. Enter **65** as the controller number (PORTAMENTO ON/OFF) using the **PERF. PRESET** buttons under the central matrix **(16).**
5. Press **DIRECT/ENTER (20).** This has now linked FREE A to the PORTAMENTO ON/OFF function.
6. Select **E** in the BANK/SPLIT/FREE section **(19).**

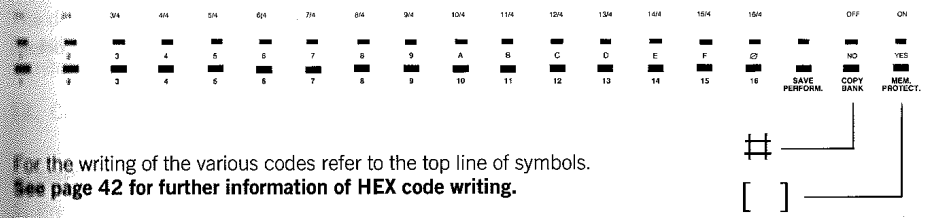
7. Press **PERF. PRESET** button **Nº 4** to select CONTR.XX in the FREE section **(10).**
8. Enter **5** as the controller number (PORTAMENTO RATE) using the PERF. PRESET button **Nº 5.**
9. Press **DIRECT/ENTER (20).** This has now linked FREE E to the PORTAMENTO RATE function.
10. Now press **MIDI PATCH** in the EDIT section **(11)** and select the required slot.
11. Press **PERF. PRESET** button **Nº 12** to select FREE A.
12. Press one of the **SPLIT ZONE** buttons in the BANK/SPLIT/FREE section **(19)** to select the required SPLIT ZONE.
13. Enter a value of **99,** which will act as a PORTAMENTO ON switch.
14. Press **DIRECT/ENTER (20).** This has now linked FREE A to the MIDI PATCH section.
15. Now select the next available MIDI PATCH slot.
16. Press **PERF. PRESET** button **Nº 16** to select FREE E.
17. Press one of the **SPLIT ZONE** buttons in the BANK/SPLIT/FREE section **(19)** to select the required SPLIT ZONE.
18. Enter a value of **40,** which will set the PORTAMENTO RATE.
19. Press **DIRECT/ENTER (20).** This has now linked FREE E to the MIDI PATCH section.
20. Now press the **PANEL** button and route SLIDER Nº 1 **(2)** to FREE E and the required SPLIT ZONE on the central matrix.
21. Press **PLAY (21)** to leave the EDIT mode and memorize these modifications using the SAVE PERFORMANCE procedure **(see page 24).**
22. Now, on selecting the relevant PERFORMANCE PRESET, PORTAMENTO at a rate of 40 will automatically be switched on. SLIDER Nº 1 **(2)** will now control the PORTAMENTO RATE and will overide the preset rate of 40 when it is moved.
23. To avoid any problems with unwanted PORTAMENTO on subsequent selections, it is advised that a value of 0 is entered for FREE A in the MIDI PATCH section of the next PRESET. This will effectively give "PORTAMENTO OFF" when that PRESET is selected.

e) **HEX** (selected by **PERF. PRESET** button **Nº 5**)
When you select this command, you have the capability of writing Transmission Data (SYSTEM EXCLUSIVE) that will enable you to transmit various MIDI messages.
This is a very involved area of programming that requires further knowledge to accomplish. We have set out a few examples to demonstrate it's use, but recommend that the user who would like to use it's full potential should seek out further MIDI CODE literature.

EXAMPLE 1.

If you want to play all the notes of a sound module, one after the other by means of a PEDAL, SLIDER **(2)** or WHEEL **(13),** the following procedure should be used:

1. Press **FREE** in the EDIT section **(11).**
2. Press FREE position **E,** by means of the respective button in the section BANK/SPLIT/FREE **(19).**
3. Press the **PERFORMANCE PRESET** button **Nº 5** corresponding to the HEX command.
4. You should now write the code needed to perform this control using the buttons under the central matrix **(16). (See design below).**



For the writing of the various codes refer to the top line of symbols.
See page 42 for further information of HEX code writing.

For this code write: **9# [ ]4Ø[ ]ØØ**

5. Press **ENTER (20).**
6. You will now see the display showing as below.

```
FREE E▒ HEX STR.
9#[]4Ø[]ØØ
```

You can now assign this "FREE" to one of the PEDAL, SLIDER **(2)** or WHEEL **(13)** controls in the GENERAL CONTROLS section **(5)** by following the instructions below:

1. Press **PANEL (11),** when the display will show:

```
Bank protected
save (Yes/No) ?▒
```

This is asking you if you want to SAVE this FREE command or not, therefore you should press **YES.**

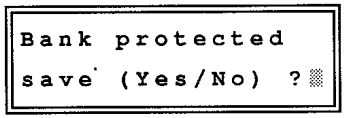
2. You can move the indicator light on the left of the control matrix **(7)** to indicate SLIDER 1 by means of the **UP/DOWN** buttons **(15).**
3. Press **PERFORMANCE PRESET** button **16** corresponding to FREE E.
4. Select the SPLIT ZONE where you want to transmit this code (SPLIT ZONE 1 for example).
5. Move SLIDER 1 **(2)**
6. You will now hear the notes of the keyboard, playing one after the other according to how you move the SLIDER control.

Further HEX code examples for SPLIT DETUNE, SPLIT TUNE, ALL OMNI ON and TUNE REQUEST:

EXAMPLE 2. SPLIT DETUNE using PITCH command.

Should be used when you want to program a preset with a SPLIT ZONE detuned from the other (s); proceed as follows:

1. Press **FREE** in the EDIT section **(11).**
2. Select a **FREE** position in the BANK/SPLIT/FREE section **(19),** for example **A.**
3. Press **PERF. PRESET** button **Nº 5** corresponding to the HEX command.
4. Write the following code: **E ♯ Ø Ø [ ].**
5. Press **ENTER (20).**
6. Press **MIDI PATCH** in the EDIT section **(11).** If the bank is protected the display will show as below. If it is not, then go straight to point **Nº 8** below.

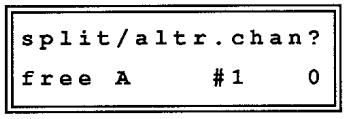


7. Press **YES** (button 19) and the display will change to:



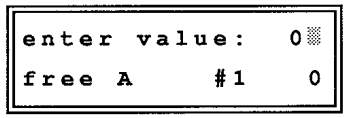
8. Select **FREE** position **A** by pressing button **Nº 12** under the central matrix **(16).** (See MIDI PATCH section) - **(9).**

Display will ask:



9. Select **SPLIT Nº** or **ALTERNATE CHANNEL** as required, by pressing the respective number in the row under the central matrix, SPLIT ZONE 1 for example.

Display will show:



10. Now enter the VALUE required, by pressing the respective buttons on the bottom row. Values can be from 0 - 127 with 64 representing "IN TUNE". A slight detune can therefore be set with a value of either 62 (flat) or 66 (sharp).

HEX CODES - SPLIT DETUNE using Pitch command cont'd.

11. Press **DIRECT/ENTER (20).**



The display below is showing that in MIDI PATCH position 1, you have entered FREE A, and that this will be active in SPLIT ZONE 1 with a detuning factor of - 2 (2 below 64). The actual detuning in terms of semitones will depend on how the external instrument has been programmed.

12. Carry out the SAVE PERFORMANCE procedure, as outlined earlier in the manual.

EXAMPLE 3. SPLIT TUNE using TUNE command.

1. Press **FREE** in the EDIT section **(11).**
2. Select **FREE** position using the buttons in the BANK/SPLIT/FREE section **(19).**
3. Select **HEX** (button **5** under the central matrix).
4. Write code requested by a particular instrument (consult relevant manual).
5. Press **DIRECT/ENTER (20).**
6. Assign this FREE to a MIDI PATCH **(see page 34).**

EXAMPLE 4. To send an OMNI ON message to external units, do as follows:

1. Press **FREE** in the EDIT section **(11).**
2. Select **FREE** position required (A - H).
3. Press **HEX (PERF. PRESET** button **Nº 5)**
4. Write this code: **B ♯ 7 D Ø Ø.**
5. Press **DIRECT/ENTER (20).**
6. Assign to a MIDI PATCH slot when you will asked on the display: SPLIT/ALTERNATE CHANNEL?
7. Select the **SPLIT ZONE** required using the buttons under the central matrix.

EXAMPLE 5. If you want to send a TUNE REQUEST message to analogue synthesizers, the following procedure must be used:

1. Press **FREE** in the EDIT section **(11).**
2. Select **FREE** position using the buttons in the BANK/SPLIT FREE section **(19).**
3. Press **HEX (PERF. PRESET** button **Nº 5).**
4. Write **F 6.**
5. Press **DIRECT/ENTER (20).**
6. Assign to a MIDI PATCH slot or FUNCTION KEY.

N.B. The same assignment procedure is used for all the FREE commands, you must however remember that the FREE positions A, B, C and D can only be assigned the FOOTSWITCH and FUNCTION Keys (14), while E, F, G and H are exclusive to the PEDAL, SLIDER (2) and WHEEL (13) controls.

CHAIN

This facility enables you to move between PERF. PRESETS whilst keeping certain functions constant. This means that when the CHAIN FUNCTION is active, certain functions will change with the PERF. PRESET selection, and others will not, irrespective of the settings previously programmed into the PERF. PRESET. Below is a list of the functions that are affected:

Change with PERF. PRESET selection	**Don't change with PERF. PRESET selection**
Dynamics	Clock/Tempo
Aftertouch	MIDI in / EXT split 5/6
Footswitches	Split zones
Function buttons	Full mode on/off
Pedals	Transpose
Sliders	MIDI channel
Wheels	Delay
MIDI Patch	Echo
Free section	Loop

For example, if you had a pattern in the LOOP mode which was synchronised to an external RHYTHM UNIT, and you were playing over this in the FULL mode; the CHAIN function would allow you to select different voices without disrupting the continuity of the performance.

There are two ways of using the CHAIN functions:

(a) PROGRAMMED INTO THE PERFORMANCE PRESET

When in the PLAY mode, if the **CHAIN** button **(4)** is pressed (causing the LED to flash) and then memorised in the PERF. PRESET by the SAVE PERFORMANCE procedure, the CHAIN function will be activated every time that particular PRESET is recalled. This means that the CHAIN function will be active on the parameters of the **previous** PRESET.

For example, if a DELAY has been programmed into the last NON-CHAIN PRESET; when the CHAIN PRESET is selected, the DELAY (and the other functions listed previously) will be unaltered.

Only when the next NON-CHAIN PRESET is selected, will the CHAIN function be deactivated.

(b) WHENEVER REQUIRED DURING PERFORMANCE

If the **CHAIN** button **(4)** is pressed at any time during a PERFORMANCE SEQUENCE, or during manual selection of PERF. PRESETS, the CHAIN function will be activated.

It will act on the functions of the PERF. PRESET that is in use when the **CHAIN** button is pressed, and will remain active until the button is pressed again, regardless of the PERF. PRESETS that have been selected in the meantime.

ALL NOTES OFF

In the event of an external unit not receiving or responding to "NOTE OFF" information that is transmitted in the normal way (i.e. whenever a note on the keyboard is released), this facility enables you to send out an "ALL NOTES OFF" command and silence any "droning" notes. This could obviously save a lot of embarrassment in a live situation!

The command is activated by pressing the **PLAY (21)** and **DIRECT/ENTER (20)** buttons at the same time.

EDIT RECALL

When you have performed any editing operation in a PERFORMANCE PRESET (indicated by a dot on the display between the PERF. PRESET N° and the BANK name) and have then moved to another PERF. PRESET N°, without having first saved the modifications, they will be temporarily cancelled. The same will happen if there is a power failure during the editing procedure.
Fortunately, these parameters can be recalled by the EDIT RECALL function and then suitably saved, thereby avoiding the need to re-program them. For example, supposing you want to make a change to SPLIT ZONE N° 1 in PERF. PRESET N° 2, then do as follows:

1. Press **PANEL (11)**
2. Move the led indicator to the SPLIT POINT/MODE position by means of the UP/DOWN buttons **(15).**
3. Press **SPLIT 1** button in the BANK/SPLIT/FREE section **(19)** and hold it down until the display shows:

```
press lowest    !
P: 2.A      - -
```

4. Now press the **lowest** and then the **highest** keys of the extension required for SPLIT ZONE 1 (for example C^1 - C^3) and the display will now show:

```
Split 1   C 1-C 3
P: 2 A      - -
```

5. Press **PLAY (21).**
6. Press **PERF. PRESET N° 6.**

If at this point, you wish to return to the edit carried out on PERF. PRESET N° 2 (possibly because you wanted to save it in the memory and forgot!) you must proceed as follows:

7. Press **PERF. PRESET N° 2.**
8. Press **PANEL** and **PLAY (21)** buttons simultaneously.
9. The display will now show a dot between the PERF. PRESET N° and the BANK name, indicating that the edit has been recalled.

```
T[160] S[       ]
P: 2.A      - -
```

The actual display message will depend on the programming of PERF. PRESET N° 2.

10. This can now be saved in a PERF. PRESET N° by using the SAVE PERFORMANCE procedure.

EDIT RECALL cont'd.

N.B. If, before saving the modified parameters, you enter the PLAY mode and then repress the same PERF. PRESET Nº, this will play in the original version. The display will now not show the dot between the PRESET Nº and the BANK name.

The EDIT RECALL is also very useful for comparing the original PERFORMANCE PRESET with that which you have just edited. This comparison can be carried out as follows:

After editing, for example in PERF. PRESET Nº 2:

1. Press **PLAY (21).**
2. Repress **PERF. PRESET Nº 2,** and play with this.
3. When you want to compare this with the edited, new version, press **PANEL** and **PLAY** buttons simultaneously (EDIT RECALL) and then play with this. Then by alternately pressing **PERF. PRESET Nº 2** and the **PANEL/PLAY** buttons, you can make continuous comparisons between the original and the edited version. When further editing is needed, you should use the following procedure:
   - **a)** Recall the edited version of the PERF. PRESET with the **PANEL/PLAY** buttons if not already shown on the display.
   - **b)** Press **PANEL.**
   - **c)** Carry out the necessary further editing.
   - **d)** Then to play the PERF. PRESET just modified, press **PLAY (21).**

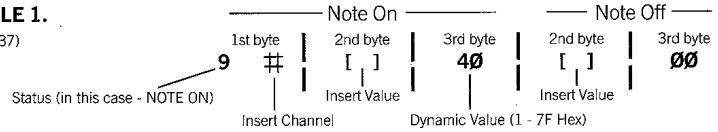
You can now continue to make comparisons as explained above.

HEX CODE INFORMATION

The Hex code shown in **Example 1** is made up of two separate sections of information; Note On and Note Off (see below). This code can be interpreted as follows:

EXAMPLE 1.

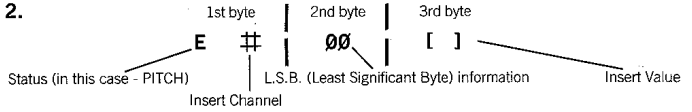
(see page 37)



The insert channel symbol (⌗) in this case will automatically assign the MIDI channel for the respective split zone, however this can be substituted with a specific channel number bearing in mind that the number programmed should be one less than the channel required (i.e. 0 = Channel 1, 1 = Channel 2, F = Channel 16 and so on).
The value (in the insert value position), in this example the note number, will be determined by the position of the PEDAL, SLIDER or WHEEL according to which control is being used.
It will be seen that the first half of the code (Note On) is made up of three bytes, whereas the second (Note Off) has only two. This is due to the fact that it is not necessary to repeat the first byte in the Note Off part of the code (Status), when this is identical to that of the first byte in the Note On section (9 ⌗).

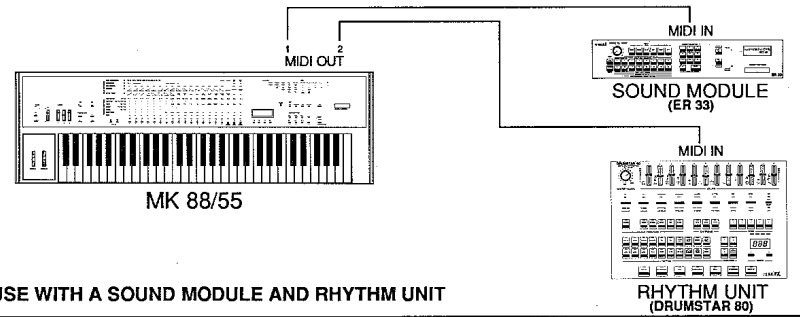
EXAMPLE 2.

(see page 38)

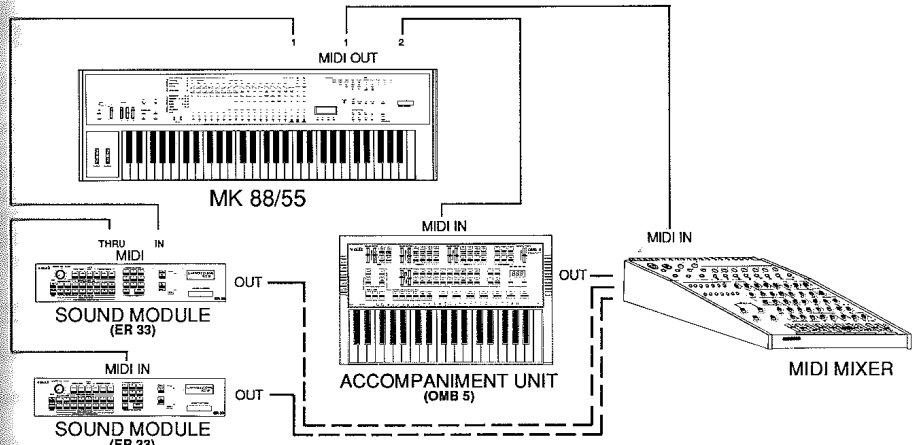


The information in this section is only intended to clarify the codes written in the two examples; for further explanation on code writing, we advise you to read some of the specialized MIDI HEX code literature available.

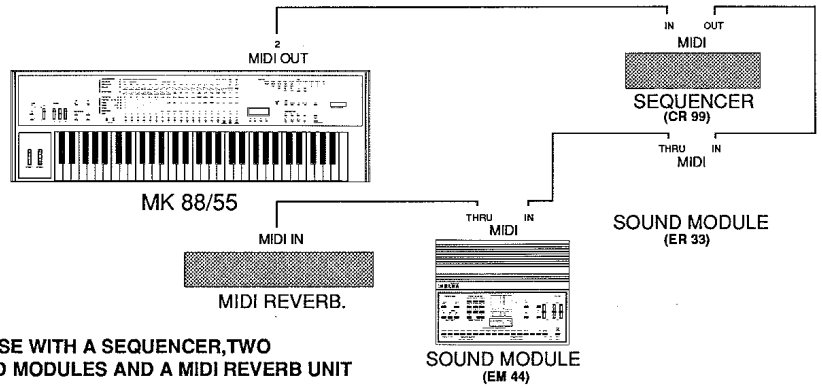
MIDI CONNECTION EXAMPLES FOR MK 88/55



1. FOR USE WITH A SOUND MODULE AND RHYTHM UNIT



2. FOR USE WITH TWO SOUND MODULES AND ACCOMPANIMENT UNIT CONNECTED TO A MIDI MIXER

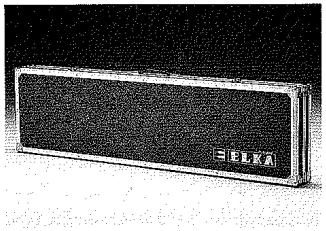


3. FOR USE WITH A SEQUENCER,TWO SOUND MODULES AND A MIDI REVERB UNIT

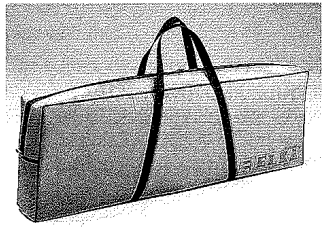
OPTIONAL ACCESSORIES

MK88/MK55 Pedal MP 7 (for Progr. Adv., Full and other functions)
Analog Pedal VP 10
RAM MK (Programmable Perf. cartridge)

MK55 Carrying Bag CB/MK



View of MK88 as supplied in Flight Case



Carrying Bag for MK55



VP 10 Analog Pedal MP 7 Pedal

MK 88/55 MIDI DUMP DATA (SYSTEM EXCLUSIVE)

TO DUMP A COMPLETE BANK (with 8 Free and Perf.Sequence):

F Ø..... dump request
2 F
3 Ø..... function = 3
1 5..... MK 88/55 code
(Ø...3)..... Bank A..D
F 7

TO DUMP INDIVIDUAL PERFORMANCES:

F Ø..... dump request
2 F
5 Ø..... function = 5
1 5..... MK 88/55 code
(Ø...63)..... 4 banks(A,B,C,D) of 16 performances(1 - 16)
F 7

TO RELOAD:

Reloading of the previously memorised data into the MK 88/55,can be achieved via the **MIDI IN** socket.

MIDI / Decimal / Hex / Binary / Conversion Chart

The following is a list of all MIDI Status Bytes,their Decimal values,Hexadecimal values and Binary values.Following each Status Byte are the functions and possible values of each data byte.

Status Byte	Dec.	Hex.	Binary	Data Byte # 1	Data Byte # 2
Channel Voice					
(MIDI Channel 1)	Dec.	Hex.	Binary	Dec.	Dec.
Note Off	128	80 H	10000000	0 - 127 Note Number	0 - 127 Velocity
Note On	144	90 H	10010000	0 - 127 Note Number	0 - 127 Velocity
Poly Key Pressure	160	A0 H	10100000	0 - 127 Note Number	0 - 127 Pressure Value
Control Change	176	B0 H	10110000	0 - 127 Control Number*	0 - 127 Control Value
Program Change	192	C0 H	11000000	0 - 127 Program Number	
Channel Pressure	208	D0 H	11010000	0 - 127 Pressure Value	
Pitch Bend	224	E0 H	11100000	0 - 127 Value LSB	0 - 127 Value MSB
Channel Mode					
(MIDI Channel 1)				Dec. Hex. Binary	
Local Control	176	B0 H	10110000	122 7A H 01111010	127= On / 0 = Off
All Notes Off	176	B0 H	10110000	123 7B H 01111011	Value = 0
Omni Off	176	B0 H	10110000	124 7C H 01111100	Value = 0
Omni On	176	B0 H	10110000	125 7D H 01111101	Value = 0
Mono On(Poly Off)	176	B0 H	10110000	126 7E H 01111110	Value = Number of Channels (Max = 16)
Poly On(Mono Off)	176	B0 H	10110000	127 7F H 01111111	0= Number of Channels in receiver
System Exclusive					Value = 0
System Exclusive	240	F0 H	11110000	Dec.	Dec.
System Common				0 - 127 I D Number	0 - 127 Position MSB
Undefined	241	F1 H	11110001	Dec.	
Song Position	242	F2 H	11110010	0 - 127 Position LSB	
Song Select	243	F3 H	11110011	0 - 127 Song Number	
Undefined	244	F4 H	11110100		
Undefined	245	F5 H	11110101		
Tune Request	246	F6 H	11110110		
EOX	247	F7 H	11110111		
System Real Time					
Timing Clock	248	F8 H	11111000		
Undefined	249	F9 H	11111001		
Start	250	FA H	11111010		
Continue	251	FB H	11111011		
Stop	252	FC H	11111100		
Undefined	253	FD H	11111101		
Active Sensing	254	FE H	11111110		
System Reset	255	FF H	11111111		

* Currently Defined MIDI Controller Numbers(All Numbers in Decimal)

1	Modulation Wheel	**64**	Damper Pedal	**97**	Data Decrement
2	Breath Controller	**65**	Portamento	**98**	Non-Registered Parameter Num. MSB
4	Foot Controller	**66**	Sostenuto		
5	Portamento Time	**67**	Soft Pedal		
6	Data Entry	**69**	Hold 2	**99**	Non-Registered Parameter Num. LSB
7	Main Volume	**80**	General Purpose #5		
8	Balance	**81**	General Purpose #6		
10	Pan	**82**	General Purpose #7	**100**	Registered Parameter Num. MSB
11	Expression	**83**	General Purpose #8		
16	General Purpose #1	**92**	Tremolo Depth		
17	General Purpose #2	**93**	Chorus Depth	**101**	Registered Parameter Num. LSB
18	General Purpose #3	**94**	Celeste Depth		
19	General Purpose #4	**95**	Phase Depth		
32-63	LSB for values 0 - 31	**96**	Data Increment		

USER'S PERFORMANCE PRESET TABLE
MK88/55

BANK: - - - PERFORMANCE PRESET N°: - - - NAME: - - - - - - - - - -

CLOCK INT. ☐ EXT. ☐ TEMPO - - - CHAIN ON ☐ OFF ☐

SPLIT ZONES	1	2	3	4	5	6	NOTES:
SPLIT POINTS							
MODE — SPLIT / FULL							
TRANSPOSE							
MIDI — CHANNEL / OUT							
DYNAMICS							
AFTER TOUCH — CURVE / FUNCTION							

CONTROLLERS									ALTERNATE CHANNEL	FUNCTION
FOOTSWITCH	1									
	2									
FUNCTION	1									
	2									
	3									
	4									
PEDAL	1									
	2									
SLIDER	1									
	2									
	3									
WHEEL	1									
	2									
DELAY/ECHO	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	DELAY ☐ ECHO ☐ TIME /			
LOOP	ON ☐		OFF ☐		LENGTH /					

MIDI PATCH

1	2	3	4	5	6

7	8	9	10	11	12

USER'S PERFORMANCE PRESET TABLE
MK88/55

BANK: - - - PERFORMANCE PRESET N°: - - - NAME: - - - - - - - - - -

CLOCK INT. ☐ EXT. ☐ TEMPO - - - CHAIN ON ☐ OFF ☐

SPLIT ZONES	1	2	3	4	5	6	NOTES:
SPLIT POINTS							
MODE — SPLIT / FULL							
TRANSPOSE							
MIDI — CHANNEL / OUT							
DYNAMICS							
AFTER TOUCH — CURVE / FUNCTION							

CONTROLLERS									ALTERNATE CHANNEL	FUNCTION
FOOTSWITCH	1									
	2									
FUNCTION	1									
	2									
	3									
	4									
PEDAL	1									
	2									
SLIDER	1									
	2									
	3									
WHEEL	1									
	2									
DELAY/ECHO	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	ON ☐ OFF ☐	DELAY ☐ ECHO ☐ TIME /			
LOOP	ON ☐		OFF ☐		LENGTH /					

MIDI PATCH

1	2	3	4	5	6

7	8	9	10	11	12



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