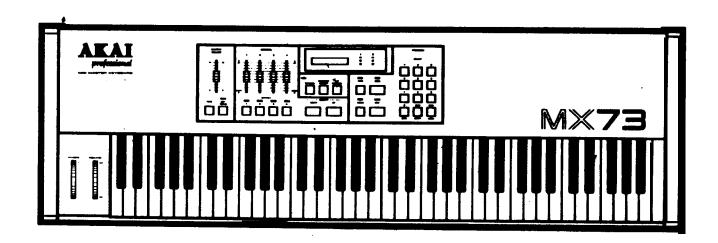


MIDI MASTER KEYBOARD



WARNING

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

Warning

Power requirements

Power requirements for electrical equipment differ from area to area. The operating voltage of this machine is preset at the factory according to It's intended destination. However, some models are equipped with a voltage selector. If your machine is so equipped, before connecting, check to see that the VOLTAGE SELECTOR on the bottom panel is set to the voltage for your area.

If not please set it correctly before plugging in the power cord.

220 V, 50 Hz for Europe except the UK.

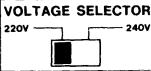
240 V, 50 Hz for UK and Australia.

120 V. 60 Hz for USA and Canada.

If the VOLTAGE SELECTOR is not set for your area:

Confirm that the power cord is **disconnected**.

Move the VOLTAGE SELECTOR with a screwdriver so that the marker is above **the voltage** for your area.



What you should know to protect yourself and the Akai MX73.

Watch out! You might get an electric shock.

- Never touch the plug with wet hands.
- Always pull out by the plug and never the cord.
- Resoz let a qualified professional repair or reassemble the Akai MX73.
 An unauthorized person might touch the internal parts and receive a serious electric shock.
- Never allow a child to put anything, especially metal, into the Akai MX73.

Let's protect the Akai MX73 too.

- Use only a household AC power source. Never use a DC power source.
- If water is spilled on the Akai MX73. disconnect it and call your dealer.
- Make sure that the AKai MX73 is well ventilated and away from direct sunlight.
- To vofd damage to the internal circuits and the external surface, keep away from heet (stoves, etc.).
 Avoid using spray type inserticide near the Akai MX73. It can
- Avoid using spray type insecticide near the Akai MX73. It can damage the finish and might ignite suddenly.
- To avoid damaging the finish, never use denaturated alcohol, paint thinner or other similar chemicals to clean the Akai MX73.
- Place the Akal MX73 on the flat and solid surface.

To enjoy the Akai MX73 for a long time, please read this operator's manual thoroughly.

Should a problem persist, write down the model and serial numbers and all pertinent data regarding warranty coverage as welt as a clear description of the existing trouble. Then, contact your nearest authorized Akai Service Station, or the Service Department of Akai Electric Company, Tokyo, Japan.

Precautions

FOR CUSTOMERS IN THE UK

IMPORTANT FOR YOUR SAFETY

The flex supplied with your machine will have **two wires** as shown in the illustration.

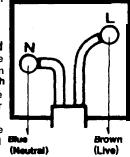
TWO CORE FLEX IMPORTANT

The wires in this mains lead are cotoured in accordance with the following code:

Blue: Neutral Brown: Live

As the **colours** of the wires **in** the mains **lead** of **this apparatus** may not correspond with the cotoured markings identifying the terminals in your **plug**, proceed as Mows: The wire **which** is coloured blue must be connected to the terminal which is marked with the letter N or cofouredbtack.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.



Do not connect any wire to the larger ptn marked E or \(\pm\) whe wiring a **plug**. Enaure that all terminals am **securely tightened** that no **loose** strands of wire exist.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with the arrowhead symbol superimposed across a graphical representation of a parson, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock.



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

Features

Table of Contents

The	M)	(73	car	n be	used	as	а	MIDI	master	control	keyboard	for
cont	rol	of	all	MIDI	funct	ions	i.					

- 2. There are a total of 100 program memories (00-99) and four areas (I-IV) for each program.
- 3. Each parameter can be preset for' the four MIDI output systems (areas I-IV).
- 4. MIDI messages DO-34 (control change) can be set freely by four control sliders, and messages 64-95 can be set by four control switches (ON/OFF).
- 5. A key velocity function makes it possible to create of a natural touch response.

NOTE: The MX73 unit does not include a sound source. Use it in connection with other MIDI-compatible instruments.

Warning	1
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Specifications

Keyboard: Intérnal Memory: External Memory: Functions:

73-key 6-octave C scale 1 00 programs Cassette interface Master level

TUNE request ON/OFF Key transpose Programmable control Changevolumes x4 Programmable control change switches x4 Programmable parameters

Wheel Bend

MIDI Channel Program number Split point Octave shift POLY/MONO OMNI ON/OFF Control select Control switch select Control number set Switch number set Sustain ON/OFF

External Jacks: MIDI OUT x2 EXT OUT x 1

TAPE (IN/LOAD. OUT/SAVE)

PROGRAM UP SUSTAIN PEDAL

CONTROL (1-4): For foot switch CONTROL (1-4): For foot control

LC display

Display:

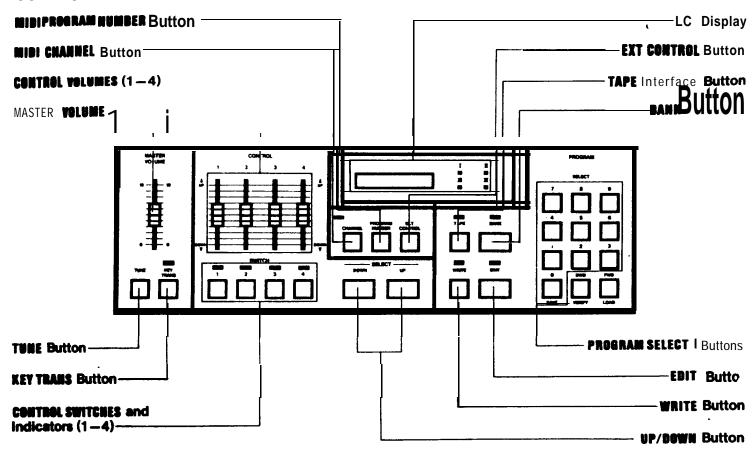
External Dimensions: $1,152 \text{ (W)} \times 110 \text{ (H)} \times 364 \text{ (D)} \text{ mm}$ Weight:

13kg

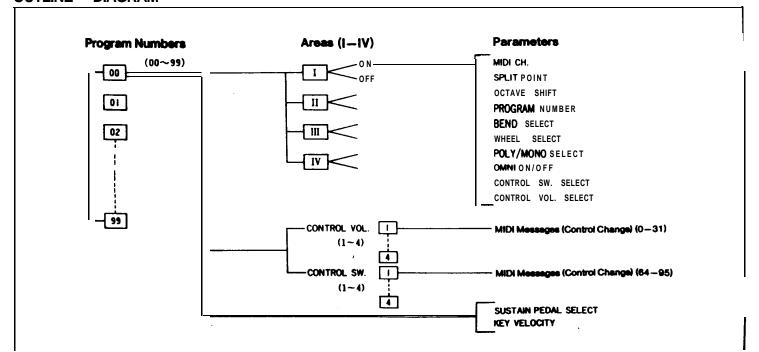
For improvement purposes. specifications and design are subject to change without notice.

Controls

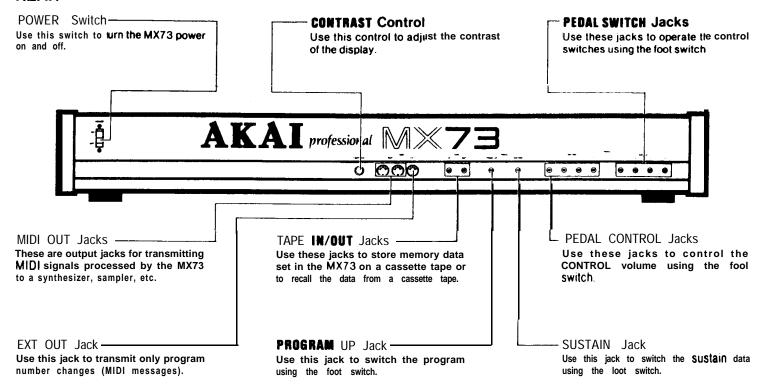
CONTROL PANEL



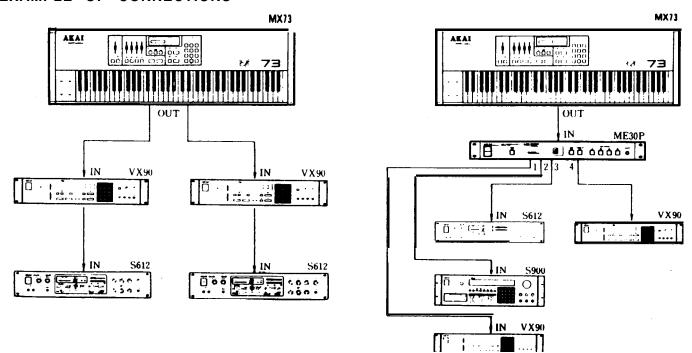
OUTLINE DIAGRAM



LEAR PANEL

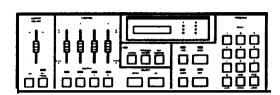


EXAMPLE OF CONNECTIONS



Operating Procedures

In order to properly comprehend the MX73, we suggest you set the parameters as shown **below**, checking the display at **each** step.



- 1. Turn the POWER switch ON.
 - "PLAY PROGRAM: 00" will appear on the display.
- Next press the EDIT button. The indicator will light. "I: MIDI CH. 01" will appear on the display and the MIDI channel can be verified.
- Press the FWD/LOAD button. The display will change as shownbelcweachtimethebuttonispfessed.
 - Checkthesplitpoint.
 - . Check the octave shift.
 - banned the program number.
 - Check whether pitch bend is ON or OFF.
 - Check whether the modulation wheel is ON or OFF.
 - Check whether in the MIDI POLY or MONO mode.

PLAY PROGRAM:00

I:MIDI CH.01

I:SPLIT 1C↔7C

I:OCTAV SHIFTO

I:PROGRAM NO. 00

I:BEND ON

I:WHEEL ON

I:POLY MODE

• Check whether MIDI OMNI is ON or OFF.

• Check the velocity level.

Check whether the control switches are ON or OFF

• Check whether the control volumes are ON or OFF.

• Check the control switch numbers, and value.

• Check the control volume numbers, and value.

KEY VELOCITY

SUSTAIN PEDAL SELECT

Check the sustain pedal data.

T-OMUT	OFF
I:OMNI	UFF

I:UELOCITY

I:CONTROL SW ----

I:CONTROL U L ----

CONTROL SW-1 64

000NTROL UL-1

1-10

| - | V

SUSTAIN I IIIIIIV

MX73 STATUS CHART

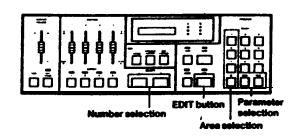
3 CHART	
<u>Parameter</u>	Value
MIDI CI-I.	I-16
SPLIT POINT	1C~7C
OCTAVE SHIFT	-3~+3
PROGRAM NUMBER	0-127
BEND SELECT	ON/OFF
WHEEL SELECT	ON/OFF
POLY/MONO SELECT	POLY/MONO 0~15
OMNI ON/Off	ON/OFF
CONTROL SW. SELECT	ON/OFF
CONTROL VOL. SELECT	ON/OFF
SW. No. SET	64~95
VOL. No. SET	0-31

Areas I through IV can **each** be set independently.

Same **for** areas I through IV.

Programming

- Press the EDIT button to set the MX73 to the edit mode. (The indicator will light.)
- Use the SELECT button8 (7, 4, 1 and 0) to select the area.



MIDI CHANNEL SETTING

 Press the FWD/LOAD or BWD/VERIFY button to set to the MIDI CH display.

2. Press the UP or DOWN button to select the desired MIDI channel.

I:MIDI CH. 05

SPLIT POINT SETTING

1. Press the FWD/LOAD button to set to the SPLIT display.

2. Press the DOWN button to set to the lower voice setting mode. The cursor will appear on the display.

3. Press the desired key. The cursor will disappear and the

number of the pressed key will be displayed.

4. Press the UP button to set to the upper voice setting mode. The cursor will appear on the display.

Press the desired key. The cursor wilt disappear and the number of the pressed key will be displayed.

 Split points cm be rot for each of Areas 1—IV, so the keyboard can be split in four sections. Split points can also be set to overlap.

I:SPLIT	1	C↔7C	
---------	---	------	--

OCTAVE SHIFT SETTING

 Press the FWD/LOAD button to set to the OCTAVE SHIFT display.

I:OCTAV SHIFT 0 ,

2. Press the UP or DOWN button to set to the **desired** octave value (-3 to +3).

I:OCTAU SHIFT +1

PROGRAM NUMBER SETTING

1. Press the FWD/LOAD button to set to the PROGRAM NO. display.

I:PROGRAM NO. 00

- Press the UP or DOWN button to set the program number (Q to 127).
 - The program number on the MX73 is compatible with the program number on the slave side. Depending on the equipment, however, the actual program number may be different.

I:PROGRAM NO.127

PITCH BEND SETTING

1. Press the FWD/LOAD button to set to the BEND display.

I:BEND ON

- 2. Press the UP (ON) or DOWN (OFF) button to set the pitch bend ON or OFF.
 - The amount of bend is adjusted on the stave side.

I:BEND OFF

WHEEL SETTING

1. Press the FWD/LOAD button to set to the WHEEL display.

I:WHEEL ON

Press the UP (ON) or DOWN (OFF) button to sot the modulation wheel ON or OFF.

. Adjust the modulation wheel on the slave side.

Is WHEEL OFF

POLY/MONO SETTING

The MIDI mode on the slave side can be set to either POLY or MONO.

- Press the FWD/LOAD button to set to the POLY MODE display.
- Press the UP (POLY) or DOWN (MONO) button to set the MIDI MODE.

I:POLY MOD

I:MONO MODE 00

OMNI SETTING

The MIDI mode on the slave side can be set to either OMNI ON or OMNI OFF.

- 1. Press the FWD/LOAD button to set to the OMNI display.
- Press the UP (ON) or DOWN (OFF) button to set the MIDI MODE.

I:OMNI	OFF

I:OMNI ON

[KEY VELOCITY SETTING

This sets the strength of the MX73 key velocity. There are 10 possible steps, from 1 for no velocity to 10 for maximum strength velocity.

- 1. Press the FWD/LOAD button to set to the VELOCITY display.
- 2. Press the UP (ON) or DOWN (OFF) button to set the VELOCITY strength.
- This is only possible if the velocity function is provided on the slave equipment.

Tall		$\overline{\Omega}$	TT	J	1	\overline{A}
I:U	ヒレ	UL	. [] [Ţ	L	U

I:UELOCITY 8

CONTROLLERS

- There are two types of controllers: control volumes and control switches.
- The control volumes (I-4) are of the continuous variable type. One MIDI message (control change) from 0 to 31 can be set for each control slider.

The aet effect becomes stronger as the slider is moved up.

 The control switches (1 – 4) are of the ON/OFF type. When ON, the LED lights.

One MIDI message (control change) from 64—95 can ba aet for each control switch.

Theae eight programmable controller8 can be used while performing for real time operation.

CONTROL SWITCH SELECTION

 Press the FWD/LOAD button to aet to the CONTROL SW display.

I:CONTROL SW ----

Press the control switches (1-4) to turn them ON or OFF. (When ON, the switch number is displayed.)

I:CONTROL SW 1234

CONTROL VOLUME SELECTION

 Press the FWD/LOAD button to set to the CONTROL VL display.

I:CONTROL UL----

2. **Press** the control switches (1 - 4) to turn the vofumea ON or OFF. (When ON, tha switch number is displayed.1

I:CONTROL UL1234

CONTROL SWITCH PRESETTING

 Press the FWD/LOAD button to aet to the CONTROL SW-I 64 display.

CONTROL SW-1 64

2. Preaa the control switchs (I-4) to ba used.

CONTROL SW-3 64

3. Preaa the UP or DOWN button to aet tha MIDI message (64 to 95).

CONTROL SW-3 70

CONTROL VOLUME PRESETTING

 Press the FWD/LOAD button to set to the CONTROL VL-1 01 display.

CONTROL UL-1 01

2. Press the control switchs (1-4) to be used

CONTROL UL-3 01

Press the UP or DOWN button to set the MIDI message (00 to 31).

CONTROL UL-3 10

SUSTAIN PEDAL SELECTION

1. Press the FWD/LOAD button to set to the SUSTAIN display.

SUSTAIN

- - - -

 Press the control switchs (1-4) to select the area (I-IV) for which the sustain pedal is to be used.

SUSTAIN I II--

PARAMETER MEMORY SETTING

The parameters for program numbers 00 to 99 can be stored in the memory.

- Press the EDIT button to set to the edit mode. (The LED will light.)
- Press the WRITE button to set to the WRITE PROGRAM display.

WRITE PROGRAM --

- With the WRITE button depressed, press the BANK button and use the SELECT buttons to set the program number (00 to 99) to be stored in the memory.
 - Using the above procedure, set the parameters for each area and store them in the memory. Use the procedure explained below to recall a program in the memory.

WRITE PROGRAM 12

Operations

PROGRAM SELECTION

Use the following procedure to recall a program in the memory:

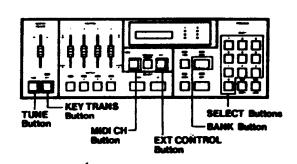
- 1. Press the BANK button. (The LED will light.)
- 2. Use the SELECT buttons to select the **desired** program number. (OO to 99)
- When the program number is selected, the number of the selected program will appear on the **display** as follows: PLAY PROGRAM: 12

It is now possible to perform using the parameters set in the memory for program number 12.

When the control switches (1-4) set by the parameter are pressed at this time, the sustain data for the connected sound source can be controlled using the foot switch.

Also, the control sliders (1-4) set by the parameter can be used to control the modulation, portamento, etc.

NOTE: Avoid operating the modulatkn control or master volume after setting the control sliders.



PLAY PROGRAM: 12

CHANGING THE MIDI CHANNEL

- When the MIDI CH button is pressed, the MIDI channel for each area is displayed.
- With the MIDI CH button depressed, press the FWD or BWD button to move the cursor to the area to be changed.
- With the MIDI CH but&n depressed, press the UP or DOWN button to change the MIDI channel.

 An area (I to IV) can be turned OFF by setting the MIDI channel display to "--".

NOTE: The changed data is cancelled when the power is turned OFF or program select button is pressed. Use the WRITE button to store the changed data in the memory.

Area	Area II	Aree III	Area N	
<u>01</u>	96	16	86	

81 86 **16** 86

01 068<u>9</u>06

91 86 -- 86

EXT CONTROL Operation

 When the EXT CONTROL button is pressed, the number of the program currently playing is displayed. (The LED will light.)

EXT PROGRAM 12

Press the BANK button, then use the SELECT buttons to set the program number (00-99).

EXT PROGRAM --

3. The data for this program number is transmitted once only from the EXT OUT jack.

EXT PROGRAM 16

NOTE: When the EXT CONTROL button is released, the EXT OUT jack can be used for the normal MIDI OUT operahon. This program number is not stored in the memory.

CHANGING THE PROGRAM NUMBER]

1. When the MIDI PROGRAM NUMBER button is pressed, the program number (1 - 127) for each area is displayed.

01 62 46 127

With the MIDI PROGRAM NUMBER button depressed, press the FWD or BWD button to move the cursor to the area to be changed.

01 62 46 127

3. With the MIDI PROGRAM NUMBER button depressed, press the UP or DOWN button to change the program number.

01 62 46 95

KEY TRANS BUTTON

1. A key is transposed by depressing the KEY TRANS button and pressing the desired key. (The LED will light.)

TRANSPOSE -D#

- When the KEY TRANS button is pressed again, the LED will turn off and the key will no longer be transposed.
 - The range for transposing is 2C# -3C-3B with 3C at the center.

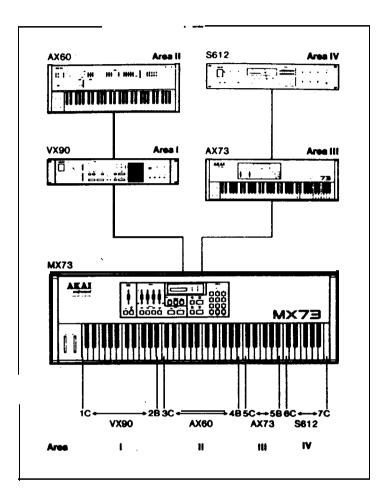
TUNE BUTTON

As there is no sound source in the MX73. pressing the, TUNE button transmits a tune request message to the slave side. When the TUNE button is depressed, "TUNE REQUEST" is displayed and all the connected MIDI sound sources are tuned.

NOTE: The TUNE function only operates when the equipment on the slave **side** is equipped with a tune request function.

<TUNE REQUEST>

Example of Programming Patterns



Splitting Keyboard Into 4 Sound **Sources**

Example

1. Use Area I for the harmony, Area II for the melody, and Areas

III and IV for effects.

I → Electric Piano II -Flute
III -Wind IV -Orchestra

Example

2. Set each area to a percussion instrument and use the

keyboard as a rhythm box.

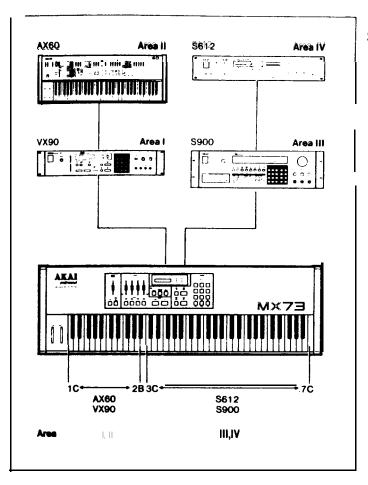
I -Tam-tams II -snares
III -Chimes IV → **Handclaps**

Example

3. This method can also be used to check the tuning, volume. or

tone of the different instruments.

	Area I	Area II	Area III	Area IV
	VX90	AX60	Ax73	S612
MIDI CH.	1	2	3	4
SPLIT POINT	1C ↔2B	3C ↔4B	5C ↔ 5B	6C ↔7C
OCTAVE SHIFT	+1	0	+1	- 2
PROGRAM NUMBER				
BEND SELECT	OFF	ON	OFF	OFF
WHEEL SELECT	OFF	ON	OFF	OFF
POLY/MONO SELECT	POLY	BOLA	MONO	MONO
OMNI ON/OFF	OFF	OFF	0 F F	OFF
CONTROL SW. SELECT	1	1	1	1
CONTROL VOL. SELECT	12	12	12	1
SW. NO. SET	SW-1 64	SW-1 64	SW-164	SW-1 64
VOL. No. SET	VL-1 01 VL-2 07	VL-101 VL-207	∨L-101 VL- 207	∨L-101 VL-207
KEY VELOCITY	3	10	10	10
STAINPEDAL	ON	ON	OFF	OFF



Splitting Keyboard Into 2 and Using for 4 Sound Sources

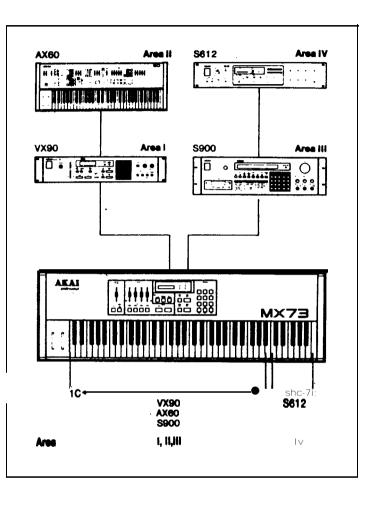
In this method, two sound sources can be mixed to form a voice, providing rich possibilities for expression.

Areas I and II: Harmony Areas III and IV: Melody

Areas I and II: Base Areas III and IV: Harmony

Many other patterns can also be used.

	VX90	AX60	S900	S612
MIDI CH.	1	2	3	4
SPLIT POINT	1C ↔ 2B	1C ↔2B	3c ↔ 7C	3c ↔ 7C
OCTAVE	+1	0	+1	- 2
PROGRAM NUMBER	-		_	
BEND SELECT	OFF	OFF	ON	ON
WHEEL	ON	ON	ON	ON
POLY/MONO	POLY	POLY	POLY	POLY
OMNI ON/OFF	OFF	OFF	0 F _. F.	OFF
CON SW. SEL.	1	1	I	1
CON VOL. SEL.	12	12	12	12
SW. NO. SEL.	SW-I 64	SW-I 64	SW-I 64	SW-I 64
VOL. NO. SEL.	VL-1 01 VL-2 07	VL-1 01 VL-2 07	VL-1 01 VL-2 0 7	VL-1 01 VL-2 07
KEY VEL.	3	10	10	10
SUSTAIN PEDAL	ON	ON	OFF	OFF



Splitting Keyboard Into 2, Using 3 sound **Sources** in the **Same** Areas

Three sound sources can be used to create complex voices.
 As the range is wide, this method is especially suited for piano sounds.

This method is also effective with strings, brass, and voice sounds. An ensemble effect can be obtained by slightly offsetting the three pitches.

 Use Area IV for special sound effects, animal noises for example.

	VX90	Ax60	\$900	\$612
MIDI CH.	1	2	3	4
SPLIT POINT	1C ↔5B	1C ↔5B	1C ↔5B	6C → 7C
OCTAVE	+1	0	+1	-2
PROGRAM NO.			-	
BEND SEL	ON	ON	ON	OFF
WHEEL	ON	ON	ON	OFF
POLY/MONO	POLY	POLY	POLY	POLY
OMNI ON/OFF	OFF	OFF	OFF	OFF
CON SW. SEL.	1 •••	1	1	1
CON VOL. SEL.	12	12	12	12
SW. NO. BEL.	SW-1 64	SW-1 64	SW-1 64	SW-1 64
VOL. No. BEL.	VL-101 VL-2 07	VL-101 M-2 07	VL-1 01 VL-2 07	VL-101 VL-2 07
KEY VEL.	3	10	10	10
SUSTAIN PEDAL	ON	ON	ON	ON

17

Tape Interface

SAVE/VERIFY/LOAD-

The MX73 is equipped with an input and output jack and tape interface functions making it possible to store the parameters set in the program memory on a cassette tape. The tape interface functions include the save mode for outputing the program parameters and recording them on a cassette tape, the verify mode for checking whether the parameters recorded 0ii the tape are correct, and the load mode for resetting the parameters recorded on the tape back onto the MX73.

The programs can be seved, verified. or loaded either one bank at a time or all at once (0 to 99).

- It is advisable to use the same cassette tape and recorder for both recording and playback.
- Do not subject the cassette recorder to shock or vibration when saving or loading, as this will make it impossible to save or load the parameters correctly.
- It is advisable to save two copies of the same parameters (one for backup) in case for some reason one is destroyed.
- It is not advisable to copy the parameters from one tape recorder onto another, as it is sometimes not possible to make correct copies.

CONNECTIONS

Connect a cassette recorder to the MX73 TAPE IN/OUT jacks.

PROCEDURE

- Saving (Verifying, Loading)
- Set the connected tape recorder to the record mode (Playback mode for for Vefifying and Loading).
- 2. Press the TAPE button. (The LED will light.)

TAPE:SELECT S, V, L

Press the SAVE (VERIFY, LOAD) button.
 "TAPE: SAVE ALL" will appear on the display, indicating that it is possible to save all the programs.

TAPE:SAVE ALL

4. To save only one bank, press the UP or DOWN button to select the bank number.

TAPE:SAUE 9

Press the SAVE (VERIFY, LOAD) button. "TAPE: SAV START" will appear on the display, and counting will star, after several seconds.

TAPE:SAVE START

"SAVE END" will appear on the display when all the data has been saved. (In the verify mode, "GOOD" will be displayed.

TAPE:SAVE END

If there is an error in the verify mode, change the tape recorder's output level and perform the verify operation several times. If there is still an error, change the tape and save the voice data. Also fill in the data for the parameters on a data sheet. If data is for some reason destroyed, use this follow sheet and reset the same voice data.

[MIDI Master KeyBoard | Model MX - 73 MIDI Implementation Chart Version :1.0

Function	Transmitted	Recognized	Remarks		
Basic Default Channel Changed	1 - 16 1 - 16	x x	• memorized		
Default Messages' Altered	MODE 1.2.3.4 Omni on/off m.p	× × ×	memorized		
Note Number : True voice	00 = 120 ********	X X			
Velocity Note ON Note OFF	9nH V=1-127 9nH V=O ,8nH	×			
After Key's Touch Ch's	X X	X X			
Pitch Bender	0	×	7 bit RESO		
1 4 7 Control 8 - 3 64 Change' 65 66 - 95	0000	× × × X X X	Modulation Foot Controller Volume Continuous Sustain foot sw Portament sw Switches(on/off)		
Prog Change : True #	0 0 - 127 ********	X			
System Exclusive	X	X			
System : Song Pos : Song Sel Common : Tune	X × O	X X ×			
System :Clock Real Time :Commands	X	X			
Aux.:Local ON/OFF:All Notes OFF Mes-:Active Sense sages:Reset	х 0 х	X X X X			
Notes MIDI EXT Output Jack The MIDI EXT output jack transmits only Prog Change messages (0-99) when the EXT CONTROL switch is "ON", otherwise works as other MIDI. OUT jacks Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO					

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

 $\underset{x}{\bigcirc}$: Yes