MK-4901

MIDI KEYBOARD MANUAL

1. General Guide
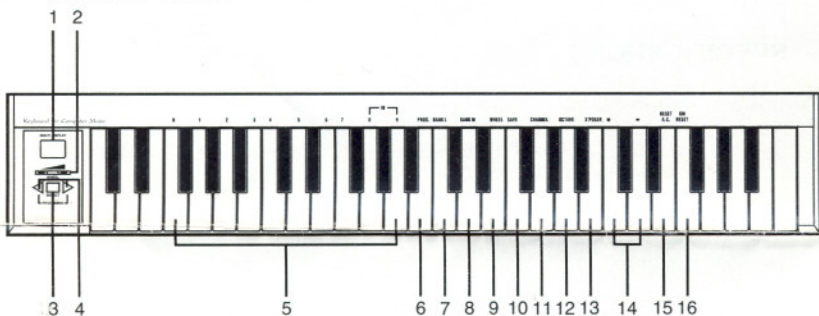
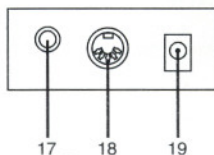|		
1.	MULTI DISPLAY	11. CHANNEL key
2.	WHEEL	12. OCTAVE key
3.	SELECT button	13. TRANSPOSE key
4.	PITCH BEND	14. +/- keys
	+/- switches	15. RESET-AC key
5.	Numeric keys	16. GM-RESET key
6.	PROGRAM key	17. POWER switch
7.	BANK LSB key	18. MIDI OUT socket
8.	BANK MSB key	19. DC jack
9.	WHEEL key	For connecting to AC/DC adaptor.
10.	SAVE key	DC output 9V-12V, 150mA, centre positive.

BACK PANEL

2. POWER SUPPLY

2-1 DC Power - Batteries (not included)
This unit is powered by 6 "AA" (UM-3) size batteries. Weak batteries will result to poor performance. When the power is getting weaker, replace the worn out batteries as follow:

1. Remove the battery compartment cover and take out the batteries.
2. Insert new batteries and make sure that the polarity is correct.
3. It is advisable to replace all 6 batteries at the same time and never mixed batteries. It is recommend to use alkaline batteries for maximum performance.
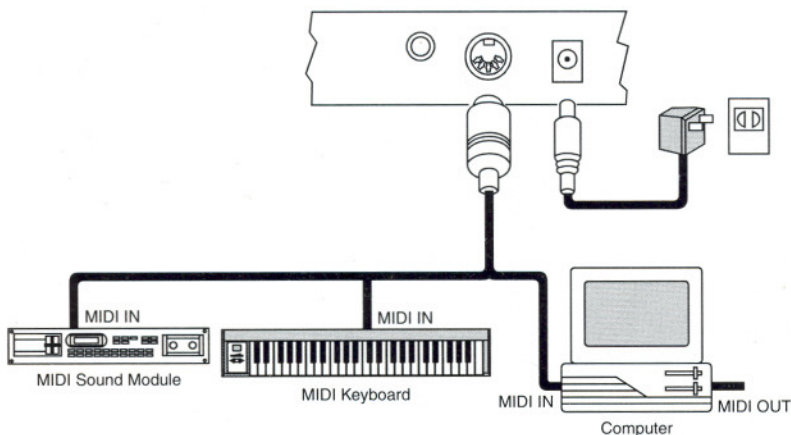
2-2 AC Power
You can also use AC adaptor with the following specification : 9-12V DC output, 150mA, centre positive.

Note : Do not leave the adaptor plugged in for long periods of time if the unit is not in use.

3. Preparation

3-1 Connect the unit with other MIDI equipments

3-2   Turn on the POWER switch (17).

3-3   Turn all other equipments' power on.

4. Setting the MIDI TRANSMIT Channel

There are 16 MIDI transmit channels available. The value is 1 to 16. Set the unit's MIDI channel. The unit sends all MIDI messages on this MIDI channel. Be sure to match the channel with the RECEIVE channel of connected equipment.

4-1   Hold down SELECT button (3) and ...

4-2   Press CHANNEL key (11), LED starts to flash showing the present TRANSMIT channel

4-3   Press one (or two) of the numeric keys (5) to change the channel. LED changes to the pressed number, e.g., "3". Also you can use +/- keys to increase or decrease the value.

MULTI DISPLAY
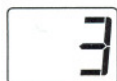
4-4   Release the SELECT button. Now the new TRANSMIT CHANNEL is set. LED return to show PROGRAM CHANGE number.

Note :   The default CHANNEL is 1 when power in turned on..

5. PITCH BEND

Pressing the PITCH BEND switches (4) transmits MIDI BENDER (PITCH BEND) messages to connected equipment. This allows you to bend the pitch of sound up (or down) to personalize your performance.

5-1   To bend up the pitch : Press ▶ (+) switch.

5-2   To bend down the pitch : Press ◀ (-) switch.

6. WHEEL ASSIGN

Use WHEEL to transmit MIDI CONTROL CHANGES. You can select and assign 119 types of MIDI functions (1-31, 33-95, 102-121, 128-132)

Number	Functions
1-127	Standard MIDI controllers
128	Pitch Bend Sensitivity
129	Fine Tune
130	Choarse Pressure
131	Channel Pressure
132	Velocity

6-1   Hold down SELECT button (3) and ...

6-2   Press WHEEL key (9), LED starts to flash showing the number of present MIDI function.

6-3   Press numeric keys 0-9 to select a MIDI function. Also you can use +/- keys to increase as decrease the value of number.

*   When the number your pressed is three digits, a dot will appear on LED to indicate first digit, e.g.. "123" :

MULTI DISPLAY
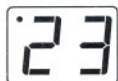
6-4   Release the SELECT button. Now the MIDI function is assigned to the WHEEL. LED return to show PROGRAM CHANGE number.

Note :   *   If the number you press is not in the range of defined numbers, it is invalid. Previous number of function will be retained.
*   When you assign 120 or 121 MIDI function, you should move WHEEL slider over mid-value then return to minimum value to send relative MIDI message.

7. TRANSPOSE

This function allows you to shift the entire pitch of the unit in semitone units. You can transpose the pitch by 24 half steps (12 higher/12 lower).

7-1   Hold down SELECT button (3) and ...

7-2   Press TRANSPOSE key (13), LED starts to flash showing the current TRANSPOSE value.

7-3　Press "+" or "-" key to change the TRANSPOSE value. Each time you press + or - the keyboard is transposed an additional half step. The available range is -12 to 12.

　　　* Press + and - simultaneously to reset the pitch to default level - 0.

7-4　Release the SELECT button. Now the TRANSPOSE is completed.

　　　Note : Turning the power off always resets the shifted pitch to default value.

8　OCTAVE CHANGE

This function allows you to shift the entire pitch one octave higher or lower.

8-1　Hold down SELECT button (3) and ...
8-2　Press OCTAVE key (12), LED starts to flash showing the current OCTAVE value.
8-3　Press "+" or "-" key, the entire pitch will be shifted one octave higher or lower. LED shows current OCTAVE value. The available range is from -1 to 2.

　　　* Press + and - key simultaneously to reset the pitch to default level.

8-4　Release the SELECT button.

9.　Sending a PROGRAM CHANGE number

This function allows send any MIDI PROGRAM CHANGE 0-127.

9-1　Hold down SELECT button (3) and ...
9-2　Press PROG key (6), LED starts to flash showing the current PROGRAM CHANGE number.
9-3　Press the numeric keys (5) to set the PROGRAM CHANGE number to be sent. Also you can use "+" or "-" key to change the value.
9-4　Release the SELECT button. The PROGRAM CHANGE MESSAGE is sent to connected equipment.

　　　Note :　* If the number you press is larger than 127, it will return to previous PROGRAM CHANGE number.
　　　　　　　* If the number you press is over or equal to 100, the dot will light, e.g., "120":

MULTI DISPLAY

10.　Sending BANK MSB and LSB message

It allows you send any value of MSB or LSB each from 0-127.

10-1　Hold down SELECT button (3) and press BANK L key (7). LED starts to flash showing current value of LSB. Press numeric keys to change the LSB value. Or you can use "+" or "-" key to change the value. Then release the SELECT button.
10-2　Hold down SELECT button (3) and press BANK M key (8). LED starts to flash showing current value of MSB. Press numeric keys to change the MSB value. Or you can use "+" or "-" key to change the value. Then release the SELECT button.

　　　Note :　* If the number you input is over 127, it will return to previous LSB or MSB.
　　　　　　　* If the number you press is over or equal to 100, the dot will light, e.g., "120":

MULTI DISPLAY

11.　PROGRAM & BANK CHANGE MEMORY

You can assign a selected PROGRAM CHANGE as well as a BANK LSB and a BANK MSB to one of six numeric keys (0-5).

11-1　Select the design PROGRAM CHANGE, BANK LSB and MSB. Please refer to relative chapter.
11-2　Hold down SELECT button (3) and press SAVE key (10), LED start to flash.
11-3　Press the numeric key (from 0 to 5) you wish to assign to. Release the SELECT button. Now, the PROGRAM and BANK CHANGE is memorized on the selected numeric key.
11-4　Hold down SELECT button (3) and press this numeric key, you can recall the PROGRAM and BANK CHANGE. LED will show the memorized PROGRAM CHANGE number.

12. RESET-ALL CONTROLLERS

This function allows you send RESET-ALL CONTROLLERS message to connected equipment.

12-1 Hold down the SELECT button (3) and press RESET-AC key (15). Then release the SELECT button.

13. GENERAL MIDI MODE RESET

It allows you send GENERAL MIDI MODE RESET message.

13-1 Hold down the SELECT button (3) and press GM-RESET key (16). Then release the SELECT button.

14. SPECIFICATIONS

1. Keyboard : 49 mid-keys
2. Control : WHEEL, MIDI CHANNEL, PROGRAM, MEMORY, TRANSPOSE, OCTAVE, BANK LSB, BANK MSB, RESET - AC, GM-RESET, PITCH BEND, WHEEL Slider, POWER SWITCH.
3. Display : 2 digit LED
4. Jack : DC IN (DC 9V), MIDI OUT
5. Dimension : 65.5 x 11.5 x 3.5 (cm)
6. Weight : 0.83 kg.

Note : Specification are subject to change without prior notice.

APPENDIX

MIDI IMPLEMENTATION CHART

Function		Transmitted	Received	Remarks
Basic	: Default	1-16		
Channel	: Changed	1-16		
Mode	: Default	------------------------		
	: Messages	X		
	: Altered	*********************		
Note		12-120		
Number	: True Voice	*********************		
Velocity	: Note ON	※		
	: Note OFF	X		
After	: Key's	X		
Touch	: Ch's	※		
Pitch Bend		O		
	0,32	※		Bank select
	1	※		Modulation
	2	※		Breath control
Control	6	※		Data entry
Change	7	※		Volume
	10	※		Panpot
	64	※		Hold 1
Program		0-127		
Change	: True Number	*********************		
System Exclusive		X		
	: Song Position	X		
Common	: Song Select	X		
	: Tune	X		
System	: Clock	X		
Exclusive	: Commands	X		
Aux	: Local ON/OFF	X		
Messages	: All Notes OFF	X		
	: Active Sense	O		
	: Reset	X		
Notes:		※:Can be set to O or X		