MIDI KEYBOARD MANUAL

1. General Guide

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

BACK PANEL

DC output 9V-12V, 150mA, centre positive.

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 in poor performance. When the power is getting weaker, replace the worn out batteries as follows:

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

Rear Panel

MIDI IN
MIDI SOUND MODULE
MIDI Keyboard
Computer
MIDI OUT
MIDI IN
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.

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)

<table>
<thead>
<tr>
<th>Number</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-127</td>
<td>Standard MIDI controllers</td>
</tr>
<tr>
<td>128</td>
<td>Pitch Bend Sensitivity</td>
</tr>
<tr>
<td>129</td>
<td>Fine Tune</td>
</tr>
<tr>
<td>130</td>
<td>Coarse Pressure</td>
</tr>
<tr>
<td>131</td>
<td>Channel Pressure</td>
</tr>
<tr>
<td>132</td>
<td>Velocity</td>
</tr>
</tbody>
</table>

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".

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. TRANPOSE

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 TRANPOSE key (13), LED starts to flash showing the current TRANPOSE 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**

<table>
<thead>
<tr>
<th>Function</th>
<th>Transmitted</th>
<th>Received</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Default</td>
<td>1-16</td>
<td></td>
</tr>
<tr>
<td>Channel</td>
<td>Changed</td>
<td>1-16</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>Default</td>
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<td></td>
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<tr>
<td></td>
<td>Messages</td>
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<td></td>
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<tr>
<td></td>
<td>Altered</td>
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</tr>
<tr>
<td>Note Number</td>
<td>True Voice</td>
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<td>12-120</td>
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<tr>
<td>Velocity</td>
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<td></td>
<td>Note OFF</td>
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<td>After</td>
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<td>X</td>
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<tr>
<td>Touch</td>
<td>Ch's</td>
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<tr>
<td>Program Change</td>
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<td>0-127</td>
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<tr>
<td>System Exclusive</td>
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<td>Common</td>
<td>Song Position</td>
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<td>Song Select</td>
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<td>Tune</td>
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<td>Aux</td>
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<td>Active Sense</td>
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</tr>
<tr>
<td></td>
<td>Reset</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Notas: ※ Can be set to 0 or X