User instructions for Kenton MIDI retrofit for
ROLAND JUPITER 8

These instructions are only for Jupiter 8 MIDI retrofit kits produced after 1st August 2006
Firmware JUP85100 or later

N.B. Different instructions apply to earlier Kenton Jupiter 8 MIDI retrofit kits.

USING THE MIDI INTERFACE

When you turn on the synthesizer for the first time, you will be in omni-off mode channel 1 for receive and also channel 1 for transmit - See the following pages for other factory default settings. When you select a receive channel, this will be stored in memory and will be remembered for when you subsequently turn on the synth - all parameters listed on the next page are stored.

If you want to put the machine back to the factory default settings at any time, switch the synth on whilst holding the red push button pressed - hold for a couple of seconds then release.

RED PUSH BUTTON

Three modes are available by pushing the red push button during normal playing mode. Before you press the red button however, make sure that no keys are pressed on either the Jupiter 8 or the remote MIDI keyboard otherwise the results may be unpredictable. The key presses can be entered on the Jupiter 8's own keyboard, or from the remote MIDI keyboard.

1) PROGRAM CHANGE MODE
For sending program changes from the keyboard. Press the red push button once only (short press – then release), any key then selects a program change which it sends through the MIDI Out. When the key is released, you are then automatically returned to playing mode. For example a short press on the red push button followed by bottom C will send program change #0 whereas top C will send #60. (Nothing is stored in non-volatile memory after this operation)

2) SET-UP MODE
For setting MIDI channels and assignments. Give the red push button two short presses (half a second each) - then release. Follow this with a key or sequence of keys as detailed on page 2. After making a MIDI channel assignment, you will be automatically returned to playing mode but after making other assignments you will need to press the ENTER key (Top C) to return to playing mode. This is to enable you to make the multiple key presses required when re-assigning Sources to Destinations. (N.B. all set-ups are stored in non volatile memory).

2) TRANSPOSE MODE
Press and hold the red push button for about four seconds - then release. Middle C will sound on the synth and continue to sound until you press a key. The key that you press on either the remote keyboard or the keyboard of the Jupiter 8, will be the new middle C for MIDI IN. You can set any value up to two octaves up or down - settings outside this range will be ignored (where middle C = no transposition) . Note that transpose mode cannot be entered from set-up mode. (N.B. the transposition will be stored in non volatile memory).

Function of keys during set-up mode:

Key	Function	Value	Note
C	Receive channel	1 (default)	[Bottom C - MIDI note #36]
Db	" "	2	
D	" "	3	
Eb	" "	4	
E	" "	5	
F	" "	6	
Gb	" "	7	
G	" "	8	
Ab	" "	9	
A	" "	10	
Bb	" "	11	
B	" "	12	
C	" "	13	
Db	" "	14	
D	" "	15	
Eb	" "	16	
E	Receive notes	*OFF*	
F	Transmit channel	1 (default)	
Gb	" "	2	The transmit channel can be
G	" "	3	changed independently of the
Ab	" "	4	of the receive channel, and
A	" "	5	can be set even during omni
Bb	" "	6	on mode.
B	" "	7	
C	" "	8	[Middle C - MIDI note #60]
Db	" "	9	
D	" "	10	
Eb	" "	11	
E	" "	12	
F	" "	13	
Gb	" "	14	
G	" "	15	
Ab	" "	16	
A	Transmit Key on velocity	decrease	
Bb	" " " "	normal (default)	
B	" " " "	increase	
C	Transmit Key off velocity	decrease	
Db	" " " "	normal (default)	
D	" " " "	increase	
Eb	program change	*ON* (default)	
E	" "	*OFF*	
F	local keyboard control	*ON* (default)	
Gb	" "	*OFF*	
G	not used		
Ab	not used		
A	Controller Source Select	Pitch-Bend Wheel	
Bb	Controller Source Select	Mod Wheel (cc#1)	
B	Controller Source Select	Aftertouch	
C	Controller Source Select	Velocity	
Db	Controller Source Select	Controller X (assignable – default cc#16)	
D	Controller Source Select	Controller Y (assignable – default cc#17)	
Eb	Controller Source Select	MIDI Volume (cc#7)	
E	Destination *ON*	Pitch-Bend	
F	Destination *ON*	Modulation	
Gb	Destination *ON*	VCF (Filter)	
G	Destination *ON*	not used	
Ab	Destination *ON*	VCA (Volume)	
A	Destination *ON*	not used	
Bb	Destinations *OFF*	all destinations OFF for the currently selected controller source	
B	Reset all Sources to their default Destinations (see next page for defaults)		
C	**ENTER** key	Press & release to store & return to play mode [Top C - MIDI note #96]	

ASSIGNING MIDI CONTROL SOURCES TO DESTINATIONS

SOURCE	*DEFAULT DESTINATION*
Pitch-bend wheel	Pitch-bend
Modulation wheel (cc#1)	Modulation
Aftertouch	Modulation
Velocity	----
Controller X (def cc#16)	VCF / Filter cutoff
Controller Y (def cc#17)	
MIDI Volume (cc#7)	VCA / Volume

1) To assign sources to destinations,
    a) press the red push button twice to enter set-up mode
    b) select a source by using one of the keys A to Eb (see table on previous page)
    c) [optionally if the source is Controller X or Y, you can assign a controller to it now – see below]
    d) select destinations OFF to de-select previous assignments for this source
    e) select destinations ON to make new assignments for this source
    f) either hit Top C to enter/exit, or select a new source and make assignments for that [go back to b]

2) Controllers X & Y can be assigned to any continuous controller (cc). By default controller X is assigned to cc#16, and controller Y is assigned to cc#17. To re-assign either of them, first press the red push button twice to enter SET-UP mode. Next press the Db or D key (see table on previous page) to select the X or Y controller source, then send a MIDI message of the required continuous controller. Then either press top C to enter / exit, or use some of the destination keys to assign what this controller will control.
 – For example to set controller Y to respond to cc#4, press the red button twice, press D, send a cc#4 message to the Jupiter 8 from another synth or MIDI controller, then press top C to enter /exit. [or select another function]

3) Sources can have multiple destinations, so for example controller X could be assigned to control both filter and volume at the same time, should you want it to.

4) Where pitch-bend wheel is the source, only the bend wheel UP will affect destinations other than pitch-bend. Also where pitch-bend is the destination, sources other than pitch-bend wheel will only bend the pitch UP.

5) Receive channel setting will return you directly to playing mode, all other keys will let you stay in SET-UP mode until you press the ENTER key (Top C).

6) The ENTER key (Top C) also performs a "reset all controllers" function - OFF in most cases, but ON for volume, and centre for pitch bender.

7) If you want to put the MIDI back to the default settings at any time, switch the synth on whilst holding the red push button pressed - hold for a couple of seconds then release.

8) During set-up mode, the retrofit will receive on ALL MIDI channels.

9) List of continuous controllers (cc) recognised - (numbers in decimal)

    01 modulation wheel   07 Main volume
    18 General Purpose controller #3 (see note 15)
    64 sustain pedal
    121 reset all controllers   123 all notes off
    124 omni mode off (always poly)   125 omni mode on (always poly)
    126 (mono mode) = all notes off   127 (poly mode) = all notes off
    nnn Controller X (user defined where nnn = any controller) (default = cc#16)
    nnn Controller Y (user defined where nnn = any controller) (default = cc#17)

10) List of other commands recognised - (numbers in hexadecimal)
    8nH notes off   9nH notes on & velocity
    BnH continuous controller (see above) CnH program change
    DnH channel pressure (aftertouch)   EnH pitch-bend change
    FEH active sensing   F6H tune request
    FAH clock start   FCH clock stop
    F8H   timing clock   FBH clock continue

11)   Using MIDI to clock the arpeggiator. Set the Arpeggio Int/Ext switch on the Jupiter 8 to the Ext position if you want to use MIDI clock. Ensure that no external clock source is plugged into either of the Arpeggio clock inputs on the back panel. You may need to set the divide rate using the slide switch on the back panel. Note that if the Arpeggio switch on the top panel is set to Ext and there is no MIDI clock present, the Jupiter 8 will not play, if it is in arpeggio mode.

12)   When the JUPITER 8 receives MIDI program changes, any value that MIDI had sent to the vcf will be reset to zero, so that you hear your patches as they were programmed, MIDI volume remains unaltered.

13)   Note that the LFO delay control (on the Jupiter 8 bender panel) must be set at zero for Modulation to work properly from MIDI.

14)   MIDI program numbers 1 to 64 will be sent to UPPER on the Jupiter whilst numbers 65 to 128 will be sent to LOWER on the Jupiter - as 1 to 64. If the Jupiter is in Whole mode, then 65-128 will do exactly the same as 1-64.

15)   Accessing Patch Preset / Panel Mode / Key Mode / Hold
MIDI controller 18 (general purpose controller 3) with different data values can be used to select patch preset and other functions - see list following :-
Data value
     00 - patch preset A
     01 - patch preset B
     02 - patch preset C
     03 - patch preset D
     04 - patch preset E
     05 - patch preset F
     06 - patch preset G
     07 - patch preset H
     08 - manual
     09 - panel mode upper
     10 - panel mode lower
     11 - key mode whole
     12 - key mode split
     13 - key mode dual
     14 - hold upper
     15 - hold lower
values of 16 to 127 are ignored.

If you want to wire your own MIDI cables the following information may be useful.
1) Although a 5 pin connector is used, only two connections plus an earth connection are required.
2) If you look at the din plug from the wiring side you will see that the pins are numbered. From left to right (or clockwise) these are 1 - 4 - 2 - 5 - 3.
3) The pins numbered 1 & 3 are not used.
4) The screen (earth) is connected to pin 2 (centre pin)
5) Pin 4 of one plug should be connected to pin 4 of the other
6) Pin 5 of one plug should be connected to pin 5 of the other

WARRANTY

All Kenton MIDI Kits come with a 12 month (from purchase date) back to base warranty, (i.e. customer must arrange and pay for carriage to and from Kenton Electronics). Note that kits should be fitted as soon as possible after purchase, as the retrofit kits are in a continuous state of development. Don't lose the instructions.

KENTON

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