

# KENTON

## User instructions for Kenton MIDI retrofit for **ROLAND VOCODER Mk1 & Mk2**

*These instructions are only for Vocoder MIDI retrofit kits produced after 1<sup>st</sup> January 2006  
Firmware versions RVOC5100 or later*

***N.B. Different instructions apply to earlier Kenton Vocoder 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 - 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

Two 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 the remote MIDI keyboard otherwise the results may be unpredictable. The key presses detailed below must be entered on the remote MIDI keyboard only

#### **1) 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 the remote keyboard 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).

The bottom four octaves on a 61 note remote keyboard are used to set "transpose" - with middle C being the transpose OFF point.

**Function of keys during set-up mode:**

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	Not used		
Gb	" "		
G	" "		
Ab	" "		
A	" "		
Bb	" "		
B	" "		
C	" "		[ Middle C - MIDI note #60 ]
Db	" "		
D	" "		
Eb	" "		
E	" "		
F	" "		
Gb	" "		
G	" "		
Ab	" "		
A	" "		
Bb	" "		
B	" "		
C	" "		
Db	" "		
D	" "		
Eb	Program change	<b>ON</b> (default)	
E	" "	<b>OFF</b>	
F	Not used		
Gb	" "		
G	Pitch bend	<b>ON</b> (default)	
Ab	" "	<b>OFF</b>	
A	Not used		
Bb	" "		
B	" "		
C	" "		
Db	" "		
D	" "		
Eb	" "		
E	" "		
F	" "		
Gb	" "		
G	" "		
Ab	" "		
A	" "		
Bb	" "		
B	" "		
C	<b>ENTER</b> key		Press & release to store & return to play mode [Top C - MIDI note #96]

## ADDITIONAL INFORMATION

- 1) 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).
- 2) The ENTER key (Top C) also performs a “reset all controllers” function (centre for pitch bender)
- 3) 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.
- 4) During set-up mode, the retrofit will receive on ALL MIDI channels. At all other times the retrofit is in omni-off mode (receives on specified channel).
- 5) Program change is only available for the Mk2 Vocoder which has push buttons for program change – it is not available for the Mk1 which has rocker switches.
- 6) To use program change on the Vocoder Mk2, programs changes 1 to 10 will operate the buttons in sequence from left to right (e.g. #9 will select strings lower and #10 will select strings upper). As the buttons on the Vocoder Mk2 are toggles, each time that program change is sent, that button will be toggled (change state). In order that you can return to a known status, sending program #11 will always reset all buttons to off, you can then follow this with the program changes for buttons you want to select. Any programs in the range 1-10 can be sent consecutively, but #11 must be sent on its own with about ½ a second after it before sending any other programs – so at the start of a song you could send #11 then wait ½ a second and then send any other program changes you want consecutively to turn on the required buttons.
- 7) List of commands recognised - (numbers in hexadecimal)

8nH notes off	9nH notes on & velocity
0CnH Program Change (mk2 only)	0EnH pitch-bend change (down only)
0FEH active sensing	
- 8) The Vocoder has only a 49 note keyboard. Any notes outside this range will be taken up or down in octave steps in order to remain playable.
- 9) Pitch bend is in the down direction only as that’s the way the bender circuit of the Vocoder works.

## GENERAL INFORMATION ABOUT MIDI CONNECTIONS

Any MIDI IN should be connected to a MIDI OUT or a MIDI THRU similarly any MIDI OUT should be connected only to a MIDI IN and any MIDI THRU should also only be connected to a MIDI IN.

MIDI OUT (if fitted) is the signal from the synthesizer (or drum machine etc.) that is to be sent to another instrument. MIDI IN is a received signal that contains MIDI information from another synth, and MIDI THRU is an exact copy of information arriving at the MIDI IN socket. This allows several instruments to be connected together.

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
- 7) You should now have a working MIDI lead
- 8) It is preferable to label one end of the cable MIDI IN & the other end MIDI OUT, to avoid confusion.

## 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).

The logo for Kenton Electronics, featuring the word "KENTON" in a bold, white, sans-serif font centered within a solid orange rectangular background.

Unit 3, Epsom Downs Metro Centre, Waterfield, Tadworth, KT20 5LR, UK  
Tel: +44 (0)20 8544 9200 Fax: +44 (0)20 8544 9300  
[www.kenton.co.uk](http://www.kenton.co.uk)