INSTRUCTIONS FOR MIDI INTERFACE

FOR EARLY MONO SYNTH RETROFITS - fitted before approx June 1990

MIDI - - -

First - a few words about Midi. Midi is an acronym of Musical Instrument Digital Interface. It is a system for transferring information between synths or other equipment. The information is sent in digital format using codes laid down by the international Midi committee.

USING THE INTERFACE - - -

When you first turn on the synthesiser you will be in what is called omni on - poly mode. What this means in effect is that the interface is listening on all the Midi channels at once, and will respond to information on any of them. You can switch to omni off - poly mode by using the program mode push button and selecting a receive channel. What this means is that you can set the interface to respond to Midi information in one channel only.

(n.b. programming on this synth is accomplished by pressing the mode change push button and then pressing keys on an EXTERNAL keyboard. The top C referred to, is top C on a 61 note keyboard.)

MODE CHANGE PUSH BUTTON

This push button has several functions :-

1) Pressing once enters program mode. This enables you to program in such things as receive / transmit channel number information etc. Once you have entered program mode, the interface will stay in that mode until top C on the keyboard is pressed, and until that time, any key pressed will change a parameter.
   On the following page is a list of what each key will do if pressed during program mode.

2) Pressing once and holding for a couple of seconds enters transpose mode. You will know this has happened because middle C will sound, and continue to do so until you press another key. You are then returned to playing mode.
   Whichever note you press on the remote keyboard becomes the new middle C via midi.
Transpose mode cannot be entered from program mode.

FILTER

Filter can also be controlled by controller number 4 or aftertouch instead of velocity by selecting it while in program mode. (see above & next page)

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C       Receive channel  1 [Bottom C on DX-7] Midi note 36 (24h)
Db         "       "     2
D          "       "     3
Eb         "       "     4
E          "       "     5
F          "       "     6
Gb         "       "     7
G          "       "     8               Selecting a receive channel
Ab         "       "     9               will automatically put  the
A          "       "     10              Midi into omni off mode.
Bb         "       "     11              That is, it will receive on
B          "       "     12              the selected channel only.
C          "       "     13
Db         "       "     14
D          "       "     15
Eb         "       "     16
E       Not used                      Master reset (G) sets all
F       Omni on mode (default)        settings to their default
Gb      Not used                      values. Also sends all notes
G       Master reset (see note)       off code through midi. Press
Ab      Not used                      and hold down this key and
A       Ignore received master reset      then also press top C.
Bb      not used - -
B       not used - -
C           not used - - [Middle C] Midi note 60 (3Ch)
Db      not used - -
D       not used - -
Eb      not used - -
E       not used - -
F       not used - -
Gb      not used - -
G       not used - -
Ab      not used - -
A       not used - -
Bb      not used - -
B       not used - -
C           not used - -
Db      not used - -
D       not used - -
Eb      not used - -
E       not used - -
F       not used - -
Gb      not used - -
G       not used - -
Ab      not used - -
A       not used - -
Bb      not used - -
B       not used - -
C           not used - -
Db      not used - -
D       mod wheel on (default)
Eb      mod wheel off
E       pitch bend on (default)
F       pitch bend off
Gb      after touch on (default)
G       after touch off
Ab      send velocity information to filter (default)
A       send nothing to filter (off)
Bb      send controller 4 information to filter
B       send aftertouch to filter
C       ENTER KEY - Press and release. [Top C]  Midi note 96 (60h)
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MIDI CONTROL OF RED PUSH BUTTON

The red push button can be "pressed" via midi as midi switch number 95 (5Fh) for regular program mode or 94 (5Eh) for transpose mode. The selection of the push button is enough, it doesn't matter if it is being turned on or off.
In hexadecimal BX - 5F - 00 = program mode
In hexadecimal BX - 5E - 00 = transpose mode
Where X is the current midi channel. (n.b. for midi channel 1 - X=0)
[n.b. whilst in program/transpose modes the midi is in omni on mode]

MIDI CONNECTORS - -

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

MIDI OUT is the signal from the synthesiser (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.

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