Instructions for using a MC-202 fitted with the Kenton 4 socket kit

Setting up:

The MC-202 is supplied with CV & Gate inputs fitted as standard, however these are not satisfactory for use with a CV converter in the vast majority of cases. They connect through the internal sequencer, which slows down the response time, limits the note range and quantises the notes into discrete steps which negates the effect of pitchbend, modulation and portamento applied via the CV input. The added Kenton sockets do not suffer from these restrictions.

The four added Kenton sockets are 3.5mm mono jack sockets (mini jacks). In order to connect to a Kenton converter, you will need up to four mini jack to mini jack leads.

You will need a MIDI to CV converter set up in the following way:
CV output should be Volts/Octave mode
Gate should be v-trig (standard gate) – where zero volts = note off and +5 volts = note on
Auxiliary 1 output should have a range of 0 to +5 volts from min to max (for filter)
Auxiliary 2 output should have a range of +5 to 0 volts from min to max (for portamento) – ideally controller #65

Playing the sounds:

You need both CV & Gate signals to control an analogue synthesiser. The CV signal tells it what note to play (CV means control voltage). The Gate signal tells it when to play the note.

Connect the CV In of the MC-202 to the CV Out of your CV converter.
Connect the Gate In of the MC-202 to the Gate Out of your CV converter.
Do not connect the other inputs for now. Get the notes playing first.

Provided you have connected the cables correctly, and your MIDI to CV converter is set up properly, the MC-202 will now play from your MIDI keyboard.

Note that the MC-202 will not play notes below about MIDI note #36 or above about MIDI note #96 – this is due to the design of the MC-202.

Filter:

Once you have got the notes playing correctly, connect the filter jack to an auxiliary output. This should be an output which gives a variable output between 0 and 5 volts – usually controlled by a MIDI continuous controller such as one of the standard MIDI controllers #0 – #119 or aftertouch or velocity. Kenton converters usually have the auxiliaries assigned to controller #16 by default. As the voltage is changed from 0 to +5 volts, the filter cutoff frequency will get higher, allowing more high frequency components of the signal through.
N.B. The filter input is a voltage input. It is not an *audio* input to the filter section.
For the Pro-Solo set Aux min to 0 and aux max to 50. For the Pro-2000 set aux min to 0 and aux max to +25

Portamento:

When the filter is working OK, connect the portamento jack to the second auxiliary output. Please note that this voltage needs to be zero for portamento = on and +5 volts for portamento = off
Portamento is either on or off, apply either the on voltage or the off voltage.
For the Pro-Solo set Aux min to 50 and aux max to 0. For the Pro-2000 set aux min to +25 and aux max to 0

Troubleshooting:

1) Ensure that your CV converter is on and working, and is set to the same MIDI channel you are transmitting on.
2) Ensure that the MC-202 plays OK without any CV / Gate / Filter leads connected.
3) Check that your connecting leads are not faulty and that they have 3.5mm mono jacks on the end connected to

4) Try just the Gate on it's own. You should get a note playing on the MC-202 in time with the note played on your MIDI keyboard. It will be the same note all the time without the CV lead connected.
5) Try just the CV on it's own. You will need to operate the internal sequencer of the MC-202 for this in order to trigger the notes, but the CV should follow the notes you play on your MIDI keyboard
6) Don't connect the filter input until you are sure that everything else is working OK as with certain settings, the filter can stop any sound being heard.
7) If the MC-202 sounds when you release your note and is silent while the note is pressed, you have the Gate output of your CV converter set to the wrong mode. It must be set to v-trig mode (a voltage is present at the gate output when a note is played).
8) If the tuning is wrong and the intervals between notes get bigger as you go up the scale, your CV converter is set to the wrong type of scaling. It should be set to Volt/Octave mode.
9) Any other tuning problems must be addressed using the controls on your CV converter

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Notes on using the Din Sync 24 input:

The MC-202 also has a 5 pin socket for sync input fitted as standard. This can be connected to the Sync 24 output on your converter (if it has one). This will enable you to run the MC-202 in synchronisation with your sequencer. In this mode, you can program the patterns you want to play directly into the MC-202 from it's front panel, or by using the original CV / Gate input sockets of the MC-202.

When you start your sequencer, the MC-202 will then play the patterns in time with your sequence. You will always have to start the sequence from the top as the MC-202 will not recognise song position pointers.

Troubleshooting Din Sync 24:

1) The lead you need for connecting Sync 24 may look like a MIDI lead, but it is not. MIDI leads only require three connections out of the possible 5 on the 5 pin DIN socket, the sync connection requires that all 5 wires are connected, which means that many MIDI leads won't work. You will need to get a standard 5 pin DIN to 5 pin DIN to 5 pin DIN lead which Kenton can supply. (If you are connecting to a Pro-Solo, you will need a 5 pin din to 2 mini jack plug lead, Kenton can supply that too.)
2) You need to make sure that the clock output is enabled on your sequencer, this is very often on a setup page or on a pull-down menu. The Sync 24 output on Kenton converters cannot be disabled, so if your MC-202 doesn't start with your sequencer, you can be sure that the converter isn't receiving MIDI sync. Alternatively, you may have a faulty or incorrect lead or even maybe a faulty sync input socket on the MC-202.
3) MIDI sync isn't on any particular MIDI channel, it's on a sort of global channel of its own.

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