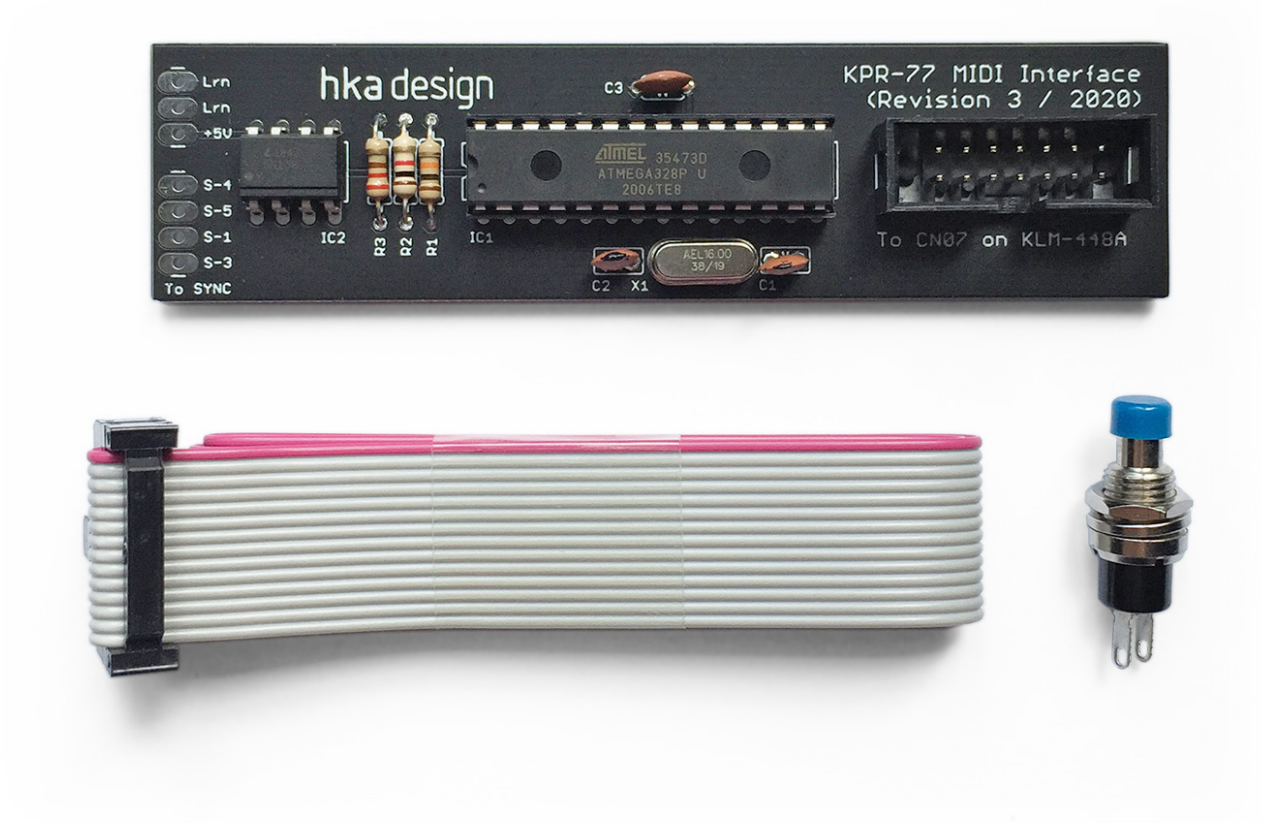
hka design



KPR-77 MIDI Interface

Installation Instructions
& User Instructions

This kit includes:

1x Pre-assembled PCB
1x 14-way ribbon cable with IDC plug
1x Push button

You will need:

- Fine-tipped soldering iron & solder
- Phillips head screwdriver
- Pliers or socket set
- Wire strippers
- Small gauge stranded-core wire (preferably multiple colours)

Installation

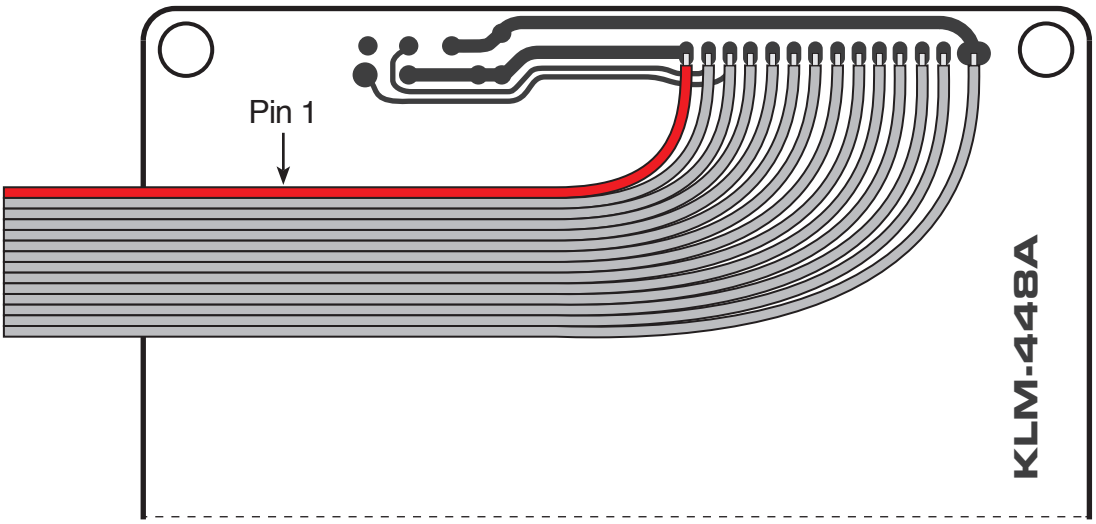
1. Remove any batteries if they are installed. Remove the 7x screws on the bottom of the KPR-77. Carefully separate the two halves of the case by disconnecting the 2x flat flex cables and 3x Molex connectors.

   Note: the two halves will still be joined by the wires going to the volume knob / power switch.

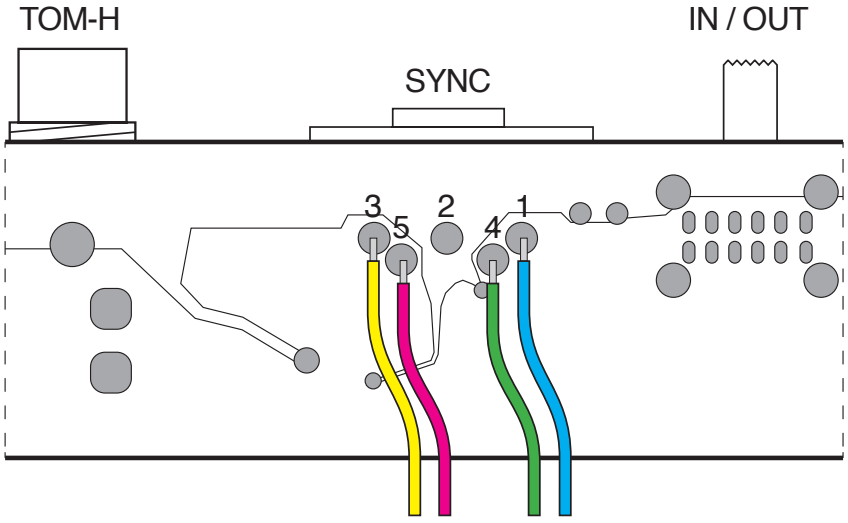
2. Unscrew and remove the square board labelled 'KLM-448A' , found in the bottom half of the case. Disconnect the flat flex cable that joins it to the large voice board.

3. Separate and fan out the wires of the included ribbon cable. Cut the wires progressively shorter towards the striped end (pin 1), as it will be connected at right angles to the KLM-448A board. Strip a small amount of insulation on each, and tin the wire with solder.

   Solder the 14 wires to the underside of CN07 on the KLM-448A board as shown :

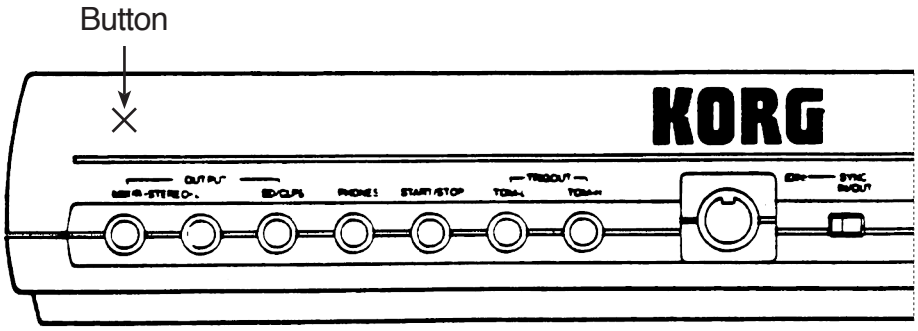


4. Unscrew and remove the voice and connector boards which occupy the bottom case (they are attached together). Solder 4x 40cm lengths of wire to the solder pads of the SYNC socket as shown, noting which wire is connected to each pin :

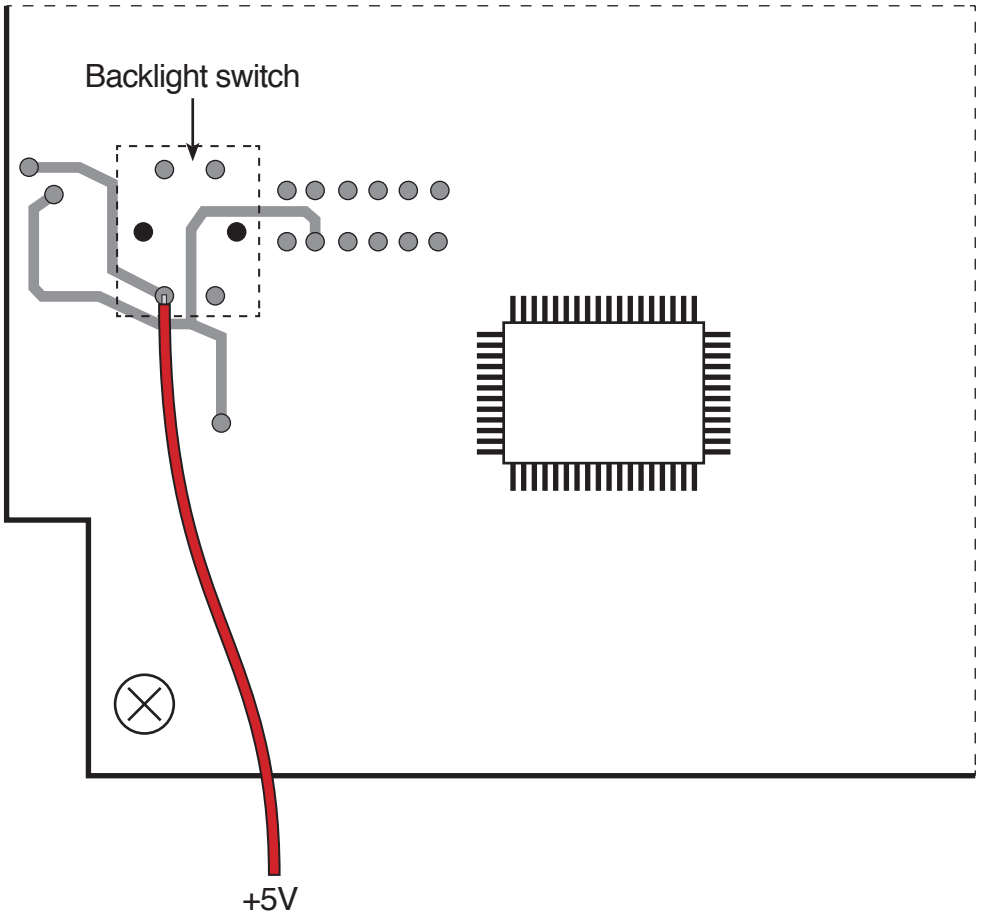


5. Replace the voice and connector boards, running the wires from the SYNC socket underneath the voice board to the battery compartment. Be careful not to pinch any wires when replacing the screws. Also replace the KLM-448A board, and reconnect its flat flex cable.

6. Carefully drill a hole for the push button in the top left corner of the back panel, above the MIX / R output jack. Make sure the drill bit doesn't hit anything when it emerges. Solder 2x 60cm lengths of wire to the terminals of the button and fit it. Run the wires to the battery compartment - you can bundle them with the wires from the power switch.

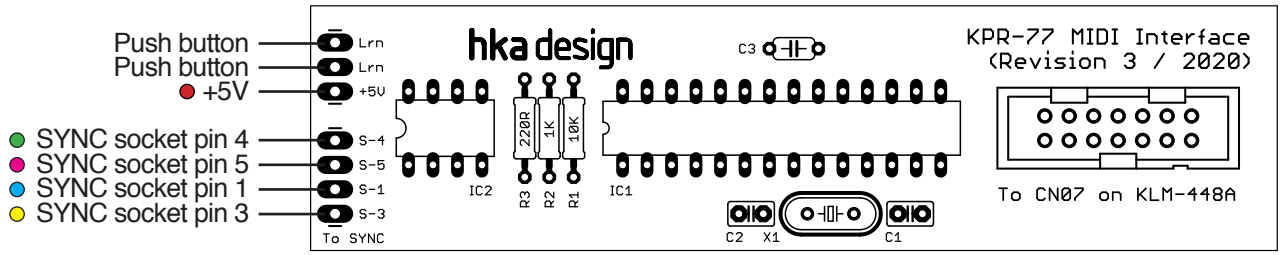


7. Solder a 40cm length of wire to the bottom left pad of the backlight switch (+5V), located on the sequencer board in the top case as shown, and run it to the battery compartment.



Installation

8. Solder the wires from the SYNC socket, backlight switch and push button to the pads on the MIDI board as shown below :



9. Position the MIDI board in the battery compartment so that the ribbon cable from the KLM-448A board, when folded, will reach the IDC socket. Plug the cable into the socket.

10. Reconnect the 2x flat flex cables and 3x Molex connectors from the top case to the bottom case. Close the KPR-77, ensuring that no wires are getting pinched or stretched. Replace the 7x case screws.

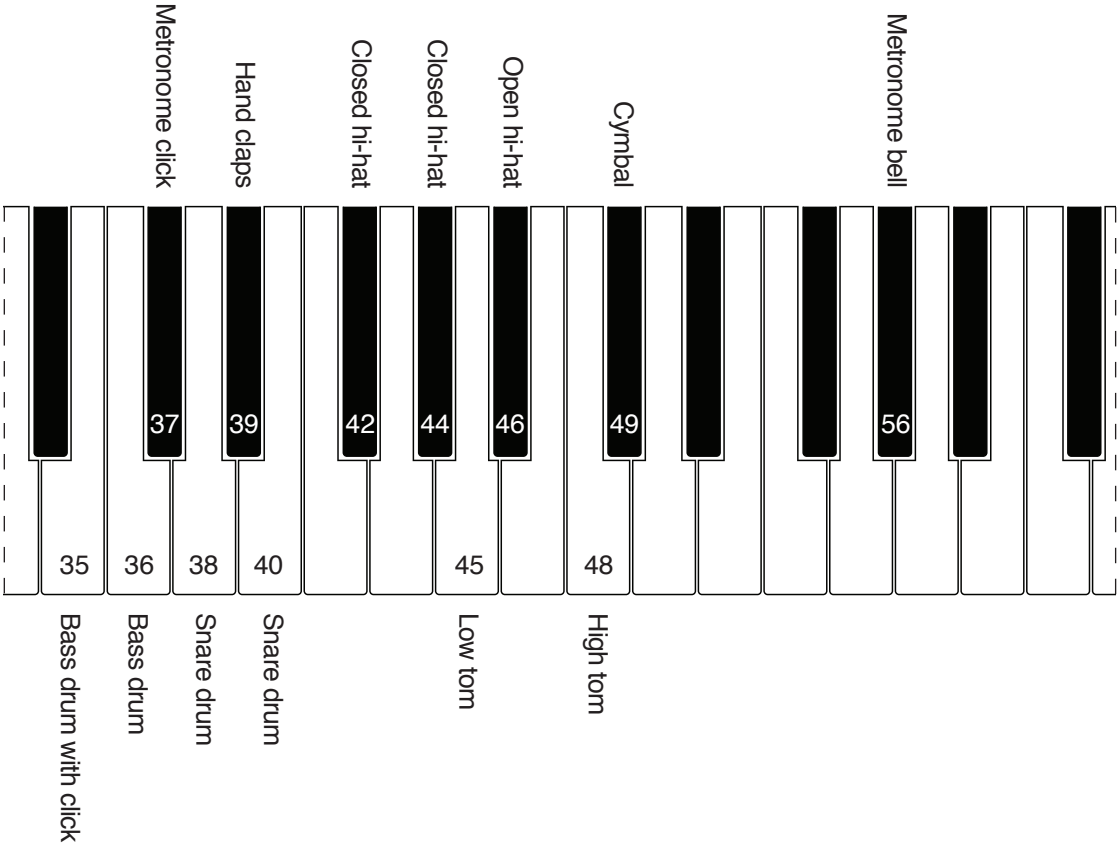
MIDI Setup

The first time you power on the KPR-77 after installing the kit, it will default to MIDI channel 1. To change the MIDI channel, press and hold the push button. While holding the button down, trigger a note on the channel you want the KPR-77 to receive on.

The metronome bell will sound 3 times, indicating that the channel has been set. It will be stored in memory when you release the button. The velocity of the note is taken as the accent threshold velocity.

MIDI Implementation

All of the KPR-77's drum voices (including the two metronome sounds) can be played with MIDI notes, as shown below. If the note velocity is above the accent threshold velocity, the sound will play accented, depending on the setting of the ACCENT slider.



The kit also now has limited support for MIDI clock. To sync to MIDI clock, move the SYNC switch on the back of the KPR-77 to the IN position.

Currently the MIDI clock will only run the KPR-77 sequencer at half speed, so to have it match up, set the KPR-77 pattern for 1 measure of 32nd notes by holding down the FUNC SET key and pressing the 13 key.

Played at half speed from MIDI clock, this will correspond to 2 measures of 16th notes.