

JU6-KBD

MIDI Interface for Roland Juno – 6 / 60 Keyboard

Model 8-429
Version 2.0



Installation Manual



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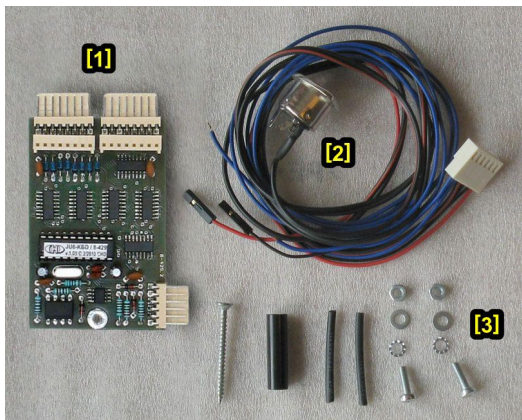
1 INTRODUCTION

The Roland Juno-6 Keyboard MIDI Interface enables the integration of MIDI in your Juno-6 instrument. The instrument's keyboard and arpeggiator can be controlled with this MIDI interface.

1.1 MIDI INTERFACE KIT PARTS

The supplied MIDI interface kit contains all necessary parts, materials, and detailed installation instructions. The kit contents:

1. MIDI Interface board
2. Bunched cables with connectors
3. All necessary coupling elements (screws, nuts, washers etc.)
4. Installation and owner's manuals in printed form



1.2 GENERAL INFORMATION

The installation of all interface components is very easy. If you follow the instruction from this manual there will be no major problems during the installation procedure.

The cover of the instrument will not be markedly damaged during the installation. The physical appearance of the vintage instrument remains nearly the same as before the installation. If necessary, the interface can be removed and the instrument restored back to original appearance. All original features of the Roland Juno-6 are kept. The instrument can be used the same way as before the retrofitting.

The following tools are necessary for the installation: Phillips screwdriver, drill, drills ϕ 3,2 and ϕ 16 mm, smaller rasp, pliers, soldering iron (a low heat iron and soldering paste).



Attention ! Disconnect the instrument from the mains prior to the installation. Otherwise, there is a risk of the electric shock!



Attention! Observe precautions for handling electrostatic discharge sensitive devices!



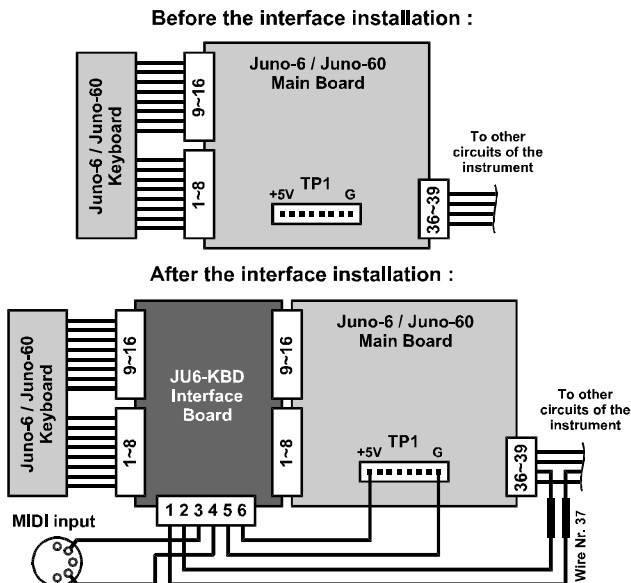
Attention! The producer is not responsible for any eventual mechanical or electrical damage of the instrument caused by the infringement of the described installation procedure or by careless manipulation during the installation of the MIDI interface!



2 INSTALLATION OF MIDI INTERFACE

The interface is connected to the keyboard switch matrix of the instrument in parallel manner. It is also inserted into the way of arpeggiator synchronization impulses. Picture 1 shows electrical connection of the interface to the instrument.

Pic. 1 – Electrical connection to the instrument



2.1 RELEASING OF THE INSTRUMENT COVER

- a) Unscrew the four screws on the sides of the instrument (pic. 2.1-1). Keep the screws. They will be used again after the MIDI kit installation.
- b) Carefully open the instrument - lift off the instrument's front panel (pic. 2.1-2). Instrument's main board is located at right side inside the instrument.

Pic. 2.1-1



Pic. 2.1-2

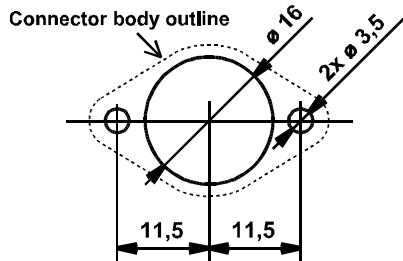

2.2 MIDI-IN CONNECTOR INSTALLATION

There are two possible ways to install the MIDI-IN DIN socket:

- If you do not want to mechanically damage the rear panel of the instrument, take out the MIDI cable through the slot on the left side of the keyboard and solder cable DIN connector on its end (see pic. 2.2-1).
- It is better to place the MIDI-IN connector on the rear panel of the instrument for easier operation. It is necessary to drill three holes in the instrument panel however. The MIDI-IN connector can be installed near the jack connectors (see pic. 2.2-2). In that case, MIDI-IN connector installation procedure is as follows:

Pic. 2.2-1

Pic. 2.2-2

Pic. 2.2-3

Pic. 2.2-4


- a) Flip the front cover over and return it to its original closed position on top of the synth.
- b) Drill three holes (one with 16 mm diameter and two with 3,5 mm diameter) in the rear panel (see pic. 2.2-3). Work carefully so as to not drill the parts inside the instrument (pic. 2.2-4).
- c) Clean the edge of the holes with small rasp (pic. 2.2-5). Also clean the holes from the inside after the instrument opening..
- d) **Clean all iron sawdust and raspings from the inside of the instruments**, they can cause short circuits or serious electrical damage if left in the instrument. Please clean the instrument carefully!
- e) The visible silver edge should be colored with black cover (you can use permanent marker for example) (pic. 2.2-6).

Pic. 2.2-5

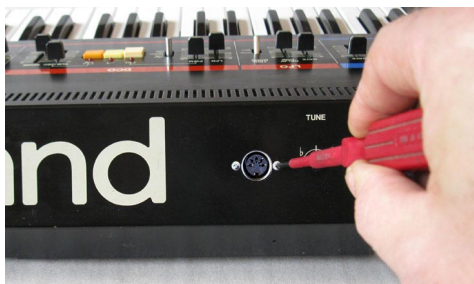


Pic. 2.2-6

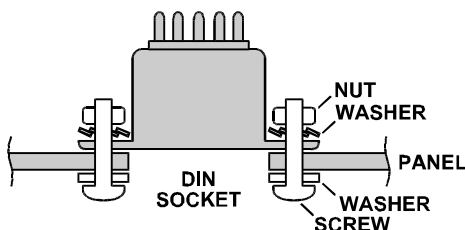


- f) Insert the MIDI-In (DIN plug) in the back cover (from inside) and fix it with screws and nuts (pic. 2.2-7). Insert the flat washers under the heads of the screws and fan type washers under the nuts (pic. 2.2-8). All material is a part of the kit.

Pic. 2.2-7



Pic. 2.2-8

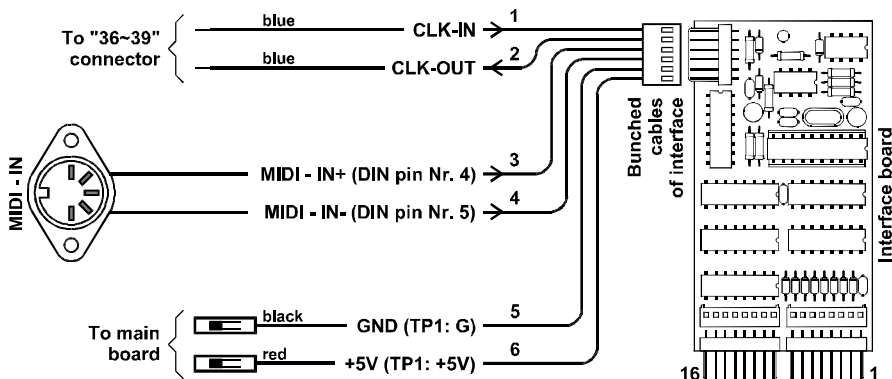


- g) It is suitable to mark the connector ("MIDI IN"). Use e.g. self-adhesive foil (pic. 2.2-2).

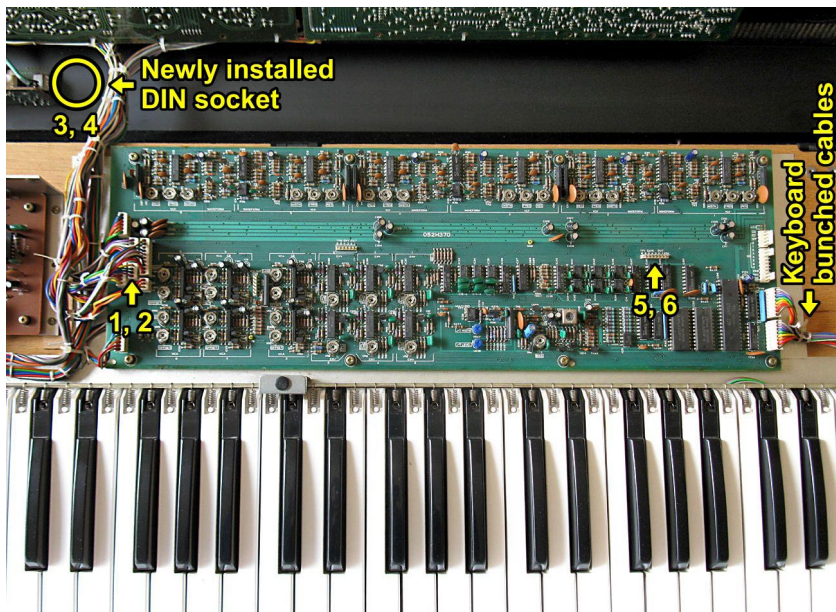
2.3 BUNCHED CABLES MONTAGE

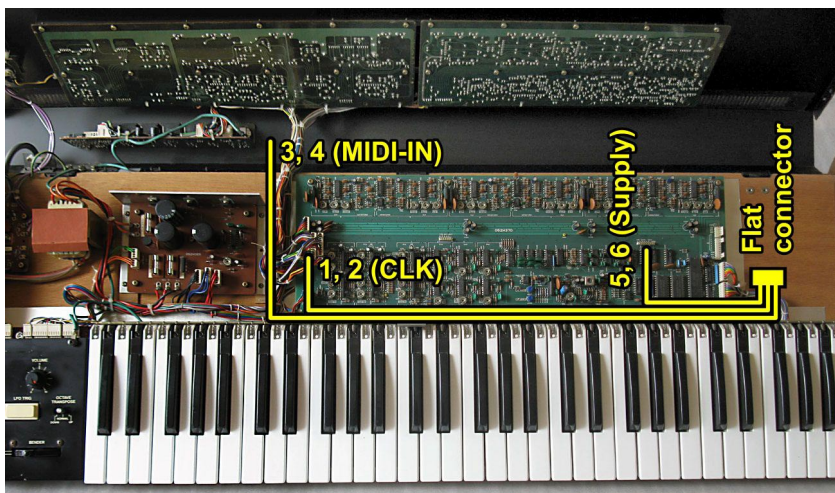
The bunched cables (part of the kit) has a six-pin connector on one end (pic. 2.3-1). There are six terminals. Two of them (Nr. 3, Nr. 4) are already fixed to newly installed DIN - MIDI-IN connector. Next two (Nr. 5, Nr. 6) must be connected to the instrument's main board and last two (Nr. 1, Nr. 2) to the instrument's wiring (pic. 2.3-2). The bunched cables are placed along the instrument's keyboard as shown on picture 2.3-3

Pic. 2.3-1

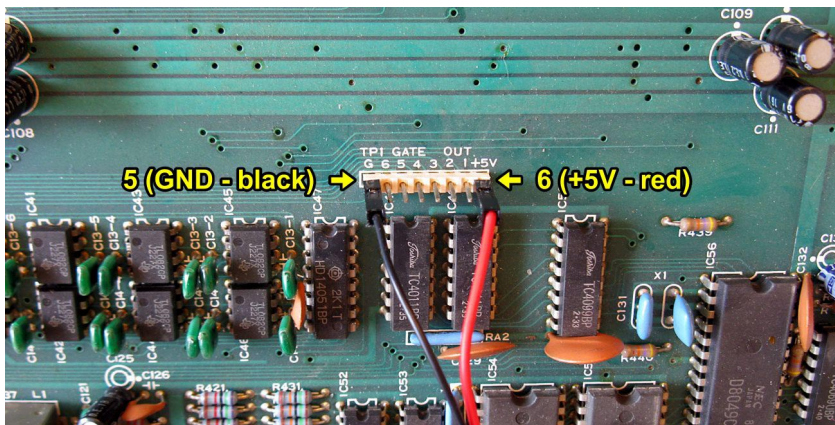


Pic. 2.3-2



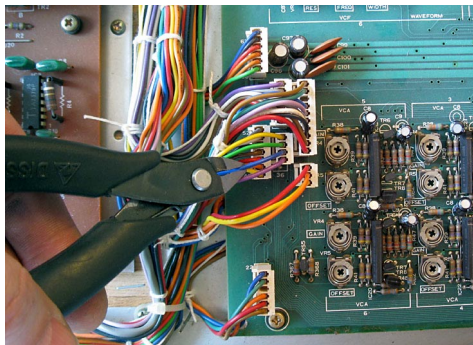
Pic. 2.3-3


- a) Wires Nr. 3 and Nr. 4 of bunched cables are already connected to newly installed MIDI-IN socket.
- b) Black wire (GND - Nr. 5) is equipped with female plug. It must be plugged on "G" marked pin of TP1 connector on instrument's board (pic. 2.3-4).
- c) Red wire (+5V - Nr. 6) is equipped with female plug. It must be plugged on "+5V" marked pin of TP1 connector on instrument's board (pic. 2.3-4).

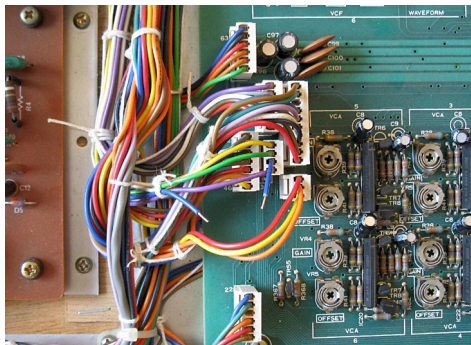
Pic. 2.3-4


- d) Cut the blue wire (see chapter 3 for Juno-60) from the pin Nr. 37 (CLK) of connector "36~39" on the instrument's main board (pic. 2.3-5). Remove the insulation (approx 5 mm) from both ends of the blue wire and tin both ends of the wire (pic. 2.3-6).
- e) Place a shrink-wrap insulation tubes (parts of delivery) on both blue wires (Nr.1 and Nr. 2) of interface's bunched cables.
- f) Solder the end of the wire from pin Nr. 37 of the connector "36~39" on the instrument's main board to wire Nr. 2 (CLK-OUT) of interface's bunched cables (pic. 2.3-7).
- g) Solder the other end of cut blue wire to wire Nr. 1 (CLK-IN) of interface's bunched cables (pic. 2.3-7).

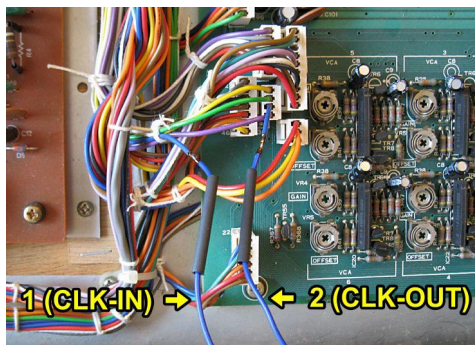
Pic. 2.3-5



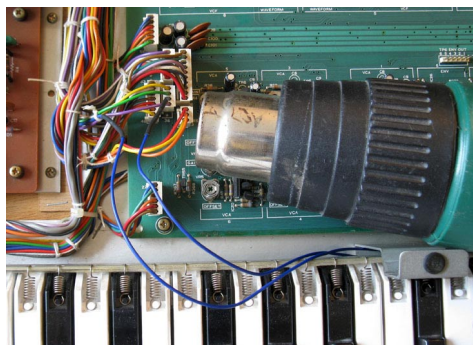
Pic. 2.3-6



Pic. 2.3-7



Pic. 2.3-8

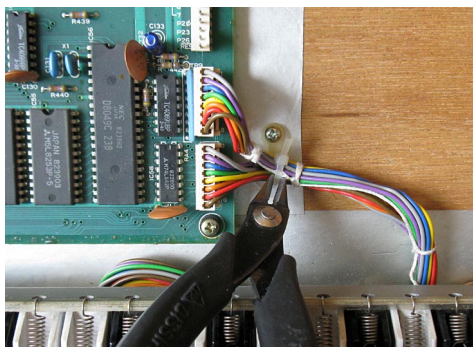


- h) Isolate the soldered connections with the insulation tubes and heat them until they shrink tightly to the wire. The tubes can be heated with a hot-flue pistol, for example (pic. 2.3-8). Be very careful so that no cables or components are damaged during this operation!

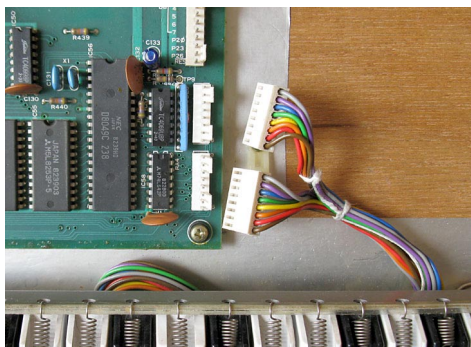
2.4 INTERFACE BOARD INSTALLATION

- a) Detach cables lead from instrument's keyboard by cutting of plastic stripe on the instrument's floor plate (pic. 2.4-1).
- b) Disconnect cables lead from instrument's keyboard from connectors "1~8" and "9~16" on instrument's main board (pic. 2.4-2).
- c) Plug the interface to free connectors "1~8" and "9~16" on instrument's main board to that the interface board directs to right (pic. 2.4-3).
- d) Insert plastic spacing tube (part of delivery) between interface's board and instrument's floor plate. Fix interface's board with help of wood screw (part of delivery) to instrument's floor plate as shown on pic. 2.4-4.

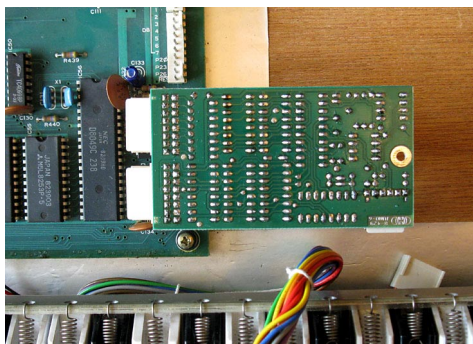
Pic. 2.4-1



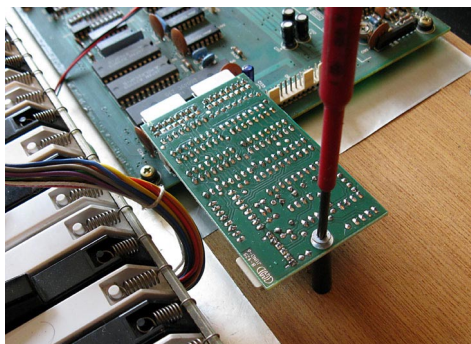
Pic. 2.4-2



Pic. 2.4-3

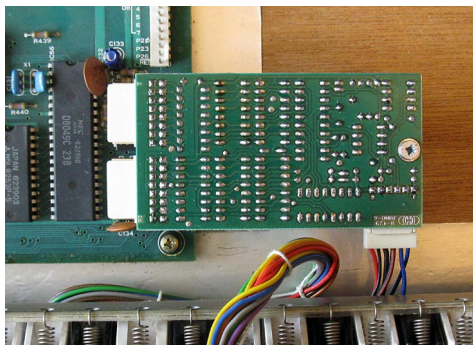


Pic. 2.4-4

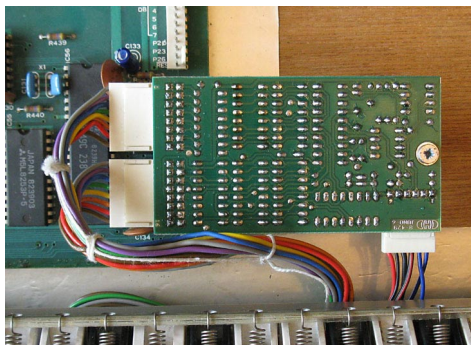


- e) Plug the flat 6-pin connector of newly installed bunched cables (from +5V, GND, CLK and MIDI-IN socket) to the flat connector on the MIDI-In interface board (pic. 2.4-5). The connector is shaped such that it cannot be connected the wrong way - there are locks on it.
- f) Plug the connectors of the bunched cables from the keyboard onto the plugs on the interface's board (pic. 2.4-6). The connectors cannot be connected the wrong way (there are locks on them) but be careful so they would not be exchanged!

Pic. 2.4-5



Pic. 2.4-6



2.5 INSTRUMENT ASSEMBLY

- a) Turn over the front panel of the instrument.
- b) Reattach the front panel to the sides of the instrument with four screws (pic. 2.5-1). This is the reverse procedure of that described in the chapter 2.1.

Pic. 2.5-1



The installation of the MIDI kit is now finished and the instrument is ready for use with MIDI communication.
Please read the user's guide carefully before the MIDI interface usage.

3 INSTALLATION INTO JUNO-60

Roland Juno-6 Keyboard MIDI Interface JU6-KBD can be also installed into Juno-60 instrument. It is possible because the same sound generator board is used (main board 052H370)

JU6-KBD interface installation is mostly the same for both instruments. There are only very little differences in the installation procedure. The differences from the original installation manual are described below:

Chapter 2.2. MIDI-IN CONNECTOR INSTALLATION

If the MIDI-IN socket should be placed on the rear panel of Juno-60 instrument, the suitable place for its montage has to be selected alternatively. There are more connectors and switches than on Juno-6 panel. The suitable area for the connector montage is smaller thus. Due this fact, it is necessary to work very carefully when drilling the hole for MIDI-IN socket, so that no cables and components are damaged.

Chapter 2.3. BUNCHED CABLES MONTAGE

Ad d) The wire leads from pin Nr.37 (CLK) of "36~39" connector on main instrument board has different color in Juno-60 instrument - it is white (blue in Juno-6 instrument).

Chapter 2.4. INTERFACE BOARD INSTALLATION

Ad a) After the plastic stripe is removed and bunched cables from instrument's keyboard are relieved, it is recommended to fix other cables (i.e. bunched cables lead to instrument's panel) back to original holder with new plastic stripe (part of the interface delivery).

All other installation procedures of JU6-KBD remain the same for both Juno-6 and Juno-60 instruments.

This manual in PDF form is available at manufacturer's web pages.



ROLAND JUNO-6 / JUNO-60 MIDI Interface

Model JU6-KBD, Nr. 8-429, ver. 2.00

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