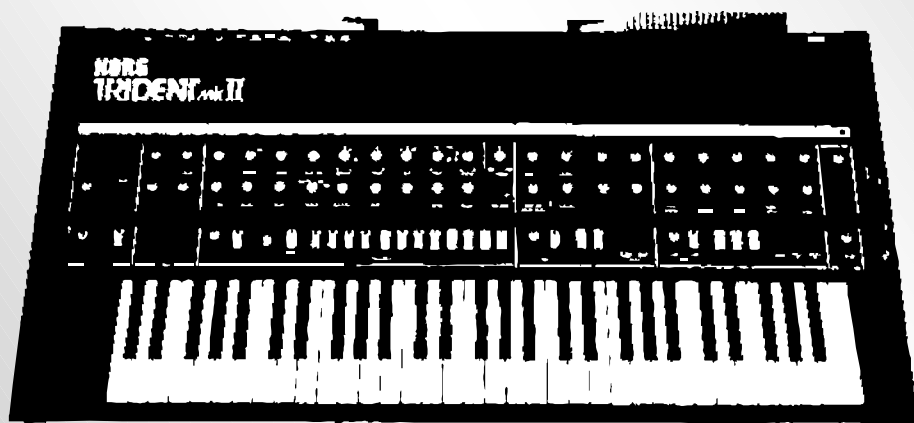


TR2-KBD

MIDI Interface for KORG TRIDENT (Mk I / Mk II)

Model 8-436
ver. 1.0



INSTALLATION MANUAL
Rev. 2





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1 INTRODUCTION

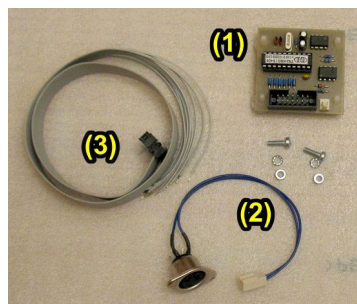
Korg Trident / Trident Mk II Keyboard MIDI Interface enables the integration of MIDI in your Trident instrument. The instrument's keyboard can be controlled with this MIDI interface in parallel manner. The interface only receives MIDI data so it has MIDI input only.

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 with self-adhesive supports
2. MIDI connector with bunched cables and screws, nuts and washers
3. 14-wire flat cable with connector
4. Owner's and Installation manuals in PDF form

Pic. 1 – Parts of MIDI interface kit



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 Korg Trident (Mk II) 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 3,2 and 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!



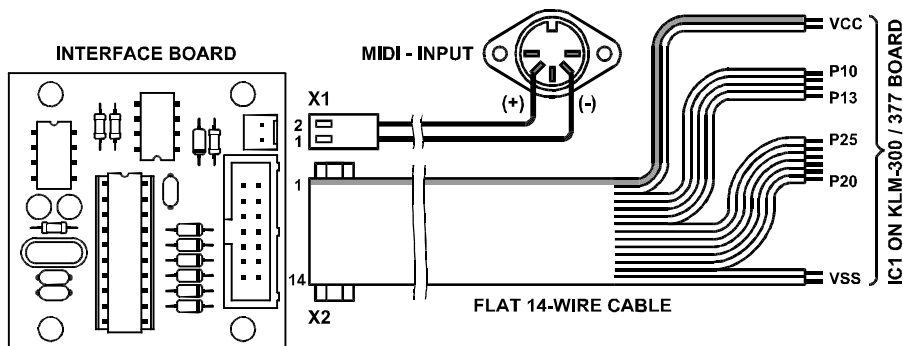
Attention! The producer is not responsible for any eventual mechanical or electrical damage of the instrument caused by the infringement of the described installation procedure or by careless manipulation during the installation of the MIDI interface!



2 INSTALLATION OF MIDI INTERFACE

The interface is connected to the keyboard switch matrix on “Key Assigner” board of the instrument. Label of this board is KLM-300 in Trident and KLM-377 in Trident Mk II. These boards are different only in details. The interface is connected to both types of board by the same way.

Pic. 2 – Connection of the interface



2.1 RELEASING OF THE INSTRUMENT COVER

- Unscrew the six screws from the top of the instrument (pic. 2.1-1) and the six screws on the rear panel (pic. 2.1-2). Do not lose the screws. They will be used again after the MIDI kit installation.
- Carefully open the instrument - lift off the instrument's panel (pic. 2.1-3).

Pic. 2.1-1



Pic. 2.1-2



Pic. 2.1-3





2.2 MIDI-IN SOCKET 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). The MIDI-In connector installation procedure is as follows:

Pic. 2.2-1

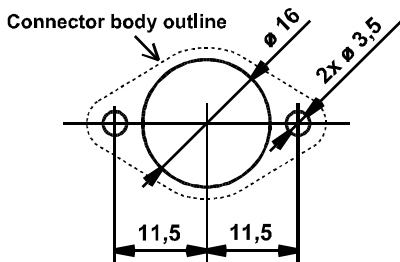


Pic. 2.2-2



- Flip the front cover over and return it to its original closed position on top of the synth.
- Drill three holes in the rear panel as shown on pic. 2.2-3. Work carefully so as to not drill the parts inside the instrument (pic. 2.2-4).

Pic. 2.2-3



Pic. 2.2-4

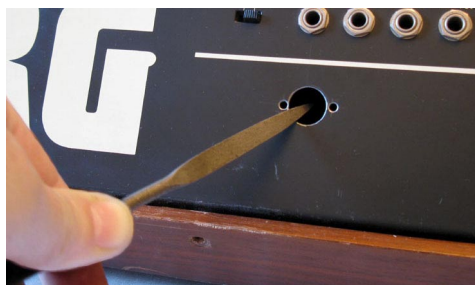
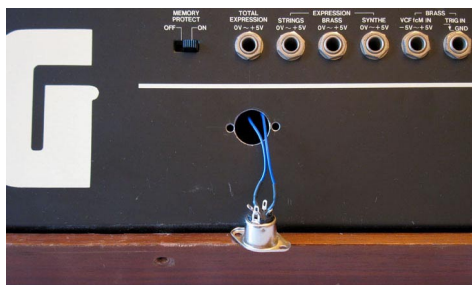


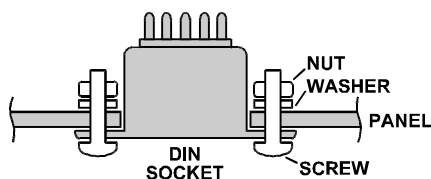
- Clean the edge of the holes with small rasp (pic. 2.2-5). Also clean the holes from the inside after the turning over the front cover.

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) Get flat connector of MIDI cable through the hole in rear panel into the instrument (pic. 2.2-6).

f) Insert the DIN connector into hole in rear panel (pic. 2.2-7) and fix the connector to the panel. Use two screws, nuts and washers - parts of the kit (pic. 2.2-8). Hold the nuts with help of pliers for example during the fixing.

Pic. 2.2-5

Pic. 2.2-6

Pic. 2.2-7

Pic. 2.2-8


g) You may also want to label the MIDI connector ("MIDI INPUT") using self-adhesive, for example.

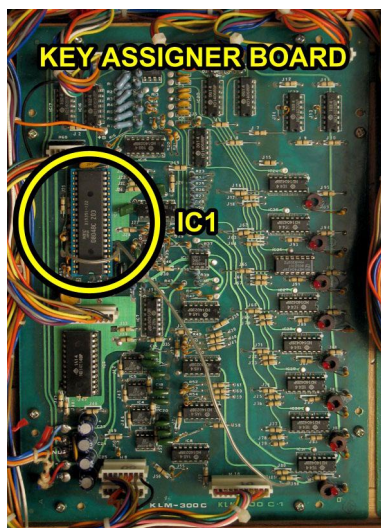
2.3 FLAT CABLE MONTAGE

Flat cable (part of delivery) has 14-pin connector on one end and free wires on the other end. Partial wires are numbered sequentially from 1 to 14, wire Nr. 1 has different color. It is necessary to solder these wires to instrument's "Key Assigner" board – to leads of processor IC1 (pic. 2.3-1).

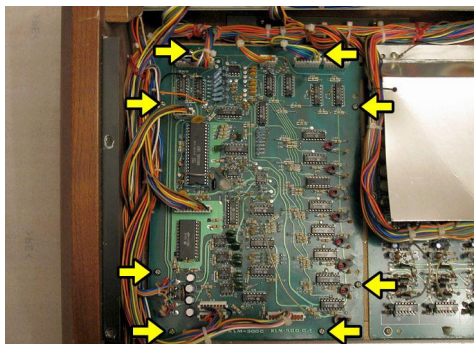
The wires can be soldered to leads of IC1 directly (from top side) but it can evocate a problems – IC1 is placed in socket which can be damaged during soldering. Beter method is to solder the wires to pads on bottom side of „Key Assigner“ board:

a) Unscrew eight screws from "Key Assigner" board (pic. 2.3-2). Do not lose them. They will be used again after the cable montage.

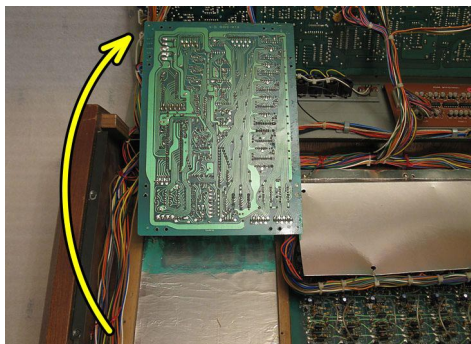
b) Flip the board bottom side to top (pic. 2.3-3). Be careful that original bunched cables connected to the board are not damaged – disconnect their connectors from the board if necessary.

Pic. 2.3-1


Pic. 2.3-2



Pic. 2.3-3



c) Solder pads on bottom side of “Key Assigner” board (KLM-300 / KLM-377) for partial wires of flat cable are shown on pic. 2.3-4 and described in table below.

Pic. 2.3-4

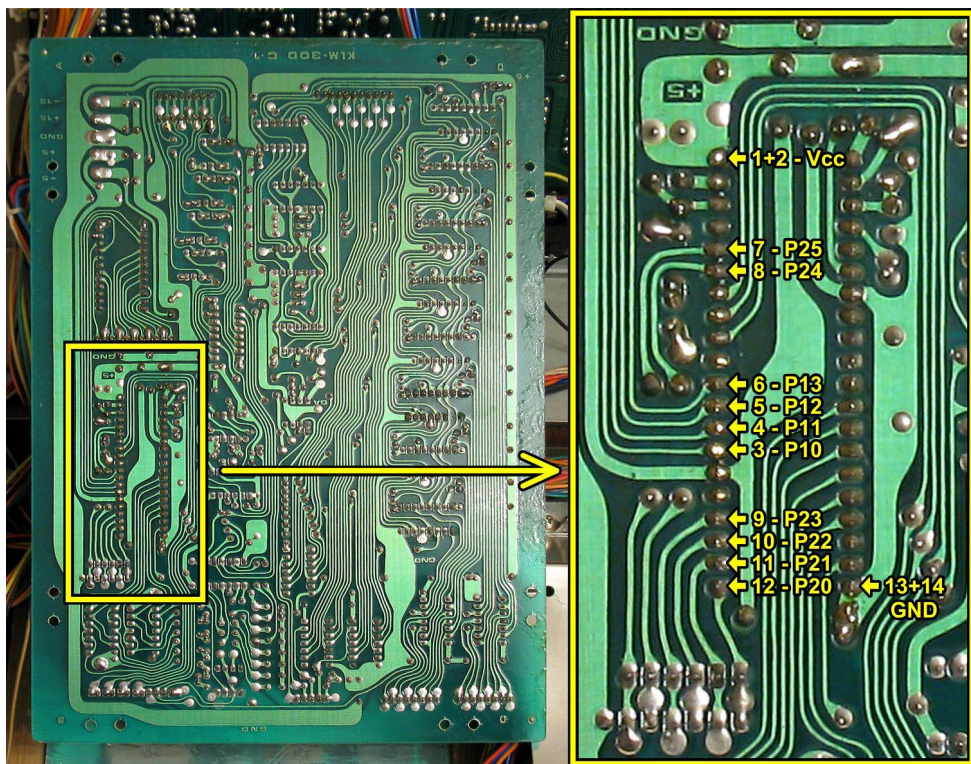
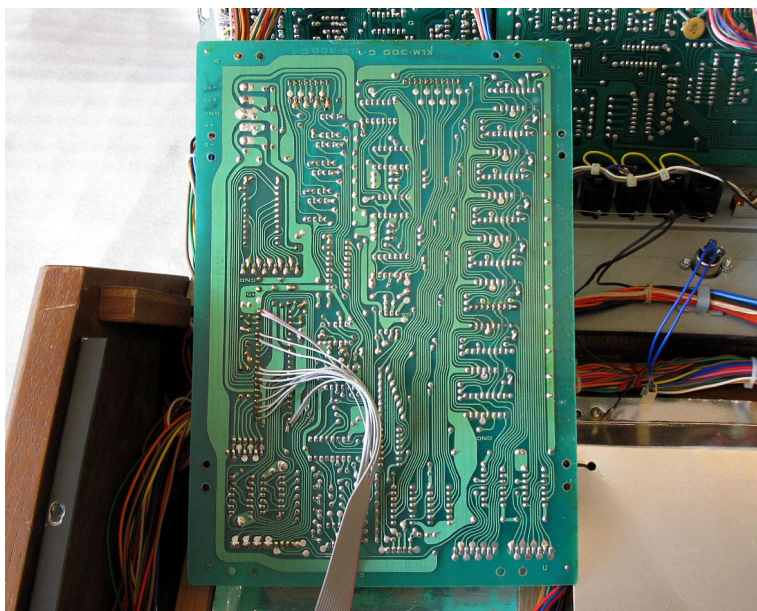


Table – Solder pads on KLM-300 / KLM-377 board				
Wire Nr.	Signal	Solder pad	Pin of IC1 Nr.	Remarks
1	+5V	VCC	40	both wires (1+2) are soldered to this pad, wire Nr. 1 has different color
2				
3	Address 0	P10	27	
4	Address 1	P11	28	
5	Address 2	P12	29	
6	Address 3	P13	30	
7	Data 5	P25	36	
8	Data 4	P24	35	
9	Data 3	P23	24	
10	Data 2	P22	23	
11	Data 1	P21	22	
12	Data 0	P20	21	
13	GND	VSS	20	both wires (13+14) are soldered to this pad
14				

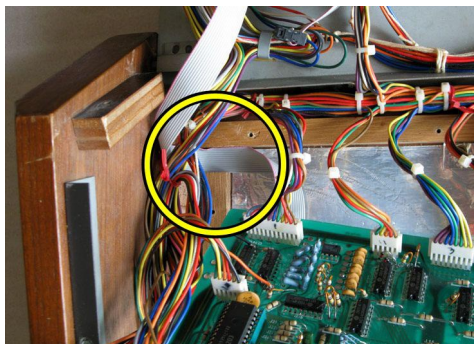
Solder partial wires of flat cable to required pads on “Key Assigner” board (pic. 2.3-5). Solder carefully so that no short connection occurs between solder pads. This can disallow right function of the instrument. In extreme case, some components on “Key Assigner” board can be damaged!

Pic. 2.3-5

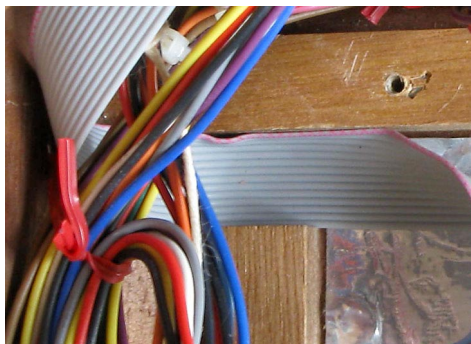


d) Flip “Key Assigner” board back to its original position. Be sure that flat cable isn’t clawed by the board – the cable must go via slot between wood supports in upper left corner of place for “Key Assigner” board (pic. 2.3-6, 2.3-7).

Pic. 2.3-6

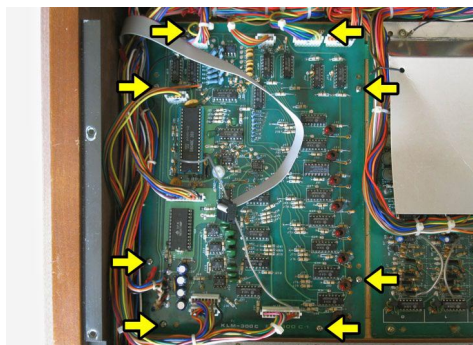


Pic. 2.3-7



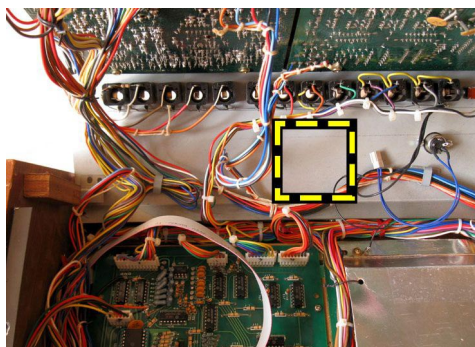
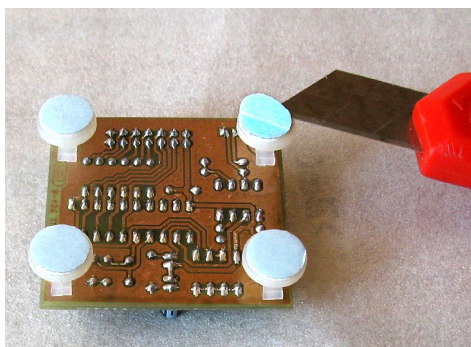
e) Fit “Key Assigner” board back to bottom part of the instrument with previously removed screws (pic. 2.3-8).

Pic. 2.3-8



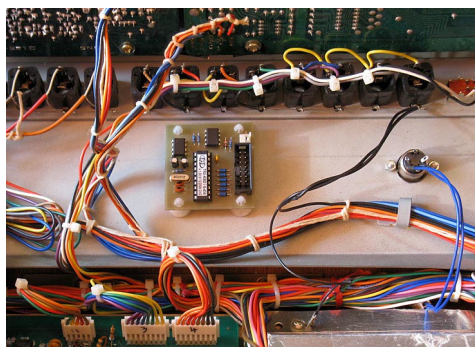
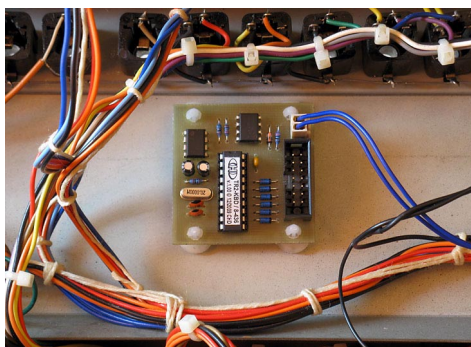
2.4 INTERFACE BOARD INSTALLATION

- Cleanse (degrease) the part of rear panel inside of instrument to place there the interface board (pic. 2.4-1).
- Remove the protective foil from the self-adhesive supports of the interface board (pic. 2.4-2).

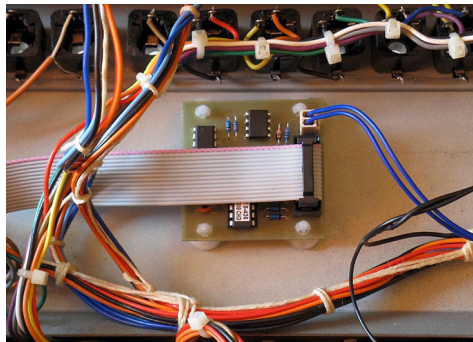
Pic. 2.4-1

Pic. 2.4-2


c) Apply the interface board to the part of the instrument's panel so that connectors are on right side (pic. 2.4-3). Then fix the self-adhesive supports by pressing down.

d) Put two-pin connector of MIDI cable (X1 connector – see pic. 2) to plug on the interface's board. Orientation of the connector is unambiguously given by the connector locks (pic. 2.4-4).

Pic. 2.4-3

Pic. 2.4-4


e) Put the 14-pin connector of flat cable (X2 connector – see pic. 2) to plug on the interface's board. Orientation of the connector is unambiguously given by the connector lock (pic. 2.4-5).

Pic. 2.4-5




2.5 INSTRUMENT ASSEMBLY

- Turn over the front panel of the instrument.
- Reattach the front panel to the sides of the instrument with six screws (pic. 2.5-1) and reattach six screws to the rear side of the cover (pic. 2.5-2). This is the reverse procedure of that described in the chapter 2.1.

Pic. 2.5-1



Pic. 2.5-2



The installation of the MIDI kit is now complete and the instrument is ready to communicate over the MIDI. Please read carefully the user manual first.

Document :
8436_install_rev2

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