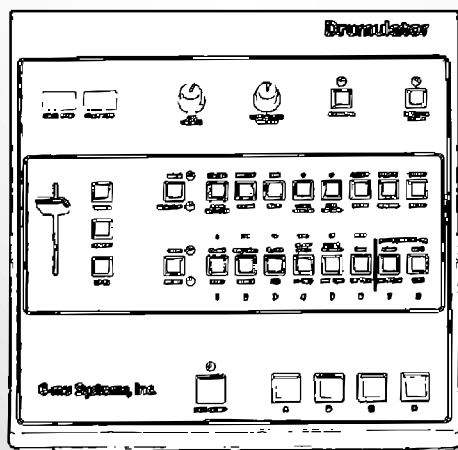


EDRM-M

MIDI interface for EMU Drumulator

Model 8-450
ver. 1.0



INSTALLATION MANUAL



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This manual in PDF form is available on supplemental CD-ROM or on manufacturer's web-pages.

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1. GENERAL INFORMATION

EDRM-M MIDI interface enables full integration of EMU DRUMULATOR instrument to MIDI system. The Interface affects some functional blocks of the instrument which then can be controlled with a help of MIDI commands. All original functions of the instrument stay unchanged and the instrument still can be used the same way as before the interface installation.

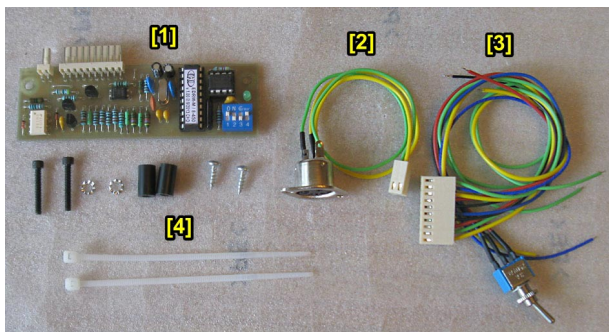
1.1. PARTS OF THE INTERFACE KIT

The delivery of MIDI interface kit contents all parts necessary for installation inc. all support and coupling elements. Parts of delivery are also manuals for installation, handling and interface's SysEx communication and CD-ROM with manuals in PDF form and support software. Please check if the delivery is complete before the installation (see pic. 1.1.1).

Pic. 1.1.1 – Parts of interface

The EDRM-M kit contents:

- [1] MIDI interface board
- [2] Bunched cables with DIN-5 socket
- [3] Bunched cables with tumbler switch
- [4] Coupling elements: 2x screw UNC-4, 2x tooth lock washer, 2x spacer, 2x self drilling screw $\phi 2,9$, 2x plastic stripe
- [5] Documentation: 3x manuals in printed form, CD-ROM



2. MIDI INTERFACE INSTALLATION

Montage of all parts of the interface into EMU DRUMULATOR instrument is very easy. No major problem should occur if all instructions indicated in installation manual are kept. Procedures of interface's parts installation are described in detail in chapters below. Please keep these instructions exactly so that the instrument isn't damaged.



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



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!

2.1. DISMANTLING OF THE INSTRUMENT

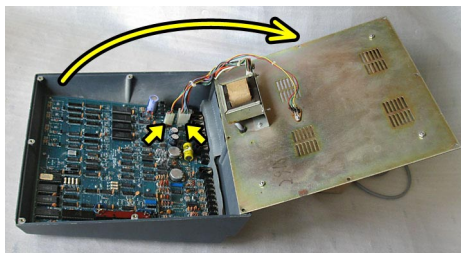
a) Turn the instrument foreside down. Unscrew eight screws on bottom side of the instrument cover (pic. 2.1.1) Keep the screws. They will be used again after the MIDI kit installation.

b) Carefully lift off the bottom part of the instrument backward from the plastic cover (pic. 2.1.2) and disconnect two connectors from printed circuit board of the instrument (pic. 2.1.2).

Pic. 2.1.1



Pic. 2.1.2



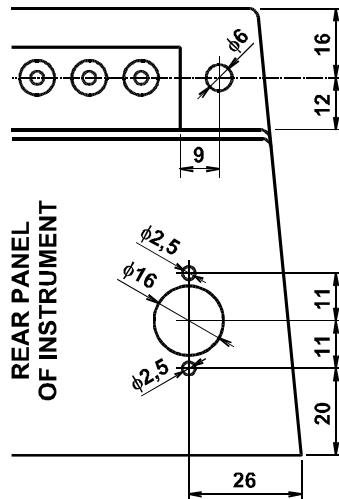
2.2. DRILLING OF HOLES FOR MIDI SOCKET AND SWITCH

a) MIDI socket and tumbler switch will be placed on the right on rear panel of plastic cover of the instrument (pic. 2.2.1). It is necessary to drill total of 4 holes to rear panel of plastic cover of the instrument (2x $\phi 2.5$ mm, 1x $\phi 6$ mm and 1x $\phi 16$ mm) as shown on pic. 2.2.1. Use sharp drills with required diameters. **Work carefully** so that surface of the panel is not damaged during drilling!

Pic. 2.2.1



Pic. 2.2.2



b) Clean the edge of all holes with small rasp or with a point of bigger drill after drilling.

2.3. MONTAGE OF MIDI SOCKET AND SWITCH

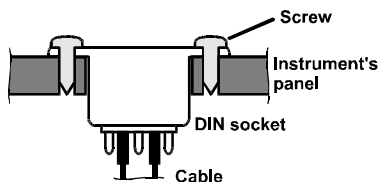
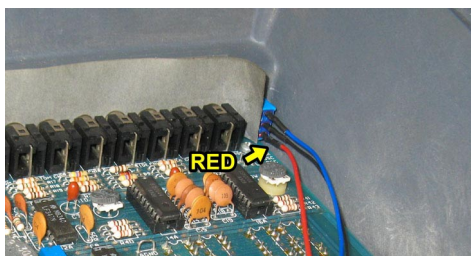
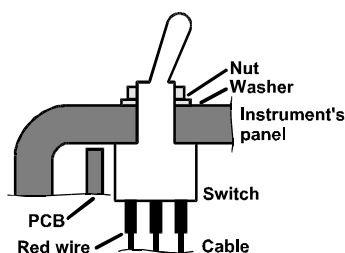
a) Get flat connector of MIDI cable through the hole with $\phi 16$ mm (from outside of panel - pic. 2.3.1) and insert DIN sockets of the bunched cables into the hole fully.

b) Fix the DIN socket to the panel using self drilling screws $\phi 2.9$ mm from the interface accessories (pic. 2.3.2).

c) Insert tumbler switch (part of bunched cables of the interface) into hole with $\phi 6$ mm (from inside of panel) so that its lead with red wire is near to printed circuit board of the instrument (pic. 2.3.3).

d) Fix the tumbler switch to instrument's panel using the nut and washer (pic. 2.3.4).

Pic. 2.3.1

Pic. 2.3.2

Pic. 2.3.3

Pic. 2.3.4


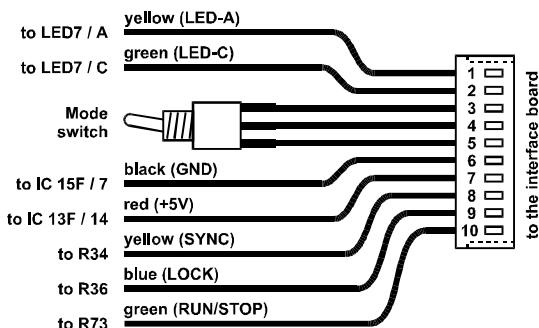
2.4. INTERFACE'S BUNCHED CABLES INSTALLATION

Three wires of interface's bunched cables are already connected to tumbler switch (pic. 2.4.1). Free ends of remaining wires will be soldered to printed circuit board of the instrument according to the table 1 and pic. 2.4.2.

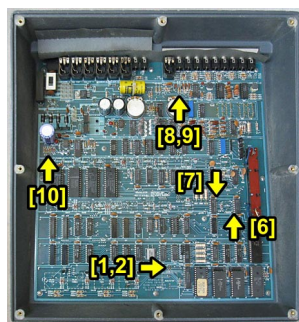
Table 1 – Connection of wires of bunched cables				
Wire	Signal	Soldering pad	Pictures	Pozn.
1	LED-A	LED7 – anoda	2.4.3, 2.4.4	RUN/STOP indication
2	LED-C	LED7 – katoda	2.4.3, 2.4.4	RUN/STOP indication
3~5	SWITCH	Tumbler switch for working mode selection	-	The wires are already connected
6	GND	Lead Nr. 7 of 15F integrated circuit	2.4.5, 2.4.6	
7	+5V	Lead Nr. 14 of 13F integrated circuit	2.4.5, 2.4.6	
8	SYNC	Lead of R34 resistor	2.4.7, 2.4.8	
9	LOCK	Lead of R36 resistor	2.4.7, 2.4.8	
10	RUN/STOP	Lead of R73 resistor	2.4.9, 2.4.10	

- Solder yellow wire Nr. 1 (LED-A) to anode of LED7 on instrument's board (pic. 2.4.3, 2.4.4).
- Solder green wire Nr. 2 (LED-C) to cathode of LED7 on instrument's board (pic. 2.4.3, 2.4.4).
- Wires Nr. 3, 4, and 5 are already connected to tumbler switch for working mode selection.

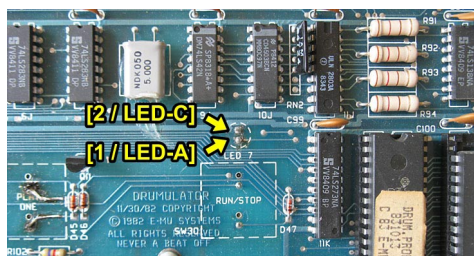
Pic. 2.4.1



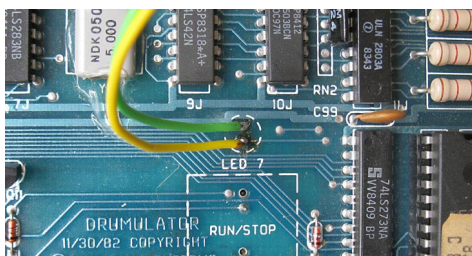
Pic. 2.4.2



Pic. 2.4.3



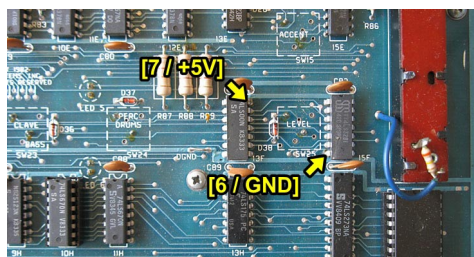
Pic. 2.4.4



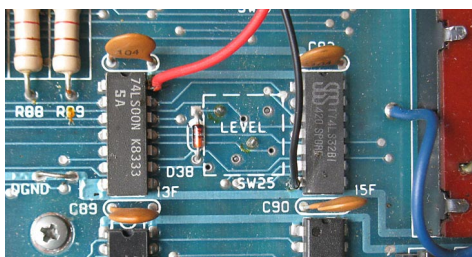
d) Solder black wire Nr. 6 (GND) to lead Nr. 7 of integrated circuit 15F - 74L32 on instrument's board (pic. 2.4.5, 2.4.6).

e) Solder red wire Nr. 7 (+5V) to lead Nr. 14 of integrated circuit 13F - 74L00 on instrument's board (pic. 2.4.5, 2.4.6).

Pic. 2.4.5



Pic. 2.4.6

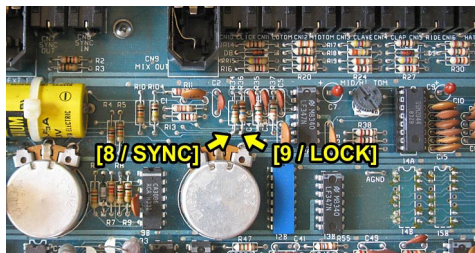


f) Solder yellow wire Nr. 8 (SYNC-OUT) to bottom lead of resistor R34 on instrument's board (pic. 2.4.7, 2.4.8).

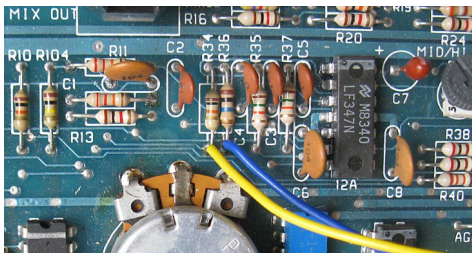
g) Solder blue wire Nr. 9 (LOCK) to bottom lead of resistor R36 on instrument's board (pic. 2.4.7, 2.4.8).

h) Solder green wire Nr. 10 (RUN/STOP) to bottom lead of resistor R73 on instrument's board (pic. 2.4.9, 2.4.10).

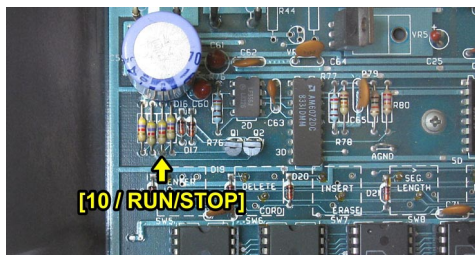
Pic. 2.4.7



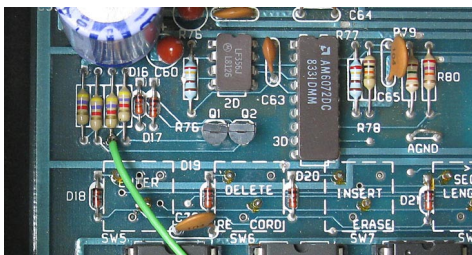
Pic. 2.4.8



Pic. 2.4.9



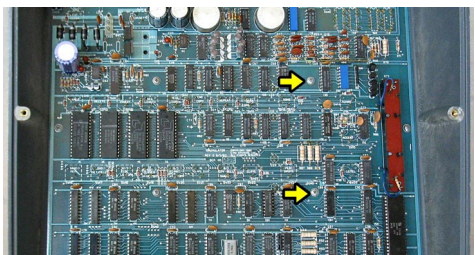
Pic. 2.4.10



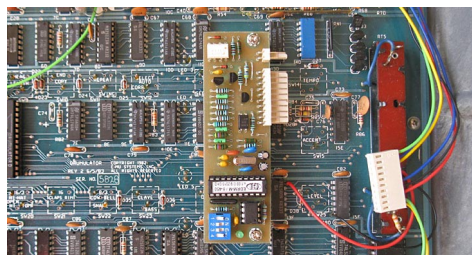
2.5. INTERFACE BOARD MONTAGE

a) Unscrew two screws which fix printed circuit board to cover of the instrument (pic. 2.5.1).

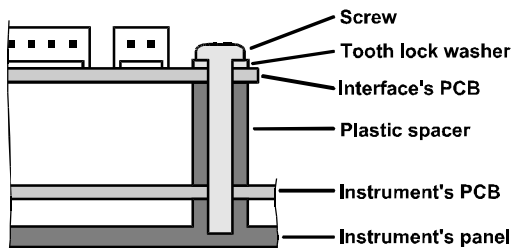
Pic. 2.5.1



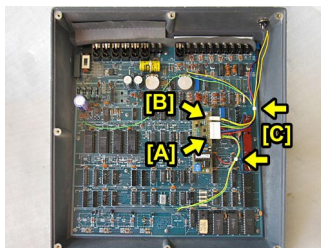
Pic. 2.5.2



Pic. 2.5.3



Pic. 2.5.4



b) Fix the interface board to freed holes. Use UCN-4 screws from the interface accessories (pic. 2.5.2). Insert tooth lock washers under heads of the screws and insert plastic spacers (both from the interface accessories) between the interface board and the printed circuit board of the instrument (pic. 2.5.3).

c) Plug 10-pin connector of bunched cables to interface board ([A] on pic. 2.5.4). Orientation of the connectors is unambiguously given by the lock on the connector body and they can't be flipped.

d) Plug 2-pin connector of newly installed DIN5 socket ([B] on pic. 2.5.4). Orientation of the connectors is unambiguously given by the lock on the connector body and they can't be flipped.

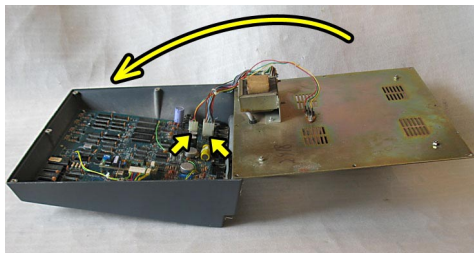
e) Bind together newly installed wires with a help of plastic stripes from the interface accessory ([C] on pic. 2.5.4).

2.6. ASSEMBLING OF THE INSTRUMENT

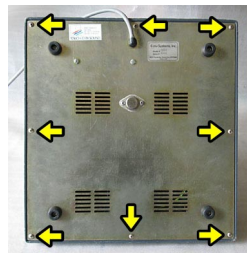
a) Plug the connectors of cables from the bottom part of the instrument back to printed circuit board and lift the bottom part of the instrument back to plastic cover (pic. 2.6.1).

b) Fix the bottom part of the instrument to plastic cover with a help of original eight screws (pic. 2.6.2).

Obr. 2.6.1



Obr. 2.6.2



c) It is suitable to label newly installed tumbler switch and MIDI connector – for example, with self-adhesive foil glued near to the socket and switch on panel of the instrument (pic. 2.6.3).

Obr. 2.6.3



Installation of the MIDI interface kit is now finished and the instrument is prepared for communication via MIDI bus. Please read carefully user manual of the interface before usage of modified instrument.

