

Instructions for assembling the GINO-MIDI INTERFACE BIGMIDI versie 1.0 LCD & Switches

Disclaimer

Before you start building any of the projects on this website, keep in mind that I can't be held responsible for any damage that is caused by building and using the designs related to the GINO-MIDI Interface. All effort has been done to make the schematics and instructions as correct as possible and the whole project is successfully tested and used by not only me, but also by others then me.

PARTLIST LCD & Switches BIGMIDI-1

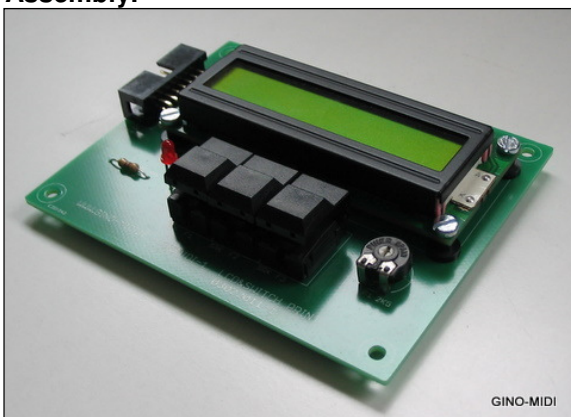
LCD & Switches

1	LCD 16 x 2
P1	Trimming potentiometer 2k5
R7	10 ohm 1/2 watt
R8	100K ohm 1/4 watt
R9	470 ohm 1/4 watt
LED2	Standard red led
2	6 pin single header
1	14 Pin Shrouded Right Angle Male Header
2	14 Contact IDC Socket Connector
3	Pushbuttons
4	Bolt M3 x 10
4	Nut M3
4	Spacers for the LCD
4	Spacers
4	Parkers
1	50 cm flatcable 14 polig
1	Isolated mounting wire for interconnections
1	GINO PCB 03022011-1

Introduction.

This printed circuit board, on which an LCD screen and three function keys are present, gives you the possibility to change several settings of the BIGMIDI and to save those settings. With the design it is assumed that this PCB should be positioned at the front of the console, so that keys and so on would be easy to use and to follow the messages on the screen. There is also a MIDI EVENT led. Every time when the BIGMIDI produce a midi signal, the led will be lightened.

Assembly.

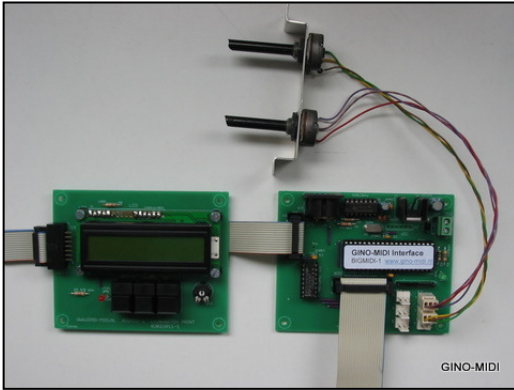
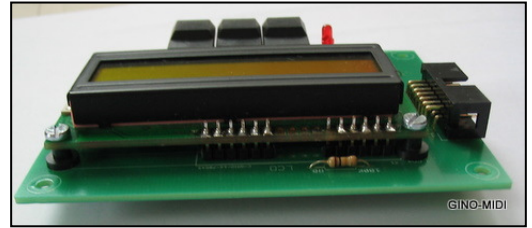


The numbers of parts is limited. First of all you will assemble the two interconnections and after that the three resistors. R7 is in power a larger resistor. This resistor has to limit the current to the BACK LIGHT led of the LCD screen. Then you can assemble the trimming potentiometer. With this potentiometer you can adjust the contrast of the little screen. Now, assemble the three function keys and the 14 pin shrouded right angle male header. In the design is opted for an angled header, so that later assembly in a front, things has the right position. Therefore it is wise to assemble the Led, which we are going to assemble now, not quit at the surface of the PCB, but about 10 mm above the PCB surface.

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Finally the LCD screen itself is now on the turn. An LCD screen is a circuit in itself, with his own electronics. The PCB of the LCD screen makes contact with the base board through two 6 pins headers. Assemble the two 6 pin headers on the base board, the first at the site on the terminals 1 to 6 and the second at the location of the terminals 11 to 16. The intermediate connectors are not used.



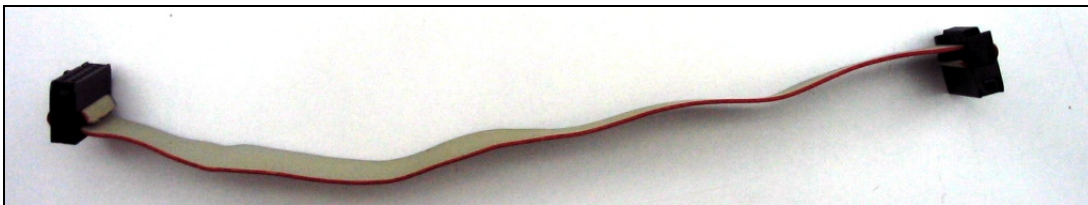
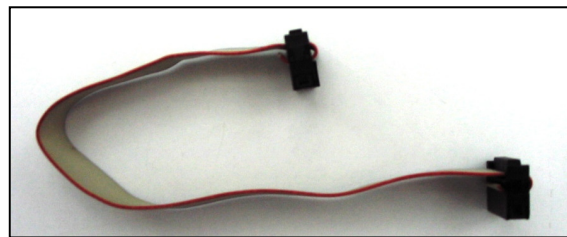
To assemble the LCD screen on the base board we use spacers with a flange and the nuts and bolts M3x10. The flange rests on the surface of the base board. If one and another got his place on the base board, you can solder the PCB of the LCD screen on the 6 pin headers.

Connection to the BIGMIDI-1 mainboard.

The now fully assembled Switch & LCD printed circuit board must be connected to the mainboard of the BIGMIDI-1. We do this through a 14 pin ribbon flatcable and IDC sockets.

The attachment of the flatcable on these IDC connectors has to be done with some force, so you can use a vice for that purpose.

As previously mentioned in several building instructions, an IDC connector has a mark in the form of a little triangle. This mark indicates pin 1. If you make sure that the marked wire is always on pin 1, you always have a proper connection. See on these pictures the direction of assemble the IDC female headers on the flatcable.



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