

Introduction.

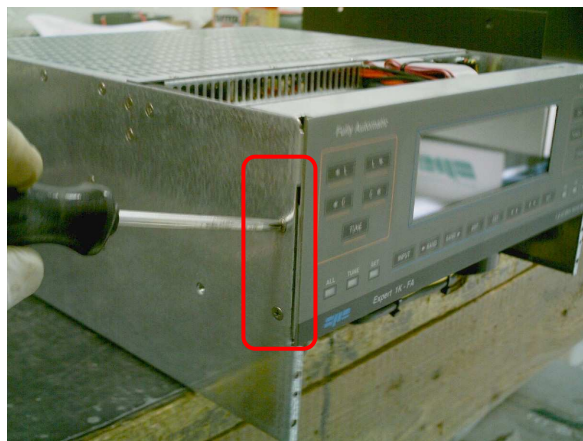
This document describes the main steps necessary to proceed to a keyboard replacement. In order to help to understand how to perform that operation, some pictures illustrate the main phases of the whole job.

Front panel dismantling.

To dismantle the front panel, the top and the bottom covers of the amplifier have to be removed in advance. That operation requires the unscrewing of eight side screws (four screws for each cover) in order to (carefully) remove them both. After having done that, the bottom filter grid has to be dismantled with an intervention on its two screws as shown below.

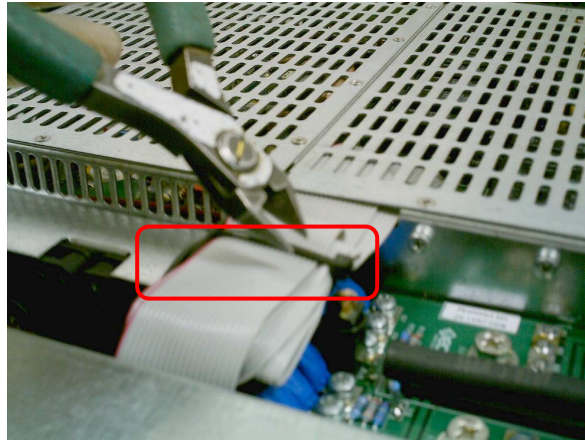


Then the four side screws of the front panel (two on each of its sides) have to be taken off in order to perform its dismantling (see picture below).



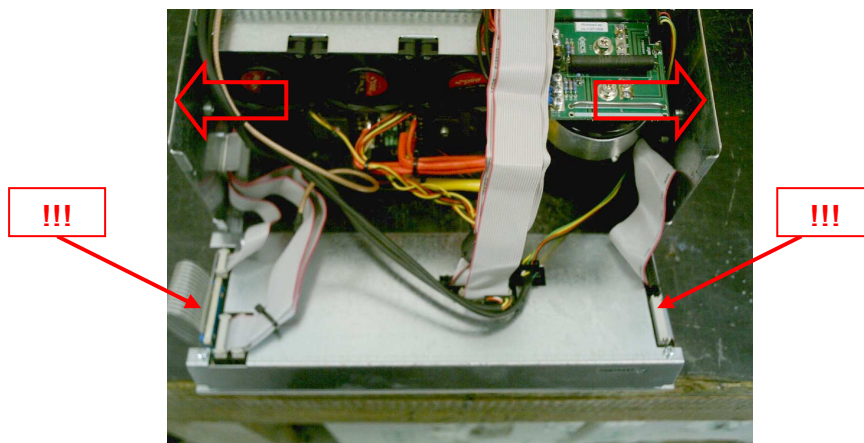
Using a small pair of snippers, cut the plastic belt that ties together the flat cables group lying on the upper-right side of the device; that operation makes easier the front panel extraction.

Note: that plastic belt has to be replaced with a new one on front panel remounting.



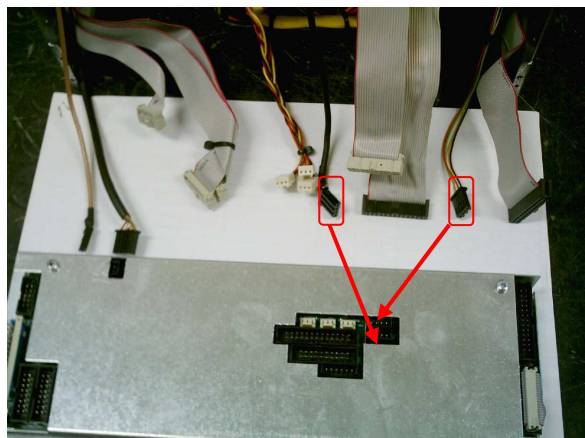
The next operation (the front panel extraction) can be easily performed by slightly enlarging the chassis metal sides outward (as shown in the picture below).

During that phase it is very important neither to scratch nor to damage the front panel inner flat cables marked in the picture below (keyboard and display cables).

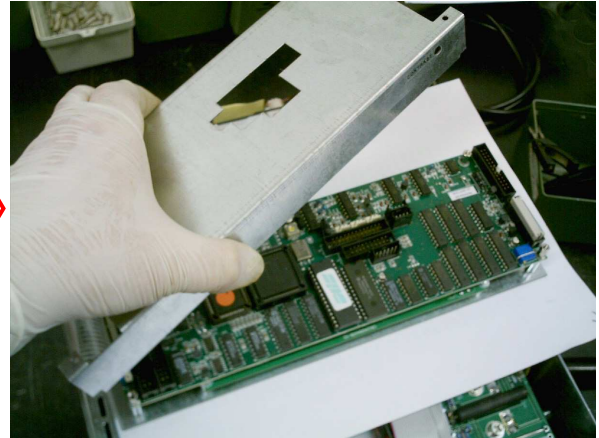
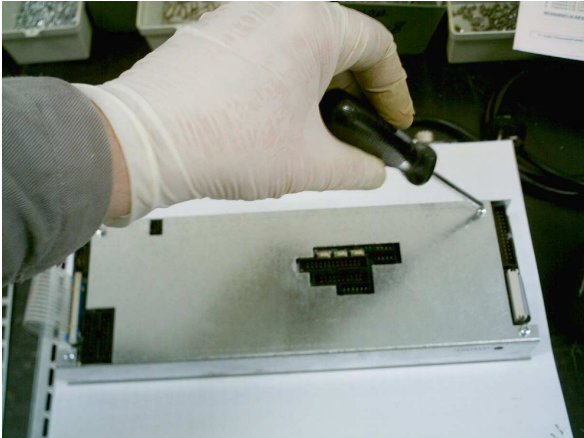


It would be a good idea to mark all the cables before disconnecting their connectors from their respective sockets.

Even though they all cannot be exchanged each other on remounting operation, take great care of not swapping the two connectors marked in the picture below!!!



Once the front panel has been freed from its connections to the device mainframe, its internal metal shielding cover has to be taken off by unscrewing its four tying screws (see below).

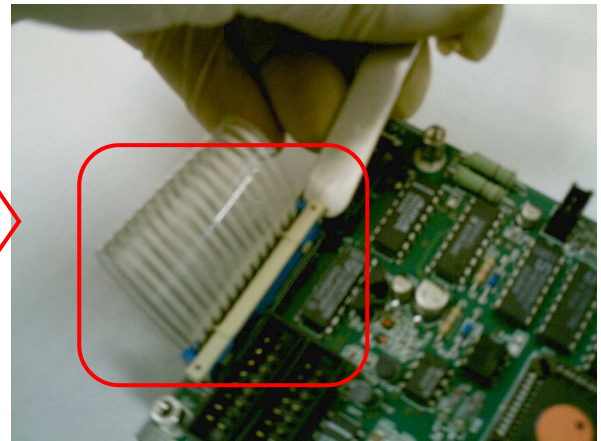
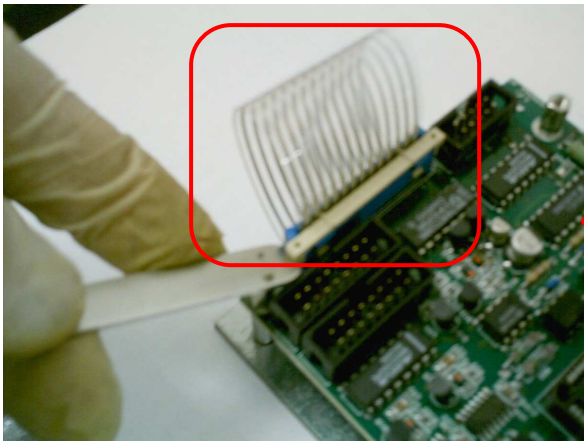


One of the most delicate operation to perform is the keyboard cable extraction/insertion which requires the keyboard socket latch to be unlocked/relocked.

The unlocking operation (for having the keyboard got dismantled) has to be carried out with a small flat screwdriver (or any equivalent tool, as shown below) having care of acting back and forth among its two sides.

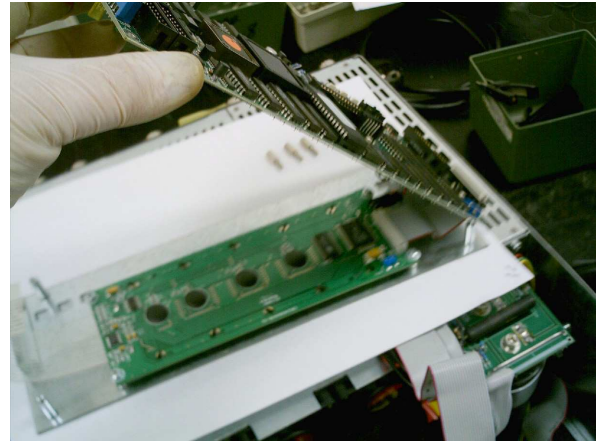
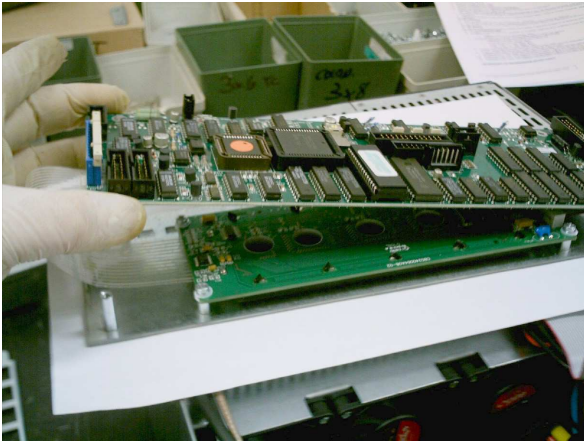
The locking operation has to be done with a simple pressure on both sides of the latch after having deeply reinserted the new keyboard flat cable.

Be very careful with those operations!!!

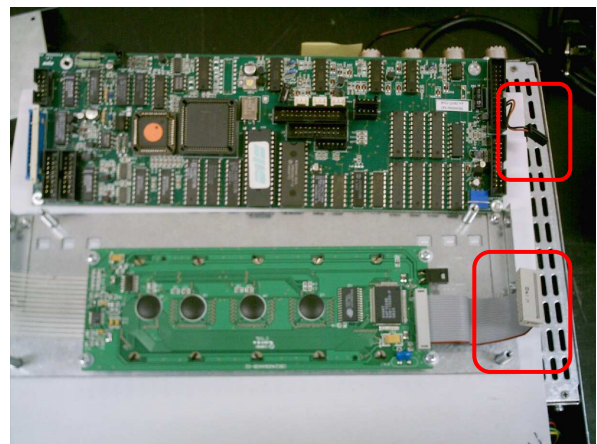
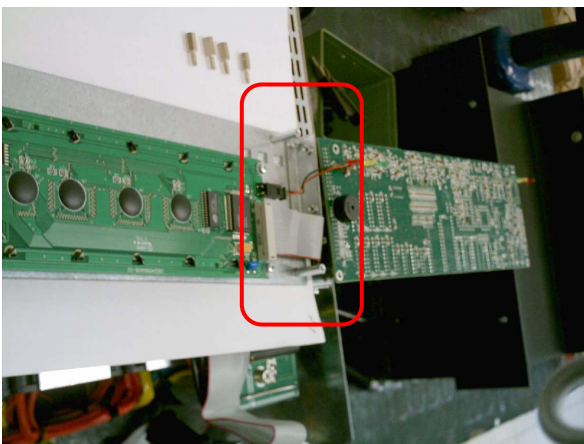


After having disconnected the keyboard flat cable from the CPU board socket, unscrew the CPU board itself by removing its four tightening spacers.

After that operation, the CPU board has to be "opened" as show below.

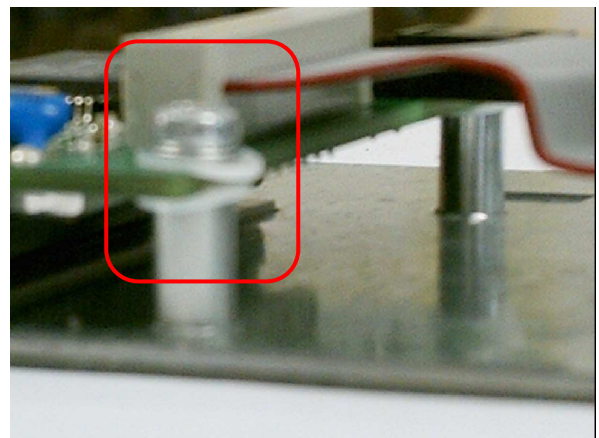
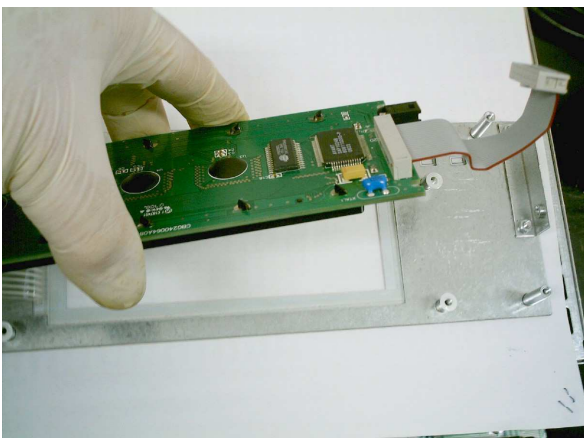


The operation above allows an easy disconnection of the display data and backlight control cables (see pictures below).



The LCD display has to be removed as well.
To do that, unscrew all its four screws and simply take it off.

Important note: each mounting screw of the display is equipped with two plastic O-rings (eight O-rings totally) whose purpose is to isolate the LCD display board from any accidental contact to the chassis ground. Don't lose them, but reinstall them the same way on display remounting!!!



Keyboard replacement.

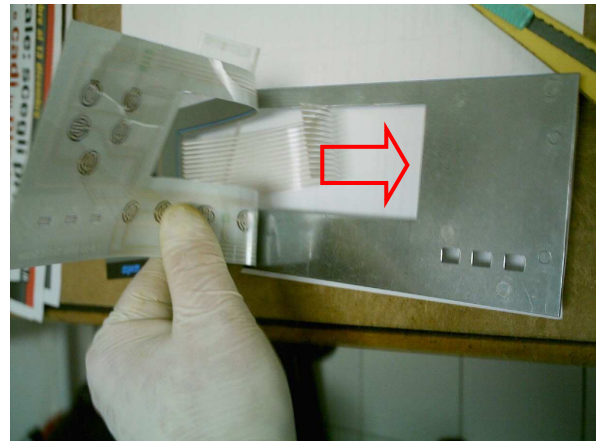
So far there were shown all the preliminary operations to be made before accessing the keyboard for removing the old one and installing a new one.

Now let's see those operations in detail.

The old keyboard has to be "stripped off" by helping yourself with a cutter (or any equivalent tool, a knife for example).

We suggest to operate as shown in the pictures sequence below.

After that operation some traces of glue of the old keyboard could be left on the metal panel; those residues are not critical and it's not worth removing them unless necessary.



After the old keyboard has been "stripped off", the LCD display Plexiglas window has to be taken off as well. That operation can be accomplished with a light pressure on one of its sides.

In case of some glue residues over its surface, they could be simply removed with a cloth wet with alcohol.

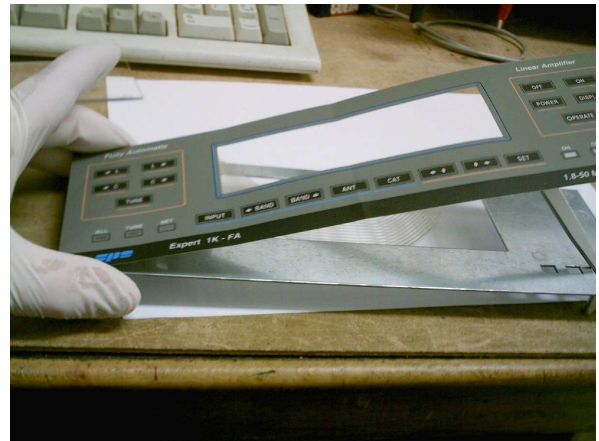
The new keyboard is like a “big sticker” (it is self-adhesive) and it should be completely “skinned” before trying to place it over the metal front panel.

Be very careful with that operation because its glue is very powerful, thus no mistakes are allowed!!!

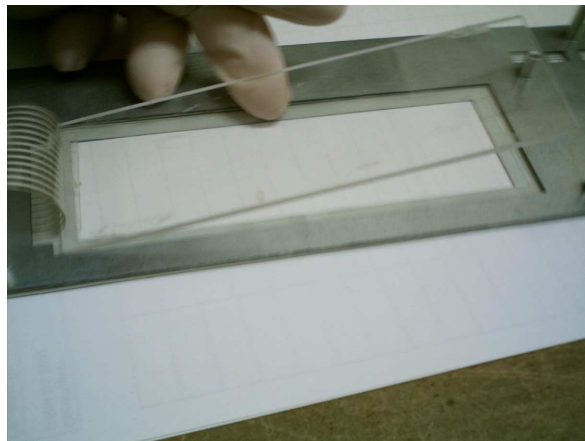
Another point to be aware of is the keyboard flat cable passage inside the display window which has to be done BEFORE starting with the keyboard placement.

The ideal condition would be to begin placing the new keyboard starting from its left side after having “taken aim” carefully with its boundaries.

As said before, that is an operation which has to be carried out with a great care and with enough room around the working area.



Finally reinstall the display Plexiglas window the same way it was originally mounted.



Putting back all together.

To reassemble the whole front panel, all the previous steps have to be followed in reverse order with respect to what explained up to now.