<u>Installation of the limiters option</u>

This option can be installed on the Nagra-V as well as on the ARES-C

Contents of the limiters option 7031 130 000:

2	3606 320 050	male-female nut
1	8131 403 000	complete wiring set
1	9131 305 000A	limiters pcb

Old Motherboard 9131 300 000 A (9119 300 200 A), 9119 300 000 or new Motherboard 9131 300 000 B:

If the limiters need to be installed on older motherboards (9131 300 000 A level 0 or level 1 or 9119 300 000) the connector with the four wires need to be soldered first. The other wiring with four wires and two connectors is not needed.

If the limiters need to be mounted on a new motherboard (9131 300 000 B), only the wiring with the four wires and two connectors is needed. The other wiring with one connector and four wires is not needed.

Installation on old motherboard 9131 300 000 or 9119 300 000:

This picture corresponds to a 9119 300 000 B from the ARES-C.
The red and green wires need to be soldered on C18 + (red) and C18- (green). This delivers the 12V supply.
The orange wire needs to be soldered on R84 U21 side and the yellow wire needs to be soldered on R78 U21 side. Those are the commands to turn OFF (ON if no 5V present) the limiters by software (menus). See schematic and component position on the last 2 pages.
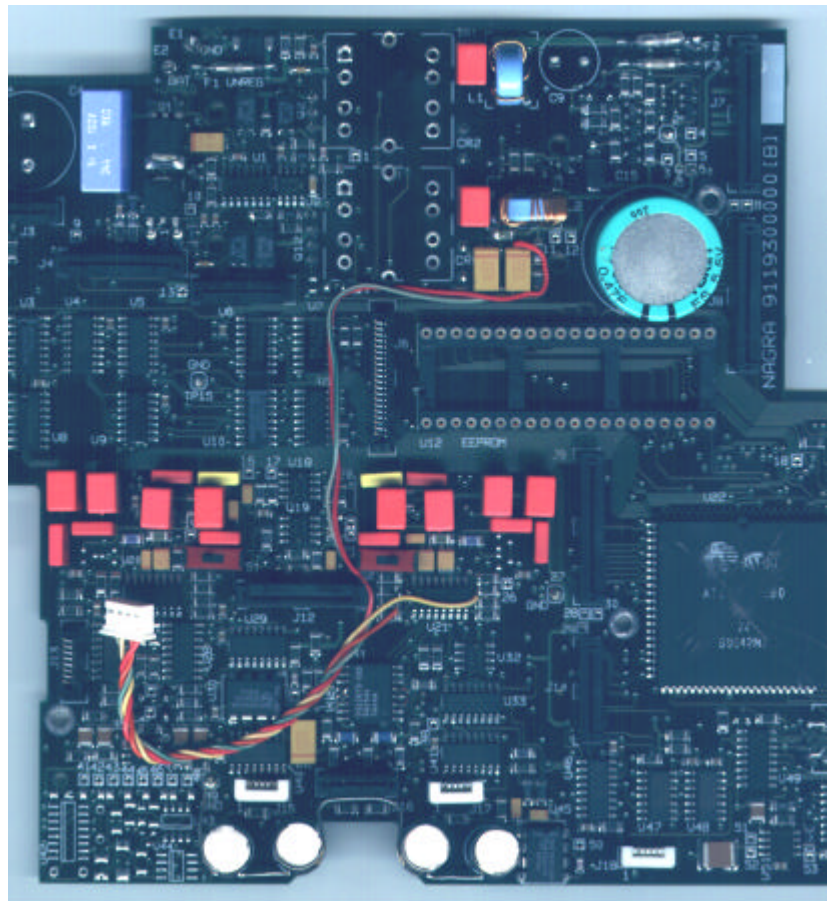
The soldering on the 91 31 300 000 A pcb of the same wiring is identical as for the 9119 300 000 B.

Installation on a new motherboard 9131 300 000 B:

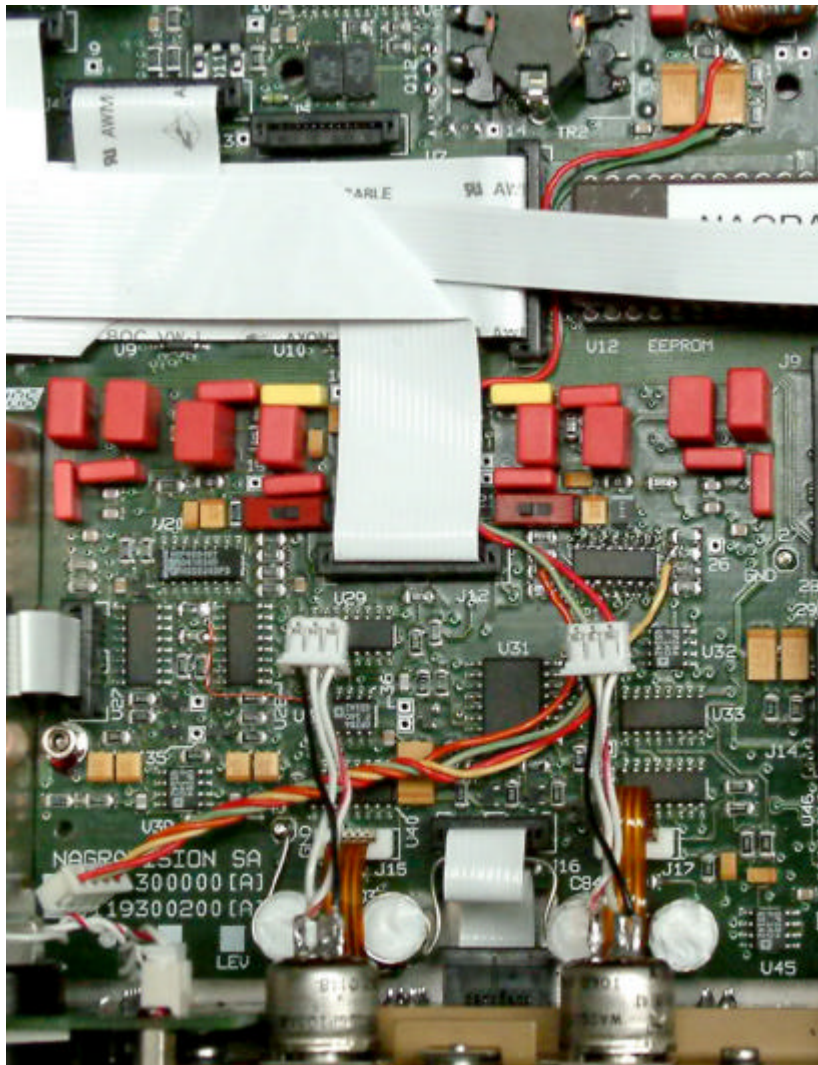On the 9131 300 000 B version, an additional connector J22 is provided.

Attention:

Be aware that the menu commands for the limiters are not integrated in the ARES-C version V3.31 low as well as in the NAGRA-V version V1.00. A new version would be needed.
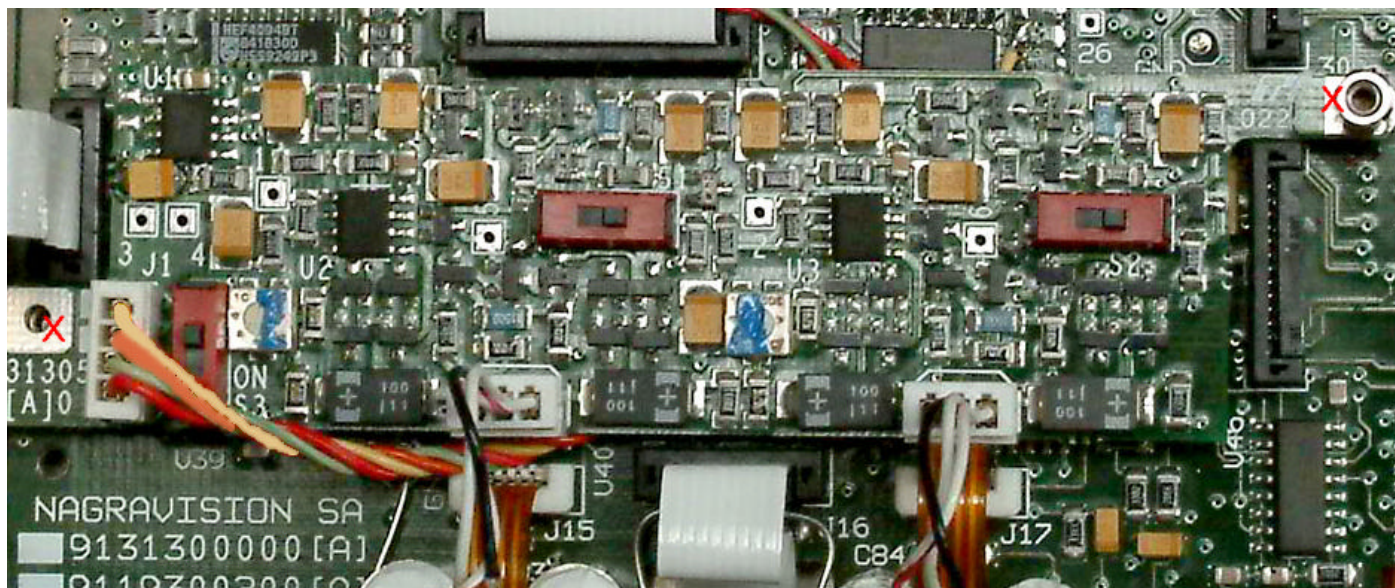
NAGRA

This picture corresponds to a 9131 300 A pcb.

Solder the two additional wiring on the two microphone potentiometers. The middle white wire goes to the central pin. The black wire goes to the right pin and the white-red wire goes to the left pin.

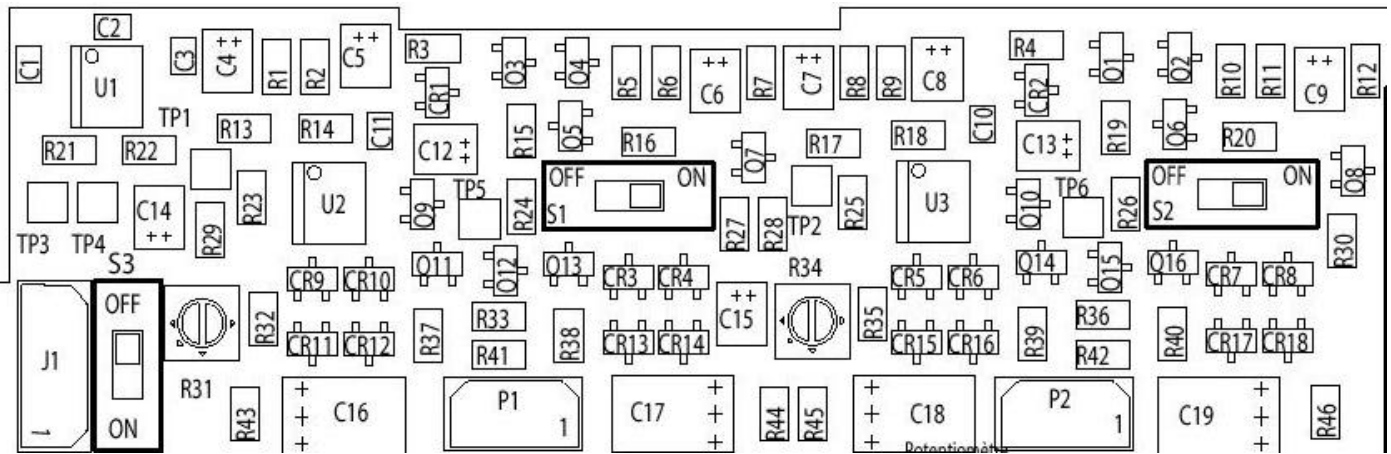Once the wires are soldered, the pcb can be installed.

Once the pcb installed, put the two nuts on the board (**X**)

If no new software is available, the limiters can be switched ON or OFF manually. The two horizontal positioned switches are turning ON or OFF the left (left switch) or right (right switch) channels.
The vertical switch is the ganging switch (both channels will work identical).
The positions for the switches, as seen on the previous picture, are as follows:

Left channel: ON   S1
Right channel: ON   S2
Ganging: OFF   S3

In the case that new software is installed, both limiter switches must be set to ON. Only in this case by the software menus, the limiters can be turned ON or OFF. The ganging switch can only be set manually, as the software does not control it.
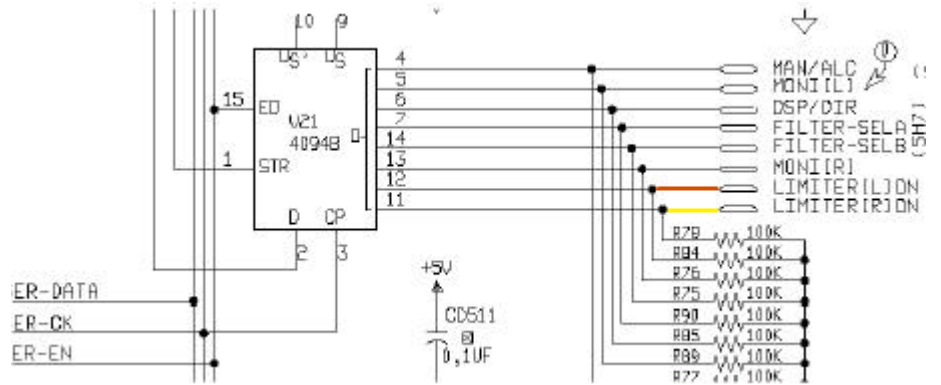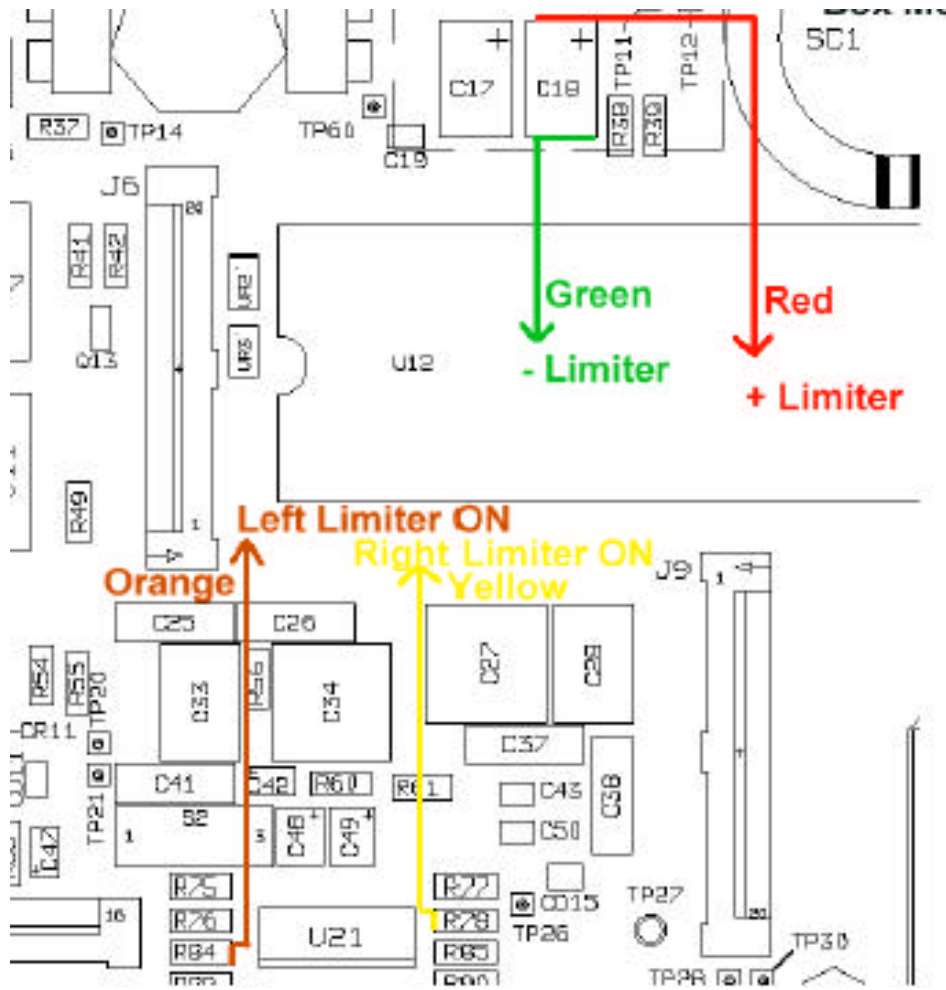

The commands ON/OFF for both limiters are provided by U21 pin 12 (left) and pin 11 (right), this only when new software is available.

This schematic is corresponding to the 9131 300 000 B version. Please read "LIMITER [L] OFF" and "LIMITER [R] OFF" and not XXX ON.

On older schematics, pin 12 and pin 11 from U21 are called respectively "NOT USED (REF-CMDB)" and "GEN-ON".
Applying new software will use those two outputs to command the limiters.

Hardware option.settings