

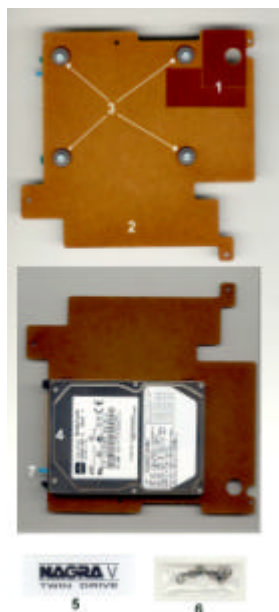
TWIN DRIVE OPTION

Twin drive kit P/N 7131 115 000

| Parts: | Description | Qty |
|--------|---|--------------------------|
| Part 1 | | |
| 1) | 4289 004 616 Linen single sided glue tape | (fixed on a plastic bag) |
| 2) | 0131 030 009 Insulator for PC104 | 1 |
| 3) | 4289 055 733 Double-sided glue tape | (premounted) |
| 4) | 9131 300 020 Eprom V3.00 or higher | 1 |
| 5) | 0131 030 008 EDI cable guide | 1 |
| 6) | 3606 320 100 Spacer nut 10 mm | 8 |
| 7) | 8131 405 000 EDI ribbon cable | 1 |

Part 2 (7031 162 000) Partially pre-mounted

| | | |
|----|--|---|
| 1) | 0131 030 010 Insulator for coil | 1 |
| 2) | 0131 030 007 HDD support | 1 |
| 3) | 3831 400 116 Alpha-Gel suspension | 4 |
| | 3251 043 034 Shim D 4.3 mm | 4 |
| | 3000 301 004 Screw M3 10mm Cyl. | 4 |
| 4) | 2097 238 000 HDD 60 GB | 1 |
| 5) | 0131 030 006 Twin drive label | 1 |
| 6) | 3606 320 050 Spacer nut 5 mm | 3 |
| | 3311 102 036 Spring loaded shim 2.2 mm | 4 |
| | 3000 200 404 Screw M2 4 mm Cyl. | 1 |
| 7) | 4020 420 060 Jumper for HDD | 1 |

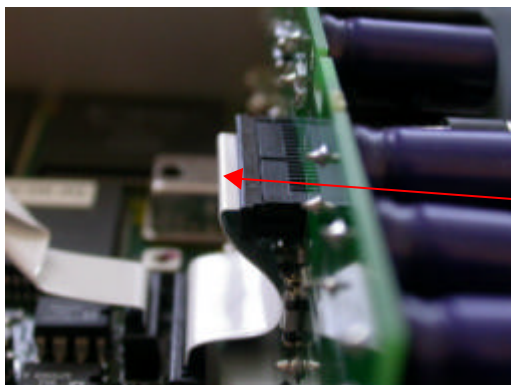
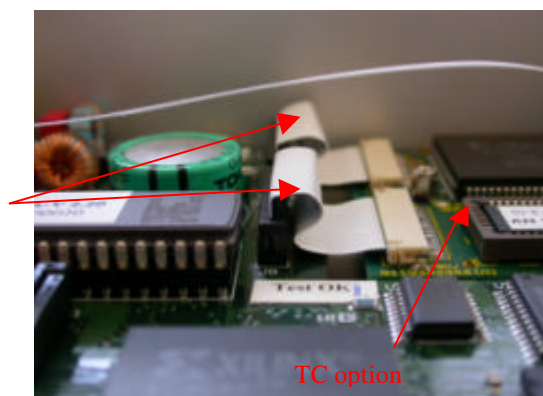


Procedure:

Preparation

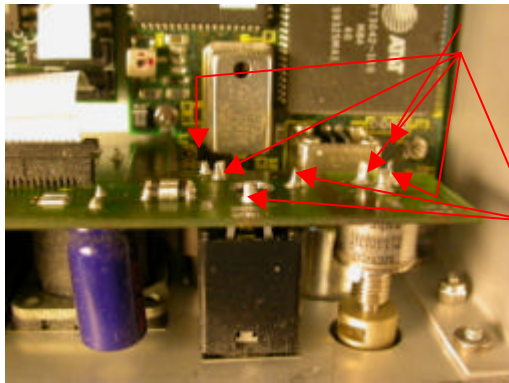
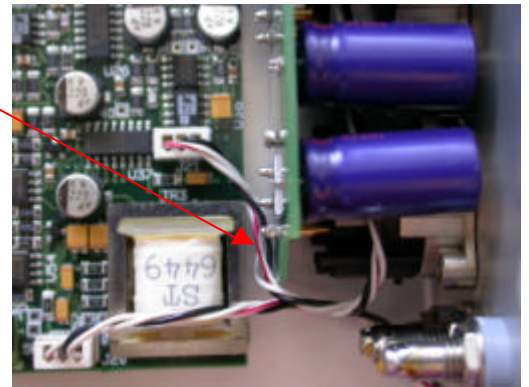
Before installing the internal HDD, a few modifications need to be made, this to secure the NAGRA-V before the machine is closed once the option is installed.

Bend to 2 ribbon cables of the Time Code option (if installed) as close as possible to the bottom of the Nagra-V. This to prevent that they would be smashed by the internal HDD option.



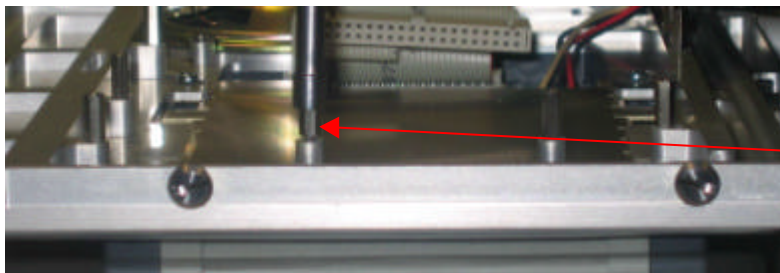
For the same reason, bend the ribbon cable between the box motherboard and the LF output PCB as close as possible to the LF output PCB.

Move the camera return cable so that it sits downward to the bottom of the machine and as most as possible behind the LF output PCB.



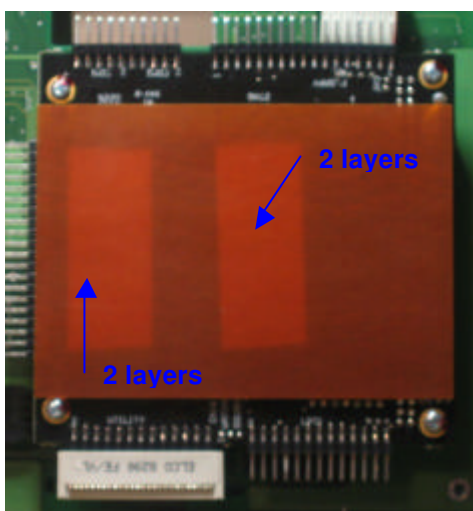
Reduce the pin size to maximum 1 mm versus the LF output PCB. Add some solder to remove any sharp edges.

If on the upper deck motherboard, the connector J2 is installed, cut all the pins as short as possible or unsolder the connector. Disconnect the speaker connector. By removing 10 nuts and 1 screw, remove the upper deck motherboard by also removing the EDI ribbon cable from the PC104 PCB and the external HDD as well as the HDD power connector.

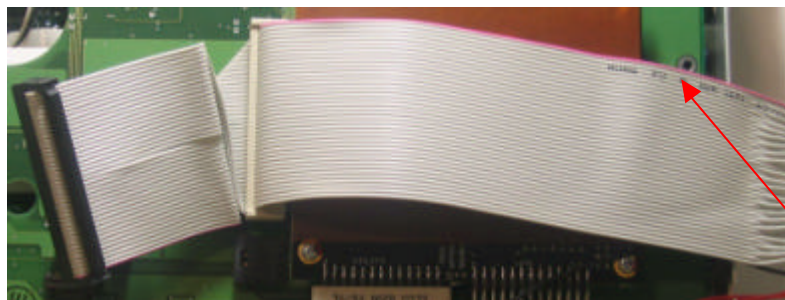


On the deck, remove the left 10 mm spacer this to install afterwards easily the ribbon cable.

Installation



By using double-sided glue tape, add the insulator (0131 030 009) on the PC104 PCB



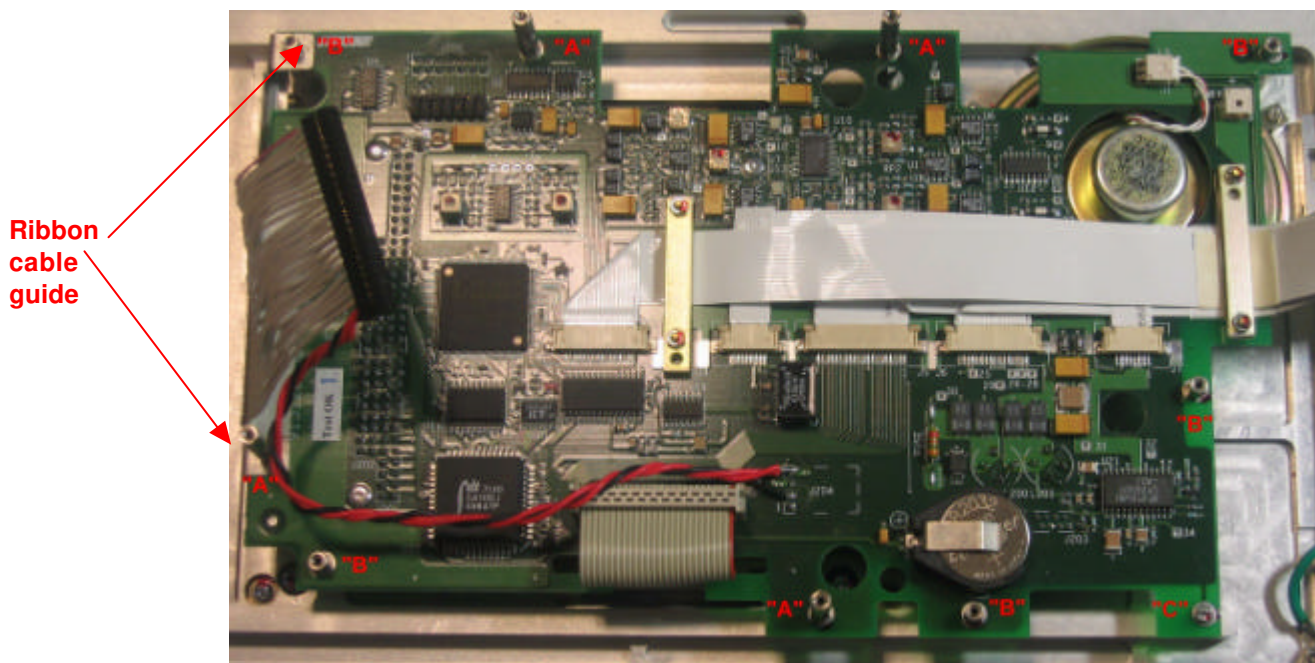
Install the new EDI ribbon cable (8131 405 000) by connecting it to the PC104 PCB. Verify that red wire from the ribbon cable is on top. Connect the power connector from the external HDD back to the deck motherboard. Connect the EDI connector to the external HDD. Put the deck motherboard back on the deck of the machine.

Glue a linen peace of tape around the edge of the deck motherboard.

Fix the deck motherboard as well as the ribbon cable guide on the deck with the following screws and nuts. Solder the 2 red wires on J204 pin 4, the black wire on J204, pin 2.

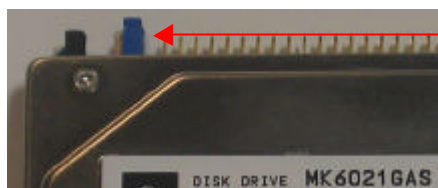


"A" twice 10 mm spacer & 1 shim, "B" one 5 mm spacer & 1 shim, "C" one screw & 1 shim.



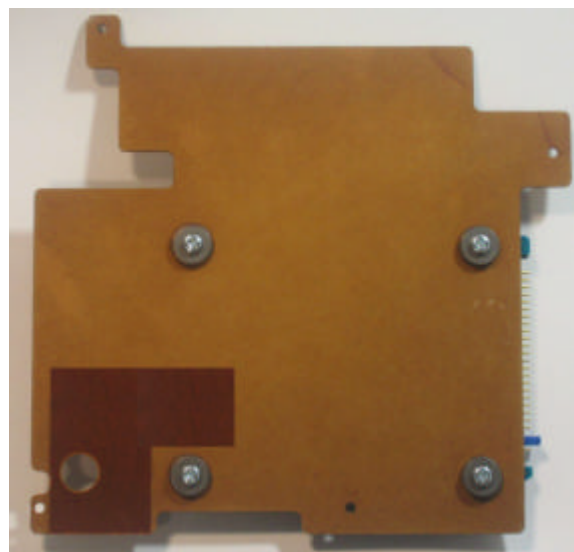
Installation of the internal HDD on his support.

Important: Do not clean with any chemical product this assembly as it could damage the suspension.



Verify that the jumper on the internal HDD (7031 160 000) sits in the SLAVE position (second position from the left). Check carefully that mechanically the jumper sits on the 2 pins.

The following parts are already pre-assembled.



Install the internal HDD assembly on top of the deck mother board and fix it using the 3 nuts 5 mm "B", 1 screw "C" and 4 shims as shown.

Important: Do not connect the EDI connector to the internal HDD.

Remove the old eeprom from the box motherboard and install the version V3.00.

Via PC load the new Update folder (Version V3.00) in the root of the external HDD. Insert this external HDD on the Nagra-V.

Switch on the Nagra-V (without the internal HDD connected) and the new software will be installed: The display shows after "Booting" "Update Ok". Turn off the Nagra-V and remove the external HDD.

Remove via PC the folder Update.

Connect the internal HDD EDI connector and position the wires of this connector so that they are between the HDD assembly and the ribbon cable holder.

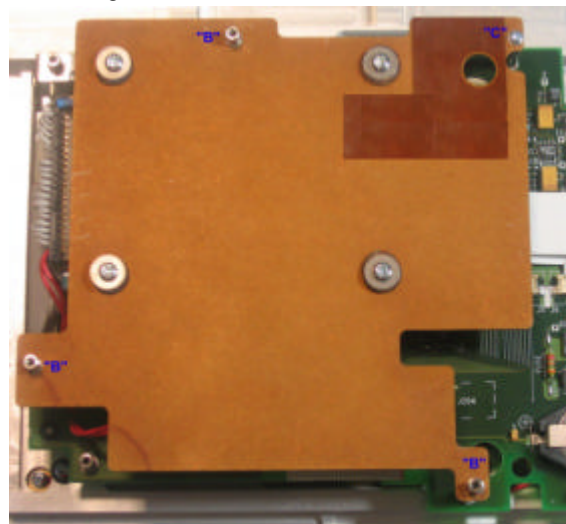
Re-install the external HDD on the Nagra-V and switch on.

Connect the Nagra-V via the RS 422/232 cable to a PC and run Navcom.

In Navcom go to software options. Select Option #3 and enter the password followed by pressing the button "Add". Navcom will show "Done".

Turn off and on the Nagra-V. Go to the "Disk" menu and format the internal HDD.

Fix the Nagra-V sticker on top of the external HDD housing.



NAGRAVISION SA

June 17th, 2004