

1. Assembly Notice

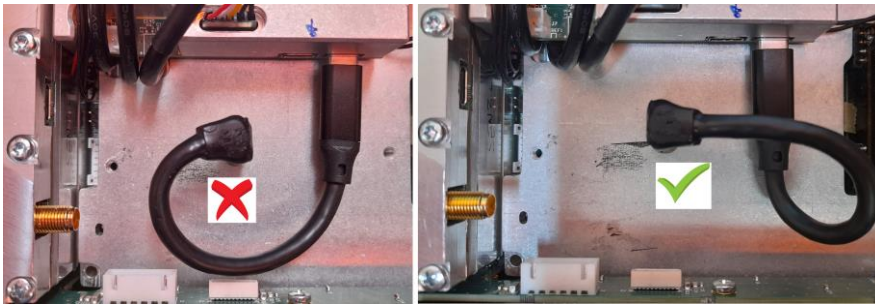
Assembling the DCM (DownConverter Module) requires particular attention, some steps are critical and if not performed correctly can lead to the breakage of some parts.

Some important rules regarding cables are listed below:

- USB-C cables must be preheated before proceeding to insert them (to be softened),
- the polarization of the USB-C cables is important, inserting them backwards causes the device not to work,
- the cables must under no circumstances be bent sharply or stretched excessively.

Moreover, there are some assembly configurations where we do not recommend self-assembly because it is even more complicated to perform, those are:

- hardware version 4.0,
- housing of the DCM used by the cables,
- inverted position of the USB-C cable between Base Board and RCMM (Reference Clock Manager Module):



2. Open the FDM-S3

Loosen the rear panel. Loosen the 4 screws that secure the rear panel, loosen the 6 nuts of the SMA connectors and remove the 2 screws of the DB9 connector.

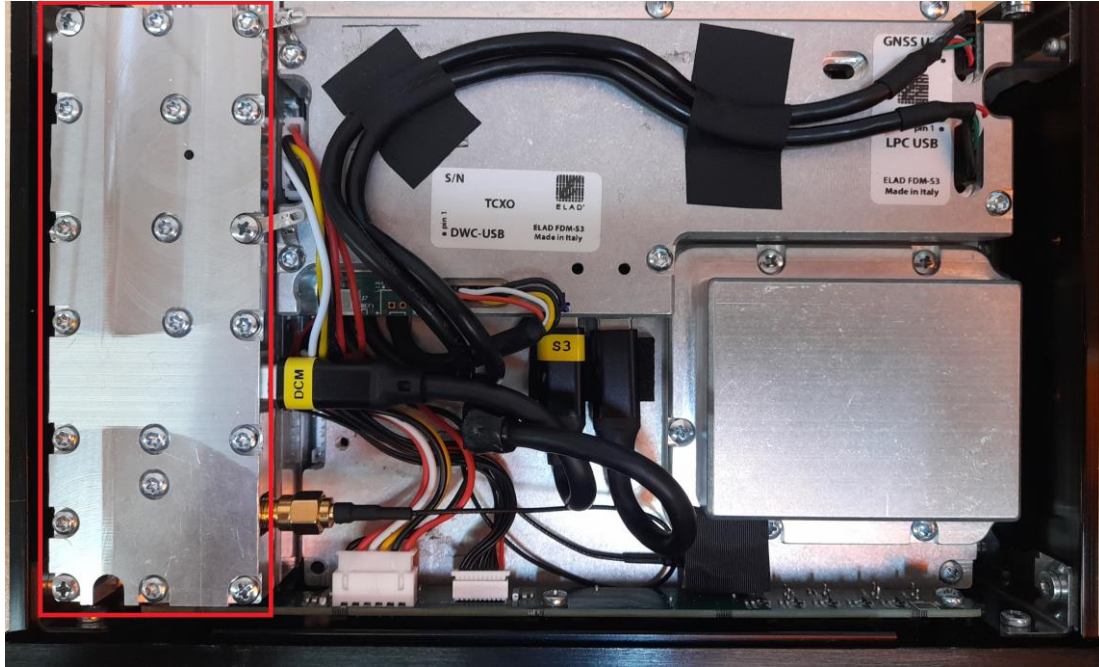


Remove the top cover. Once the screws have been loosened, move the rear panel slightly outwards in order to remove the top cover. Attention, the bottom cover will also be free from the frame.

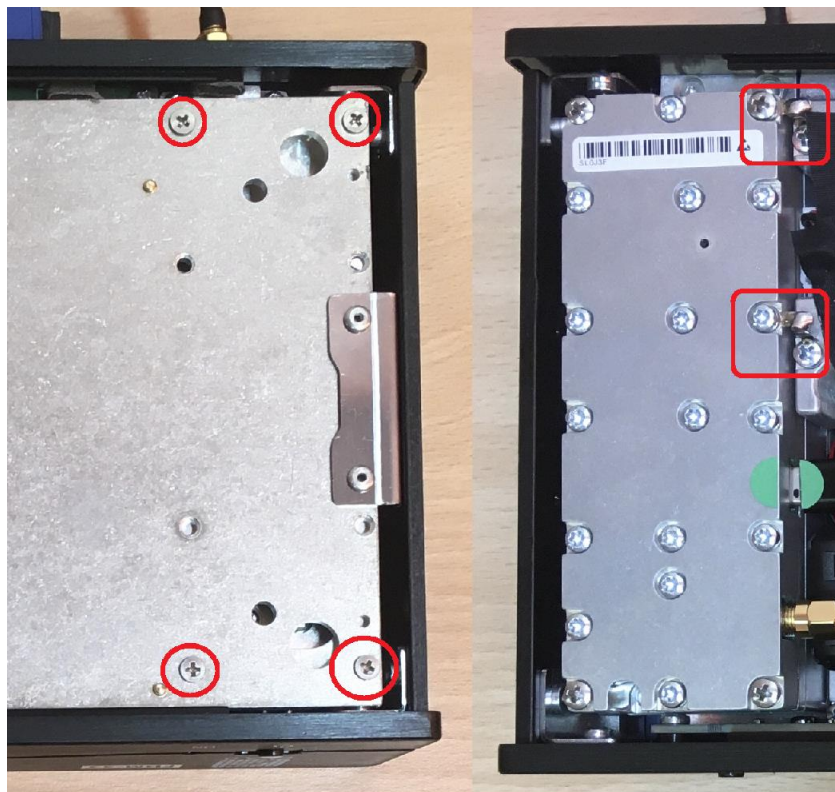


3. Insert the DCM

Remove the RF-IN input cap so as to be able to insert the DCM (DownConverter Module) inside it's housing. Here is a picture of the FDM-S3 opened with the Downconverter inside:



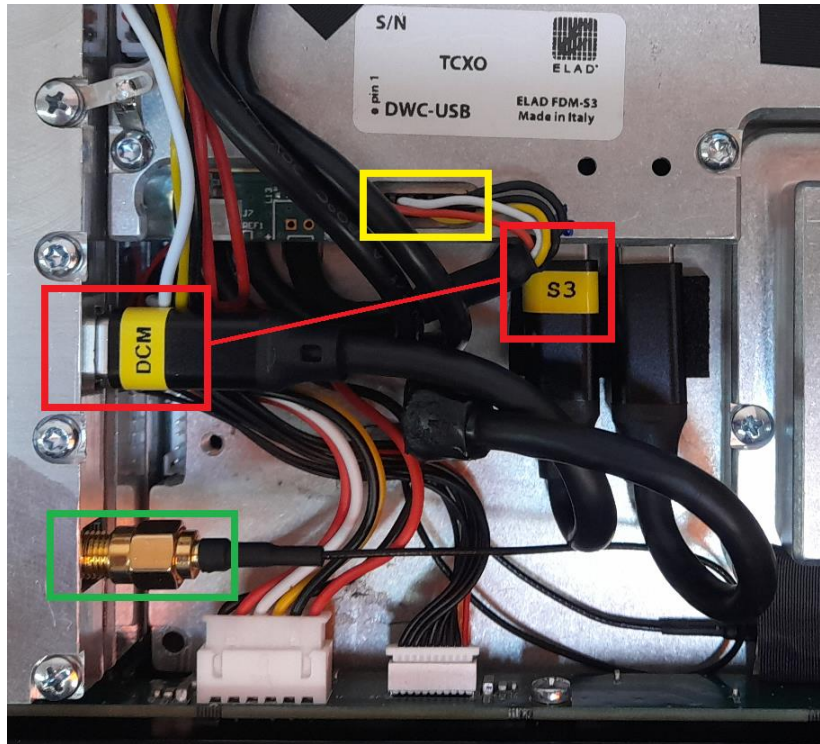
The Downconverter must be fixed to the lower panel by means of 4 screws and the 2 tab washers must also be fixed to the field of the RCMM (Reference Clock Manager Module):



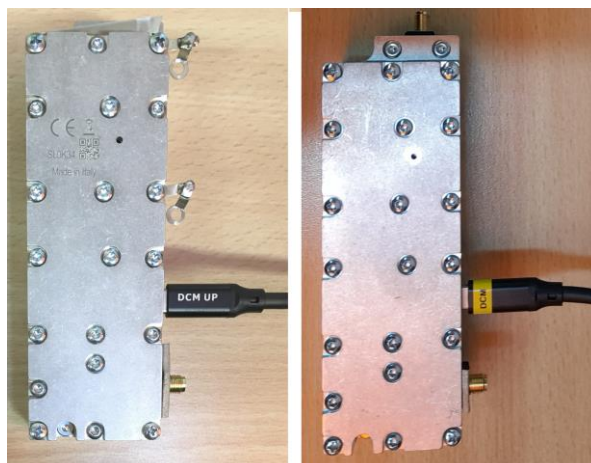
4. Connect the DCM

Regarding connections:

- ensure the **DWC-USB 5 wires cable** is correctly connected to the RCMM,
- the **USB-C cable** must be connected between the RCMM and the DCM,
- the SMA bypass must be disconnected, connecting the male **SMA connector** to the female SMA connector of the Downconverter.



Connect the USB-C cable respecting the direction, as stated by the cable marks.



5. Install the Switch Board

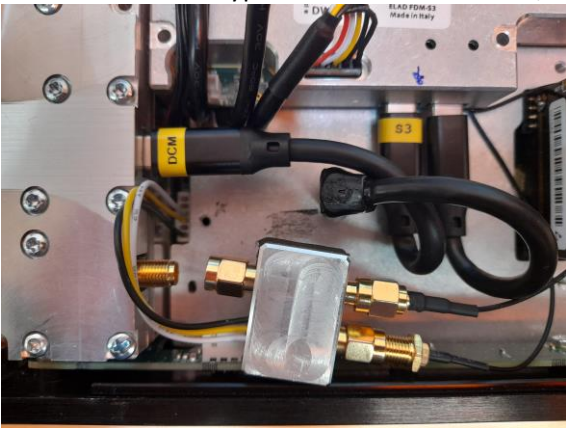
The Switch Board is needed with hardware versions 4.0 and 4.1 to receive the 54MHz-68.88MHz frequency range while the DCM is inserted.

Follow these steps to install the Switch Board:

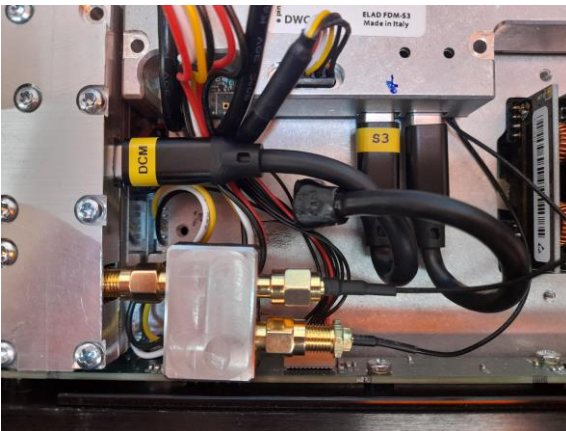
1. connect the three wires cable to the Base Board,



2. connect the SMA bypass to the Switch Board,



3. connect the Switch Board to the DCM.



6. Close the FDM-S3

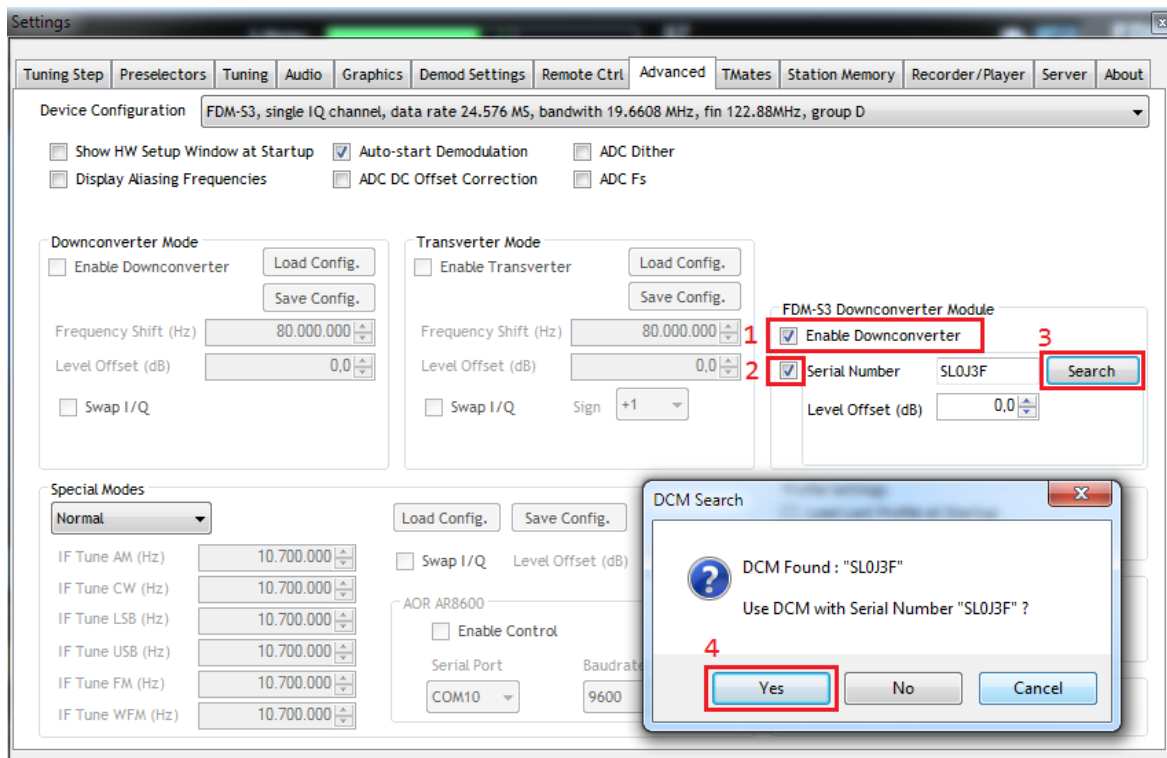
First try the FDM-S3 and DCM without closing the case (see 7 - Set and Check FDM-SW2), only once you have verified its correct operation, close the FDM-S3 proceeding in the opposite direction.

NB:

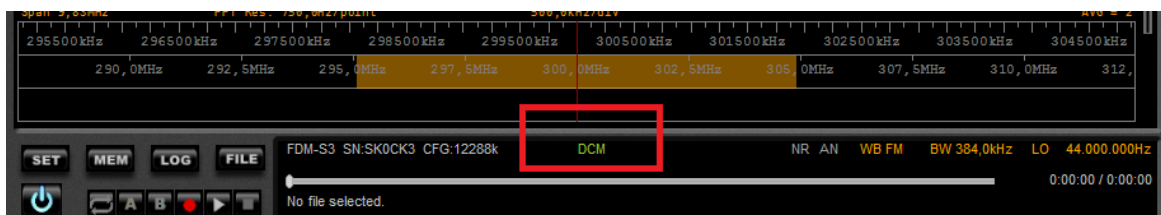
- in a very few cases, the DCM is not recognized by the FDM-SW2 even if all connections are done correctly; in that case contact ELAD support to know how to proceed,
- some original Allen screws may be too long to close correctly the FDM-S3, use the ones supplied with the DCM.

7. Set and Check FDM-SW2

Go to the Advanced tab of the Setting Window and set the Downconverter serial number:

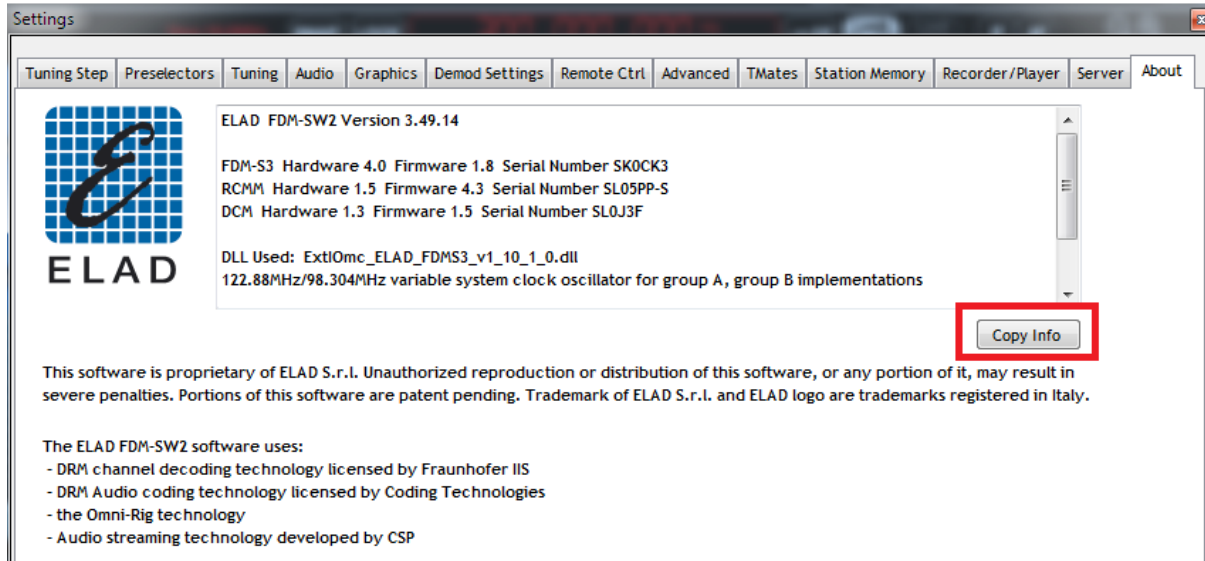


If the Downconverter is working correctly (above 108MHz), "DCM" is displayed to the right of the S3 serial number, like this:




FDM-S3 Downconverter Assembly – rev 4

DCM and FDM-S3 details may be checked in the About tab, use the “Copy Info” button to send us detailed in case of any issue.



Settings

Tuning Step Preselectors Tuning Audio Graphics Demod Settings Remote Ctrl Advanced TMates Station Memory Recorder/Player Server About

 ELAD FDM-SW2 Version 3.49.14

FDM-S3 Hardware 4.0 Firmware 1.8 Serial Number SK0CK3
RCMM Hardware 1.5 Firmware 4.3 Serial Number SL05PP-S
DCM Hardware 1.3 Firmware 1.5 Serial Number SL0J3F

DLL Used: ExtIOmc_ELAD_FDMS3_v1_10_1_0.dll
122.88MHz/98.304MHz variable system clock oscillator for group A, group B implementations

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The ELAD FDM-SW2 software uses:

- DRM channel decoding technology licensed by Fraunhofer IIS
- DRM Audio coding technology licensed by Coding Technologies
- the Omni-Rig technology
- Audio streaming technology developed by CSP