

## LOGGERS and SCR/dCSS for the HD TAB 700

It is important to check the User's Guide of the HD TAB700 analyzer. Pages 25 and 26 will give you a description about how to set up the Single Cable User (SCR or dCSS) and pages 57 to 60 will show how to run a Logger. Hereafter are some details that should be considered when Running a Logger.

### 1) **Memory PLAN:**

A logger is run against a MEMORY plan. A Memory plan is a file which contains a given number of programmes. These programmes may be transponders, TV MUXes or a combination of both. There are memory plans which are pre-memorized in your meter (ref. fig.1), these are the Satellite transponders, one file for every orbital position. There can be also MANUAL memory plans (ref. fig.2), which are defined by the user with any type of signal. A MANUAL memory plan can have SAT and TV programmes in the same file. The manual programme files may be generated on the meter itself or uploaded to the meter using the Rover SMART programme (ref. [www.roverinstruments.com](http://www.roverinstruments.com), SW update area).

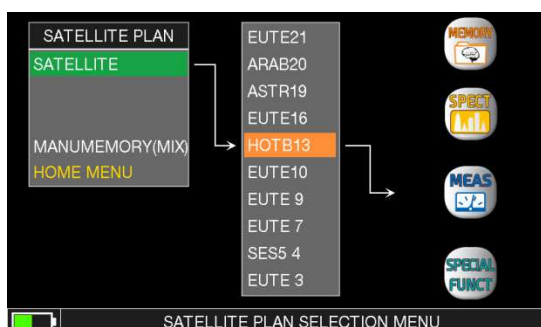


Fig.1 List of prememorized programme files. These cannot be edited on the meter but only on a PC with the SMART programme.

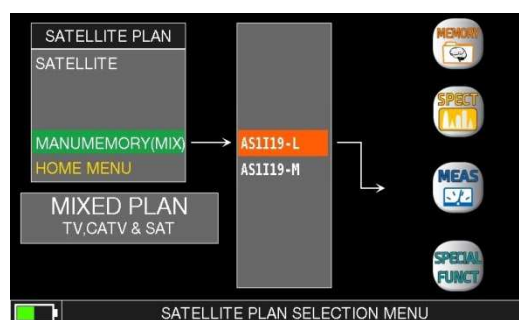


Fig. 2 List of user generated programme files. These can be created on the meter or on a PC with the SMART programme.

### 2) **LOGGER**

To run a logger (ref. also to User's Guide page 22) select the MEMORY icon in the main menu (Ref. fig. 3) and in the resulting screen, select "SAVE DATALOGGER" (ref. fig.4).



Fig.3 Main menu, select the MEMORY icon to start the logger function.

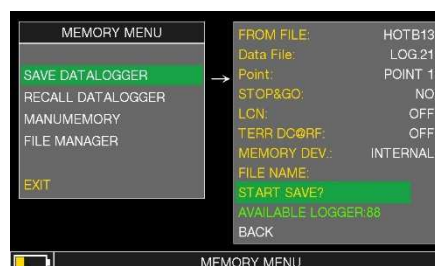


Fig.4 Select Save DATALOGGER entry.

### **SAVE DATA LOGER menu description (REF. Fig.4):**

- a) **FROM FILE:** chose the Memory plan file that has the programmes as described in point 1 above.
- b) **DATA FILE:** this is the Main Logger number (up to 99).
- c) **Point:** this is the logger number that will be associated to the *Data File* above.
- d) **SOTP&GO:** this is an option and is used if in the memory FILE there are programmes that imply a cable lead change from one outlet to another. The possible selections are:
  - NO : feature not active,

- **TV&UnivLNB**: Stop&GO active for TV and Universal LNB programmes in the **CHN** file. The meter will prompt the user to move the cable lead to the proper signal outlet: TV or Satellite,
  - **Tv&QuatLNB**: Stop&GO active for TV and Quattro LNB programmes in the **CHN** file. The meter will prompt the user to move the cable lead to the proper signal outlet: TV and every single polarization/Band of the quattro LNB,
  - **CONTINUOUS**: this makes the logger run without end, looping though the programmes in the CHN file until it is not manually stopped. This allows continuous testing on a set of memorized programmes while making changes to the distribution parameters until the proper results are not obtained (all green squares! Ref. fig. 5).
  - **TV&WBandLNB** : only if the Wide band mode is set, ref. following section 3).
- e) **LCN**: switches on the LCN recording.
- f) **TER DC&RF**: you may force a DC at RF feed to a specific voltage.
- g) **MEMORY DEV.**: The meter can store the logger in its internal memory (INTERNAL) or on an external USB flash memory (USB). INTERNAL is the default setting.
- h) **FILE NAME**: this entry will prompt for a File Name if the Logger is stored on an EXTERNAL USB Flash Memory.
- i) **SART SAVE?** Starts the data logger.
- j) **Available Logger**: will display the number of available loggers.

When the logger starts, the meter will automatically read the chosen Memory PLAN file and will automatically modify the meter settings in order to run all measurements as specified in the programme location that is read from this file. If it is a Transponder, the meter will automatically go into SAT mode, lock the transponder and perform and store the measurements. If the programme is a TV MUX, the meter will do the same as above but in TV measurement mode.

As the logger runs, the meter shows the progress of this task with a visual aid of a table, with has as many squares as there are stored programmes, and a color will be assigned to each result:

**RED = FAIL, AMBER = MARGINAL, GREEN = PASS.** Ref. Fig. 5.

At the end of the logger, all results may be browsed in the relevant “**Recall Logger**” selection of the meter’s “**MEMORY** menu” (Ref. fig.6). Finally, the complete measurements can be exported to an Excel file using the SMART programme downloadable from the ROVER web site (ref. section 5 here below).

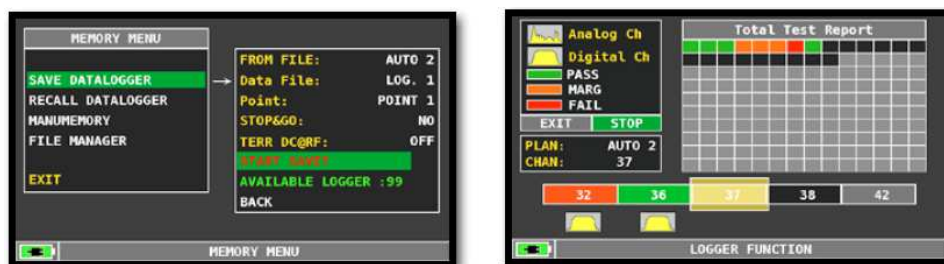


Fig.5 Logger in progress with the corresponding measurements results. At the end of the logger the meter

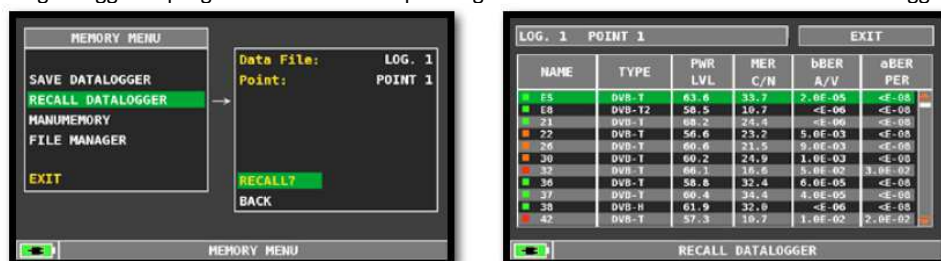


Fig.6 Logger results. The main measurements (not all) will be displayed. The amber and red small squares indicate a measurement which is not inside the threshold of a PASS signal. To get the full set of measurements, download the logger to a PC or export this to an Excel file using the Rover SMART.

**Summarizing, to run a logger:**

- 1) Press the PLAN key and Choose a memory plan, if not already done,
- 2) In the main menu select the MEMORY icon and run the logger against the chosen memory plan,
- 3) Check the results in the Recall DataLogger Memory Menu,
- 4) Export results to an EXCEL file using Rover SMART program.

**3) HD TAB 700 WIDE BAND SETUP for SKYQ Measurements and loggers**

Upload to your meter the “chn” memory plan available for the HD TAB 700 in the Rover web site section SW Update. There are two Memory plan files (CHN). The first one contains all transponders sorted by Polarization (H and V), this ease measurements when aligning a dish with a Wide Band LNB, there are two cables coming from an LNB, with one polarization each (Horizontal and Vertical). After uploading this file to your meter, it will show, in its name, an “L” as a suffix, that stands for LNB (Ref. fig.2).

The second chn file has all transponders sorted by frequency, this ease measurements when using a dCSS or dSCR Multiswitch output. After uploading to your meter, this Manual channel plan will show, in its name, an “M” as a suffix, that stands for Multiswitch (Ref. Fig. 2).

**Start a “SAVE LOGGER” (ref. fig. 4):**

- Press the **PLAN** key and select one of the “chn” PLANs mentioned above, ref. fig. 2.
- If the logger is run when connected to a Wide Band LNB, the LNB setting of the meter must be on Wide Band. Press the “Volume” key to access the configuration menu and select **SAT**, set the “LNB L.O.” to “WIDEB.”, (ref. fig. 7 ). Set the “SOTP&GO” logger entry to “TV&WbandLNB” (ref. fig.4). Then follow the instructions the meter will display.
- If the logger is run connected to a dCSS or dSCR multiswitch this step may be ignored, select the Data File Logger number and point logger and start saving the logger as described in the previous section (Ref. fig. 4).



Fig.7 Wide band setup in the configuration menu.

**4) SCR – dCSS HD TAB 4 TOUCH measurements and loggers with a WIDE BAND SETUP:**

- a) Select “SCR dCSS” in the Main menu after touching the SAT icon (fig.8).
- b) Choose “dCSS-SKY FULL” as the LNB TYPE.
- c) Select one of the 16 available USER frequencies (ref. fig.9).
- d) Go to SPECTRUM or MEAS mode and start measuring.
- e) On the bottom left side of the screen, the selected User Band will be displayed during your measuring activities (ref. fig 10).
- f) To test all user bands select “TEST” ( ref. Fig. 8) and all 16 frequencies will be checked at



Fig.8 dCSS menu selection

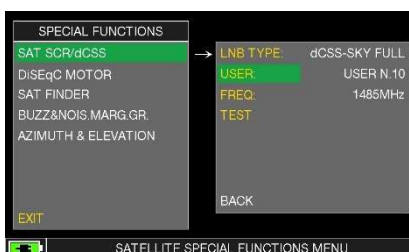


Fig. 9 select a user band



Fig. 10 when measuring in SCR mode, the user band shows on the bottom left side of the screen

## 5) SMART: how to download Loggers to a PC using the SMART programme

### a. Connect the meter to the PC:

- i. Connect the instrument to the mains and switch on;
- ii. Connect the USB cable first to the Instrument and after to the PC;
- iii. Start the ROVER S.M.A.R.T. program on your PC;
- iv. Select "Connect Instrument" in the SMART Instrument menu (ref. fig.10),
- v. The SMART programme will automatically connect to the meter and show the model and serial number on the bottom status line of the programme.

### b. Read the Meter's memory:

- i. Select "Instrument File Manager" in the SMART Instrument menu (ref. Fig. 10),
- ii. The complete memory download will be made, and files listed on screen (ref. Fig.11),
- iii. Select and double click on a logger file to display its content,
- iv. Select "export" in the SMART File menu (ref. Fig. 12) and choose the format for the exported file: Excel.



Fig.10 SMART: Instrument menu

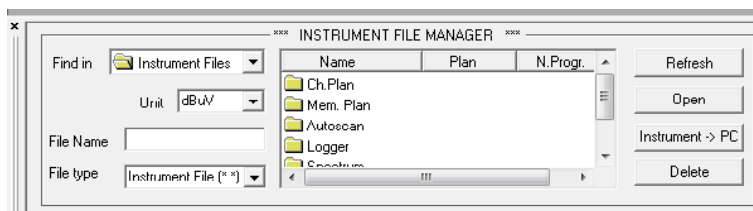


Fig.11 Instrument File manager output

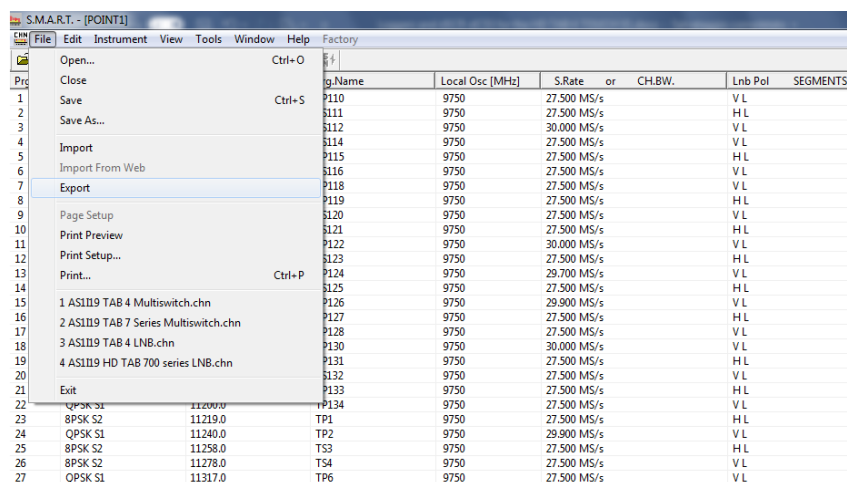


Fig.12 Export the logger file to Excel