



HD RANGER + Evolution? NO. Revolution!

⁶⁶The sixth GENERATION field meter FROM PROMAX⁹⁹



DOLBY. DIGITAL PLUS



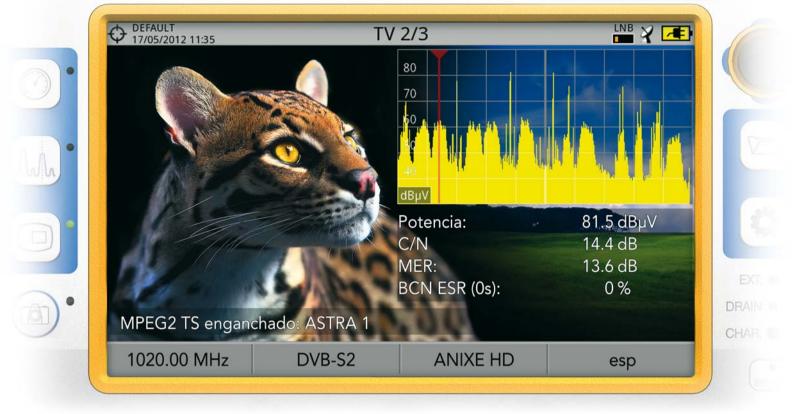


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ACTUAL SIZE - 7" SCREEN (APPROX. 155 x 93 mm)



Revolutionising the market. Again



The largest and brightest display

HD **RANGER+** 7" display is the brightest and largest used in any similar meter with excellent performance even under direct sun light.

This high resolution display allows functions such as the triple split display to be practically useful for all data and can be read clearly and easily.

New mechanical design

The ergonomic handle, tripod coupling and the special mix of plastics used for the chassis are just some of the mechanical innovations in the *HD* **RANGER+**.

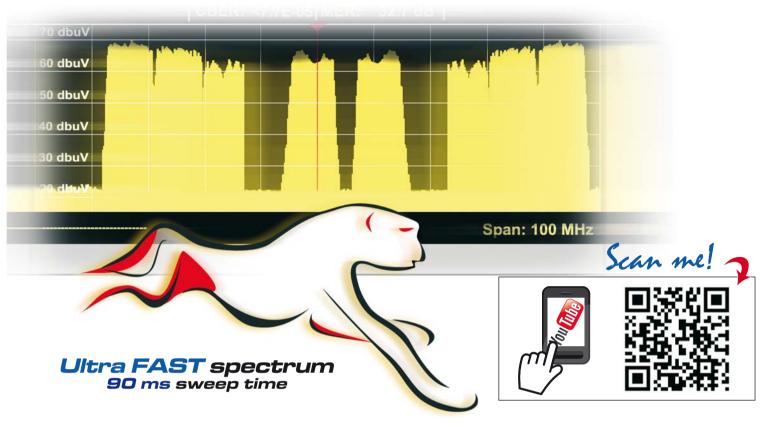
The tripod coupling for example opens the door to the use of various accessories that can be easily found in the market to use the meter in a static position or attached to an object for complete hands-free use.

Smart battery control

The *HD* **RANGER+** uses a high quality, long operating time Li+ battery and a special control system that shows the remaining battery time. This is also useful to know at any instant what the exact battery charge situation is before we go out for our next work.







Ultra fast spectrum analyser



90 ms sweep time in ALL SPANs

The *HD* **RANGER+** spectrum analyser sweep time is 90 ms per scan regardless of the frequency band or span select.

That's all we can tell on printed paper but we encourage you to check the **video in our website** to see how fast that is or even better to go and find a real **HD RANGER+** as soon as you can.

In addition it comes with special functions such as markers or max hold.

StealthID

There is a general consensus that the TV EXPLORER **AutoID** has been an outstanding function and extremely useful in a number of applications.

The *HD* **RANGER+** takes it to the next level by **not requiring the user to press the green button!** The *HD* **RANGER+** instantly identifies the required parameters while you are tuning the signal.

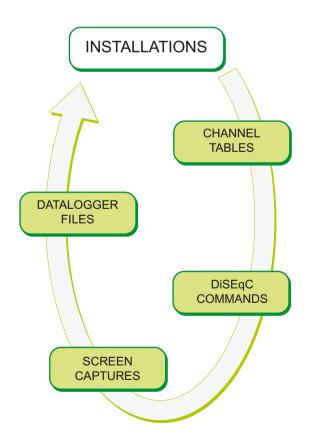


HD RANGER+





Intelligent data management



Installations management

The **installations management** is a new concept introduced in the **HD RANGER+**. This innovative data files classification allows you to have all the information related to a specific installation or maintenance work conveniently classified together in the same folder.

Create a container file for each installation and associate with it all the measurements, screen captures, channel tables, etc.

The *HD* **RANGER+** has a USB interface as well. Files corresponding to an installation can also be copied to any USB mass storage device using the file management options available in the INSTALLATIONS menu.

This information can be shared among various *HD* **RANGER+**, which can be interesting for companies operating large work crews. All this data can be downloaded on a PC at a later stage to be included in printed reports or for signal analysis purposes.



PLS - Physical Layer Scrambling

PROMA)

Physical Layer Scrambling or **PLS** is used in DVB-S2 as a way to improve data integrity. A number called the "scrambling sequence index" is used by the modulator as a master key to generate the uplink signal. This same number must be known by the receiver so that demodulation is possible.

Most satellite transponders use **PLS 0** as a default value but there are some transponders that use other values.



HD RANGER+ are compatible with this type of signals. In order to certify the proper reception of the digital service, the user only needs to specify the PLS sequence to work with, so the analyser can decode the image.

SNG, VSAT applications and BEACON

The *HD* **RANGER+** includes a brand new spectrum analyser function that makes it easy for technicians working in SNG vans and field VSAT applications to set up their satellite transmission-reception systems.



Although this field analyser has different no-error satellite identification functions, technicians working with these systems are often requested by the satellite operators to search for the "Beacon" signal as a mean of satellite identification.

Detecting a "Beacon" signal requires high resolution, high sensitivity and fast sweep times which are all readily available in the *HD* **RANGER+** product.

Datalogger

The datalogger (automatic measurements adquisition and storing) is a classic function available in high end meters now taken to the next level in *HD* **RANGER+**.

The datalogger function is integrated as part of the installations management. The user is guided through the whole process by an on-screen wizard that will help to specify a datalogger name and to select the channel tables. Later, it is possible to add test points, run measurements under each one of them, display the results, etc.

Measuring and decoding DVB-S2 multistream

As part of the GSE (Generic Stream Encapsulation) protocol adopted in **DVB-S2**, **DVB-C2** and **DVB-T2** standards it is possible to aggregate **independent transport streams** into one single radiofrequency carrier that is commonly referred to as **multistream**. Each individual transport stream is identified by its ISI (Input Stream Identifier) and can be recovered transparently on the receiver side.

It is now possible to measure and decode multistream channels with *HD* **RANGER+**. In order to do so the ISI FILTERING must be enabled under the signal parameters menu of the analyser as shown on the picture below.



We can then enter a **specific stream identifier** that will be used by the analyser to recover the corresponding transport stream, service list and programmes data.



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