Televes®

H30 series

Overview

Introducing the H30.

New from Televes, a go-to meter designed with the needs of a Cable TV operator in mind.

The **H30** is a light weight, rugged unit, packed with all the features needed to install and troubleshoot a television system using QAM digital modulation as well as NTSC analog signals.

This handy little unit is even inexpensive enough to leave in your headend and use its unique in its class remote measurement and control capabilities to provide long term monitoring or to troubleshoot those hard to find, intermittent problems.

Available for the first time in such a portable and affordable package, its real time digital processing engine gives the installers the lab-precision measurements needed in today's fulfilment environment.

Key Features

- **User friendly**, handheld QAM meter.

- **Remote measurements and control** in an affordable package.

- Complete portfolio of Analog/Digital measurements with easy-to-read **pass/fail indicators**.

- **Quick and easy to use interface** with features such as Channel measurements, System Scans, Tilt Function, Constellation Diagram, Spectrum Analyzer, Voltmeter, Hum, Service Identification (option 593210), Datalogger, and more.

- Rugged, light weight, fully automatic, fast, and accurate.

- **Automatic** through-the-cloud software **updates**.

- 100% automatic ITU-T J.83 Annex A/B/C parameter detection and measurement with **no setup needed**.

- **1 GHz spectrum range** with selectable span.

- **PASS/FAIL Indicators**: Icons indicate if a measurement is good, bad, or in the warning zone for quick and easy status checks. Reduce installer entry errors and improve decision making.

- **Control your H30 remotely and make measurements from any internet connected device**. Ideal for extended signal tests over time in headends and broadband distribution networks. Leave your **H30** connected to your headend or anywhere in your plant and control the unit and measure signals and quality parameters remotely. Once finished, export the results to your computer using the included **Remote Application** software.

General Specification

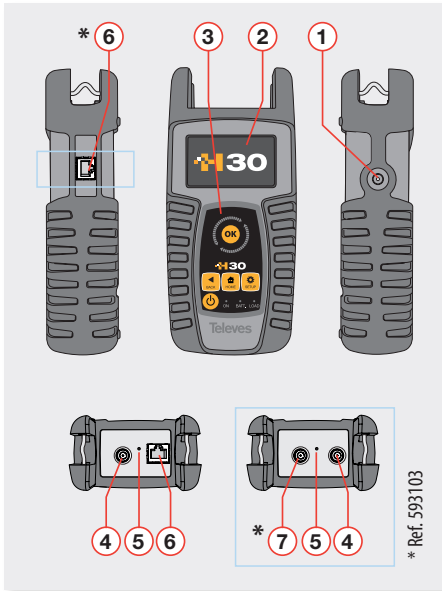| Display	2.8" TFT 400 x 240 full colour
Weight	Ref. 593101&593102: 12.12lb (510g) Ref. 593103: 1.39lb (632.2g)
Dimensions	6.9 x 3.9 x 2 in / 175 x 100 x 52 mm (H x W x D)
AC Adaptor	Input: 100-240V~ 50-60Hz Output: 12VDC, 2A
Battery	LiIon smart battery (7.2VDC, 2300mAh)
Operating Time	Up to 4 hours
Operating Temperature	23ºF to 104ºF (-5ºC to 45ºC)
Storage Temperature	-4ºF to 158ºF (-20ºC to 70ºC)
Humidity	5% to 95% non-condensing
Ruggedness	Survives 1 m (3 ft) drop to concrete on all sides
Communication Interfaces	RJ45 10/100-T Ethernet interface for Remote Control, Measurements, Datalog Retrieval and Automatic Software Updates
Storage	400 MB (internal) for measurements
Power up time	< 10 seconds

Technical Specifications

Frequency	
Range	5 MHz to 1002 MHz
Resolution	50 kHz
Tuning	Frequency or channel
Input	
Impedance	75Ω F-type connector
Spectrum Analyzer	
Span	2.5, 6.25, 12.5, 25, 62.5, 125, 250, 500 MHz and Full
Scale	5 and 10 dB/div
Automatic and manual reference level	✔
Reverse Path Ingress Scan	
Range	Selectable 5 to 42MHz, 5 to 68MHz, and 5 to 85MHz
Mode	Peak, Average, Min, and Real-time
Digital Measurements	
Demodulation	ITU-T J.83 Annex A/B/C standard
Support	16, 32, 64, 128 and 256 QAM, QPSK
Symbol Rate	2 to 6.9 MS/sec
Q.A.L. Technology (QAM Auto Lock)	Automatic detection of signal characteristics and modulation parameters
DFE filter	On / Off
Power	-30 to +60 dBmV
C/N	Up to 45 dB
MER	Up to 40 dB
Accuracy	±2 dB
Resolution	0.1 dB
Pre-BER and Post-BER (Annex B)	1.0E-3 to 1.0E-8
BER (Annex A/C)	1.0E-3 to 1.0E-8
Constellation	
Display	4, 16, 32, 64, 128 and 256 QAM
Zoom Capability	✔
Channel Equalizer	
Graphical representation	✔
Analog Measurements	
Level measurement	-30 to +60 dBmV

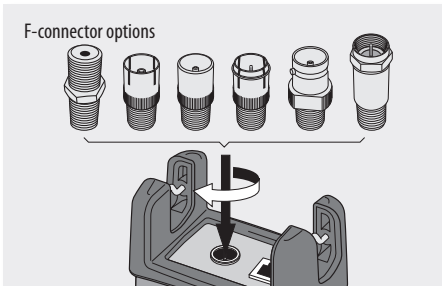| V/A	up to 30 dB
C/N	up to 54 dB
Accuracy	±2 dB
Resolution	0.1 dB
CSO/CTB	✔
Channel Plans	
Factory channel plans	Up to 24 with different world wide regions
Custom channel plans (learning plan)	Up to 16 channel plans
System Scan	
Channels	Up to 100 channels (analog and/or digital)
Measurements	Level bar representation and C/N BER/MER of the selected channel
Tilt	
Channels	Up to 100 channels (analog and/or digital)
Selectable markers	✔
Pass/Fail Indicators	
Factory profiles	Headend, Fiber Nod, Trunk, Bridge, Line Ext, Tap, End Line, Ground, Modem/STB, Off Air
Custom profiles	up to 10 profiles
Voltmeter	
Range	9V to 150V
Accuracy	±(0.5V +1%)
Hum	
Range	2 to 5%
Accuracy	±1%
Speed Test	**Option 593211**
Download and upload Speed	Up to 20Mbps
Ping times	✔
Service Info	**Option 593210**
Channel parameters	NIT, PAT, TSID, CBRT
Service parameters	SID, VID, AID, bitrate, encode type
Cable Modem (593103)	
Modes	Docsis3.0/2.0/1.1/1.0/BPI/BPI+
Dowstream	Up to 8 channels (88-1002MHz)
UpStream	Up to 4 channels (5-42MHz)

Specifications are subject to change without notice.
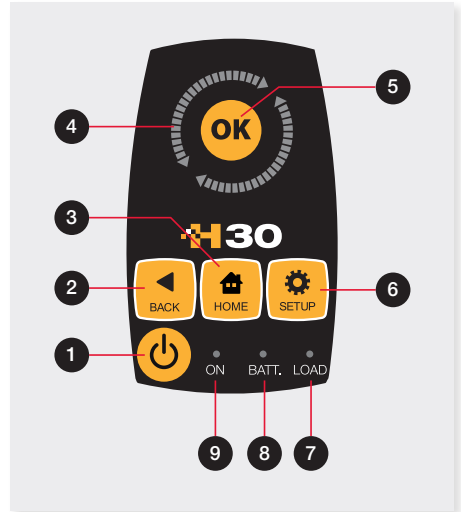
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Description of equipment components

Connectors and controls

* Ref. 593103

1. External power connector (12VDC).

2. LCD display.

3. Keyboard and LED indicators

4. RF F-connector (see options below).

5. Reset.

6. Ethernet connector.

7. DOCSIS connector (ref. 593103).

F-connector options

Keyboard

1. **Device On/Off button**: To turn the equipment off, press and hold for approximately 3 seconds.

2. **Back button**: Return to the previous menu or close a parameter entry window.

3. **Home button**: Return to the main menu.

4. **Rotating selector**: Used to scroll through options.

5. **OK Button**: To confirm selection.

6. **Setup button**: Parameter window for the current function.

7. **LED Load**: Indicates if the equipment is powering an external load.

8. **LED Charging Battery**: Indicates if the battery is charging.

9. **LED Power ON**: Illuminated when the equipment is on.