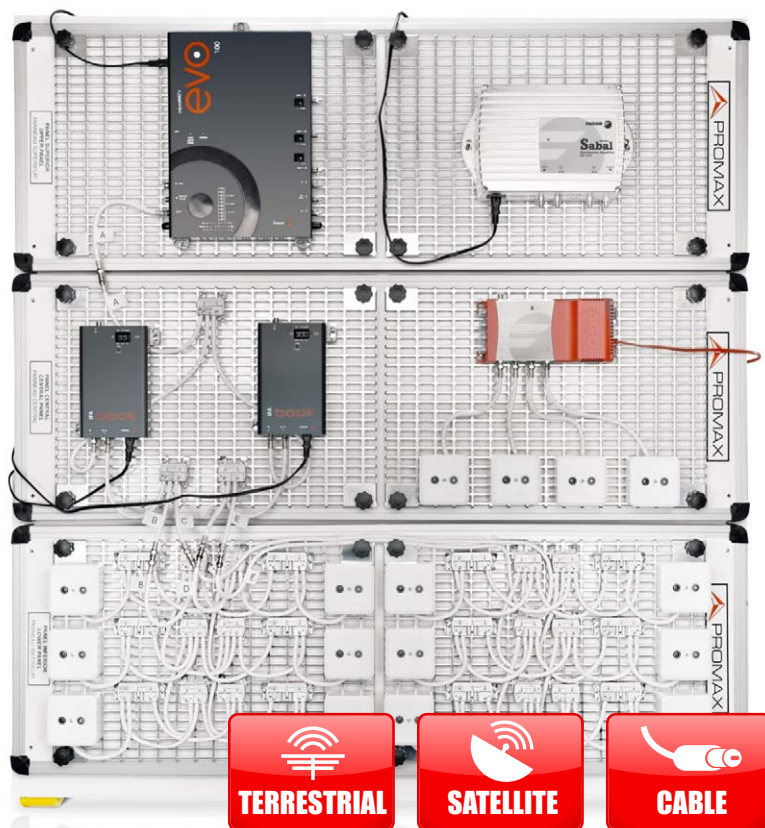


## EA-817 A



The Advanced Antenna Trainer **EA-817A** is a comprehensive education system designed for teaching, demonstration and practice of telecommunications infrastructure installations:

- **MATV** (Master Antenna Television) Digital
- **SMATV** (Satellite Master Antenna Television) Digital

... and the development of skills to installing and assembling. The trainer is also prepared for the current regulations of Telecommunications Infrastructures.

**The trainer is supplied with an actual installation assembled and configured.**

- ✓ Teaching, demonstration and experimentation of MATV and SMATV
- ✓ Real installation assembled and configured
- ✓ It includes all the necessary mounting accessories
- ✓ Scalable and expandable set-up



### High definition set-top-boxes

Together with the trainer an HD Digital Terrestrial TV and an HD Satellite set-top-boxes are provided to go deeper into the concepts related to the high definition and video compression (MPEG-2 and MPEG-4). An IF signal generator is also provided for the analysis of the band in installations as well as the antenna alignment accessories.



### More accessories, more versatile

For the implementation of other installations typology, or modifying the provided installation, the set includes coaxial and cable, connectors, a tool for coaxial cable and fastening elements. Theory and practices manual, technical documentation about the items that conform the trainer and there is also provided a Manual that gathers the current regulations.



### A flexible solution

The trainer can be expanded in the future with other modules which enable going deeper into the new technologies and ultra fast access infrastructures if it were desired. It can also be completed with an advanced transmission unit which allows students to perform very interesting practices about actual signal broadcasting.

## EA-817 A

### Modular design: Agile for the student, efficient for the teacher

The **EA-817A** is a fully configurable trainer, based on a structure with whiteboard panels, consisting each one of two universal quick-fixing removable panels, which allows the student to install, configure, adjust, modify, and analyse any kind of actual **MATV** and **SMATV** installation.

The universal plates are easily removable from the panels, so that the system proposed by the teacher can be divided among several groups of students and these can perform the assembly of the different parts of the installation in their workplaces allowing the simultaneous use of the trainer by a large group of students, without interfering each other.

Once the suitable elements for the practice have been assembled, the universal plates will be fixed on the whiteboard support in order to do the remaining electrical connections. Afterward, it may be programmed the Head-End equipment if it were required.

### The system can be reconfigured and expanded

The flexibility of the trainer allows the student to practice and check the effectiveness of different solutions for the proposed installation. Furthermore, faults, errors and the most common problems that the student will face in the real world can be reproduced.

If it were desired, the trainer system can also be expandable in the future with other modules that allow both the students and teachers going deeper in the new technologies and the ultra-fast access infrastructures (**DVB-S2, Transmodulation, DTT Premium, IP-TV, Optical fibre, FTTx...**).

Moreover, it can also be completed with an **advanced transmission unit** that enables to make very interesting practices about DTT actual signals, covering aspects as the TDT signal propagation, the Gap-Fillers, the transport stream generation (TS), familiarization with PID, PMT, NID, configuration and experimentation of the modulation parameters...

### Quick-fixing removable boards

The fast fixation universal panels have a grooved surface in such a way that the disposition of the drills combined with the positioning of the nuts allows the fixation of all elements that compose a determined installation. After finishing the practice, the implemented installation can be quickly and easily disassembled in order to be ready to set a different installation.



Antennas	UHF, Off-set (Reflector + 4 outputs LNB with polariser + LNB support + Fasteners)
Mechanical accessories	150 cm mast for terrestrial antenna, 150 cm mast for off-set antenna, Mobile support for antennas
Integrated MATV head equipment	Set of 10 UHF programmable filters, VHF and FM amplifier, Power supply unit
Collective and individual MATV distribution	Splitter, Taps, User access point, Terminal box, Socket divider
Collective and individual SMATV distrib. via IF	Switchable splitter (with internal amplifier), IF sockets
User equipment	Digital TV receivers (terrestrial and satellite)
Accessories for antenna pointing	Inclinometer, Compass
Accessories, cables and tools	Reel of coaxial cable, Connectors (F male, TV male, TV female), Tool for coaxial cables, Whiteboard markers, Nuts and screws for quick mounting on universal panels
Instrumentation	Simulator for Intermediate Frequency (RP-050)
Documentation (on CD-ROM)	Theory and Practice Manual for Intermediate Cycle, Trainer's user's manual, Technical Documentation, Assembly Instructions, Regulations
Recommended equipment	Test signal generator (RP-110), Field strength meters (RANGER <i>Neo</i> family), Digital television modulators (EN-206 lite), CompactMax transmodulator