

# PR PRO

## 072003



**[EN] User manual**

## Index

1. Introduction	2
2. Box content	2
3. Interfaces	2
4. Connections	3
5. Navigation through the programmer	3
6. Quick steps	5
6.1. Access into an AP8 programmable amplifier and adjust it	5
6.2. Load a configuration stored in a USB memory stick into the AP8 programmable amplifier	6
6.3. Load a configuration of the AP8 programmable amplifier into the PR PRO programmer from a USB memory stick and edit it (Without being connected into a AP8 programmable amplifier)	6
7. Technical characteristics	6

## 1. Introduction

The PR PRO is a device designed for the advanced programming of the AP8 programmable amplifier (071007).

Its main characteristics and functions are:

- Visual adjustment of the parameters of the amplifier.
- Save configurations of the amplifier.
- Load configurations of the amplifier.
- Edit configurations of the amplifier.
- Firmware upgrade, either the programmer or the programmer.

Other less common functions are:

- Storing the menu of the programmable amplifier for non-face adjustment. Requires external 9Vdc voltage feeding
- Edit the configurations of the programmable amplifier without being physically connected to a programmable amplifier (The programmer simulates being an amplifier)

## 2. Box content

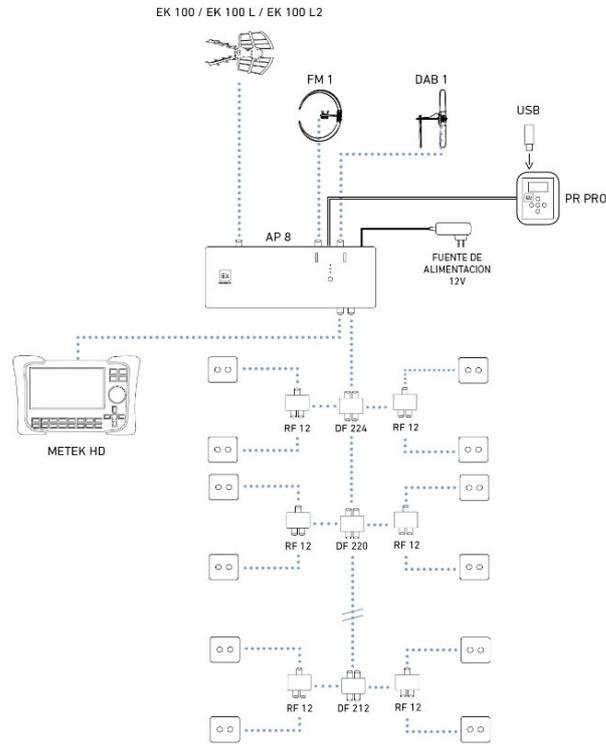
- Programmer
- USB cable (A – MiniB type)
- User manual (download sheet)

## 3. Interfaces

1. Display 2x10.
2. Buttons.
3. Led indication of connection to amplifier.
4. A-type USB port (USB Memory stick).
5. Mini-B USB port (Connection to the amplifier).
6. 9Vdc voltage feeding port.
7. RJ45 Ethernet port.

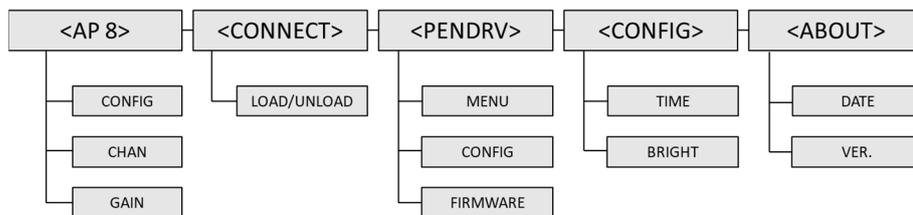


## 4. Connections



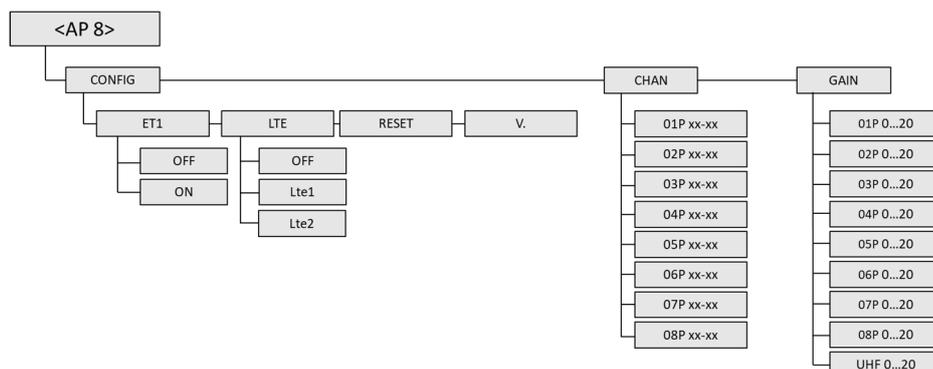
## 5. Navigation through the programmer

By accessing to the different menus of the programmer it is possible to adjust completely the programmable amplifier.



### AP8

In this menu it is possible to access to the programmable amplifier and adjust it. It is previously required to be connected to it (CONNECT →LOAD). If we are not connected to the amplifier, we will not be able to read it and modify it.



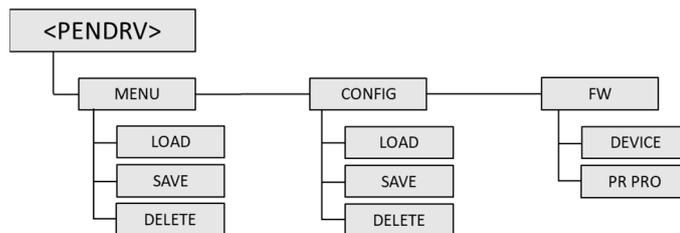
- CONFIG
  - ET1. It allows activating or deactivating the previous preamplification.
  - LTE. It allows activating one of the possible filters:
    - LTE2. Channels from 21 to 48 can be selected.
    - LTE1. Channels from 21 to 60 can be selected.
    - OFF. Channels from 21 to 69 can be selected.
  - RESET. It causes a reset to the programmable amplifier. In the display it can be seen its confirmation.
  - V. It indicates the firmware version of the programmable amplifier.
- CHAN
  - These filters can be set to off.
  - The width of all 8 filters can be selected.
  - It is possible to selected up to 7 adjacent consecutive channels.
  - In case of overlapping some RF channels between the different filters, an E of error will be shown.
- GAIN
  - "0xP". It allows setting a specific gain for each of the up to 8 filters.
  - "UHF". It allows setting a specific total gain after each filter equalization.

#### CONNECT

It allows connecting (LOAD) or disconnecting (UNLOAD) to the programmable amplifier. When connected, the front LED remains lighted on.

#### PENDRV

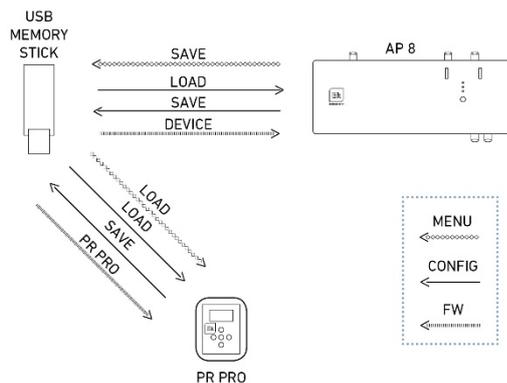
From this menu it is possible to make file transfers to and from the connected USB memory stick.



The transferable files allow:

- Save a menus structure of the AP8 programmable amplifier so that the PR PRO behaves as a programmable amplifier (without being physically connected to it). This structure will be called MENU and the names of these files follow this syntaxis: AP8\_Mxxx.xml.
- Save a configuration of the AP8 programmable amplifier. This file will allow cloning configurations in several AP8 programmable amplifiers or edit this file without being connected to the programmable amplifier. This structure will be called CONFIGURATION and the names of these files follow this syntaxis: AP8\_Cxxx.xml
- Load firmware to both the PR PRO programmer or the programmable amplifier AP8. The names of these files follow this syntaxis: Mxxx.FIR (For AP8) or Cxxx.FIR (For PR PRO).

Conceptually, these are the possible file transfers indicating the origin and the destination of the file.



When connecting a USB memory stick to the programmer, it is possible to realize some of these file transfers:

- MENU  
It allows transferring a structure that simulates an AP8 programmable amplifier inside of the programmer itself. These transfers have the purpose to emulate an AP8 programmable amplifier even not being connected to it.
  - LOAD. Loads to the programmer a menus system from the USB memory stick.
  - SAVE. Stores in the USB memory stick a menus system of the AP8 programmable amplifier. It is required to be connected first to the amplifier.
  - DELETE. It allows deleting a file of such kind from the USB memory.

Note: These options work with files whose name files are: "AP8\_M001.xml". The index of the file is modifiable in the options of writing / deleting (Select the desired file among the ones stores in the USB memory stick).

- CONFIG  
It allows transferring a configuration of the AP8 programmable amplifier from/to it and an external USB memory stick.
  - LOAD. It transfers to the AP8 programmable amplifier a configuration for it. It allows cloning configurations direct to it.
  - SAVE. It stores to the USB memory stick the configuration of the AP8 programmable amplifier at which we are connected.
  - DELETE. It allows deleting configuration files stored inside the USB memory stick.

Note: These options work with files whose name files are: "AP8\_C001.xml". The index of the file is modifiable in the options of writing / deleting (Select the desired file among the ones stores in the USB memory stick).

- FIRMWARE  
It allows upgrading the firmware of the programmable amplifier (DEVICE) or the programmer (PR PRO). The firmware files for the amplifier follow this syntax: "Mxxx.fir". Files for the programmer follow this syntax: "Cxxx.fir".

#### CONFIG

This menu allows adjusting parameters of the programmer itself as the time or illumination of the display.

#### ABOUT

It allows adjusting the date and time and also checking the firmware version of the PR PRO programmer itself.

## 6. Quick steps

### 6.1. Access into an AP8 programmable amplifier and adjust it

1. Make the connections between the antenna and power feeding.
2. Connect physically the programmer and the AP8 programmable amplifier by using USB cable
3. Connect to the programmable amplifier (CONNECT → LOAD). The front PR PRO LED will switch on.
4. Access to the amplifier (AP 8) and program its parameters.
  - a. CONFIG
    - i. Et1 (Activate it if the signal requires preamplification).
    - ii. Lte (Activate it according to the air transmission. OFF/Lte1/Lte2. It will help attenuating interferences).
  - b. CHAN
    - i. Assign the channels to each of the 8 filters. Each can support from 1 to 7 adjacent RF channels.
  - c. GAIN
    - i. Adjust the gain of each of the up to 8 filters so they become equalized (or even tilted).
    - ii. UHF gain. Adjust the global final gain.

## 6.2. Load a configuration stored in a USB memory stick into the AP8 programmable amplifier

This process can be used to clone the same configuration to several AP8 programmable amplifiers.

1. Make the connections between the antenna and power feeding.
2. Connect physically the programmer and the AP8 programmable amplifier by using USB cable
3. Connect to the programmable amplifier (CONNECT → LOAD). The front PR PRO LED will switch on.
4. Access to the USB memory stick, specifically to the configuration menu: PENDR → CONFIG → LOAD.
5. Select the desired file (in case there is more than one) and confirm.
6. After this moment, slight adjustments may be done to the amplifier or just disconnect.

## 6.3. Load a configuration of the AP8 programmable amplifier into the PR PRO programmer from a USB memory stick and edit it (Without being connected into a AP8 programmable amplifier).

Note: In the USB memory stick there has first to be two files. A menu structure and a configuration file (AP8\_Mxxx.xml and AP8\_Cxxx.xml)

1. Connect the PR PRO to a +9Vdc voltage power supply.
2. Load from the USB memory stick to the PR PRO a menu file: PENDRV → MENU → LOAD. AT this moment, the programmable amplifier can pretend being an AP8 programmable amplifier.
3. Load to the PR PRO the file that contains the configuration of the amplifier that has to be modified: PENDRV → CONFIG → LOAD.
4. Select the file (in case there are more of this kind) and confirm.
5. Seleccionar el fichero (en caso que haya más) y confirmar.
6. Go back to the main menu and enter into the amplifier (AP 8). At this moment it is possible to edit the loaded parameters.
7. Once edited, it is possible to store the new configuration to the USB memory stick: PENDRV → CONFIG → SAVE.

## 7. Technical characteristics

REFERENE		PR PRO
CÓDE		072003
Connectors		USB-A, USB-MiniB, RJ45, DC Jack
USB system files		FAT 32
Buttons		5
Compatible devices		AP 8
Voltage feeding	Vdc	5 (Via USB) 9 (Via DC JACK)
Consumption		300mA @ 9V (Sin USB)
Dimensions	cm	10,7 x 67,4 x 19,5
Weight	Kg	0,2