



X-MIND  
ENGLISH

**USER'S MANUAL**

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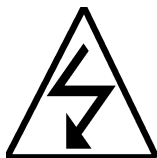
# 1 Starting Installation

## 1.1 Safety Rules

Please read the manual carefully before using the amplifier.

You will receive a lot of information to use this product correctly and you will prevent incidents.

Please keep the manual on a safe place.



This sign warns you about high voltages, with risk of electric shock



**Caution:** Do not open the housing of this amplifier. Repairs can only be made by professionals authorized by Fte maximal. If not, warranty will not be valid anymore.



This sign informs about special information which is important to know.

**Caution:** Keep this amplifier far away from liquids. Do not place it on placements close to water like flowers vases, wash basin, aquariums or pools. A high risk of electric exists shock when water or high humidity filters inside the amplifiers. Never place other devices on it; they can overheat the amplifiers as well as daring fire risk. The amplifiers must be used only with original power cord to 230V main plug. Please read carefully this manual and do not hesitate to contact to professional help if you have any doubt.

### Opening the amplifier housing will mean a warranty void.

#### Installation:

1. Respect the ventilation holes of the equipment without covering them with any object.
2. Keep clear the environment of the equipment, with a minimum ratio of 40 cm.
3. Do not place the equipment close to any heating source.
4. Do not make the equipment work at any temperature that exceeds the range of working temperatures.
5. Avoid placements with risk of dumping liquids inside and with big changes in temperature.
6. Never open the equipment by yourself, due to risk of electrocution. In case of problems, please get always qualified technicians.
7. Never open the equipment while it is plugged to the Power Network.
8. It is preferable that the equipment is disconnected during the connection of it.
9. Respect the safety electrical rules during the installation. Use the materials that perform the current regulations.
10. The connection plug must be accessible in an easy and simple mode, and always to get a fast disconnection.
11. Never touch the power network plug with wet hands. Disconnect always the equipment before handling its connections.
12. Do not place any heavy object over the equipment, due to it could get damaged.

**Cleaning:** Before cleaning the amplifier with a slightly damped cloth, please disconnect the main 230 Vac connection from the amplifier. Please use only mild cleaners.

**Accessories:** Please, do not use accessories which are not agreed by the manufacturer of the amplifier. Unsuitable accessories could increase the risk of getting on fire, an electrical impact or other damages.

**Placement:** Select a placement where the Amplifiers has air circulation enough, otherwise it may have overheating accumulation.

**Power connection:** Select a main plug with easy access, in case of unplugging necessity; it will be easier and faster. Please, make sure that the cord as well as the plug is in perfect conditions. Do not pull the cable, use always the plug.

**Housing:** Please, make sure that no liquid will filter into the housing of the amplifier. If so, disconnect immediately the amplifier from the main 230 V plug and bring the amplifier to a professional.

**Air humidity:** When you take the Amplifier from a cold to a warm place, please wait until the amplifier gets the same temperature as the new environment, in order to avoid problems of humidity condensation.

**Maintenance / Repairing:** Within the warranty time all the repairing processes should be done by Fte Maximal technical staff. Otherwise, the warranty will be lost.

## 1.2 Content of the box

When you open the box or the first time, you will find the following content:



User's manual



AC Power cord

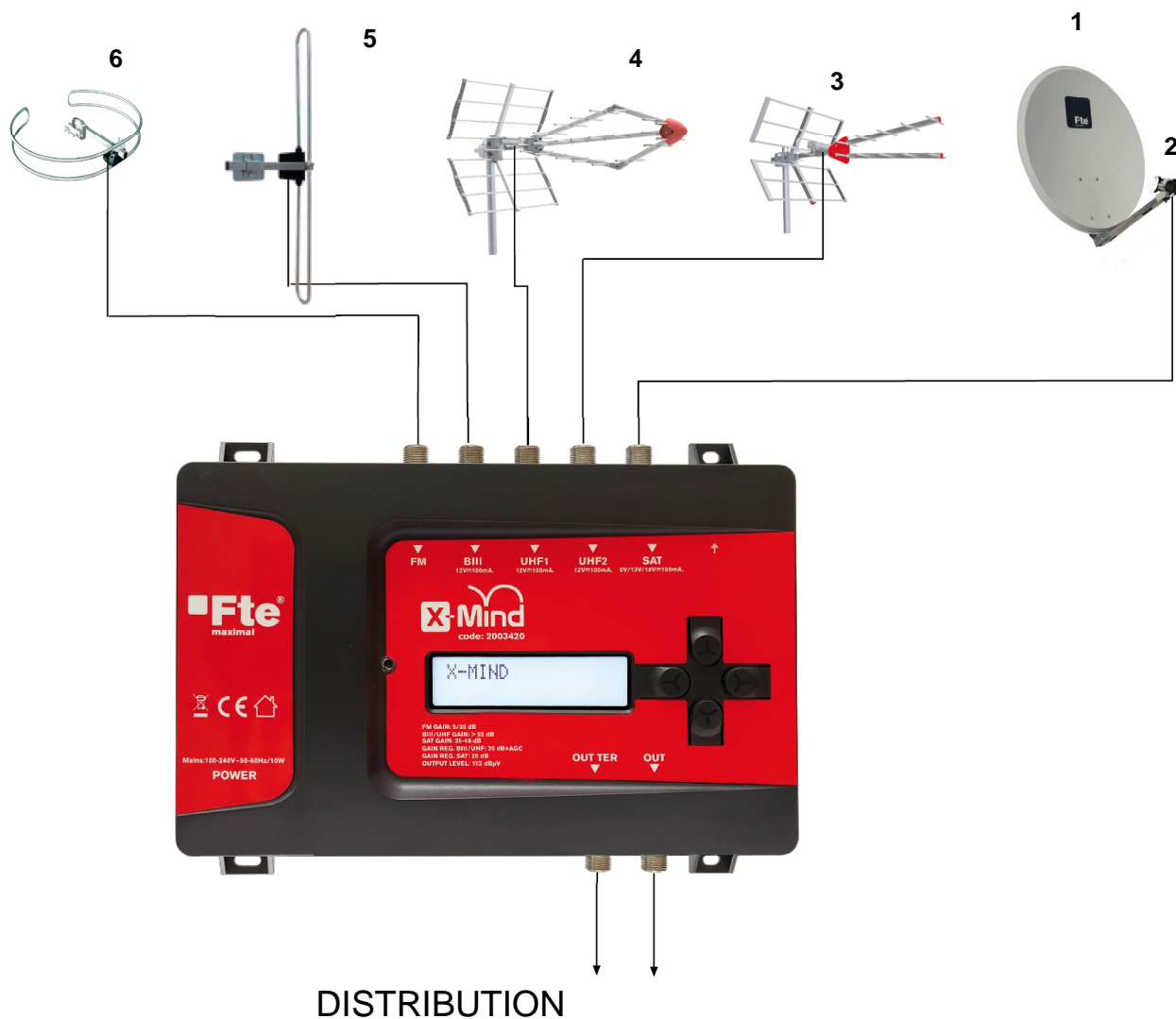
### X-MIND:



Programmable amplifier X-MIND

### 1.3 Accessories and complete example

- |                                    |                        |                 |
|------------------------------------|------------------------|-----------------|
| 1. <b>OS 100 STB</b>               | 100cm Ø Satellite dish | Code: 0701105   |
| 2. <b>EXCELLENTO RED HD SINGLE</b> | Universal single LNB   | Code: 0400311   |
| 3. <b>EYE</b>                      | UHF outdoor antenna    | Code: 9003960   |
| 4. <b>Diamond</b>                  | UHF outdoor antenna    | Code: 9003955   |
| 5. <b>F DAB F</b>                  | DAB outdoor antenna    | Code: 0203924   |
| 6. <b>F 0-F</b>                    | FM outdoor antenna     | Code: 9002005-F |



## 2 Description

### 2.1 Connections

#### X-MIND




- 1 **FM:** Antenna FM Input
- 2 **BIII:** Antenna DAB Input
- 3 **UHF 1 / UHF2:** UHF antennas inputs
- 4 **SAT:** IF Satellite input.
- 5 **GROUND**
- 6 **POWER:** Connector to plug the AC power cord.
- 7 **OUT TER:** Terrestrial Output
- 8 **OUT TER+SAT:** Terrestrial and Satellite output.

## 2.2 Control elements

The control of the programmable amplifier X-MIND will be done through two elements:

- LCD 2 lines and 16 characters to show the settings.



**MAIN MENU**  
**IN-BIII**


The first row show the current level  
The second row show the function

- Control buttons:
  - ▲▼: Use the button up/down to:
    - Select the function of the menu.
    - Change numbers
    - Select Yes/No
  - ◀▶: Use the buttons right and left.
    - Enter/Exit of the current function of the menu
    - Exit and save or exit of the current menu level
    - Move between spaces ex 9 2 3 \_)

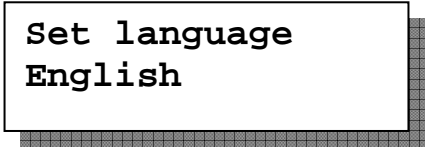
## 3 Menu and amplifier programming

By default the language is English and the region EUR. If you need change the language use the buttons ▲▼ until find the menu Set Language. Press the key ▶ to enter in the option. Press the buttons ▲▼ to select the language between: English, Czech, French, Italian, Portuguese and Spanish.

Press the button ◀ to return to the main menu.



**Main Menu**  
**Set language**



**Set language**  
**English**

### 3.1 Main menu

The main menu has the next options:

- **IN-BIII**: Set the options for the input BIII/DAB.
- **IN-UHF1**: Allow change the settings of the input UHF1
- **IN-UHF2**: Set and change the options of the input UHF2
- **IN-FM Pre-Ampli**: This menu is used to set the options of the FM band
- **IN-SAT LNB**: This option allow set the parameter of the SAT input
- **OUTPUT**: Set the output level and equalization for the BII and UHF and the gain of the satellite band.
- **Select language**: Select language and set region
- **Firmware Version**: Show the firmware version
- **Reset default**: Restore the factory values and delete all the user settings.
- **Lock**: Set a pin to lock the amplifier menu.

### 3.2 IN-BIII / IN-UHF1 / IN-UHF2 menu

Using ▲▼ find the menu IN-BIII or IN-UHF1 or IN-UHF2. Press the key ► to enter to the options of this menu:

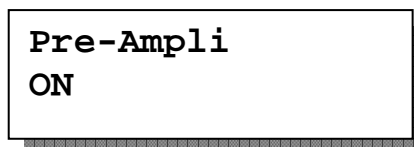
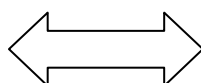
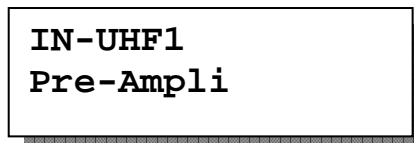
- **Pre-Ampli:**

Allow or not the gain of the pre-amplifier of the input BIII or UHF. This pre-amplifier increase the value of the signal and the noise and could be reduce the signal quality.

Enable this option when the level of the input signal is lower than 60 dBµV. If the level is higher, the preamplifier will be saturated and the quality of the signal will be lower.

Use the key ► to enter.

Use the buttons ▲▼ to select between ON and OFF

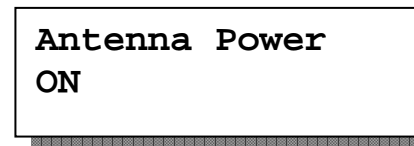
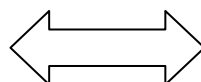
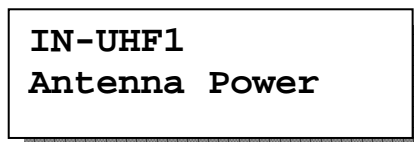


Press key ◀ to return to the previous menu.

- **Antenna power (supply for pre-amplifier):** This option allow turn on or turn off the power for pre-amplifier . Only it is available in the BIII and UHF input.

Use the key ► to access.

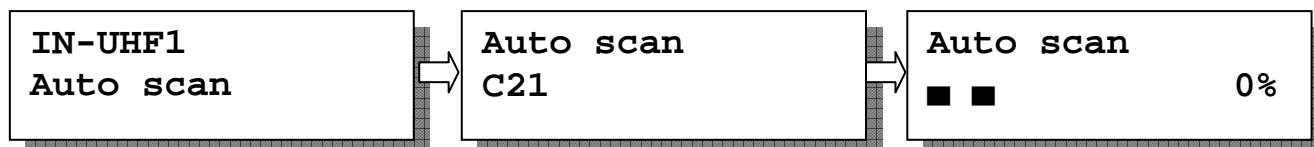
Use the button ▲▼ to select between ON and OFF



Press the button ◀ to return to the previous menu level.

- **Auto scan**

This option allows scan the channels of the current input selected of the amplifier. The auto scan only can be doing in the inputs BIII, UHF1 and UHF2.



In the input was selected use the buttons ▲▼ to select the option auto scan. Use the button ► to enter.

Use the buttons ▲▼ to select the initial channel to start the scan

Use the button ► to start the channel scan. You must be wait until finish the scan when appear the 100%.

**Notes:**

1. If the channel have a channel power higher than 50 dBµV (-58 dBm) will be added to the list.
2. If the input is BIII input only scan channel from C5 to C12.
3. The UHF inputs only scan channels between C21 and C48.

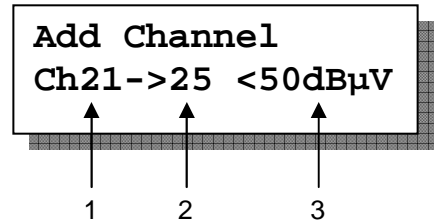
Press the button ◀ to return to the previous menu.



- **Add channel**

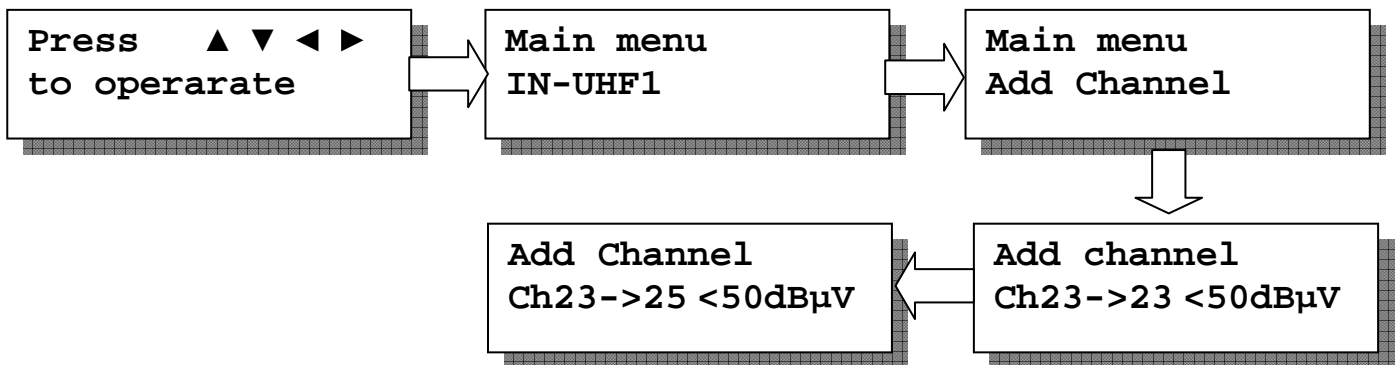
When we select an input of BIII or UHF use the buttons ▲▼ to find the option add channel.

1. Input channel
2. Output channel
3. Input channel level



First select the channel using the buttons ▲▼. Use the button ► to select and Access to the next field. Use the buttons ▲▼ to select the output channel. Remember two filters could be not the same output channels. Use ◀ to select the input channel or the button ► to confirm the output channel and return to the previous menu.

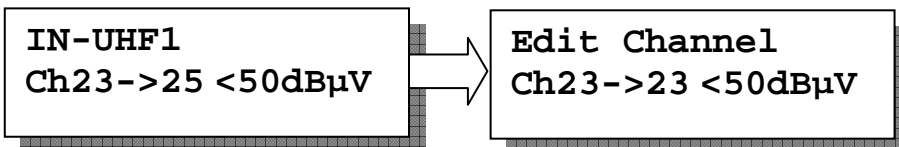
Example to add a channel:



**Remark:** The amplifier only has 32 filters and they are share for the BIII, UHF1 and UHF2 inputs.

- **Edit Channel**

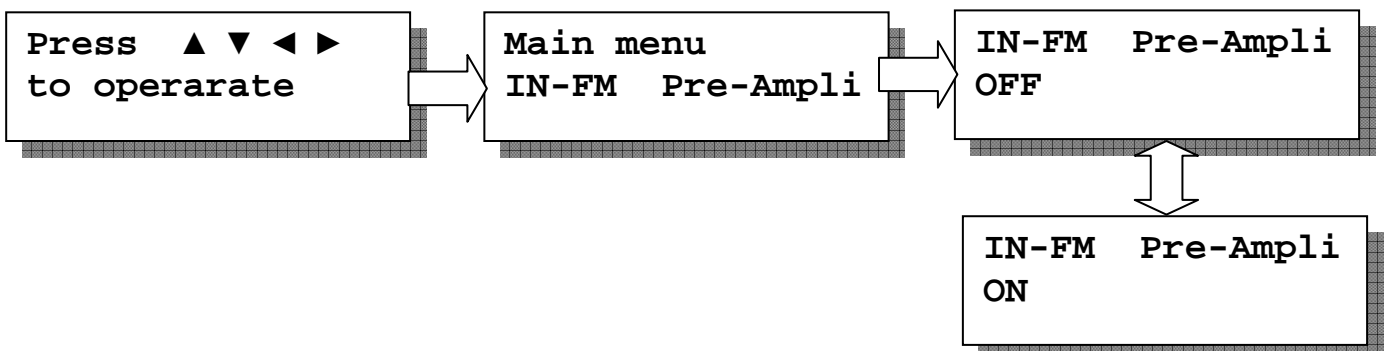
In the input selected, find the filter using the buttons ▲▼. Use the button ► to select the filter, edit each parameter with the buttons ▲▼ and confirm each parameter with the button ►.



Press two times the button ◀ to return to the main menu.

### 3.3 IN-FM Pre-Amp menu

In this menu, change the options of the input FM. From the standby press any button. Use the button ▲▼ to select the menu IN-FM Pre ampli. Press the button ► to access to the menu. Use buttons ▲▼ to select between OFF and ON. If select OFF the gain will be 5 dB. If select the option ON the gain will be 35 dB. Press ◀ to confirm and return to the previous menu level. Press again ◀ to return to the main menu.



### 3.4 SAT LNB

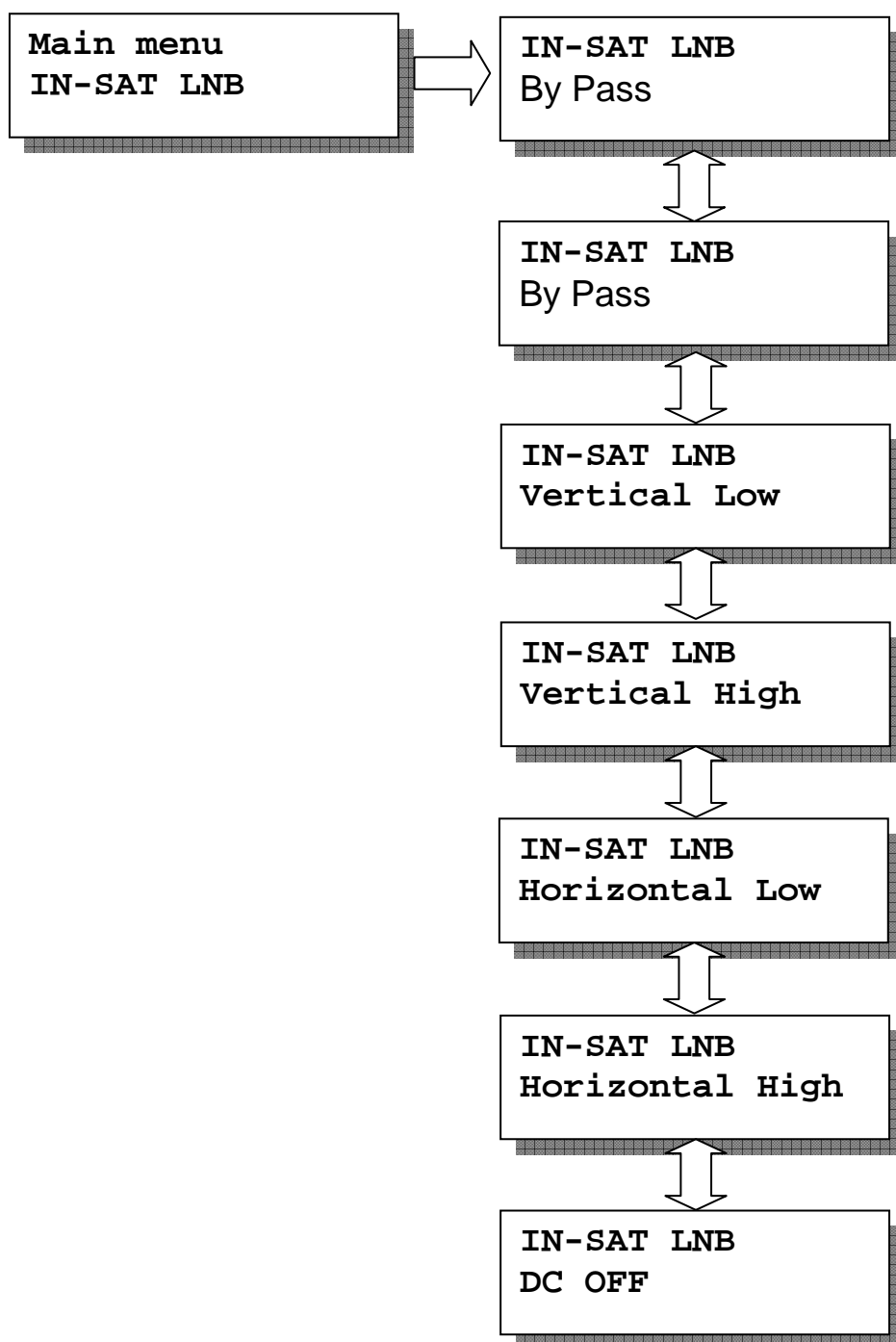
Using this menu can set the parameters of the LNB voltage. The LNB power could be supplying from the internal power supply of the amplifier or from a power injected through the output TER+SAT when the option "By Pass" is selected.

The available options are: By Pass, Vertical Low (13V), Vertical High (13V+22KHz), Horizontal Low (18V), Horizontal High (18V+22KHz) y DC off (Off).

In the main menu select the option IN-SAT LNB using the buttons ▲▼ and press the button ► to enter in the menu.

Choose the right selection with the buttons ▲▼ and confirm with the button ►.

Press the button ◀ to return the previous menu. Press again ◀ to return to the main menu.

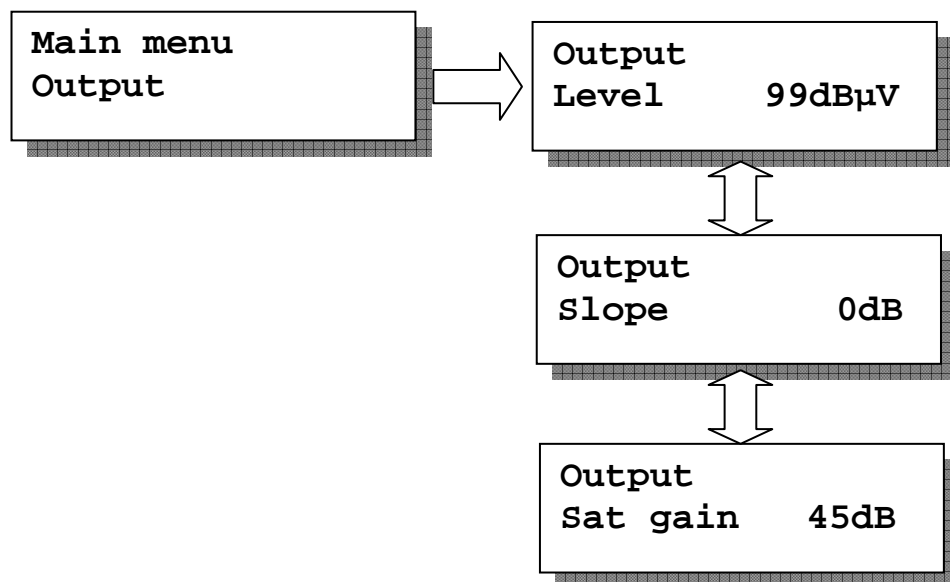


### 3.5 Output menu

This menu allow set the output level and the tilt of the terrestrial band and the gain of the satellite band..

Select the output menu using the buttons ▲▼ and confirm the selection with the button ►. Use the buttons ▲▼ to move between the options Level, Slope and Gan. Sat. Choose the option with the button ►. Use the buttons ▲▼ to change the value of the parameter and confirm with the button ►.

Use the button ◀ to return to the previous menu. Press several times to return to the main menu.



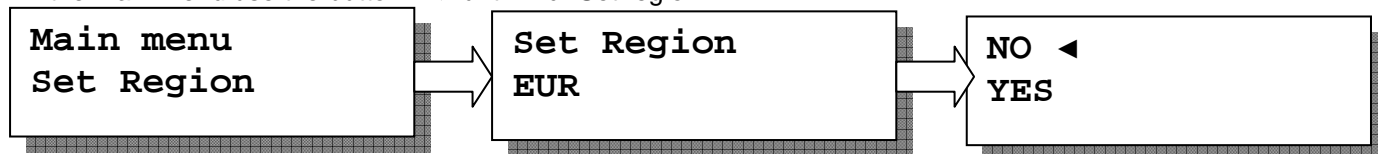
- **Level:** The values goes from 89 dBµV to 109 dBµV
- **Slope:** The adjustment can be set from 0 to 9 dB
- **Sat gain:** This value can be set between 25 and 45 dB.

Remember while more channels are added, more high is the power of the all channels in the output and need set correctly the output level accorded to the number of channels to avoid reduce the quality of the signals.

### 3.6 Set Region menu

This amplifier allows change the frequency plan depending of the region. The available regions are Europe (EUR), Thailand (THA), New Zealand (NZL), Australia (AUS), Mexico (MEX) and Brazil (BRA). The region by default is Europe (EUR).

In the main menú use the button ▲▼ until find "Set region"

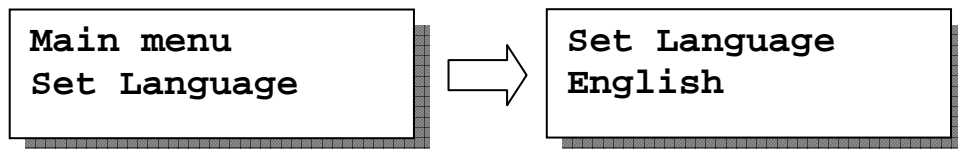


Press the button ► to enter in the menu "Set region". Use the buttons ▲▼ to select the region and press the button ►. Select YES and press the button ► to confirm the change.

Use the button ◀ to return to the previous menu. Press several times to return to the main menu.

### 3.7 Set Language

In the main menu use the buttons ▲▼ until find the option **Set Language**. Press the button ► to select this option. Use the buttons ▲▼ to select the language. The available options are: English, Czech, French, Italian, Portuguese and Spanish.

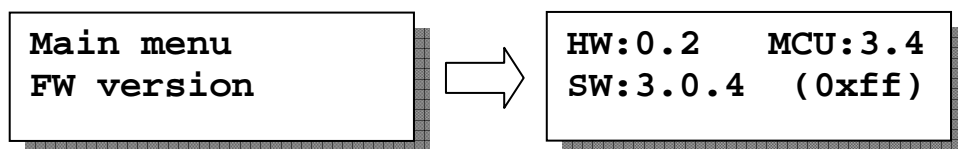


Press the button ◀ to return to the main menu.

### 3.8 Firmware version

This option shows the firmware version of the device.

In the main menu use the buttons ▲▼ until find the option FW version and press the button ► to show the version.

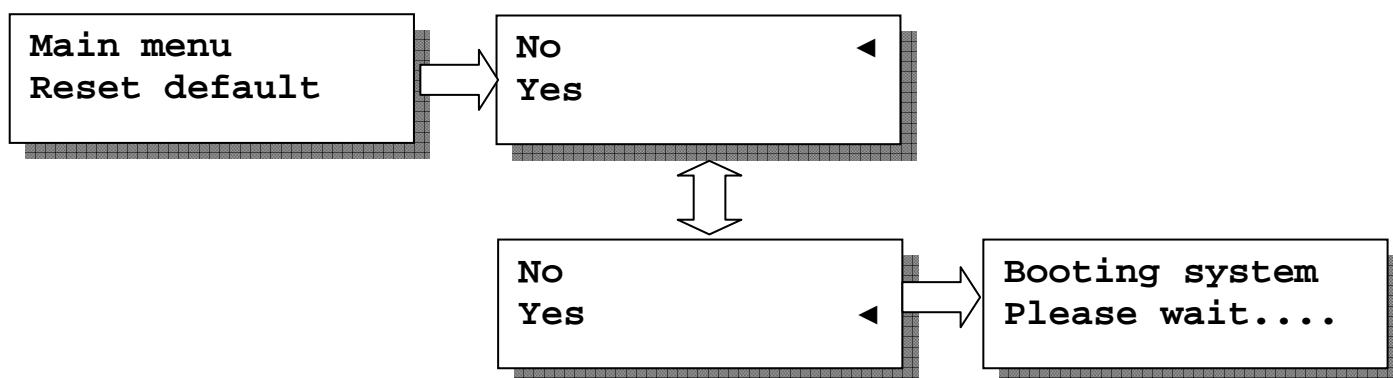


Press the button ◀ to return to the main menu.

### 3.9 Reset default

When use this option remove all user's settings and restore the default values.

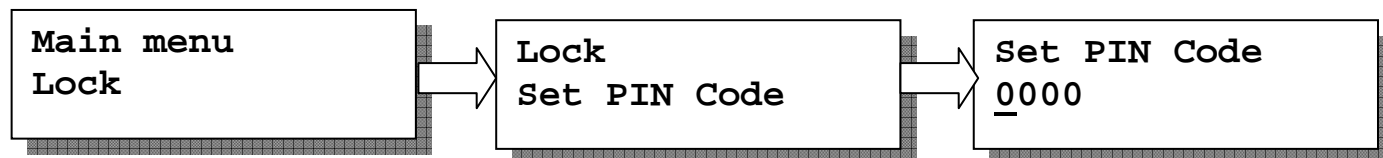
In the main menu use the buttons ▲▼ to find the option Reset default and press the button ► to enter in the menu. Using the buttons▲▼ select yes and press the button ► to load the factory values.



Press the button ◀ to return to the main menu.

### 3.10 Lock

To avoid unauthorized people changing the settings or unintended manoeuvre, X-MIND can be locked with security code.

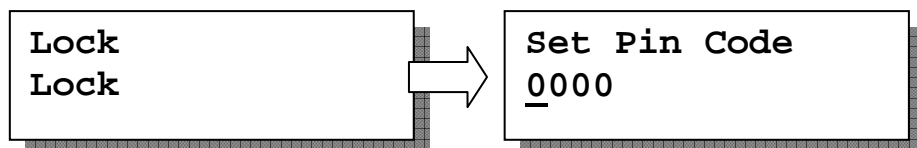


Default Pin code: 0000

Use the buttons ◀▶ to move between the numbers

Use the buttons ▲▼ to change the value of one number.

When you have the code press the button ▶ to store and exit or press ◀ to exit without save change.



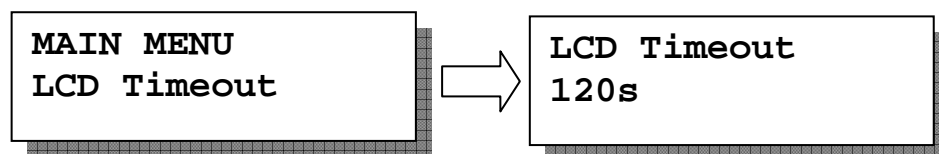
If the Pin code is set, after exit of the standby mode, you must enter the code to operate again.

Use the option No Lock to remove the previous code.



### 3.11 LCD Timeout

This option allows set the timeout of the LCD display after the last a button was pressed. The options available are: 30, 60, 90 and 120 seconds.



Use the buttons ▲▼ to change the value of LCD timeout.

Press ◀ to return to the main menu.

## 4 Technical specification

<b>Model</b>	<b>X-MIND</b>
<b>Code</b>	2003420
<b>Description</b>	Programmable amplifier 32 filters for BIII/ UHF, FM and SAT
<b>Inputs</b>	1: FM: 88-108 MHz 1: BIII: 174-230 MHz <sup>1</sup> 2: UHF: 470-694 MHz <sup>1</sup> 1: SAT: 950-2150 MHz
<b>Input levels</b>	FM: Max: 78 dB $\mu$ V BIII/UHF: 40-108 dB $\mu$ V SAT: Max: 88 dB $\mu$ V
<b>Input return loss</b>	> 10 dB
<b>Output</b>	1 TER+SAT 1 TER
<b>Maximum output level</b>	113 dB $\mu$ V
<b>Output return loss</b>	> 10dB
<b>Gain</b>	FM: 5/35 dB (selectable) BIII/UHF : >55 dB SAT: 35-48 dB (Gain with Tilt 950-2150 MHz)
<b>Gain regulation</b>	BIII/UHF: Global 0..20 dB (Steps 1 dB)+ AGC SAT: 0..20 dB (Steps 1 dB)
<b>LNB feeding</b>	0, 13Vdc, 18 Vdc, Tone: 0-22KHz/150 mA
<b>Pre-amplifier feeding</b>	12Vdc -100mA
<b>Equalization</b>	TER: 0..9 dB
<b>Filter selectivity</b>	>35 dB
<b>Programming</b>	Lcd 16 Characters x 2 lines and 4 buttons
<b>Supply</b>	100-240 V~ 50-60 Hz
<b>Power consumption</b>	10 W
<b>Dimensions</b>	210 x 160 x 50 cm
<b>Operative temperature range</b>	0-50°C

<sup>1</sup> The inputs BIII and UHF share the 32 filters

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