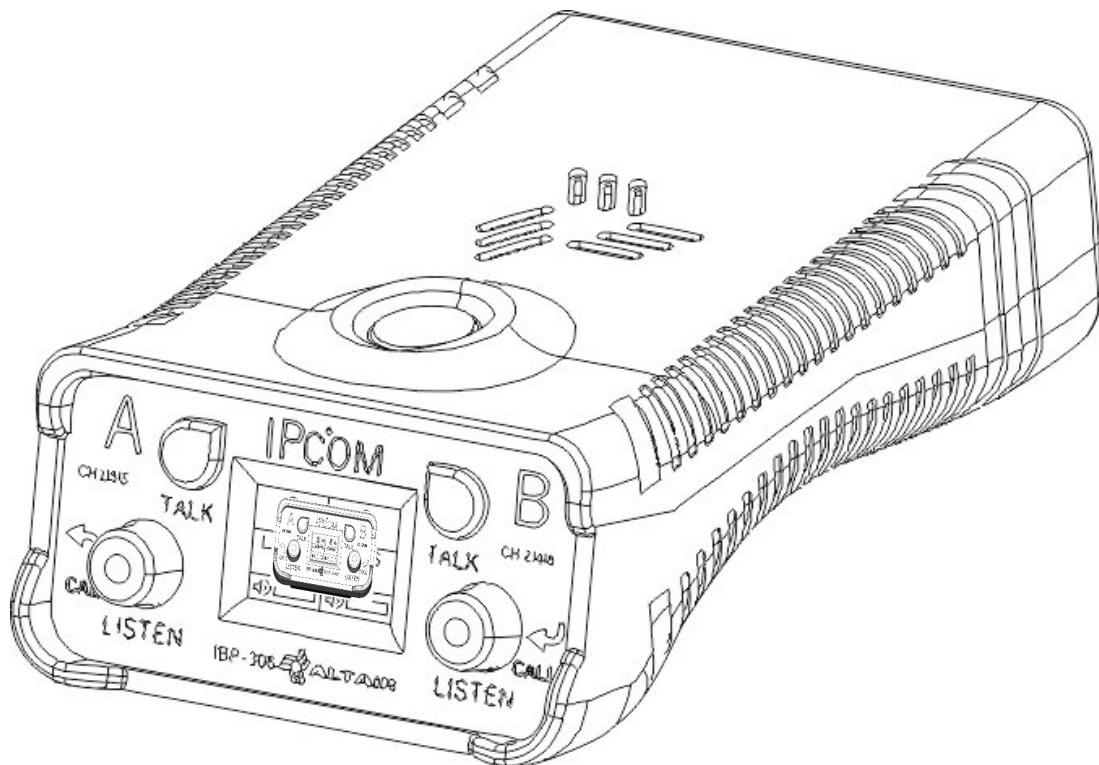


# IPcom Series

Digital Intercom Beltpack

## IPB-306



## USER MANUAL

Version March 2023

ENG



AUDIO | BROADCAST | COMMUNICATION PRODUCTS

[www.altairaudio.com](http://www.altairaudio.com)

COPYRIGHT Equipos Europeos Electrónicos

## Index

INTRODUCTION.....	1
HARDWARE.....	2
Front Panel.....	2
Rear Panel.....	5
Display.....	6
Menu.....	8
Menu Elements.....	8
Menu Structure.....	9
Operation.....	10
Beltpack turn-on.....	10
Initialization. Operational beltpack.....	10
Number of Channels.....	10
Functions assigned to rotors.....	11
Talk.....	11
Listen.....	11
Listening volume.....	12
Call Attention.....	12
Private Calls.....	12
Usage Examples.....	13
Quick access.....	14
Altair Software: NEBULA.....	15
Advanced Settings.....	18
Technical Specifications.....	21
Contact and Links.....	22
WARRANTY.....	23

## Included in the supply

- 1x IPB-306 Six channel beltpack/desk station
- 1x Operating Manual

# INTRODUCTION

---

## AN ALL-TERRAIN BELTPACK

The IPB-306 unit is a digital intercom beltpack with up to six communication channels via IP. Unlike traditional analog intercom equipment, in this model each channel can be configured independently to communicate with a predefined group of users, adjusting to the preferences of each installation without the need to change the cable connections. These groups can be adjusted according to levels of preference or priorities (according to the hierarchy in the work team). Communication groups can be configured as Party-Line, One-To-Many, Private calls, etc.

Added to the typical functions of an intercom beltpack, the channels of the IPB-306 model can be configured as a cue-light, as a remote controller of another device, as a point-to-point contact regardless of the physical connection of the device to the support network. and as controller of external signals through the function of remote GPIOs.

The IPB-306 model connects through an Ethernet network supporting 100/1000 Mbps with uncompressed digital audio of 24 bits / 24 KHz (High Quality) transported as streaming audio over IP under proprietary Altair protocol. The model gives the option of reducing the audio quality, to improve performance in cases where the network is very saturated, to 16 bits / 12 KHz (Lower Quality).

IPB-306 beltpack comes from factory configured as a simple dual channel party-line unit for easy right to use device with no need to extra software to run. By using the Altair configuration software NEBULA, unit can be tailored to be up to six channels beltpack/desk station, distributed in three pages of two keys or channels.

The IPB-306 model has two powering modes:

-Via DC connector using an optional AC/DC adapter.

-Via PoE (Power over Ethernet) power directly from a network switch equipped with PoE ports. This is the recommended configuration in order to eliminate a cable, a connection and a powered adapter.

Unit includes built-in panel mic and speaker to make hands free operation easy in moderate ambient noise, and turned to headset mode automatically when needed.

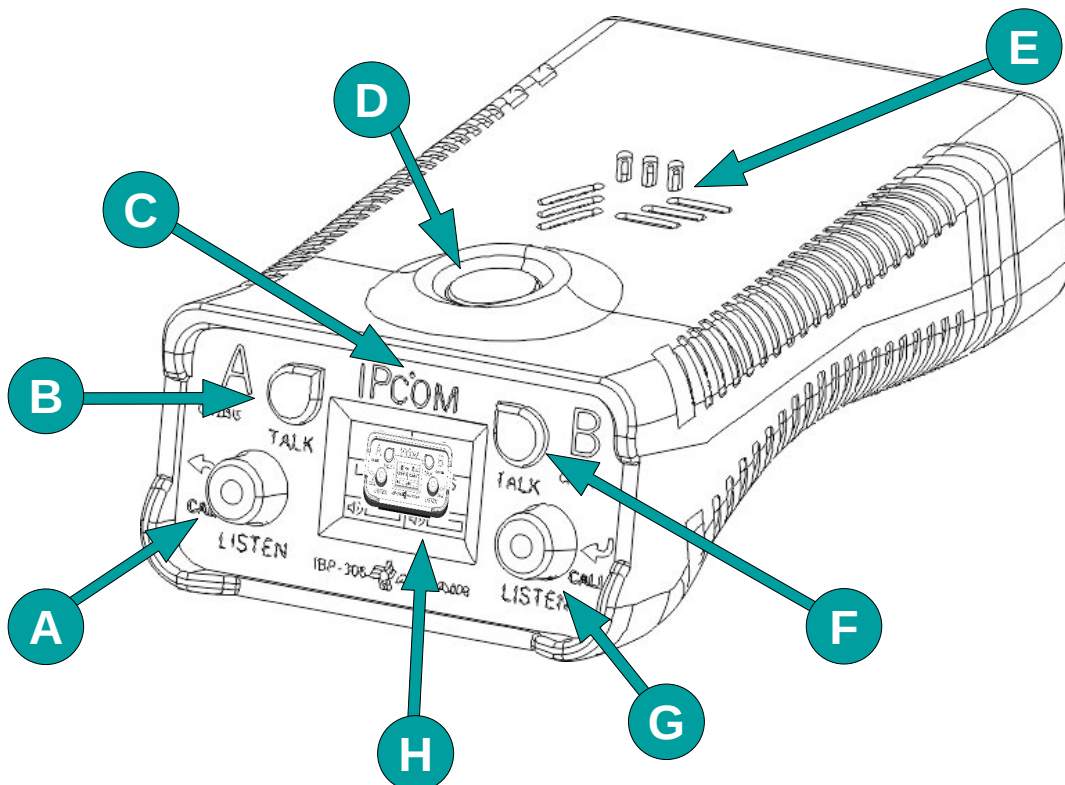
# HARDWARE

## Front Panel

The front panel of the IPB-306 Beltpack includes an RGB OLED display, two “TALK” keys, two “CALL/LISTEN” encoders and a built-in condenser microphone. At the top of the device is the “MENU” key and a speaker located under the Altair logo.



## Controls



## HARDWARE

---

### LISTEN (CALL) Rotors (A, G)

Each of the two channels shown on the display has a rotor that will perform different actions depending on the function assigned to the displayed channel. When a group or point-to-point contact (“Private Call”) is assigned to the channel, pressing and holding this rotor will activate a call message to the other intercom devices assigned to the same group, or to the other point-to-point contact. Making a quick press will activate or deactivate listening to the group. Likewise, when said rotor is turned, the volume of the group or point-to-point contact is modified.

Both rotor encoders includes push-on switches in order to accommodate MENU related functions as ESC - back, escape- on the left and ENTER in the right along with the rotor function to Scroll menu options.

The rotors contain a two-color led that will indicate whether listening is active on the channel shown on the display (LED on **BLUE**) or the rotor that is active on the menu window (LED on **ORANGE**).

### TALK Keys (B, F)

Each of the two channels shown on the display has its own TALK key. With the factory settings, pressing and holding the TALK key will activate the PTT (“push to talk”) function, which activates the microphone for as long as the key is pressed. If you press the TALK key for one second or less, it will work with latching (ON/OFF).

These keys have an LED that will light up when the microphone is active.

**Note:** Latch function can be disabled by the configuration software NEBULA in order to accommodate the unit for specific needs. When disabled, the TALK function works only PTT

Operation: **USERS> Channels Config> “CHANNEL xx” > TALK LATCH Enabled/Disabled**

### Internal Microphone (C). Hands free operation

The IPB-306 Beltpack contains an internal microphone so you can use the unit without headphones for a hands free mode.

**Note:** Unit automatically detects the presence of a connected headset and disables the internal microphone and speaker.

**Note:** When the unit is in hands free mode the side-tone is disabled.

### MENU Key (D)

The display and menu keys toggles between normal operating mode and menu window. To enter the menu window pres it briefly or press and hold down this key for 2 seconds in the case the beltpack is configured as 4 or 6 channels. Also, to quickly exit the menu and return to normal operation, press the MENU key again or the ESC rotor. Keeping the key pressed for 4 seconds, a message will be shown on the display that will contain: the type of device, the version of firmware that is installed, the name assigned to the device and its IP and the serial number.

Additionally, if the IPB-306 Beltpack is configured with 4 or 6 channels, pressing the MENU key quickly will alternate between the available channels, showing them on the display by twins:

Example: Display shows: **1-2>** Pressing MENU > **3-4** Presing again MENU > **1-2**...(Four channels case)

## Internal Speaker (E)

The IPB-306 Beltpack contains an internal speaker and can be used without headsets as a handsfree device. The internal speaker allows the user to listen to the program input audio and the intercom comms being in mind the ambient noise is low to moderate.

**Note:** The unit automatically detects the presence of a headset connected and will change the listening mode to headset disconnecting the internal speaker and panel mic combination.

## Display (H)

The display will show the information corresponding to the channels configured in the beltpack in twin channels as long as the MENU options.

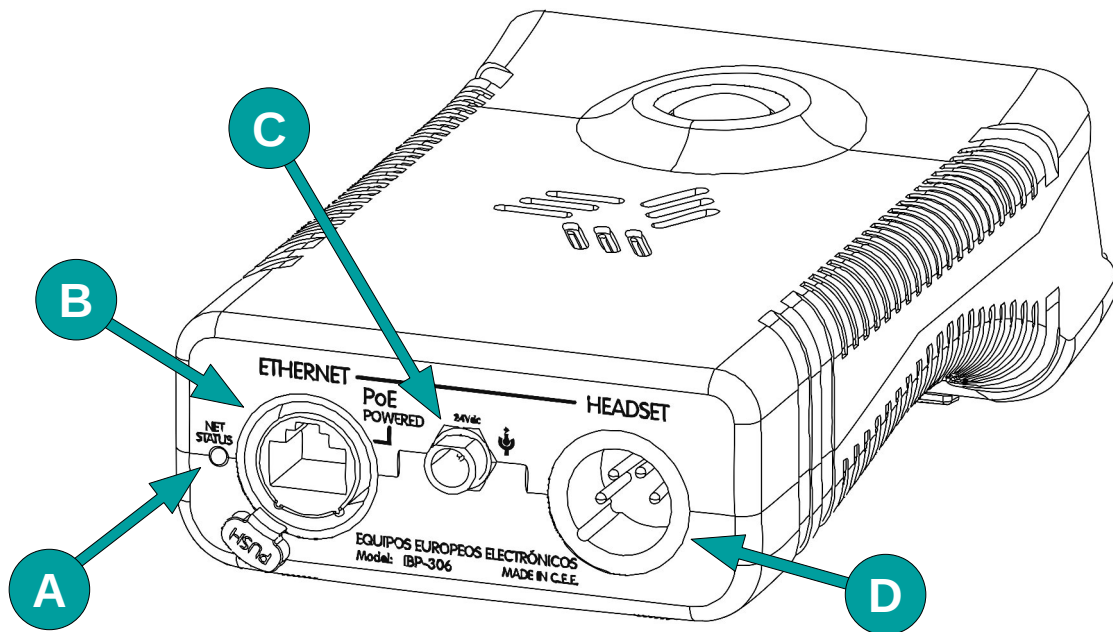
In the event that the beltpack is configured as 4 or 6 channels, the display will show in a top line a summary of the four or six channels indicating the status of the talk and listen keys or correspondent, as well as an indication of the page we are viewing in the main display view by means of a red box.

The display will dim to 50% of its brightness after 30s.

Settings by menu: Contrast/Brightness. Press MENU>VISIBILITY>CONTRAST/BRIGHTNESS

## HARDWARE

# Rear Panel



### Net Status (A)

This LED will indicate the status of the Ethernet connection and the beltpack powering.

Led will flash green with intermittent blue sparks when the beltpack is connected to an operating switch.

Led will flash green/blue when audio packets are transmitted around the system.

### Ethernet Connector (B)

Ethernet RJ45 connector that supports PoE (Power over Ethernet) power in accordance with IEEE802.af standard. Connector allows either etherCON (Neutrik TM) and standard RJ-45. 100/1000 Mb

### Safety DC Connector (C)

DC to 24V safety connector with anti-pull lock.

PINOUT: Pin +24 Vdc | Body 0V GND

**Note:** In case of using PoE power, it is not necessary to use this connector.

### Headset Connector (D)

4-pin male XLR connector. Supports single-ear or double-ear headphones equipped with female XLR4

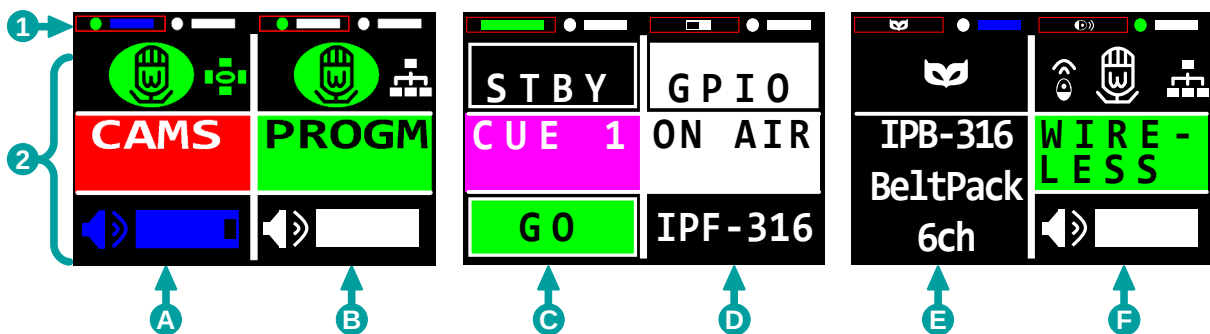
PINOUT: **Pin1** Mic gnd | **Pin2** Mic + (pos) | **Pin3** Ear gnd | **Pin 4** Ear +(pos)



## DISPLAY INFORMATION

# Display

The IPB-306 unit display shows the configuration of two channels at the same time. Using NEBULA Configuration Software, up to 6 channels can be configured on the IPB-306 belt pack. Pressing the MENU key you change between the displayed channels (The red box that borders the icons at the top of the Display indicates the page that is being displayed). Examples of various channels configured with different functions are shown below:



The information shown on the Display is divided vertically into 2 well-differentiated parts:

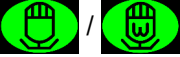












1. **Channel Setup Summary:** This section shows the representative icons of the function assigned to each channel, these icons give additional information on their status. The red box in this section indicates the icons of the two channels displayed on the current page. This strip will be displayed when the IPB-306 unit is configured with 4 or 6 channels.
2. **Detailed information of the displayed channel:** Divided into several parts depending on the configuration assigned to the displayed channel:

- A y B** → **Intercom:** Audio communication mode between groups typical of intercom devices. Section divided into 3 parts. The upper third shows two icons, the first one indicates the state of the microphone (open / closed ), the second icon indicates if the group is configured as Party Line () or as One To Many (). The middle third will display the name and color of the assigned group. Finally, the lower part indicates the listening status and the volume level.
- C** → **CUE Transmitter:** CUE warning transmitter mode. Section divided into 3 parts. The upper part is the “Stand By” indicator, when the operator of the CUE transmitter unit activates the “**Stand By**” warning, the **STBY icon will flash red** and a flashing red sign will appear on the receiving unit’s display indicating said warning. When the operator of the receiving unit indicates that it is ready to carry out the pertinent action, the **STBY icon** of the transmitting unit will become **solid red** and a solid red banner will appear on the receiving unit’s display. Finally, when the operator of the transmitting unit presses the GO action, the **STBY icon** will be displayed with a **black background** and in the lower part of this section the **GO icon will light up in green**. Likewise, a fixed green sign will appear on the display of the receiving unit, indicating that the pertinent action must be executed.
- D** → **GPIO:** Mode for generating or receiving signals (General Purpose Inputs Outputs).
- E** → **Private Call:** Point to point intercom mode. Section divided into two parts, the upper part shows the **private call icon**. The lower part shows the name of the device to which the call will be made.
- F** → **Remote:** Mode to remotely control the microphone status, listening status and volume level of a group configured on another device. Section divided into 3 parts: the upper part shows the remote identification icon () the microphone status icon (open / mute ) and the group settings icon (Party Line / One To Many ); the middle part shows the name of the assigned group; and finally, at the bottom, the listening status and its volume level are shown.



# DISPLAY INFORMATION

## Icon summary

Icon	Description
	<b>Active microphone</b> indicator on the channel. This icon will contain a <b>W</b> when the system is set to <b>High (24kHz)</b> bandwidth.
	<b>Muted microphone</b> indicator on the channel. This icon will contain a <b>W</b> when the system is set to <b>High(24kHz)</b> bandwidth.
	<b>Microphone locked</b> on channel indicator. This state occurs when the group to which this icon belongs is set to One To Many (👤) and any member of that group (with equal or higher assigned priority) is speaking. This state prevents the user from modifying the state of his microphone. This icon will contain a <b>W</b> when the system is set to <b>High(24kHz)</b> bandwidth.
	Group indicator configured as <b>Party Line</b> . (All group members can speak at the same time)
	Group indicator set to <b>One To Many</b> . (Only one member of the group can talk at the same time) Priorities affection.
	<b>Standby</b> indicator. This indicator will flash red when the CUE is activated until the corresponding user indicates that they have seen the signal. At that moment, the indicator will remain solid red, waiting for the "GO".
	<b>GO indicator</b> . This indicator will remain with a black background until the "GO" signal is given, at which time the background will change to green.
	Indicator of channel configured as <b>intercom</b> . The circle represents the state of the channel's microphone (active=green / muted=white) and the rectangle represents the listening state on the channel (active=blue / inactive=white).
	Thumbnail of channel configured as <b>CUE Transmitter</b> . It will be shown white when the CUE is inactive, red (flashing) when the CUE is in the "Standby" status awaiting confirmation from the receiving user of the CUE, red (fixed) when the user has confirmed the "Standby" status and finally in green when the GO signal is given.
	Indicator of channel configured as <b>GPIO</b> .
	Indicator of channel configured as <b>remote</b> . The device to be controlled and the parameters that can be modified are determined through the IPcom configuration software.
	<b>Private call</b> indicator.
	<b>Level indicator and listening status</b> . It will show blue when listening is active or white when listening is muted.

## MENU

# Menu Elements

### Navigation through the Menu window

The Menu will be displayed by briefly pressing the MENU key, if the device is configured with 2 channels or by holding the MENU key for 4 or 6 channels. To scroll through the different elements of the Menu, the right rotor of the IPB-306 will be used. Turning the rotor clockwise will scroll down and turning the rotor counterclockwise will scroll up in the Menu.

To enter a sub-menu, simply select it and then press the same rotor (ENTER).

To go back in the different sub-menus you must press the left rotor.



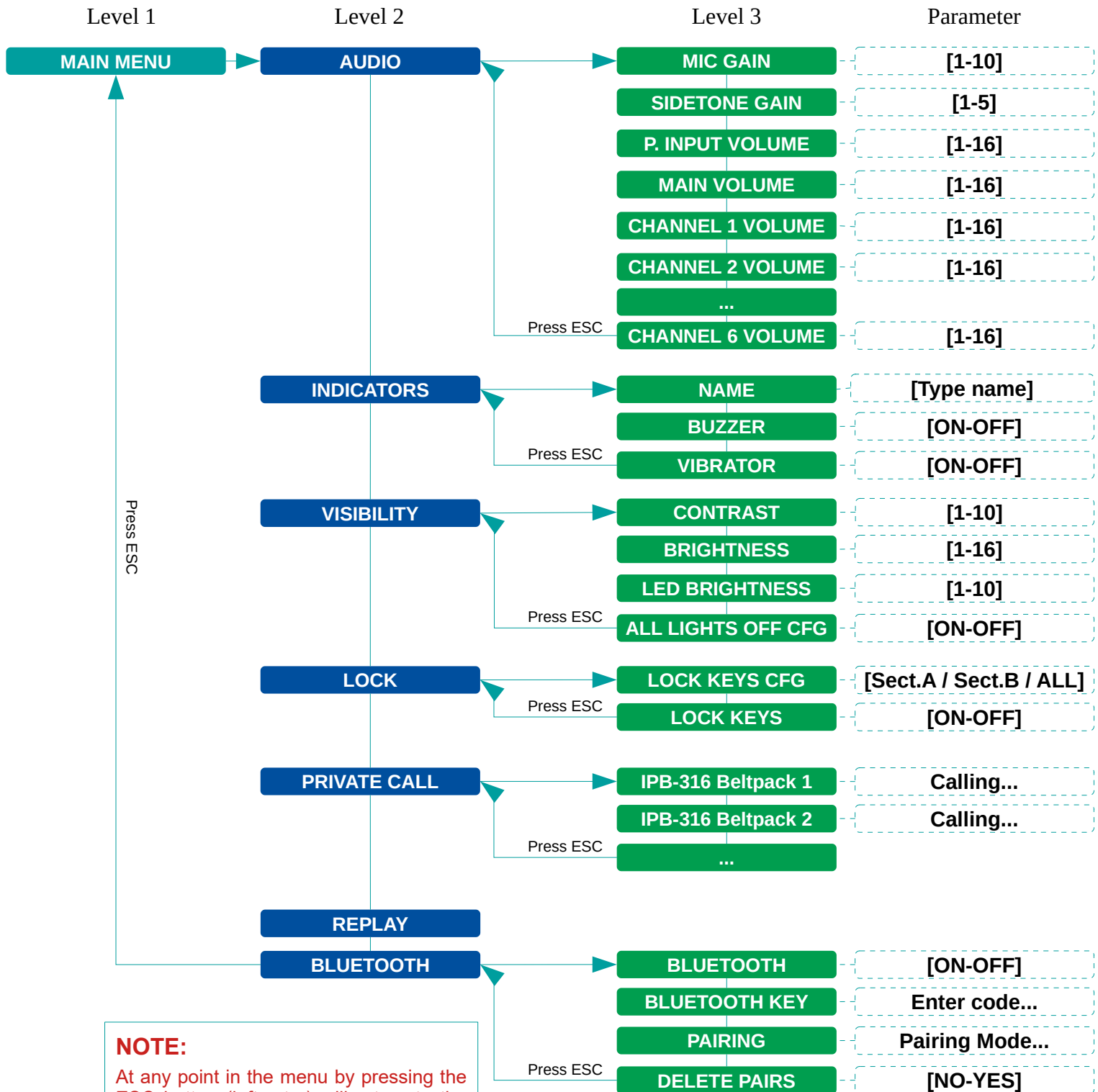
### Menu window elements

Each of the sub-menus will give access to the visualization and modification of the values of different parameters of the device:

- **AUDIO:**
  - ◆ **Mic Gain:** Modifies the microphone gain. [1-10]
  - ◆ **Sidetone Gain:** Modifies sidetone (own voice on listening) gain. [1-5]
  - ◆ **Program Input Volume:** Modifies the volume of the Program Input. [1-16]
  - ◆ **Main Volume:** Modifies the overall volume of the device. [1-16]
  - ◆ **Channel 1-6 Volume:** Modifies the individual volume of each channel. [1-16]
- **INDICATORS:**
  - ◆ **Name:** Shows the name of the device and allows to modify it.
  - ◆ **Buzzer:** Turns Buzzer on or off on the device. [ON-OFF]
  - ◆ **Vibrator:** Turn Vibrator on or off on the device. [ON-OFF]
- **VISIBILITY:**
  - ◆ **Contrast:** Modifies the contrast of the display. [1-16]
  - ◆ **Brightness:** Modifies the brightness of the display. [1-16]
  - ◆ **LED Brightness:** Modifies the brightness of the keys LEDs. [1-10]
  - ◆ **All Lights off CFG:** When this parameter is activated, level 1 of LED Brightness completely disables the LEDs of all the keys. [ON-OFF]
- **LOCK:**
  - ◆ **Lock Keys CFG:** Allows to select the section to block. [Sect. A | Sect. B | ALL]
  - ◆ **Lock Keys:** Locks the selected keys on the device. [ON-OFF]
- **PRIVATE CALL:** It allows establishing a point-to-point connection with any of the devices that belong to the system. This sub-menu will list the name of each of the devices that belongs to the system and are active right now.
- **REPLAY:** It will play the last few seconds of listening received on the device. The number of seconds played is defined through the **NEBULA Users>Advanced Settings>General**
- **BLUETOOTH:**
  - ◆ **Bluetooth:** Turns Bluetooth on or off. [ON-OFF]
  - ◆ **Bluetooth Key:** Allows you to assign a pin for pairing. Not very often used.
  - ◆ **Paring:** Activates pairing mode.
  - ◆ **Delete Pairs:** Removes all paired devices. [NO-YES]

# MENU

## Menu Structure



**NOTE:**

At any point in the menu by pressing the ESC button (left rotor) will return to the previous level.

If you are at level 1, the menu window will close and you will return to normal operating mode.

# Operation

---

## Beltpack turn-on

The IPB beltpack stations as well as the rest of the devices of the Ipcom series do not have a power button and their operation is subject to the switch-on of the switch to which they belong.

In many installations that do not require a 24/7 intercom system, a power button will be needed to turn on/off the switch or switches dedicated to the intercom system for this purpose.

The power indication led corresponds to the Net Status LED on the back. Devices equipped with power over Ethernet -PoE- ports, usually lack of this power switch running all time.

The display turns off after 60 seconds to conserve energy as well as not to disturb with its lighting.

In order to wake it up, it is recommended to make a brief MENU touch and another to enter normal display operation. The rest of the keys have preference at the first touch over the function of the key so it is recommended not to press them to wake up the display.

## Initialization. Operational beltpack

In the initialization process the beltpack will first show the ALTAIR logo followed by the company logo if it has been included (see BRAND LOGO in the NEBULA software).

Subsequently, a window appears indicating that the beltpack does not yet have a connection to the network "ETHERNET LINK DOWN" that will disappear in a few seconds.

At the end of the power on phase the display will show two channels with their corresponding assignments within the system such as GROUP name, PRIVATE, CUE Standby, GPIO, etc.

Boot time may vary depending on the configured IP mode and configuration as well as other network factors. This start time is around 60 seconds during which the beltpack will not be operational.

## Number of Channels

The beltpack allows operation with up to six simultaneous channels. The channels are accessible by page change that is done by pressing the MENU key repeatedly so that the direct key access is arranged through a pair of channels on each page: left or channel A (odd) and right B (even).

The configuration of the number of channels is done from the NEBULA configuration software and by default is two channels. See section "ADVANCED SETTINGS" page 20.

Taking into account that channel switching can be somewhat annoying for some users, it is recommended to work in the two-channel mode when possible.

## Functions assigned to rotors.

The functionality of each rotor can be defined separately. By default they work as channel volume setting. Through the NEBULA software, within the "ADVANCED SETTINGS" window we can choose for each rotor A or B:

- ◆ **Channel Volume:** Adjusts the listening volume of the channel corresponding to the page shown
- ◆ **Main Volume:** Adjusts the overall listening volume. The partial adjustment must be done from the menu settings.
- ◆ **Program Input Volume:** Allows an adjustment of the listening level of the Program Input -source assigned from NEBULA- mixed with the general listening.
- ◆ **Mic Gain:** Direct access to microphone gain (headset and panel microphone)

## Talk

To talk to the desired group, first make sure that the group you want to talk to is shown on the display. Then simply press the corresponding TALK key.

The TALK key has two modes of operation, depending on how the user interacts with it:

- **Push to Talk:** Holding the TALK key down for more than a second will activate this function, enabling the microphone. You will be able to speak until you release the TALK key, at which point the function will be deactivated and with it the microphone.
- **Latched (ON/OFF):** Pressing the key quickly (less than 1 second) will activate the microphone. The moment you quickly press the TALK key again, the microphone will be muted.

When the microphone is active, the LED of the TALK key located next to the corresponding group of the display will be on. Likewise, the display will show an icon of a microphone in green in the corresponding group when it is active or in gray when the microphone is deactivated.

In some circumstances the TALK key will not be available -showing its microphone icon in red- such as when the group is defined as ONE TO MANY and at this time the turn to TALK is being used by another user.

The system gives the TALK to any other user after a minute in an attempt to clean ambient noise in the channel or to avoid carelessness of the interlocutor who has initiated the conversation.

**Note:** Depending on the configuration assigned to the device, it is possible that this function is not enabled and therefore it is not possible to talk. This condition is shown by a different microphone icon.

## Listen

To listen to the desired channel, briefly press the corresponding rotor. The associated LED will light blue. It is possible to listen to just one channel or a combination of all available channels.

**Note:** Depending on the group priority settings, certain users may be muted by the microphone opening action of other users and will not be heard. Consult your intercom system administrator to restore priorities to the specific use of the intercom system.

## Listening volume

Each channel of the IPB-306 unit has its individual volume control and in general:

To adjust the listening volume, turn the LISTEN rotor on the side of the group you want to modify.

- Turning the LISTEN rotor clockwise will increase the volume/ counterclockwise to reduce.
- Briefly pressing the LISTEN rotor will mute/enable listening on the corresponding channel. When the configuration of the rotors does not allow direct channel setting, it is necessary to set it using MENU

## Call Attention

To make a CALL attention to all members of a group, press and hold the CALL rotor on the corresponding side. On the display of all the devices that belong to the group, a message will be shown indicating the user who is making the call and the group to which the call is being made.

To ensure silence in calls, the buzzer and vibrator must be disabled locally or through the NEBULA software.

On systems with many users, the CALL can be initiated automatically by following the action of pressing a TALK key to automate recognition of the caller. This option is set from NEBULA in the USERS>ADVANCED SETTINGS>GENERAL  "Send Call when Talk key is activated"

Maybe in this scenario it is advisable to set the TALK LATCH disabled on some groups to guarantee a brief message, leaving the system operative for additional short voice messages.

Operation: USERS>Channel Config> "choose a channel" >TALK LATCH Enabled/Disabled

## Private Calls

It is possible to initiate a private conversations at any time to any of the users on the system.

To do so, find on the main MENU the PRIVATE CALL menu option and scroll across all users available. Press ENTER to establish the private call.

Destination user must accept with ENTER or refuse the call by ESC

Finish the private call by pressing again ENTER

**NOTE:** Interface stations IPX-301 are no considered here for private call because it is a no operator station.

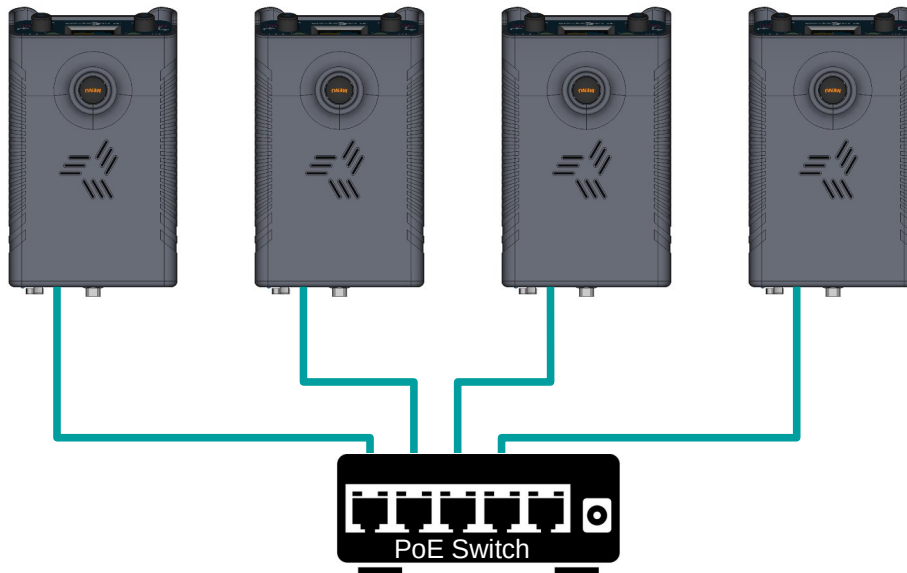
## USAGE EXAMPLES

# Usage Examples

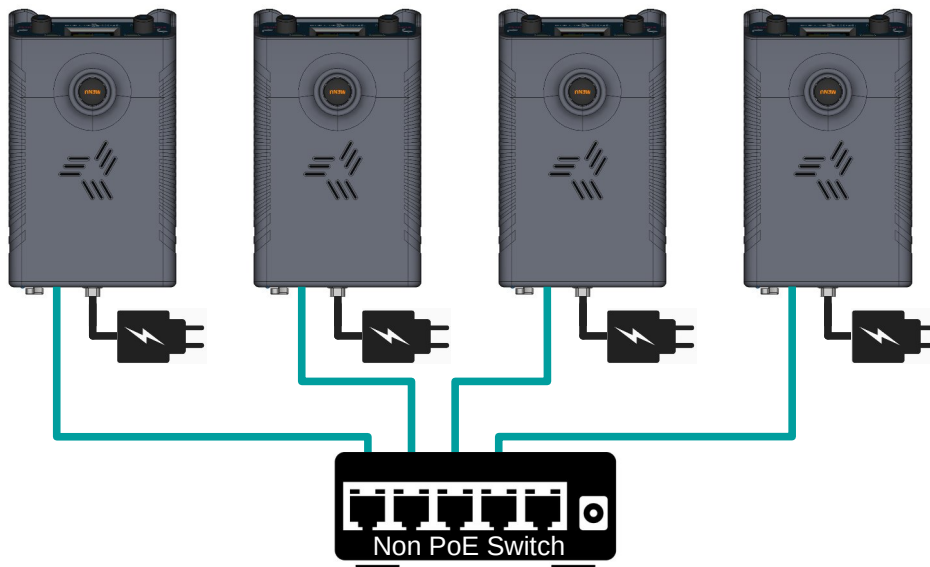
## Basic 2 Channel Party Line System

IPB-306 beltacks are shipped from the factory per-configured as a two channel beltack each assigned to a Party Line group. To start using the system, simply connect the beltacks to an Ethernet switch equipped with PoE power capability (otherwise connect DC power to each beltack as shown). It's that easy!

*Simple example of a Party Line system **with** a PoE switch*



*Simple example of a Party Line system with a switch **without** PoE*





## USAGE EXAMPLES

---

### Configure the unit for a fixed IP address

If you do not have a DHCP server on your network, you have two options:

- **Connect devices to a switch without DHCP:** The ALTAIR IPCOM Series devices have a protocol whereby if a DHCP server is not available it will auto-assign an IP. The drawback of this method is that the time between start up of devices is much longer.
- **Assign a fixed IP to the devices:** To do this, you must access the NEBULA Configuration Software, go to the “Users” window, select the desired device and access the “Advanced Settings” menu where in the Ethernet tab you can disable the DHCP option and assign the desired fixed IP.

**Note.** This last option is only allowed when the network is of your own, we mean all the devices connected has been IP assigned previously. Avoid assign same IP to more than a device or network errors would occur, sure.

The “User” section (in the “Advanced Settings” window) allows you to name each device something easily understandable, such as: “Audio”, “Director”, “Camera 1”, “Lighting”, etc.

## ACCESSIBILITY

---

### Quick access

#### Keyboard Shortcuts

To improve the user experience in the IPB-306 belt packs, a series of "shortcuts" have been implemented to modify certain parameters more quickly and smoothly.

- **MENU key + Rotate Rotor side B:** Modifies the brightness adjustment of the OLED Display.
- **TALK 's key + Rotate Rotor side B:** Modifies the Microphone Gain setting.
- **MENU key + Press Rotor side B:** Key panel lock/unlock.

# CONFIGURATION SOFTWARE

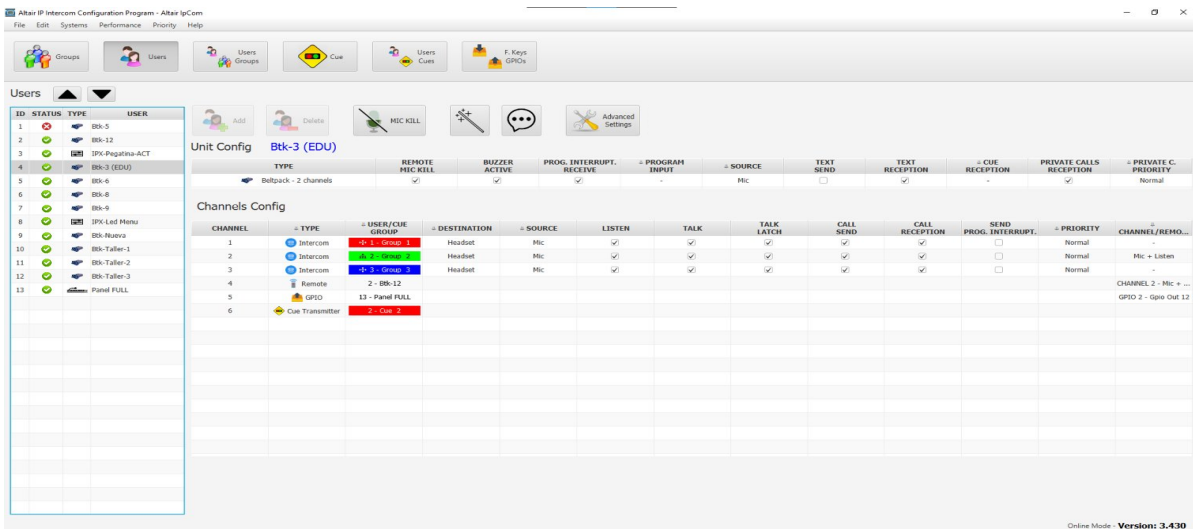
## Altair Software: NEBULA

### Configuration windows

The configuration software for the entire ALTAIR IPcom Series contains 6 main windows:

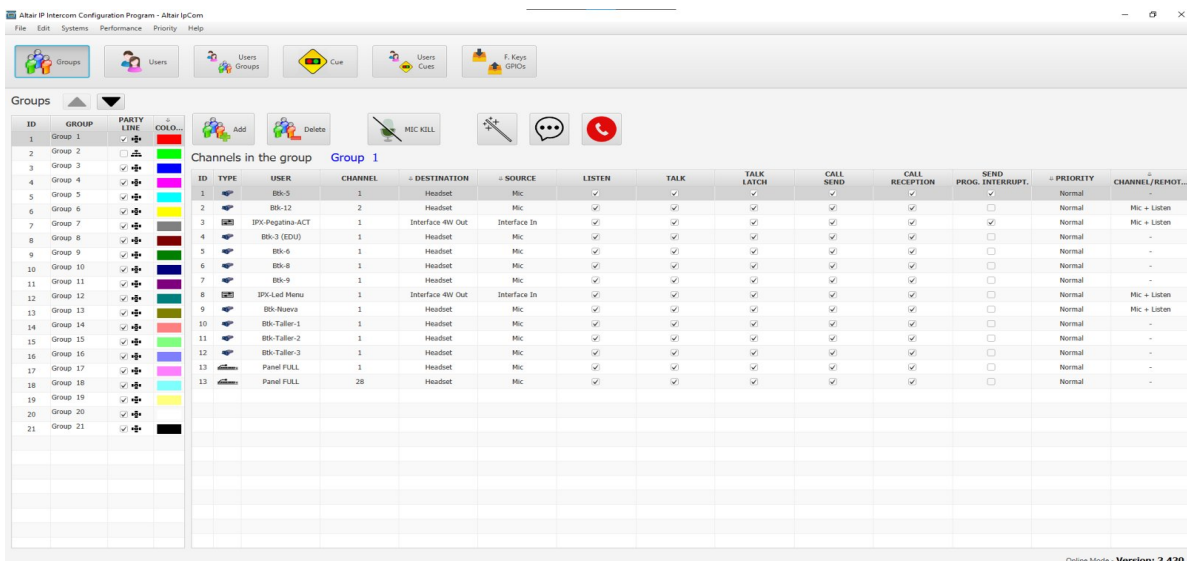
### Users (A)

It shows all devices belonging to the system. In this window you will also have access to the Advanced Settings of each device (this window will be shown in depth later).



### Groups (B)

It shows all the groups created in the system, indicating the different devices that belong to each group and allowing to assign a group configuration for each particular device

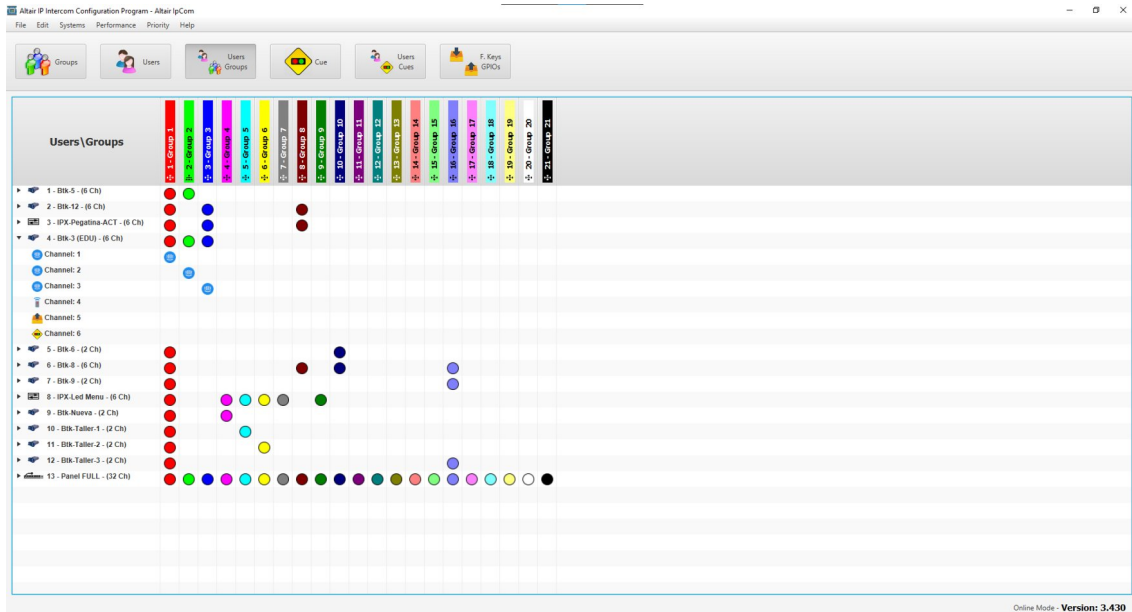


# CONFIGURATION SOFTWARE

## Users Groups (C)

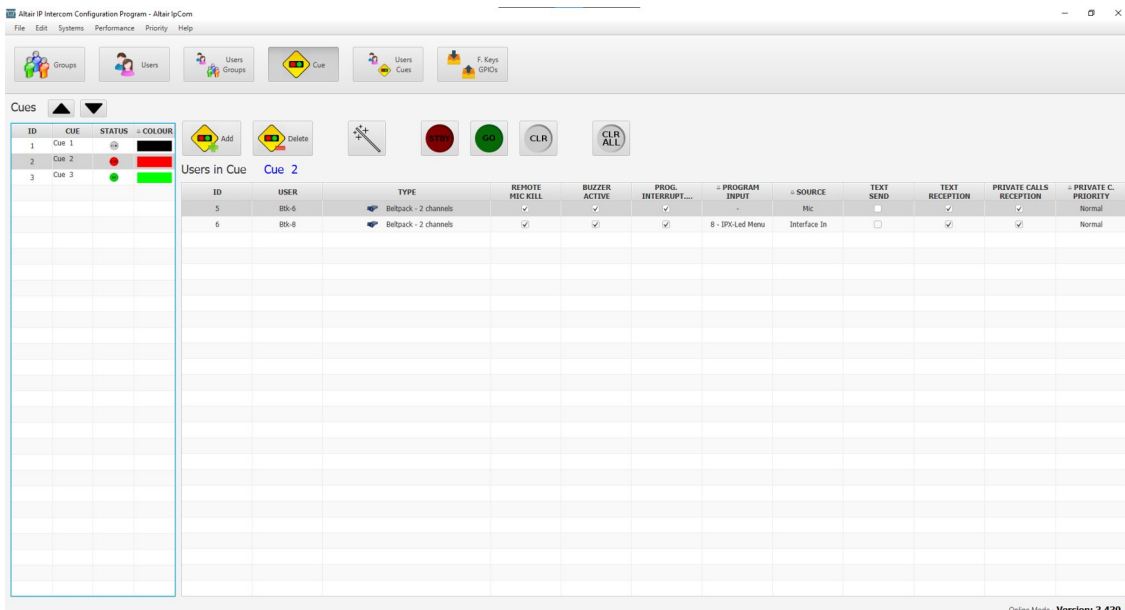
It shows a “matrix” with all the devices and groups of the system, indicating which groups each device is assigned to. If the user has a group assigned to any of their channels, a circle of the same color as the group will be displayed in the corresponding column.

Clicking on the arrow to the left of the username will display its available channels. The icon, shown to the left of each channel name, represents the configured operating mode. If the channel is of the Intercom type, the same icon will be displayed in the column of the group assigned to said channel. Double-clicking on any cell in a channel's row will assign/unassign the corresponding group.



## Cue (D)

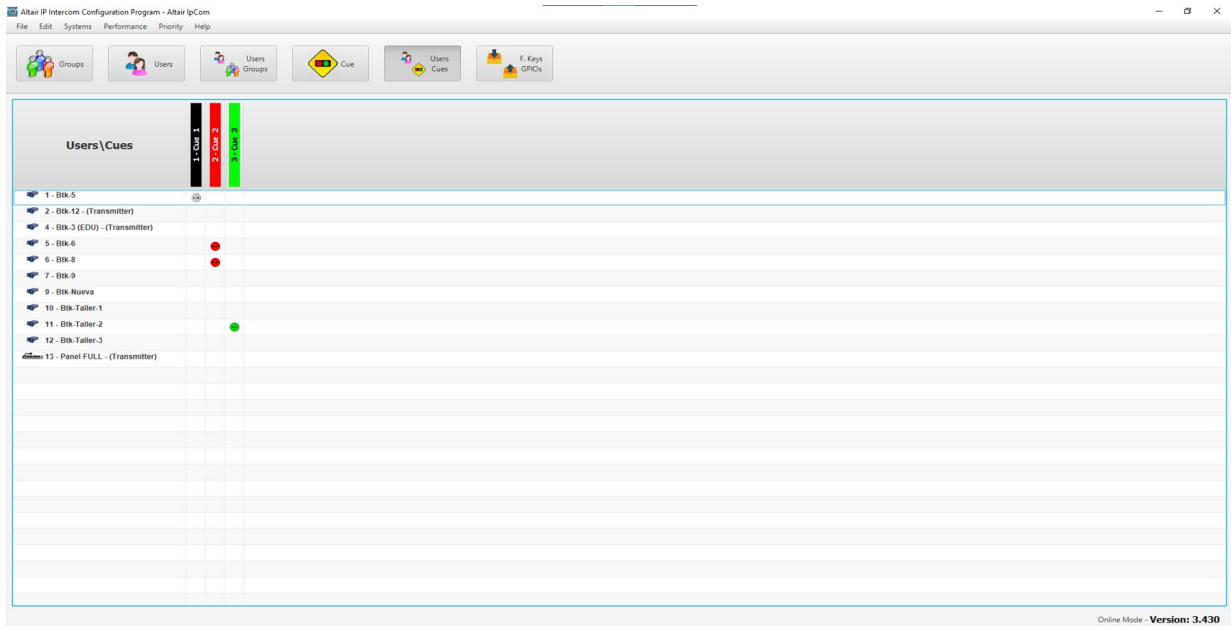
It shows the Cues created in the system, their status and the devices to which these Cues have been assigned



# CONFIGURATION SOFTWARE

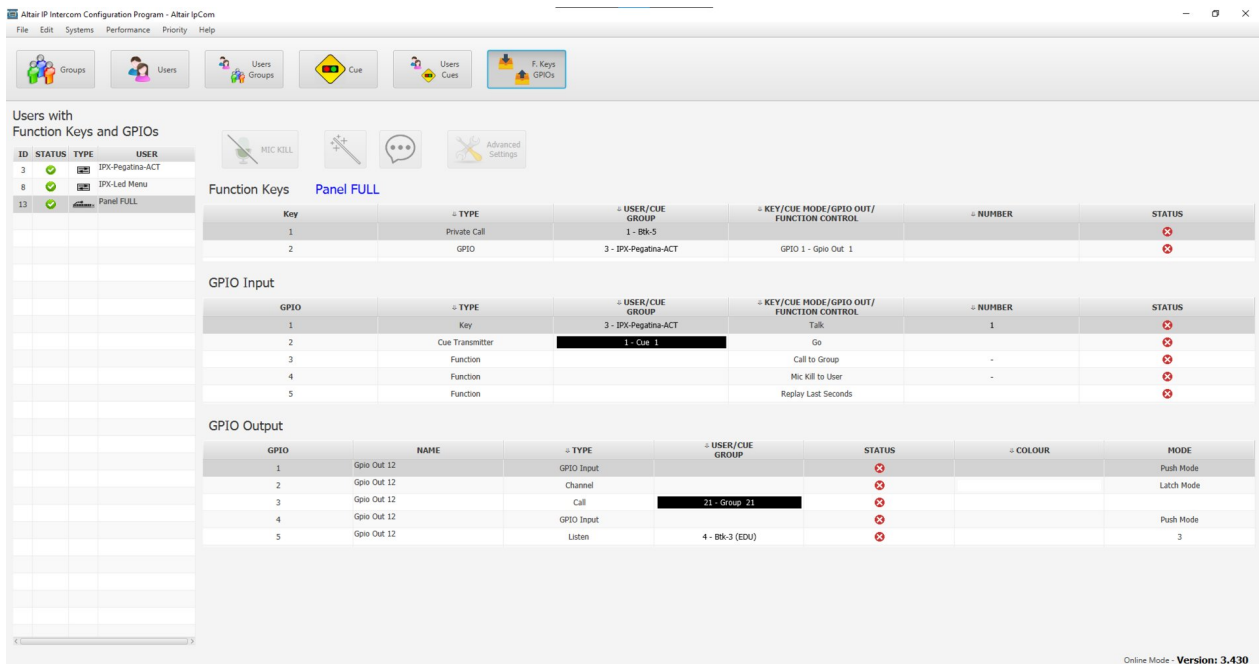
## Users Cues (E)

It shows a “matrix” with all the devices and Cues of the system, indicating which devices each Cue is assigned to and its status. Double clicking on a cell will assign/unassign the corresponding CUE on the selected device. Devices with a channel set to Cue Transmitter cannot get assigned a CUE reception.



## Function keys and GPIOs (F)

Shows the available settings for Function keys and GPIOs (General Purpose Input/Output).



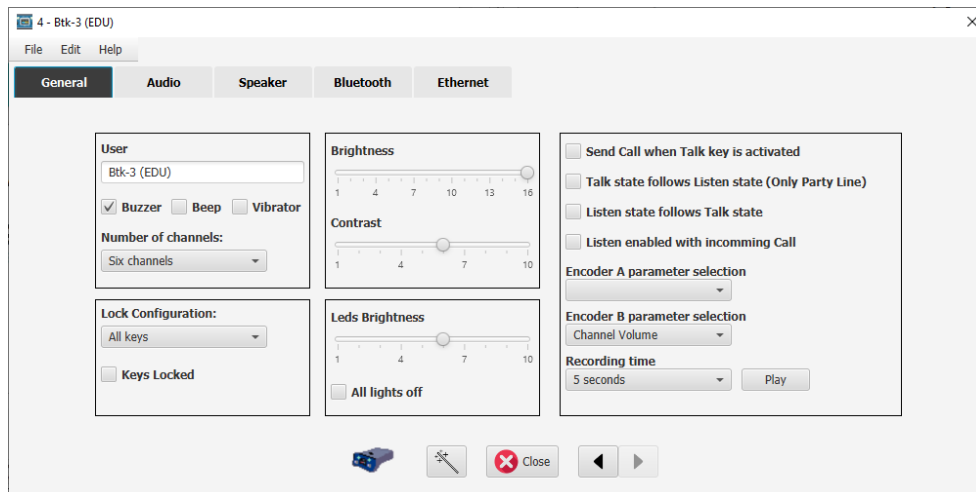
# CONFIGURATION SOFTWARE

## Advanced Settings

The window gives access to the **complete configuration of the IPB-306 beltpack relative to hardware parameters**. This window contains 5 tabs that show the different configuration parameters available:

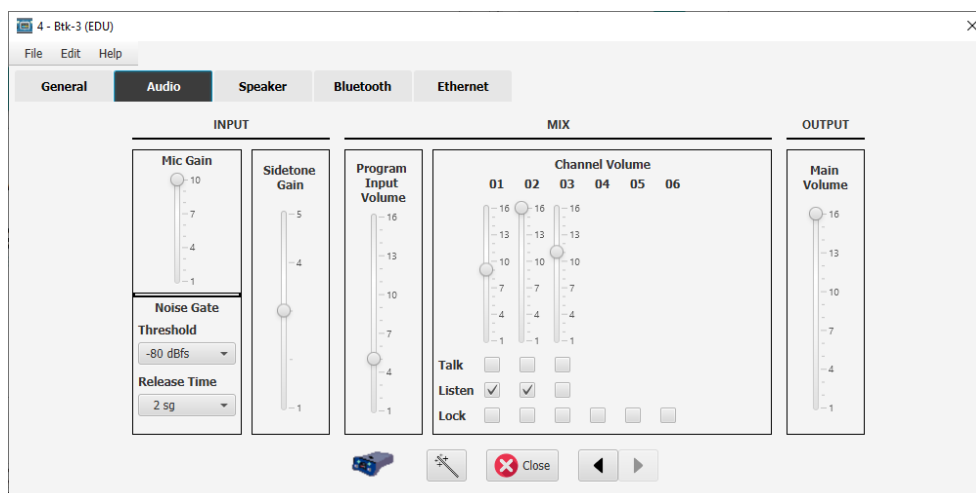
### General (A)

General configuration parameters such as On/Off Buzzer/Beep/Vibrator, number of available channels, Display brightness and contrast, LED brightness, rotor function, etc.



### Audio (B)

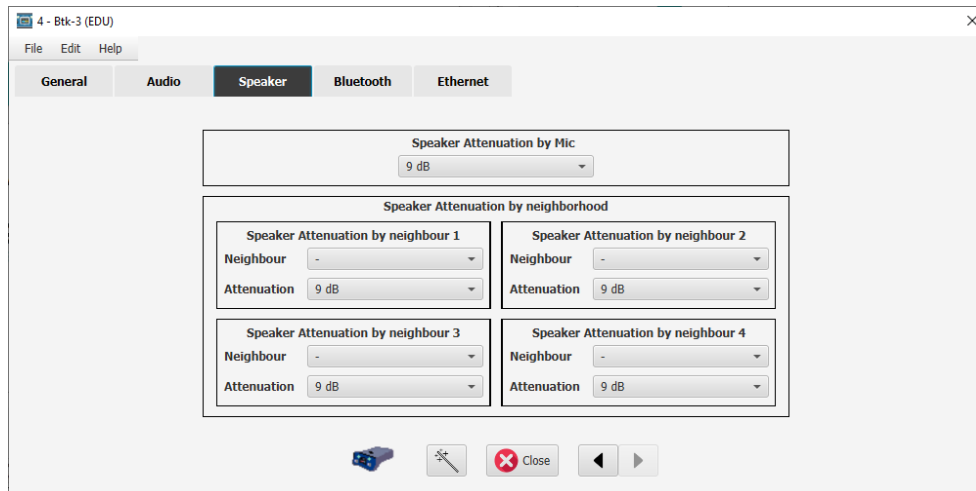
Parameters available for configuring the audio of the unit, such as: microphone gain, noise gate, general volume, enable/disable microphone, etc.



# CONFIGURATION SOFTWARE

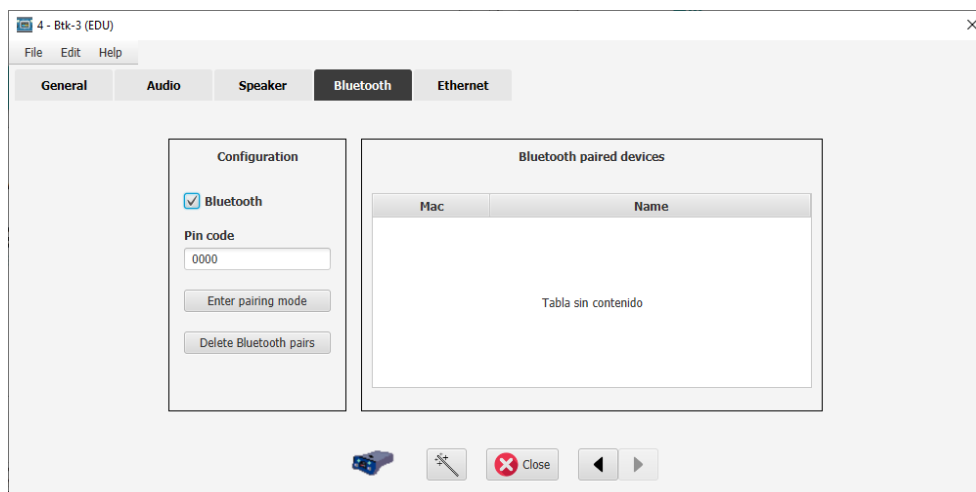
## Speaker (C)

Allows you to set the speaker attenuation when the device's microphone is active. Attenuation can also be configured based on the microphones of the devices that are assigned as neighbors. Up to 4 neighbor devices can be assigned. This setting is especially useful when 2 or more devices are physically operating in a very small space, thus minimizing interference between units.



## Bluetooth (D)

Allows you to turn on/off Bluetooth, assign pairing pin code, activate pairing mode, delete paired devices and view all paired devices.

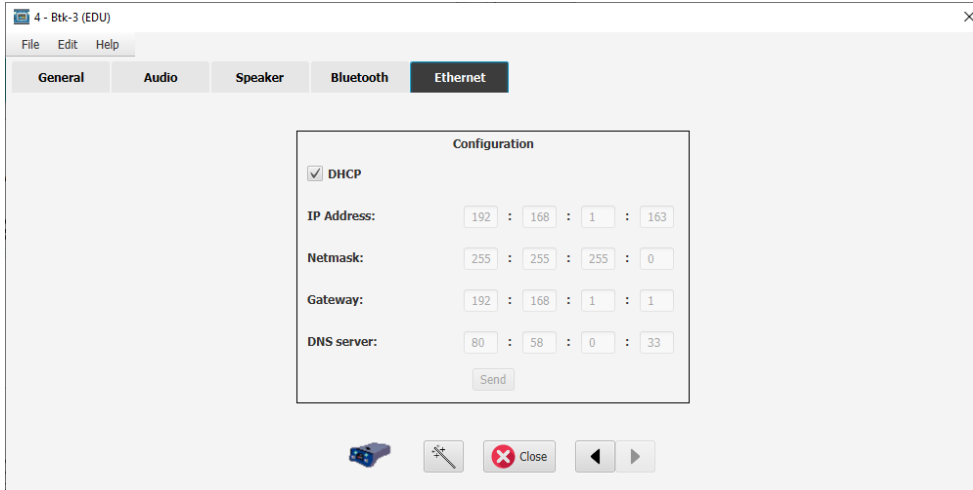


# CONFIGURATION SOFTWARE

---

## Ethernet (E)

Allows you to activate/deactivate DHCP and, where appropriate, allows you to assign a fixed IP.



**Note:** See the specific manual of the Configuration Software for more information.



# TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS		
SYSTEM SPECIFICATIONS	FREQUENCY RESPONSE	100 Hz – 12/24 KHz (-3 dB)
	DYNAMIC RANGE	80 dB
	POWER REQUIREMENTS (alternative or redundant)	<ul style="list-style-type: none"> <li>+24V / 90 mA nominal. AC/DC adapter</li> <li>PoE class 3 / 2.7 W</li> </ul>
PREAMPLIFIER	MICROPHONE TYPE (Headset)	Dynamic (D) or Electret (E). Automatic Selection
	MICROPHONE INPUT IMPEDANCE	4K7
	NOMINAL / MAXIMUM LEVEL	-40 dBu (D) / -20 dBu(E)
	PHANTOM VOLTAGE	+9 VDC (Automatic Selection)
HEADPHONE AMPLIFIER	IMPEDANCE	200 ohm (nominal); 2K ohm (maximum).
	MAXIMUM LEVEL	20 Vpp (200 ohm).
	OUTPUT POWER	250 mW (200 ohm).
	FREQUENCY RESPONSE	250 Hz – 15 KHz.
	RESIDUAL NOISE	-80 dBu (all mics off)
SPEAKER AMPLIFIER	RATED POWER	0,5 WATIOS @ 8 ohm
	MAX SPL LEVEL	85 dB SPL @ 0,5m
	FREQUENCY RESPONSE	250Hz-5KHz
INTERNAL MICROPHONE	NOMINAL LEVEL	-50 dBu
	POLAR TYPE / CHARACTERISTICS	Electret / Directional
ETHERNET PORT	100/1000-Mbit/s Ethernet	IEEE802.3-2002 standard
	PoE compatible	IEEE802.af standard
ETHERNET CABLE	RECOMMENDED CABLE TYPE	CAT. 5E or superior (1000BASE-T)
	Maximum recommended cable length	100m
BLUETOOTH PORT	Bluetooth headset connection	2.4 GHz frequency. Bluetooth® standard
ACCESSORIES (optional)	Headset	ALTAIR AM100 Series
	AC/DC adapter	REF: VET-24
DIMENSIONS	Longitudinal measures	90×50×150 mm(LxAxP)
WEIGHT	Net without accessories	250 gr
ENVIRONMENTAL CONDITIONS	Temperature (operating)	0°C a 50°C
	Humidity (operating)	10% a 90% (HR, no condensed)

**Note:** Specifications subject to change without notice.

## USER MANUAL

---

# Contact and Links

---

## Web Page

[www.altairaudio.com](http://www.altairaudio.com)

---

## Social Media

 : /AltairAudio

 : /AltairAudio

 : @AltairAudio

---

## Product Catalog

[www.altairaudio.com/products](http://www.altairaudio.com/products)

---

## Technical Support

Contact: +34 918043265

---



AUDIO | BROADCAST | COMMUNICATION PRODUCTS

[www.altairaudio.com](http://www.altairaudio.com)

COPYRIGHT Equipos Europeos Electrónicos

## USER MANUAL

---

# WARRANTY

This unit is warranted by Equipos Europeos Electrónicos to the original user, against flaws in the manufacturing and in the materials, for a period of two years (one year depending on some countries), starting from the date of sale.

Flaws due to wrong use of the unit, internal modifications or accidents, are not covered by this warranty.

There is no other warranty expressed or implicit.

Any faulty unit must be sent to the dealer or the manufacturer. The serial number of the unit must be included for any request to the technical service.

Equipos Europeos Electrónicos reserves the right to modify the prices or the technical specifications without further notice.

**SERIAL NUMBER:** .....

### Extract of the Declaration of Conformity (DoC)

“We, Equipos Europeos Electrónicos, S.A. declare, that the above mentioned product is manufactured according to our Full Quality Assurance System in compliance with Directive 99/5/EC. The presumption of conformity with the essential requirements regarding Council Directive 99/5/EC is ensured.”

The Declaration of Conformity (DoC) has been signed. In case of needing a copy of the original DoC, it can be made available via the internet direction:

<http://www.altiraudio.com/DoC>

### Disclaimer

You shall not use the *IPB-306 BELTPACK* in any safety critical or functional applications, including but not limited to using in life supporting, military or nuclear applications. Altair expressly disclaims any responsibility for such usage which shall be made at your sole risk, even if Altair has been informed in writing of such usage. Unless expressly designated in writing by Altair as suitable for use in aerospace applications, you shall not use the above products in such areas.

# European Union Waste Electronics Information

## Unión Europea Información sobre residuos electrónicos

### *Waste from Electrical and Electronic Equipment (WEEE) directive*

The WEEE logo signifies specific recycling programs and procedures for electronic products in countries of the European Union. We encourage the recycling of our products. If you have further questions about recycling, contact your local sales office.



### *Directiva sobre Residuos de Aparatos Eléctricos y Electrónicos (RAEE)*

El logotipo de la Directiva RAEE se refiere a los programas y procedimientos específicos de reciclaje para aparatos electrónicos de países de la Unión Europea. Recomendamos el reciclaje de nuestros productos. Si tiene alguna consulta, póngase en contacto con su Distribuidor.

Information based on European Union WEEE Directive 2002/96/EC

Información basada en la Directiva de la unión europea RAEE 2002/96/EC y el Real Decreto 208/2005



AUDIO | BROADCAST | COMMUNICATION PRODUCTS

[www.altairaudio.com](http://www.altairaudio.com)

COPYRIGHT Equipos Europeos Electrónicos