

WiSpeak grip

Software

WiSpeak control application



USER MANUAL

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1. INTRODUCTION

WiSpeak grip is an Android/iOS app for the setup and control of a WiSpeak Wireless Audio System. It is compatible with Android 5.0 or higher / iOS11 or higher.

A WiSpeak system is made up of one transmitter device (CORE model) and from 1 up to a maximum of 24 receiver units (TUBE or CUBE models), where:

- the transmitter device is the electronic unit that communicates with all the receiver devices to create a WiSpeak wireless network, and takes the role of the **Master unit** in it
- the receiver units are self-powered loudspeakers with wireless audio reception and control capabilities, under the control of the Master unit

The Master unit has these main functions:

- to pair (link) and keep a stable communication with all the receiver units in the system – when paired and within the valid wireless range - supervising the connection quality of them all
- to take care of the global configuration of the system (audio inputs in use, equalisation, levels, etc.)
- to send the individual configuration commands to each receiver unit, as each receiver can have customised parameters
- to send audio contents to all the receiver units, keeping a perfect synchronisation among them

For a basic WiSpeak system setup and end user management (“plug & play”), which means pairing the receiver units with the Master, sending audio to them and adjusting the Master (general) audio volume, it is not mandatory to use WiSpeak grip, as it can be easily and quickly done by means of the transmitter (Master) unit front panel controls. However, WiSpeak grip provides the installer of the system with many fine-tune options that can lead to a system’s more precise performance, better yet customised to each venue and end user profile requirements.

The app can be downloaded from the Internet stores:



2. Bluetooth CONNECTION TO THE MASTER UNIT

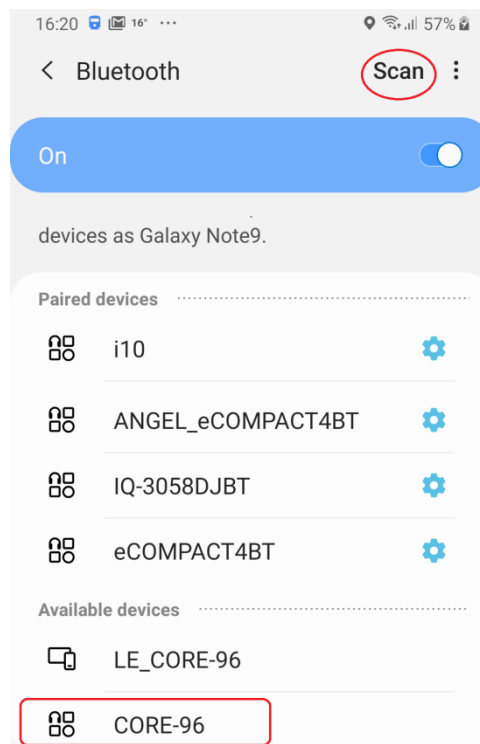
The control communication between WiSpeak grip and a CORE Master device is carried out using Bluetooth connectivity. Before being able to get online with the unit from the app, a Bluetooth pairing must be done, as it happens with any Bluetooth device.

The pairing process depends on each operating system (Android or iOS) and version.

Note: iOS devices can skip the bellow process, required just for Android ones. iOS devices connection via Bluetooth to a CORE transmitter unit is directly managed from the WiSpeak grip application. See chapter 3 for further information.

An example with Android version 9 and a Samsung smartphone:

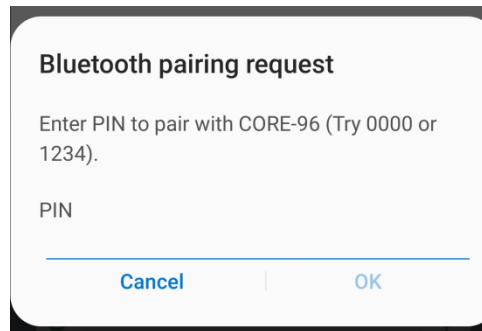
1. Scan for the available Bluetooth devices:



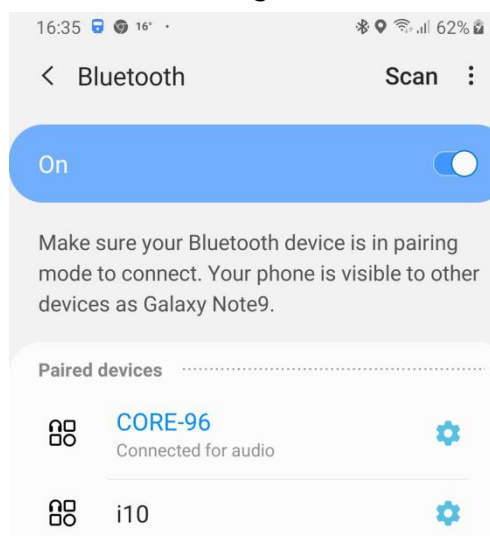
2. The Master device should be discovered and listed as CORE-XX, where XX matches the last 2 digits in each unit's MAC address. This is the default device Alias, or ID of the Master devices, and can be later modified using the app

Note: for Android users **never select the LE_CORE-XX** device that could appear in the list, but the one without the **LE_** prefix

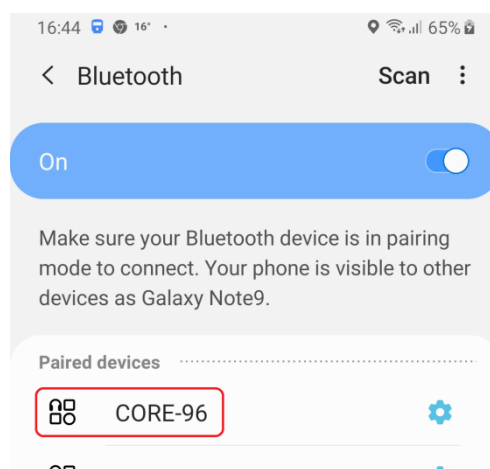
3. Click to pair and enter 1234 as the PIN code (default PIN code, that can be later modified using the app):



4. Once connected it should show a message similar to “**Connected for audio**”:



Note: The next times we try to pair to the Master device, it should already appear under the **Paired devices** list:



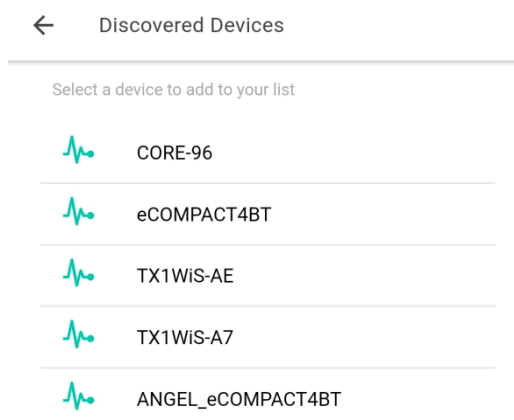
Now we're ready to open the WiSpeak grip app and continue the connection process.

3. WiSpeak grip MAIN SCREEN – CONNECTING TO A MASTER

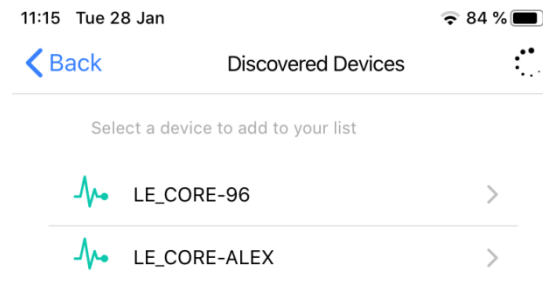
Once the app is opened, the main screen will appear.



Clicking on the **DISCOVER MASTER DEVICES** button will start the scan process for the available Master devices (CORE transmitter units), that will finally show all the Ecler Bluetooth devices already paired to the smart device in the past:

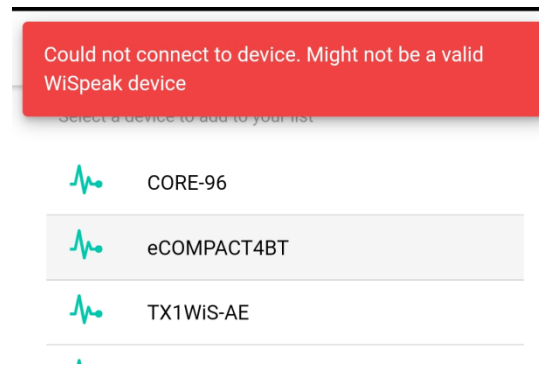


Example for Android OS



Example for iOS

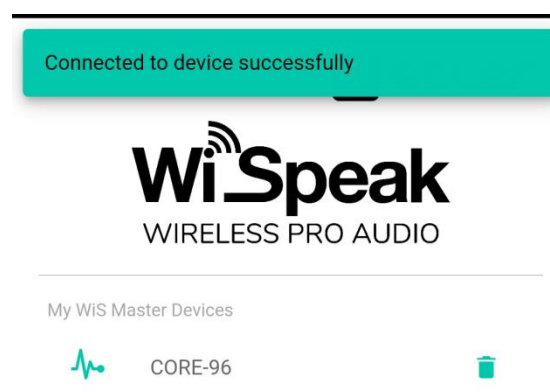
Clicking on a device that is not a WiSpeak CORE transmitter will result in a screen like this one:



Valid WiSpeak CORE transmitters are shown with the following names (IDs) in the Discovered Devices list:

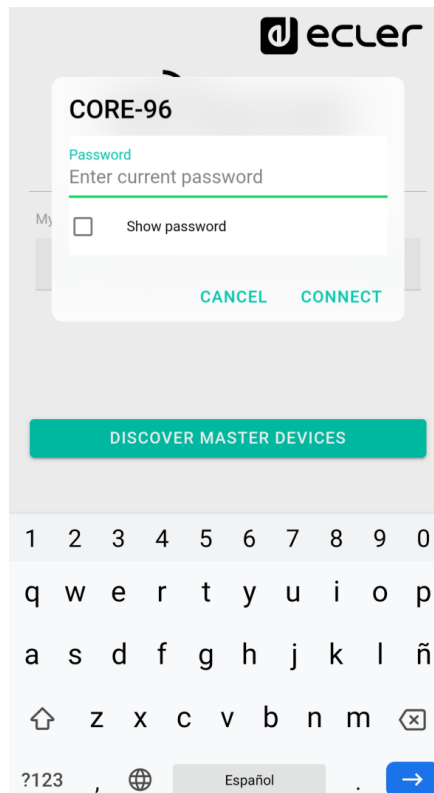
- **Android OS: CORE-XX**, where XX matches the last 2 digits in each unit's MAC address. This is the default device Alias, or ID of the Master devices, and can be later modified using the app
- **iOS: LE_CORE-XX**, where XX matches the last 2 digits in each unit's MAC address. This is the default device Alias, or ID of the Master devices, and can be later modified using the app

Clicking on a WiSpeak transmitter device (in our example CORE-96, Android OS) will lead to the following screen:



The app has now included this CORE Master device in **My WiS Master Devices** list, and it will be remembered in it, with no need to use the **DISCOVER MASTER DEVICES** function in the future to be able to connect to Master devices already used in the past.

Clicking on a Master device in the list - in our example CORE-96 – will show a window to enter the Device’s Password:

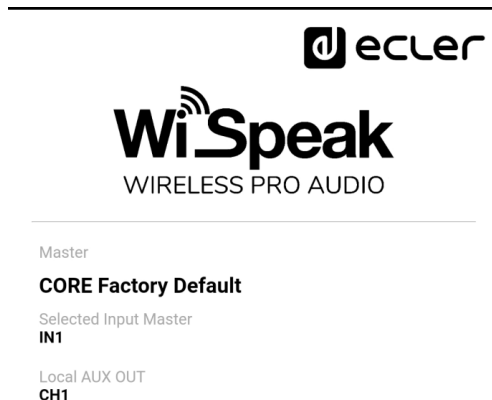


This is the point where the password will define the user’s profile for the app:

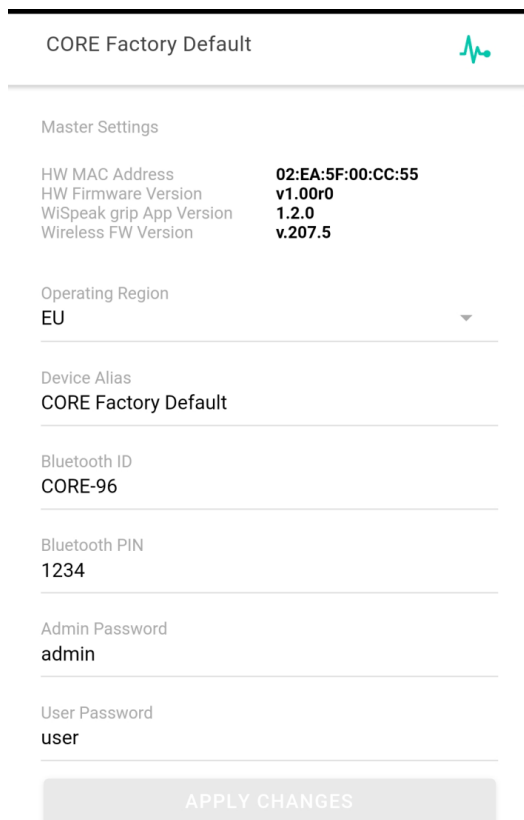
- Profile **Administrator**. Default password = **admin**. The Administrator, which is the technical person that performs the system’s set up and fine tuning, has permission to monitor and modify all the available parameters in the Master Device:
 - Operating region (USA, Europe, etc.)
 - Master Device Alias (name), Bluetooth ID and PIN, Admin and User passwords
 - Audio inputs: gain, source selection, etc.
 - Audio transmitted to the receivers’ network: levels, equalisation, etc.
 - Set up and troubleshooting tools: test signals, MUTE & SOLO functions, wireless connection quality, connection ping count, etc.
- Profile **User**. Default password = **user**. It is the end user profile, the person that can do a daily use of the WiSpeak system, in terms of volume control and audio source selection, nothing else

Note: both Admin and User passwords can be modified using WiSpeak grip app.

Entering **admin** as the password will show the Master unit (CORE) summary information page:



Clicking on the left icon at the bottom bar () will show the Master Settings page:



Once logged as Admin, we're ready to get to the next step: pairing the receivers and getting the WiSpeak system working.

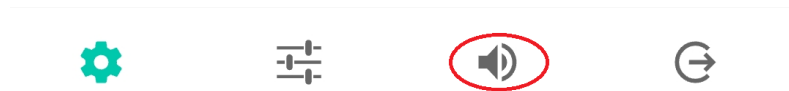
Note: once logged in the WiSpeak grip app, a logout can be carried out by pressing the icon at the right-hand side of the bottom icon bar:



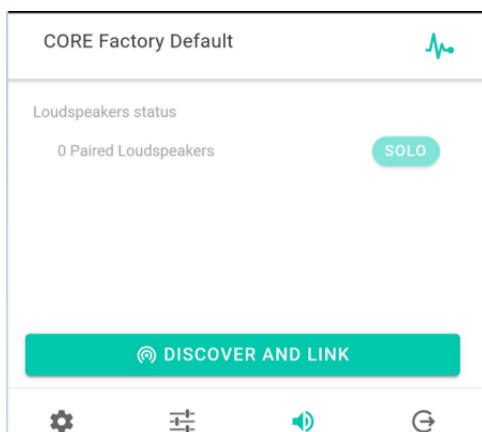
4. PAIRING THE RECEIVERS & STARTING UP THE WiSpeak SYSTEM

The last step to get the system running is pairing the network of loudspeaker receivers, TUBE and/or CUBE models, to the Master device.

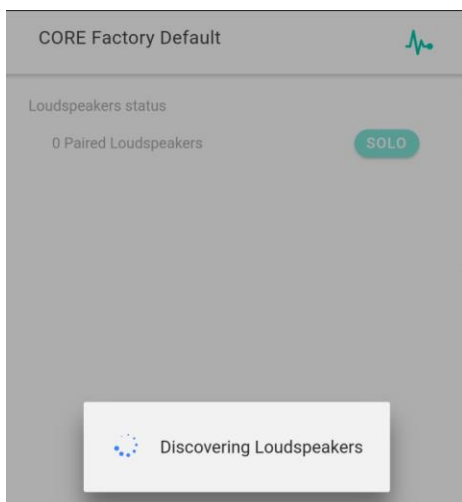
Click on the third icon in the bottom bar to enter to the Loudspeakers page:



Once there, click on the DISCOVER AND LINK button:



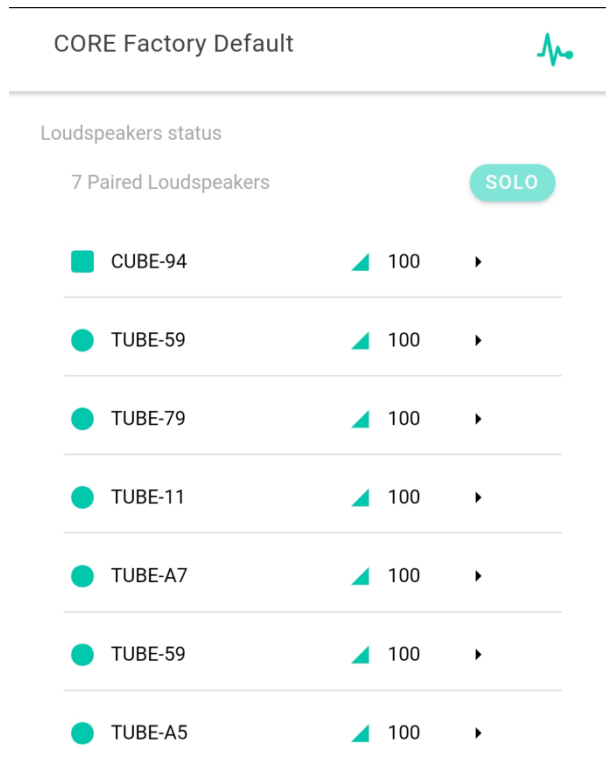
The Master device will then start the scan process to discover and link (pair) the available receivers in its wireless range, taking some seconds to finish:



Note: an **available receiver** must fulfil two conditions:

- it has not been paired to another Master device before
- it is powered, ON and correctly reached from the Master device, with enough wireless connection quality (it is under the valid wireless range and communicating properly)

When the Discover and Link process is over, a list of paired receivers will appear. In our example the Master has successfully paired with 7 receivers:



At this point the system is ready to play, through these 7 loudspeakers in our example, any audio source connected to the CORE Master device.

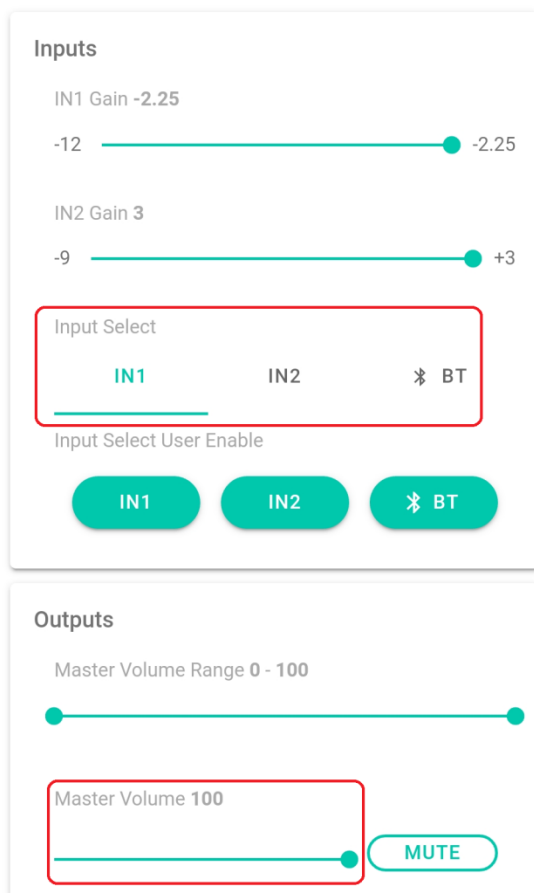
It is possible to select the audio source from the front panel of the Master device (SELECT key) and adjust the general playback volume (VOLUME knob).

But it is as well possible to do both things (and much more) from the Master Audio Setup page in WiSpeak grip app:





Master Audio Setup



Inputs

IN1 Gain -2.25

-12 ————— -2.25

IN2 Gain 3

-9 ————— +3

Input Select

IN1 IN2 * BT

Input Select User Enable

IN1 **IN2** * BT

Outputs

Master Volume Range 0 - 100

—————

Master Volume 100

————— **MUTE**

The above process provides a solid “plug&play” method to set a system up and running in few minutes.

But WiSpeak grip offers much more tools and flexibility to adjust and fine tune a WiSpeak system, far beyond the plug&play basic setup, matching its performance to each venue and use requirements. See Chapters 5 to 8 for more information.

5. MASTER AUDIO SETUP ADVANCED FEATURES

Before going further, it is important to explain how a WiSpeak system deals with the audio incoming signals (entering the CORE transmitter) and the wireless transmission it does with them (to the TUBE / CUBE receiver loudspeakers).

A WiSpeak CORE transmitter manages the audio signals in the following way:

- It can receive up to 3 audio input signals:
 - INPUT 1: stereo balanced, Euroblock connectors
 - INPUT 2: stereo unbalanced, RCA connectors
 - INPUT 3: stereo, received via Bluetooth
- It can select which one of these 3 inputs will be selected as the **WiSpeak audio signal** to be transmitted to the receiver loudspeakers network
- The selected audio signal is **converted from ST to MONO** and is sent to the receivers network, **always using two WiSpeak wireless channels**: CH1 and CH2
- Each of these two channels, before its wireless transmission, can be processed independently in terms of audio equalisation and filtering
- Each receiver loudspeaker in the network will be configured to receive and play one of these two channels. This allows to get exactly the same audio contents to all the loudspeakers, but with different audio processing, if required

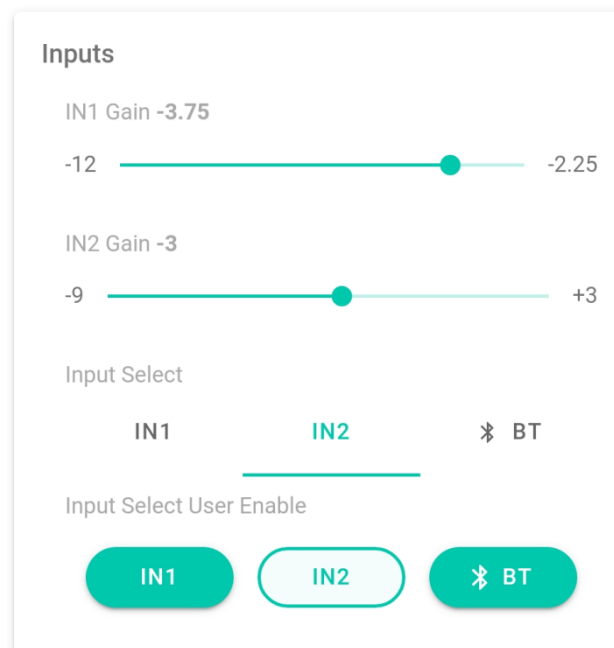
The **Master Audio Setup** page brings access to the configuration of all the above.

It is accessed clicking on the second icon at the bottom of the screen:



The page shows the following sections, in the case a of a CORE transmitter model:

5.1. Inputs



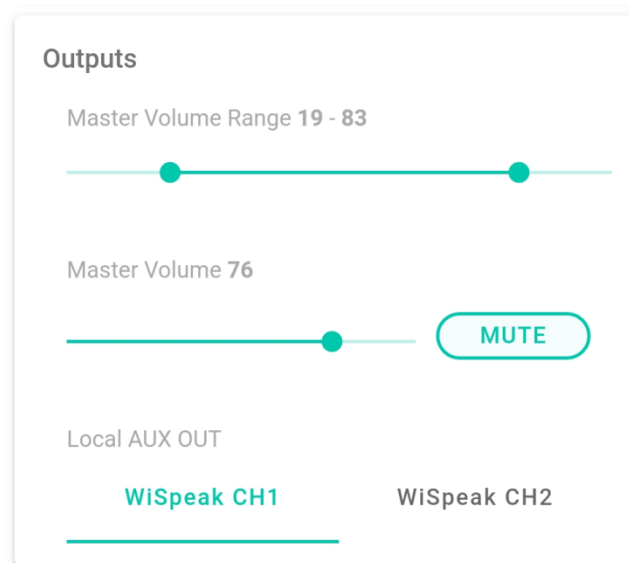
- IN1 Gain, IN2 Gain:** sliding control that allows to adjust the preamplifier gain for the two available analogue audio inputs in a CORE Master device, IN1 (stereo, balanced, Euroblock connectors) and IN2 (stereo, unbalanced, RCA connectors)

Note: the third available input is the Bluetooth one, which has no preamplifier, thus no gain adjustment
- Input Select:** switch control to select the current audio input to be played back in the WiSpeak system

Note: a blinking Bluetooth icon means that the Master device is not currently paired with any device (smartphone, tablet, BT transmitter) to get Bluetooth audio from it. It stops blinking when a device is paired for audio via Bluetooth with the Master device
- Input Select User Enable:** ON/OFF buttons to decide which input select options will be delivered to the end user (with WiSpeak grip app logged in User profile, not Admin profile). These options can be selected from the CORE front panel controls, as well as from WiSpeak grip app when logged as **User**. In the above example, IN1 and Bluetooth inputs are enabled for its selection, but IN2 is disabled.

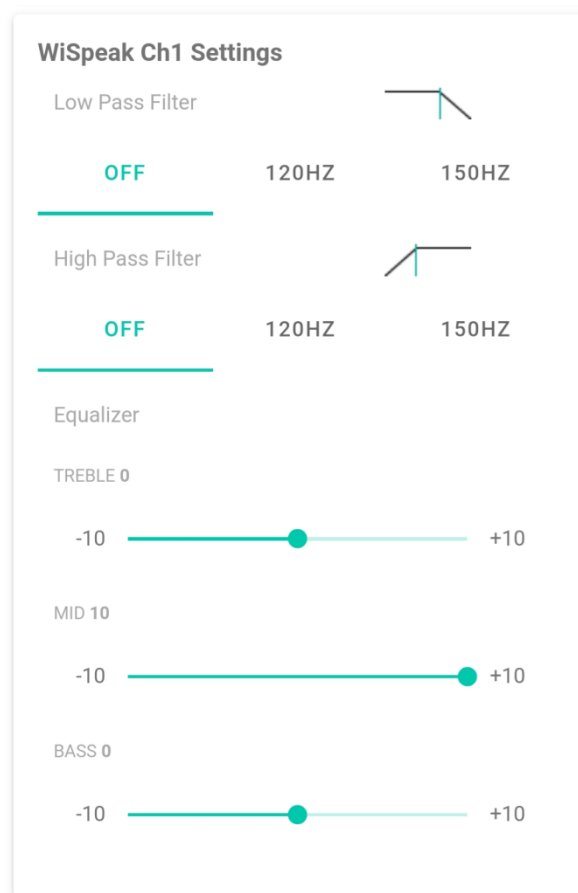
Note: 3, 2 or just 1 of the three inputs can be enabled, in this last case meaning that the input selection is fixed and the end user can't modify it

5.2. Outputs



- **Master Volume Range:** sliding controls that define the effective volume control range (from min. VOL to max. VOL) that the end user will have available. The end user will be able to adjust the general volume of the full installation, within this range, using the front panel volume knob of the CORE transmitter or the WiSpeak grip app, once logged to it with the **User** profile.
- **Master Volume** and **MUTE** controls: Administrator controls affecting the general volume of the installation, and not restricted by the Master Volume Range (that can be useful for testing, troubleshooting, etc., which are not the end user daily conditions).
- **Local AUX OUT:** it defines which WiSpeak audio channel (CH1 or CH2) will be sent to the AUX OUT connector at the back panel of the transmitter device. This connection delivers the contents of the selected channel in analogue format, making it possible to wire-connect the Master device to external audio devices, like subwoofer units, amplifiers, mixers, etc.

5.3. WiSpeak CH1 / CH2 Settings



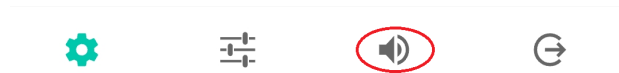
Each WiSpeak channel, CH1 and CH2, has a dedicated and independent section including exactly the same set of processing features and controls. The above picture shows CH1 settings section.

- **Low Pass Filter:** 3 position selector, including no Low Pass Filter (OFF) or a Low Pass Filter with cut frequency at 120 or 150Hz. A Low Pass Filter is especially suitable to feed a subwoofer loudspeaker system.
Note: the WiSpeak CORE transmitter and the WiSpeak TUBE / CUBE receivers feature an analogue audio output that is a copy of the WiSpeak channel in use, and ready to connect, for instance, to an external subwoofer loudspeaker system
- **High Pass Filter:** 3 position selector, including no High Pass Filter (OFF) or a High Pass Filter with cut frequency at 120 or 150Hz
- **Equalizer:** 3-band (Bass-Mid-Treble) equalizer

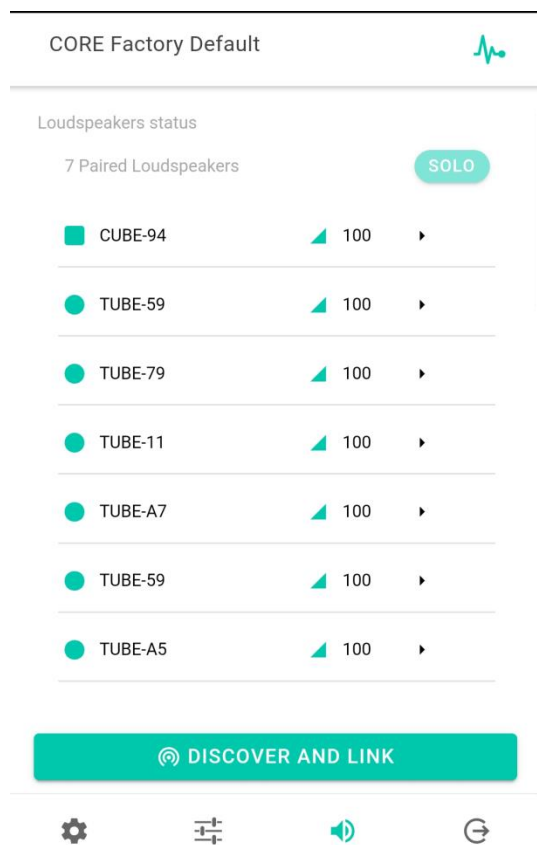
6. LOUDSPEAKERS PAGE ADVANCED FEATURES

This is the application's page that allows doing an individual and advanced adjustment of each TUBE / CUBE receiver loudspeaker in the WiSpeak network, as well as supervision and troubleshooting.

The page is accessed clicking on the third icon in the bottom bar:



The main screen will be similar to this example, in this case showing a list of 7 receiver loudspeakers already paired (Paired Loudspeakers), with one line of summarised information for each one:



The shape (round or square) of the icon at the left hand side of each receiver indicates its model type:

- : CUBE type
- : TUBE type

The colour of these icons does provide information about each loudspeaker's connection status and quality:

- When an icon is shown in grey colour, it indicates the receiver was paired in the past to this transmitter, but is currently offline, meaning the transmitter can't communicate with it (no control nor audio links are available):



- An icon shown in green colour means the loudspeaker is online and holds a proper connection with the CORE transmitter it is paired to:



- An icon in orange colour means that, even the loudspeaker is online with a CORE transmitter, the connection is not totally stable. This doesn't necessarily mean that problems like audio drops will happen, but suggests that some troubleshooting should be performed, checking some items that could be leading to this connection status: distance from the transmitter to the receiver, physical obstacles in their line of sight, other RF sources inducing interferences, etc.:



- An icon in red colour means that, even the loudspeaker is online with a CORE transmitter, the connection is unstable, with higher probability to get audio drops, and troubleshooting might be performed to try to correct it. Like in the previous case, please check those items that could be leading to this connection status: distance from the transmitter to the receiver, physical obstacles in their line of sight, other RF sources causing interferences, etc.:



The next information shown in each line is the receiver unit Alias, or customisable name. By default, each receiver unit has an Alias which starts with its model name, followed by -XX where XX matches the last 2 digits of its MAC address:



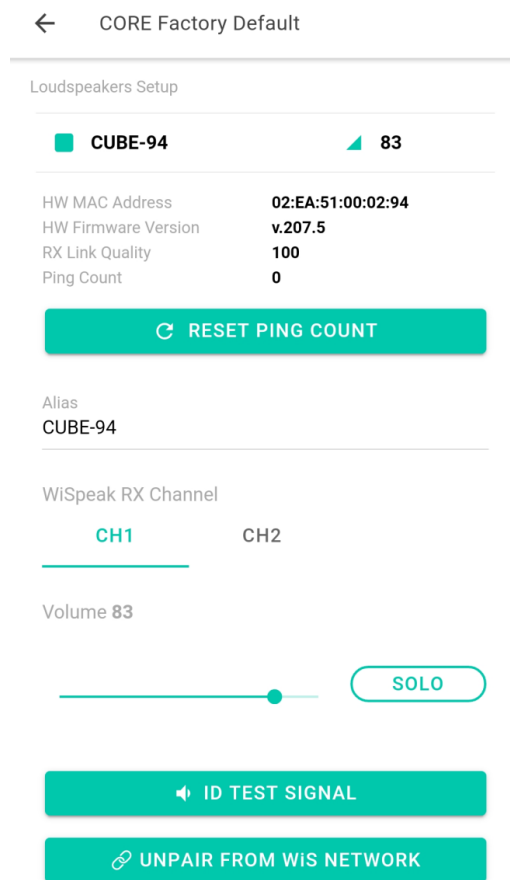
In the above example we can see the unit is a **TUBE** model, with a MAC address that finishes at **59**.

To the right of the Alias there is an indication of the individual loudspeaker volume for each unit, from 0 to 100, as each unit can be adjusted with a different playback volume:



At the bottom of this page the DISCOVER AND LINK button is shown. As explained in chapter 4, it can be used to make the initial pairing of the full batch of receivers in an installation. But it can also be used after it, in a future action that will scan for more available receivers and, if any, will add them to the already paired loudspeakers list, up to a maximum of 24 units. Very useful at a running installation, when adding more receivers is necessary, or when replacing units is required.

Clicking on any of the listed receivers will drive to its personal configuration page:



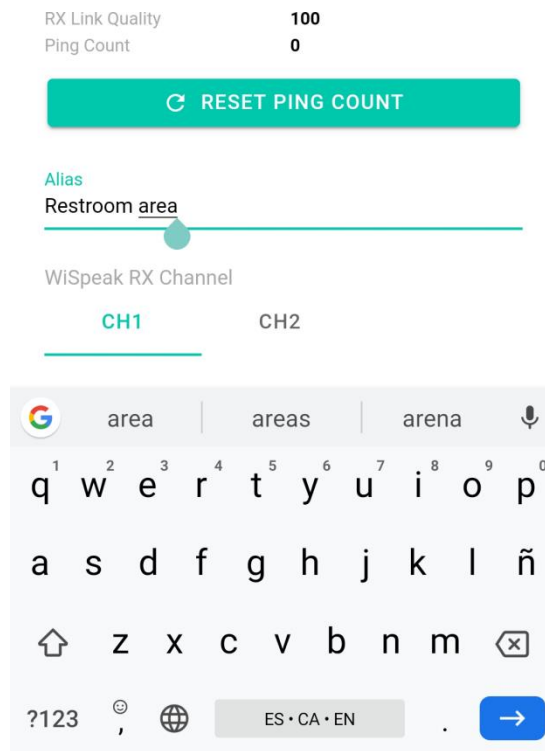
Information available on the top section:

- **Hardware MAC Address:** the full MAC Address of the WiSpeak wireless interface in the unit
- **Hardware Firmware Version:** current version of the firmware running in the receiver unit
- **RX (Receiver) Link Quality:** an indication about how solid is the wireless link between the transmitter and the receiver unit, from 0 (worst) to 100 (optimum)
- **Ping Count:** incremental counter that logs the times the unit has suffered from a significant connection loss. Clicking on the button **RESET PING COUNT** opens a window that allows performing a reset of this counter to zero, just for the concerned receiver, or for the full set of receivers paired with the CORE Master unit.

Note: a connection loss can happen for many reasons, and in most of cases it doesn't mean the unit is faulty. Examples: the unit is powered off (the longer the time it's OFF, the higher the ping count will get), or it is outside the CORE transmitter's wireless coverage range, or it is affected by a hostile RF spectrum environment, etc.

Controls and parameters available:

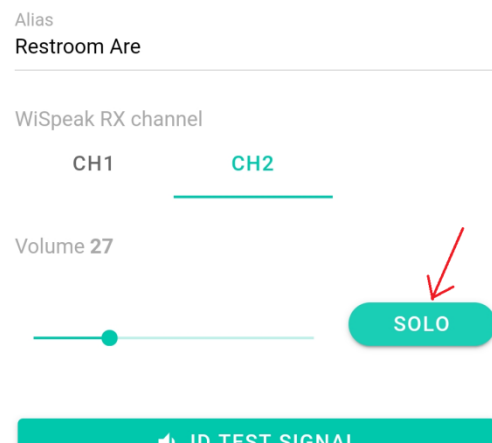
- **Alias** field: shows the Alias (name or label) for each unit, by default matching its model name, followed by -XX where XX matches the last 2 digits of its MAC address. Clicking on it allows to edit it using the OS keyboard:



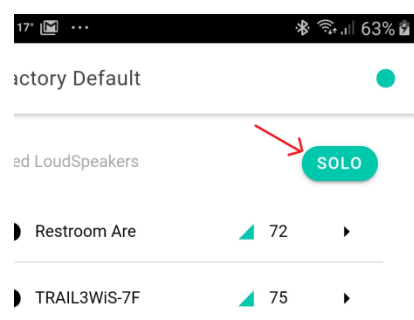
- **WiSpeak RX channel:** a selector to decide which of the two available WiSpeak channels will be played back by the receiver unit.
Reminder: the selected audio source in the transmitter unit is **converted from ST to MONO** and is sent to the receivers' network, **always using two WiSpeak wireless channels:** CH1 and CH2. Each receiver can select CH1 or CH2 and play it back
 Example: some receivers can be playing CH1 (full band audio) and some others CH2 (Low-pass filtered) as they might be connected to subwoofer units by means of their AUX OUT terminal
- **Volume:** individual playback level for each receiver unit, 0 to 100 values. This control allows deciding which sound spots or areas in the installation will have higher / lower sound volume than others. The Master or General volume control gestured by the WisPeak grip end user (or the Admin user while logged), or by means of the CORE's front panel knob or the wall panel connected to CORE's REMOTE port, will affect the full set of receivers in a proportional way, respecting the individual volume set up in this page for each receiver.

Example:

- TUBE receiver A individual volume set to 100
 - TUBE receiver B individual volume set to 80
 - CORE Master volume at 100 (maximum value):
 - Receiver A real playback volume = 100
 - Receiver B real playback volume = 80
 - CORE Master volume at 50 (half of the maximum value):
 - Receiver A real playback volume = 50
 - Receiver B real playback volume = 40
- **Solo:** ON/OFF control that MUTES the rest of receivers, except for the ones with the SOLO function in ON mode (ON=button's green background + white SOLO characters)



Note: when one or more receivers do have the SOLO function active, the Loudspeakers page will show its general SOLO button (top side of the screen) as well in active mode, like this:



Clicking on this general SOLO button will set all the active SOLO functions, in all paired receivers, to OFF.

- **ID TEST SIGNAL** button: clicking on it will start playing a test tone sequence in the receiver unit. The sequence is stopped after 10 seconds, or pressing again the same button. It is really useful to get an acoustic identification of a receiver loudspeaker in an installation, for troubleshooting and/or adjusting purposes. The unit is available to activate the ID test signal when the button is shown like this:

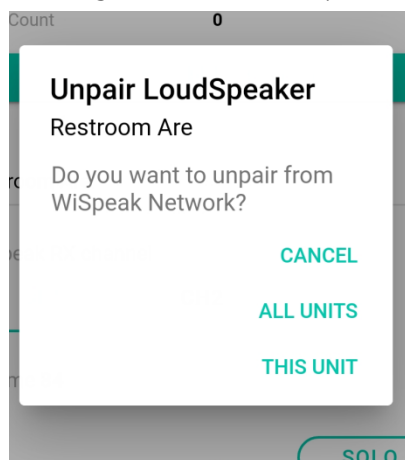


...and once activated, it shows this status, allowing clicking on it again to cancel the current test tone signal:



- **UNPAIR FROM WiS NETWORK** button: it allows to unpair one or all the receivers currently linked to the transmitter. Successfully unpairing one receiver will result in two actions:
 - The unit will disappear from the Loudspeakers page **Paired Loudspeakers list**
 - The unit will be available to be paired again to a transmitter unit

Clicking on this button opens the following window:



And it allows to cancel the process, or to unpair the receiver unit currently under control, or to unpair the whole set of receiver units included in the Paired Loudspeakers list.


After a successful unpair process, the receiver unit gets back to its factory defaults, including the default Alias and rest of parameters (volume, reception channel, SOLO status, Ping Count).

7. MASTER SETTINGS PAGE

The Master Settings page is accessed by clicking on the first icon at the bottom bar in the WiSpeak grip application:



The information shown is the following:

CORE Factory Default 

Master Settings

HW MAC Address	02:EA:5F:00:CC:55
HW Firmware Version	v1.00r0
WiSpeak grip App Version	1.2.0
Wireless FW Version	v.207.5
Wireless FW Version	v.207.5
Operating Region	EU ▼

Device Alias

CORE Factory Default

Bluetooth ID

CORE-96

Bluetooth PIN

1234

Admin Password

admin

User Password

user

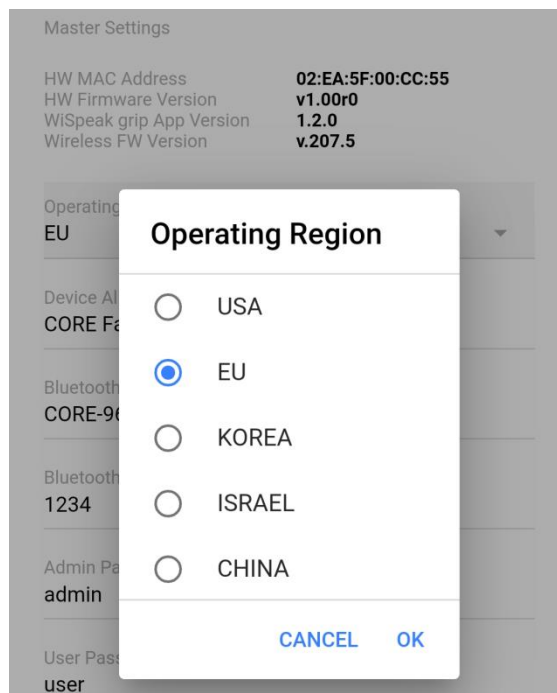
APPLY CHANGES

Information at the top section of the screen:

- **Hardware MAC Address:** the full MAC Address of the WiSpeak wireless interface in the CORE transmitter (or Master) unit
- **Hardware Firmware Version:** current version of the firmware running in the transmitter unit
- **WiSpeak grip App Version:** current version of the **WiSpeak grip application** in use
- **Wireless Firmware Version:** current version of the firmware running in the WiSpeak wireless interface in the CORE transmitter (or Master) unit

Parameters that can be modified:

- **Operating Region:** clicking on it, it is possible to select the operating zone where the system is running.



After selecting an option and clicking OK, it's still necessary to click on the **APPLY CHANGES** button at the bottom of the screen to make them really effective:



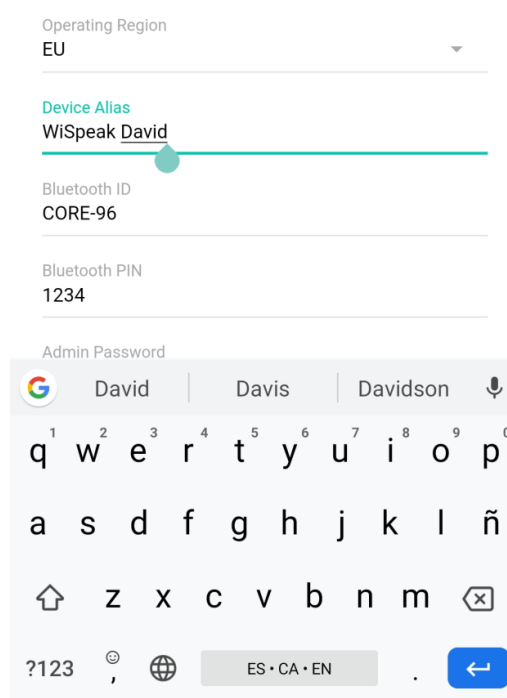
And, after an Operating Region change, sometimes the CORE unit will get disconnected from the WiSpeak grip app, being necessary to connect to it again from the My WiS Master Devices list.

Due to RF regulations and legal responsibilities in different areas in the world, the system must be properly configured to fulfil with them. Among the available options, please make sure you select the one, if any, that matches your local regulations.

[Warning: NEEC Audio BCN / Ecler is not responsible for any regulations' unfulfilment due to a wrong Operating Region setup](#)

- **Device Alias:** allows to modify the transmitter's Alias or personal identification name that will be shown for this unit in the WiSpeak grip app.

Clicking on it, the OS keyboard is shown to allow making changes:



After editing the Alias, it's still necessary to click on the **APPLY CHANGES** button at the bottom of the screen to make them really effective.

- **Bluetooth ID:** allows to modify the transmitter's Bluetooth ID, or name that will be used for identification when pairing to other devices via Bluetooth. Clicking on it, the OS keyboard is shown to allow making changes. After them, make sure you click on the **APPLY CHANGES** button at the bottom of the screen to make them really effective

- **Bluetooth PIN:** allows to modify the transmitter's Bluetooth PIN code, the 4-digit security code to enable the pairing sequence to other devices via Bluetooth (by default = 1234).

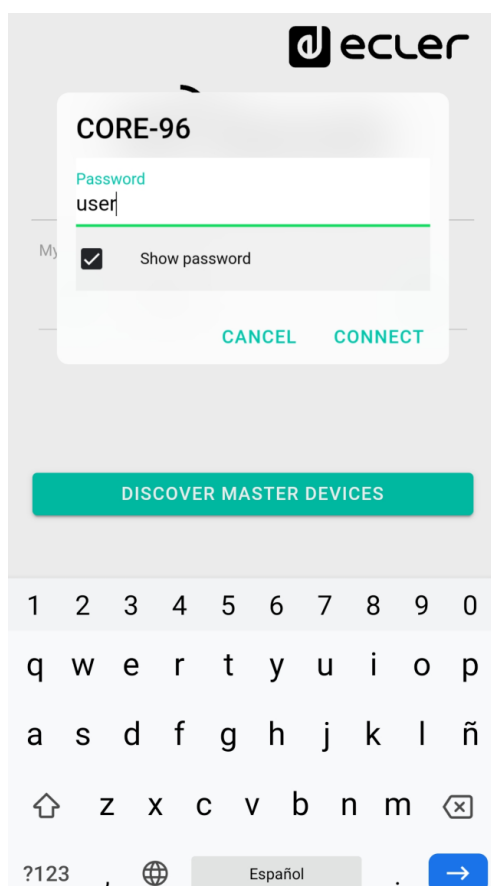
Clicking on it, the OS keyboard is shown to allow making changes. After them, make sure you click on the **APPLY CHANGES** button at the bottom of the screen to make them really effective

Note: any changes applied to the Bluetooth ID and/or PIN will restart the Bluetooth module, meaning this that a short audio interruption would happen, as well as an automatic user's log out from WiSpeak grip app

- Admin Password:** password required to access WiSpeak grip app with Admin profile, that includes all the high-level privileges to configure a WiSpeak system: transmitter, receivers, audio parameters, Alias, passwords, etc.) Clicking on it, the OS keyboard is shown to allow making changes. After them, make sure you click on the **APPLY CHANGES** button at the bottom of the screen to make them really effective
- User Password:** password required to access WiSpeak grip app with User (end user) profile, which just includes the daily use privileges to control a WiSpeak system: general (Master) volume and source selection, with the limits defined by the Admin configuration. Clicking on it, the OS keyboard is shown to allow making changes. After them, make sure you click on the **APPLY CHANGES** button at the bottom of the screen to make them really effective

8. USER CONTROL PAGE

Connecting to a transmitter device and logging into the WiSpeak grip app as **user** (= end user profile) will deliver a very simple and limited version of the application, intended for the end user daily control of the WiSpeak system:



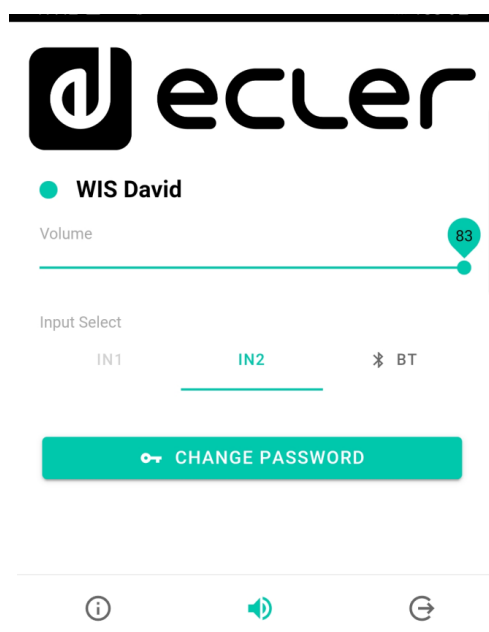
After logging as user, the information page will appear:



It includes the following information:

- **Master:** current CORE Master device (transmitter) Alias
- **Selected Input Master:** current audio input selected in the CORE transmitter as the program audio for the WiSpeak loudspeakers network playback
- **Local AUX OUT:** WiSpeak audio channel (CH1 or CH2) currently routed to the AUX OUT local output of the CORE transmitter, ready to be connected to external audio devices, like reinforcement subwoofers, mixers, amplifiers, etc.

The control page is available clicking on the middle icon at the bottom bar:



It shows:

- **Volume:** sliding control to adjust the general (Master) volume of the installation, within the minimum and maximum limits defined by the Admin in the configuration process.

Note: in the above example, the slider is at its maximum position, which belongs in this case to a general volume of 83, as the Admin defined this value as the maximum available for the end user control

- **Input Select:** selector for the audio input in the transmitter chosen as the program audio for the WiSpeak loudspeakers network playback:

Note: a blinking Bluetooth icon means that the Master device is not currently paired with any device (smartphone, tablet, BT transmitter) to get Bluetooth audio from it. It stops blinking when a device is paired for audio via Bluetooth with the Master device

9. WiSpeak FAQs (JAN 2020)

Q: How many simultaneous Bluetooth control connections can exist, between a device running WiSpeak grip app and a CORE Master unit (transmitter)?

A: Just one

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Q: After connecting to a WiSpeak transmitter and having all the loudspeakers paired, I have no Bluetooth audio playing through the loudspeakers

A: To make this happen, you must confirm:

1. A device (*) that can stream audio via Bluetooth is paired for audio transmission with the CORE-XX transmitter that performs as the Master unit in the installation. This device can be the same one that is connected to the CORE unit for control (using WiSpeak grip app), or a totally different one
2. The Bluetooth audio input is selected in the CORE device

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All product characteristics are subject to variation due to production tolerances. **NEEC AUDIO BARCELONA S.L.** reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications

For technical queries contact your supplier, distributor or complete the contact form on our website, in [Support / Technical requests](#).

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