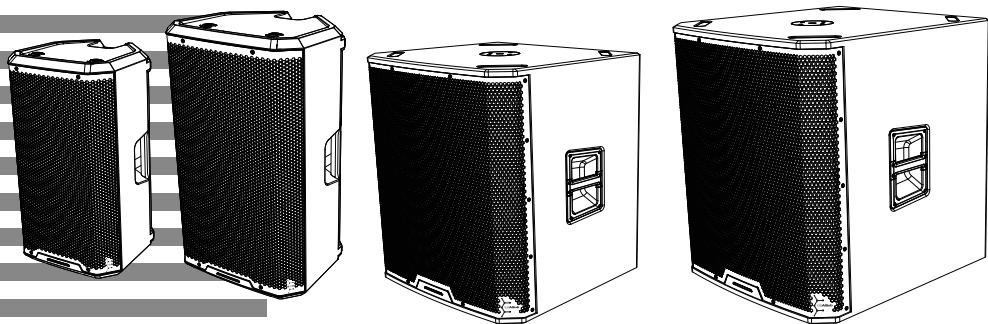




CARBON

SERIES

USER GUIDE

H11709/H11710/H11912/H11711 - Version 2 / 06-2026

1 - Safety instructions

Important safety information



This appliance is designed to be used in a heated environment, protected from all forms of damp or splashing water. Any use in a damp, unprotected environment, or one subject to significant temperature fluctuations, may pose a risk both to the appliance and to anyone in the vicinity.



Only technical services authorised and recognised by CONTEST are authorised to carry out maintenance on this device. Routine maintenance must be carried out in accordance with the precautions set out in this manual.



This appliance contains uninsulated live parts inside its housing, which carry a voltage high enough to pose a risk of electric shock. Under no circumstances should you carry out maintenance on this appliance whilst it is switched on.

Symbols used



The IMPORTANT symbol indicates an important recommendation for use.



The WARNING symbol indicates a risk of physical injury to the user and any other people present.
The product may also be damaged.



The CAUTION symbol indicates a risk of damage to the product.

Instructions and recommendations

1 - Read the instructions:

You are advised to read all the instructions for use and operation carefully before using the appliance.

2 - Keep the instructions:

It is advisable to keep the user and operating instructions for future reference.

3 - Take note of the warnings:

You are advised to take full note of all the warnings and operating instructions for the product.

4 - Follow the instructions:

You are advised to follow all operating and usage instructions carefully.

5 - Water and humidity:

Do not use this appliance near water, for example near a bath, washbasin, sink or basin; nor in a damp place or near a swimming pool, etc.

6 - Installation:

Do not place this appliance on an unstable rolling unit, tripod, stand or table. The appliance could fall, causing serious injury to a child or adult and sustaining serious damage itself. Only use a piece of furniture on castors, a shelf, a tripod, a stand or a table recommended by the manufacturer or sold with the appliance. In all cases, when installing the appliance, you should follow the manufacturer's instructions and use the tools recommended by them.

It is strongly recommended that you move the trolley carefully whilst the appliance is on it. Sudden stops, pushing too hard and rough surfaces could cause the whole unit to tip over.

7 - Ventilation:

The slits and openings in the casing are designed to allow ventilation, to ensure the product can be used safely and to prevent overheating. These openings must therefore not be blocked or covered. Care must be taken never to block these openings by placing the product on a bed, sofa, blanket or similar surface. This device should not be placed in an enclosed space such as a suitcase or a rack unless ventilation has been provided or the manufacturer's instructions have been followed.

8 - Heat:

It is advisable to keep the product away from heat sources such as radiators, stoves, heat reflectors or other products (including amplifiers) that generate heat.

9 - Power supply:

This product only operates at the voltage indicated on the label on the back of the appliance. If you are unsure of the voltage of your electrical installation, please consult your retailer or your electricity supplier.



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



WARNING: To reduce the risk of electric shock, never remove the covers. There are no user-serviceable parts inside. Contact a qualified service centre for maintenance of this appliance.

To prevent the risk of electric shock, do not use an extension lead, a multi-socket adaptor or any other connection device unless the metal parts that come into contact are completely out of reach.

Noise levels



Sound systems are capable of producing sound levels (SPL) that are harmful to human health. Sound pressure levels that do not appear to be critical can cause hearing damage if a person exposed to them over a long period of time.

Do not stand in the immediate vicinity of the loudspeakers whilst they are in operation.



Environmental protection

• The environment is a cause championed by HITMUSIC; we only sell eco-friendly products that comply with ROHS standards.

• Your product is made from materials that must be recycled; do not throw it in your bin, but take it to a recycling centre set up near your home. Approved service centres will take back your end-of-life appliance so that it can be disposed of in accordance with environmental regulations.



10 - Protection of electrical cables:

Care must be taken to ensure that electrical cables are not likely to be trodden on or pinched by objects placed on top of or against them, paying particular attention to cables near sockets and where they emerge from the appliance.

11 - To clean:

Unplug the appliance before cleaning it. Do not use any accessories not recommended by the manufacturer. Wipe the surface of the appliance with a damp cloth. Do not run the appliance under running water.

12 - Period of non-use:

Unplug the power cable from your player if you are not going to use it for a long time.

13 - Penetration by objects or liquids:

Never allow any objects of any kind to enter this appliance through the openings, as this could cause a fire or an electric shock.
Never spill any kind of liquid on the product.

14 - Damage requiring repair:

Please consult a qualified professional in the following cases:

- When the power lead or plug is damaged.
- If any liquid has been spilled or if any objects have fallen into the appliance.
- If the product has been exposed to rain or water.
- If the product does not work as normal when used in accordance with the instructions.
- If the product has been knocked.

15 - Servicing/maintenance:

Do not attempt to repair this product yourself. Doing so could expose you to dangerous voltages. Contact a qualified technician.

16 - Operating environment:

Operating temperature and humidity: +5 to +35°; relative humidity below 85 per cent (ventilation openings must not be blocked).

Do not install the appliance in a poorly ventilated area, or in a place subject to high humidity or direct sunlight (or strong artificial light).

2 – Introduction

The CARBON series speakers and subwoofers are the ideal solution for your live performances. With a power output of 1500W for the CARBON12A and CARBON15A, and 1000W for the CARBON15ASub and CARBON18ASub subwoofers, the CARBON series delivers a powerful, clear and warm sound, suitable for both vocals and the playback of live or recorded music.

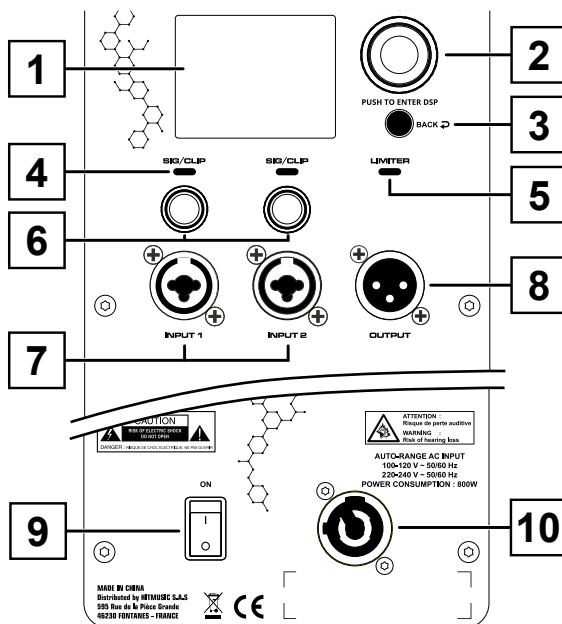
All featuring an adjustable DSP, the components in this series allow you to fine-tune the sound reproduction to perfection, whatever the set-up for your events.

Quick to set up, lightweight and compact, they will soon become your go-to companions for on-the-go performances, without compromising on quality, power or versatility.

3 - Technical specifications

	CARBON12A	CARBON15A	CARBON15ASub	CARBON18ASub
Amplification	1000W RMS Class D for bass 500W RMS Class D for the treble		1000 W RMS Class D	
Total amplifier power	1500 W RMS / 3000 W Max		1000 W RMS / 2000 W Max	
Frequency response	50 Hz – 20 kHz	45 Hz – 20 kHz	40 Hz – 110 Hz	30 Hz – 110 Hz
Food	220–240 V AC, 50 Hz, switch-mode power supply (SMPS)			
H x V dispersion	90° x 70° (10 kHz)			
Sound pressure level (SPL)	130 dB max.	131 dB max.	134 dB max.	135 dB max.
Woofer	12 inches 2.5-inch reel 49.8 Oz Magnet 2 ohms – 500 W AES	15 inches 2.5-inch reel 60.1 oz magnet 2 ohms – 500W AES	15 inches 4-inch reel Magnet 95.6 oz 8 ohms – 800 W AES	18 inches 4-inch reel Magnet 95.6 oz 8 ohms – 800 W AES
Tweet	1.35-inch High Polymers motor 4 ohms 50W AES			
Starters	2 MIC/LINE inputs via XLR/jack combo sockets with automatic MIC/LINE switch + Bluetooth connectivity		2 MIC/LINE inputs via XLR/jack combo sockets + Bluetooth connection	
Outings	1 line-out via XLR +Bluetooth® TWS		2 line outputs via XLR	
Settings	Input 1 and 2 Volume / MASTER Volume DSP with multiple settings CARBONcontrol app		MASTER Volume DSP with multiple settings CARBONcontrol app	
Bluetooth	Frequency band: 2042–2480 MHz			
	+8 dBm 6.31 mW			
Protection	Protection against short circuits, thermal protection and current limiters			
Construction and installations	Plastic crate with nitrogen injection Asymmetrical shape with bevelled edges for return position Full-length metal grille Power/Clip LED on the front panel 1 handle on the side 1 handle on top 1 handle underneath 3 M10 inserts 36 mm base for stand 8 rubber pads: 4 at the bottom + 4 on the sides		Reinforced box made from 15mm plywood Textured, scratch-resistant polyurea paint Full-length metal grille Power/Clip LED on the front panel 2 handles on the sides M20 thread for a connecting pipe 4 rubber pads underneath	
Dimensions (W x D x H)	360 × 353 × 628 mm	430 × 403 × 713 mm	520 × 589 × 576 mm	605 × 666 × 706 mm
Net weight	17 kg	22 kg	41 kg	55 kg

4 - Amplifier module for the CARBON12A and CARBON15A speakers



1 Integrated DSP display

Allows you to view the settings for the built-in DSP.
The various DSP settings will be explained in section 6.

2 DSP adjustment button

Press this button to access the available settings or to enter the various sub-menus
Then turn this knob to scroll through the options in each sub-menu
Press again to confirm your settings.

3 BACK button

This button allows you to go back through the DSP's sub-menus.

4 SIG/CLIP LEDs

These LEDs indicate the presence of a signal (green) or an excessively high level (red) on the relevant track.

5 LED LIMETER

This LED indicates that the limiter has been activated, which means that the output level is too high. In this case, adjust the levels so that the LED goes out to prevent the amplifier from saturating.

6 Input 1 and 2 Level Settings

Make sure the input levels are not too high to avoid distorted sound.

7 Line/Microphone inputs via COMBO socket

The COMBO socket allows you to connect either a male XLR plug or a male mono or stereo jack plug.
This input automatically adapts to the impedance of the source connected to it (line or microphone).
Details regarding the various types of cabling are provided later in this manual.

8 XLR OUTPUT connector

This unit allows you to sum the input signals and feed them back into another powered loudspeaker, a mixing desk or an amplifier/loudspeaker system.

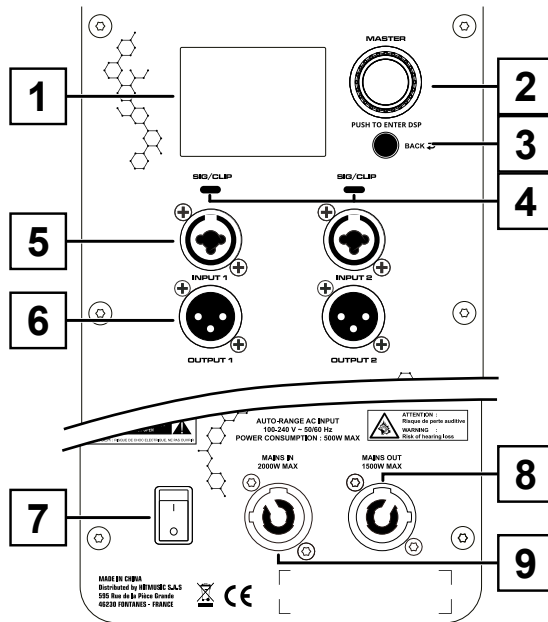
9 Power button

Used to switch the built-in amplifier on and off.

10 Power input

This connects the speaker to the mains. Use the supplied POWERCON cable and ensure that the mains voltage at your performance venue matches the value indicated on the POWERCON connector before switching on the built-in amplifier.

5 - Amplifier module for the CARBON15ASub and CARBON18ASub subwoofers



1 Integrated DSP display

Allows you to view the settings for the built-in DSP.
The various DSP settings will be explained in section 7.

2 DSP adjustment button

Press this button to access the available settings or to enter the various sub-menus
Then turn this knob to scroll through the options in each sub-menu
Press again to confirm your settings.

3 BACK button

This button allows you to go back through the DSP's sub-menus.

4 SIG/CLIP LEDs

These LEDs indicate the presence of a signal (green) or an excessively high level (red) on the relevant track.

5 Line inputs on a COMBO socket

The COMBO socket allows you to connect either a male XLR plug or a male mono or stereo jack plug.
Details regarding the various types of cabling are set out later in this manual.

6 XLR OUTPUT sockets

These connectors allow you to tap into the signals at the inputs and feed them to other powered speakers, a mixing desk or an amplifier and speaker system.

7 Power button

Used to switch the built-in amplifier on and off.

8 Power output

Enables the power at the input to be recovered and fed back into another system.
Please note: The maximum power consumption of the connected system must not exceed 1500 W.

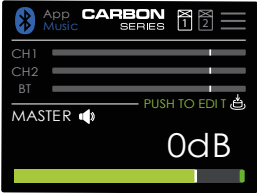
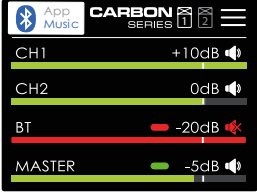
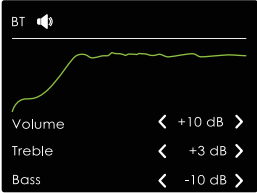
9 Power input

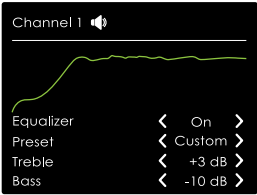
This connects the unit to the mains. Use the supplied POWERCON cable and ensure that the mains voltage at your venue matches the value indicated on the POWERCON connector before switching on the built-in amplifier.
Please note: The maximum power rating for this plug must not exceed 2000 W.

Adjusting the speaker levels on the CARBON12A/15A

- 1 - Connect the speaker to the mains using the POWERCON plug (2-pin plus earth). Leave the power switch (9) in the OFF position.
- 2 - Set all the LEVEL potentiometers to the minimum setting.
- 3 - Connect your microphone or your line-level source, or both.
- 4 - Switch on your line-level source.
- 5 - Switch on your CARBON speaker.
- 6 - If you are using a microphone, take care not to stand too close to the speaker, as this could cause feedback. If you are not using both inputs, it is recommended that you set the level control for the unused input to the minimum position to prevent noise from entering the signal path.

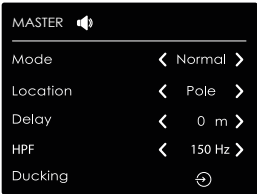
6 - Speaker DSP menu

MENUS	MENU OPTIONS
	Homescreen Appears when the speaker is switched on.
	Main menu This menu appears once the speaker has been initialised; it allows you to adjust the speaker's amplification level. You do not need to press the button to make this adjustment. The value ranges from MUTE (no amplification) to +10dB.
	Channel selection page Press the MASTER button to access this page. The levels for channels 1 and 2 are adjusted using the 'Input 1' and 'Input 2' rotary potentiometers. To adjust the volume of the Bluetooth channel, select the BT line and press the Master button.
	Bluetooth settings This menu allows you to adjust the volume, treble and bass for the Bluetooth channel. You can also click on the speaker icon to mute the channel. The icon will then turn red. Use the BACK button to return to the previous screen.



Channel Settings

This menu allows you to adjust the equaliser, treble and bass for channels 1 and 2. The Preset setting allows you to choose from three pre-set equaliser settings. You can also click on the speaker icon to mute the channel. The icon will then turn red. Use the BACK button to return to the previous screen

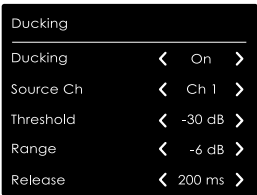


Master Settings

This menu allows you to select the operating mode (Mode), adjust the sound according to the speaker's position (Location), set the delay (Delay), set the high-pass filter (HPF) cut-off frequency, and access the Ducking menu.

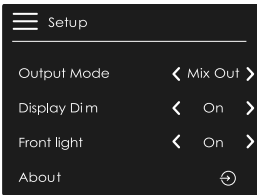
- **Mode:** Normal / Live / Club / Speech
- **Delay:** From 0 to 100 m
- **HPF** (high-pass filter): 20 to 150 Hz

You can also click on the loudspeaker icon to turn off the Master. The icon will then turn red. Use the BACK button to return to the previous screen.



Ducking Menu

This menu allows you to enable and adjust the attenuator's behaviour. You can choose which channel the attenuator applies to (Ch 1, Ch 2 or Ch 1 and 2). The channel or channels on which Ducking is enabled take priority over the others. You can also adjust the trigger threshold (Threshold), the attenuation rate (Range) and the release time (Release).

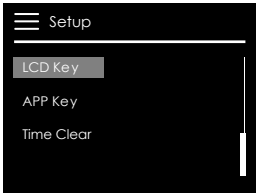


Setup Menu, page 1

This menu allows you to select the signal sent to the OUTPUT (Output mode), set the screen to switch off automatically (Display Dim), and control the front panel LED (Front Light).

- **Output mode = Mix Out:** the input signals are routed to the output, and the level depends on the MASTER level setting (post-fader).
- **Output mode = Link Out:** the signals present at the input are sent to the output, and the level is not affected by the MASTER level setting (pre-fader).

From this menu, you can access the 'About' menu, which provides information on the firmware version and allows you to reset the settings to their factory defaults.

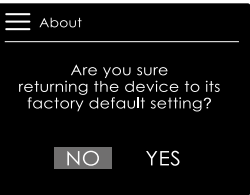


Setup menu, page 2

This menu provides access to the meter’s lock and management functions.

- LCD Key**: Allows you to manage the code that locks the DSP and to unlock it.
- APP Key**: **Allows you** to enter the code that locks the application.
- TIME Clear**: **Resets** the speaker’s usage time to 0.

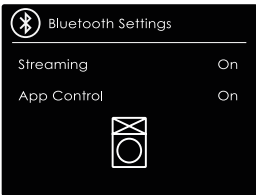
To view the various locking options, please refer to paragraph 8.



Menu: About

This menu allows you to view the firmware version. It also allows you to reset the settings to their factory defaults.

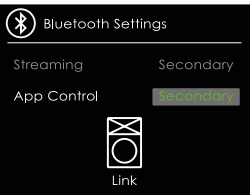
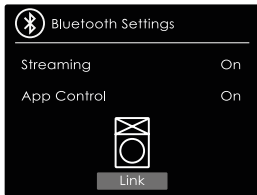
Bluetooth settings



Enabling Bluetooth control

Set the Streaming mode to ON for simple Bluetooth use.

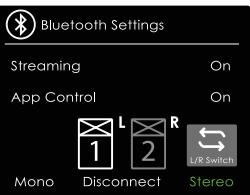
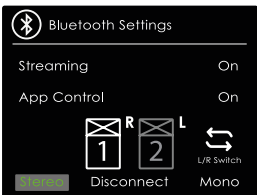
If you are using the dedicated app, enable the App Control feature.



TWS function

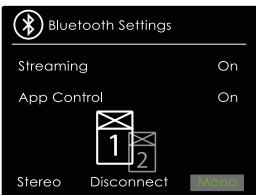
Switch on both speakers and click 'Link'.

The second speaker then automatically switches to Secondary mode.



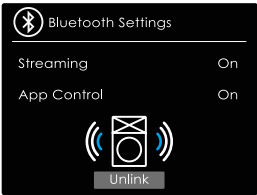
Stereo reversal

Click the L/R Switch button to reverse the stereo channels.



Mono use

In mono mode, the left and right channels of the stereo signal are sent to both speakers at the same time.



Disconnecting from TWS mode

Click the 'Unlink' button to exit TWS mode.

7 - Subwoofer DSP menu

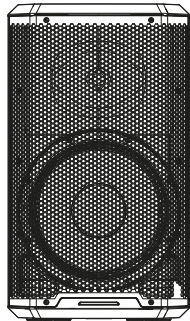
MENUS	MENU OPTIONS
	Homescreen Appears when the unit is switched on.
	Main menu This menu appears once the subwoofer has been initialised; it allows you to adjust the subwoofer's amplification level. You do not need to press the button to make this adjustment. The value ranges from MUTE (no amplification) to +10 dB. Press the MASTER button to access the settings.
	Settings (first level) -App Control: Enables you to adjust settings via the dedicated app: CARBON SERIES. -Delay: Allows you to add a delay to the subwoofer to synchronise it with the rest of the system. The delay value is expressed in ms (from 0 to 340 ms). By default, no delay is applied. -Mute: Mutes the output. -LPF: Allows you to adjust the frequency of the low-pass filter (from 40 to 100 Hz). -Thru HPF: Allows you to adjust the frequency of the high-pass filter (from Off to 100 Hz).
	Settings (second level) -Mode: Normal, Rear Cardioid, Front Cardioid. -Normal: Select this option when using the cabinet in non-grouped mode. -Cardioid Front / Rear: Select this option for a cardioid effect when the speakers are in grouped mode. -LED Control: Allows the front-panel LED to be switched on and off -Version: Displays the internal software version. -Reset: Allows you to reset the settings to their factory defaults.

App CARBON SERIES Copyright(C)2024 Audiophony Audio All right reserved Reset Are you sure returning the device to its factory default setting? YesNo	Reset Menu Allows you to reset the settings to their factory defaults.
---	--

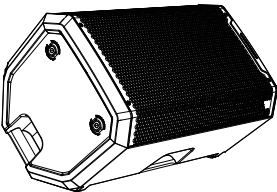
8 - Procedures for locking the DSP and the application

LCD Key 0000 SetClear APP Key 0000 SetClear	No lock code is active when the device leaves the factory. You can lock access via the LCD and access via the app separately. When access via the LCD is locked, you can no longer access the volume settings. To lock access, enter a code and click "Set"
Lock Use Time: 7 D:00 H	If the DSP has been locked, when you switch on the speaker, the screen shown opposite will appear. In this case, no settings can be adjusted without unlocking the menu. When the menu is password-protected, it locks after 2 minutes of inactivity. Once locked, the DSP can no longer be accessed via the control panel.
LCD Key 0000 Verify LCD Key <0>000 Verify	Unlock the DSP (LCD Key) The menu is locked with a 4-digit code. Enter the correct code and click "Verify" to access the menu.
APP Key 0000 Verify APP Key <0>000 Verify	Unlock the app (APP Key) The app is locked with a 4-digit code. Enter the correct code and click "Verify" to access the app.
Admin Key 0000 Verify Are you sure you want to clear the usage time? Use Time: 7 D:00 H YESNO	Reset the counter to 0 (Time Clear) To reset the counter to 0, you need a different password to the one used to lock the DSP or the app. Please contact your dealer to obtain it. Only they can obtain it from Audiophony's technical department.

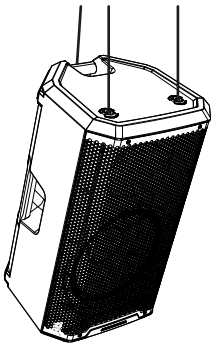
Different positions for the ‘Rental’ menu



Pole

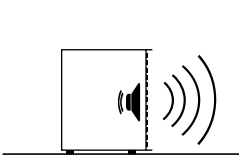
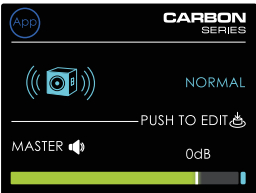


Monitor

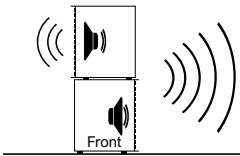


Bracket

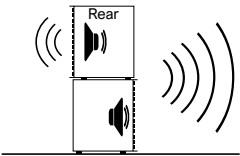
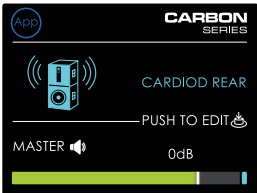
Different positions for the Mode menu



Normal



Cardioid Front



Cardioid Rear

Note:
Whichever mode you select, the settings are the same.

9 - App for iOS and Android

The app is available to download from the website <https://audiophony.com>.

It allows you to connect the speaker or subwoofer to the mobile app.
This app allows you to remotely control all the DSP's functions.

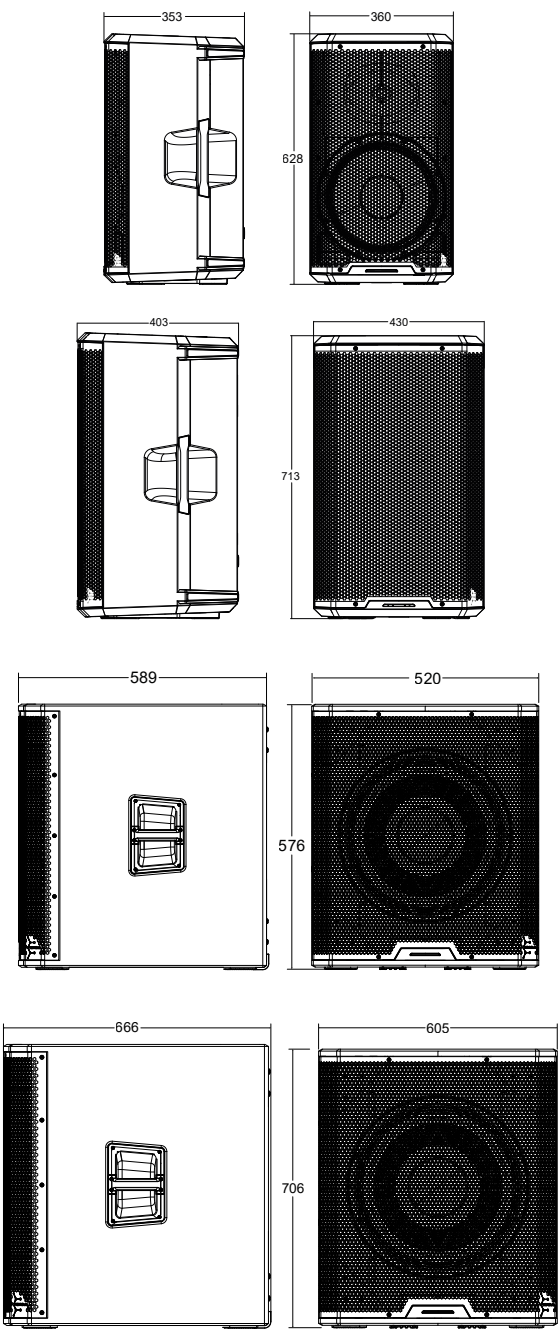


iOS version

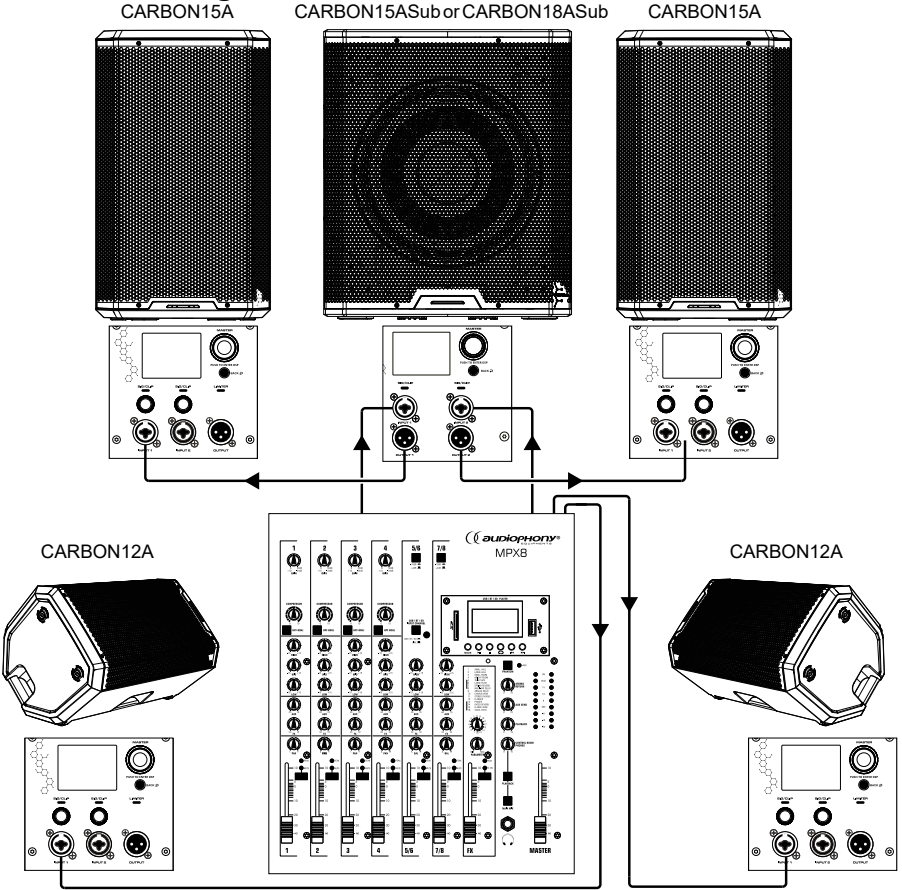


Android version

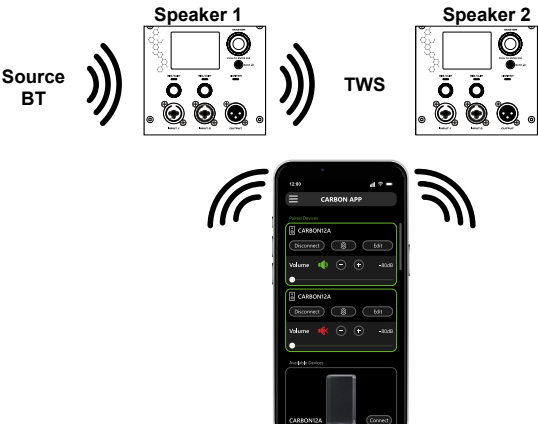
10 - Dimensions



11 - Schematic diagram



Use in TWS mode with the CARBONcontrol app

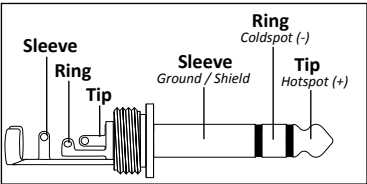
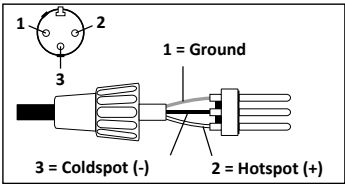


12 - Connectors used

12.1 - Symmetrical

The inputs on COMBO connectors are balanced. This type of connection allows signals to be transmitted over long distances without compromising signal quality; it is therefore preferable to use balanced signals.

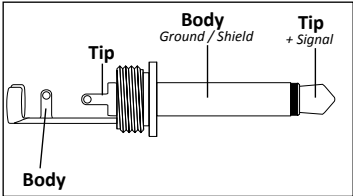
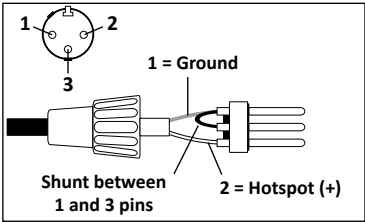
The two diagrams opposite show the principles of symmetrical wiring using XLR or 6.35 mm jack plugs.



12.2 – Asymmetrical

If you do not have a source with a balanced signal, ensure that the cable lengths do not exceed 1.5 metres.

The two diagrams opposite show the principles of unbalanced wiring using XLR or 6.35 mm jacks.



AUDIOPHONY® takes the utmost care in manufacturing its products to guarantee you the highest quality. Changes may therefore be made without prior notice. Consequently, the technical specifications and physical design of the products may differ from the specifications and illustrations shown in this manual.

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