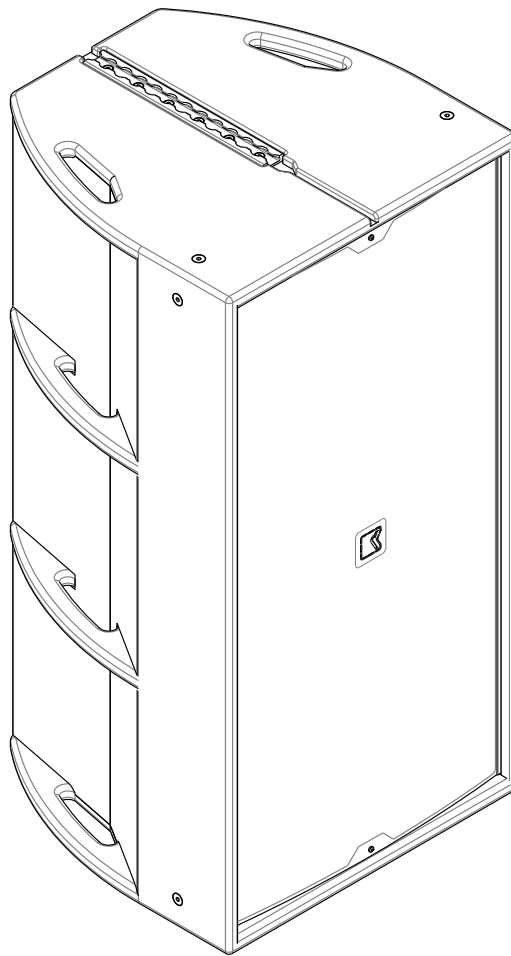


**Outline**

# MONACO 215CX SP

Full-range self-powered portable loudspeaker



**USER MANUAL**

## SAFETY REGULATIONS

Please read this manual carefully and in its entirety. It contains important information regarding safety issues, including guidelines for general safe use of rigging systems as well as advisories on government regulations and liability laws.

The suspension of large, heavy objects in public places is subject to numerous laws and regulations at the national/federal, state/provincial, and local levels.

The user must assume the responsibility for making sure that the use of any rigging system and its components in any particular circumstance or venue conform to all applicable laws and regulations in force at the time.


## GENERAL SAFETY RULES

- Carefully read this manual in all its parts
- Respect the working load limits and maximum configurations of the elements and of any third-party component (such as suspension points, motors, rigging accessories, etc...)
- Do not incorporate any accessory not provided by Outline; all damaged or defective components must be replaced only by equivalent parts approved by Outline
- Ensure personnel health and safety, ensure that no one is standing under the system during the installation, ensure that all personnel involved in the installation are equipped with personal safety devices
- Always double check that the elements are correctly connected before suspending the system.

The rigging elements are easy to use, however the installation shall be carried out only by qualified personnel that are familiar with the rigging techniques, safety recommendations and with the instructions described in this manual.


All mechanical components are subject to wear and tear over prolonged use as well as corrosive agents, impacts or inappropriate use. For this reasons users have the responsibility to adopt and adhere to a schedule of inspections and maintenance. Key components (screws, connecting pins, welded points, rigging bars) must be inspected before every use. Outline strongly recommends to carefully inspect the system components at least once a year, reporting in a written document the date, the name of the inspector, the points checked and any anomalies discovered.

## DISPOSAL OF WASTE MATERIALS

 Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2012/19/EU and subsequent amendments. This means that the product must NOT be disposed of with other household-type waste. It is the users'

responsibility to dispose of their waste electrical and electronic equipment by handing it over to an approved reprocessor. For more information about where you can send your equipment for recycling, please contact your local distributor. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.

## CONFORMITY AND WARRANTY

 All the Outline electro-acoustic and electronic devices are in conformity with the provisions of EC/EU directives (as stated in our CE declaration of conformity).

The CE declaration of conformity is attached to the product warranty certificate and is shipped with the product.

## DESCRIPTION OF THE SYSTEM

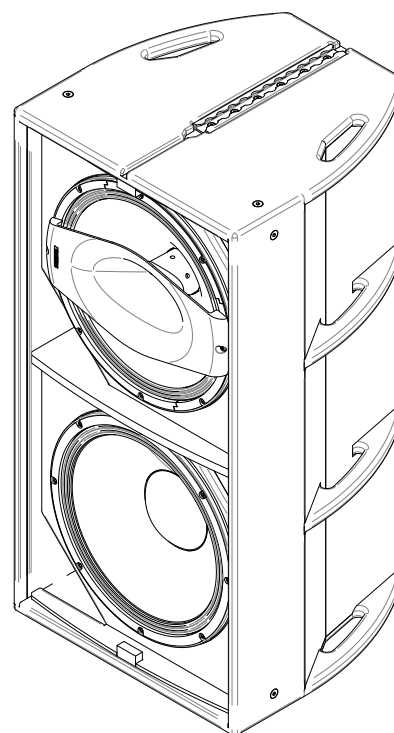
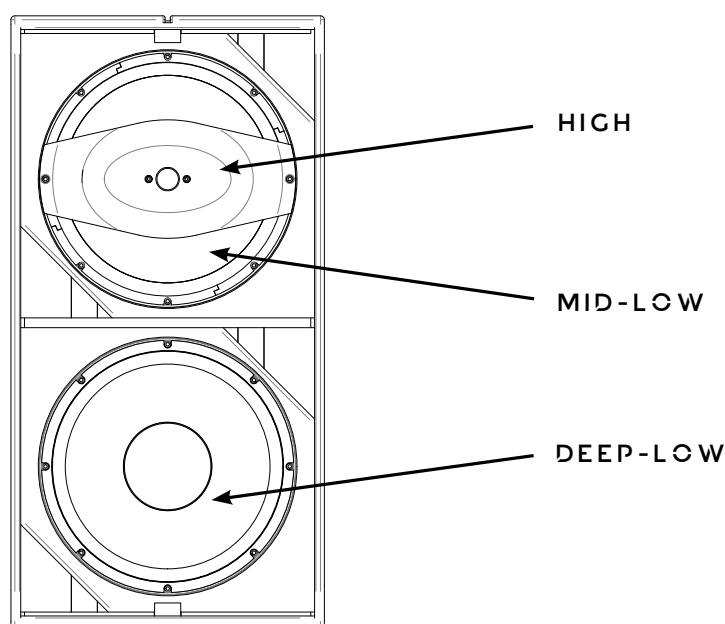
As for all Outline products, every single component of the cabinet, its structure and dimensions are the result of accurate choices made basing on specific studies, starting from an idea of the enclosure's design and its use as a part of a more complex system.

Monaco 215CX SP is a two-section self-powered system. With a nominal dispersion of 80° x 60° (H x V), the system features a built-in amplifier platform, with integrated DSP with four selectable EQ presets and input gain, enables to use this enclosure as part of a plug & play solution. The maximum available power from the amplifier module is (2x) 1500 W EIAJ at 4 ohm, 3000 W peak. The loudspeaker is equipped with Outline's high-quality waveguide-loaded 3" coaxial driver, which is coaxial to the mid-low bass-reflex-loaded 15" woofer with a low-pass acoustical load-

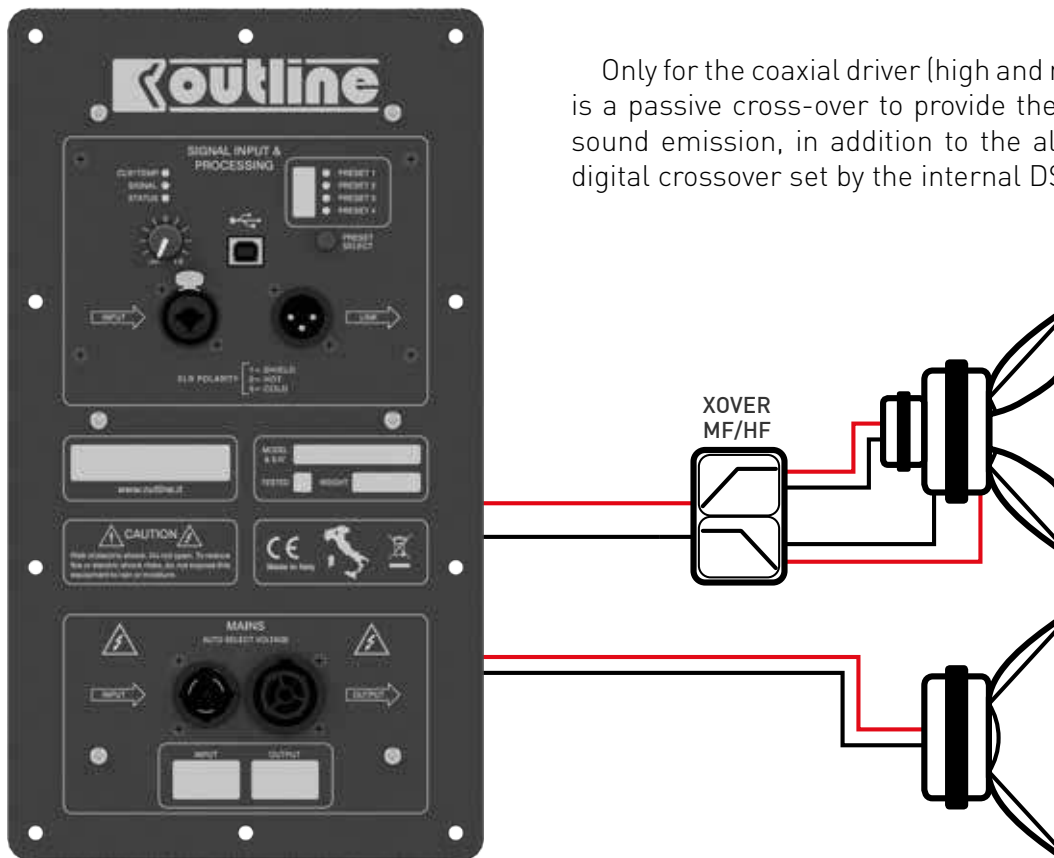
ing and filter, and another low-pass section (tuned at a lower frequency) for the deep-low bass-reflex-loaded 15" woofer.

The cabinet is constructed from Baltic birch plywood and undergoes a precise assembly process: some parts are made with curved wood, whereas other sections are formed from appropriately shaped panels.

The result is a very rigid cabinet without any internal resonance. Useful external handles facilitate handling and installation to the utmost. This speaker finds its best application as the main element of indoor portable sound reinforcement systems for venues like arenas, theatres, sports halls, live events places, etc.

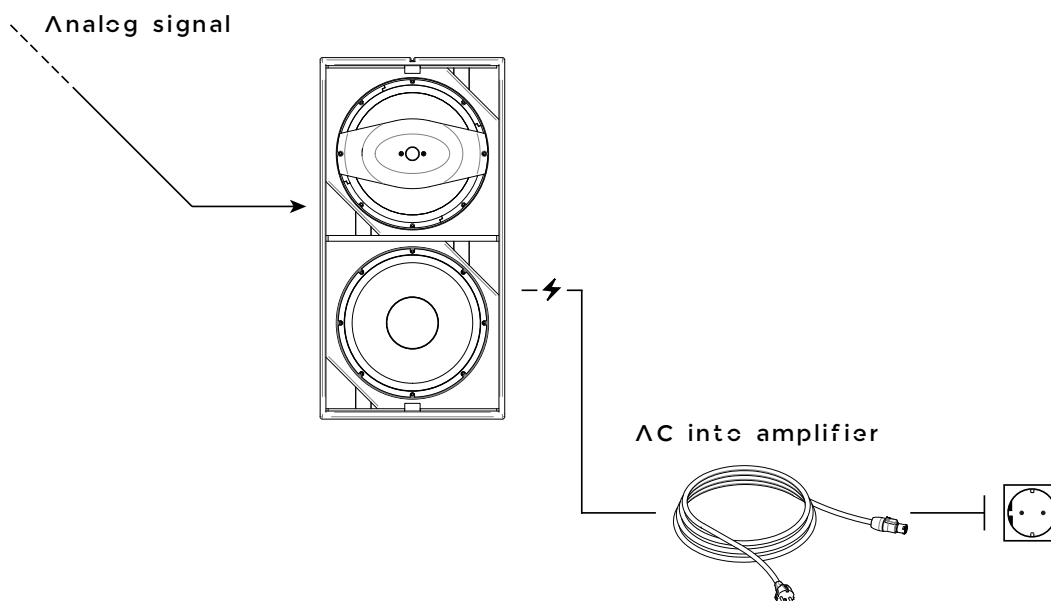


## CABLING



Only for the coaxial driver (high and mid-low) there is a passive cross-over to provide the most precise sound emission, in addition to the already present digital crossover set by the internal DSP.

It is enough to provide an analogue input signal and the required power supply for the system to be ready to use.

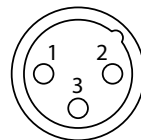


## CONNECTORS

The connections are made via the 3-pin XLR-female or 1/4" TRS (phone Jack) connector.

The polarity of the XLR connector is:

- pin1: GROUND
- pin2: IN(+)
- pin3: IN(-)



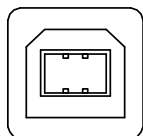
Connettore maschio  
XLR



Connettore  
jack 6,35 mm  
TRS

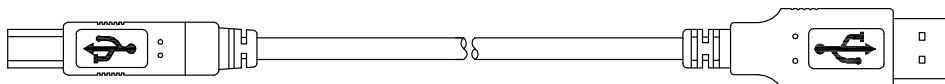
For the TRS connector ("Tip", "Ring", "Shield") the polarity is:

- "Tip": IN(+)
- "Ring": IN(-)
- "Shield": GROUND



USB type B

It is possible to control the integrated DSP of the amplifier via a USB cable. USB type B connector is located on the rear panel of the amplifier.



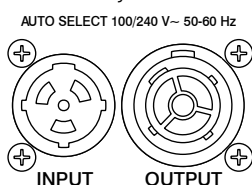
## AMPLIFICATION

The amplifiers are directly integrated into the cabinet. The amplifier module is completely autonomous and designed to be immediately ready for use (plug & play) once connected to the mains power.

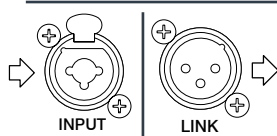
The integrated DSP allows the management of the input signal and control through the dedicated section available by connecting to the processor with a USB

cable (type B). Before doing this connection, you need to download and install *ArmoníaPlus*, the amplifier's management software, as well as the Monaco 215 CX SP plug-in available in the *Armonía* Marketplace.

Below you will find the elements offered by the management panel:

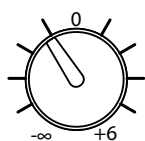
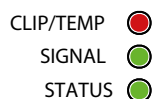


**Input & Output power:** Powercon True1 (IP65) with a parallel output link at 220 V or 110 V.



**Analog signal input:** XLR connector for balanced analog signal.

**Analog signal link:** XLR connector in parallel to the input connector.



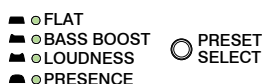
**Potentiometer and LEDs:** the system gain can be regulated with the dedicated potentiometer which can be set from  $-\infty$  to  $+6$  dB.

**STATUS LED:** if it is off, the system is down. If it is **GREEN**, the system is ready to play and standby mode is disabled. If it is **CYAN** the system is ready to play but standby mode is enabled. It is **BLUE** when system is in standby mode\*;

**SIGNAL LED:** when it is off there is no input signal, when the signal is present and the output level is in the linear range, it is **GREEN**. If it is **YELLOW**, the input signal is strong enough to engage the output limiter. If it is **RED** Input signal is too high;

**CLIP/TEMP LED:** when it is off the system temperature is ok and there is no signal clipping. A **YELLOW** clip/temp LED indicates high system temperature and the DSP will lower the clipping voltage level to reduce the output power and limit the increase of temperature. If it is **RED**, there is an output signal clipping.

\*By factory default the 'standby mode' is active. By pressing the preset select push-button for at least 3 seconds the user can toggle the standby mode: when active, after 15 minutes of no input signal (input level below  $-45$  dBu) the Monaco215CX-SP enters a low power operating mode (standby) and sends a signal to the power amplifier that turn off the output stages. The system turns back operating when the input signal level exceeds  $-45$  dBu.



**Preset selection:** button for the selection of one of the four available presets. It is possible to see the active preset with the help of the dedicated LEDs.



**USB input type B:** USB port dedicated to DSP control through PC and *Armonía Plus* software.

## PRESETS

Outline has made available four presets that are potentially useful in any situation.

There is a button for selecting one of the available presets on the rear panel. These presets are named according to the needs they were designed for:

- FLAT, for a linear response;
- BASS BOOST, for an emphasis of low freq.;
- LOUDNESS, for low volume listening;
- PRESENCE, for speech applications.

## RIGGING

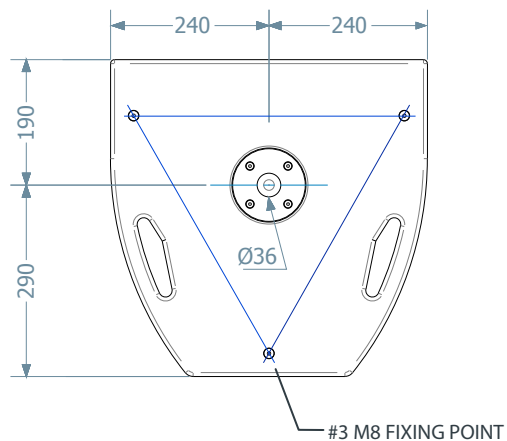
Each Monaco 215CX SP element requires one or more external rigging structures to support each single element by its rail and the total weight of the cluster if more than one loudspeaker is used. The rigging hardware must be designed according to the local laws and local safety factors and considering the total load of the system, the dynamic factors inducted by

vibrations, winds and mounting procedures. The rigging system shall allow also safe mounting and dismounting operations and easy visual control. Outline provides a series of rigging accessories for the Monaco 215CX SP Smart Fix Rail System, according to the application needs.

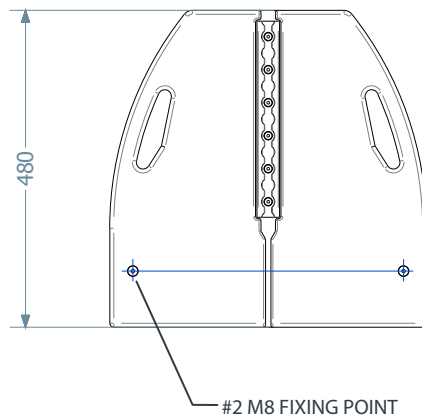


## OVERALL DIMENSIONS

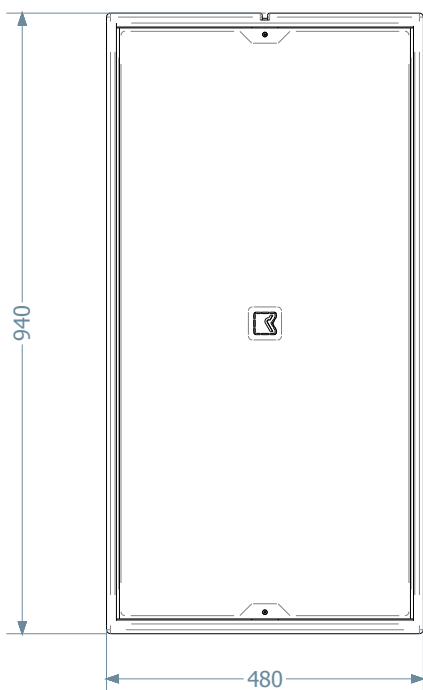
BOTTOM VIEW



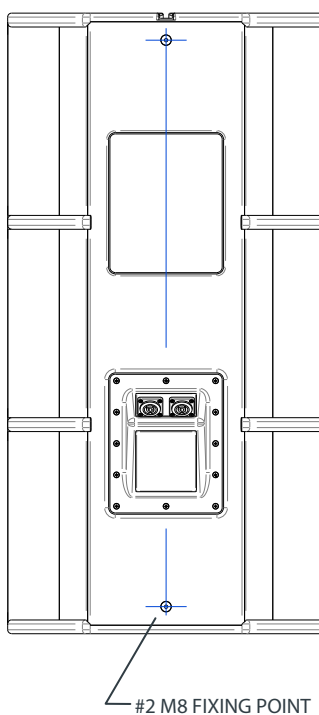
TOP VIEW



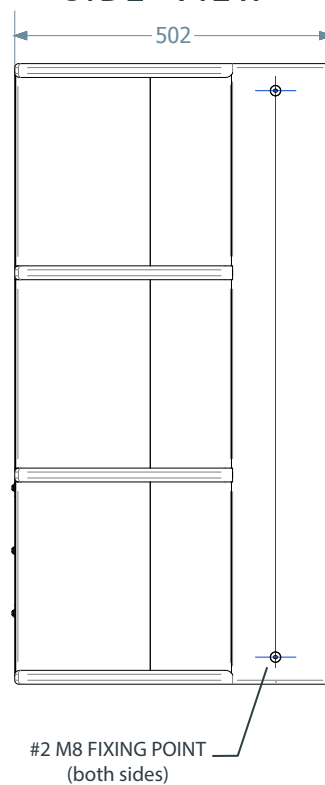
FRONT VIEW



REAR VIEW



SIDE VIEW



## TECHNICAL SPECIFICATIONS

### PERFORMANCE SPECIFICATIONS

Frequency Response (-10 dB)	50 Hz - 20 kHz
Nominal Dispersion	80° x 60° (H x V)
Power Amplifier	Type: Class D (digital) Input impedance: 4.5 kΩ balanced Rated Power: 2 x 1500 W EIAJ at 8 Ω Cooling: Cooling Tunnel + Variable Speed Fan Special feature: four on-board preset, selectable input gain

Maximum SPL Output*	140 dB SPL
---------------------	------------

\*calculated using +10 dB Crest Factor Signal @ 1 m, free field

### PHYSICAL

Component Low	15" woofer
Component Mid-Low (coaxial)	15" woofer
Component High	3" diaphragm compression driver
Loading Low	Bass-reflex on its separate volume
Loading Mid-Low	Bass-reflex on its separate volume
Loading High	Coaxial rotatable moulded horn
Connectors	Audio: 1 Combo XLR / jack 6.35 mm TRS + 1 Link Out XLR Mains: 1 PowerCON True1 + 1 Link Out Control: USB Type B
Cabinet Material	Baltic birch plywood
Cabinet Finish	Black polyurea coating
Grille	Epoxy powder coated
Installation Points	11 x M8 threaded points / Smart Fix Rail system
Pole Mount	35 mm socket
Handles	8 handles
Height	940 mm - 37"
Width	480 mm - 18 7/8"
Depth	480 mm - 18 7/8"
Weight	42 Kg - 92.6 lb

## APPENDIX - PERIODIC CONTROLS

All the loudspeakers, before the shipment, are fully tested at the end of the production line, but before the system is installed an overall check shall be performed to ensure that the system has not been dam-

aged during the shipment. Periodic controls shall be performed at regular time intervals. The following table represents an ideal check list and shall be completed with the external rigging elements.

Loudspeaker Serial Number:				Position:				
Date								
Transducers Impedance								
Amplifier								
Loudspeaker cabinet								
Loudspeaker grills								
Grills screws								
Hardware								
Hardware bolts								
Main rigging structure								
Safety devices								
Additional notes								
Signature								





Outline carries out on-going research for product improvement. New materials, manufacturing methods and design upgrades are introduced to existing products without prior notice as a routine result of this philosophy. For this reason, any current Outline product may differ in some aspect from its description, but will always equal or exceed the original design specifications unless otherwise stated.

© Outline 2021  
Quick start product code: Z OMMONACO-215CX-SP  
Release: 20210913  
Printed in Italy