PLAYER ZERO

AUDIO PLAYER

Local and Streaming Audio Player

USER MANUAL

INDEX

1. IMPORTANT REMARK

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: SHOCK HAZARD - DO NOT OPEN
AVIS: RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING (If applicable): The terminals marked with symbol of " ⚡ " may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.

WARNING: To prevent fire or shock hazard, do not expose this equipment to rain or moisture.

WARNING: An apparatus with Class I construction shall be connected to a mains socket-outlet with a protective earthing connection.

2. IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Unplug the apparatus during lightening sorts or when unused for long periods of time.

13. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

14. Disconnecting from mains: Switching off the POWER switch all the functions and light indicators of the amplifier will be stopped, but fully disconnecting the device from mains is done unplugging the power cord from the mains input socket. For this reason, it always shall remain readily operable.

15. Equipment is connected to a socket-outlet with earthing connection by means of a power cord.

16. The marking information is located at the bottom of apparatus.

17. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING: This product must not be discarded, under any circumstance, as unsorted urban waste. Take to the nearest electrical and electronic waste treatment centre.

NEEC AUDIO BARCELONA, S.L. accepts no liability for any damage that may be caused to people, animal or objects due to failure to comply with the warnings above.

3. IMPORTANT NOTE

Thank you for choosing our Ecler **PLAYER ZERO multimedia player**!

It is **VERY IMPORTANT** to carefully read this manual and to fully understand its contents before any connection in order to maximize your use and get the best performance from this equipment.

To ensure optimal operation of this device, we strongly recommend that its maintenance be carried out by our authorised Technical Services.

Ecler **PLAYER ZERO** comes with a **3-year warranty**.

4. INTRODUCTION

PLAYER ZERO is a compact stereo audio player able to play music content from local storage devices (USB/MICRO SD), Internet streaming services (online radios, etc.) and digital media exchange (DLNA, AirPlay) with the following main features:

Main features:

- 1 unbalanced stereo audio output, RCA connector and mini-jack (with stereo/mono selection).
- Compatible with mp3, ogg, WAV, AIFF and FLAC audio formats.
- One USB port and one MICRO SD card slot for access to local media content.
- Ethernet interface with RJ45 connector for communication with web setup application as well as Internet streaming reception.
- Wi-Fi interface (client or master mode) for communication with web application configuration as well as Internet streaming reception.
- Fully configurable through web application (point-to-point or through the same LAN)
- 2 GPI (General Purpose Inputs) ports, to trigger the 2 available events.
- Silence detection event.
- Internal clock with up to 240h autonomy (without AC adapter) and automatic synchronization with NTP services.
- **Modular firmware**: PLAYER ZERO has a firmware with modular services that allow each user to personalize its operation and adapt it to the size of his project or to his business model. The firmware includes, among other functions and services:
    - o Calendar event triggering

- o Synchronization of cloud content (Cloud Disk Sync): compatible with Google Drive service
- o Execution of scripts (user-written instruction files in lua language - www.lua.org).
- o Local file encryption (USB/MICRO SD)
- o Activity Log

Note: PLAYER ZERO programming is done through the web application embedded in the unit. Refer to the PLAYER ONE & PLAYER ZERO web GUI application manual for more information.

5. INSTALLATION AND CONNECTIONS

5.1. Location, set up and ventilation

PLAYER ZERO has been specially designed to be used both as a desktop player and a 19" rackmount unit, occupying third a rack space (with VEO-RACK19, optional mounting kit for standard rack cabinets).

In professional installations, it should preferably be placed in the same rack as the audio sources.

Since its power consumption is very low, forced ventilation is not necessary. However, avoid exposing the device to extreme temperature and the environment in which it is placed should be as dry and clean (no dust) as possible.

5.2. AC connection and powering on

PLAYER ZERO is powered by alternating current (AC) through its external power supply: 100-240 VAC, 50-60 Hz. This external power supply has several interchangeable connectors: American, European, British and Chinese.

The operating environment should be dry and be totally free of dust. Do not expose the unit to dripping or splashing. Do not place incandescent objects like candles on top of it.

If the unit requires any intervention and/or connection/disconnection, it must be powered off first. There are no user-serviceable parts within the unit. To avoid buzzing, do not allow the power cable to intertwine with audio shielded cables.

5.3. Audio output connections

PLAYER ZERO has 1 unbalanced stereo output on its rear panel.
The signal output connectors are 2 x RCA and 1 x stereo mini-jack.

5.4. Ethernet port for configuration and Internet connection

An RJ45 connector allows the unit to be connected to an Ethernet network or even directly (point-to-point) to a computer.

This connection provides access to Internet contents, and to the configuration of the unit using a web browser on the computer, which points to the IP address of the PLAYER ZERO, showing the web application embedded in the unit. Refer to the [PLAYER ONE & PLAYER ZERO web GUI application manual](#) for more information.

5.5. Wi-Fi interface for configuration and Internet connection

A Wi-Fi interface allows the unit to be connected to a Wi-Fi network or even directly (point-to-point) to a computer by Wi-Fi.

This connection provides access to Internet contents, and to the configuration of the unit using a web browser on the computer, which points to the IP address of the PLAYER ZERO, showing the web application embedded in the unit. Refer to the [PLAYER ONE & PLAYER ZERO web GUI application manual](#) for more information.

5.6. GPI remote control ports

PLAYER ZERO has 2 GPI control inputs on its rear panel. These inputs can be connected to an external physical device (e.g. a contact closure) and associated with an PLAYER ZERO function:

- Load and play previously configured audio content
- Preset recall
- Audio playback with priority over the music program
- Transport bar control (PLAY/PAUSE, STOP, etc.)
- Internal triggering, to interact with other player services (scripts for example)

GPI connectors use 3-position screw terminal blocks (Euroblocks). The wiring is as follows:

GPI terminal   >   − 1, 2 terminals

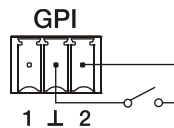Ground   >   ⊥ terminal

GPI

1 ⊥ 2

Figure 1: Connection example of GPI 2

Connecting cables can be up to 500 meters long with a minimum section of 0,5 mm^2.

6. FRONT PANEL

PLAYER ZERO front panel provides the following elements:

- **MICRO SD/MICRO SDHC slot**: for local audio content playback. Up to 2TB. FAT16/32 format.
- **USB 2.0 port**: for local audio content playback. Up to 2TB. FAT16/32 and NTFS format.
- **SP LED**: *signal presence* indicator.
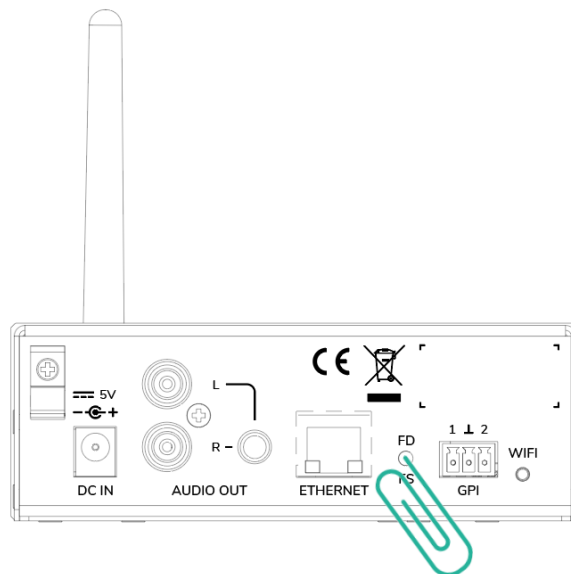- **NET LED**: network (Internet) data reception indicator.

7. STARTUP

Ecler recommends configuring PLAYER ZERO with your web application to enjoy its full functionality. Please refer to the [PLAYER ONE & PLAYER ZERO web GUI application manual](#) to know all the functionality it offers.

Plug the power cord into the back of the device to turn it on.

7.1. Restore default / Firmware Update

PLAYER ZERO has two functionalities that can be be done via the FD/FS button on the rear panel:

- **Restore Factory Defaults:** Restore factory settings. Press and hold the FD/FS button on the rear panel for 10 seconds with a small pin or paper clip while the unit is powered on.
- **Fail Safe (Restore firmware)**: Install the latest firmware published on the Ecler website or a firmware file hosted on one of the local storage systems (USB/MICRO SD).

  While the unit is unplugged, press and hold the FD/FS button with a small pin or paper clip and then plug in the unit. The front LEDs will start flashing rapidly for 3 seconds (at this point the FD/FS button can be released).
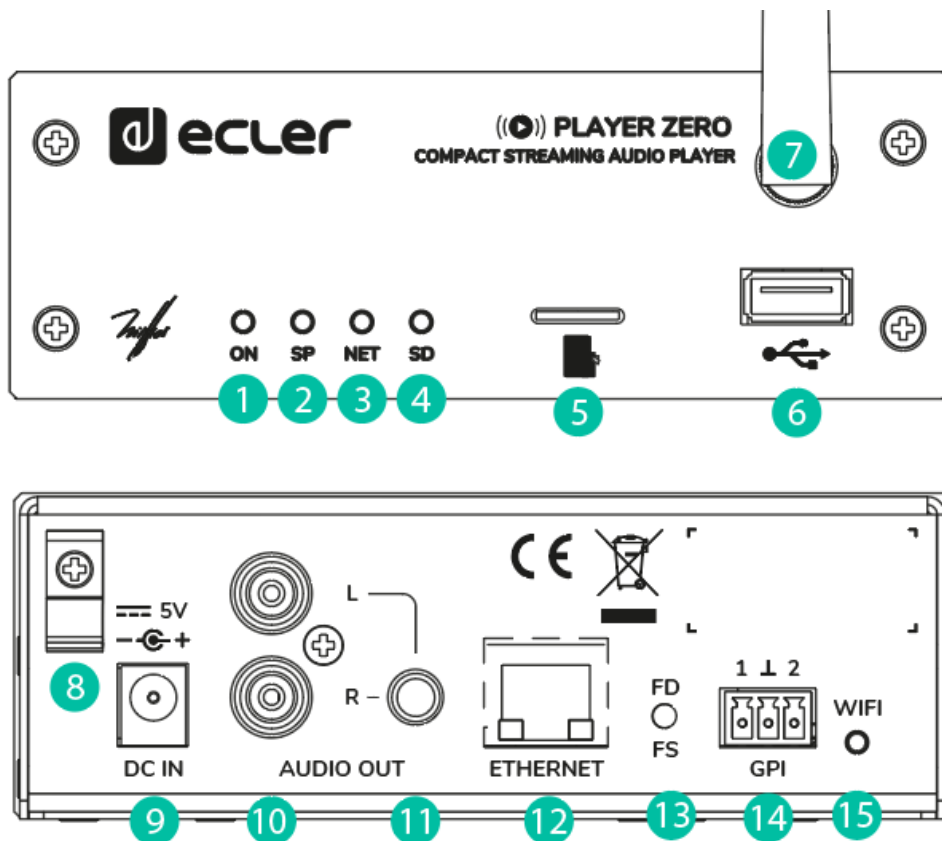
Notes:

- **To restore the latest released firmware, it is necessary to connect the device to a DHCP server with Internet access**, to download the firmware.
- If this action is not performed correctly, you may lose all device settings and parameters. **Be sure to save a backup copy of the device settings before executing this action**.

8. PLAYER ZERO FUNCTION LIST

1. ON LED power indicator
2. SP LED signal present indicator
3. NET LED network traffic indicator
4. SD LED Micro SD source operation indicator
5. MICRO SD slot
6. USB port
7. WiFi Antenna
8. Security flange for power supply cable
9. External power supply connector
10. Stereo output 2 x RCA
11. Stereo mini-jack output
12. RJ-45 connector
13. Factory Default / Fail Safe button
14. GPI port
15. Indicator light, WIFI

9. PLAYER ZERO FUNCTION DIAGRAM

10. TECHNICAL SPECIFICATIONS

DIGITAL ENGINE		
	Processor	MIPS Single Core 64bits 580MHz
AUDIO CONVERTERS		
	Sampling rate	48kHz
	Resolution	16bit
	Bit rate	32~320kbps
	Frequency response	5Hz - 24kHz (-3dB)
MEDIA PLAYER		
	Audio sources	Local storage (USB & microSD), Internet radio, AirPlay, DLNA
	Dynamic range	From -80 dB to 0 dB
	THD + Noise	< 0.008% (1kHz, 1Vrms)
ANALOGUE AUDIO OUTPUTS		
	Number of outputs	2 x Stereo output (unbalanced)
	Connection type	RCA estéreo, minijack 3,5mm
	Max output level	6dBV / 5k ohm
	Output impedance	460 ohm
	Dynamic range	TBC
	Crosstalk	TBC
CONNECTIVITY		
	Ethernet	RJ45 10/100Mbps
	Wi-Fi	2.4GHz Wi-Fi, 802.11 b/g/n
	Wi-Fi antenna	Front panel
	Programing and control	Web Application, RePLayer & Gallery. Third party integration: JSON
REMOTE CONTROL CONNECTIONS		
	GPIs	2 ports, Dry contact to ground, 3 pin Terminal block
REAL-TIME CLOCK		
	Retention time	240 hours aprox.
	Accuracy	±1 minute / month
MONITORING AND CONTROL		
	Display	No
	LED indicators	Front panel: NET, SP, SD, Power Rear panel: Wifi
	Buttons	Rear panel: Factoty Defaults / Fail Safe (pin-hole)
LOCAL STORAGE		
	Micro SD	Front panel micro SD slot Supports micro SD SDXC
	USB	Front panel USB female connector Support USB 2.0 High Speed (480 Mbps)

Capacity	Up to 2TB
File system	Supports FAT16, FAT 32, VFAT and NTFS (read-only) Multi-partition up to 1
Playable audio files	mp3, ogg, WAV, FLAC, AIFF, m3u, pls
Files analysis	65354 playable folders 65354 playable folders within each folder 65354 playable files within each folder
Folder hierarchy	Up to 8 containing the root directory
Sorting	UNICODE Up to 100 folders, 100 files by folder (Folders/files over 100 sorted in the FAT order)
ELECTRICAL	
Power supply	External, universal, 5VDC (included)
AC mains requirement	90-264VCA 50-60Hz
AC mains connector	International AC plugs set
Power consumption	4.5 VA / 2.2 W
Ventilation	Passive
PHYSICAL	
Operating temperature	Min 0°C, +32°F Max +35°C, +95°F
Operating humidity	< 85% HR
Storage temperature	Min -10°C, +14°F Max +50°C, +122°F
Storage humidity	< 90% HR
Installation options	Desktop, rack (1/3 of 1UR)
Included accessories	AD/DC Power Supply, WiFi antenna, adhesive rubber feet, rack tray screws , GPI connector, warranty card and standard user guide
Optional accessories	VEO-RACK19 Compatible
Dimensions	126.5 x 44 x 132 mm / 4.98" x 1.73" x 5.19"
Weight	0.6 Kg / 1.32 lb
Shipping dimensions	450 x 220 x 60 mm / 17.71" x 8.66" x 2.36"
Shipping weight	0.8 Kg / 1.76 lb
CERTIFICATIONS	
CB Report	Pending approval
EMC	Pending approval
FCC	Pending approval