



Audio Press Box®

APB-112 OW-D-USB

Press Conference Audio Distribution Amplifier
Owner's manual



Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

WARNING

Do not open

- Do not open the device or attempt to disassemble the internal parts or modify them in any way. The device contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified AudioPressBox service personnel.

Water warning

- Do not expose the device to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

If you notice any abnormality

- If this device should be dropped or damaged, immediately disconnect the Dante network and have the device inspected by qualified AudioPressBox service personnel.



Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

CAUTION

- Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not place the device in an unstable position where it might accidentally fall over.

Connections

- Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.

Handling caution

- When turning on the AC power in your audio system, always turn on the power amplifier LAST, to avoid speaker damage. When turning the power off, the power amplifier should be turned off FIRST for the same reason.

- Do not insert your fingers or hands in any gaps or openings on the device.
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device. If this happens, unplug the Dante network. Then have the device inspected by qualified AudioPressBox service personnel.
- Do not use the device or headphones for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.
- Do not rest your weight on the device or place heavy objects on it, and avoid use excessive force on the buttons, switches or connectors.

XLR-type connectors are wired as follows (IEC60268 standard): pin 1: ground, pin 2: hot (+), and pin 3: cold (-).

AudioPressBox cannot be held responsible for damage caused by improper use or modifications to the device, or data that is lost or destroyed.

The performance of components with moving contacts, such as switches, volume controls, and connectors, deteriorates over time. Consult qualified AudioPressBox service personnel about replacing defective components.

Illustrations herein are for explanatory purposes only, and may not match actual appearance during operation.

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Specifications and descriptions in this owner's manual are for information purposes only. AudioPressBox reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your AudioPressBox dealer.



APB-112 OW-D-USB

Dear customer,

Thank you for purchasing the AudioPressBox **APB-112 OW-D-USB**.

APB-112 OW-D-USB is an active AudioPressBox unit with one channel DANTE input, 8 XLR transformer isolated outputs with switchable Mic/Line output level and 4 USB-C outputs. OW suffix means that the unit is designed for wall mounting. The unit is powered directly from Dante network via PoE. It is a PoE Class 3 device

Features:



Transformer

Individually transformer isolated outputs.



Switchable Mic/Line output Level

for each output



1-channel Dante interface



PoE powered (Class 3 device)



4 USB-C outputs

The package contains:

1. APB-112 OW-D-USB unit
2. Test report

APB-112 OW-D-USB



1.) **Mic/Line switch**

Output level switch. You can individually select nominal output level for each output. Mic = -26dBu, Line = +6dBu

2.) **XLR Outputs**

Eight Individually transformer isolated balanced outputs with switchable output level: MIC -26dBu, Line +6dBu. Standard Neutrik 3-pin XLR connector

3.) **Power LED**

Indicates that the device receives PoE power and is ready for use

4.) **Output level indicator**

Indicates the analog output level in dB. 0dB is nominal output level which corresponds to +6dBu (Line) or -26dBu (Mic) on outputs

5.) **Dante connector**

Standard RJ45 connector for connecting to PoE and Dante network

6.) **USB**

USB-C outputs for smartphones or laptops

Usage



APB-112 OW-D-USB is designed for use as a distribution audio amplifier for press conferences. It features one digital input from Dante network, eight analog audio outputs with individual output level switch – MIC/LINE and four USB-C outputs*. There is no signal processing inside. All desired processing should be done in other devices (e.g. mixing console or DSP). So, the **APB-112 OW-D-USB** is suitable for fixed installations with integrated Dante network.

For proper operation and to maintain declared parameters, it is necessary to drive the APB with the correct signal level from Dante network. The nominal analog output level of APB is +6dBu which corresponds to -18dBFS (FS = Full Scale) of digital signal on Dante network. So, we recommend to drive the APB with digital signals somewhere between -26dBFS and -16dBFS. Also, it is very useful to drive the APB with a processed signal e.g. with applied compressor and limiter to reduce the dynamics of the signal especially for speech.

* For iPhone and iPad with lightning connector Apple Lightning to USB 3 Camera Adapter is needed together with a USB-A to USB-C cable.

Operations

1.

Connect the APB to Dante network with PoE capability

APB-112 OW-D-USB is a PoE Class 3 device, so it can be powered from a basic PoE

3.

Set up the levels

Set up the output level on your source device to reach the nominal output on APB – 0dB LED on Output Level indicator. You can also set the output level switch for each output as desired – Mic or Line

2.

Make the Dante signal routing APB is set by default to obtain IP address from DHCP server.

In Dante network you will see the APB as: APB112OW-D-USB-serialnumber. You can change it in Dante controller software. In this software you can also route the signal to APB

4.

APB is ready to use!

For more information about Dante controller set up click on the following link:

<https://www.audiopressbox.com/pages/audiopressbox-apb-112-ow-d-usb-manual>

Installation

APB-112 OW-D-USB is designed for "On Wall" installation.

1.) Unscrew 4 screws on top panel



2.) Release the back panel



3.) Screw it to the wall, the wall may be from concrete, stud, wood... Please use suitable mounting method for your type of wall material



5.) Screw the APB to the back plate



4.) Connect the RJ-45 cable to APB



Specifications

Audio Press Box APB-112 OW-D-USB

| | | |
|-------------------------------------|---|---------------|
| Type | 1 In 12 Out | |
| Groups | 1 | |
| Input section | | |
| Inputs | 1 | |
| Input connectors | RJ45 - Dante | |
| PoE Requirement | YES | |
| Reference level | -18dBFS | |
| Output section | | |
| <i>Analog Outputs</i> | | |
| Outputs | 8 Line/MIC level | |
| Output connectors | Balanced, XLR | |
| Nominal Output Level | +6dBu | |
| Maximum Output Level | +20dBu (no load) +14dBu (600Ohm) | |
| Output impedance | MIC: 220 Ohm | LINE: 600 Ohm |
| Transformer isolated outputs | Yes (each output) | |
| SNR | >70 dB | |
| Frequency Response | 20Hz to 20kHz/-3dB | |
| <i>Digital Outputs</i> | | |
| Output connector | USB Type C | |
| Compliant USB Specification | USB 2.0 | |
| Supported Sampling Rates | 8kHz, 11.025kHz, 16kHz, 22.05kHz, 32kHz, 44.1kHz, 48kHz | |
| Bit Depth | 16-Bit | |
| Interface Powering | Bus powered (from connected USB host device) | |
| Charging capability | No | |

Specifications

Audio Press Box APB-112 OW-D-USB

Indicators

| | |
|------------------------|---------------------|
| Output section: | Output level. Power |
|------------------------|---------------------|

Power

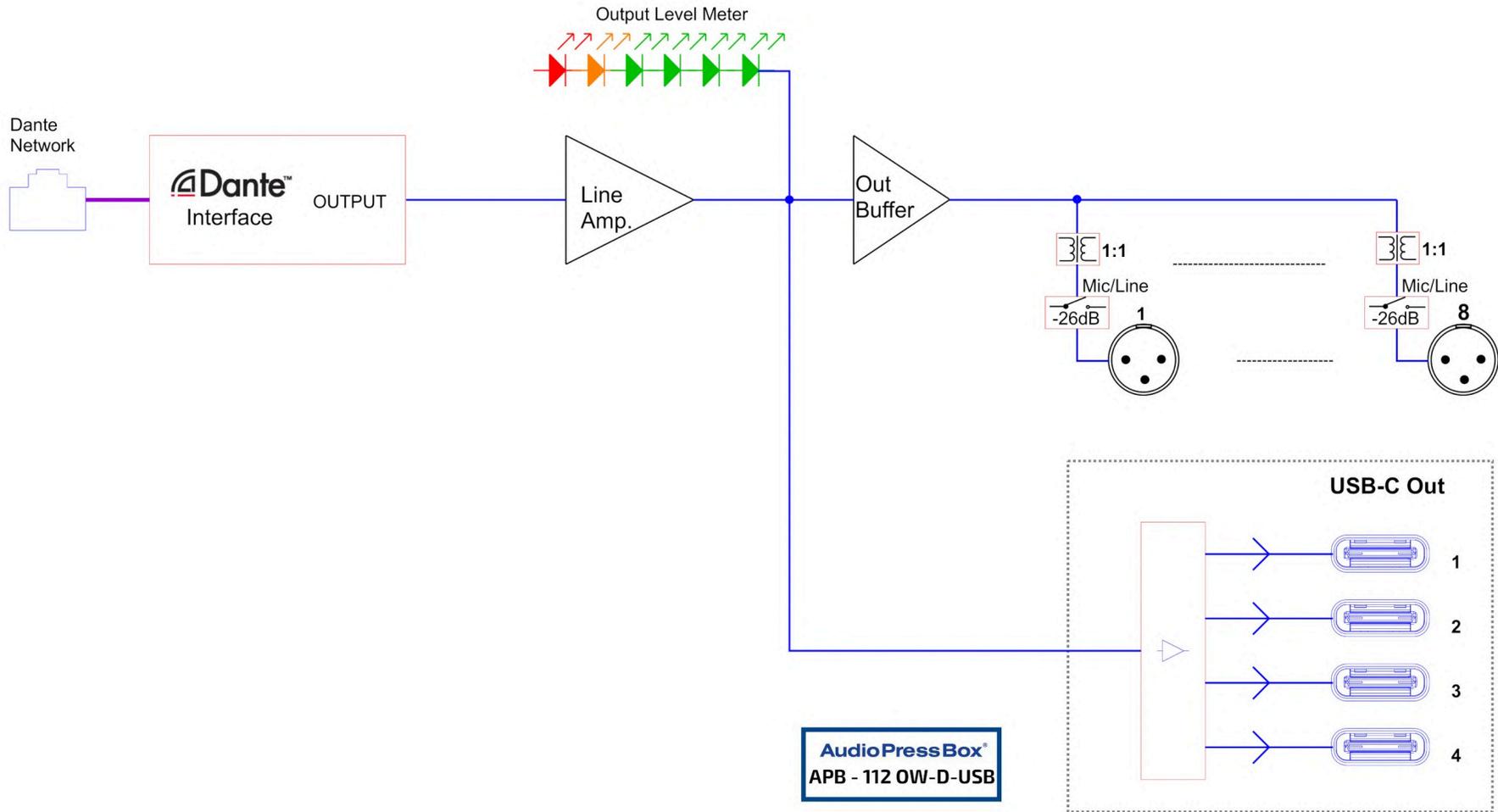
| | |
|---------------------|--------------------------------|
| Power Supply | PoE (Type 1, Class 3 (12,95W)) |
|---------------------|--------------------------------|

Mechanical

| | |
|---------------------------|--------------|
| Dimensions (WxHxD) | 280x138x54mm |
|---------------------------|--------------|

| | |
|---------------|--------|
| Weight | 2400 g |
|---------------|--------|

Block diagram



Audio Press Box[®]

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