

PLENA all-in-one 180W Two Zone Mixer Amplifier

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- ▶ Two Zone output
- ▶ 4 microphone inputs with independent level control
- ▶ USB drive and SD card for MP3 playback
- ▶ Built-in FM tuner with preset memories
- ▶ 100V/Telephone input with priority and VOX

The PLENA all-in-one mixer amplifier is a versatile solution for public address, emergency announcements and back-ground-music (BGM) requirements. This high-performance device is easy to install and operate.

Typical applications of PLENA all-in-one 180W mixer amplifier include use in supermarkets, restaurants, schools, retail chains, canteens, places of worship, gymnasiums etc where BGM provides the right atmosphere, at the same time announcements can be made clearly and with ease.

System overview

The All-in-one amplifier is mixer amplifier with inbuilt music source. The All-in-one unit can provide hours of uninterrupted music from USB or SD flash memory. The unit also has a built in FM tuner with presets. To ensure for optimum performance, the All-in-one unit has no moving parts, such as hard drives that can fail or wear out. The unit is supplied with an IR remote control for controlling the music source. The unit can be rack mounted by using the brackets that can be procured separately.

Functions

Microphone and line inputs

The mixer amplifier has four microphone inputs. Separate level controls are available for all the inputs. For all the inputs (except Aux input), phantom power can be switched on to provide power to condenser microphones. Inputs 1 and 2 can be configured between line and mic level sensitivity. Inputs 3 and 4 are for connecting microphone only. Microphone inputs 1 and 2 have a combo connector so that both XLR and 6.3mm TRS connectors can be used for connecting microphones. Other microphone inputs are standard XLR connector.

Music source and music input

The unit has one music input and an internal music source. There is a source select button on the front panel to select between auxiliary input and internal music source. The internal music source plays MP3 files from an SD/MMC card or USB device with a capacity of up to 32 GB. The player will automatically search and play all playable MP3, WMA files and has repeat and random play modes. The following formats are supported: MP3, WMA files with bit-rates from 32 kbit/s.

FM Tuner

The digitally controlled FM tuner uses a frequency synthesizer for accurate capture of radio stations and has five presets to store favorite radio stations.

Integration

A 100V emergency/telephone input with VOX activation is provided for easy integration with another PA system or a telephone paging system. It has its own preset volume control and overrides all other inputs, including music input and mic/line inputs. The unit also has a line output to add booster amplifiers for larger systems with more output power. The unit has a 24VDC input for backup power supply. The unit has a RJ45 connector for integrating with the PLE-2CS Call station.

Outputs

An LED VU meter monitors the master output. A headphone socket, below the VU meter, provides the mixer output. The power is directly available on 100V constant voltage connections and on a low impedance connection for a 4 ohm load. The line out provides the line level mixer output through the XLR connector.

Zones

The mixer amplifier has two zone outputs. The music can be switched on and off in the zones via the front panel. Announcements from the PLE-2CS two-zone call station can be routed to zone 1 or zone 2, or both. Announcements from the Telephone/100 V input is routed to both zones and can override the microphone and PLE-2CS signals.

Controls and indicators

Front Panel

- Power on switch and LED
- LED VU meter for master output
- Master volume control
- Four volume control knobs for microphone inputs
- Volume knob for background music
- Source select button for music source
- Knob for treble level
- Knob for bass level
- Headphone socket

Rear Panel

- Four Inputs and one Aux input
- Dip switches
- Line output
- Telephone/Emergency input with volume control
- RJ45 input for connecting PLE-2CS
- 100V and 4 Ohm loudspeaker outputs
- 24 VDC Backup input

Certifications and approvals

Safety	acc. to EN 60065
EMC emission	acc. to EN 55103-1
EMC immunity	acc. to EN 55103-2

Parts included

Quantity	Components
1	All-in-one mixer amplifier
1	Power cord
1	Remote control for Music source
1	FM Antenna with connector
1	Installation and Operating Manual

Technical specifications

Electrical

Mains Power Supply	
Voltage	230 VAC, $\pm 10\%$, 50 Hz
Inrush Current PLN-1AIO090-IN	13A
Battery power supply	
Voltage	24VDC $\pm 15\%$
Current	9A
Performance	
Max/Rated Output Power	270W/180W
Frequency response	80Hz to 18kHz
Distortion	<1% at rated power, 1kHz
Low Control	Max -8/+8 dB
Hi Control	Max -8/+8 dB
Inputs	
Input 1 and 2	XLR and 6.3mm TRS combo connector, balanced
	Configurable between line and mic sensitivity
Input 3 and 4	XLR connector
Sensitivity	1 mV (mic); 200 mV (line)
Impedance	≥ 1 kOhm (mic); > 5 kOhm (line)
S/N at rated power	≥ 60 dB (mic); 65 dB (line)
CMRR (mic.)	> 40 dB
Phantom power supply	9 V via 1.2 kohm (mic)
Speech filter	-3 dB @ 315 Hz
Music Input	
Connector	Cinch, stereo converted to mono
Sensitivity	200 mV to 300 mV
Impedance	22 kohm
S/N at rated power	≥ 70 dB
Master Output	

Connector	3-pin XLR , balanced
Nominal level	1V
Input Impedance	<100 ohm
Emergency/Telephone Input	
Connector	5-pin, Euro style pluggable screw terminal
Sensitivity (telephone)	100 mV – 1 V adjustable
Sensitivity (100 V)	10 V – 100 V adjustable
Impedance	>10 kohm
S/N at rated power	> 65 dB
RJ 45 input	
Call station input	For PLE-2CS
Loudspeaker Output	
Connector for 100V output	Euro style pluggable screw terminal, floating
Max./Rated Power	270W / 180W
Loudspeaker Output from 4 Ohm	26.8 V

Mechanical

Dimensions (H x W x D)	88 x 433 x 250 mm (19" wide, 2U high)
Mounting	Stand-alone, 19" rack
Color	Charcoal
Weight	Approx. 10kg

Environmental

Operating temperature	-10 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Relative humidity	<95%

Ordering information

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Order number **PLN-2AIO180-IN**

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