PLN-1AIO090-IN All-in-one amplifier, 90W

▶ 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

▶ 24 VDC backup power supply input

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 90W 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 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. Input channel 1 can take priority over all other microphone and music inputs. Input 1 can be

activated by contact closure on the PTT (push to talk). For input 1,a 2-tone chime can be configured to precede an announcement.

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 24 VDC input for backup power supply.

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 100 V or 70V constant voltage connections and on a low impedance connection for a 4 ohm load.

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
- Master output
- Telephone/Emergency input with volume control
- 100V,70V and 4 Ohm loudspeaker outputs
- 24 VDC Backup input

Regulatory information

Safety	acc. to EN 60065
EMC emission	acc. to EN 55032-1:2009
EMC immunity	acc. to EN 55103-2

Parts included

Quantity	Component
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	220 - 230 VAC, 50 Hz/90 W (reduced power at lower mains)
Inrush Current PLN-1AIO090-IN	9 A
Battery power supply	
Voltage	24 VDC, ±15%, with reverse protection
Current	6 A
Performance	
Frequency response	80 Hz to 20 kHz (+1/-3 dB@ -10 dB ref. rated output)
Distortion	< 1% @ rated output power, 1 kHz
Low Control	Max -8/+8 dB
Hi Control	Max -8/+8 dB
Inputs	
Input 1 (push-to-talk contact with priority)	5-pin Euro style, balanced, phantom
Input 2	3-pin XLR, balanced, phantom
Input 3 and 4	TRS Jack (1/4, 6.3 mm), balanced, phantom
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, high-pass, 6 dB/oct
Music Input	
Connector	Cinch, stereo converted to mono
Sensitivity	200 mV to 300 mV
Impedance	22 kohm
S/N at rated power	≧65 dB
Master Output	
Connector	3-Pin XLR, balanced
Nominal level	1 V
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
VOX	Threshold 50 mV; attack time 150 ms; release time 2 s
Loudspeaker Output	100 V, 70 V and 4 Ohm
Connector	Euro style pluggable screw terminal, Floating
Max./Rated Power	120 W/90 W
Loudspeaker Output from 4 Ohm	19.0 V from 4 Ohm output

Mechanical

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

Environmental

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

Ordering information

PLN-1AIO090-IN All-in-one amplifier, 90W
Single zone amplifier with USB and SD card slot
Order number **PLN-1AIO090-IN | F.01U.302.384**