

BOSE L1 PRO8 PORTABLE LINE ARRAY SYSTEM Instruction Manual

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PROFESSIONAL
PRELIMINARY TECHNICAL DATA
L1 PRO8
PORTABLE LINE ARRAY SYSTEM



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Product Overview

As the most portable L1 Pro system, the L1 Pro8 portable PA is ready whenever you are. With an eight-driver articulated C-shape line array, the L1 Pro8 delivers 180-degree horizontal sound coverage, making it an ideal companion for shows in small venues like coffee shops and cafes. An integrated subwoofer with a RaceTrack driver delivers powerful bass without the bulk; a built-in multi-channel mixer offers EQ, reverb, and phantom power, plus Bluetooth® streaming and access to the full library of ToneMatch presets; and the intuitive L1 Mix app places wireless control in your hands from your smartphone. It's an ultra-portable system with a surprising size-to-performance ratio. The L1 Pro8 gives singer-songwriters and DJs both setup simplicity and supreme clarity — the power to sound your best and simply perform.

Key Features

Get in, set up, and simply perform with the most portable L1 Pro system, ideal for small venues like coffee shops and cafes

Deliver premium full-range sound with consistent tonal balance for singer-songwriters, mobile DJs, and more **Maintain supreme vocal and instrument clarity** with a C-shape extended-frequency line array featuring eight articulated 2" neodymium drivers and wide 180-degree horizontal coverage

Bring more bass with less bulk with an integrated subwoofer featuring a $7" \times 13"$ high-excursion RaceTrack driver; a performance that rivals a conventional 12" woofer with a smaller footprint

Go from vehicle to venue in one trip with a modular three-piece system that's easier to pack, carry, and set up Select between optimized system EQ presets for live music, recorded music, and more

Connect various audio sources easily via built-in mixer with two combos XLR-1/4" phantom-powered inputs, 1/4" and 1/8" (3.5 mm) aux input, plus Bluetooth streaming — and access system EQ and ToneMatch presets, volume, tone, and reverb via illuminated controls

Add in even more instruments and other audio sources via dedicated ToneMatch port; one cable provides both power and digital audio between the system and a Bose T4S or T8S mixer (optional)

Take wireless control with the L1 Mix app on your smartphone to adjust settings instantly from your phone, roam the room and fine-tune, and access the ToneMatch library of custom EQ presets

Stream high-quality Bluetooth audio from compatible devices

Technical Specifications

System Performance	
Model Name	LI ProS

System Type	Self-powered line array with integrated bass module and onboard three- channel digital mixer
Frequency Response (-3 dB) '	45 Hz to 16 kHz
Frequency Range (-10 dB)	33 Hz to 18 kHz
Nominal Vertical Coverage Pattern	40°
Vertical Beam Type	C-shape
Nominal Horizontal Coverage Patt ern	180°
Calculated Maximum SPL 'm 1 m. continuous'	112 dB
Calculated Maximum SPL # 1 m. p eak'	118 dB
Crossover	200 Hz
Transducers	
Low Frequency	1 x RaceTrack low-frequency driver r x 13"
Low-Frequency Voice Coil Size	2"
High / Mid Frequency	8 x Articulated 2" drivers
High / Mid Frequency Voice Coil Si ze	'G
Driver Protection	Dynamic limiting
Amplification	
Туре	Two-channel. Class D
Low-Frequency Amp Channel	240 W
High / Mid Frequency Amp Channel	60 W
Cooling	Convection cooling
Onboard Mixer	
Channels	Three
Channel 18 2 Input: Audio Type	Combination XLR or 'A" TRS connector (mic/instrument/line)
Channel 18 2 Input: Input Impedan ce	10 KO (XLR): 2 MO (TRS)
Channel 1 8 2 Input: Trim	0 dB.12 dB. 24 dB. 36 dB, and 45 dB analog gain steps automatically sele cted and compensated by DSP
Channel 1 8 2 Input: Channel Gain	-100 dB to +75 dB (XLR): -115 dB to +60 dB (TRS): from input to driver. controlled by volume knob
Channel 18 2 Input: Max Input Signal	+10 dBu (XLR): +24 dBu (TRS)

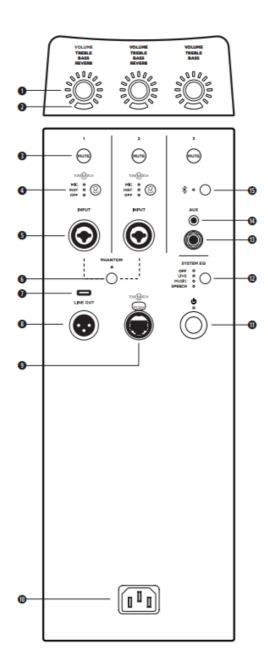
Channel 3 Input: Audio Type	'A" TRS (stereo-summed, line). Ye TRS (line). Bluetooth' audio streaming
Channel 3 Input: Input Impedance	40 KC) (3.5 mm): 200 KO (TRS)
Channel 3 Input: Channel Gain	-105 dB to +50 dB (3.5 mm): -115 dB to +40 dB (TRS): from input to driver . controlled by the volume knob
Channel 3 Input: Max Input Signal	+11.7 dBu (3.5 mm): +24 dBu (TRS)
ToneMatch: Audio Type	RJ-45 connector for ToneMatch cable connection. providing digital audio a nd power connection for the optional T45/T85 ToneMatch Mixer
Output: Audio Type	XLR connector. line level. full-frequency bandwidth
Bluetooth Enabled	Yes
Bluetooth Types	AAC or SBC for audio streaming. LE for system control
Channel Controls	3 digital rotary encoders
Phantom Power	Channel 18 2
LED Indicators	Standby. Channel Parameters. SignaVClip. Mute. Phantom Power. ToneM atch. <i>Bluetooth</i> LED. System E0

AC Power		
AC Power Input	100-240 VAC (±15%, 50/60 Hz)	
Input: Electrical Type	INC	
Initial turn-on inrush current	15.8 A at 120 V; 30.1 A at 230 V	
Inrush current after AC mains Interr uption of 5 s	1.2 A at 120 V; 19.4 A at 230 V	
Physical		
Color	Black	
Enclosures Material	Power stand: High-impact polypropylene	
Enciosures iviateriai	Extension & Array: High-impact ABS	
Grille Material	Powder-coated perforated steel	
Product Dimensions (H x W x D)	2000 x 317 x 456 mm (78.7 x 12.5 x 17.9 in)	
Shipping Dimensions (H x W x D)	950 x 400 x 630 mm (37.40 x 15.75 x 24.80 in)	
Net Weight'	17.4 kg (38.2 lbs)	
Shipping Weight	21.4 kg (47.2 lbs)	
Included Accessories	Carry bag for arrays, IEC power cord	
Optional Accessories	LI Pro8 System Bag, LI Pro8 Slip Cover	
Warranty Period	2 years	
Product Part Numbers		
840919-1100	LI PRO8 PORTABLE LINE ARRAY,120V, US	
840919-2100	LI PRO8 PORTABLE LINE ARRAY,230V, EU	
840919-3100	LI PRO8 PORTABLE LINE ARRAY.100V, JP	
840919-4100	LI PRO8 PORTABLE LINE ARRAY,230V, UK	
840919-5100	LI PRO8 PORTABLE LINE ARRAY,230V, AU	
840919-5130	LI PRO8 PORTABLE LINE ARRAY,230V, INDIA	
856989-0110	PREMIUM CARRY BAG, L1 PRO8, BLACK	
856990-0110	COVER, SUBWOOFER, L1 PRO8, BLACK	
8 45116-0 010	TONEMATCH CABLE ASSY KIT 18FT	

Footnotes

- (1) Frequency response and range measured on-axis in an anechoic environment with recommended bandpass and EQ.
- (2) Maximum SPL calculated using sensitivity and power ratings, exclusive of power compression.
- (3) Net weight excludes carry bag and power cord.

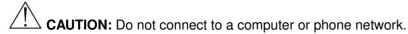
Connections and Controls



- Channel Parameter Control: Adjust the level of volume, treble, bass, or reverb for your desired channel.
 Press the control to switch between parameters; rotate the control to adjust the level of your selected parameter.
- 2. **Signal/Clip Indicator**: The LED will illuminate green when a signal is present and will illuminate red when the signal is clipping or the system is entering limiting. Reduce the channel or signal volume to prevent signal clipping or limiting.
- 3. **Channel Mute:** Mute the output of an individual channel. Press the button to mute the channel. While muted, the button will illuminate white.
- 4. **Channel ToneMatch Button:** Select the ToneMatch preset for an individual channel. Use MIC for microphones and use INST for acoustic guitar. The corresponding LED will illuminate white while selected.
- 5. **Channel Input:** Analog input for connecting microphone (XLR), instrument (TS unbalanced), or line-level (TRS balanced) cables.
- 6. **Phantom Power:** Press the button to apply 48volt power to channels 1 and 2. The LED will illuminate white while phantom power is applied.
- 7. **USB Port:** USB-C connector for Bose service use.

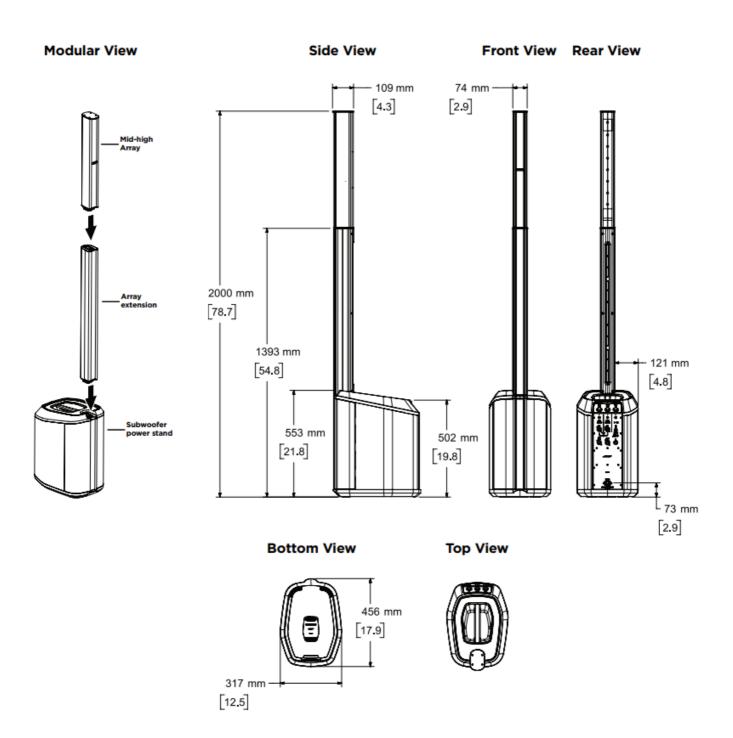
Note: This port is not compatible with Thunderbolt 3 cables.

- 8. XLR Line Output: Use an XLR cable to connect the line-level output to a Sub1/Sub2 or another bass module.
- 9. ToneMatch port: Connect your L1 Pro to a T4S or T8S ToneMatch mixer via a ToneMatch cable.



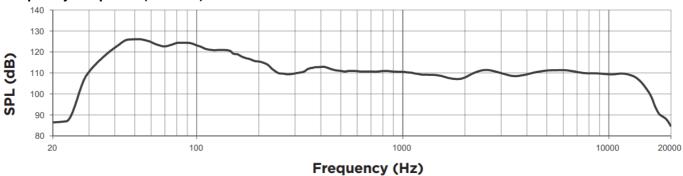
- 10. Power Input: IEC power cord connection.
- 11. **Standby Button**: Press the button to power on the L1 Pro. The LED will illuminate white while the system is on.
- 12. **System EQ:** Press the button to scroll through and select a master EQ suitable for the use case. The corresponding LED will illuminate white while selected.
- 13. TRS Line Input: Use a 6.4-millimeter (1/4-inch) TRS cable to connect line-level audio sources.
- 14. **Aux Line Input:** Use a 3.5-millimeter (1/8-inch) TRS cable to connect line-level audio sources.
- 15. **Bluetooth® Pair Button:** Set up pairing with Bluetooth-capable devices. The LED will flash blue while the L1 Pro is discoverable and illuminate solid white when a device is paired for streaming.

Product Dimensions

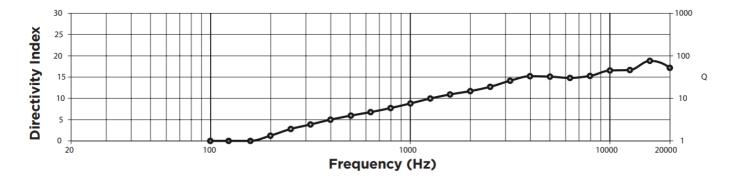


Performance

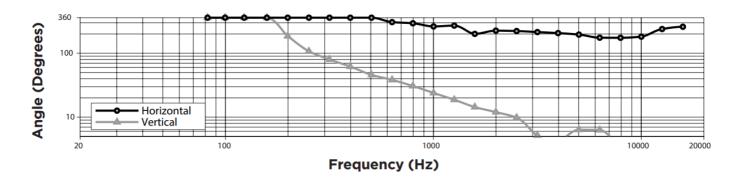




Directivity Index and Q



Beamwidth



Architect and Engineer Specification

The system shall be a multiple-driver, full-range portable loudspeaker system with internally supplied power amplification and active equalization for multiple operating modes as follows:

The transducer complement shall consist of eight, 2" (51 mm) high-excursion cricket drivers mounted in a curved articulated array loudspeaker, coupled with an integral $7" \times 13"$ (177 mm \times 330 mm) RaceTrack low-frequency driver mounted in a ported bass enclosure. The loudspeaker array shall be wired in a series/parallel configuration. The nominal horizontal beamwidth of the loudspeaker shall be 180° and the nominal vertical coverage shall be 40° . The system's power stand shall incorporate a ported venting system for the low-frequency driver. The power amplification for transducers shall be supplied by an integral, two-channel onboard amplifier providing 240 W for low-frequency

transducer and 60 W for mid-high array transducers.

The onboard digital mixer shall consist of three input channels. Channel 1 and 2 shall provide a combination XLR or 1/4" TRS connector (mic/instrument/line) with treble, bass equalization, and reverb effects, and shall also provide selectable master output equalization with live, music, and speech presets. Phantom power (48 V) shall be available

via a push button to enable and disable. Both channels shall provide selectable equalization presets for microphones and instruments. Channel 3 shall provide a 1/8" TRS (stereo-summed, line) connector, 1/4" TRS (line) connector. The same channel shall provide Bluetooth® audio streaming using a high-definition AAC codec with a Bluetooth pairing button provided. All three channels shall have a dedicated channel mute button. The output connector of the onboard mixer shall consist of one XLR balanced line-level output connector. The onboard mixer shall provide a ToneMatch RJ-45 connector to receive digital audio and send power via ToneMatch cable for Bose T4S/T8S ToneMatch mixer.

The enclosure of the power stand shall be constructed of high-impact polypropylene. The extension and array shall be constructed of high-impact ABS. The system shall be capable of two operating modes; collapsed or extended operating mode by integrating height-extension module.

In collapsed mode, the system's outer dimensions shall be 45.7" H \times 12.5" W \times 17.9" D (1160 mm \times 317 mm \times 456 mm).

In extended operating mode, the system's outer dimensions shall be 78.7" H \times 12.5" W \times 17.9" D (2000 mm \times 317 mm \times 456 mm). The system's net weight shall be 38.2 lbs (17.4 kg).

The loudspeaker shall be the Bose L1 Pro8 portable line array system.

Safety and Regulatory Compliance

The L1 Pro8 portable line array system complies with the following standards:

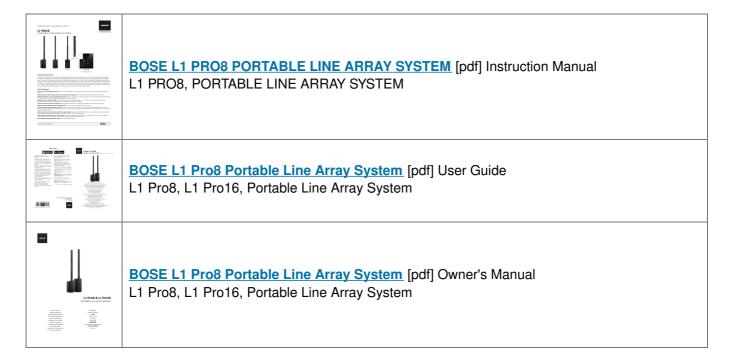
- UL/IEC/EN62368-1 Audio/Video, Information, and Communication Technology Equipment
- Ecodesign Requirements for Energy Related Products Directive 2009/125/EC
- Radio Equipment Directive 2014/53/EU
- CAN ICES-3 (B)/NMB-3(B)
- FCC Part 15 Class B

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For additional specifications and application information, please visit PRO.BOSE.COM. Specifications are subject to change without notice. 6/2021

PRO.BOSE.COM/L1

Documents / Resources



References

- Warranties | Bose
- Bose Professional
- <u>PL1 Pro Portable Line Array Systems | Bose Professional</u>
- Bose Speakers, Headphones, and Soundbars for Unmatched Audio Quality
- Bose European Union Regulatory and Compliance Information