BOSE L1 PRO32 + SUB2 PORTABLE LINE ARRAY SYSTEM Instruction Manual

PROFESSIONAL
PRELIMINARY TECHNICAL DATA
L1 PRO32 + SUB2
PORTABLE LINE ARRAY SYSTEM

Contents

Product Overview

The L1 Pro32 is our most advanced Bose L1 portable line array ever. It delivers the supreme clarity and output of a 32-driver articulated line array and 180-degree horizontal sound coverage, giving you an unrivaled portable PA system for medium to large-sized venues and events like weddings, clubs, and festivals. The L1 Pro32 combines with either the Bose Sub1 or Sub2 subwoofer to create a powerful, modular solution that's easy to pack, carry, and set up. 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.
For DJs, singer-songwriters, bands — and your audience — the L1 Pro32 offers a truly superior experience. It gives you the power to sound your best and simply perform.

Key Features

Provide a truly superior audio experience with the most advanced L1 portable line array ever, ideal for medium-to-large-sized venues and events like weddings, clubs, and festivals
Deliver premium full-range sound with consistent tonal balance for singer-songwriters, mobile DJs, bands, and more
Maintain supreme vocal and instrument clarity with a straight-shape extended-frequency line array featuring 32 articulated 2″ neodymium drivers and wide 180-degree horizontal coverage
Bring bass without the bulk via Bose Sub1 or Sub2 modular subwoofers, featuring RaceTrack drivers that take up less space, freeing up room in your vehicle and on the stage
Go from vehicle to venue easily with a modular high-output system that's lighter and 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 even more instruments and other audio sources via dedicated ToneMatch port; one cable provides both power and digital audio between 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 Pro32 + Sub2
System Type	Self-powered line array with modular bass module and onboard three -channel digital mixer
Frequency Response (-3 dB) ‘	37 Hz to 16 kHz
Frequency Range (-10 dB)	30 Hz to 18 kHz
Nominal Vertical Coverage Pattern	0°
Vertical Beam Type	Straight-shape
Nominal Horizontal Coverage Pattern	180°
Calculated Maximum SPL A 1 m, conti nuous’	122 dB
Calculated Maximum SPL A 1 m, peak’	128 dB
Crossover	200 Hz
Transducers	
Low Frequency	1 x RaceTrack low-frequency driver 10′ x 18′
Low-Frequency Voice Coil Size	3′
High / Mid Frequency	32 x Articulated 2′ drivers
High / Mid Frequency Voice Coil Size	3/4″
Driver Protection	Dynamic limiting
Amplification	
Type	Two-channel Class D
Low-Frequency Amp Charnel	1000 W
High / Mid Frequency Amp Channel	480 W
Cooling	LI Pro32: Fan-assisted cooling
	Sub2: Convection cooling
Onboard Mixer	
Channels	Three
Channel 182 Input: Audio Type	Combination XLR or ‘,:- TRS connector (instrument/line)
Channel 182 Input: Input Impedance	10 ND (XLR): 2 MD (TRS)
Channel l& 2 Input Trim	0 d13.12 dB. 24 d13,36 d8, and 45 dB analog gain steps automaticall y selected and compensated by DSP
Channel 1& 2 Input: Channel Gain	-100 dB to +75 dB (X L R): -115 dB to +60 dB (TRS): from input to dri ver. controlled by volume knob
Channel 182 Input: Max Input Signal	+10 dBu (XLR): +24 dBu (TRS)
Channel 3 Input: Audio Type	!V TRS (stereo-summed, line). ‘A” TRS (line). *Bluetooth•* audio streaming

Channel 3 Input: Input Impedance	40 KO (3.5 mm): 200 KG CTRS)
Channel 3 Input:Channel Gain	-105 dB to +50 dB (3.5 mm): -115 dB to +40 dB (TRS): from input to d river. 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 au dio and power connection for the optional T45/T8S ToneMatch Mixer
Output: Audio Type	XLR connector. line level. full-frequency bandwidth
B/uetooth Enabled	Yes
B/uetooth Types	AAC and SBC for audio streaming. LE for system control
Channel Controls	3 digital rotary encoders
Phantom Power	Channel l& 2
LED Indicators	Standby. Channel Parameters. SignaVClip. Mute. Phantom Power. T oneMatch. *Bluetooth* LED. System Ea

AC Power	
AC Power Input	100-240 VAC (±20%, 50/60 Hz)
Input: Electrical Type	DEC
Initial turn-on inrush current	LI Pro32 15.3 A at 120 V; 29.0 A at 230 V
	Sub2: 15.2 A at 120 V: 28.6 A at 230 V
Inrush current after AC mains interrupti on of 5s	LI Pro32 1.2 A at 120 V: 26.5 A at 230 V
	Sub2: 2.6 A at 120 V: 6.1 A at 230V
Enclosure	
Color	Black
Enclosures Material	LI Pro32: Power stand: High-impact polypropylene Arrays: High-impa ct ABS
	Sub2: High-impact polypropylene. birch plywood
Product Dimensions (H × W × D)	LI Pro32: 2120 x 351. 573 mm (83.5 × 13.8 × 22.5 in)
	Sub2: 694. 317 x 551 mm (27.3 ×12.5 x 21.7 in)
Shipping Dimensions (H × W × D)	LI Pro32: 220 x 450 × 1200 mm (8.66 × 17.72 × ***47.24*** in)
	Sub2: 660 x 385 × 790 mm (25.98 × 15.16 × 31.10 in)
Net Weight’	LI Pro32: 13.1 kg (28.9 lbs)
	Sub2: 23.0 kg (50.7 lbs)
Shipping Weight	LI Pro32: 19.0 kg (41.9 lbs)
	Sub2: 27.7 kg (61.0 lbs)
Warranty Period	2 years

Included Accessories	Carry bag for arrays. carry bag for power stand. Sub Match cable. IE C power cord (2). bass module slipcover
Optional Accessories	LI Pro32 Array 8 Power Stand Bag. Sub2 Roller Bag. Adjustable Spe aker Pole. Sub Match Cable
Product Part Numbers	
840921-1100	LI PRO32 PORTABLE LINE ARRAY.120V, US
840921-2100	LI PR032 PORTABLE LINE ARRAY.230V, EU
840921-3100	LI PRO32 PORTABLE LINE ARRAY.100V.JP
840921-4100	LI PRO32 PORTABLE LINE ARRAY.230V.LIK
840921-5100	LI PRO32 PORTABLE LINE ARRAY.230V.AU
840921-5130	LI PRO32 PORTABLE LINE ARRAY.230V.INDIA
840917-1100	SUB2 POWERED BASS MODULE,120V.US
840917-2100	SUB2 POWERED BASS MODULE,230V.EU
840917-3100	SUB2 POWERED BASS MODULE.100V.JP
840917-4100	SUB2 POWERED BASS MODULE.230V.UK
840917-5100	SUB2 POWERED BASS MODULE,230V.AU
840917-5130	SUB2 POWERED BASS MODULE,230V.INDIA
8 5699 6-0110	PREMIUM CARRY BAG.L1 PR032.BLACK
856986-0110	PREMIUM ROLLER BAG.SUBZBLACK
857172-0110	SUBMATCH CABLE.BLACK
857000-0110	SPEAKER STAND, SUB POLE.BLACK
845116-0010	TONEMATCH CABLE ASSY KIT 18FT

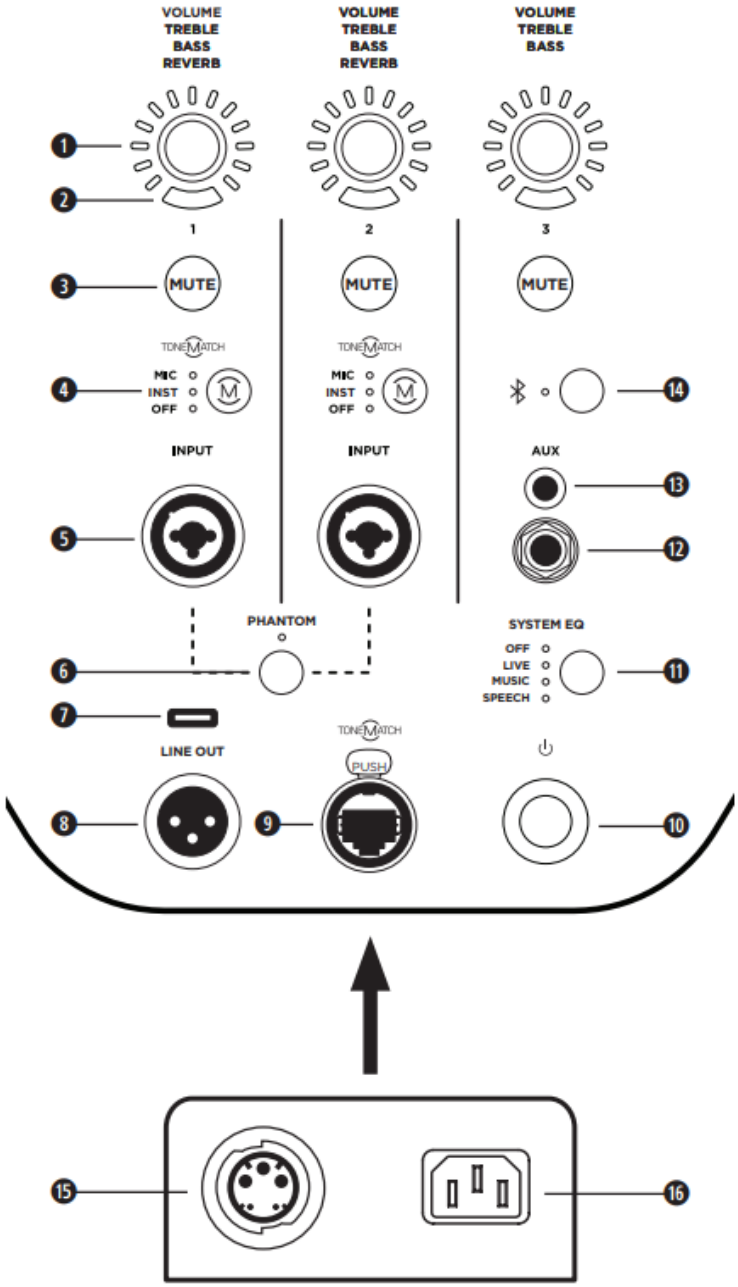
Footnotes

(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 carrying bags, slipcover, SubMatch cable, and power cords.

Connections and Controls



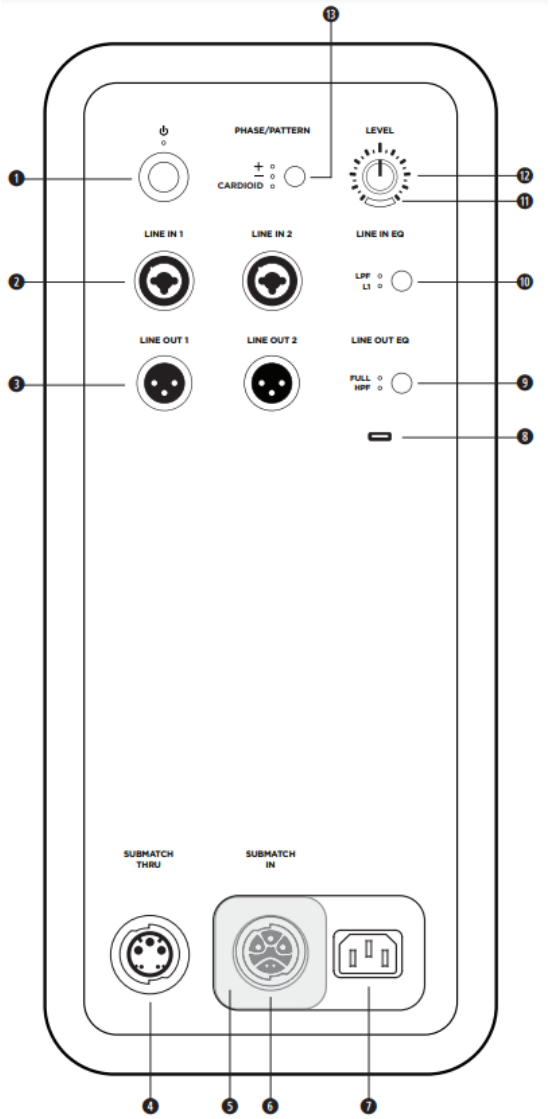
1. **Channel Parameter Control:** Adjust the level of volume, treble, bass, or reverb for your desired channel. Press the control to switch between parameters; rotate the control adjust the level of your selected parameter.
2. **Signal/Clip Indicator**: The LED will illuminate green when a signal is present and will illuminate red when the signal is clipping or the L1 Pro 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.

   CAUTION: Do not connect to a computer or phone network.
10. **Standby Button:** Press the button to power on the L1 Pro. The LED will illuminate white while the L1 Pro is on.
11. **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.
12. **TRS Line Input:** Use a 6.4-millimeter (1/4-inch) TRS cable to connect line-level audio sources.
13. **Aux Line Input:** Use a 3.5-millimeter (1/8-inch) TRS cable to connect line-level audio sources.
14. **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.
15. **Sub Match Output**: Connect a Sub1/Sub2 bass module with a SubMatch cable.
16. P**ower Input:** IEC power cord connection.

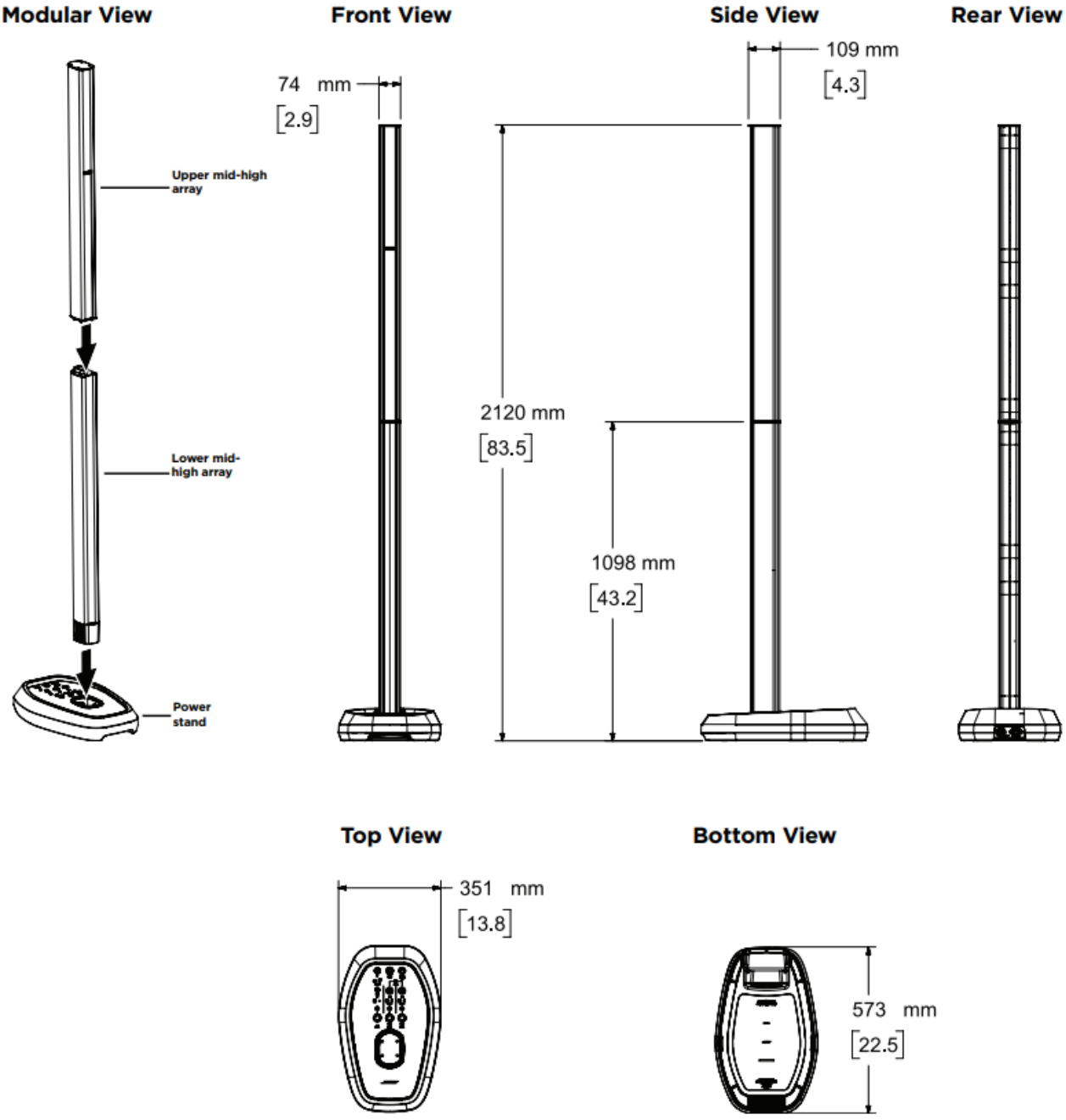
Connections and Controls



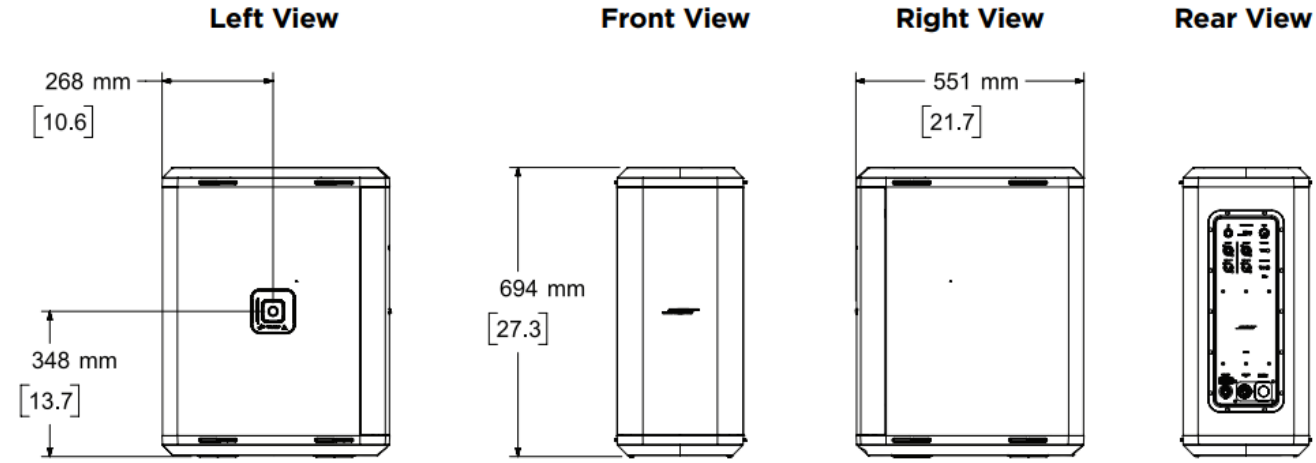
1. **Standby Button:** Press the button to power on the Sub. The LED will illuminate white while the Sub is on.
2. **Line Inputs:** Analog input for connecting an L1 Pro or another line-level audio source. Compatible with XLR, TRS balanced, and TS unbalanced cables.

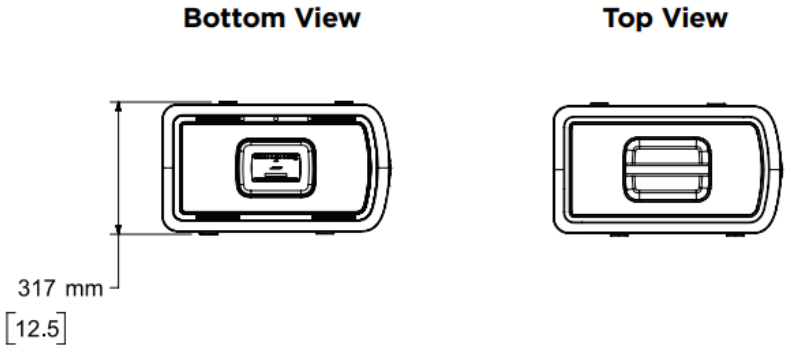
3. **Line Outputs:** Use an XLR cable to connect the line-level output to a loudspeaker.
4. **Sub Match Thruput:** Connect an additional Sub-bass module with a SubMatch cable. Up to two Sub1 or Sub2 powered bass modules can be powered by a single L1 Pro32 via a SubMatch connection.
5. **Power Input Cover:** Prevents simultaneous use of the SubMatch Input and Power Input. Slide the cover to reveal the power input that is needed for setup.
6. **Sub Match Input:** Connect the Sub to an L1 Pro32 with a SubMatch cable.
7. **Power Input:** IEC power cord connection.
8. **USB Port**: USB-C connector for Bose service use and firmware updates.
   Note: This port is not compatible with Thunderbolt 3 cables.
9. **Line Output EQ:** Select between FULL bandwidth or a multi-purpose HPF when using Line Outputs. Press the button to switch EQ settings. The corresponding LED will illuminate white while selected.
10. **Line Input EQ:** Select between an optimized EQ for an L1 Pro or a multipurpose LPF when using Line Inputs. Press the button to switch EQ settings. The corresponding LED will illuminate white while selected.
11. **Signal/Clip Indicator:** The LED will illuminate green when a signal is present and will illuminate red when the signal is clipping or the Sub is entering limiting. Reduce the level or signal volume to prevent signal clipping or limiting.
12. **Level Control:** Adjust the level of audio output. The Level Control does not affect the Line Outputs. The 12 o'clock position is recommended when in use with an L1 Pro32.
13. **Phase/Pattern Button:** Adjust the polarity of the Sub. Press the button to switch polarity. The corresponding LED will illuminate white while selected. Also allows access to Cardioid mode when using two identical Submodules.

Product Dimensions



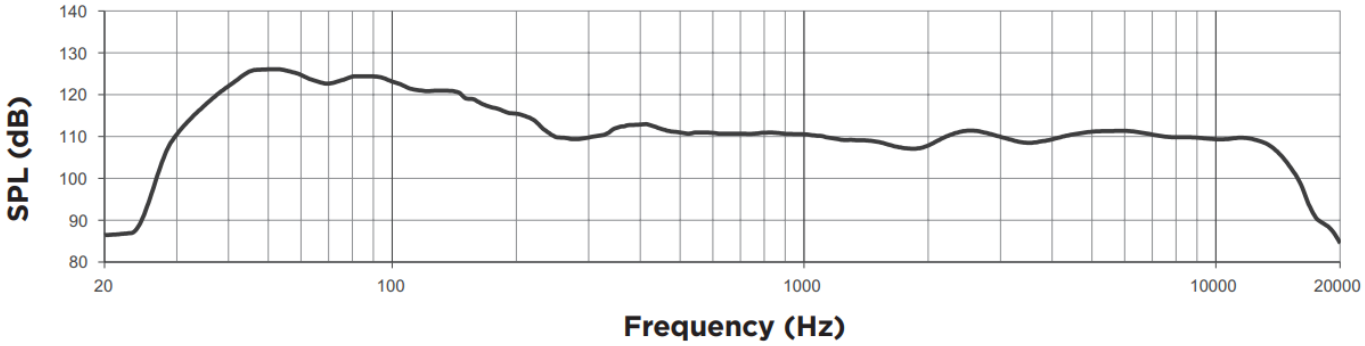
Product Dimensions



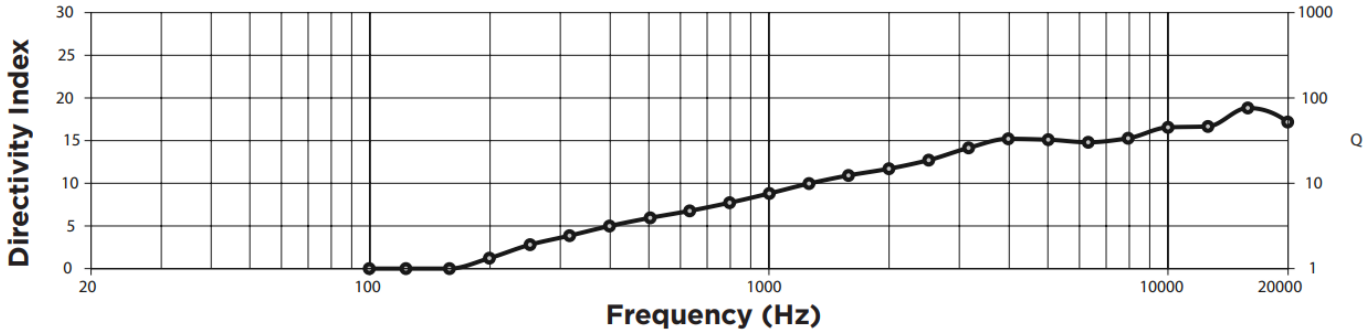


Performance

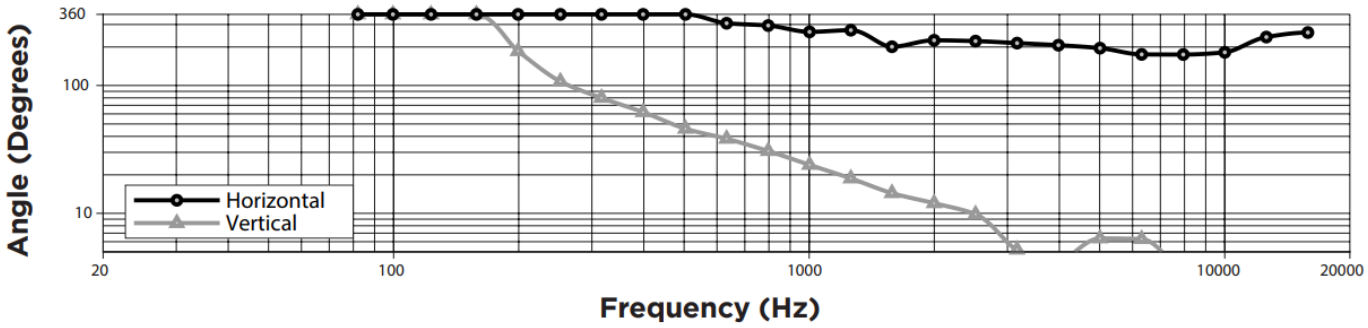
Frequency Response (On-Axis)



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 32, 2″ (51 mm) high-excursion cricket drivers mounted in a curved articulated array loudspeaker, coupled with a modular 10″ x 18″ (254 mm x 457 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 0°. 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 1000 W for low-frequency transducers (Sub2) and 480 W for high-mid array transducers (L1 Pro32).
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. 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 arrays shall be constructed of high-impact ABS. The subwoofer shall be constructed of high-impact polypropylene and birch plywood.
The system's array outer dimensions shall be 83.5″ H × 13.8″ W × 22.5″ D (2120 mm × 351 mm × 573 mm). Its net weight shall be 28.9 lbs (13.1 kg). The system's subwoofer dimensions shall be 27.3″ H × 12.5″ W × 21.7″ D (694 mm × 317 mm × 551 mm). Its net weight shall be 50.7 lbs (23.0 kg). The loudspeaker shall be the Bose L1 Pro32 + Sub2 portable line array system.

Safety and Regulatory Compliance

The L1 Pro32 + Sub2 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

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

Documents / Resources

	BOSE L1 PRO32 + SUB2 PORTABLE LINE ARRAY SYSTEM [pdf] Instruction Manual L1 PRO32 SUB2, PORTABLE LINE ARRAY SYSTEM

References

- Bose Professional
- L1 Pro Portable Line Array Systems | Bose Professional