L1® Model II
portable line array system

Key Features

• High-performing, powered, portable two-way loudspeaker system with a 195° H x 0° V nominal dispersion designed for the production and reproduction of live music, music playback, speeches and A/V sound reproduction

• 24-driver articulated line array loudspeaker technology produces wide, uniform sound coverage throughout the entire listening area—even off to the extreme sides

• Consistent front-to-back coverage. 24 drivers mounted in a vertical line array produce little drop in sound pressure level per doubling in distance than a conventional point source

• Retractable folding leg mechanism for easy transport

• Lightweight, interlocking components

• Expandable bass design supports the use of multiple B1 bass modules or a single B2 bass module

• Digital Ethercon port provides single-wire connectivity for the T1 ToneMatch audio engine

Product Overview

The L1 Model II is our most advanced system for audiences up 500, featuring a 24-speaker articulated line array to provide our best tonal balance and coverage, and highest output.

Technical Specifications

System Performance

System Type
Self powered, two-way

Frequency Response (+/-3 dB)
40 Hz - 12 kHz

Frequency Range (-10 dB)
32 Hz - 14 kHz

Nominal Dispersion
195° H x 0° V

Maximum SPL @ 1 m²
115 dB SPL (121 dB SPL peak)

Crossover Frequency
200 Hz (24 dB / octave)

Amplification

System Power Rating
500 W

Low-Frequency Amplifier
250 W

High-Frequency Amplifier
250 W

Distortion at Rated Power
0.1 % Max (30 Hz - 15 kHz)

System Limiter
Dynamic limiter

Overload Protection
Fuse/MOV/NTC/PTC

Power Indicator
Blue LED: system on, Red LED: fault

Transducers

Driver Compliment
Cylindrical Radiator® loudspeakers: Twenty-four (24) 2.25" (57 mm) HF drivers
B1 bass module: Two (2) 5.25" (133 mm) LF drivers (8 Ω)
B2 bass module: Two (2) 10" (254 mm) LF drivers (4 Ω)

Channel

Signal Indicators
Analog signal/clip LED: Green: signal present, Yellow: -3 dB below clip, Red: clip (limiter active)

Trim
+14 dB @ max

Input
1/4" - TS unbalanced or TRS balanced

Channel Gain (1/4" input)
-50 dB to +28 dB (line)

Maximum Input Signal
+24 dBu (balanced)

Input Impedance
10 kΩ +/- 10 % (unbalanced)

Additional Connections

Bass Module out (for B1 or B2 only)
NL4 connector (all pins wired, two for audio, two for auto sensing). Bass output signal for driving up to two B1 bass modules (one B1 bass module = 8 Ω) (two B1 bass modules = 4 Ω) or one B2 bass module (4 Ω)

Bass Line Output
Post-DSP bass signal output. Accepts a 1/4" TRS cable. Supplies low frequency signal for connecting a PacLite® power amplifier or powered sub woofer.

ToneMatch Port
CAT5 Ethernet cable with RJ45 connection providing digital audio and power connection for the optional T1 ToneMatch audio engine

AC Mains
IEC connector
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### Physical

| Enclosure          | Power Stand: Polypropylene cover with cast aluminum legs and steel chassis base  
|                   | Cylindrical Radiator: Aluminum enclosure with ABS baffle  
| Grille             | Powder-coated perforated steel  
| Dimensions         | Assembled height: 84.0” (2134 mm)  
| Net Weight         | Power Stand: 23.7 lb (10.7 kg)  
|                   | Cylindrical Radiators (pair): 33.7 lb (15.3 kg)  
|                   | B1 bass module: 26.6 lb (12.1 kg)  
|                   | B2 bass module: 45 lb (20.41 kg)  
| Shipping Weight    | Power Stand: 32 lb (14.5 kg)  
|                   | Cylindrical Radiators (pair): 41 lb (18.6 kg)  
|                   | B1 bass module: 30 lb (13.6 kg)  
|                   | B2 bass module: 52.2 lb (23.67 kg)  

### Voltages

| USA/Canada         | 100-120 V 50 / 60 Hz 500 W  
|                   | 220-240 V 50 / 60 Hz 500 W  

Footnotes:

1. Frequency response and range measured on-axis with recommended active EQ in an anechoic environment.
2. Maximum SPL calculated from sensitivity and power handling specifications, exclusive of power compression.
Directivity Index and Q

Beamwidth

On-Axis Response
L1® Model II
portable line array system

Mechanical Diagrams

L1 Model II
L1® Model II
portable line array system

B1 bass module

Top View

Front View

Right View
L1® Model II
portable line array system

B2 bass module

Top View

Front View

Right View
Horizontal Plots

125 Hz Octave Band

250 Hz Octave Band

500 Hz Octave Band

1000 Hz Octave Band

2000 Hz Octave Band

4000 Hz Octave Band

8000 Hz Octave Band

16000 Hz Octave Band
Architects’ and Engineers’ Specifications

The system shall be a multiple driver, full-range portable loudspeaker system with internally supplied power amplification, active equalization and external bass modules.

The transducer complement shall consist of twenty-four 2.25” (57 mm) high excursion, high-frequency drivers mounted in an Articulated Array® loudspeaker design. The loudspeaker array shall be wired in a series/parallel configuration.

The low frequency section shall be two 5.25” (133 mm) high excursion, low-frequency drivers mounted in a vented bass enclosure (B1 bass module). Or two 10” (254 mm) high excursion, low-frequency drivers mounted in a vented bass enclosure (B2 bass module).

The nominal horizontal beamwidth of the loudspeaker shall be 195°, and the vertical coverage shall be a narrow band of sound confined to the top and bottom of the array. The power amplification for transducers shall be supplied by the integrated power stand providing 500 W continuous pink noise, band limited from 40 Hz to 12 kHz (±3 dB).

The input connectors of the power stand module shall consist of one ¼” TS unbalanced or TRS balanced receptacle and one digital ethercon (RJ-45) receptacle for coupling the T1 ToneMatch® audio engine. The system’s output connectors shall provide one NL4 receptacle capable of distributing power for two low frequency B1 bass modules or a single B2 Bass Module. One ¼” TRS line level receptacle for supplying signal to a PackLite® extended bass package.

The enclosure of the top and bottom loudspeaker array shall be constructed of extruded aluminum. The system’s power stand shall be constructed of polypropylene materials.

The total assembled system height shall be 84” (2134 mm).

The total assembled system weight with the B1 shall be 84 lb (38.10 kg).

The total assembled system weight with the B2 shall be 102 lb (46.2 kg).

The loudspeaker shall be the Bose® L1® Model II portable line array system.

Safety and Regulatory Compliance

The L1® Model II system complies with the following standards:

- UL/IEC/EN 60065 7th Edition Safety Standard for Audio and Video Equipment
- Ecodesign Directive 2005/32/EC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. This product complies with the Canadian ICES-003 Class A specifications. This product conforms to the EMC Directive 289/336/EC Under standards: EN55103-1 & 2: 1997, Environment 2.

Product Codes

Power stand - 120V  PC 352077-0010
Power stand - 220V  PC 042825
Cylindrical Radiator® loudspeaker top and bottom  PC 351969-0010
B1 bass module  PC 351964-0010
B2 bass module  PC 353927-0110

Accessories

T1 ToneMatch™ audio engine  PC 351968-0010
T1 ToneMatch™ audio engine power supply  PC 042533
T1 ToneMatch™ audio engine mic stand bracket  PC 042535
Packlite - 120 V  PC 351971-0010
Packlite - 240 V  PC 039058

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