L1® Compact
portable line array system

TECHNICAL DATA SHEET

Key Features

- High-performing, self-powered, portable two-way loudspeaker system designed for the production and reproduction of live music, music playback, speeches and A/V sound reproduction.
- Spatial Dispersion™ loudspeaker technology produces wide, uniform sound coverage throughout the entire listening area – even off to the extreme sides.
- Integrated ToneMatch® presets contain hardwired equalization curves for dynamic handheld microphones and acoustic guitars.
- Offers both collapsed and extended setup positions.
- For smaller spaces with audiences of up to 100.

Description

The L1® Compact portable line array system is a powered loudspeaker system designed to provide wide, uniform sound coverage and easy setup. Spatial Dispersion loudspeaker technology combines proprietary Bose® technologies to deliver clear, powerful sound throughout the entire listening area – even off to the extreme sides. The interlocking components are easily transported and eliminate the need for external speaker wires and stands.

The system offers a built-in, two-channel mixer with XLR, ⅛" (3.5 mm) TRS, stereo RCA, and ¼" TRS phone jack compatibility. The L1 Compact system is well-suited for professional applications such as music playback, speeches and A/V sound reproduction.

Descriptive Data

System Specifications	
System Type	Self-powered, two-way
Calculated Maximum SPL @ 1m (continuous and peak)	106 dB continuous, 112 dB peak
Frequency Range (-3 dB)	65 Hz – 14 kHz
Frequency Range (-10 dB)	50 Hz – 16 kHz
Crossover Frequency	400 Hz 4th order Butterworth
Nominal Coverage Pattern	180° H x 40° V
Power	
System Power Handling	130 W
Distortion at Rated Power	0.1% Max 30 Hz – 15 kHz
System Limiter	Dynamic Limiting
Transducers	
High-Frequency Drivers	(6) 2.00" HF drivers
Low-Frequency Driver	(1) 8" LF driver
Channel 1 – Microphone Only Input	
Signal Indicators	Signal/Clip LED: Green = Signal Present Red = Clip (limiter active)
ToneMatch® Preset	NOTE: The ToneMatch equalization is always engaged on Channel 1 and cannot be bypassed. The preset is designed to optimize a dynamic handheld microphone for the L1 Compact system.

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Descriptive Data *(continued)*

Channel 1 – Microphone Only Input *(continued)*	
Controls	Volume Treble: +/- 5 dB shelving filter @ 4 kHz Bass: +/- 5 dB shelving filter @ 120 Hz
Input	XLR Balanced Pin 1 (GND), Pin 2 (+), Pin 3 (-)
Channel Gain	-Infinity to +50 dB
Max Input Signal	+8 dBu
Input Impedance	2.4 kΩ
Channel 2 – Line and Instrument Inputs	
Signal Indicators	Signal/Clip LED: Green = Signal Present Red = Clip (limiter active)
ToneMatch® Switch	NOTE: This switch engages ToneMatch equalization only to the ¼" input. When set to ON, this engages a preset designed for an acoustic guitar with a piezo pickup. When in the OFF position, no EQ is applied.
Controls	Volume
Inputs	¼" TS/TRS ⅛" TS/TRS (2) RCA
Channel Gain	¼" = -Infinity to +40 dB ⅛" and RCA = -Infinity to +24 dB
Max Input Signal	¼" = +12 dBu ⅛" = +12 dBu RCA = +12 dBu
Input Impedance	¼" = 800 kΩ ⅛" = 14 kΩ RCA = 12.5 kΩ
Outputs	
Line Output	¼" balanced TRS or unbalanced TS Nominal +2.2 dBu Max +20 dBu
Record Out	(2) RCA unbalanced Nominal -3.8 dBu Max +14 dBu
Physical Properties	
Grille	Powder-coated steel
Enclosure and Extensions	Enclosure: Polypropylene Extension + Array: ABS
Net Weight and Dimensions	
L1 Compact Collapsed Position	24.6 lbs. (11.2 kg) 16.5" H x 13.25" W x 16.75" D (418 mm x 339 mm x 426 mm)
L1 Compact Extended Position	29.2 lbs. (13.3 kg) 78.5" H x 13.25" W x 16.75" D (1995 mm x 339 mm x 426 mm)
L1 Compact Extensions (2)	2.3 lbs. (1.05 kg) each 32.5" H x 2.75" W x 2.75" D (830 mm x 70 mm x 70 mm)
Shipping Weight	
L1 Compact Power Stand	30.4 lbs. (13.8 kg)
L1 Compact Extensions	7.5 lbs. (3.4 kg)
Voltages	
Universal Power Supply	AC power rating 100-240 V 50 / 60 Hz +/- 20% 200 W max

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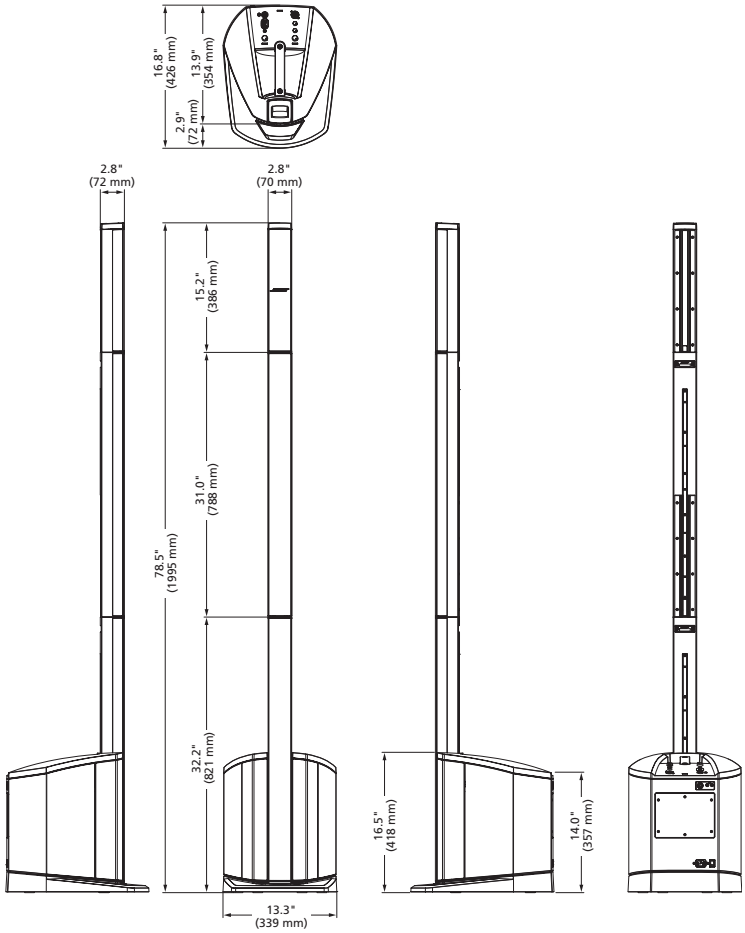
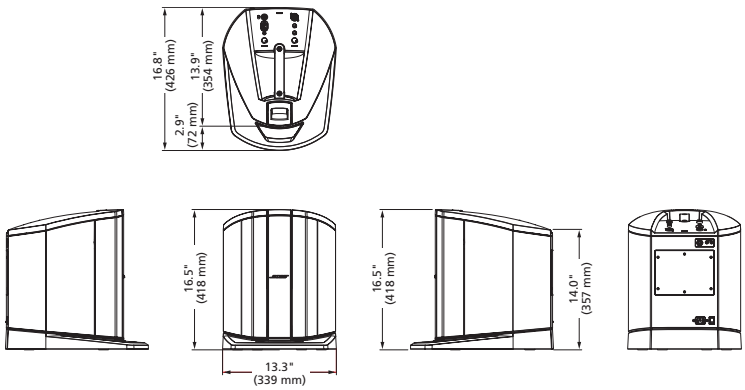
Mechanical Diagrams

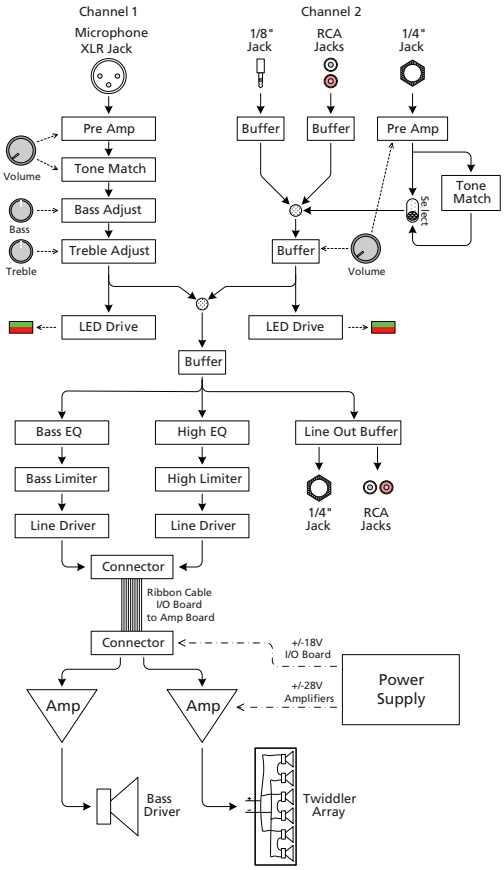
Extended Position



Collapsed Position



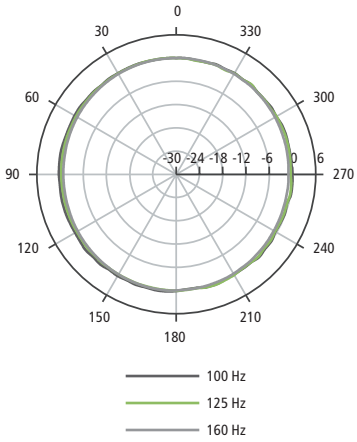
Signal Flow Block Diagram



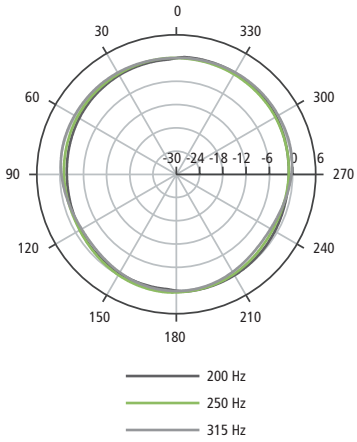
TECHNICAL DATA SHEET

Polar Plots ⅓ Octave Horizontal

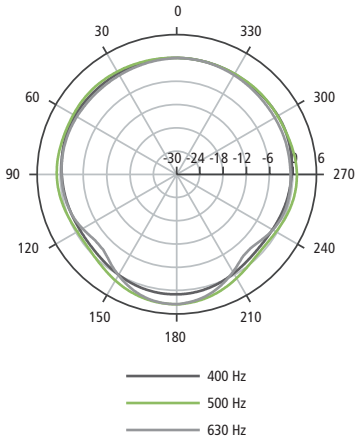
125 Hz Octave Band



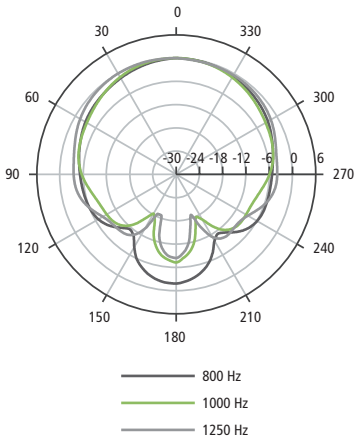
250 Hz Octave Band



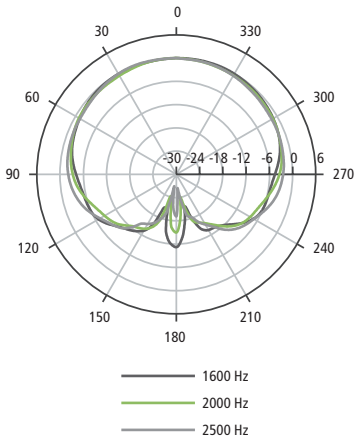
500 Hz Octave Band



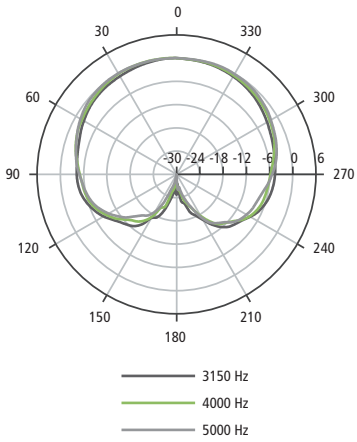
1000 Hz Octave Band



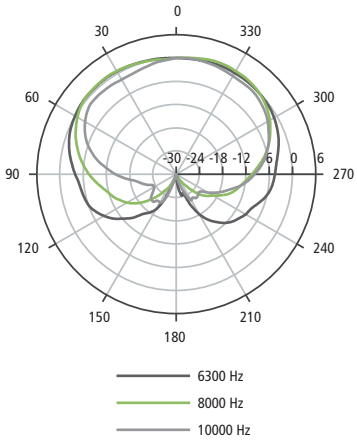
2000 Hz Octave Band



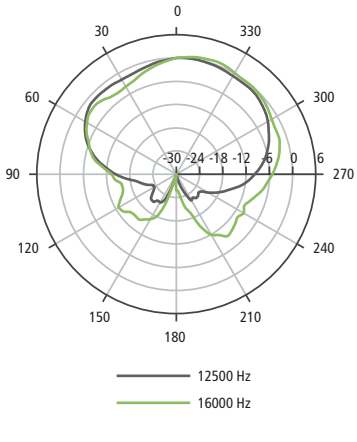
4000 Hz Octave Band



8000 Hz Octave Band

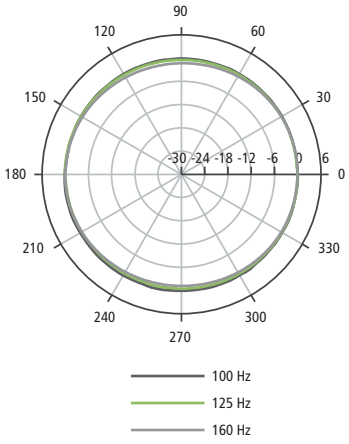


16000 Hz Octave Band

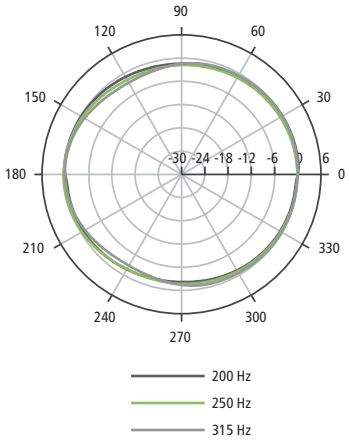


Polar Plots ⅓ Octave Vertical

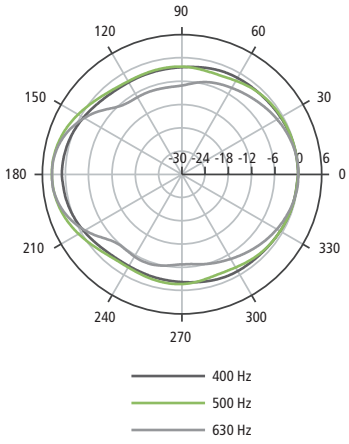
125 Hz Octave Band



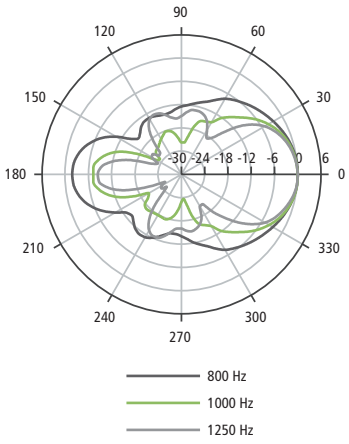
250 Hz Octave Band



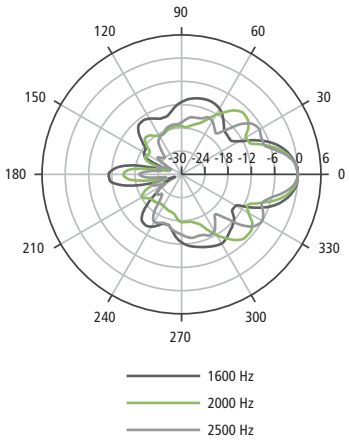
500 Hz Octave Band



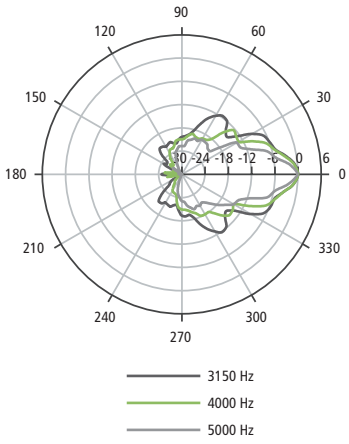
1000 Hz Octave Band



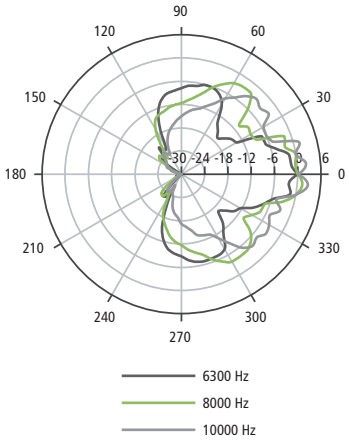
2000 Hz Octave Band



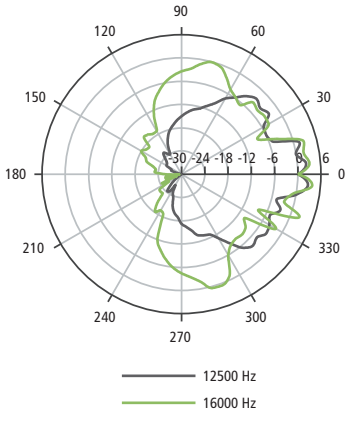
4000 Hz Octave Band



8000 Hz Octave Band



16000 Hz Octave Band



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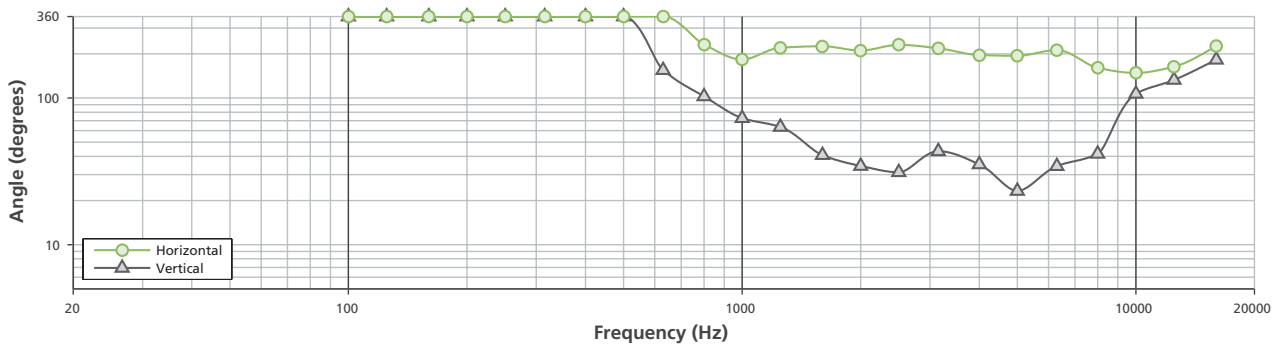
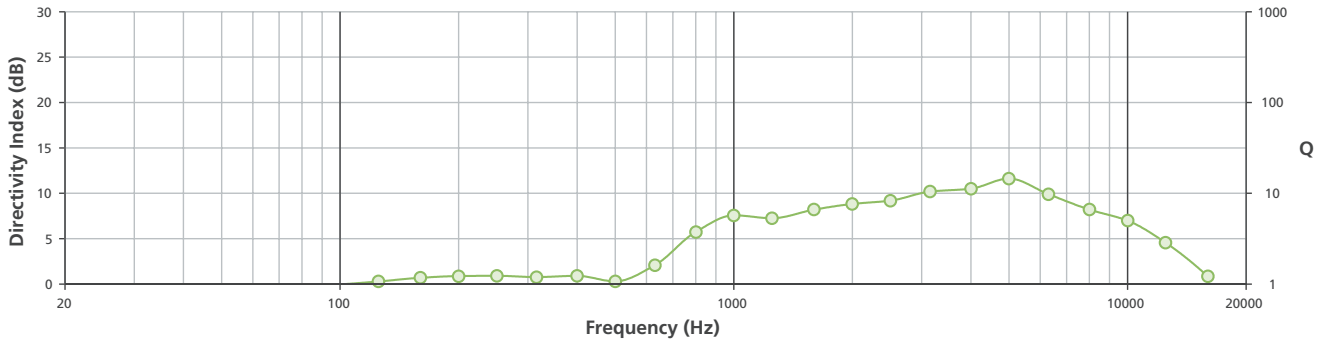
Beamwidth



Directivity Index and Q



Engineers' and Architects' Specifications

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 six 2.00" (51 mm) high-excursion drivers mounted in a curved Articulated Array® loudspeaker coupled with an integral 8" (203 mm) 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 vertical coverage shall be 40°. The system's power stand shall incorporate a ported venting system for the low-frequency driver, tuned for 65 Hz. The power amplification for transducers shall be supplied by the integrated power stand providing 130 W continuous pink noise, band-limited from 65 Hz to 14 kHz (-3 dB).

The input connectors of the power stand module shall consist of one XLR with equalization for a dynamic handheld microphone, one ¼" TRS with selectable ToneMatch® signal processing for acoustic guitar with piezo pickup, stereo RCA, and one ⅛" TRS receptacle. The output connectors of the power stand shall consist of one ¼" balanced TRS or unbalanced TS and two RCA unbalanced phone plugs.

The enclosure of the power stand shall be constructed of polypropylene materials. The extension and array shall be constructed of ABS materials. In collapsed tabletop mode, the system's outer dimensions shall be 16.5" H x 13.25" W x 16.75" D (418 mm x 339 mm x 426 mm). Its weight shall be 24.6 lbs. (11.2 kg). In extended operating mode, the system's outer dimensions shall be 78.5" H x 13.25" W x 16.75" D (1995 mm x 339 mm x 426 mm). Its weight shall be 29.2 lbs. (13.3 kg).

The system shall be capable of two operating modes; collapsed tabletop or extended position by integrating height-extension modules.

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

Safety and Regulatory Compliance

The L1 Compact 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 2004/108/EC Under standards: EN55103-1 & 2: 1997, Environment 2.

How our Loudspeakers are Measured

Calculated Max SPL

Calculated based on input sensitivity and maximum input power rating exclusive of power compression.

More Information

Technical literature and other materials are available at pro.Bose.com.

L1® Compact
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Product Codes

System

L1 Compact Portable Line Array System 100 V . . . . . PC 52293
L1 Compact Portable Line Array System 120 V . . . . . PC 52290
L1 Compact Portable Line Array System 230 V . . . . . PC 52291
L1 Compact Portable Line Array System 240 V . . . . . PC 52292

Available Accessories

L1 Compact Microphone Accessory Kit . . . . . PC 322711-0000
L1 Compact Extensions Carry Bag . . . . . PC 317404-010S
L1 Compact Power Stand Slip Cover . . . . . PC 317403-010S
T1 ToneMatch® Audio Engine . . . . . PC 042826
T1 ToneMatch Audio Engine Power Supply . . . . . PC 042533
T1 ToneMatch Audio Engine Mic Stand Bracket . . . . . PC 042535

Replacement Part Numbers

Loudspeaker Array . . . . . PC 318880-010S
Power cord, 120 V (US) . . . . . PC 298165
Power cord, 220 V (China) . . . . . PC 318882-210S
Power cord, 100 V (Japan) . . . . . PC 298167
Power cord, 230 V (Euro) . . . . . PC 298166
Power cord, 240 V (UK) . . . . . PC 298168
Knob, Channels 1 and 2 . . . . . PC 317349-010S
Knob, Volume/Treble . . . . . PC 317350-010S
Knob, Line Level . . . . . PC 317351-010S
Grille, Array (w/logo) . . . . . PC 317365-010S
Array Logo . . . . . PC 317407-010S

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Better sound through research®