

FreeSpace[®] 360P Series II Environmental Speaker



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Specifications

Frequency Range: 70Hz to15kHz (± 3 dB)

FreeSpace[®] 360P versions: 70V/100V (10W, 20W, 40W, 80W taps)

Sensitivity: 87dB-SPL @ 1W, 1m (pink noise)

Maximum Acoustic Output: 100dB-SPL @ 1m (pink noise)

Dispersion (-6 dB point, average,1-4kHz): 360° horizontal; 50° vertical

Long-Term Power Handling: 40W continuous, 80W peak

Mechanical Specifications:

Dimensions: 14.5" (36.83 cm) base diameter; 14.9" (37.85 cm) height

Weight: 14.5 lb (16.58 kg)

Input Connections: External multi-wire cable with wire nuts included

Enclosure Construction: Glass reinforced polypropylene

Mounting Points: Three (3) #10 (M4) holes in base

Warranty

The Bose[®] FreeSpace[®] 360P Series II loudspeaker is covered by a 5-year, transferable limited warranty

Proprietary Information

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF BOSE CORPORATION WHICH IS BEING FURNISHED ONLY FOR THE PURPOSE OF SERVICING THE IDENTIFIED BOSE PRODUCT BY AN AUTHORIZED BOSE SERVICE CENTER OR OWNER OF THE BOSE PRODUCT, AND SHALL NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE.

Caution: The FreeSpace loudspeaker contains no user serviceable parts. To prevent warranty infractions, refer servicing to warranty service centers or factory service.

Assembly Part List

Item Number	Description	Part Number	Qty	Note
1	DRIVER ASSY, 4.5", ENV	289807-001	1	
2	GASKET, STRIP, 2.0X5.0X340.0, PSA	775109-0010	1	
3	DIFFUSER, FS-51	268607	1	
4	PROTECTOR, DRIVER, TRANSIT, 4.5	120003	1	
5	LOGO CAP, GREEN	268601-1	1	
6	SCREW, TF, 8-11X1.25, HEXW HD	296497-020	3	4
7	SCREW, TAPP, 8-11X.5, PAN, XREC/SQ	296495-008	3	4

Packaging Part List - Pair

Item Number	Description	Part Number	Qty	Note
8	CARTON, REG SLOTTED	270555	1	
9	OWNERS GUIDE	263873	1	
10	CONNECTOR, WIRENUT, 16-22AWG	188199-001	8	
11	BAG, POLY, ZIP LOCK, 2 MIL, 3X5"	260556-0305	1	4
12	BAG, POLY, 13X33.5X11.5X3	137847	2	4
-	AU/NZ WARR SLIP SHEET 8.5 X 5.5	355731-0010	1	

Note:

1. The crossover PCB is located in the top of the unit and is not accessible for repair or replacement.
2. The transformer is located in the base of the unit and is not accessible for repair or replacement.

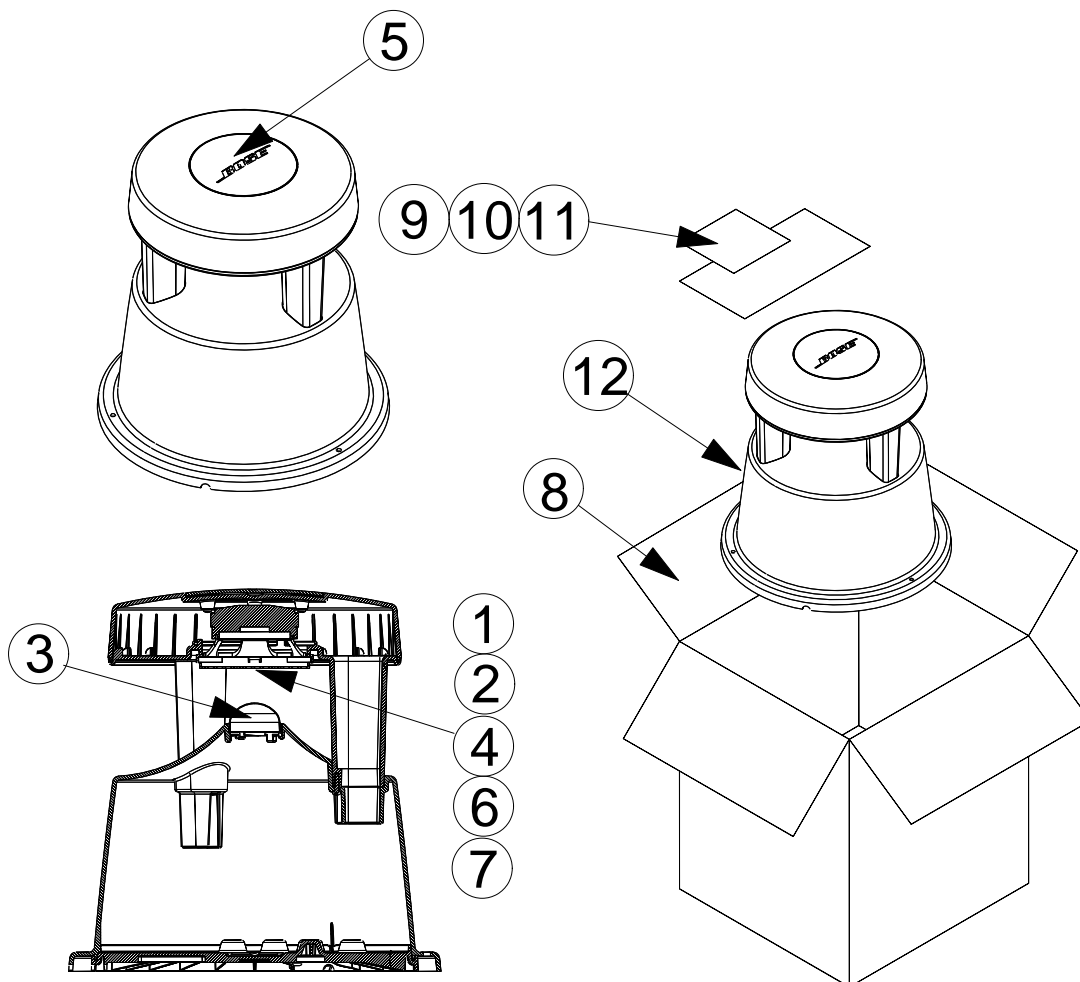
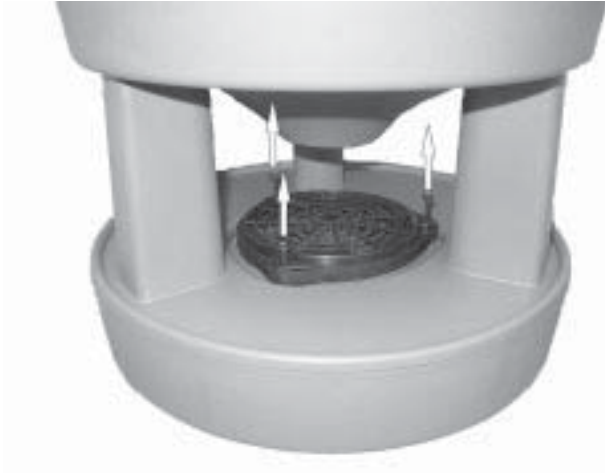


Figure 1. Assembly and Packaging View

Disassembly Procedures

Driver Removal

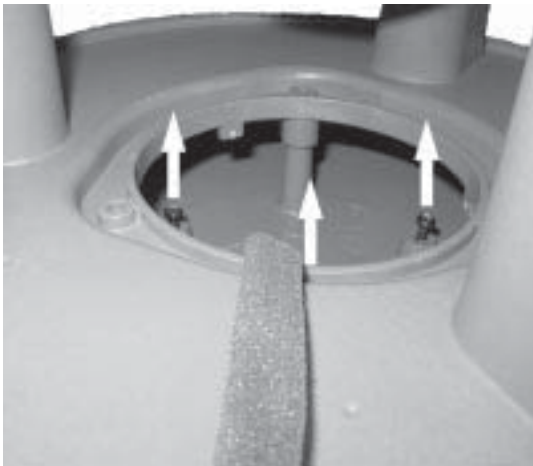


Remove three screws then lift up driver.



Cut the wires close to the driver terminal.

Top Cap Removal



Remove three screws.



Flip unit over. Lift off top cap.



Lift off diffuser.

Note:

1. The crossover PCB is located in the top of the unit and is not accessible for repair or replacement.
2. The transformer is located in the base of the unit and is not accessible for repair or replacement.

Test Procedures

Test Setup

70V version: Apply the positive input signal to the red wire and the negative to the black wire.

100V version: Apply the positive input signal to the yellow wire and the negative to the black wire.

Connect the orange (80W) tap wire to the white wire. After testing, return the tap setting to what the customer had set the unit to. See schematic diagram below.

1. Phase Test

1.1 Apply 8 Vdc to the speaker input terminal.

1.2 The driver should move outward.

2. Air Leak Test

2.1 Apply a 35 Vrms, 80 Hz signal to the speaker input terminal. (Use 50 Vrms for 100V units)

2.2 Listen for air leaks around the driver, top cap, and base seams. Repairs can only be made to the driver.

3. Rub and Tick Test

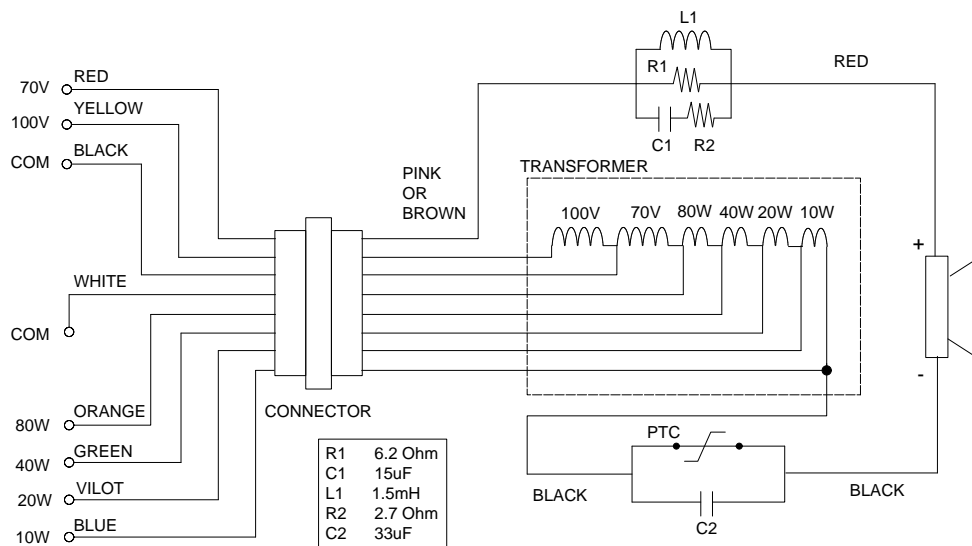
3.1 Apply a 35 Vrms, 10 Hz signal to the speaker input terminal. (Use 50 Vrms for 100V units)

3.2. No extraneous noises such as rubbing, scraping or ticking should be heard. To distinguish between normal suspension noise, rubs and ticks, displace the cone of the driver with your finger. If the sound can be made to go away or get worse, it's a rub or tick and the driver should be replaced. If the noise stays the same, it's normal suspension noise and will not be heard with regular program material.

4. Sweep Test

4.1 Apply a 35 Vrms, 80 Hz signal to the speaker input terminal. (Use 50 Vrms for 100V units). Sweep the speaker from 80 Hz to 5 kHz.

4.2 Listen for buzzes, rattles or other extraneous noises from the driver or cabinet.



Note: The transformer and crossover components are not accessible for repair or replacement.

Figure 2. Schematic Diagram

Service Manual Revision History

Date	Revision Level	Description of Change	Change Driven By	Pages Affected
04/03	00	Document released at revision 00.		
04/06	00 to 01	Added RoHS part numbers	This product is now built with RoHS compliant parts.	3
03/07	02	Added driver from strip – removed non-rohs driver	ECN 37167	

Specifications and Features Subject to Change Without Notice

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