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Bose[®] SoundTouch[®] 10 Wireless Music System



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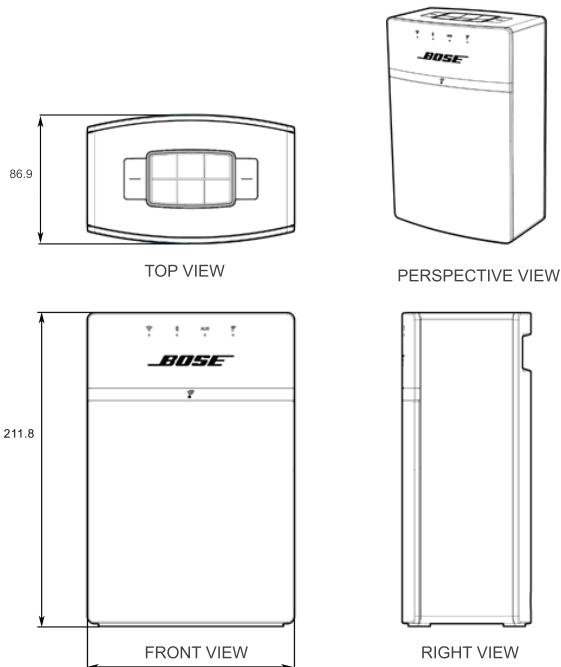
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PRODUCT DESCRIPTION

Bose® SoundTouch® 10 wireless music system is an entry-level stationary wireless music system that contains the wireless source capabilities of SoundTouch, including a way to access six press-and-play personalized presets. The SoundTouch 10 are capable of streaming music directly from the cloud, computer or NAS-stored music.

The SoundTouch 10 has Bluetooth for audio, 3.5 mm aux-in and IR remote control as well for a streamlined setup experience. It comes in 2 color variants, white and black.



SAFETY INFORMATION



1. Parts that have special safety characteristics are identified by the  symbol on schematics or by special notes on the parts list. Use only replacement parts that have critical characteristics recommended by the manufacturer.
2. Refer to the Hi-POT test on page 39 of this service manual.

CAUTION: The Bose SoundTouch 10 wireless music system contains no user-serviceable parts. To prevent warranty infractions, refer servicing to warranty service stations or factory service.

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, AND SHALL NOT BE REPRODUCED OR USED FOR ANY OTHER PURPOSE.

Electrostatic Discharge Sensitive (ESDS) Device Handling

This unit contains ESDS devices. We recommend the following precautions when repairing, replacing or transporting ESDS devices:

- Perform work at an electrically grounded work station.
- Wear wrist straps that connect to the station or heel straps that connect to conductive floor mats.
- Avoid touching the leads or contacts of ESDS devices or PC boards even if properly grounded. Handle boards by the edges only.
- Transport or store ESDS devices in ESD protective bags, bins, or totes. Do not insert unprotected devices into materials such as plastic, polystyrene foam, clear plastic bags, bubble wrap or plastic trays.

WARRANTY

The Bose® SoundTouch® 10 is covered by a limited 1-year transferable warranty. 2 years in Europe.

PART LIST NOTES

1. The individual parts located on the PCBs are listed in the Electrical Part List.
2. This part is referenced for informational purposes only. It is not stocked as a repair part. Refer to the next higher assembly for a replacement part.
3.  This part is critical for safety purposes. Failure to use a substitute replacement with the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards.
4. The country, region, variant code, variant mode and serial number must be set after replacing the main PCB. Refer to the procedure on page 41-42.

PACKAGING PART LIST

Packaging Part List (see Figure 1)

Item Number	Description	Material Number	Qty	Variant	Notes
1	PACKING, FOAM BAG, 340X250X0.52T	746445-0010	1		
2	PACKING, PAD, E FLUTE, 230X120	746446-0010	1		
3	PACKING, PULP, LEFT, 201X133X58	733148-0010	2		
4	PACKING, RSC CARTON, 315X142X217, BLK, APAC, EU	733953-0010	1	EU	
	PACKING, RSC CARTON, 315X142X217, BLK, APAC	733953-0010	1	APAC	
	PACKING, RSC CARTON, 315X142X217, WHT, APAC, EU	733953-0020	1	EU	
	PACKING, RSC CARTON, 315X142X217, WHT, APAC	733953-0020	1	APAC	
	PACKING, RSC CARTON, WHT, 254X142X217 (US, TW, JP)	733768-0020	1	US, TW, JP	
	PACKING, RSC, CARTON, US, BLK, 254X142X217 (US, TW, JP)	733768-0010	1	US, TW, JP	
5	QSG, ST10, WIRELESS, MS, APAC1	745050-0010	1	APAC	
	QSG, ST10, WIRELESS, MS, APAC2	745053-0010	1	JP	
	QSG, ST10, WIRELESS, MS, APAC2	745053-0010	1	APAC	
	QSG, ST10, WIRELESS, MS, AST-EUR1	745046-0010	1	US, EU	
	QSG, ST10, WIRELESS, MS, ENG, TAIWAN	746793-0010	1	TW	
	QSG, ST10, WIRELESS, MS, EUR2	745047-0010	1	EU	
	QSG, ST10, WIRELESS, MS, EUR3	745048-0010	1	EU	
6	SHEET, SAFETY, ST10, WIRELESS, MS	745045-0010	1		3 
7	REMOTE, IR, STCH20-30 III, BLK	355239-0040	1		
	REMOTE, IR, STCH20-30 III, WHT	355239-0030	1		
8	CABLE, USB A TO MICRO B, 0.5M, 22 AWG, BLACK	743203-052210	1		3 
9	LINE CORD, 100V, JPN, DET, BLK, 1500	280136-1310	1	JPN	
	LINE CORD, 120V, NON-POL, DET, BLK, 1500	279101-1310	1	US	
	LINE CORD, 120V, NON-POL, DET, WHT, 1500	279101-0320	1	US	
	LINE CORD, 110V, TAIWAN, BSMI, DET, 1525mm	329792-1310	1	TW	
10	PACKING, INNER BOX, 200X133X60	733769-0010	1		

11	747387-0010 POWER CORD, KIT, APAC, 230V, BLK. Quantity = 1					
	Description	Material Number	Qty	Variant	Notes	
11	LINE CORD, 220V, EUR, DET, BLK, 1500	280135-1310	1	EU		
	LINE CORD, 230V, UKS, DET, BLK, 1500	280138-1310	1	UK		
	LINE CORD, 240V, AUS, DET, BLK, 1500	284243-1310	1	AUS		
	LINE CORD, 230V, KOREA, BLK, 1500	311668-1310	1	KOR		
					3 	

PACKAGING PART LIST

Packaging Part List (see Figure 1)

11	747387-0020 POWER CORD,KIT,APAC,230V WHT. Quantity = 1				
	Description	Material Number	Qty	Variant	Notes
	LINE CORD,220V,EUR,DET,ARC WHT,1500	280135-0320	1	EU	3 
	LINE CORD,230V,UKS,DET,ARC WHT,1500	280138-0320	1	UK	
	LINE CORD,240V,AUS,DET,ARC WHT,1500	284243-0320	1	AUS	
	LINE CORD, 230V,KOREA,BLK,1500mm	311668-1310	1	KOR	
	747388-0010 POWER CORD, KIT, EU, 230V, BLK. Quantity = 1				
	Description	Material Number	Qty	Variant	Notes
	LINE CORD, 220V, EUR, DET, BLK, 1500	280135-1310	1	EU	3 
	LINE CORD, 230V, UKS, DET, BLK, 1500	280138-1310	1	UK	
	747388-0020 POWER CORD,KIT,EU, 230V, WHT. Quantity = 1				
	Description	Material Number	Qty	Variant	Notes
	LINE CORD,220V,EUR,DET,ARC WHT,1500	280135-0320	1	EU	3 
	LINE CORD,230V,UKS,DET,ARC WHT,1500	280138-0320	1	UK	

PACKAGING EXPLODED VIEW

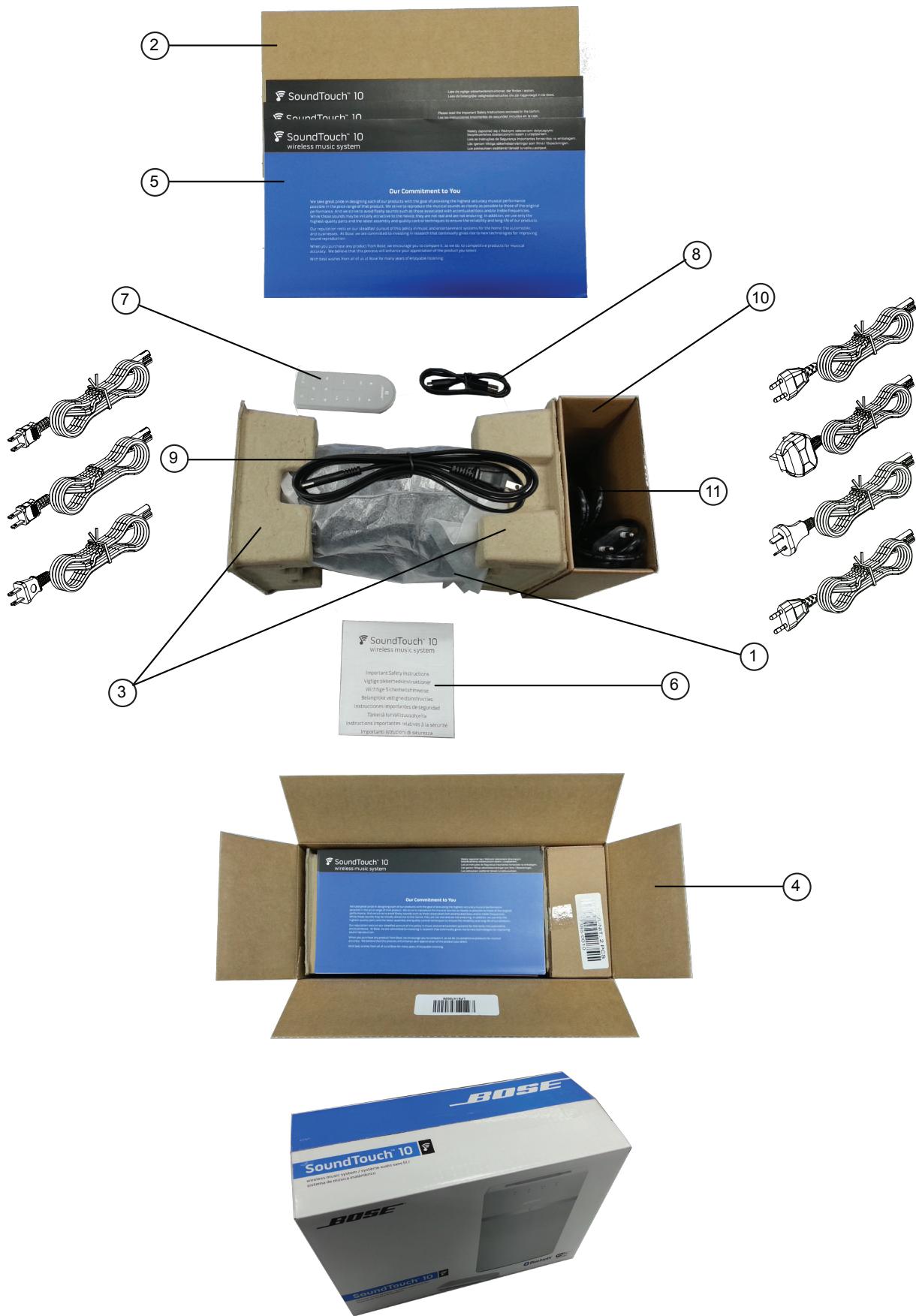


Figure 1. Packaging Exploded View

MAIN ASSEMBLY PART LIST

Main Assembly Part List (see Figure 2)

Item Number	Description	Material Number	Qty	Note
1	GRILL, FRONT, BLK	750006-0010	1	
	GRILL, FRONT, WHT	750006-0020	1	
2	SCREW, 6-13x.5, PAN, SQU XREC	749523-0008	6	
3	IR Cable	734272-0010	1	
4	SPEAKER, FULL RANGE, 71-19, 4OHM, FE, LBL PKG	721716-0010	1	
5	FOAM, PCB	747504-0010	4	
6	PCB ASSY, SOUNDTOUCH 10, KEYPADBOARD, SVCE	739252-001S	1	
7	PCB ASSY, SOUNDTOUCH 10, IR BOARD, SVCE	739476-001S	1	
8	SCREW, 6-13x.625, PAN, SQU XREC	749523-0010	6	
9	GROMMET, FFC, MOLDED	361348-0010	1	
10	FOAM, RHINO	734450-0010	6	
11	SCREW, 6-13x.38, PAN, SQR XREC	749525-0006	12	
12	CABINET, BLK	729566-0010	1	
	CABINET, WHT	729566-0020	1	
13	FOOT, RUBBER, FRONT, RHINO	729759-0010	2	
14	KEYPAD ASSY, BLK	734172-0010	1	
	KEYPAD ASSY, WHT	734172-0020	1	
15	FOAM, ACOUSTIC	750635-0010	1	
17	ASSY, PORT, BLK, SVCE	731395-001S	1	
	ASSY, PORT, WHT, SVCE	731395-002S	1	
18	SLAB ASSY, SOUNDTOUCH® 10, MAIN BOARD, SVCE	739343-001S	1	4
19	GASKET, FOAM, I/O CONNECTOR	628566-0040	1	
20	GASKET, FOAM, ENCLOSURE	735334-0020	1	
21	GASKET, FOAM, PORT	735333-0020	1	
22	SOCKET, AC, 2POS, TO, VH3.96, 3POS, HSG, 40MM	739368-0030	1	3 
23	GASKET, FOAM, AC CONNECTOR, RHINO	730055-0010	1	
24	PANEL, REAR, BLK	724666-0010	1	
	PANEL, REAR, WHT	724666-0020	1	
N/A	CABLE, FFC, 24POS, 0.5PITCH, W FOAM	739926-0010	1	
N/A	CABLE, TRANSDUCER	734271-0010	1	

MAIN ASSEMBLY EXPLODED VIEW

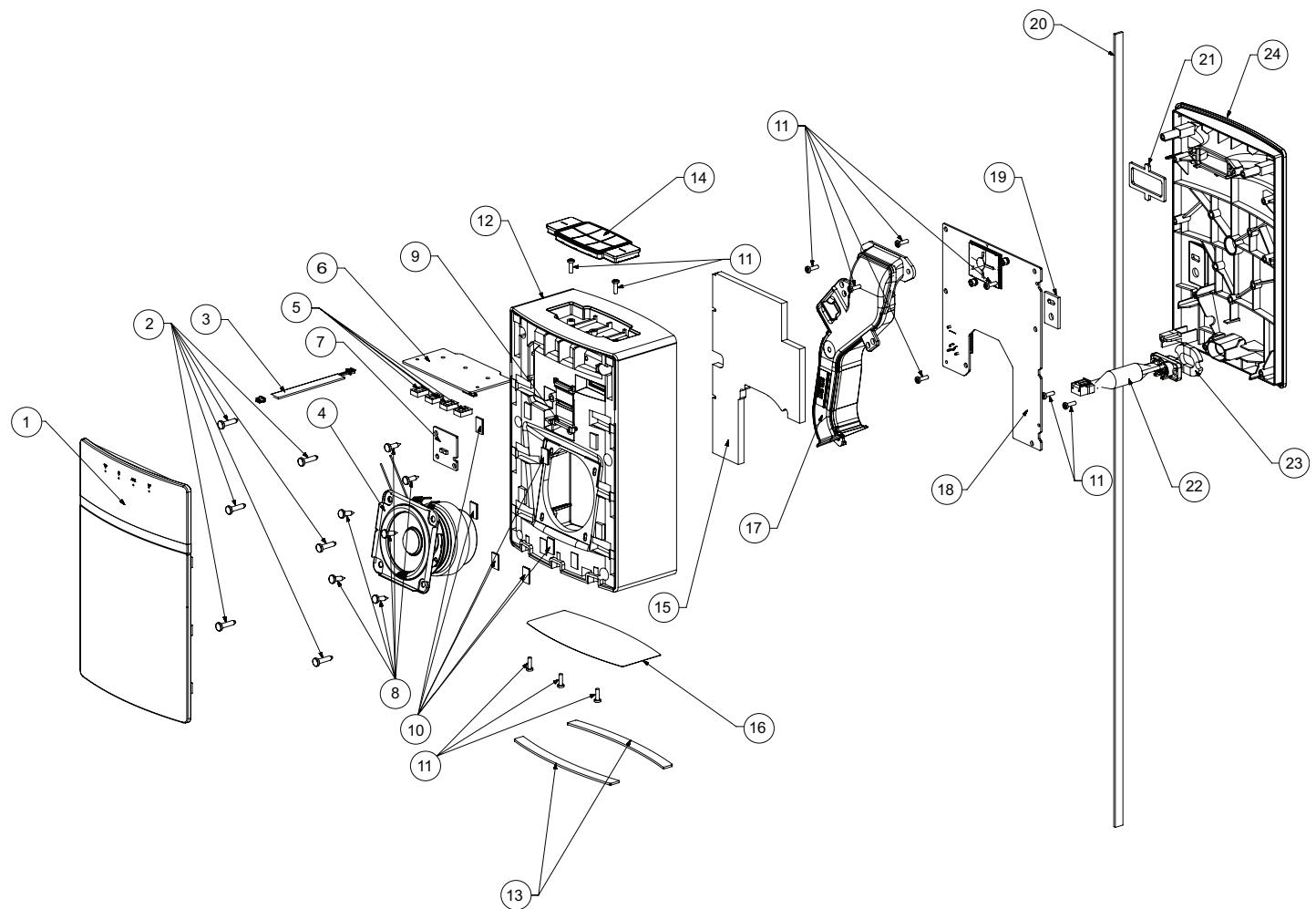


Figure 2. Main Assembly Exploded View

MAIN PCB PART LIST

Resistors

Reference Designator	Description	Material Number	Note
R902	RES, 1206, 1/4W, 1%, 14.0 OHM	124894-14R0	
R903	RES, 0603, .1W, 1%, 1K	191465-1001	
R906	RES, 0603, .1W, 1%, 26.1K	191465-2612	
R907	RES, 0805, .125W, 1%, 20	133625-20R0	
R909	RES, 0603, .1W, 1%, 100K	191465-1003	
R910	RES, 1206, 1/4W, 5%, 2 MEG	124895-2055	3 
R911	RES, 1206, 1/4W, 5%, 2 MEG	124895-2055	
R912	RES, 1206, 1/4W, 5%, 2 MEG	124895-2055	
R914	RES, 1210, 0.5W, 5%, 100K	743304-104J	
R915	RES, 1210, 5%, 0.25W, 0.33 OHM	180956-R33E	
R918	RES, 1206, 1/4W, 5%, 2 MEG	124895-2055	3 
R922	RES, 0603, 0.1W, 1%, 110 OHM	191465-1100	
R923	RES, 1210, 0.5W, 5%, 100K	743304-104J	
R924	RES, 0402, 0.063W, 1%, 8.25kOHMS	268361-8251	
R1000	RES, 0402, 63MW, 1%, 100K	268361-1003	
R1001	RES, 0402, 63MW, 1%, 100K	268361-1003	
R1002	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R1003	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R1004	JUMPER, 0402, 0OHM	280043	
R1005	JUMPER, 0402, 0OHM	280043	
R1006	JUMPER, 0402, 0OHM	280043	
R1007	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1008	JUMPER, 0402, 0OHM	280043	
R1009	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1010	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1014	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R1023	RES, 0402, 63MW, 1%, 100K	268361-1003	
R1025	RES, 0603, .1W, 1%, 10 OHM	191465-10R0	
R1029	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1030	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1031	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1034	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1035	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1036	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1042	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1044	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1045	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1047	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1048	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	

MAIN PCB PART LIST

Resistors (continued)

Reference Designator	Description	Material Number	Note
R1049	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1050	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R1052	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1054	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R1301	RES, 0402, 63MW, 1%, 2.2M	268361-2204	
R1302	RES, 0402, 63MW, 1%, 180K	268361-1803	
R1303	RES, 0402, 63MW, 1%, 2.2M	268361-2204	
R1304	RES, 0402, 63MW, 1%, 180K	268361-1803	
R1307	RES, 0402, 63MW, 1%, 56.2K	268361-5622	
R1308	RES, 0402, 63MW, 1%, 56.2K	268361-5622	
R1309	RES, 0402, 63MW, 1%, 3.74 KOHM	268361-3741	
R1310	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R1311	RES, 0402, 63MW, 1%, 49.9 OHM	268361-49R9	
R1312	RES, 0402, 63MW, 1%, 66.5K	268361-6652	
R1313	RES, 0402, 63MW, 1%, 19.1K	268361-1912	
R1314	RES, 0402, 63MW, 1%, 49.9 OHM	268361-49R9	
R1315	RES, 0402, 63MW, 1%, 64.9K	268361-6492	
R1316	RES, 0402, 63MW, 1%, 12.1K	268361-1212	
R1500	RES, 0805, 1/8W, 1%, 2K	173767-2001	
R1502	RES, 0805, 1/8W, 1%, 2K	173767-2001	
R1503	RES, 0402, 63MW, 1%, 47OHM	268361-47R0	
R1506	RES, 0402, 63MW, 1%, 47OHM	268361-47R0	
R1515	RES, 0805, .125W, 1%, 20.0K	133625-2002	
R1524	RES, 0805, .125W, 1%, 20.0K	133625-2002	
R2001	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R2002	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R2013	RES, 0402, 63MW, 1%, 100K	268361-1003	
R2014	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R2015	RES, 0402, 63MW, 1%, 220K	268361-2203	
R2016	RES, 0402, 63MW, 1%, 100K	268361-1003	
R2017	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R2018	RES, 0402, 63MW, 1%, 100K	268361-1003	
R3000	RES, 0402, 63MW, 1%, 90.9K	268361-9092	
R3001	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3002	RES, 0402, 0.063W, 1%, 8.25kOHMS	268361-8251	
R3003	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3004	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3006	RES, 0402, 63MW, 1%, 1.00K	268361-1001	
R3008	RES, 0402, 63MW, 1%, 499 OHM	268361-4990	
R3010	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	

MAIN PCB PART LIST

Resistors (continued)

Reference Designator	Description	Material Number	Note
R3011	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3012	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3013	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3014	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3019	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3020	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3022	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3023	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3024	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3025	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3026	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3030	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3031	RES, 0402, 63MW, 1%, 1.50K	268361-1501	
R3038	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3039	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3040	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3041	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3042	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3043	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3044	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3045	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3046	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3047	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3048	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3049	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3050	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3051	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3052	RES, 0402, 63MW, 1%, 100K	268361-1003	
R3053	RES, 0603, .1W, 1%, 6.65K	191465-6651	
R3054	RES, 0402, 63MW, 1%, 7.50K	268361-7501	
R3058	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3065	RES, 0402, 63MW, 1%, 10.0K	268361-1002	
R3066	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3067	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R3068	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	

MAIN PCB PART LIST

Capacitors

Reference Designator	Description	Material Number	Note
C900	CAP, FILM, X2, 275VAC, 0.1UF, 10MM	268166-104A	3 
C901	CAP, EL, 105C, 20%, 450V, 10UF, CUT	261614-100WB5	
C902	CAP, EL, SNAP-IN, 105C, 20%, 450V, 47UF	726322-470WA	
C903	CAP, X7R, 1210, 500V, 10%, 0.15UF	359772-154K	
C907	CAP, X7R, 1210, 50V, 4.7UF, 10%, FT	315052-475E	3 
C908	CAP, EL, 105C, 35V, 20%, 1000UF, TRIMMED	350786-0010	
C910	CAP, 1206, X7R, 50V, 1.0UF, 10%	286500-105	
C911	CAP, CER, Y1, 10MM LS, 250VAC, 20%, 2200PF	310461-222MB	
C913	CAP., EL., SMD, 105, 35V, 20%, 4.7UF	306245-4R7EA	
C915	CAP, X7R, 0603, 10%, 0.1UF, 50V, FT	304991-104	3 
C916	CAP, 1206, X7R, 50V, 1.0UF, 10%	286500-105	
C917	CAP, X7R, 1210, 500V, 10%, 0.022UF	359772-223K	
C918	CAP, 1206, X7R, 50V, 1.0UF, 10%	286500-105	
C1000	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	
C1002	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C1007	CAP, X5R, 0603, 25V, 20%, 10UF, COMM	718835-106M1E	
C1008	CAP, X5R, 0603, 25V, 20%, 10UF, COMM	718835-106M1E	
C1009	CAP, X7R, 0805, 50V, 10%, 0.47UF	133623-474	
C1010	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C1011	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C1012	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	
C1013	CAP, X5R, 0603, 25V, 20%, 10UF, COMM	718835-106M1E	
C1014	CAP, X7R, 0402, 50V, 5%, 2.2nF	268366-222	
C1022	CAP, X7R, 0805, 50V, 10%, 0.47UF	133623-474	
C1024	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C1026	CAP, 1206, X7R, 50V, 1.0UF, 10%	286500-105	3 
C1034	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C1035	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C1039	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1040	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1041	CAP, X7R, 0603, 16V, 10%, 0.22UF	257154-224K16	
C1042	CAP, X7R, 0603, 16V, 10%, 0.22UF	257154-224K16	
C1043	CAP, X7R, 0603, 16V, 10%, 0.22UF	257154-224K16	
C1044	CAP, X7R, 0603, 16V, 10%, 0.22UF	257154-224K16	
C1045	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	
C1046	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	

MAIN PCB PART LIST

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C1080	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1048	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	
C1052	CAP, C0G, 0402, 5%, 10PF, 50V	268364-100	
C1081	CAP, X7R, 0603, 10%, 0.1UF, 50V, FT	304991-104	
C1082	CAP, X7R, 0603, 10%, 0.1UF, 50V, FT	304991-104	
C1083	CAP, 1206, X7R, 50V, 1.0UF, 10%	286500-105	
C1084	CAP, EL, SMT, 105, 35V, 20%, 330UF	306245-331EG	
C1085	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1086	CAP, X7R, 0603, 10%, 0.1UF, 50V, FT	304991-104	
C1087	CAP, X7R, 0603, 10%, 0.1UF, 50V, FT	304991-104	
C1088	CAP, 1206, X7R, 50V, 1.0UF, 10%	286500-105	
C1301	CAP, X7R, 1210, 50V, 4.7UF, 10%, FT	315052-475E	
C1302	CAP, X7R, 1210, 50V, 4.7UF, 10%, FT	315052-475E	
C1305	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1306	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1307	CAP, X7R, 0402, 16V, 10%, 0.01UF	293702-103	
C1308	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C1309	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C1310	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C1311	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C1312	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C1315	CAP, CER, 1206, X5R, 6.3V, 47UF	291432-476	
C1316	CAP, EL, SMT, 105C, 10V, 20%, 100UF	359890-101A	
C1317	CAP, X7R, 0402, 16V, 10%, 0.01UF	293702-103	
C1318	CAP, X7R, 0402, 16V, 10%, 0.01UF	293702-103	
C1500	CAP, C0G, 0805, 50V, 5%, 470PF	133622-471	
C1501	CAP, C0G, 0402, 5%, 10PF, 50V	268364-100	
C1502	CAP, C0G, 0805, 50V, 5%, 470PF	133622-471	
C1503	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	
C1504	CAP, X7R, 0805, 6.3V, 10%, 10UF	359399-106K	
C1505	CAP, X7R, 0603, 16V, 10%, 0.22UF	257154-224K16	
C1506	CAP, X7R, 0603, 16V, 10%, 0.22UF	257154-224K16	
C1507	CAP, X7R, 0402, 16V, 10%, 470PF	293702-471	
C1508	CAP, X7R, 0402, 16V, 10%, 470PF	293702-471	
C2001	CAP, X5R, 0805, 16V, 20%, 22UF, COMM	743447-226M1C	
C2002	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C2003	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C2004	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C2005	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C2006	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	

MAIN PCB PART LIST

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C2007	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C2008	CAP, C0G, 0402, 5%, 1000PF, 50V	268364-102	
C2009	CAP, X7R, 0603, 16V, 10%, 1UF	257154-105K16	
C2016	CAP, X5R, 0805, 25V, 10%, 10UF	273592-106E	
C2017	CAP, X5R, 0805, 25V, 10%, 10UF	273592-106E	
C3000	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3010	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3012	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3013	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3015	CAP, C0G, 0402, 5%, 10PF, 50V	268364-100	
C3017	CAP, C0G, 0402, 5%, 10PF, 50V	268364-100	
C3018	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C3019	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3020	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3021	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3022	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3030	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3033	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3034	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3035	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3036	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3037	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3038	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3039	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3040	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3041	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3042	CAP, C0G, 0402, 5%, 220PF, 50V	268364-221	
C3044	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C3045	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3046	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3055	CAP, C0G, 0402, 5%, 100PF, 50V	268364-101	
C3056	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C3057	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	
C3059	CAP, X7R, 0603, 50V, 10%, 0.1UF	191470-104	

MAIN PCB PART LIST

Diodes

Reference Designator	Description	Material Number	Note
BR900	DIODE, BRIDGE RECT, 3A, 600V, 4SIP, TRIMMED	350784-0010	3 
D902	DIODE, RECT, FAST, 600V, 1A	317066-600	
D903	DIODE, RECTIFIER, ULTRAFAST, 3A, 200V, SMC	326308-0200	
D905	DIODE, SWITCHING, 200V, 100NA, BAV21, SOD-323	342388-0030	
D907	DIODE, SWITCHING, 200V, 100NA, BAV21, SOD-323	342388-0030	
D3000	DIODE, SW, 75V, 0.215A, SOT-363, BAV99DW	319113-001	
D3003	DIODE, SW, 85V, 0.075A, SOT-523, BAV99T	370629-0010	
VR1000	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR1001	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR1002	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR3000	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR3001	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR3002	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
VR3003	DIODE, TVS, ESD, 24VDC, 0603	352782-0010	
ZR901	DIODE, ZENER, 1.5W, 150V, SMA	357194-0150	

Transistors

Reference Designator	Description	Material Number	Note
Q901	TRANSISTOR, MFET, N-CH, 600V	310519-001	
Q902	TRANSISTOR, BPLR, P, 40V, 200MA, SOT23	148596	
Q1000	TRANSISTOR, NFET, SMALL SIG, , SOT-23, FDV301N	329013-0010	
Q1001	TRANSISTOR, NFET, SMALL SIG, , SOT-23, FDV301N	329013-0010	
Q2000	TRANSISTOR, NFET, SMALL SIG, , SOT-23, FDV301N	329013-0010	
Q2001	TRANSISTOR, MOSFET, P-CH, 3.8A, 30V, SOT-23	348008-0010	
Q3003	TRANSISTOR, NFET, SMALL SIG, , SOT-23, FDV301N	329013-0010	

MAIN PCB PART LIST

Integrated Circuits

Reference Designator	Description	Material Number	Note
U901	IC, CONTROLLER, FB PS, CV, CC, UCC28710, 7SO	725095-0010	
U1000	IC, CODEC, AUDIO, W/DSP, 32B, 192KHZ, 32VQFN	717524-0010	
U1001	IC, PWR AMP, 15W, CLASS D, 26V	327287-0010	
U1002	IC, ADC, AUDIO, 2_4CH, 3.3V, 103DB, 30TS-SOP	734148-0010	
U2000	IC, VREG, LIN, LDO, 0.2A, 3.3V, TSOT23-5	370224-0010	
U2001	IC, VOLT REG, POS, LDO, 0.2A, 1.8V, TSOT-23-5	352656-0010	
U2004	IC, O/V PROTECT, 5.85V, NCP367, 8DFN	355357-0010	
U3001	IC, AUTHC, COPROCESSOR, APPLE, 2.0C	351292-0010	
U3002	IC, LOGIC, BUFFER, SNGL, 5V, 74LVC1G07, SC70	626946-0010	
VR1301	IC, VREG, SW, BUCK, DC-DC, 3A, TP-S54335A, 8SO	726345-0110	
VR1302	IC, VREG, SW, BUCK, DC-DC, 3A, TP-S54335A, 8SO	726345-0110	
M3000	SLAB ASSY, SOUNDTOUCH MODULE	N/A	

Miscellaneous

Reference Designator	Description	Material Number	Note
F900	FUSE, TIME LAG, RADIAL, 3.15A, 250V	310538-3150A	3 
FB1000	BEAD, FERRITE, 1806, 6A, 100OHM	722888-0010	
FB1001	BEAD, FERRITE, 1806, 6A, 100OHM	722888-0010	
FB1007	BEAD, FERRITE BLM18P, 0603, 330OHM	302257-331	
FB1008	BEAD, FERRITE BLM18P, 0603, 330OHM	302257-331	
FB1056	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1057	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1500	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1501	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB1508	BEAD, FERRITE, 0402, 120 OHM, 0.3A	324216-121B	
FB2000	BEAD, FERRITE BLM18P, 0603, 330OHM	302257-331	
FB2001	BEAD, FERRITE BLM18P, 0603, 330OHM	302257-331	
FB901	BEAD, FERRITE, AXIAL, 25-300MHz	737218-0010	

MAIN PCB PART LIST

Miscellaneous (continued)

Reference Designator	Description	Material Number	Note
J901	CONN, HEADER, LOCKING, TOP ENTRY	193369-002	3 
J1000	CONN, WTB, VERTICAL, SMD, 3POS	733157-0003	
J1500	CONN, CUSTOM, IO, 3.5MM, USB, AB	739079-0010	
J3001	CONN, FFC, 0.5MM, 24 POS, LIF	736817-0024	
T900	TRANSFORMER, AC-DC, FLYBK, 23V, 1.3A, NO-8PIN	726998-0030	
TMR3000	THERMISTOR, 0603, 3K, 5%, B4500	316463-3001	
VR902	VARISTOR, MET OX, RADIAL, 320V, 80J, CRIMP	273545-005	
W1070	JUMPER, CHIP, 0603	196042	
W1072	JUMPER, CHIP, 0603	196042	
W1503	JUMPER, 0402, 0OHM	280043	
W3000	JUMPER, 0402, 0OHM	280043	
W3003	JUMPER, 0402, 0OHM	280043	
W3004	JUMPER, 0402, 0OHM	280043	
W3010	JUMPER, 0402, 0OHM	280043	
W3061	JUMPER, 0805, O OHM	173776-1	
XRV902	COVER, COMPONENT	362882-0010	3 

KEYPAD PCB PART LIST

Resistors

Reference Designator	Description	Material Number	Note
R100	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	
R120	RES, 0603, .1W, 1%, 75.0 OHM	191465-75R0	
R121	RES, 0603, .1W, 1%, 75.0 OHM	191465-75R0	
R122	RES, 0603, .1W, 1%, 75.0 OHM	191465-75R0	
R123	RES, 0603, .1W, 1%, 39 OHM	191465-39R0	
R124	RES, 0603, .1W, 1%, 75.0 OHM	191465-75R0	
R125	RES, 0603, .1W, 1%, 39 OHM	191465-39R0	
R126	RES, 0603, .1W, 1%, 75.0 OHM	191465-75R0	
R127	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R128	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R129	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R130	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R131	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R132	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R133	RES, 0603, .1W, 1%, 4.70K	191465-4701	
R134	RES, 0603, .1W, 1%, 4.70K	191465-4701	

Capacitors

Reference Designator	Description	Material Number	Note
C100	CAP, X7R, 0402, 16V, 10%, 0.1UF	293702-104	
C101	CAP, X7R, 0402, 16V, 10%, 0.1UF	293702-104	
C102	CAP, X7R, 0402, 16V, 10%, 1000pF	293702-102	
C103	CAP, X7R, 0603, 1uF, 16V, 10%	257154-105K16	

Diodes

Reference Designator	Description	Material Number	Note
DS100	DIODE, LED, 0402, 0.02A, 5V, BLUE	364327-0010	
DS101	DIODE, LED, 0402, 0.01A, 5V, VERT, WHITE	373123-0010	
DS102	DIODE, LED, 0402, 0.01A, 5V, VERT, WHITE	373123-0010	
DS103	DIODE, LED, 0402, 0.02A, 5V, VERT, YELLOW	317456-004	
DS104	DIODE, LED, 0402, 0.01A, 5V, VERT, WHITE	373123-0010	
DS105	DIODE, LED, 0402, 0.02A, 5V, VERT, YELLOW	317456-004	
DS106	DIODE, LED, 0402, 0.01A, 5V, VERT, WHITE	373123-0010	

KEYPAD PCB PART LIST

Transistors

Reference Designator	Description	Material Number	Note
Q100	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	
Q101	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	
Q102	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	
Q103	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	
Q104	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	
Q105	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	
Q106	TRANSISTOR, BPLR, NPN, 0.2A, 40V, SOT-363	195857-3	

Miscellaneous

Reference Designator	Description	Material Number	Note
J100	CONN, FFC, 0.5mm, 24 POS, LIF	736817-0024	
J101	CONN, SMT, RT ANGLE, 1.5mm, 3 POS	317620-003	

IR PCB PART LIST

Resistors

Reference Designator	Description	Material Number	Note
R300	RES, 0402, 63MW, 1%, 100 OHM	268361-1000	

Capacitors

Reference Designator	Description	Material Number	Note
C300	CAP, X7R, 0603, 1uF, 16V, 10%	257154-105K16	
C301	CAP, C0G, 0402, 5%, 1000pF, 50V	268364-102	
C302	CAP, X7R, 0402, 16V, 10%, 0.1UF	293702-104	

Integrated Circuits

Reference Designator	Description	Material Number	Note
U300	IC, SENSOR, IR, RCVR, 38kHz, SMT	311516-038	

Miscellaneous

Reference Designator	Description	Material Number	Note
J300	CONN, SMT, RT ANGLE, 1.5mm, 3 POS	317620-003	

DISASSEMBLY PROCEDURE

1. Front Grill Removal

1.1 Figure 3. Turn the unit upside down, peel off the rubber foot which attaches to the front grill, to reveal the screws that are beneath it.

Note: Use a new rubber foot when assembling. Rubber foot part 729759-0010.

1.2 Figure 4. At the location shown, remove all three screws that attach the front grill to the cabinet.

1.3 Figure 5. Turn the unit face up and using your thumb, push the top of the grill in the direction shown to detach the front grill from the cabinet.

1.4 Figure 6. With the front grill removed, you will have access to the IR board, Keypad board, FFC and the transducer.



Figure 3. Rubber Foot



Figure 4. Front Grille, Screws



Figure 5. Front Grille

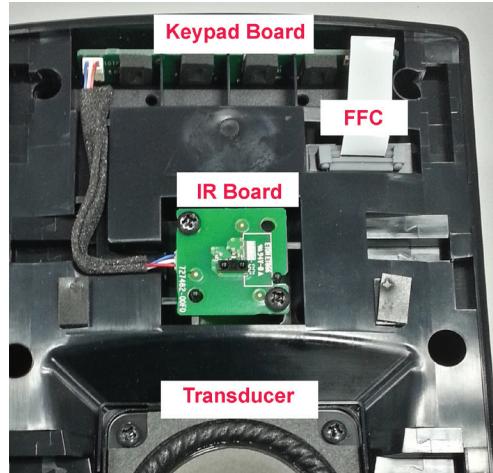


Figure 6. Cabinet, Front

DISASSEMBLY PROCEDURE

2. IR PCB Removal

2.1 Complete step 1.

2.1 Figure 7. Detach the IR cable from the keypad assembly.

2.2 Figure 8. Remove the two screws securing the IR board.

2.3 Figure 9. Detach the IR cable from the IR board.

3. Transducer Removal

3.1 Complete step 1.

3.1 Figure 10. Remove the 4 screws securing the transducer to the enclosure.

3.2 Figure 11. Detach the transducer cable from the main PCB.

Note: Use a screw driver or spudger to unlock the locking tab for the transducer cable.

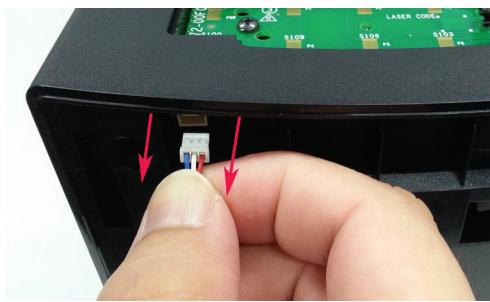


Figure 7. Keypad, IR Cable Removal

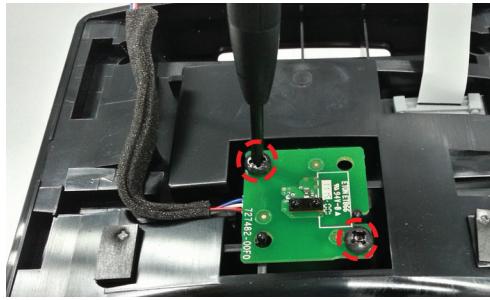


Figure 8. IR PCB, Screws

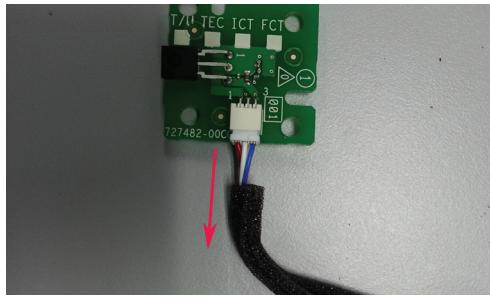


Figure 9. IR PCB, IR Cable Removal

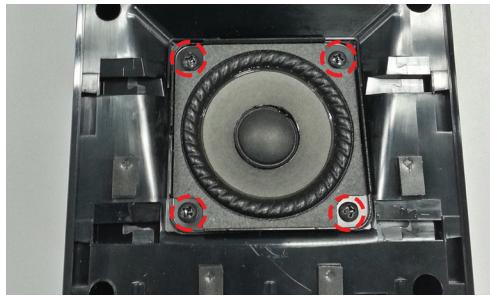


Figure 10. Transducer, Screws



Figure 11. Transducer, Cable

DISASSEMBLY PROCEDURE

4. Keypad PCB Removal

Note: The keypad assembly is held in place by Pressure Sensitive Adhesive (PSA) strips located under the keypad assembly.

4.1 Complete step 1.

4.2 Figure 12. At the location shown, insert the tip of a plastic tool, such as a spudger, between the keypad assembly and the cabinet.

4.3 Grasp the corner of the button pad, lift the pad up.

Important Note: To avoid damage to the cabinet, do not use the cabinet as a pry point to remove the rubber pad.

4.4 Figure 13. Once a portion of the rubber pad is released, grasp the rubber pad and pull it across the unit lengthwise to release the PSA.

4.5 Figure 14. Once the rubber pad is removed. The Keypad PCB will be revealed.

Note: A replacement rubber pad must be used due to the PSA no longer being sticky. The rubber pad/keypad assembly part is 734172-0010/0020.

4.6 Figure 15. Remove the 2 screws securing the keypad PCB.

4.7 Figure 16. Detach the FFC from the keypad assembly.



Figure 12. Keypad, Button Pad



Figure 13. Button Pad, Removal

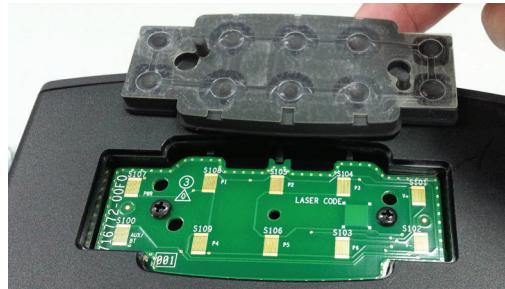


Figure 14. Button Pad, PSA

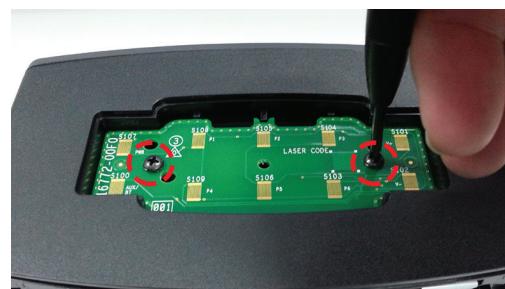


Figure 15. Keypad, Screws

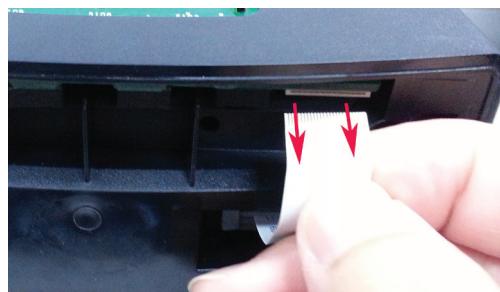


Figure 16. Keypad, FFC

DISASSEMBLY PROCEDURE

Keypad PCB Removal (continued)

4.8 Figure 17. Slide the keypad PCB out from the cabinet.

Note: Figure 18. If the keypad foam is damaged, a replacement is needed. Foam PCB part 747504-0010.

Note: The foam must attach within the boxes drawn on the keypad PCB to avoid LED light leak.

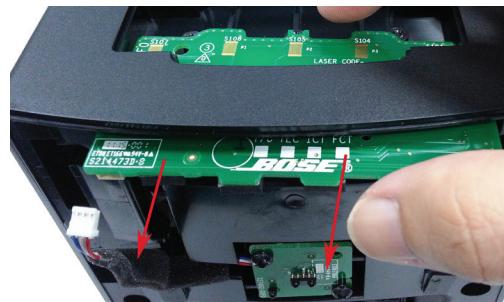


Figure 17. Keypad, Removal

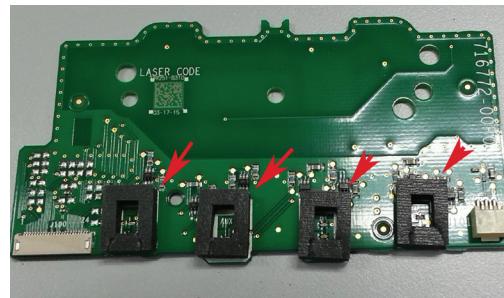


Figure 18. Keypad, Foam

DISASSEMBLY PROCEDURE

5. Main/ Carrier PCB Removal

5.1 Complete step 1.

5.2 Figure 19. Remove the 6 screws securing the rear panel.

5.3 Figure 20. Insert the spudger into the screw cavity and press forward toward the rear panel at each of the 4 corners of the cabinet. This will release the rear panel from the cabinet.

5.4 Figure 21. Once rear panel is released, the main PCB will be exposed.



Figure 19. Cabinet, Screws

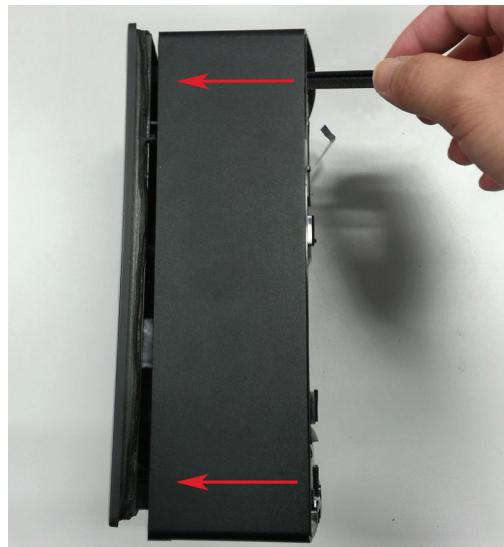


Figure 20. Rear Panel, Removal

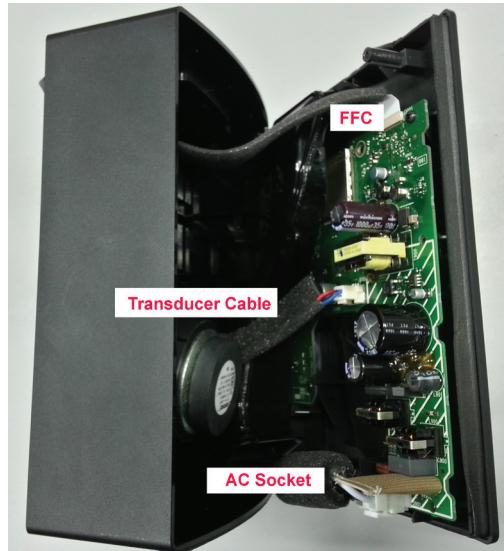


Figure 21. Cabinet, Side

DISASSEMBLY PROCEDURE

Main/ Carrier PCB Removal (continued)

5.5 Figure 22. Detach the FFC from main PCB.

5.6 Figure 23. Detach the transducer cable from the main PCB.

Note: Use a screw driver or spudger to unlock the locking tab for the transducer cable.

5.7 Figure 24. The cabinet and the rear panel are now separated.

5.8 Figure 25. Remove the acoustic foam from the cabinet if needed as shown.

5.9 Figure 26. Detach the AC connector.



Figure 22. Main PCB, FFC

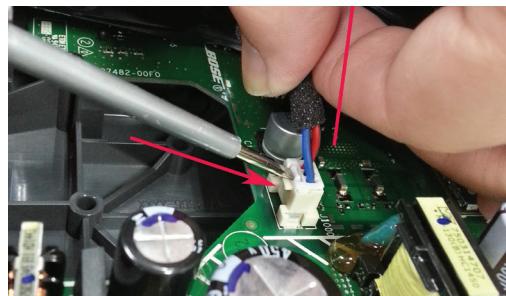


Figure 23. Main PCB, Transducer Cable

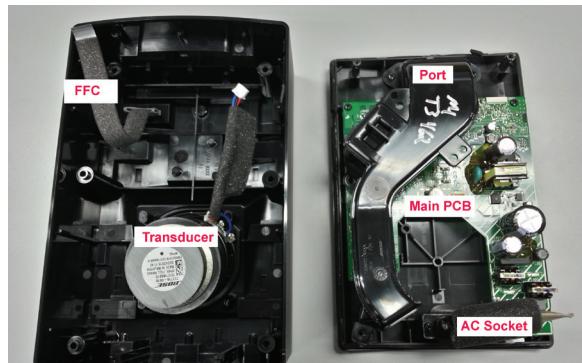


Figure 24. Cabinet, Internal



Figure 25. Cabinet, Acoustic Foam

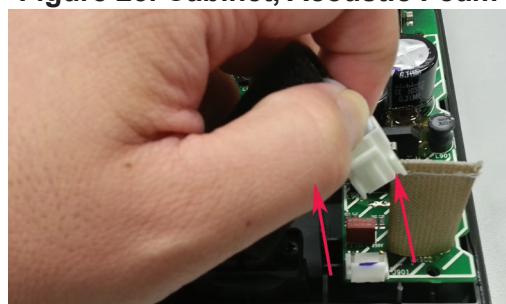


Figure 26. Main PCB, AC Connector

DISASSEMBLY PROCEDURE

Main/ Carrier PCB Removal (continued)

5.10 Figure 27. Remove the 3 screws securing the main PCB.

5.11 Figure 28. Then lift the assembly port up a little bit to create some space in between the port and the main PCB.

5.13 Figure 29. With the port held up, slide the main PCB outward from the cabinet following the direction of the arrow.

Note: To avoid damage to the main PCB. The port must be slightly held up to create a gap for the PCB to slide through.



Figure 27. Main PCB, Screws



Figure 28. Main PCB, Port

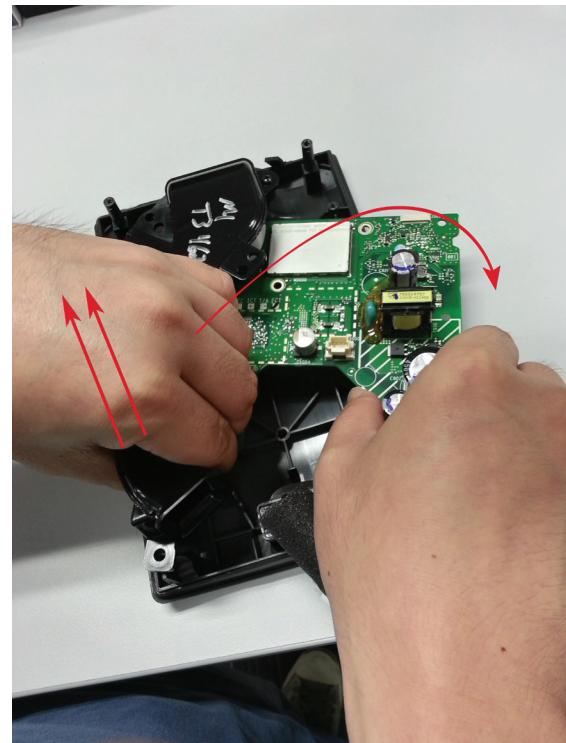


Figure 29. Main PCB, Removal

DISASSEMBLY PROCEDURE

6. FFC removal

6.1 Figure 30. Gently pull the FFC out from the grommet.

6.2 Figure 31. Remove the grommet from the cabinet.

Note: A new FFC grommet should be used during reassembly to avoid a potential air leak. Grommet part 361348-0010.



Figure 30. Cabinet, FFC Removal

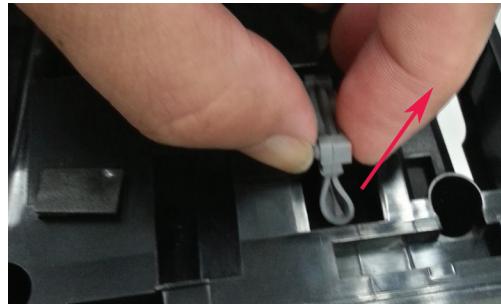


Figure 31. Cabinet, Grommet Removal

ASSEMBLY KEY POINTS

When assembling the unit, reverse the disassembly procedures. The following assembly instructions provide key points that are important to consider when assembling the unit.

1. Replacing AC connector's gasket foam.

1.1 Figure 32. When the AC socket part 739368-0010 is removed, the gasket foam will deform and cause an air leak. A gasket foam replacement is needed. Gasket Foam Part 730055-0010.

! Important: The AC socket is considering a safety device and must be properly installed.

2. Replacing Port Foam

2.1 Figure 33. A replacement is needed when the port is removed as the port foam will deform due to the pressure applied to it. Port Foam part 73533-0020.

3. Enclosure Foam Replacement.

3.1 Figure 34. A new enclosure foam is needed to prevent an air leak as the gasket foam for the enclosure might tear upon disassembly and cause an air leak. Enclosure Gasket foam part 735334-0020.

4. Keypad PCB foam

4.1 Figure 35. Align the foam to the outline on the PCB. Press the foam to approximately 3mm of its body height and then release it. PCB Foam part 747504-0010.

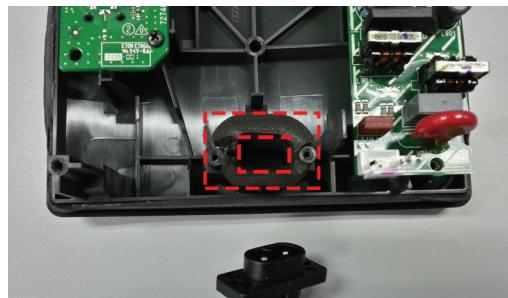


Figure 32. AC Connector, Gasket Foam

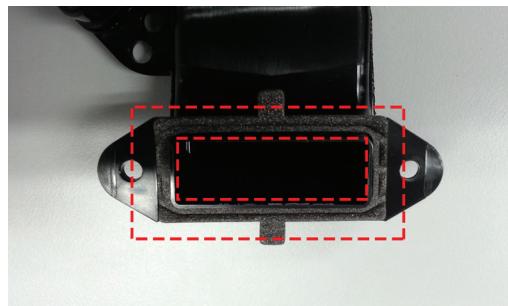


Figure 33. Port, Foam

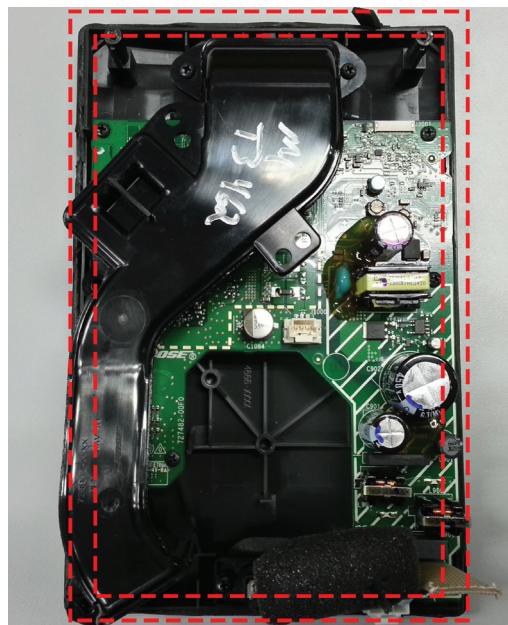


Figure 34. Cabinet, Enclosure Foam

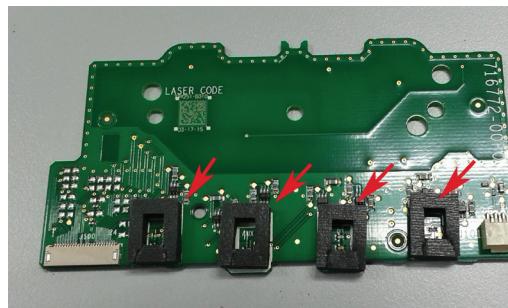


Figure 35. Keypad, Foam

ASSEMBLY KEY POINTS

5. FFC Replacement

5.1 Figure 36. Feed the FFC with grommet through the slot in the cabinet. Ensure both sides of the grommet nub is fully seated in the slot. Then, make sure the FFC black line marking is aligned with the grommet prior to closing the enclosure.

Note: A new FFC grommet should be used to avoid a potential air leak. Grommet part 361348-0010.

Note: FFC replacement should be completed before closing the enclosure. This will ease the assembly process.

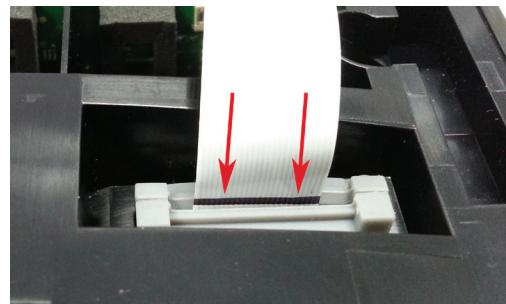


Figure 36. FFC, Mark Line

6. Keypad Assembly

6.1 Figure 37. Align the keypad assembly with the cabinet and then press down on the center of the keypad rubber. A roller can be used to ensure the keypad rubber seats properly. See Figure 37, for assembly tolerances.

Note: Failure to properly install the keypad may result dull key response or no response when pressing.

Note:

Press Force: Min 11 lbs
Press Duration: 7 sec

Keypad part 734172-0010 Black
Keypad part 734172-0020 White

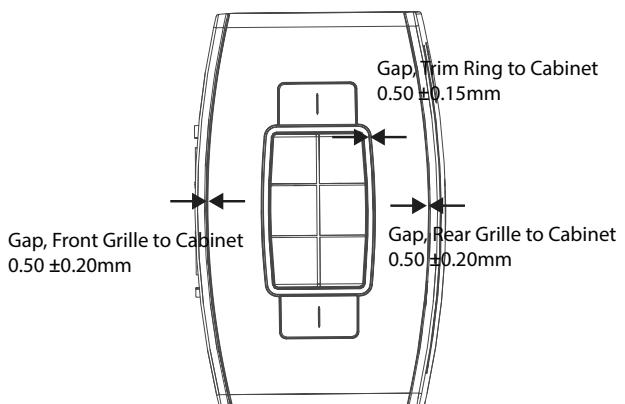
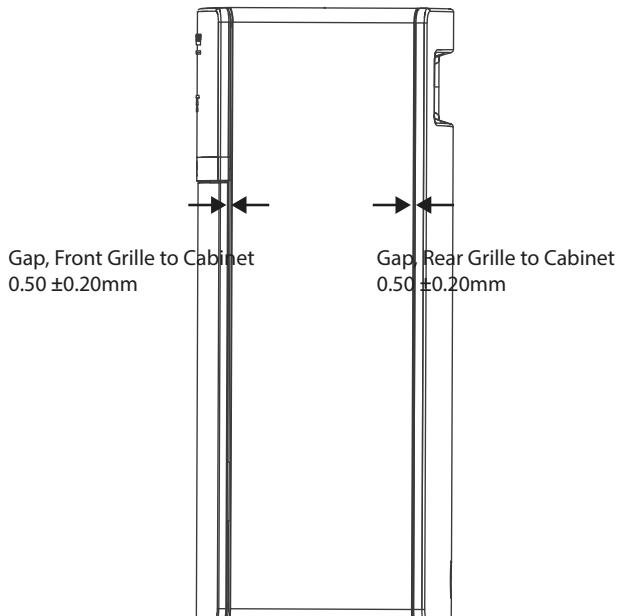


Figure 37. Enclosure, Gaps Spec Top View



7. Enclosure Gaps Specification

7.1 Figure 38. When assembling the enclosure, apply pressure to the rear or front panel of the cabinet to tighten the screws. Failure to properly seat the rear panel will result in an air leak. See Figure 38, for assembly tolerances.

! Important: The rear panel is considering a safety device and must be properly installed.

Figure 38. Enclosure, Gaps Spec Side View

TAP COMMAND PROMPT SETUP

SoundTouch® 10 Wi-Fi Music System TAP command prompt setup

Tap commands are needed for the following procedures.

- A. Audio Test
- B. Wi-Fi Test
- C. IR Test
- D. Keypad Button Test
- E. LED Test

Equipment Required

Hardware

Computer with USB ports.
USB A to MICRO B cable P/N 743203-052210.

Software

Window Command Prompt.
Bose® SoundTouch software.

Please follow these instructions to setup your SoundTouch 10 device.

1. Get a PC and install Bose Soundtouch software. To download Soundtouch software, go to http://worldwide.bose.com/downloads/en/web/soundtouch_download/page.html

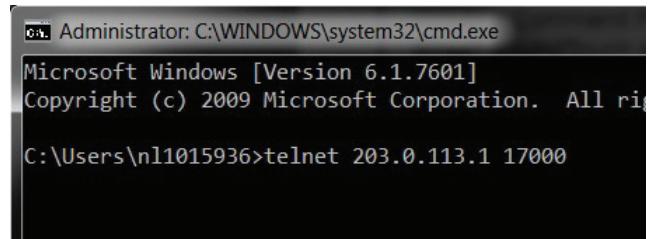
Note: The Soundtouch software will take care of the PC USB driver so it has to be installed before connecting the SoundTouch 10 to the PC through USB cable.

2. Insert the USB and then AC cord.
3. Boot the SoundTouch 10 and wait for 3 (three) minutes. All four LEDs should be on at the same time. Then White LED start to blinking between Wi-fi, Bluetooth, AUX and Shelby. The boot sequence is completed when you see Wi-Fi Amber LED light up.
4. Run a command prompt, then enter “ipconfig” command to verify a new network interface name “SoundTouch™ System” is discovered (with ip address 203.0.113.2).

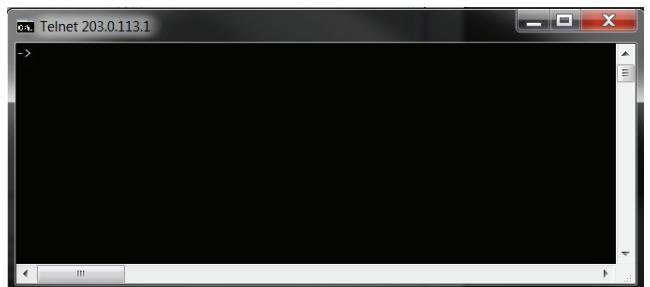
Note: if the SoundTouch is not seen using “ipconfig” command, go to device manager and confirm the network adapter is enabled.

```
. : SoundTouch™ System
. : 86-15-79-19-73-E3
. : Yes
. : Yes
. : fe80::886:4fca:f713:2915%21(Preferred)
. : 203.0.113.2(Preferred)
```

5. Then start a new command prompt again and enter “telnet 203.0.113.1 17000” to get TAP command prompt.



6. Once telnet session succeed , you will have the TAP command prompt.



AUDIO TEST PROCEDURE

Equipment Required: Music devices with AUX play-out. (Prefer Ipod or Iphone for this test).

Note: Audio Signal Generator can be used for more detail analysis.

Download the ST10 Frequency Sweep.wav and ST10 Airleak.wav from service web site under SoundTouch® 10 and stored them in the music devices.

1. Air Leak Test

The unit should be placed into AUX mode at max volume or TAP command " sys volume 100"

1.1 Start the ST10 Airleak.wav and listen for buzzes, rattles, ticks, distortion, etc.

1.2 The unit passes if there are no audible air leaks at a distance >1ft.

Note: A 100mVrms, 80 Hz signal generator to the AUX input can be replacing ST10 Airleak.wav.

Frequency :	80Hz
Duration :	5 seconds
Level :	100mVrms
Volume level (0-100) :	100

2. Frequency Sweep Test

The unit should be placed into AUX mode at max volume or TAP command " sys volume 100".

2.1 Start the ST10 Frequency Sweep.wav and listen for buzzes, rattles, ticks, distortion, etc.

2.2 The unit passes if there are no audible anomalies at a distance >1ft.

Note: A 100mVrms, 40 Hz - 5kHz signal generator. 5 second sweep up and 5 second sweep down can be replacing the ST10 Frequency Sweep.wav.

Frequency range:	40Hz - 5.0KHz
Duration:	5s up and 5s Down
Sweep rate:	log sweep
LPF:	1 kHz, 1st order
Input level:	100mVrms
Volume level (0-100):	100

WI-FI TEST PROCEDURE

Wi-Fi Functional Test Set Up

This test uses TAP commands to connect the product to a Wi-Fi network and stream audio from a Bose® URL. Refer to pages 33 steps 1-6, for telnet Setup. The Bose SoundTouch® application can be used in place of this test.

Note: Do not download the audio file from the test URL.

Note: A zip file with the automated commands "Soundtouch 10 Wifi Test.vbs" below is available for download on the Bose product's repair information page.

Once downloaded, double-click " Soundtouch 10 Wifi Test.vbs" to run the test.

You need to key in the Wi-Fi SSID name and password according to your router per request.

1. Connecting to Wi-Fi Router.

1.1 Run a command prompt and enter "telnet 203.0.113.1 17000" to get the TAP command prompt.

1.2 Enter "async_responses on"

1.3 Enter " network wi-fi profiles add **ROUTER NAME** wpa_or_wpa2 **PASSWORD**"

2. Testing the Wi-Fi Module.

2.1 Enter the following TAP commands.

"sys configuration DemoAudioURL http://www.worldwide.bose.com/downloads/assets/audio/take5.mp3"

"sys configuration DemoNetworkEnabled true"

"sys volume 30"

"demo enter"

2.2 The song "Take 5" should play. Listen for clean undistorted audio.

2.3 Enter the following TAP command to exit the Wi-Fi test.

"demo exit"

3. Factory Default Unit

3.1 Enter the TAP command "sys factorydefault". The unit should turn off and reboot.

Note: Do not disconnect or remove the power to the unit until the reboot cycle has completed.

3.2 Provide the customer instructions for re-connecting their system to their Wi-Fi network. Download instructional sheet on the repair information page.

Note: Factory default process has to be carried out to reset all the settings to prevent the customer from receiving the unit with repair test settings.

FUNCTIONAL TEST PROCEDURES

1. Keypad Button Test

1.1 Press each button on the SoundTouch® 10 keypad confirming LEDs reacts to each button press.

1.2 For further investigation. Refer to pages 33 steps 1-6 and telnet to access TAP command prompt.

1.3 At TAP command prompt, enter “async_responses on”, then enter “bn echo on”.

1.4 Now press the keypad buttons, and observed the TAP prompt response with refer to below table.

Keypad Button	Key(#)
On	8
Bluetooth/AUX	18
1	12
2	13
3	14
4	15
5	16
6	17
Volume +	10
Volume -	11
Play/Pause	24
Backward	3
Forward	4
Like	6
Dislike	5

Keypad Button	Key(#)
On	8
Bluetooth/AUX	18
1	12
2	13
3	14
4	15
5	16
6	17
Volume +	10
Volume -	11
Play/Pause	24
Backward	3
Forward	4
Like	6
Dislike	5

2. Remote control Test and IR Test

2.1 Press each button on the SoundTouch 10 IR remote confirming LED reacts to each button press.

2.2 For further investigation. Refer to pages 33 steps 1-6 and telnet to access TAP command prompt.

2.3 At TAP command prompt, enter “async_responses on”, then enter “ir echo on”.

2.4 Now press the IR button, and observed the TAP prompt response with refer to below table.

3. LEDs Test.

3.1 Refer to pages 33 steps 1-6 and telnet to access TAP command prompt.

3.2 At TAP command enter “ rhinoled intensity 30 blue bt“ to turn on bluetooth blue LED at luminance 30.

3.3 At TAP command enter “rhinoled blink 30 blue bt“ . This will turn on bluetooth LED and blink it at luminance 30.

3.4 Repeat the process for other LED with refer to format below.

Command Format:

intensity :
rhinoled intensity 0-63 [amber, white, blue]
[wifi, bt, aux, shelby]

blink :
rhinoled blink 0-63 [amber, white, blue] [wifi,
bt, aux, shelby]

FUNCTIONAL TEST PROCEDURES

LED Test. (Continued)

Note: A zip file with the automated commands “Soundtouch 10 LEDtest.vbs” is available for download on the Bose product’s repair information page.

3.5 Run the ledtest.vbs by double clicking it and observed the LEDs light up sequences by referring to the table below. At the end of the test, all LEDs should be white only.

Steps	LED	LED Response	LED Color
1	Wi-Fi LED	Blink	Amber
2	Wi-Fi LED	Blink	White
3	Wi-Fi LED	Solid	White
4	Bluetooth LED	Blink	Blue
5	Bluetooth LED	Blink	White
6	Bluetooth LED	Solid	White
7	AUX LED	Blink	White
8	AUX LED	Solid	White
9	Shelby LED	Blink	Amber
10	Shelby LED	Blink	White
11	Shelby LED	Solid	White

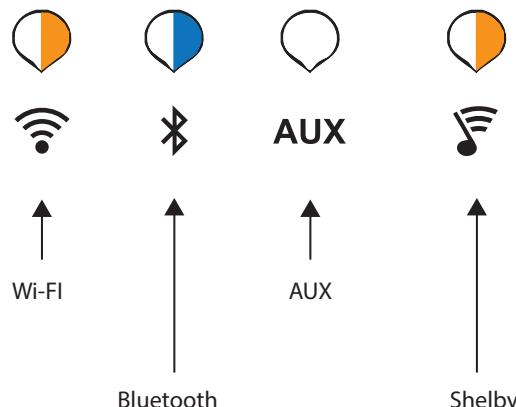


Figure 39. LED's Indicators Location

4. Micro USB Port Functional Test



Figure 40. Micro USB Connection

4.1 Figure 40. Using a micro USB to standard USB cable, insert the micro USB end of the cable into the SoundTouch® 10 connector labeled SETUP A (micro USB).

4.2 Plug the other end of the cable into a USB port on a computer. Ensure that cable is properly seated.

4.3 Open your device manager and look under Network Adapters. You should see the “SoundTouch™ System” as an adapter.

Directions: On your computer, click on Start and navigate to Run. In the window that opens, enter “mmc devmgmt.msc”. The device manager will open. In the device manager, expand the network adapters, you should see the “SoundTouch™ System” as an adapter. Figure 41.

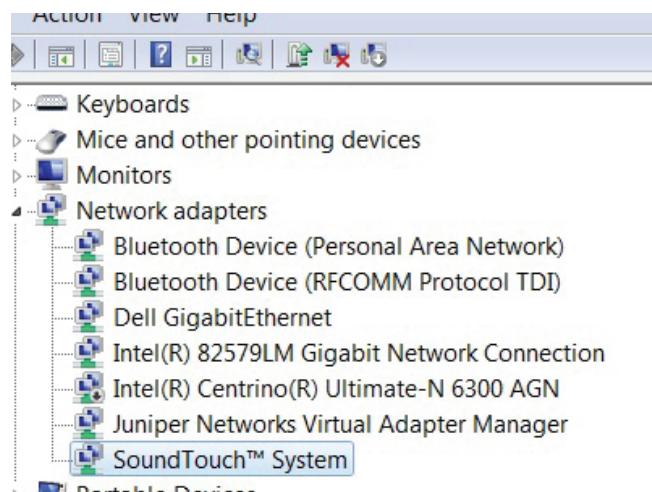


Figure 41. Network Adapter Location

FUNCTIONAL TEST PROCEDURES

5. BLUETOOTH TEST

For this test, use a Cell phone with A2DP Bluetooth, such as an iPhone® (Advanced Audio Distribution Profile) pair SoundTouch® 10 and Bluetooth device.

- 5.1** Plug in the power to the unit and turn on the SoundTouch 10.
 - 5.2** Once boot up ready, press and hold the Bluetooth button until the LED blinks blue to make the unit discoverable.
 - 5.3** From the Bluetooth device list, select the device named “SoundTouch™ 10”. Once paired, the LED on the unit should turn a solid white.
- Note:** If you are prompted for a pass code, enter 0000.
- 5.4** Play a familiar audio track from the Bluetooth device.
 - 5.5** Listen for a clean undistorted sound with no audio drop outs.

HI-POT TEST

1. Hi-Pot Test	Procedure
<p>THIS IS A MANDATORY TEST</p> <p>CAUTION - All units that are disassembled as part of a repair MUST be Hi-Pot tested before being returned to the customer.</p> <p>This test applies a high voltage to the AC line cord and measures the current leakage to the chassis and/or other metal parts on the outside of the unit to check for potential shock hazards.</p> <p>If the unit fails Hi-Pot test, it must be returned to the technician for troubleshooting and repair of the problem, after which it must be Hi-Pot tested again</p> <p>Hi- Pot Tester Settings:</p> <p>Type of product: 100-240 VAC 2-wire Class II Test Voltage: 3000 VAC Trip Current Limits: 0.5mA min, 4mA max Ramp: 1 sec Dwell: 2 sec</p>	<p>1.1 Connect the positive side (hot) of the Hi-Pot tester to both terminals of the AC mains input.</p> <p>1.2 Connect the return of the Hi-Pot tester to all connections on the 3.5mm audio jack, ground shell on either USB connector and all points on the Ethernet connector.</p> <p>1.3 Connect the continuity check terminal of the Hi-Pot tester to the shell of the USB. (all grounds are connected to the same point internal to the product, so only a single connection point is required).</p> <p>This test must be performed only after the system has been completely assembled. Failure of this test indicates a faulty transformer, defective or incorrectly dressed primary wiring, improperly attached leads, surface contamination of either the power supply board or the I/O connector board, or incorrectly adjusted trip point on tester.</p>

MANUFACTURING MODE COMMAND PROMPT SETUP

SoundTouch® 10 Wi-Fi Music System Manufacturing Mode Command Prompt Setup

Manufacturing Mode Command Prompt are needed for the following procedures.

- A. Set Variants
- B. Set Country Code
- C. Set Region Code
- D. Set Serial Number

Equipment Required

Hardware

Thumb Drive
Computer with USB ports.
USB A to MICRO B cable P/N 743203-052210.
Micro usb to USB cable

Software

Window Command Prompt.
Bose® SoundTouch software.
Manufacturing “update.stu” file.
TeraTerm terminal emulator
(Download at <http://sourceforge.jp/projects/ttssh2/>)

Manufacturing Mode Command Prompt

Please follow these instructions to setup your SoundTouch 10 device into manufacturing mode.

1. Download Manufacturing “update.stu” into a thumb drive from Bose® product’s repair information page.
2. Insert thumb drive into unit’s USB port.
3. While connecting power to the unit, press and hold preset 4 and volume minus.
4. Release buttons when all LEDs are light up.
5. Unit will reboot when completed the setup.
6. Once the SoundTouch 10 boot into manufacturing mode, Bluetooth, AUX and Shelby LEDs will start blinking.

7. Download and install TeraTerm terminal emulator from Bose repair information site.

8. Launch a Tera Term terminal window and select serial communication and port as shown below.



Figure 42. Tera Term, Port Selection

9. Press enter and now you have the Manufacturing Mode Command Prompt.

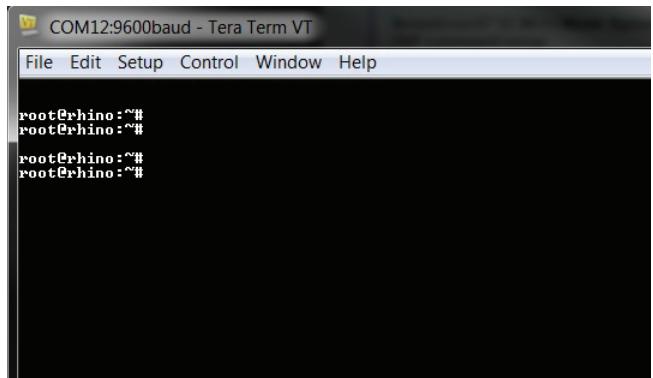


Figure 43. Tera Term, Prompt

SERIAL NUMBER AND COUNTRY/REGION CODE PROGRAMMING

Important! The replacement Wi-Fi PCB needs to have various settings performed and end user software loaded. Below are the steps that need to be performed when a replacement Wi-Fi PCB is used.

Refer to page 40, step 1-9 for Manufacturing mode setup and to get the Manufacturing command prompt.

Note: A Tera-Term macro that includes the TAP commands below is available for download on the product's repair information page. Place the macro file in the same folder as your Tera Term program. Open Tera-Term, select Control, Macro, "Soundtouch 10 WIFI_module_settings.ttl". Once the macro runs, follow the prompts.

1. Set Variant

1.1 Enter "/opt/Bose/mfgdatatool –w variant XX".

Where XX equals:

rhino = SoundTouch® 10

spotty = SoundTouch 20

mojo = SoundTouch 30

lisa = SoundTouch adapter

2. Set Country Code

The country code controls the allowable WiFi frequencies (2.4GHz and 5GHz bands) for the geographical region that the product will be sold in.

2.1 Enter "/opt/Bose/mfgdatatool –w country-code XX".

Where XX equals:

- CN – Australia, Hong Kong, UAE, India, China.
- GB – Germany, Austria, Switzerland, Italy, France, Belgium, Netherlands, Denmark, Sweden, Norway, Finland, UK, Hungary, Poland.
- US – USA, Canada, Latin America.
- TW – Taiwan.
- JP – Japan.

3. Set Region Code

The region code controls the allowable power levels (2.4GHz and 5GHz bands) for the geographical region that the product will be sold in.

3.1 Enter "/opt/Bose/mfgdatatool –w region-code XX".

Where XX equals:

- GB – Australia, Hong Kong, UAE, India, China, Germany, Austria, Switzerland, Italy, France, Belgium, Poland, Netherlands, Denmark, Sweden, Norway, Finland, UK, Hungary.
- US – USA, Canada, Taiwan, Latin - America.
- JP – Japan.

4. Set Serial Number

4.1 Enter "/opt/Bose/mfgdatatool –w sn 1 serial number".

Where serial number equals the 17 digit serial number located on the product's label.

5. Set Variant Mode

To set the unit from manufacturing status to normal status.

5.1 Enter

"./opt/Bose/mfgdatatool –w variantmode normal".

6. Load End User Software Image

6.1 Download the latest software from the site below and load it onto a USB thumb drive.

http://worldwide.bose.com/downloads/en/web/soundtouch_updates_usb/page.html

6.2 Insert the thumb drive into the units Setup B USB port.

6.3 While connecting power to the unit, press and hold preset 4 and volume minus.

6.4 Release buttons when all LEDs are light up.

6.5 Unit will reboot when completed the setup.

TAP COMMANDS

1. TAP Command Setup

1.1 Run a command prompt, use “ipconfig /all” command to verify a new network interface is discovered (with IP address 203.0.113.2).

1.2 Start a command prompt and telnet to get TAP interface: “telnet 203.0.113.1 17000”.

2. Connect to Router

2.1 Tap Command Setup - Procedure 1.

2.2 Enter TAP command “async_responses on”.

2.3 Enter TAP command “network wifi profiles add ROUTERNAME wpa_or_wpa2 PASSWORD”.

3. Play Song from Demo URL

3.1 Connect to Router - Procedure 2.

3.2 View Current system configuration “getpdo CurrentSystemConfiguration” will print out the current values.

3.3 Enter location of demo URL “sys configuration DemoAudioURL http://worldwide.bose.com/downloads/assets/audio/take5.mp3”.

3.4 Enable Demo “sys configuration DemoNetworkEnabled true”.

3.5 Enter Demo mode “demo enter”.

3.6 Exit Demo Mode “demo exit”.

4. Remote Control Test and IR Test

4.1 Tap Command Setup - Procedure 1.

4.2 At TAP command, enter “async_responses on”, then enter “ir echo on”.

4.3 Now press the IR button, and observed the TAP prompt response.

5. Button Test

5.1 Tap Command Setup - Procedure 1.

5.2 At TAP command, enter “async_responses on”, then enter “bn echo on”.

5.3 Now press the keypad button, and observed the TAP prompt response.

6. LEDs Test

6.1 Tap Command Setup - Procedure 1.

6.2 At TAP prompt enter “ rhinoled intensity 30 blue bt” to turn on bluetooth blue LED at luminance 30.

6.3 At TAP prompt enter “rhinoled blink 30 blue bt” . This will turn on bluetooth LED and blink it at luminance 30.

6.4 Repeat the process for other LED with refer to format on next page.

Command Format:

intensity :

rhinoled intensity 0-63 [amber, white, blue]
[wifi, bt, aux, shelby]

blink :

rhinoled blink 0-63 [amber, white, blue]
[wifi, bt, aux, shelby]

7. Volume setting

7.1 Tap Command Setup - Procedure 1.

7.2 Enter “sys volume” for current volume level.

7.3 Enter “sys volume 15” to set the volume level. Volume level range: 0~100.

TAP COMMANDS

8. To View settings for country code, region-code, variant, variantmode and serial numbers

8.1 Manufacturing command Prompt, Page 40 Step 1-9.

8.2 Enter

"/opt/Bose/./mfgdatatool -p"

Sample screen:

```
root@rhino:~# /opt/Bose/./mfgdatatool -p
magicnum      = 0xb05e
rev          = 2
length        = 900
testresults 0 = PASS
testresults 1 = PASS
testresults 2 = unknown
testresults 3 = PASS
testresults 4 = unknown
testresults 5 = PASS
testresults 6 = unknown
testresults 7 = unknown
testresults 8 = unknown
testresults 9 = unknown
countrycode   = US
regioncode   = US
variant       = rhino
variantmode   = normal
sn 0          = 2507755290273934200C010
sn 1          = 069234P50850029AE
sn 2          =
sn 3          =
sn 4          =
sn 5          =
sn 6          =
sn 7          =
sn 8          =
sn 9          =
crc           = 0x84105FEF
```

Completed (success)

9. Set Serial Number

9.1 Manufacturing command Prompt, Page 40 Step 1-9.

9.1 Enter

"/opt/Bose/mfgdatatool -w sn 1 serial number"

Where serial number equals the 17 digit serial number located on the product's label.

10. Set Variant.

10.1 Manufacturing command Prompt, Page 40 Step 1-9.

10.2 Enter

"opt/Bose/mfgdatatool -w variant XX" Where XX equals:

rhino = SoundTouch® 10
spotty = SoundTouch 20
mojo = SoundTouch 30
lisa = SoundTouch adapter

11. Set Country Code

11.1 Manufacturing command Prompt, Page 40 Step 1-9.

11.2 Enter

"/opt/Bose/mfgdatatool -w countrycode XX" Where XX equals:

- CN – Australia, Hong Kong, UAE, India, China.
- GB – Germany, Austria, Switzerland, Italy, France, Belgium, Netherlands, Denmark, Sweden, Norway, Finland, UK, Hungary, Poland.
- US – USA, Canada, Latin America.
- TW – Taiwan.
- JP – Japan.

TAP COMMANDS

<p>12. Set Region Code</p> <p>12.1 Manufacturing command Prompt, Page 40 Step 1-9.</p> <p>12.2 Enter “/opt/Bose/mfgdatatool –w region-code XX” Where XX equals:</p> <ul style="list-style-type: none">• GB – Australia, Hong Kong, UAE, India, China, Germany, Austria, Switzerland, Italy, France, Belgium, Poland, Netherlands, Denmark, Sweden, Norway, Finland, UK, Hungary.• US – USA, Canada, Taiwan, Latin America.• JP – Japan. <p>13. Set Variant Mode</p> <p>To set the unit from manufacturing status to normal status.</p> <p>13.1 Enter “/opt/Bose/mfgdatatool –w variantmode normal”.</p> <p>14. Software Version</p> <p>14.1 Tap Command Setup - Procedure 1.</p> <p>14.2 Enter “sys ver”</p> <p>The unit will reply with something similar to the following:</p> <p>“BoseApp version: 9.0.41.23338.1383271 epdbuild.trunk.hepdswb1d04.2015-08-19T15:31:01</p> <p>15. System Reboot</p> <p>15.1 Tap Command Setup - Procedure 1.</p> <p>15.2 Enter “sys reboot” to soft boot the system.</p>	<p>16. Factory Default</p> <p>16.1 Tap Command Setup - Procedure 1.</p> <p>16.2 Enter “sys factorydefault” to reboot the system into factory default mode.</p>
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BACK DOOR KEY PRESSES

1. Factory Default

1.1 Press and hold the Volume minus and Preset 1 button. The system will return to factory default settings and reboot.

2. Software Update

2.1 Press and hold the Volume minus and Preset 4 button to initiate a software update.

2.2 The unit will download software from an update over Wi-Fi.

2.3 While applying power and holding the Volume minus and Preset 4 button, the unit will load software from a thumb-drive inserted in its USB port.

3. Information for PTS

3.1 Press and hold the Volume minus and Preset 5 button to initiate.

4. Setup AP

4.1 Press and hold the Volume minus and Preset 2 button to initiate.

5. Wi-Fi ON/OFF Toggle

5.1 Press and hold the Volume minus and Preset 3 button to initiate.

6. Restart

6.1 Press and hold the on button for 15 second to initiate.

7. Network Standby or low power standby.

7.1 Press the on button to initiate this 2 modes.

SERVICE MANUAL REVISION HISTORY

Date	Revision Level	Description of Change	Change Driven By	Page(s) Affected
9/1/2015	00	Document released at revision 00	Initial Release	ALL
11/1/2015	01	Adding in variant description. Add in content number with figures Update Assembly Port Service Number.	Additional Info	Page 2, 3, 8 and 40
11/23/2015	02	Adding in white power cords.	Additional Info	Page 6 and 7



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