Bose® Solo 10/15 TV Sound System

Service Manual

Reference Number 626315-SM REV 00

Contents

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 31 of this service manual.

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.

CAUTION: THE BOSE® SOLO 10/15 TV SOUND SYSTEM CONTAINS NO USER SERVICEABLE PARTS. TO PREVENT WARRANTY INFRACTIONS, REFER SERVICING TO WARRANTY SERVICE STATIONS OR FACTORY SERVICE.

Product Overview

The Bose® Solo 15/10 system is designed to fit under TVs that weigh no more than 75 lbs (34 kg) and have bases no wider than 24" (61 cm), and no deeper than 12.25" (31 cm).

The Bose Solo 15 has a metal grille and is packaged with a universal remote.
The Bose Solo 10 has a cloth grille and is packaged with a 4 button remote.

The enclosure contains 5 drivers, which are not shielded, an amplifier/power supply and IR PCB.

Power rating: 100-240V 50/60 Hz 50W
Dimensions: 24.75" (62.8 cm) W x 14" (35.6 cm) D x 3" (7.6 cm) H
Weight: 12 lbs (6.35 kg)

Connections:

Audio inputs: Optical, Coax, Analog

USB: Used for software updates

3.5 mm jack: Data connection is used for test (TAP) access.

Tone Controls:

Bass control knob - located on rear

Dialog Mode:

Press the dialog mode button on the remote 

The system status indicator will blink amber three times and then remain amber
To exit dialog mode, press the dialog button again. The system status indicator blinks green three times and then remains green

System status (indicator located center front on unit):

Indicator	**System State**
Off	System off (standby)
Dim amber	Standby, auto wake is enabled
Solid green	Power is on
Blinking green or Blinking amber (if dialog mode is enabled)	System is muted
Fast blinking green or Fast blinking amber (if dialog mode is enabled)	Volume is being adjusted
Solid amber	Dialog mode is enabled
Solid red	System error

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.

Packaging Part List

Item Number	DESCRIPTION	Material Number	QTY	Note
1	GUIDE, OWNERS, SOLO 15/10, AST	717641-0010	1	3
	GUIDE, OWNERS, SOLO 15/10, EUR	717642-0010		
	GUIDE, OWNERS, SOLO 15/10, APAC	717643-0010		
	GUIDE, OWNERS, SOLO 15/10, JAPAN	717644-0010		
2	GLOBAL WARRANTY CARD, 1 YR.	324486-0010	1	
3	SHEET, COMMIT LETTER	343108-0010	1	
	CONTACT, SHEET	722935-0020	1	
	AU/NZ WARR SLIP SHEET 8.5 X 5.5	355731-0010	1	
4	REMOTE, SOLO 15, US	639414-0020	1	
	REMOTE, SOLO 15, EU	639414-0220		
	REMOTE, SOLO 15, JP, AP	639414-0320		
	REMOTE, SOLO 10	350742-0010		
5	PACKING, TRAY, PULP	628935-0010	2	
6	CABLE, FIBER OPTICAL, 2.2MM OD	347411-0010	1	
7	SAFETY WARNING STICKER, TOP COVER	356754-001S	1	3
8	FOAM BAG PRODUCT	721802-0010	1	
9	CABLE, RCA, 6 FT	185931-101	1	
10	CABLE, COAX, 6FT, 75 OHM	342771-1010	1	
11	LINE CORD, 120V, PDL DET, BLK, 1500, US	262814-1310	1	3
	LINE CORD, 220V, DET, BLK, 1500, EUR	280135-1310		
	LINE CORD, 230V, DET, BLK, 1500, UK	280138-1310		
	LINE CORD, 100V, , DET, BLK, 1500, JPN	280136-1310		
	LINE CORD, 240V, DET, BLK, 1500, AUS	284243-1310		
	LINE CORD, 230V, BLK, 1500MM, KOREA	311668-1310		
	LINE CORD, 110V, TAIWAN	329792-1310		
12	CARTON, OPF, TV, PED, SPKR, SOLO 15	637746-0010	1	
	CARTON, OPF, TV, PED, SPKR, SOLO 10	637746-0020		
13	HANDLE, PLATE, HDPE, 6.50X1.31X0.064IN	373581-0010	1	
14	HANDLE, PLASTIC, LDPE, 7.46X0.63X0.10IN	373583-0010	1	
-	LABEL, WAFER, SEALING, 2.5X2.5IN, CLEAR	355963-0010	2	
-	PACKING, INSERT, 425X213, ABD	638012-0010	1	

Main Part List

Refer to Figure 2 Exploded View on next page

Item Number	Description	Material Number	QTY	Note
1	TOP COVER ASSY, SOLO 10/15	716906-001S	1	
2	TWIDDLER, 58MM, FERRITE, 8 OHMS	715491-0010	5	
3	SCREW, M3X12, PORT, DRIVER, PCB COVER	358953-0010	30	
4	HARNESS, TRANSDUCER, LEFT, LONG	716901-0010	1	
5	NAMEPLATE, DIAMOND CUT, 40mm, BLK, 2PIN	342497-5120	1	
6	SCREW, M3X12, FOR CLOTH GRILLE	716896-0010	2	
7	STOPPER, RUBBER, FOR USE WITH CLOTH GRILLE SIDE PINS	716895-0010	2	
8	GRILLE ASSY, METAL, SOLO 15	716904-001S	1	
	GRILLE ASSY, CLOTH, SOLO 10	716905-001S		
9	PCB ASSY, IR	716909-001S		
10	CABLE, FFC, IR/LED	716900-0010	1	
11	GROMMET, ROUND, FOR USE WITH CLOTH GRILLE	716898-0010	8	
12	GROMMET, RETANGULAR, FOR USE WITH CLOTH GRILLE	716899-0010	2	
13	PCB ASSY, MAIN	716908-001S	1	
14	SCREW, M3.5X8, SHIELD, POWER SUPPLY	358955-0010	4	
15	SCREW, M4X15, TOP COVER	358954-0020	31	
16	COVER, PCB, WITH FOAM	716907-001S	1	
17	FOOT, ROUND, W/PSA	352906-0010	6	
18	HARNESS, TRANSDUCER, RIGHT, SHORT	716902-0010	1	
19	TUBE, RUBBER, TOP CAP PINS, FOR USE WITH METAL GRILLE	716897-0010	5	
20	BASS KNOB	627282-0010	1	
-	LABEL, SERIAL NUMBER	716903-0010	1	
-	STICKER, WARNING SAFETY	356754-001S	1	
-	LABEL, I/O PANEL, SOLO 15 - 10	638278-0010	1	

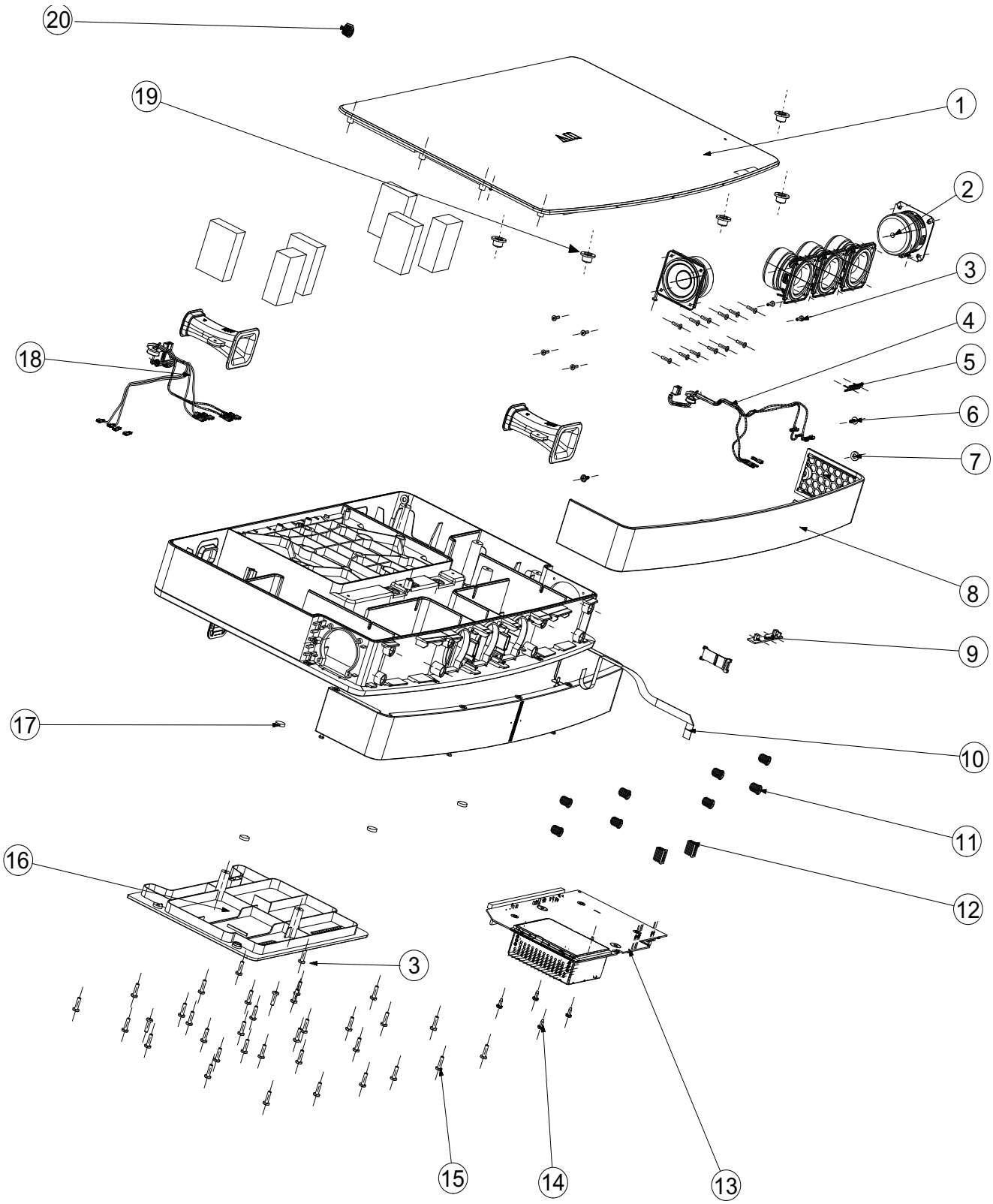


Figure 2. Exploded View

PCB Part List

Resistors

Reference Designator	Description	Material Number	Note
R201	10.0K, 0402, 63MW, 1%	268361-1002	
R202	10.0K, 0402, 63MW, 1%	268361-1002	
R203	10 OHM, 0402, 63MW, 1%	268361-10R0	
R204	100 OHM, 0402, 63MW, 1%	268361-1000	
R205	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R207	10.0K, 0402, 63MW, 1%	268361-1002	
R208	100 OHM, 0402, 63MW, 1%	268361-1000	
R209	100 OHM, 0402, 63MW, 1%	268361-1000	
R211	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R212	3.32K, 0402, 63MW, 1%	268361-3321	
R213	3.32K, 0402, 63MW, 1%	268361-3321	
R214	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R215	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R216	1.0M, 0402, 63MW, 1%	268361-1004	
R218	10.0K, 0402, 63MW, 1%	268361-1002	
R219	100 OHM, 0402, 63MW, 1%	268361-1000	
R220	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R221	1.00K, 0402, 63MW, 1%	268361-1001	
R222	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R223	4.7K, 0603, .1W, 5%	199403-472	
R224	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R225	47.5K, 0402, 1/16W, 1%	268361-4752	
R226	100 OHM, 0402, 63MW, 1%	268361-1000	
R228	100 OHM, 0402, 63MW, 1%	268361-1000	
R229	100 OHM, 0402, 63MW, 1%	268361-1000	
R231	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R232	100 OHM, 0402, 63MW, 1%	268361-1000	
R233	4.75K, 0402, , 1/16W, 1%	268361-4751	
R234	10.0K, 0402, 63MW, 1%	268361-1002	
R235	10.0K, 0402, 63MW, 1%	268361-1002	
R236	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R301	10 OHM, 0402, 63MW, 1%	268361-10R0	
R304	10.0K, 0402, 63MW, 1%	268361-1002	
R308	33 OHMS, 0402, 1/16W, 1%	268361-33R0	
R501	49.9K, 0402, 63MW, 1%	268361-4992	
R502	10.0K, 0402, 63MW, 1%	268361-1002	
R503	10.0K, 0402, 63MW, 1%	268361-1002	
R507	787 OHMS, 0402, 63MW, 1%	268361-7870	
R508	787 OHMS, 0402, 63MW, 1%	268361-7870	
R509	787 OHMS, 0402, 63MW, 1%	268361-7870	
R510	787 OHMS, 0402, 63MW, 1%	268361-7870	
R511	787 OHMS, 0402, 63MW, 1%	268361-7870	
R512	787 OHMS, 0402, 63MW, 1%	268361-7870	
R514	787 OHMS, 0402, 63MW, 1%	268361-7870	
R515	787 OHMS, 0402, 63MW, 1%	268361-7870	
R516	787 OHMS, 0402, 63MW, 1%	268361-7870	

PCB Part List

Resistors (continued)

Reference Designator	Description	Material Number	Note
R517	787 OHMS, 0402, 63MW, 1%	268361-7870	
R518	4.22K, 0603, .1W, 1%	191465-4221	
R521	120K, 0402, 63MW, 1%	268361-1203	
R551	4.22K, 0603, .1W, 1%	191465-4221	
R552	4.22K, 0603, .1W, 1%	191465-4221	
R553	4.22K, 0603, .1W, 1%	191465-4221	
R554	4.22K, 0603, .1W, 1%	191465-4221	
R601	1.00K, 0402, 63MW, 1%	268361-1001	
R602	1.00K, 0402, 63MW, 1%	268361-1001	
R603	100K, 0402, 63MW, 1%	268361-1003	
R604	1.00K, 0402, 63MW, 1%	268361-1001	
R605	1.00K, 0402, 63MW, 1%	268361-1001	
R606	10 OHM, 0402, 63MW, 1%	268361-10R0	
R607	10 OHM, 0402, 63MW, 1%	268361-10R0	
R608	10 OHM, 0805, 1/10W, 5%	133626-1005	
R609	10 OHM, 0805, 1/10W, 5%	133626-1005	
R610	10 OHM, 0805, 1/10W, 5%	133626-1005	
R611	10 OHM, 0805, 1/10W, 5%	133626-1005	
R612	10 OHM, 0805, 1/10W, 5%	133626-1005	
R613	10 OHM, 0805, 1/10W, 5%	133626-1005	
R614	10 OHM, 0805, 1/10W, 5%	133626-1005	
R615	10 OHM, 0805, 1/10W, 5%	133626-1005	
R618	33 OHMS, 0603, .1W, 5%	199403-330	
R619	33 OHMS, 0603, .1W, 5%	199403-330	
R620	33 OHMS, 0603, .1W, 5%	199403-330	
R621	33 OHMS, 0603, .1W, 5%	199403-330	
R632	3.01K, 0603, .1W, 1%	191465-3011	
R633	3.01K, 0603, .1W, 1%	191465-3011	
R634	3.01K, 0603, .1W, 1%	191465-3011	
R635	3.01K, 0603, .1W, 1%	191465-3011	
R636	3.01K, 0603, .1W, 1%	191465-3011	
R637	3.01K, 0603, .1W, 1%	191465-3011	
R638	3.01K, 0603, .1W, 1%	191465-3011	
R639	3.01K, 0603, .1W, 1%	191465-3011	
R671	49.9 OHM, 0805, 1/10W, 1%	133625-49R9	
R672	49.9 OHM, 0805, 1/10W, 1%	133625-49R9	
R673	49.9 OHM, 0805, 1/10W, 1%	133625-49R9	
R674	49.9 OHM, 0805, 1/10W, 1%	133625-49R9	
R675	20.0K, 0603, SMD, 100MW, 1%	191465-2002	
R676	20.0K, 0603, SMD, 100MW, 1%	191465-2002	
R677	20.0K, 0603, SMD, 100MW, 1%	191465-2002	
R678	20.0K, 0603, SMD, 100MW, 1%	191465-2002	
R701	470 OHM, 0603, SMD, 100MW, 1%	191465-4700	
R702	2.2 OHM, 0805, 1/10W, 5%	133626-2R25	
R703	100K, 0402, 63MW, 1%	268361-1003	
R704	0.51 OHM, 1206, 1/4W, 5%	124895-R510	

PCB Part List

Resistors (continued)

Reference Designator	Description	Material Number	Note
R705	13.3K, 0402, 63MW, 1%	268361-1332	
R708	499K, 0603, SMD, 100MW, 1%	191465-4993	
R709	60.4K, 0603, .1W, 1%	191465-6042	
R710	1.00K, 0402, 63MW, 1%	268361-1001	
R711	47K, 0603, SMD, 100MW, 5%	199403-473	
R713	1.00K, 0402, 63MW, 1%	268361-1001	
R723	2.2 OHM, 0805, 1/10W, 5%	133626-2R25	
R724	100K, 0402, 63MW, 1%	268361-1003	
R728	100 OHM, 0402, 63MW, 1%	268361-1000	
R729	10.0K, 0402, 63MW, 1%	268361-1002	
R730	5.36K, 0402, 63MW, 1%	268361-5361	
R734	100 OHM, 0402, 63MW, 1%	268361-1000	
R735	100 OHM, 0402, 63MW, 1%	268361-1000	
R736	332 K, 0603, .1W, 1%	191465-3323	
R737	56.2K, 0603, .1W, 1%	191465-5622	
R738	237K, 0603, SMD, 100MW, 1%	191465-2373	
R739	3.9K, 0603, .1W, 1%	191465-3901	
R740	82.5K, 0603, .1W, 1%	191465-8252	
R741	52.3K, 0603, 100MW, 1%	191465-5232	
R742	8.06K, 0603, .1W, 1%	191465-8061	
R771	2.55K, 0402, 63MW, 1%	268361-2551	
R772	7.87K, 0402, 0.063W, 1%	268361-7871	
R803	1.00K, 0603, SMD, 100MW, 1%	191465-1001	
R804	1.00K, 0603, SMD, 100MW, 1%	191465-1001	
R805	1.00K, 0603, SMD, 100MW, 1%	191465-1001	
R901	100 OHM, 0402, 63MW, 1%	268361-1000	
R902	10.0K, 0402, 63MW, 1%	268361-1002	
R903	10.0K, 0402, 63MW, 1%	268361-1002	
R904	100 OHM, 0402, 63MW, 1%	268361-1000	
R905	100 OHM, 0402, 63MW, 1%	268361-1000	
R906	100 OHM, 0402, 63MW, 1%	268361-1000	
R907	100 OHM, 0402, 63MW, 1%	268361-1000	
R908	200 OHM, 0603, .1W, 5%	199403-201	
R1001	10 OHM, 0603, .1W, 5%	199403-100	
R1002	100 OHM, 0402, 63MW, 1%	268361-1000	
R1003	75 OHM, 0603, .1W, 5%	199403-750	
R1004	75 OHM, 0603, .1W, 5%	199403-750	
R1005	2.2K, 0603, .1W, 5%	199403-222	
R1006	100 OHM, 0402, 63MW, 1%	268361-1000	
R1007	100 OHM, 0402, 63MW, 1%	268361-1000	
R1008	330 OHMS, 0603, SMD, 100MW, 5%	199403-331	
R1009	330 OHMS, 0603, SMD, 100MW, 5%	199403-331	
R1010	100 OHM, 0805, 1/10W, 5%	133626-1015	
R1011	100 OHM, 0805, 1/10W, 5%	133626-1015	
R1012	10.0K, 0402, 63MW, 1%	268361-1002	
R1013	330 OHMS, 0603, SMD, 100MW, 5%	199403-331	

PCB Part List

Resistors (continued)

Reference Designator	Description	Material Number	Note
R1014	330 OHMS, 0603, SMD, 100MW, 5%	199403-331	
R1015	1.00K, 0402, 63MW, 1%	268361-1001	
R1016	2.32K, 0402, 63MW, 1%	268361-2321	
R1017	4.75K, 0402, , 1/16W, 1%	268361-4751	
R1018	18.2K, 0603, .1W, 1%	191465-1822	
R1019	1.00K, 0402, 63MW, 1%	268361-1001	
R1021	100 OHM, 0402, 63MW, 1%	268361-1000	
R1022	100 OHM, 0402, 63MW, 1%	268361-1000	
R1023	100 OHM, 0402, 63MW, 1%	268361-1000	
R1024	100 OHM, 0402, 63MW, 1%	268361-1000	
R1025	15.0K, 0603, SMD, 100MW, 1%	191465-1502	
R1026	15.0K, 0603, SMD, 100MW, 1%	191465-1502	
R1102	4.99K, 0805, 1/10W, 1%	133625-4991	
R1104	4.99K, 0805, 1/10W, 1%	133625-4991	
R1106	10.0K, 0603, SMD, 100MW, 1%	191465-1002	
R1109	10.0K, 0603, SMD, 100MW, 1%	191465-1002	
R1134	4.7 OHM, 0603, .1W, 5%	199403-4R7	
R1135	4.7 OHM, 0603, .1W, 5%	199403-4R7	
R1137	1.00K, 0402, 63MW, 1%	268361-1001	
R1139	100 OHM, 0402, 63MW, 1%	268361-1000	
R1140	100 OHM, 0402, 63MW, 1%	268361-1000	
R1142	10.0K, 0603, SMD, 100MW, 1%	191465-1002	
R1201	33 OHM, 1206, 1/4W, 5%,	124895-3305	
R1202	237K, 1206, 1/4W, 1%	124894-2373	
R1203	750, 1206, 1/4W, 1%	124894-7500	
R1204	10 OHM, 0603, .1W, 5%	199403-100	
R1205	1.0 OHM, 0603, .1W, 1%	191465-01R0	
R1206	34K, 0603, .1W, 1%	191465-3402	
R1207	14K, 0603, 100MW, 1%	191465-1402	
R1208	71.5K, 0402, 63MW, 1%	268361-7152	
R1209	2 MEG, 1206, 1/4W, 5%	124895-2055	
R1210	25.5K, 0603, .1W, 1%	191465-2552	
R1211	2 MEG, 1206, 1/4W, 5%	124895-2055	
R1212	2 MEG, 1206, 1/4W, 5%	124895-2055	
R1301	100K, 0402, 63MW, 1%	268361-1003	
R1302	10 OHM, 0603, .1W, 5%	199403-100	
R1303	499 OHM, 0603, SMD, 100MW, 1%	191465-4990	
R1304	10 OHM, 0603, .1W, 5%	199403-100	
R1306	2.49K, 0603, .1W, 1%	191465-2491	
R1307	249K, 0603, .1W, 1%	191465-2493	
R1308	4.22K, 0603, .1W, 1%	191465-4221	
R1309	102K, 0603, .1W, 1%	191465-1023	
R1311	150K, 0402, 63MW, 1%	268361-1503	
R1312	619K, 1206, 1/4W, 1%	124894-6193	3 

PCB Part List

Resistors (continued)

Reference Designator	Description	Material Number	Note
R1313	619K, 1206, 1/4W, 1%	124894-6193	3 ⚠
R1314	619K, 1206, 1/4W, 1%	124894-6193	3 ⚠
R1315	619K, 1206, 1/4W, 1%	124894-6193	3 ⚠
R1316	100K, 0402, 63MW, 1%	268361-1003	
R1317	100K, 0402, 63MW, 1%	268361-1003	
R1318	100K, 0402, 63MW, 1%	268361-1003	
R1319	100K, 0402, 63MW, 1%	268361-1003	
R1320	20.0K, 0402, 63MW, 1%	268361-2002	
R1322	1K, 0603, .1W, 5%	199403-102	
R1323	11.80K, 0603, SMD, 100MW, 1%	191465-1182	
R1324	10 OHM, 0603, .1W, 5%	199403-102	
R1351	100K, 0402, 63MW, 1%	268361-1003	
R1352	10.0K, 0402, 63MW, 1%	268361-1002	
R1401	10.0K, 0402, 63MW, 1%	268361-1002	
R1403	1.00K, 0402, 63MW, 1%	268361-1001	
R1404	1.00K, 0402, 63MW, 1%	268361-1001	
R1405	10 OHM, 0402, 63MW, 1%	268361-10R0	
R1406	10 OHM, 0805, 1/10W, 5%	133626-1005	
R1407	10 OHM, 0805, 1/10W, 5%	133626-1005	
R1408	33 OHMS, 0603, .1W, 5%	199403-330	
R1409	3.01K, 0603, .1W, 1%	191465-3011	
R1410	3.01K, 0603, .1W, 1%	191465-3011	
R1411	49.9 OHM, 0805, 1/10W, 1%	133625-49R9	
R1412	20.0K, 0603, SMD, 100MW, 1%	191465-2002	
R1413	10K OHMS, POT, 0.05W, 50V, 20%	NA	
R1415	100K, 0402, 63MW, 1%	268361-1003	
R1416	1.00K, 0603, SMD, 100MW, 1%	191465-1001	
R1417	2.2K, 0603, .1W, 5%	199403-222	
R1443	100 OHM, 0402, 63MW, 1%	268361-1000	

Capacitors

Reference Designator	Description	Material Number	Note
C201	1.0UF, X5R, 0402, 6.3V, 10%	313771-105J	
C202	100PF, 0402, C0G, 50V, 5%	NA	
C203	27PF, 0402, C0G, 50V, 5%	NA	
C204	1000PF, X7R, 0402, 16V, 10%	293702-102	
C205	22PF, 0402, C0G, 50V, 5%	NA	
C206	27PF, 0402, C0G, 50V, 5%	NA	
C207	22PF, 0402, C0G, 50V, 5%	NA	
C208	0.1UF, 0402, X7R, 16V, 10%	NA	
C209	0.1UF, 0402, X7R, 16V, 10%	NA	

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C212	180PF, 0402, C0G, 50V, 5%	NA	
C213	180PF, 0402, C0G, 50V, 5%	NA	
C214	180PF, 0402, C0G, 50V, 5%	NA	
C215	180PF, 0402, C0G, 50V, 5%	NA	
C216	1000PF, X7R, 0402, 16V, 10%	293702-102	
C301	100UF, 1206, X5R, 6.3V, 20%	NA	
C302	0.1UF, 0402, X7R, 16V, 10%	NA	
C303	0.1UF, 0402, X7R, 16V, 10%	NA	
C304	0.1UF, 0402, X7R, 16V, 10%	NA	
C305	0.1UF, 0402, X7R, 16V, 10%	NA	
C306	0.1UF, 0402, X7R, 16V, 10%	NA	
C307	0.1UF, 0402, X7R, 16V, 10%	NA	
C308	0.1UF, 0402, X7R, 16V, 10%	NA	
C309	0.1UF, 0402, X7R, 16V, 10%	NA	
C310	0.1UF, 0402, X7R, 16V, 10%	NA	
C311	0.1UF, 0402, X7R, 16V, 10%	NA	
C312	0.1UF, 0402, X7R, 16V, 10%	NA	
C313	0.1UF, 0402, X7R, 16V, 10%	NA	
C314	0.1UF, 0402, X7R, 16V, 10%	NA	
C315	0.1UF, 0402, X7R, 16V, 10%	NA	
C316	0.1UF, 0402, X7R, 16V, 10%	NA	
C317	0.1UF, 0402, X7R, 16V, 10%	NA	
C318	0.1UF, 0402, X7R, 16V, 10%	NA	
C320	0.1UF, 0402, X7R, 16V, 10%	NA	
C321	0.1UF, 0402, X7R, 16V, 10%	NA	
C322	0.1UF, 0402, X7R, 16V, 10%	NA	
C323	0.1UF, 0402, X7R, 16V, 10%	NA	
C325	0.1UF, 0402, X7R, 16V, 10%	NA	
C326	0.1UF, 0402, X7R, 16V, 10%	NA	
C327	1.0UF, X5R, 0402, 6.3V, 10%	313771-105J	
C328	1.0UF, X5R, 0402, 6.3V, 10%	313771-105J	
C329	0.1UF, 0402, X7R, 16V, 10%	NA	
C330	0.1UF, 0402, X7R, 16V, 10%	NA	
C331	1.0UF, X5R, 0402, 6.3V, 10%	313771-105J	
C332	0.1UF, 0402, X7R, 16V, 10%	NA	
C333	0.1UF, 0402, X7R, 16V, 10%	NA	
C334	0.1UF, 0402, X7R, 16V, 10%	NA	
C335	0.1UF, 0402, X7R, 16V, 10%	NA	
C336	0.1UF, 0402, X7R, 16V, 10%	NA	
C337	0.1UF, 0402, X7R, 16V, 10%	NA	
C338	0.1UF, 0402, X7R, 16V, 10%	NA	
C339	0.1UF, 0402, X7R, 16V, 10%	NA	
C340	1000PF, X7R, 0402, 16V, 10%	293702-102	
C341	1000PF, X7R, 0402, 16V, 10%	293702-102	
C342	0.1UF, 0402, X7R, 16V, 10%	NA	
C343	0.1UF, 0402, X7R, 16V, 10%	NA	

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C344	0.1UF, 0402, X7R, 16V, 10%	NA	
C345	1000PF, X7R, 0402, 16V, 10%	293702-102	
C346	0.1UF, 0402, X7R, 16V, 10%	NA	
C347	0.1UF, 0402, X7R, 16V, 10%	NA	
C348	0.1UF, 0402, X7R, 16V, 10%	NA	
C349	0.1UF, 0402, X7R, 16V, 10%	NA	
C350	0.1UF, 0402, X7R, 16V, 10%	NA	
C351	0.1UF, 0402, X7R, 16V, 10%	NA	
C352	0.1UF, 0402, X7R, 16V, 10%	NA	
C353	0.1UF, 0402, X7R, 16V, 10%	NA	
C354	0.1UF, 0402, X7R, 16V, 10%	NA	
C355	0.1UF, 0402, X7R, 16V, 10%	NA	
C358	0.1UF, 0402, X7R, 16V, 10%	NA	
C359	0.1UF, 0402, X7R, 16V, 10%	NA	
C362	0.1UF, 0402, X7R, 16V, 10%	NA	
C363	0.1UF, 0402, X7R, 16V, 10%	NA	
C366,	10UF, 0603, X5R, 6.3V, 20%	NA	
C367	10UF, 0603, X5R, 6.3V, 20%	NA	
C403	0.1UF, 0402, X7R, 16V, 10%	NA	
C404	0.1UF, 0402, X7R, 16V, 10%	NA	
C405	0.1UF, 0402, X7R, 16V, 10%	NA	
C406	0.1UF, 0402, X7R, 16V, 10%	NA	
C407	0.1UF, 0402, X7R, 16V, 10%	NA	
C408	0.1UF, 0402, X7R, 16V, 10%	NA	
C409	0.1UF, 0402, X7R, 16V, 10%	NA	
C410	0.1UF, 0402, X7R, 16V, 10%	NA	
C502	1.0UF, 16V, 10%, 0805, X7R	273596-105	
C503	10UF, 1206, X7R, 10V, 10%	NA	
C504	1000PF, X7R, 0402, 16V, 10%	293702-102	
C505	10UF, 1206, X7R, 10V, 10%	NA	
C506	0.01UF, 0603, X7R, 50V, 10%	NA	
C507	0.01UF, 0603, X7R, 50V, 10%	NA	
C508	0.01UF, 0603, X7R, 50V, 10%	NA	
C509	0.01UF, 0603, X7R, 50V, 10%	NA	
C510	0.01UF, 0603, X7R, 50V, 10%	NA	
C511	0.01UF, 0603, X7R, 50V, 10%	NA	
C512	0.01UF, 0603, X7R, 50V, 10%	NA	
C513	0.01UF, 0603, X7R, 50V, 10%	NA	
C514	0.01UF, 0603, X7R, 50V, 10%	NA	
C515	0.01UF, 0603, X7R, 50V, 10%	NA	
C516	0.1UF, 0603, X7R, 50V, 10%	NA	
C517	0.1UF, 0603, X7R, 50V, 10%	NA	
C601	1.0UF, X7R, 0603, 25V, 10%	NA	
C602	1.0UF, X7R, 0603, 25V, 10%	NA	
C603	1.0UF, X7R, 0603, 25V, 10%	NA	
C604	1.0UF, X7R, 0603, 25V, 10%	NA	

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C605	1.0UF, X7R, 0603, 25V, 10%	NA	
C606	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C607	1.0UF, X7R, 0603, 25V, 10%	NA	
C608	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C609	1.0UF, X7R, 0603, 25V, 10%	NA	
C610	1.0UF, X7R, 0603, 25V, 10%	NA	
C611	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C612	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C613	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C614	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C615	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C616	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C617	0.22UF, 0805, X7R, 50V, 10%	NA	
C618	0.22UF, 0805, X7R, 50V, 10%	NA	
C619	0.22UF, 0805, X7R, 50V, 10%	NA	
C621	0.22UF, 0805, X7R, 50V, 10%	NA	
C622	0.22UF, 0805, X7R, 50V, 10%	NA	
C623	0.22UF, 0805, X7R, 50V, 10%	NA	
C625	0.22UF, 0805, X7R, 50V, 10%	NA	
C627	0.22UF, 0805, X7R, 50V, 10%	NA	
C629	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C630	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C631	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C632	470PF, 0603, X7R, 50V, 10%	NA	
C633	470PF, 0603, X7R, 50V, 10%	NA	
C634	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C635	470PF, 0603, X7R, 50V, 10%	NA	
C636	470PF, 0603, X7R, 50V, 10%	NA	
C637	470PF, 0603, X7R, 50V, 10%	NA	
C638	470PF, 0603, X7R, 50V, 10%	NA	
C639	470PF, 0603, X7R, 50V, 10%	NA	
C640	470PF, 0603, X7R, 50V, 10%	NA	
C641	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3 ⚠

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C642	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
C643	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
C644	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
C645	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
R911	10.0K, 0402, 63MW, 1%	268361-1002	
C646	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
C647	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
C648	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3
C649	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C650	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C651	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C652	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C654	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C655	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C656	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C657	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C659	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C660	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C661	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C662	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C663	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C664	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C665	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3
C666	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C671	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C672	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C673	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C674	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C701	470PF, 0603, X7R, 50V, 10%	NA	
C702	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C703	2.2UF, X7R, 1206, 50V, 10%	NA	
C704	470PF, 0603, X7R, 50V, 10%	NA	
C705	10PF, 0402, C0G, 50V, 5%	NA	
C711	10UF, 0603, X5R, 6.3V, 20%	NA	
C713	10UF, 0603, X5R, 6.3V, 20%	NA	
C716	0.33UF, 0805, X7R, 50V	133623-334	
C718	0.1UF, 0603, X7R, 50V, 10%	NA	
C720	1.0UF, 16V, 10%, 0805, X7R	273596-105	
C721	22UF, EL, 85, 16V, 20%	177902-220C	
C722	22UF, EL, 85, 16V, 20%	177902-220C	
C723	22UF, EL, 85, 16V, 20%	177902-220C	
C724	0.01UF, 0603, X7R, 50V, 10%	NA	
C728	100PF, 0402, C0G, 50V, 5%	NA	
C729	2.2UF, X7R, 1206, 50V, 10%	NA	
C730,	470PF, 0603, X7R, 50V, 10%	NA	
C731	10UF, 0603, X5R, 6.3V, 20%	NA	
C732	10UF, 0603, X5R, 6.3V, 20%	NA	
C733	0.33UF, 0805, X7R, 50V	133623-334	
C741	180PF, 0402, C0G, 50V, 5%	NA	
C742	180PF, 0402, C0G, 50V, 5%	NA	
C743	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C744	CAP, 0805, X7R, 50V, 0.01UF, 10%, FAIL OPEN	286499-103	3 ⚠
C745	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	
C746	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C747	0.01UF, 0603, X7R, 50V, 10%	NA	
C748	100PF, 0603, C0G, 50V, 5%	NA	
C749	0.1UF, 0603, X7R, 50V, 10%	NA	
C750	470PF, 0603, X7R, 50V, 10%	NA	
C751	4.7PF, 0603, C0G, 50V, +/-0.25PF	268696-4R7C	
C752	22UF, 1206, X5R, 16V, 10%	NA	
C753	1000PF, 0603, X7R, 50V, 10%	NA	
C755	0.01UF, 0603, X7R, 50V, 10%	NA	

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C771	0.1UF, 0603, X7R, 50V, 10%	NA	
C772	0.1UF, 0603, X7R, 50V, 10%	NA	
C775	0.1UF, 0603, X7R, 50V, 10%	NA	
C776	220UF, EL, SMD, 105C, 16V, 20%	NA	
C777	220UF, EL, SMD, 105C, 16V, 20%	NA	
C801	10UF, 0603, X5R, 6.3V, 20%	NA	
C802	0.1UF, 0805, X7R, 25V, 10%	181264-104	
C804	0.1UF, 0805, X7R, 25V, 10%	181264-104	
C805	0.1UF, 0805, X7R, 25V, 10%	181264-104	
C809	0.1UF, 0805, X7R, 25V, 10%	181264-104	
C901	180PF, 0402, C0G, 50V, 5%	NA	
C902	180PF, 0402, C0G, 50V, 5%	NA	
C904	0.1UF, 0402, X7R, 16V, 10%	NA	
C905	0.01UF, 0603, X7R, 50V, 10%	NA	
C906	180PF, 0402, C0G, 50V, 5%	NA	
C907	180PF, 0402, C0G, 50V, 5%	NA	
C1001	0.047UF, 0603, X7R, 50V, 10%	NA	
C1002	180PF, 0603, C0G, 50V, 5%	NA	
C1003	100PF, 0603, C0G, 50V, 5%	NA	
C1004	180PF, 0603, C0G, 50V, 5%	NA	
C1005	0.047UF, 0603, X7R, 50V, 10%	NA	
C1006	0.01UF, 0603, X7R, 50V, 10%	NA	
C1007	47PF, 0603, COG, 50V	188454-470	
C1008	47PF, 0603, COG, 50V	188454-470	
C1009	0.1UF, 0402, X7R, 16V, 10%	NA	
C1010	EL, 85C, 16V, 20%, 10UF, SMD	177902-100C	
C1011	0.1UF, 0402, X7R, 16V, 10%	NA	
C1013	0.1UF, 0402, X7R, 16V, 10%	NA	
C1014	0.01UF, 0603, X7R, 50V, 10%	NA	
C1017	0.01UF, 0603, X7R, 50V, 10%	NA	
C1104	180PF, 0603, C0G, 50V, 5%	NA	
C1106	180PF, 0603, C0G, 50V, 5%	NA	
C1108	.47UF, EL, 85, 50V, 20%	177902-R47H	
C1110	.47UF, EL, 85, 50V, 20%	177902-R47H	
C1124	10UF, EL, 85C, 16V, 20%, SMD	177902-100C	
C1125	10UF, EL, 85C, 16V, 20%, SMD	177902-100C	
C1126	10UF, EL, 85C, 16V, 20%, SMD	177902-100C	
C1127	0.1UF, 0603, X7R, 50V, 10%	NA	
C1128	0.1UF, 0603, X7R, 50V, 10%	NA	
C1129	0.1UF, 0603, X7R, 50V, 10%	NA	
C1130	18PF , 0402, C0G, 50V, 5%	NA	
C1131	180PF, 0603, C0G, 50V, 5%	NA	
C1132	180PF, 0603, C0G, 50V, 5%	NA	
C1136	1000PF, 0603, X7R, 50V, 10%	NA	
C1138	1000PF, 0603, X7R, 50V, 10%	NA	
C1139	1000PF, 0603, X7R, 50V, 10%	NA	

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C1201	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1202	CAP, X7R, 1210, 500V, 10%, 1000PF	359772-102K	3 ⚠
C1203	0.1UF, 0603, X7R, 50V, 10%	NA	
C1204	33PF, CER, RADIAL	269857-330	3 ⚠
C1205	33PF, CER, RADIAL	269857-330	3 ⚠
C1207	100PF, CERAMIC CAP, FORMED, 300V	NA	3 ⚠
C1208	100PF, CERAMIC CAP, FORMED, 300V	NA	3 ⚠
C1209	100UF.EL, SMD, 105C, 35V, 20%	306245-101EE	
C1210	0.1UF, 0603, X7R, 50V, 10%	NA	
C1211	0.1UF, X7R, 0603, 10%, 50V, FLEXTERM	304991-104	3 ⚠
C1212	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1213	CER, Y1, 250VAC, 470PF, 10MM	310461-471KB	3 ⚠
C1214	47PF, 0603, COG, 50V	188454-470	
C1216	100UF, EL, 105C, 20%, 450V	NA	
C1217	0.15UF, X7R, 1210, 500V, 10%	359772-154K	
C1218	0.1UF, 0603, X7R, 50V, 10%	NA	
C1220	CER, Y1, 250VAC, 470PF, 10MM	310461-471KB	3 ⚠
C1222	CAP, FILM, X2, 305VAC, 0.33UF, 15MM	310415-334ME	3 ⚠
C1224	0.1UF, FILM, X2, 275VAC, 10MM	268166-104A	3 ⚠
C1227	0.15UF, X7R, 1210, 500V, 10%	359772-154K	
C1301	100PF, 0402, C0G, 50V, 5%	NA	
C1302	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1303	1000PF, 0603, X7R, 50V, 10%	NA	
C1304	CAP, FILM, X2, 305VAC, 0.68UF, 15MM	310415-684ME	3 ⚠
C1305	0.1UF, 0603, X7R, 50V, 10%	NA	
C1309	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1312	3300PF, 0805, X7R, 50V, 10%, FAIL OPEN	286499-332	3 ⚠
C1314	0.1UF, X7R, 0603, 10%, 50V, FLEXTERM	304991-104	3 ⚠
C1315	0.22UF, 0805, X7R, 50V, 10%	NA	
C1316	220UF, EL, SMD, 105, 35V, 20%	306169-221VH	
C1318	1000UF, EL, DIP, 105C, 35V, 20%	NA	
C1321	1000UF, EL, DIP, 105C, 35V, 20%	NA	3 ⚠

PCB Part List

Capacitors (continued)

Reference Designator	Description	Material Number	Note
C1401	1.0UF, X7R, 0603, 25V, 10%	NA	
C1402	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1403	1.0UF, X7R, 0603, 25V, 10%	NA	
C1404	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1405	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C1406	1000PF, X7R, 0603, 10%, 50V, FLEXTERM	304991-102	3 ⚠
C1408	0.22UF, 0805, X7R, 50V, 10%	NA	
C1409	0.22UF, 0805, X7R, 50V, 10%	NA	
C1412	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1414	470PF, 0603, X7R, 50V, 10%	NA	
C1415	1.0UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-105	3 ⚠
C1416	470PF, 0603, X7R, 50V, 10%	NA	
C1417	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3 ⚠
C1418	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C1419	0.22UF, 1206, X7R, 50V, 10%, FAIL OPEN	286500-224	3 ⚠
C1420	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C1421	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C1422	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C1423	0.1UF, 125C, 50V, 10%, 0805, X7R, FAIL OPEN	286499-104	3 ⚠
C1424	1000PF, 0603, X7R, 50V, 10%	NA	
C1425	0.01UF, 0603, X7R, 50V, 10%	NA	
C1426	0.1UF, 0603, X7R, 50V, 10%	NA	
C1427	0.1UF, 0603, X7R, 50V, 10%	NA	
C1441	0.1UF, 0603, X7R, 50V, 10%	NA	

PCB Part List

Diodes

Reference Designator	Description	Material Number	Note
BR1201	DIODE, BRIDGE RECT, 3A, 600V	311102-0600	3 ⚠
D1001	SWITCHING, 100V, BAV99, SOT363	319113-001	
D1003	DUAL, SOT-23, BAV99	147239	
D1004	DUAL, SOT-23, BAV99	147239	
D1005	DUAL, SOT-23, BAV99	147239	
D1006	DUAL, SOT-23, BAV99	147239	
D1102	DUAL, SOT-23, BAV99	147239	
D1104	DUAL, SOT-23, BAV99	147239	
D1201	SCHOTTKY, 1A, 30V, SOD123	317122-001	
D1202	RECT, FAST, 600V, 1A	317066-600	
D1203	SWITCHING, SOD123, 1N4148W	257662	
D1204	SWITCHING, SOD123, 1N4148W	257662	
D1301	SCHOTTKY RECT., 5A, 170V, COMMON CATH	329305-0010	
D1302	SWITCHING, SOD123, 1N4148W	257662	
D701	DUAL, SOT-23, BAV99	147239	
D704	SCHOTTKY, 3A, 40V, SMA	NA	
D801	DUAL, SOT-23, BAV99	147239	
DS801	DIODE, LED, 5V, R ANGLE, SMT, 3X2MM, RED/GRN	NA	
DS803	DIODE, LED, 5V, R ANGLE, SMT, 3X2MM, RED/GRN	NA	
ZR1201	ZENER, 0.2W, 20V, SOD323	310491-20A	
ZR1203	ZENER, 1.5W, 150V, SMA	357194-0150	

Transistors

Reference Designator	Description	Material Number	Note
Q201	PNP, SOT, MMTB3906, BPLR, 40V, 200MA	148596	
Q901	BPLR, NPN, SOT23, MMBT3904	146819	
Q902	BPLR, NPN, SOT23, MMBT3904	146819	
Q904	BPLR, NPN, SOT23, MMBT3904	146819	
Q1001	BPLR, NPN, SOT23, MMBT3904	146819	
Q1002	BPLR, NPN, SOT23, MMBT3904	146819	
Q1003	PNP, SOT, MMTB3906, BPLR, 40V	148596	
Q1106	N, MFET, 2.5, SOT23, ESD	NA	
Q1207	MFET, N-CH, 600V	310519-001	
Q1301	MOSFET, P-CH, 30V	NA	
Q1304	BPLR, NPN, SOT23, MMBT3904	146819	
Q1305	PNP, SOT, MMTB3906, BPLR, 40V	148596	
Q1306	PNP, SOT, MMTB3906, BPLR, 40V	148596	
VR701	VOLT REG, 1.8V, 1A, AUTOMOTIVE	267317-1118	
VR703	VREG, SWTING DC TO DC, STP DWN, 1.5A, 42V	328718-0020	
VR704	VREG, POS, LDO, .5A, ADJ._V	312828-002	

PCB Part List

Integrated Circuits

Reference Designator	Description	Material Number	Note
U201	FLASH, 32MBIT, 3V, WSON	NA	
U202	SOC, W/DSP+USB, 400MHZ, TMSD808, 176QFP, C-ROM	NA	
U203	LOGIC, SINGLE, INV, SC-70	330502-0010	
U204	RESET, 2.93VT, TPS3825, SOT23-5	289604-1033	
U403	MEMORY, SDRAM, 166MHZ, 8MBX16, TSOPII-54	NA	
U501	DAC, 6CH, 24BIT, 192KHZ, PCM1606E, 20SSOP	346767-0010	
U601	PWR AMP, 15W, CLASS D, 26V	327287-0010	
U602	PWR AMP, 15W, CLASS D, 26V	327287-0010	
U702	VREG, SW, SYNC, S-DOWN, 1.5A, ADJ, 16QFN	327362-1010	
U704	VREG, LDO, 100MA, SOT-23,	283384-5001	
U705	VREG, SW, SYNC, S-DOWN, 1.5A, ADJ, 16QFN	327362-1010	
U803	IC, SENSOR, IR, RCVR, 38KHZ, MTH	319147-238	
U1001	S/PDIF, RCVR, AK4112B	361109-0010	
U1104	24BIT, 96KHZ, ADC, SMD TSSOP-16	299343-001	
U1201	SMPS, FLYBACK CONTROLLER	348216-0010	
U1301	OPTO ISOLATOR, CNY17F-1X007	254120-002	3 ⚠
U1401	PWR AMP, 15W, CLASS D, 26V	327287-0010	
U1402	COMPARATOR, SOIC, LM393D	NA	

Inductors

Reference Designator	Description	Material Number	Note
L601	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L601A	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L602	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L602A	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L603	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L603A	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L604	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L604A	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L701	SMD, 105C, 20%, 10UH	345388-100M	
L703	SMD, 105C, 20%, 10UH	345388-100M	
L704	2.5A, 10MM, SMT, 20%, 22UH	266922-220	
L1201	INDUCTOR, TOROID, 1A, 30%, 5MH	NA	3 ⚠
L1202	FIXED, RADIAL, 5MM LS, 670MA, 82UH	309310-820K	3 ⚠
L1203	FIXED, RADIAL, 5MM LS, 670MA, 82UH	309310-820K	
L1204	INDUCTOR, TOROID, 1A, 30%, 10MH	NA	3 ⚠
L1303	FIXED, RADIAL, 5MM LS, 670MA, 82UH	309310-820K	3 ⚠

PCB Part List

Inductors (continued)

Reference Designator	Description	Material Number	Note
L1304	FIXED, RADIAL, 5MM LS, 670MA, 82UH	309310-820K	3 ⚠
L1401	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	
L1401A	CORE, FERRITE, ERF17, 160NH/N^2	314442-160	

Ferrite Beads

Reference Designator	Description	Material Number	Note
FB301	BEAD FERRITE, 0805, 1.5A, 330 OHM	267539-331	
FB302	257662	267539-331	
FB303	FERITE BEAD, CHIP, 0603, 120 OHM	351171-121	
FB304	FERITE BEAD, CHIP, 0603, 120 OHM	351171-121	
FB305	FERITE BEAD, CHIP, 0603, 120 OHM	351171-121	
FB306	FERRITE BEAD, BLM18P, 0603, 33OHM	302257-330	
FB701	FERRITE, BEAD, 0603, 200MA, 330OHM, BLM18HK331SN1	268373-331	
FB902	FERRITE, BEAD, 0603, 200MA, 330OHM, BLM18HK331SN1	268373-331	
FB903	FERRITE, BEAD, 0603, 200MA, 330OHM, BLM18HK331SN1	268373-331	
FB1001	257662	267539-331	
FB1101	257662	267539-331	
FB1103	257662	267539-331	
FB1201	FERITE BEAD, CHIP, 0603, 120 OHM	351171-121	

Miscellaneous

Reference Designator	Description	Material Number	Note
F1301	FUSE, TIME LAG, 4A, 250V	310538-4000A	3 ⚠
J601	CONN, W_BOSS, 2.5MM, 6POS, TOP-ENT	NA	
J602	CONN, W_BOSS, 2.5MM, 4POS, TOP-ENT	NA	
J801	CONN, HEADER, 9 PIN TOP ENTRY	253356-T09	
J901	CONN, HEADER, 9 PIN TOP ENTRY	253356-T09	
J1001	CONN, RCA, PIN JACK, W_SNAP, ORANGE	NA	
J1002	CONN, OPTO-RECEIVER, 3.3V	328772-0010	
J1003	CONN, USB, TYPE A, SMT	306363-001	
J1004	CONN, JACK, PHONE, 3.5MM	282721-002	
J1102	CONN, PIN JACK, DUAL, VERTICAL	273167	
J1302	AC CONN, SINGLE PIECE LEADS	301125-001	3 ⚠
SHLD1001	SHIELD, DIP, OPTICAL CONNECTOR	NA	
SHLD902	SHIELD, FENCE, SMT, DSP	349527-0010	

PCB Part List

Miscellaneous (continued)

Reference Designator	Description	Material Number	Note
T1201	TRANSFORMER, FLYBACK, 85-265VAC, 2.5A, 24V	370743-0010	3 ⚠
VR1301	LIN REG, POS, ADJ, TL431, SHUNT, 1%, SOT23	330361-1030	3 ⚠
VR1302	VARISTOR, MET OX, 420V, 75JOULE	273545-007	3 ⚠
W201	JUMPER, CHIP, 0603 0R	196042	
W202	JUMPER, CHIP, 0603 0R	196042	
W203	JUMPER, 0402, 0 OHM	280043	
W371	JUMPER, 0402, 0 OHM	280043	
W502	JUMPER, CHIP, 0603 0R	196042	
W603	10.0K, 0402, 63MW, 1%	268361-1002	
W605	10.0K, 0402, 63MW, 1%	268361-1002	
W608	JUMPER, 0402, 0 OHM	280043	
W610	JUMPER, 0402, 0 OHM	280043	
W1201	4.3 OHM, 0603, .1W, 1%	191465-04R3	
W1301	JUMPER, CHIP, 1206 0R	124896	
W1302	JUMPER, 0402, 0 OHM	280043	
W1303	JUMPER, CHIP, 0603 0R	196042	
W1304	JUMPER, CHIP, 0603 0R	196042	
W1305	JUMPER, CHIP, 1206 0R	124896	
W1306	JUMPER, CHIP, 1206 0R	124896	
W1402	JUMPER, 0402, 0 OHM	280043	
X201	XTAL, SMD, 105, AT41CD2, 24.576MHZ	269923-24R5C16	
X202	CRYSTAL, 26MHZ, HC49/S, SMD	291429-005	

Disassembly Procedures

1. PCB Cover Removal

1.1 Remove the 6 screws indicated in Figure 3.

1.2 Lift off the PCB Cover

2. Main PCB Removal

2.1 Perform procedure 1.

2.2 Remove the 5 screws indicated in Figure 4.

2.3 Disconnect the 2 cable connectors and 1 ribbon cable from the Main PCB.

2.4 Pull off the bass knob from the rear of the unit.
Note: When replacing the bass knob, hold the bass POT while pressing on the knob to prevent applying excess pressure to the solder connections on the POT.

2.5 Lift up on the front of the PCB and then pull it forward so the rear connectors clear the enclosure openings.
Note: When replacing the Main PCB, ensure the ground wire is secured as shown in figure 4. Also, ensure the speaker wire harness is located in the channel shown in figure 4.

3. Top Cover Removal

3.1 Perform procedure 1 and 2.

3.2 Remove the 31 screws indicated in Figure 5. 13 screws inside the PCB well and 18 screws around the perimeter of the unit.

3.3 Flip the unit over and slowly lift off the top cover. Use care to prevent the gasket from being pulled away with the top cover. The gasket should remain in the channels of the enclosure.
Note: There is no replacement gasket available.

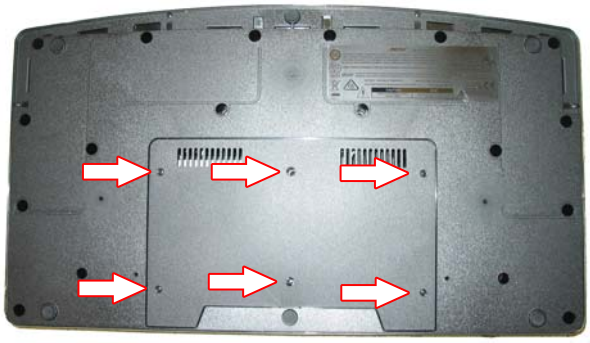


Figure 3. PCB Cover Removal

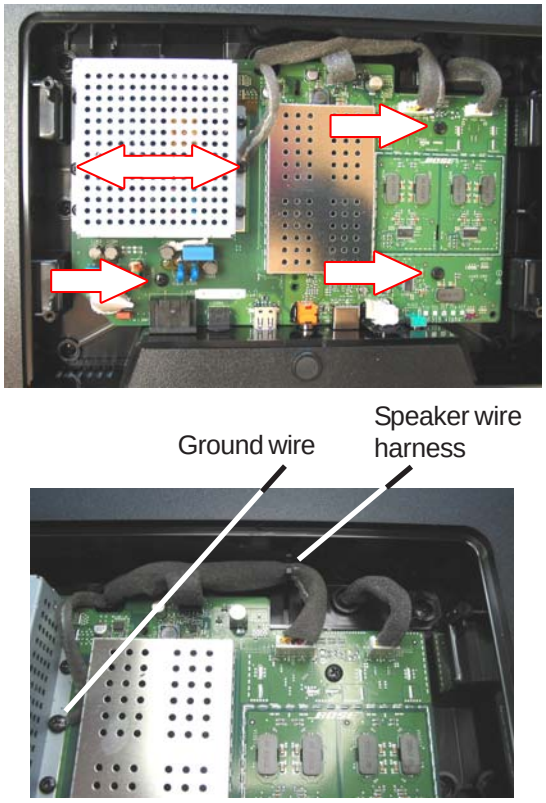


Figure 4. PCB Removal

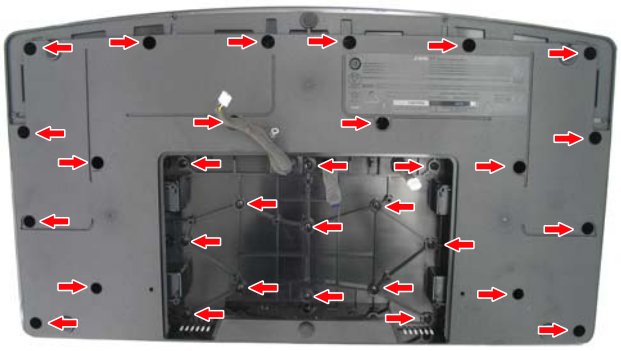


Figure 5. Top Cover Removal

Disassembly Procedures

4A. Metal Grille Removal

4A.1 Perform procedure 3 first. The top cover must be removed because pins in the top cover fit into the grommets on the metal grille securing the top of the grille in place.

4A.2 On the bottom of the unit, remove the four screws securing the grille as indicated in Figure 6.

4A.3 Turn the unit over. Grasp the grille by the sides as indicated by the arrows in Figure 7A and pull forward to release the grille edge from the enclosure. Work the grille out of the cabinet using care not to bend the grille.

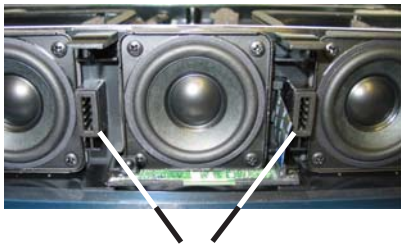
Note: When installing the metal grille, make sure the 5 rubber grommets are inserted in the grille holes indicated in figure 7A. When installing the cover, ensure the 5 pins on the cover insert into the grommets to ensure proper grille alignment.

4B. Cloth Grill Removal

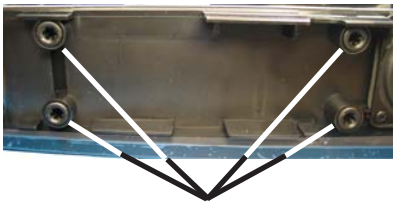
4B.1 Perform procedure 3 first. The top cover has to be removed to properly grasp the grill to remove it.

4B.2 Grasp a side edge of the grille and pull it straight forward to release the grille clip from the enclosure's clip catch. Do this for both the other side. See figure 7B and 8.

4B.3 After releasing the left and right side of the grille, pull the grille forward working toward the center releasing its posts from the grommets in the inclosure. See figure 9.



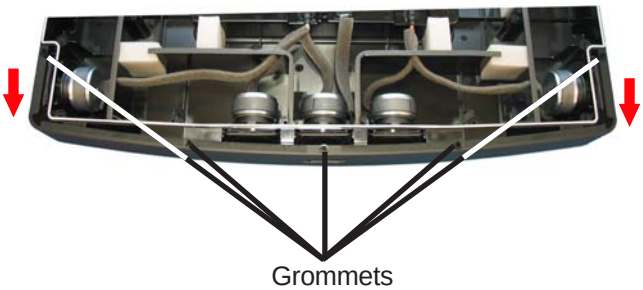
Two rectangle grommets located front center



8 round grommets, 4 located on each side

Figure 9. Cloth Grille Enclosure Grommets Location

Figure 6. Metal Grille Screw Removal



Grommets

Figure 7A. Metal Grille Removal

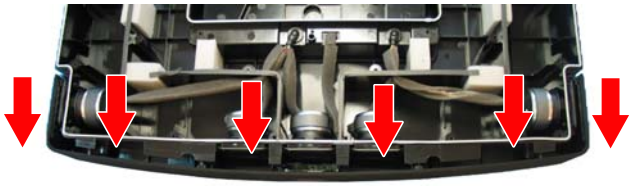
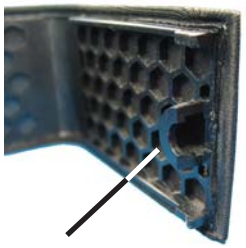


Figure 7B. Cloth Grille Removal



Grille Side Clip

Grille Side Clip Catch

Figure 8. Cloth Grille Side Clip

Disassembly Procedures

5. Driver Removal

5.1 Perform procedures 4 first.

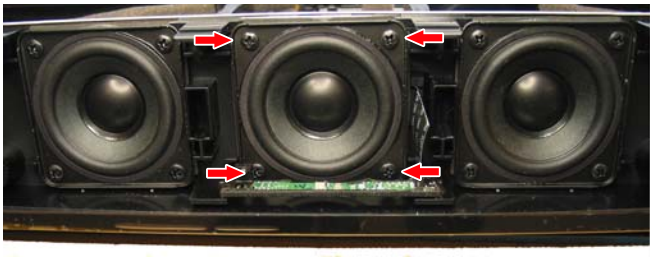
5.2 Remove the four screws securing the driver. Pull out the driver and disconnect the driver wire harness from the driver. See figure 10.

6. IR PCB Removal

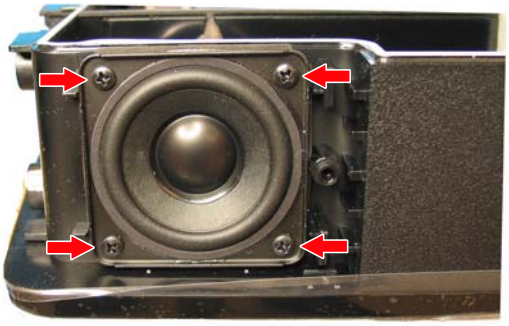
6.1 Perform procedures 4 first.

6.2 Disconnect the flat flex cable from the IR PCB.

6.3 Grasp both sides of the IR PCB and slide it out of the slots indicated in figure 11.



Three Front Drivers



Two Side Drivers

Figure 10. Driver Removal

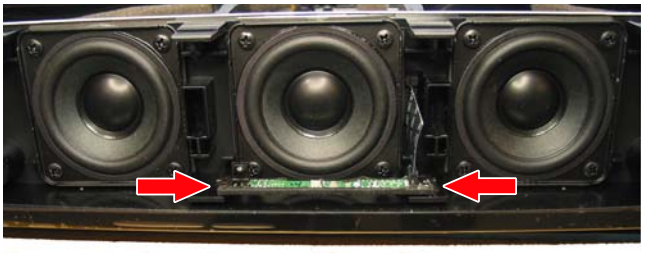


Figure 11. IR PCB Removal

Issuing TAP Commands

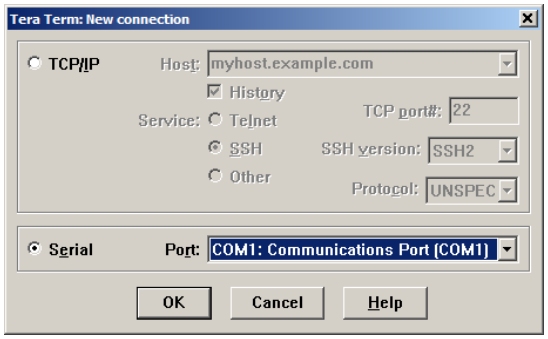
Required Items

1. TeraTerm terminal emulator - download at http://sourceforge.jp/projects/ttssh2/
2. TAP Cable part number 264565
3. RS232-TTL Converter - B&B electronics Model 232LPTTL or similar - http://bb-elec.com

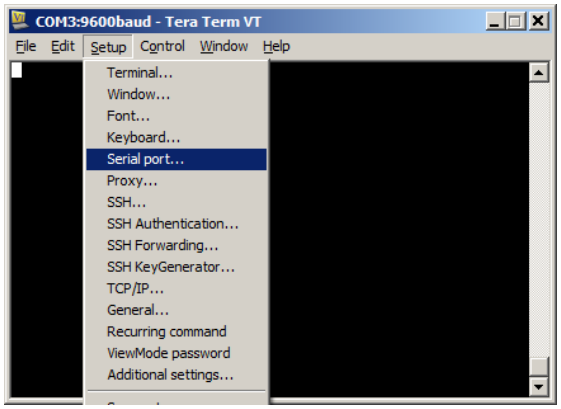
Setup

1. Connect the TAP cable, using a RS232-TTL converter, to your computer's COM port and the unit's DATA connector on the rear.

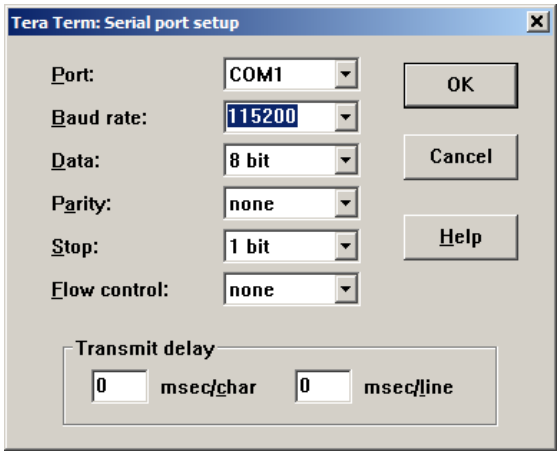
2.1 Select COM Port



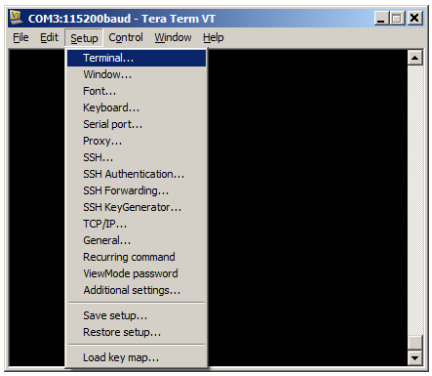
2.2 Select Serial Port



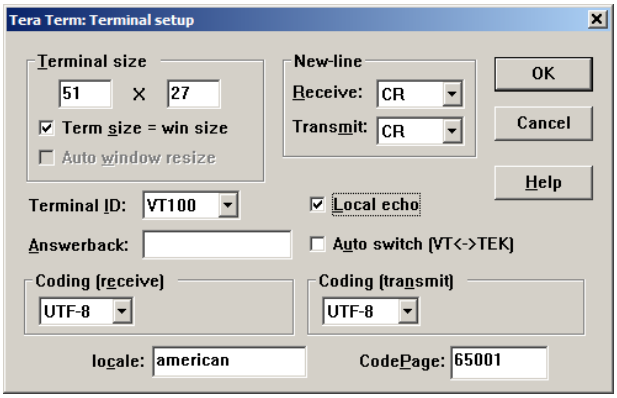
2.3 Set Serial Port
Baud: 115200, Data bits: 8, Parity: No, Stop bit: 1



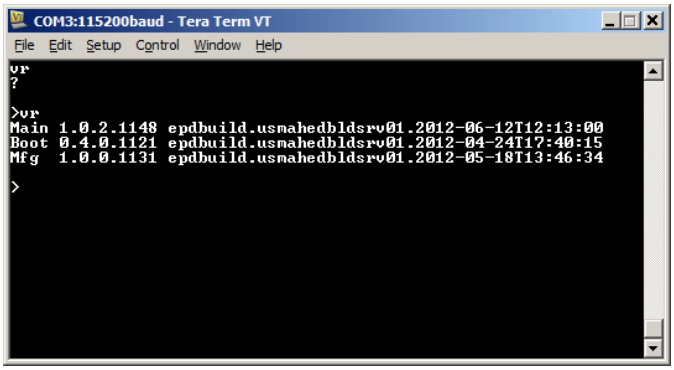
2.4 Select Terminal



2.5 Set Terminal to "Local echo" - Click "OK"



2.4 Test TAP communication
Enter TAP command VR
System will respond with Software version



Test Procedures

Required Equipment

1. Tera Term terminal emulator - download at http://sourceforge.jp/projects/ttssh2/
2. TAP cable 264565 (used for TAP commands)
3. RS232-TTL Converter - B&B electronics Model 232LPTTL or similar - http://bb-elec.com
4. An A/D converter and audio generator
5. Computer setup to issue TAP commands - see page 29 for instructions.

1. Air Leak and Bass Control Test

1.1 Apply a 70 Hz, 50 mVrms signal to the left and right input of the A/D converter.

1.2 Connect the A/D converter Coax output to the unit's Coax input.

1.3 Issue TAP command "remote o" to turn the unit on, or press the remote ON button.

1.4 Issue TAP command "VO 100" to set the volume to maximum level.

1.5 Adjust the bass control to the center position.

1.6 Listen for any air leaks from sealed enclosures such as the top cover and drivers.

1.7 Rotate the bass knob to the full minus position and then to the full plus position. You should notice a corresponding decrease and increase in bass.

2. Buzz and Sweep Test

2.1 Apply a 35 Hz, 25mVrms signal to the left and right input of the A/D converter.

2.2 Connect the A/D converter Coax output to the unit's Coax input.

2.3 Issue the TAP command "remote 0" to turn the unit on, or press the remote ON button.

2.4 Issue the TAP command "VO 100" to set the volume to maximum level.

2.5 Sweep the generator from 35 Hz to 3 kHz.

2.6 Listen for buzz, rub, or extraneous sounds. Localize and repair any buzz. Replace any transducer that rubs or produces extraneous sounds.

3. Left, Right, Center Output Test

3.1 Connect the A/D converter Coax output to the unit's Coax input.

3.2 Apply a 1 kHz, 10mVrms signal to the left input of the A/D converter.

3.3 Listen for clean, undistorted audio from the left speaker.

3.4 Apply the signal to the right input of the A/D converter.

3.6 Lister for clean, undistorted audio from the right speaker.

3.7 Apply the signal to the right and left input of the A/d converter.

3.8 Listen for clean, undistored audio from the three center speakers.

4. Input Test

Note: Connect only the input being tested to avoid triggering the auto select circuit.

4.1 Issue the TAP command "remote 0" to turn the unit on, or press the remote on button.

4.2 Issue the TAP command "VO 100" to set the volume to maximum.

4.3 Apply a 200 Hz, 25 mVrms signal to the unit's left and right analog RCA input.

4.4 Listen for clean, undistorted audio from the unit.

4.5 Apply a 200 Hz, 25 mVrms signal to the left and right input of the A/D converter.

4.6 Connect the A/D converter Coax output to the unit's Coax input.

4.7 Listen for clean, undistorted audio from the unit.

4.8 Apply a 200 Hz, 25 mVrms signal to the left and right input of the A/D converter.

4.9 Connect the A/D converter Optical output to the unit's Optical input.

4.10 Listen for clean, undistorted audio from the unit.

Performance Verification Procedures

4. Auto Select

This is only needed if the input test is performed with all inputs connected. Otherwise, the unit's auto select circuit will select just the Optical input - the highest performance signal. The auto selection sequence is Optical, Coax, Analog.

4.1 Issue the TAP command "remote 0" to turn the unit on, or press the remote ON button.

4.2 Issue the TAP command "VO 100" to set the volume to maximum level.

4.3 Issue TAP command "audio auto, 0" to disable auto input selection.

4.4 Apply a 70 Hz, 50 mVrms signal to the left and right analog input.

4.5 Issue TAP command "audio input, 0" to select the Analog input.

4.6 Apply a 70 Hz, 50 mVrms signal to the left and right input of the A/D converter.

4.7 Connect the A/D converter Coax output to the unit's Coax input.

4.8 Issue TAP command "audio input, 1" to select the Coax input.

4.9 Connect the A/D converter Optical output to the unit's Optical input.

4.10 Issue TAP command "audio input, 2" to select the Optical input.

4.11 Issue TAP command "audio auto, 1" to enable auto input selection before returning the unit to the customer.

5. Factory Default

It is important to reset the unit to its factory default setting after testing since the unit stores the last volume setting. Some tests required the volume to be set at full (100). Because the last volume setting was 100, when first turned on by the customer, the unit would be at full volume.
Note: Factory default volume is 30.

5.1 Use the remote to turn on the unit or issue TAP command "remote 0"

5.2 Issue TAP command "fd"

5.3 Turn the unit off with the remote or TAP command "remote 0"

5.4 Remove power from the unit.

Note: To check the volume setting, turn the unit on with the remote or by issuing TAP command "remote 0". Issue the TAP command "VO" to view the volume setting. Response = 0/**30**/100. The middle number is the volume level the unit will turn onto.

6. Hi-Pot Test, Mandatory Test

Important note: If the unit has been disassembled, a Hi-Pot test must be performed before returning the unit to the customer to ensure there is no potential for a shock hazard.

6.1 Test points are from the AC power input (both line and neutral) to all connectors on the rear of the product.

6.2 Hi-Pot tester settings for all voltage variants.

Type of product: 200-240 VAC 2-wire Class II
Test Voltage: 3000 VAC
Trip Current Limits: 1.5mA min, 2.16 mA max
Ramp: 1 sec
Dwell: 3 sec

6.3 Connect the AC line cord into the rear of the Bose® Solo TV Sound System. Connect the other end of the AC line cord to the Hi-Pot tester.

6.4 With the tester set to the above settings, perform the test. Failure of this test indicates a faulty transformer, incorrectly dressed primary wires, or incorrectly adjusted trip point on tester. Repair any fault found.

TAP Commands

DC - Describes commands
VR - Software version
VO - Volume
  VO: Responds with volume setting 0/40/100
  Set volume: VO 80
  Response: 0/80/100
reboot - Reboots unit
audio - audio settings
  audio - response with audio settings
  audio input, <input> - selects an input
  <input> parameters:
  0 = analog
  1 = coaxial
  2 = optical
  3 = auto select
  audio auto, 0 /1- Disable/enable the input auto selection
  audio bypass, 0|1 - Enable/disable BDSP bypass
fd - Factory Default
sr - read serial number
sw - write serial number (sw <password>,<bank>,<serial number>
  <password> cafeb0se
  <bank> 0 main board, 1 IR board, 2 system)
  example: sw cafeb0se,0,064395Z41160015AE
  if successful, responds with serial number
mu - mute control
  mu 0/1 unmute/mute
usb - USB control
  usb detect - print just the detect bit
  usb - print lockout and detect bit

Revision History

DATE	REV	ECN	Description
09/2014	00		INITIAL RELEASE

Specifications and Features Subject to Change Without Notice

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