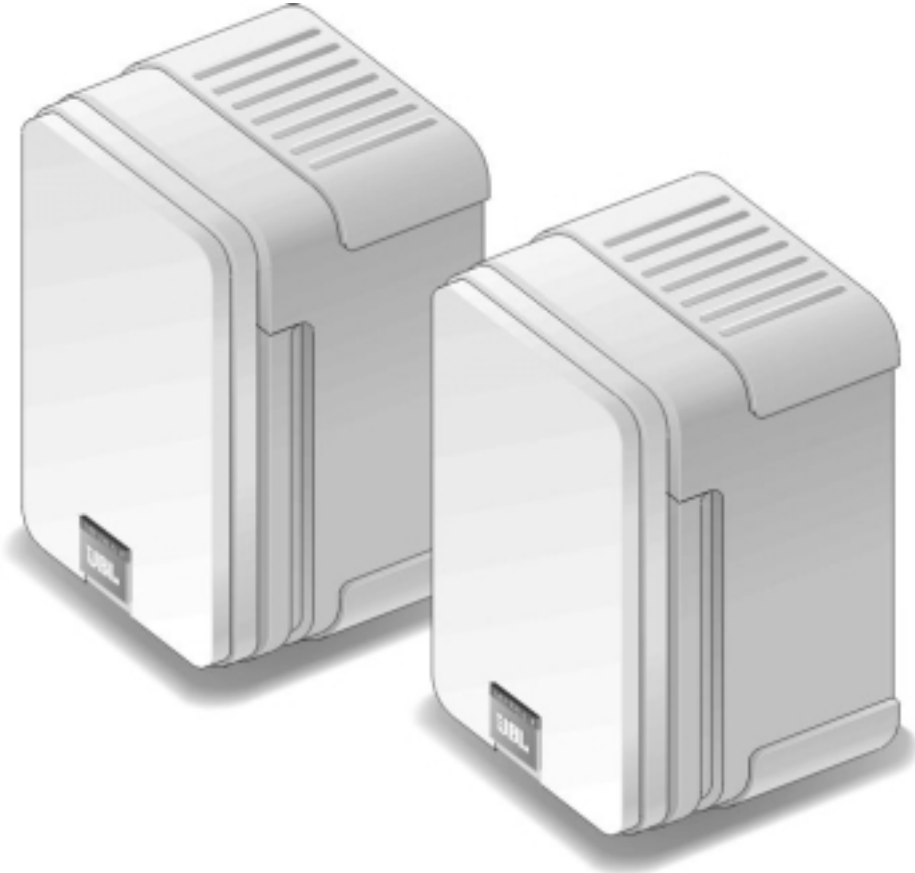




Media 4

2-way 5" Powered Multimedia Speaker System

TECHNICAL MANUAL



JBL Consumer Products Inc.
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H A Harman International Company

Part No.: 1112-MEDIA4

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FEATURES

- Two-way speaker system.
- 20 watt stereo amplifier.
- Auto turn-on / turn off circuitry.
- Magnetically shielded speakers for flicker-free use near computer monitors.
- Plays system and software audio simultaneously.
- Built-in electronic equalization for smooth frequency response.
- Subwoofer output with high pass signal switching for increased output and lower distortion.

SPECIFICATIONS

Speaker System.	Full range, two-way system
Speaker Size:	5" woofer and 1" tweeter
Total Amplifier Output Power:	20W at 10% THD
SPL (Sound Pressure Level):	106dB (1kHz, 1% THD)
Frequency Response:	65Hz - 20kHz
Input Impedance	20k ohms
Subwoofer Output Jack:	Sum of left and right channels into a stereo miniplug (1/8"). High pass crossover to satellites at 100Hz with subwoofer plugged in.
Signal Input Jacks:	Stereo miniplug (1/8")
External Dimensions:	
Height	9"
Width	6"
Depth	5.6"
Weight	14 lbs. per pair
External Dimensions (metric)	
Height	229 mm
Width	152 mm
Depth	142 mm
Weight:	6.4 kgs per pair

DISASSEMBLY PROCEDURES

Master Speaker

Step 1. Removing the front grille. The grille gasket (16) is held in place by a friction fit. In the slot on top between the grille gasket and cabinet (9) place a wide flat tool and slowly begin to wedge the screen/gasket (15/16) off. Continuing to carefully wedge the grille off by working your way around the gasket (16).

Note: You may wish to cover the tip of the flat tool you are using with cloth so as to minimize the damage (scarring) you may inflict on the cabinet (9).

Step 2. Main Body Separation. Unscrew 6 screws (29) around the perimeter of the baffle's (7) front surface.

Again, using caution to not damage the cabinet, place a flat tool in the side and bottom channels and slowly begin wedging the baffle (7) off. Note this assembly has areas of hot glue connecting the baffle (7) and cabinet (9) together at the left and right sides of the upper body. Considerable effort may be needed.

Step 3. Removing the Rear Terminal Cup. Pull volume knob (13) off. Remove 4 screws (27) holding the rear terminal cup (10) on. Note this will release the internal air seal cup (12) containing the volume and jack PCB assemblies. If it is necessary to remove the volume and jack PCB assemblies from the air seal cup (12) you will need to cut the air seal (33) on the cup surface to allow removal.

Step 4. Heat Sink and Main PCB Removal. The Heat Sink (4) is removed by unscrewing 4 screws (26 *not shown*) connecting it to the cabinet (9) housing. The Main PCB can be removed from the Heat Sink by unscrewing 2 screws from the back side of the Main PCB into the Heat Sink and 2 screws through IC601 into the Heat Sink. **Do not unscrew this assembly unless necessary.**

Step 5. Speaker Removal. The Woofer can be removed by unscrewing 4 screws (23) on the front of the baffle (7). The Tweeter can be removed by unscrewing 2 screws (28) on the tweeter connecting it to the inside of the baffle (7).

Slave Speaker

Step 1. Removing the front grille. The grille gasket (16) is held in place by a friction fit. In the slot on top between the grille gasket and cabinet (9) place a wide flat tool and slowly begin to wedge the screen/gasket (15/16) off. Continuing to carefully wedge the grille off by working your way around the gasket (16).

Note: You may wish to cover the tip of the flat tool you are using with cloth so as to minimize the damage (scarring) you may inflict on the cabinet (9).

Step 2. Main Body Separation. Unscrew 6 screws (29) around the perimeter of the baffle's (8) front surface.

Again, using caution to not damage the cabinet, place a flat tool in the side and bottom channels and slowly begin wedging the baffle (8) off. Note this assembly has areas of hot glue connecting the baffle (8) and cabinet (8) together at the left and right sides of the upper body. Considerable effort may be needed.

Step 3. Removing the Rear Terminal Cup. Remove 4 screws (27) holding the rear terminal cup (11) on.

Step 4. Speaker Removal. The Woofer can be removed by unscrewing 4 screws (23) on the front of the baffle (8). The Tweeter can be removed by unscrewing 2 screws (28) on the tweeter connecting it to the inside of the baffle (8).

TROUBLE SHOOTING

1. If the power LED Fails

- A. Check if the accessory adaptor is properly fitted.
- B. Check if the adaptor is plugged into the DC jack.

2. No sound from the Master Speaker

- A. Check if the adaptor is plugged into the input jack and audio signal is lighted.
- B. Check if the power switch is on.
- C. Check to see if the volume knob is turned up half-way.

3. No sound from the Slave Speaker

- A. Check to see if it is well connected to the Master Speaker.

4. The power signal is RED (normally it should be GREEN)

- A. Check if the adaptor is plugged into the jack.

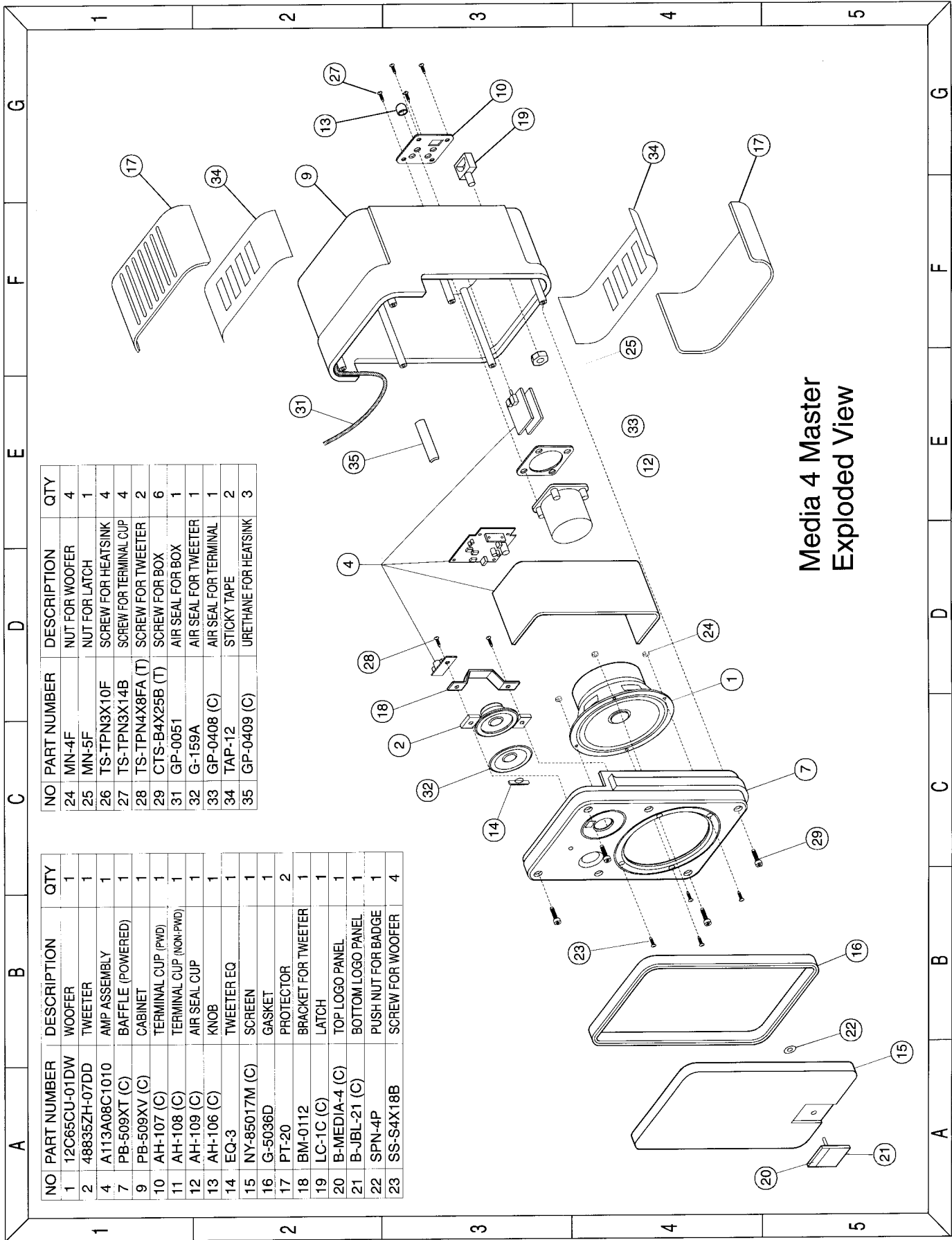
5. No volume

- A. Check to see if both the treble and bass knobs are turned up half-way.

6. Distortion

- A. Check if input jack 1 and input jack 2 are both connected.

MEDIA 4 MASTER EXPLODED VIEW (with amplifier)

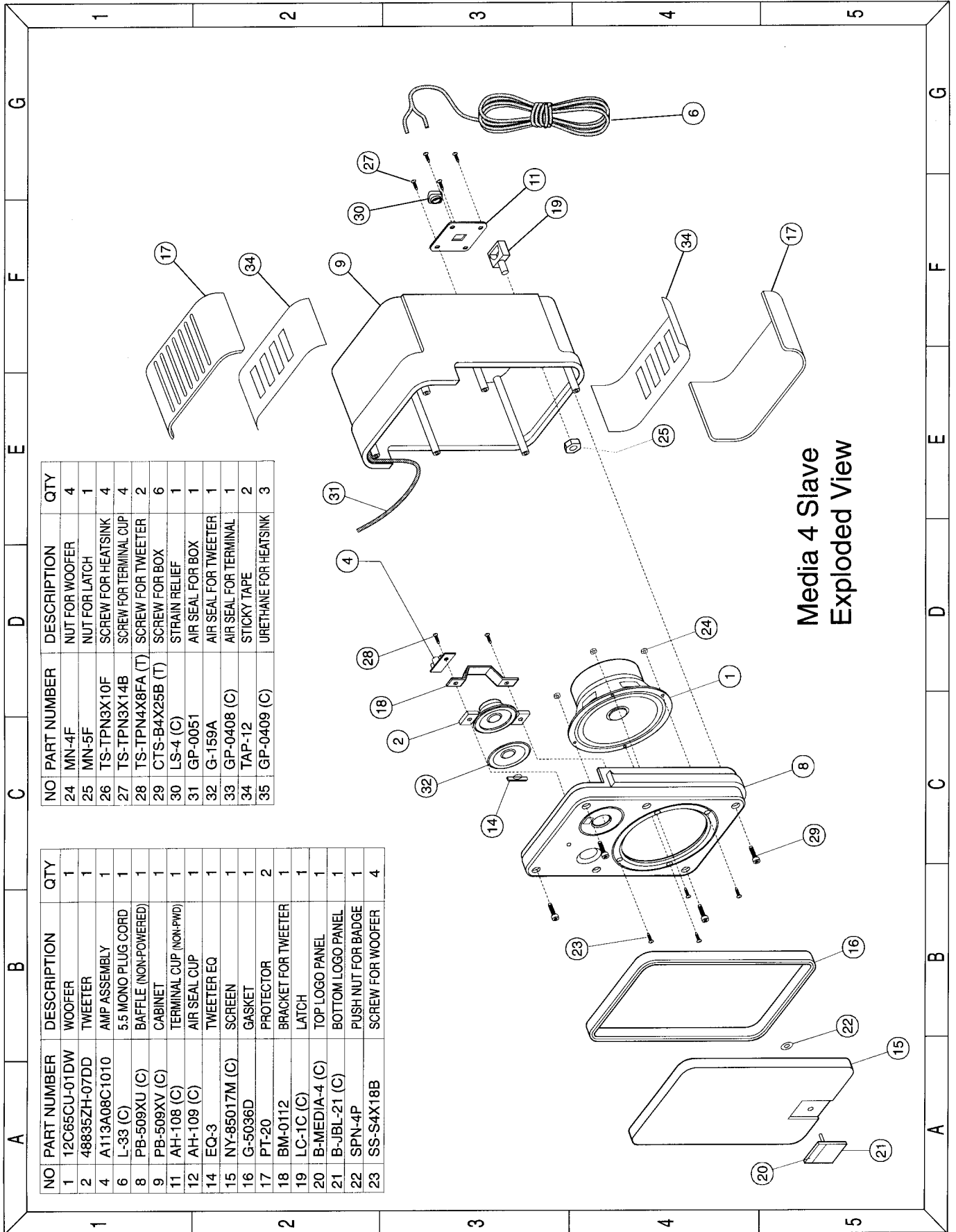


**Media 4 Master
Exploded View**

NO	PART NUMBER	DESCRIPTION	QTY
24	MN-4F	NUT FOR WOOFER	4
25	MN-5F	NUT FOR LATCH	1
26	TS-TPN3X10F	SCREW FOR HEATSINK	4
27	TS-TPN3X14B	SCREW FOR TERMINAL CUP	4
28	TS-TPN4X8FA (T)	SCREW FOR TWEETER	2
29	CTS-B4X25B (T)	SCREW FOR BOX	6
31	GP-0051	AIR SEAL FOR BOX	1
32	GP-0408 (C)	AIR SEAL FOR TWEETER	1
33	GP-0408 (C)	AIR SEAL FOR TERMINAL	1
34	TAP-12	STICKY TAPE	2
35	GP-0409 (C)	URETHANE FOR HEATSINK	3

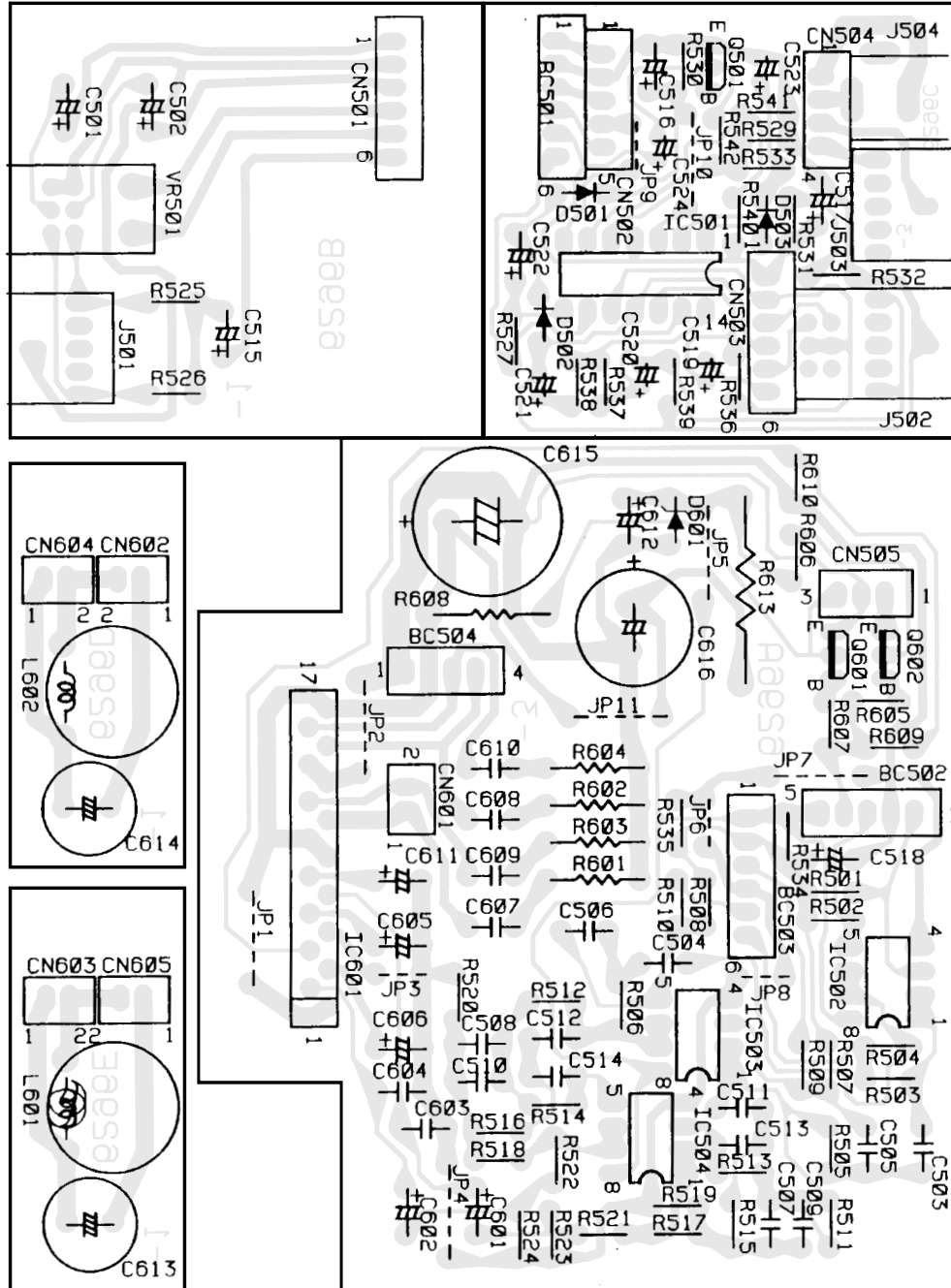
NO	PART NUMBER	DESCRIPTION	QTY
1	12C65CU-01DW	WOOFER	1
2	48835ZH-07DD	TWEETER	1
4	A113A08C1010	AMP ASSEMBLY	1
7	PB-509XT (C)	BAFFLE (POWERED)	1
9	PB-509XV (C)	CABINET	1
10	AH-107 (C)	TERMINAL CUP (PWR)	1
11	AH-108 (C)	TERMINAL CUP (NON-PWR)	1
12	AH-109 (C)	AIR SEAL CUP	1
13	AH-106 (C)	KNOB	1
14	EQ-3	TWEETER EQ	1
15	NY-85017M (C)	SCREEN	1
16	G-5036D	GASKET	1
17	PT-20	PROTECTOR	2
18	BM-0112	BRACKET FOR TWEETER	1
19	LC-1C (C)	LATCH	1
20	B-MEDIA-4 (C)	TOP LOGO PANEL	1
21	B-JBL-21 (C)	BOTTOM LOGO PANEL	1
22	SPN-4P	PUSH NUT FOR BADGE	1
23	SS-S4X18B	SCREW FOR WOOFER	4

MEDIA 4 SLAVE EXPLODED VIEW (without amplifier)



**Media 4 Slave
Exploded View**

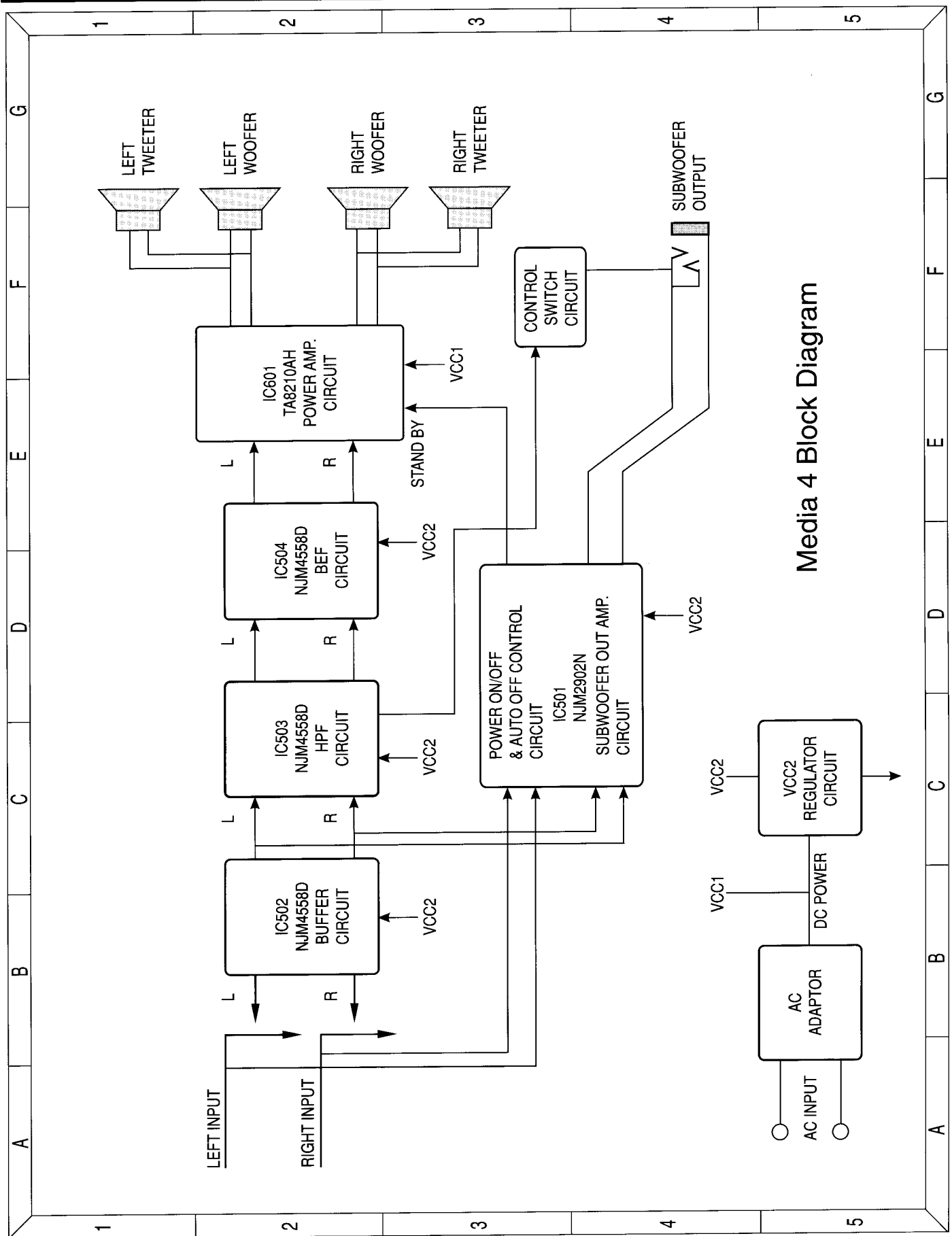
PRINTED CIRCUIT BOARDS (viewing trace layer through the board)



ELECTRICAL PARTS LIST

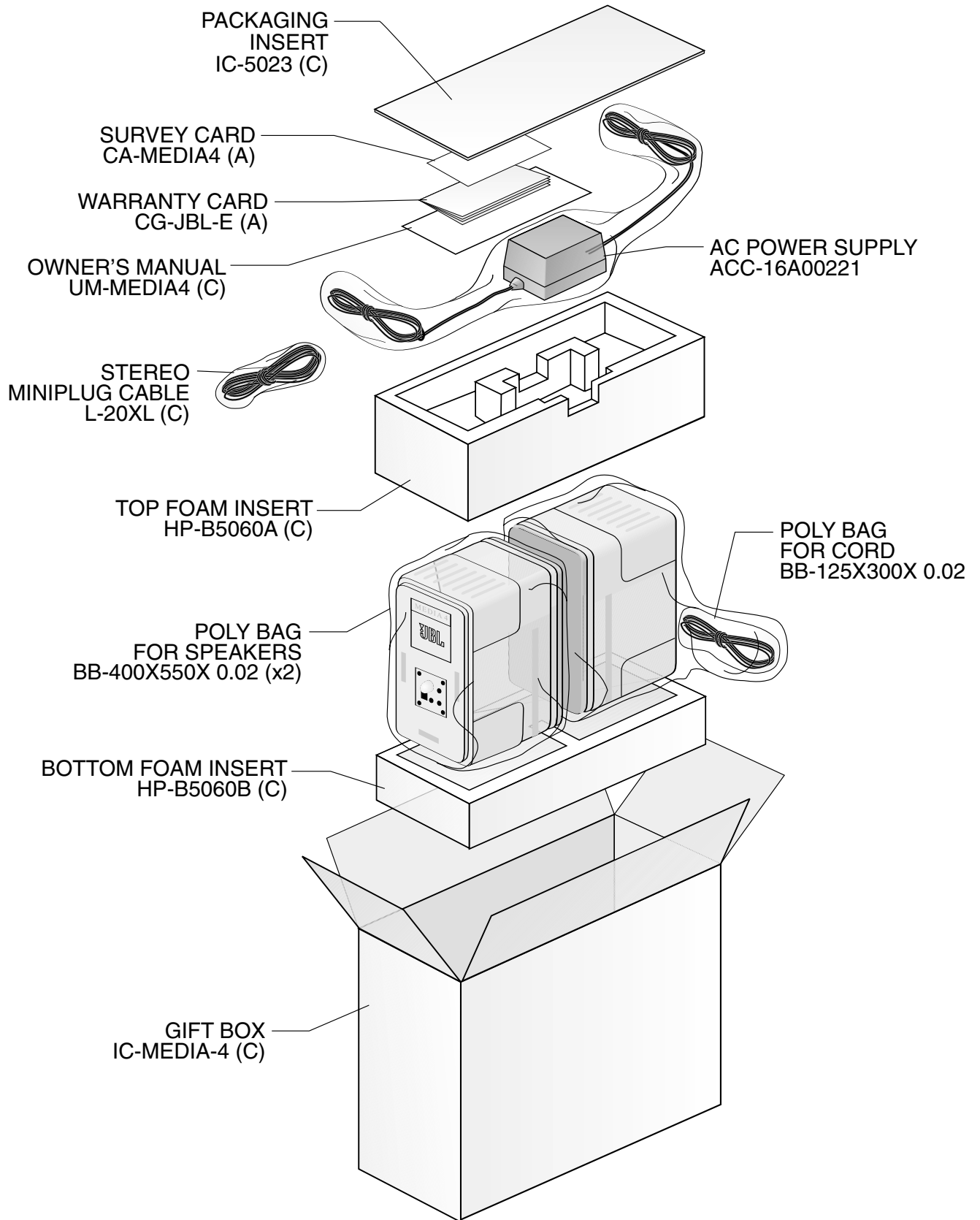
REF. NO.	PART NO.	DESCRIPTION	QTY	REF. NO.	PART NO.	DESCRIPTION	QTY
Resistors							
R501, 502	20330104J151T	CARBON H 1/6W 100k	2	C519	2025A108M803T	ELECTROLYTIC E 50V 1.0 μ f	1.
R503, 504	20330102J151T	CARBON H 1/6W 1k	2	C520	2025A478M403T	ELECTROLYTIC E 16V 4.7 μ f	1
R505, 506	20330103J151T	CARBON H 1/6W 10k	2	C521	2025A330M303T	ELECTROLYTIC E 10V 33 μ f	1
R507, 508	20330124J151T	CARBON H 1/6W 120k	2	C522	2025C100M601T	ELECTROLYTIC S 35V 10 μ f	1
R509, 510	20330273J152T	CARBON H 1/6W 27k	2	C523	20259101M400	ELECTROLYTIC A 16V 100 μ f	1
R511, 512, 513 514	203633742FB1T	MINUT RN 1/6W 37.4k	4	C524	2025A100M403T	ELECTROLYTIC E 16V 10 μ f	1
R515, 516	20330203J151T	CARBON H 1/6W 20k	2	C525	20170100K800	CERAMIC S SL 50V 470pf	1
R517, 518	20330512J151T	CARBON H 1/6W 5.1k	2	C526	20151471K800	CERAMIC S YB 50V 470pf	1
R519, 520	20330333J151T	CARBON H 1/6W 33k	2	C527, 528, 529 530, 532	20154103Z800	CERAMIC S YF 50V 0.01 μ f	5
R521, 522	20330473J151T	CARBON H 1/6W 47k	2	C531	20154103Z801T	CERAMIC S YF 50V 0.01 μ f	1
R523	20330472J151T	CARBON H 1/6W 4.7k	1	C601, 602	2025C478M601T	ELECTROLYTIC S 35V 4.7 μ f	2
R524	20330562J151T	CARBON H 1/6W 5.6k	1	C603, 604	20151331K801T	CERAMIC S Y8 50V 330pf	2
R525, 526	20330433J151T	CARBON H 1/6W 43k	2	C605, 606	2025C470M401T	ELECTROLYTIC S 16V 47 μ f	2
R527, 529	76823475	CARBON V 1/4W 4.7M	2	C607	2005B224J891T	PEST M S 50V 0.22 μ f	1
R530	20330103J151T	CARBON H 1/6W 10k	1	C608, 609	20050224K801T	PEST S 50V 0.22 μ f	2
R531	20330203J151T	CARBON H 1/6W 20k	1	C610	2005B224J891T	PEST M S 50V 0.22 μ f	1
R532	20330562J151T	CARBON H 1/6W 5.6k	1	C611, 612	2025C101M401T	ELECTROLYTIC S 16V 100 μ f	2
R533	203300000151T	CARBON H 1/6W 0 Ω	1	C613, 614	202727880201	ELECTROLYTIC BP 50V 2.7 μ f	2
R534, 535	20330103J151T	CARBON H 1/6W 10k	2	C615	2025C222M500	ELECTROLYTIC S 25V 220 μ f	1
R536	20330104J151T	CARBON H 1/6W 100k	1	C616	2025C102M500	ELECTROLYTIC S 25V 1000 μ f	1
R537	20330682J151T	CARBON H 1/6W 6.8k	1	C617	20151471K801T	CERAMIC S YB 50V 470pf	1
R538	20330562J151T	CARBON H 1/6W 5.6k	1	Diodes			
R539	20330223J151T	CARBON H 1/6W 22k	1	D501, 502, 503	205040005019T	D 1SS136 T-77	3
R540	20330822J151T	CARBON H 1/6W 8.2k	1	D601	205020100B5FT	ZD MTZ 103 T-77	1
R541	20330562J151T	CARBON H 1/6W 5.6k	1	Transistors			
R542	20330101J151T	CARBON H 1/6W 100 Ω	1	Q501	20501001002TT	TR DTC124ESA T	1
R601, 602, 603, 604	20333228J146	CARBON FS 1/4W 2.2 Ω	4	Q601, 602	2050C278500TT	TR 2SC2785 KEF T	2
R605	20330562J151T	CARBON H 1/6W 5.6k	1	Jacks			
R606	20330561J151T	CARBON H 1/6W 560 Ω	1	J501, 503	3303A600	JACK MINI HTJ-035-09DB	2
R607, 609	20330562J151T	CARBON H 1/6W 5.6k	2	J502	3303A700	JACK MINI HTJ-035-08DB	1
R608	20333152J126	CARBON FS 1/2W 1.5k	1	J504	3301A000	JACK DC HTJ-020-05A	1
R610	20330332J151T	CARBON H 1/6W 3.3k	1	Miscellaneous			
R613	20352680J022	METAL RSF 2W 68 Ω	1	BC502	87005058	CONN EH 5P	1
VR501	206002039901	VR RK0971211 20k x 2 Ω	1	BC503	87006058	CONN EH 6P	1
Integrated Circuits				BC504	87004058	CONN EH 4P	1
IC501	20541001210A	IC NJM 2902N OP AMP	1	CN501	92068750	FLAT WIRE UL 2468 6*50	1
IC502, 503, 504	20541000630A	IC NJM4558D OP AMP	3	CN502	62903486	CORD ASSY. SCN-EH 5P*200	1
IC601	205413003002	IC TA8210AH POWER AMP	1	CN503	62903481	CORD ASSY. SCN-EH 6P*250	1
Capacitors				CN504	62903482	CORD ASSY. SCN-EH 4P*250	1
C501, 502	2025C478M601T	ELECTROLYTIC S 35V 4.7 μ f	2	CN505	62902292	CORD ASSY. SCN-EH 3P*230	1
C503, 504, 505, 506	20050683J801T	PEST S 50V 0.068 μ f	4	CN601	62903483	CORD ASSY. SCN-STO 2P210	1
C507, 508, 509, 510	20050222J801T	PEST S 50V 2200pf	1	CN602	62903484	CORD ASSY. SCN-205 2P110	1
C511, 512, 513 514	20050332J801T	PEST S 50V 3300pf	4	CN603, 604, 605	62903485	CORD ASSY. SCN-110 2P110	3
C515	2025C479M801T	ELECTROLYTIC S 50V 0.47 μ f	1	D602	205200902877	LED SML1216W	1
C516	2025A108M801T	ELECTROLYTIC E 50V 1.0 μ f	1	L601, 602	35199067	COIL CHK 0.1 H	1
C517	2025C101M401T	ELECTROLYTIC S 16V 100 μ f	1	SCREW 3x6mm	40000157	SC PN S-F T-B 3x6 ZC	2
C518	2025C470M301T	ELECTROLYTIC S 10V 47 μ f	1	SCREW 3x10mm	40000368	SC PN S-W M3x10 ZC	2
				HEATSINK	15490001	HEATSINK A113A0-1	1

BLOCK DIAGRAM



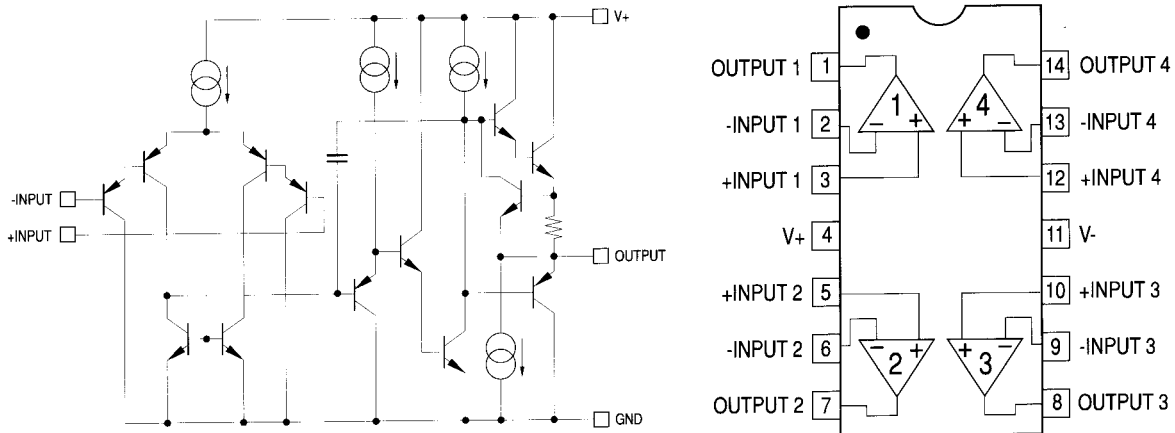
Media 4 Block Diagram

PACKAGING EXPLODED VIEW

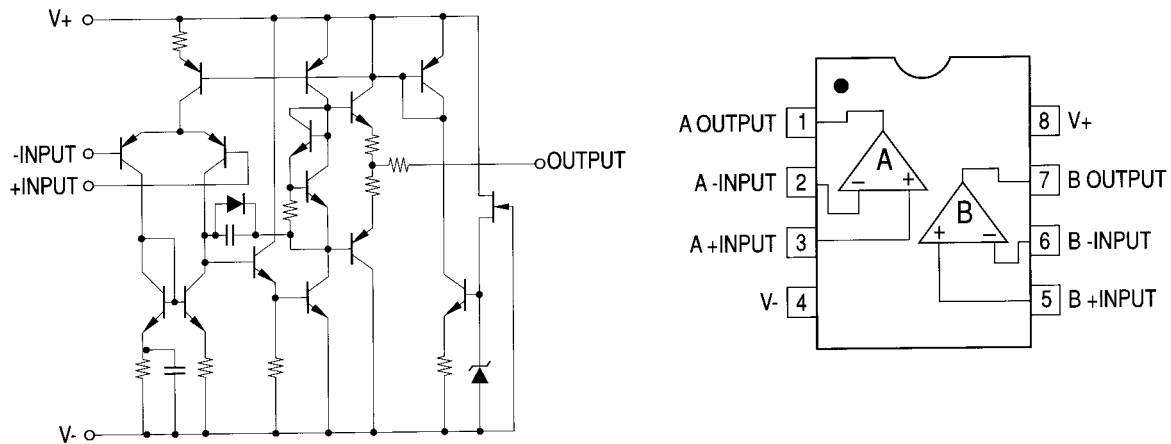


INTEGRATED CIRCUIT DIAGRAMS

IC501 - NJM 2902N OP AMP (1/4 SHOWN)



IC502, 503, 504 - NJM4558D OP AMP (1/2 SHOWN)



IC601 - TA8210H POWER AMP

