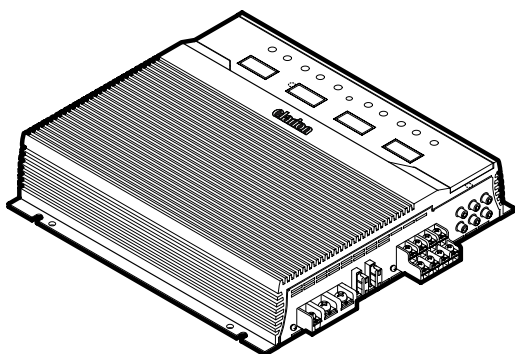


Service Manual



150W × 4Channel Power Amplifier

Model **APA4300HX**
GA-972E-51

SPECIFICATIONS

Maximum power output:

150W × 4ch

Rated Output:

75W × 4(4-channel mode)
(20Hz ~ 20kHz, 0.02%, 4 , with
4-channel simulta-neous output)
75W × 2 + 150W × 1
(3-channel mode)
150W × 2(2-channel mode)

Frequency response: 5 ~ 100,000Hz

Harmonic distortion: 0.0012%(0.0008% Direct Input)
1kHz 10W

S/N Ratio: 112dB (114dB Direct Input)

Applicable speaker impedance:
4

(2 ~ 8)(4-channel mode)

Input sensitivity: RCA INPUT: 200mV ~ 5.000mV
(1200mV Direct Input)

Power Source Voltage: 14.4V

Ground: Negative

Power consumption: 48A(with 75W × 4 rated output)
2A(amplifier ON, no input)

External dimensions: 280(W) × 65(H) × 288(D)mm

Weight: 5kg

For improvement purposes, specifications and design are subject to change without prior notice.

NOTES

We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

COMPONENTS

GA-972E-51

Main unit	- - - - -	1
Parts bag	- - - - -	
Terminal cover	345-7586-00	2
PLUG	076-0491-00	2
Parts bag	- - - - -	
PLATE-NUT	725-0216-00	4
TAP SCREW(5 × 16)	700-5016-89	4

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding,gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur.

If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

6. Cautions in handling flexible PWB

Before working with a soldering iron, make sure that the iron tip temperature is around 270 . Take care not to apply the iron tip repeatedly(more than three times)to the same patterns. Also take care not to apply the tip with force.

7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

ADJUSTMENT

Operate the amplifier for 1 minute or longer with no output.Heatsinks must not be hot.

1. Supply - 15V Voltage adjustment

Adjust the Voltage across GND and TP101 to $-15.00V \pm 0.03V$ with VR802.

2. Supply + 15V Voltage adjustment

Adjust the Voltage across GND and TP102 to $+15.00V \pm 0.03V$ with VR802.

3. Idling adjustment

Adjust the Voltage of TP103 and TP104 to $+2.2mV \pm 0.5mV$ with VR101.

Adjust the Voltage of TP105 and TP106 to $+2.2mV \pm 0.5mV$ with VR101.

Adjust the Voltage of TP107 and TP108 to $+2.2mV \pm 0.5mV$ with VR101.

Adjust the Voltage of TP109 and TP110 to $+2.2mV \pm 0.5mV$ with VR101.

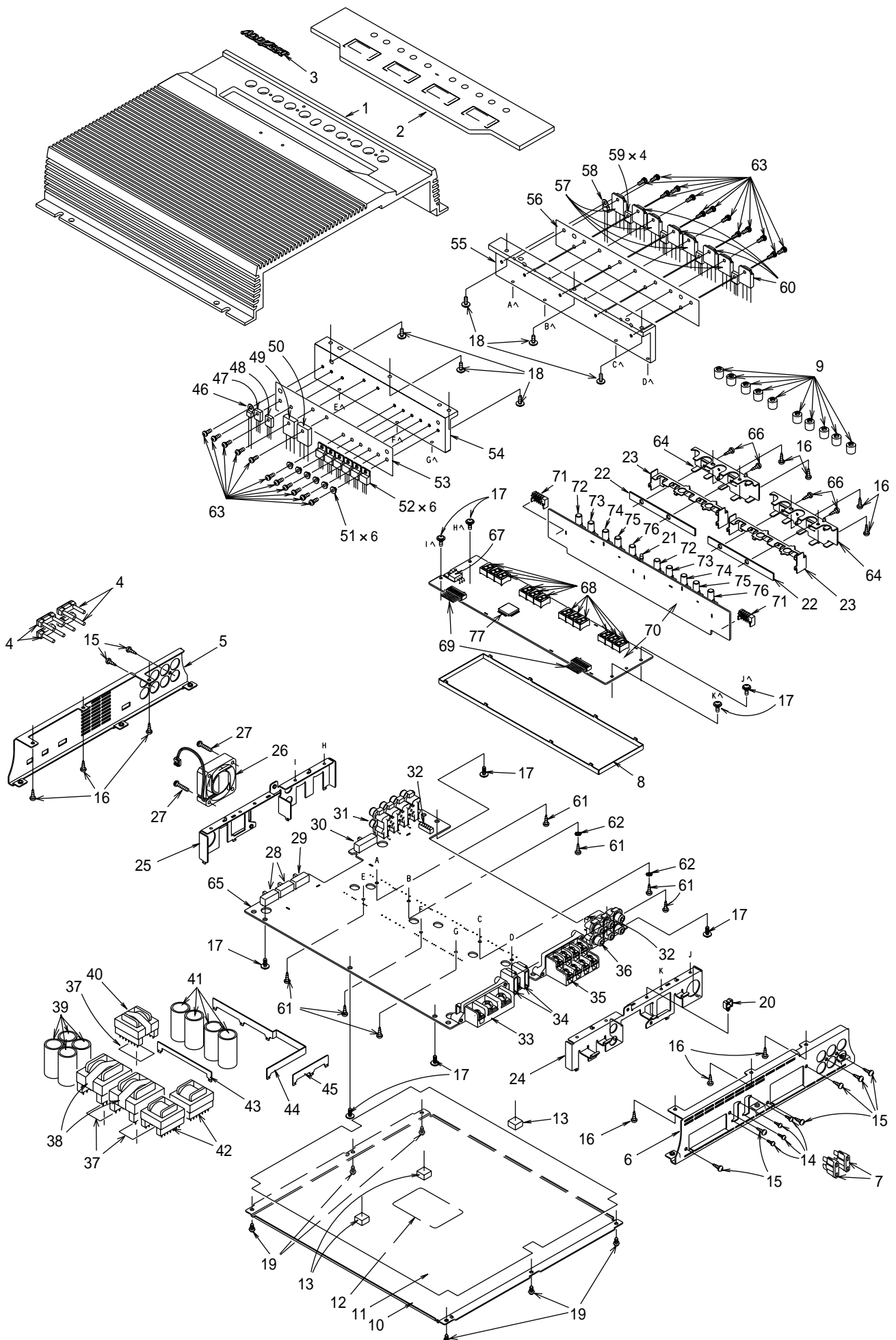
EXPLANATION OF IC

052-7050-00 μ PD780022AGC-535-AB8 Display Controller for The Power Amplifier

1. Terminal Description

pin 1: NU	: - : Not in use.	pin 34: A Vref	: IN: Reference voltage for ADC.
pin 2: COM 6 B	: O: The common out to the 8 segments LED.	pin 35: A VDD	: - : Positive supply voltage for the Analog section.
pin 3: COM 5 B	: O: The common out to the 8 segments LED.	pin 36: RESET	: IN: Reset signal input.
pin 4: COM 4 B	: O: The common out to the 8 segments LED.	pin 37: XT 2	: - : Not in use.
pin 5: COM 3 B	: O: The common out to the 8 segments LED.	pin 38: XT 1	: - : Not in use.
pin 6: COM 2 B	: O: The common out to the 8 segments LED.	pin 39: IC	: IN: Not in use.
pin 7: COM 1 B	: O: The common out to the 8 segments LED.	pin 40: X 2	: - : Crystal connection.
pin 8: COM 6 A	: O: The common out to the 8 segments LED.	pin 41: X 1	: - : Crystal connection.
pin 9: VSS 0	: - : The LED power ground.	pin 42: VSS 1	: - : Digital ground.
pin 10: VDD 0	: - : Positive supply voltage for the LED.	pin 43: IND SW	: IN: The indicator control signal input. All shut off = "L", Standard indication = "L".
pin 11: COM 5 A	: O: The common out to the 8 segments LED.	pin 44: TEST SW	: IN: Connect to the VDD through a resistor.
pin 12: COM 4 A	: O: The common out to the 8 segments LED.	pin 45: TEST UP	: IN: Connect to the VDD through a resistor.
pin 13: COM 3 A	: O: The common out to the 8 segments LED.	pin 46: TEST DOWN	: IN: Connect to the VDD through a resistor.
pin 14: COM 2 A	: O: The common out to the 8 segments LED.	pin 47: 2 CH	: IN: 2 channels = "L".
pin 15: COM 1 A	: O: The common out to the 8 segments LED.	pin 48: 3 CH	: IN: 3 channels = "L".
pin 16: SEG A A	: O: The segment out to the 8 segments LED.	pin 49: MUTE_	: IN: Mute signal input terminal.
pin 17: SEG A F	: O: The segment out to the 8 segments LED.	pin 50: ZL 1	: IN: The speaker loading impedance selection signal input. 4 = "L".
pin 18: SEG A B	: O: The segment out to the 8 segments LED.	pin 51: ZL 2	: IN: The speaker loading impedance selection signal input. 2 = "L".
pin 19: SEG A G	: O: The segment out to the 8 segments LED.	pin 52: ZL 3	: IN: The speaker loading impedance selection signal input. 1 = "L".
pin 20: SEG A C	: O: The segment out to the 8 segments LED.	pin 53: +B REM	: O: The power supply ON signal output for the LED.
pin 21: SEG A E	: O: The segment out to the 8 segments LED.	pin 54: MUTE OUT	: O: The muting signal output.
pin 22: SEG A DP	: O: The segment out to the 8 segments LED.	pin 55: NU	: - : Not in use.
pin 23: SEG A D	: O: The segment out to the 8 segments LED.	pin 56: NU	: - : Not in use.
pin 24: VDD 1	: - : Positive supply voltage.	pin 57: SEG B D	: O: The segment out to the 8 segments LED.
pin 25: A VSS	: - : Analog ground.	pin 58: SEG B DP	: O: The segment out to the 8 segments LED.
pin 26: NU	: - : Not in use.	pin 59: SEG B E	: O: The segment out to the 8 segments LED.
pin 27: TEMP SEL	: IN: Centigrade = "L", Fahrenheit = "H".	pin 60: SEG B C	: O: The segment out to the 8 segments LED.
pin 28: AD 1	: IN: The power supply voltage flag input.	pin 61: SEG B G	: O: The segment out to the 8 segments LED.
pin 29: AD 2	: IN: The current dissipation flag input.	pin 62: SEG B B	: O: The segment out to the 8 segments LED.
pin 30: AD 3	: IN: The lower limit temperature flag input.	pin 63: SEG B F	: O: The segment out to the 8 segments LED.
pin 31: AD 4	: IN: The upper limit temperature flag input.	pin 64: SEG B A	: O: The segment out to the 8 segments LED.
pin 32: AD 5	: IN: The outputting power signal input of channel 1 & 2.		
pin 33: AD 6	: IN: The outputting power signal input of channel 3 & 4.		

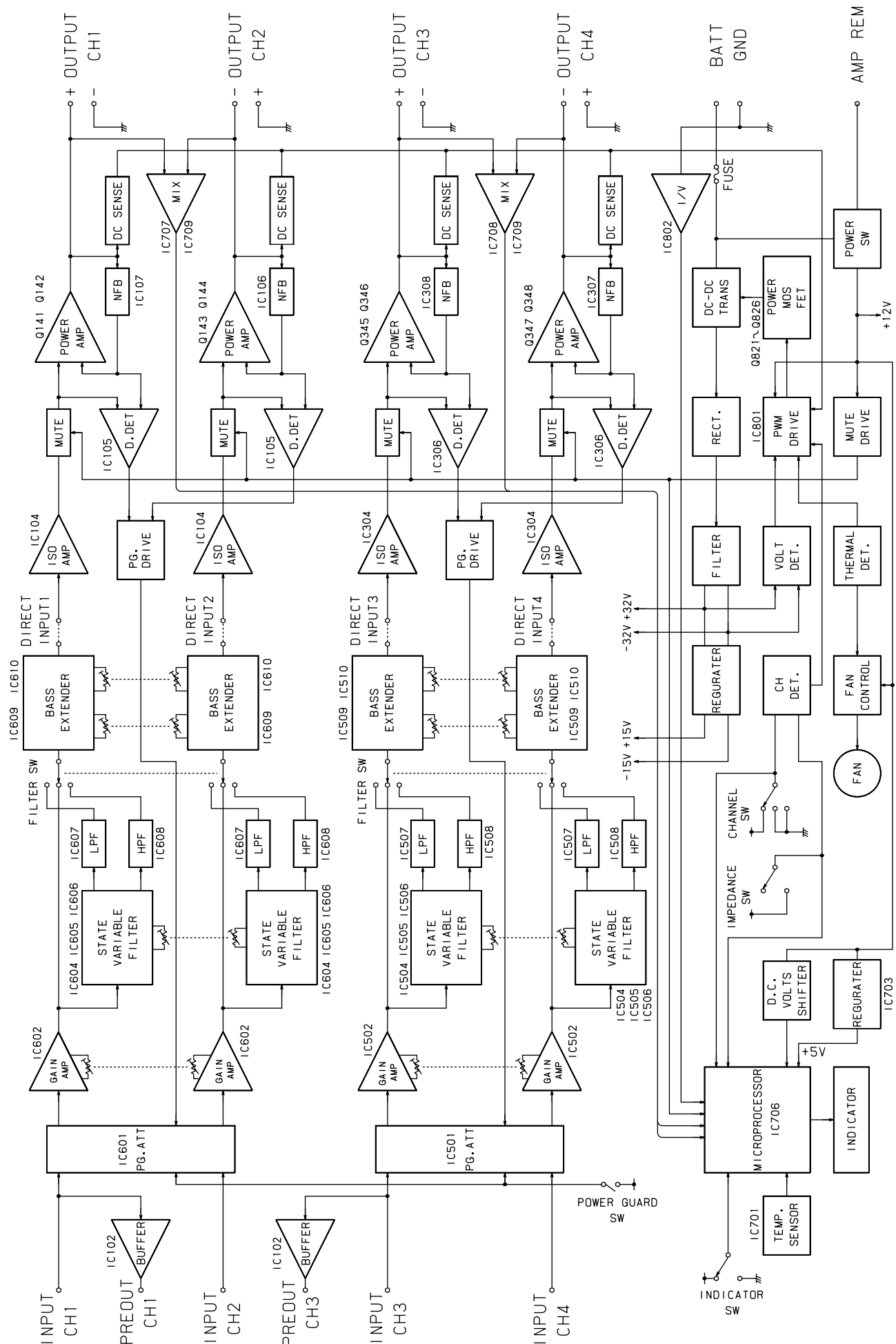
EXPLODED VIEW • PARTS LIST



NO.	PART NO.	DESCRIPTION	Q'TY
1	313-1779-00	HEAT SINK	1
2	371-3918-00	TRIM PLATE	1
3	378-0527-00	BADGE(clarion)	1
4	076-0491-00	SWITCH	4
5	331-2848-00	FRONT PANEL	1
6	331-2847-00	REAR PANEL	1
7	060-0057-60	AUTO-FUSE(30A)	2
8	331-2846-00	SHIELD CASE	1
9	380-5471-00	KNOB	10
10	304-0465-00	LOWER CVR	1
11	347-6249-00	INSULATOR	1
12	286-9296-00	SETPLATE	1
13	345-8459-00	CUSHION	3
14	702-2006-19	TAP SCREW	4
15	702-3008-89	TAP SCREW	8
16	714-3005-80	MACHINE SCREW(M3 x 5)	10
17	716-0821-02	IT SCREW (M3 x 6)	9
18	716-0821-04	IT SCREW (M3 x 9)	6
19	731-3005-89	TAPTIGHT (M3 x 5)	6
20	335-3701-00	MINI-SADDLE	1
21	001-7008-00	DIODE (GL3ED8)	1
22	345-8458-00	CUSHION	2
23	331-2908-00	INNER PLATE	2
24	331-2845-00	SIDE PLATE	1
25	331-2845-01	SIDE PLATE	1
26	020-3041-00	DC MOTOR	1
27	780-3016-00	SPECIAL SCREW	2
28	013-5100-04	SWITCH	2
29	013-5109-00	SWITCH	1
30	013-5110-00	SWITCH	1
31	075-9000-01	RCA JACK (8P)	1
32	074-1106-10	OUTLET SOCKET (10P)	2
33	073-0738-00	TERMINAL (3P)	1
34	077-0091-00	FUSE RECEPT	2
35	073-0772-00	TERMINAL (8P)	1
36	075-9001-01	RCA JACK (6P)	1
37	347-5468-00	INSULATOR	3
38	007-1158-00	OUTPUT-TRANS	2
39	042-9036-00	ALUMI-ELE-C(50V1800 μ F)	4
40	009-0672-00	CHOCK	1

NO.	PART NO.	DESCRIPTION	Q'TY
41	042-9013-00	ALUMI-ELE-C (16V6800 μ F)	4
42	009-0662-0A	CHOCK	2
43	331-2383-00	BUS BAR	1
44	331-2850-00	BUS BAR	1
45	331-2849-00	BUS BAR	1
46	002-0223-00	THERMISTOR	1
47	101-1143-00	TRANSISTOR (2SB1143)	1
48	103-1683-00	TANSISTOR(2SD1683)	1
49	001-0653-0A	DIODE (FMG32S)	1
50	001-0653-0B	DIODE (FMG32R)	1
51	078-0045-00	INSULATOR SEETE	6
52	125-8004-30	TRANSISTOR(NDP6060)	6
53	345-8414-00	INSULATOR	1
54	313-1778-00	HEAT SINK(S)	1
55	313-1777-00	HEAT SINK(L)	1
56	345-8415-00	INSULATOR	1
57	102-3856-00	TRANSISTOR (2SC3856-P,Y)	4
58	002-0223-03	POSOSTOR	1
59	102-1846-00	TRANSISTOR (2SC1846)	4
60	100-1492-00	TRANSISTOR (2SA1492-P,Y)	4
61	735-3008-18	D-SEMS-SCREW(M3 x 8)	7
62	742-3000-20	TOOTHED WASHER	2
63	732-3010-11	SEMS-SCREW(M3 x 10)	24
64	331-2851-00	VOLUME PLATE	2
65	039-1721-00	MAIN-PWB (WITHOUT COMPONENT)	1
66	731-2606-80	TAPTIGHT(M2.6 x 6)	4
67	051-0717-10	IC (NJM7805FA)	1
68	379-5000-11	INDICATOR	12
69	076-0567-09	PLUG (9P)	2
70	039-1722-00	SUB-PWB (WITHOUT COMPONENT)	1
71	076-0515-10	PLUG (10P)	2
72	016-9900-75	VR(10k)(BASS GAIN)	2
73	016-9900-76	VR(100k)(BASS FREQ)	2
74	013-8105-00	SLIDE SWITCH	2
75	016-9900-74	VR(30k)(LPF/HPF FREQ)	2
76	016-9900-73	VR(20k)(GAIN VOL)	2
77	052-7050-00	MICOM (μ PD780022AGC-535-AB8)	1

BLOCK DIAGRAM



ELECTRICAL PARTS LIST

Main PWB section(B1)

Note) Several different parts of the same reference number are alternative parts.
One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C101	182-1063-33	16V10 μ F	C323	184-3373-62	50V330 μ F	C839	178-2242-78	0.22 μ F
C102	182-1063-33	16V10 μ F	C324	172-2241-11	0.22 μ F	C840	178-1042-78	0.1 μ F
C103	182-1063-33	16V10 μ F	C325	172-2241-11	0.22 μ F	C841	178-2242-78	0.22 μ F
C104	182-1063-33	16V10 μ F	C326	184-3373-62	50V330 μ F	C842	178-1032-78	0.01 μ F
C105	182-1063-33	16V10 μ F	C327	042-9037-00	63V27 μ F	C843	178-1042-78	0.1 μ F
C106	182-1063-33	16V10 μ F	C328	042-9037-00	63V27 μ F	C844	178-1042-78	0.1 μ F
C107	176-4701-00	47pF CH	C329	182-2263-12	6.3V22 μ F	D101	001-0516-00	MA111
C108	042-0547-02	16V47 μ F	C330	182-2263-12	6.3V22 μ F	D102	001-0516-00	MA111
C109	042-0547-02	16V47 μ F	C331	182-2263-12	6.3V22 μ F	D103	001-0516-00	MA111
C110	172-1041-11	0.1 μ F	C332	182-2263-12	6.3V22 μ F	D104	001-0516-00	MA111
C111	176-4701-00	47pF CH	C333	174-1010-13	100pF CH	D105	001-0516-00	MA111
C112	176-6801-00	68pF CH	C334	172-1031-11	0.01 μ F	D106	001-0516-00	MA111
C113	176-6801-00	68pF CH	C335	172-1031-11	0.01 μ F	D107	001-0516-00	MA111
C116	182-4763-33	16V47 μ F	C336	174-1010-13	100pF CH	D108	001-0516-00	MA111
C117	042-0547-02	16V47 μ F	C337	174-1010-13	100pF CH	D109	001-0516-00	MA111
C118	042-0547-02	16V47 μ F	C338	172-1031-11	0.01 μ F	D110	001-0516-00	MA111
C123	184-3373-62	50V330 μ F	C339	172-1031-11	0.01 μ F	D111	001-0516-00	MA111
C124	172-2241-11	0.22 μ F	C340	174-1010-13	100pF CH	D112	001-0516-00	MA111
C125	172-2241-11	0.22 μ F	C345	172-4731-11	0.047 μ F	D113	001-0516-00	MA111
C126	184-3373-62	50V330 μ F	C346	172-4731-11	0.047 μ F	D114	001-0516-00	MA111
C127	184-3373-62	50V330 μ F	C347	172-2751-11	2.7 μ F	D115	001-0516-00	MA111
C128	172-2241-11	0.22 μ F	C348	172-2751-11	2.7 μ F	D116	001-0516-00	MA111
C129	172-2241-11	0.22 μ F	C349	176-1007-00	10pF CH	D117	001-0516-00	MA111
C130	184-3373-62	50V330 μ F	C350	176-1007-00	10pF CH	D118	001-0503-04	HZS3BLL
C131	042-9037-00	63V27 μ F	C351	176-1007-00	10pF CH	D119	001-0503-04	HZS3BLL
C132	042-9037-00	63V27 μ F	C352	176-1007-00	10pF CH	D120	001-0516-00	MA111
C133	182-2263-12	6.3V22 μ F	C353	042-0547-02	16V47 μ F	D121	001-0516-00	MA111
C134	182-2263-12	6.3V22 μ F	C354	042-0547-02	16V47 μ F	D122	001-0503-04	HZS3BLL
C135	182-2263-12	6.3V22 μ F	C355	178-1042-78	0.1 μ F	D123	001-0503-04	HZS3BLL
C136	182-2263-12	6.3V22 μ F	C356	178-1042-78	0.1 μ F	D124	001-0516-00	MA111
C137	174-1010-13	100pF CH	C357	176-2211-00	220pF CH	D125	001-0330-00	1SS119
C138	172-1031-11	0.01 μ F	C358	176-2211-00	220pF CH	D126	001-0330-00	1SS119
C139	172-1031-11	0.01 μ F	C801	178-1042-78	0.1 μ F	D127	001-0330-00	1SS119
C140	174-1010-13	100pF CH	C802	172-2241-11	0.22 μ F	D128	001-0330-00	1SS119
C141	174-1010-13	100pF CH	C803	178-1032-78	0.01 μ F	D129	001-0516-00	MA111
C142	172-1031-11	0.01 μ F	C804	182-2263-33	16V22 μ F	D130	001-0516-00	MA111
C143	172-1031-11	0.01 μ F	C805	172-1041-11	0.1 μ F	D131	001-0516-00	MA111
C144	174-1010-13	100pF CH	C806	042-9013-00	16V6800 μ F	D132	001-0516-00	MA111
C149	172-4731-11	0.047 μ F	C807	184-4773-12	6.3V470 μ F	D133	001-7011-02	CL-150YG-CD
C150	172-4731-11	0.047 μ F	C808	042-9013-00	16V6800 μ F	D134	001-7011-02	CL-150YG-CD
C151	182-4763-33	16V47 μ F	C809	182-1053-63	50V1 μ F	D135	001-7011-02	CL-150YG-CD
C152	182-4763-33	16V47 μ F	C810	178-1042-78	0.1 μ F	D136	001-7011-02	CL-150YG-CD
C153	182-4763-33	16V47 μ F	C811	182-2263-33	16V22 μ F	D309	001-0516-00	MA111
C154	182-4763-33	16V47 μ F	C812	178-1032-78	0.01 μ F	D310	001-0516-00	MA111
C155	182-4763-33	16V47 μ F	C813	182-1053-63	50V1 μ F	D311	001-0516-00	MA111
C156	182-4763-33	16V47 μ F	C814	173-1021-11	1000pF J	D312	001-0516-00	MA111
C157	172-2751-11	2.7 μ F	C815	182-2263-33	16V22 μ F	D313	001-0516-00	MA111
C158	172-2751-11	2.7 μ F	C816	178-1042-78	0.1 μ F	D314	001-0516-00	MA111
C159	176-1007-00	10pF CH	C817	182-4763-13	6.3V47 μ F	D315	001-0516-00	MA111
C160	176-1007-00	10pF CH	C818	178-1042-78	0.1 μ F	D316	001-0516-00	MA111
C161	176-1007-00	10pF CH	C819	182-1053-63	50V1 μ F	D317	001-0516-00	MA111
C162	176-1007-00	10pF CH	C820	172-1031-11	0.01 μ F	D318	001-0516-00	MA111
C163	042-0547-02	16V47 μ F	C821	042-9013-00	16V6800 μ F	D319	001-0516-00	MA111
C164	042-0547-02	16V47 μ F	C822	042-9013-00	16V6800 μ F	D320	001-0516-00	MA111
C165	178-1042-78	0.1 μ F	C823	042-0504-04	16V15 μ F	D321	001-0516-00	MA111
C166	178-1042-78	0.1 μ F	C824	184-2273-32	16V220 μ F	D322	001-0516-00	MA111
C167	176-2211-00	220pF CH	C825	173-1521-11	1500pF J	D323	001-0516-00	MA111
C168	176-2211-00	220pF CH	C826	178-1042-78	0.1 μ F	D324	001-0516-00	MA111
C301	042-0547-02	16V47 μ F	C827	042-9036-00	50V1800 μ F	D325	001-0516-00	MA111
C302	042-0547-02	16V47 μ F	C828	042-9036-00	50V1800 μ F	D326	001-0503-04	HZS3BLL
C303	172-1041-11	0.1 μ F	C829	042-9036-00	50V1800 μ F	D327	001-0503-04	HZS3BLL
C306	176-6801-00	68pF CH	C830	042-9036-00	50V1800 μ F	D328	001-0516-00	MA111
C307	176-6801-00	68pF CH	C831	042-9035-00	50V120 μ F	D329	001-0516-00	MA111
C312	182-4763-33	16V47 μ F	C832	042-9035-00	50V120 μ F	D330	001-0503-04	HZS3BLL
C313	042-0547-02	16V47 μ F	C833	182-1063-33	16V10 μ F	D331	001-0503-04	HZS3BLL
C314	042-0547-02	16V47 μ F	C834	182-1063-33	16V10 μ F	D332	001-0516-00	MA111
C319	184-3373-62	50V330 μ F	C835	184-3373-32	16V330 μ F	D333	001-0330-00	1SS119
C320	172-2241-11	0.22 μ F	C836	184-3373-32	16V330 μ F	D334	001-0330-00	1SS119
C321	172-2241-11	0.22 μ F	C837	172-2241-11	0.22 μ F	D335	001-0330-00	1SS119
C322	184-3373-62	50V330 μ F	C838	172-2241-11	0.22 μ F	D336	001-0330-00	1SS119

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D337	001-0516-00	MA111	Q128	102-1846-00	2SC1846	Q815	102-2712-00	2SC2712
D338	001-0516-00	MA111	Q129	102-2458-00	2SC2458	Q816	100-1162-00	2SA1162
D339	001-0516-00	MA111	Q130	100-1048-00	2SA1048	Q817	102-2712-00	2SC2712
D340	001-0516-00	MA111	Q131	102-2458-00	2SC2458	Q818	102-2712-00	2SC2712
D341	001-7011-02	CL-150YG-CD	Q132	100-1048-00	2SA1048	Q819	100-1162-00	2SA1162
D342	001-7011-02	CL-150YG-CD	Q133	102-2705-00	2SC2705-O,Y	Q820	100-1162-00	2SA1162
D343	001-7011-02	CL-150YG-CD	Q134	100-1145-00	2SA1145-O,Y	Q821	125-8004-30	NDP6060
D344	001-7011-02	CL-150YG-CD	Q135	102-2705-00	2SC2705-O,Y	Q822	125-8004-30	NDP6060
D801	001-2016-00	3JZ41	Q136	100-1145-00	2SA1145-O,Y	Q823	125-8004-30	NDP6060
D802	001-0330-00	1SS119	Q137	102-4883-00	2SC4883	Q824	125-8004-30	NDP6060
D803	001-0330-00	1SS119	Q138	100-1859-00	2SA1859	Q825	125-8004-30	NDP6060
D804	001-0330-00	1SS119	Q139	102-4883-00	2SC4883	Q826	125-8004-30	NDP6060
D805	001-0653-0A	FMG32S	Q140	100-1859-00	2SA1859	Q827	100-1162-00	2SA1162
D806	001-0653-0B	FMG32R	Q141	102-3856-00	2SC3856-P,Y	Q828	102-2712-00	2SC2712
D807	001-0503-33	HZS6B2L	Q142	100-1492-00	2SA1492-P,Y	Q829	100-1162-00	2SA1162
D808	001-0503-33	HZS6B2L	Q143	102-3856-00	2SC3856-P,Y	Q830	103-1683-00	2SD1683
D809	001-0516-00	MA111	Q144	100-1492-00	2SA1492-P,Y	Q831	101-1143-00	2SB1143
D810	001-0516-00	MA111	Q305	103-1306-00	2SD1306	Q832	100-1298-00	2SA1298
FR801	077-0091-00	FUSE-RECEPT	Q306	103-1306-00	2SD1306	Q833	108-0372-00	2SK372GR,BL,U
FR802	077-0091-00	FUSE-RECEPT	Q307	102-2712-00	2SC2712	Q834	108-0372-00	2SK372GR,BL,U
IC102	051-1904-00	uPC4570G2	Q308	102-2712-00	2SC2712	R108	117-2231-10	1/10W 22k
IC103	051-1904-00	uPC4570G2	Q309	102-2712-00	2SC2712	R109	117-2231-10	1/10W 22k
IC104	051-1904-00	uPC4570G2	Q310	102-2712-00	2SC2712	R110	117-2231-10	1/10W 22k
IC105	051-1407-00	NJM4556AL	Q311	190-0872-35	2SA872A-E-TZ	R114	117-2231-10	1/10W 22k
IC106	051-1904-00	uPC4570G2	Q312	190-0872-35	2SA872A-E-TZ	R115	117-2231-10	1/10W 22k
IC107	051-1904-00	uPC4570G2	Q313	192-1775-35	2SC1775A-E-TZ	R116	117-2231-10	1/10W 22k
IC302	051-1904-00	uPC4570G2	Q314	192-1775-35	2SC1775A-E-TZ	R117	111-1021-91	1/4WS 1k
IC304	051-1904-00	uPC4570G2	Q315	190-0872-35	2SA872A-E-TZ	R118	032-0144-50	1/10W 1k
IC306	051-1407-00	NJM4556AL	Q316	190-0872-35	2SA872A-E-TZ	R119	032-0144-50	1/10W 1k
IC307	051-1904-00	uPC4570G2	Q317	192-1775-35	2SC1775A-E-TZ	R120	032-0144-62	1/10W 47k
IC308	051-1904-00	uPC4570G2	Q318	192-1775-35	2SC1775A-E-TZ	R121	032-0144-62	1/10W 47k
IC801	051-5817-00	TL594CN	Q319	192-1775-35	2SC1775A-E-TZ	R122	032-0144-50	1/10W 1k
IC802	051-0350-55	NJM4558M	Q320	190-0872-35	2SA872A-E-TZ	R123	032-0144-50	1/10W 1k
J101	075-9001-01	JACK	Q321	192-1775-35	2SC1775A-E-TZ	R124	032-0139-50	1/10W 4.7k
J102	075-9000-01	JACK	Q322	190-0872-35	2SA872A-E-TZ	R125	032-0139-50	1/10W 4.7k
J103	073-0772-00	TERMINAL	Q323	190-0872-35	2SA872A-E-TZ	R126	032-0131-10	1/10W 10k ± 0.1%
J104	074-1106-10	10P	Q324	100-1360-00	2SA1360-O,Y	R127	032-0139-50	1/10W 4.7k
J105	074-1106-10	10P	Q325	102-3423-00	2SC3423-OY	R128	032-0131-10	1/10W 10k ± 0.1%
J801	073-0738-00	TERMINAL	Q326	192-1775-35	2SC1775A-E-TZ	R129	032-0139-50	1/10W 4.7k
L101	010-2313-0A	COIL	Q327	190-0872-35	2SA872A-E-TZ	R130	032-0131-10	1/10W 10k ± 0.1%
L102	010-2313-0A	COIL	Q328	100-1360-00	2SA1360-O,Y	R131	032-0131-10	1/10W 10k ± 0.1%
L301	010-2313-0A	COIL	Q329	102-3423-00	2SC3423-OY	R133	117-1031-10	1/10W 10k
L302	010-2313-0A	COIL	Q330	192-1775-35	2SC1775A-E-TZ	R134	032-0144-61	1/10W 2.2k
L801	009-0662-0A	CHOKE COIL	Q331	102-1846-00	2SC1846	R135	032-0144-61	1/10W 2.2k
L802	009-0662-0A	CHOKE COIL	Q332	102-1846-00	2SC1846	R136	117-1031-10	1/10W 10k
L803	009-0672-00	200 μH	Q333	102-2458-00	2SC2458	R137	117-1031-10	1/10W 10k
P801	076-0386-02	2P	Q334	100-1048-00	2SA1048	R138	032-0144-50	1/10W 1k
Q101	103-1306-00	2SD1306	Q335	102-2458-00	2SC2458	R139	117-2211-10	1/10W 220
Q102	103-1306-00	2SD1306	Q336	100-1048-00	2SA1048	R140	117-2211-10	1/10W 220
Q103	102-2712-00	2SC2712	Q337	102-2705-00	2SC2705-O,Y	R141	117-2211-10	1/10W 220
Q104	102-2712-00	2SC2712	Q338	100-1145-00	2SA1145-O,Y	R142	117-4741-10	1/10W 470k
Q105	102-2712-00	2SC2712	Q339	102-2705-00	2SC2705-O,Y	R143	117-4741-10	1/10W 470k
Q106	102-2712-00	2SC2712	Q340	100-1145-00	2SA1145-O,Y	R144	117-3931-10	1/10W 39k
Q107	190-0872-35	2SA872A-E-TZ	Q341	102-4883-00	2SC4883	R145	117-3931-10	1/10W 39k
Q108	190-0872-35	2SA872A-E-TZ	Q342	100-1859-00	2SA1859	R146	117-3931-10	1/10W 39k
Q109	192-1775-35	2SC1775A-E-TZ	Q343	102-4883-00	2SC4883	R147	117-3931-10	1/10W 39k
Q110	192-1775-35	2SC1775A-E-TZ	Q344	100-1859-00	2SA1859	R148	117-5641-10	1/10W 560k
Q111	190-0872-35	2SA872A-E-TZ	Q345	102-3856-00	2SC3856-P,Y	R149	117-5641-10	1/10W 560k
Q112	190-0872-35	2SA872A-E-TZ	Q346	100-1492-00	2SA1492-P,Y	R152	032-0144-58	1/10W 150
Q113	192-1775-35	2SC1775A-E-TZ	Q347	102-3856-00	2SC3856-P,Y	R153	032-0144-58	1/10W 150
Q114	192-1775-35	2SC1775A-E-TZ	Q348	100-1492-00	2SA1492-P,Y	R154	111-6831-91	1/4WS 68k
Q115	192-1775-35	2SC1775A-E-TZ	Q801	102-2712-00	2SC2712	R155	111-6831-91	1/4WS 68k
Q116	190-0872-35	2SA872A-E-TZ	Q802	100-1162-00	2SA1162	R156	032-0144-59	1/10W 270
Q117	192-1775-35	2SC1775A-E-TZ	Q803	100-1162-00	2SA1162	R157	032-0144-59	1/10W 270
Q118	190-0872-35	2SA872A-E-TZ	Q804	100-1298-00	2SA1298	R158	032-0144-59	1/10W 270
Q119	190-0872-35	2SA872A-E-TZ	Q805	102-2712-00	2SC2712	R159	032-0144-59	1/10W 270
Q120	100-1360-00	2SA1360-O,Y	Q806	102-2712-00	2SC2712	R160	032-0156-50	1/4W 220 ± 1%
Q121	102-3423-00	2SC3423-OY	Q807	102-2712-00	2SC2712	R161	032-0156-50	1/4W 220 ± 1%
Q122	192-1775-35	2SC1775A-E-TZ	Q808	100-1162-00	2SA1162	R162	032-0144-60	1/10W 560
Q123	190-0872-35	2SA872A-E-TZ	Q809	102-2712-00	2SC2712	R163	032-0144-60	1/10W 560
Q124	100-1360-00	2SA1360-O,Y	Q810	100-1162-00	2SA1162	R164	032-0144-60	1/10W 560
Q125	102-3423-00	2SC3423-OY	Q812	100-1431-00	2SA1431	R165	032-0144-60	1/10W 560
Q126	192-1775-35	2SC1775A-E-TZ	Q813	102-2712-00	2SC2712	R166	111-1811-91	1/4WS 180
Q127	102-1846-00	2SC1846	Q814	100-1162-00	2SA1162	R167	111-6831-91	1/4WS 68k

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R168	111-1811-91	1/4WS 180	R242	032-0144-54	1/10W 47	R389	117-1231-10	1/10W 12k
R169	111-1811-91	1/4WS 180	R243	032-0144-54	1/10W 47	R390	117-1231-10	1/10W 12k
R170	111-6831-91	1/4WS 68k	R244	032-0156-51	1/4W 560 ± 1%	R391	111-1021-91	1/4WS 1k
R171	111-1811-91	1/4WS 180	R245	111-1011-91	1/4WS 100	R392	111-1021-91	1/4WS 1k
R172	032-0092-73	1/10W 3.9k ± 1%	R246	111-1011-91	1/4WS 100	R393	032-0144-60	1/10W 560
R173	032-0092-32	1/10W 820	R247	032-0144-54	1/10W 47	R394	032-0144-60	1/10W 560
R174	032-0092-73	1/10W 3.9k ± 1%	R248	032-0144-54	1/10W 47	R395	032-0144-60	1/10W 560
R175	032-0092-32	1/10W 820	R249	032-0156-51	1/4W 560 ± 1%	R396	032-0144-60	1/10W 560
R176	111-2201-91	1/4WS 22	R305	032-0144-50	1/10W 1k	R397	111-3311-91	1/4WS 330
R177	111-2201-91	1/4WS 22	R306	032-0144-50	1/10W 1k	R398	111-3311-91	1/4WS 330
R178	111-2201-91	1/4WS 22	R309	111-1021-91	1/4WS 1k	R399	032-0057-03	5W 0.22
R179	111-2201-91	1/4WS 22	R310	032-0144-62	1/10W 47k	R400	032-0057-03	5W 0.22
R180	117-2211-10	1/10W 220	R311	032-0144-62	1/10W 47k	R401	111-4791-91	1/4WS 4.7
R181	117-2211-10	1/10W 220	R314	032-0144-50	1/10W 1k	R402	032-0156-51	1/4W 560 ± 1%
R182	117-2211-10	1/10W 220	R315	032-0144-50	1/10W 1k	R403	032-0156-51	1/4W 560 ± 1%
R183	117-2211-10	1/10W 220	R317	032-0139-50	1/10W 4.7k	R404	111-4791-91	1/4WS 4.7
R184	117-1231-10	1/10W 12k	R318	032-0139-50	1/10W 4.7k	R405	111-4791-91	1/4WS 4.7
R185	117-1231-10	1/10W 12k	R320	032-0131-10	1/10W 10k ± 0.1%	R406	032-0156-51	1/4W 560 ± 1%
R186	117-1231-10	1/10W 12k	R325	032-0139-50	1/10W 4.7k	R407	032-0156-51	1/4W 560 ± 1%
R187	117-1231-10	1/10W 12k	R328	117-1031-10	1/10W 10k	R408	111-4791-91	1/4WS 4.7
R188	111-1021-91	1/4WS 1k	R329	032-0144-50	1/10W 1k	R409	111-4791-91	1/4WS 4.7
R189	111-1021-91	1/4WS 1k	R330	032-0131-10	1/10W 10k ± 0.1%	R410	111-4791-91	1/4WS 4.7
R190	032-0144-60	1/10W 560	R331	032-0139-50	1/10W 4.7k	R411	111-4791-91	1/4WS 4.7
R191	032-0144-60	1/10W 560	R332	032-0131-10	1/10W 10k ± 0.1%	R412	111-4791-91	1/4WS 4.7
R192	032-0144-60	1/10W 560	R333	032-0131-10	1/10W 10k ± 0.1%	R413	117-4721-10	1/10W 4.7k
R193	032-0144-60	1/10W 560	R334	117-2211-10	1/10W 220	R414	117-2731-10	1/10W 27k
R194	111-3311-91	1/4WS 330	R335	117-1031-10	1/10W 10k	R415	032-0144-61	1/10W 2.2k
R195	111-3311-91	1/4WS 330	R336	032-0144-61	1/10W 2.2k	R416	117-4721-10	1/10W 4.7k
R196	032-0057-03	5W 0.22	R337	032-0144-61	1/10W 2.2k	R417	117-2731-10	1/10W 27k
R197	032-0057-03	5W 0.22	R338	117-1031-10	1/10W 10k	R418	117-1031-10	1/10W 10k
R198	111-4791-91	1/4WS 4.7	R343	117-2211-10	1/10W 220	R419	117-4721-10	1/10W 4.7k
R199	032-0156-51	1/4W 560 ± 1%	R344	117-2211-10	1/10W 220	R420	117-2731-10	1/10W 27k
R200	032-0156-51	1/4W 560 ± 1%	R345	117-4741-10	1/10W 470k	R421	032-0144-61	1/10W 2.2k
R201	111-4791-91	1/4WS 4.7	R346	117-4741-10	1/10W 470k	R422	117-4721-10	1/10W 4.7k
R202	111-4791-91	1/4WS 4.7	R347	117-3931-10	1/10W 39k	R423	117-2731-10	1/10W 27k
R203	032-0156-51	1/4W 560 ± 1%	R348	117-3931-10	1/10W 39k	R424	117-1031-10	1/10W 10k
R204	032-0156-51	1/4W 560 ± 1%	R349	117-3931-10	1/10W 39k	R425	117-1031-10	1/10W 10k
R205	111-4791-91	1/4WS 4.7	R350	117-3931-10	1/10W 39k	R426	117-1031-10	1/10W 10k
R206	111-4791-91	1/4WS 4.7	R351	117-5641-10	1/10W 560k	R427	032-0144-62	1/10W 47k
R207	111-4791-91	1/4WS 4.7	R352	117-5641-10	1/10W 560k	R428	117-1001-10	1/10W 10
R208	111-4791-91	1/4WS 4.7	R355	032-0144-58	1/10W 150	R429	032-0144-62	1/10W 47k
R209	111-4791-91	1/4WS 4.7	R356	032-0144-58	1/10W 150	R430	117-1001-10	1/10W 10
R210	117-1031-10	1/10W 10k	R357	111-6831-91	1/4WS 68k	R431	111-1011-91	1/4WS 100
R211	117-1031-10	1/10W 10k	R358	111-6831-91	1/4WS 68k	R432	111-1011-91	1/4WS 100
R212	117-1031-10	1/10W 10k	R359	032-0144-59	1/10W 270	R433	032-0144-54	1/10W 47
R213	117-1031-10	1/10W 10k	R360	032-0144-59	1/10W 270	R434	032-0144-54	1/10W 47
R214	117-1001-10	1/10W 10	R361	032-0144-59	1/10W 270	R435	032-0156-51	1/4W 560 ± 1%
R215	117-1001-10	1/10W 10	R362	032-0144-59	1/10W 270	R436	111-1011-91	1/4WS 100
R216	111-1001-91	1/4WS 10	R363	032-0156-50	1/4W 220 ± 1%	R437	111-1011-91	1/4WS 100
R217	111-1001-91	1/4WS 10	R364	032-0156-50	1/4W 220 ± 1%	R438	032-0144-54	1/10W 47
R218	117-2231-10	1/10W 22k	R365	032-0144-60	1/10W 560	R439	032-0144-54	1/10W 47
R219	117-2231-10	1/10W 22k	R366	032-0144-60	1/10W 560	R440	032-0156-51	1/4W 560 ± 1%
R220	117-1011-10	1/10W 100	R367	032-0144-60	1/10W 560	R801	117-2201-10	1/10W 22
R221	117-1011-10	1/10W 100	R368	032-0144-60	1/10W 560	R802	117-8231-10	1/10W 82k
R222	117-4721-10	1/10W 4.7k	R369	111-1811-91	1/4WS 180	R803	111-1021-91	1/4WS 1k
R223	117-2731-10	1/10W 27k	R370	111-6831-91	1/4WS 68k	R804	117-6811-10	1/10W 680
R224	032-0144-61	1/10W 2.2k	R371	111-1811-91	1/4WS 180	R805	117-1521-10	1/10W 1.5k
R225	117-4721-10	1/10W 4.7k	R372	111-1811-91	1/4WS 180	R806	032-0144-62	1/10W 47k
R226	117-2731-10	1/10W 27k	R373	111-6831-91	1/4WS 68k	R807	111-1221-91	1/4WS 1.2k
R227	117-1031-10	1/10W 10k	R374	111-1811-91	1/4WS 180	R808	111-4701-91	1/4WS 47
R228	117-4721-10	1/10W 4.7k	R375	032-0092-73	1/10W 3.9k ± 1%	R809	117-1031-10	1/10W 10k
R229	117-2731-10	1/10W 27k	R376	032-0092-32	1/10W 820	R810	111-4701-91	1/4WS 47
R230	032-0144-61	1/10W 2.2k	R377	032-0092-73	1/10W 3.9k ± 1%	R811	032-0144-50	1/10W 1k
R231	117-4721-10	1/10W 4.7k	R378	032-0092-32	1/10W 820	R812	117-4721-10	1/10W 4.7k
R232	117-2731-10	1/10W 27k	R379	111-2201-91	1/4WS 22	R813	117-2221-10	1/10W 2.2k
R233	117-1031-10	1/10W 10k	R380	111-2201-91	1/4WS 22	R814	117-1521-10	1/10W 1.5k
R234	117-1031-10	1/10W 10k	R381	111-2201-91	1/4WS 22	R815	117-1041-10	1/10W 100k
R235	117-1031-10	1/10W 10k	R382	111-2201-91	1/4WS 22	R816	032-0144-50	1/10W 1k
R236	032-0144-62	1/10W 47k	R383	117-2211-10	1/10W 220	R817	117-4721-10	1/10W 4.7k
R237	117-1001-10	1/10W 10	R384	117-2211-10	1/10W 220	R818	117-1531-10	1/10W 15k
R238	032-0144-62	1/10W 47k	R385	117-2211-10	1/10W 220	R819	117-2221-10	1/10W 2.2k
R239	117-1001-10	1/10W 10	R386	117-2211-10	1/10W 220	R820	117-1531-10	1/10W 15k
R240	111-1011-91	1/4WS 100	R387	117-1231-10	1/10W 12k	R821	117-2231-10	1/10W 22k
R241	111-1011-91	1/4WS 100	R388	117-1231-10	1/10W 12k	R822	117-3321-10	1/10W 3.3k

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R824	117-1841-10	1/10W 180k	R853	117-1011-10	1/10W 100	R880	032-0092-79	1/10W 5.6k ± 1%
R827	117-1031-10	1/10W 10k	R854	117-1011-10	1/10W 100	R881	032-0092-73	1/10W 3.9k ± 1%
R828	117-2201-10	1/10W 22	R855	117-1531-10	1/10W 15k	R882	032-0092-73	1/10W 3.9k ± 1%
R829	032-0156-54	1/4W 6.2k ± 1%	R856	117-8231-10	1/10W 82k	R883	032-0092-79	1/10W 5.6k ± 1%
R830	111-2221-91	1/4WS 2.2k	R857	111-4791-91	1/4WS 4.7	R884	111-2721-91	1/4WS 2.7k
R831	117-2731-10	1/10W 27k	R858	111-4791-91	1/4WS 4.7	S801	013-5110-00	SLIDE SWITCH
R832	117-1031-10	1/10W 10k	R859	032-0144-50	1/10W 1k	S802	013-5109-00	SLIDE SWITCH
R833	117-4741-10	1/10W 470k	R860	032-0089-14	2W 82	S803	013-5100-04	SSSU122-S06N1
R834	117-1031-10	1/10W 10k	R861	117-4741-10	1/10W 470k			1-2
R835	117-4721-10	1/10W 4.7k	R862	032-0092-11	1/10W 1k ± 1%	S804	013-5100-04	SSSU122-S06N1
R836	111-2201-91	1/4WS 22	R863	032-0092-81	1/10W 180k ± 1%			1-2
R837	117-1231-10	1/10W 12k	R864	032-0092-07	1/10W12k ± 1%	T801	007-1158-00	OUTPUT TRANS
R838	117-1011-10	1/10W 100	R865	032-0089-12	2W 22	T802	007-1158-00	OUTPUT TRANS
R839	111-2201-91	1/4WS 22	R866	032-0089-12	2W 22	TH801	002-0223-00	PTH9M04BE471T
R840	117-2221-10	1/10W 2.2k	R867	032-0156-63	1/4W 56k ± 1%	TH802	002-0223-03	POSISTOR
R841	117-1011-10	1/10W 100	R868	032-0156-56	1/4W 8.2k ± 1%	TM101	073-0743-90	GND PLATE
R842	117-2221-10	1/10W 2.2k	R869	032-0156-57	1/4W 10k ± 1%	TM301	073-0743-90	GND PLATE
R843	117-2201-10	1/10W 22	R870	117-1041-10	1/10W 100k	TM801	073-0743-90	GND PLATE
R844	117-6831-10	1/10W 68k	R871	117-1541-10	1/10W 150k	TM802	073-0743-90	GND PLATE
R845	117-2241-10	1/10W 220k	R872	117-1541-10	1/10W 150k	VR101	012-4855-00	330
R846	117-4721-10	1/10W 4.7k	R873	117-1541-10	1/10W 150k	VR102	012-4855-00	330
R847	117-4721-10	1/10W 4.7k	R874	117-1541-10	1/10W 150k	VR301	012-4855-00	330
R848	032-0144-62	1/10W 47k	R875	117-3321-10	1/10W 3.3k	VR302	012-4855-00	330
R849	117-1011-10	1/10W 100	R876	117-1011-10	1/10W 100	VR801	012-4855-00	330
R850	117-1011-10	1/10W 100	R877	117-1011-10	1/10W 100	VR802	012-4855-00	330
R851	117-1011-10	1/10W 100	R878	117-8221-10	1/10W 8.2k			
R852	117-1011-10	1/10W 100	R879	117-8221-10	1/10W 8.2k			

Sub PWB section(B2)

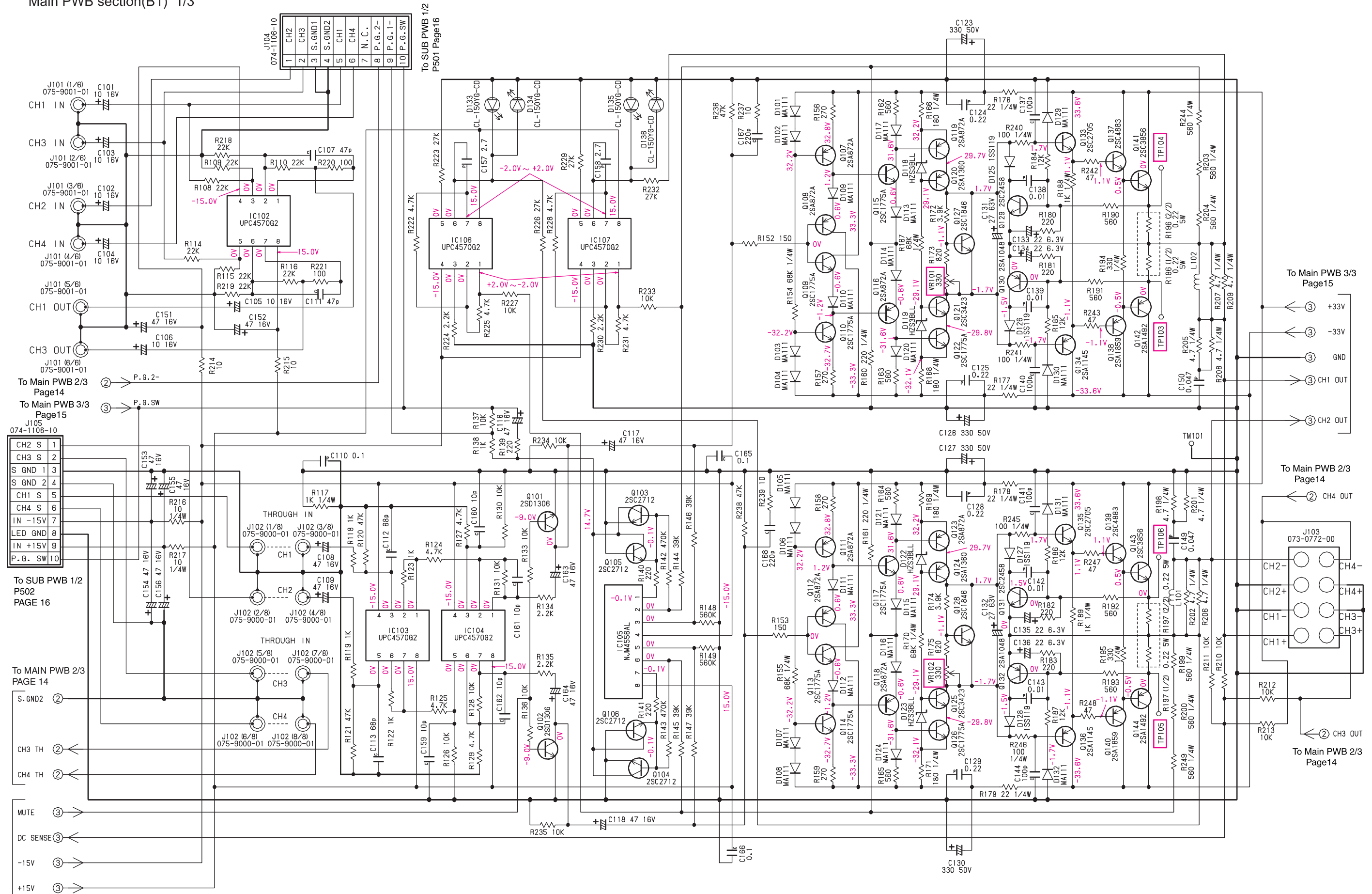
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C501	176-1011-00	100pF CH	C613	043-0508-50	0.1 μ F	D710	001-2613-90	HSM107S-TL
C502	176-1011-00	100pF CH	C614	043-0508-50	0.1 μ F	D711	001-2613-90	HSM107S-TL
C503	182-3363-43	25V33 μ F	C615	043-0508-50	0.1 μ F	D712	001-2613-90	HSM107S-TL
C504	182-3363-43	25V33 μ F	C616	043-0508-50	0.1 μ F	D713	001-2613-90	HSM107S-TL
C505	176-4701-00	47pF CH	C617	043-0508-50	0.1 μ F	D714	001-2613-90	HSM107S-TL
C507	176-4701-00	47pF CH	C618	043-0509-50	0.047 μ F	D715	001-0541-00	MA157
C508	178-1042-78	0.1 μ F	C619	043-0509-50	0.047 μ F	D716	001-0541-00	MA157
C509	178-1042-78	0.1 μ F	C620	043-0508-50	0.1 μ F	D717	001-0541-00	MA157
C510	176-1501-00	15pF CH	C621	172-2241-11	0.22 μ F	D718	001-0541-00	MA157
C511	176-1501-00	15pF CH	C622	043-0508-50	0.1 μ F	D701	379-5000-11	INDICATOR
C512	043-0508-50	0.1 μ F	C623	043-0508-50	0.1 μ F	D702	379-5000-11	INDICATOR
C513	043-0508-50	0.1 μ F	C624	172-2741-11	0.27 μ F	D703	379-5000-11	INDICATOR
C514	043-0508-50	0.1 μ F	C625	172-2741-11	0.27 μ F	D706	379-5000-11	INDICATOR
C515	043-0508-50	0.1 μ F	C626	172-8241-11	0.82 μ F	D719	379-5000-11	INDICATOR
C516	043-0508-50	0.1 μ F	C627	172-8241-11	0.82 μ F	D720	379-5000-11	INDICATOR
C517	043-0508-50	0.1 μ F	C628	178-1022-78	1000pF	D721	379-5000-11	INDICATOR
C518	043-0509-50	0.047 μ F	C629	178-1022-78	1000pF	D722	379-5000-11	INDICATOR
C519	043-0509-50	0.047 μ F	C630	182-3363-43	25V33 μ F	D723	379-5000-11	INDICATOR
C520	043-0508-50	0.1 μ F	C631	182-3363-43	25V33 μ F	D724	379-5000-11	INDICATOR
C521	172-2241-11	0.22 μ F	C632	043-0508-50	0.1 μ F	D725	379-5000-11	INDICATOR
C522	043-0508-50	0.1 μ F	C701	178-1042-78	0.1 μ F	D726	379-5000-11	INDICATOR
C523	043-0508-50	0.1 μ F	C702	178-8232-78	0.082 μ F	D727	001-0330-00	1SS119
C524	178-1042-78	0.1 μ F	C703	178-8232-78	0.082 μ F	FIL701	060-3101-07	NFM39R223
C525	172-2741-11	0.27 μ F	C704	163-4763-30	16V47 μ F	FIL702	060-3101-07	NFM39R223
C526	172-2741-11	0.27 μ F	C705	163-4763-10	6.3V47 μ F	FIL703	060-3101-07	NFM39R223
C527	172-8241-11	0.82 μ F	C706	178-1042-78	0.1 μ F	IC501	051-1807-00	P873-G35-911
C528	172-8241-11	0.82 μ F	C707	163-1063-30	16V10 μ F	IC502	051-1904-00	μ PC4570G2
C529	178-1022-78	1000pF	C708	042-0505-05	6.3V22 μ F	IC504	051-1904-00	μ PC4570G2
C530	178-1022-78	1000pF	C709	178-1042-78	0.1 μ F	IC505	051-1904-00	μ PC4570G2
C531	182-3363-43	25V33 μ F	C710	172-1041-11	0.1 μ F	IC506	051-1904-00	μ PC4570G2
C532	182-3363-43	25V33 μ F	C711	163-2253-60	50V2.2 μ F	IC507	051-1904-00	μ PC4570G2
C533	043-0508-50	0.1 μ F	C712	163-2253-60	50V2.2 μ F	IC508	051-1904-00	μ PC4570G2
C534	178-1042-78	0.1 μ F	C713	163-2253-60	50V2.2 μ F	IC509	051-1904-00	μ PC4570G2
C535	178-1042-78	0.1 μ F	C714	163-2253-60	50V2.2 μ F	IC510	051-1904-00	μ PC4570G2
C601	176-1011-00	100pF CH	C715	178-1042-78	0.1 μ F	IC601	051-1807-00	P873-G35-911
C602	176-1011-00	100pF CH	C716	178-1042-78	0.1 μ F	IC602	051-1904-00	μ PC4570G2
C603	182-3363-43	25V33 μ F	C717	178-2242-78	0.22 μ F	IC604	051-1904-00	μ PC4570G2
C604	182-3363-43	25V33 μ F	C718	178-2242-78	0.22 μ F	IC605	051-1904-00	μ PC4570G2
C605	176-4701-00	47pF CH	C719	178-1042-78	0.1 μ F	IC606	051-1904-00	μ PC4570G2
C607	176-4701-00	47pF CH	C720	178-1042-78	0.1 μ F	IC607	051-1904-00	μ PC4570G2
C610	176-1501-00	15pF CH	D501	001-7008-00	GL3ED8	IC608	051-1904-00	μ PC4570G2
C611	176-1501-00	15pF CH	D502	001-0330-00	1SS119	IC609	051-1904-00	μ PC4570G2
C612	043-0508-50	0.1 μ F	D709	001-2613-90	HSM107S-TL	IC610	051-1904-00	μ PC4570G2

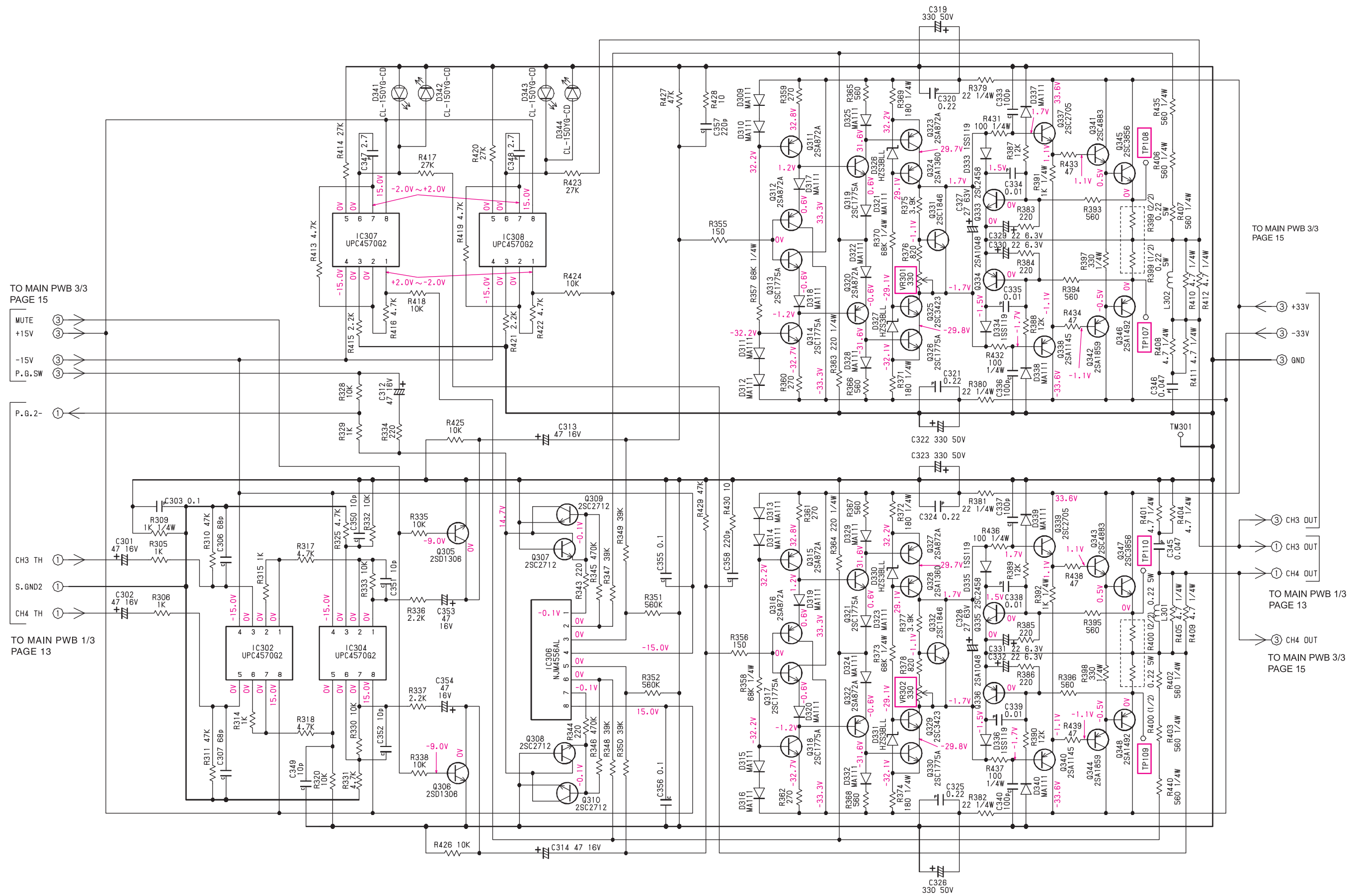
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IC701	051-5825-00	LM61CIZ	R537	117-1031-10	1/10W 10k	R654	117-5611-10	1/10W 560
IC702	051-0350-55	NJM4558M	R538	117-1031-10	1/10W 10k	R655	117-5611-10	1/10W 560
IC703	051-0717-10	NJM7805FA	R539	117-1031-10	1/10W 10k	R656	117-1031-10	1/10W 10k
IC704	051-0350-55	NJM4558M	R540	117-1011-10	1/10W 100	R657	117-1031-10	1/10W 10k
IC705	051-5407-08	S-80721AN-DJ	R541	117-5131-10	1/10W 51k	R658	117-4731-10	1/10W 47k
IC706	052-7050-00	μ PD780022AGC-535-AB8	R542	117-5131-10	1/10W 51k	R659	117-4731-10	1/10W 47k
IC707	051-0350-55	NJM4558M	R543	111-1221-91	1/4WS 1.2k	R660	117-3321-10	1/10W 3.3k
IC708	051-0350-55	NJM4558M	R545	117-5131-10	1/10W 51k	R661	117-3321-10	1/10W 3.3k
IC709	051-0350-55	NJM4558M	R547	117-5131-10	1/10W 51k	R662	117-2221-10	1/10W 2.2k
P501	076-0515-10	10P	R548	117-1011-10	1/10W 100	R663	117-2221-10	1/10W 2.2k
P502	076-0515-10	10P	R549	117-1011-10	1/10W 100	R664	117-6811-10	1/10W 680
P701	076-0567-09	9P	R550	117-1011-10	1/10W 100	R665	117-6811-10	1/10W 680
P702	076-0567-09	9P	R551	117-1011-10	1/10W 100	R701	117-8211-10	1/10W 820
Q503	100-1162-00	2SA1162	R553	117-2231-10	1/10W 22k	R702	117-8211-10	1/10W 820
Q701	100-1298-00	2SA1298	R554	117-1011-10	1/10W 100	R703	032-0092-90	1/10W 10k ± 1%
Q702	100-1298-00	2SA1298	R555	117-2721-10	1/10W 2.7k	R704	032-0131-67	1/10W 9.1k
Q703	100-1298-00	2SA1298	R556	117-2721-10	1/10W 2.7k	R705	032-0092-44	1/10W 200
Q704	100-1298-00	2SA1298	R558	117-2231-10	1/10W 22k	R706	032-0131-10	1/10W 10k ± 0.1%
Q705	100-1298-00	2SA1298	R559	117-1531-10	1/10W 15k	R707	114-1001-21	2W 10
Q706	102-2712-00	2SC2712	R560	117-1531-10	1/10W 15k	R708	117-2421-15	1/10W 2.4k
Q707	102-2712-00	2SC2712	R561	117-2201-10	1/10W 22	R709	032-0092-05	1/10W 100k ± 1%
Q708	102-2712-00	2SC2712	R562	117-5611-10	1/10W 560	R710	117-2021-10	1/10W 2k
Q709	102-2712-00	2SC2712	R563	117-5611-10	1/10W 560	R711	117-2221-10	1/10W 2.2k
Q710	102-2712-00	2SC2712	R564	117-1031-10	1/10W 10k	R712	117-8211-10	1/10W 820
Q711	102-2712-00	2SC2712	R565	117-1031-10	1/10W 10k	R713	032-0092-90	1/10W 10k ± 1%
Q712	102-2712-00	2SC2712	R566	117-4731-10	1/10W 47k	R714	032-0092-90	1/10W 10k ± 1%
Q713	102-2712-00	2SC2712	R567	117-4731-10	1/10W 47k	R715	032-0092-90	1/10W 10k ± 1%
Q714	102-2712-00	2SC2712	R568	117-3321-10	1/10W 3.3k	R716	032-0092-07	1/10W12k ± 1%
Q715	100-1298-00	2SA1298	R569	117-3321-10	1/10W 3.3k	R717	032-0092-14	1/10W 2k
Q716	102-2712-00	2SC2712	R570	117-2231-10	1/10W 22k	R718	032-0092-90	1/10W 10k ± 1%
Q717	100-1298-00	2SA1298	R571	117-2221-10	1/10W 2.2k	R719	032-0092-90	1/10W 10k ± 1%
Q718	100-1298-00	2SA1298	R572	117-2221-10	1/10W 2.2k	R720	117-3311-10	1/10W 330
Q719	100-1298-00	2SA1298	R573	117-6811-10	1/10W 680	R721	117-3311-10	1/10W 330
Q720	100-1298-00	2SA1298	R574	117-6811-10	1/10W 680	R722	117-3311-10	1/10W 330
Q721	100-1298-00	2SA1298	R601	117-8231-10	1/10W 82k	R723	117-3311-10	1/10W 330
Q722	102-2712-00	2SC2712	R602	117-2731-10	1/10W 27k	R724	117-3311-10	1/10W 330
Q723	102-2712-00	2SC2712	R603	117-4721-10	1/10W 4.7k	R725	117-8211-10	1/10W 820
Q724	102-2712-00	2SC2712	R604	117-4721-10	1/10W 4.7k	R726	117-8211-10	1/10W 820
Q725	102-2712-00	2SC2712	R605	117-7511-15	1/10W 750	R727	117-1031-10	1/10W 10k
Q726	102-2712-00	2SC2712	R606	117-7511-15	1/10W 750	R728	117-1031-10	1/10W 10k
Q727	102-2712-00	2SC2712	R617	117-2031-10	1/10W 20k	R729	117-1011-10	1/10W 100
Q728	102-2712-00	2SC2712	R618	117-2031-10	1/10W 20k	R730	117-1011-10	1/10W 100
Q729	102-2712-00	2SC2712	R622	117-1031-10	1/10W 10k	R731	117-1011-10	1/10W 100
Q730	100-1298-00	2SA1298	R623	117-1031-10	1/10W 10k	R732	117-1011-10	1/10W 100
Q731	100-1431-00	2SA1431	R624	117-1531-10	1/10W 15k	R733	117-1011-10	1/10W 100
Q732	102-2712-00	2SC2712	R625	117-1531-10	1/10W 15k	R734	117-1011-10	1/10W 100
Q733	100-1162-00	2SA1162	R626	117-1031-10	1/10W 10k	R735	117-1011-10	1/10W 100
Q734	100-1162-00	2SA1162	R627	117-1031-10	1/10W 10k	R736	117-1011-10	1/10W 100
Q735	100-1162-00	2SA1162	R628	117-6821-10	1/10W 6.8k	R737	117-8211-10	1/10W 820
Q736	100-1162-00	2SA1162	R629	117-6821-10	1/10W 6.8k	R738	117-8221-10	1/10W 8.2k
R501	117-8231-10	1/10W 82k	R630	117-1031-10	1/10W 10k	R739	117-8221-10	1/10W 8.2k
R502	117-2731-10	1/10W 27k	R631	117-1031-10	1/10W 10k	R740	117-8221-10	1/10W 8.2k
R503	117-4721-10	1/10W 4.7k	R632	117-6821-10	1/10W 6.8k	R741	117-8221-10	1/10W 8.2k
R504	117-4721-10	1/10W 4.7k	R633	117-6821-10	1/10W 6.8k	R742	117-8221-10	1/10W 8.2k
R505	117-7511-15	1/10W 750	R634	117-1031-10	1/10W 10k	R743	117-8221-10	1/10W 8.2k
R506	117-7511-15	1/10W 750	R635	117-1031-10	1/10W 10k	R744	117-8221-10	1/10W 8.2k
R517	117-2031-10	1/10W 20k	R636	117-1031-10	1/10W 10k	R745	117-8221-10	1/10W 8.2k
R518	117-2031-10	1/10W 20k	R637	117-1031-10	1/10W 10k	R746	117-8211-10	1/10W 820
R522	117-1031-10	1/10W 10k	R638	117-1031-10	1/10W 10k	R748	117-5621-10	1/10W 5.6k
R523	117-1031-10	1/10W 10k	R639	117-1031-10	1/10W 10k	R749	117-1031-10	1/10W 10k
R524	117-1531-10	1/10W 15k	R640	117-1011-10	1/10W 100	R750	117-8211-10	1/10W 820
R525	117-1531-10	1/10W 15k	R641	117-5131-10	1/10W 51k	R751	117-1031-10	1/10W 10k
R526	117-1031-10	1/10W 10k	R642	117-5131-10	1/10W 51k	R752	117-1031-10	1/10W 10k
R527	117-1031-10	1/10W 10k	R643	117-5131-10	1/10W 51k	R753	117-1031-10	1/10W 10k
R528	117-6821-10	1/10W 6.8k	R644	117-5131-10	1/10W 51k	R754	117-1031-10	1/10W 10k
R529	117-6821-10	1/10W 6.8k	R645	117-1011-10	1/10W 100	R755	117-1031-10	1/10W 10k
R530	117-1031-10	1/10W 10k	R646	117-1011-10	1/10W 100	R756	117-1031-10	1/10W 10k
R531	117-1031-10	1/10W 10k	R647	117-1011-10	1/10W 100	R757	117-8211-10	1/10W 820
R532	117-6821-10	1/10W 6.8k	R648	117-1011-10	1/10W 100	R758	117-8211-10	1/10W 820
R533	117-6821-10	1/10W 6.8k	R649	117-1011-10	1/10W 100	R759	117-8211-10	1/10W 820
R534	117-1031-10	1/10W 10k	R650	117-2721-10	1/10W 2.7k	R760	117-8221-10	1/10W 8.2k
R535	117-1031-10	1/10W 10k	R651	117-2721-10	1/10W 2.7k	R761	117-8221-10	1/10W 8.2k
R536	117-1031-10	1/10W 10k	R652	117-1531-10	1/10W 15k	R762	117-8221-10	1/10W 8.2k
			R653	117-1531-10	1/10W 15k	R763	117-8221-10	1/10W 8.2k

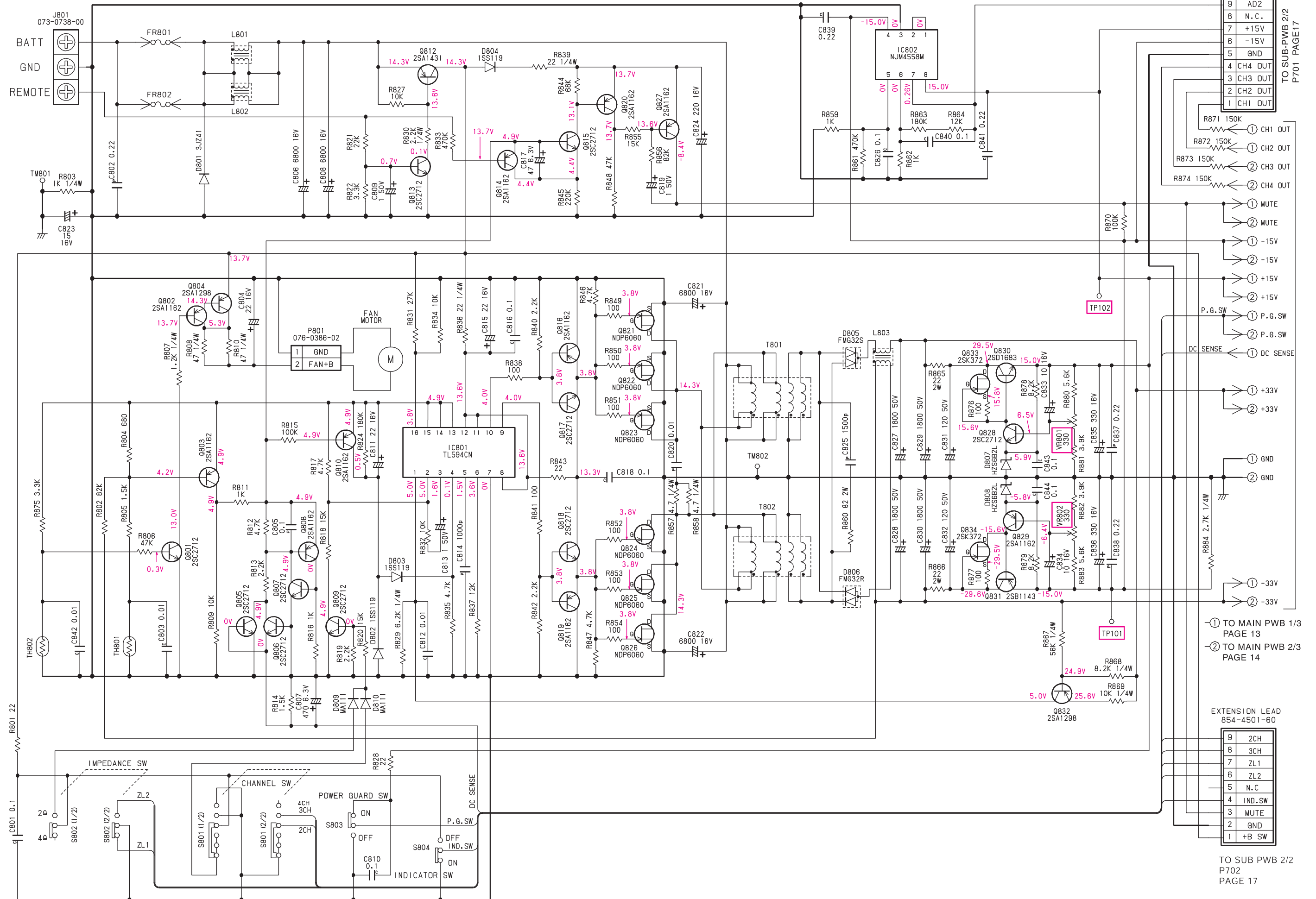
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R764	117-8221-10	1/10W 8.2k	R785	117-1031-10	1/10W 10k	R806	117-3021-10	1/10W 3k
R765	117-8221-10	1/10W 8.2k	R786	117-1031-10	1/10W 10k	R807	117-3021-10	1/10W 3k
R766	117-8221-10	1/10W 8.2k	R787	117-1031-10	1/10W 10k	R808	117-6821-10	1/10W 6.8k
R767	117-8221-10	1/10W 8.2k	R788	117-4711-10	1/10W 470	R809	117-6821-10	1/10W 6.8k
R768	117-1011-10	1/10W 100	R789	117-3921-10	1/10W 3.9k	R810	117-3021-10	1/10W 3k
R769	117-1011-10	1/10W 100	R790	117-3921-10	1/10W 3.9k	S501	013-8105-00	SLIDE SWITCH
R770	117-1011-10	1/10W 100	R791	117-3331-10	1/10W 33k	S601	013-8105-00	SLIDE SWITCH
R771	117-1011-10	1/10W 100	R792	117-3331-10	1/10W 33k	TM701	073-0762-90	TERMINAL
R772	117-1011-10	1/10W 100	R793	117-3331-10	1/10W 33k	TM702	073-0762-90	TERMINAL
R773	117-1011-10	1/10W 100	R794	117-3331-10	1/10W 33k	TM703	073-0762-90	TERMINAL
R774	117-1011-10	1/10W 100	R795	117-2231-10	1/10W 22k	TM704	073-0762-90	TERMINAL
R775	117-1011-10	1/10W 100	R796	117-2231-10	1/10W 22k	VR501	016-9900-73	20k
R776	117-8211-10	1/10W 820	R797	117-1841-10	1/10W 180k	VR502	016-9900-74	30k
R777	117-1031-10	1/10W 10k	R798	117-1841-10	1/10W 180k	VR503	016-9900-76	100k
R778	117-1031-10	1/10W 10k	R799	117-3021-10	1/10W 3k	VR504	016-9900-75	10k
R779	117-1031-10	1/10W 10k	R800	117-3021-10	1/10W 3k	VR601	016-9900-73	20k
R780	117-1031-10	1/10W 10k	R801	117-2231-10	1/10W 22k	VR602	016-9900-74	30k
R781	117-1031-10	1/10W 10k	R802	117-2231-10	1/10W 22k	VR603	016-9900-76	100k
R782	117-1031-10	1/10W 10k	R803	117-1841-10	1/10W 180k	VR604	016-9900-75	10k
R783	117-1031-10	1/10W 10k	R804	117-1841-10	1/10W 180k	X701	060-1002-00	CERA-RESONATOR
R784	117-1031-10	1/10W 10k	R805	117-3021-10	1/10W 3k			

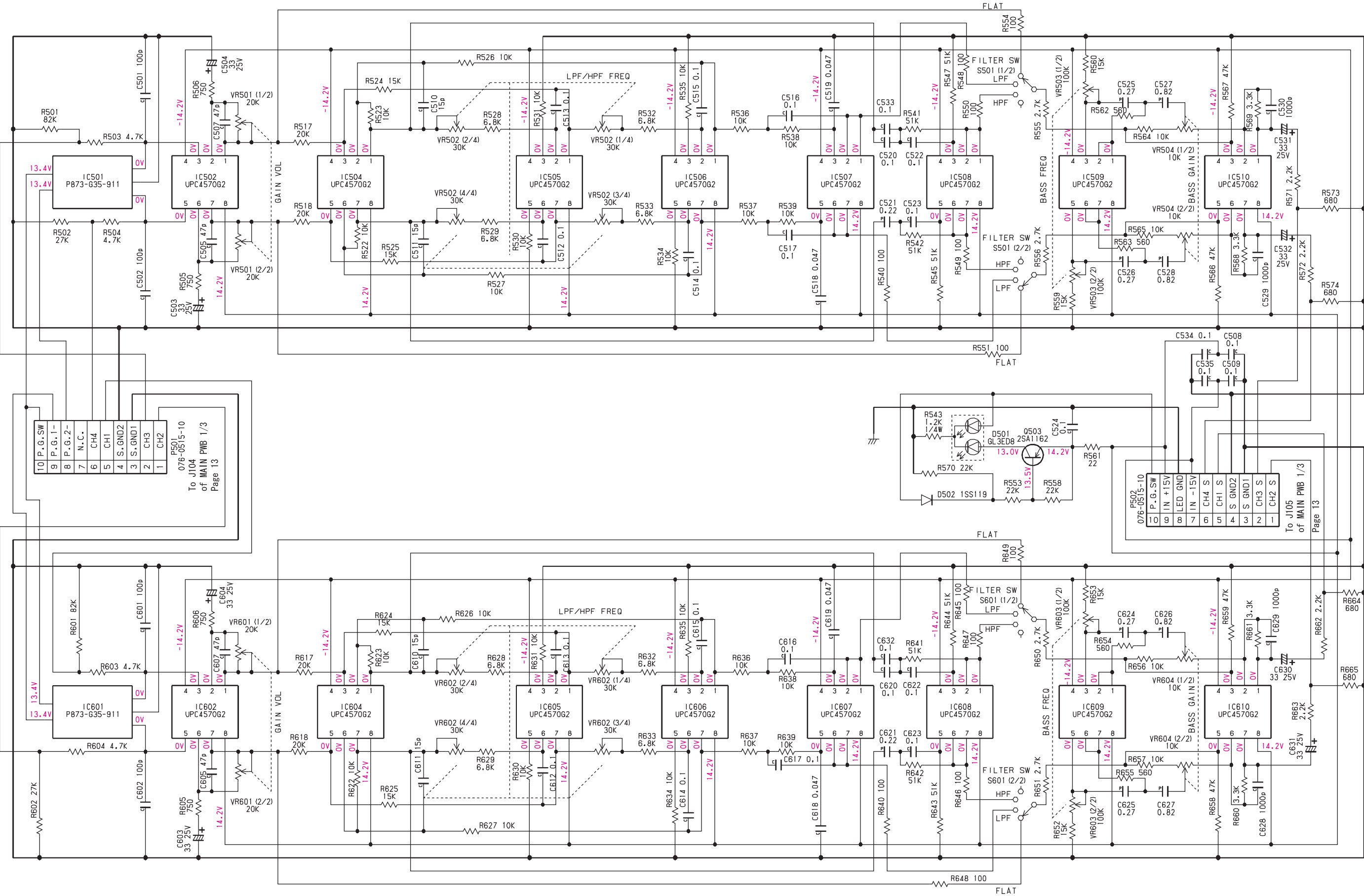
CIRCUIT DIAGRAM

Main PWB section(B1) 1/3

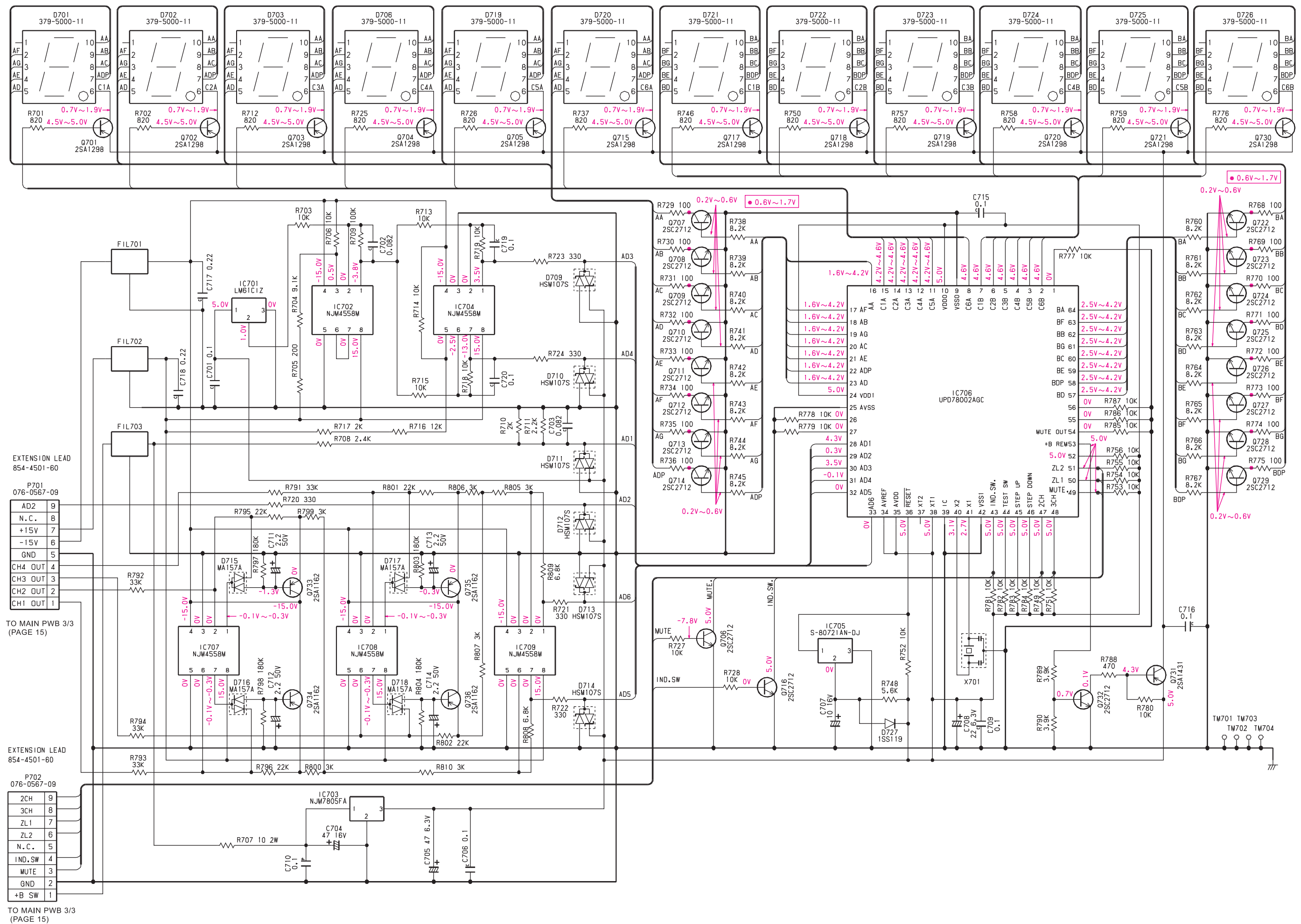








Sub PWB section(B2) 2/2

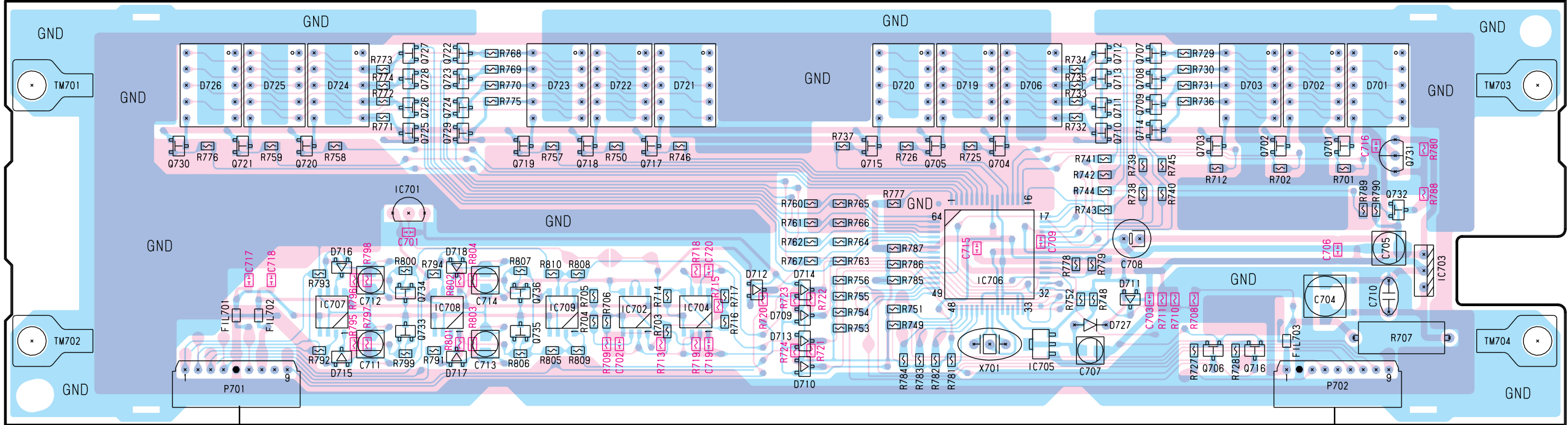


■ PRINTED WIRING BOARD

Sub PWB section(B2)

MARKS ● AND MARKS GND ARE ON
THE GROUND OF THE DIP LAYER.

SUB PWB-A (B2)



TO MAIN PWB
J104 (PAGE19)

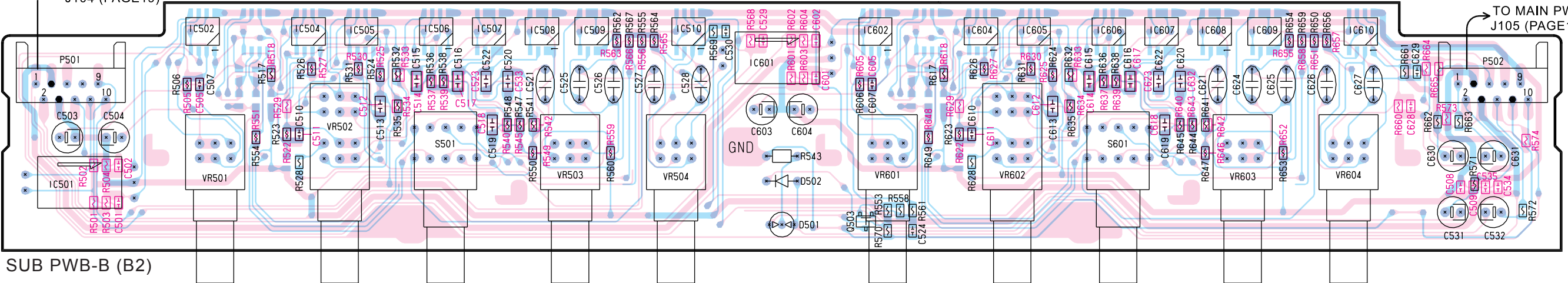
854-4501-60

TO MAIN PWB (PAGE19)

854-4501-60

TO MAIN PWB (PAGE19)

SUB PWB-B (B2)



730	721	720	727	722	719	718	717	715	705	704	712	707	703	716	702	701	731
			728	723	736						713	708	706				732
			726	724	735			503			711	709					
			725	729							710	714					

Q	733																									
IC	501	502	504	707	505	701	506	708	507	508	709	509	702	510	704	601	602	706	604	705	606	607	608	609	610	703
																				605						

Main PWB section(B1)

