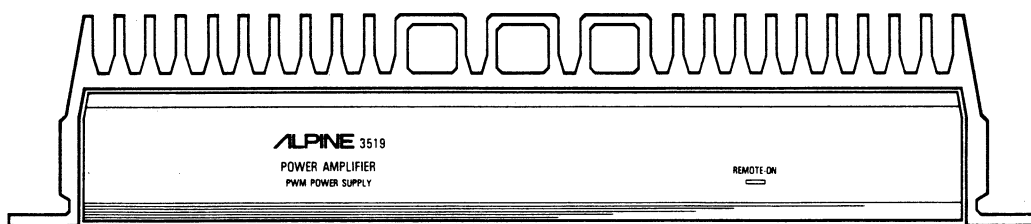


ALPINE SERVICE MANUAL

Power Amplifier



3519

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Specifications

Power Output

A. Min. RMS. 4 Ohms, 20 Hz to 20 kHz at 0.08% THD	30 W/ch
B. Min. RMS. 2 Ohms, 20 Hz to 20 kHz at 0.8% THD	25 W/ch
Frequency Response (-1 dB)	10 Hz to 50,000 Hz
Signal to Noise Ratio (IHF A-Weighted)	105 dB

Input Sensitivity/Impedance

DIN Jack (Fixed)	500 mV/10,000 ohms
RCA Jack (Variable)	100 to 2,000 mV/10,000 ohms (AO Model only)
Speaker Impedance (Ohms)	4 or 2 ohms
Power Requirement	14.4 VDC (11 to 16 V allowable)

Fuse Requirement

Battery Lead	3 A, 15 A
Ignition Lead	3 A
Dimensions (WxHxD)	200 mm x 55 mm x 140 mm
Weight:	1.9 kg

1. Removal of Bottom Cover

- (1) Remove two screws marked "O" in Figure 4.

2. Removal of Main P.C. Board

- (1) Remove ten screws marked "Δ" in Figure 5 and remove the heat sink.
- (2) Pull the Main P.C. board upward.

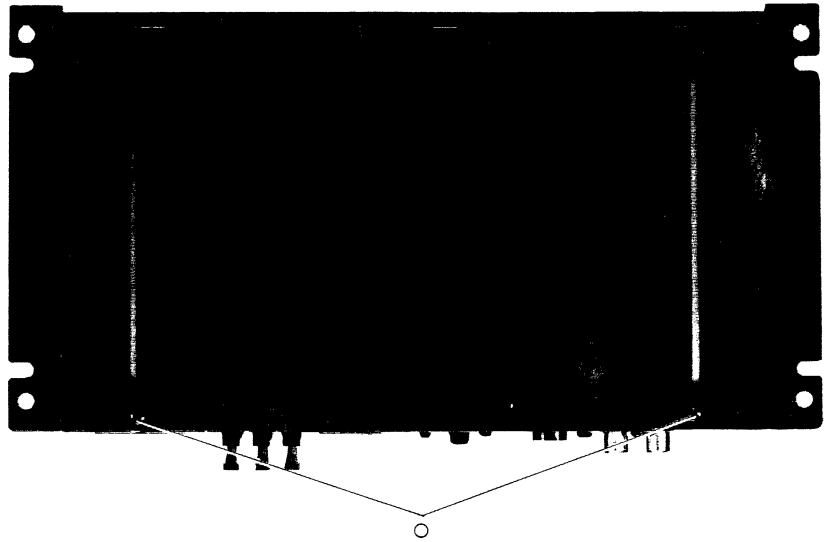


Figure 4

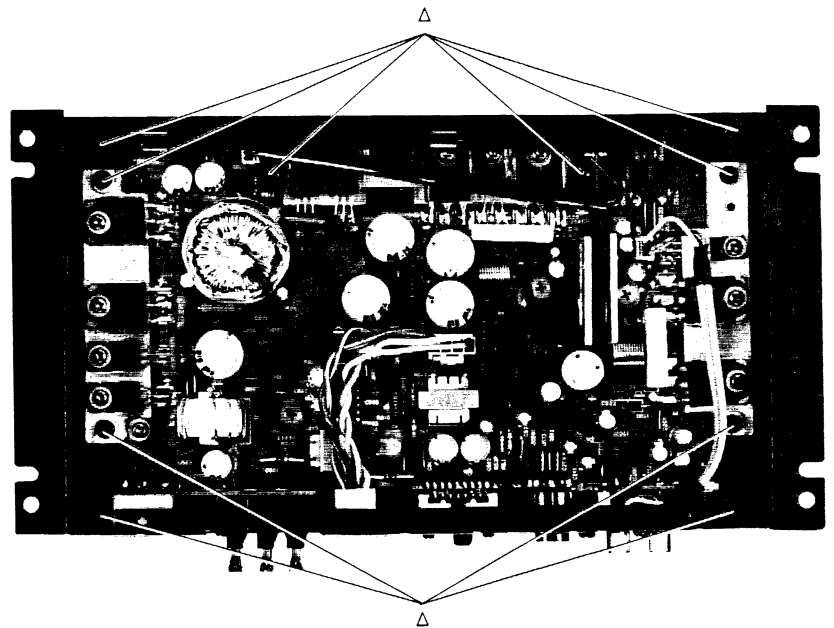


Figure 5

Parts Locations and Disassembly Instructions

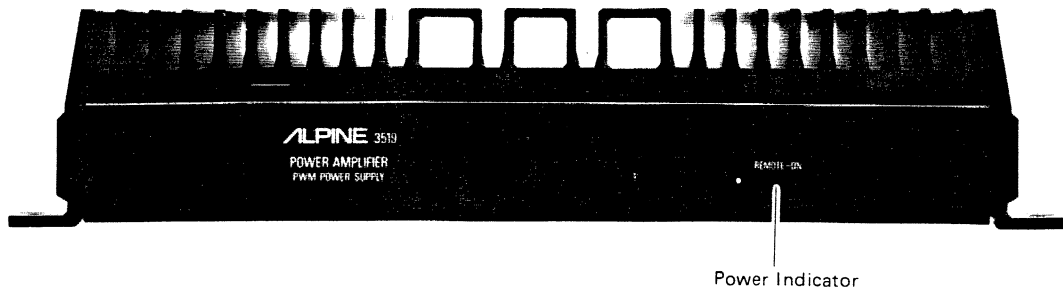


Figure 1

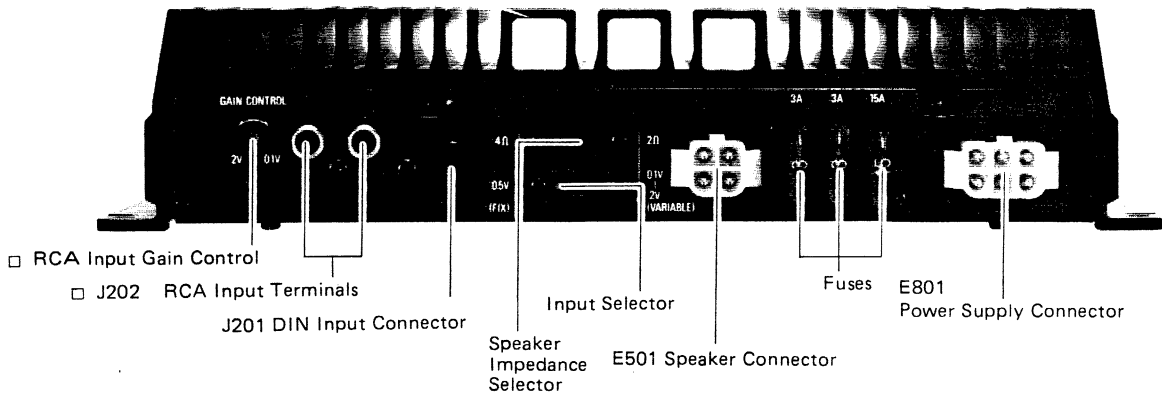


Figure 2

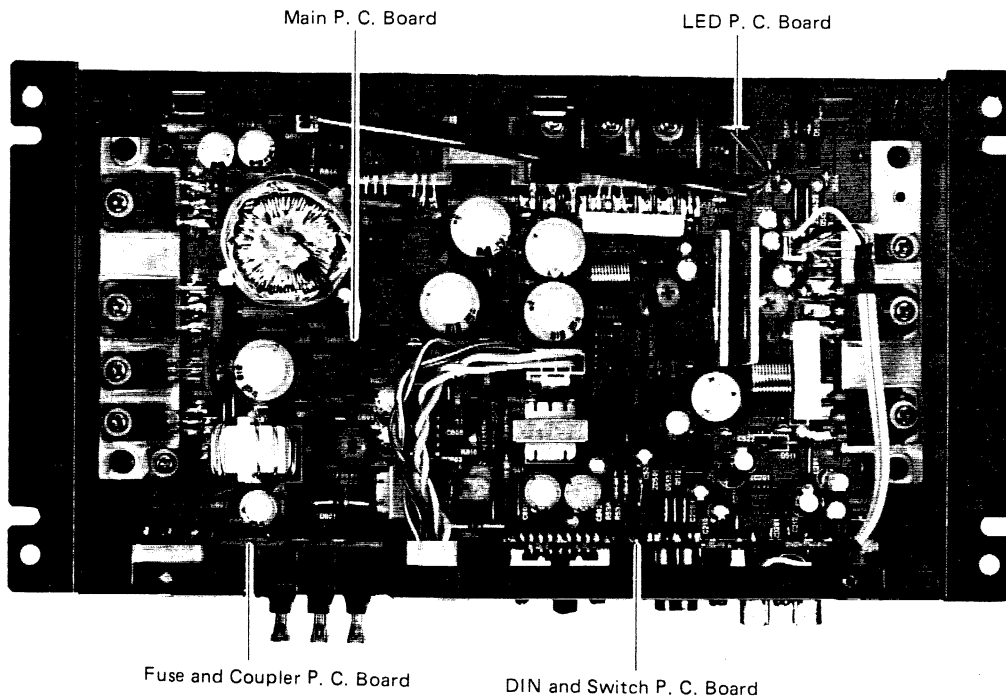
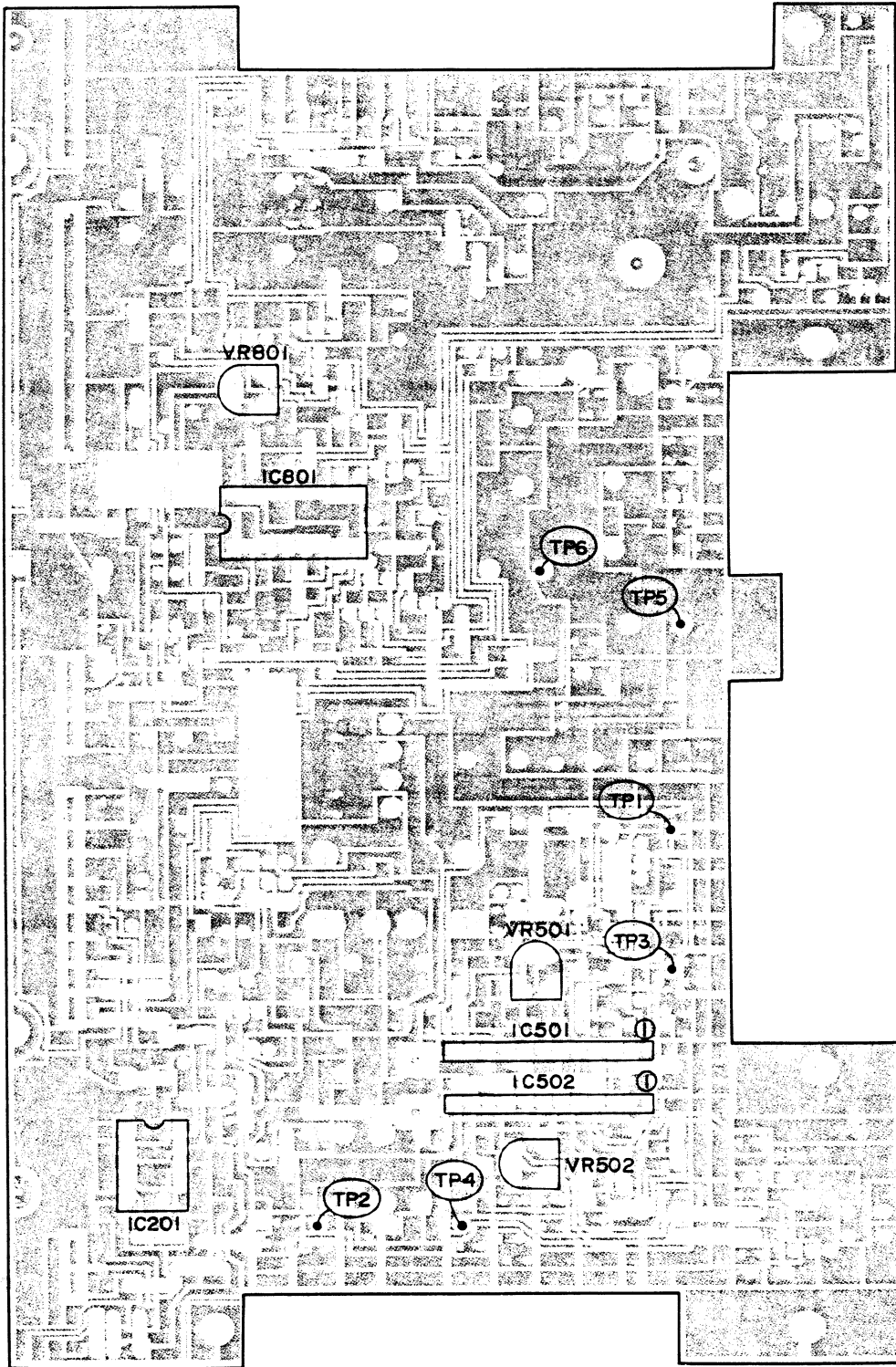


Figure 3

Note □: AO model only

Adjustment Locations



Main P. C. Board (Top View)

Adjustment Procedures

• Voltage Adjustment

(1) Connections

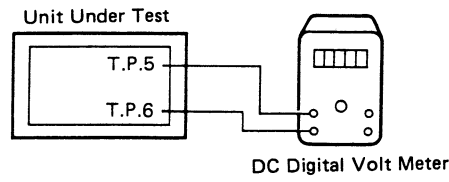


Figure 6

(2) Control Setting

Speaker Impedance Selector 4 Ω

(3) Adjustment Procedure

Rotate the solid variable resistor VR801 (T.P. 5, 6) clockwise or counterclockwise to obtain 44 V \pm 0.5 V on the DC Voltmeter.

• Idle Current Adjustment

(1) Connections

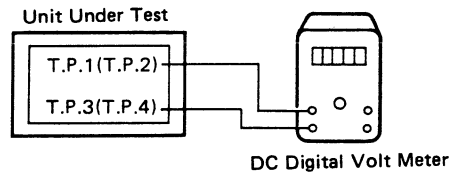


Figure 7

(2) Adjustment Procedure

Rotate the solid variable resistors VR501 (T.P. 1, 3) and VR502 (T.P. 2, 4) clockwise or counterclockwise to obtain 15 V \pm 1.5 mV on the DC Voltmeter.

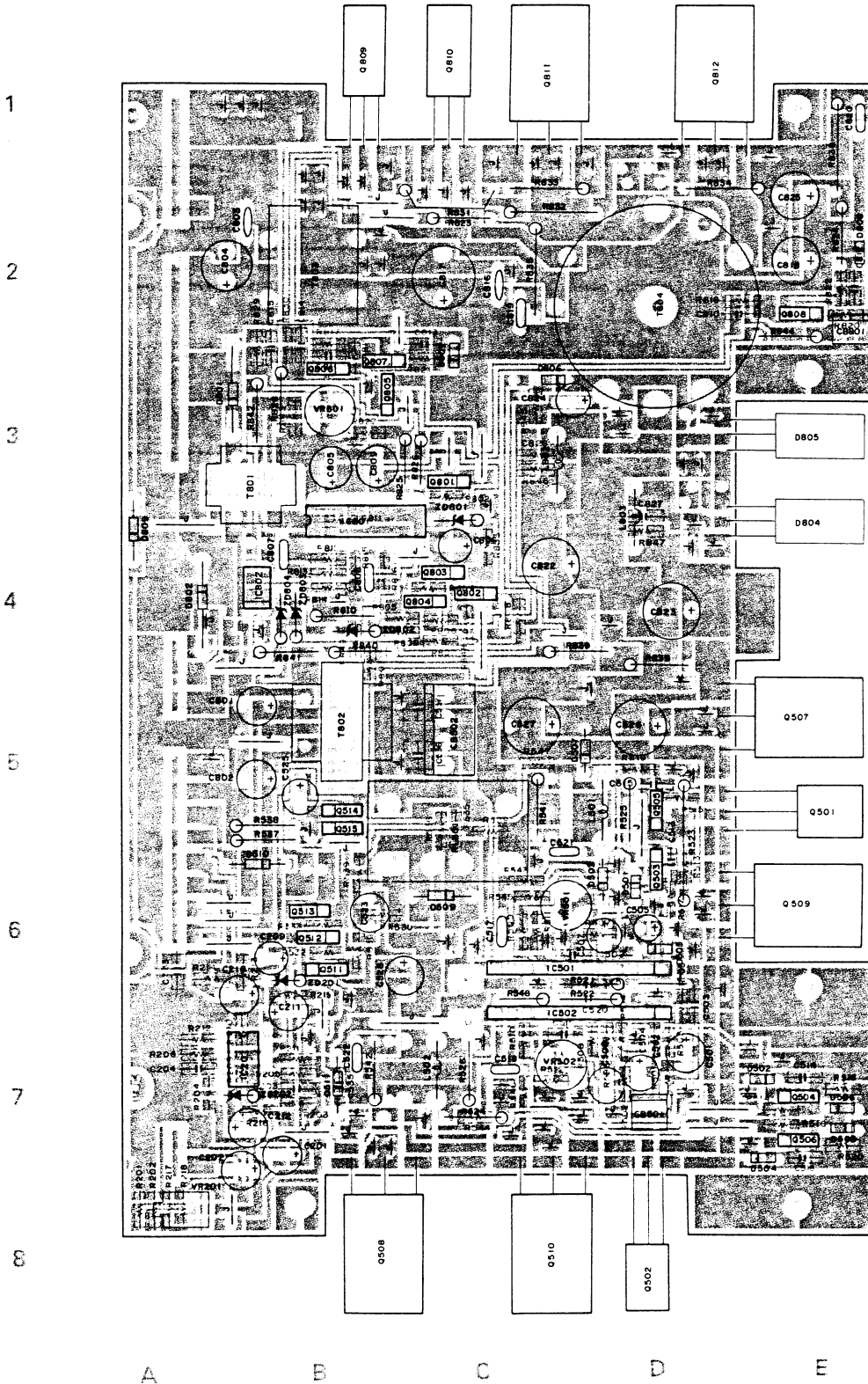
Parts Layout on P.C. Boards

- Main P. C. Board (Top View) (AO model only)

IC801	1	2	3	4	5	6	7	8
	2.4	2.4	3.0	0	1.7	3.6	0	14.4
	9	10	11	12	13	14	15	16
	1.2	1.2	14.3	14.3	4.9	4.9	4.9	0

IC201	1	2	3	4	5	6	7	8
	0	0	0	-11.9	0	0	0	11.9

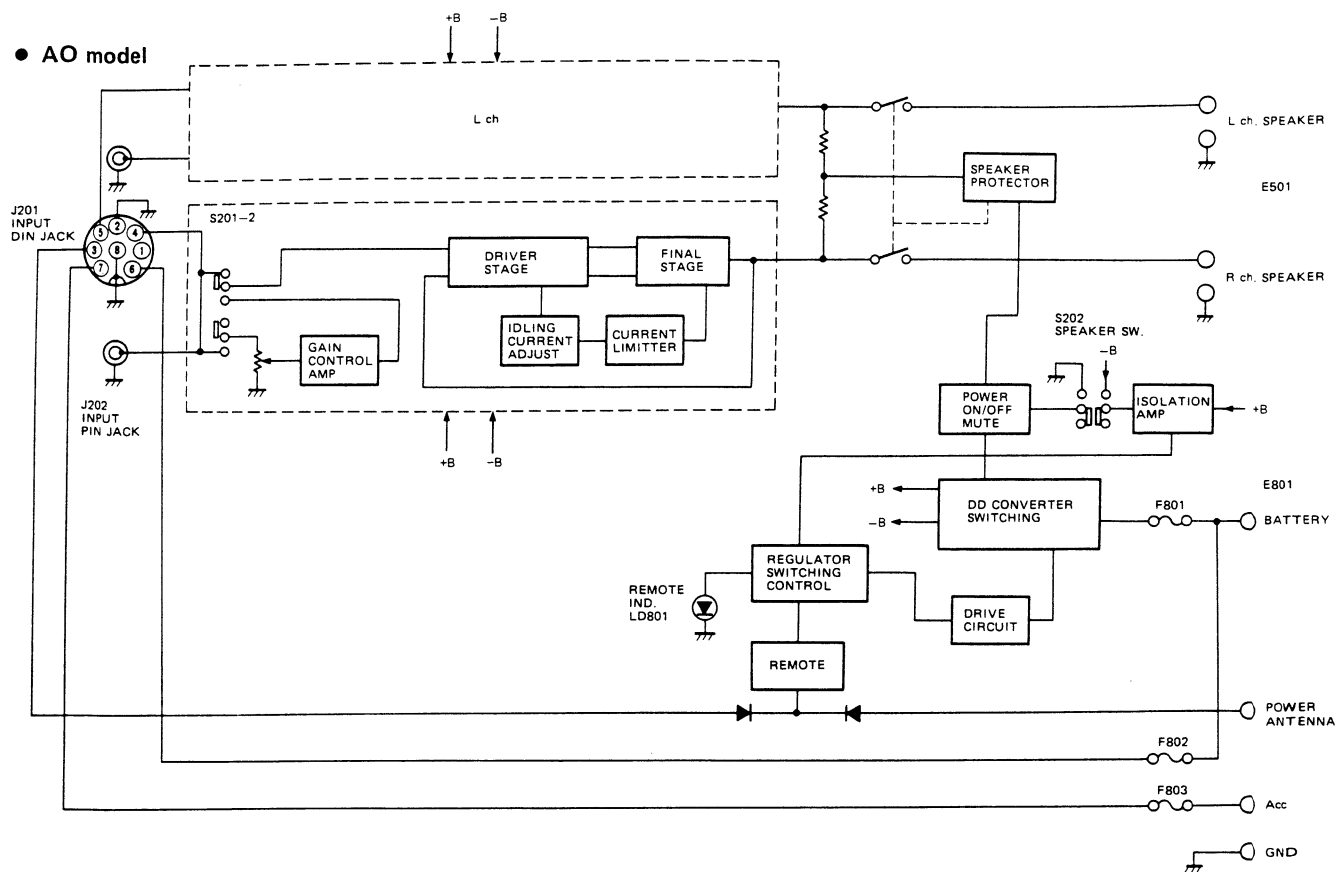
IC501, IC502	1	2	3	4	5	6	7	8	9	10	11	12
	21.3			0	0	-20.3	-1.0	0.4	-22.0	-22.0	-0.6	+0.6



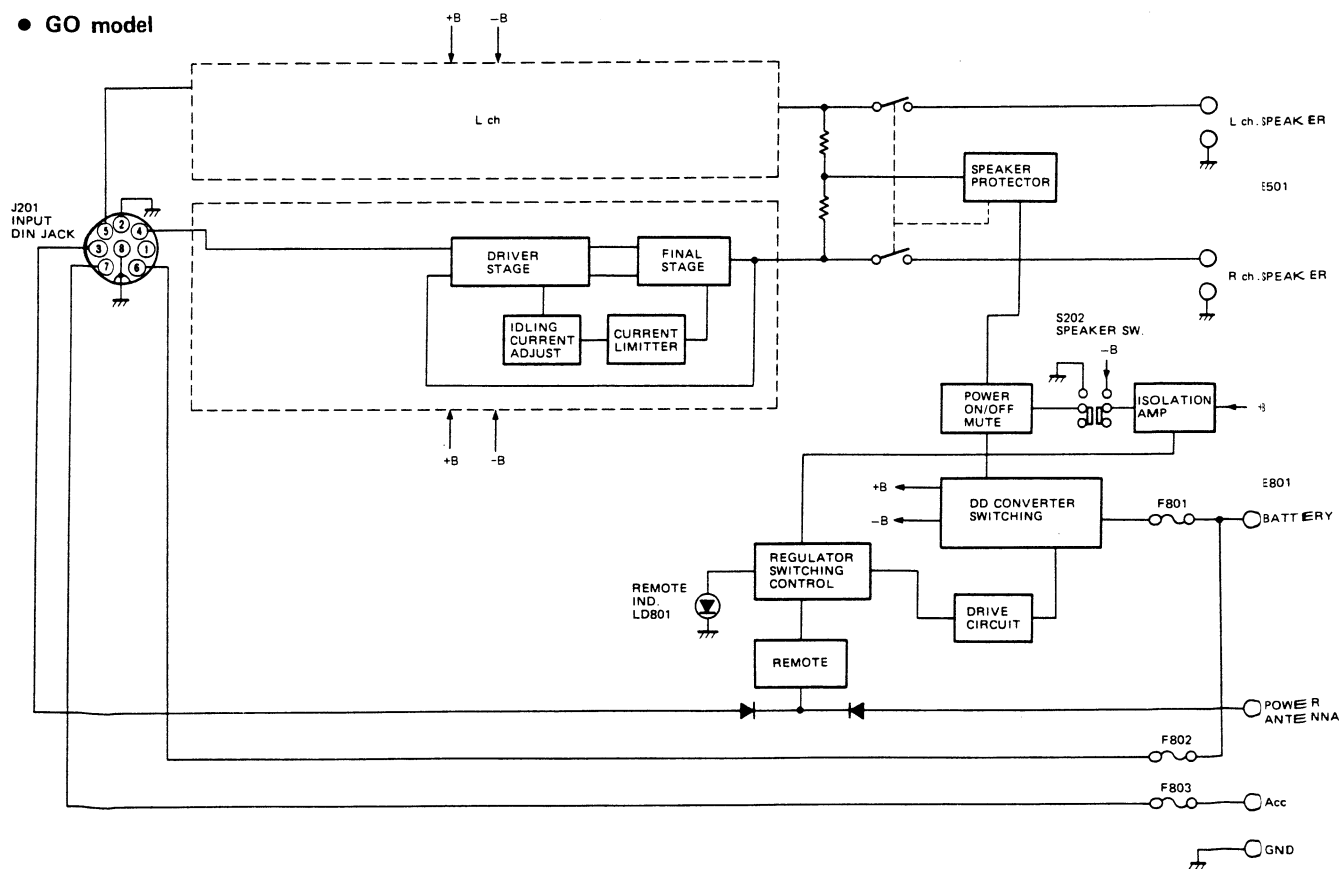
	E	C	B
Q501	-1.1	0.5	-0.5
Q502	-1.1	0.6	-0.5
Q503	0	0.6	0
Q504	0	0.4	0
Q505	0	-0.9	0
Q506	0	-0.9	0
Q507	0	21.7	0.6
Q508	0	21.7	0.6
Q509	0	-22.6	-0.6
Q510	0	-22.6	0.6
Q511	0	8.9	0
Q512	0	8.9	0
Q513	8.9	0	8.9
Q514	0	8.9	-3.8
Q515		8.7	8.9
Q801	14.4	14.4	13.6
Q802	0	0	5.2
Q803	4.9	0	4.9
Q804	0	4.9	0
Q805	0	0.3	0
Q806	0	0.3	0
Q807	14.4	7.2	14.6
Q808	14.4	7.2	14.6
Q809	0.2	14.4	0.3
Q810	0.2	14.4	0.3
Q811	0	14.4	0.1
Q812	0	14.4	0.1

Block Diagram

• AO model



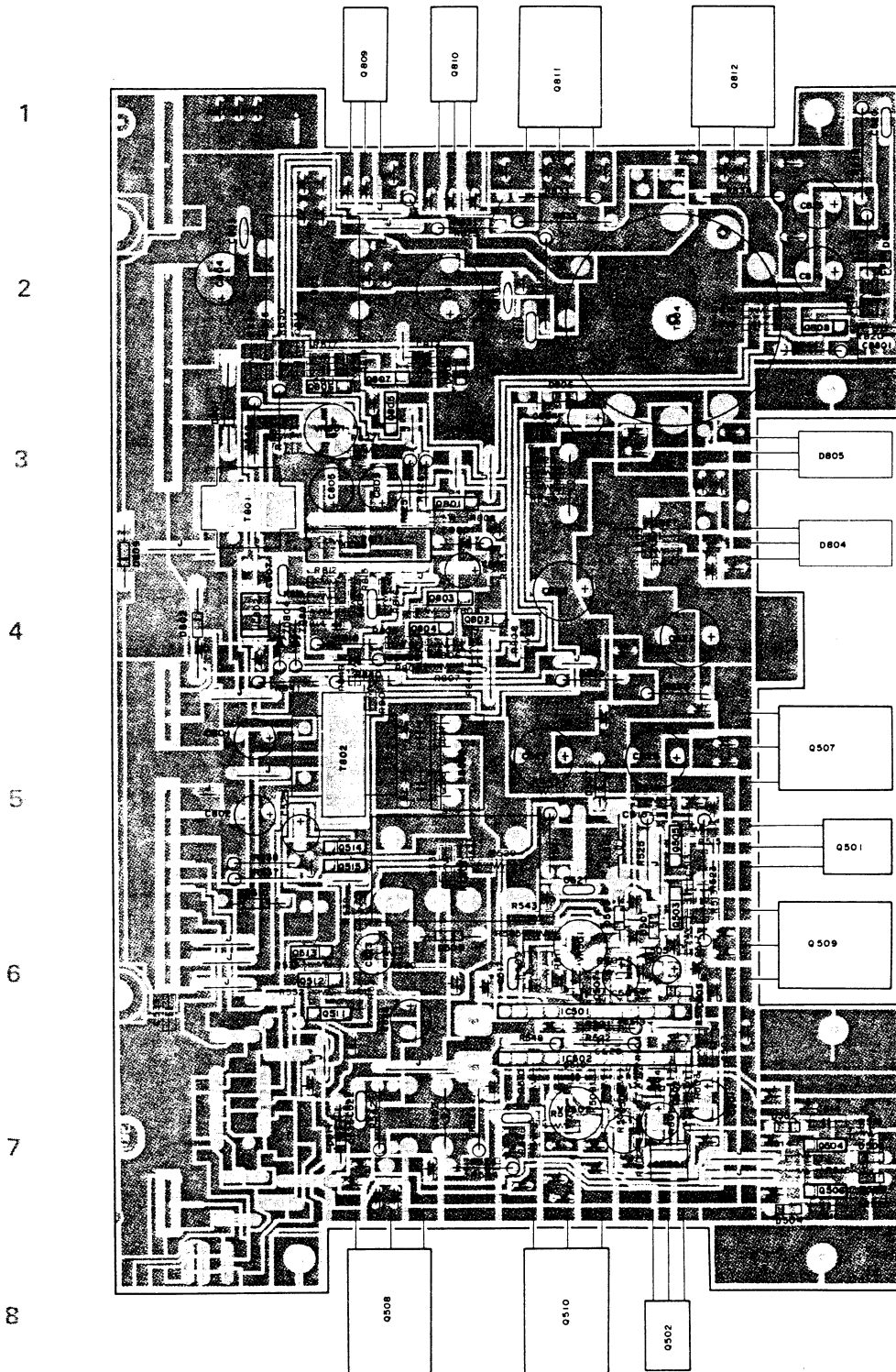
• GO model



IC801	1	2	3	4	5	6	7	8
	2.4	2.4	3.0	0	1.7	3.6	0	14.4
	9	10	11	12	13	14	15	16
	1.2	1.2	14.3	14.3	4.9	4.9	4.9	0

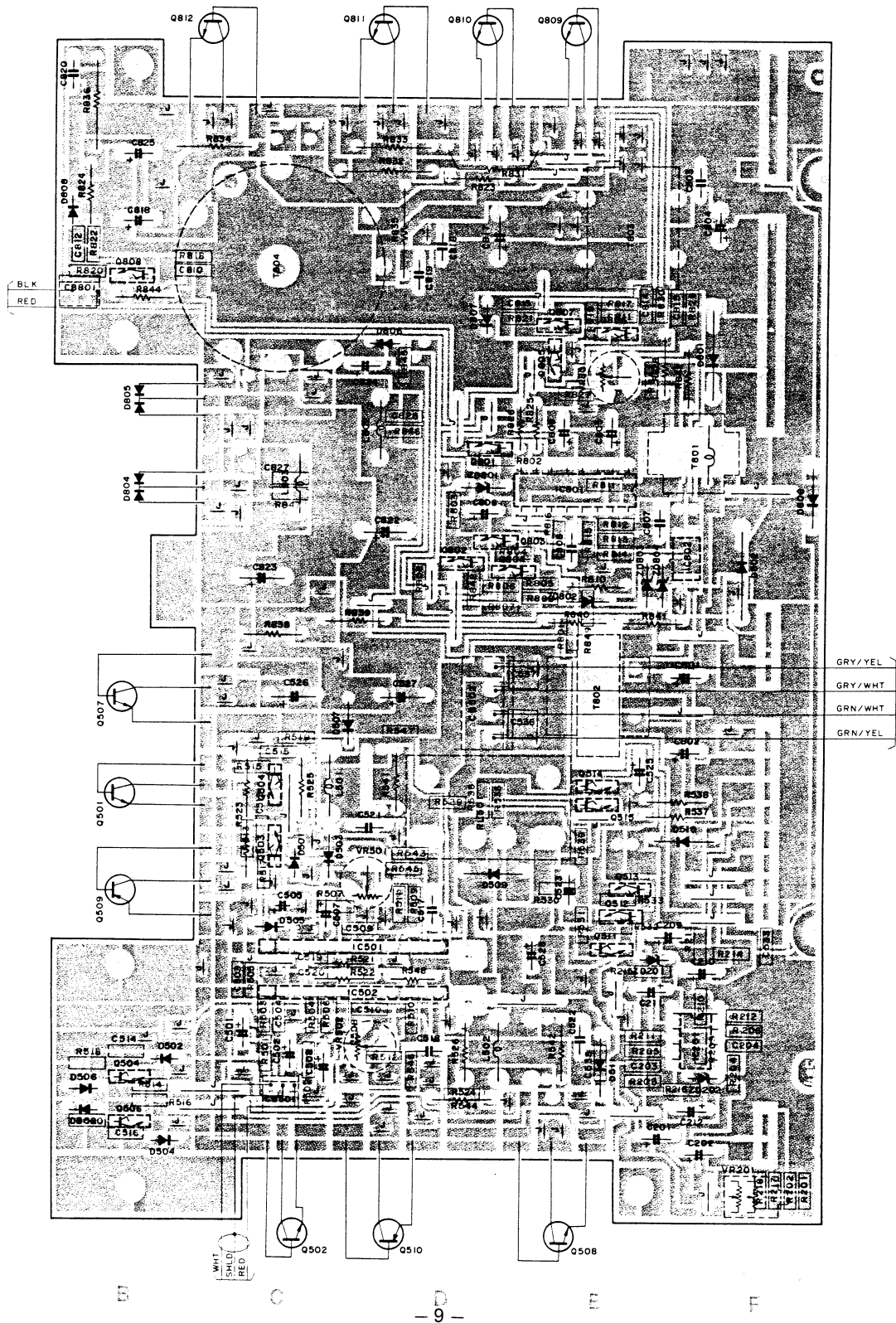
● Main P. C. Board (Top View) (GO model only)

IC501, IC502	1	2	3	4	5	6	7	8	9	10	11	12
	21.3			0	0	-20.3	-1.0	0.4	-22.0	-22.0	-0.6	+0.6

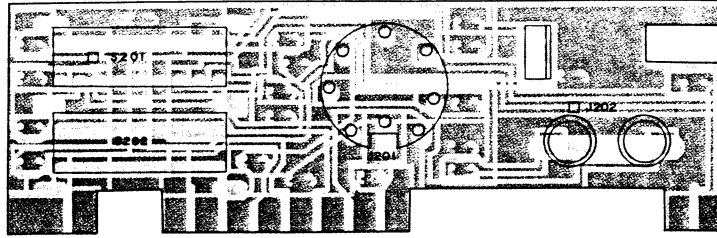


	E	C	B
Q501	-1.1	0.5	-0.5
Q502	-1.1	0.6	-0.5
Q503	0	0.6	0
Q504	0	0.4	0
Q505	0	-0.9	0
Q506	0	-0.9	0
Q507	0	21.7	0.6
Q508	0	21.7	0.6
Q509	0	-22.6	-0.6
Q510	0	-22.6	0.6
Q511	0	8.9	0
Q512	0	8.9	0
Q513	8.9	0	8.9
Q514	0	8.9	-3.8
Q515		8.7	8.9
Q801	14.4	14.4	13.6
Q802	0	0	5.2
Q803	4.9	0	4.9
Q804	0	4.9	0
Q805	0	0.3	0
Q806	0	0.3	0
Q807	14.4	7.2	14.6
Q808	14.4	7.2	14.6
Q809	0.2	14.4	0.3
Q810	0.2	14.4	0.3
Q811	0	14.4	0.1
Q812	0	14.4	0.1

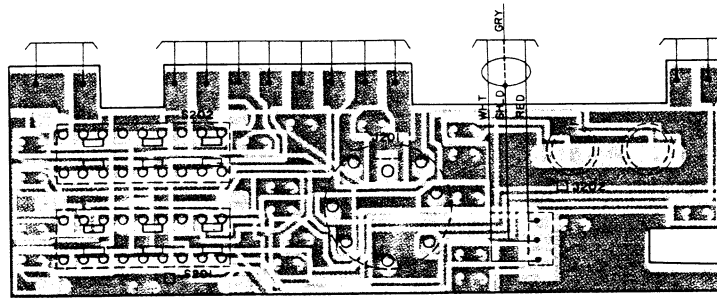
• Main P. C. Board (Bottom View) (AO model only)



• DIN and Switch P. C. Board

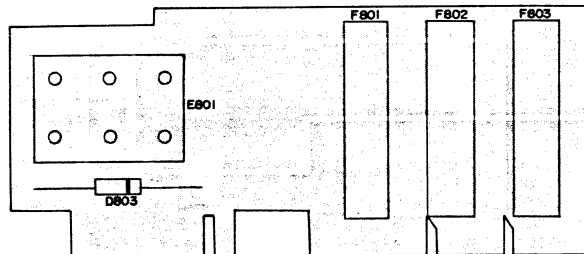


(Top View)

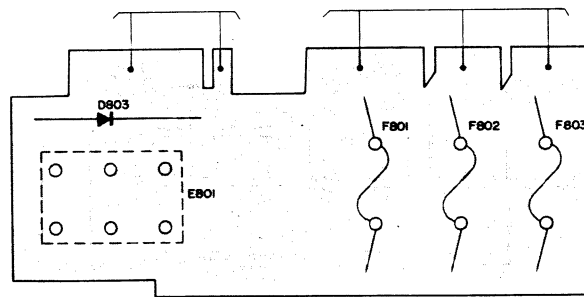


(Bottom View)

• Fuse and Coupler P. C. Board

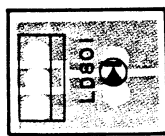


(Top View)

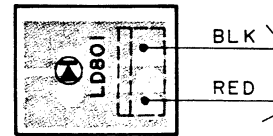


(Bottom View)

• LED P. C. Board



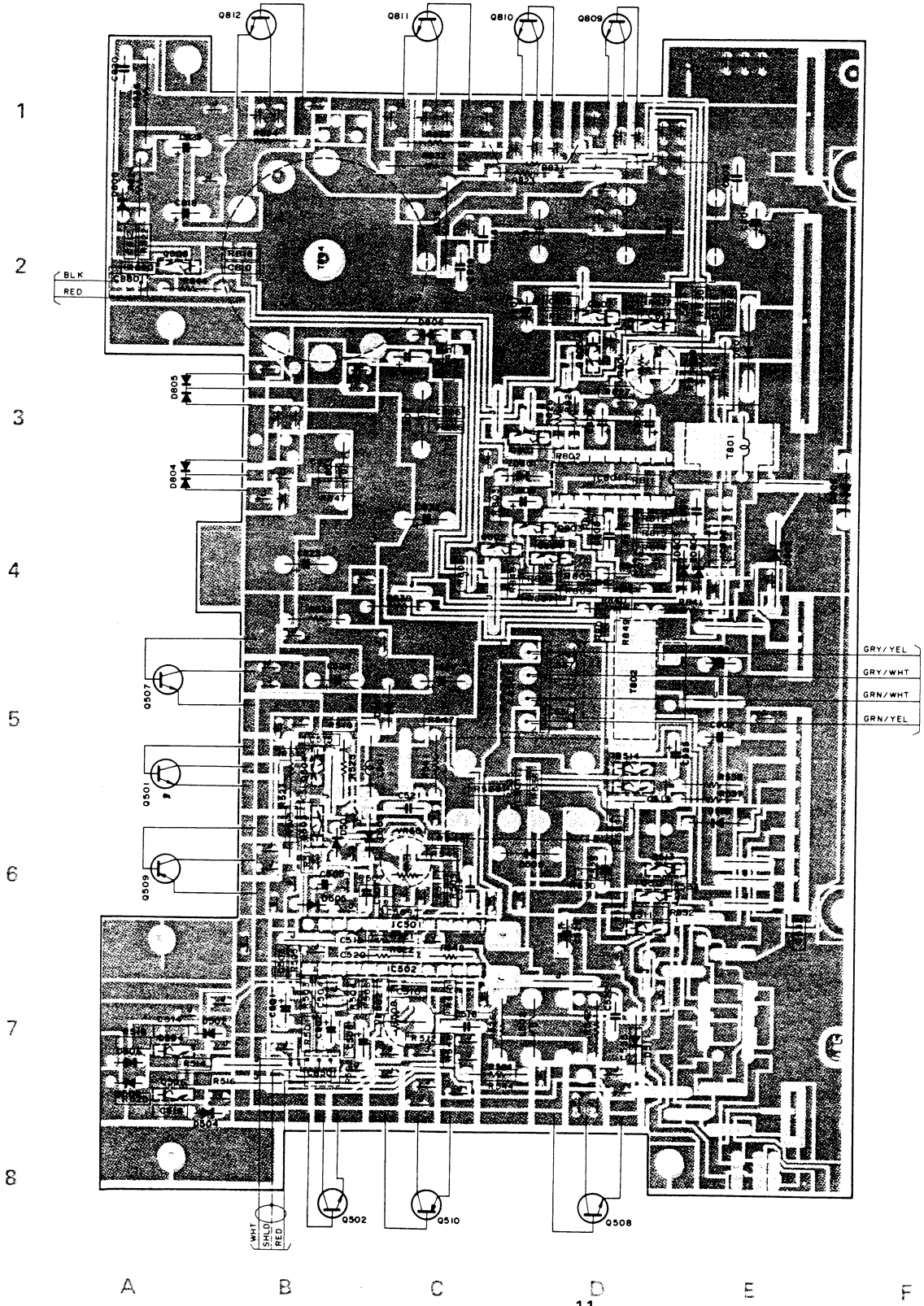
(Top View)



(Bottom View)

NOTE □: AO model only

• Main P. C. Board (Bottom View) (GO model only)



Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Volume controls			C526	23C42170G38	Electrolytic 2200pF 25V
			C527	23C42170G38	Electrolytic 2200pF 25V
			C528	23C42170G39	Electrolytic 1000pF 25V
□ VR201	18B69022F01	10K ohms	C533	08S53332F51	CP. 0.022μF
VR501	18B44064J01	470 ohms 1/2W	C534	08T50579F21	TF 0.47μF
VR502	18B44064J01	470 ohms 1/2W			
VR801	18B44064J02	4.7K ohms 1/2W			
Relay			C801	23C42170G30	Electrolytic 470pF 16V
RL501	80T58508F01	G4Z-2282P-12V	C802	23C42170G30	Electrolytic 470pF 16V
Capacitors			C803	08S40805F22	Ceramic 0.04μF
□ C201	23T42478F26	Electrolytic 2.2μF 50V	C804	23T51232F02	Electrolytic 1000pF 16V
□ C202	23T42478F26	Electrolytic 2.2μF 50V	C805	23T65374F02	Electrolytic 220pF 10V
□ C203	08S53332F27	CP. 220pF	C806	23T65374F02	Electrolytic 220pF 10V
□ C204	08S53332F27	CP. 220pF	C807	08T57705F79	Mylar 0.1μF
□ C209	23S40657F32	Electrolytic 10μF 50V	C808	08T57705F55	Mylar 1000pF
□ C210	23S40657F32	Electrolytic 10μF 50V	C809	23T65374F05	Electrolytic 100pF 16V
□ C211	23S40657F21	Electrolytic 100μF 25V	C810	08S53332F23	CP. 100pF
□ C212	23S40657F21	Electrolytic 100μF 25V	C811	08S53332F23	CP. 100pF
C501	23T42478F24	Electrolytic 1.0pF 50V	C812	08S53332F23	CP. 100pF
C502	23T42478F24	Electrolytic 1.0pF 50V	C813	08S53332F23	CP. 100pF
C503	08S53332F27	CP. 220pF	C814	08S53332F35	CP. 1000pF
C504	08S53332F27	CP. 220pF	C815	08S53332F35	CP. 1000pF
C505	23S41198U12	Electrolytic 10pF 50V	C816	08S40805F22	Ceramic 0.04μF
C507	23T65374F05	Electrolytic 100μF 16V	C817	23C42170G37	Electrolytic 3300pF 16V
C508	23T65374F05	Electrolytic 100μF 16V	C818	23T51232F02	Electrolytic 1000pF 16V
C509	08S53332F17	CP. 33pF	C819	08T57851F05	Mylar 0.022μF
C510	08S53332F17	CP. 33pF	C820	08T57851F05	Mylar 0.022μF
C513	08S53332F51	CP. 0.022μF	C822	23C42170F38	Electrolytic 2200pF 25V
C514	08S53332F51	CP. 0.022μF	C823	23C42170G38	Electrolytic 2200pF 25V
C515	08S53332F51	CP. 0.022μF	C824	23S40657F27	Electrolytic 0.47pF 50V
C516	08S53332F51	CP. 0.022μF	C825	23T51232F02	Electrolytic 1000pF 16V
C517	08T57705F75	Mylar 0.047μF	C826	08S53332F35	CP. 1000pF
C518	08T57705F75	Mylar 0.047μF	C827	08S53332F35	CP. 1000pF
C519	08S53332F11	CP. 10pF			
C520	08S53332F11	CP. 10pF			
C521	08T57705F75	Mylar 0.047μF			
C522	08T57705F75	Mylar 0.047μF			
C523	23S41192U68	Electrolytic B.P. 100pF 10V			
C525	23T65374F01	Electrolytic 100pF 10V			

□: AO model only, Others: common

Electrical Parts List

Carbon resistors of less than 1/4 watts are not entered on the parts list, so please confirm them using the schematic diagram.

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
ICs			D506	48T58583F01	SI .SS176TPA7
□ IC201 or IC801 or IC802	51T65380F01	BA4558	or	48T68828F01	ISS133
	51S43471U02	μPC4558C	D507	48T58583F01	SI .SS176TPA7
	51T71049F01	TL494CN	or	48T68828F01	ISS133
	51T70759F01	μPC494C	D508	48T58583F01	SI .SS176TPA7
IC802	51T70760F01	Photo coupler, PS2401-1	or	48T68828F01	ISS133
			D509	48S40477U01	IN4003
			D510	48S40477U01	IN4003
Transistors			D511	48C40235G02	SI 10E2
Q503	48T51091F01	2SC2021	D801	48T68580F03	SI DSA3A4-F5
Q504	48T51091F01	2SC2021	D802	48T68580F03	SI DSA3A4-F5
Q505	48T63086F01	2SA937M	D806	48T58583F01	SI .SS176TPA7
Q506	48T63086F01	2SA937M	or	48T68828F01	ISS133
Q511	48T51091F01	2SC2021	D807	48T58583F01	SI .SS176TPA7
Q512	48T51091F01	2SC2021	or	48T68828F01	ISS133
Q513	48T63086F01	2SA937M	D808	48T58583F01	SI .SS176TPA7
Q514	48T57337F01	2SD1330	or	48T68828F01	ISS133
Q515	48T51091F01	2SC2021	D809	48S40477U01	IN4003
Q801	48T69177F01	2SA1358	or	48T68828F01	ISS133
Q802	48T62540F01	UN1211	□ ZD201	48T68697F46	Zener, HZS 12EB2
Q803	48T63086F01	2SA937M	□ or	48T68697F46	Zener, MTZ 12-B
Q804	48T51091F01	2SC2021	□ ZD202	48T68697F46	Zener, HZS 12EB2
Q805	48T51091F01	2SC2021	□ or	48T68699F38	Zener, MTZ 12-B
Q806	48T51091F01	2SC2021	ZD801	48T68697F24	Zener, HZS6.2EB2
Q807	48T63086F01	2SA937M	or	48T68699F16	Zener, MTZ 6.2-B
Q808	48T63086F01	2SA937M	ZD802	48T68697F57	Zener, HZS 18EB1
			or	48T68699F49	Zener, MTZ 18-A
			ZD803	48T68697F66	Zener, HZS 22EB3
			or	48T68699F59	Zener, MTZ 22-D
			ZD804	48T68697F40	Zener, HZS 10EB3
			or	48T68699F33	Zener, MTZ 10-D
Diodes			Thermistors		
D501	48T58583F01	SI .SS176TPA7	TH802	48T60670F01	20K ohms
or	48T68828F01	ISS133	Coils		
D502	48T58583F01	SI .SS176TPA7	L501	24T67516F01	Choke, 1.1μH
or	48T68828F01	ISS133	L502	24T67516F01	Choke, 1.1μH
D503	48T58583F01	SI .SS176TPA7	L802	25T58607F01	Choke, 4A
or	48T68828F01	ISS133	L803	25T58607F01	Choke, 4A
D504	48T58583F01	SI .SS176TPA7	T801	25T47510F01	Choke, Filter, (EI-14)
or	48T68828F01	ISS133	T802	25T71689F01	Choke, Filter, (EI-14)
D505	48T58583F01	SI .SS176TPA7	or	25C40894G11	Transformer
or	48T68828F01	ISS133	T803	25T70755F01	Choke, Common 3519

□: AO model only, Others: common

Symbol No.	Part No.	Description
Miscellaneous		
ICs		
IC501 IC502	51T58602F01 51T58602F01	μPC 1225H μPC 1225H
Transistors		
Q501 Q502	48T64376F01 48T64376F01	2SC3423 2SC3423
Q507 Q508 Q509	48T57132F03 48T57132F03 48T57131F03	2SC3181 2SC3181 2SA1264
Q510	48T57131F03	2SA1264
Q809 Q810	48T40469U01 48T40469U01	2SC1983 2SC1983
Q811 Q812	48T47613F01 48T47613F01	2SD1065 2SD1065
Diodes		
D803 D804 or D805 or	48T68079F03 48T71360F01 48T61597F01 48T71360F02 48T61597F02	30D4 FA C10P20F CTG22S C10P20FR CTG22R
LED		
LD801	48T52238F02	PR5552K (Red)
Switches		
□S201 S202	40T70757F01 40T70757F01	Slide Slide
Transformer		
T804	25T70754F01	DC-DC Control
etc.		
E501 E801	01T70747F01 01T70748F01	Assy., Coupler 4-pins Assy., Coupler 6-pins
F801 F802 F803	65T58596F05 65T58596F01 65T58596F01	Fuse, Auto 15A Fuse, Auto 3A Fuse, Auto 3A
J201 □J202 TH801	09T70752F01 09T70753F01 48T60670T01	Socket, Din 8-pins Jack, Rca 2-pins Thermister, 20K

□: AO model only, Others: common

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Resistors			R536	06S53330F89	CP. 33K ohms 1/8W
			R537	06T67581F18	C.F. 68 ohms 1/2W
			R538	06T67581F19	C.F. 82 ohms 1/2W
□ R201	06S53330F45	CP. 470 ohms 1/8W	R541	06T67581F08	C.F. 10 ohms 1/2W
□ R202	06S53330F45	CP. 470 ohms 1/8W	R542	06T67581F08	C.F. 10 ohms 1/2W
□ R203	06S53330F53	CP. 1K ohms 1/8W	R543	06S53330F05	CP. 10 ohms 1/8W
□ R204	06S53330F53	CP. 1K ohms 1/8W	R544	06S53330F05	CP. 10 ohms 1/8W
□ R205	06S53331F02	CP. 100K ohms 1/8W	R545	06S53330F05	CP. 10 ohms 1/8W
□ R206	06S53331F02	CP. 100K ohms 1/8W	R546	06S53330F05	CP. 10 ohms 1/8W
□ R209	06S53330F67	CP. 3.9K ohms 1/8W	R801	06S53330F65	CP. 3.3K ohms 1/8W
□ R210	06S53330F67	CP. 3.9K ohms 1/8W	R802	06S53330F65	CP. 3.3K ohms 1/8W
□ R211	06S53330F53	CP. 1K ohms 1/8W	R803	06S53330F53	CP. 1K ohms 1/8W
□ R212	06S53330F53	CP. 1K ohms 1/8W	R804	06S53330F77	CP. 10K ohms 1/8W
□ R213	06S53331F02	CP. 100K ohms 1/8W	R805	06S53331F19	CP. 510K ohms 1/8W
□ R214	06S53331F02	CP. 100K ohms 1/8W	R806	06S53330F77	CP. 10K ohms 1/8W
□ R215	06S53330F53	CP. 1K ohms 1/8W	R807	06S53330F84	CP. 20K ohms 1/8W
□ R216	06S53330F53	CP. 1K ohms 1/8W	R808	06S53330F36	CP. 200 ohms 1/8W
R 501	06S53330F79	CP. 12K ohms 1/8W	R809	06S53330F84	CP. 20K ohms 1/8W
R 502	06S53330F79	CP. 12K ohms 1/8W	R811	06S53330F65	CP. 3.3K ohms 1/8W
R 503	06S53330F61	CP. 2.2K ohms 1/8W	R812	06S53331F02	CP. 100K ohms 1/8W
R 504	06S53330F61	CP. 2.2K ohms 1/8W	R813	06S53330F96	CP. 62K ohms 1/8W
R 505	06S53330F93	CP. 47K ohms 1/8W	R814	06S53330F65	CP. 3.3K ohms 1/8W
R 506	06S53330F93	CP. 47K ohms 1/8W	R815	06S53330F77	CP. 10K ohms 1/8W
R 507	06S53330F60	CP. 2K ohms 1/8W	R816	06S53330F83	CP. 18K ohms 1/8W
R 508	06S53330F60	CP. 2K ohms 1/8W	R817	06S53330F94	CP. 51K ohms 1/8W
R 509	06S53330F59	CP. 1.8K ohms 1/8W	R818	06S53330F94	CP. 51K ohms 1/8W
R 510	06S53330F59	CP. 1.8K ohms 1/8W	R819	06S53330F70	CP. 5.1K ohms 1/8W
R 511	06S53330F51	CP. 820 ohms 1/8W	R820	06S53330F70	CP. 5.1K ohms 1/8W
R 512	06S53330F51	CP. 820 ohms 1/8W	R821	06S53330F94	CP. 51K ohms 1/8W
R 513	06S53330F25	CP. 68 ohms 1/8W	R822	06S53330F94	CP. 51K ohms 1/8W
R 514	06S53330F25	CP. 68 ohms 1/8W	R827	06S53330F47	CP. 560 ohms 1/8W
R 515	06S53330F25	CP. 68 ohms 1/8W	R829	06S53330F43	CP. 390 ohms 1/8W
R 516	06S53330F25	CP. 68 ohms 1/8W	R830	06S53330F43	CP. 390 ohms 1/8W
R 517	06S53330F81	CP. 15K ohms 1/8W	R831	06T55178F07	MF 1.0 ohm 1W
R 518	06S53330F81	CP. 15K ohms 1/8W	R832	06T55178F07	MF 1.0 ohm 1W
R 519	06S53330F81	CP. 15K ohms 1/8W	R833	06T55175F17	MF 10 ohms 1/2W
R 520	06S53330F81	CP. 15K ohms 1/8W	R834	06T55175F17	MF 10 ohms 1/2W
R 523	06T51107F04	RW. 0.15 ohms 5W	R835	06T55177F17	MF 10 ohms 1W
R 524	06T51107F04	RW. 0.15 ohms 5W	R836	06T55177F17	MF 10 ohms 1W
R 525	06T67581F08	C.F. 10 ohms 1/2W	R843	06S53330F53	CP. 1K ohms 1/8W
R 526	06T67581F08	C.F. 10 ohms 1/2W	R845	06S53330F77	CP. 10K ohms 1/8W
R 529	06S53330F79	CP. 12K ohms 1/8W	R846	06S53330F43	CP. 390 ohms 1/8W
R 530	06S53330F79	CP. 12K ohms 1/8W	R847	06S53330F43	CP. 390 ohms 1/8W
R 531	06S53330F53	CP. 1K ohms 1/8W	R848	06S53330F61	CP. 2.2K ohms 1/8W
R 532	06S53330F65	CP. 3.3K ohms 1/8W	R849	06S53330F94	CP. 51K ohms 1/8W
R 533	06S53330F77	CP. 10K ohms 1/8W			
R 535	06S53330F89	CP. 33K ohms 1/8W			

□: AO model only, Others: common

Schematic Diagram

(AO model only)

ICs	IC201	IC501	IC502	IC802	IC801
Transistors	Q501-Q506 Q511 Q512 Q513			Q507-Q510 Q514 Q515	
Diodes	ZD201 ZD202	D501 D502	D503 D504	D505 D506	D507 D508
				ZD803 D510	ZD804
					D806 ZD801
					D807 D809
					D808 ZD802
					D804 D805 D801-D803
					LD801

1

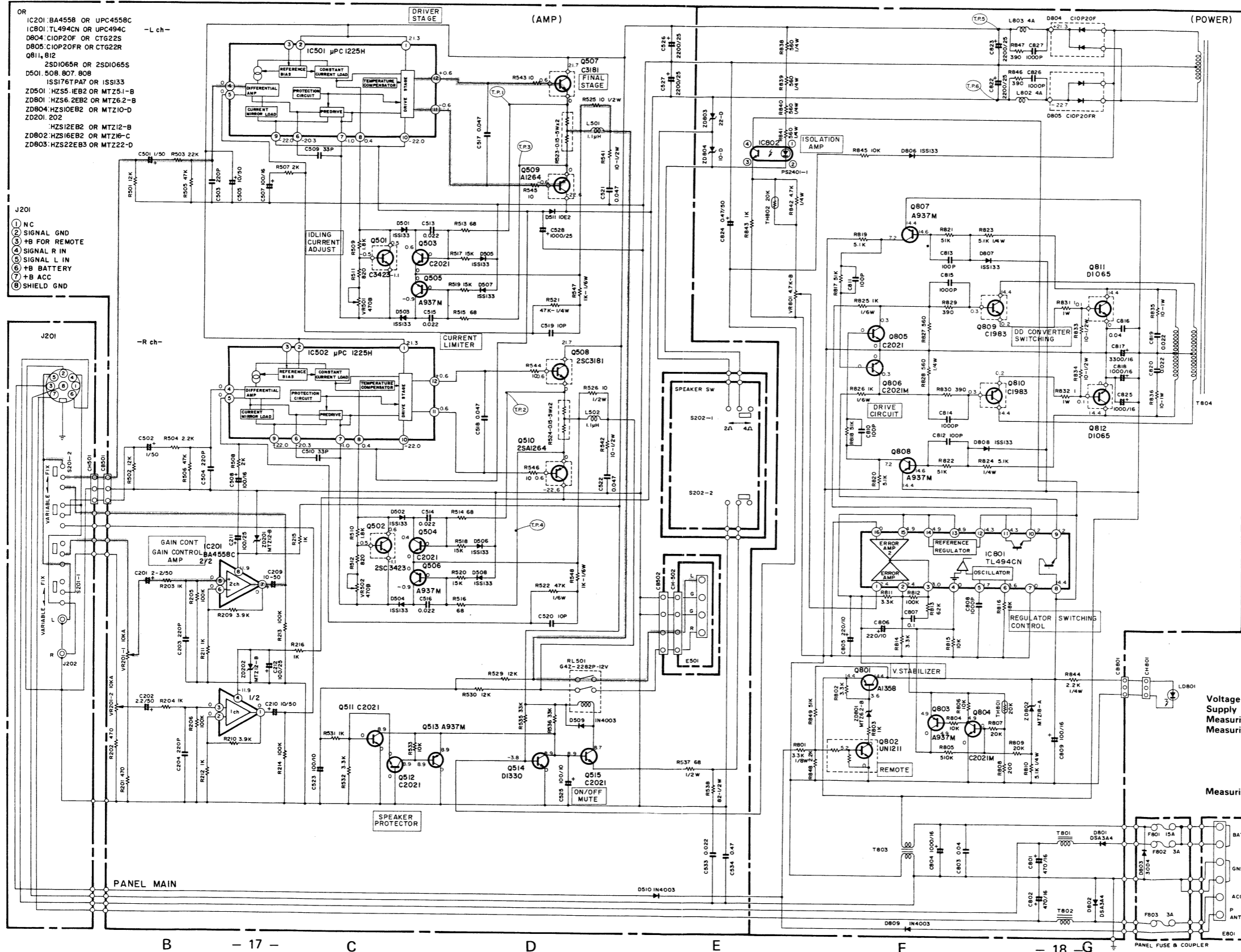
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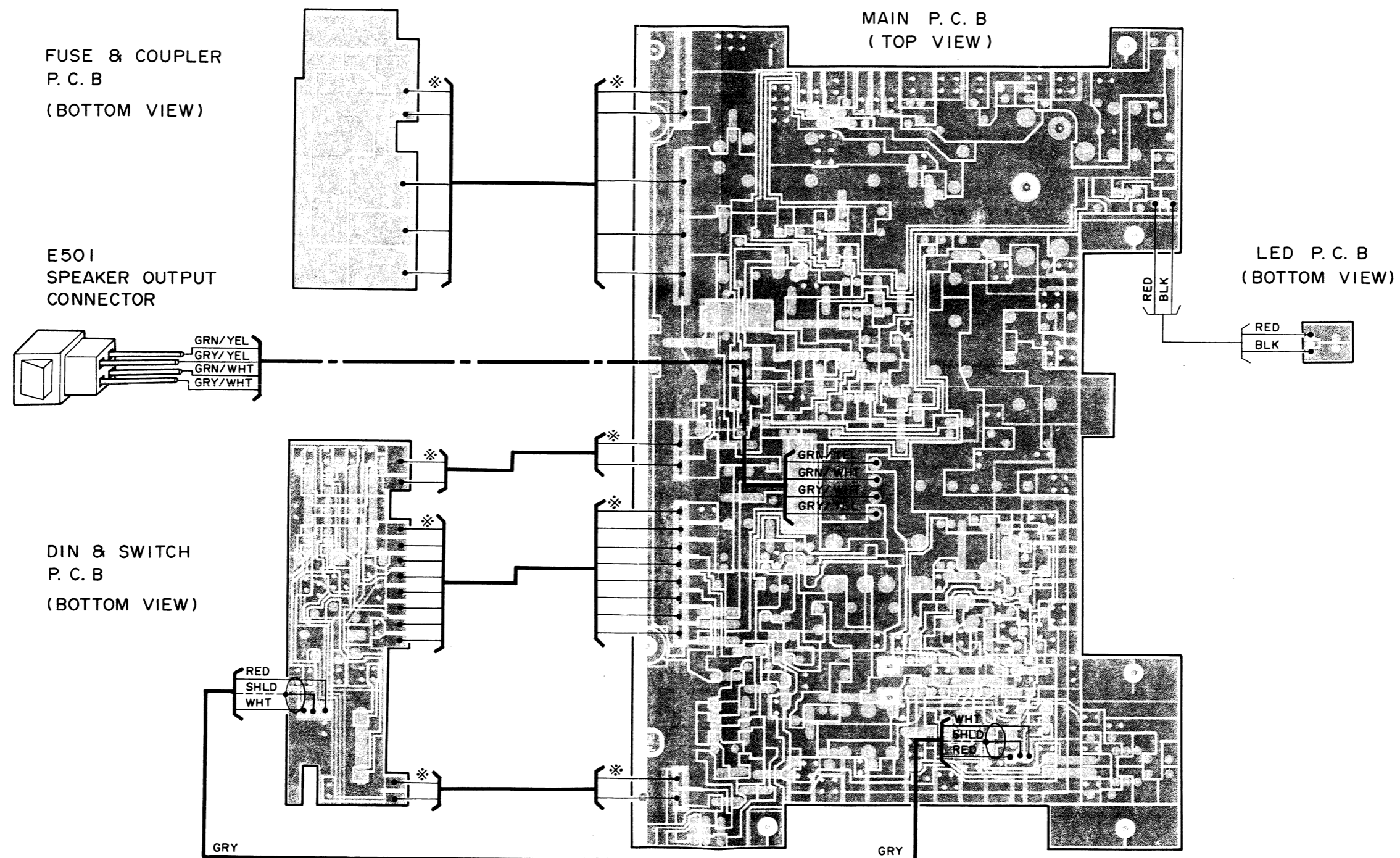


OR
 IC201: BA4558 OR UPC4558C
 IC801: TL494CN OR UPC494C
 D804: C10P20F OR CT622S
 D805: C10P20FR OR CT622R
 Q811, 812
 2SD1065R OR 2SD1065S
 D501, 508, 807, 808
 ISS176TPA7 OR ISS133
 ZD501: HZS5 IEB2 OR MTZ51-B
 ZD801: HZS6 2EB2 OR MTZ6.2-B
 ZD804: HZS10EB2 OR MTZ10-D
 ZD201, 202
 HZS12EB2 OR MTZ12-B
 ZD802: HZS16EB2 OR MTZ16-C
 ZD803: HZS22EB3 OR MTZ22-D

- J201
- 1 NC
 - 2 SIGNAL GND
 - 3 +B FOR REMOTE
 - 4 SIGNAL R IN
 - 5 SIGNAL L IN
 - 6 +B BATTERY
 - 7 +B ACC
 - 8 SHIELD GND

Voltage measuring conditions
 Supply voltage 14.4V DC
 Measuring instrument Digital Multimeter
 Measuring standard With respect to the primary ground potential (POWER)
 With respect to the secondary ground potential (AMPLIFIER)
Measuring conditions
 No signal input

Wiring Diagram



Schematic Diagram

(G0 model only)

ICs	IC201	IC501	IC502		IC802	IC801					
Transistors		Q501-Q506	Q507-Q510	Q511		Q805-Q808	Q809-Q812				
		Q511	Q512	Q513	Q514	Q515	Q801-Q804				
Diodes	ZD201	D501	D503	D505	D507	D511	D806	D807	D808	D804	D805
	ZD202	D502	D504	D506	D508	D509	ZD801	D809	ZD802	D801-D803	LD801

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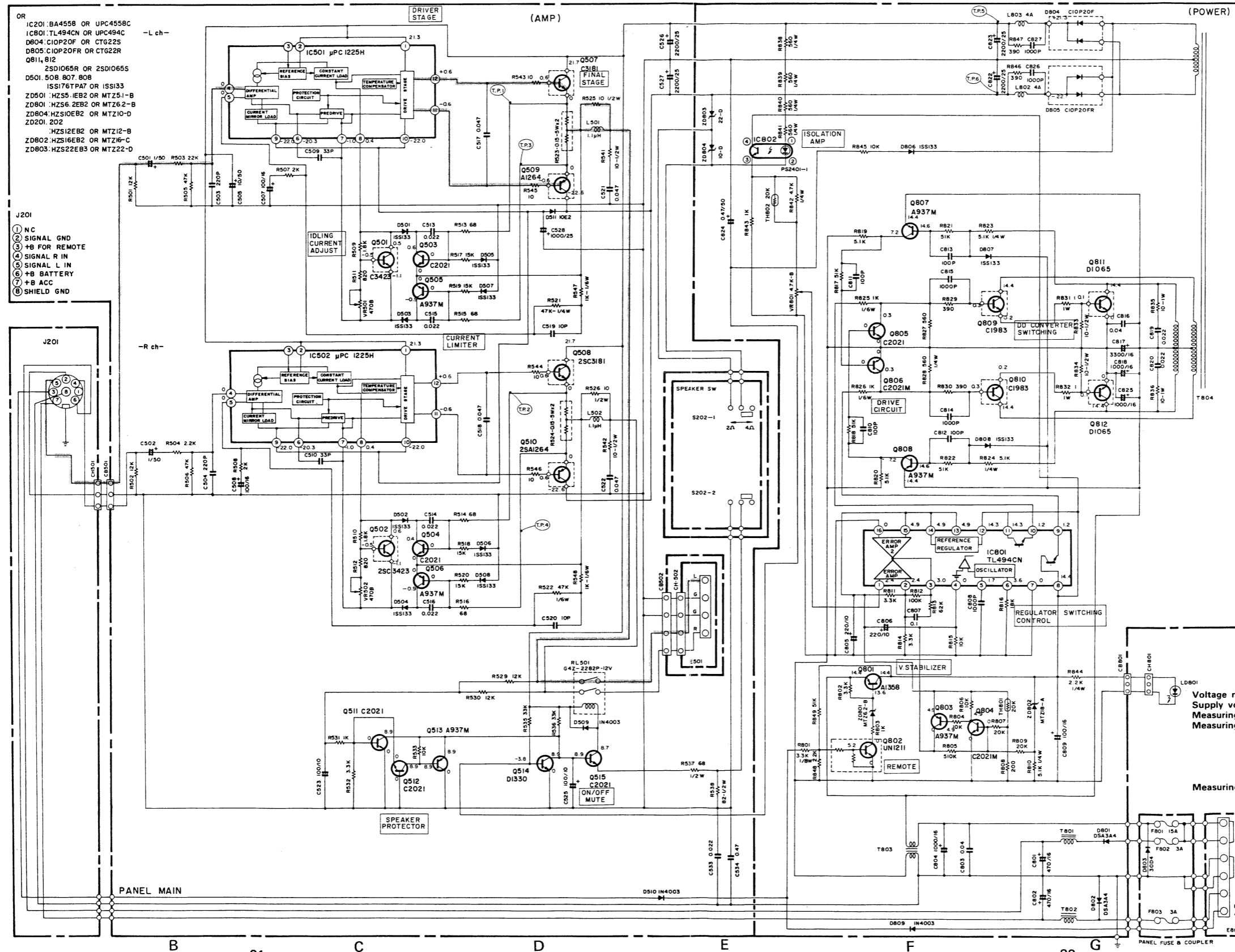
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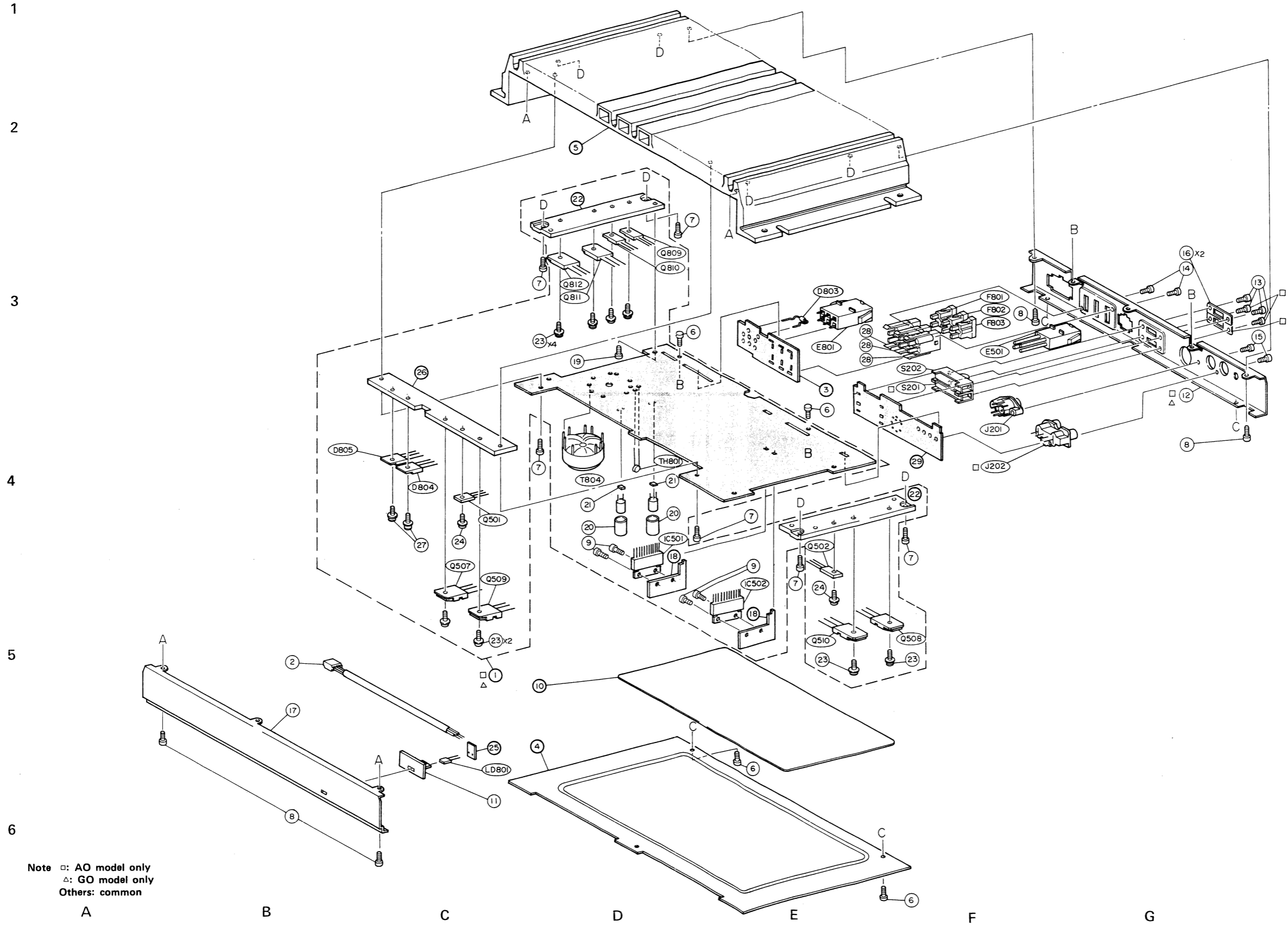
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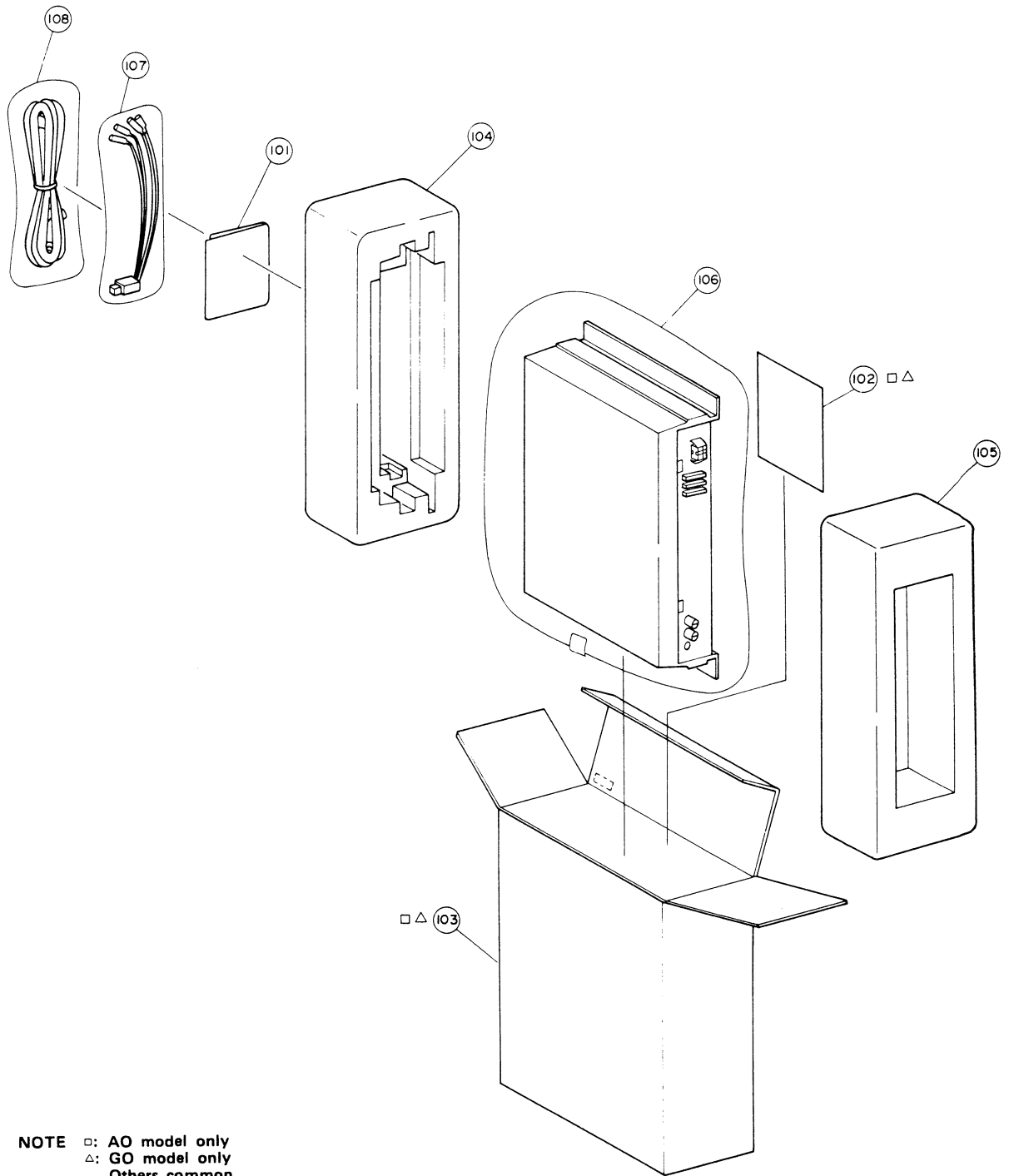
Voltage measuring conditions
Supply voltage 14.4V DC
Measuring instrument Digital Multimeter
Measuring standard With respect to the primary ground potential (POWER)
 With respect to the secondary ground potential (AMPLIFIER)
Measuring conditions No signal input

Exploded View (General)



Note □: AO model only
 △: GO model only
 Others: common

Packing Method View



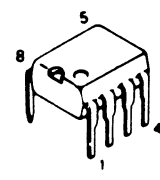
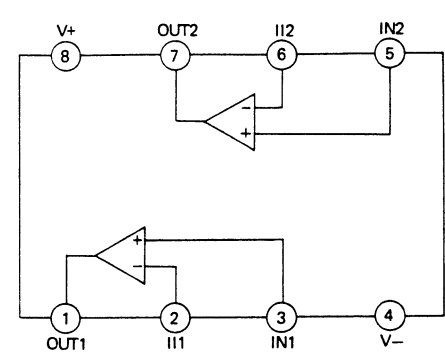
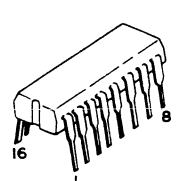
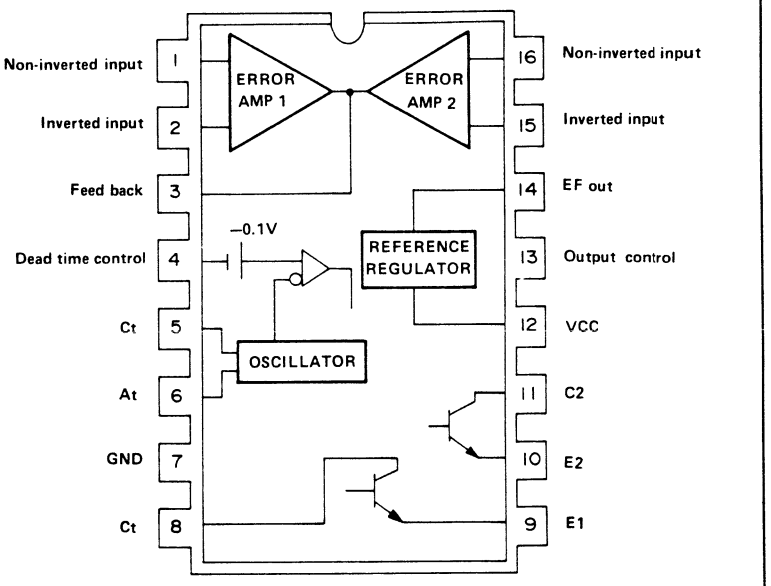
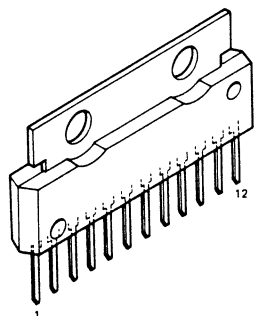
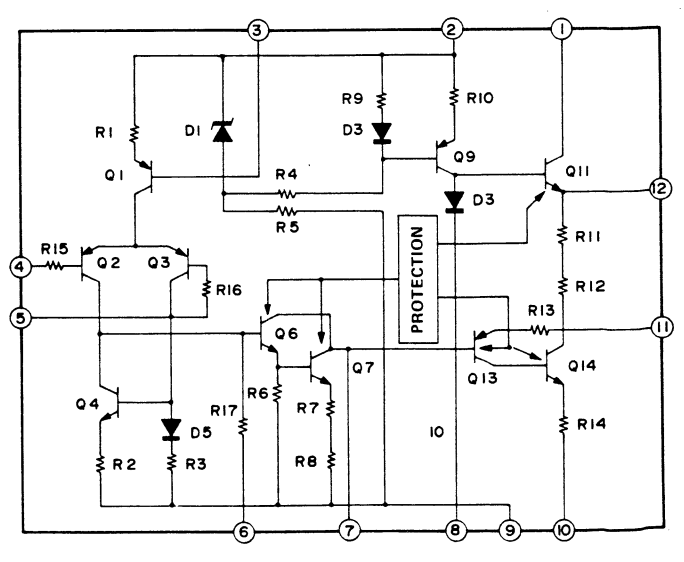
NOTE □: AO model only
 △: GO model only
 Others common

Mechanical Parts List

Sym- bol No.	Index	Part No.	Description
□ 1	5C	*	Assy., Main Board
△ 1	5C	*	Assy., Main Board
2	5B	01D61220F26	Assy., Connector 3-pins
3	3E	*	Fuse and Coupler P.C.B.
4	6D	*	Cover, Bottom
5	2D	*	Heatsink
6		03S44205G04	Screw, Pan (M3 x 5)
7		03S63857F39	Screw, Tapping (M3 X12)
8		03S63857F36	Screw, Tapping (M3 x 6)
9		03S71031F08	Screw, Bind (M3 x 5)
10		*	Insulator, Cover
11	6C	15B70599F01	Cover LED 3519
□ 12	3G	27C70598F01	Chassis, Rear
△ 12	3G	27C70598F02	Chassis, Rear
13		03S43997P51	Screw, Rnd (M2.6 x 4)
14		03S68555F02	Screw, Pan (M2.5 x 5.5)
15		03S40012G41	Screw, Tapping (M3 x 8)
16	3G	14A70605F01	Insulator, Switch Lock
17	5B	27C70597F01	Chassis, Front
18	5E	*	Heatsink, IC 501,502
19		03S71031F07	Screw, Bind (M3 x 6)
20	5D	26A72624F01	Shield, Case
21	4D	75S72374F06	Cushion, Rubber
22	3D	*	Heatsink, Transistor
23		03S71252F05	Screw, Pan (M3 x 10)
24		03S71252F04	Screw, Pan (M3 x 9)
25	6C	*	LED P.C.B.
26	4C	*	Heatsink
27		03S71252F03	Screw, Pan (M3 x 8)
or		03S71252F05	Screw, Pan (M3 x 10)
28	3F	F9T70751F01	Holder, Auto Fuse 1-pin
29	4F	*	DIN Switch P.C.B.

NOTE □: AO model only
 △: GO model only
 Others common

Semiconductors Leads Identifications

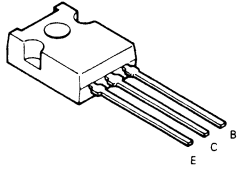
<p>BA4558 μPC4558 IC201 (AO model only)</p> 	
<p>μPC494C IC801</p> 	
<p>μPC1225H IC501, IC502</p> 	

Packing Parts List

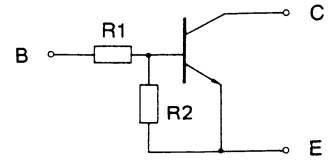
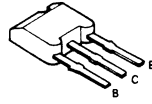
Symbol No.	Part No.	Description
Packing Assembly Parts		
101	01V71300F09	Assy, Kit Installation 3519
□ 102	01V71300F10	Assy, Pamphlet
□ 102	68P73333F20	Owner's Manual
103	56S69254F14	Carton, Packing Individual Std
103	56S69254F17	Carton, Packing
104	56D70744F01	Tray, Packing "Front"
105	56D70744F02	Tray, Packing "Rear"
106	56B72811F01	Sack, Polyethylene
107	01T70749F01	Assy, Kit Wire 4-pins
108	01T70750F01	Assy, Kit Wire 6-pins
Label		
	54S60911F91 54B42124G01	Composite (Cover Bottom) Serial No. (Cover Bottom, Carton Ind)

NOTE □: AO model only
 △: GO model only
 Others: common

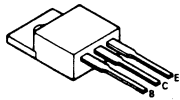
2SA1358 Q801



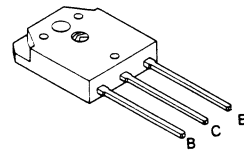
UN1211(48T62540F01) Q802



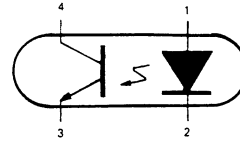
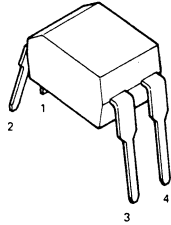
2SC1983 Q809, Q810



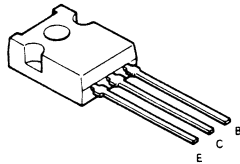
2SD1065 Q811, Q812



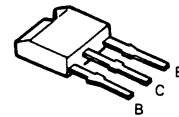
PS2401 IC802



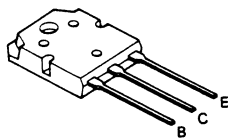
2SC3423 Q501, Q502



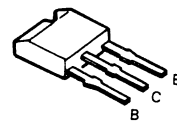
2SC2021 Q503, Q504, Q511, Q512, Q515, Q804
Q805, Q806
2SA937 Q505, Q506, Q513, Q803, Q807, Q808



2SC3181 Q507, Q508,
2SA1264 Q509, Q510



2SD1330 Q514



Schematic Diagram

(AO model only)

ICs	IC201	IC501	IC502		IC802	IC801
Transistors		Q501-Q506	Q507-Q510		Q805-Q808	Q809-Q812
Diodes	ZD201 ZD202	D501 D503 D505 D507	D511 D514 D515		D806 D807 D808 D804 D805	ZD801 D809 ZD802 D801-D803 LD801

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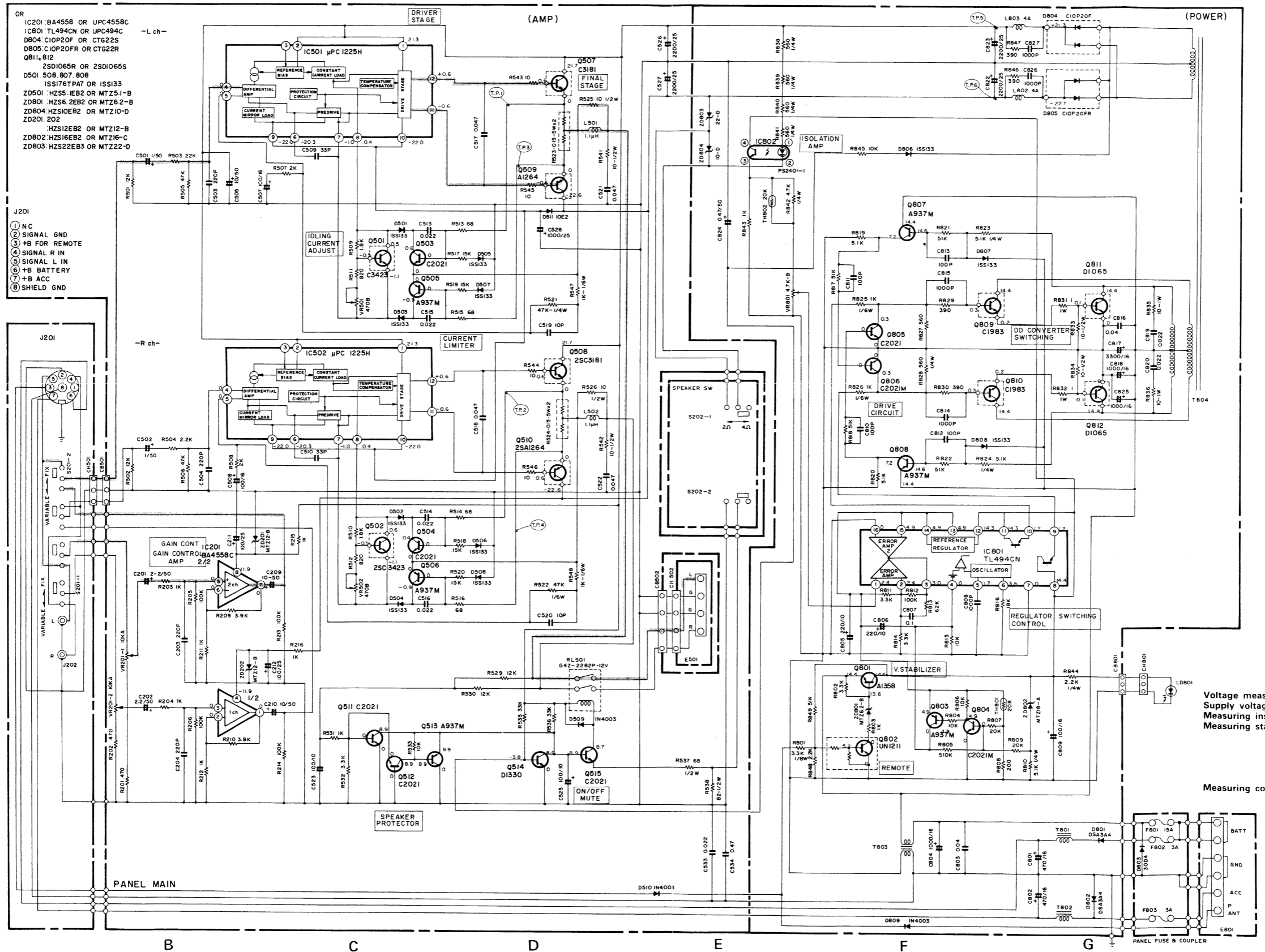
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A

B

C

D

E

F

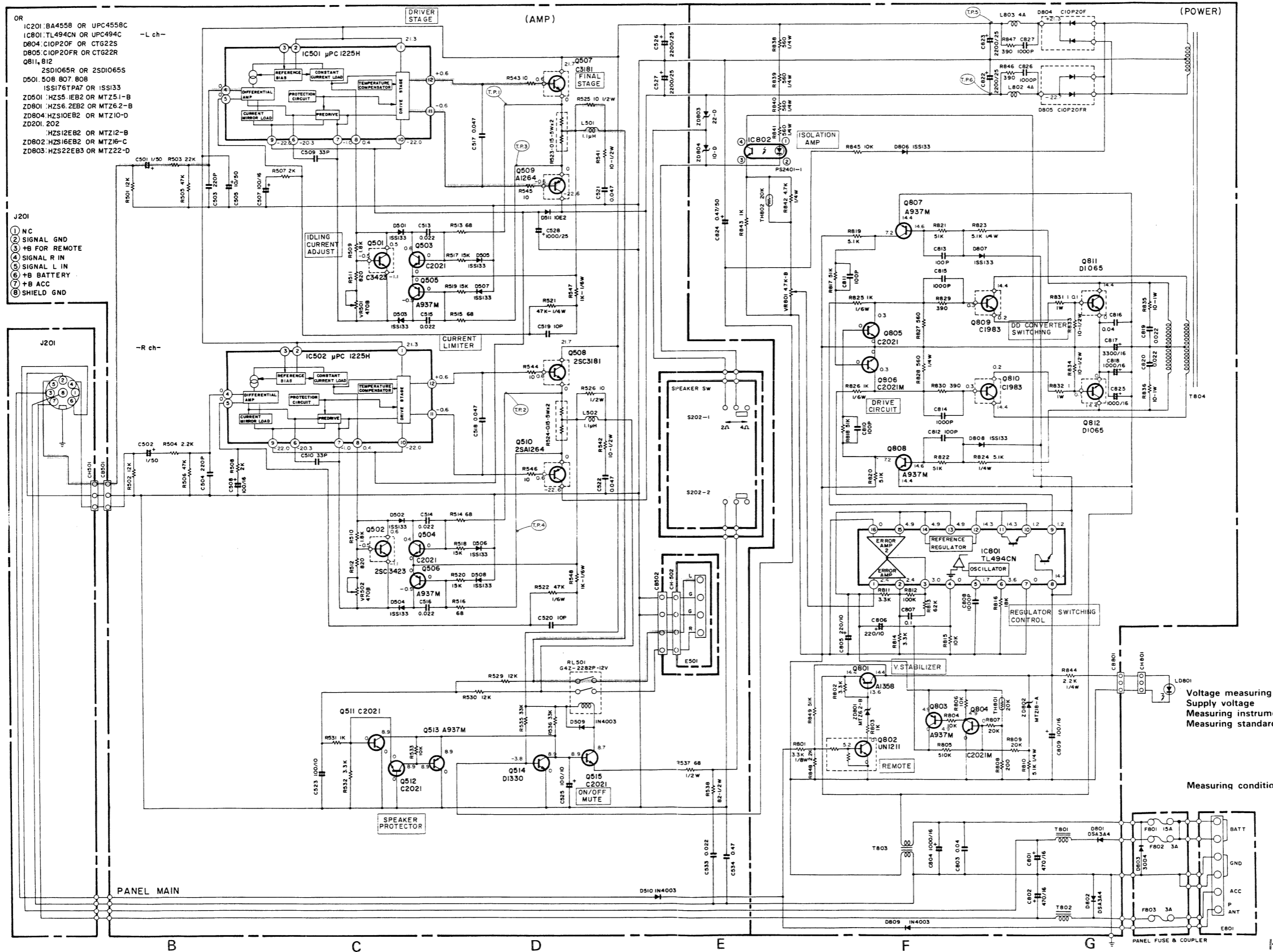
G

H

Schematic Diagram

(GO model only)

ICs	IC201	IC501	IC502	IC802		IC801								
Transistors	Q501-Q506			Q507-Q510		Q805-Q808			Q809-Q812					
	Q511 Q512 Q513			Q514 Q515		Q801-Q804								
Diodes	ZD201	D501	D503	D505	D507	D511	ZD803	ZD804	D806	D807	D808	D804	D805	
	ZD202	D502 D504		D506	D508	D509	D510		ZD801	D809		ZD802	D801-D803	LD801



- OR
 IC201: BA455B OR UPC4558C
 IC801: TL494CN OR UPC494C
 D804: C10P20F OR CTG22S
 D805: C10P20FR OR CTG22R
 Q811, 812
 2SD1065R OR 2SD1065S
 D501: 508 807 808
 ISS176PA7 OR ISS133
 ZD501: HZS5 IEB2 OR MTZ51-B
 ZD801: HZS6 2EB2 OR MTZ6 2-B
 ZD804: HZS10EB2 OR MTZ10-D
 ZD201: Z02
 HZS12EB2 OR MTZ12-B
 ZD802: HZS16EB2 OR MTZ16-C
 ZD803: HZS22EB3 OR MTZ22-D
- J201
 ① NC
 ② SIGNAL GND
 ③ +B FOR REMOTE
 ④ SIGNAL R IN
 ⑤ SIGNAL L IN
 ⑥ +B BATTERY
 ⑦ +B ACC
 ⑧ SHIELD GND

Voltage measuring conditions
 Supply voltage 14.4V DC
 Measuring instrument Digital Multimeter
 Measuring standard With respect to the primary ground potential (POWER)
 With respect to the secondary ground potential (AMPLIFIER)
Measuring conditions
 No signal input

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