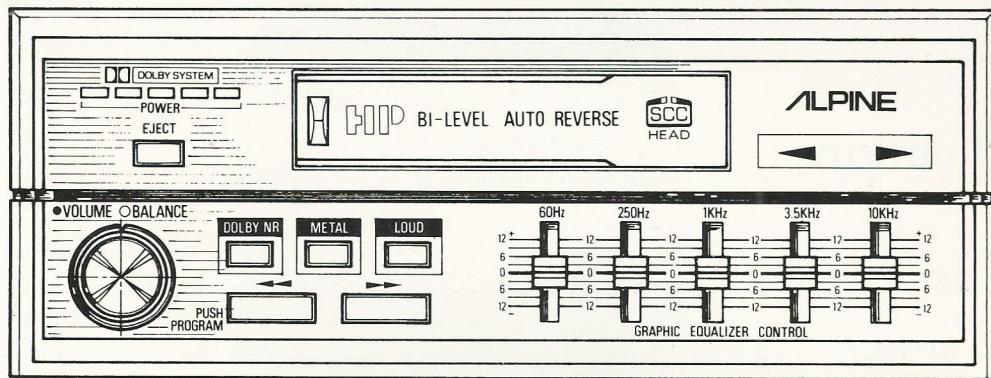


# ALPINE SERVICE MANUAL

## Auto Reverse Cassette Player With Graphic Equalizer Control



**5400**  
CODE 02

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## Specifications

Power Requirement . . . . .	DC 14V (11 to 16V Allowable) Negative Ground
Playback System . . . . .	4-track, 2-channel Stereo
Tape Speed (MTT-111) . . . . .	4.76 cm/sec. + 4%, -2%
Output Power (MTT-212) . . . . .	More than 12W/ch (Distortion 10%)
Load Impedance . . . . .	4 to 8 ohms
Line Output Level/Impedance . . . . .	500mV/10K ohms
Fast Forward/Rewind Time. . . . .	Less than 100 sec. (C-60)
Signal to Noise Ratio (MTT-212) . . . . .	More than 50 dB
Wow & Flutter (MTT-111) . . . . .	Less than 0.3% (JIS, WRMS)
Distortion (MTT-212) . . . . .	Less than 3% (1W)
Stereo Separation (MTT-141) . . . . .	More than 30 dB
Crosstalk (MTT-121) . . . . .	More than 45 dB
Frequency Response (MTT-216R) . . . . .	70 to 8.000 Hz ( $\pm 3$ dB)
Equalizer Frequency . . . . .	60 Hz, 250 Hz, 1 kHz, 3.5 kHz, 10 kHz
Semi-conductors . . . . .	10 IC's, 13 Transistors, 2 FET's, 12 Diodes, 2 Zener Diodes
Dimensions . . . . .	150(W) x 56(H) x 145(D) mm
Weight. . . . .	1.9 kg

# Parts Locations and Disassembly Instructions

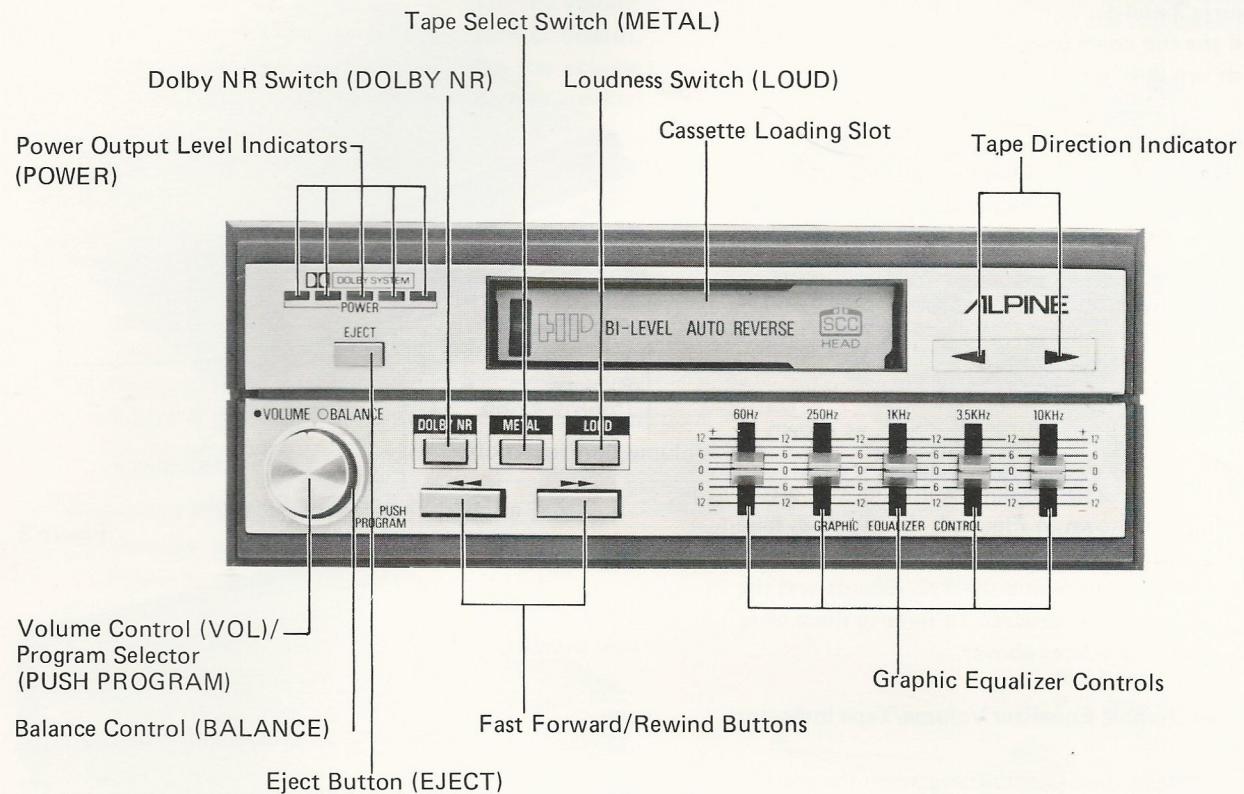


Figure 1

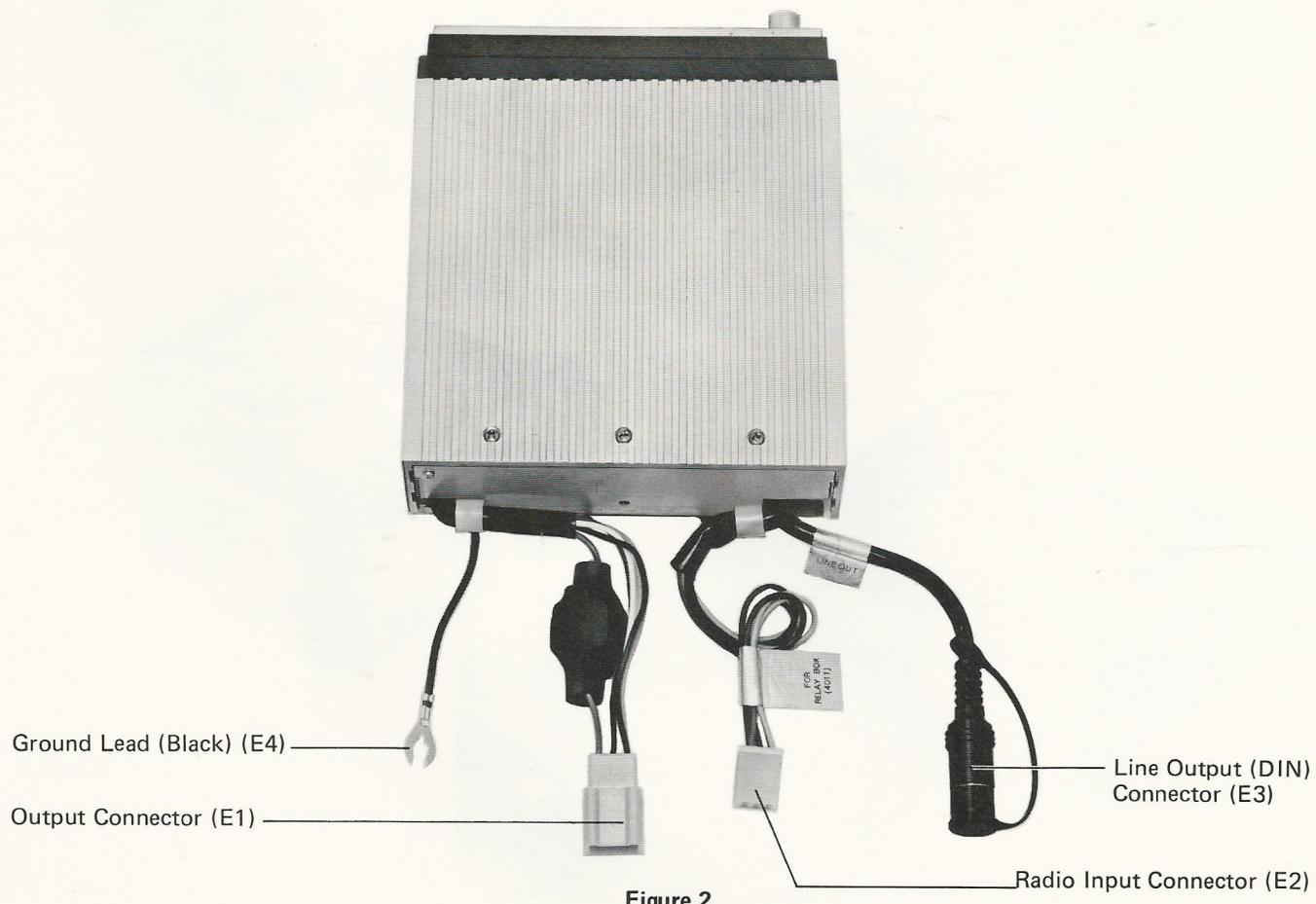


Figure 2

**1. Removal of Top Cover**

- (1) Remove seven screws marked "○" as shown in Figures 3 and 4.
- (2) Pull the top cover upwards in the arrow direction as shown in Figure 3.

**2. Removal of Nosepiece**

- (1) Remove seven knobs (volume, balance, equalizer controls) as shown in Figure 3.
- (2) Remove two screws marked "#" as shown in Figures 5 and 6.
- (3) Carefully pull out the nosepiece forward and it can be easily removed.

**3. Removal of Rear Chassis**

- (1) Remove four screws marked "△" as shown in Figure 4.
- (2) Pull the rear chassis downwards in the arrow direction as shown in Figure 4. In this case, take care of output connectors not to damage them.

**NOTE:** When disassembling the P.C. Boards and the cassette deck, proceed to remove them after three procedures above.

**4. Removal of Graphic Equalizer Volume/Tape Indicator P.C. Board**

- (1) First, detach the connectors between the graphic equalizer volume/tape indicator P.C. Board and the other P.C. Boards.
- (2) Remove two screws marked "□" as shown in Figure 7 and the graphic equalizer volume/tape indicator P.C. Board can be removed out.

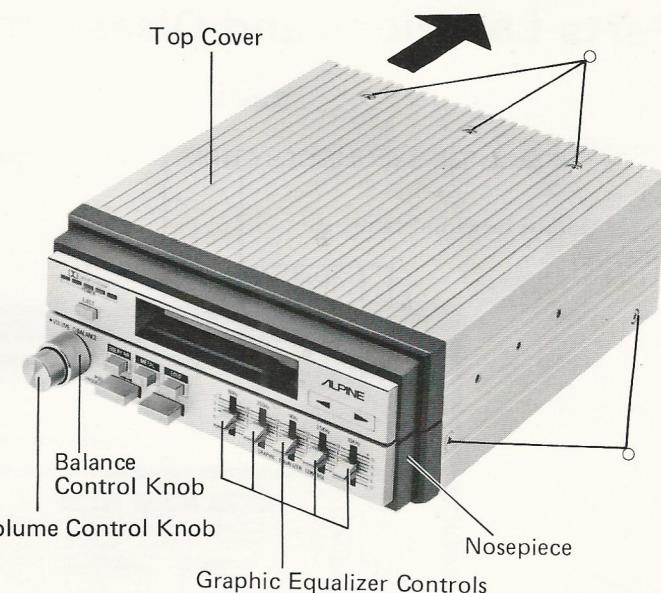


Figure 3

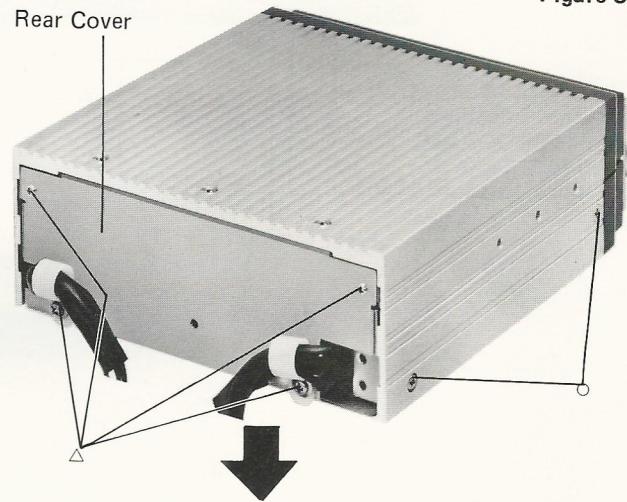


Figure 4

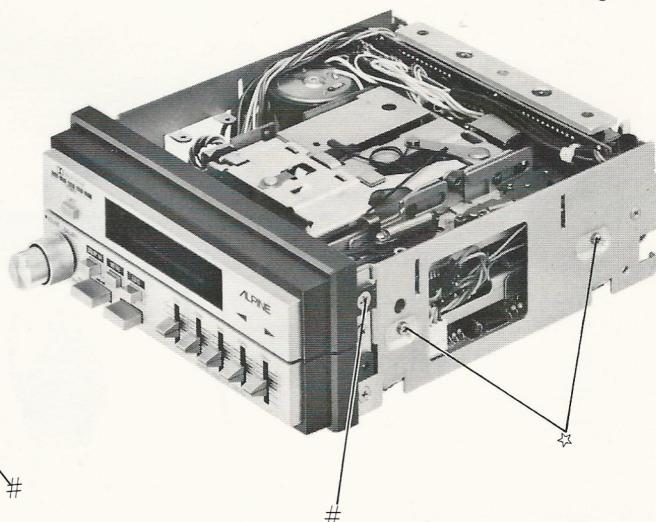
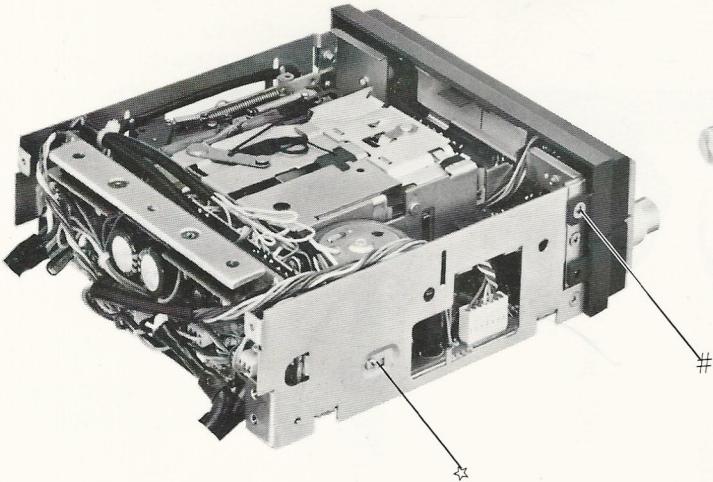


Figure 5

Figure 6

## 5. Removal of Volume & Switch P.C. Board

- (1) First, remove the level indicator P.C. Board and then detach the connectors between the volume and switch P.C. Board and the other P.C. Boards.
- (2) Remove the washer and nut from the volume control shaft and remove two screws marked “※” as shown in Figure 7.
- (3) The volume and switch can be completely removed out.

## 6. Removal of Amplifier P.C. Board

- (1) First, detach the connector and lead wires between the main amplifier P.C. Board and the other P.C. Boards.
- (2) Remove two screws marked “●” as shown in Figure 8 and the main amplifier P.C. Board can be removed out.

## 7. Removal of Pre-Dolby/Graphic Equalizer P.C. Board

- (1) Remove four screws marked “▲” as shown in Figure 8.
- (2) Detach the connectors and lead wires between the Pre-Dolby/graphic equalizer P.C. Board and the other P.C. Boards.

## 8. Removal of Cassette Deck Assembly

(Including the auto reverse P.C. Board)

- (1) Detach the connectors between the cassette deck and the other P.C. Boards after removing the volume/switch P.C. Board and the amp P.C. Board.
- (2) Remove three screws marked “☆” as shown in Figures 5 and 6.

## 9. Removal of Auto Reverse P.C. Board

- (1) Unsolder the screw marked “○” as shown in Figure 9 and then remove it.
- (2) Remove two screws marked “★” from the micro switch as shown in Figure 9.
- (3) Detach the lead wires between the auto reverse P.C. Board and the electrical parts.

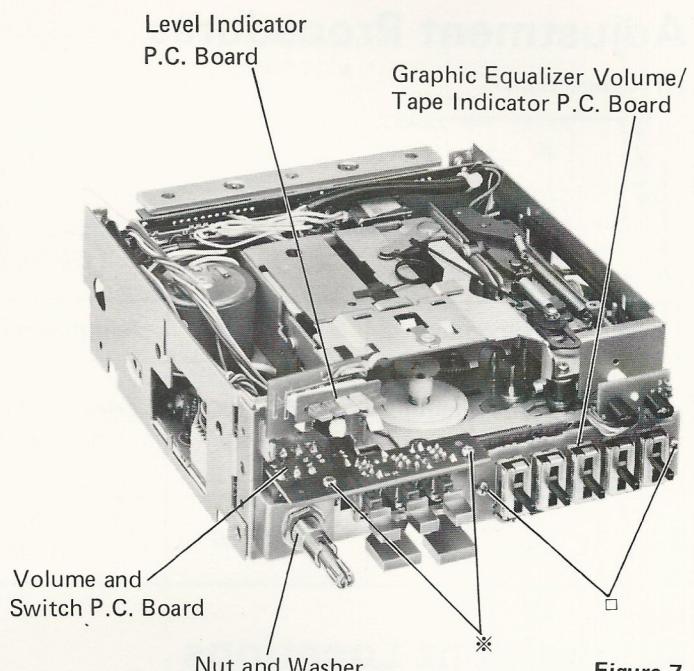


Figure 7

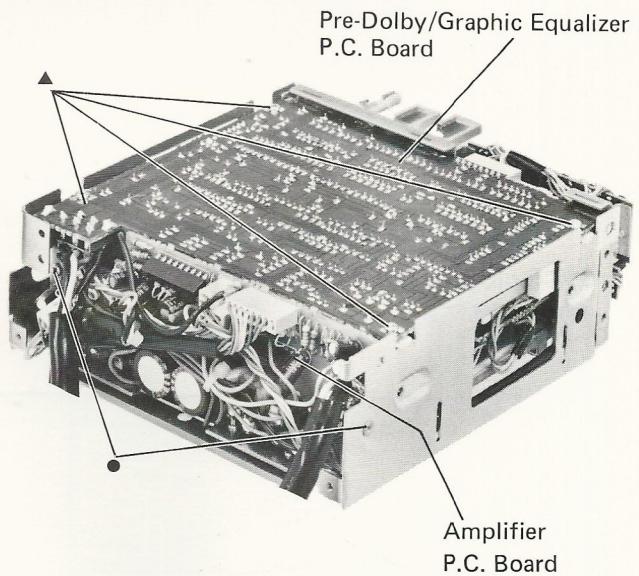


Figure 8

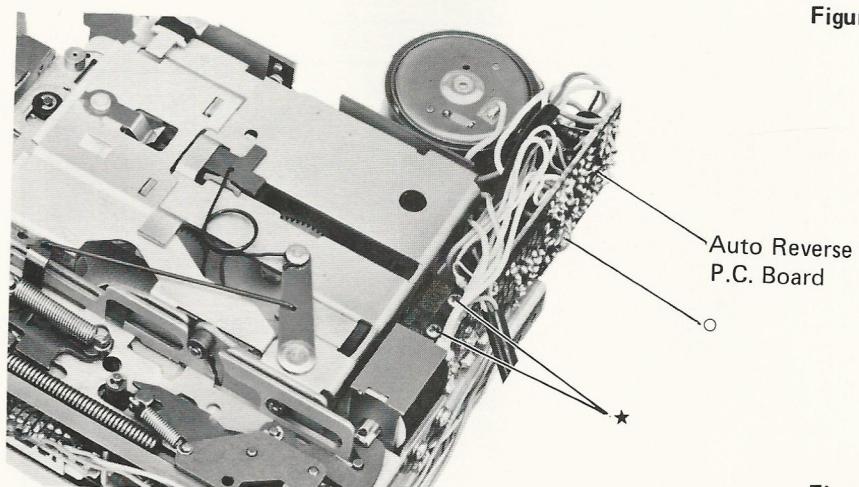
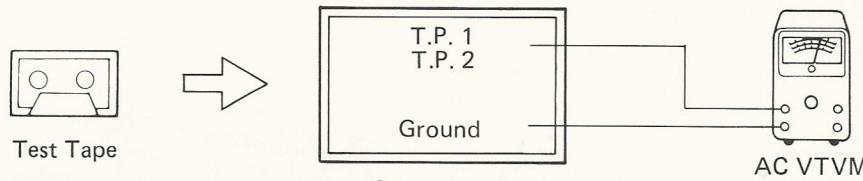


Figure 9

# Adjustment Procedures

## (1) Connections

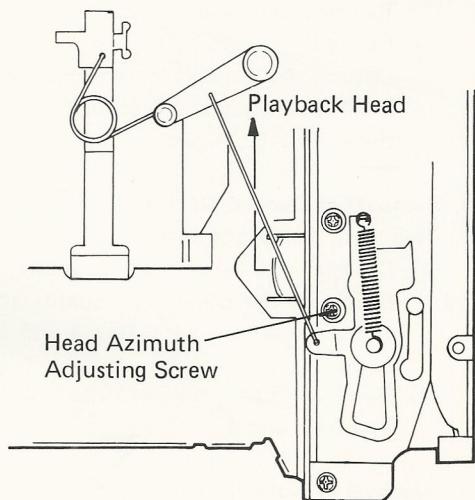
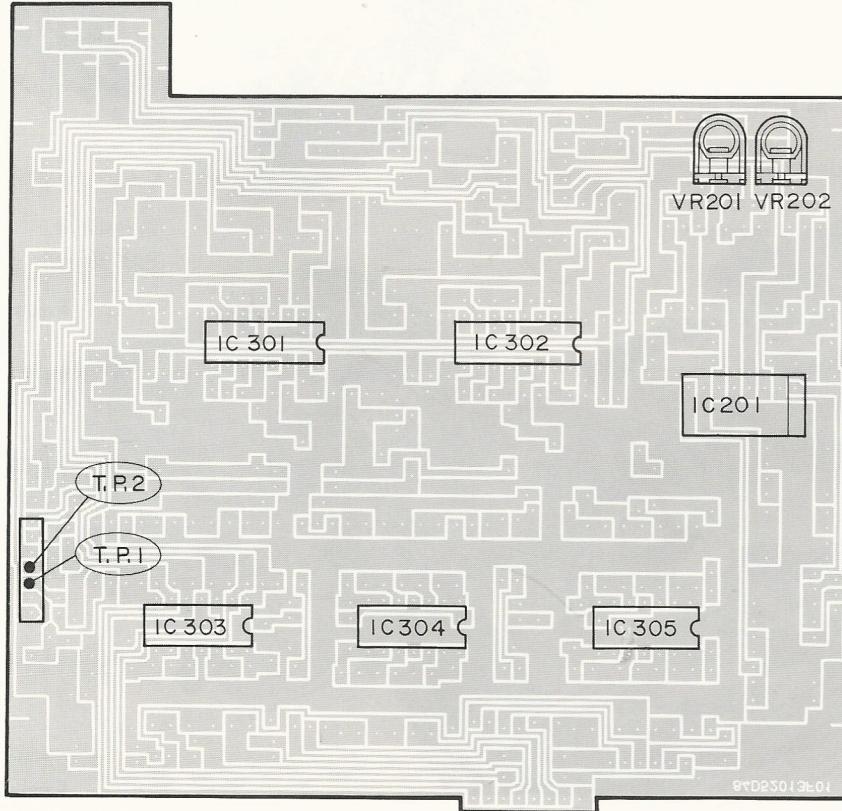


## (2) Adjustment Procedures

Step	Description	Test Tape	Adjustment Point	Remarks
1	Head Azimuth Adjustment	MTT-113C (8KHz)	Head Azimuth Adjustment	Adjust for maximum output and for minimum differences between Lch and Rch, and FF and Reverse outputs.
2	Dolby Level Adjustment	MTT-150	VR201 VR202	Adjust for 580mV at T.P.1 and T.P.2.

# Adjustment Locations

- Pre-Dolby/Graphic Equalizer P.C. Board



# Replacement of Mechanical Parts

## 1. Removal of Cassette Deck

- (1) Remove the cassette deck according to the item 8 on "Parts Location and Disassembly Instructions".

## 2. Removal of Eject Lever Assembly

- (1) Remove two screws marked "○" as shown in Figure 10.
- (2) The eject lever assembly can be removed.

## 3. Removal of Deck Cover

- (1) Remove one screw marked "※" as shown in Figure 11.

## 4. Replacement of Keep Solenoid Assembly

- (1) Remove two screws marked "X" as shown in Figure 10 and the keep solenoid can be removed. (Plunger can not be removed)
- (2) After replacing the keep solenoid with a new one, install it in the opposite way to disassembly and adjust the mounting position of the eject lock lever as shown in Figure 13.

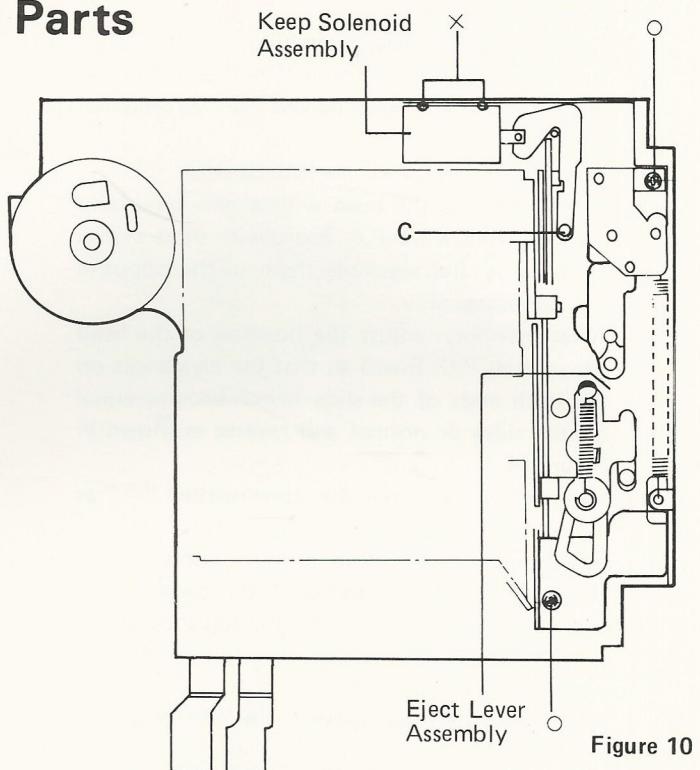


Figure 10

## 5. Replacement of Pinch Roller Assembly (L)

- (1) Remove the eject lever assembly.
- (2) Remove the pinch roller spring and the "C" washer to remove the pinch roller assembly as shown in Figure 12.
- (3) After replacing the pinch roller assembly with a new one, clean the pinch roller with absolute alcohol and assemble it in the opposite way to disassembly.
- (4) After assembling, confirm the tape speed and the wow/flutter with the test tape (MTT-111).
- (5) The pinch roller assembly (R) can also be removed in same way.

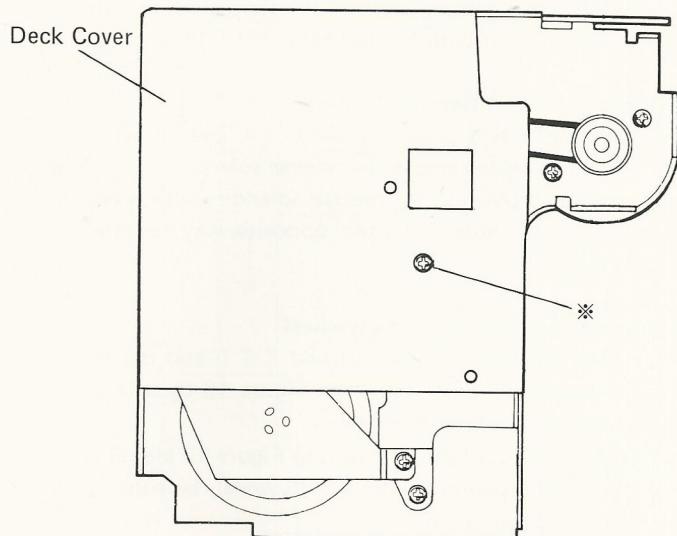


Figure 11

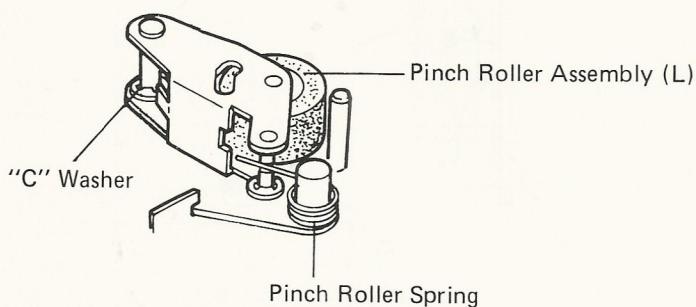


Figure 12

**6. Replacement of Head**

- (1) Remove the eject lever assembly.
- (2) Unsolder the screw marked “△” and then remove it and two screws marked “□” as shown in Figure 15.
- (3) Remove the head from the P.C. Board.
- (4) After replacing the head with a new one, hold the head and switch P.C. Board with three screws temporarily and assemble them in the opposite way to disassembly.
- (5) After assembly, adjust the position of the head and switch P.C. Board so that the clearances on the both ends of the slide switch become equal on the sides or normal and reverse as shown in Figure 14.
- (6) After adjusting, solder the screw marked “△” as shown in Figure 15.
- (7) Finally, adjust the head azimuth according to “Head Azimuth Adjustment” on page 6, and apply the screw-lock paint on the adjusting screw.

**7. Replacement of Motor**

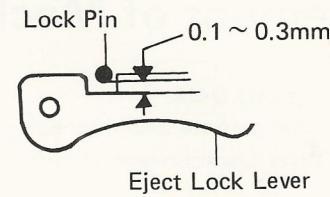
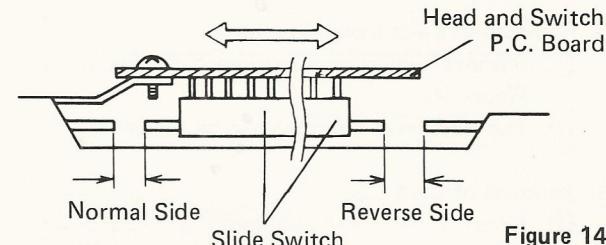
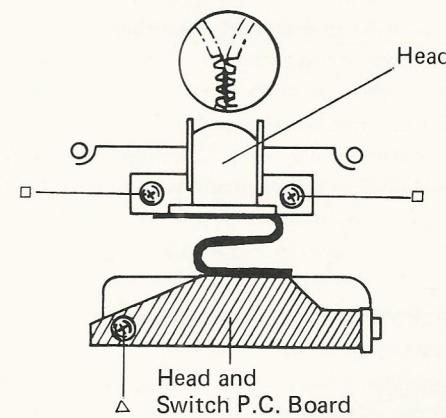
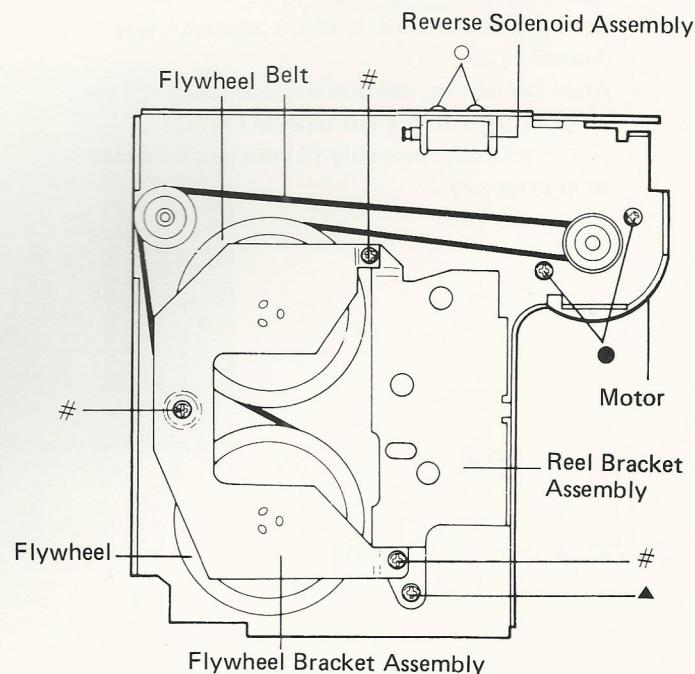
- (1) Remove two screws marked “●” as shown in Figure 16.
- (2) Remove a lead wire (orange) from the motor side to remove the motor.
- (3) After replacing the motor with a new one, assemble it in the opposite way to disassembly.
- (4) After assembling, confirm the tape speed and the wow/flutter with the test tape (MTT-111).

**8. Replacement of Reverse Solenoid**

- (1) Remove two screws marked “○” as shown in Figure 16 to remove the reverse solenoid.
- (2) After replacing the reverse solenoid with a new one, assemble it in the opposite way to disassembly.

**9. Replacement of Belt and Flywheel**

- (1) Remove three screws marked “#” and the flywheel bracket as shown in Figure 16 to take off the belt and the flywheel.
- NOTE:** The washers as shown in Figure 17 are taken off together with the flywheel, be sure not to lose them.
- (2) After replacing the belt and the flywheel with new ones, clean them with absolute alcohol and assemble them in the opposite way to disassembly.
- (3) After assembling, confirm the tape speed and the wow/flutter with the test tape (MTT-111).

**Figure 13****Figure 14****Figure 15****Figure 16**

## 10. Replacement of Reed Switch and Reels

- (1) Remove two flywheels.
- (2) Remove the screw marked "▲" as shown in Figure 16.
- (3) Remove two screws marked "■" to remove the guide bracket rivet as shown in Figure 17.
- (4) Remove B.T. to take off the reel bracket as shown in Figure 17.
- (5) Remove two screws marked "※" and the lead wires to take off the reed switch P.C. Board as shown in Figure 18.
- (6) Remove two lock washers to take off two reels as shown in Figure 18.
- (7) When installing the reel bracket assembly after replacing the reels with new ones and the reed switch P.C. Board, pull it toward the flywheel and assemble it in the opposite way to disassembly.
- (8) After assembling, confirm the tape speed and the wow/flutter with the test tape (MTT-111).

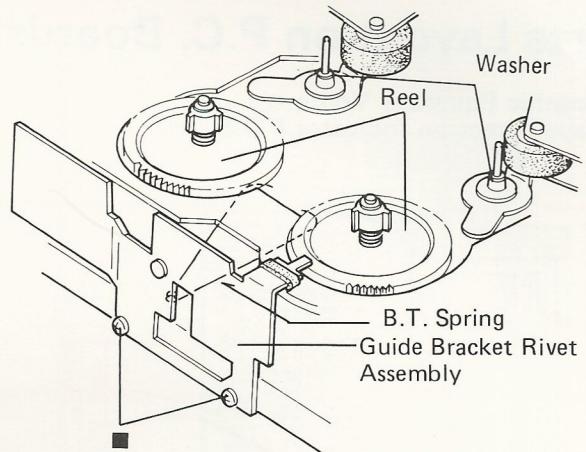


Figure 17

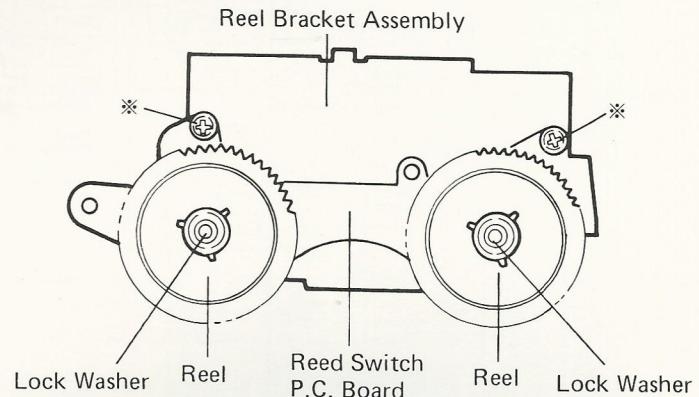
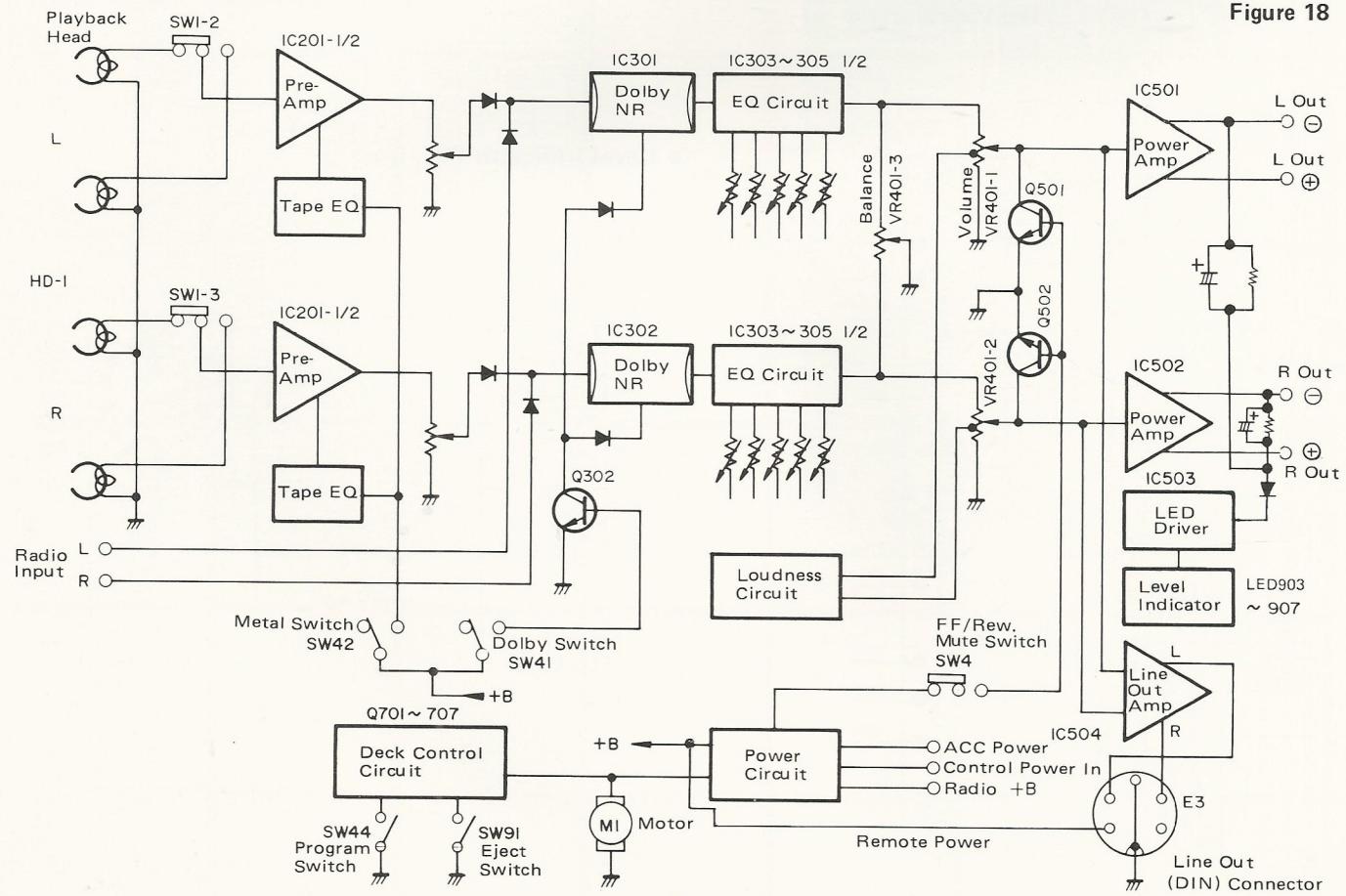


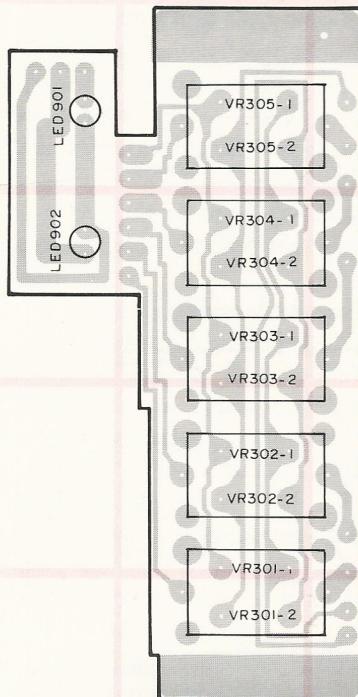
Figure 18

## Block Diagram



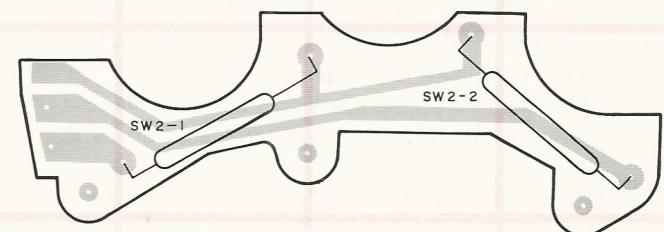
# Parts Layout on P.C. Boards

- Graphic Equalizer Volume/  
Tape Direction Indicator P.C. Board

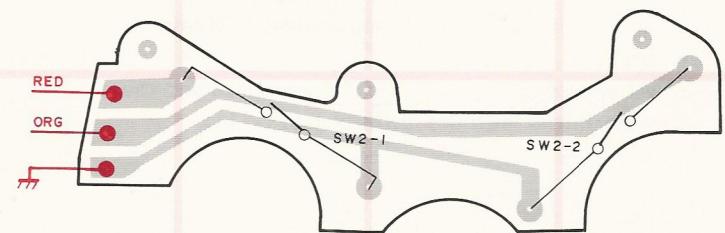


Top View

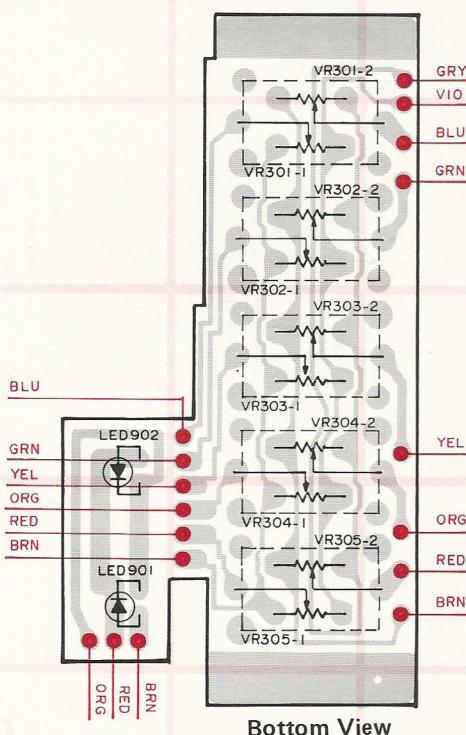
- Reed Switch P.C. Board



Top View

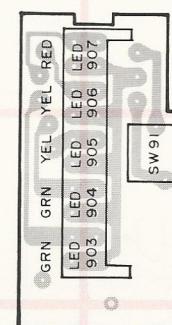


Bottom View

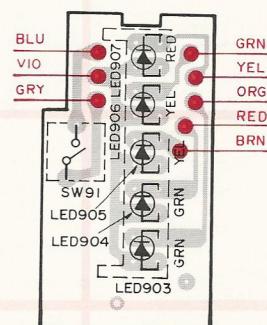


Bottom View

- Level Indicator P.C. Board

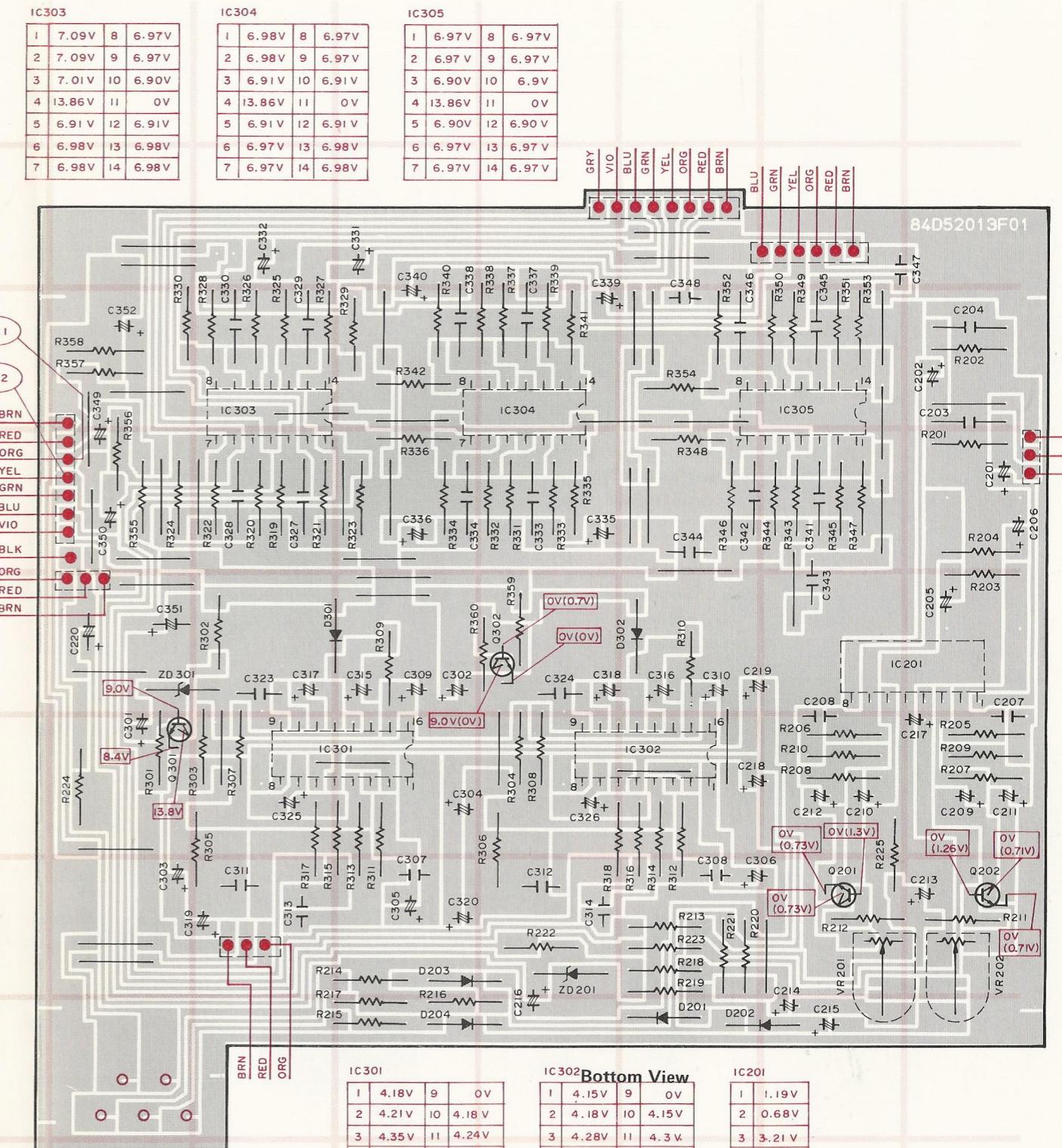
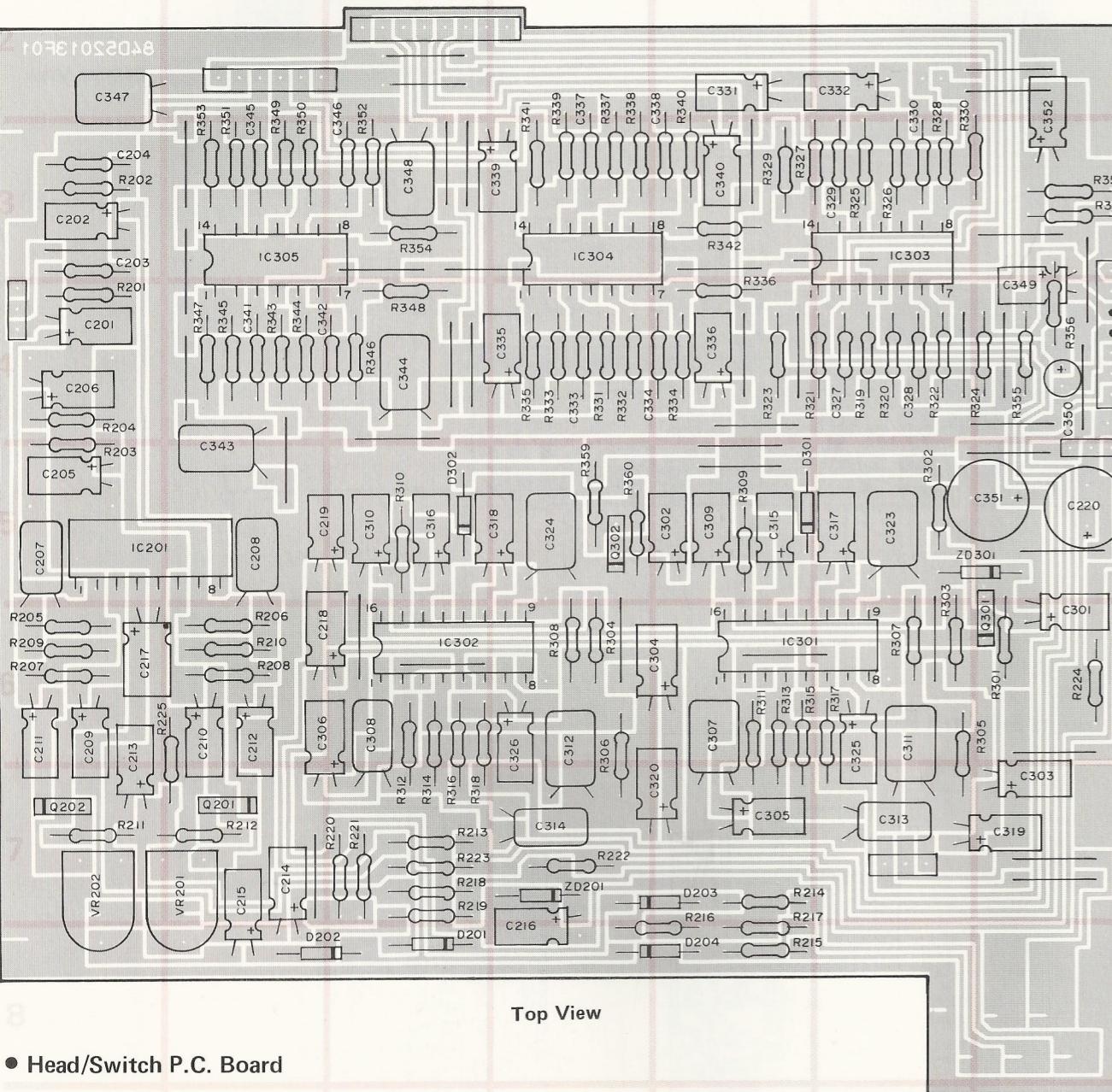


Top View

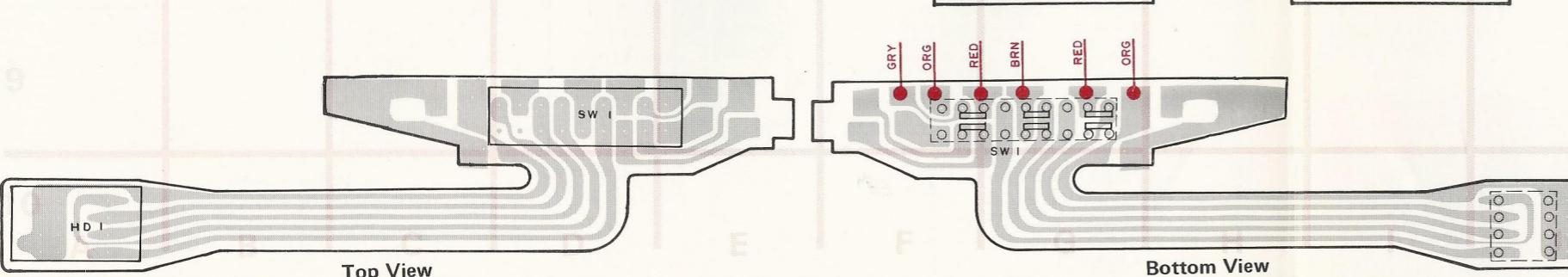


Bottom View

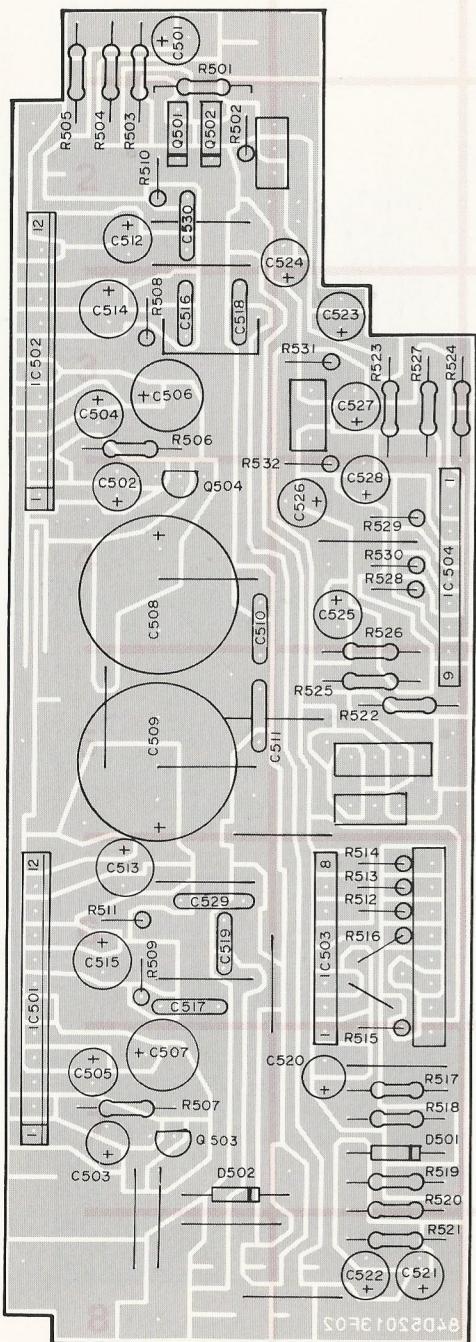
● Pre-Dolby/Graphic Equalizer P.C. Board



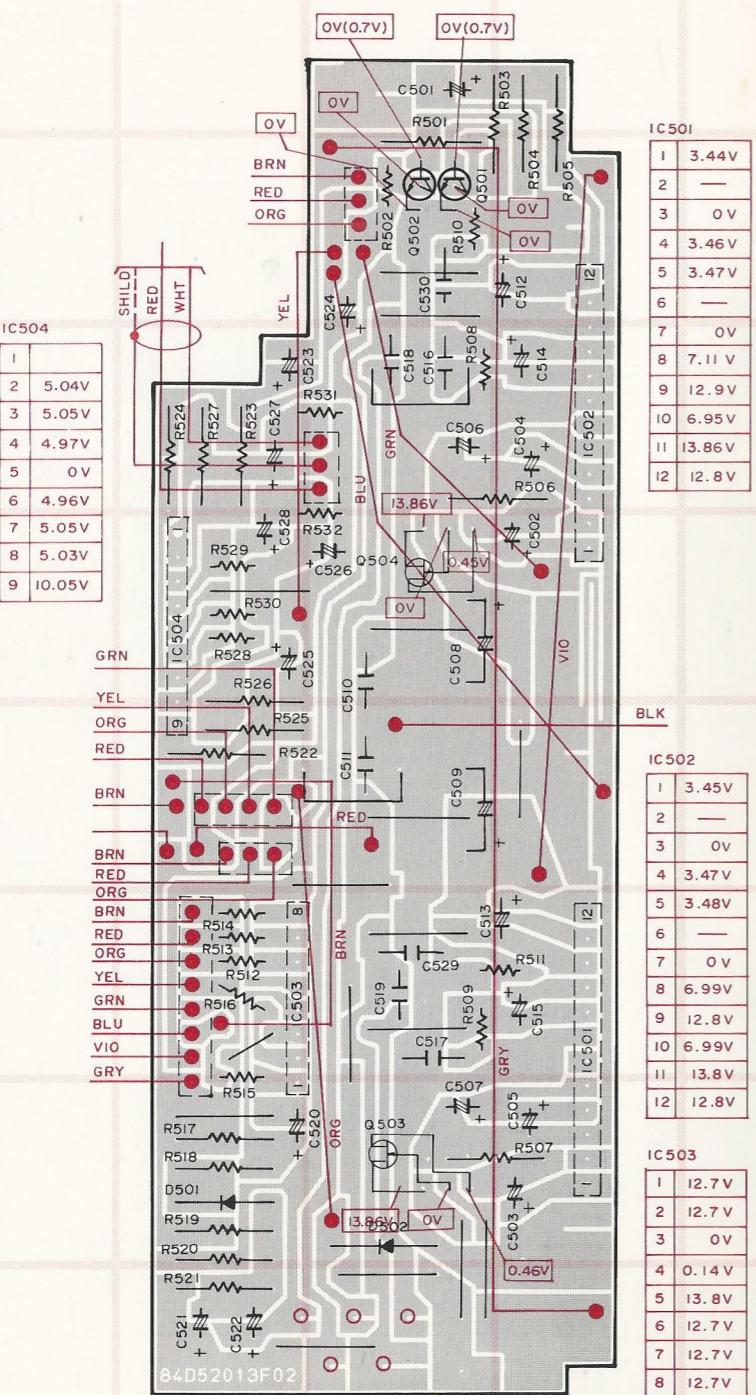
● Head/Switch P.C. Board



## ● Amp P.C. Board

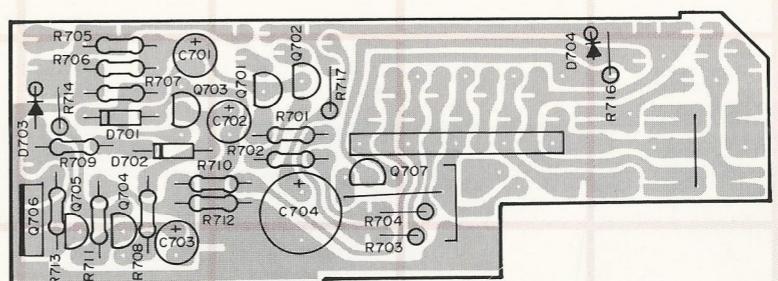


Top View

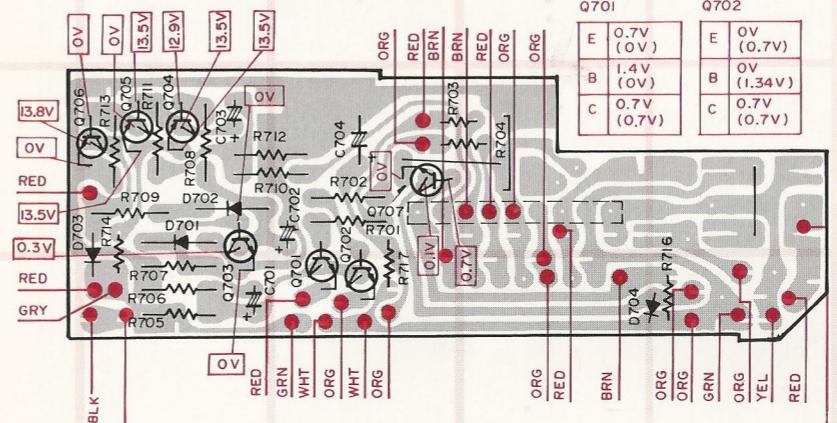


Bottom View

## ● Auto Reverse P.C. Board



Top View

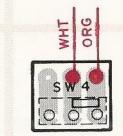


Bottom View

## ● Mute Switch P.C. Board

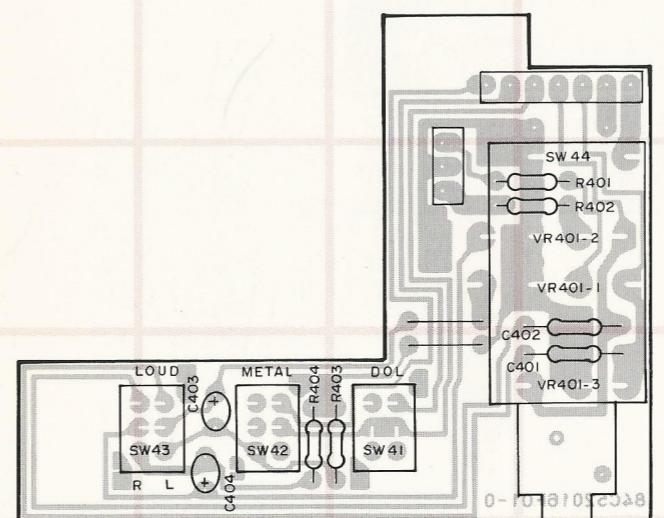


Top View

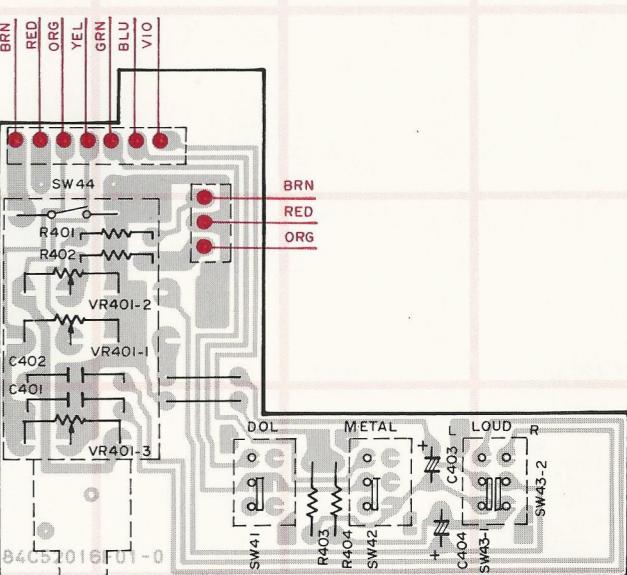


Bottom View

## ● Volume &amp; Switch P.C. Board

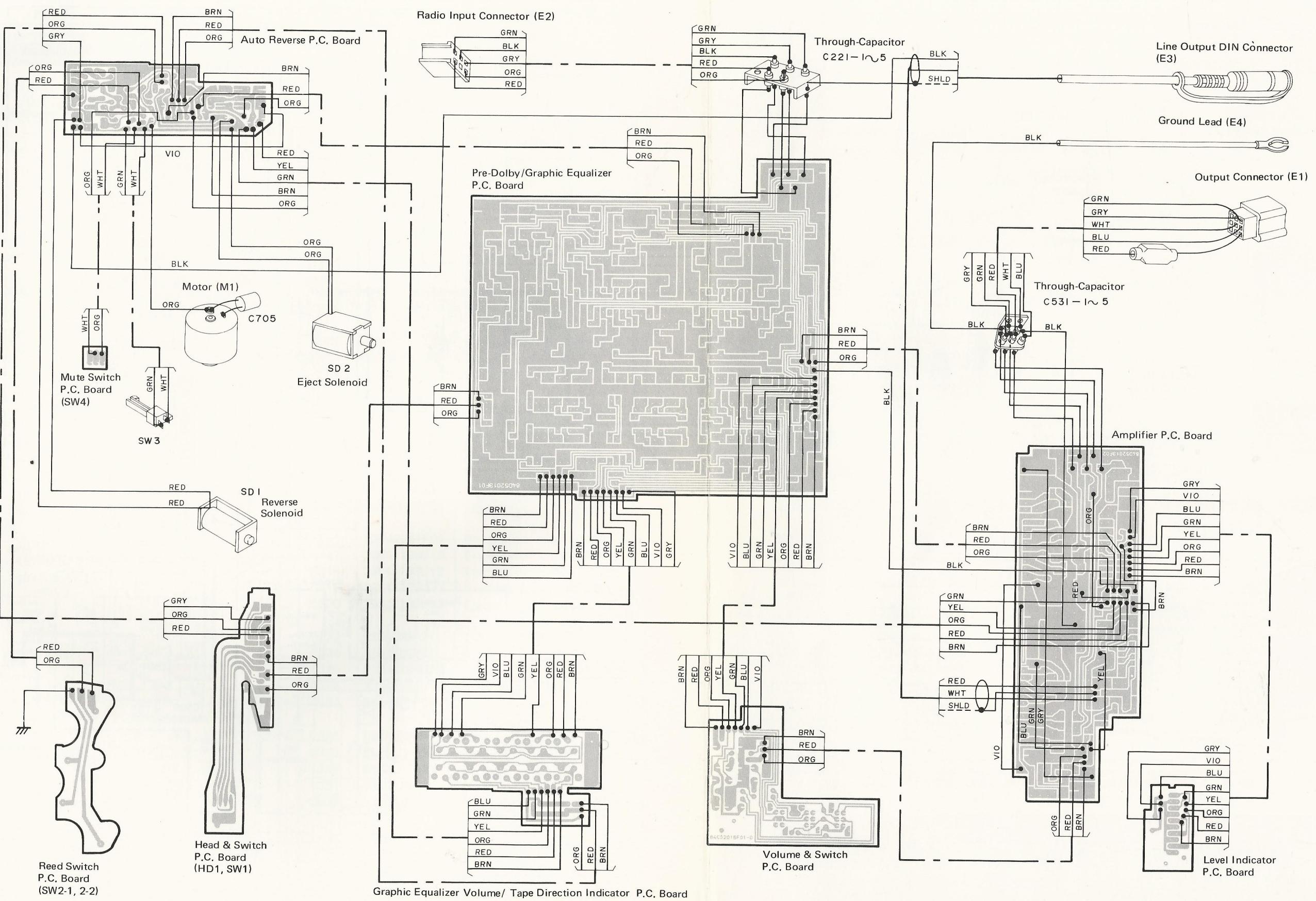


Top View

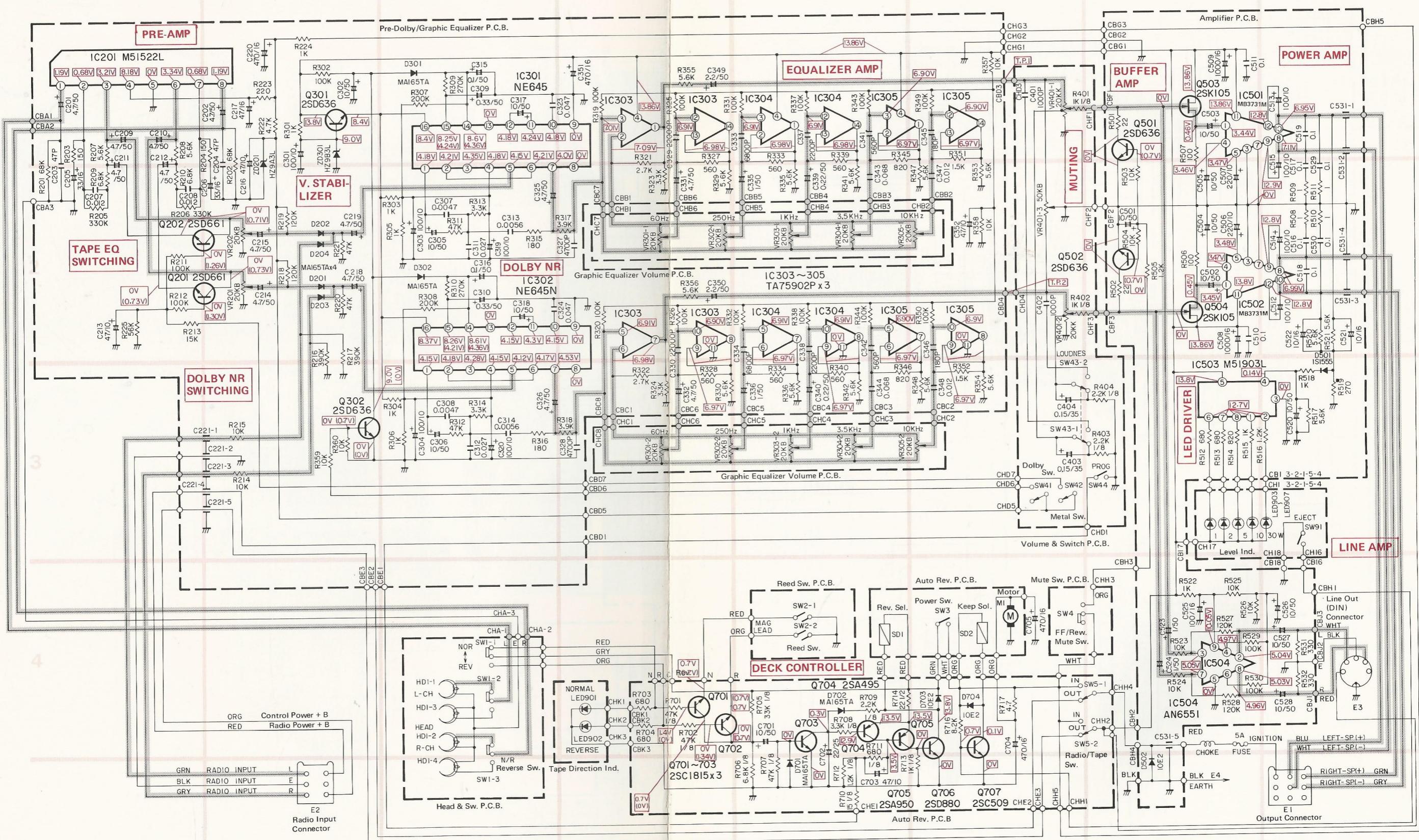


Bottom View

# Wiring Diagram



# Schematic Diagram



## NOTES:

- All resistance values are in ohms. K = 1,000
- All capacitance values are in microfarads. P =  $\frac{1}{1,000,000}$

# Electrical Parts List

**Resistors** (All resistors are carbon film,  $\frac{1}{4}$ W,  $\pm 5\%$  unless otherwise noted.)  
uF = microfarads, pF = picofarads

Symbol No.	Part No.	Description
<b>Pre-Dolby/Graphic Equalizer P.C. Board</b>		
<b>IC</b>		
IC201	51T43196F01	M51522L
IC301	51S40114T01	NE645N
IC302	51S40114T01	NE645N
IC303	51S40948T01	TA75902P
IC304	51S40948T01	TA75902P
IC305	51S40948T01	TA75902P
<b>Transistors</b>		
Q201	48T42182U01	2SD661-U
Q202	48T42182U01	2SD661-U
Q301	48S40627U04	2SD636-R
Q302	48S40627U04	2SD636-R
<b>Diodes</b>		
D201	48T44813F01	MA165TA
D202	48T44813F01	MA165TA
D203	48T44813F01	MA165TA
D204	48T44813F01	MA165TA
D301	48T44813F01	MA165TA
D302	48T44813F01	MA165TA
ZD201	48T40059U21	Zener, HZ9A-3L
ZD301	48T40059U24	Zener, HZ9B-3L
<b>Capacitors</b>		
C201	23S41198U09	Electrolytic 4.7 uF/50V
C202	23S41198U09	Electrolytic 4.7 uF/50V
C203	8S44505P29	Ceramic 47 pF
C204	8S44505P29	Ceramic 47 pF
C205	23S41198U20	Electrolytic 33 uF/16V
C206	23S41198U20	Electrolytic 33 uF/16V
C207	8C44503P14	Mylar 0.012 uF
C208	8C44503P14	Mylar 0.012 uF
C209	23S41198U09	Electrolytic 4.7 uF/50V
C210	23S41198U09	Electrolytic 4.7 uF/50V

Symbol No.	Part No.	Description
C211	23S41198U09	Electrolytic 4.7 uF/50V
C212	23S41198U09	Electrolytic 4.7 uF/50V
C213	23S41198U26	Electrolytic 47 uF/10V
C214	23S41198U09	Electrolytic 4.7 uF/50V
C215	23S41198U09	Electrolytic 4.7 uF/50V
C216	23S41198U26	Electrolytic 47 uF/10V
C217	23S41198U27	Electrolytic 47 uF/16V
C218	23S41198U09	Electrolytic 4.7 uF/50V
C219	23S41198U09	Electrolytic 4.7 uF/50V
C220	23B44780P05	Electrolytic 470 uF/16V
C301	23S41198U33	Electrolytic 100 uF/10V
C302	23S41198U12	Electrolytic 10 uF/50V
C303	23S41198U33	Electrolytic 100 uF/10V
C304	23S41198U33	Electrolytic 100 uF/10V
C305	23S41198U12	Electrolytic 10 uF/50V
C306	23S41198U12	Electrolytic 10 uF/50V
C307	8S44503P09	Mylar 0.0047 uF
C308	8S44503P09	Mylar 0.0047 uF
C309	23T43247F03	Electrolytic 0.33 uF/50V
C310	23T43247F03	Electrolytic 0.33 uF/50V
C311	8S44503P18	Mylar 0.027 uF
C312	8S44503P18	Mylar 0.027 uF
C313	8S44503P10	Mylar 0.0056 uF
C314	8S44503P10	Mylar 0.0056 uF
C315	23T43247F01	Electrolytic 0.1 uF/50V
C316	23T43247F01	Electrolytic 0.1 uF/50V
C317	23S41198U12	Electrolytic 10 uF/50V
C318	23S41198U12	Electrolytic 10 uF/50V
C319	23S41198U33	Electrolytic 100 uF/10V
C320	23S41198U33	Electrolytic 100 uF/10V
C323	8S44503P21	Mylar 0.047 uF
C324	8S44503P21	Mylar 0.047 uF
C325	23S41198U09	Electrolytic 4.7 uF/50V
C326	23S41198U09	Electrolytic 4.7 uF/50V
C327	8S44505P57	Ceramic 4700 pF
C328	8S44505P57	Ceramic 4700 pF
C329	8S44505P63	Ceramic 22000 pF
C330	8S44505P63	Ceramic 22000 pF
C331	23S41198U09	Electrolytic 4.7 uF/50V
C332	23S41198U09	Electrolytic 4.7 uF/50V

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C333	8S44505P59	Ceramic 6800 pF	R221	6S44594P06	47K ohm
C334	8S44505P59	Ceramic 6800 pF	R222	6S44593P81	4.7K ohm
C335	23S41198U03	Electrolytic 1 uF/50V	R223	6S44593P49	220 ohm
C336	23S41198U03	Electrolytic 1 uF/50V	R224	6S44593P65	1K ohm
C337	8S44505P53	Ceramic 2200 pF	R225	6S44594P08	56K ohm
C338	8S44505P53	Ceramic 2200 pF	R301	6S44593P65	1K ohm
C339	23T43247F02	Electrolytic 0.22 uF/50V	R302	6S44594P14	100K ohm
C340	23T43247F02	Electrolytic 0.22 uF/50V	R303	6S44593P65	1K ohm
C341	8S44505P46	Ceramic 560 pF	R304	6S44593P65	1K ohm
C342	8S44505P46	Ceramic 560 pF	R305	6S44593P65	1K ohm
C343	8C44833J23	Mylar 0.068 uF	R306	6S44593P65	1K ohm
C344	8C44833J23	Mylar 0.068 uF	R307	6S44594P21	200K ohm
C345	8S44505P40	Ceramic 180 pF	R308	6S44594P21	200K ohm
C346	8S44505P40	Ceramic 180 pF	R309	6S44594P24	270K ohm
C347	8C44833J14	Mylar 0.012 uF	R310	6S44594P24	270K ohm
C348	8C44833J14	Mylar 0.012 uF	R311	6S44594P06	47K ohm
C349	23S41198U05	Electrolytic 2.2 uF/50V	R312	6S44594P06	47K ohm
C350	23S41198U05	Electrolytic 2.2 uF/50V	R313	6S44593P77	3.3K ohm
C351	23B44780P05	Electrolytic 470 uF/16V	R314	6S44593P77	3.3K ohm
C352	23S41198U26	Electrolytic 47 uF/10V	R315	6S44593P47	180 ohm
<b>Resistors</b>			R316	6S44593P47	180 ohm
R201	6S44594P10	68K ohm	R317	6S44593P79	3.9K ohm
R202	6S44594P10	68K ohm	R318	6S44593P79	3.9K ohm
R203	6S44593P45	150 ohm	R319	6S44594P14	100K ohm
R204	6S44593P45	150 ohm	R320	6S44594P14	100K ohm
R205	6S44594P26	330K ohm	R321	6S44593P75	2.7K ohm
R206	6S44594P26	330K ohm	R322	6S44593P75	2.7K ohm
R207	6S44593P83	5.6K ohm	R323	6S44593P77	3.3K ohm
R208	6S44593P83	5.6K ohm	R324	6S44593P77	3.3K ohm
R209	6S44593P85	6.8K ohm	R325	6S44594P14	100K ohm
R210	6S44593P85	6.8K ohm	R326	6S44594P14	100K ohm
R211	6S44594P14	100K ohm	R327	6S44593P59	560 ohm
R212	6S44594P14	100K ohm	R328	6S44593P59	560 ohm
R213	6S44593P93	15K ohm	R329	6S44593P83	5.6K ohm
R214	6S44593P89	10K ohm	R330	6S44593P83	5.6K ohm
R215	6S44593P89	10K ohm	R331	6S44594P14	100K ohm
R216	6S44594P28	390K ohm	R332	6S44594P14	100K ohm
R217	6S44594P28	390K ohm	R333	6S44593P59	560 ohm
R218	6S44594P16	120K ohm	R334	6S44593P59	560 ohm
R219	6S44594P16	120K ohm	R335	6S44593P83	5.6K ohm
R220	6S44594P06	47K ohm	R336	6S44593P83	5.6K ohm
			R337	6S44594P14	100K ohm
			R338	6S44594P14	100K ohm
			R339	6S44593P59	560 ohm
			R340	6S44593P59	560 ohm

Symbol No.	Part No.	Description	
R341	6S44593P83	5.6K ohm	
R342	6S44593P83	5.6K ohm	
R343	6S44594P14	100K ohm	
R344	6S44594P14	100K ohm	
R345	6S44593P63	820 ohm	
R346	6S44593P63	820 ohm	
R347	6S44593P83	5.6K ohm	
R348	6S44593P83	5.6K ohm	
R349	6S44594P14	100K ohm	
R350	6S44594P14	100K ohm	
R351	6S44593P69	1.5K ohm	
R352	6S44593P69	1.5K ohm	
R353	6S44593P83	5.6K ohm	
R354	6S44593P83	5.6K ohm	
R355	6S44593P83	5.6K ohm	
R356	6S44593P83	5.6K ohm	
R357	6S44593P89	10K ohm	
R358	6S44593P89	10K ohm	
R359	6S44593P89	10K ohm	
R360	6S44593P89	10K ohm	
VR201	18C42061J24	Variable	20K ohm
VR202	18C42061J24	Variable	20K ohm

Symbol No.	Part No.	Description	
<b>Diodes</b>			
D501	48S134816	1S1555	
D502	48C40235G02	10E2	
<b>Capacitors</b>			
C501	23S41198U12	Electrolytic	10 uF/50V
C502	23S41198U12	Electrolytic	10 uF/50V
C503	23S41198U12	Electrolytic	10 uF/50V
C504	23S41198U12	Electrolytic	10 uF/50V
C505	23S41198U12	Electrolytic	10 uF/50V
C506	23S41198U40	Electrolytic	220 uF/10V
C507	23S41198U40	Electrolytic	220 uF/10V
C508	23B44780P06	Electrolytic	1000 uF/16V
C509	23B44780P06	Electrolytic	1000 uF/16V
C510	8T42629F29	Mylar	0.1 uF
C511	8T42629F29	Mylar	0.1 uF
C512	23S41198U33	Electrolytic	100 uF/10V
C513	23S41198U33	Electrolytic	100 uF/10V
C514	23S41198U33	Electrolytic	100 uF/10V
C515	23S41198U33	Electrolytic	100 uF/10V
C516	8T42629F29	Mylar	0.1 uF
C517	8T42629F29	Mylar	0.1 uF
C518	8T42629F29	Mylar	0.1 uF
C519	8T42629F29	Mylar	0.1 uF
C520	23S41198U12	Electrolytic	10 uF/50V
C521	23T43247F09	Electrolytic	10 uF/16V
C522	23T43247F09	Electrolytic	10 uF/16V
C523	23T43247F05	Electrolytic	1 uF/50V
C524	23T43247F05	Electrolytic	1 uF/50V
C525	23S41198U34	Electrolytic	100 uF/16V
C526	23S41198U12	Electrolytic	10 uF/50V
C527	23S41198U12	Electrolytic	10 uF/50V
C528	23S41198U12	Electrolytic	10 uF/50V
C529	8T42629F29	Mylar	0.1 uF
C530	8T42629F29	Mylar	0.1 uF
<b>Resistors</b>			
R501	6S4015T25	22 ohm	
R502	6S41801P12	22 ohm	
R503	6S44593P89	10K ohm	
R504	6S44593P89	10K ohm	
R505	6S44593P67	1.2K ohm	

Symbol No.	Part No.	Description
R506	6S44593P41	100 ohm
R507	6S44593P41	100 ohm
R508	6S41801P72	1 ohm
R509	6S41801P72	1 ohm
R510	6S41801P72	1 ohm
R511	6S41801P72	1 ohm
R512	6S41801P30	680 ohm
R513	6S41801P30	680 ohm
R514	6S41801P31	820 ohm
R515	6S41801P32	1K ohm
R516	6S41801P33	1.2K ohm
R517	6S44593P83	5.6K ohm
R518	6S44593P65	1K ohm
R519	6S44593P51	270 ohm
R520	6S44593P83	5.6K ohm
R521	6S44593P83	5.6K ohm
R522	6S40150T65	1K ohm
R523	6S44593P89	10K ohm
R524	6S44593P89	10K ohm
R525	6S44593P89	10K ohm
R526	6S44593P89	10K ohm
R527	6S44594P16	120K ohm
R528	6S41801P57	120K ohm
R529	6S41801P56	100K ohm
R530	6S41801P56	100K ohm
R531	6S41801P26	330 ohm
R532	6S41801P26	330 ohm
<b>Auto Reverse P.C. Board</b>		
<b>Transistors</b>		
Q701	48T43525F02	2SC1815-Y
Q702	48T43525F02	2SC1815-Y
Q703	48T43525F02	2SC1815-Y
Q704	48S43238G01 or 48T51118F01	2SA495-Y 2SA1015-Y
Q705	48T43526F02	2SA950-Y
Q706	48T42620F02 or 48T42620F03	2SD880-Y 2SD880-GR
Q707	48S43239G02	2SC509-Y

Symbol No.	Part No.	Description
<b>Diodes</b>		
D701	48T44813F01	MA165TA
D702	48T44813F01	MA165TA
D703	48C40235G02	10E2
D704	48C40235G02	10E2
<b>Capacitors</b>		
C701	23S41198U12	Electrolytic 10 uF/50V
C702	23S41198U15	Electrolytic 22 uF/25V
C703	23S41198U26	Electrolytic 47 uF/10V
C704	23B44780P05	Electrolytic 470 uF/16V
<b>Resistors</b>		
All resistors are carbon film, 1/8W, ±5% unless otherwise noted.		
R701	6T43160F06	47K ohm
R702	6T43160F06	47K ohm
R703	6S41801P30	680 ohm 1/2W
R704	6S41801P30	680 ohm 1/2W
R705	6T43160F02	33K ohm
R706	6T43159F85	6.8K ohm
R707	6T43160F06	47K ohm
R708	6T43160F02	33K ohm
R709	6T43159F73	2.2K ohm
R710	6T43159F21	15 ohm
R711	6T43159F61	680 ohm
R712	6T43159F67	1.2K ohm
R713	6T43159F65	1K ohm
R714	6D44744G12	22 ohm 1/2W
R716	6S41801P43	8.2K ohm 1/2W
R717	6S41801P04	4.7 ohm 1/2W
<b>Volume/Switch P.C. Board</b>		
<b>Switches</b>		
SW41	40T42487F02	Push (Dolby)
SW42	40T42487F02	Push (Metal)
SW43	40T42487F02	Push (Loudness)

Symbol No.	Part No.	Description
<b>Capacitors</b>		
C401	8S40154T49	Ceramic 1000 pF
C402	8S40154T49	Ceramic 1000 pF
C403	23S41059P02	Tantalum 0.15 uF/35V
C404	23S41059P02	Tantalum 0.15 uF/35V
<b>Resistors</b> (All resistors are carbon film, 1/8W, ±5%, unless otherwise noted.)		
R401	6S41042U65	1K ohm
R402	6S41042U65	1K ohm
R403	6S41042U73	2.2K ohm
R404	6S41042U73	2.2K ohm
VR401 ]	18T42970F02	Variable
SW44 ]		
<b>Miscellaneous Parts</b>		
C221-1 ] ~ 5	8T45258F04	Capacitor Through
C531-1 ] ~ 5	8T52011F01	Capacitor Through
C705	23B44780P05	Cap., Electrolytic 470 μF/16V
E1	1D45255F08	Output Connector
E2	1D47810F04	Radio Input Connector
E3	1T52030F01	Line Output (DIN) Connector
E4	30T40438U01	Ground Lead
HD1	88T45248F01	Playback Head
LED901	48T50561F01	LED, PG5724KY (Grn) (Tape Ind.)
LED902	48T50561F01	LED, PG5724KY (Grn) (Tape Ind.)
LED903	48T42247U01	LED-GL-9NG10 (Grn) (Level Ind.)
LED904	48T42247U01	LED-GL-9NG10 (Grn) (Level Ind.)
LED905	48T42247U02	LED-GL-9HY10 (Yel) (Level Ind.)
LED906	48T42247U02	LED-GL-9HY10 (Yel) (Level Ind.)
LED907	48T42247U03	LED-GL-9PR10 (Red) (Level Ind.)

Symbol No.	Part No.	Description
M1	1V41500F34	Assembly, Motor
SD1	1T45982F01	Assembly, Reverse Solenoid
SD2	1T43641F01	Assembly, Keep Solenoid
SW1	40T43066F01	Switch, Norm/Reverse
SW2-1	40T40641U02	Switch, Reed
SW2-2	40T40641U02	Switch, Reed
SW3	40T43662U01	Switch, Auto Reverse Power Circuit
SW4	40T41665F01	Switch, FF/REW Mute
SW5-1	40T45610F01	Switch, Radio/Tape
SW5-2	40T42603F01	Switch, Radio/Tape
SW91	40T40499U02	Switch, Eject
VR301	18T42969F01	Res., Variable 20K ohm (B)
VR302	18T42969F01	Res., Variable 20K ohm (B)
VR303	18T42969F01	Res., Variable 20K ohm (B)
VR304	18T42969F01	Res., Variable 20K ohm (B)
VR305	18T42969F01	Res., Variable 20K ohm (B)

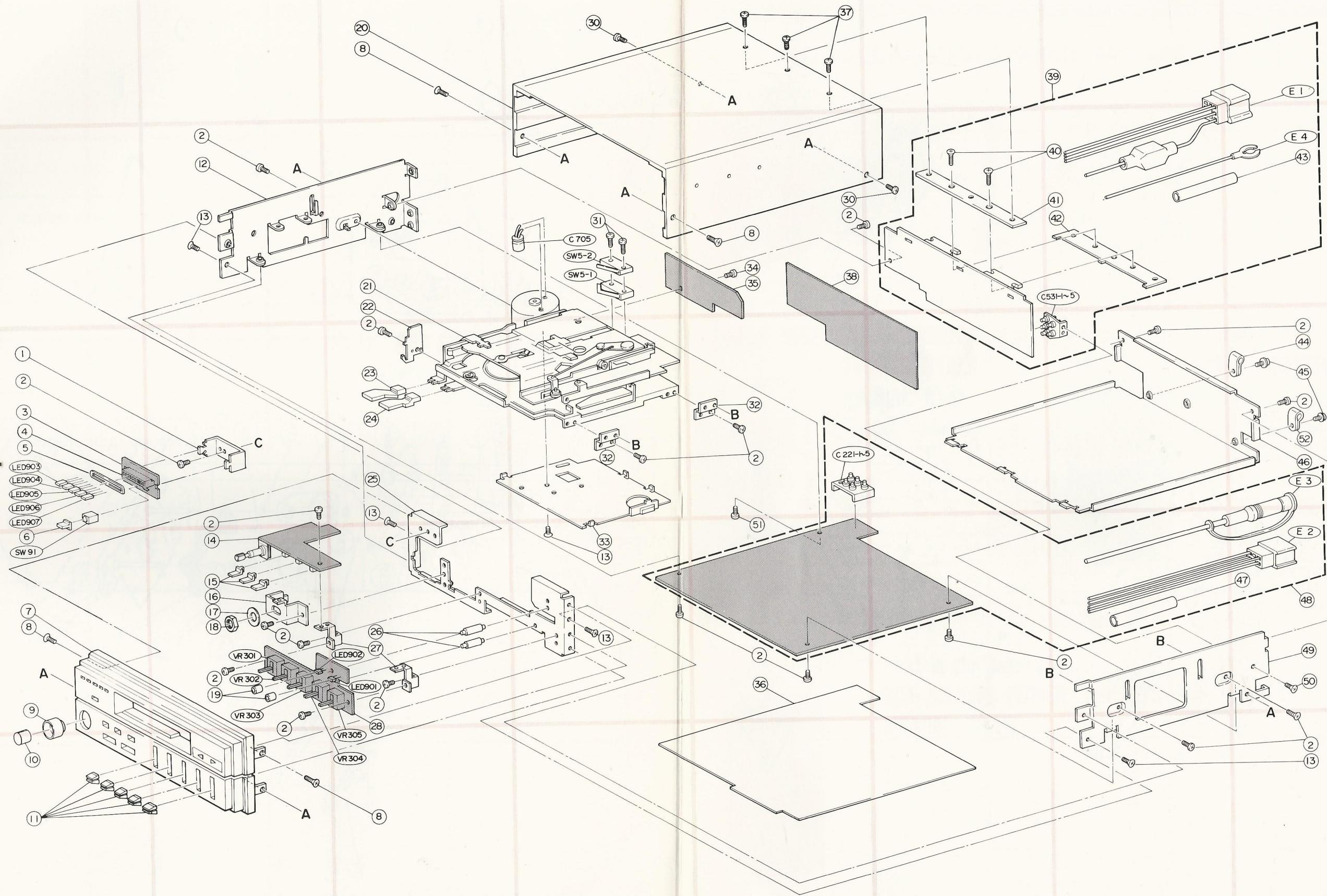
# Cabinet Assembly Parts List

Symbol No.	Index	Part No.	Description
1	3-A	※ 3S44205G07	Bracket, Level Ind. P.C.B. Screw, Tap Tite (M2.6 x 5)
2		※	Panel, Level Ind.
3	3-A	9B52324F01	Connector
5	3-A	※	Spacer, LED
6	4-A	36A43179F01	Knob, Eject
7	4-A	13D51872F02	Nosepiece
8		3S40011G41	Screw, Machine (Flat) (M3 x 6)
9	5-A	36B43219F01	Knob, Control (Balance)
10	5-A	36B43220F01	Knob, Control (Volume)
11	5-A	36A43183F01	Knob, Equalizer Volume
12	2-B	※ 3S40011G95	Chassis, Left Side Screw, Machine (Flat) (M2.6 x 4)
14	4-B	1V53500F57	Assembly, Volume/ Switch P.C.B.
15	4-B	36A43180F01	Knob, Switch (Dolby, Metal, Loudness)
16	4-B	※ 4S40070G28	Bracket, Volume Mounting Washer, Flat (M9)
18	4-B	2S40000G15	Nut, Hex. (M9 x 0.75)
19	4-B	※ 15D43164F02	Tube, Vinyl (8mm) Cover, Top
21	2-C	81D47004F01	Assembly, Deck Mechanism (GX75B16A)
22	2-C	※ 36B43181F01	Bracket, Deck Mounting Knob, FF/Rewind (◀▶)
23	3-C	36B43182F01	Knob, FF/Rewind (▶▶)
25	3-C	※ 84C52014F01	Chassis, Front Panel, Graphic Equalizer Volume/Tape Direction Indicator
26	4-C	46A43172F01	Shaft, Support
27	4-C	※ 3S44205G12	Bracket Screw, Tap Tite (M3 x 4)
28	5-C	7A43168F01	
30		3S44205G12	
31	2-D	3S40011G78	Screw, Machine (M2.3 x 15)
32		7A43168F01	Bracket, Deck Mounting
33	4-D	※ 3S44205G42	Cover, Deck Screw, Tap Tite (M2.6 x 4)
34	2-E	1V53500F61	Assembly, Reverse P.C.B.

Symbol No.	Index	Part No.	Description
36	4-E	※ 3S40011G43	Fiber, Insulator Screw, Machine (M3 x 10)
37	1-F	※ 1V53500F64	Fiber, Insulator Assembly Amp P.C.B.
38	2-F	3S40011G51	Screw, Machine (Flat) (M3 x 8)
41	2-G	※ 3C42723U01	Heat Sink Bracket, IC Mounting Tube, Vinyl (60mm) Clamp, Cord Screw, Cup (M3 x 6)
42	2-G	※ 42B41424G05	
43	2-H	※ 42B41424G04	
44	3-H	3S43997P52	
46	3-H	※ 3S44205G48	Cover, Bottom Tube, Vinyl (60mm) Assembly, Pre-Dolby/Graphic Equalizer P.C.B.
47	4-H	※ 42B41424G04	Chassis, Right Side Screw, Machine (Flat) (M2.6 x 3)
51	4-E	3S44205G48	Screw, Tap Tite (M2.6 x 5)
52	3-H	42B41424G04	Clamp, Cord

NOTE: \* The parts without part numbers are not supplied.

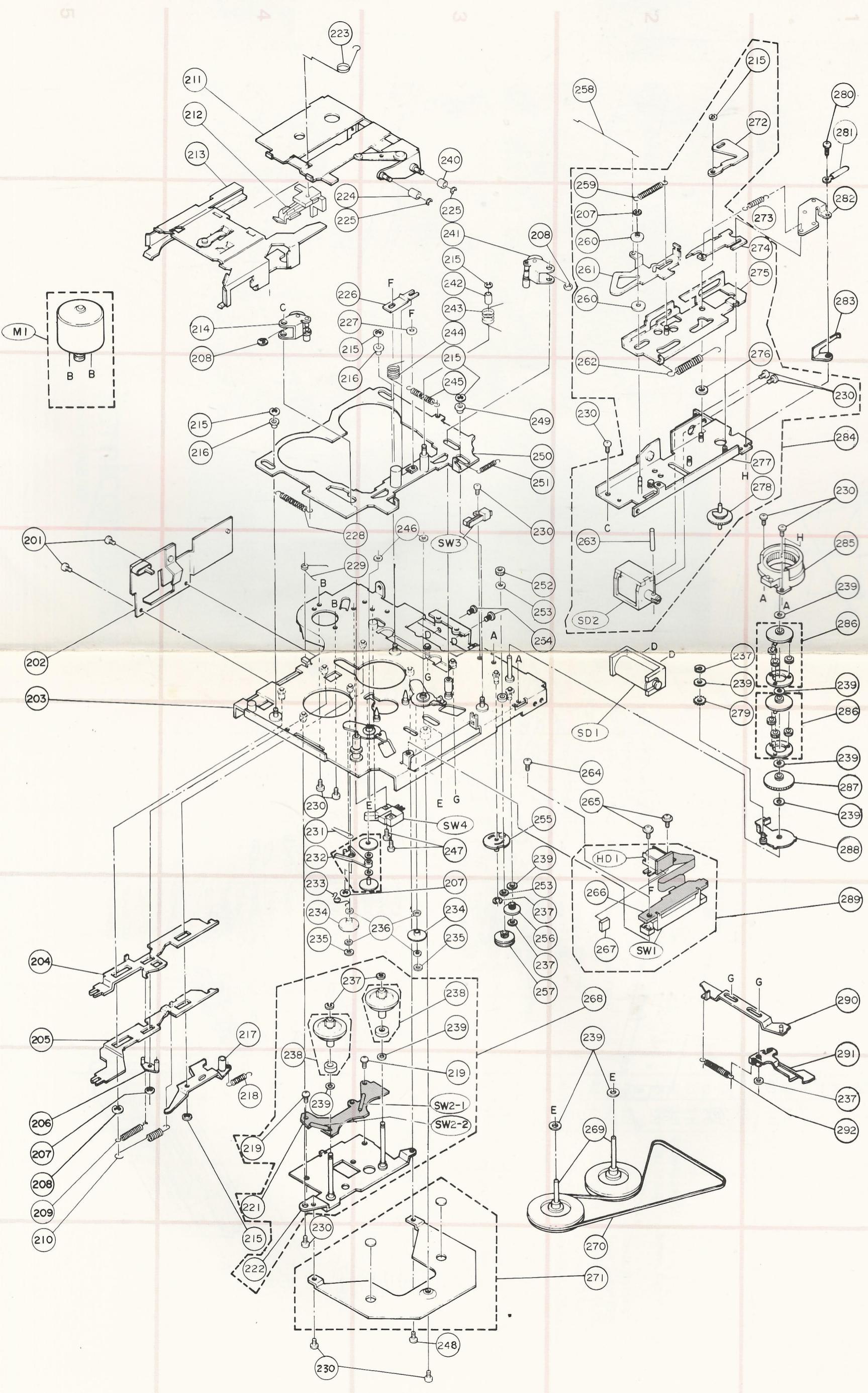
## Exploded View (General)



5400

CODE 02

# Exploded View (Tape Mechanism)



# Cassette Deck Assembly Parts List

Symbol No.	Index	Part No.	Description
201	5-D	3S44205G30	Screw, Tap Tite (M2.6 x 4)
202	5-D	1A41659F01	Ass'y, Guide Bracket Rivet
203	5-E	*	Assembly, Chassis Rivet
204	5-F	45C41236F01	Lever, Rewind
205	5-F	45C41235F01	Lever, Fast Forward
206	5-G	45A45326F01	Link, R/F
207		4C42091G05	Washer, "C" (M2)
208		4C42091G04	Washer, "C" (M3)
209	5-G	41B41559F10	Spring
210	5-H	41B41559F09	Spring
211	4-A	1A45981F01	Assembly, Idler Plate Rivet
212	4-A	45B45858F01	Guide, Cassette
213	4-A	1A41658F01	Assembly, Cassette Holder
214	4-B	1T42577F01	Assembly, Pinch Roller
215		4C42091G06	Washer, "C" (M1.5)
216		49A41005F01	Roller, Head Base
217	4-F	1A45979F01	Assembly, Lock Lever Rivet
218	4-G	41B41559F08	Spring
219		3S40019G71	Screw, F-Lock (M2.6 x 3)
221	4-G	84A41741F01	Panel, Reed Switch
222	4-H	1A41656F01	Assembly, Reel Shaft Bracket
223	4-A	41A41590F01	Spring, Turn
224	4-B	43A41072F03	Spacer
225		4C42091G12	Washer, "C" (M1.2)
226	4-B	41A45638F01	Spring, Head Adjustment
227	4-B	4S40070G56	Washer (M2.1)
228	4-D	41B41559F05	Spring
229	4-D	41A43244F01	Spring, B.T.
230		3C40014G12	Screw, Machine (M2.6 x 4)
231	4-E	41A41393F01	Spring, R/F Idler Arm
232	4-E	1C41353F01	Gear, R/F Idler
233	4-F	41A42613F01	Spring, R/F Idler
234		44A45853F01	Gear, Take-up
235		4A41345P01	Washer, Lock (M1.2)
236	4-F	4S40075G02	Washer, S.T.W. (M1.7)
237		4A41345P02	Washer, Lock (M1.7)
238		1V41500F38	Assembly, Reel Magnet
239	3-A	4S40075G06	Washer, S.T.W. (M2.1)
240		43A41072F02	Spacer
241	3-B	1T42578F01	Assembly, Pinch Roller

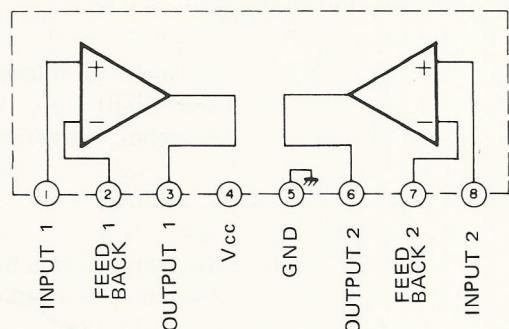
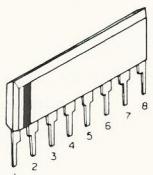
Symbol No.	Index	Part No.	Description
242	3-B	43A41079F01	Spacer
243	3-B	41A41453F01	Spring, Pinch Roller
244	3-B	41A41453F02	Spring, Pinch Roller
245	3-C	41B41559F04	Spring
246	3-D	43A44303P03	Washer, Oil Shild (M1.9)
247	3-E	3S40011G47	Screw, Machine (M2 x 7)
248	3-H	3C40014G06	Screw, Machine (M2.6 x 5)
249	3-C	49A43395F01	Roller, Head Base
250	3-C	*	Assembly, Head Base Rivet
251	3-C	41C45984F09	Spring
252	3-D	44A41349F01	Gear, Pulley
253		4S40075G09	Washer, S.T.W. (M2.6)
254	3-D	3S40011G81	Screw, Machine (M2 x 4)
255	3-E	44A41352F01	Gear, Change
256	3-F	44A41350F01	Gear, Reverse Idler
257	3-F	44A41351F01	Gear, Pulley Wheel
258	2-A	45A41392F01	Link, Connection
259	2-B	41B41559F12	Spring
260		43A42872F01	Spacer
261	2-B	45B41068F01	Lever, Sub
262	2-C	41B41559F13	Spring
263	2-D	22B40232G06	Spring, Pin
264	2-E	3S43997P62	Screw, Machine (M2.6 x 3)
265	2-E	3S40019G03	Screw, F-Lock (M2 x 4)
266	2-F	84T51613F01	Panel, Switch
267	2-F	11S40117G12	Tape, Adhesive Acetate
268	2-F	1V41500F37	Assembly, Reel Bracket
269	2-G	1T42014F01	Assembly, Flywheel
270	2-H	42A40969F01	Belt
271	2-H	1V41500F39	Assembly, Flywheel Bracket
272	1-A	45A41042F01	Lever, Lock Eject
273	1-B	41B41559F03	Spring
274	1-B	64A45857F01	Plate, Head Lock
275	1-B	*	Eject Lever
276	1-C	43A41072F04	Spacer
277	1-C	*	Assembly, Frame Lever Rivet
278	1-C	1T45861F01	Assembly, Eject Gear
279	1-E	44A41348F01	Gear, Eject Idler
280	1-A	3S56479F01	Screw, PSW (M2.6 x 8)
281	1-A	29A737272	Lug, Wrap Around

NOTE: \* The parts without part numbers are not supplied.

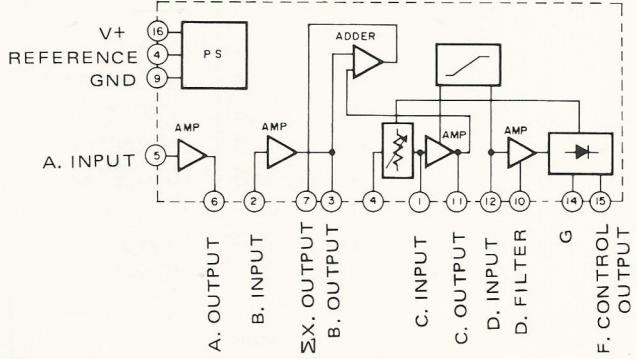
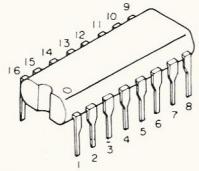
Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
282	1-B	64A45856F01	Plate, Pinion				
283	1-B	41A41890F01	Spring, Solenoid				
284	1-C	1V45700F66	Assembly, Eject Lever				
285	1-D	44B41260F01	Gear, Fixed				
286		1V41500F30	Assembly, Planet Gear				
287	1-E	44A41354F01	Gear, Guide				
288	1-E	1A50669F01	Assembly, Lever Idler Gear				
289	1-F	1V53500F49	Assembly, Head & Switch				
290	1-F	1A41661F01	Assembly, Release Lever				
291	1-G	45C45545F01	Lever, Reverse				
292	1-G	41C45984F01	Spring				

# Semi-Conductor Lead Identifications

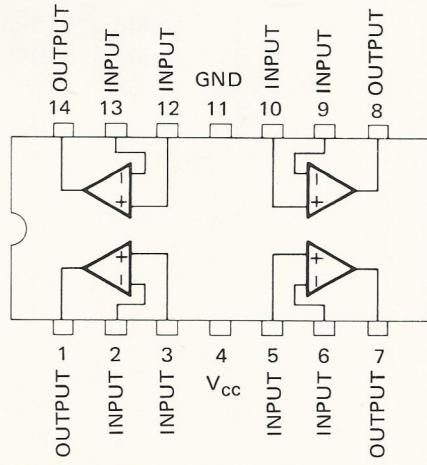
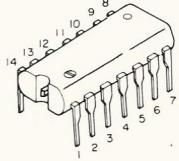
M51522L: IC201



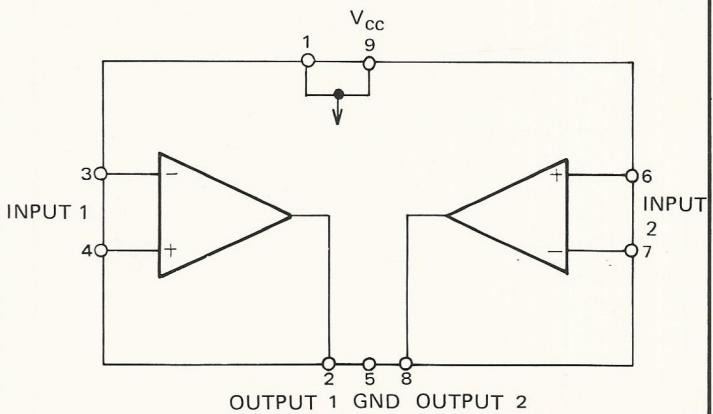
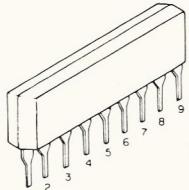
NE645N: IC301, 302



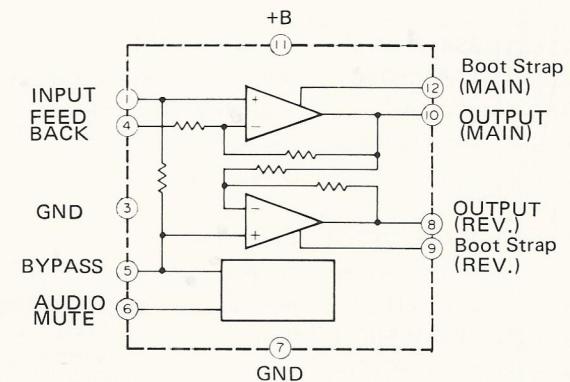
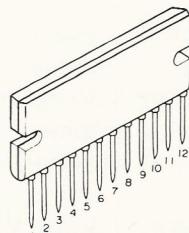
TA75902P: IC303, 304, 305



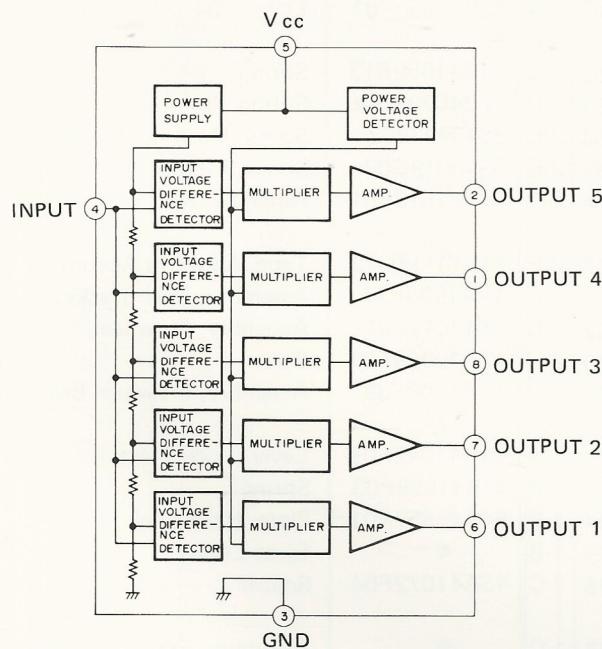
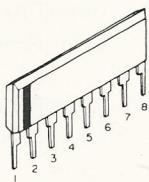
AN6551: IC504



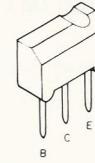
**MB3731: IC501, 502**



**M51903L: IC503**



**2SD661: Q201, 202  
2SD636: Q301, 302  
Q501, 502**



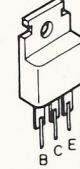
**2SK105: Q503, 504**



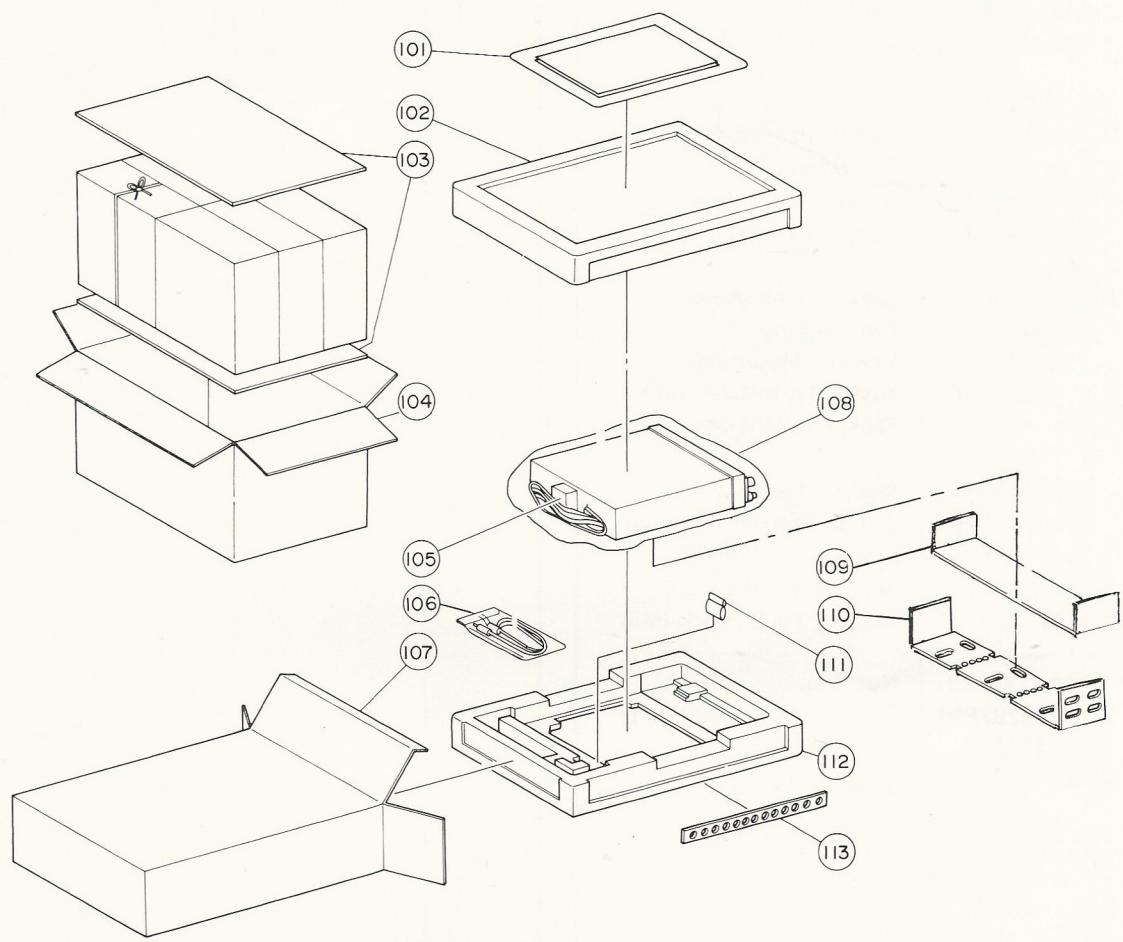
**2SC1815: Q701, 702, 703  
2SA1015: Q704  
2SA950: Q705  
2SC509: Q707  
2SA495: Q704**



**2SD880: Q706**



# Packing Method View



# Packing Assembly Parts List

Symbol No.	Part No.	Description
101	1V56200F40	Assembly, Pamphlet
101-1		Sack, Polyethylene
101-2	68P52551F59	Owner's Manual
101-3	54B56246F01	Card, Note
102	56D40287F02	Tray, Packing (Top)
103	*	Pad, Packing
104	*	Carton, Packing (Master)
105	*	Pad, Packing
106	1D45256F12	Assembly, Kit Wire
107	56C51870F01	Carton, Packing (Individual)
108	56B40990T07	Sack, Polyethylene
109	56A52180F02	Pad, Packing
110	7B52108F02	Bracket, Mounting
111	1V44800F60	Assembly, Installation Kit
111-1	*	Sack, Polyethylene
111-2	4S40072G15	Washer, Tooth Lock (M4)
111-3	3S40012G66	Screw, Tapping (M5 x 20)
111-4	3B44963F01	Screw, Hex (M4 x 8)
111-5	3B44963F02	Screw, Hex (M5 x 20)
111-6	4S40072G11	Washer, Tooth Lock (M5)
111-7	2S40000G33	Nut, Hex
112	56D40287F01	Tray, Packing (Bottom)
113	7B44934F01	Strap, Mounting

## Labels

	54A47805F01 54B47804F01	Relay Box (E2) Composite (Model, Serial No.) (Bottom)
	54A40149U01 *	Dolby NR (Bottom) Date Code. (Master Carton)
	54B42124G01 *	Serial No. (Individual Carton) Serial No. (Master Carton)

NOTE: \* The parts without part numbers are not supplied.

Symbol No.	Part No.	Description