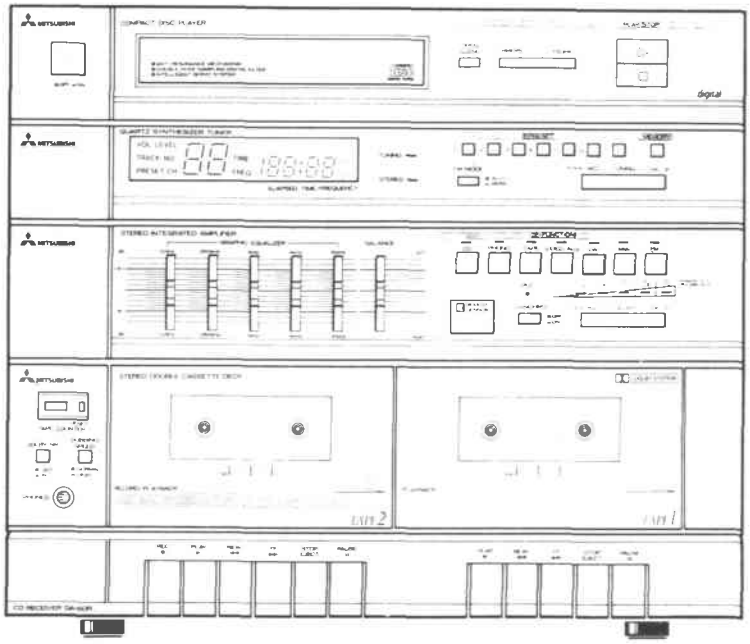
MITSUBISHI
AUDIO SYSTEMS

SERVICE MANUAL

CD RECEIVER

MODEL DA-60R



CONTENTS

MITSUBISHI ELECTRIC CORPORATION

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HEAD OFFICE MITSUBISHI DENKI BLDG MARUNOUCHI TOKYO 100 TELEX J24532 CABLE MELCO TOKYO

DA-60R (EU)
Printed in Taiwan

SPECIFICATIONS

AMPLIFIER SECTION

Min. RMS POWER OUTPUT

35 watts per channel, min. RMS, both channels driven into 8 ohms at 1 kHz with no more than 0.5 % total harmonic distortion.

INPUT SENSITIVITY	
PHONO	2.5 mV/50k ohms
VIDEO/AUX	150 mV/50k ohms
GRAPHIC EQUALIZER	
63 Hz	±10 dB
250 Hz	±10 dB
1 kHz	±10 dB
4 kHz	±10 dB
16 kHz	±10 dB

TUNER SECTION

FREQUENCY RANGES	
FM	87.50 – 108.00 MHz (50 kHz step)
MW	522 – 1620 kHz (9 kHz step)
LW	155 – 353 kHz (9 kHz step)
USABLE SENSITIVITY	
FM	12 dBf (1.1 μV – 75 ohms)
MW	300 μV/m
LW	700 μV/m
SIGNAL-TO-NOISE RATIO	
FM	78 dB
MW	50 dB
STEREO SEPARATION	
FM (1 kHz)	35 dB

CASSETTE DECK SECTION

TYPE	4-track, 2-channel stereo
TAPE SPEED	4.75 cm/sec (1-7/8 ips)
HEAD MATERIAL	
TAPE 1 PLAY	Hard permalloy
TAPE 2 REC/PLAY	Hard permalloy
TAPE 2 ERASE	Ferrite
MOTOR	DC 12V
WOW AND FLUTTER	±0.2% Wpeak
FREQUENCY RESPONSE	
NORMAL	30 Hz ~ 16000 Hz
SPECIAL	30 Hz ~ 17000 Hz
METAL (PLAYBACK)	30 Hz ~ 18000 Hz
SIGNAL-TO-NOISE RATIO	
DOLBY NR OUT	58 dB
DOLBY NR IN	68 dB

CD PLAYER SECTION

TYPE	COMPACT DISC 2 CHANNEL STEREO PLAYER
PICK UP	3-BEAM TYPE (MLP-7)
LOADING	DRAWER TYPE

GENERAL

POWER REQUIREMENTS	AC 220V 50 Hz (EU only) AC 240V 50 Hz (UK only)
MEMORY BACKUP	DC 3V ("R6" x 2)
POWER CONSUMPTION	120 W
DIMENSIONS (W x H x D)	350 x 293.5 x 297 mm
WEIGHT	10 kg

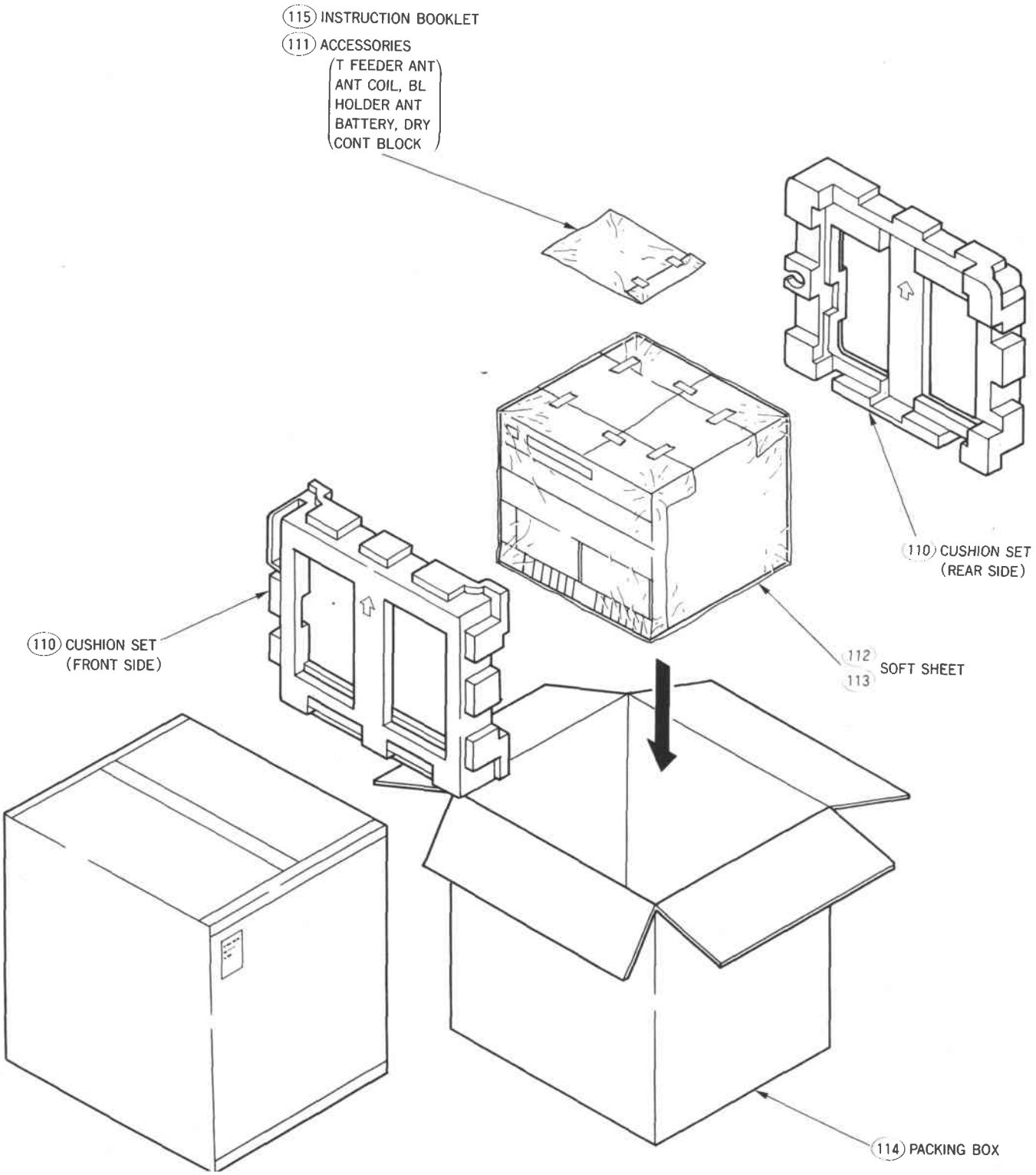
REMOTE-CONTROL UNIT

TYPE	Infrared remote-control unit
CARRIER FREQUENCY	38 kHz
CONTROL AREA	At least 7 m (approx. 24') distant at ±30 degree
BATTERIES	R03 x 2 (AAA x 2)
DIMENSIONS (W x H x D)	56 x 15 x 140 mm

ACCESSORIES

AM loop antenna
AM loop antenna holder
T-shaped FM antenna
Batteries (R03 x 2)

PACKING INSTRUCTIONS



When Adjusting Volume:

When the volume is adjusted, the Digital Display displays the new volume level (0 – 99) for several seconds.

8. TUNING Indicator
This indicator illuminates when the maximum signal strength of the tuned station is reached.

9. PRESET/MEMORY Buttons

MEMORY: Press this button (after tuning in a desired station) followed by one of the PRESET buttons (1 – 7) to place a station into memory.

1 – 7: The settings of up to 7 LW, MW and FM stations can be stored in memory. These PRESET stations may then be recalled by selecting the frequency (LW, MW or FM) followed by the desired PRESET (1 – 7).

For further instruction on presetting of LW, MW and FM stations consult the "PRESETTING RADIO STATION" section of this manual.

10. FM MODE Selection Switch
When listening to an FM broadcast, set to the "AUTO" (▟) position to receive stereo broadcasts in stereo. If the sensitivity becomes poor, the reception will automatically become monaural. In places where the sensitivity is poor, set to the "MONO" (▬) position. Stereo reception in this case is not possible, but the amount of noise will decrease, improving the sound. Usually leave this switch in the "AUTO" (▟) position.

11. TUNING Button
Press this button to tune in a radio station. Press on the right side (> UP) to increase the frequency and the left side (DOWN <) to decrease it.

12. FM STEREO Indicator
This indicator lights when receiving an FM stereo broadcast. The indicator will not light when the FM MODE switch is in the "MONO" (▬) position or when the sensitivity is poor.

13. FUNCTION Selector Switches and Indicators
Press one of these switches to select the desired program source. The indicator shows the selected function.

14. Recording Indicator (REC)
This indicator illuminates when TAPE 2 is in the recording mode.

15. POWER LEVEL and RECORD LEVEL Indicators
Display the output level. When TAPE 2 is in the recording mode, the recording level is displayed.

16. VOLUME Control Button
When this button is pressed, the volume is changed and the level (0 – 99) is indicated on the digital display for several seconds. Press the right side (> UP) to increase the volume or the left side (DOWN <) to decrease it.

17. SYNCHRO Start Switch
If this switch is set to the "ON" (▬) position when recording from a Compact Disc, the CD player will start as soon as the REC button is depressed.

18. Remote Control Sensor (REMOTE SENSOR)
When operating the included remote control unit, point it toward this sensor.

19. TAPE 1 Cassette Holder
TAPE 1 is exclusively for playback.

20. TAPE 1 PAUSE Button

21. TAPE 1 STOP/EJECT Button

22. TAPE 1 Fast-forward (FF) Button

23. TAPE 1 Rewind (REW) Button

24. TAPE 1 PLAY Button

25. TAPE 2 Cassette Holder
TAPE 2 can be used for both recording and playback.

26. TAPE 2 PAUSE Button

27. TAPE 2 STOP/EJECT Button

28. TAPE 2 Fast-forward (FF) Button

29. TAPE 2 Rewind (REW) Button

30. TAPE 2 PLAY Button

31. TAPE 2 RECORD Button

32. Headphone Jack (PHONES)

33. DUBBING SPEED Selection Switch
Set this button to the "HIGH" (▬) position to dub from TAPE 1 onto TAPE 2 at double the normal speed.

34. Dolby Noise Reduction Switch (DOLBY NR)

35. TAPE COUNTER
Counter for TAPE 2.

36. Tape Counter RESET Button

37. GRAPHIC EQUALIZER Controls
These controls are to adjust the tone of sound source. To increase or decrease, slide each control to upside or downside.

38. BALANCE Control
Use this control to adjust the balance between the left and right speakers.

PARTS LIST

NOTE: ⚠ and [ ] designates components on the Parts list that have special characteristics to maintain the safety performance of this unit. When replacing any of these parts, be sure to use only specified parts.

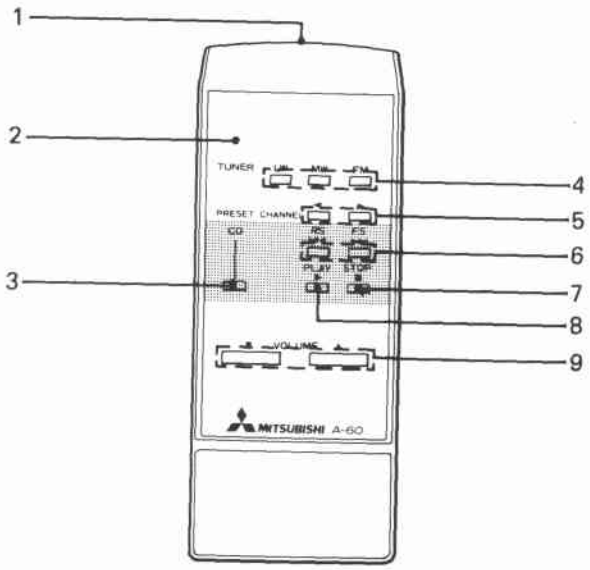
CD, SERVO P.C.B

Symbol NO.	Parts No.	Description	Remarks
	Diodes		
D201	D5631-1S2473	1S2473	
D202	5633-SVC211SP	SVC211SP	M04A23320
D203	5635-RD2R7EB2	RD2.7EB2	
D204	5631-1S1555	1S1555	
D206	D5631-1S2473	1S2473	
D207	5635-RD7R5EB2	RD7.5EB2	
D208	5635-RD5R6EB2	RD5.6EB2	M04A23325
D209	5635-RD3R9EB2	RD3.9EB2	
D210	5635-RD3R9EB2	RD3.9EB2	
D211	5635-RD5R6EB2	RD5.6EB2	M04A23325
D212	5635-RD5R6EB2	RD5.6EB2	M04A23325
D213	5635-RD3R9EB2	RD3.9EB2	
D214	5635-RD3R9EB2	RD3.9EB2	
	ICs		
IC101	5653-BA715	BA715	
IC102	5653-NJM2043S	NJM2043S	
IC103	5653-BA715	BA715	
IC104	5653-BA715	BA715	
IC105	5653-STA451C	STA451C	M07A09316
IC110	5652-M5218P	M5218P	M04A23312
IC201	5654-YM3805	YM3805	M04A23313
IC202	5654-CXK5816M	CXK5816M	
IC203	5652-M5218P	M5218P	M04A23312
IC204	5652-M5218P	M5218P	M04A23312
IC205	5652-M5218P	M5218P	M04A23312
IC206	5654-YM3015	YM3015	
IC207	5653-μPC4570C	μPC4570C	
IC209	5653-μPC4570C	μPC4570C	
	Transistors		
Q101	5613-535(C)	2SC535(C)	M04070303
Q102	A5613-1815(GR)(BL)	2SC1815(GR)(BL)	
Q103	A5613-2878(B)	2SC2878(B)	M04207306
Q104	A5611-1015(GR)(BL)	2SA1015(GR)(BL)	
Q105	A5613-2878(B)	2SC2878(B)	M04207306
Q106	A5613-2878(B)	2SC2878(B)	M04207306
Q107	A5613-2878(B)	2SC2878(B)	M04207306
Q124	A5613-RN1203	RN1203	M04A23300
Q201	5613-535(B)	2SC535(B)	M04070303
Q202	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q203	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q204	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q205	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q206	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q207	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q208	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q209	5613-3422(Y)	2SC3422(Y)	M04A23303
Q210	5611-1359(Y)(O)	2SA1359(Y)(O)	M04A23301
Q211	5613-2236(Y)(O)	2SC2236(Y)(O)	
Q212	5611-966(Y)(O)	2SA966(Y)(O)	
Q213	5613-2236(Y)(O)	2SC2236(Y)(O)	
Q214	5611-966(Y)(O)	2SA966(Y)(O)	
Q215	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q217	A5611-RN2203	RN2203	M04A23309
Q218	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q220	5611-1286(H)(J)(G)	2SA1286(H)(J)(G)	
Q221	A5613-RN1203	RN1203	M04A23300
Q222	A5611-1015(GR)(Y)	2SA1015(GR)(Y)	
Q223	A5611-1015(GR)(Y)	2SA1015(GR)(Y)	
Q224	A5613-RN1203	RN1203	M04A23300
Q225	A5613-RN1201	RN1201	M04A23302
Q226	A5613-RN1201	RN1201	M04A23302
Q227	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q228	A5613-RN1203	RN1203	M04A23300
Q229	A5611-RN2203	RN2203	M04A23369
Q231	A5613-RN1203	RN1203	M04A23300
Q232	A5613-RN1203	RN1203	M04A23300
	Electrical Parts		
R278	5102-4R75116F	R-FUSE 4.7Ω ⚠	M04A23455
R279	5102-4R75116F	R-FUSE 4.7Ω ⚠	M04A23455
R280	5102-4R75116F	R-FUSE 4.7Ω ⚠	M04A23455
R281	5102-4R75116F	R-FUSE 4.7Ω ⚠	M04A23455
R282	5102-6R85117F	R-FUSE 6.8Ω ⚠	M04A23456
R283	5102-6R85117F	R-FUSE 6.8Ω ⚠	M04A23456
L201	5923-70134	OSC COIL 10	
VR101	5101-10371716	VR SEMI 10KΩ	
VR102	5101-10471716	VR SEMI 100KΩ	
VR103	5101-10471716	VR SEMI 100KΩ	
VR104	5101-47371716	VR SEMI 47KΩ	
VR105	5101-10371716	VR SEMI 10KΩ	
VR106	5101-47371716	VR SEMI 47KΩ	
VR107	5101-47471716	VR SEMI 470KΩ	
X201	5691-00864317	OSC CRYSTAL	

PARTS LIST (CD MECHANISM)

Symbol No.	Parts No.	Description	Remarks
1		Motor (Disc)	M07A19550
2		Motor (Loading/Slide)	M07A19551
3		S.L. Outpur	
4		Platter Ass'y	M04A23620
5		Stabirizer	M07A09655
6		Flapper	
7		Pinion gear	M04A23732
8		Bush	
9		Drive gear	M04A23733
10		Cam gear	M04A23731
11		Thrust bearing	
12		Idol Pulley	M07A09632
13		Roller	
14		C Pulley	M07A09633
15		P Pulley	M07A09634
16		Spring	
17		Shaft (L)	
18		Shaft (S)	
19		Steel Ball (2.5)	M07A09687
20		Binding head T-Screw 3 x 8	
21		Binding head T-Screw 2.6 x 5	
22		Binding head T-Screw 2 x 5	
23		Washer 3mm	
24		Belt	M07A09713
25		BW head T-Screw 3 x 12	

FUNCTIONS OF REMOTE CONTROL UNIT



1. **Signal Transmitter**

2. **Transmission Indicator**
   This indicator lights when a button is pressed.

3. **CD Button**

4. **Band Selector Buttons (LW/MW/FM)**

5. **PRESET CHANNEL Selection Buttons (◀ / ▶)**
   Use these buttons to recall frequencies stored on the PRESET buttons. The channel number increases when the up (▶) button is pressed and decreases when the down (◀) button is pressed.

6. **CD Track No. Selection Buttons (I◀◀ RS /FS ▶▶I)**
   Press this button to select the CD's track number. When the right side (FS ▶▶I) is pressed, the track number increases. When the left side (I◀◀ RS) is pressed, the number is decreased. The CD will then start playing from the beginning of that track.

7. **CD STOP Button**

8. **CD PLAY Button**

9. **VOLUME Adjustment Button (▼ / ▲)**

DISASSEMBLY PROCEDURE

1. Removing the Transportation Fixing Screws (Fig.1)

1) Remove 4 screws (1) from both left and righthand side. (Fig. 1).

2. Removing the Top Cover (Fig.1)

1) Remove 4 screws (2) from the bottom of both left and righthand side.
2) Remove 2 screws (3) from the top of the back panel.
3) Lift off the top cover.

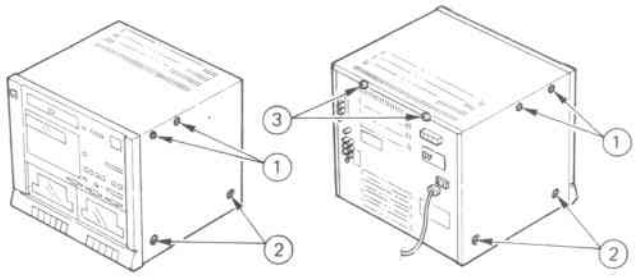


Fig. 1

3. Removing the CD Mechanism Ass'y (Fig.2/3)

1) Remove screw (4) on the left side and return the earth wire into the main body. (Fig. 2)
2) Draw back the CD mechanism ass'y while lifting it up. Be careful because the loading cassette protrudes at the front. (Fig.3)
3) Remove the 5 connectors connected to the CD P.C.B. while lifting up the CD mechanism ass'y.

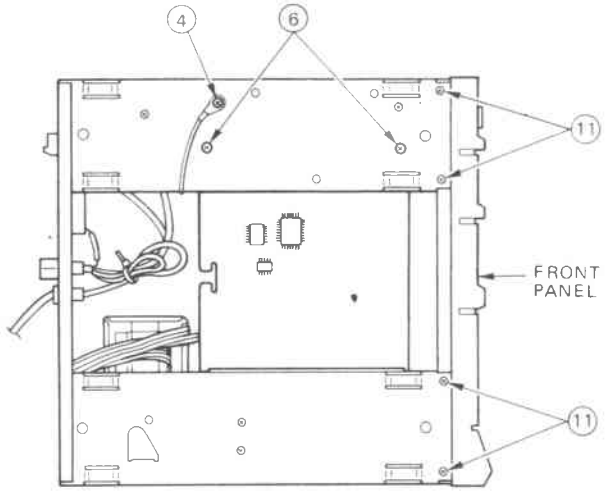


Fig. 2

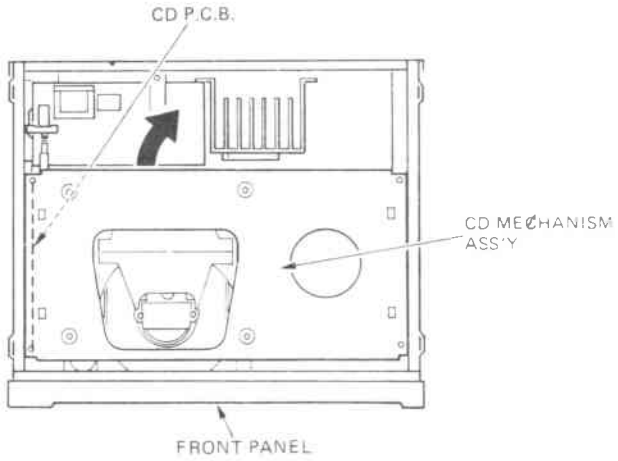


Fig. 3

4. Removing the Bottom Plate (Fig.4)

1) Remove 8 screws (5) after the CD mechanism ass'y has been removed.

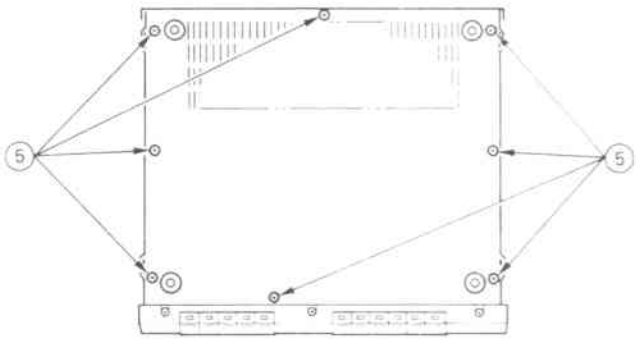
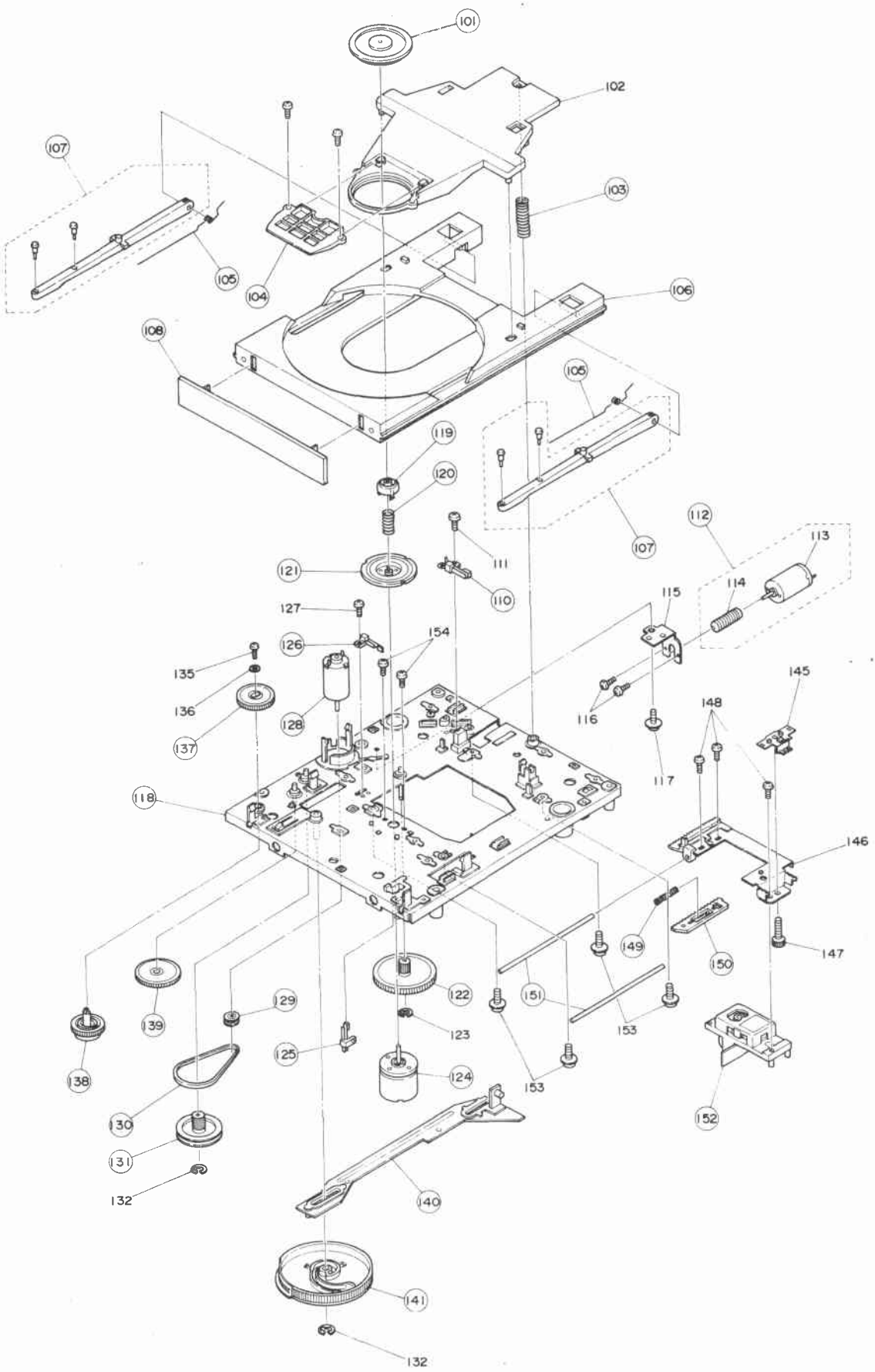


Fig. 4

5. Removing the CD P.C.B. (Fig. 2)

1) Remove 2 screws (6).

EXPLODED VIEW OF MECHANISM (CD)



PARTS LIST (TAPE DECK MECHANISM)

Symbol No.	Parts No.	Description	Remarks
1		Main Base Ass'y	
2		Switch Plate	
3		Push Botton Actuator	
4		Rec Button Lever(TAPE 2)	
5		Play Button Lever	
6		Rew Button Lever	
7		FF Button Lever	
8		Stop Button Lever	
9		Pause Button Lever Ass'y	
10		Rew Lever	
11		Pause Lever	
12		Pause Lever Spring	
13		Pause Stopper	
14	1821-01-187	Button Lever Spring(C)	
15	1821-01-13	Button Lever Spring(D)	
17		Button Lever Spring(A) (TAPE 2)	
18		Actuator Spring	
19		Auto Lever	
20		Auto Lever Spring	
22	LSA-1115R	Leaf Switch	M04A21375
25		Head Panel Ass'y	
26		Head Base	
27		Sensing Plate Ass'y	
28	1821-03-21	Head Panel Spring	
29	1821-03-07	Spring	M04A21763
30	1821-03-08	Spring (TAPE 2)	M04A21764
32	1821-04-301	Pinch Roller Ass'y	M04A21720
33	1821-04-10	Pinch Roller Spring	
34	1821-07-328	RF Pulley Arm Ass'y	
35		RF Pulley Arm Spring	
36	1821-07-03	RF Belt	
37	1821-07-21	RF Arm Collar Screw	
38	1821-09-304	Flywheel Ass'y	
40	1821-10-515	Reel Base Ass'y	
41		Take up Gear Plate Ass'y	
42	1821-10-34A	Take up Roller Gear	
43		T.G.Plate Spring	
44	1821-10-70	FF Gear	
45	1821-10-46	Back Tension Spring	
46	1821-10-309	Supply Reel Ass'y	M04A23700
47	1821-10-319	Take up Reel Ass'y	
48	1821-10-69	Record Safety Lever (TAPE 2)	M04A21650
49		Pack Spring	
50	1829-10-10	Back Tension Spring (Supply Reel)	M04A21767
52		Motor Bracket	
53		Motor Rubber	
54		Motor Collar Screw	
56	1821-12-138	Main Belt	
59		Eject Slide Lever	
60		Eject Slide Lever Spring	

Symbol No.	Parts No.	Description	Remarks
61		P.M.E Screw	
63		Frame	
64		Operation Lever	
65		Button Lever Shaft	
67		Sub Chassis Ass'y	
68		M.Trigger Arm Ass'y	
71		Record Function Arm(A) Ass'y (TAPE 2)	
81	EG 500KD-2B	Motor Ass'y	M04A23550
82	RP7342CR0910	R/P Head (TAPE 2)	
83	E-621PM0231	E-Head	
87		FR Switch Lever	
103		C Tapping Screw M2 x 3	
104		P Tapping Bind Screw M2 x 5	
108		Azimuth Screw M2 x 7	
109		Screw M2 x 8 (TAPE 2)	
110		Cap Screw M2 x 7	
111		Cap Screw M2 x 8(TAPE 2)	
113		Camera Screw M2 x 7	
117		P Tapping Screw M2 x 6	
119	9999-03-07	P Washer Cut 1.2 x 3 x 0.4	
120	9875-00-00	PWasher Cut 1.55 x 3 x 0.4	M04A21781
121	9999-00-04	P Washer Cut 2.05 x 4 x 0.4	

6. Removing the Tuner P.C.B. (Fig. 5/6)

1) Remove 5 screws (8). (Fig. 5)
2) Remove screw (9). (Fig. 6)

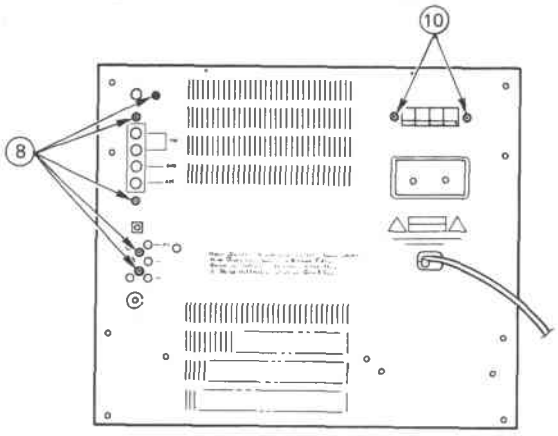


Fig. 5

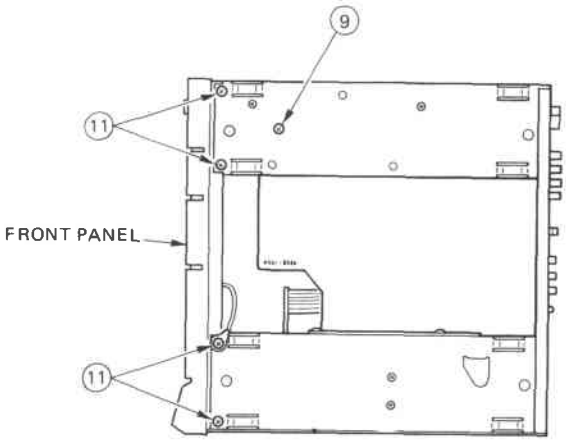


Fig. 6

7. Removing the Front Panel (Fig.7/6/2/5)

1) Remove the power switch link. (Fig. 7)
2) Remove the speaker terminal and battery socket on the back. Remove 2 screws (10). (Fig. 5)
3) Remove 8 screws (11). (Figs. 2, 6) The front panel can now be removed. The front P.C.B., cassette P.C.B. and cassette mechanism ass'y are removed together with the front panel.

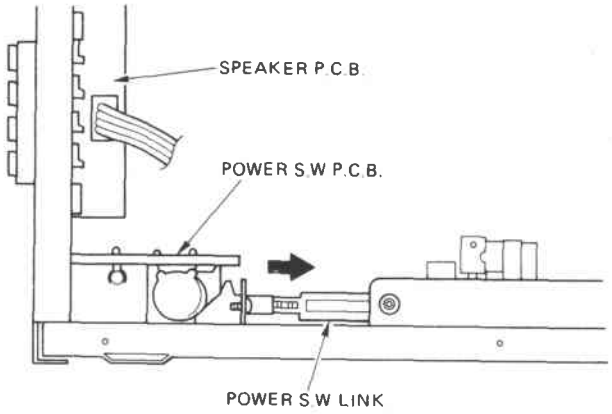


Fig. 7

8. Removing the Front P.C.B. and Cassette P.C.B. (Fig. 8)

1) Remove 11 screws (12). The front P.C.B. can now be removed.
2) Remove 2 screws (13). The cassette P.C.B. can now be removed.

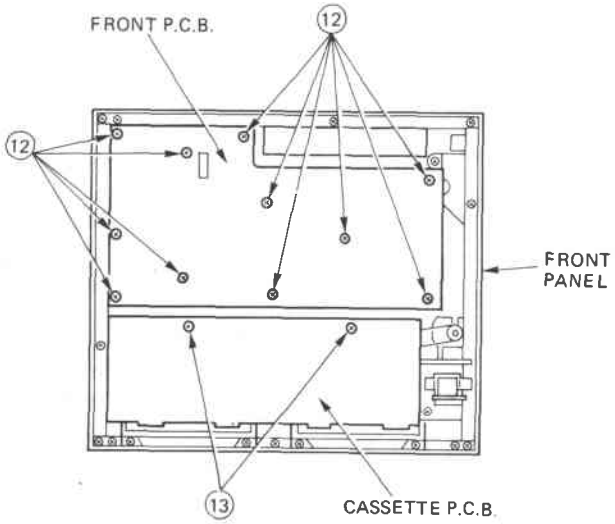


Fig. 8

9. Removing the Cassette Mechanism Ass'y (Fig.9)

1) Remove 4 screws (14).
2) Press the STOP/EJECT button to open the cassette holder. Lift up the cassette mechanism ass'y with the cassette holder opened. TAPE 1 can be removed.
3) Remove 4 screws (15). TAPE 2 can be removed in the same way as TAPE 1.

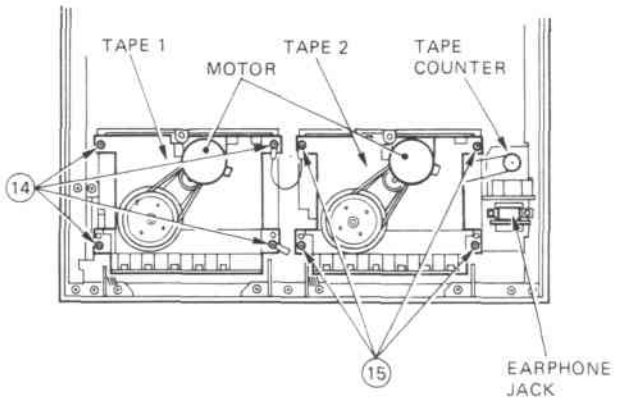


Fig. 9

10. Removing the Motors and Flywheels (Both TAPE 1 and TAPE 2) (Fig.10)

1) Remove 2 motor bracket fixing screws.
2) The main belt can now be removed.
3) Remove 3 motor bracket fixing screws. The motor can now be removed.
4) Remove the flywheel. Remove the washer and then the flywheel. The RF belt can also be removed at this time.

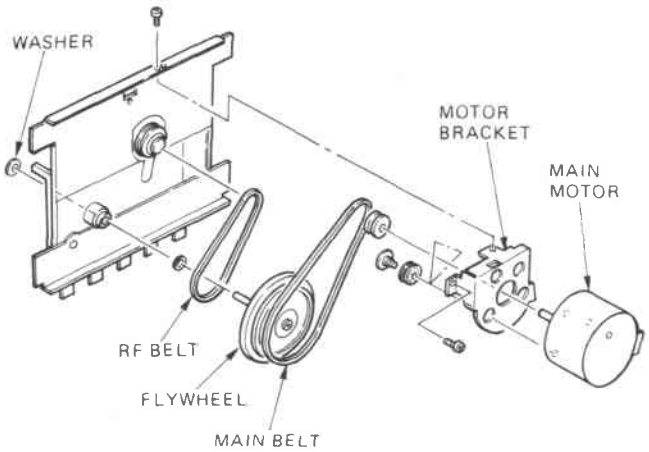


Fig. 10

11. Removing the Head and Pinch Roller (for TAPE 1 and TAPE 2) (Fig.11)

1) Remove the button ass'y by removing 2 fixing screws (16).
2) The pinch roller can now be removed by removing the fixing screw (17).
3) The erase head (for TAPE 2 only) can be removed by removing 2 fixing screws (18).
4) The R/P head can be removed by removing 2 fixing screws (19). When replacing the R/P head, always carry out a head azimuth adjustment and secure the adjustment with a screw locking compound.

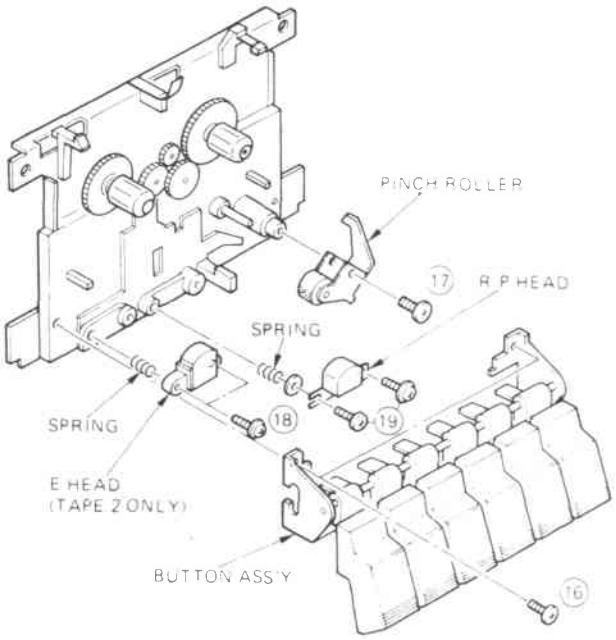
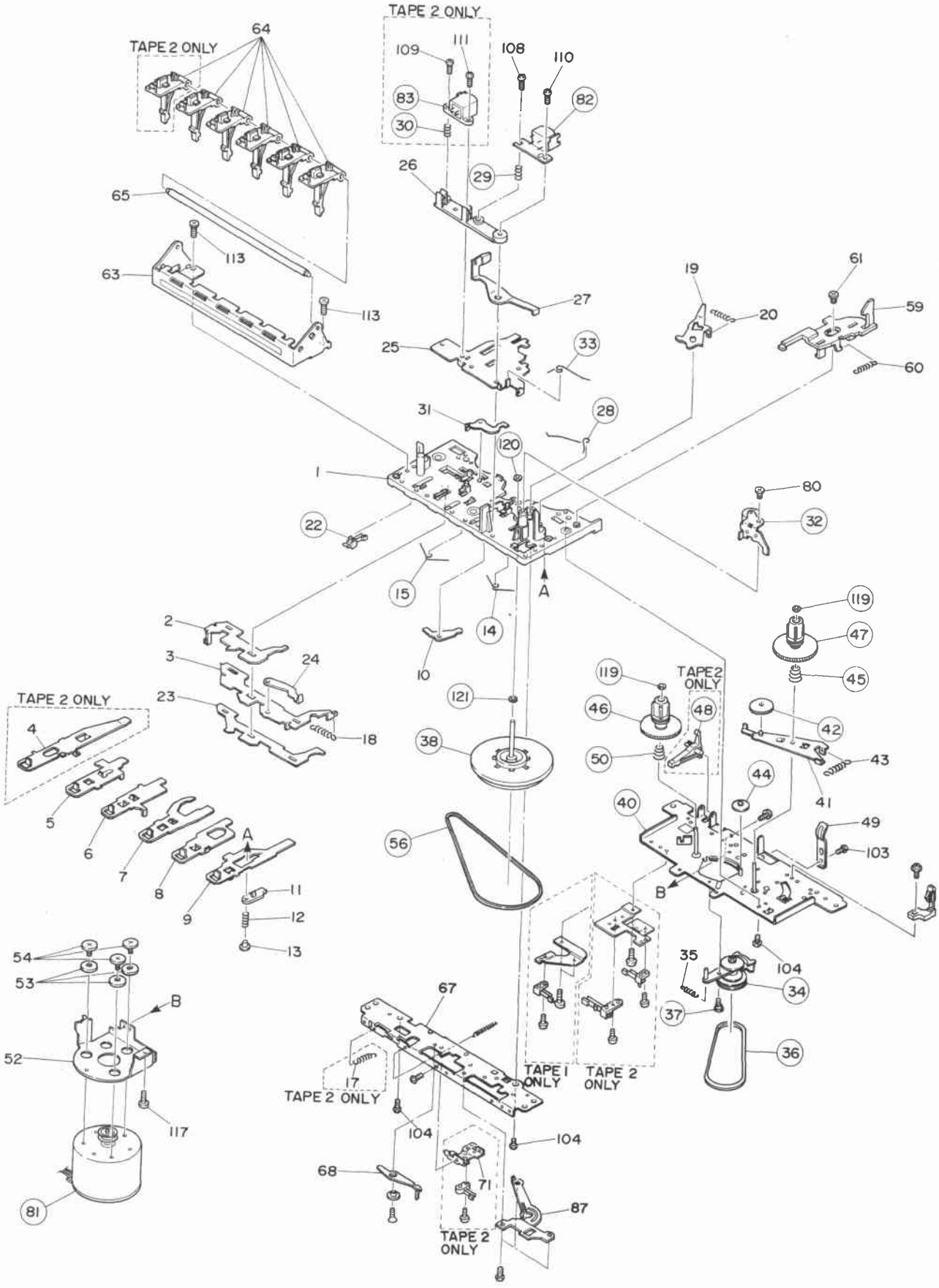


Fig. 11

EXPLODED VIEW OF MECHANISM (TAPE DECK)



12. Removal of Disc Tray Ass'y

1) Remove 4 screws (20). (Fig. 12)
2) Pull Disc Tray Ass'y forward.
   Then pull off Disc Tray Ass'y by pressing the hooks (A) in Fig. 13.

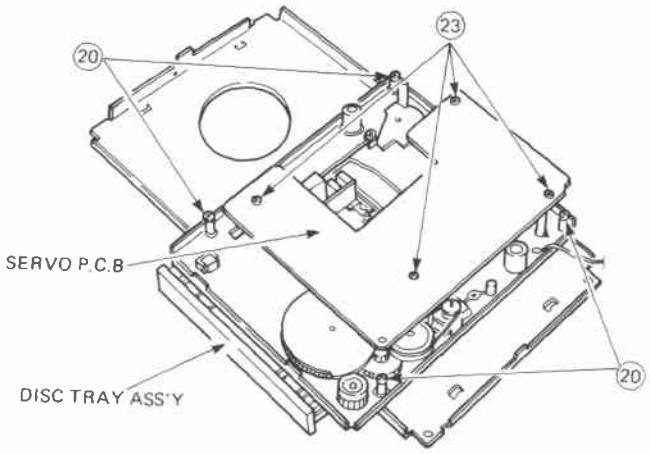


Fig. 12

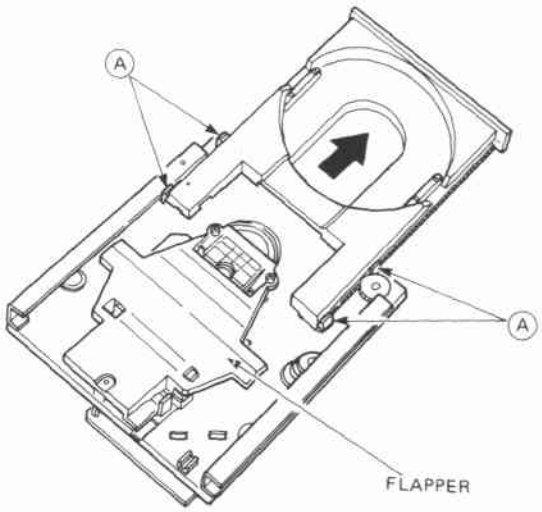


Fig. 13

13. Removal of Frapper

Pull off the Frapper by pressing the hook (B) in Fig. 14.

14. Removing the SERVO P.C.B.

Remove 4 screws (23) (Fig. 12) and then remove the SERVO P.C.B.

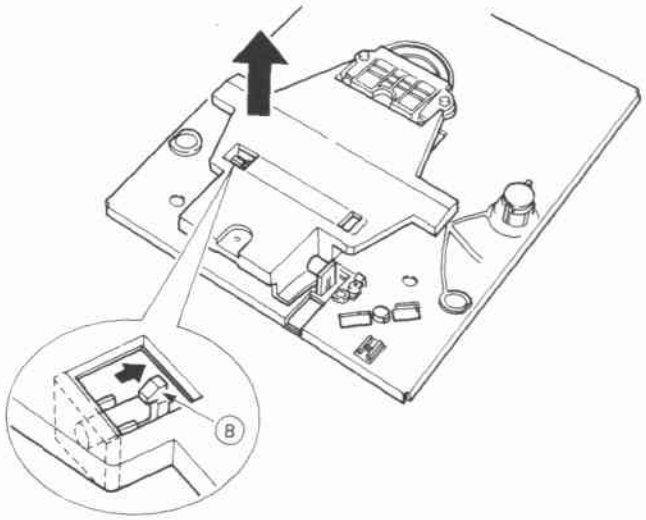


Fig. 14

15. Removal of Pick-up

Remove 3 screws (24) (Fig. 15) and then remove the Pick-up.

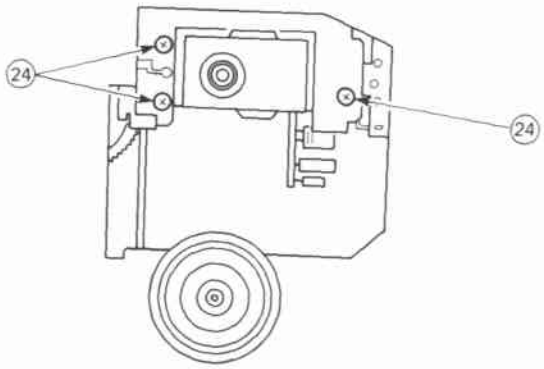


Fig. 15

PARTS LIST (CABINET)

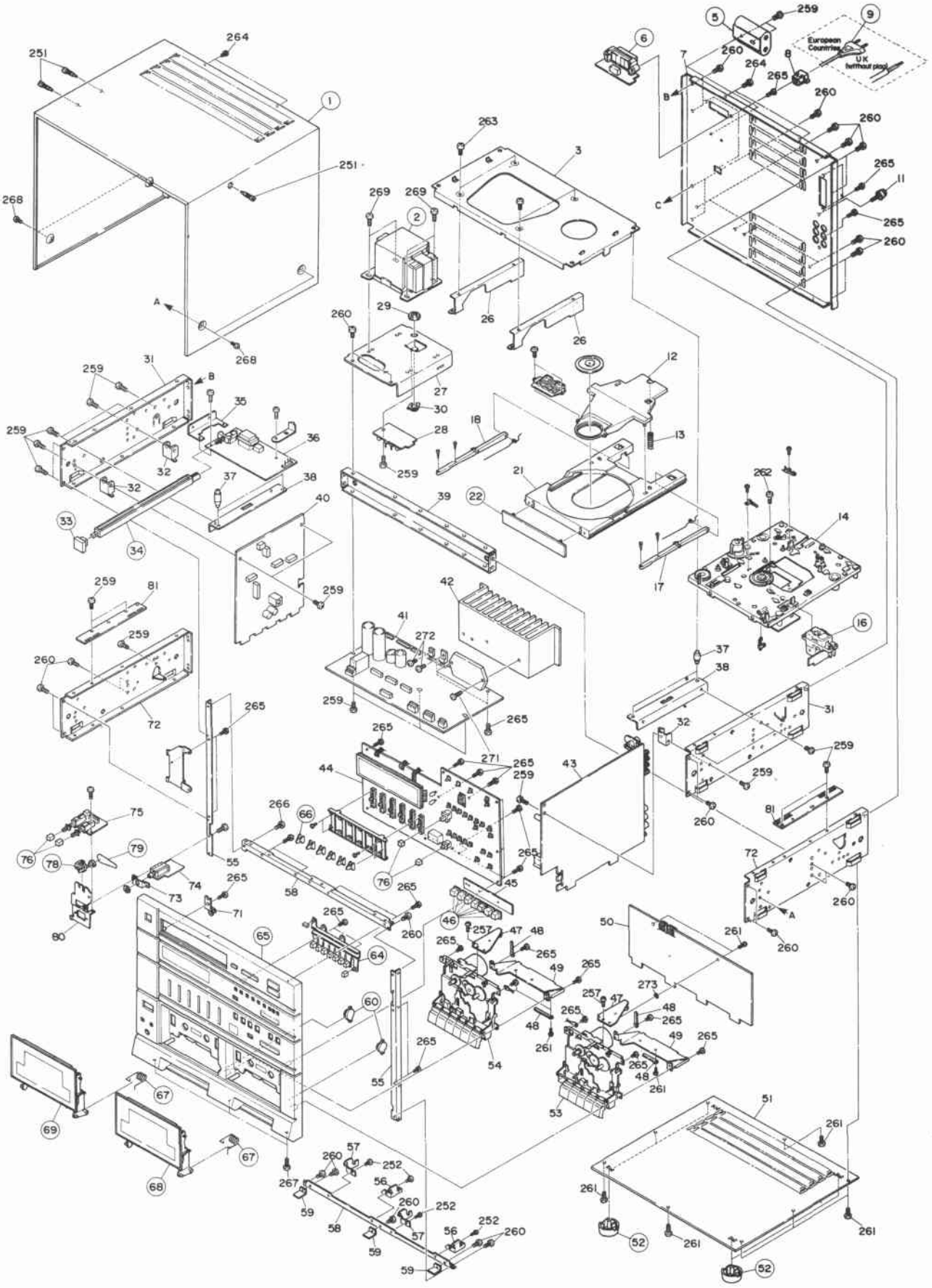
Symbol No.	Parts No.	Description	Remarks
52	1319-F00101	Foot	
53		Mecha Ass'y (TAPE-1)	
54		Mecha Ass'y (TAPE-2)	
55		Holder	
56		Holder	
57		Holder	
58		Holder	
59		Holder	
60	2692-13	Damper	
61	——	——	——
62	——	——	——
63	——	——	——
64	1662-24403	Push Button (PRE/MEMO/OPEN)	
65		Front Panel Ass'y 2	
66	1642-12201	Knob Slide	
67	2651-0000216	Spring	
68	1511-05307	Case Lid Ass'y-2	
69	1511-05308	Case Lid Ass'y-1	
70	——	——	——
71		Holder	
72		Holder	
73		Holder	
74		P.C.B Ass'y	
75		P.C.B Ass'y	
76	1662-30601	Push button (MODE/SYN/SPEED/DOLBY)	
77		Push Button (BASS)	
78	3131-035020	Counter	
79	2642-01454	Belt (Counter)	
80		Holder	
81		Holder	
251		Screw Transport	
252		T-screw 3 x 6	
257		Pan Head Screw 3 x 8	
259		T-screw 3 x 6	
260		T-screw 3 x 6	
261		T-screw 3 x 6	
262		Screw M2.5 x 4	
263		Washer ϕ3.5 x 10 x 0.6	
264		T-screw 3 x 8	
265		T-screw 3 x 10	
266		Washer ϕ5.4 x 10 x 10	
267		Screw M3 x 6	
268		T-screw 4 x 6	
269		T-screw 4 x 8	
271		Screw M3 x 14	
272		Screw M3 x 10	
273		Spacer	

Symbol No.	Parts No.	Description	Remarks
1	1414-08901	Top Cover	
2	5584-702519	Power Trans (EU)	M04A23500
2	5584-703519	Power Trans (UK)	M04A23501
3		Chassis (CD)	
4		Holder	
5	1321-F00202	Battery Case	
6	4214-157	Speaker Terminal	M04A21480
7		Cabinet Back	
8		Holder	
9	4161-09212	AC Cord (EU)	M04A24490
9	4161-16051	AC Cord (UK)	M04A24491
10	——	——	——
11		Terminal	
12		Flapper	
13		Spring	
14		CD Mecha Ass'y	
15	——	——	——
16	MLP-7	Laser Pick-up (MLP-7)	
17		Lifter (R)	
18		Lifter (L)	
19	——	——	——
20	——	——	——
21		Disc Tray Ass'y	
22	1452-04203	Lid	
23	——	——	——
24	——	——	——
25	——	——	——
26		Holder	
27		Holder	
28		P.C.B Ass'y	
29		Bushing	
30		Bushing	
31		Holder	
32		Holder	
33	1662-223601TB	Push Button (Power SW)	
34	2601-F013	Shaft (Power SW)	
35		Holder	
36		P.C.B Ass'y	
37		Cushion Gum	
38		Holder	
39		Holder	
40		P.C.B Ass'y (CD)	
41		P.C.B Ass'y (Main)	
42		Heat Sink	
43		P.C.B Ass'y (Tuner)	
44		P.C.B Ass'y (Control)	
45		Felt	
46	1662-24209	Push Button (Function)	
47		Holder	
48		Lag Terminal	
49		Holder	
50		P.C.B Ass'y (Deck)	
51		Botton Cover	

TUNER SECTION ADJUSTMENT

No.	Measured Item	Input/Output and Procedure	Point of Adjustment	Adjustment for	Remarks
1	**AM IF Adjustment "MW mode"**	• Set the IF sweep frequency to 450 kHz. • Connect IF sweep's OUT terminal to loop antenna. IF sweep's IN terminal to R511.	T502	Adjust T502 so that waveform is maximized and symmetrical as in Fig. 16 .	See Fig. 18
2	**FM IF Adjustment "FM mode" (Coarse)**	• Set the IF sweep frequency to 10.7 MHz. • Connect IF sweep's OUT terminal to R503. IF sweep's IN terminal to R511.	T501	Adjust T501 so that waveform is maximized and symmetrical as in Fig. 17 .	See Fig. 19
3	**FM VCO Check "FM mode"**	• Connect digital voltmeter across R557. • Set the function to the FM position, the reception frequency to 87.5 MHz and check to make sure that voltage is 1.6 V. • Set frequency to 108 MHz and check to make sure that voltage is 8 V.			See Fig. 20
4	**FM IF Adjustment "FM mode" (Fine)**	• Set the FM signal generator to 98MHz and connect it to the FM antenna terminal through the 300Ω balanced dummy. (signal level 1mV) • Set the function to the FM position and the reception frequency to 98MHz. • Connect the distortion meter to the audio output.	T501	Adjust so that the audio output in minimum distortion.	See Fig. 21
5	**MW VCO Adjustment**	• Connect digital voltmeter across R517. • Set the function to the MW position, the reception frequency to 522kHz (minimum frequency).	L505	Adjust L505 until voltage becomes 1.4 ± 0.05V.	See Fig. 20
		• Set the reception frequency to 1,620kHz (maximum frequency).	TC502	Adjust TC502 until voltage becomes 8.0 ± 0.05V.	
		Repeat steps minimum and maximum frequency two or three times until both adjustment are at best level.			
6	**MW Tracking Adjustment**	• Radiate each of the tracking point frequencies given below from the AM test loop (signal level 56dB/m). • Receive each of the tracking point frequencies given below by means of the key or Tuning Up/Down Switch. • Connect the AC voltmeter to the audio output.	L504 TC501	Adjust so that the output is maximized at each tracking point.	See Fig. 22

EXPLODED VIEW OF CABINET



Symbol No.	Zone No.
JP216	C2
JP217	C2
JP218	C2
JP219	C3
JP221	C2
JP222	C2
JP223	C1
JP224	C1
JP225	C1
JP227	D2
JP228	D2
JP230	D2
JP231	D2
JP232	A6
JP233	D2
JP234	D2
JP235	C2
JP236	C3
JP237	C3
JP238	C3
JP239	D3
JP240	D3
JP241	D4
JP242	C4
JP243	C3
JP244	D4
JP245	D4
JP246	E4
JP247	E4
JP248	E4
JP249	E4
JP251	D4
JP252	C5
JP253	C5
JP254	D5
JP255	D5
JP258	A2
JP259	B3
JP260	B3
JP261	A4
JP262	B4
JP263	C4
JP264	B4
JP265	B4
JP266	B4
JP267	B5
JP268	A5
JP270	C5
JP271	C5
JP274	A6
JP275	B4
JP276	C5
JP277	C6
JP278	D2
JP279	C5

Symbol No.	Zone No.
JP280	B5
JP282	B5
JP283	A5
JP289	C5
JP300	B1
JP301	C1
JP302	E1
JP303	E1
JP304	C2
JP305	E3
JP306	E3
JP307	E3
JP308	E3
JP309	E3
JP310	D4
JP311	D4
JP312	D4
JP313	D4
JP314	D5
JP315	D5
JP316	D5
JP318	D6
JP319	D6
JP320	C6
JP321	C6
JP322	B2
JP323	C6
JP324	E5
JP325	E6
L201	C4
L207	B3
Q124	C6
Q201	A3
Q202	A4
Q203	A4
Q204	A5
Q205	A5
Q206	A3
Q207	A3
Q208	B4
Q209	A2
Q210	A2
Q211	B2
Q212	B2
Q213	D2
Q214	D1
Q215	D1
Q217	E3
Q218	D4
Q220	B5
Q221	B5
Q222	B2
Q223	B2

Symbol No.	Zone No.
Q224	E6
Q225	A2
Q226	A2
Q227	A3
Q228	A3
Q229	C2
Q231	E1
Q232	E1
R184	D5
R185	C6
R186	C6
R188	C5
R189	D6
R190	D5
R191	E5
R192	C6
R193	C6
R201	A3
R202	A3
R203	A4
R204	A4
R205	A3
R206	A4
R207	A4
R208	A4
R209	A4
R210	A4
R211	A5
R212	A5
R213	A5
R214	A5
R215	A3
R216	B3
R217	A3
R218	A3
R219	B3
R220	B3
R221	B4
R222	B4
R223	B3
R224	B4
R225	C3
R226	B4
R227	B4
R228	B5
R229	B4
R230	B5
R231	B4
R232	B5
R233	B4
R234	B5
R235	C5
R236	C4
R237	C4

Symbol No.	Zone No.
R238	A1
R239	A1
R240	A1
R241	B1
R242	B1
R243	A2
R244	B1
R245	B1
R246	B1
R247	B1
R248	B1
R249	B1
R250	B1
R251	C1
R252	C1
R253	C1
R254	C1
R255	D1
R256	D1
R257	D1
R258	D1
R259	D1
R262	C4
R263	C5
R264	B3
R265	B5
R266	B5
R268	B2
R269	B2
R270	B2
R271	B2
R276	E3
R277	E3
R278	D5
R279	D5
R280	E2
R280	D1
R281	E2
R282	D2
R283	D2
R284	D5
R285	E6
R286	D6
R288	D6
R289	D6
R290	E5
R291	E5
R292	D6
R294	E3
R295	A3
R296	A2
R297	A2
R298	E3
R300	D2
R301	E2

Symbol No.	Zone No.
R308	D2
R309	C2
R310	E2
R311	B1
R312	B2
R313	E4
R315	E3
TP201	B3
TP202	C3
TP203	B3
W101	B1
W102	D2
X201	C4

No.	Measured Item	Input/Output and Procedure	Point of Adjustment	Adjustment for	Remarks
6	**MW Tracking Adjustment**	* Tracking point frequency 1,404 kHz 999 kHz 603 kHz			
		Repeat adjustment at each tracking point alternately.			
7	**LW VCO Adjustment**	• Connect digital voltmeter across R529. • Set the function to the LW position, the reception frequency to minimum frequency.	L507	Adjust L507 until voltage becomes 1.4 ± 0.05V.	See Fig. 20
		• Set the reception frequency to maximum frequency.	TC504	Adjust TC504 until voltage becomes 8.0 ± 0.05 V.	
		Repeat steps minimum and maximum frequency two or three times until both adjustment are at best level.			
8	**LW Tracking Adjustment**	• Radiate each of the tracking point frequencies given below from the AM test loop (signal level 56dB/m). • Receive each of the tracking point frequencies given below by means of the key or Tuning Up/Down Switch. • Connect the AC voltmeter to the audio output. * Tracking point frequency 344 kHz 254 kHz 164 kHz	L506 TC503	Adjust so that the output is maximized at each tracking point.	See Fig. 22
		Repeat adjustment at each tracking point alternately.			
9	**19kHz leak check**	• Input a 98MHz (1kHz 100% modulation 1mV) stereo signal to the FM antenna terminal using the FM signal generator. • Receive the 98MHz signal. • Turn off the modulation of the FM signal generator (only with pilot signal). • Connect the AC voltmeter to AUDIO OUT.	LPF501 LPF502	Check that the leakage of the 19kHz signal from both Lch and Rch is less than 5mV. If it is not less than 5mV, adjust LPF501 and LPF502 so that the leakage is minimized.	See Fig. 21

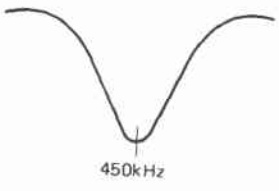


Fig. 16

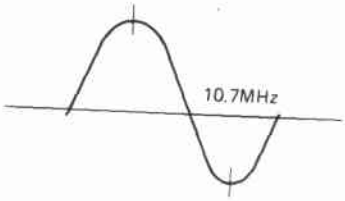


Fig. 17

Symbol No.	Zone No.
JP216	C2
JP217	C2
JP218	C2
JP219	C3
JP221	C2
JP222	C2
JP223	C1
JP224	C1
JP225	C1
JP227	D2
JP228	D2
JP230	D2
JP231	D2
JP232	A6
JP233	D2
JP234	D2
JP235	C2
JP236	C3
JP237	C3
JP238	C3
JP239	D3
JP240	D3
JP241	D4
JP242	C4
JP243	C3
JP244	D4
JP245	D4
JP246	E4
JP247	E4
JP248	E4
JP249	E4
JP251	D4
JP252	C5
JP253	C5
JP254	D5
JP255	D5
JP258	A2
JP259	B3
JP260	B3
JP261	A4
JP262	B4
JP263	C4
JP264	B4
JP265	B4
JP266	B4
JP267	B5
JP268	A5
JP270	C5
JP271	C5
JP274	A6
JP275	B4
JP276	C5
JP277	C6
JP278	D2
JP279	C5

Symbol No.	Zone No.
JP280	B5
JP282	B5
JP283	A5
JP289	C5
JP300	B1
JP301	C1
JP302	E1
JP303	E1
JP304	C2
JP305	E3
JP306	E3
JP307	E3
JP308	E3
JP309	E3
JP310	D4
JP311	D4
JP312	D4
JP313	D4
JP314	D5
JP315	D5
JP316	D5
JP318	D6
JP319	D6
JP320	C6
JP321	C6
JP322	B2
JP323	C6
JP324	E5
JP325	E6
L201	C4
L207	B3
Q124	C6
Q201	A3
Q202	A4
Q203	A4
Q204	A5
Q205	A5
Q206	A3
Q207	A3
Q208	B4
Q209	A2
Q210	A2
Q211	B2
Q212	B2
Q213	D2
Q214	D1
Q215	D1
Q217	E3
Q218	D4
Q220	B5
Q221	B5
Q222	B2
Q223	B2

Symbol No.	Zone No.
Q224	E6
Q225	A2
Q226	A2
Q227	A3
Q228	A3
Q229	C2
Q231	E1
Q232	E1
R184	D5
R185	C6
R186	C6
R188	C5
R189	D6
R190	D5
R191	E5
R192	C6
R193	C6
R201	A3
R202	A3
R203	A4
R204	A4
R205	A3
R206	A4
R207	A4
R208	A4
R209	A4
R210	A4
R211	A5
R212	A5
R213	A5
R214	A5
R215	A3
R216	B3
R217	A3
R218	A3
R219	B3
R220	B3
R221	B4
R222	B4
R223	B3
R224	B4
R225	C3
R226	B4
R227	B4
R228	B5
R229	B4
R230	B5
R231	B4
R232	B5
R233	B4
R234	B5
R235	C5
R236	C4
R237	C4

Symbol No.	Zone No.
R238	A1
R239	A1
R240	A1
R241	B1
R242	B1
R243	A2
R244	B1
R245	B1
R246	B1
R247	B1
R248	B1
R249	B1
R250	B1
R251	C1
R252	C1
R253	C1
R254	C1
R255	D1
R256	D1
R257	D1
R258	D1
R259	D1
R262	C4
R263	C5
R264	B3
R265	B5
R266	B5
R268	B2
R269	B2
R270	B2
R271	B2
R276	E3
R277	E3
R278	D5
R279	D5
R280	E2
R280	D1
R281	E2
R282	D2
R283	D2
R284	D5
R285	E6
R286	D6
R288	D6
R289	D6
R290	E5
R291	E5
R292	D6
R294	E3
R295	A3
R296	A2
R297	A2
R298	E3
R300	D2
R301	E2

Symbol No.	Zone No.
R308	D2
R309	C2
R310	E2
R311	B1
R312	B2
R313	E4
R315	E3
TP201	B3
TP202	C3
TP203	B3
W101	B1
W102	D2
X201	C4

No.	Measured Item	Input/Output and Procedure	Point of Adjustment	Adjustment for	Remarks
6	MW Tracking Adjustment	* Tracking point frequency 1,404 kHz 999 kHz 603 kHz			
		Repeat adjustment at each tracking point alternately.			
7	LW VCO Adjustment	• Connect digital voltmeter across R529. • Set the function to the LW position, the reception frequency to minimum frequency.	L507	Adjust L507 until voltage becomes 1.4 ± 0.05V.	See Fig. 20
		• Set the reception frequency to maximum frequency.	TC504	Adjust TC504 until voltage becomes 8.0 ± 0.05 V.	
		Repeat steps minimum and maximum frequency two or three times until both adjustment are at best level.			
8	LW Tracking Adjustment	• Radiate each of the tracking point frequencies given below from the AM test loop (signal level 56dB/m). • Receive each of the tracking point frequencies given below by means of the key or Tuning Up/Down Switch. • Connect the AC voltmeter to the audio output. * Tracking point frequency 344 kHz 254 kHz 164 kHz	L506 TC503	Adjust so that the output is maximized at each tracking point.	See Fig. 22
		Repeat adjustment at each tracking point alternately.			
9	19kHz leak check	• Input a 98MHz (1kHz 100% modulation 1mV) stereo signal to the FM antenna terminal using the FM signal generator. • Receive the 98MHz signal. • Turn off the modulation of the FM signal generator (only with pilot signal). • Connect the AC voltmeter to AUDIO OUT.	LPF501 LPF502	Check that the leakage of the 19kHz signal from both Lch and Rch is less than 5mV. If it is not less than 5mV, adjust LPF501 and LPF502 so that the leakage is minimized.	See Fig. 21

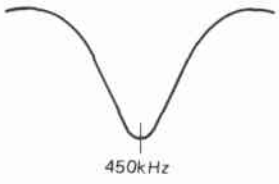


Fig. 16

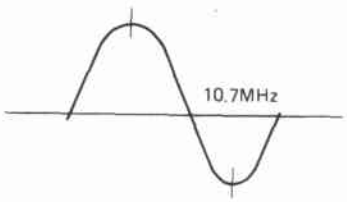


Fig. 17

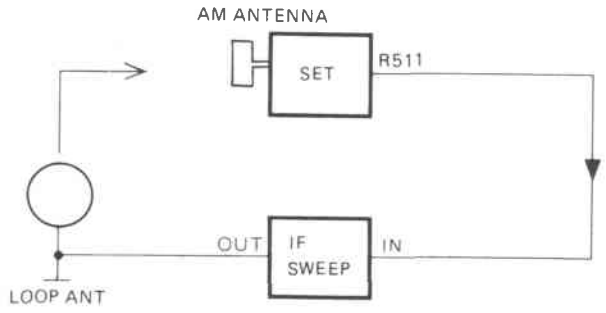


Fig. 18

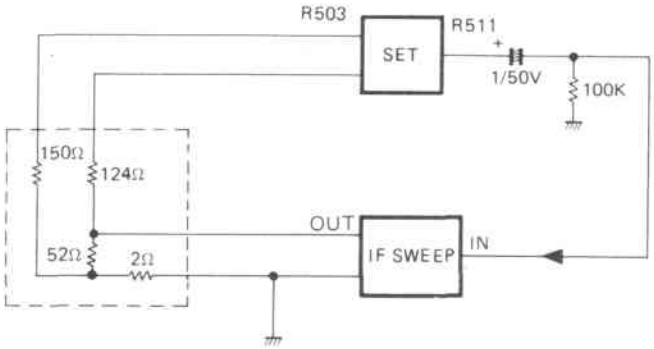


Fig. 19

Fig. 20

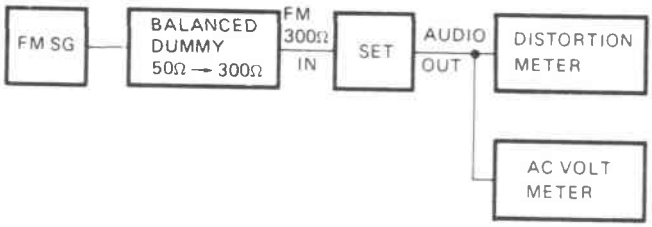


Fig. 21

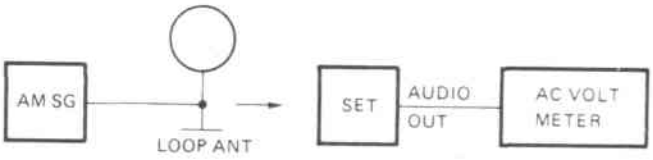
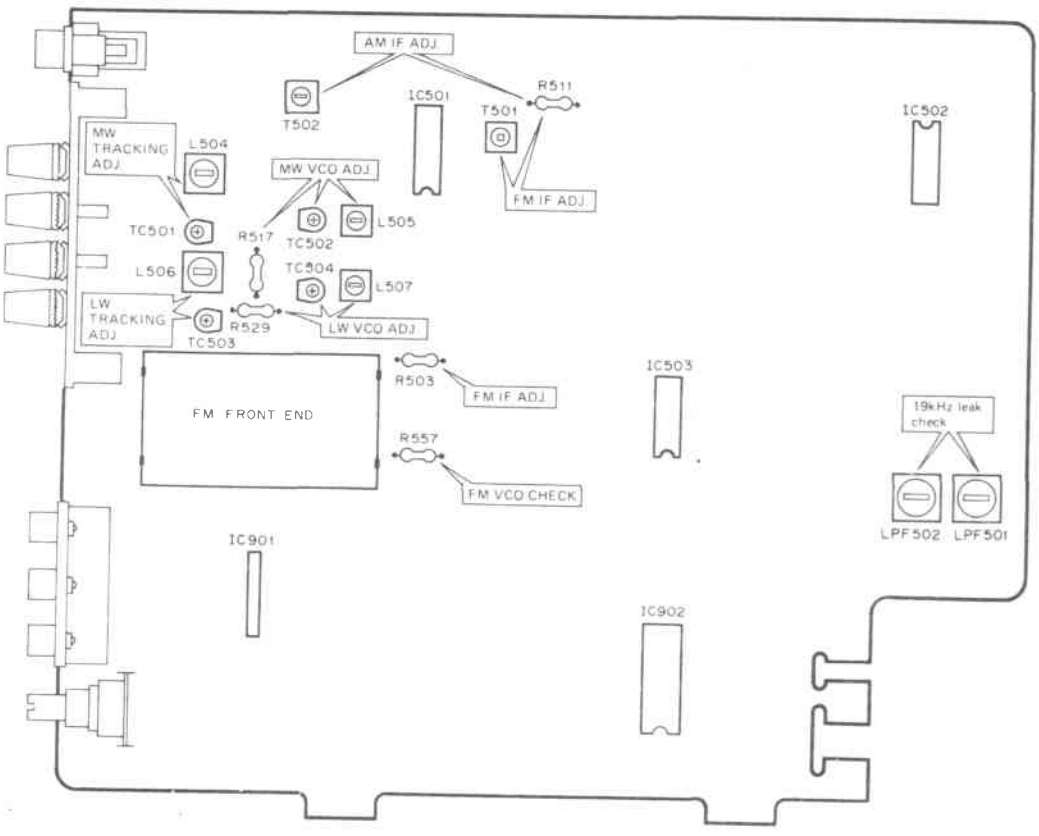
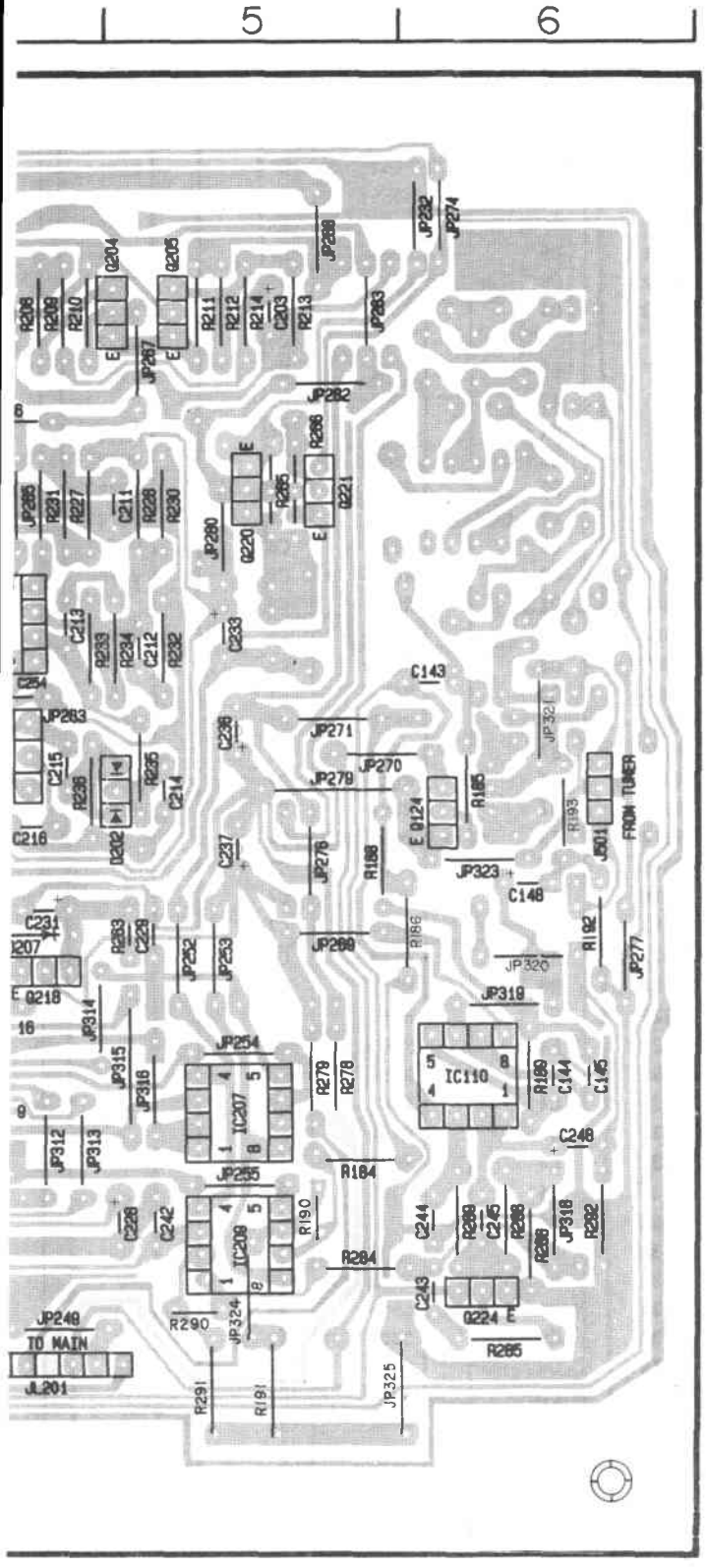


Fig. 22

ADJUSTMENT POINT (TUNER SECTION)





Symbol No.	Zone No.
C142	D4
C143	C6
C144	D6
C145	D6
C147	B1
C148	C6
C201	A4
C202	A4
C203	A5
C204	A3
C205	B3
C206	B4
C208	B4
C209	B4
C210	B4
C211	B5
C212	B5
C213	B4
C214	C5
C215	C4
C216	C4
C217	A1
C218	A1
C219	B1
C220	B1
C221	C4
C222	B2
C223	D1
C224	C4
C225	C4
C226	C4
C227	D4
C228	D5
C229	C5
C231	C4
C232	D4
C233	B5
C234	B3
C236	C5
C237	C5
C238	D2
C239	D2
C240	C1
C241	C2
C242	D5
C243	E6
C244	D6
C245	D6
C248	D6
C249	D2
C250	A1
C251	A2
C252	B2
C253	D1
C254	C4

Symbol No.	Zone No.
C255	D1
D201	B4
D202	C5
D203	C2
D204	C1
D206	B1
D207	C4
D208	B2
D209	D1
D210	D1
D211	A2
D212	A2
D213	B1
D214	B2
GND1	C3
GND2	C2
IC110	D6
IC201	D3
IC202	D3
IC203	B4
IC204	B2
IC205	D1
IC206	D4
IC207	D5
IC209	D5
J201	B3
J202	B2
J203	E3
J205	B1
J206	B3
J501	C6
J601	D3
J602	C2
J603	C1
J613	E2
JL201	E4
JP201	A1
JP202	A1
JP203	A1
JP204	A2
JP205	A2
JP206	A2
JP207	B2
JP208	B2
JP209	B2
JP210	B2
JP211	B2
JP212	B2
JP213	A2
JP214	A2
JP215	C2

TAPE DECK SECTION ADJUSTMENT

Before adjustment

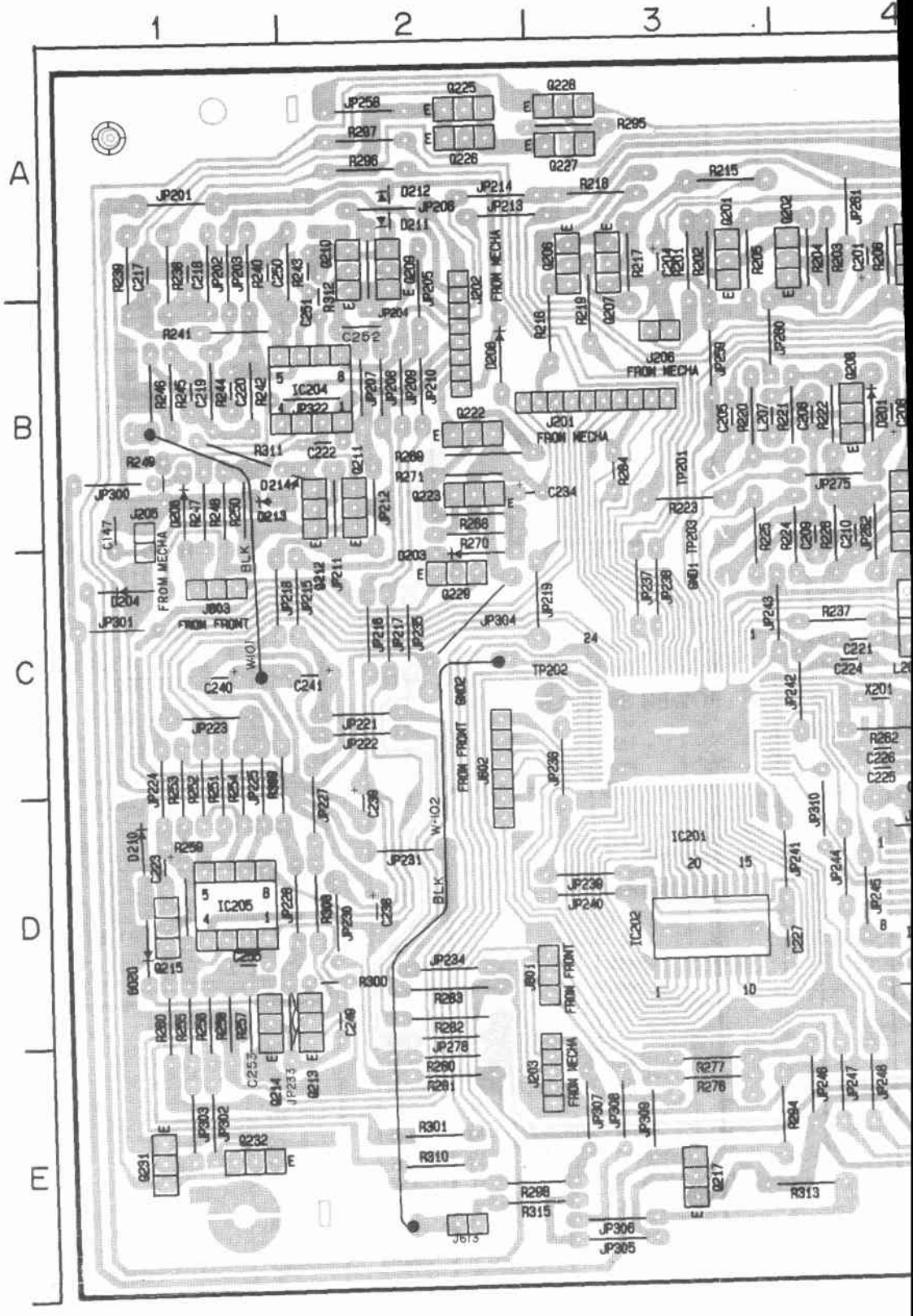
- Make sure to carry out the steps 1 to 3 of "1. Mechanism adjustment" before attempting electrical adjustment, or the test tape may get damaged.
- To prevent measurement error due to magnetization or dirt, be sure to carry out head degausing and head-cleaning.

1. MECHANICAL ADJUSTMENT

Step	Item		Test tape tools used	Output terminal test point	Adjustment point	Adjustment for	Remarks
1	Tape 1 Speed Adjustment	TAPE 1 standard	3kHz, −10dB (TCC-112 or MTT-111)	Connect the Frequency counter to TP301 or TP401.	VR305 Playback mode	2,970Hz	
		TAPE 1 double speed			VR306 Dubbing mode	5,940Hz	Load a blank cassette tape in the TAPE 2 mechanism so that the dubbing mode is obtained.
2	Tape 2 Speed Adjustment	TAPE 2 standard	3kHz, −10dB (TCC-112 or MTT-111)	Connect the Frequency counter to TP301 or TP401.	VR307 Playback mode	2,960Hz	
		TAPE 2 double speed			VR308 Dubbing mode	5,920Hz	During the dubbing operation, the TAPE 2 mechanism is in the REC mode and will therefore erase the test tape. To prevent this, place the unit in the playback operation by shorting the part as shown in figure.
3	Head azimuth Adjustment		10kHz, −10dB (TCC-173A or MTT-114)	Connect VTVM and the oscilloscope to TP301 or TP401.	Head Azimuth Adjustment screw	Adjust so that the output levels of L and R channels are in the same phase at maximum. Adjust on both TAPE 1 and TAPE 2 mechanism.	See Fig. 23

CD P.C.B

Symbol No.	
C601	
C602	
C603	
C604	
C605	
C606	
C607	
C608	
C609	
C610	
C611	
C6A1	
C701	
C702	
C703	
C704	
C705	
C706	
C707	
C708	
C709	
C710	
C711	
C712	
C713	
C714	
C801	
C802	
C803	
C804	
C805	
C806	
C807	
C808	
C809	
C810	
C811	
C812	
C813	
C814	
CF601	
D81	
D82	
D83	
D84	
D85	L
D602	B
D603	C5
D604	D1
D605	D2
D606	D2
D607	D3
D608	D3



Symbol No.	Zone No.
C601	D6
C602	B8
C603	B8
C604	C6
C605	C5
C606	C6
C607	C5
C608	D5
C609	D5
C610	D6
C611	C9
C6A1	D6
C701	E8
C702	E9
C703	D9
C704	D9
C705	E9
C706	E9
C707	D8
C708	E8
C709	D8
C710	E8
C711	D8
C712	D8
C713	D9
C714	E9
C801	E7
C802	D5
C803	E5
C804	E5
C805	D6
C806	E8
C807	D6
C808	D6
C809	E6
C810	E7
C811	E6
C812	E6
C813	E6
C814	E6
CF601	B8
D81	E2
D82	E2
D83	E2
D84	E1
D85	E1
D602	B5
D603	C5
D604	D1
D605	D2
D606	D2
D607	D3
D608	D3

Symbol No.	Zone No.
D609	D4
D610	D4
D611	E3
D622	C5
D623	C6
D624	D9
D625	D9
IC601	C7
IC602	C5
IC603	E5
IC701	D9
IC801	E5
J610	B3
J615	B5
JL601	B8
JL602	B7
JL603	C8
JL604	C6
JL605	C6
JL606	D6
JL607	E2
JL608	E4
JL609	E2
JL613	E3
JL616	E7
JP1	C6
JP1	E1
JP2	E1
JP3	D1
JP4	C2
JP5	D1
JP7	D2
JP8	C2
JP9	D2
JP8	D1
JP10	D2
JP11	E2
JP13	E3
JP14	D2
JP15	C3
JP16	C3
JP17	C3
JP18	D3
JP19	C3
JP21	E3
JP22	E3
JP30	C4
JP34	D3
JP35	C4
JP36	C4
JP37	C4
JP38	C4
JP39	C4

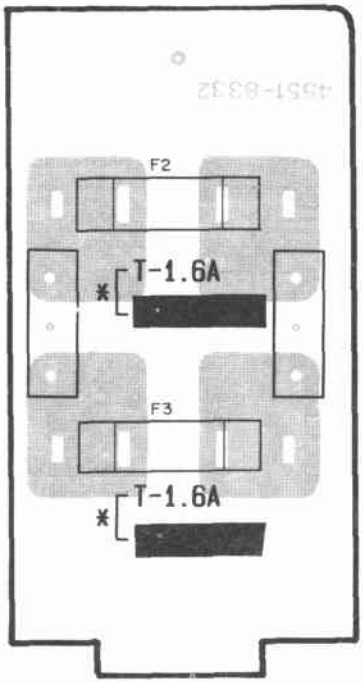
Symbol No.	Zone No.
JP41	C4
JP42	C4
JP43	D4
JP45	D5
JP46	D5
JP47	C5
JP48	C5
JP49	C5
JP50	B5
JP51	C6
JP53	E5
JP54	E5
JP57	B6
JP59	C6
JP60	C6
JP61	C6
JP62	E6
JP63	E6
JP64	C7
JP65	C7
JP66	C8
JP67	C8
JP68	D7
JP70	E7
JP71	D8
JP73	E8
JP74	D8
JP75	E8
JP76	E8
JP77	E8
JP78	E8
JP80	D9
JP81	C9
JP82	C9
JP83	C8
JP84	C8
JP85	C9
JP86	C9
JP87	C8
JP88	C8
JP89	C8
JP92	B9
JP93	E4
JP94	C4
JP96	E3
JP97	E3
JP98	D3
JP99	D4
JP100	D4
JP101	D5
JP102	D6
JP103	D6
JP104	E8
JP105	E7
JP106	E8

Symbol No.	Zone No.
JP108	D5
JP109	E8
JP110	E7
L601	C6
L602	D5
L603	C5
Q601	D9
Q602	D8
Q603	D4
R61	E6
R91	E2
R92	E2
R93	E2
R94	E2
R95	E2
R601	C6
R602	B8
R603	D4
R604	D4
R605	D3
R606	D3
R607	B7
R608	B7
R609	B7
R610	B7
R614	C9
R615	C9
R616	C8
R617	C8
R622	B6
R624	B6
R626	E3
R626	E4
R630	E3
R631	C4
R632	C4
R633	C4
R634	C4
R635	C4
R636	D4
R637	D4
R638	D4
R639	C5
R640	C5
R641	C5
R642	C5
R643	C5
R644	C5
R645	C5
R646	B6
R647	B6
R648	B6

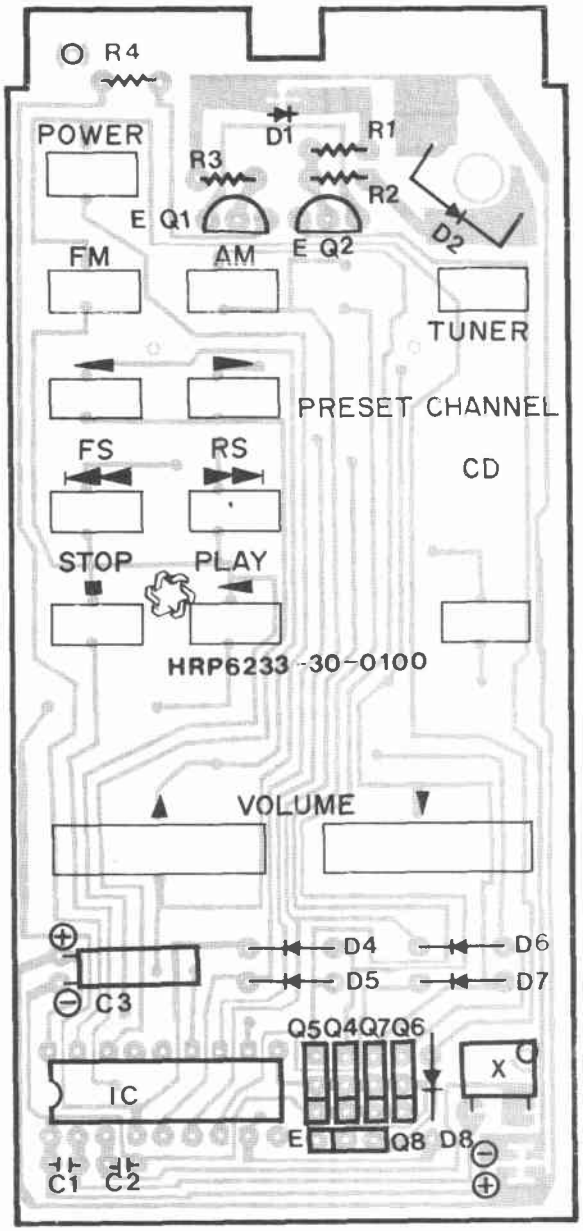
Symbol No.	Zone No.
R649	B6
R650	B6
R651	B6
R652	B6
R653	B6
R654	B6
R655	B6
R657	B8
R658	B7
R659	B7
R664	B8
R665	C8
R666	C8
R667	C8
R668	C8
R669	C8
R670	C8
R671	C8
R672	C8
R673	C8
R674	C8
R675	C8
R676	C8
R677	C7
R678	C7
R679	C7
R680	C7
R681	C7
R682	C7
R683	C7
R684	C7
R685	C7
R686	C7
R687	C6
R688	C6
R689	C6
R690	C6
R702	D9
R703	E9
R802	E5
R803	E5
S601	A4
S602	A4
S603	A3
S606	A2
S607	A2
S608	B4
S609	B4
S610	B3
S611	B3
S612	B3
S613	B2
S614	B2
S615	B1

Symbol No.	Zone No.
S616	
S617	
S618	
S619	
S620	
S621	
S622	
S623	
S624	
S625	
S626	
S627	
S628	
VR781	
VR782	
VR783	
VR784	
VR785	
VR786	
W684	
W686	
W687	
W688	
W689	
W690	
W690	

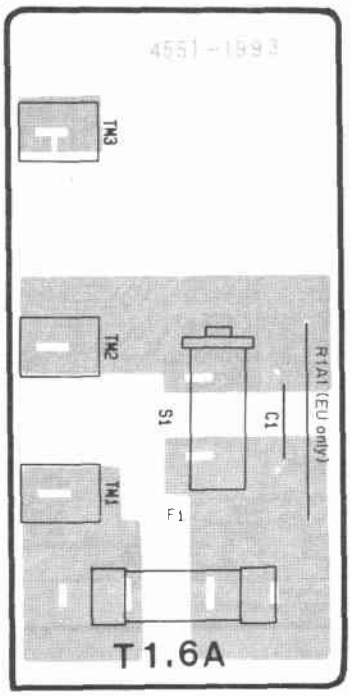
FUSE P.C.B

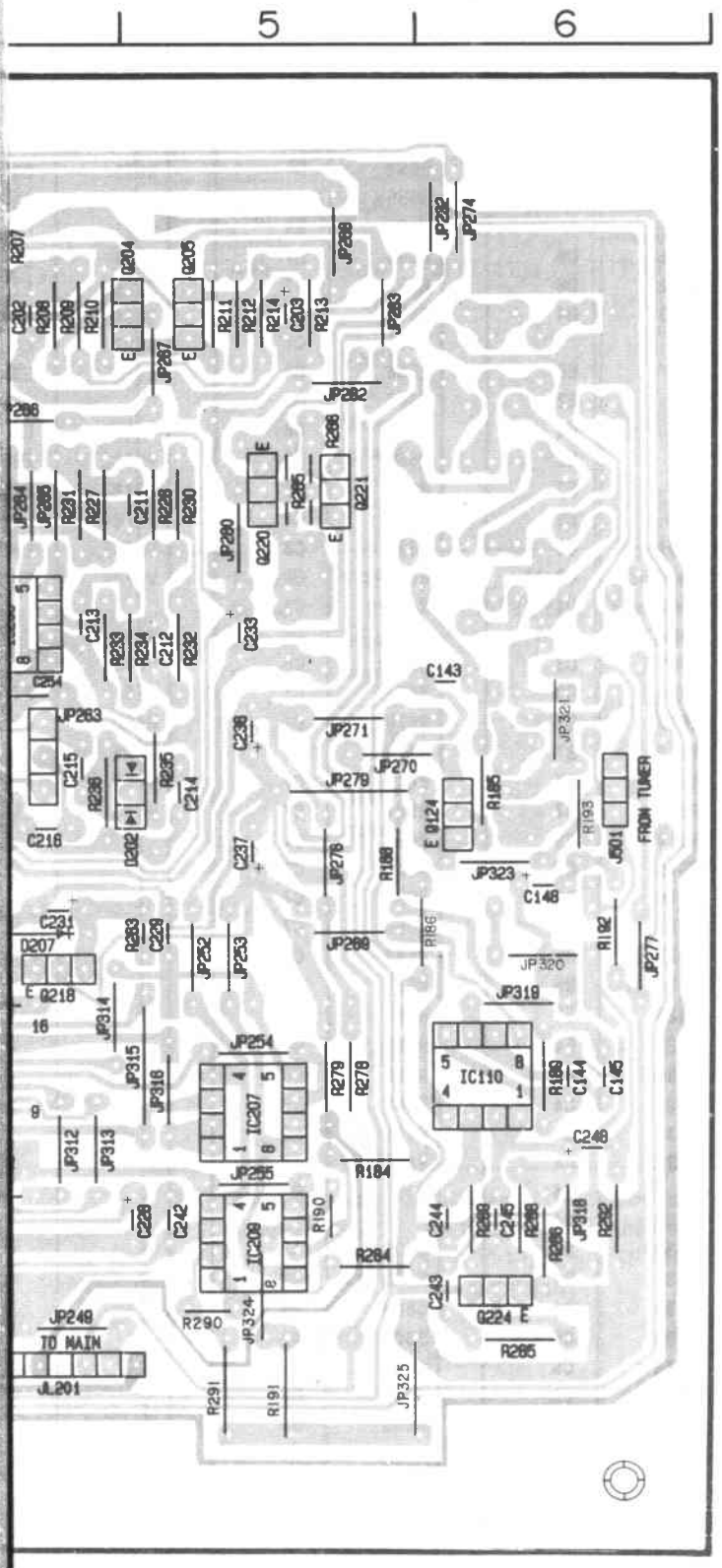


REMOTE CONTROL P.C.B



POWER SW P.C.B

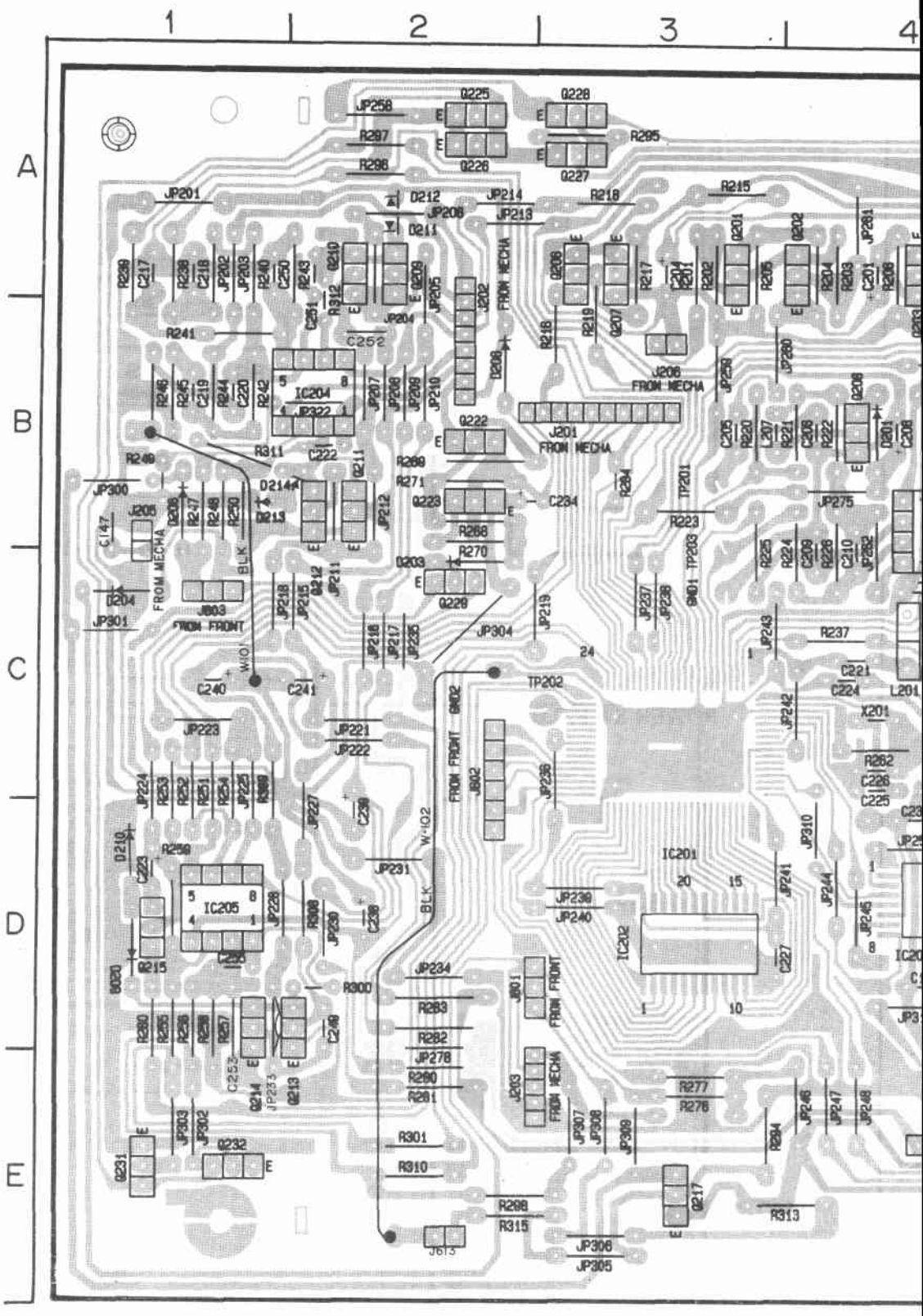




Symbol No.	Zone No.
C142	D4
C143	C6
C144	D6
C145	D6
C147	B1
C148	C6
C201	A4
C202	A4
C203	A5
C204	A3
C205	B3
C206	B4
C208	B4
C209	B4
C210	B4
C211	B5
C212	B5
C213	B4
C214	C5
C215	C4
C216	C4
C217	A1
C218	A1
C219	B1
C220	B1
C221	C4
C222	B2
C223	D1
C224	C4
C225	C4
C226	C4
C227	D4
C228	D5
C229	C5
C231	C4
C232	D4
C233	B5
C234	B3
C236	C5
C237	C5
C238	D2
C239	D2
C240	C1
C241	C2
C242	D5
C243	E6
C244	D6
C245	D6
C248	D6
C249	D2
C250	A1
C251	A2
C252	B2
C253	D1
C254	C4

Symbol No.	Zone No.
C255	D1
D201	B4
D202	C5
D203	C2
D204	C1
D206	B1
D207	C4
D208	B2
D209	D1
D210	D1
D211	A2
D212	A2
D213	B1
D214	B2
GND1	C3
GND2	C2
IC110	D6
IC201	D3
IC202	D3
IC203	B4
IC204	B2
IC205	D1
IC206	D4
IC207	D5
IC209	D5
J201	B3
J202	B2
J203	E3
J205	B1
J206	B3
J501	C6
J601	D3
J602	C2
J603	C1
J613	E2
JL201	E4
JP201	A1
JP202	A1
JP203	A1
JP204	A2
JP205	A2
JP206	A2
JP207	B2
JP208	B2
JP209	B2
JP210	B2
JP211	B2
JP212	B2
JP213	A2
JP214	A2
JP215	C2

CD P.C.B


1
2
3
4
A
B
C
D
E
IC204
IC205
IC201
IC202
J206
FROM MECHA
J201
FROM MECHA
J208
FROM MECHA
J203
FROM MECHA
J803
FROM FRONT
J802
FROM FRONT
J801
FROM FRONT
J613
TP202
TP201
W101
W102
BLK
BLK

2. PLAYBACK ADJUSTMENT

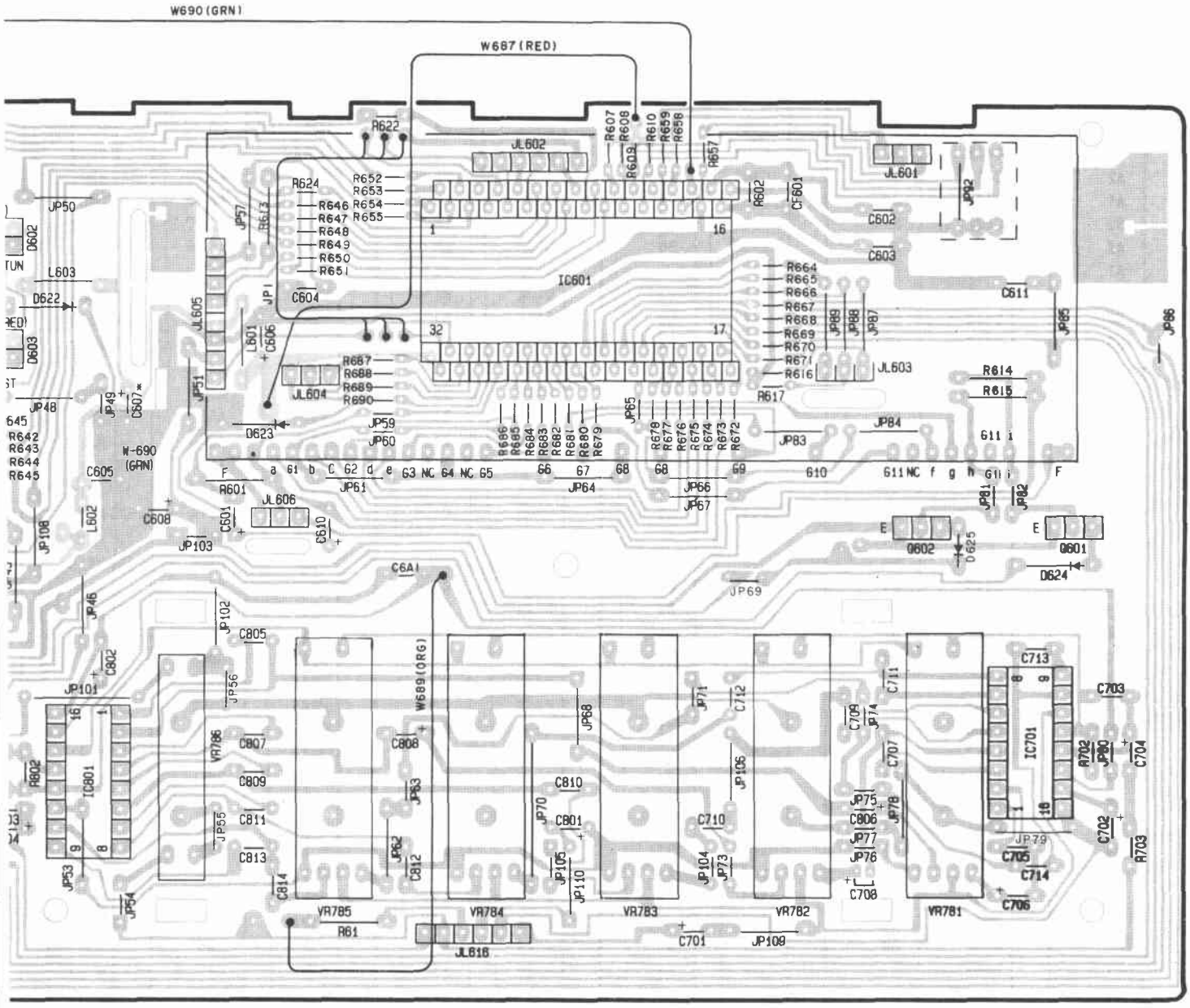
* Proceed with the playback adjustments after having finished the mechanical adjustments.

Step	Item	Test tape	Output terminal/ test point	Adjustment point	Adjustment for	Remarks
1	**Playback Level Adjustment**	400Hz, 200mWb/m (TCC-130 or MTT-150)	Connect the VTVM to TP301 (L ch), TP401 (R ch).	TAPE 1 VR301 (L ch) VR401 (R ch)	TP301: 580mV TP401: 580mV	
			Connect the VTVM to TP301 (L ch), TP401 (R ch).	TAPE 2 VR302 (L ch) VR402 (R ch)	TP301: 580mV TP401: 580mV	

3. RECORD/PLAYBACK ADJUSTMENT

Step	Item	Input terminal/ signal	Test tape	Output terminal/ test point	Adjustment point	Adjustment for	Remarks
1	**Bias Frequency Characteristic Adjustment (TAPE 2)**		Load the cassette tape (Special: AC-512) and set for recording.	Connect the frequency counter to both sides of R315.	OSC301 (BIAS OSC)	103kHz ± 3 kHz	
2	**Bias Level Adjustment (TAPE 2)**		Load the cassette tape and set for recording. Special: AC-512 Normal: TCC-102A	Connect the VTVM and distortion meter to the both sides of R315 (L ch), R415 (R ch).	VR304 (L ch) VR404 (R ch)	Normal: 21mV Special: 21mV + 2.3dB (26mV) Temporary adjustment	
3	**Record Level Adjustment (TAPE 2)**	AUX 400Hz, 300mV	Load the cassette tape (Special: AC-512) and set for recording	Connect the VTVM to TP301 (L ch), TP401 (R ch).	VR303 (L ch) VR403 (R ch) REC VR	• Set REC VR so that output voltage to 580mV. • Adjust VR303 (L ch) and VR403 (R ch) so that output voltage to 580mV.	

5 6 7 8 9


W690(GRN)
W687(RED)
IC601
IC801
JL602
JL601
JL603
JL604
JL605
JL606
JL618
W-690 (GRN)
W689(ORG)
VR786
VR785
VR784
VR783
VR782
VR781
IC701

Step	Item	Input terminal signal	Test tape	Output terminal/ test point	Adjustment point	Adjustment for	Remarks
4	**Record/ Playback Frequency Characteristic Adjustment (TAPE 2)**	AUX 400Hz, 300mV 40Hz ~ 12.5kHz 300mV	AC-512	Connect the VTVM to TP301 or TP401.	VR304 (L ch) VR404 (R ch)	Adjust so that frequency response is within the specification when recording on the test tape and playing it back.	Check also at Dolby IN position.
5	**Record Level Indicator Adjustment**		MTT-150		VR81 (Main P.C.B.) [Tape 2: REC mode] [Tape 1: PLAY mode]	Adjust VR81 so that REC LED (0dB) lights.	

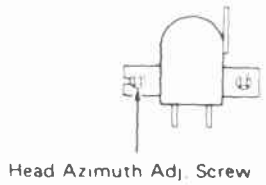


Fig.23

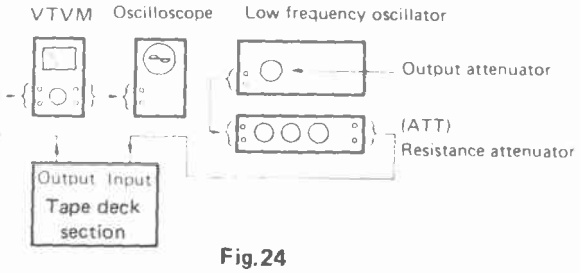
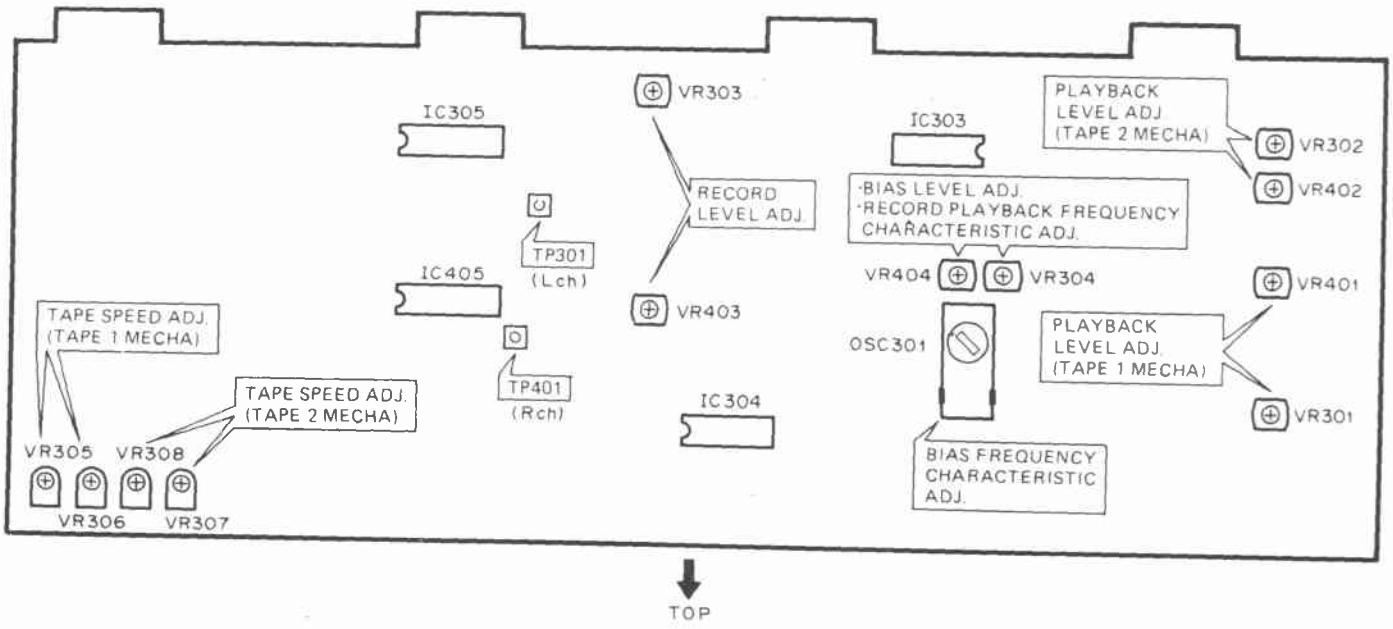


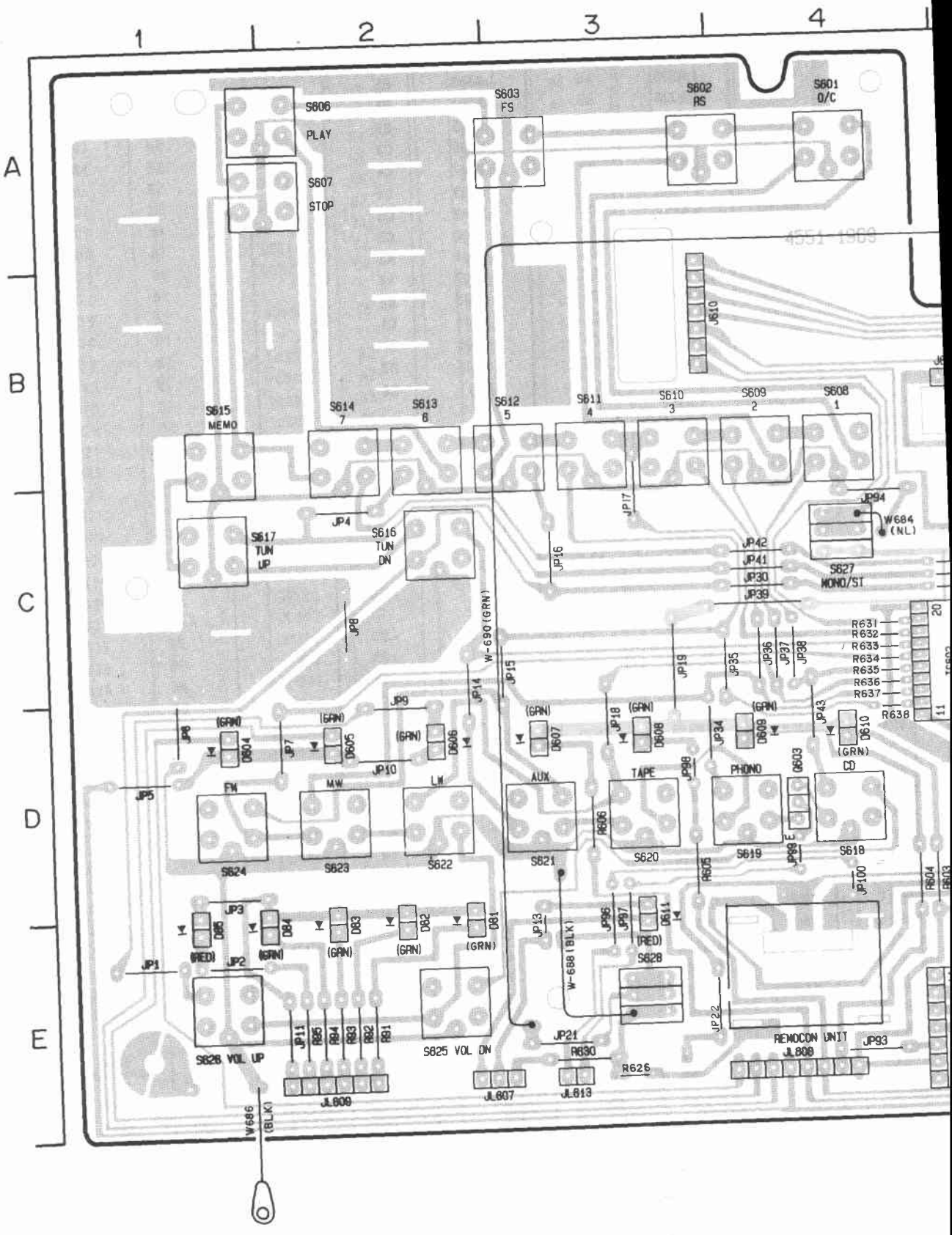
Fig.24

ADJUSTMENT POINT (TAPE DECK SECTION)



FRONT P.C.B

Symbol No.
C301
C302
C303
C304
C305
C306
C307
C308
C309
C310
C311
C315
C316
C317
C318
C319
C320
C321
C322
C323
C324
C326
C327
C330
C331
C332
C333
C334
C335
C336
C337
C338
C339
C340
C341
C342
C343
C344
C350
C352
C353
C354
C355
C356
C357
C358
C359
C360
C361
C362
C370
C371
C372
C373
C374



Step	Item	Input terminal signal	Test tape	Output terminal/ test point	Adjustment point	Adjustment for	Remarks
4	Record/ Playback Frequency Characteristic Adjustment (TAPE 2)	AUX 400Hz, 300mV 40Hz ~ 12.5kHz 300mV	AC-512	Connect the VTVM to TP301 or TP401.	VR304 (L ch) VR404 (R ch)	Adjust so that frequency response is within the specification when recording on the test tape and playing it back.	Check also at Dolby IN position.
5	Record Level Indicator Adjustment		MTT-150		VR81 (Main P.C.B.) [Tape 2: REC mode] [Tape 1: PLAY mode]	Adjust VR81 so that REC LED (0dB) lights.	

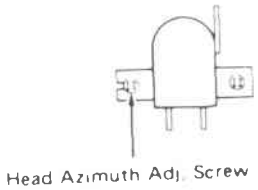


Fig.23

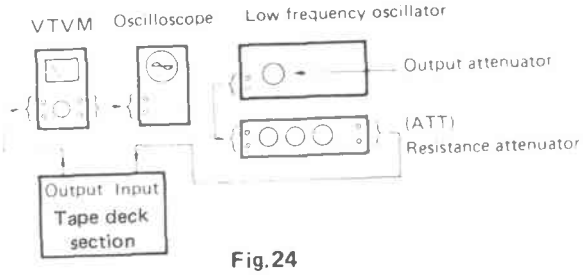
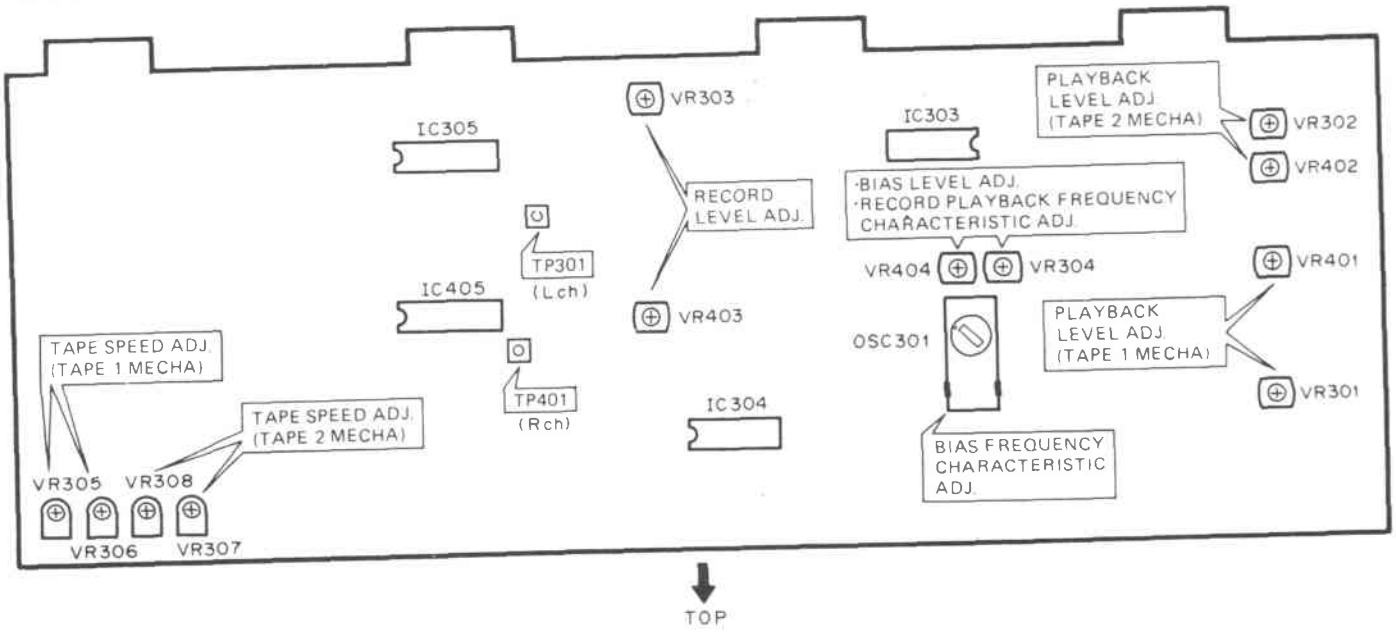


Fig.24

ADJUSTMENT POINT (TAPE DECK SECTION)



FRONT P.C.B

Symbol No.
C301
C302
C303
C304
C305
C306
C307
C308
C309
C310
C311
C315
C316
C317
C318
C319
C320
C321
C322
C323
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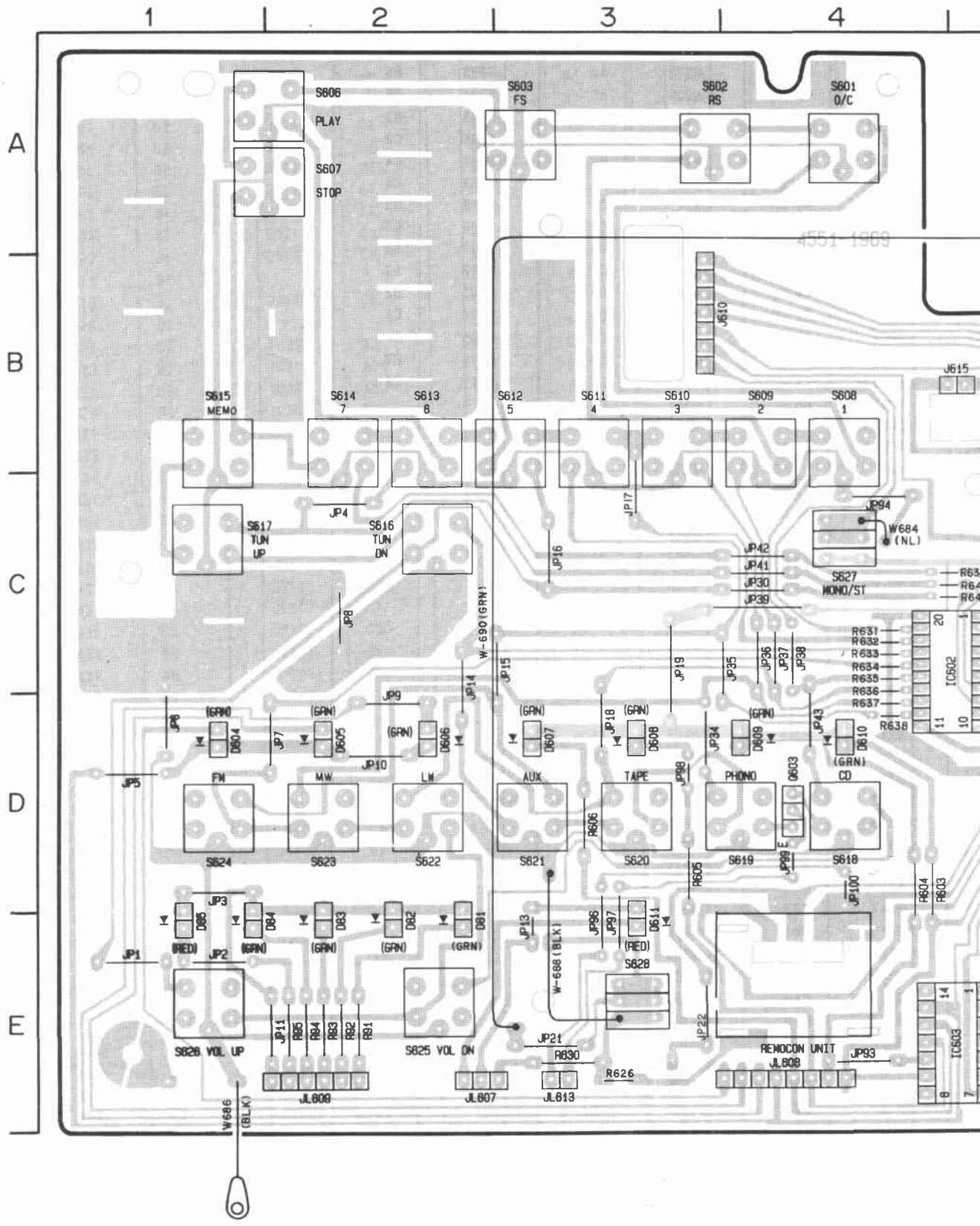
C373
C374



Symbol No.	Zone No.
R459	B4
R460	B4
R461	B4
R462	C2
R464	C2
R465	C2
R470	C5
R473	B5
R474	B3
R502	C3
R503	C4
R504	C4
R506	C4
R507	B7
R508	C6
SOC301	C3
TP301	B6
TP303	C5
TP401	B6
VR301	C1
VR302	A1
VR303	A5
VR304	B3
VR305	C8
VR306	C8
VR307	C7
VR308	C8
VR401	B1
VR402	A1
VR403	B5
VR404	B3
W311	B8
W312	B8
W313	B8
W314	B8
W315	B8
W316	B8
W317	C8
W319	C8
W320	C7
W322	A8
W323	B7
W324	B7
W325	B7
W326	A7
W327	C7
W328	B7
W329	B7
W330	B7
W331	B7
W332	A7

Symbol No.	Zone No.
W333	C7
W334	B5
W335	A5
W336	B5
W337	B4
W338	B4
W339	B4
W340	C4
W341	C4
W342	C5
W343	C4
W344	C4
W345	C4
W346	C4
W347	C3
W348	C3
W349	C3
W350	C3
W351	B2
W352	B4
W353	B3
W354	B3
W355	B3
W356	A4
W357	A3
W358	A3
W359	C1
W360	C1
W361	B1
W362	A1
W363	B1
W364	B1
W365	C5
W366	C5
W367	C1
W371	C7
W373	B7
W374	A7
W375	C7
W376	C6
W377	C6
W378	C6
W379	C6
W380	C6
W381	C5
W382	C5
W383	C5
W384	C5
W385	C5
W386	C5
W387	C5
W388	C5
W389	C5
W390	C5

Symbol No.	Zone No.
W391	B5
W392	B5
W393	B5
W394	B5
W395	B5
W396	C4
W397	C4
W398	C4
W399	C3
W400	C3
W401	A3
W402	A3
W403	B2
W404	C1
W405	B1
W406	B7
W411	C6

Symbol No.	Zone No.
C301	C2
C302	C2
C303	C2
C304	C2
C305	C2
C306	C2
C307	C1
C308	C1
C309	A1
C310	B2
C311	C2
C315	A2
C316	A2
C317	A2
C318	A2
C319	A2
C320	A2
C321	A1
C322	B2
C323	A2
C324	A1
C326	C5
C327	B3
C330	B6
C331	A6
C332	B7
C333	B6
C334	B6
C335	A5
C336	B5
C337	A5
C338	A5
C339	A6
C340	A6
C341	A6
C342	A6
C343	A6
C344	A7
C350	A5
C352	A5
C353	A4
C354	B4
C355	A4
C356	B4
C357	B4
C358	A4
C359	B4
C360	B3
C361	C3
C362	C7
C370	A7
C371	B7
C372	A8
C373	C8
C374	A7

Symbol No.	Zone No.
C375	C4
C376	B8
C401	B2
C402	B2
C403	B2
C404	B2
C405	B2
C406	B2
C407	B1
C408	B1
C409	B1
C411	B2
C415	B2
C416	B2
C417	B2
C418	B2
C419	B2
C420	B2
C421	B1
C423	B2
C430	C6
C431	B6
C432	C5
C433	C6
C434	C6
C435	B5
C436	B5
C437	B5
C438	B5
C439	B6
C440	B6
C441	B6
C442	B6
C443	B6
C450	B5
C452	B5
C453	B4
C454	B4
C455	B4
C456	B4
C457	B4
C458	B4
C460	B3
C501	B4
C502	C1
D302	B7
D303	B8
D304	B8
D305	B7
D306	B8
D307	B7
D308	B7
D309	C7
D310	B7

Symbol No.	Zone No.
D311	B7
D312	A7
D313	C7
D314	C7
D316	C4
D317	C7
D318	C5
D319	B7
D320	A1
D321	C3
D322	C8
301P6	C6
IC301	B2
IC302	A2
IC303	A3
IC304	C4
IC305	A6
IC405	B6
J301	B3
J304	C8
J305	B8
J311	A3
J312	B3
JL502	C1
JP202	C6
JP301	C6
JP302	B5
JP302	C2
L301	A4
L401	B4
LC301	B6
LC302	A3
LC401	C6
LC402	B3
Q301	C1
Q302	C1
Q303	C1
Q304	A1
Q305	A1
Q306	B3
Q307	B3
Q308	C4
Q309	C4
Q311	A5
Q312	A4
Q313	A4
Q314	B4
Q315	A5
Q316	B5
Q317	B5

Symbol No.	Zone No.
Q318	C4
Q319	C1
Q320	B8
Q321	A7
Q322	A7
Q323	B7
Q324	C3
Q325	C8
Q326	B8
Q327	C7
Q328	A8
Q329	A8
Q330	C4
Q331	A7
Q332	B8
Q333	B8
Q334	B8
Q335	C8
Q336	C8
Q337	C8
Q401	B1
Q402	B1
Q403	B1
Q404	B1
Q405	B1
Q411	B5
Q412	B4
Q413	B4
Q414	B4
Q419	C1
Q504	C4
R301	C2
R302	C2
R303	C2
R304	C2
R305	C2
R306	C2
R307	C2
R308	C2
R309	C1
R310	C1
R311	C1
R312	C2
R315	A3
R316	A3
R317	A2
R318	A2
R319	A2
R320	A2
R321	A2
R322	A1
R323	A2
R324	A2
R325	C7

Symbol No.	Zone No.
R326	A1
R327	A1
R328	B2
R330	C7
R331	B8
R332	A7
R333	B3
R334	B3
R335	B4
R336	B8
R337	C5
R338	C5
R339	B7
R340	C7
R341	B6
R342	B5
R343	A6
R344	A6
R345	A7
R346	A6
R347	B5
R348	A5
R349	A5
R350	A4
R351	A4
R352	A5
R353	A5
R354	A5
R355	A5
R356	A4
R357	B5
R358	A4
R359	B4
R360	A4
R361	A4
R362	C2
R363	B8
R364	C2
R365	C1
R366	B4
R367	B4
R368	B8
R369	B7
R370	B8
R371	B7
R372	B7
R373	B7
R374	B7
R375	C8
R376	C8
R377	B8
R378	B7
R379	B7
R380	C7
R381	C7

Symbol No.	Zo No.
R382	B
R383	A
R384	B
R385	C
R386	B
R387	A
R388	B
R389	B
R390	B
R391	A
R392	B
R393	B
R394	C
R395	C
R396	A
R397	A
R398	A
R401	B
R402	B
R403	B
R404	B
R405	B
R406	B
R407	B
R408	B
R409	B
R410	B
R411	B
R415	B
R416	B
R417	B
R418	B
R419	B
R420	B
R421	B
R422	B
R423	B
R424	B
R426	A
R427	B
R441	C
R442	B
R443	B
R444	C
R445	
R446	
R451	
R452	
R453	
R454	
R455	
R456	
R457	
R458	

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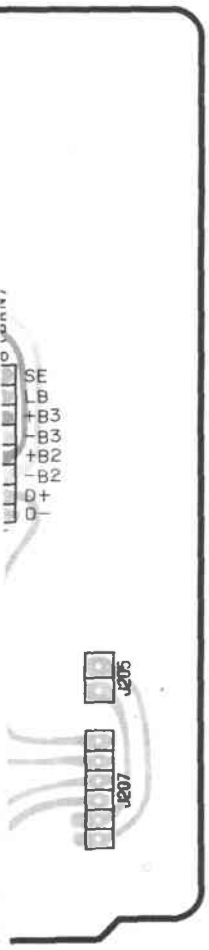
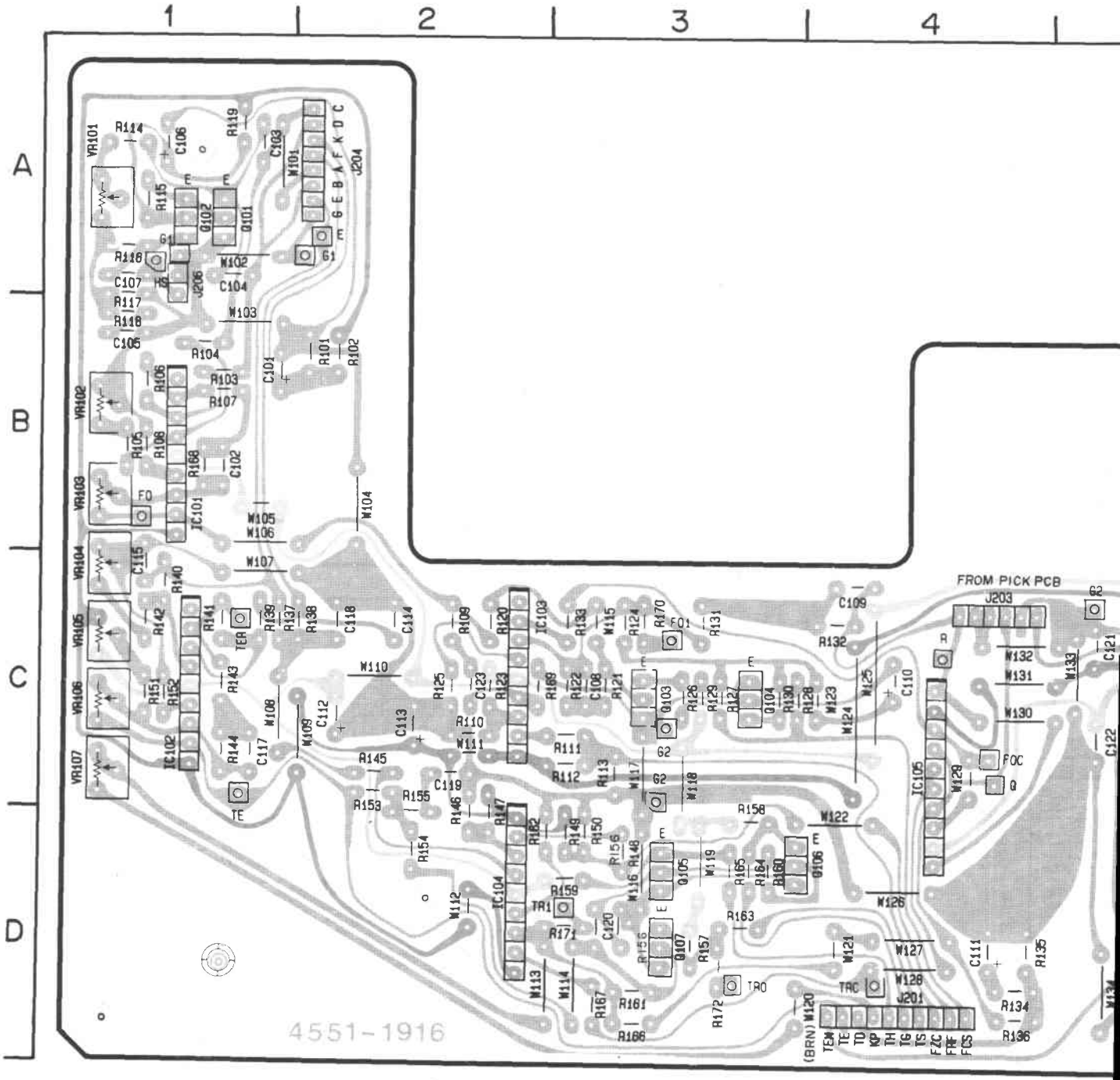


Symbol No.	Zone No.
C101	B1
C102	B1
C103	A1
C104	A1
C105	B1
C106	A1
C107	A1
C108	C3
C109	C4
C110	C4
C111	D4
C112	C2
C113	C2
C114	C2
C115	C1
C117	C1
C118	C2
C119	C2
C120	D3
C121	C5
C122	C5
C123	C2
IC101	B1
IC102	C1
IC103	C2
IC104	D2
IC105	C4
J201	D4
J202	C5
J203	C4
J204	A2
J205	D5
J206	A1
J207	D5
Q101	A1
Q102	A1
Q103	C3
Q104	C3
Q105	D3
Q106	D3
Q107	D3
R101	B2
R102	B2
R103	B1
R104	B1
R105	B1
R106	B1
R107	B1
R108	B1
R109	C2
R110	C2

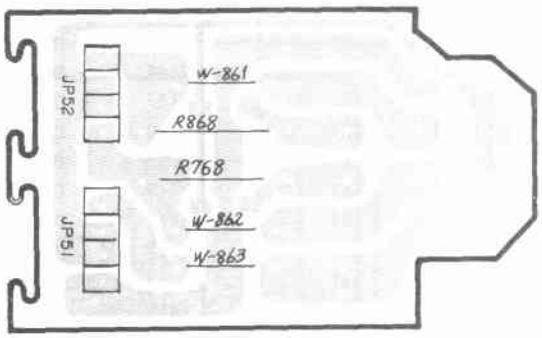
Symbol No.	Zone No.
R111	C3
R112	C3
R113	C3
R114	A1
R115	A1
R116	A1
R117	B1
R118	B1
R119	A1
R120	C2
R121	C3
R122	C3
R123	C2
R124	C3
R125	C2
R126	C3
R127	C3
R128	C3
R129	C3
R130	C3
R131	C3
R132	C4
R133	C3
R134	D4
R135	D4
R136	D4
R137	C1
R138	C2
R139	C1
R140	C1
R141	C1
R142	C1
R143	C1
R144	C1
R145	C2
R146	C2
R147	C2
R148	D3
R149	D3
R150	D3
R151	C1
R152	C1
R153	C2
R154	D2
R155	C2
R156	D3
R156	D3
R157	D3
R158	D3
R159	D3
R160	D3
R161	D3
R162	D2
R163	D3
R164	D3

Symbol No.	Zone No.
R165	D3
R166	D3
R167	D3
R168	B1
R169	C2
R170	C3
R171	D3
R172	D3
VR101	A1
VR102	B1
VR103	B1
VR104	C1
VR105	C1
VR106	C1
VR107	C1
W101	A1
W102	A1
W103	B1
W104	B2
W105	B1
W106	B1
W107	C1
W108	C1
W109	C2
W110	C2
W111	C2
W112	D2
W113	D2
W114	D3
W115	C3
W116	D3
W117	C3
W118	C3
W119	D3
W120	D3
W121	D4
W122	D4
W123	C4
W124	C4
W125	C4
W126	D4
W127	D4
W128	D4
W129	C4
W130	C4
W131	C4
W132	C4
W133	C5
W134	D5

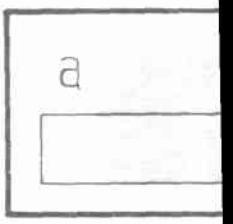
SERVO P.C.B



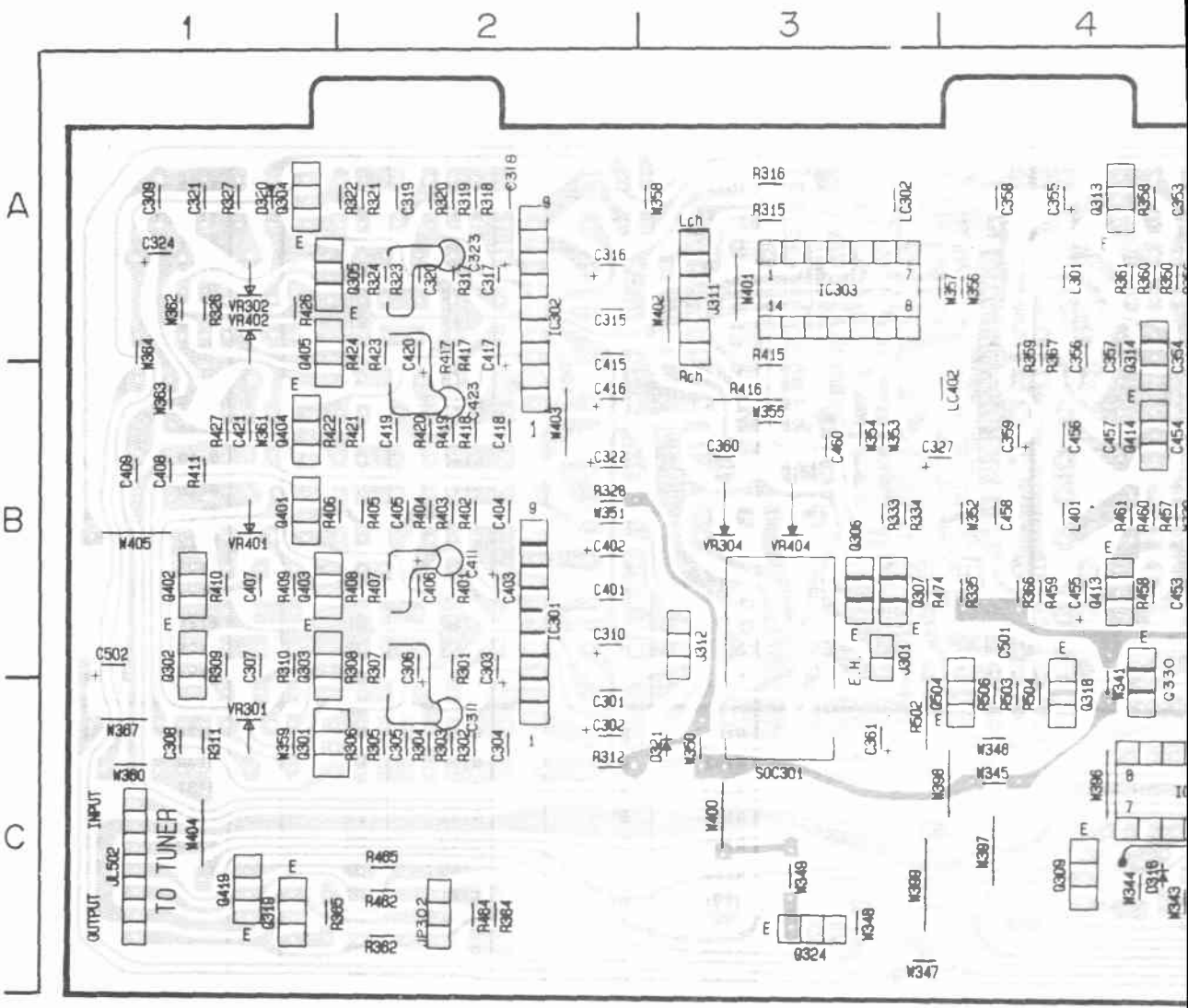
HEADPHONE P.C.B



SP JACK P.C.B

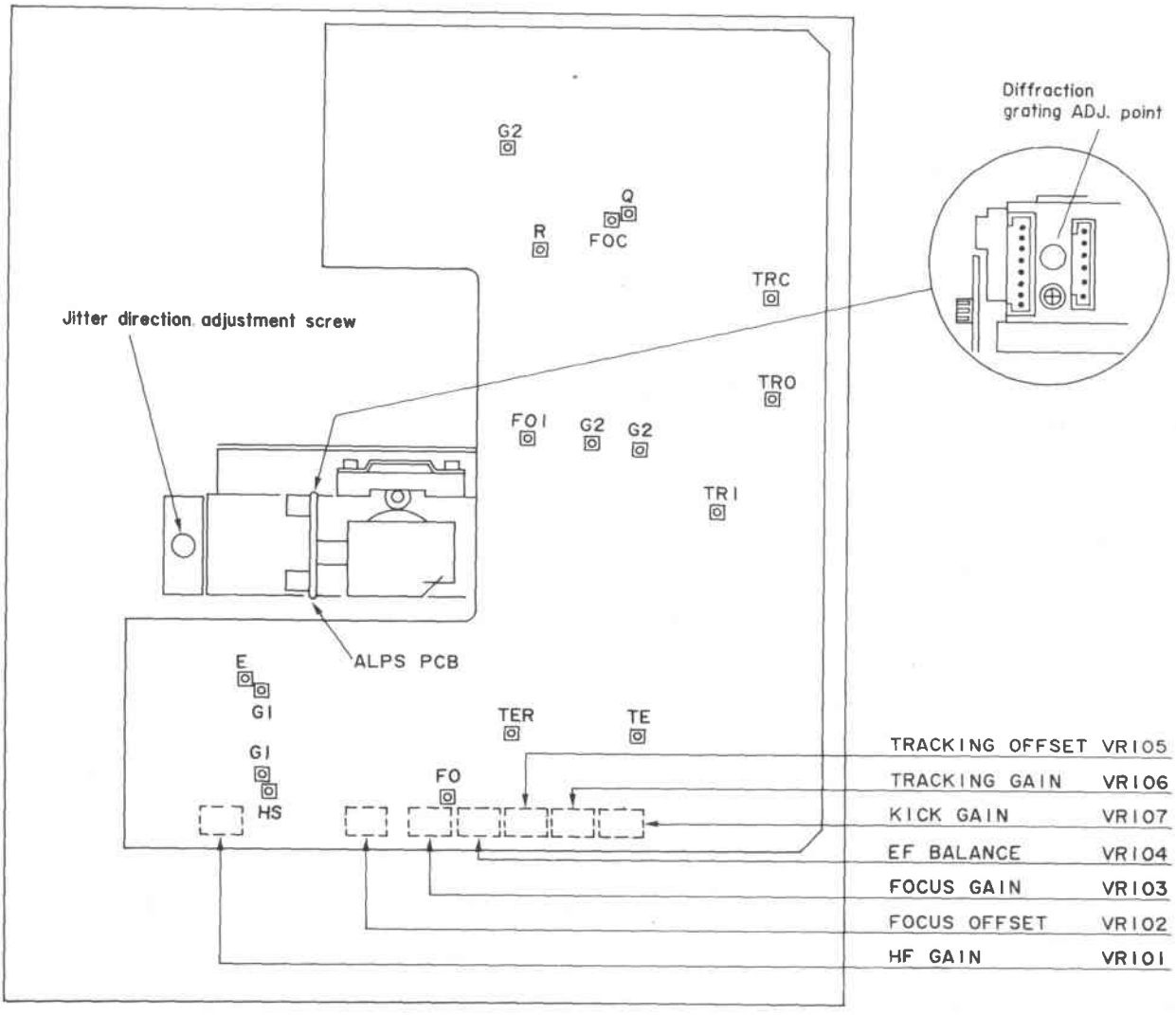


CASSETTE P.C.B



No.	Item	Test Pont	Measuring Instrument and Procedure	Adjustment Point	Standard	Remarks
7	Tracking Off Set (PLAY mode)	Q ~ G2	Oscilloscope	VR105	DC 0 V ± 20 mV	LD OFF (Tray open)
8	Tracking Gain (PLAY mode)	TR1 ~ G2 TE ~ G2 Q ~ G2	AF OSC (800 Hz, 300 mV) BPF VTVM Fig. 25	VR106	10dB±2dB	ETE = EQ + 10 dB Adjustment angle of VR106
9	Tracking Off Set				CHECK	No. 8 check
10	Kick Gain (PAUSE)	KP ~ G2 HS ~ G1	Oscilloscope KP → EXT Trig.	VR107		Adjustment angle of VR107

ADJUSTMENT POINT



CD SECTION ADJUSTMENTS

1. Measuring instruments

	Q'ty
Oscilloscope [more than 30 MHz / EXT Triger terminal / X-Y Triger terminal]	1
Probe (10 : 1, less than 15 PF)	1
Frequency counter	1
Audio Frequency Oscillator (AF OSC)	1
AC Voltmeter 2ch (VTVM)	1
Jitter meter	1
BPF (800 Hz)	1
Test disc CD-1 (EIAJ)	1

2. Tracking Servo Off

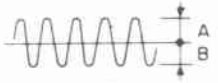
Step 1: Place the disc onto the disc drawer, and push the PLAY button.
Select the track that the pick up moves to the center of program area.

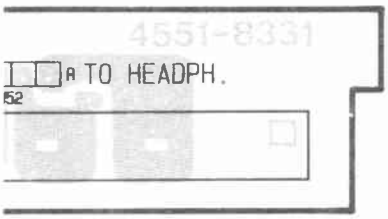
Step 2: Comfirm that the eye pattern is resting after turning off and on the Track No.

Step 3: Separate microcomputer (YM3805) from microcomputer.

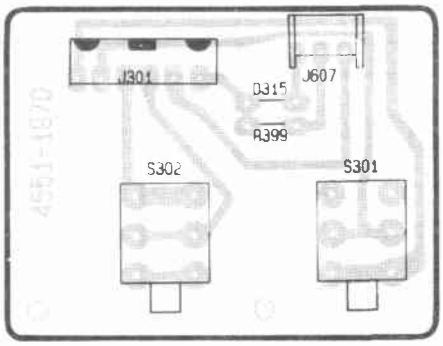
Step 4: After Step 3, connect 5 V between TRO and G2 within 5 minutes.

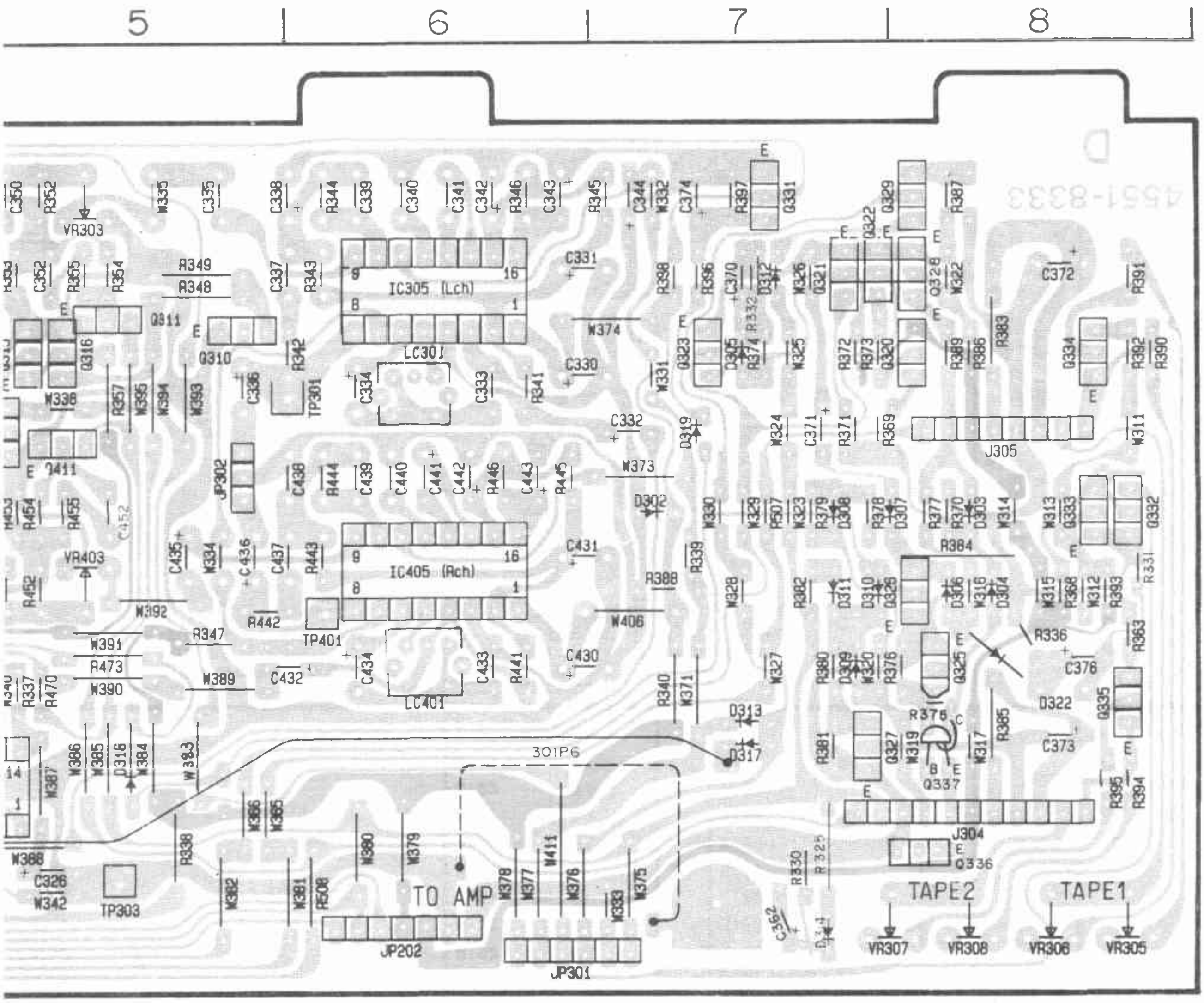
Step 5: In case of stopping the turning of disc, repeat Step 1 ~ Step 4.

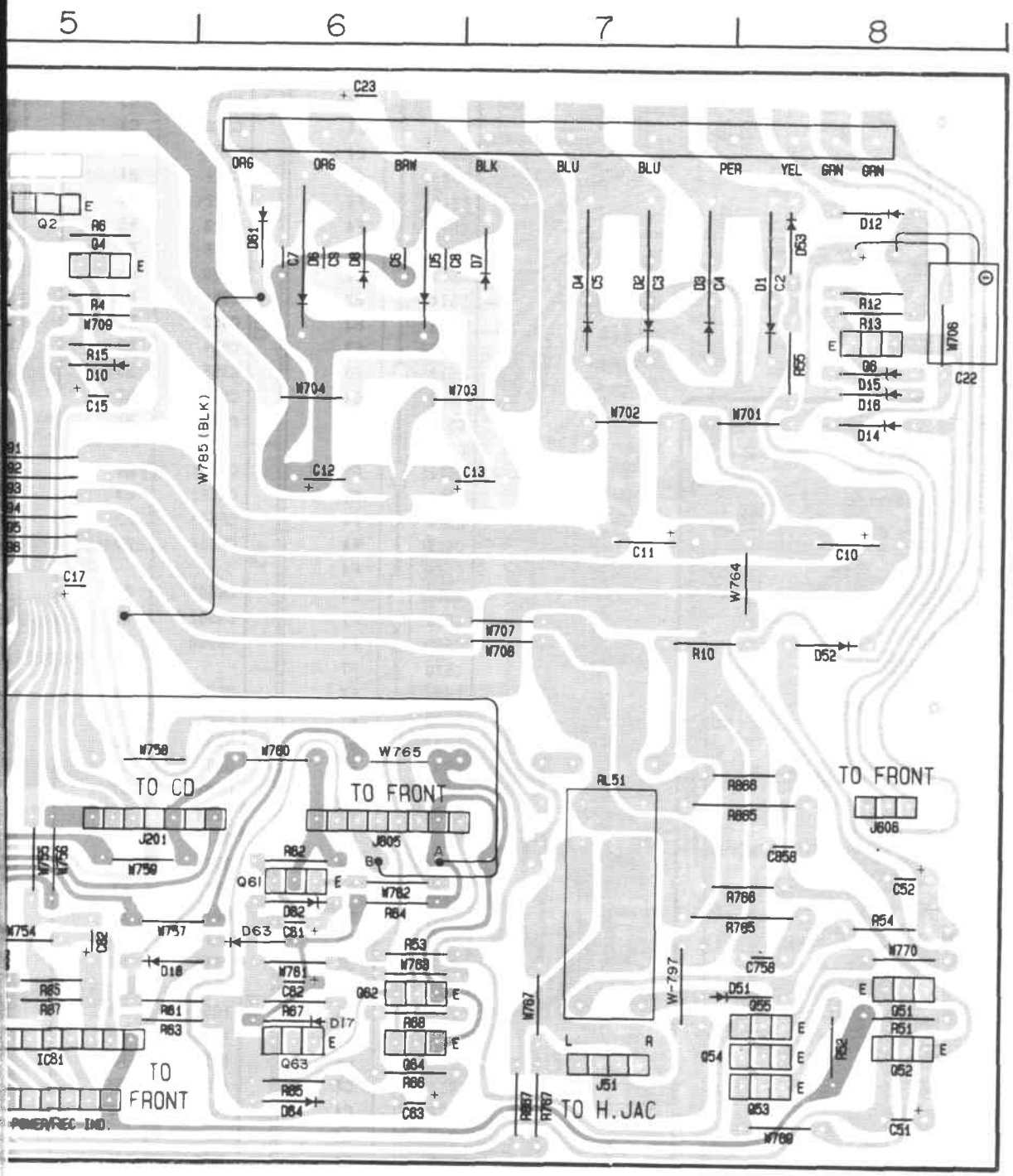
No.	Item	Test Pont	Measuring Instrument and Procedure	Adjustment Point	Standard	Remarks
1	**Diffraction Grating (PLAY mode)**	TER ~ G1	Oscilloscope Tracking Servo OFF	Diffraction grating ADJ. Screw		Adjust after removing Pickup to center of DISC program area by FS.
2	**Jitter Direction (PLAY mode)**	HS ~ G1	Jitter meter	Jitter ADJ. Screw	More than 35 ms CHECK	More than 35 ms, replace the tray, and adjust so that Jitter is minimum. (Track No. 8)
3	**Focus Off Set (PLAY mode)**	HS ~ G1	Jitter meter	VR102	Jitter minimum	Without the adjusted angle of VR102, check with broken disc (17th music (5A))
4	**Focus Gain (PLAY mode)**	FOI ~ G2 FO ~ G2 R ~ G2	AF OSC (Output: 800 Hz, 300 mV) BPF VTVM Fig. 25	VR103	13dB±2dB	ER = EFO + 13 dB Adjustment angle of VR103
5	**HF Gain (PLAY mode)**	HS ~ G1	Oscilloscope	VR101	2.5 Vp-p ± 0.3V	HS 70 mV
6	**EF Balance (PLAY mode)**	TER ~ G2	Oscilloscope Tracking Servo OFF	VR104	DC = 0 V position	 Mal adjustment  Correct adjustment Approximately A = B  Adjustment angle of VR104


4551-8331
TO HEADPH.

DOLBY SW P.C.B


4551-1870
J301
J607
D315
R399
S302
S301

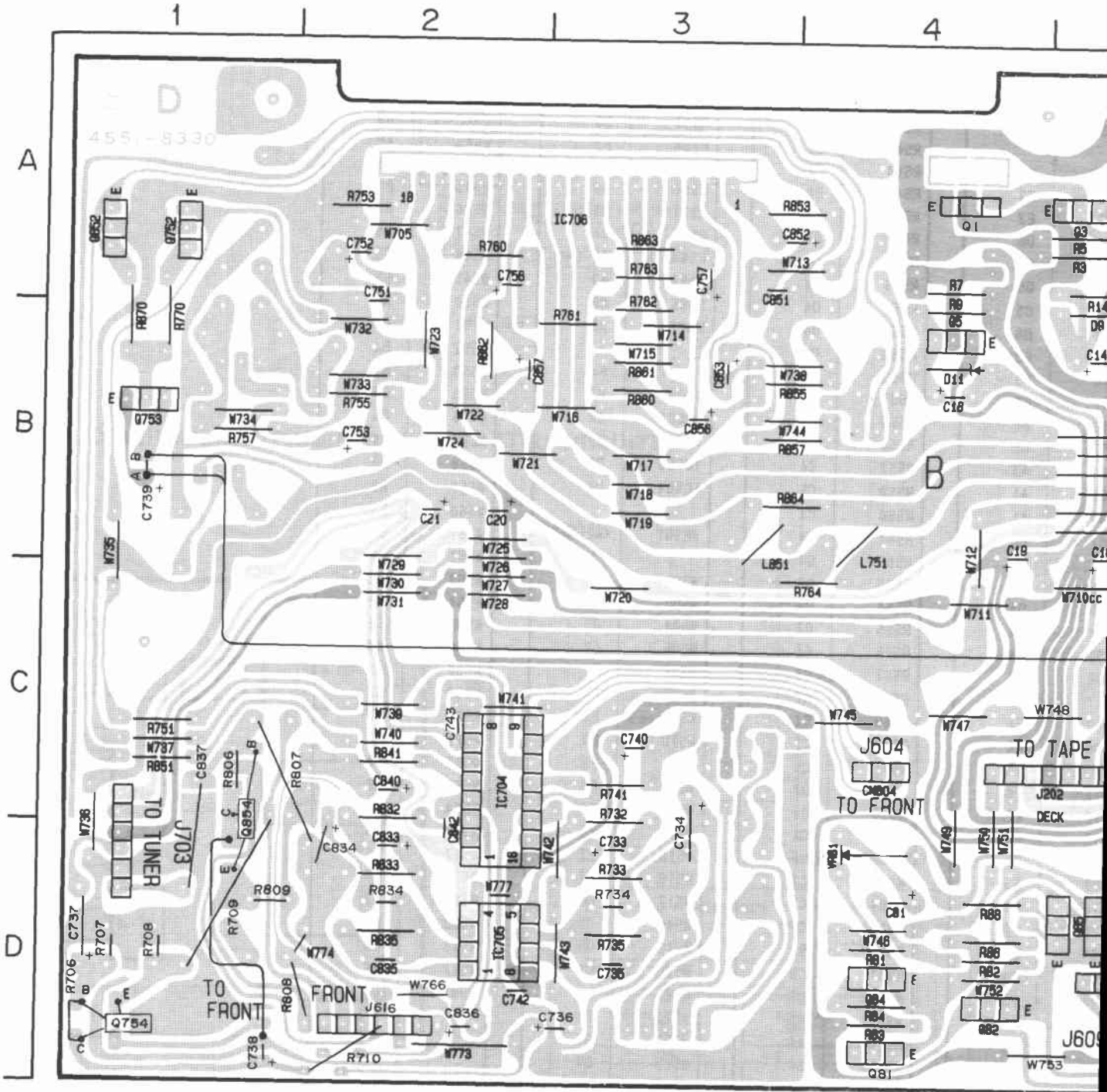

5
6
7
8
4551-8333
IC305 (Lch)
IC405 (Rch)
LC301
LC401
J305
J304
TO AMP
JP202
JP301
301P6
TAPE2
TAPE1
VR307
VR308
VR306
VR305
VR303
VR403
TP301
TP401
TP303



Symbol No.	Zone No.
C2	A8
C3	A7
C4	A8
C5	A7
C6	A6
C7	A6
C8	A6
C9	A6
C10	B8
C11	B7
C12	B6
C13	B7
C14	B5
C15	B5
C16	B5
C17	B5
C18	B4
C19	B4
C20	B2
C21	B2
C22	B8
C23	A6
C51	D8
C52	C8
C61	D6
C62	D6
C63	D6
C81	D4
C82	D5
C733	D3
C734	D3
C735	D3
C736	D3
C737	D1
C738	D1
C739	B1
C740	C3
C742	D2
C743	C2
C751	B2
C752	A2
C753	B2
C756	A2
C757	A3
C758	D8
C833	D2
C834	D2
C835	D2
C836	D2
C837	C1
C840	C2
C842	D2
C851	A3
C852	A4
C853	B3

PRINTED CIRCUIT BOARD

POWER AMP P.C.B



ol	Zone No.
3	B3
7	B2
3	C8
	A8
	A7
	A8
	A7
	A6
	A6
	A7
	A6
	B5
	B5
	B4
	A8
	B8
	B8
	B8
	D6
	D5
	D8
	C8
	A8
	A6
	D6
	D6
	D6
	D5
14	C2
15	D2
16	A3
	D7
	C5
	C5
	C4
	C6
	C8
	D5
	D2
	D1
	B4
	B3
	C7
	A4
	A5
	A5
	A5
	B4
	B8
	D8

Symbol No.	Zone No.
Q52	D8
Q53	D8
Q54	D8
Q55	D8
Q61	D6
Q62	D6
Q63	D6
Q64	D6
Q81	D4
Q82	D4
Q83	D5
Q84	D4
Q85	D5
Q752	A1
Q753	B1
Q754	D1
Q852	A1
Q854	D1
R3	A5
R4	A5
R5	A5
R6	A5
R7	B4
R9	B4
R10	C8
R12	A8
R13	A8
R14	B5
R15	B5
R51	D8
R52	D8
R53	D6
R54	D8
R55	B8
R61	D5
R62	C6
R63	D5
R64	D6
R65	D6
R66	D6
R67	D6
R68	D6
R81	D4
R82	D4
R83	D4
R84	D4
R85	D5
R86	D4
R87	D5
R88	D4
R662	B2
R706	D1
R707	D1
R708	D1

Symbol No.	Zone No.
R709	D1
R710	D2
R732	D3
R733	D3
R734	D3
R735	D3
R741	C3
R751	C1
R753	A2
R755	B2
R757	B1
R760	A2
R761	B3
R762	B3
R763	A3
R764	C4
R765	D8
R766	D8
R767	D7
R770	B1
R806	C1
R807	C2
R808	D2
R809	D1
R832	D2
R833	D2
R834	D2
R835	D2
R841	C2
R851	C1
R853	A4
R855	B4
R857	B4
R860	B3
R861	B3
R863	A3
R864	B4
R865	C8
R866	C8
R867	D7
R870	B1
VR81	D4
W701	B8
W702	B7
W703	B7
W704	B6
W705	A2
W706	B8
W707	C7
W708	C7
W709	B5
W710	C5
W711	C4

Symbol No.	Zone No.
W712	B4
W713	A4
W714	B3
W715	B3
W716	B3
W717	B3
W718	B3
W719	B3
W720	C3
W721	B2
W722	B2
W723	B2
W724	B2
W725	B2
W726	C2
W727	C2
W728	C2
W729	C2
W730	C2
W731	C2
W732	B2
W733	B2
W734	B1
W735	C1
W736	D1
W737	C1
W738	B4
W739	C2
W740	C2
W741	C2
W742	D3
W743	D3
W744	B4
W745	C4
W746	D4
W747	C4
W748	C5
W749	D4
W750	D4
W751	D4
W752	D4
W753	D5
W754	D5
W755	C5
W756	C5
W757	D5
W758	C5
W759	C5
W760	C6
W761	D6
W762	D6
W763	D6
W764	B8
W765	C6
W766	D2

Symbol No.	Zone No.
W767	D7
W769	D8
W770	D8
W773	D2
W774	D2
W777	D2
W785	B6
W791	B5
W792	B5
W793	B5
W794	B5
W795	B5
W796	B5
W797	D7

Zone No.
B2
B2
C3
C3
C3
C3
B4
B4
B5
B5
B6
B2
B2
B3
B3
B3
B3
D4
E4
F3
F8
B7
A7
B7
E2
E3
D2
D3
D2
D1
F2
F2
F5
E8
E8
E8
E4
F8
D6
B3
B6
C5
C7
E2
D4
F5
E2
E3
E2

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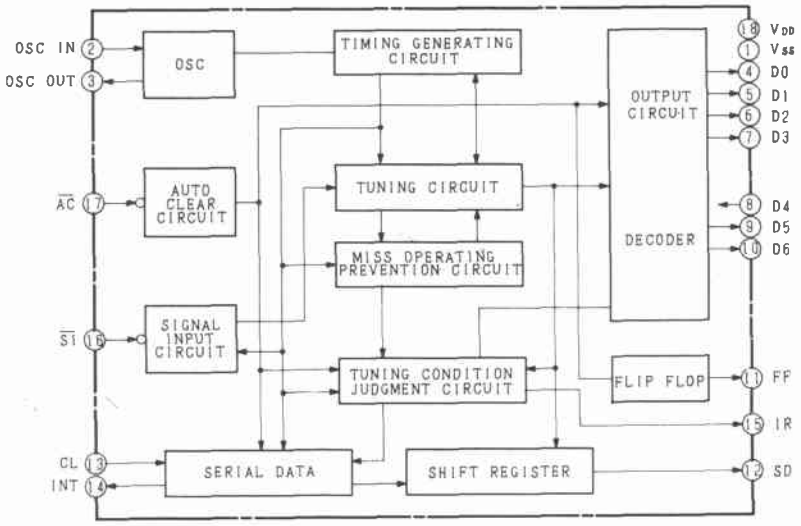

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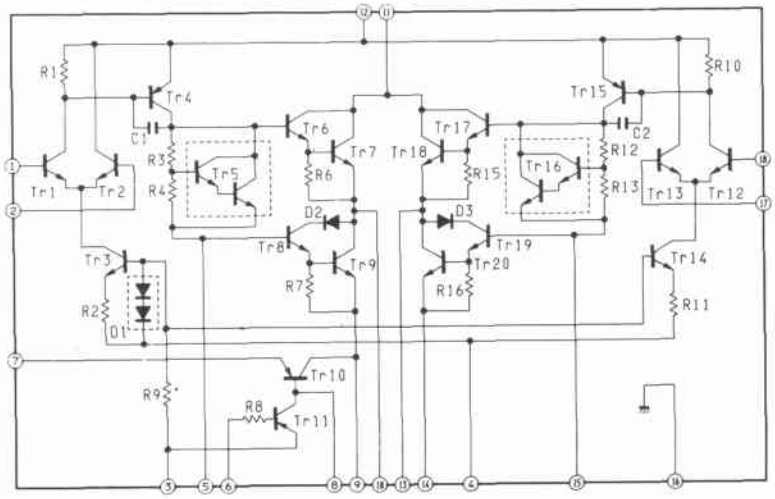

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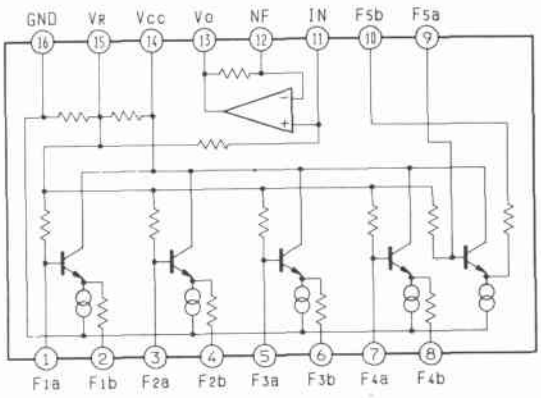

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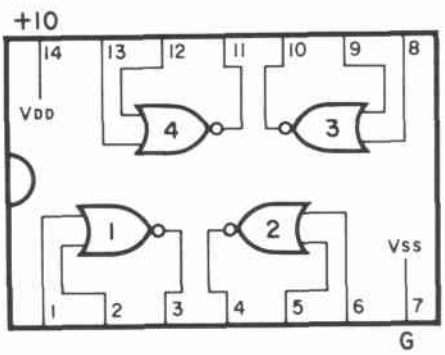

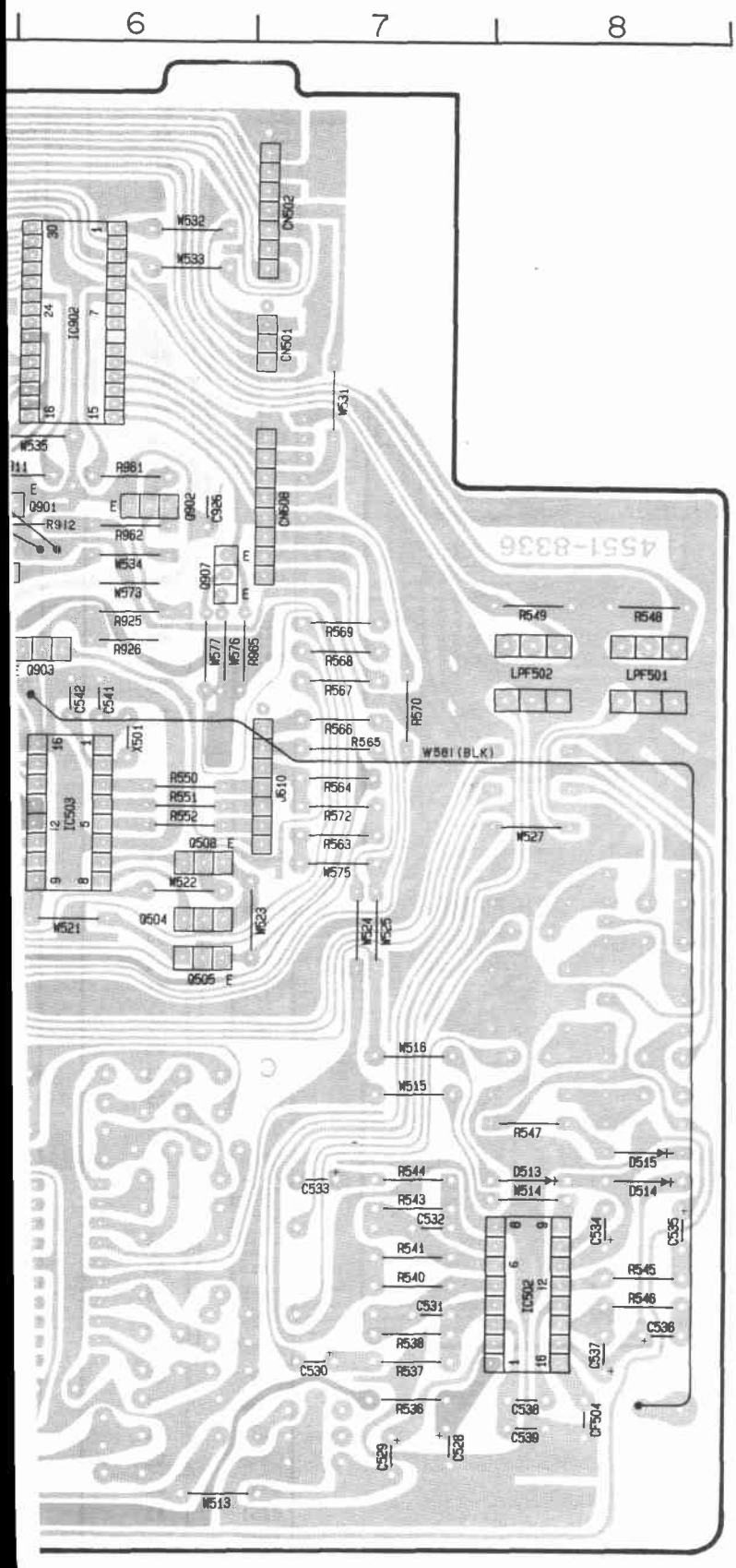

Symbol No.	Zone No.
C502	D3
C503	D4
C503	E4
C504	E4
C507	E4
C508	E4
C509	E4
C510	F4
C511	F4
C512	F4
C513	E2
C514	E2
C515	E3
C516	E3
C518	E3
C519	D4
C520	E4
C521	F3
C522	F3
C523	F3
C524	F4
C525	F4
C526	F4
C527	E5
C528	F7
C529	F7
C530	F7
C531	F7
C532	E7
C533	E7
C534	E8
C535	E8
C536	F8
C537	F8
C538	F8
C539	F8
C541	C6
C542	C6
C543	D5
C544	C6
C545	C5
C546	C4
C547	C4
C548	C4
C549	C4
C550	C4
C551	C4
C580	D2
C581	D2
C582	E3
C583	E3
C584	E3
C585	F2
C586	E5
C901	C2

Symbol No.	Zone No.
C902	B2
C903	B2
C904	C3
C905	C3
C906	C3
C907	C3
C921	B4
C922	B4
C923	B5
C925	B5
C926	B6
C951	B2
C952	B2
C954	B3
C955	B3
C956	B3
C957	B3
CF501	D4
CF502	E4
CF503	F3
CF504	F8
CN501	B7
CN502	A7
CN608	B7
D504	E2
D505	E3
D506	D2
D507	D3
D508	D2
D509	D1
D510	F2
D511	F2
D512	F5
D513	E8
D514	E8
D515	E8
IC501	E4
IC502	F8
IC503	D6
IC901	B3
IC902	B6
J503	C5
J610	C7
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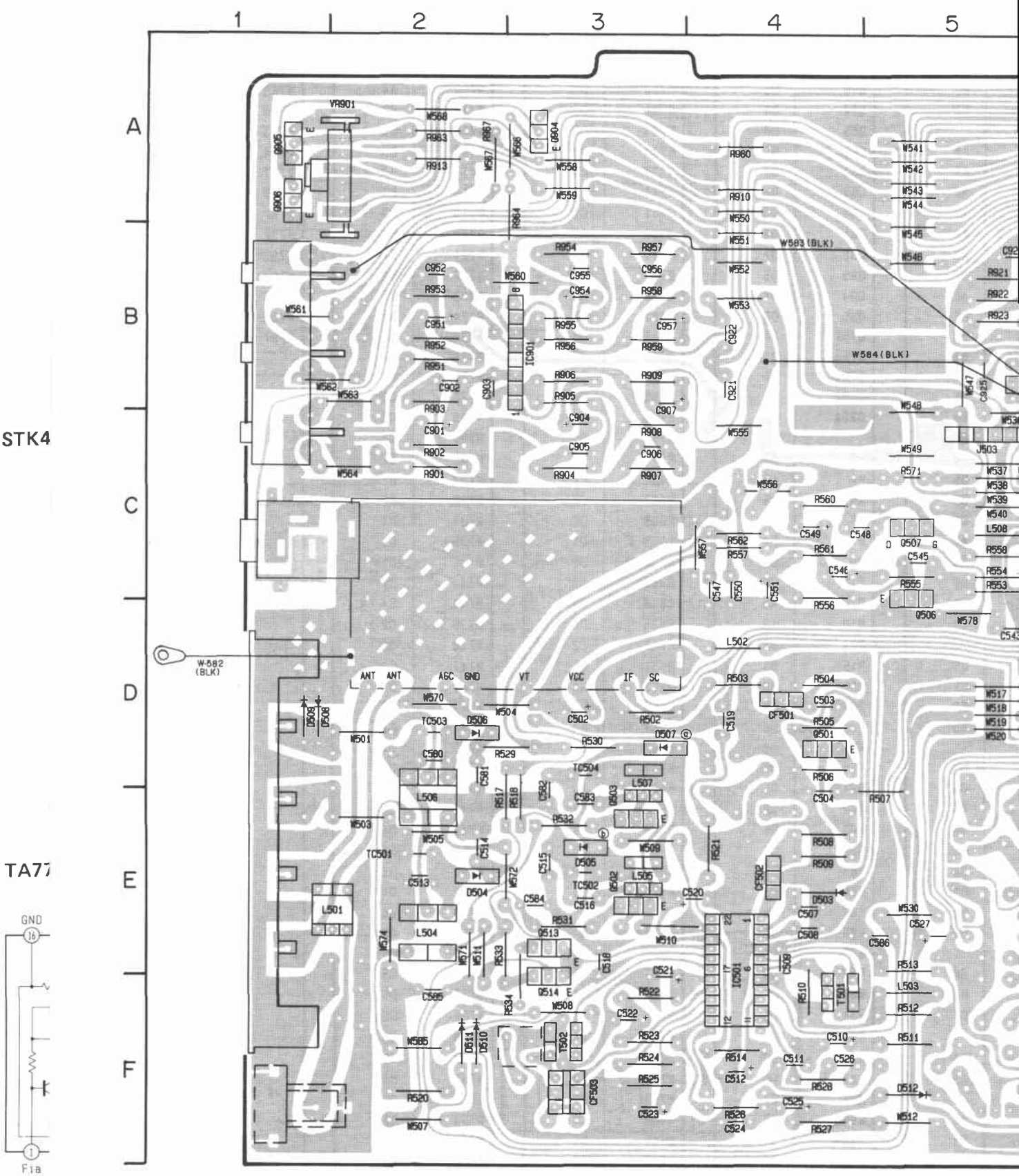
L506	E2

M501 TUNER P.C.B



STK4

TA77

ymbol o.	Zone No.
507	D3
508	C5
PF501	C8
PF502	C8
501	D4
502	E3
503	E3
504	D6
505	D6
506	D5
507	C5
508	D6
513	E3
514	F3
901	B5
902	B6
903	C6
904	A3
905	A1
906	A1
907	C6
502	D3
503	D4
504	D4
505	D4
506	D4
507	E5
508	E4
509	E4
510	F4
511	F5
512	F5
513	F5
514	F4
17	E3
18	E3
20	F2
21	E4
22	F3
23	F3
24	D7
24	F3
25	F3
26	F4
27	F4
28	F4
29	D3
30	D3
31	E3
32	E3
33	E3
4	F3

Symbol No.	Zone No.
R536	F7
R537	F7
R538	F7
R540	E7
R541	E7
R543	E7
R544	E7
R545	E8
R546	F8
R547	E8
R548	C8
R549	C8
R550	D6
R551	D6
R552	D6
R553	C5
R554	C5
R555	C5
R556	D4
R557	C4
R558	C5
R560	C4
R561	C4
R562	C4
R563	D7
R564	C7
R565	C7
R566	C7
R567	C7
R568	C7
R569	C7
R570	C7
R571	C5
R572	D7
R575	D7
R901	C2
R902	C2
R903	C2
R904	C3
R905	C3
R906	B3
R907	C3
R908	C3
R909	B3
R910	A4
R911	B6
R912	B6
R913	A2
R921	B5
R922	B5
R923	B5
R925	C6
R926	C6
R951	B2
R952	B2

Symbol No.	Zone No.
R953	B2
R954	B3
R955	B3
R956	B3
R957	B3
R958	B3
R959	B3
R960	A4
R961	B6
R962	B6
R963	A2
R964	A3
R965	C6
R967	A2
T501	F4
T502	F3
TC501	E2
TC502	E3
TC503	D2
TC504	D3
VR901	A2
W501	D2
W503	E2
W504	D3
W505	E2
W507	F2
W508	F3
W509	E3
W510	E3
W511	E2
W512	F5
W513	F6
W514	E8
W515	E7
W516	E7
W517	D5
W518	D5
W519	D5
W520	D5
W521	D6
W522	D6
W523	D7
W525	D7
W527	D8
W530	E5
W531	B7
W532	A6
W533	A6
W534	C6
W535	B6
W536	C5
W537	C5

Symbol No.	Zone No.
W538	C5
W539	C5
W540	C5
W541	A5
W542	A5
W543	A5
W544	A5
W545	B5
W546	B5
W547	B5
W548	C5
W549	C5
W550	A4
W551	B4
W552	B4
W553	B4
W555	C4
W556	C4
W557	C4
W558	A3
W559	A3
W560	B3
W561	B1
W562	B2
W563	C2
W564	C2
W565	F2
W566	A3
W567	A2
W568	A2
W570	D2
W571	E2
W572	E3
W573	C6
W574	E2
W576	C6
W577	C6
W578	D5
W581	C7
W582	D1
W583	B4
W584	B5
X501	C6

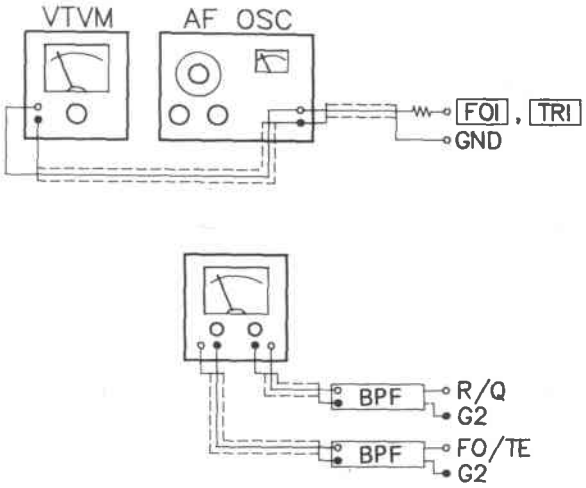
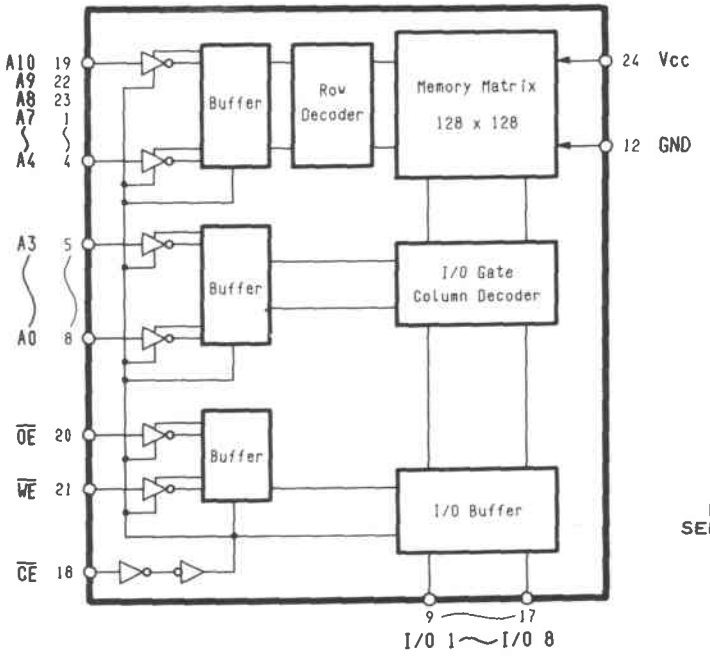


Fig. 25

INTERNAL DIAGRAMS AND PINOUT OF INTEGRATED CIRCUITS

CXK5816M



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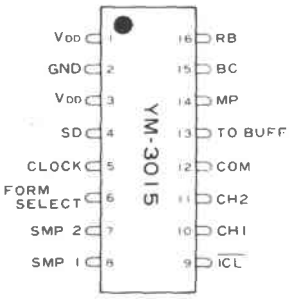
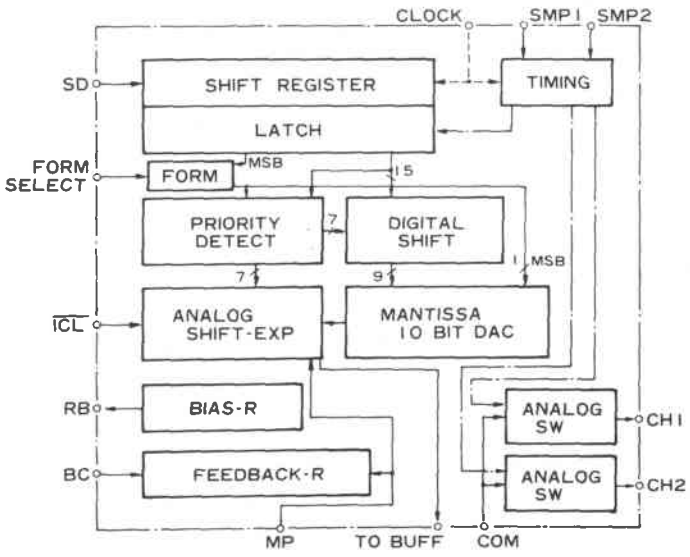




ymbol o.	Zone No.
507	D3
508	C5
PF501	C8
PF502	C8
501	D4
502	E3
503	E3
504	D6
505	D6
506	D5
507	C5
508	D6
513	E3
514	F3
901	B5
902	B6
903	C6
904	A3
905	A1
906	A1
907	C6
502	D3
503	D4
504	D4
505	D4
506	D4
507	E5
508	E4
509	E4
510	F4
511	F5
512	F5
513	F5
514	F4
517	E3
518	E3
520	F2
521	E4
522	F3
523	F3
524	D7
524	F3
525	F3
526	F4
527	F4
528	F4
529	D3
530	D3
531	E3
532	E3
533	E3
534	F3

Symbol No.	Zone No.
R536	F7
R537	F7
R538	F7
R540	E7
R541	E7
R543	E7
R544	E7
R545	E8
R546	F8
R547	E8
R548	C8
R549	C8
R550	D6
R551	D6
R552	D6
R553	C5
R554	C5
R555	C5
R556	D4
R557	C4
R558	C5
R560	C4
R561	C4
R562	C4
R563	D7
R564	C7
R565	C7
R566	C7
R567	C7
R568	C7
R569	C7
R570	C7
R571	C5
R572	D7
R575	D7
R901	C2
R902	C2
R903	C2
R904	C3
R905	C3
R906	B3
R907	C3
R908	C3
R909	B3
R910	A4
R911	B6
R912	B6
R913	A2
R921	B5
R922	B5
R923	B5
R925	C6
R926	C6
R951	B2
R952	B2

Symbol No.	Zone No.
R953	B2
R954	B3
R955	B3
R956	B3
R957	B3
R958	B3
R959	B3
R960	A4
R961	B6
R962	B6
R963	A2
R964	A3
R965	C6
R967	A2
T501	F4
T502	F3
TC501	E2
TC502	E3
TC503	D2
TC504	D3
VR901	A2
W501	D2
W503	E2
W504	D3
W505	E2
W507	F2
W508	F3
W509	E3
W510	E3
W511	E2
W512	F5
W513	F6
W514	E8
W515	E7
W516	E7
W517	D5
W518	D5
W519	D5
W520	D5
W521	D6
W522	D6
W523	D7
W525	D7
W527	D8
W530	E5
W531	B7
W532	A6
W533	A6
W534	C6
W535	B6
W536	C5
W537	C5

Symbol No.	Zone No.
W538	C5
W539	C5
W540	C5
W541	A5
W542	A5
W543	A5
W544	A5
W545	B5
W546	B5
W547	B5
W548	C5
W549	C5
W550	A4
W551	B4
W552	B4
W553	B4
W555	C4
W556	C4
W557	C4
W558	A3
W559	A3
W560	B3
W561	B1
W562	B2
W563	C2
W564	C2
W565	F2
W566	A3
W567	A2
W568	A2
W570	D2
W571	E2
W572	E3
W573	C6
W574	E2
W576	C6
W577	C6
W578	D5
W581	C7
W582	D1
W583	B4
W584	B5
X501	C6

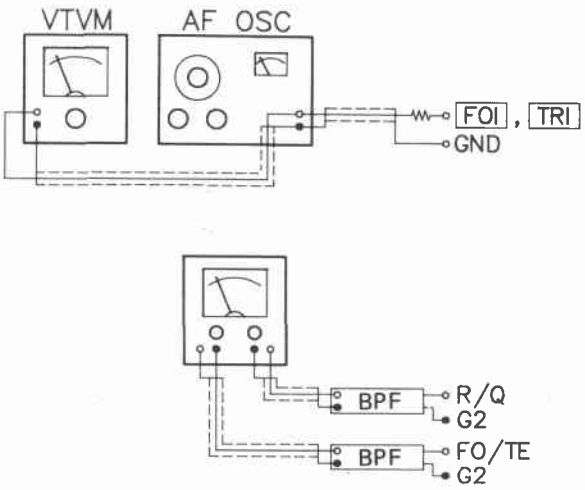
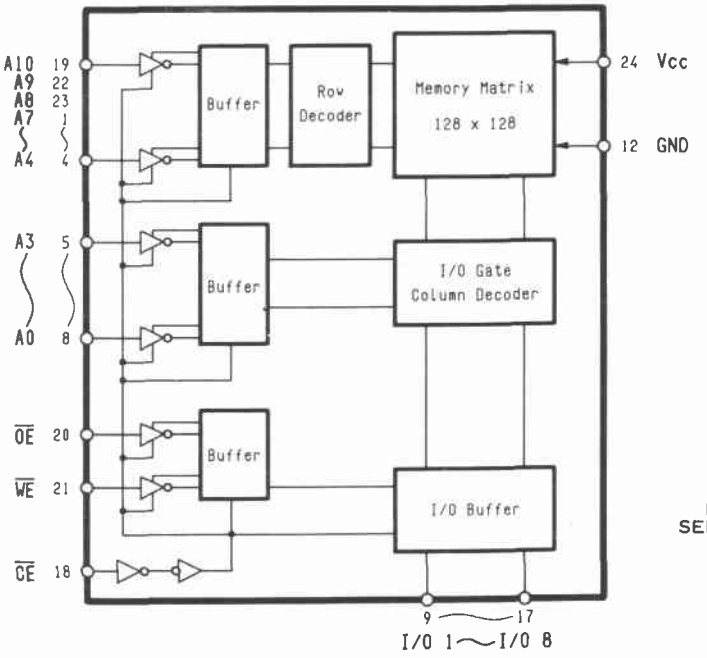


Fig. 25

INTERNAL DIAGRAMS AND PINOUT OF INTEGRATED CIRCUITS

CXK5816M



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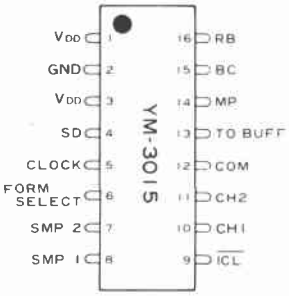

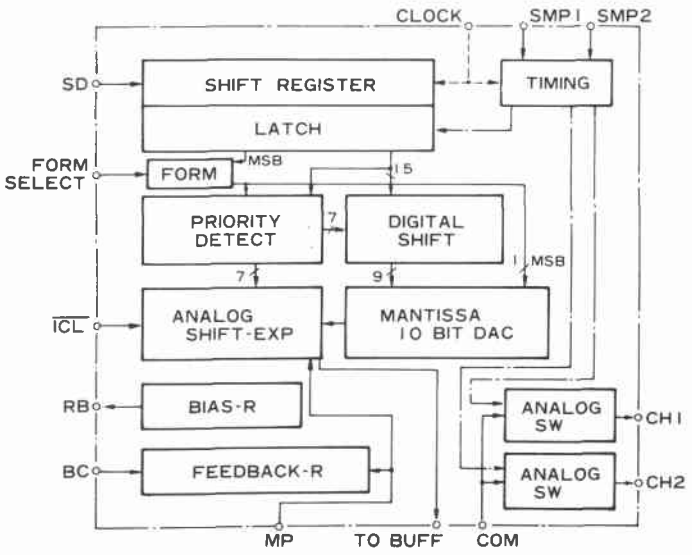

SCHEMATIC DIAGRAM

NOTE

1. C and R unit
   C ..... No symbol : μF
   P symbol : pF
   Capacitor without voltage display has pressure resistance of 50V.
   The NP is Nonpolar Capacitors.
   R ..... No symbol : Ω
   K symbol : kΩ
   M symbol : MΩ
   Resistance not designated is 1/4, J(5%).
2. Voltage for all parts are measured in terms of DC 1MΩ digital voltmeter.
3. **Parts marked with ⚠ or [redacted] are vital for maintenance of safety and performance. Be sure only designated parts are used for replacement.**
4. **The circuit figure shown here is the basic circuit diagram. Please note that changes in dimensions may occur as a result of improvements, etc.**

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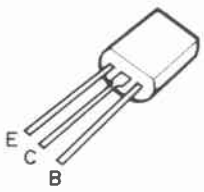
<td> 

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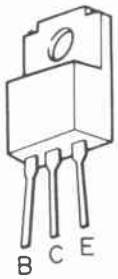
<td> 

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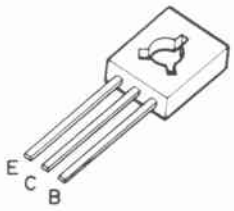
<td> 

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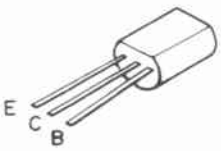
<td> 

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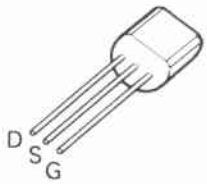
<td> 

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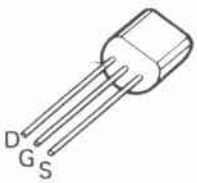
<td> 

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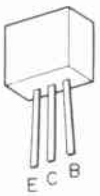
<td> 

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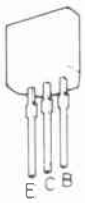
<td> 

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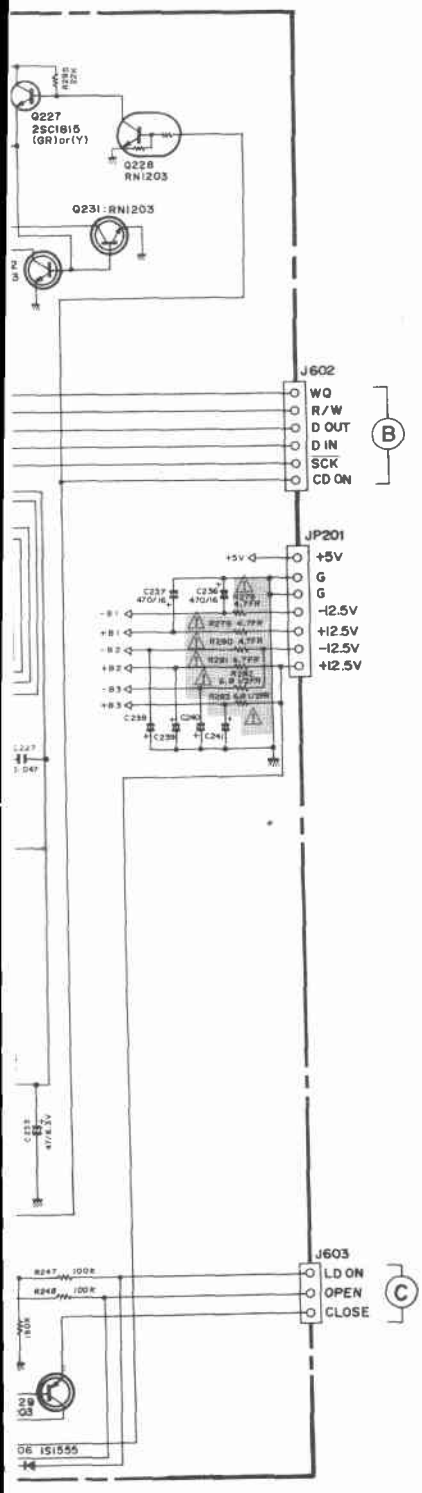
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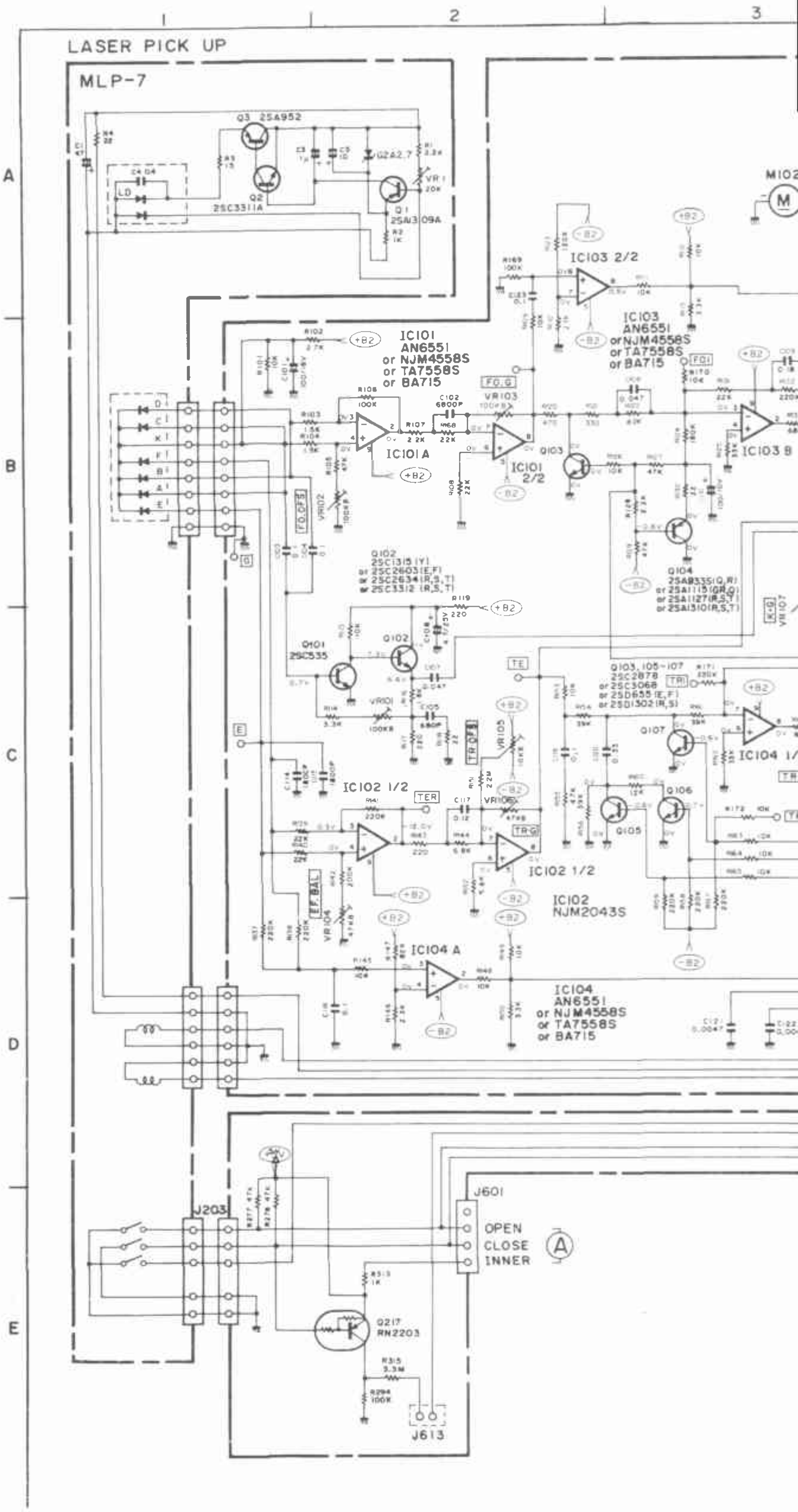
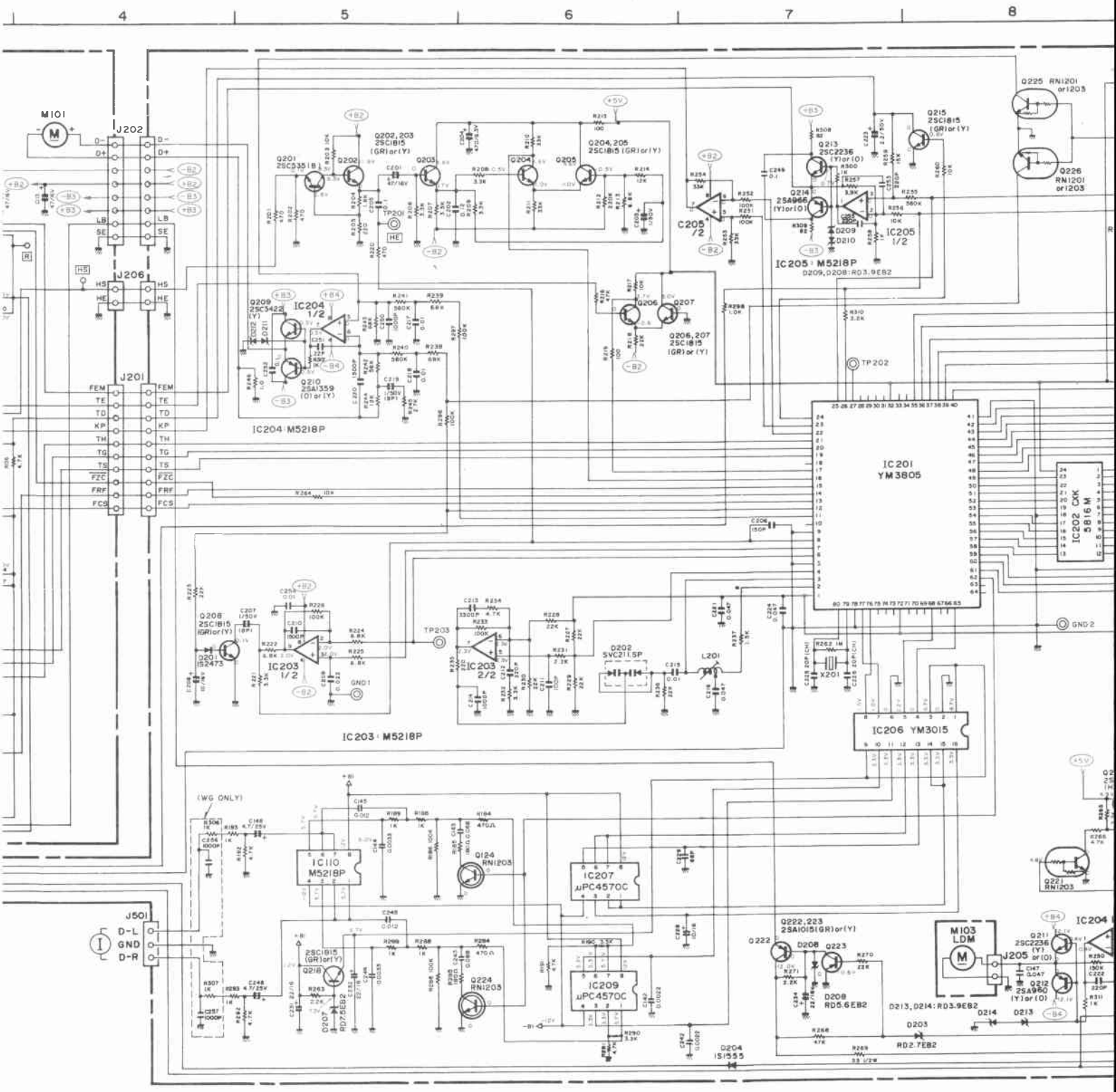
(GR)or(Y)
Q228
RN1203
Q231 : RN1203
J602
WQ
R/W
D OUT
D IN
SCK
CD ON
B
JP201
+5V
G
G
-12.5V
+12.5V
-12.5V
+12.5V
J603
LD ON
OPEN
CLOSE
C
06 151555

CD SECTION


LASER PICK UP
MLP-7
Q3 2SA952
Q2 2SC3311A
Q1 2SA1309A
IC101 AN6551 or NJM4558S or TA7558S or BA715
IC101 A
IC101 2/2
IC103 2/2
IC103 AN6551 or NJM4558S or TA7558S or BA715
IC103 B
Q102 2SC1315(Y) or 2SC2603(E,F) or 2SC2634(R,S,T) or 2SC3312(R,S,T)
Q101 2SC535
Q104 2SA835S(Q,R) or 2SA1115(GR,Q) or 2SA1127(R,S,T) or 2SA1310(R,S,T)
Q103, 105~107 2SC2878 or 2SC3068 or 2SD655(E,F) or 2SD1302(R,S)
IC102 1/2
IC102 NJM2043S
IC104 A
IC104 AN6551 or NJM4558S or TA7558S or BA715
J203
J601
OPEN
CLOSE
INNER
Q217 RN2203
J613
M102

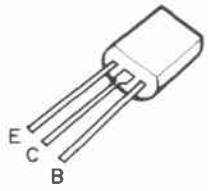
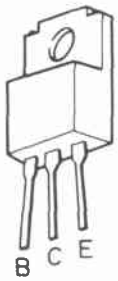
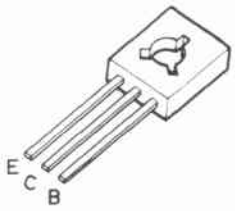
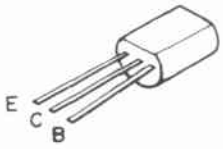
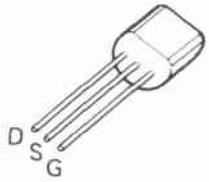
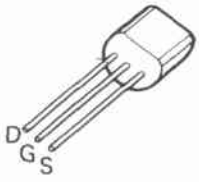
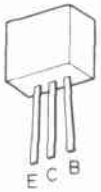
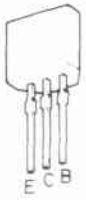

4
5
6
7
8
M101
J202
J206
J201
IC204 M5218P
IC205 M5218P
IC203 M5218P
IC201 YM3805
IC206 YM3015
IC202 CKK 5816M
IC110 M5218P
IC207 μPC4570C
IC209 μPC4570C
Q201 2SC3358(B)
Q202,203 2SC1815 (GR)or(Y)
Q204,205 2SC1815 (GR)or(Y)
Q206,207 2SC1815 (GR)or(Y)
Q208 2SC1815 (GR)or(Y)
Q209 2SC3423 (Y)
Q210 2SA1359 (O)or(Y)
Q213 2SC2236 (Y)or(O)
Q214 2SA966 (Y)or(O)
Q215 2SC1815 (GR)or(Y)
Q222,223 2SA1015(GR)or(Y)
Q225 RN1201 or1203
Q226 RN1201 or1203
Q124 RN1203
Q221 RN1203
Q224 RN1203
D202 SVC211SP
D204 1S1555
D207 RD7.5EB2
D208 RD5.6EB2
D203 RD2.7EB2
D209,D210:RD3.9EB2
D213,D214:RD3.9EB2
X201
L201
TP201
TP202
TP203
GND1
GND2
M103 LDM
J501
D-L
GND
D-R
(WG ONLY)

SCHEMATIC DIAGRAM

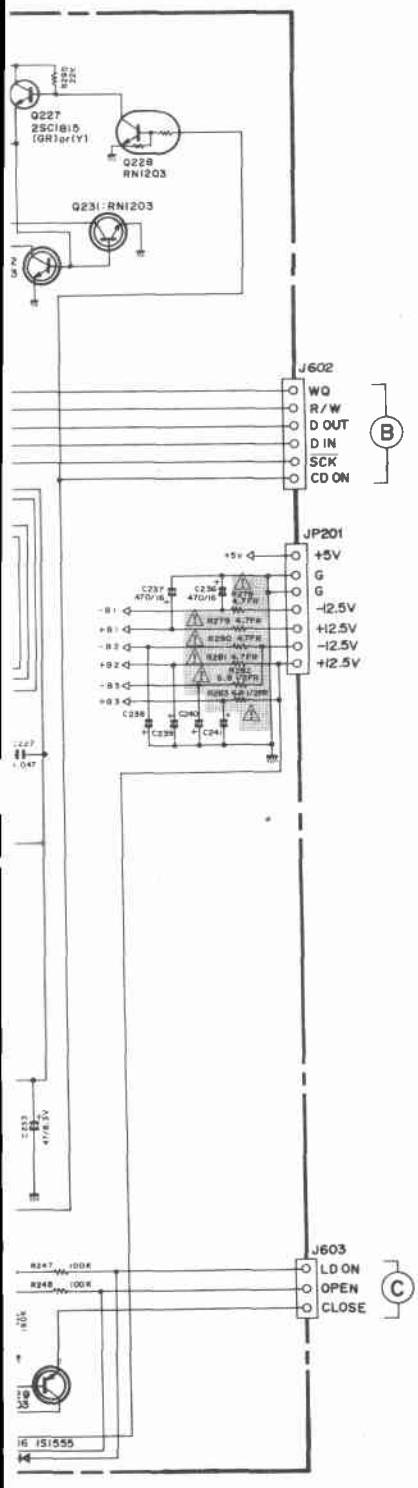
NOTE

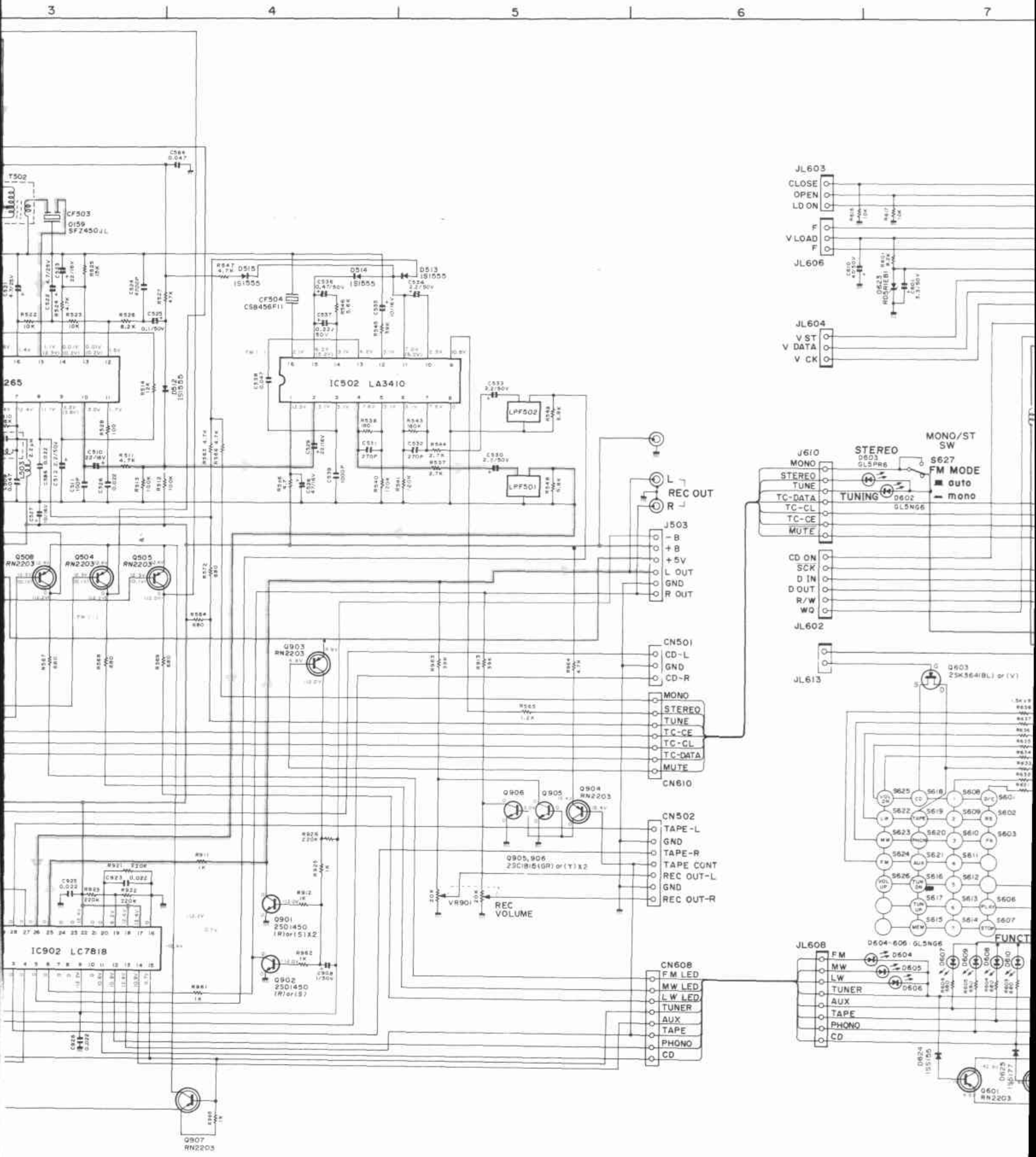
1. C and R unit
   C ..... No symbol : μF
   P symbol : pF
   Capacitor without voltage display has pressure resistance of 50V.
   The NP is Nonpolar Capacitors.
   R ..... No symbol : Ω
   K symbol : kΩ
   M symbol : MΩ
   Resistance not designated is 1/4, J(5%).
2. Voltage for all parts are measured in terms of DC 1MΩ digital voltmeter.
3. **Parts marked with ⚠ or [ ] are vital for maintenance of safety and performance. Be sure only designated parts are used for replacement.**
4. **The circuit figure shown here is the basic circuit diagram. Please note that changes in dimensions may occur as a result of improvements, etc.**

TRANSISTORS

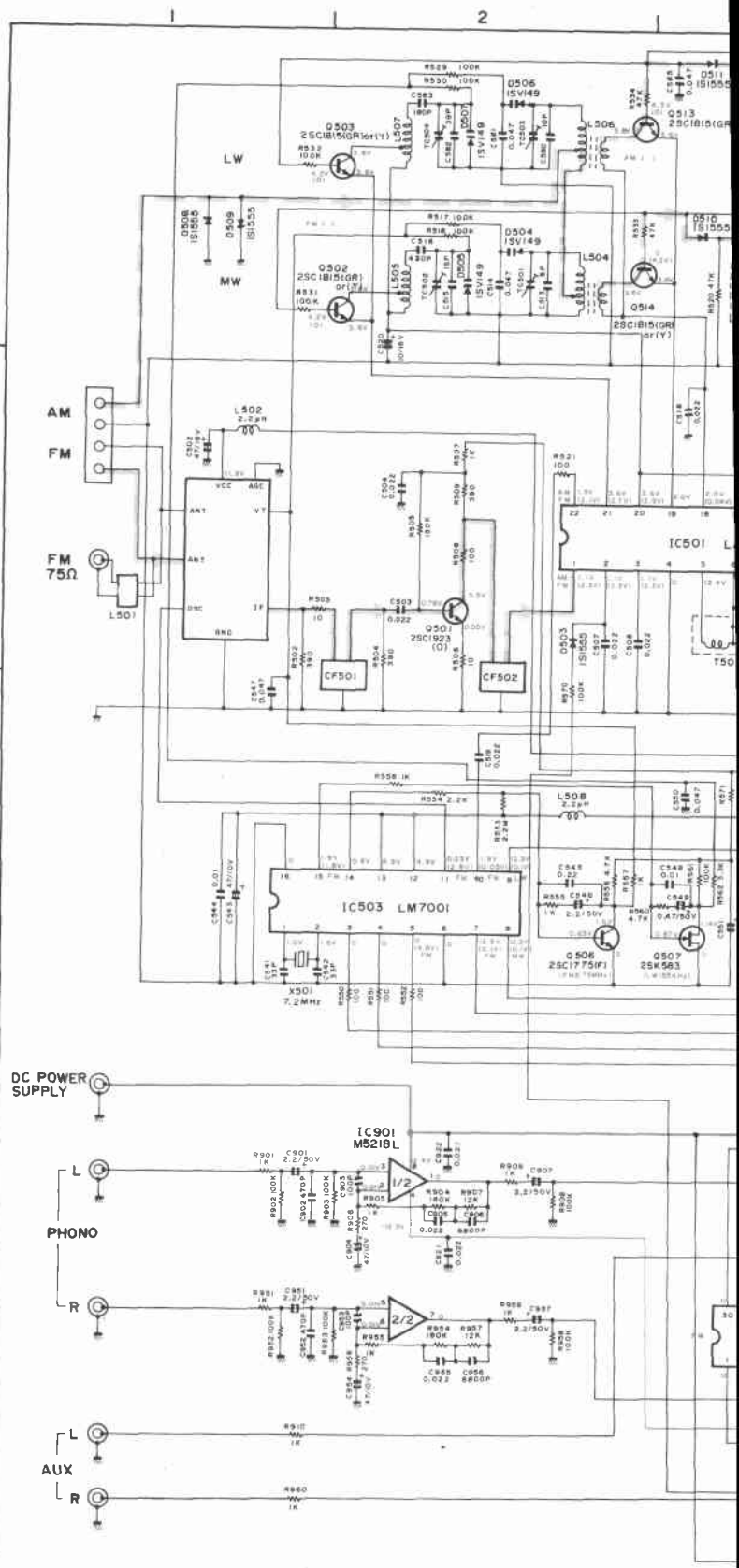
 2SC2320 2SC1923 2SC723 2SC1015 2SC1815 2SC1775 2SC535 2SC2120 2SA966 2SC2236 2SD667	 2SA1305 2SB1017	 2SA1359 2SC3422	 2SA1286 2SC3246
 2SK583	 2SK364	 2SD1450	 RN2203 RN1203 RN1202 RN2202

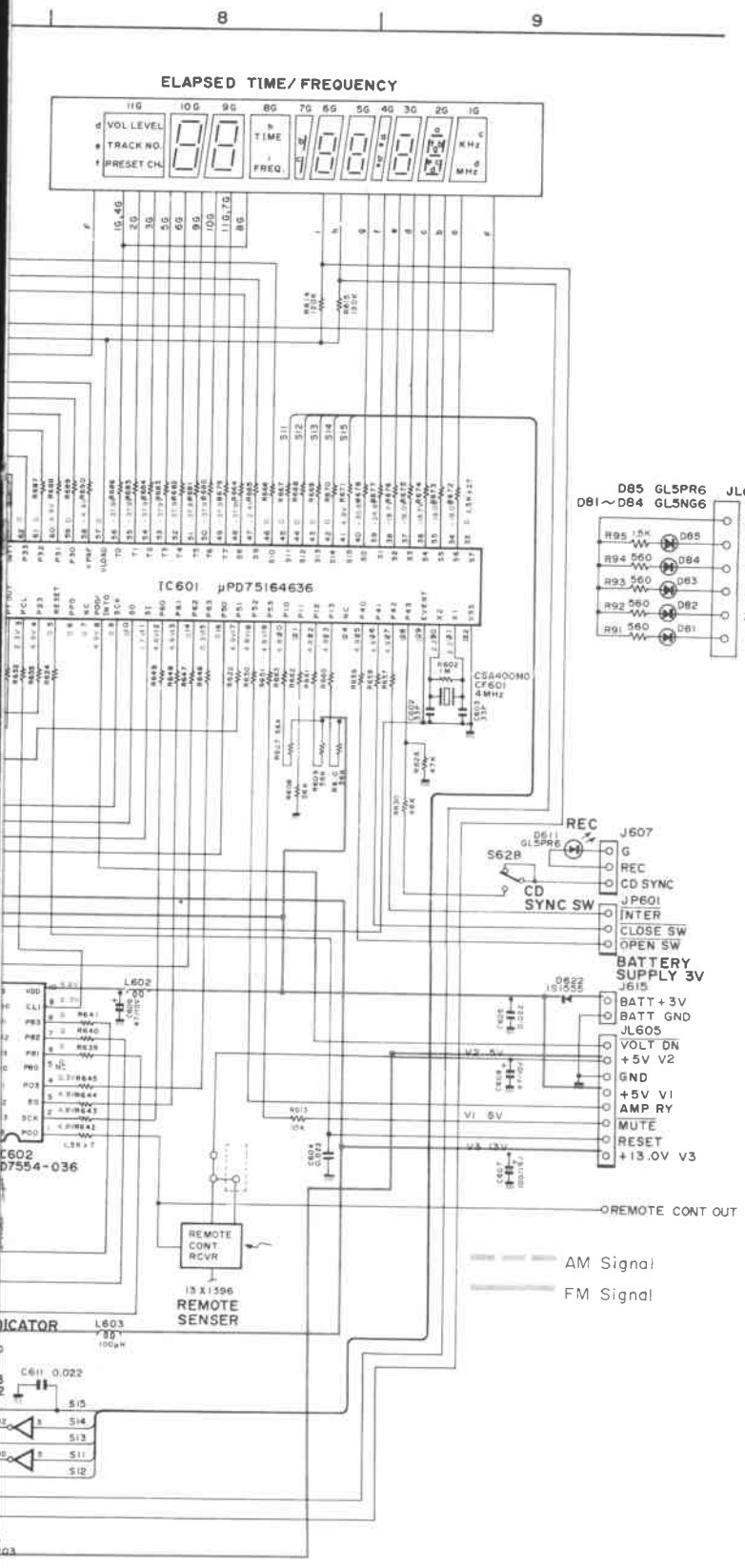
9


Q227
2SC1815
(GR) or (Y)
Q228
RN1203
Q231 : RN1203
J602
WQ
R/W
D OUT
D IN
SCK
CD ON
B
JP201
+5V
G
G
-12.5V
+12.5V
-12.5V
+12.5V
J603
LD ON
OPEN
CLOSE
C

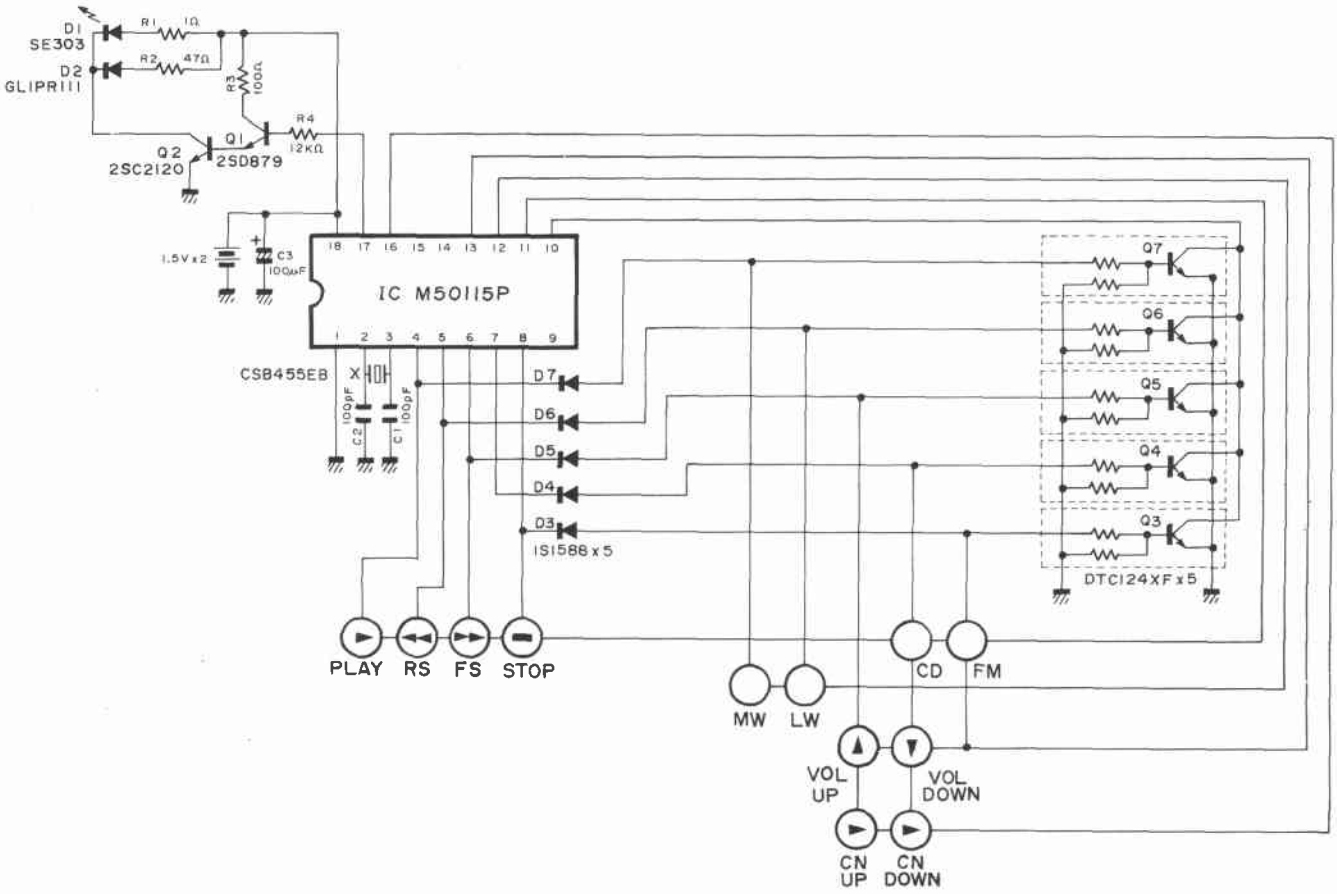

IC502 LA3410
LPF502
LPF501
REC OUT
J503
-B
+B
+5V
L OUT
GND
R OUT
CN501
CD-L
GND
CD-R
MONO
STEREO
TUNE
TC-CE
TC-CL
TC-DATA
MUTE
CN610
CN502
TAPE-L
GND
TAPE-R
TAPE CONT
REC OUT-L
GND
REC OUT-R
VR901
REC VOLUME
IC902 LC7818
CN608
FM LED
MW LED
LW LED
TUNER
AUX
TAPE
PHONO
CD
JL603
CLOSE
OPEN
LD ON
V LOAD
JL606
JL604
V ST
V DATA
V CK
MONO/ST SW
STEREO
S627
FM MODE
auto
mono
TUNING
J610
CD ON
SCK
D IN
D OUT
R/W
WQ
JL602
JL613
JL608
FM
MW
LW
TUNER
AUX
TAPE
PHONO
CD

TUNER AND FRONT SECTION

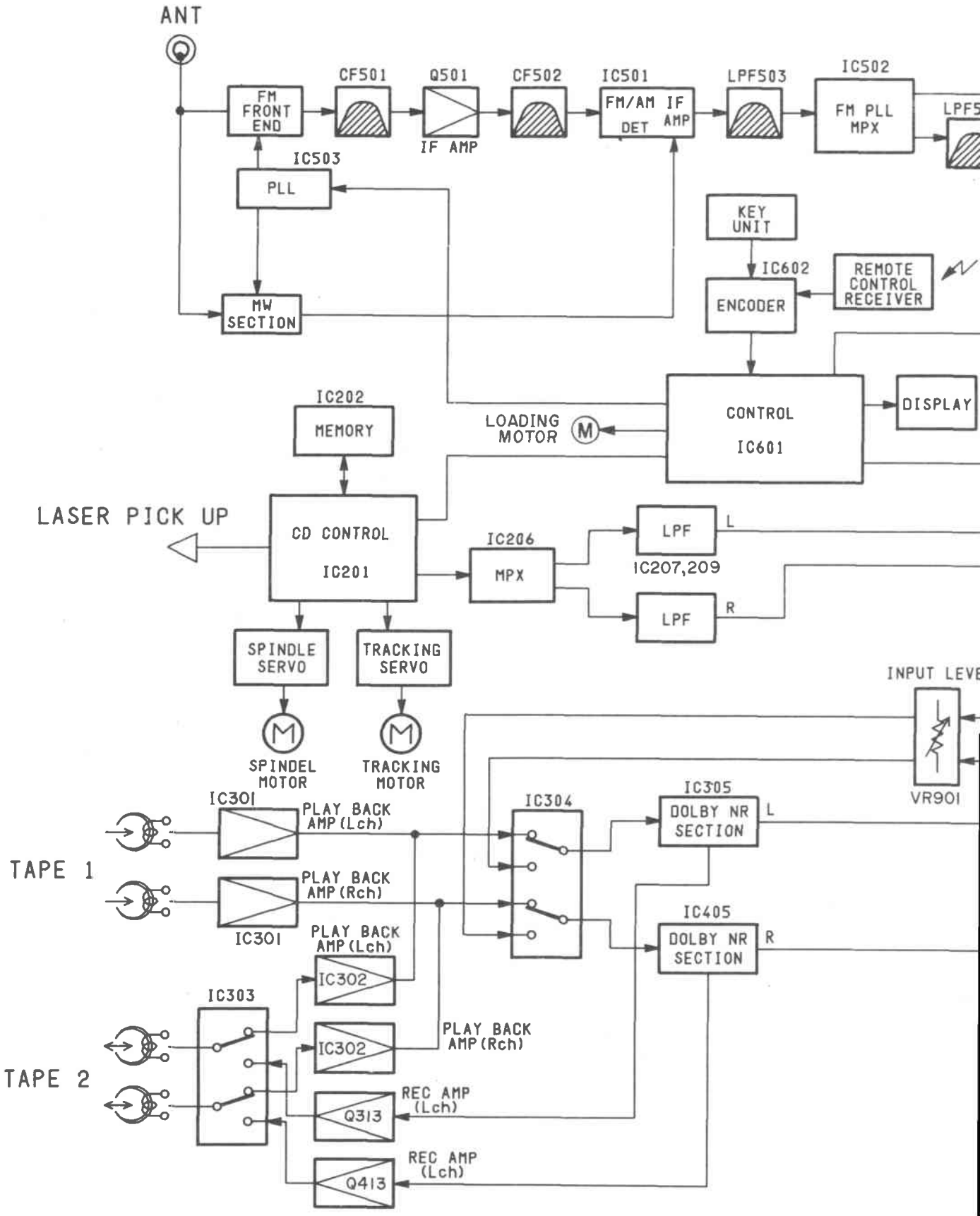


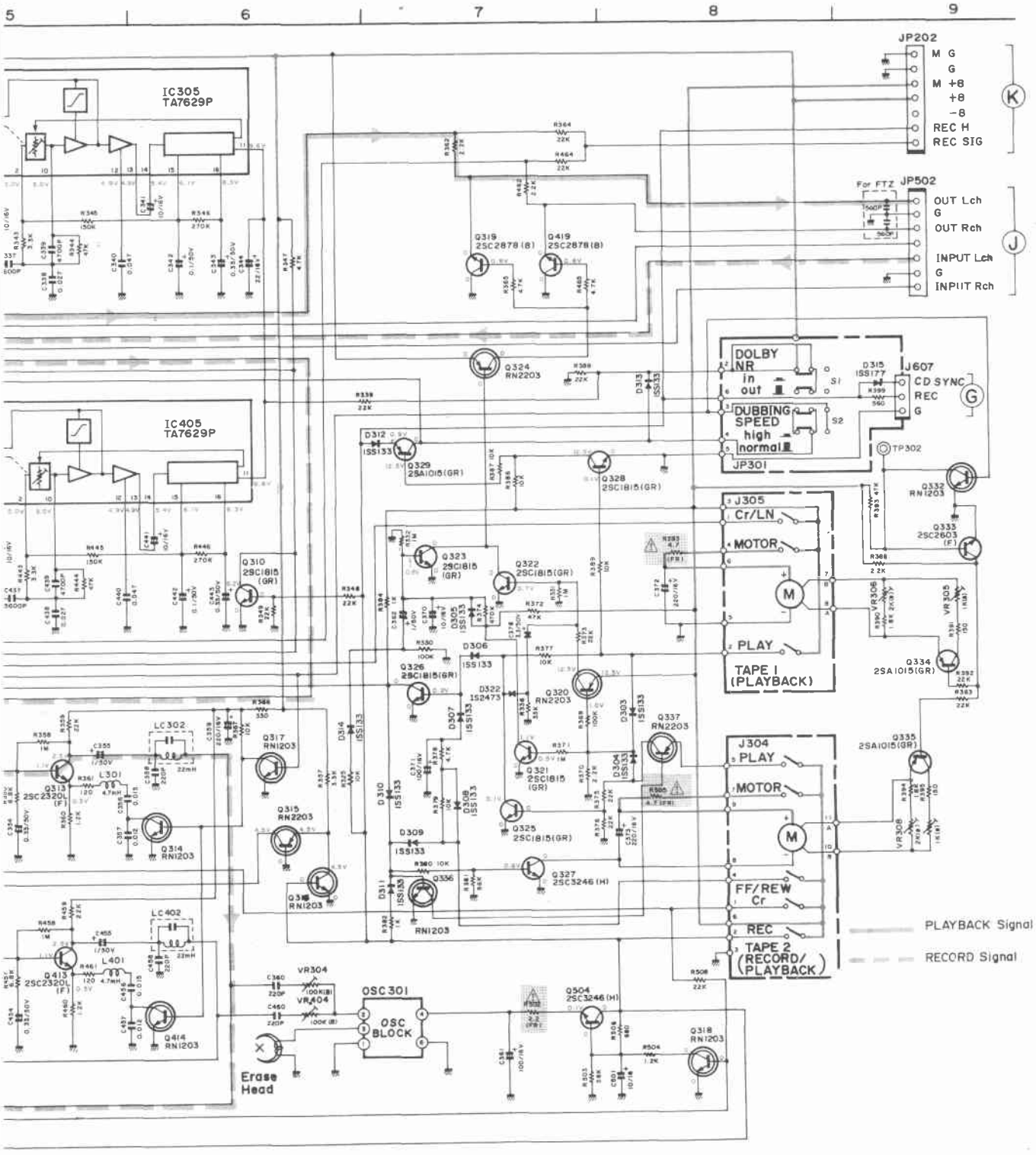

8
9
ELAPSED TIME/ FREQUENCY
VOL LEVEL
TRACK NO.
PRESET CH.
TIME
FREQ.
KHz
MHz
IC601 μPD75164636
CSA400M0
CF601
4MHz
D85 GL5PR6
D81~D84 GL5NG6
JL609
COM
5
4
3
2
1
R95 1.5K
R94 560
R93 560
R92 560
R91 560
D85
D84
D83
D82
D81
REC
D611
GL5PR6
J607
G
REC
CD SYNC
S628
CD
SYNC SW
JP601
INTER
CLOSE SW
OPEN SW
BATTERY
SUPPLY 3V
J615
BATT +3V
BATT GND
JL605
VOLT DN
+5V V2
GND
+5V V1
AMP RY
MUTE
RESET
+13.0V V3
REMOTE CONT OUT
AM Signal
FM Signal
REMOTE
CONT
RCVR
13X1596
REMOTE
SENSER
L602
L603
C611 0.022
S15
S14
S13
S11
S12

REMOTE CONTROL SECTION

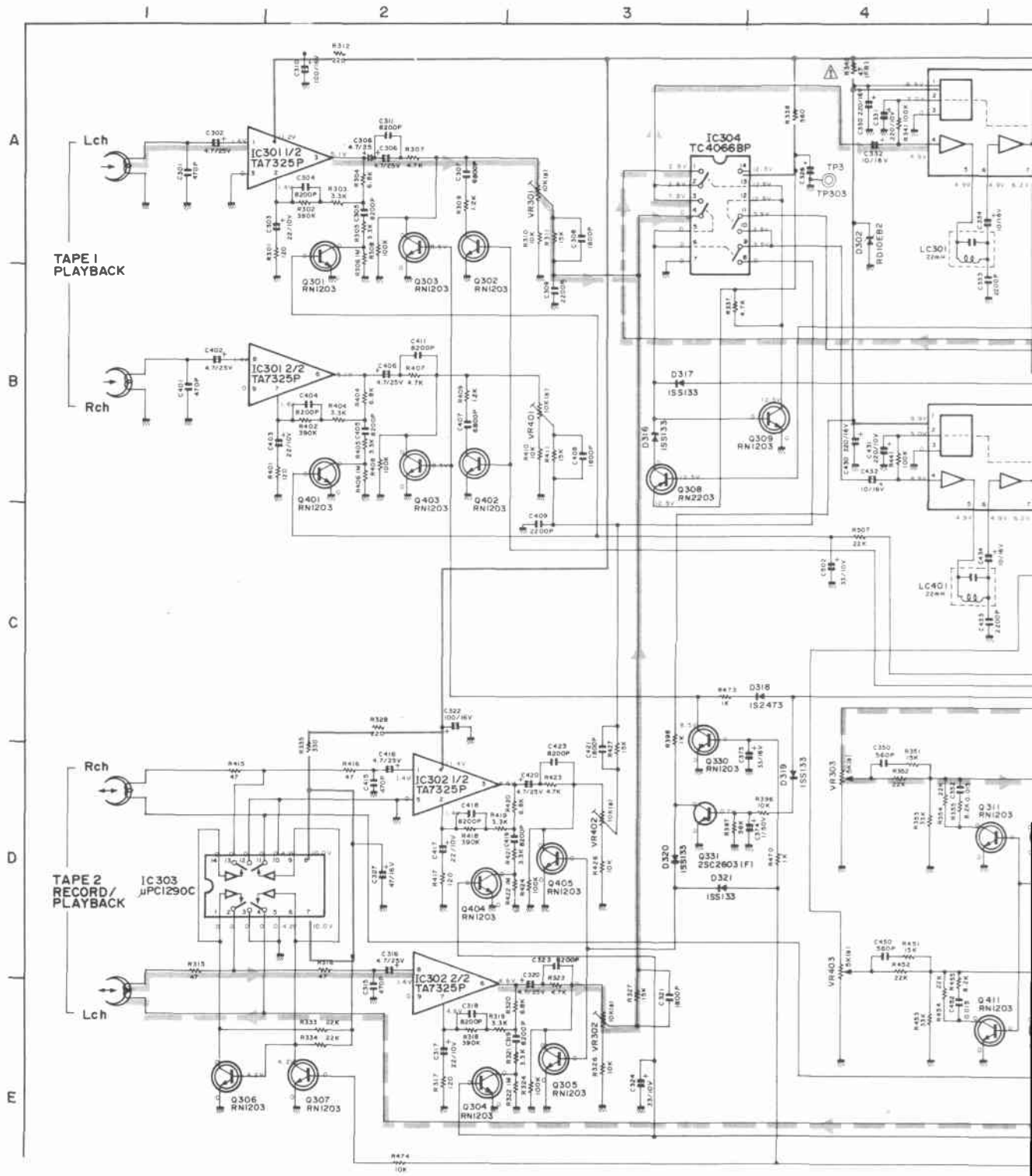


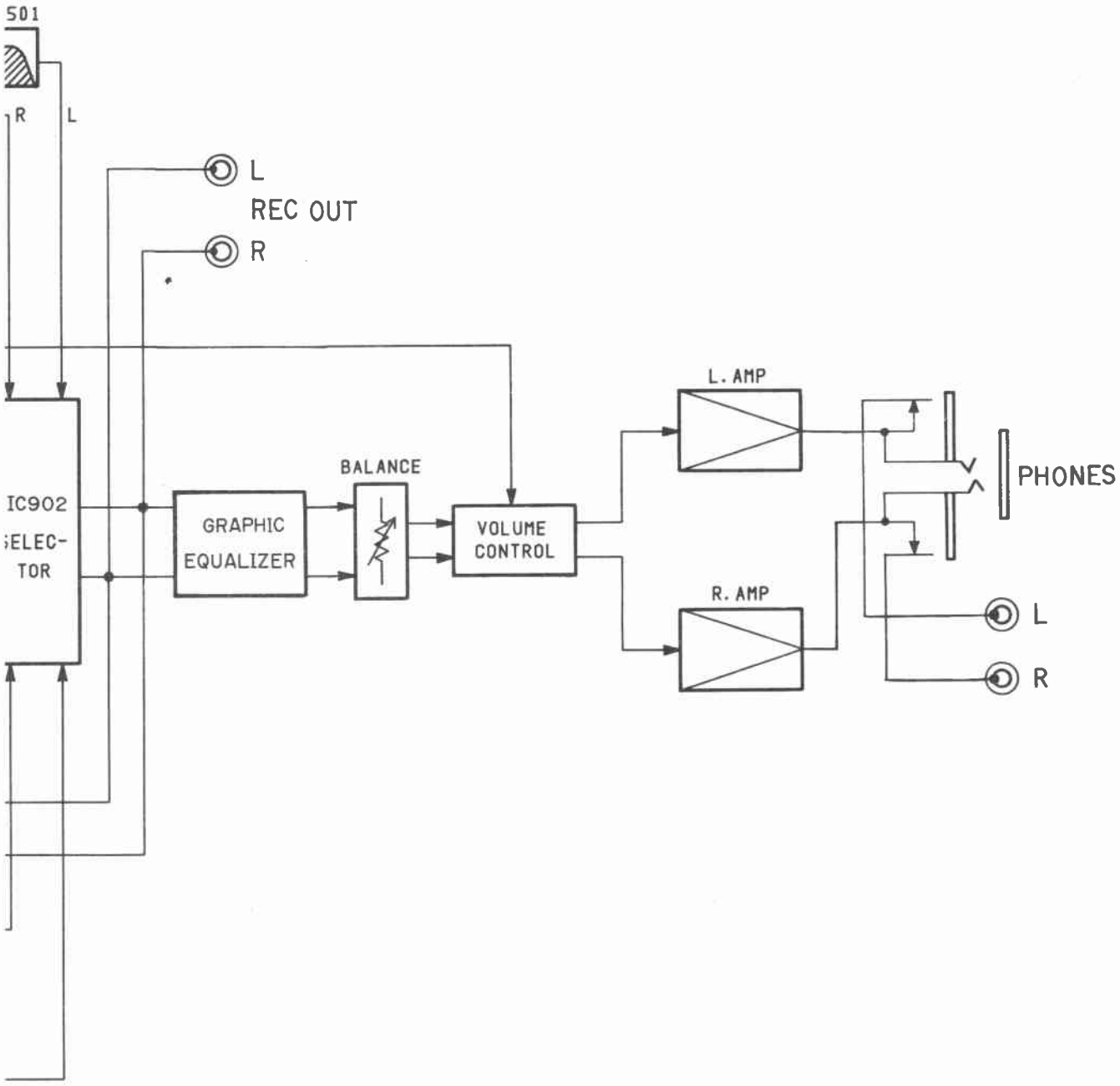
BLOCK DIAGRAM

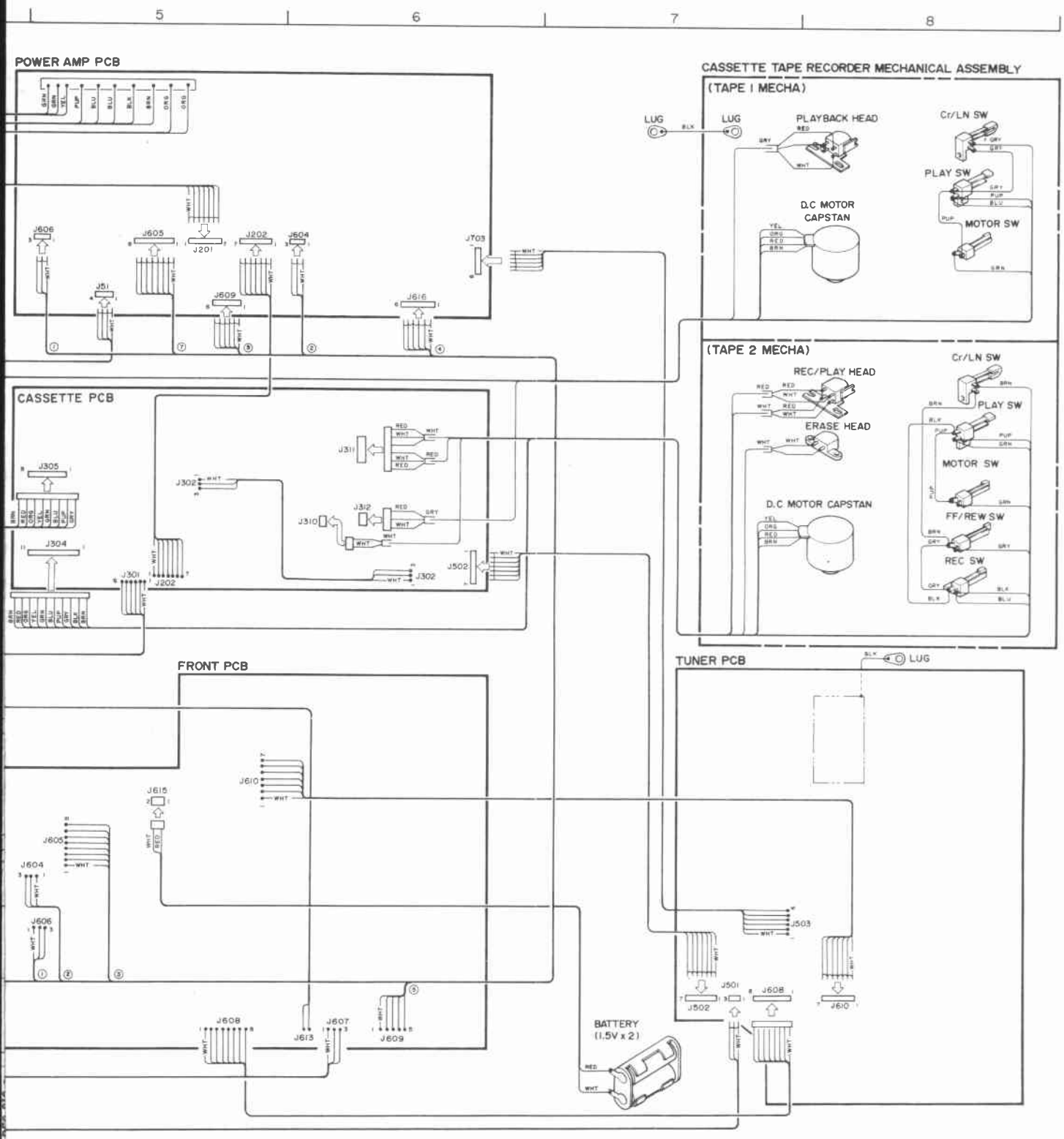



5
6
7
8
9
IC305
TA7629P
IC405
TA7629P
JP202
M G
G
M +8
+8
-8
REC H
REC SIG
K
For FTZ
JP502
OUT Lch
G
OUT Rch
INPUT Lch
G
INPUT Rch
J
Q319
2SC2878(B)
Q419
2SC2878(B)
Q324
RN2203
DOLBY NR
in
out
S1
DUBBING SPEED
high
normal
S2
JP301
D315
1SS177
J607
CD SYNC
REC
G
TP302
Q328
2SC1815(GR)
Q329
2SA1015(GR)
Q332
RN1203
Q333
2SC2603(F)
Q310
2SC1815(GR)
Q323
2SC1815(GR)
Q322
2SC1815(GR)
J305
Cr/LN
MOTOR
PLAY
TAPE 1
(PLAYBACK)
Q326
2SC1815(GR)
Q320
RN2203
Q337
RN2203
Q334
2SA1015(GR)
Q317
RN1203
Q313
2SC2320L(F)
LC302
L301
Q314
RN1203
Q315
RN2203
Q316
RN1203
Q321
2SC1815(GR)
Q325
2SC1815(GR)
Q327
2SC3246(H)
Q335
2SA1015(GR)
J304
PLAY
MOTOR
FF/REW
Cr
REC
TAPE 2
(RECORD/
(PLAYBACK)
Q413
2SC2320L(F)
LC402
L401
Q414
RN1203
VR304
VR404
OSC301
OSC BLOCK
Erase Head
Q504
2SC3246(H)
Q318
RN1203
PLAYBACK Signal
RECORD Signal

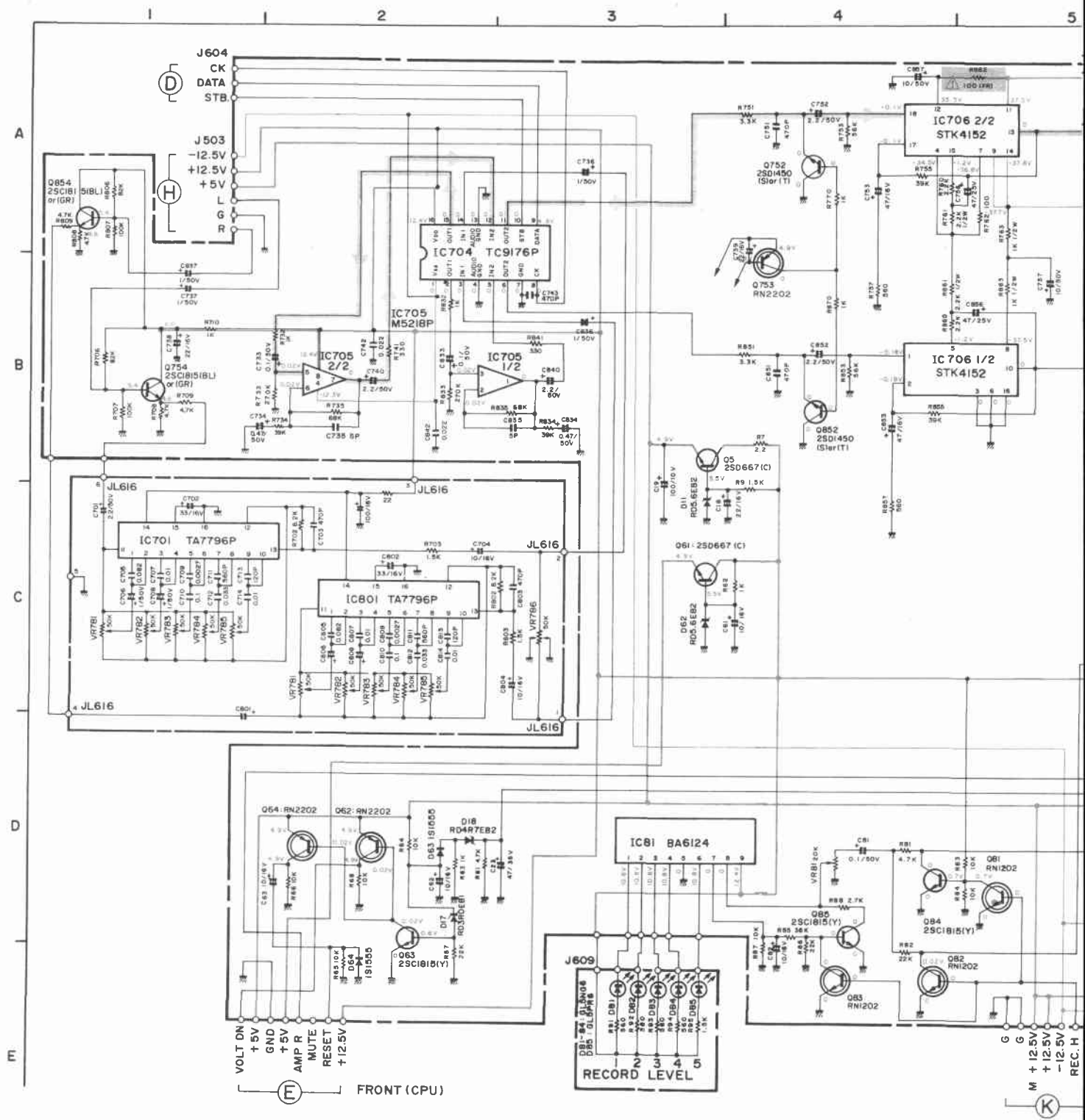
CASSETTE TAPE DECK SECTION



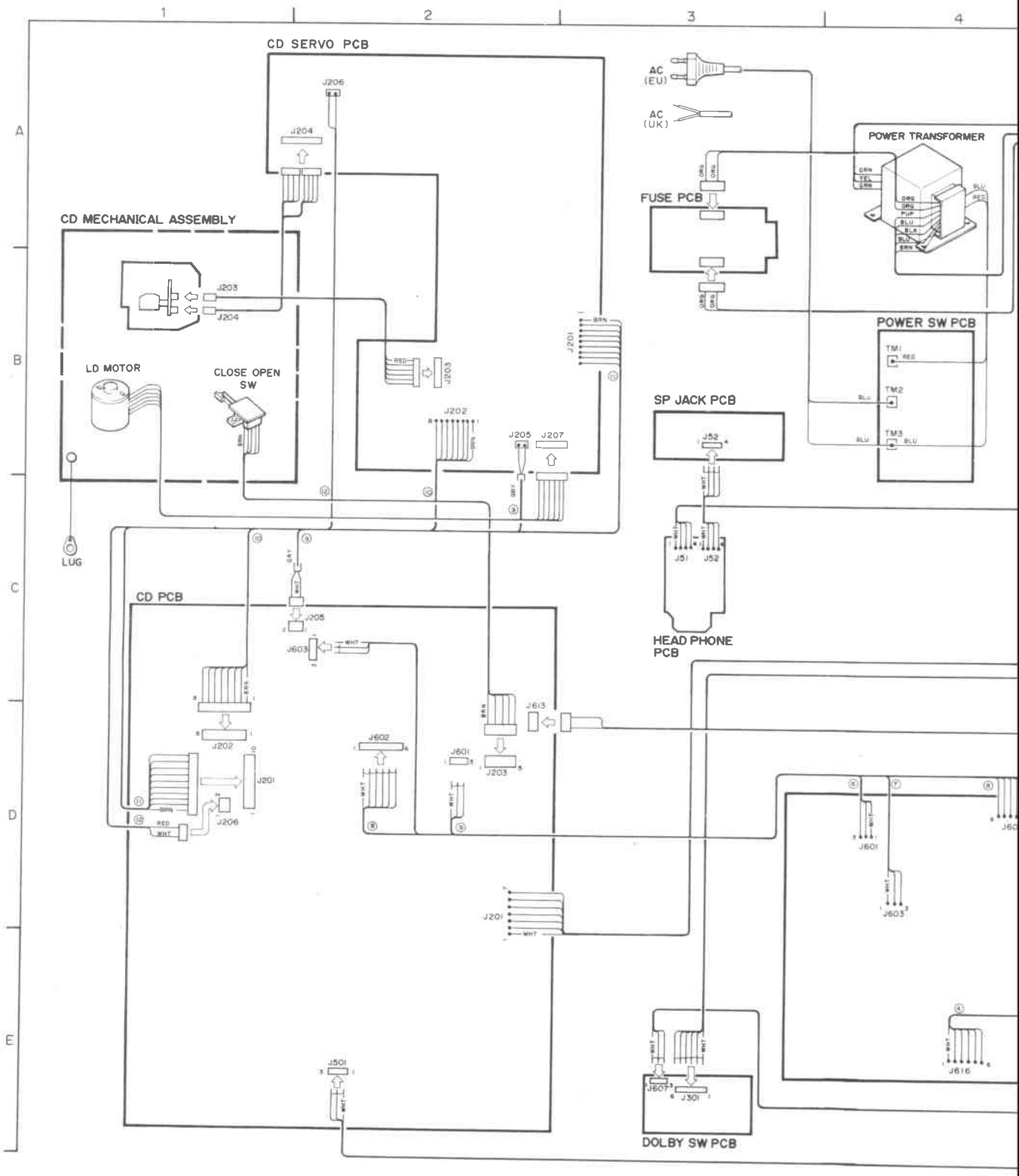

501
R
L
L
REC OUT
R
IC902
ELEC-
TOR
GRAPHIC
EQUALIZER
BALANCE
VOLUME
CONTROL
L. AMP
R. AMP
PHONES
L
R

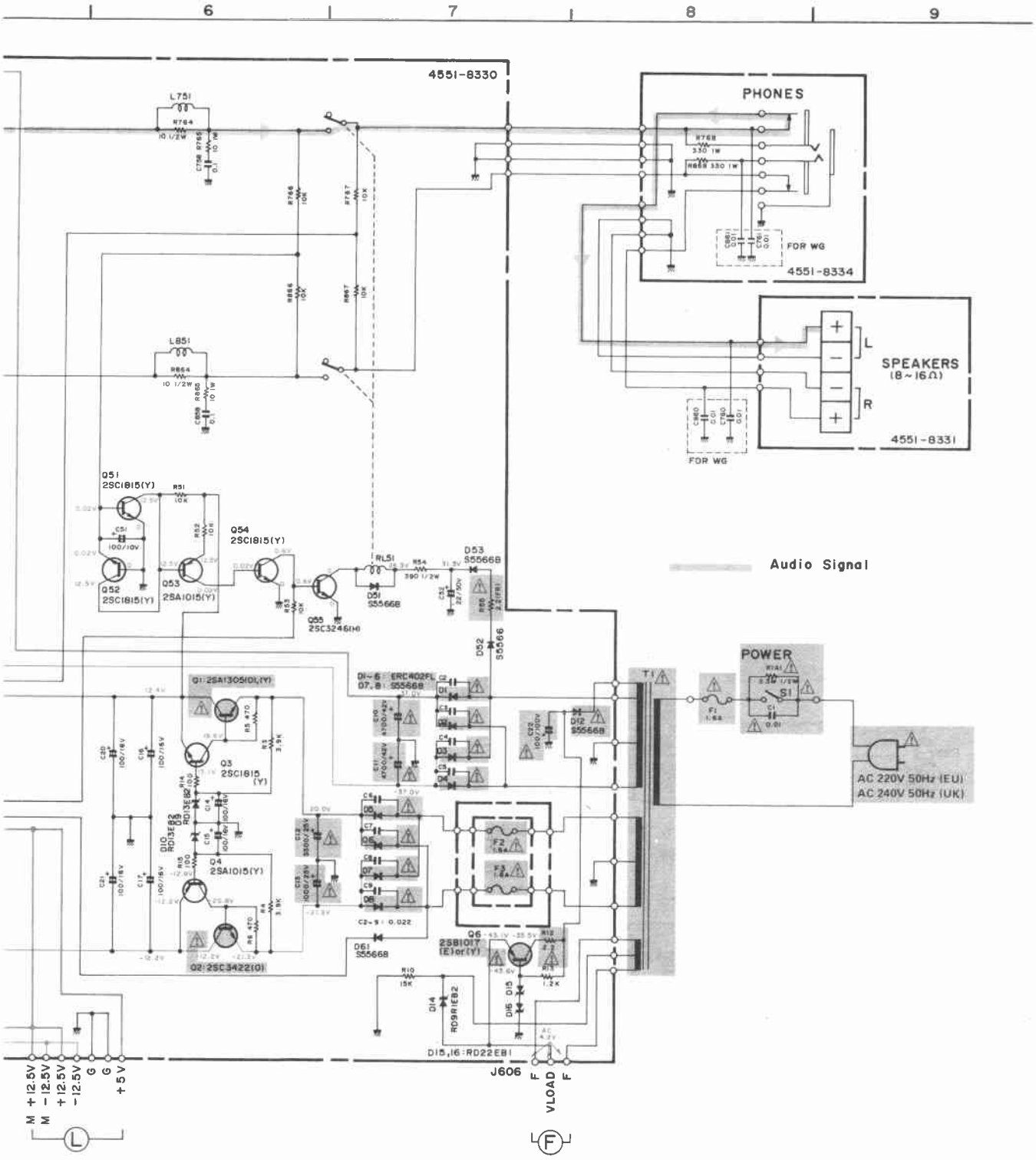

5
6
7
8
POWER AMP PCB
CASSETTE TAPE RECORDER MECHANICAL ASSEMBLY
(TAPE 1 MECHA)
LUG
LUG
PLAYBACK HEAD
Cr/LN SW
PLAY SW
D.C MOTOR CAPSTAN
MOTOR SW
(TAPE 2 MECHA)
REC/PLAY HEAD
Cr/LN SW
PLAY SW
ERASE HEAD
MOTOR SW
D.C MOTOR CAPSTAN
FF/REW SW
REC SW
CASSETTE PCB
FRONT PCB
TUNER PCB
LUG
BATTERY
(1.5V x 2)
J606
J605
J202
J604
J703
J201
J51
J609
J616
J305
J304
J301
J202
J311
J302
J312
J310
J302
J502
J615
J610
J605
J604
J606
J608
J613
J607
J609
J503
J501
J502
J608
J610

POWER AND TONE CONTROL SECTION



WIRING DIAGRAM



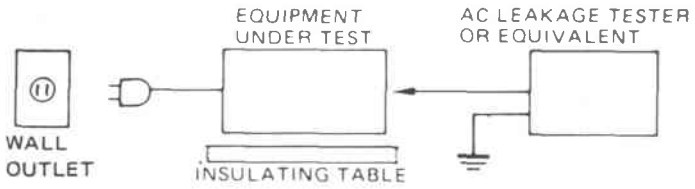

6
7
8
9
4551-8330
PHONES
FOR WG
4551-8334
SPEAKERS
(8~16Ω)
L
R
4551-8331
FOR WG
Audio Signal
POWER
AC 220V 50Hz (EU)
AC 240V 50Hz (UK)
M +12.5V
M -12.5V
+12.5V
-12.5V
G
G
+5V
J606
F
VLOAD
F

TO SERVICE PERSONNEL

1. Critical Components Information
   Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.

2. Leakage Current Measurement (For 120V Model Only)
   When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.

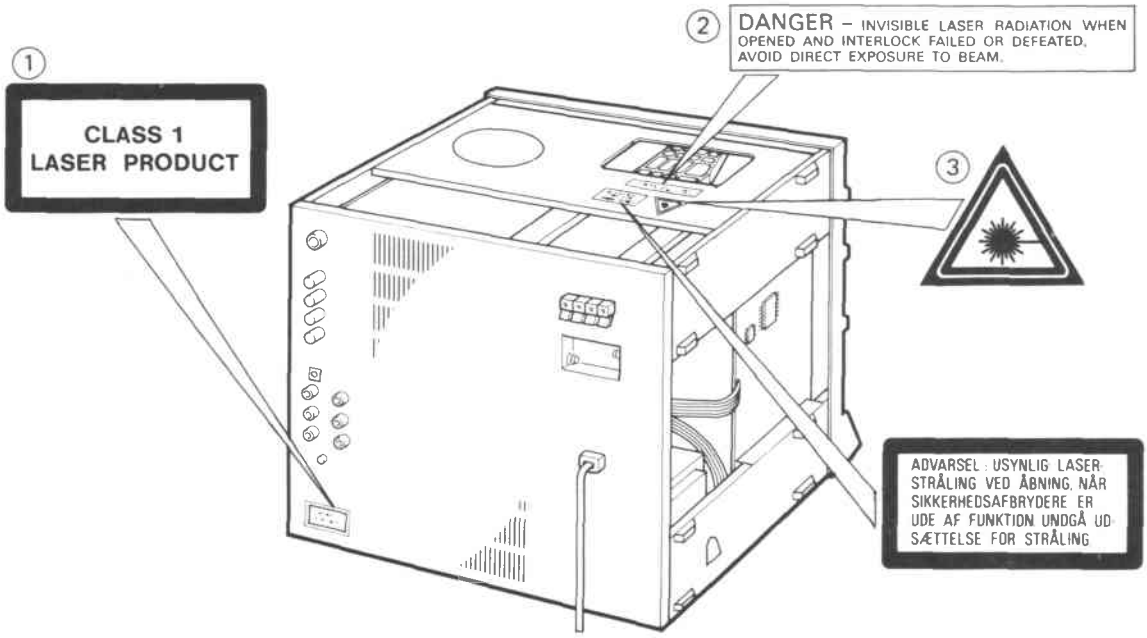
- Meter impedance should be equivalent to 1500 ohm shunted by 0.15μF
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



CAUTION – USE OF CONTROLS, ADJUSTMENTS, OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN, MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

VAROITUS! Laite sisältää laserdiodin, joka lähettää näkymätöntä silmille vaarallista lasersäteilyä



(1) This label is attached to the place as illustrated to inform that the apparatus contains a laser component.
(2) This label is attached in the position shown in the illustration. So that any further procedure will bring the user into exposure with the laser beam.
(3) The warning label informing of radiation is placed inside the unit. As shown in the illustration. To warn against further measures on the unit. The equipment contains a laser component radiating laser rays exceeding the limit of laser products of class 1.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein hazardous radiation exposure.

Symbol No.	Parts No.	Description	Remarks
	Electrical parts		
T501	5572-00116	DISCRI 7	
T502	5552-00712	AM IF TRANS	
TC501	5371-93	TRIMMER 1P	
TC502	5371-93	TRIMMER 1P	
TC503	5371-94	TRIMMER 1P	
TC504	5371-94	TRIMMER 1P	
	4214-164	TERMINAL	
	4486-15	PIN JACK 6P	
	4214-167	TERMINAL	
	4474-219	SOCKET	
CF501	5671-4110A	CERAMIC FILTER	
CF502	5671-4110A	CERAMIC FILTER	
CF503	5671-0159	CERAMIC FILTER	
CF504	5693-CSB456F1	OSC CERAMIC	
L501	5214-85	LC COMPOSITE	
L502	5995-2R2M82	W/CORE COIL	
L503	5995-2R2M82	W/CORE COIL	
L504	5933-00232	COIL CASE 10	
L505	5922-00115	OSC COIL 7	
L506	5933-00132	COIL CASE 10	
L507	5922-01010	OSC COIL 7	
L508	5995-2R2M82	W/CORE COIL	
LPF501	5214-75	LC COMPOSITE	
LPF502	5214-75	LC COMPOSITE	
X501	5691-00720027	OSC CRYSTAL	

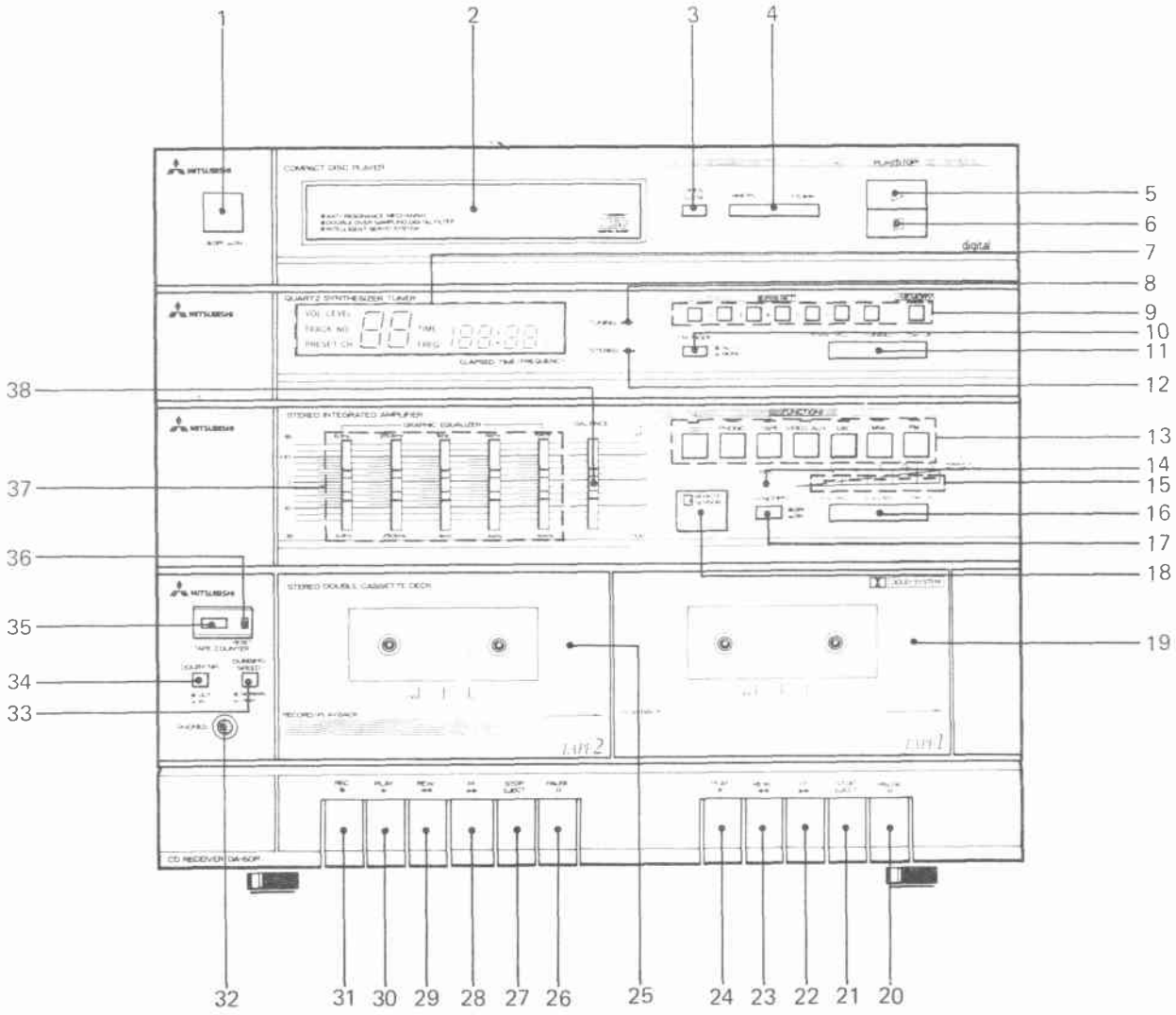
PACKING

Symbol No.	Parts No.	Description	Remarks
110	1222-1072	CUSHION(REAR)	
110	1222-1073	CUSHION(FRONT)	
111	1241-C12165	PACKING BAG(ACC)	
111	1241-C12402	PACKING(AC CORD)	
112	1223-130030E	SOFT SHEET(SET)	
113	1223-100040E	SOFT SHEET(SET)	
114	1221-01821	PACKING BOX	
115	1111-F70277	INSTRUCTION BOOKLET	
		REMOTE CONTROL UNIT	
	1397-9	FM ANTENNA	
	5913-151	ANTENNA COIL(AM)	

OTHER

Symbol No.	Parts No.	Description	Remarks
	Diodes		
D1	5631-1S1555	1S1555	
D2	5631-1S1555	1S1555	
	Electrical parts		
T1	5584-702519	POWER TRANS(EU) ⚠	M04A24500
T1	5584-703519	POWER TRANS(UK) ⚠	M04A24501
F1	5732-162054	FUSE ⚠	
F2	5732-162054	FUSE ⚠	
F3	5732-162054	FUSE ⚠	
	4161-09212	AC CORD (EU) ⚠	M04A24490
	4161-16051	AC CORD (UK) ⚠	M04A24491

FRONT PANEL TERMINOLOGY AND FUNCTIONS



1. **POWER Switch**
   When pressed once, the power is turned on. Press again to turn the power off.

Muting Circuit
This unit is equipped with a muting circuit that delays operation for 5 seconds after power is switched on.

2. **Disc Drawer**

3. **Disc Drawer OPEN/CLOSE Button**
   Press once to open the disc drawer and once again to close it.

4. **CD Track No. Selection Button (I◄◄RS , FS►►I)**
   Press this button to select the CD's track number. When the right side (FS►►I) is pressed, the track number increases. Press the left side (I◄◄RS) to decrease the number.

5. **CD PLAY (▷) Button**

6. **CD STOP (□) Button**

7. **Digital Display**
   When Listening to CD (Compact Disc):

The number of the track being played and the elapsed time for each track are displayed.

When Listening to the Radio:

The station frequency is displayed.
When a preset station is selected; the channel preset number is displayed.

FRONT, CASSETT

ymbol NO.	Part
1	5632-ERC
2	5632-ERC
3	5632-ERC
4	5632-ERC
5	5632-ERC
6	5632-ERC
7	D5632-S5
8	D5632-S5
9	5635-RD1
010	5635-RD1
011	5635-RD5
012	D5632-S5
014	5635-RD9
015	5635-RD2
016	5635-RD2
017	5635-RD3
018	5635-RD4
051	D5632-S5
052	D5632-S5
053	D5632-S5
D61	D5632-S5
D62	5635-RD5
D63	D5631-1S
D64	D5631-1S
D81	5637-GL5
D82	5637-GL5
D83	5637-GL5
D84	5637-GL5
D85	5637-GL5
D302	5635-RD1
D303	D5631-1S
D304	D5631-1S
D305	D5631-1S
D306	D5631-1S
D307	D5631-1S
D308	D5631-1S
D309	D5631-1S
D310	D5631-1S
D311	D5631-1S
D312	D5631-1S
D313	D5631-1S
D315	D5631-1S
D316	D5631-1S
D317	D5631-1S
D318	D5631-1S
D319	D5631-1S
D320	D5631-1S
D321	D5631-1S
D322	5631-1S1
D602	5637-GL5
D603	5637-GL5

Symbol No.	Parts No.	Description	Remarks
S611	4431-A017240	SW PUSH	M04A23356
S612	4431-A017240	SW PUSH	M04A23356
S613	4431-A017240	SW PUSH	M04A23356
S614	4431-A017240	SW PUSH	M04A23356
S615	4431-A017240	SW PUSH	M04A23356
S616	4431-A017240	SW PUSH	M04A23356
S617	4431-A017240	SW PUSH	M04A23356
S618	4431-A017240	SW PUSH	M04A23356
S619	4431-A017240	SW PUSH	M04A23356
S620	4431-A017240	SW PUSH	M04A23356
S621	4431-A017240	SW PUSH	M04A23356
S622	4431-A017240	SW PUSH	M04A23356
S623	4431-A017240	SW PUSH	M04A23356
S624	4431-A017240	SW PUSH	M04A23356
S625	4431-A017240	SW PUSH	M04A23356
S626	4431-A017240	SW PUSH	M04A23356
S627	4431-A017178	SW PUSH	M04A23357
S628	4431-A017178	SW PUSH	M04A23357
VR81	5101-203083H	VRSEMI	M04207411
VR301	5101-10301927	VR SEMI 10KΩ	M04A23411
VR302	5101-10301927	VR SEMI 10KΩ	M04A23411
VR303	5101-50201927	VR SEMI 5KΩ	M04A23412
VR304	5101-10401927	VR SEMI 100KΩ	M04A23413
VR305	5101-10201932	VR SEMI 1KΩ	M04A23414
VR306	5101-20201932	VR SEMI 2KΩ	M04A23415
VR307	5101-10201932	VR SEMI 1KΩ	M04A23414
VR308	5101-20201932	VR SEMI 2KΩ	M04A23415
VR401	5101-10301927	VR SEMI 10KΩ	M04A23411
VR402	5101-10301927	VR SEMI 10KΩ	M04A23411
VR403	5101-50201927	VR SEMI 5KΩ	M04A23412
VR404	5101-10401927	VR SEMI 100KΩ	M04A23413
VR781	5225-5030115	VR 50KWX2	
VR782	5225-5030115	VR 50KWX2	
VR783	5225-5030115	VR 50KWX2	
VR784	5225-5030115	VR 50KWX2	
VR785	5225-5030115	VR 50KWX2	
VR786	5225-5030116	VR 50KW	

TUNER P.C.B

Symbol No.	Parts No.	Description	R
	Diodes		
D503	D5631-1S1555	1S1555	
D504	5633-1SV149	1SV149	M04
D505	5633-1SV149	1SV149	M04
D506	5633-1SV149	1SV149	M04
D507	5633-1SV149	1SV149	M04
D508	D5631-1S1555	1S1555	
D509	D5631-1S1555	1S1555	
D510	D5631-1S1555	1S1555	
D511	D5631-1S1555	1S1555	
D512	D5631-1S1555	1S1555	
D513	D5631-1S1555	1S1555	
D514	D5631-1S1555	1S1555	
D515	D5631-1S1555	1S1555	
	ICs		
IC501	5653-LA1265	LA1265	
IC502	5653-LA3410	LA3410	
IC503	5654-LM7001	LM7001	M04A
IC901	5652-M5218L	M5218L	M04A
IC902	5654-LC7818	LC7818	M04A
	Transistors		
Q501	A5613-1923(O)	2SC1923(O)	
Q502	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q503	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q504	A5611-RN2203	RN2203	M04A
Q505	A5611-RN2203	RN2203	M04A
Q506	5613-1775(F)	2SC1775(F)	M04A
Q507	5616-2SK583	2SK583	
Q508	A5611-RN2203	RN2203	M04A
Q513	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q514	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q901	5614-1450(R)(S)	2SC1450(R)(S)	M042
Q902	5614-1450(R)(S)	2SC1450(R)(S)	M042
Q903	A5611-RN2203	RN2203	M04A
Q904	A5611-RN2203	RN2203	M04A
Q905	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q906	A5613-1815(GR)(Y)	2SC1815(GR)(Y)	
Q907	A5611-RN2203	RN2203	M04A

Symbol No.	Parts No.	Description	Remarks
Q81	A5613-RN1202	RN1202	M04A23307
Q82	A5613-RN1202	RN1202	M04A23307
Q83	A5613-RN1202	RN1202	M04A23307
Q84	A5613-1815(Y)	2SC1815(Y)	
Q85	A5613-1815(Y)	2SC1815(Y)	
Q301	A5613-RN1203	RN1203	M04A06300
Q302	A5613-RN1203	RN1203	M04A06300
Q303	A5613-RN1203	RN1203	M04A06300
Q304	A5613-RN1203	RN1203	M04A06300
Q305	A5613-RN1203	RN1203	M04A06300
Q306	A5613-RN1203	RN1203	M04A06300
Q307	A5613-RN1203	RN1203	M04A06300
Q308	A5611-RN2203	RN2203	M04A23309
Q309	A5613-RN1203	RN1203	M04A06300
Q310	A5613-1815(GR)	2SC1815(GR)	
Q311	A5613-RN1203	RN1203	M04A06300
Q312	A5613-1815(GR)	2SC1815(GR)	
Q313	A5613-723TM(GR)	2SC723TM(GR)	
Q314	A5613-RN1203	RN1203	M04A06300
Q315	A5611-RN2203	RN2203	M04A23309
Q316	A5613-RN1203	RN1203	M04A06300
Q317	A5613-RN1203	RN1203	M04A06300
Q318	A5613-RN1203	RN1203	M04A06300
Q319	5613-2878(B)	2SC2878(B)	M04207306
Q320	A5611-RN2203	RN2203	M04A23309
Q321	A5613-1815(GR)	2SC1815(GR)	
Q322	A5613-1815(GR)	2SC1815(GR)	
Q323	A5613-1815(GR)	2SC1815(GR)	
Q324	A5611-RN2203	RN2203	M04A23309
Q325	A5613-1815(GR)	2SC1815(GR)	
Q326	A5613-1815(GR)	2SC1815(GR)	
Q327	5613-3246(H)	2SC3246(H)	M04207380
Q328	A5613-1815(GR)	2SC1815(GR)	
Q329	A5611-1015(GR)	2SA1015(GR)	
Q330	A5613-RN1203	RN1203	M04A06300
Q331	A5613-1815(GR)	2SC1815(GR)	
Q332	A5613-RN1203	RN1203	M04A06300
Q333	A5613-1815(GR)	2SC1815(GR)	
Q334	A5611-1015(GR)	2SA1015(GR)	
Q335	A5611-1015(GR)	2SA1015(GR)	
Q401	A5613-RN1203	RN1203	M04A06300
Q402	A5613-RN1203	RN1203	M04A06300
Q403	A5613-RN1203	RN1203	M04A06300
Q404	A5613-RN1203	RN1203	M04A06300
Q405	A5613-RN1203	RN1203	M04A06300
Q411	A5613-RN1203	RN1203	M04A06300
Q412	A5613-1815(GR)	2SC1815(GR)	
Q413	A5613-723TM(GR)	2SC723TM(GR)	
Q414	A5613-RN1203	RN1203	M04A06300
Q419	5613-2878(B)	2SC2878(B)	M04207306
Q504	5613-3246(H)	2SC3246(H)	M04207380
Q601	A5611-RN2203	RN2203	M04A2309
Q602	A5611-RN2203	RN2203	M04A2309

Symbol No.	Parts No.	Description	Remarks
Q603	5616-2SK364(V)(BL)	2SK364(V)(BL)	
Q752	5614-1450(S)(T)	2SD1450(S)(T)	M04200301
Q753	A5611-RN2202	RN2202	M04A23304
Q852	5614-1450(S)(T)	2SD1450(S)(T)	M04200301
	Electrical parts		
	4214-157	TERMINAL	M04A21480
	5613-RN1203	RN1203	M04A06300
	5611-RN2203	RN2203	M04A23309
	4451-04154	JACK (HEAD PHONE)	M04A01475
	6143-00101	RECEIVE UNIT	M04A23556
	5722-20	TUBE DISPLAY	M04A23340
C10	5341-478W0955	C-ELECT 4700μF/42V	M04A23430
C11	5341-478W0955	C-ELECT 4700μF/42V	M04A23430
CF601	5693-CSA400MG	OSC CERAMIC	M04A23512
L301	5995-472175	W/CORE COIL	M04A01510
L401	5995-472175	W/CORE COIL	M04A01510
L601	5995-101074	W/CORE COIL	M04A23514
L602	5995-101269	W/CORE COIL	M04A23513
L603	5995-101074	W/CORE COIL	M04A23514
L751	5991-0059	SPRING COIL	M04207516
L851	5991-0059	SPRING COIL	M04207516
LC301	5932-00217	COIL CASE 7	M04A23511
LC302	5214-80	LC COMPOSITE	M04A21441
LC401	5932-00217	COIL CASE 7	M04A23511
LC402	5214-80	LC COMPOSITE	M04A21441
OSC1	6171-1602	OS BLOCK	
R12	5102-2R25116	R-FUSE 2.2Ω ⚠	M04A23457
R55	5102-2R25116	R-FUSE 2.2Ω ⚠	M04A23457
R340	5102-4705116F	R-FUSE 470Ω ⚠	M04A23459
R383	5102-4R75116	R-FUSE 4.7Ω ⚠	M04A23455
R385	5102-4R75116	R-FUSE 4.7Ω ⚠	M04A23455
R502	5102-2R25116	R-FUSE 2.2Ω ⚠	M04A23457
R6A1	5102-2205116	R-FUSE 22Ω ⚠	
R862	5102-1015710	R-FUSE 10Ω ⚠	M04A06456
RL51	4331-20240140	RELAYDC	
S1	4431-A01716	SW PUSH (POWER)	M04A23358
S301	4431-A020284	SW PUSH	
S302	4431-A020284	SW PUSH	
S601	4431-A017240	SW PUSH	M04A23356
S602	4431-A017240	SW PUSH	M04A23356
S603	4431-A017240	SW PUSH	M04A23356
S606	4431-A017240	SW PUSH	M04A23356
S607	4431-A017240	SW PUSH	M04A23356
S608	4431-A017240	SW PUSH	M04A23356
S609	4431-A017240	SW PUSH	M04A23356
S610	4431-A017240	SW PUSH	M04A23356

FRONT, CASSETTE, POWER AMP P.C.B

Symbol NO.	Parts No.	Description	Remarks
Diodes			
D1	5632-ERC402FL	ERC402FL	M04A23322
D2	5632-ERC402FL	ERC402FL	M04A23322
D3	5632-ERC402FL	ERC402FL	M04A23322
D4	5632-ERC402FL	ERC402FL	M04A23322
D5	5632-ERC402FL	ERC402FL ⚠	M04A23322
D6	5632-ERC402FL	ERC402FL ⚠	M04A23322
D7	D5632-S5566B	S5566B ⚠	M05255320
D8	D5632-S5566B	S5566B ⚠	M05255320
D9	5635-RD13EB2	RD13EB2	M04184320
D10	5635-RD13EB2	RD13EB2	M04184320
D11	5635-RD5R6EB2	RD5.6EB2	M04A23325
D12	D5632-S5566B	S5566B ⚠	M05255320
D14	5635-RD9R1EB2	RD9.1EB2	M04207359
D15	5635-RD22EB1	RD22EB1	M04A23329
D16	5635-RD22EB1	RD22EB1	M04A23329
D17	5635-RD3R0EB1	RD3EB1	M04A23326
D18	5635-RD4R7EB2	RD4.7EB2	
D51	D5632-S5566B	S5566B	M05255320
D52	D5632-S5566B	S5566B	M05255320
D53	D5632-S5566B	S5566B	M05255320
D61	D5632-S5566B	S5566B	M05255320
D62	5635-RD5R6EB2	RD5.6EB2	M04A23325
D63	D5631-1S1555	1S1555	
D64	D5631-1S1555	1S1555	
D81	5637-GL5NG6	LED GL5NG6	M04A23328
D82	5637-GL5NG6	LED GL5NG6	M04A23328
D83	5637-GL5NG6	LED GL5NG6	M04A23328
D84	5637-GL5NG6	LED GL5NG6	M04A23328
D85	5637-GL5PR6	LED GL5PR6	M04A23329
D302	5635-RD10EB2	RD10EB2	
D303	D5631-1SS177	1SS177	
D304	D5631-1SS177	1SS177	
D305	D5631-1SS177	1SS177	
D306	D5631-1SS177	1SS177	
D307	D5631-1SS177	1SS177	
D308	D5631-1SS177	1SS177	
D309	D5631-1SS177	1SS177	
D310	D5631-1SS177	1SS177	
D311	D5631-1SS177	1SS177	
D312	D5631-1SS177	1SS177	
D313	D5631-1SS177	1SS177	
D315	D5631-1SS177	1SS177	
D316	D5631-1SS177	1SS177	
D317	D5631-1SS177	1SS177	
D318	D5631-1S1555	1S1555	
D319	D5631-1SS177	1SS177	
D320	D5631-1SS177	1SS177	
D321	D5631-1SS177	1SS177	
D322	5631-1S1555	1S1555	
D602	5637-GL5NG6	LED GL5NG6	M04A23328
D603	5637-GL5PR6	LED GL5PR6	M04A23329
D604	5637-GL5NG6	LED GL5NG6	M04A23328
D605	5637-GL5NG6	LED GL5NG6	M04A23328
D606	5637-GL5NG6	LED GL5NG6	M04A23328
D607	5637-GL5NG6	LED GL5NG6	M04A23328
D608	5637-GL5NG6	LED GL5NG6	M04A23328
D609	5637-GL5NG6	LED GL5NG6	M04A23328
D610	5637-GL5NG6	LED GL5NG6	M04A23328
D611	5637-GL5PR6	LED GL5PR6	M04A23329
D622	D5631-1S1555	1S1555	
D623	5635-RD5R1EB1	RD5.1EB1	M04A23327
D624	D5631-1S1555	1S1555	
ICs			
IC81	5652-BA6124	BA6124	M05212343
IC301	5653-TA7325P	TA7325P	M04A23317
IC302	5653-TA7325P	TA7325P	M04A23317
IC303	5654-μPC1290C	μPC1290C	
IC304	5654-TC4066BP	TC4066BP	
IC305	5652-TA7629P	TA7629P	M05225314
IC405	5652-TA7629P	TA7629P	M05225314
IC601	5654-75164636	μPD7516HG-038-36	M04A23318
IC602	5654-7554-036	μPD7554-CS-036	M04A23319
IC603	5654-BA612	BA612	
IC701	5262-TA7796P	TA7796P	
IC704	5652-TC9176P	TC9176P	M04A06310
IC705	5652-M5218P	M5218P	M04A23312
IC706	5651-STK4151A	STK4151A	M04A23314
IC801	5262-TA7796P	TA7796P	
Transistors			
Q1	5611-1305(O)(Y)	2SA1305(O)(Y) ⚠	M04A23305
Q2	5613-3422(O)	2SC3422(O) ⚠	M04A23303
Q3	A5613-1815(Y)	2SC1815(Y)	
Q4	A5611-1015(Y)	2SA1015(Y) ⚠	
Q5	5614-667(C)	2SD667(C)	M07746303
Q6	5612-1017(O)(Y)	2SB1017(O)(Y)	M04A23306
Q51	A5613-1815(Y)	2SC1815(Y)	
Q52	A5613-1815(Y)	2SC1815(Y)	
Q53	A5611-1015(Y)	2SA1015(Y)	
Q54	A5613-1815(Y)	2SC1815(Y)	
Q55	5613-3246(H)	2SC3246(H)	M04207380
Q61	5614-667(C)	2SD667(C)	M07746303
Q62	A5611-RN2202	RN2202	M04A23304
Q63	A5613-1815(Y)	2SC1815(Y)	
Q64	A5611-RN2202	RN2202	M04A23304