

# SERVICE MANUAL

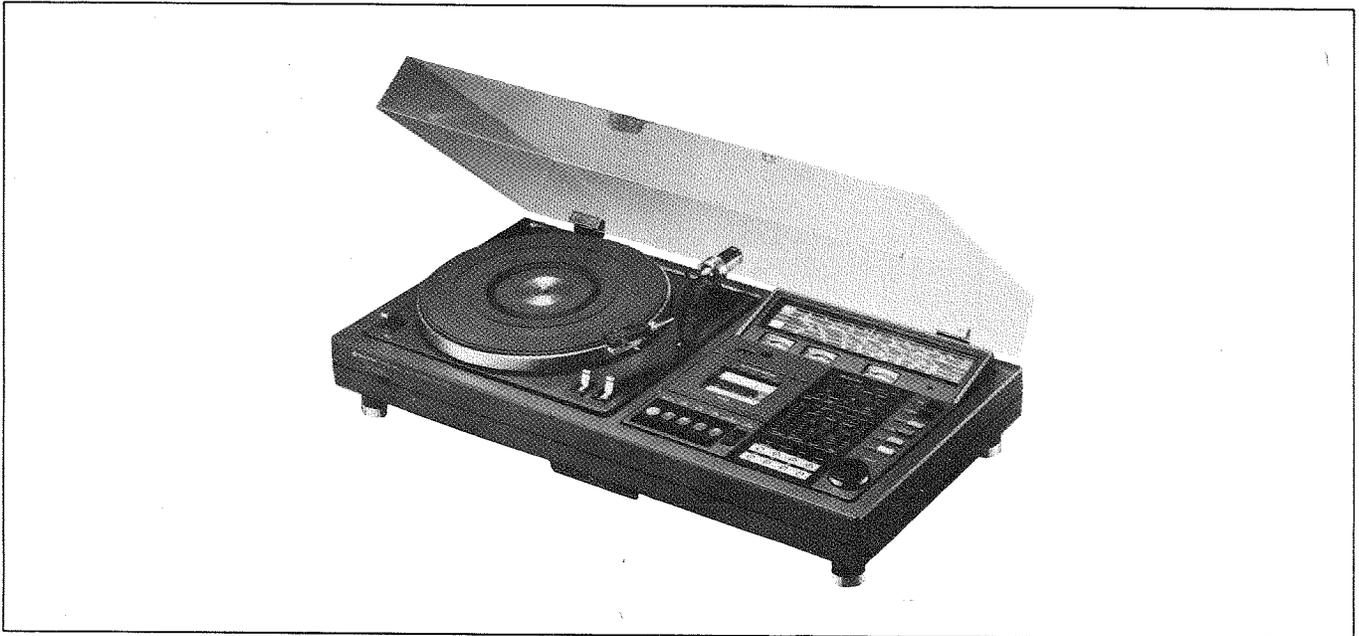


# SANYO

## STEREO MUSIC SYSTEM

# JXT4800

(U. S. A)



### SPECIFICATIONS

#### Cassette recorder and tuner section

Recording system: AC bias, 1/4 track stereo  
Erasing: AC erase  
Tape Speed: 1-7/8 ips. (4.75 cm/s)  
Rewind & Fast forward time: 1.30" (C-60)  
Wow & Flutter: 0.1% WRMS  
Signal to noise ratio: 58 dB (Dolby switch ON)  
50 dB (Dolby switch OFF)  
Speed accuracy:  $\pm 2\%$   
Cross talk: 60 dB  
Frequency Range: FM: 87.5 - 108 MHz S/N 30 dB sensitivity 23 dB  
SW2: 7.3-22.0 MHz S/N 20 dB sensitivity 31 dB  
SW1: 2.3 - 7.3 MHz S/N 20 dB sensitivity 75 dB  
MW: 510 - 1,605 KHz S/N 20 dB sensitivity 78 dB  
MPX separation: 20 dB (1 KHz)  
3 dB limiting: 30 dB (input 60 dB)  
Frequency response: NORMAL: 30 - 13,000 Hz  
CrO<sub>2</sub>: 30 - 16,000 Hz

#### Turntable section

Turntable speed: 33-1/3 and 45 rpm.  
Cartridge: Moving magnet cartridge with diamond stylus (MM107)  
Wow & Flutter: 0.12% WRMS  
Tracking force: 3g  
Turntable: 282 mm dia.  
Frequency response: 30 - 18,000 Hz

#### General

Power output: 15W x 2  
Terminal impedance: MIC: 10k ohm (0.3mV)  
AUX IN: 47k ohm (270mV)  
REC OUT: 4.7k ohm (250mV)  
SPEAKERS: 8 ohm  
HEADPHONES: 8 ohm (50mW)  
AC: 120/200/220/240V 50/60Hz  
Dimensions: 686 x 358 x 175 mm Approx.  
Weight: 13.5 kg Approx

Note: Specifications subject to change without notice.

WM-2793

## DISASSEMBLY

### A. Removing turntable unit (cf. Fig. 1)

1. First, dismount the turntable platter (T1) and the sheet (T91) on it. Next, remove the two special screws (19) fastening the turntable plate assembly (T10) to the main unit of the JXT4800HK. (cf. TURNTABLE EXPLODED VIEW)  
\* Pull up and turn counterclockwise the special screws to remove.
2. Detach the lead socket (107) from the plug (T84) of the turntable power cord. Pull two RCA plug pins (108) out of the socket assembly (T88). Now, the turntable unit can be separated from the JXT4800HK unit.

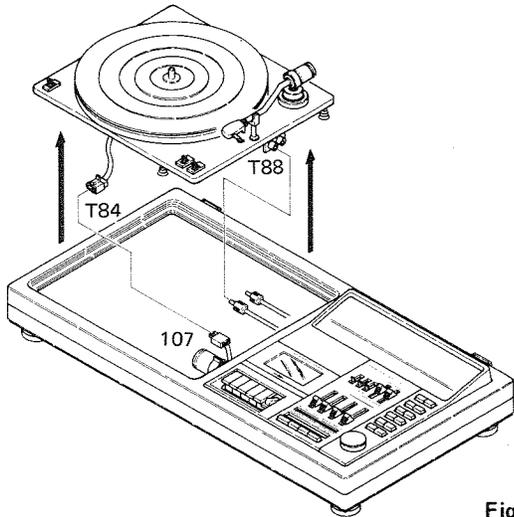


Fig. 1

### B. Removing deck panel (cf. Fig. 2)

1. Detach from their shafts six slide knobs (16) and one tuning knob (17) for operation control.
2. Remove the 10 screws (Y12) and the screw marked (Y13), and the deck panel (1) will come off.

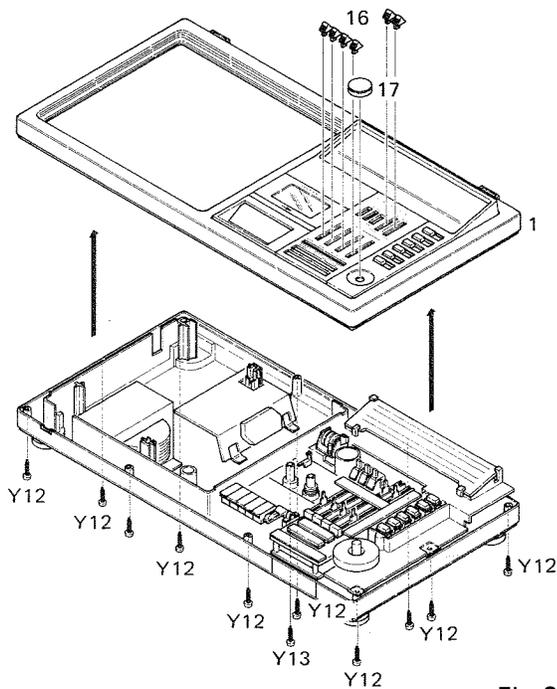


Fig. 2

### C. Removing printed circuit boards (cf. Fig. 3 to 8)

1. Remove the three screws (2 marked Y17 and 1 marked Y11) and detach the 10-pin socket (114) from the connector PCB (126). Then, you can remove the FM "touch" tuning PCB (133). (cf. Fig. 3)

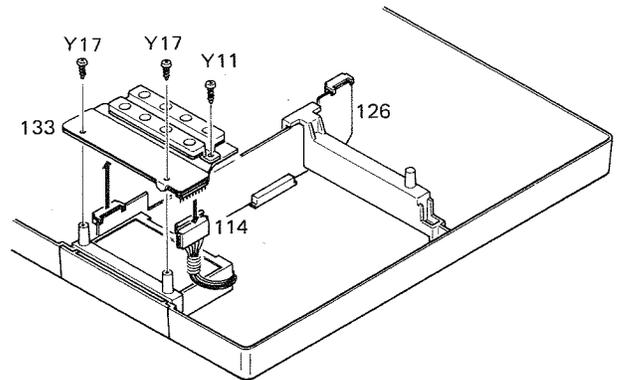


Fig. 3

2. Dismount the dial scale (37) from the bracket mounting (48) and remove the six screws (Y4 = 1, Y5 = 2, Y10 = 3) securing the latter. This done, the meter PCB (128) can be pulled off the socket on the connector PCB (126) together with the bracket mounting (48). (cf. Fig. 4)

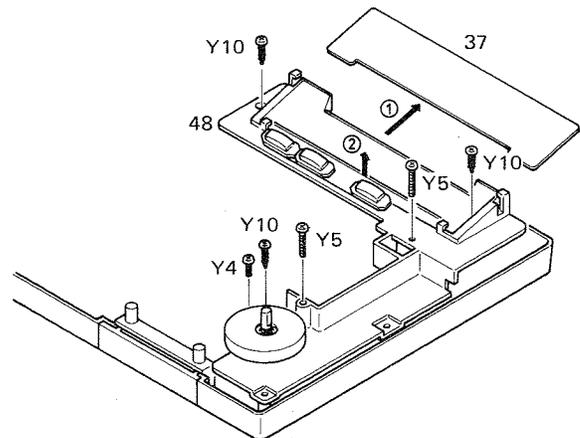


Fig. 4

## DISASSEMBLY

- Remove the two screws (Y17) and disconnect the socket from the connector PCB (126). Then, the volume PCB (121) will come off.

Next, remove the band select PCB (132) by unplugging it from the tuner PCB (131).

Lastly, remove the function PCBs (124 & 125) by unplugging it from the connector PCB (126). (cf. Fig. 5)

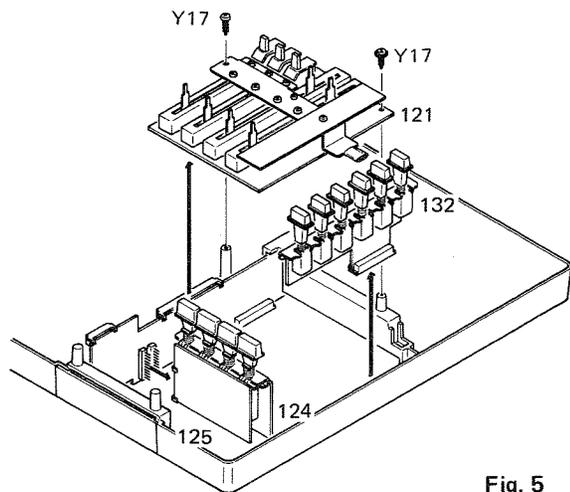


Fig. 5

- Remove the two pairs of screws (Y18) and washers (Y27) and unplug the equalizer PCB (120) from the socket of the connector PCB (126). (cf. Fig. 6)
- Remove the three screws (Y18) and a pair of screw (Y18) and washer (Y27). Then, unplug the amplifier PCB (129) from the socket of the connector PCB (126). (cf. Fig. 6)
- Remove the three pairs of screws (Y18) and washers (Y27), and two pairs of screws (Y12) and washers (Y25). Then, detach the tuner PCB (131) by unplugging it from the socket on the connector PCB (126). (cf. Fig. 6)

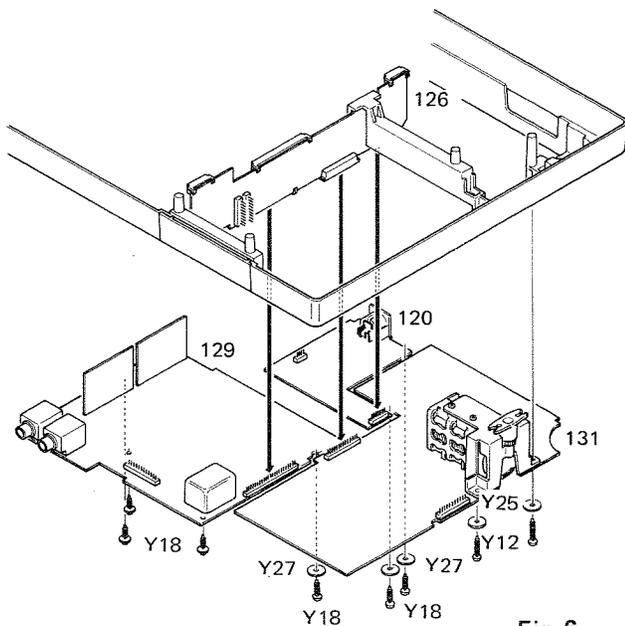


Fig. 6

- The connector PCB (126) can be detached only after all the above-mentioned printed circuit boards have been removed. Turn the connector PCB in the direction indicated by the arrows ① and then pull it out in the direction indicated by the arrow ②. (cf. Fig. 7)

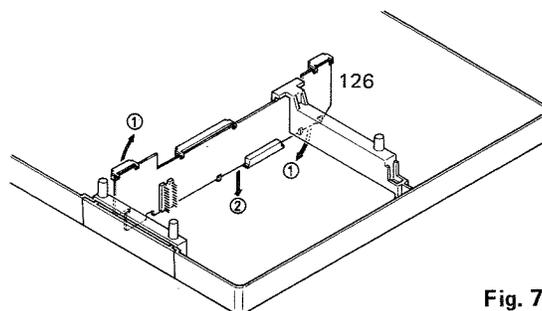


Fig. 7

- Remove the six screws (Y16 = 3, Y17 = 1 & Y19 = 2), and the power amplifier PCB (122) will come off.
- Take out the power amplifier connector PCB (123) after removing the screw (Y16). (cf. Fig. 8)
- Take out the power supply PCB (127) after removing the two screws (Y17). (Fig. 8)

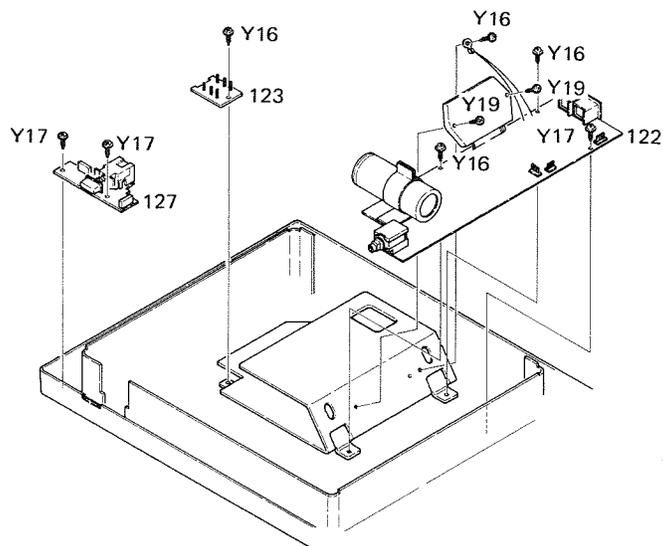


Fig. 8

## DIAL CORD STRINGING

1. Cut dial rope to approximately 1,600 mm in length. Tie its ends to form a ring. The rope length should become 1,400 mm. (Fig. 9)

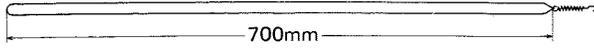


Fig. 9

2. Bend the teeth of the bracket mounting (48) to the outside and open the pilot lamp PCB. (cf. Fig. 10)

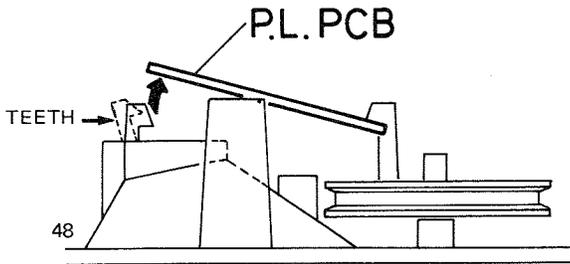


Fig. 10

3. Hook the spring coil (60) to the drum (68) and thread the dial rope through the gap between the bracket mounting and pilot lamp PCB. (cf. Fig. 11). Run the dial rope around the pulleys from ① to ⑦ as in Fig. 12. Wind the loose end of the dial rope and put it around the pulley ⑨ as in Fig. 12.

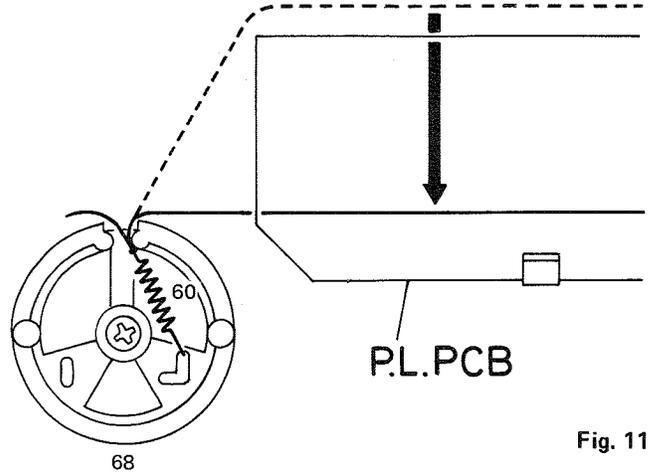


Fig. 11

- \* The dial rope should be wound three times around the tuning shaft and drum.

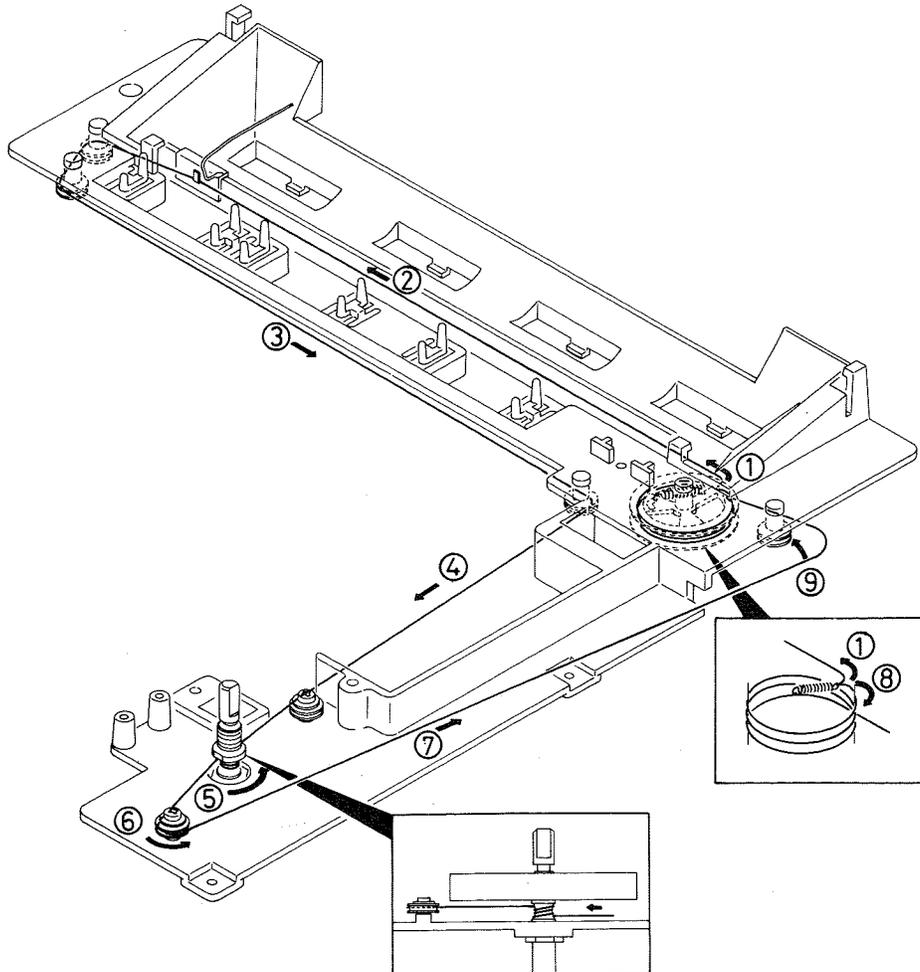


Fig. 12

## DIAL CORD STRINGING

4. Turn the variable capacitor as far as it moves in the arrow-marked direction (MAX. position). Engage the protrusion on the dial drum (68) with the mating plate of the variable capacitor as in Fig. 13 (note the position of the cut in the drum), paying attention that the mating plate is parallel to the capacitor gears (22).
5. Re-attach the pilot lamp PCB in its position. Then, attach the pointer, making it meet the starting point on the dial scale.

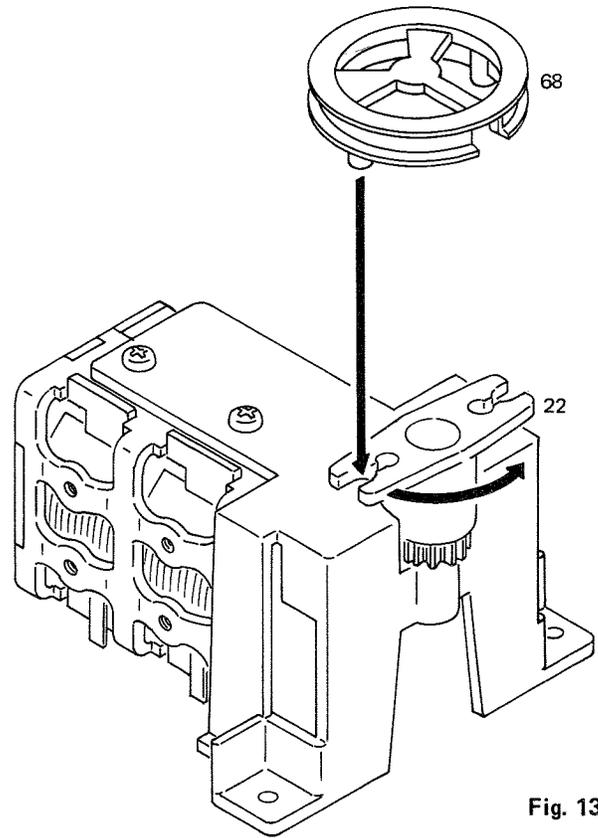


Fig. 13

## REPLACING MOTOR PULLEY

1. Remove the screw (headless screw  $3\phi \times 2$  mm) fastening the pulley (T13) to the motor (T14). (cf. Fig. 14-a)
  2. Adjust the speed select arm (T7) so that it corresponds to the pulley (T13) in height as shown in Fig. 14-b. To make this adjustment, loosen the pan head screw (3 x 6) (T5) on the speed select base and move the eccentric pin (T4). (cf. Fig. 14)
- \* This adjustment should be made with the speed select bar (T12) set to 33 rpm.

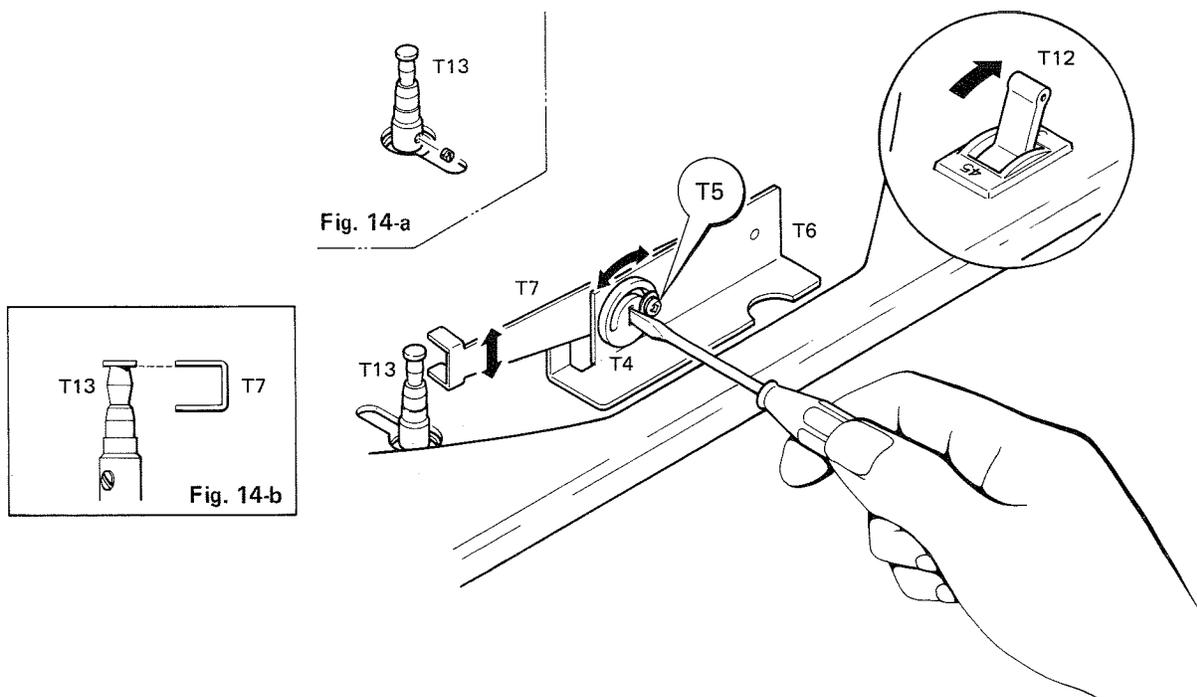


Fig. 14

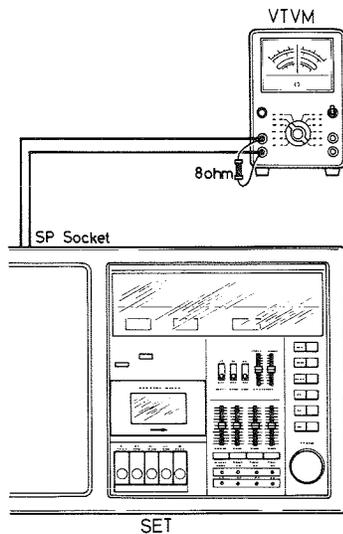
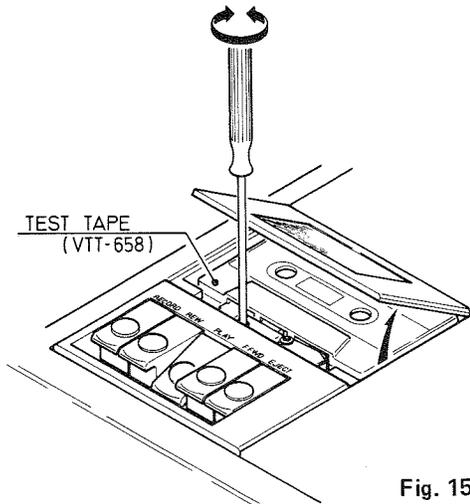
## ADJUSTMENT

### CONDITIONS FOR MEASUREMENT

1. Check the source voltage.
2. The input of recording signals is at the AUX (REC/PLAY) terminals Nos. 3 and 5.
3. The point of measurement is the speaker, using mainly a dummy load of 8 ohms. The speakers for both channels should be loaded simultaneously.
4. Unless otherwise specified, each of the control volumes – BALANCE, TREBLE and BASS – should be set to the center position.
5. The BEAT CANCEL switch should be set to "1".
6. The FUNCTION switch should be set to AUX during recording and to TAPE during playback.
7. The LOUDNESS switch should be set to OFF.
8. The heads should be cleaned in advance.
9. When CrO<sub>2</sub> tape is in use, the REC/PLAY frequency response should be: 1kHz, 10kHz = 0 ± 3 dB.  
The divergence of the output, when adjusted, should be within ± 1 dB.

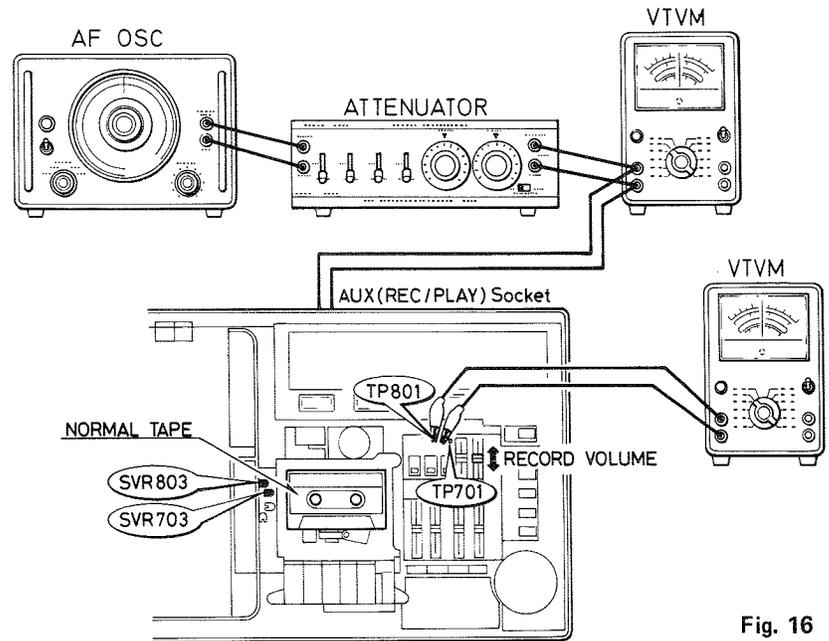
### HEAD AZIMUTH

1. Set the switches to the following positions:  
FUNCTION switch → TAPE  
TAPE switch → NORMAL  
DOLBY switch → OFF  
MAIN VR → CENTER POSITION
2. Mount VTT-658 (10kHz –15dB) test tape and set the unit in the PLAY mode. Adjust the head azimuth screw until the VTVM reading becomes maximum. (Fig. 15a, b)
3. Do the above for both the left and right channels.



### METER (RECORDING)

1. Set the switches to the following positions:  
FUNCTION switch → AUX  
TAPE switch → NORMAL  
DOLBY switch → OFF
2. Mount normal tape onto the unit.
3. Apply 1 kHz –10dB (100mV) signals to the unit at the AUX terminal from the AF oscillator via the attenuator. Set the unit in the recording mode. (Fig. 16)
4. Set the recording volume to 580mV, at TP701 and TP801.
5. Set the MAIN VOLUME to 500mW (speaker output of 2V). (Fig. 17)
6. Obtain a meter reading of +2VU ± 0.5dB, adjusting SVR702 and SVR802. (Fig. 18)



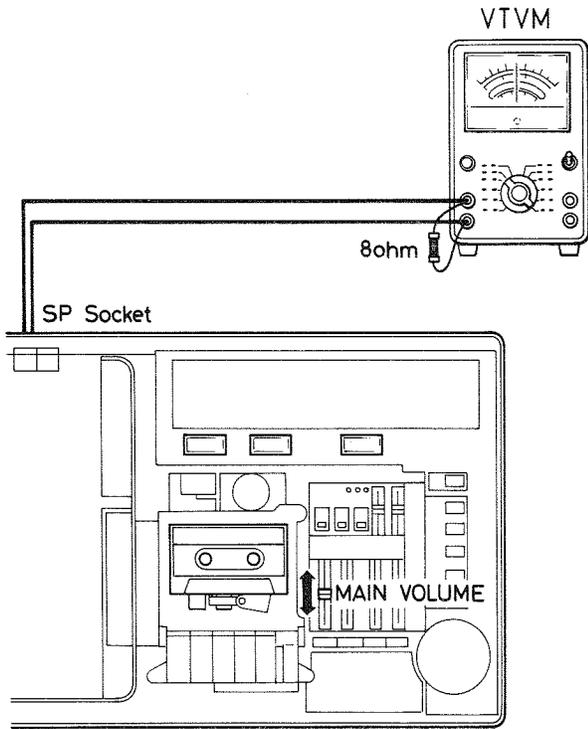


Fig. 17

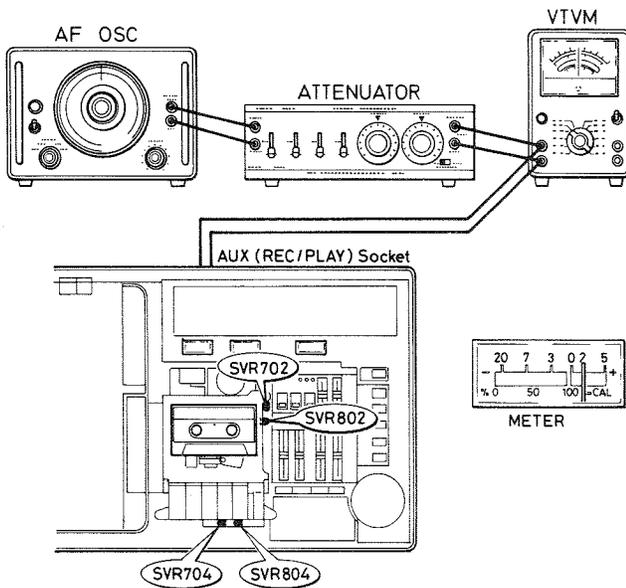


Fig. 18

**METER (PLAYING)**

1. Set the switches to the following positions:  
 FUNCTION switch → TAPE  
 TAPE switch → NORMAL  
 DOLBY switch → OFF  
 MAIN & RECORD VRs → Meter readings (recording):  
 4 & 5 calibrations.
2. Mount MTT-150 (DOLBY) tape onto the unit, and set it in playback mode.
3. Adjust SVR701 and SVR801 to obtain a meter reading of +2VU ±0.5 dB for each channel. (Fig. 19)

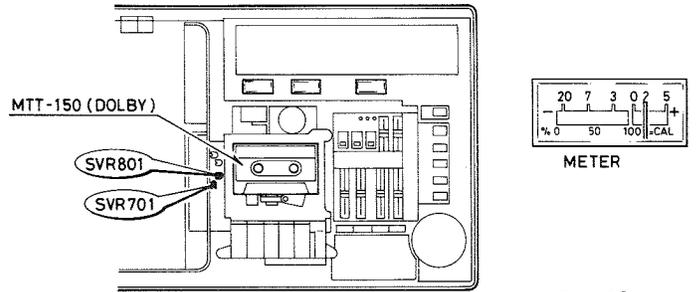
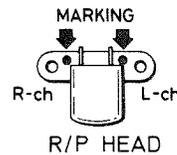


Fig. 19

**BIAS**

1. Set the switches to the following positions:  
 TAPE switch → NORMAL  
 DOLBY switch → OFF  
 MAIN & RECORD VRs → Meter readings (recording):  
 4 & 5 calibrations.
2. Mount normal (or SANYO) tape onto the unit. Set the unit in the recording mode.
3. Measure the voltage on the VTVM, connecting it to both ends of R702 (10 ohms) for the R/P head. Do the same with R802.
4. Obtain the voltages listed below for the corresponding marks, adjusting SVR704 and SVR804. (Fig. 20)



Marking	Bias current
Violet	400 $\mu$ A (4mV)
Green	450 $\mu$ A (4.5mV)
Black	500 $\mu$ A (5mV)
Red	550 $\mu$ A (5.5mV)
Non mark	600 $\mu$ A (6mV)
Blue	650 $\mu$ A (6.5mV)
Brown	700 $\mu$ A (7mV)

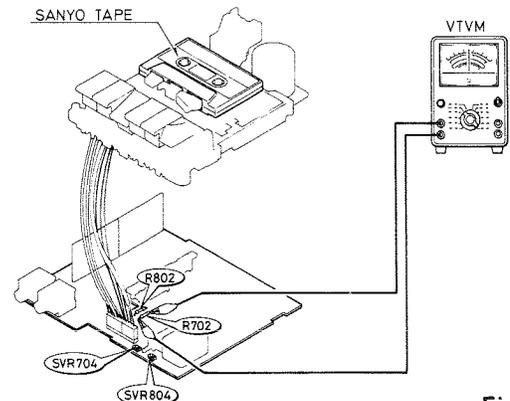


Fig. 20

## ADJUSTMENT

### RECORD/PLAYBACK FREQUENCY RESPONSE

- Set the switches to the following positions:  
 FUNCTION switch → AUX ⇌ TAPE  
 TAPE switch → NORMAL  
 DOLBY switch → OFF  
 MAIN & RECORD VRs → Meter readings (recording):  
 4 & 5 calibrations
- Apply inputs of 100Hz, 1kHz and 10kHz -30 dB to the unit at AUX. Set the unit in the recording mode. (Fig. 21)
- Play tape and make necessary adjustment to obtain the following:  
 100Hz output = 0 dB  
 1kHz output =  $0 \pm 2$  dB  
 10kHz output =  $+1 \pm 2$  dB
- Readjust SVR704 and SVR804 if the VTVM readings do not conform to the above readings.

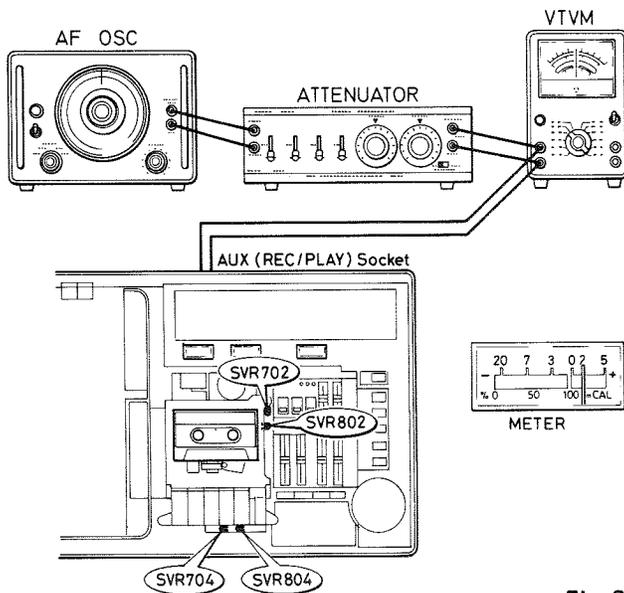


Fig. 21

### OUTPUTS

- Set the switches to the following positions:  
 FUNCTION switch → AUX ⇌ TAPE  
 TAPE switch → NORMAL  
 DOLBY switch → OFF  
 MAIN & RECORD VRs → Meter readings (recording):  
 4 & 5 calibrations
- Mount normal tape onto the unit and set the unit in the recording mode.
- Apply 1kHz -10 dB (100mV) signals to AUX. (Fig. 22)
- Playback the above 1kHz signals.
- Make the recording output correspond to the playback output by adjusting SVR703 and SVR803.

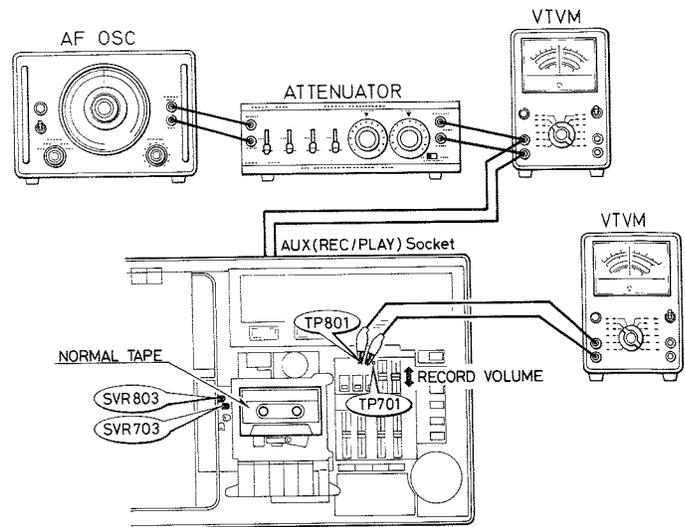


Fig. 22

### DOLBY PCB 19kHz TRAP

- Apply 19kHz  $\pm 100$ Hz signals to the unit at the AUX terminal from the AF oscillator via the attenuator.
  - Obtain a VTVM reading of 30mV, adjusting the attenuator.
  - Obtain a minimum output from the TP701 and TP801 by adjusting L502 and L552. (Fig. 23)
- \* Provided that the output level is 0 dB for an input of 1kHz, there should be an output of less than -30 dB at 19kHz.
- NOTE: The frequency generated by the AF oscillator will fluctuate slightly with a rise in temperature. Keep watching the digital counter and adjust, if necessary.

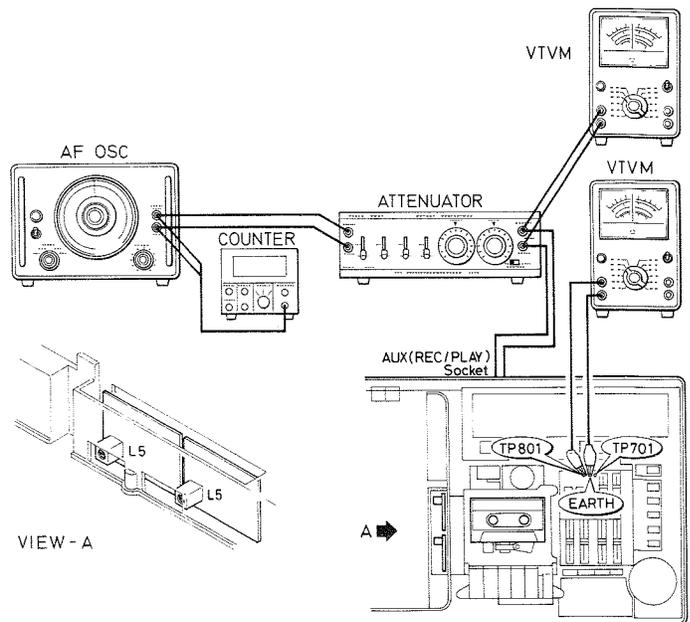


Fig. 23

## TUNER ADJUSTMENT

1. Check the source voltage.
2. Set the BAND selector switch to the band for its alignment.
3. Disconnect from the unit the FM telescopic antenna.
4. The standard test signal is amplitude-modulated by 30% with a 400Hz audio signal.
5. The standard test signal is frequency-modulated by a deviation of 22.5kHz with a 1kHz audio signal.

### Test equipment

1. Signal generator for AM and SW.
2. Loop antenna for AM and SW1.
3. DIN dummy antenna for SW2.
4. VTVM
5. Scope for FM
6. Signal generator for FM
7. Dummy antenna for FM

### Voltage adjustment

1. Set the BAND selector switch to FM.
2. Connect a VTVM to TP-201 (+) and TP-202 (-).
3. Adjust R217 (50k $\Omega$ ) until 0.5V is obtained.

## AM ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
IF	AM Signal Generator VTVM	See page 11		455kHz	Minimum Frequency	T151, T202	Maximum Output
TUNING RANGE	AM Signal Generator VTVM		1	505kHz	Minimum Frequency	L155	Maximum Output
			2	1650kHz	Maximum Frequency	CT154	Maximum Output
			3	Repeat steps 1 and 2.			
TRACKING	Signal Generator VTVM		1	600kHz	Tune to Signal	L153	Maximum Output
			2	1400kHz	Tune to Signal	CT153	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

- 1) Points for testing IF output: H (hot side) ..... TR205, E (earth side) ..... TP204
- 2) For testing, use an IRE loop antenna.

## SW1 ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
TUNING RANGE	AM Signal Generator VTVM	See page 11	1	2.2MHz	Minimum Frequency	L156	Maximum Output
			2	7.6MHz	Maximum Frequency	CT156	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			
TRACKING	AM Signal Generator VTVM		1	2.5MHz	Tune to Signal	L153	Maximum Output
			2	6.5MHz	Tune to Signal	CT155	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

- 1) For testing, use an IRE loop antenna.

## SW2 ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For
TUNING RANGE	AM Signal Generator VTVM	See page 11	1	7.0MHz	Minimum Frequency	L154	Maximum Output
			2	22.7MHz	Maximum Frequency	CT152	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			
TRACKING	AM Signal Generator VTVM		1	8.0MHz	Tune to Signal	L152	Maximum Output
			2	21.0MHz	Tune to Signal	CT151	Maximum Output
			3	Repeat steps 1 and 2 until no further improvement can be made.			

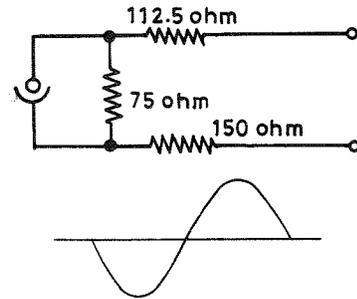
- 1) For testing, use a DIN (IEC) dummy antenna.

# TUNER ADJUSTMENT

## FM ALIGNMENT

Alignment	Equipment	Connection	Step	Gen. Freq.	Dial Setting	Adjustment	For	
IF	IF Sweep Generator Oscilloscope	See page 11		10.7MHz	Minimum Frequency	T101, T201, T203 T204	Symmetrical curve for Maximum Symmetrical S-curve on Scope	
TUNING RANGE	FM Signal Generator VTVM		1	Manual 87MHz	Minimum frequency	R126	Maximum Output	
				Pre-set 88MHz	at 88MHz	R125		
			2	Manual 109MHz	Maximum Frequency	L103	Stretch or Squeeze	Maximum Output
			3	Repeat steps 1 and 2.				
TRACKING	FM Signal Generator VTVM		1	90MHz	at 90MHz	L101, L102	Stretch or Squeeze	Maximum Output
		2	106 MHz	at 106MHz	CT101, CT102		Maximum Output	
		3	Repeat steps 1 and 2 until no further improvement can be made.					

- For testing, use a dummy antenna (300 ohm balanced).
- Points for testing IF input  
 H (hot side) ..... TP102  
 E (earth side) ..... TP101  
 Points for testing output  
 H (hot side) ..... TP203  
 E (earth side) ..... TP204
- Adjust the detector transformer to obtain an S curve as illustrated at right.  
 Points for testing input  
 H (hot side) ..... TP102  
 E (earth side) ..... TP101  
 Points for testing output  
 H (hot side) ..... TP206  
 E (earth side) ..... TP204
- Adjust the signal range covered, starting with the high range according to the instructions in the manual.  
 Pre-set tuning buttons to 88MHz to cover the low range.  
 No adjustment is required of the high range.  
 \* There may be deviations in the low range but its center channel should correspond to 88MHz.



## MPX ADJUSTMENT

### 1. PILOT FREQUENCY

Connect a frequency counter to the test points ((+) to TP301 and (-) to TP204). Set the BAND switch to FM and adjust R302 (5k $\Omega$ ) to obtain an accurate pilot frequency of 19kHz, while receiving no signals. (Fig. 24)

### 2. SEPARATION

Apply from the stereo signal generator to the SG a 96MHz (modulation 30%, pilot frequency 10%) 60 dB signal. Adjust R306 (2k $\Omega$ ) to achieve maximum separation for L & R channels at the stereo signal generator. (Fig. 25) Signals to the right channel should be minimum when adjusting the left channel and those to the left channel should be minimum when adjusting the right channel.

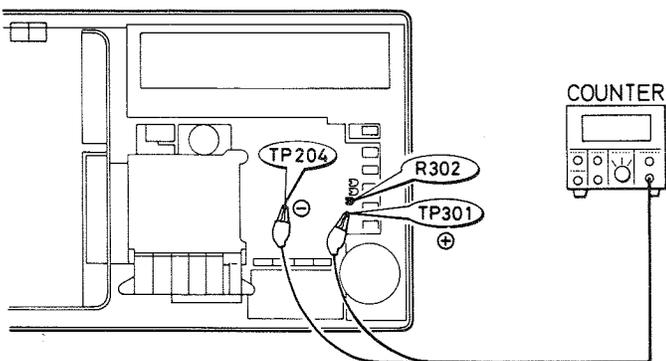


Fig. 24

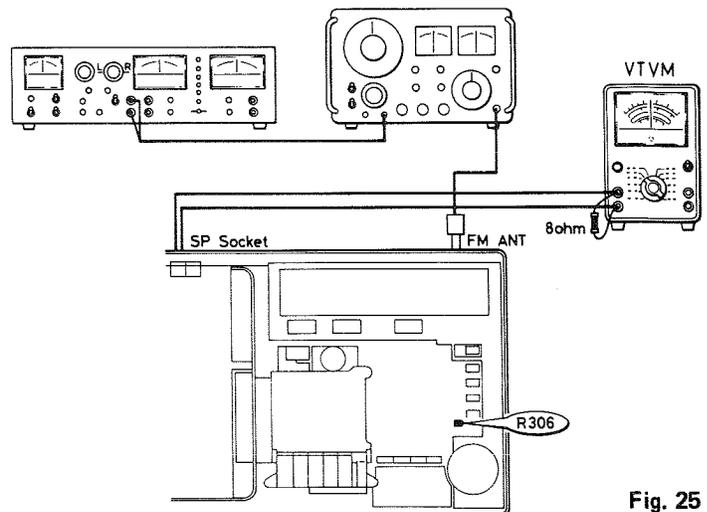


Fig. 25

## METER ADJUSTMENT (TUNING)

Make the following adjustment with the BAND switch set to AM

1. Zero point  
Adjust R206 (1kB) so that the SG output is zero and the needle is about to start swining. (Fig. 26)
2. Maximum point  
Adjust R204 (2kB) so that the needle stands at the maximum 10 with the SG output at 1kHz 126 dB. (Fig. 26)

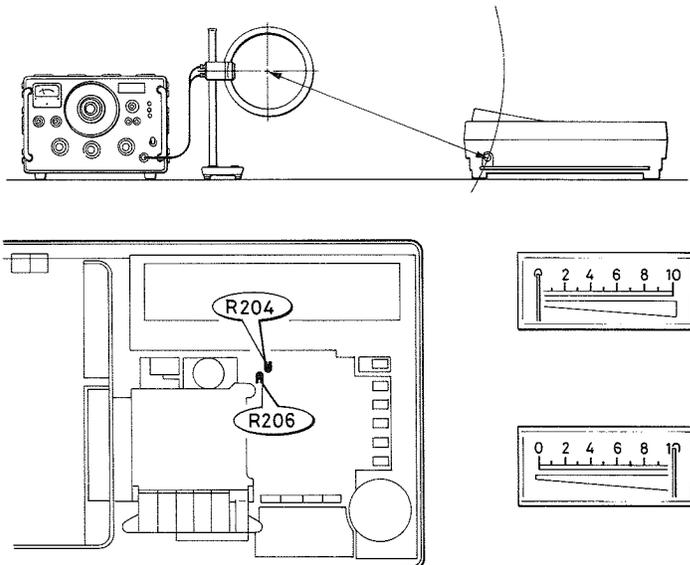


Fig. 26

## MECHANISM ADJUSTMENT

### PINCH ROLLER ADJUSTMENT

1. Set the unit into the PLAY mode.
2. Apply a tension gauge to the pinch roller. Read the gauge at the precise moment when the pinch roller separates from the capstan.
3. If the gauge reading falls more than 450 – 650g gr, no adjustment is necessary. If otherwise, make adjustment by changing the force of the spring coil. (See exploded view M31)

### TORQUE ADJUSTMENT

1. Set the unit into the PLAY, FAST FORWARD or REWIND mode.
2. Measure the each torque with a torque gauge. They should be as following;

PLAY	30 - 60 gr/cm
FAST FORWARD	65 - 110 gr/cm
REWIND	60 - 110 gr/cm
3. If the each torque fails to reach the standard value. Clean the drive belt, flywheel, motor pulley, take-up reel, take-up pulley, idler and rewind roller with a cotton swab soaked in alcohol.

### ADJUSTMENT OF AUTOMATIC SHUT-OFF MECHANISM

1. Set the unit into the PLAY mode.
2. Apply a tension gauge to the tip. Check to see that the shut-off mechanism functions between 40 – 55 grs.

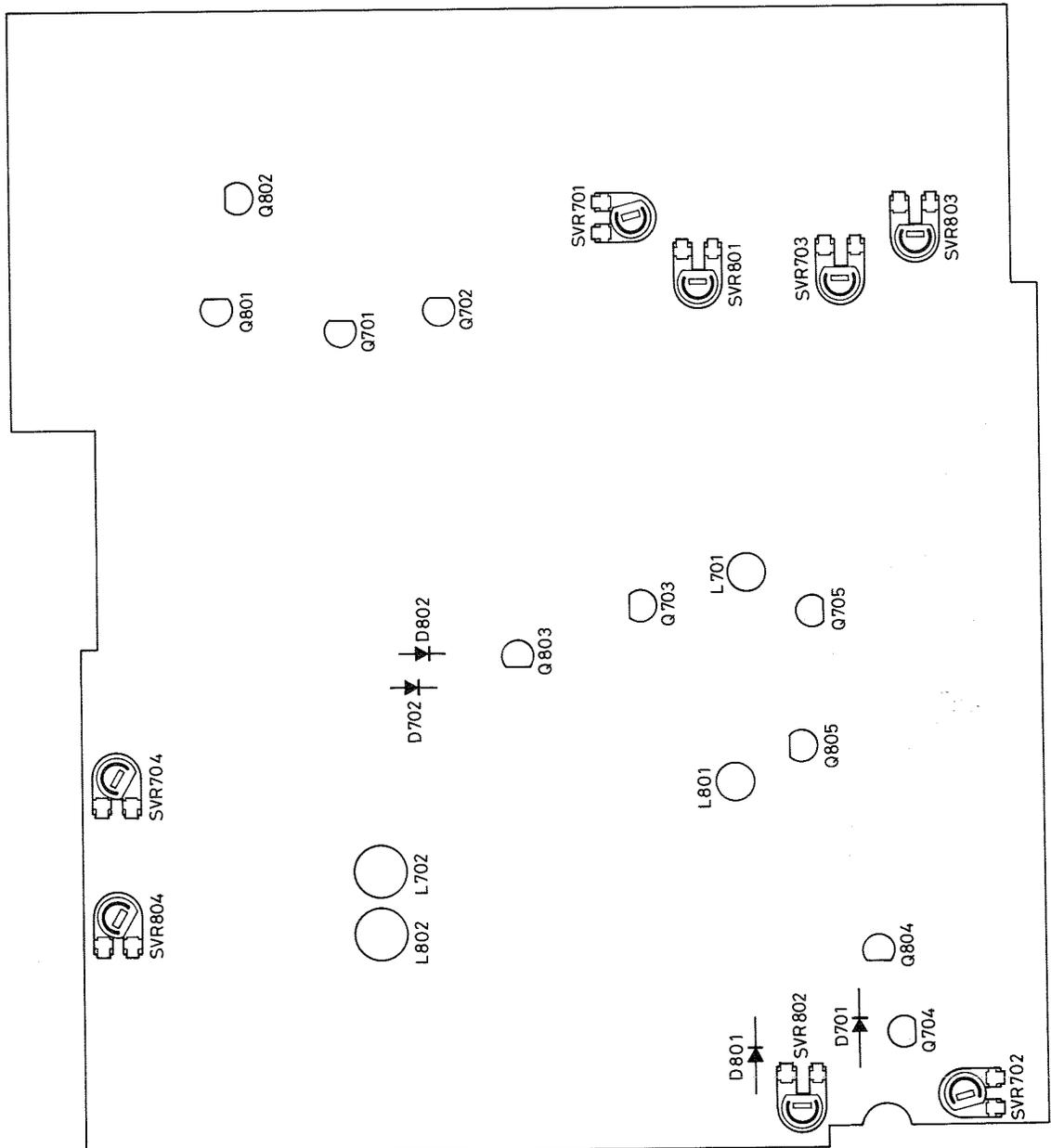
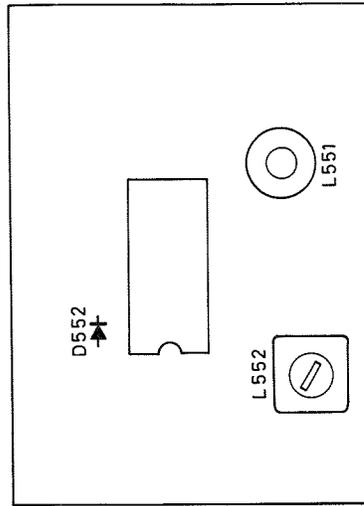
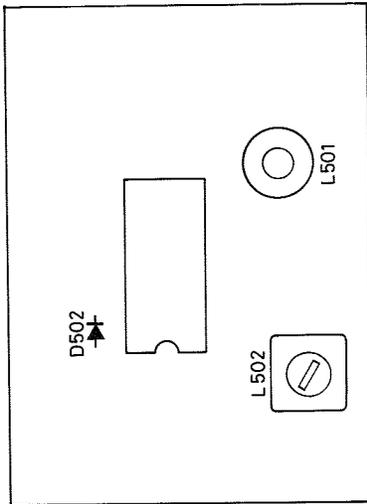
#### NOTE:

The tension gauge should be hold at right angles to the tip for correct measurement.

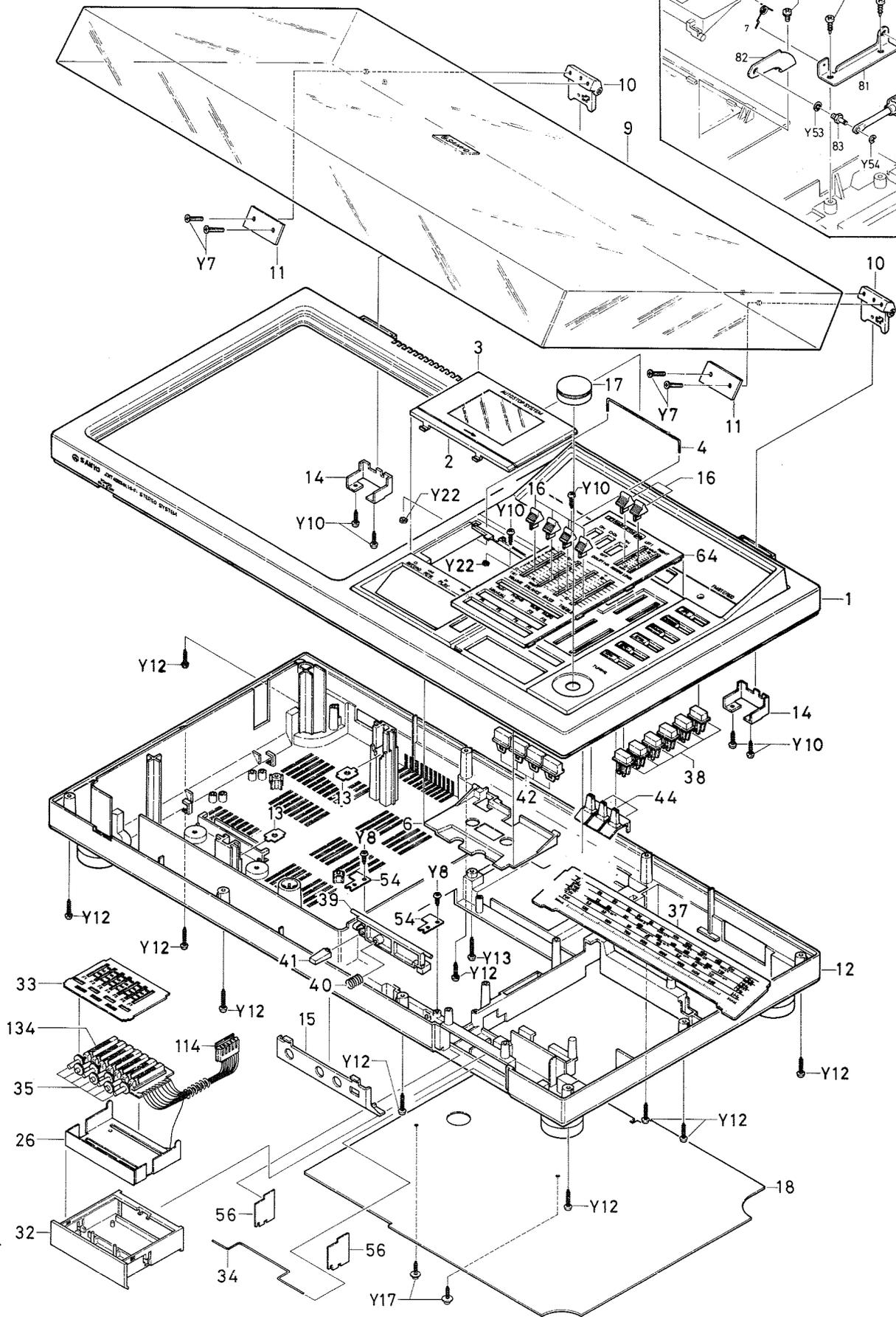
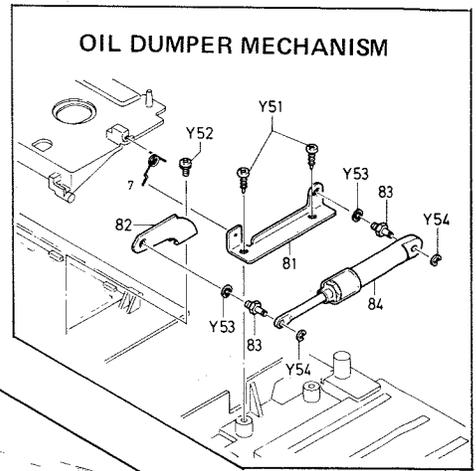
3. In case the tip pressure is outside the standard range or in case the shut-off mechanism does not work, make adjustment by changing the force of the spring coil (See exploded view M70)



PARTS LOCATION (AMP, DOLBY)



# EXPLODED VIEW (CABINET)



**PARTS LIST**

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>PACKING</b>				<b>CHASSIS</b>			
	141-6-132T-72306	Individual Carton	1	30	141-2-363T-05600	Bracket Capacitor, Electrolytic Capacitor (C953) Mtg.	2
	141-6-144T-36300	Styrol Filler, Dust Cover	2	31	141-2-310T-04000	Bracket, EXT. Antenna Terminal Mtg.	1
	141-6-144T-35200	Styrol Filler	1	32	141-2-231T-00700	Bracket, Pre Set Box	1
	141-6-144T-35300	Styrol Filler	1	33	141-2-146T-10700	Dial Scale, Bracket (32) Mtg.	1
	141-6-455T-02900	Serial Number Plate	2	34	141-2-753T-14400	Shaft, Bracket (32) Stopper	1
	141-6-411T-86708	Instruction Booklet	1	35	141-2-163T-37000	Rotary Knob, Pre Set Volume	7
	141-6-479T-20800	Label, Dolby	1	36	141-2-161T-34100	Push Button, Power Switch	1
	141-2-289T-01600	Adhesive Film, Sheet Mtg.	8	37	141-2-146T-10805	Dial Scale	1
	141-6-472T-14000	Caution Label, FCC	1	38	141-2-161T-34200	Push Button, Band Select	6
	141-6-231T-35402	Inner Polyethylene Bag, Turn Table	1	39	141-2-742T-99600	Lever, Beat Cancel Select	1
	141-6-316T-73600	Pad, Turn Table	1	40	141-2-851T-70800	Coil Spring, Beat Cancel Select	1
	141-2-316T-73900	Pad, Set	1	41	141-2-161T-34800	Push Button, Beat Cancel	1
	141-6-231T-45902	Inner Polyethylene Bag, Dust Cover	1	42	141-2-161T-34300	Push Button, AUX/PHONO/TAPE/RADIO	4
	141-6-231T-10300	Inner Polyethylene Bag, Power Supply Cord	1	43	141-2-352T-23200	Spacer, FM Stereo Lamp (LED D305) Mtg.	1
	141-6-231T-60902	Inner Polyethylene Cover	1	44	141-2-162T-11400	Lever Knob, Dolby Select	3
	141-6-231T-20300	Inner Polyethylene Bag, Instruction Booklet, SP Cord	2	45	141-2-464T-22501	Fixer, Power Supply Cord	1
	141-2-246T-13400	Sheet, Dust Cover	2	46	141-2-445T-16200	Rubber Cushion, Power Supply Cord Fixer	1
	141-2-246T-13500	Sheet, Dust Cover	2	47	141-2-361T-12100	Bracket Resistor, VR P.C.B. Mtg.	1
	141-6-231T-10100	Inner Polyethylene Bag	1	48	141-2-351T-37400	Bracket Mounting	1
	141-6-316T-77500	Pad, Top lid 100x100	1	49	141-0-566T-04200	Tuning Shaft Assembly	1
	141-6-316T-80200	Pad, Accessory	1	50	141-2-521T-01500	Flywheel	1
	141-6-493T-01100	Castoner Card	1	51	141-0-511T-03600	Pointer Assembly	1
<b>ACCESSORY</b>				52	141-2-858T-07800	Bracket, Mechanism Mtg.	1
	4-241T-10282	Cassette Tape C-12	1	53	141-2-852T-38700	Wire Spring, Bracket (52) Mtg.	1
	141-0-661T-03200	Pulley Assembly, Turntable 50Hz	1	54	141-2-310T-01800	Bracket, Lever (39) Mtg.	2
	4-243T-16000	Lead cord, Speaker	2	55	141-2-352T-23700	Spacer, Pointer (51) Mtg.	1
	4-245T-00100	FM Antenna	1	56	141-2-352T-23800	Spacer, Bottom Lid Mtg.	2
	4-245T-00200	AM Antenna	1	57	141-2-465T-14200	Plate Spring, Mechanism Mtg.	1
	4-236T-11300	Plug	1	59	141-2-340T-00100	Rope 0.3φ x 1600mm	1
<b>CABINET</b>				60	123-2-481R-00600	Coil Spring, Hook a Dial Drum	1
1	141-9-121T-13406	Deck Panel Assembly	1	61	141-2-322T-38100	Shield Plate, Bottom Mtg.	1
2	141-2-134T-08200	Head Cover	1	62	141-2-852T-38500	Wire Spring, Main AMP Earth	1
3	141-9-124T-15201	Top Lid Assembly	1	63	4-237T-07100	Terminal Board, EXT ANT	1
4	141-2-753T-13000	Shaft, Top Lid Fulcrum	1	64	141-2-143T-68500	Marking Plate, Operation Panel	1
5	141-2-367T-30900	Bracket, Socket	2	65	141-2-157T-24330	Inlay, Mechanism Button	4
6	141-9-243T-08700	Base Assembly, Cassette	1	66	141-2-157T-24301	Inlay, Mechanism Button, REC	1
7	141-2-855T-09800	Coil Spring, Cassette Base Up	1	67	141-2-421T-20900	Special Screw, Dial Pulley Mtg. Drum	7
9	141-9-194T-00600	Dust Cover Assembly	1	68	141-2-538T-05900	Drum	1
10	141-2-251T-06101	Hinge	2	69	141-2-661T-16000	Pulley, Bracket (48) Mtg.	6
11	141-2-351T-37300	Bracket Mounting, Hinge (10) Mtg.	2	72	141-2-472T-01201	Lug, Wire Dressing	1
12	141-9-125T-09608	Bottom Lid Assembly	1	<b>ELECTRICAL PARTS</b>			
13	141-2-411T-07700	Plate Nut, Turn Table Fixer	2	101	4-234T-06271	Fuse 3.15AT, Power AMP	1
14	141-2-315T-12900	Reinforcement, Hinge (10) Mtg.	2	102	4-234T-01110	Fuse 315mA, Tape Motor	1
15	141-2-129T-01000	Side Lid, Microphone Socket Cover	1	103	4-234T-04471	Fuse 1AT, Player	1
16	141-2-164T-17500	Slide Knob	6	104	4-234T-05300	Fuse 1.25AT, Pilot Lamp	1
17	141-9-163T-36800	Rotary Knob Assembly, Tuning	1	105	4-234T-01771	Fuse 400mA, Tuner	1
18	141-2-125T-09700	Bottom Lid	1	106	4-159T-00271	Player, Turn Table	1
19	141-2-421T-20100	Special Screw, Turn Table Fixer	2	107	4-235T-38500	Socket Lead, Power P.C.B. to Player	1
81	141-2-310T-08600	Bracket, Deckpanel Mtg.	1	108	4-236T-11400	Plug, Player Input	2
82	141-2-224T-08800	Bracket lid, Top lid mtg.	1	109	4-251T-66600	Power Transformer	1
83	141-2-567T-02300	Pulley shaft, Sleeve	2	110	4-243T-00100	Power Supply Cord	1
84	141-0-681T-00100	Sleeve Assembly, Oil Dumper	1	111	4-235T-39100	Socket 3P + 4P + 7P, P.C.B. Connect	1
<b>CHASSIS</b>				112	4-235T-39300	Socket 4P, Player Input	1
20	141-2-363T-05200	Bracket Capacitor, Tuner P.C.B. Mtg.	1	113	4-235T-34600	Socket, Power P.C.B. Mtg.	2
21	141-2-581T-06400	Gear, Variable Capacitor Mtg.	1	114	4-235T-42100	Socket 10P, Preset P.C.B. to Touch P.C.B.	1
22	141-2-581T-06500	Gear, Bracket Capacitor (20) Mtg.	1	115		Light Emitting Diode SLP-114B, D305	1
23	141-2-753T-14300	Shaft, Gear (22) Mtg.	1	116	141-2-382T-05300	Terminal	2
24	141-2-243T-08800	Base, Touch P.C.B. Mtg.	1	117	141-2-464T-08700	Fixer, Heat Sink Lead Fixer	6
25	141-2-153T-28600	Escutcheon, Touch P.C.B. Mtg.	1	118	4-231T-53671	Switch, Voltage Select	1
26	141-2-322T-35100	Shield Plate, Pre Set Volume Bracket (34) Mtg.	1	119	123-2-472R-00401	Lug, Mechanism Earth	1
27	141-2-322T-36200	Shield Plate, Touch P.C.B. Mtg.	1				
28	141-2-368T-10100	Heat Sink, IC (STK-014) Mtg.	1				

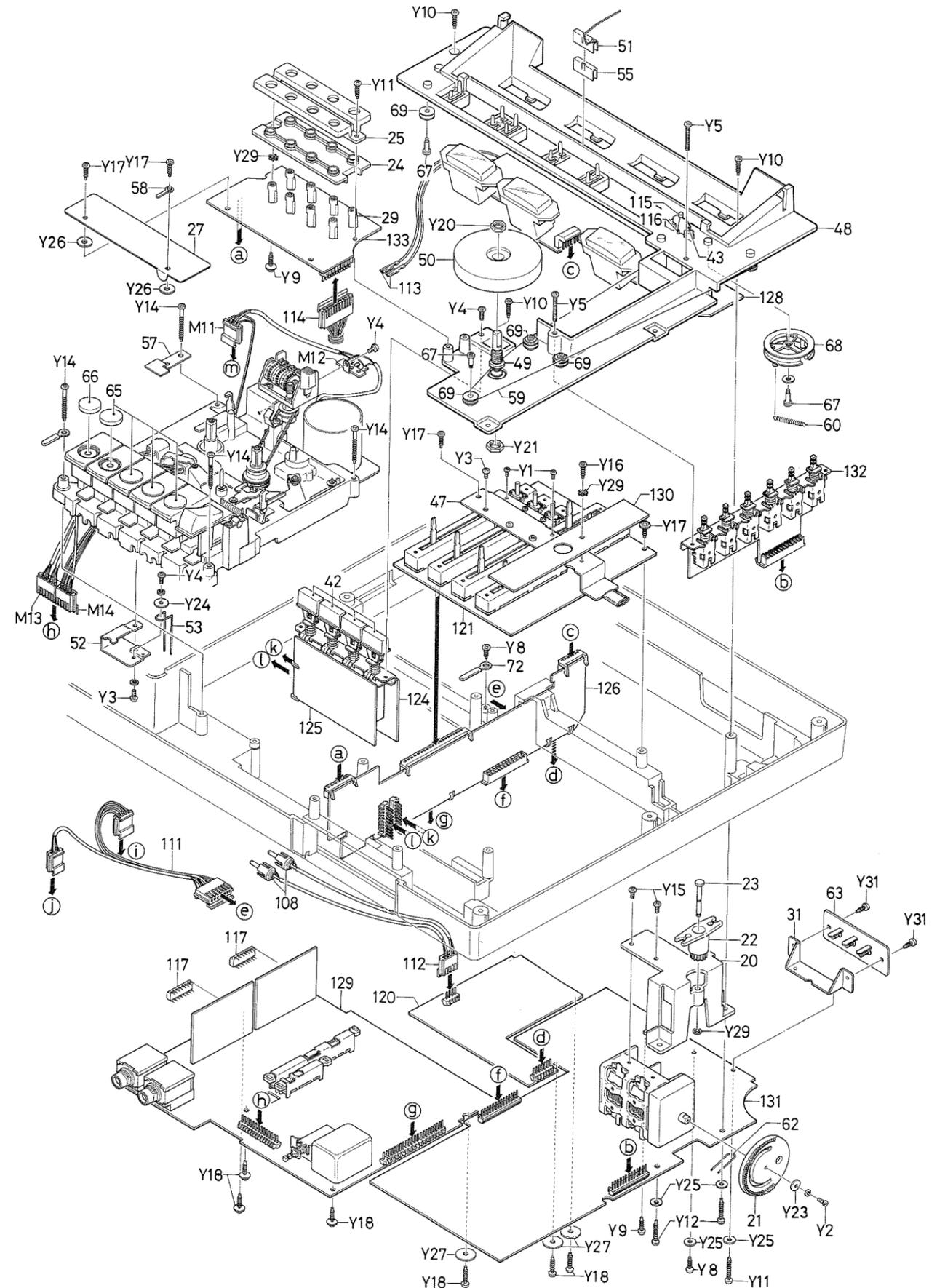
**PARTS LIST**

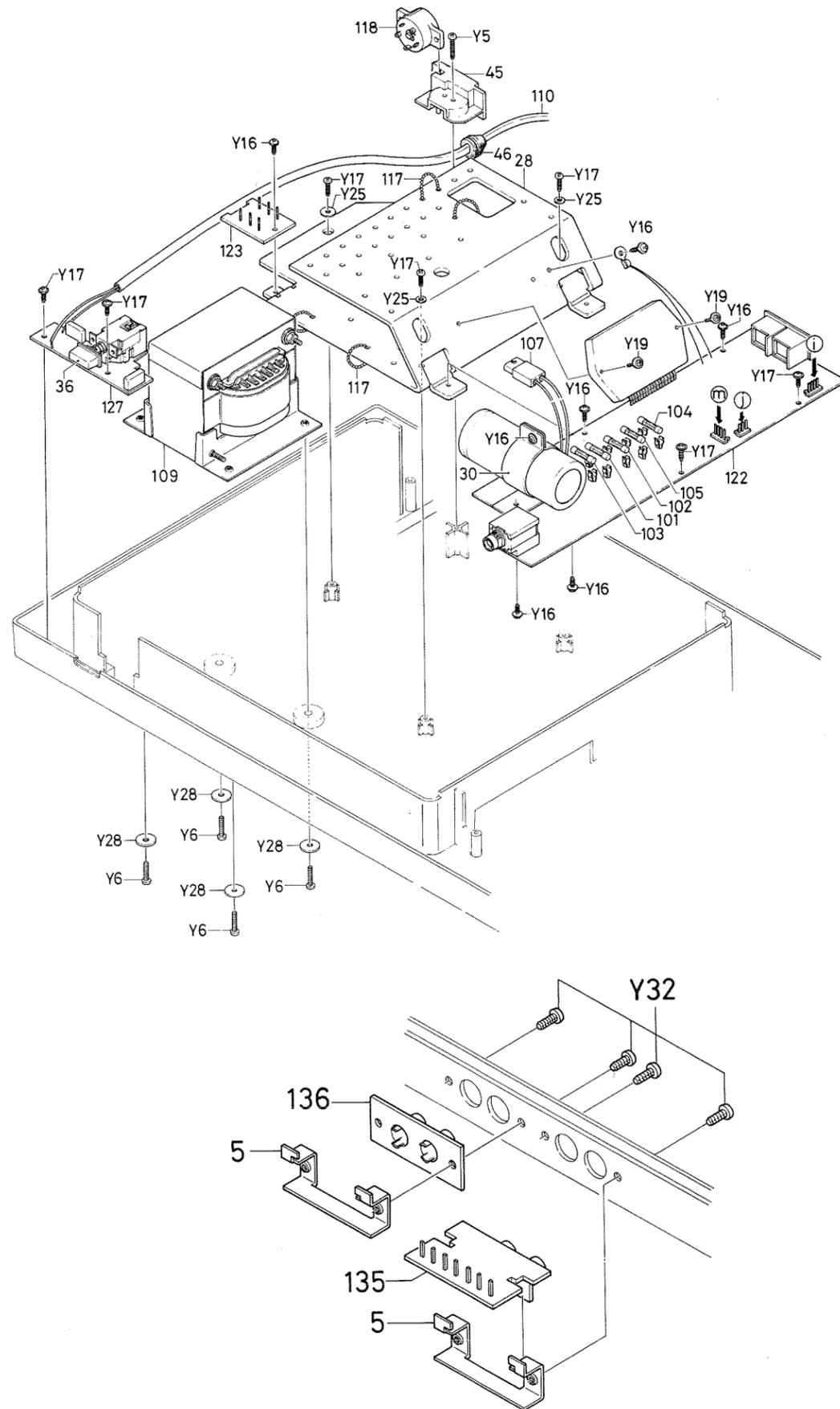
Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>EQUALIZER PCB ASSY</b>				<b>VOLUME PCB ASSY</b>			
120	140-9-230T-82600	Printed Circuit Board Assembly, Equalizer	1			<b>RESISTORS</b>	
	4-236T-10271	Plug, Phono Input 4 pin	1			All resistors are Carbon P type ±10% 1/4W unless otherwise noted.	
IC751,851	4-236T-10275	Plug, Phono AUX out 8 pin	1	R964		100 ohm	1
		IC μPC1024H or TA7129P	2	R771,871		680 ohm	2
		<b>CAPACITORS</b>		R781,881		1k ohm	2
C753,853		Ceramic 68pF ±10% 50WV	2	R775,777,		2.2k ohm	4
C757,857		Ceramic 220pF ±10% 50WV	2	875,877			
C756,856		Mylar 0.0047μF, ±5% 50WV	2	R772,872		4.7k ohm	2
C755,855		Mylar 0.018μF ±5% 50WV	2	R768,868		5.6k ohm	2
C751,851		Electrolytic 3.3μF 25WV	2	R769,778,		6.8k ohm	4
C754		Electrolytic 4.7μF 25WV	2	869,878			
854				R783,883		12k ohm	2
C752,852		Electrolytic 100μF 6.3WV	2	R773,774,		18k ohm	6
C988		Electrolytic 100μF 35WV	1	776,873,			
		<b>RESISTORS</b>		874,876			
		All resistors are Carbon P type ±10% 1/4W unless otherwise noted.		R779,879		680k ohm	2
R968		220 ohm	1	R770,870		1M ohm	2
R754,854		Carbon 270 ohm ±5% 1/4W	2	R780,880		1.8M ohm	2
R751		1k ohm	2				
851				<b>POWER AMP PCB ASSY</b>			
R756,856		Carbon 8.2k ohm ±5% 1/4W	2	122	140-9-230T-33600	Printed Circuit Board Assembly, Power AMP	1
R758,858		Carbon 15k ohm ±5% 1/4W	2		4-235T-36700	Socket, Headphone	1
R752,753,		100k ohm	4		4-235T-31500	Socket, Speaker	2
852,853					141-2-381T-01800	Bracket, Fuse Holder	10
R757,857		Carbon 120k ohm ±5% 1/4W	2		4-236T-10271	Plug, 4 pin	2
R789,889		4.7K ohm	2		4-236T-10200	Plug, 3 pin Power AMP input	1
R759		470k ohm	2	P951	4-237T-00100	Terminal	28
859					4-209T-01100	Positive Characteristic Thermistor PTH487A01 or BG471TS	1
R755,855		820k ohm	2	C986	4-223T-04600	Electrolytic 4.7μF 35WV Non Polar	1
				IC951	4-206T-00600	IC STK-014	1
				Q951		Transistor 2SC1175	1
				Q952		Transistor 2SD438	1
				Q953		Transistor 2SK30A	1
				Q954		Transistor 2SD545	1
				Q955		Transistor 2SD325	1
				Q751,851		Transistor 2SD467	2
				Q960		Transistor 2SC536 or 2SC828	1
				D951,952		Diode DS442 or 1S2473	2
				D953		Diode WZ061	1
				D954		Diode WZ1301	1
				D955		Diode WZ177	1
				D956,957,		Diode DS150K	4
				958,959			
				D960,962		Diode DS17	2
				D961,963		Diode DS18	2
				C760,860		<b>CAPACITORS</b>	
				C952		Ceramic 470pF ±5% 50WV	2
				C761,861,		Ceramic 0.001μF +80-20% 50WV	1
				962,963,		Ceramic 0.01μF +80-20% 50WV	10
				964,965,			
				966,967,			
				968,969			
				C954,955,		Ceramic 0.01μF +80-20% 500WV	5
				956,957,			
				960			
				C961		Ceramic 0.047μF +80-20% 50WV	1
				C778,878		Mylar 0.022μF ±20% 50WV	2
				C759,859		Electrolytic 0.47μF 16WV	2
				C758,858		Electrolytic 10μF 50WV	2
				C983,990		Electrolytic 100μF 16WV	2
				C763,863,		Electrolytic 100μF 25WV	3
				982			
				C951		Electrolytic 100μF 35WV	1
				C762,862		Electrolytic 220μF 16WV	2
				C989		Electrolytic 220μF 50WV	1
				C980		Electrolytic 1000μF 25WV	1
				C764,864		Electrolytic 1000μF 35WV	2
				C981		Electrolytic 2200μF 10WV	1
				C958		Electrolytic 4700μF 63WV	1
<b>VOLUME PCB ASSY</b>							
121	141-9-230T-23900	Printed Circuit Board Assembly, VOLUME	1				
VR751,851	4-222T-45071	Variable Resistor 50k (A), Record Level	2				
VR951	4-222T-51900	Variable Resistor 100k (B), Main Volume	1				
VR952,953	4-222T-52000	Variable Resistor 100k (B) with Click point, Bass & Treble	2				
VR954	4-222T-42972	Variable Resistor 100k (W), Balance	1				
S6	4-231T-47600	Switch, Tape Select	1				
S7	4-231T-50000	Switch, Loudness	1				
S8	4-231T-50071	Switch, Dolby	1				
	4-236T-10289	Plug, 22 pin	1				
	4-236T-10200	Plug 3pin	1				
Q752,753,		Transistor 2SC1327 or 2SC1571	4				
852,853							
		<b>CAPACITORS</b>					
C767,867		Ceramic 20pF ±10% 50WV	2				
C775,875		Ceramic 330pF ±5% 50WV	2				
C771,871		Mylar 0.001μF ±5% 50WV	2				
C769,770,		Mylar 0.022μF ±5% 50WV	4				
869,870							
C774,874		Mylar 0.033μF ±5% 50WV	2				
C765,773,		Electrolytic 0.47μF 16WV	4				
865,873							
C768,868		Electrolytic 4.7μF 25WV	2				
C772,872		Electrolytic 10μF 25WV	2				
C766,866		Electrolytic 100μF 6.3WV	2				
C987		Electrolytic 100μF 25WV	1				

PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>POWER AMP PCB ASSY</b>				<b>METER PCB ASSY</b>			
		<b>RESISTORS</b> All resistors are Carbon P type ±10% 1/4W unless otherwise noted.		128	140-9-230T-48900	Printed Circuit Board Assembly, Meter	1
R958		Solid 5.6 ohm ±10% 1/2W	1		4-511T-07800	Meter, VU	2
R962		Metal Oxide Film 5.6 ohm ±10% 2W	1		4-511T-07871	Meter, Tuning	1
R960		Metal Oxide Film 18 ohm ±10% 2W	1		4-236T-11174	Plug, 7 pin	4
R951		Solid 56 ohm ±10% 1/2W	1		4-612T-07300	Pilot Lamp 6.3V 300mA	1
R966		Solid 100 ohm ±10% 1/2W	1		4-237T-00100	Terminal, Wrapper Pin	2
R764,864		220 ohm	2	C390		Capacitor Ceramic 100pF 50WV	1
R767,867		Metal Oxide Film 150 ohm ±10% 2W	2	<b>MAIN AMP PCB ASSY</b>			
R952		Metal Oxide Film 220 ohm ±10% 2W	1	129	140-9-230T-24100	Printed Circuit Board Assembly, Main AMP	1
R956,957		330 ohm	2		4-235T-36600	Socket, Microphone	2
R961		560 ohm	1	S3	4-231T-60800	Switch, Beat Cancel	1
R766,866,959		1K ohm	3	S2	4-231T-39871	Switch, Record/Playback	1
R955		8.2k ohm	1	S1	4-231T-45672	Switch, Record/Playback	1
R765,865,967		10k ohm	3		4-236T-10279	Plug 22 pin, to Connector P.C.B.	1
R954		22k ohm	1		4-236T-10275	Plug 8 pin, to R/P Head & E Head	1
R965,971		56k ohm	2	SVR701,801	4-222T-39577	Semi Fixed Resistor 50k(B)	2
R953		68k ohm	1	SVR702,802	4-222T-39574	Semi Fixed Resistor 5k(B)	2
R761,763,861,863		220k ohm	4	SVR703,803	4-222T-39576	Semi Fixed Resistor 20k(B)	2
R762,862		390k ohm	2	SVR704,804	4-222T-39578	Semi Fixed Resistor 100k(B)	2
R970		560k ohm	1	L701,801	4-253T-01019	High Frequency Choke Coil 4.7mH	2
R790,890		Solid 4.7 ohm ±10% 1/2W	2	L702,802	4-252T-05200	Choke Coil 10mH	2
<b>AMP CONNECTOR PCB ASSY</b>				Q701,702,801,802		Transistor 2SC1327S or 2SC1571G	4
123	140-9-230T-00200	Printed Circuit Board Assembly, Power AMP Connector	1	Q703,704,705,803,804,805		Transistor 2SC536G AUD	6
<b>FUNCTION PCB ASSY</b>					4-258T-10275	OSC Pack	1
124	140-9-230T-00300	Printed Circuit Board Assembly, Function	1	D701,801		Diode 1S188AM	2
	4-235T-37076	Socket 9 pin	1	D702,802		Diode DS442 or 1S2473	2
<b>FUNCTION PCB ASSY</b>				C722,822		Ceramic 35pF ±1pF 50WV	2
125	140-9-230T-18700	Printed Circuit Board Assembly, Function	1	C718,818		Ceramic 100pF ±10% 50WV	2
	4-231T-61100	Switch, Input Select	1	C717,817		Ceramic 150pF ±5% 50WV	2
	4-235T-37076	Socket, 9 pin	1	C704,724,804,824		Ceramic 220pF ±10% 50WV	4
R701,801		Carbon 47k ohm ±10% 1/4W	2	C716,816		Ceramic 470pF ±5% 50WV	2
<b>CONNECTOR PCB ASSY</b>				C702,802		Ceramic 680pF ±10% 50WV	2
126	140-9-230T-24300	Printed Circuit Board Assembly, Connector	1	C715,815		Ceramic 0.001μF ±20% 50WV	2
	4-235T-38779	Socket, 22 pin	2	C723,823		Ceramic 560pF ±10% 50WV	2
	4-235T-38772	Socket, 15 pin	1	C667		Mylar 0.0033μF ±5% 50WV	1
	4-235T-38794	Socket, 7 pin unlock	1	C704,809		Mylar 0.0039μF ±10% 50WV	2
	4-235T-37075	Socket, 8 pin	1	C705,805		Mylar 0.0068μF ±5% 50WV	2
	4-235T-37074	Socket, 7 pin lock	1	C714,814		Mylar 0.027μF ±10% 50WV	2
	4-236T-10276	Plug, 9 pin	2	C660		Mylar 0.1μF ±20% 50WV	1
	4-236T-10274	Plug, 7 pin	1	C711,811		Electrolytic 0.47μF 10WV	2
<b>POWER SUPPLY PCB ASSY</b>				C712,713,719,812,813,819,903		Electrolytic 4.7μF 6.3WV	2
127	140-9-230T-22600	Printed Circuit Board Assembly, Power Supply	1	C707,807		Electrolytic 4.7μF 25WV	6
S14	4-231T-60900	Switch, Power	1	C703,706,708,803,806,808		Electrolytic 47μF 16WV	1
C984,985	4-237T-00100	Terminal, Wrapper Pin	2	C904		Electrolytic 100μF 16WV	1
	4-223T-04700	Capacitor 0.047μF, Noise Cancelar	2	C905		Electrolytic 220μF 16WV	1
				C906			
				<b>RESISTORS</b> All resistors are Carbon P type ±10% 1/4W unless otherwise noted.			
				R702,802		10 ohm	2
				R689		Solid 56 ohm ±10% 1/2W	1
				R720,820		150 ohm	2
				R688		Solid 220 ohm ±10% 1/2W	1
				R705,805		180 ohm	2
				R721,821		220 ohm	2
				R710,810		820 ohm	2

EXPLODED VIEW (CHASSIS)





Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>MAIN AMP PCB ASSY</b>				<b>SUB VOLUME PCB ASSY</b>			
R722, 732, 822, 832, 903		1k ohm	5	130	4-230T-34900	Printed Circuit Board, Attached to Volume P.C.B.	1
R729, 829		1.5k ohm	2	<b>TUNER PCB ASSY</b>			
R716, 816		1.8k ohm	2	131	140-9-230T-44800	Printed Circuit Board Assembly, Tuner	1
R703		3.3k ohm	1		141-2-322T-35800	Shield Plate, FM IF	1
R723, 725, 823, 825		4.7k ohm	4		141-2-323T-00100	Shield Box	1
R718, 818		5.6k ohm	2		4-236T-10280	Plug 15 Pin, Tuner-Connector	1
R709, 712, 724, 809, 812, 824		6.8k ohm	6		4-235T-37100	Socket, FM DIN	1
R715, 815		8.2k ohm	2		4-235T-37200	Socket, AM DIN	1
R704, 731, 804, 831		10k ohm	4		141-2-322T-36000	Shield plate	1
R711, 811		Carbon 15k ohm ±5% 1/4W	2		141-2-322T-38500	Shield plate FM OSC	1
R728, 828		18k ohm	2	RL151, 152, 153	4-232T-04500	Relay	3
R727, 827, 902		22k ohm	3		4-236T-10280	Plug 13 Pin, Tuner-Band Select	1
R719, 730, 819, 830		47k ohm	4	TP101, 102, 201, 202, 203, 204, 205, 206, 301	4-237T-00100	Terminal Board	9
R706, 806		100k ohm	2		123-2-472R-00401	Lug, VC	2
R734, 834		180k ohm	2	L103	4-265T-03530	VHF Coil	1
R708, 726, 808, 826		220k ohm	4	L104	4-253R-11160	RF Choke Coil	1
R713, 724, 813, 824		470k ohm	4	L151	4-253R-12900	RF Choke Coil	1
R901		680k ohm	1	L152	4-257T-24330	Antenna Coil, SW2	1
				L153	4-257T-24401	Antenna Coil Assembly, SW1 & MW	1
<b>(DOLBY PCB SELECTION)</b>				L154	4-258T-17130	OSC Coil, SW2	1
	4-235T-32100	or Socket, IC	2	L156	4-258T-17230	OSC Coil, SW1	1
	4-235T-32400	Plug	2	L158	4-253R-11160	RF Choke Coil	1
	4-236T-09600	Shield Plate, L502 Y M552 Mtg.	2	L159	4-265R-00300	VHF Coil	1
D502, 552		Diode 1S188AM	2	L201	4-252T-06300	Choke Coil	1
L501, 551	4-252T-05600	Low Frequency Choke Coil	4	T101	4-256R-20831	I.F.T	1
L502, 552	4-252T-02800	Low Frequency Choke Coil 23mH Variable IC NE545B	2	T201	4-256R-15831	I.F.T 10.7MHz	1
IC501, 551		<b>CAPACITORS</b>		T202	4-256R-00231	I.F.T 455KHz	1
		Ceramic 150pF ±5% 50WV	2	T203	4-256T-08330	I.F.T FM	1
		Mylar 0.0022µF ±20% 50WV	2	T204	4-256T-08430	I.F.T FM	1
		Mylar 0.0027µF ±20% 50WV	2	L101	4-257T-23630	ANT Coil	1
		Mylar 0.0039µF ±20% 50WV	2	L102	4-265T-04230	VHF Coil	1
		Mylar 0.0047µF ±5% 50WV	2	L155	4-258T-14930	OSC Coil	1
		Mylar 0.0056µF ±5% 50WV	2	T151	4-256T-07800	IFT	1
		Mylar 0.027µF ±5% 50WV	2	CF102	4-256T-80400	IF Filter	2
		Mylar 0.047µF ±5% 50WV	2		4-256T-80471		
		Electrolytic 0.1µF 10WV	4		4-256T-80472	CR Pack	2
		Electrolytic 0.33µF 10WV	2	CR301, 302	4-227T-01410		
		Electrolytic 1µF 25WV	4	CT101, 102	4-227T-01400	Variable Capacitor 10pF	8
		Electrolytic 10µF 16WV	6	151, 152, 153, 154, 155, 156	4-224R-11671		
		Electrolytic 47µF 16WV	2	R125, 126	4-222T-39574	Variable Resistor	3
		Electrolytic 220µF 10WV	2	302	4-224T-07700	Variable Capacitor	1
		<b>RESISTORS</b>		R128, CV151, 152	4-222T-39573	Volume Control	2
		All resistors are Carbon P type ±10% 1/4W unless otherwise noted.		R204, 306	4-222T-39572	Semi Variable Resistor	1
R502, 508, 552, 558		180 ohm	4	R206	4-222T-39577	Volume Control	1
R501, 511, 551, 561		1k ohm	4	R217		Transistor 2SK61Y FET	1
R506, 556		Carbon 3.3k ohm ±5% 1/4W	2	Q101		Transistor 2SC535B	1
R507, 557		Carbon 47k ohm ±5% 1/4W	2	Q102		Transistor 2SC930E IF	1
R509, 559		100k ohm	2	Q103		Transistor 2SC930D CON.	1
R505, 555		Carbon 150k ohm ±5% 1/4W	2	Q104		Transistor 2SC930E CON.	2
R504, 554		270k ohm	2	Q151, 152		Transistor 2SC930D CON.	2
R503, 553		Carbon 650k ohm ±5% 1/4W	2	Q153, 154		Transistor 2SC536E	2
	140-9-230T-24200	Use this parts number to order Dolby P.C.B Assembly since this P.C.B. is mounted on Main P.C.B.	2	Q301, 302		Transistor 2SB598E	1
				Q351		Transistor 2SC536F	1
				Q352		IC LA1201B1	1
				IC201		IC LA3350A	1
				IC301		Diode 1S2473	14
				D101, 103			
				105			
				D102, 151			
				155, 203			
				204, 213			
				107, 109			
				160, 301			

PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>TUNER PCB ASSY</b>				<b>TUNER PCB ASSY</b>			
302, 351				<b>RESISTORS</b>			
352, 353				R179		Carbon 10 ohm ±5% 1/4W	1
D104		Diode 1S553	1	R350		Solid 10 ohm ±10% 1/2W	1
D106		Diode 1S2472	1	R172		Carbon 39 ohm ±5% 1/4W	1
D153, 156		Diode 1S2473 or DS442	8	R176		Carbon 56 ohm ±5% 1/4W	1
157, 201				R105, 115		Carbon 100 ohm ±5% 1/4W	3
108, 354				R163, 155		Carbon 100 ohm ±5% 1/4W	3
211, 212							
D152		Diode MV11	1				
D154		Diode WZ061	1				
D158, 202		Diode 1S2692A	2	R111		Carbon 110 ohm ±5% 1/4W	1
D205, 206		Diode 1S188 FM	2	R205		Carbon 150 ohm ±5% 1/4W	1
		<b>CAPACITORS</b>		R103, 164		Carbon 270 ohm ±5% 1/4W	3
C128		Ceramic 2pF ±0.25pF 50WV	1				
C113		Ceramic 3pF ±0.25pF 50WV	1	R114, 116		Carbon 330 ohm ±5% 1/4W	2
C112, 125		Ceramic 5pF ±0.25pF 50WV	4	R315, 322		Carbon 390 ohm ±5% 1/4W	2
157, 153				R182		Carbon 470 ohm ±5% 1/4W	1
C165		Ceramic 7pF ±0.25pF 50WV	1	R124, 208		Carbon 560 ohm ±5% 1/4W	2
C134		Ceramic 8pF ±0.5pF 50WV	1	R157, 352		Carbon 560 ohm ±5% 1/4W	2
C132, 150		Ceramic 10pF ±5% 50WV	2	R152		Carbon 680 ohm ±5% 1/4W	1
C131, 133		Ceramic 15pF ±5% 50WV	3	R173, 212		Carbon 1k ohm ±5% 1/4W	7
100				224, 225			
C171		Ceramic 12pF ±5% 50WV	1	307, 323			
C152, 158		Ceramic 22pF ±10% 50WV	2	355			
C163, 160		Ceramic 30pF ±5% 50WV	3	R132, 100		Carbon 1k ohm ±5% 1/4W	3
207				231			
C102, 224		Ceramic 100pF ±10% 50WV	6	R127		Carbon 1.5k ohm ±5% 1/4W	1
211, 222				R108, 161		Carbon 2.2k ohm ±5% 1/4W	2
223, 231				R119, 218		Carbon 2.2k ohm ±5% 1/4W	2
C115		Ceramic 470pF ±20% 50WV	1	R171, 173		Carbon 3.3k ohm ±5% 1/4W	3
C104, 114		Ceramic 0.001μF +80 -20% 50WV	2	203			
C103, 111		Ceramic 0.0022μF ±10% 50WV	3	R156, 150		Carbon 3.3k ohm ±5% 1/4W	5
126				304, 326			
C105, 106		Ceramic 0.01μF +80 -20% 50WV	6	357			
116, 118				R313, 317		Carbon 3.9k ohm ±5% 1/4W	2
136, 213				R134, 308		Carbon 4.7k ohm ±5% 1/4W	3
C117, 121		Ceramic 0.022μF +80 -20% 50WV	16	311			
122, 137				R136, 165		Carbon 5.6k ohm ±5% 1/4W	6
141, 142,				202, 214			
186, 201				215, 361			
202, 203				R174, 222		Carbon 5.6k ohm ±5% 1/4W	4
204, 212				226, 227			
214, 217				R159		Carbon 6.8k ohm ±5% 1/4W	1
232, 187				R170		Carbon 6.8k ohm ±5% 1/4W	1
C168		Styrol 440pF ±5% 125WV	1	R303		Carbon 8.2k ohm ±5% 1/4W	1
C183, 301		Styrol 1500pF ±5% 50WV	2	R135, 301		Carbon 10k ohm ±5% 1/4W	3
C161		Styrol 5400pF ±5% 50WV	1	358			
C123, 155		Mylar 0.001μF ±20% 50WV	4	R216, 305		Carbon 10k ohm ±5% 1/4W	2
311, 313				R158, 223		Carbon 12k ohm ±5% 1/4W	4
C209		Mylar 0.0022μF ±20% 50WV	1	230, 356			
C159		Mylar 0.0027μF ±10% 50WV	1	R109, 177		Carbon 15k ohm ±5% 1/4W	2
C166		Mylar 0.0033μF ±20% 50WV	1	R131, 151		Carbon 15k ohm ±5% 1/4W	5
C156		Mylar 0.0047μF ±20% 50WV	1	316, 321			
C162, 164		Mylar 0.022μF ±20% 50WV	5	364			
185, 208, 205				R123		Carbon 20k ohm ±5% 1/4W	1
C351		Mylar 0.033μF ±20% 50WV	1	R153		Carbon 22k ohm ±5% 1/4W	1
C302		Mylar 0.047μF ±20% 50WV	1	R166		Carbon 27k ohm ±5% 1/4W	1
C216		Aluminum Electrolytic 0.1μF 10WV	1	R162, 167		Carbon 33k ohm ±5% 1/4W	4
C304		Aluminum Electrolytic 0.22μF 10WV	1	175, 351			
C303, 204		Aluminum Electrolytic, 0.47μF 10WV	2	R354		Carbon 33k ohm ±5% 1/4W	1
C138		Aluminum Electrolytic 1μF 16WV	1	R154		Carbon 49k ohm ±5% 1/4W	1
C143		Aluminum Electrolytic 1μF 25WV	1	R362		Carbon 56k ohm ±5% 1/4W	1
C305		Electrolytic 1μF 25WV	1	R363		Carbon 56k ohm ±5% 1/4W	1
C353		Aluminum Electrolytic 2.2μF 16WV	1	R101, 102		Carbon 100k ohm ±5% 1/4W	8
C221		Electrolytic 4.7μF 16WV	1	106, 129			
C218, 316		Electrolytic 10μF 16WV	9	122, 353			
317, 318				327, 328			
309, 312				R133, 325		Carbon 100k ohm ±5% 1/4W	2
314, 315, 352				R314, 318		Carbon 680k ohm ±5% 1/4W	2
C206		Electrolytic 100μF 10WV	1	R112, 110		Carbon 1M ohm ±5% 1/4W	3
C308, 319		Electrolytic 100μF 16WV	2	121			
C210		Electrolytic 220μF 6.2WV	1	R107		Carbon 1.8M ohm ±5% 1/4W	1
C330		Electrolytic 470μF 6.3WV	1	R461, 462		Carbon 3.9M ohm ±5% 1/4W	8
				463, 464			
				465, 466			
				467, 468			
				R408		Carbon 5.1M ohm ±5% 1/4W	1
				R401, 402		Carbon 5.1M ohm ±5% 1/4W	7
				403, 404			
				405, 406			
				407			

PARTS LIST

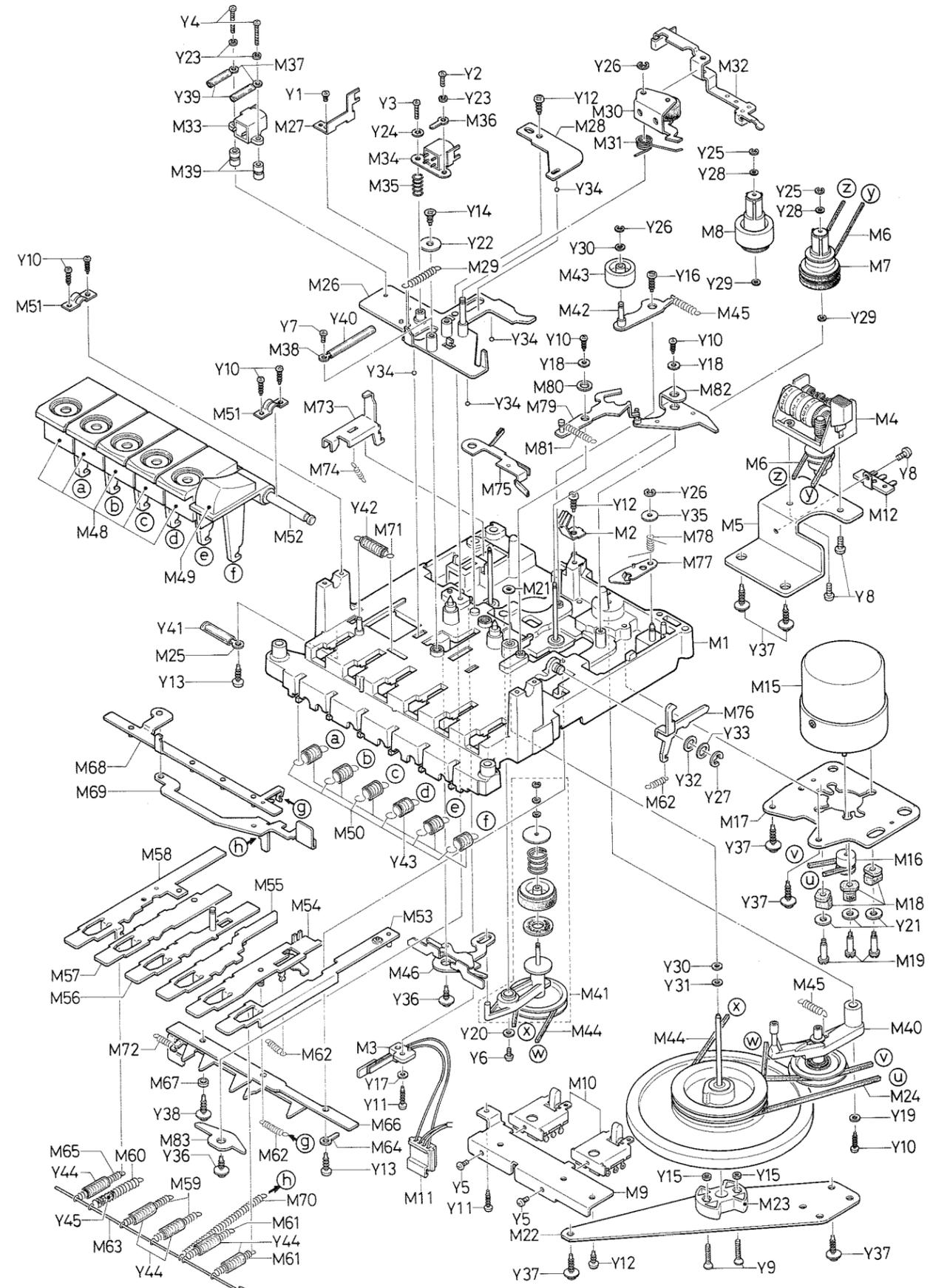
Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>BAND SELECTOR PCB ASSY</b>				<b>SOCKET PCB ASSY</b>			
132	140-9-230T-03800	Printed Circuit Board Assembly, Band Select	1	135	140-9-230T-82700	Printed circuit Board Assembly, Socket	1
	4-235T-38700	Socket 13 pin	1		4-235T-32600	Socket, RCA pin w/switch AUX IN	1
	4-231T-61200	Push Switch	1		4-235T-32700	Socket RCA pin w/out switch REC OUT	1
R251, 252, 253, 254		Carbon Resistor 100k ohm ±5% 1/4W	4		4-237T-00100	Terminal board	8
					4-235T-52700	Socket, Rec. Out	3
<b>FM TOUCH PCB ASSY</b>				<b>SCREW MOUNTING</b>			
133	140-9-230T-03900	Printed Circuit Board Assembly, FM Touch	1	Y1		Pan Head Screw 2.6 x 4 mm	5
	4-236T-10274	Plug, 7 pin	1	Y2		Pan Head Screw 2.6 x 6 mm	1
	4-236T-10277	Plug 10 pin	1	Y3		Pan Head Screw 3 x 4 mm	5
IC401		IC SAS6600	1	Y4		Pan Head Screw 3 x 6 mm	2
IC402		IC SAS6700	1	Y5		Pan Head Screw 3 x 20 mm	2
D401, 402		Light Emitting Diode SLP-114B	8	Y6		Pan Head Screw 4 x 12 mm	4
403, 404				Y7		Flat Head Screw 4 x 12 mm	4
405, 406				Y8		Tapping Screw 3 x 8 mm	7
407, 408				Y9		Tapping Screw 3 x 10 mm	3
D418		Diode 1S2473 Escutcheon	1	Y10		Tapping Screw 3 x 12 mm	9
	141-2-153T-28700		8	Y11		Tapping Screw 3 x 14 mm	1
				Y12		Tapping Screw 3 x 16 mm	12
				Y13		Tapping Screw 3 x 20 mm	2
				Y14		Tapping Screw 3 x 25 mm	4
				Y15		Pan Head Screw with Washer 3 x 6 mm	2
C401, 402		<b>CAPACITORS</b> Ceramic 0.001μF +80 -20% 50WV	8	Y16		Tapping Screw with Washer 3 x 8 mm	7
403, 404				Y17		Tapping Screw with Washer 3 x 10 mm	11
405, 406				Y18		Tapping Screw with Washer 3 x 12 mm	7
407, 408				Y19		Tapping Screw with Washer 3 x 14 mm	2
C421, 422		Ceramic 0.001μF +80 -20% 50WV	8	Y20		Nut 7φ x 0.75 mm	1
423, 424				Y21		Nut 8φ x 0.75 mm	1
425, 426				Y22		Nut 2.6 mm	2
427, 428				Y23		Washer 2.6 mm	1
C412		Electrolytic 10μF +100 -10% 25WV	1	Y24		Washer 3 x 10 x 0.5 mm	1
		Electrolytic 100μF 3100- 10% 16WV	1	Y25		Washer 3 x 10 x 1 mm	7
C411				Y26		Washer 3 x 10 x 2 mm	1
		<b>RESISTORS</b> All resistors are Carbon P type ±5% 1/8W unless otherwise noted.		Y27		Washer 3 x 12 x 1 mm	4
R453, 454		Solid 10 ohm ±10% 1/2W	2	Y28		Washer 4 x 10 x 1 mm	4
R451		1k ohm	1	Y29		External Tooth Lock Washer 3 mm	3
R421, 422		3.3k ohm	8	Y30		External "E" Ring 2 mm	1
423, 424				Y31		Tapping Screw 3 x 6 mm	2
425, 426				Y32		Panitead screw 3 x 8mm	4
427, 428				Y51		Tapping screw 3 x 8mm	2
R452, 456		12k ohm	2	Y52		Pan Head Screw w/spring washer 3 x 5mm	1
R457		27k ohm	1	Y53		Spring washer 3 mm	2
R455		33k ohm	1	Y54	141-2-457T-23000	Special washer 2 mm	2
R461, 462		3.9M ohm	8				
463, 464							
465, 466							
467, 468							
R401, 402		5.1M ohm	8				
403, 404							
405, 406							
407, 408							
<b>FM PRESET PCB ASSY</b>							
134	140-9-230T-04000	Printed Circuit Board Assembly, FM Preset	1				
R441, 442, 443, 444	4-222T-52400	Variable Resistor 100k (B)	7				
445, 446							
447							
D411, 412		Diode 1S2472	7				
413, 414							
415, 416							
417							
R432, 433		Carbon 15k ohm ±2% 1/8W	7				
434, 435							
436, 437							
438							



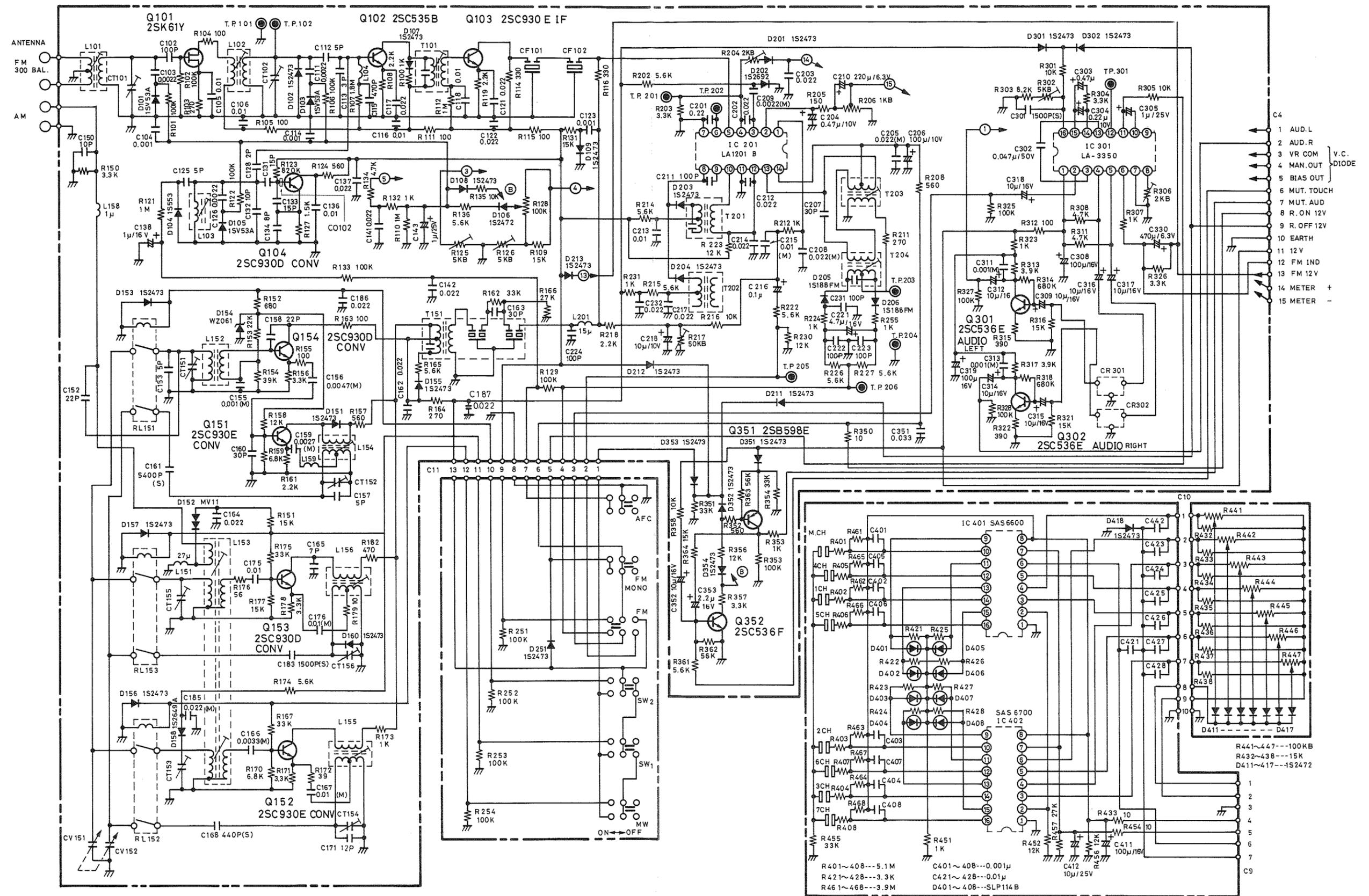
PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>MECHANISM</b>				<b>MECHANISM SCREWS</b>			
M40	141-0-741T-18201	Lever Assembly, Play	1	Y1		Pan Head Screw 2x2mm	1
M41	141-0-741T-19000	Lever Assembly, Rewind & Fast Forward	1	Y2		Pan Head Screw 2x6mm	1
M42	141-0-741T-05700	Lever Assembly, Fast Forward Roller Lever	1	Y3		Pan Head Screw 2x8mm	1
M43	141-2-661T-23600	Pulley, Roller	1	Y4		Pan Head Screw 2x12mm	2
M44	141-2-564T-13500	Square Belt, Rewind & Fast Forward	1	Y5		Pan Head Screw 2.6x4mm	2
M45	141-2-851T-63800	Coil Spring, Lever (M40, M42) Mtg.	1	Y6		Pan Head Screw 2.6x6mm	1
M46	141-0-741T-17000	Lever Assembly, Rewind & Fast Forward Operation	1	Y7		Pan Head Screw 3x4mm	1
M48	141-2-611T-09500	Push Button, Except Pause	5	Y8		Pan Head Screw 3x6mm	3
M49	141-2-611T-09600	Push Button, Pause	1	Y9		Flat Head Screw 2.6x10mm	2
M50	141-2-855T-06800	Coil Spring, Push Button	6	Y10		Tapping Screw 2.3x6mm	6
M51	141-2-853T-23300	Plate Spring, Shaft (M52) Mtg.	2	Y11		Tapping Screw 2.3x8mm	2
M52	141-2-612T-03000	Shaft, Push Button Mtg.	1	Y12		Tapping Screw 3x6mm	3
M53	141-0-731T-11500	Slide Assembly, Pause	1	Y13		Tapping Screw 3x8mm	2
M54	141-0-731T-11400	Slide Assembly, Stop	1	Y14		Flat Head Tapping Screw 3x6mm	1
M55	141-2-731T-44400	Slide, Fast Forward	1	Y15		Nut 2.6mm	2
M56	141-0-731T-11600	Slide Assembly, Play	1	Y16		Binding Head Tapping Screw 3x6mm	1
M57	141-0-731T-11800	Slide Assembly, Rewind	1	Y17		Washer 2.3mm	1
M58	141-0-731T-13600	Slide Assembly, Record	1	Y18		Washer 2.3x6x0.4mm	2
M59	141-2-851T-31500	Coil Spring, Play & Fast Forward Slide Restore	2	Y19		Washer 2.3x8x0.5mm	1
M60	141-2-851T-66400	Coil Spring, Rewind Slide Restore	1	Y20		Washer 2.6x6x0.5mm	1
M61	141-2-851T-67600	Coil Spring, Pause & Stop Slide Restore	2	Y21		Washer 3x8x0.5mm	3
M62	141-2-851T-56100	Coil Spring, Stop Slide (M54) & Lever (M76)	2	Y22		Washer 3x10x0.5mm	1
M63	141-2-735T-09900	Rod, Coil Spring Earth	1	Y23		Spring Washer 2mm	3
M64	123-2-472R-00400	Lug, Bracket Slide (M66) Mtg.	1	Y24		Internal Tooth Lock Washer 2.6mm	1
M65	141-2-851T-56000	Coil Spring, Record Slide Restore	1	Y25		External "E" Ring 1.5mm	2
M66	141-0-737T-00700	Bracket Slide Assembly, Push Button Slide Fixer	1	Y26		External "E" Ring 2mm	3
M67	141-2-683T-26000	Ring, Bracket Slide (M66) Mtg.	1	Y27		External "E" Ring 3.2mm	1
M68	141-0-731T-11900	Slide Assembly, Lock Slide	1	Y28		Graphite Nylon Washer 2.1x4x0.25mm	2
M69	141-2-741T-47308	Auto Stop Lever	1	Y29		Graphite Nylon Washer 2.1x4x0.5mm	2
M70	141-2-851T-73201 or 141-2-851T-73202	Coil Spring, Auto Stop	1	Y30		Graphite Nylon Washer 2.6x4.7x0.25mm	2
M71	141-2-851T-99000	Coil Spring, Slide (M68) Restore	1	Y31		Graphite Nylon Washer 2.6x4.7x0.5mm	1
M72	141-2-851T-46000	Coil Spring, Bracket Slide (M66) Restore	1	Y32		Graphite Nylon Washer 5.2x8x0.25mm	1
M73	141-2-741T-82500	Lever, Safety Recording	1	Y33		Graphite Nylon Washer 5.2x8x0.5mm	1
M74	141-2-851T-79800	Coil Spring, Lever (M73) Restore	1	Y34		Steel Ball 2φ	4
M75	141-0-741T-56491	Lever Assembly, Brake Lever	1	Y35		Fiber Washer 3x8x0.5mm	1
M76	141-2-741T-99100	Lever, Cassette Up	1	Y36		Tapping Screw with Washer 3x6mm	2
M77	141-2-614T-05100	Lever Lock, Pause	1	Y37		Tapping Screw with Washer 3x8mm	6
M78	141-2-852T-35100	Wire Spring, Pause	1	Y38		Tapping Screw with Washer 3x10mm	1
M79	141-0-741T-15301	Lever Assembly, Pause	1	Y39		Vinyl Tube 2φx18mm	1
M80	141-2-683T-25800	Ring, Lever (M79) Mtg.	1	Y40		Vinyl Tube 2φx35mm	2
M81	141-2-855T-02900	Coil Spring, Lever (M79) Restore	1	Y41		Vinyl Tube 3φx20mm	1
M82	141-0-741T-17100	Lever Assembly, Pause	1	Y42		Vinyl Tube 5φx15mm	1
M83	141-2-741T-92200	Lever, Prevent a simultaneously Lock of Rewind & Play Button	1	Y43		Vinyl Tube 6φx10mm	6
				Y44		Vinyl Tube 4φx18mm	5
				Y45		Felt Cushion 5x5x7mm	1

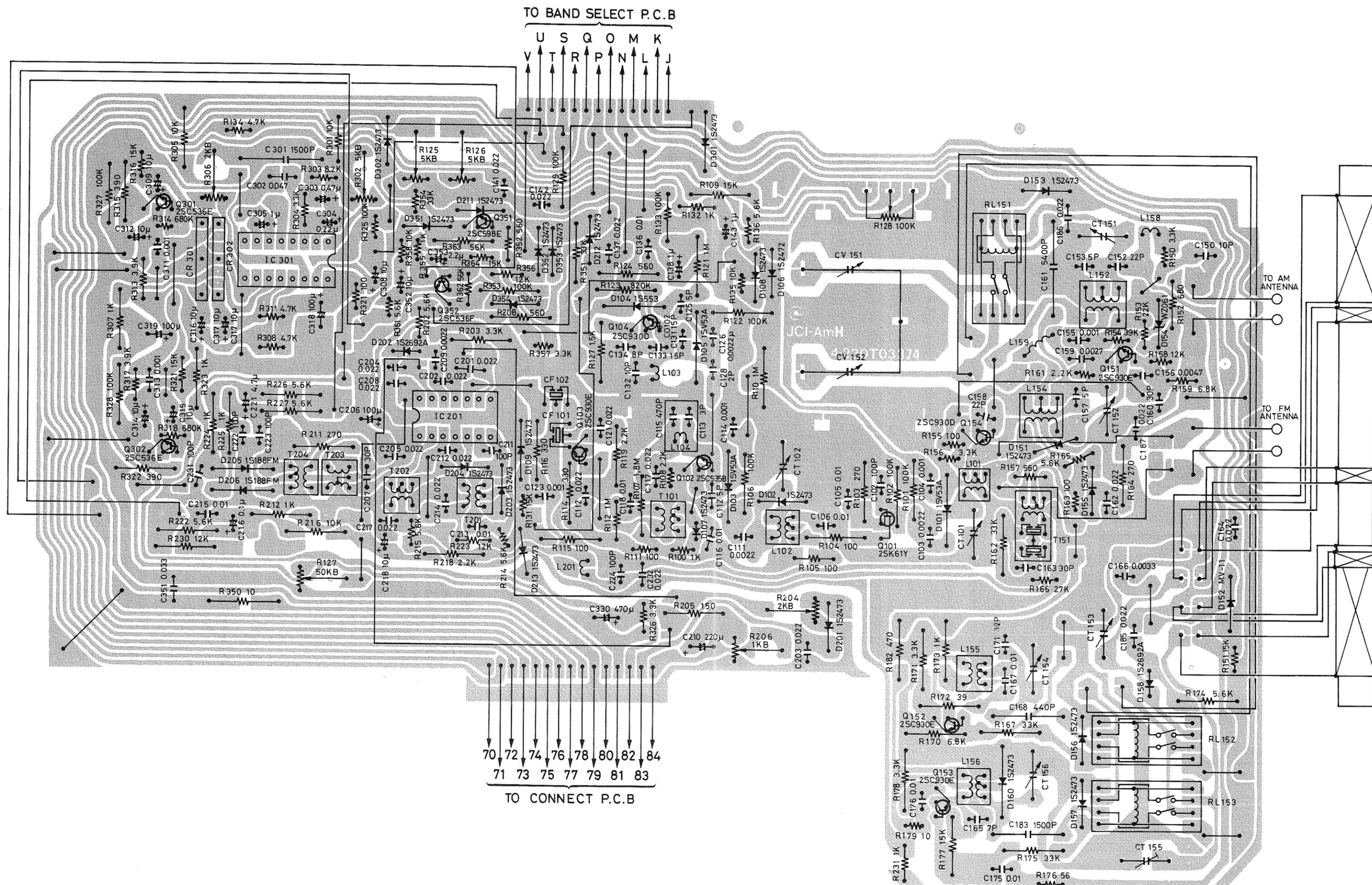
EXPLODED VIEW (MACHANISM)



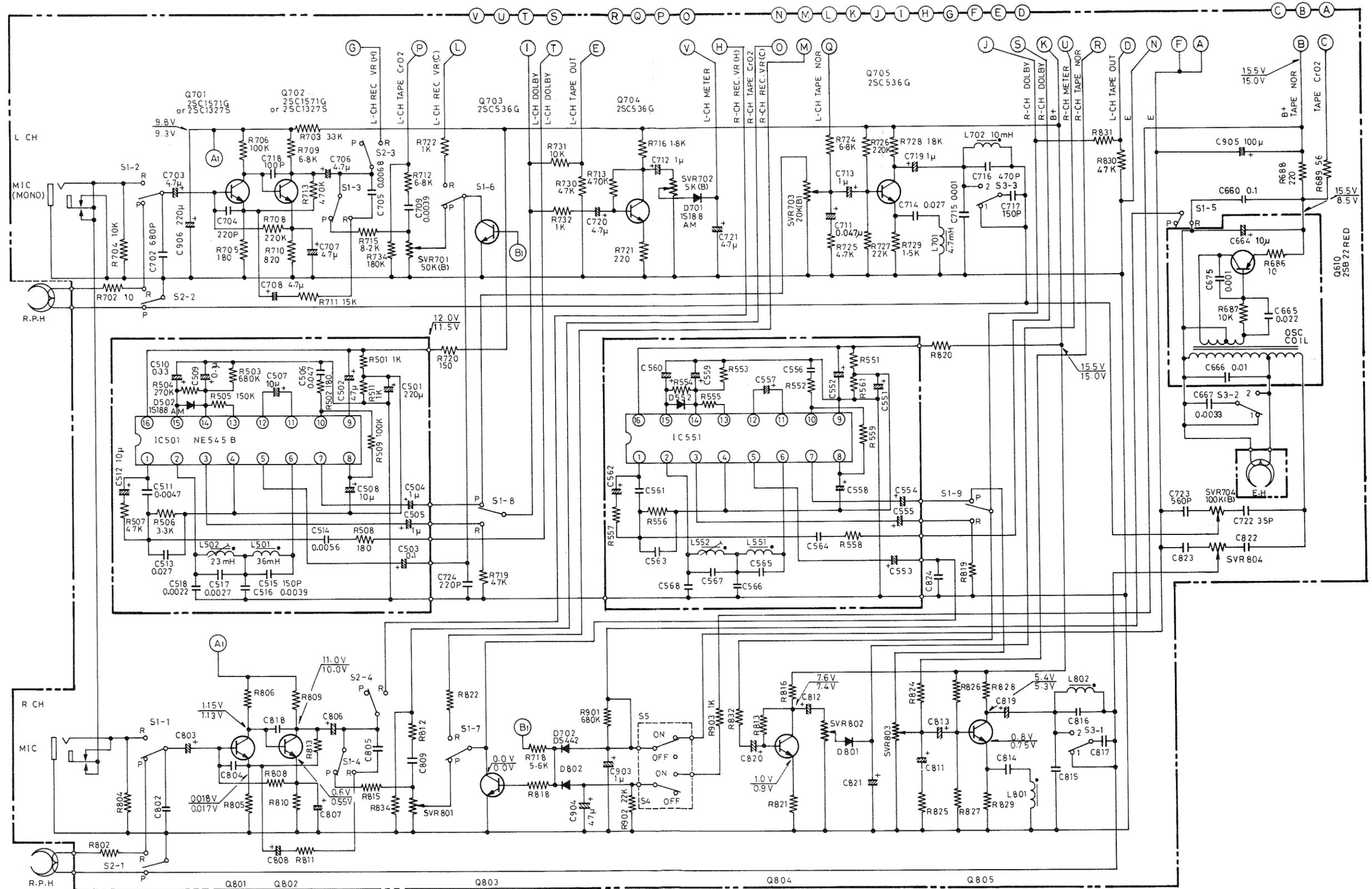
**SCHEMATIC DIAGRAM (TUNER , FM TOUCH, BAND SELECT FM PRESET)**



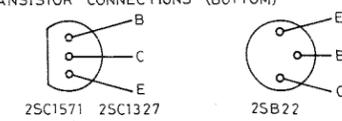
WIRING DIAGRAM (TUNER)



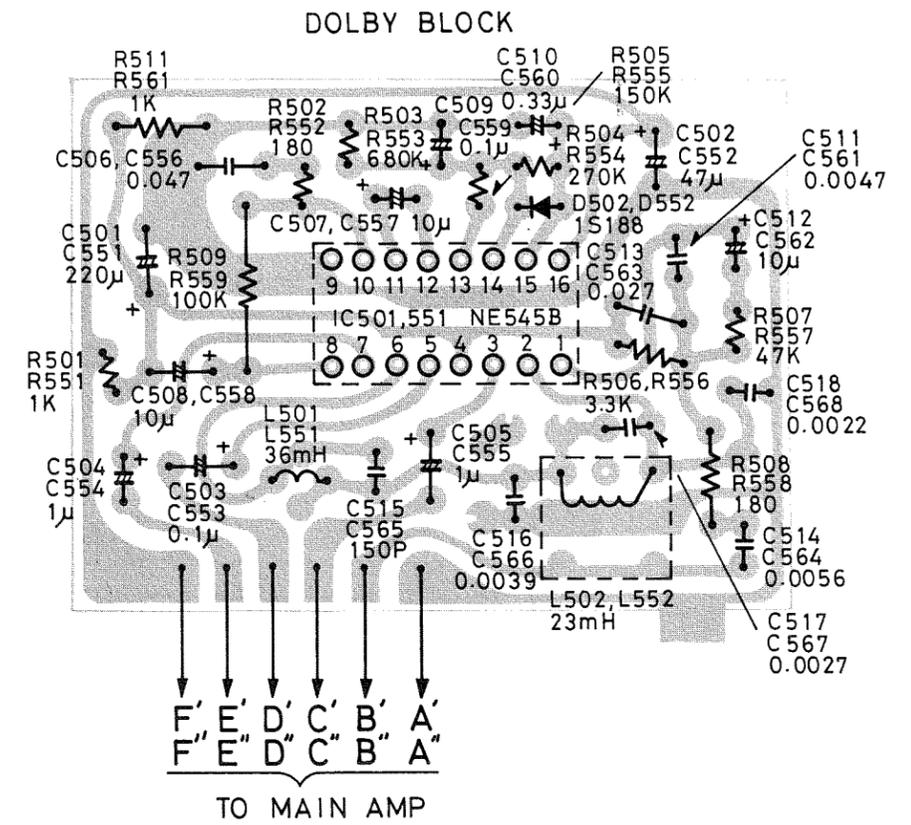
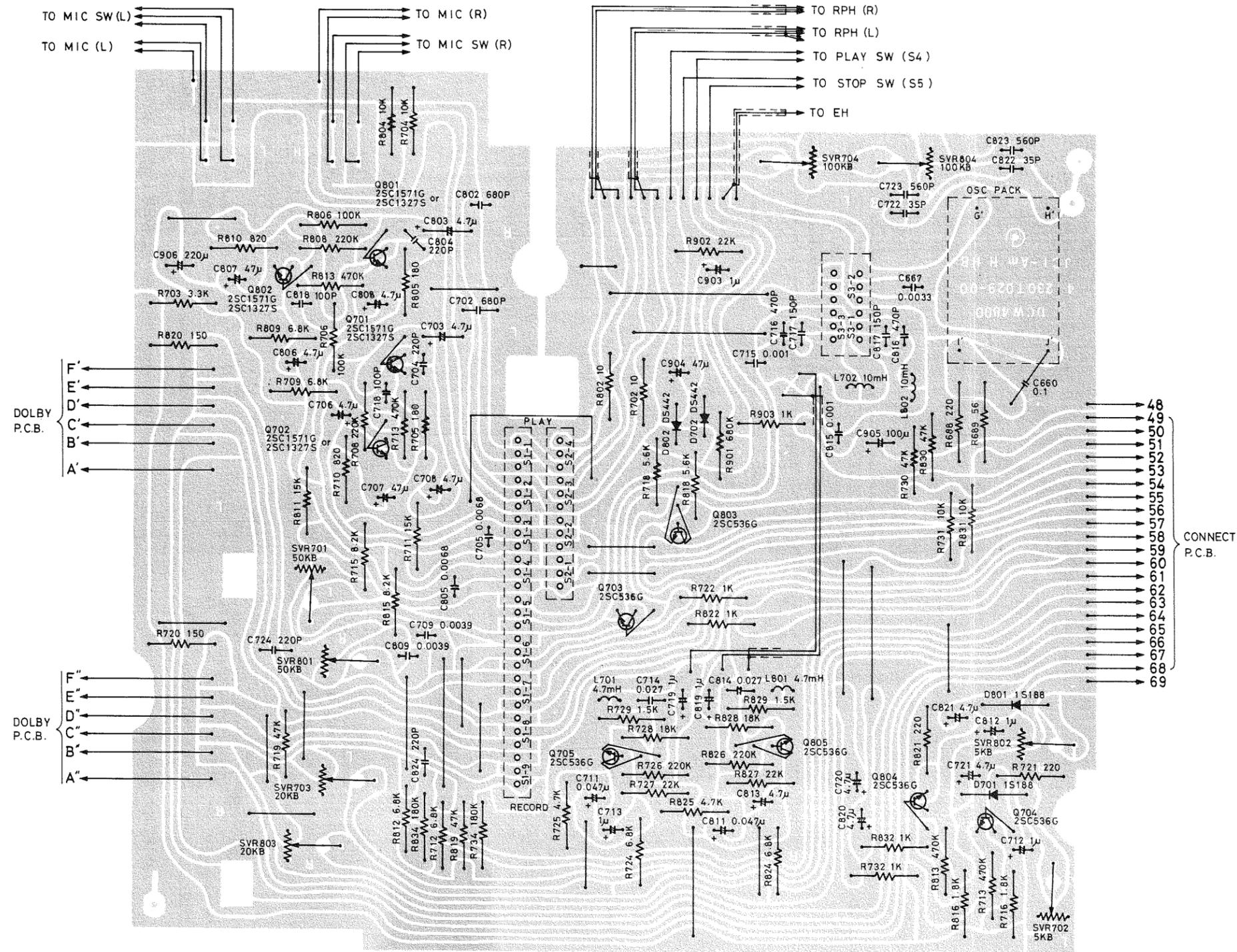
SCHEMATIC DIAGRAM (MAIN AMP, DOLBY)



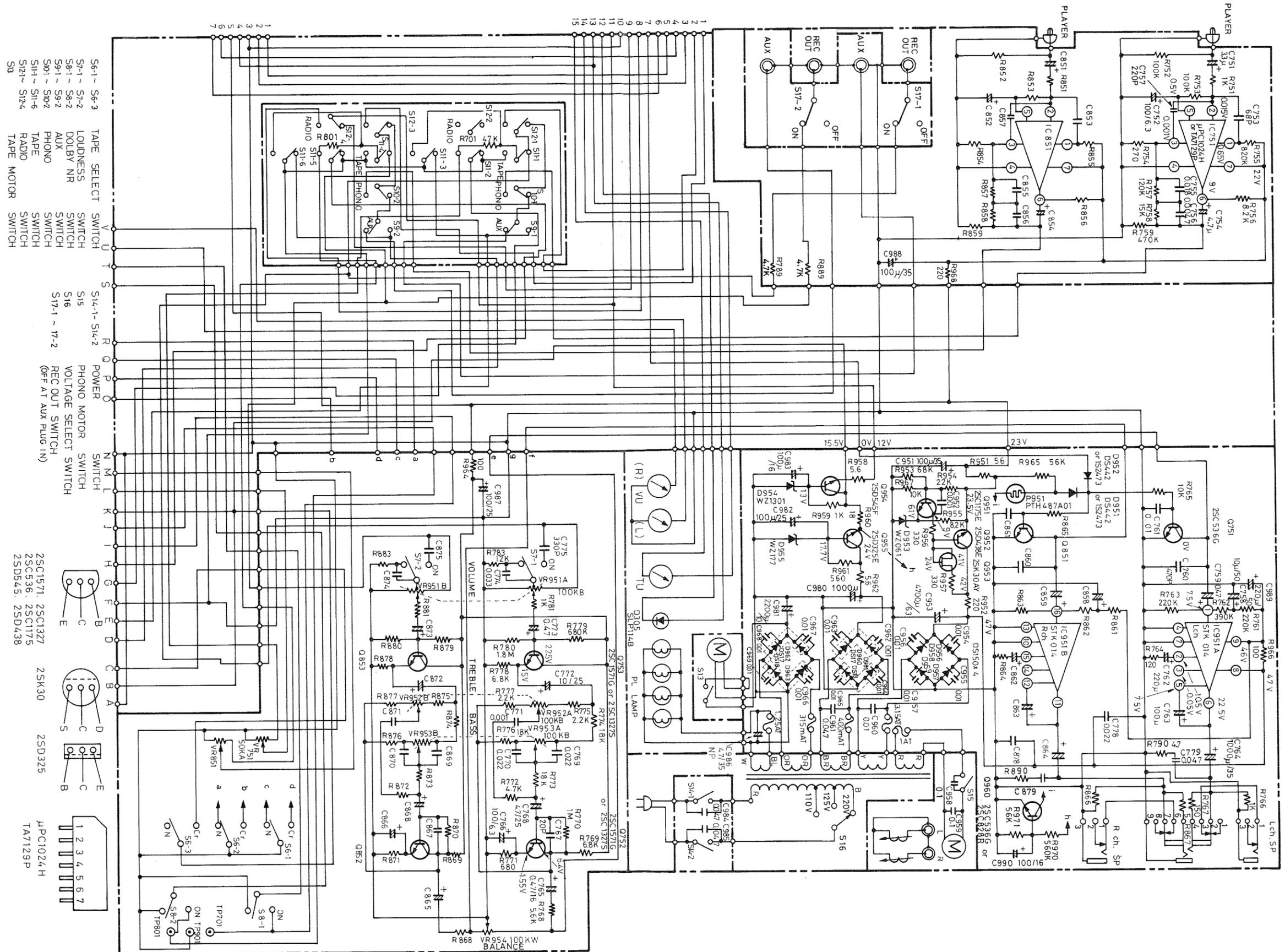
\* S1-1 ~ S1-9 R/P SWITCH AT PLAY POSITION  
 S2-1 ~ S2-4  
 S3-1 ~ S3-3 BEAT SWITCH AT 1 POSITION  
 S4 MUT. SWITCH OFF AT PLAY  
 S5 MUT. SWITCH INSTANT OFF AT STOP

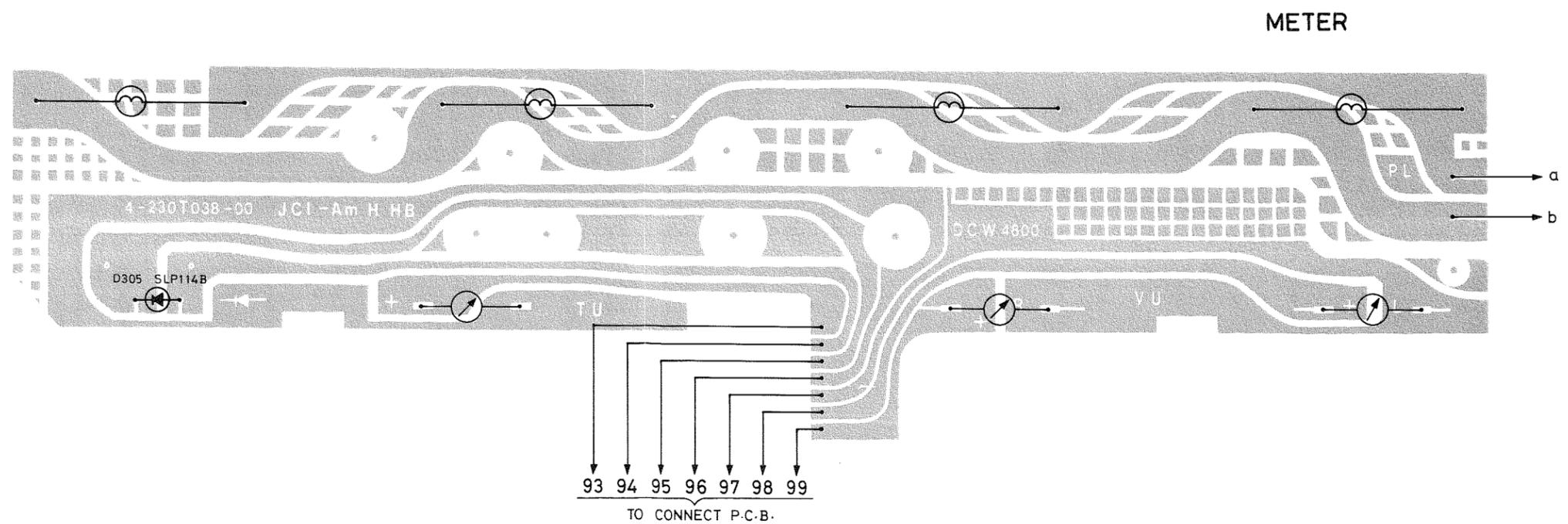
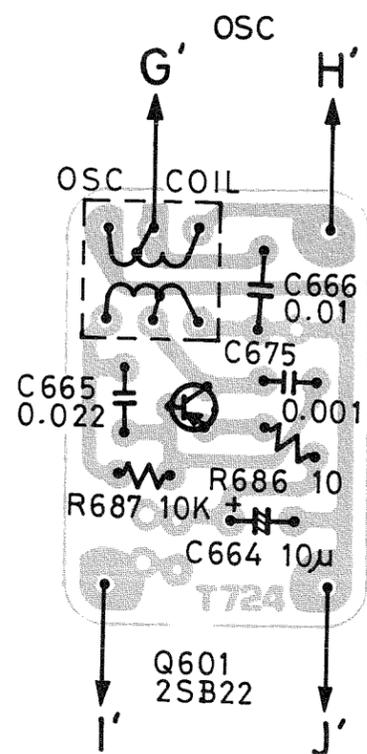
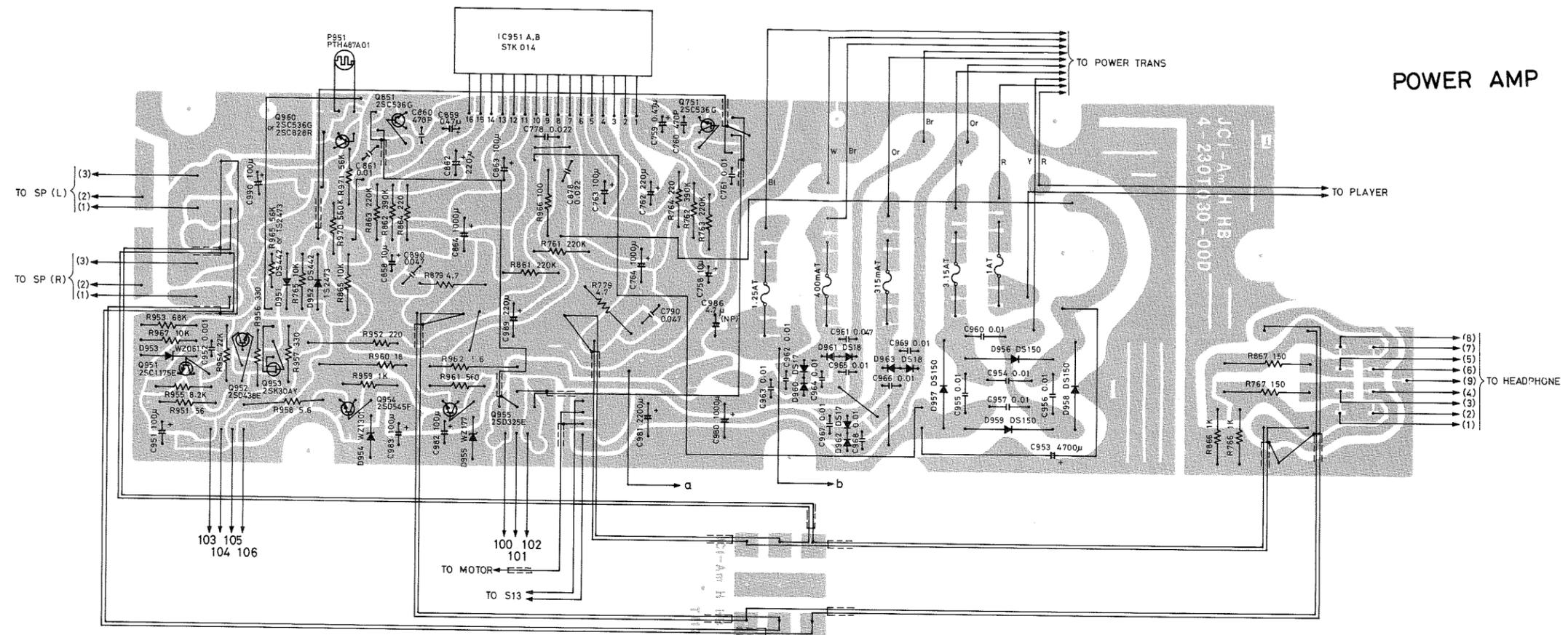
\* TRANSISTOR CONNECTIONS (BOTTOM)  


PLAY VOLTAGE TO CHASSIS  
 RECORD (NORMAL POSITION, TESTER 10V RANGE)

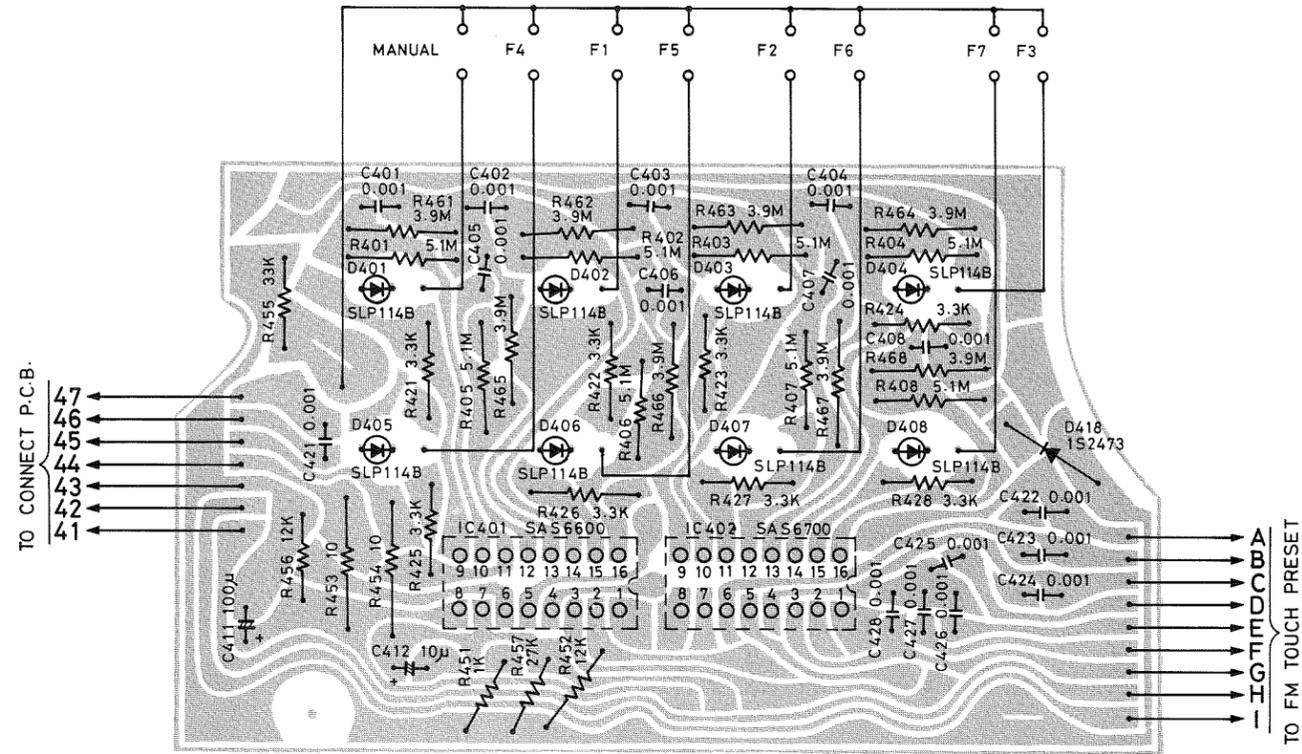


SCHEMATIC DIAGRAM (EQUALIZER, FUNCTION, SUB VR, POWER AMP, POWER SUPPLY, METER, VR)

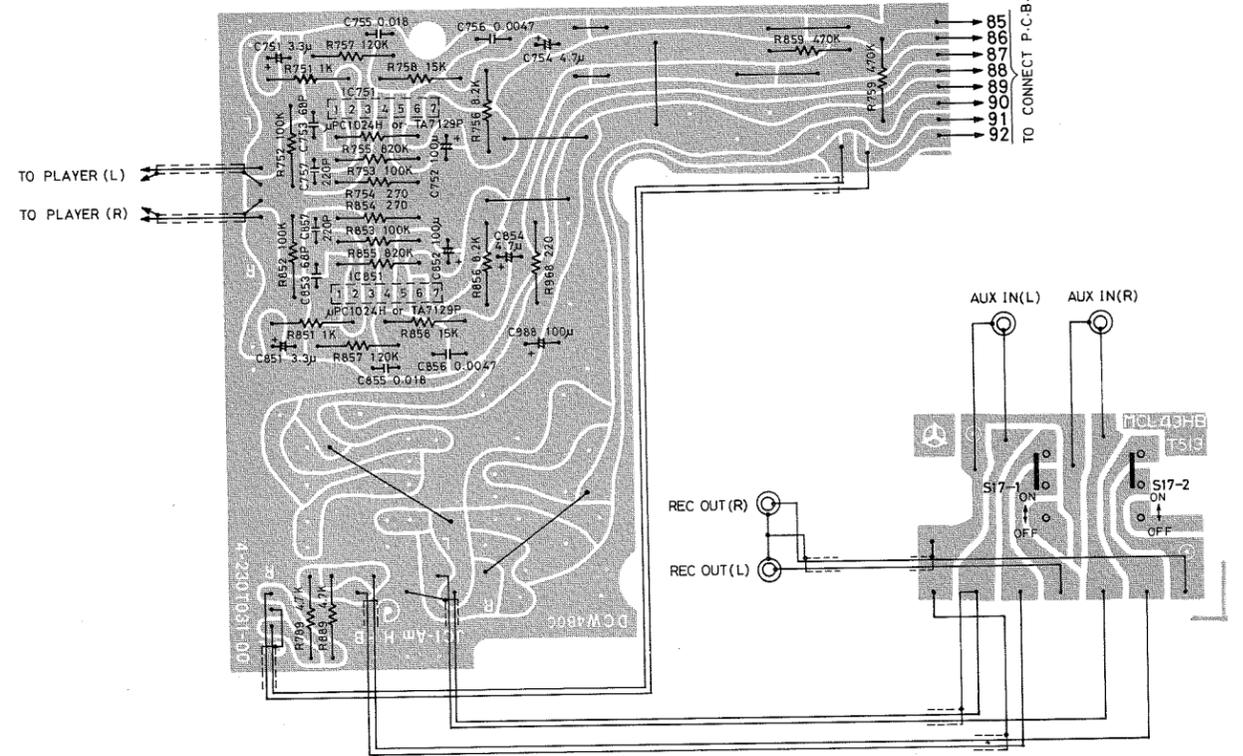
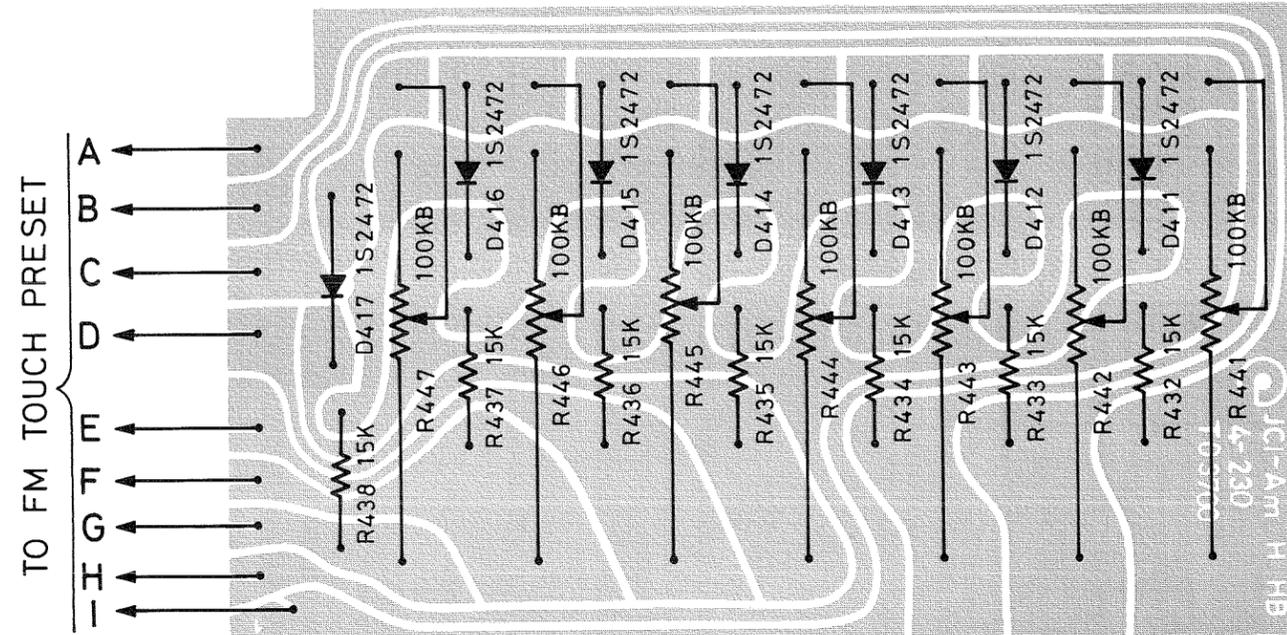




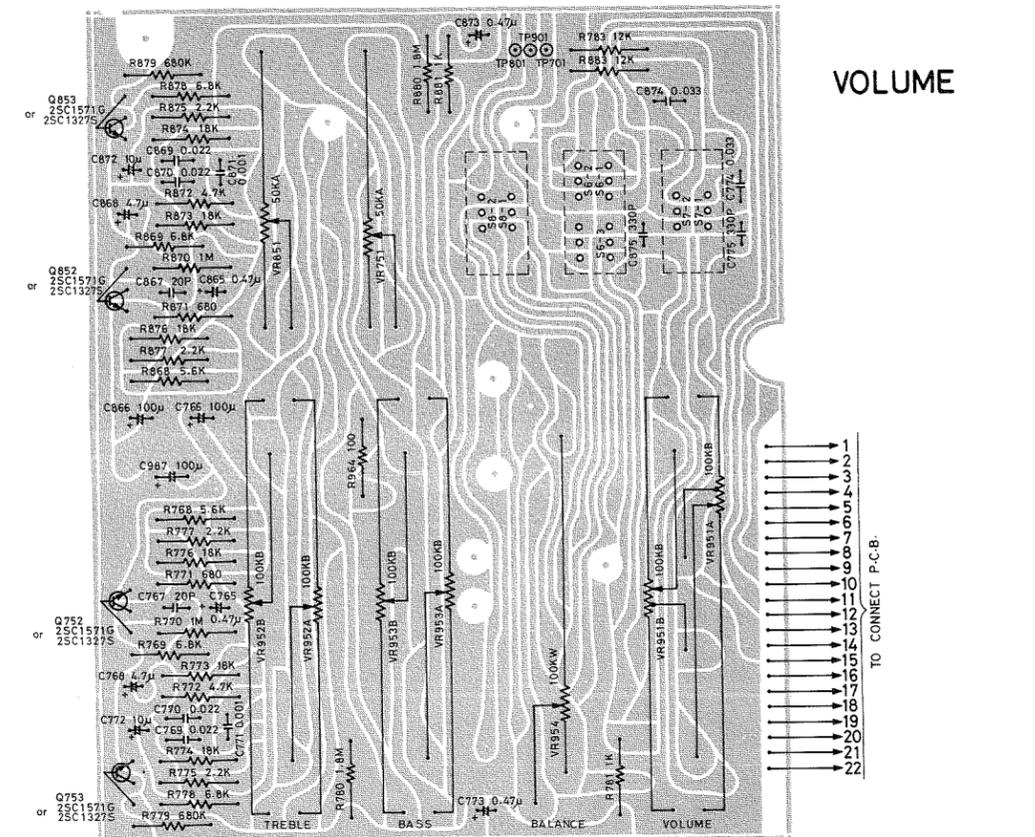
FM TOUCH



FM PRESET

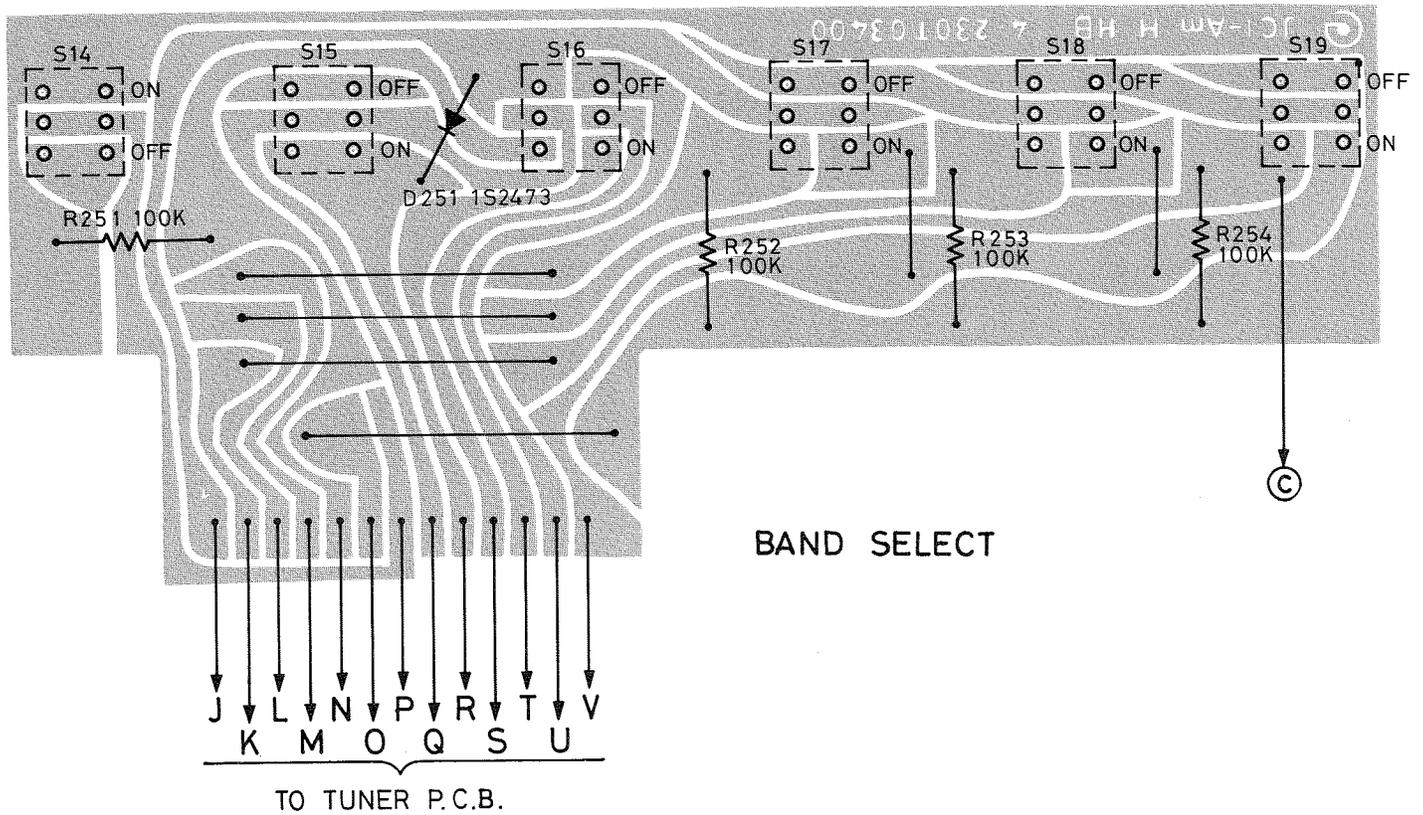


EQUALIZER

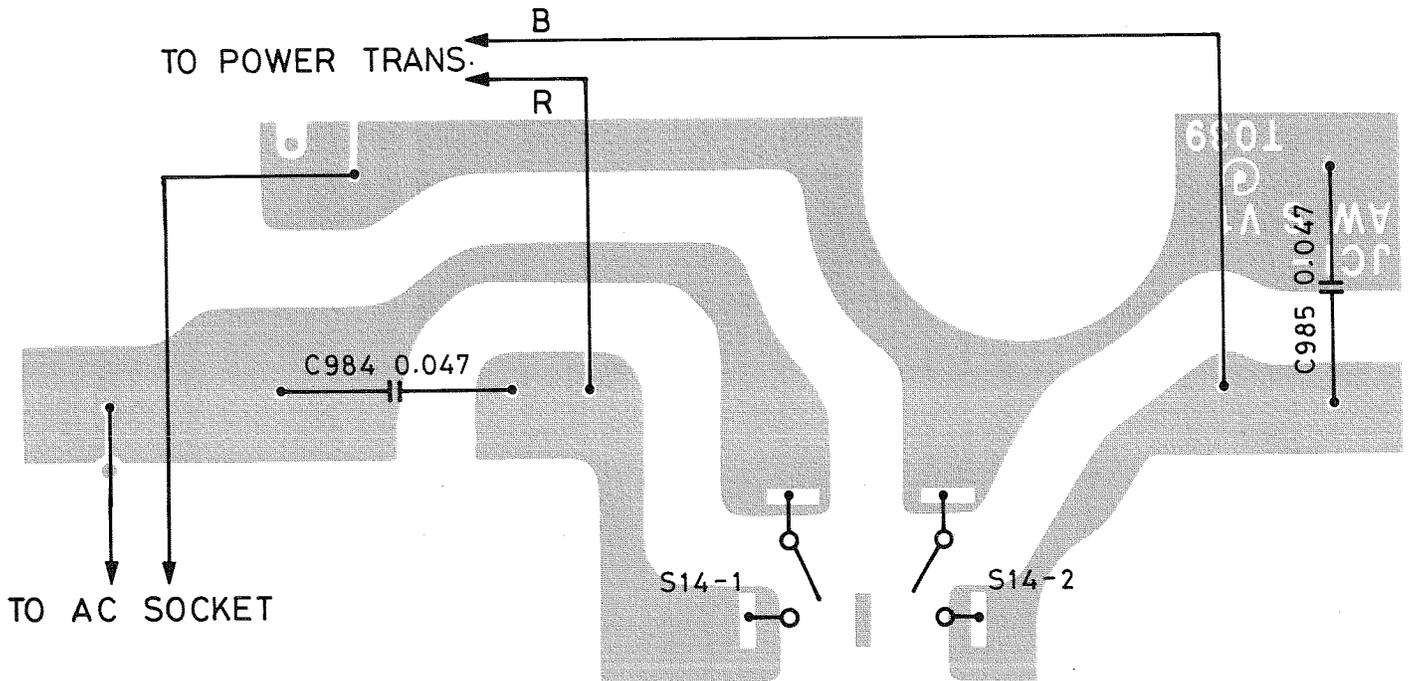


VOLUME

WIRING DIAGRAM

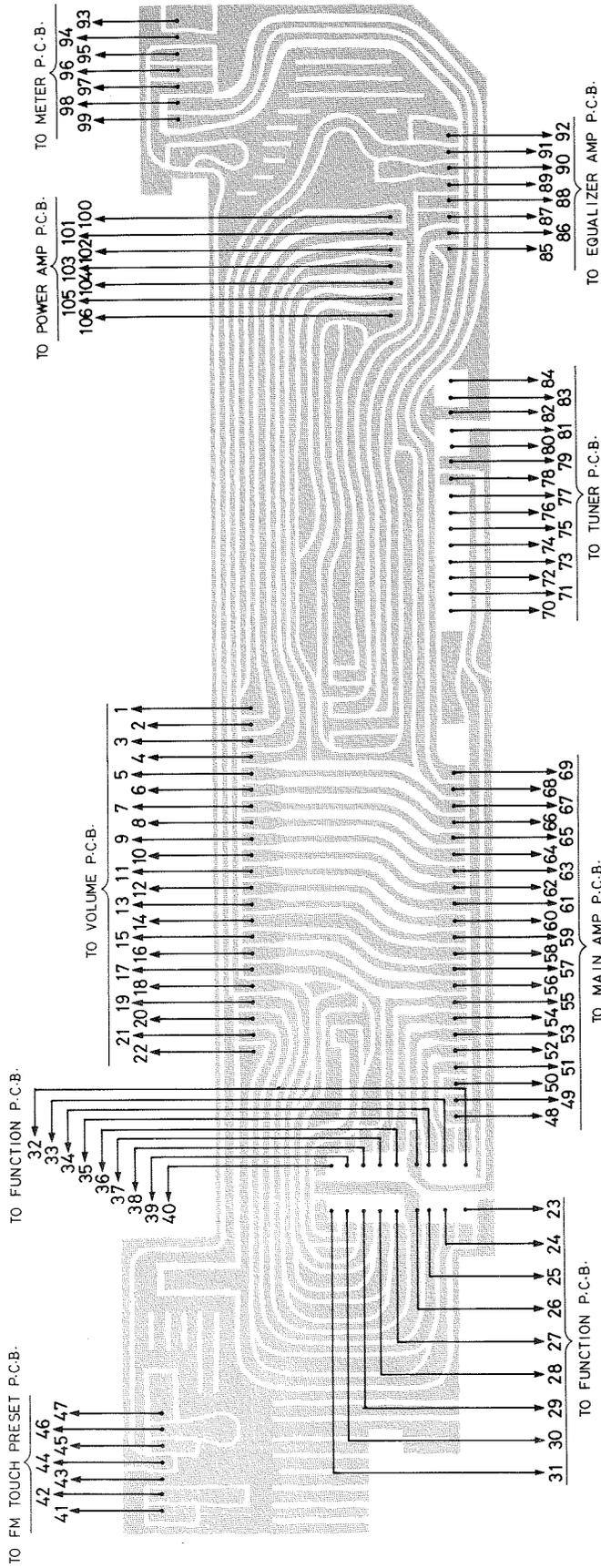


POWER SUPPLY

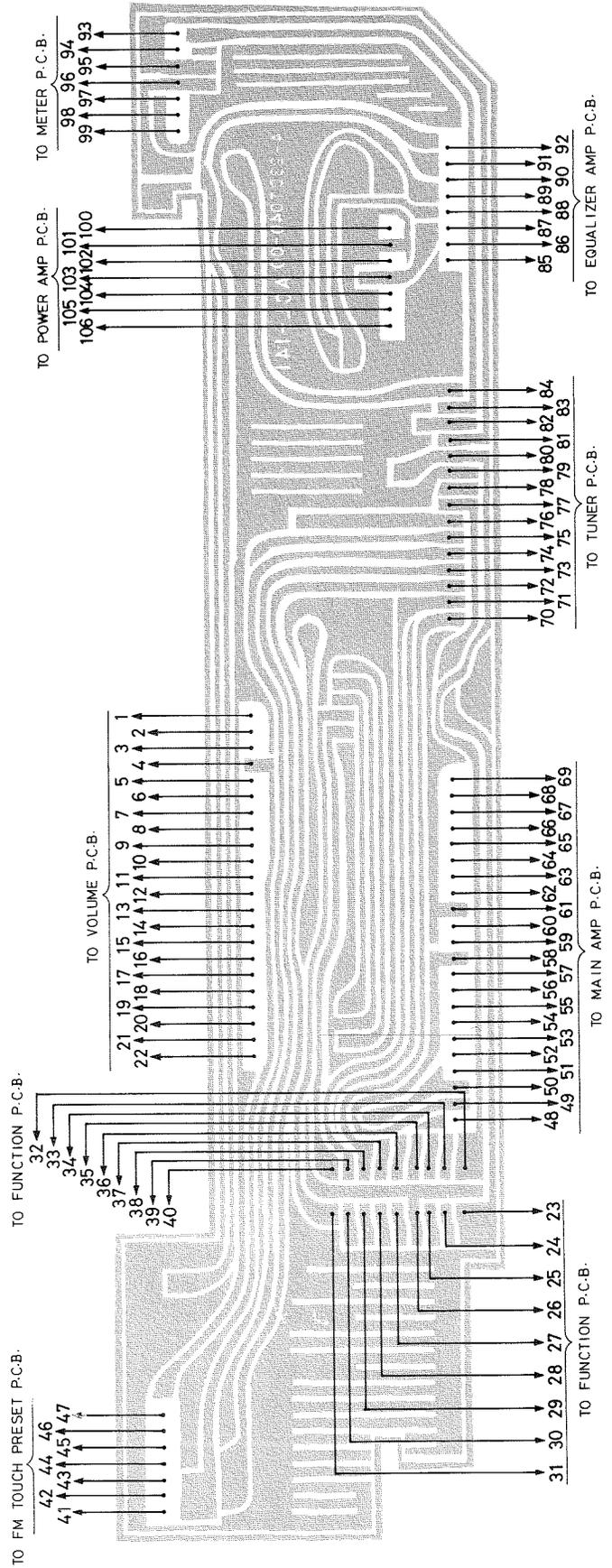


WIRING DIAGRAM

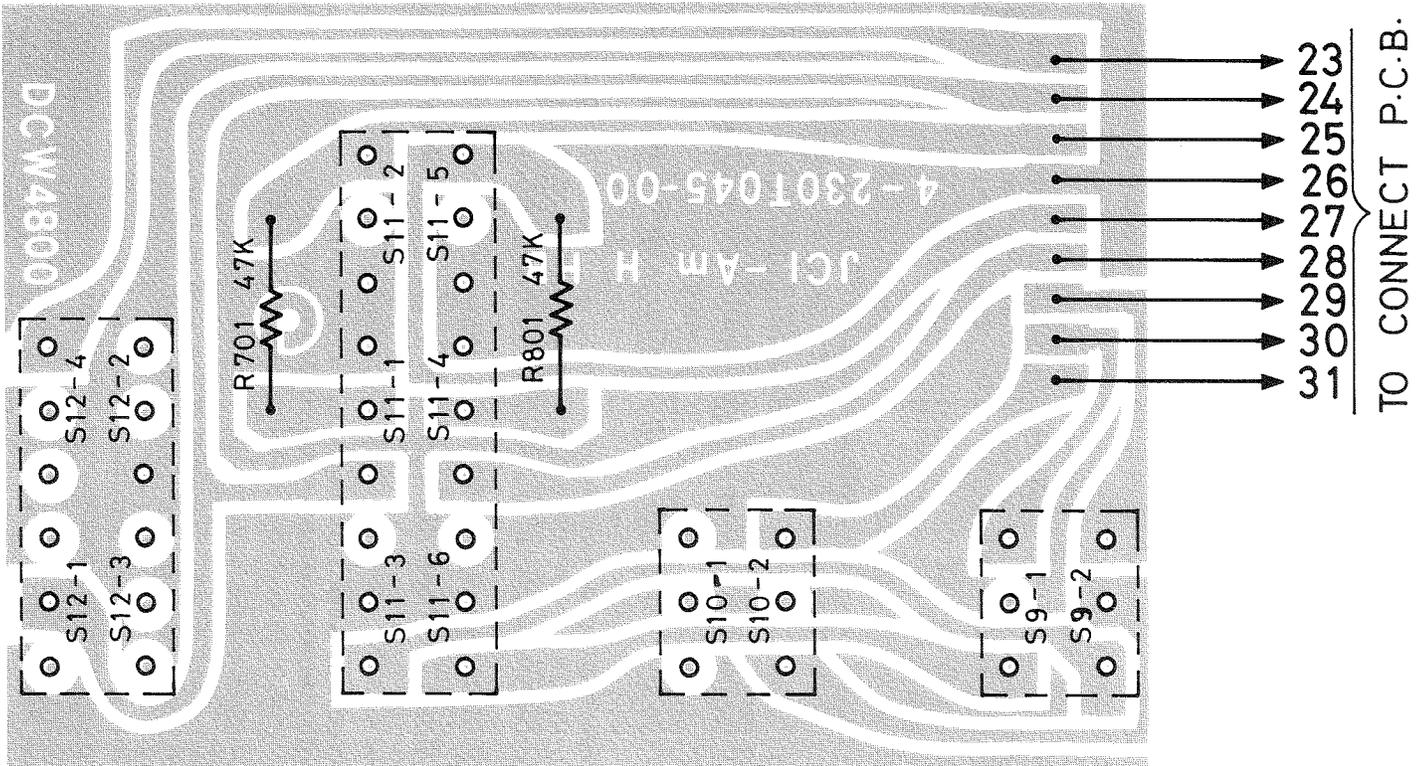
CONNECTOR



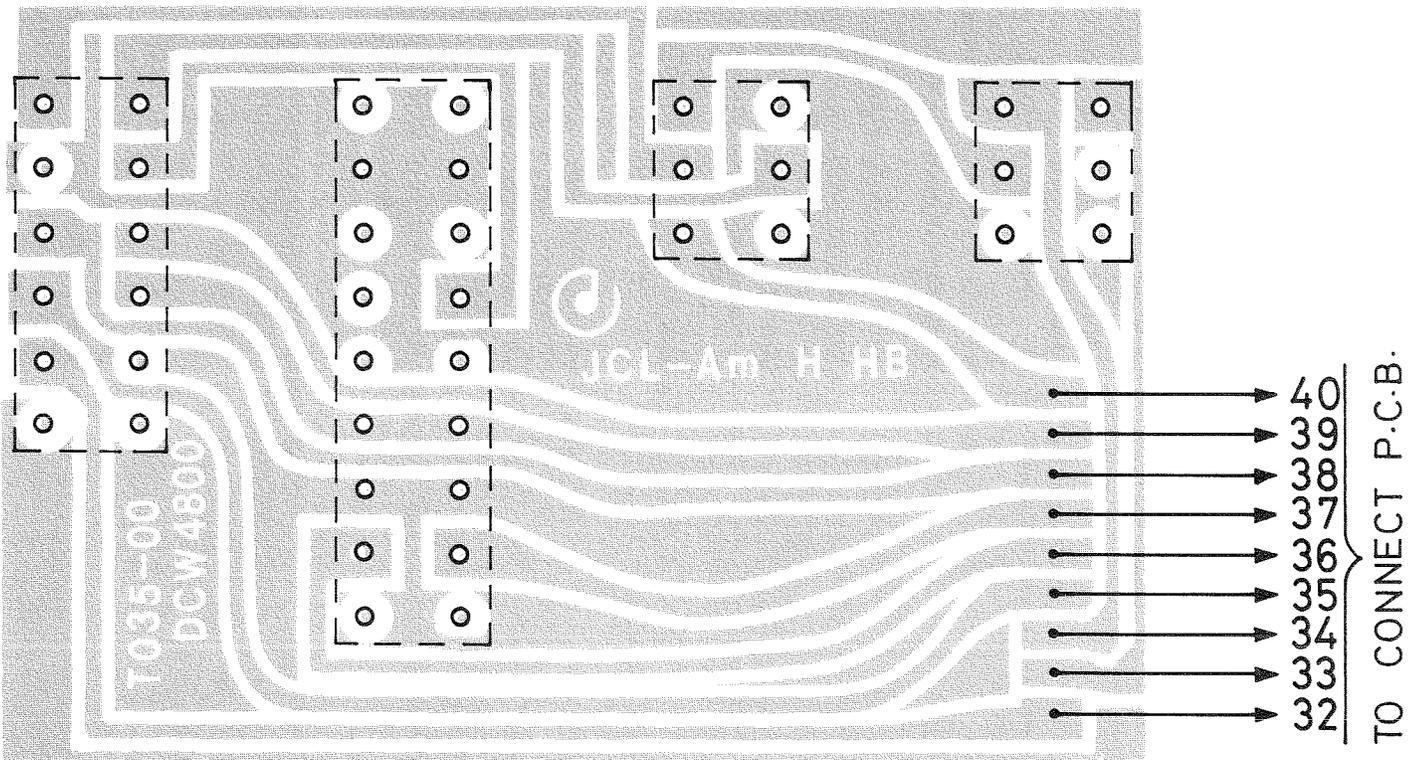
CONNECTOR



FUNCTION 1



FUNCTION 2



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