

# SERVICE MANUAL



# FISHER

COMPACT DISC  
AUDIO COMPONENT  
SYSTEM with REMOTE  
CONTROL REM-M77

## TAD-M77

(EUROPE)



COMPACT  
**disc**  
DIGITAL AUDIO

132 317 40 (Black)  
132 317 42 (Pearl White)

## SPECIFICATIONS

### Amplifier Section

Minimum RMS sine wave power per channel  
at 8 ohms within rated bandwidth  
at no more than rated THD ..... 35 Watts  
Power Bandwidth ..... 100 Hz ~ 15 kHz  
Total Harmonic Distortion ..... 0.9 %

### Preamplifier Section

Frequency Response  
Phono (RIAA) .....  $\pm 3$  dB  
Aux (20 Hz ~ 20 kHz) .....  $\pm 3$  dB  
Graphic Equalizer Control  
63 Hz .....  $\pm 10$  dB  
250 Hz .....  $\pm 10$  dB  
1 kHz .....  $\pm 10$  dB  
4 kHz .....  $\pm 10$  dB  
16 kHz .....  $\pm 10$  dB

### FM Tuner Section

Usable Sensitivity .....  $4.8 \mu\text{V}/18.82 \text{ dBf}$   
Signal-to-Noise Ratio ..... 70 dB

Capture Ratio ..... 2 dB  
Alt. Channel Selectivity ( $\pm 400$  kHz) ..... 55 dB  
Image Response Ratio ..... 60 dB  
Spurious Response Ratio ..... 80 dB  
IF Response Ratio ..... 90 dB  
AM Suppression Ratio ..... 50 dB  
Stereo Separation at 1 kHz ..... 40 dB

### MW Tuner Section

Usable Sensitivity .....  $800 \mu\text{V}/\text{m}$   
Selectivity ..... 35 dB  
Signal-to-Noise Ratio ..... 55 dB  
Image Response Ratio ..... 40 dB  
IF Response Ratio ..... 70 dB

### LW Tuner Section

Usable Sensitivity .....  $2500 \mu\text{V}/\text{m}$   
Selectivity ..... 35 dB  
Signal-to-Noise Ratio ..... 50 dB  
Image Response Ratio ..... 40 dB  
IF Response Ratio ..... 70 dB

— Specifications and design are subject to change without notice.—

# SPECIFICATIONS (Continued)

## Cassette Deck Section

Motor	(2) DC Governor
Cassette Loading	(2) Front
Drive System	(4) Capstan
Number of Heads	2
Head Material	Hard Permalloy/Ferrite
Operation	(2) Full Logic Mechanism
Dubbing	Normal/High Speed
Wow & Flutter	0.15 % (WRMS)
Signal-to-Noise Ratio (CCIR Weighted)	
Dolby NR OFF	45 dB
Dolby NR ON B	55 dB
<b>(Dolby is registered trademark of Dolby Laboratories.)</b>	
Erase Ratio	60 dB
Channel Separation	30 dB
Signal Crosstalk	55 dB
Frequency Response 1-7/8 IPS	
Normal Tape ( $\pm 3$ dB)	64 Hz - 12.5 kHz
CrO <sub>2</sub> Equivalent Tape ( $\pm 3$ dB)	64 Hz - 12.5 kHz
Metal Tape ( $\pm 3$ dB)	64 Hz - 12.5 kHz
Fast Forward / Rewind Time	
(C-60)	110 sec.
Auto Tape Select	Normal, CrO <sub>2</sub> , Metal

## CD Section

### AUDIO CHARACTERISTICS

Frequency Response	5 Hz ~ 20kHz, $\pm 0.5$ dB
Harmonic Distortion	Less than 0.07 % (1 kHz)
S/N Ratio	More than 90 dB
Wow and Flutter	Below measurable limits
Channel Separation	More than 80 dB (1 kHz)
Output Voltage max.	2 Vrms

### FUNCTIONS

Instant Program Selection	Sequential, with F-FWD and F-BACK buttons
Index	Sequential, with INDEX/SEARCH ►► and INDEX/SEARCH ◄◄ buttons
Skip-Forward/Back	Skip-Forward/back with sound
Elapsed Time Display	With DISPLAY button
Remaining Time Display	With DISPLAY button
Program Functions	16 tracks
Repeat	All tracks
Program Reset	Press STOP button twice
Pause	Each track
Disc Loading	Motor driven horizontal loading

### DIGITAL SIGNAL PROCESSING

Optical Pickup	3-beam laser
Error Correction	CIRC
Sampling Frequency	44.1 kHz
D/A Conversion	16-bit linear
Filter	Digital filter + (4-pole LC filter)

### General Section

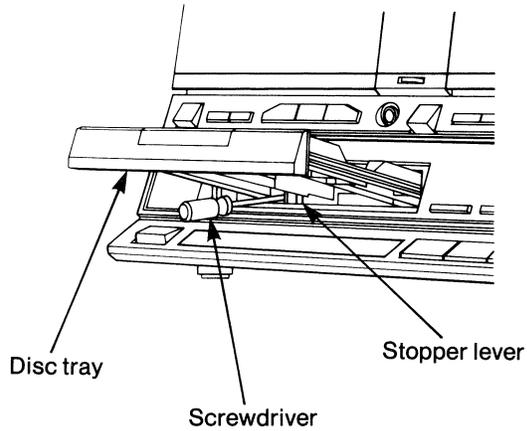
Power Requirements	AC 220 V (50 Hz)
Dimensions (W x H x D)	250 Watts 335 x 322 x 370 mm
Weight (approx.)	10.8 kg

— Specifications and design are subject to change without notice.—

# DISASSEMBLY INSTRUCTIONS

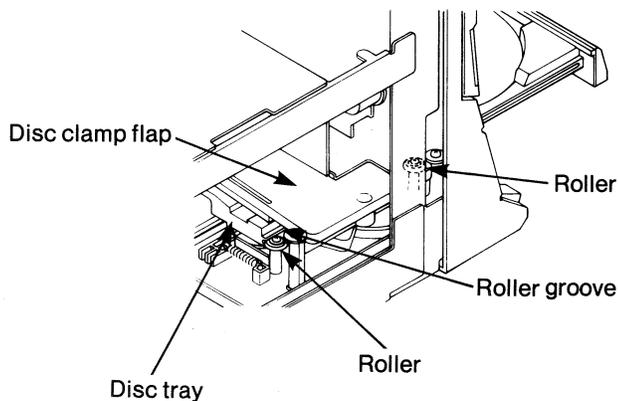
## REMOVING THE CD PLAYER DISC TRAY

1. Turn the set's power on and open the disc tray.
2. Turn the set's power off.
3. Close the disc tray manually.
4. Gently pull the disc tray out.
5. As shown in the diagram, move the stopper lever to the right with a screwdriver from under the tray (to detach it from the stopper), then pull out the disc tray, being careful it does not hit the flapper's disc pad.



## INSTALLING THE DISC TRAY

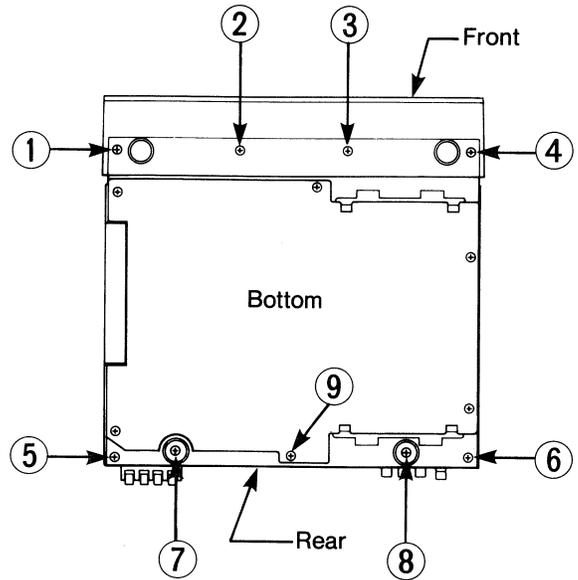
1. Insert the disc tray as shown in the diagram, making sure the rollers on the CD unit enter the grooves on either side. Be careful that the tray does not get caught on the flap.



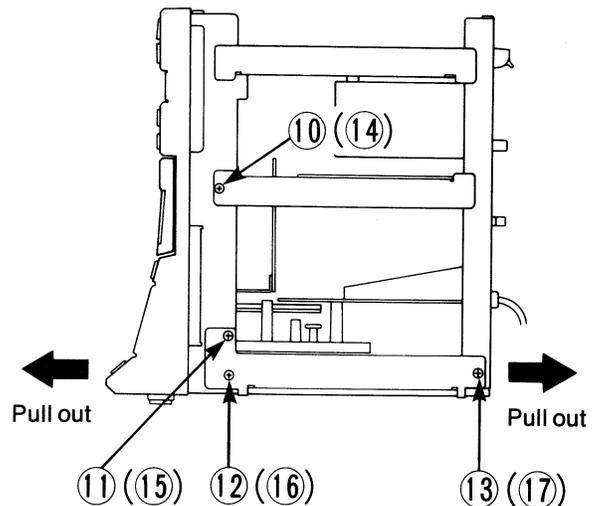
2. Turn the set's power on, then open and close the disc tray to check that it operates properly.

## REMOVING THE CD MECHANISM UNIT AND CD P.C.BOARD

1. Remove the disc tray and the cover.
2. Remove the nine screws (1 ~ 9) shown on the diagram.



3. Remove the eight screws (10 ~ 17) shown in the diagram and separate the front and rear sections. The CD mechanism unit and CD P.C. Board can now be removed along with the bottom hard P.C. Board.

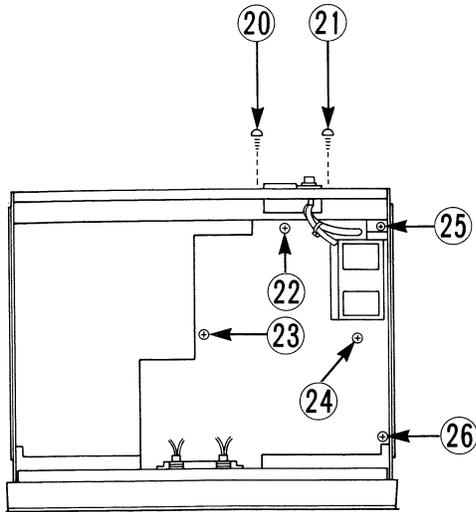


4. Disconnect the connectors as necessary. Refer to the wiring diagram when reconnecting the connectors.

## DISASSEMBLY INSTRUCTIONS (Continued)

### REMOVING THE TUNER P.C.BOARD

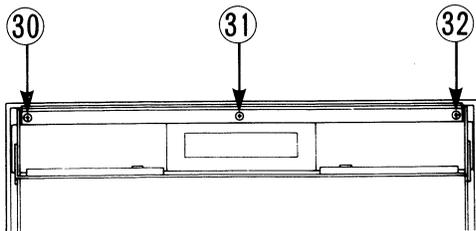
1. Remove the screws fixing the cover and remove the cover.
2. Remove the seven screws (20 ~ 26) shown in the diagram.



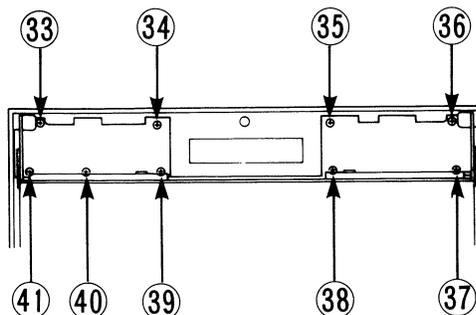
3. Remove the solder from the front end and remove the lamp.
4. Lift the Tuner P.C.Board and detach it from the chassis. Disconnect the connectors as necessary.

### REMOVING THE PRESET AND INDICATOR P.C.BOARDS

1. After removing the Tuner P.C.Board, remove the three screws (30 ~ 32) fixing the metal mount and remove the metal mount.

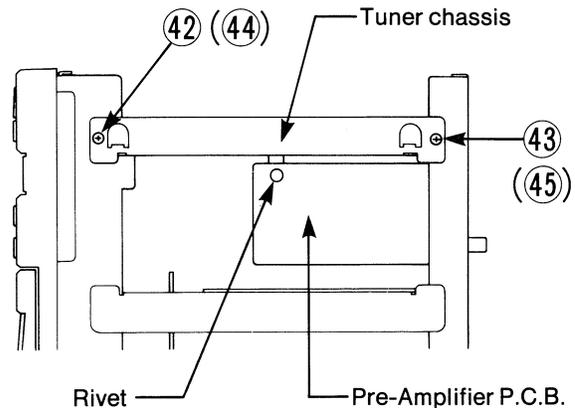


2. Remove the nine screws (33 ~ 41) fixing the boards, then remove the P.C.Boards.



### REMOVING THE MAIN P.C.BOARD

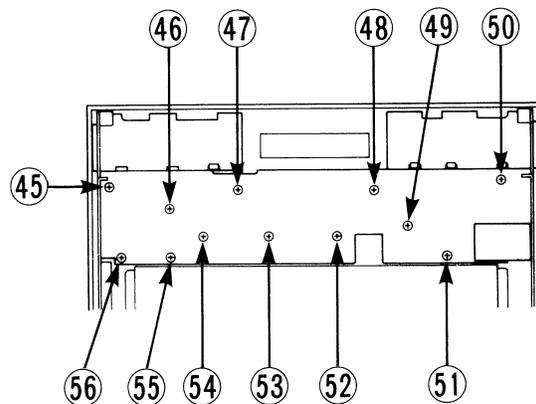
1. Remove screws 20 and 21, the same ones removed for removing the Tuner P.C.Board.
2. Remove the solder from the front end.
3. Remove the four screws (42 ~ 45) fixing the tuner chassis on either side as shown in the diagram and the rivet fixing the Pre-Amplifier P.C.Board.



4. Disconnect the six connectors and remove the tuner section from the chassis.
5. Remove the screws fixing the Main P.C.Board and remove the Main P.C.Board.

### REMOVING THE AMPLIFIER CONTROL P.C.BOARD

1. Remove the tuner section with the chassis.
2. Remove the timer mode setting knob.

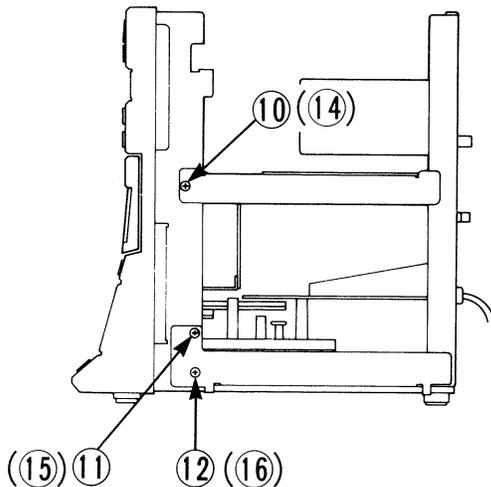


3. Remove the 12 screws (45 ~ 56) fixing the Amplifier Control P.C.Board and remove the Amplifier Control P.C.Board.

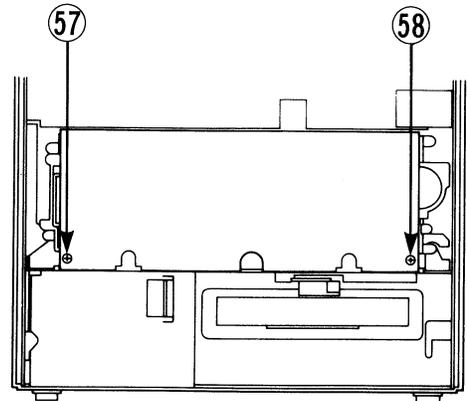
## DISASSEMBLY INSTRUCTIONS (Continued)

### REMOVING THE DECK CONTROL P.C.BOARD

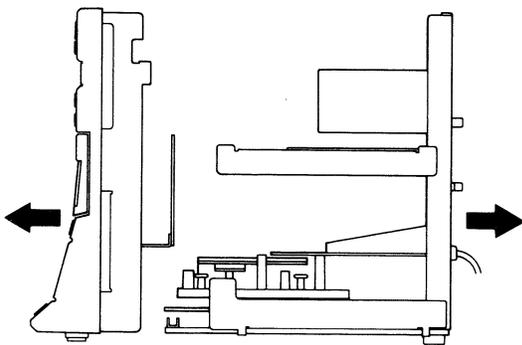
1. Remove the tuner section with the chassis.
2. Remove the four screws (1 ~ 4) from the bottom. (Refer to the section on removing the CD mechanism unit and CD P.C.Board.)
3. Remove the six screws (10 ~ 16) on either side of the chassis frame side.



5. Remove the two screws (57 and 58) fixing the Deck Control P.C.Board and remove the Control P.C.Board.

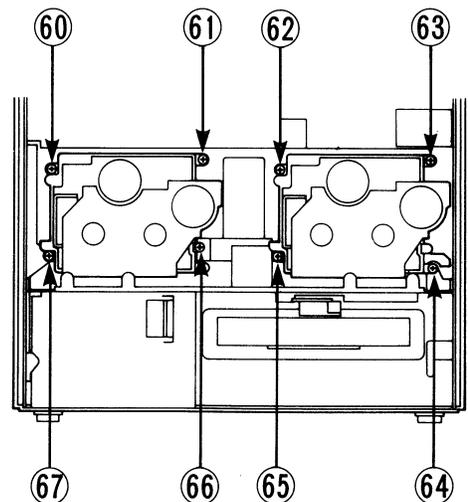


4. Separate the chassis in two parts, front and rear.

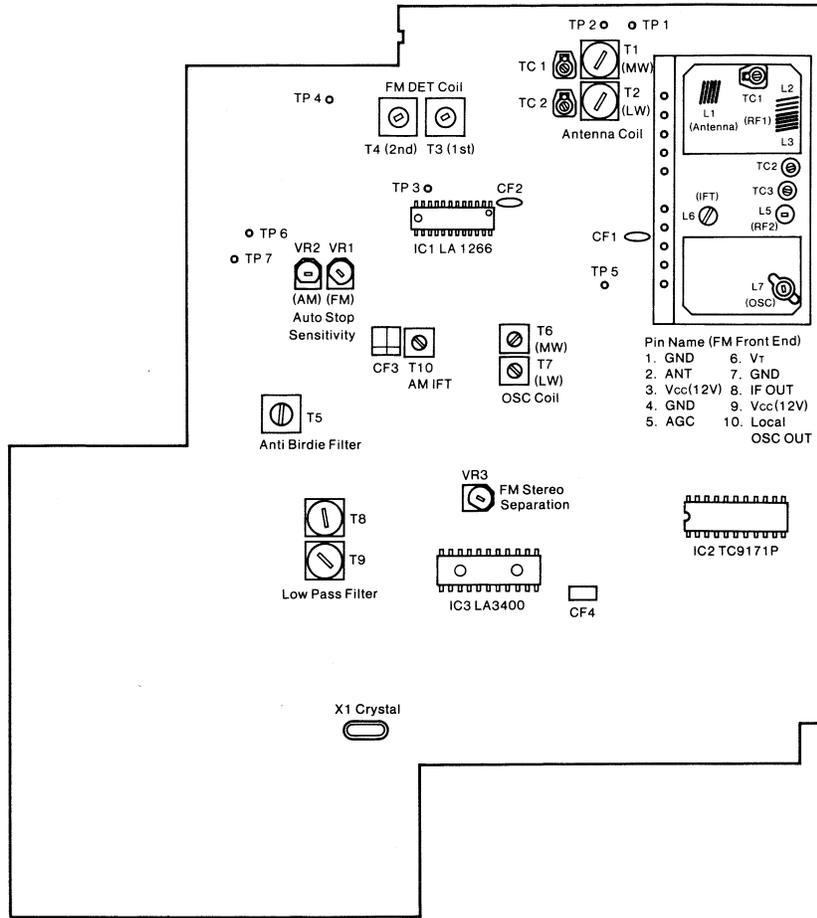


### REMOVING THE DECK MECHANISMS

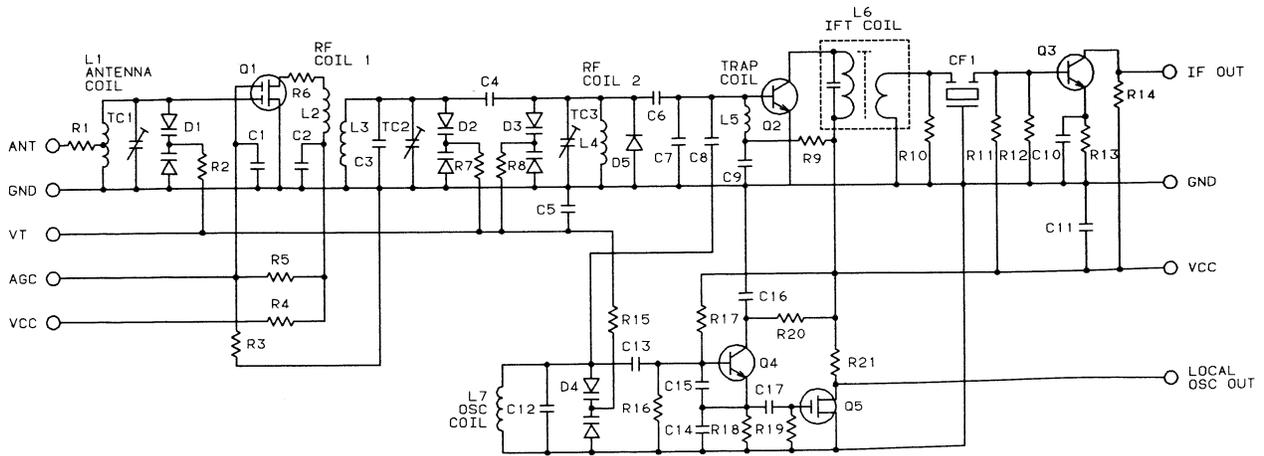
1. Remove the Deck Control P.C.Board.
2. Remove the eight screws (60 ~ 67) fixing the mechanisms, then remove the mechanism.



# TUNER P.C.BOARD LAYOUT ADJUSTMENT (TOP VIEW)



# FRONT END SCHEMATIC DIAGRAM



## CAUTION ON RF ADJUSTMENT

This model uses a microprocessor for memory preset control for the various bands. This function has been used to preset frequency points for the different bands to permit adjustment and make it possible to check the function of the microprocessor. To use this supplemental function, ground initialize test point resistor R101 wire for 1 second before beginning adjustment.

The following table shows the initially preset frequencies.

Band	Memory					
	1	2	3	4	5	6
FM-1	87.5MHz	108MHz	88MHz	98MHz	108MHz	90MHz
MW/LW	603kHz	1404kHz	999kHz	160kHz	270kHz	215kHz

## FM TUNER ADJUSTMENT

**FM ADJUSTMENT** – FUNCTION switch to FM STEREO position.

**Note: It is almost unnecessary to adjust coil in Front End as perfectly adjusted.**

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. FINAL DETECTOR ADJUSTMENT (MINIMUM T.H.D.)	Connect RF signal generator through FM Dummy Antenna to FM Antenna terminals. Set generator to 98MHz $\pm$ 2kHz. Modulate with 1kHz to provide $\pm$ 40kHz deviation. Setting generator with attenuator output level for 60dB $\mu$ V.	Set MODE switch to FM MONO position and Preset STATION button to "4" position. Set to 98MHz.	Connect DC Voltmeter across TP3 and TP4.	Adjust FM DET 1st Coil (T3) until DC Voltmeter reads 0V $\pm$ 50mV.
			Connect Harmonic Distortion Analyzer to TUNER OUT.	Adjust FM DET 2nd Coil (T4) for minimum gain and best linearity.
<b>Note:</b> Repeat Step 1 (FM DET 1st Coil T3) and 2 (FM DET 2nd Coil T4) until optimum adjustment is reached.				
2. FM STEREO SIGNAL SEPARATION CONTROL	Connect FM Stereo SSG to FM Antenna terminals. 19kHz signal ON. Main channel, sub channel signal ON. Apply 1000Hz signal from LEFT channel.	Same as above. Set MODE switch to FM STEREO position.	Connect AC VTVM and Oscilloscope to Right channel TUNER OUT.	Adjust VR3 for minimum output.
	Same as above for RIGHT channel.		Connect AC VTVM and Oscilloscope to Left channel TUNER OUT.	
3. FM AUTO STOP SENSITIVITY ADJUSTMENT	Set generator to 98MHz. Adjust attenuator output level to 18dB $\mu$ V.	Same as above.	Front Panel TUNED Indicator Display.	Adjust VR1 until the TUNED Indicator partly light up.

Use a screwdriver with plastic grip for all adjustments.

**MW/LW Frequency Cover Range  
Tuning Voltage Value at TP5**

(Table 1)

	153kHz	281 kHz	531 kHz	1602kHz
Minimum	0.7V	4.0V	1.0V	6.8V
Typical	0.93V	4.6V	1.4V	8.0V
Maximum	1.2V	5.5V	1.6V	9.0V

# AM TUNER ADJUSTMENT

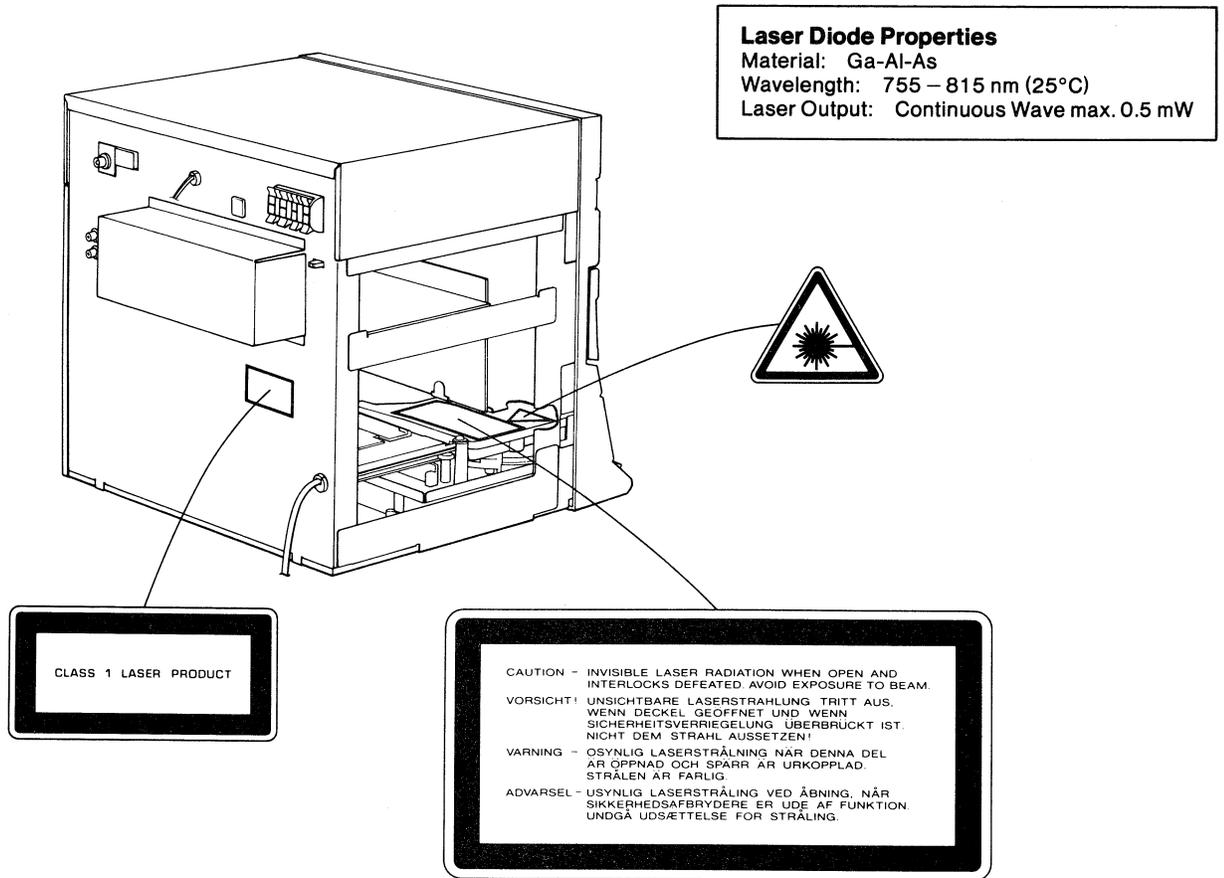
**AM ADJUSTMENT** – FUNCTION switch to MW or LW position.  
**Maintain generator output as low as possible for suitable indication.**

**Note:**  
 Perform this adjustment after  
 FM Tuner Adjustment.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. AM IF ADJUSTMENT	Connect 450kHz Radio IF Genescope output to TP 1 and 2 Adjust output level to 70dB $\mu$ V.	Position of non-interference Minimum Frequency.	Connect Radio IF Genescope input to TP7 and ground lead to chassis.	Adjust AM IFT (T10) for maximum gain and best symmetry. Keep signal low enough for noise on response.
2. MW RF FREQUENCY COVER ADJUSTMENT (1602kHz)	Do not connect generator.	Front Panel DIGITAL Counter Display Set to 1602kHz.	Connect DC Voltmeter to TP5 and ground lead to chassis.	Check DC Voltmeter for Indication 6.8 ~ 9.0V.
3. (531kHz)	Same as above.	DIGITAL Counter Display Set to 531kHz.	Same as above.	Check DC Voltmeter for Indication 1.0 ~ 1.6V.
<b>Note:</b> Repeat the adjustments in Items 2 and 3. Then, confirm that each voltage becomes 1.0V to 9.0V at receiving frequency of 531kHz to 1602kHz. (See Table 1)				
4. LW RF FREQUENCY COVER ADJUSTMENT (281kHz)	Do not connect generator.	Front Panel DIGITAL Counter Display Set to 281kHz.	Connect DC Voltmeter to TP5 and ground lead to chassis.	Check DC Voltmeter for Indication 4.0 ~ 5.5V.
5. (153kHz)	Same as above.	DIGITAL Counter Display Set to 153kHz.	Same as above.	Check DC Voltmeter for Indication 0.7 ~ 1.2V.
<b>Note:</b> Repeat the adjustments in Items 4 and 5. Then, confirm that each voltage becomes 0.7V to 1.2V at receiving frequency of 153kHz to 281kHz. (See Table 1)				
6. MW RF TRACKING ADJUSTMENT (603kHz)	Connect Standard Loop Antenna to output terminal of AM RF Signal Generator. Place Loop Antenna 60cm away from Loop Antenna (Unit). Generator Setting to 603kHz or 1404kHz. Modulate with 1kHz (30% modulation).	Set Preset STATION button to "1" position. Set to 603kHz.	Connect AC VTVM and Oscilloscope to TUNER OUT.	Adjust MW Antenna Coil (T1) for maximum gain output.
7. (1404kHz)	Generator Setting to 603kHz or 1404kHz. Modulate with 1kHz (30% modulation).	Change Preset STATION button to "2" position. Set to 1404kHz.	Same as above.	Adjust MW Antenna Trimmer (TC1) for maximum gain output.
<b>Note:</b> Repeat the adjustments in Items 6 and 7. Then, confirm there is no tracking error.				
8. LW RF TRACKING ADJUSTMENT (160kHz)	Change generator setting to 160kHz.	Set Preset STATION button to "4" position. Set to 160kHz.	Connect AC VTVM and Oscilloscope to TUNER OUT.	Adjust LW Antenna Coil (T2) for maximum gain output.
9. (270kHz)	Change generator setting to 270kHz.	Change Preset STATION button to "5" position. Set to 270kHz.	Same as above.	Adjust LW Antenna Trimmer (TC2) for maximum gain output.
<b>Note:</b> Repeat the adjustments in Items 8 and 9. Then, confirm there is no tracking error.				
10. AM AUTO STOP SENSITIVITY ADJUSTMENT	Change generator setting to 999kHz and output level to 60dB $\mu$ V/m.	Set Preset STATION button to "3" position. Set to 999kHz.	Front Panel TUNED Indicator Display.	Adjust VR2 until the TUNED Indicator partly light up.

Use a screwdriver with plastic grip for all adjustments.

# COMPACT DISC PLAYER SAFETY CERTIFICATION



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

## CAUTION ON TRANSPORT

### Before Use

To protect the internal laser pickup mechanism from shocks and movement during transport, it has been locked by special transport screws and a fixing screw, located in the CD audio system's bottom panel.

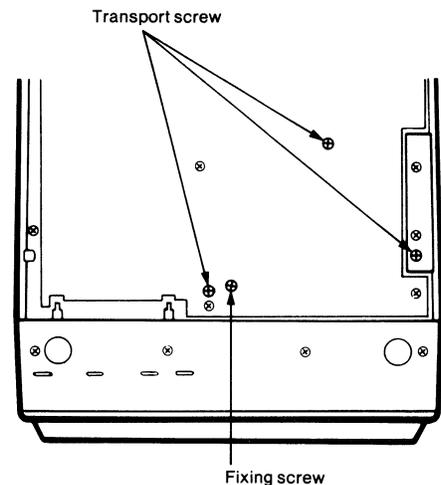
Using a screwdriver, loosen the three transport screws until the transport screws turn freely, and turn the fixing screw fully counter-clockwise (about 1/8 turn), before the CD audio system is switched on.

### Before Transporting the Unit

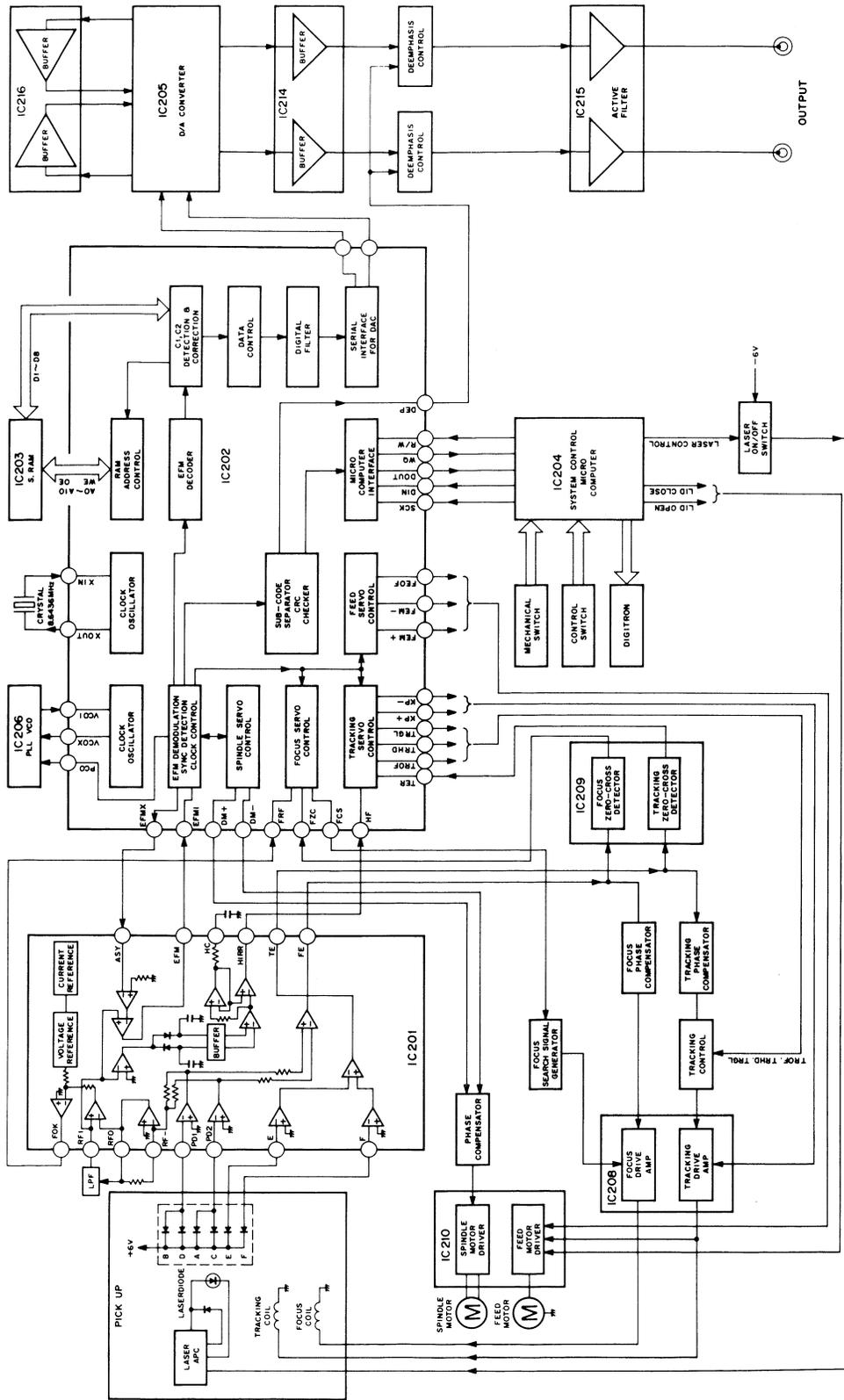
If the CD audio system is to be transported over long distances, turn the fixing screw fully clockwise (about 1/8 turn) and tighten the transport screws.

Before tightening the screws, open the disc tray to make sure that there is no disc in it. Close the tray again. Wait approximately 5 seconds after closing the tray, then switch off the CD audio system.

Using a screwdriver, turn the fixing screw fully clockwise to fix the pickup mechanism in place and tighten the three transport screws.

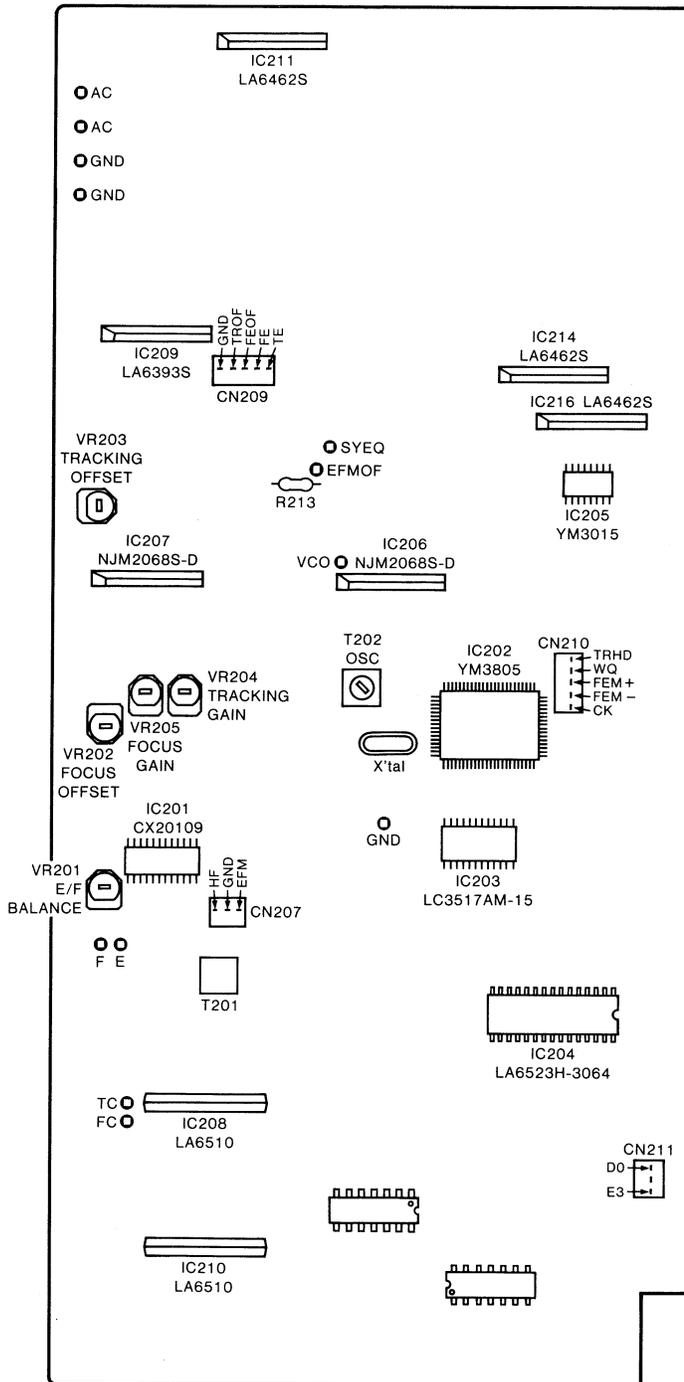


# CD PLAYER FUNCTIONAL BLOCK DIAGRAM



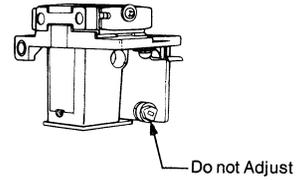
# CD PLAYER ADJUSTMENT PROCEDURES

## CD P.C. BOARD LAYOUT ADJUSTMENT POINT (TOP VIEW)



### PRECAUTIONS REGARDING ADJUSTMENT

- Adjustment is performed in the indicated order.
- When adjustment is made for one item, check the other items which follow.
- The laser pick-up has already been adjusted precisely. Do not touch its mounting screws controls.
- Refer to the adjustment diagram for the test points and adjustment controls.
- The ground point for the measurement equipment is the test point indicated as **GND**.



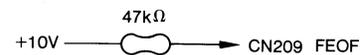
### REQUIRED EQUIPMENTS

- DC Voltmeter
- Dualtrace Oscilloscope
- Frequency Counter
- Signal Generator
- Plastic Screwdriver
- Diffraction Grating Adjustment Jig
- Test Disc (SONY: YEDS4)

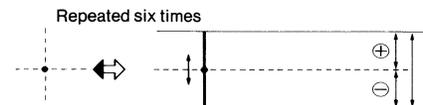
### CHECKING FOCUS ERROR SIGNAL

Checking the focus error signal of the pick-up allows for an evaluation of the pick-up. Be sure this is carried out before repair.

1. Turn on the power switch and set the unit to the STOP mode.
2. Connect an oscilloscope between test pin **FE** of connector CN209 and test pin **GND**. (Set the time axis to 0.5 seconds/division.)
3. Connect the +10V supply voltage to test pin **FE OF** of connector CN209 through a 47kΩ resistor.

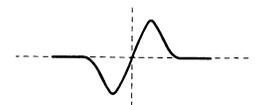


4. Press the OPEN/CLOSE button and place the test disc YEDS4 on the table load. Press the OPEN/CLOSE button again.
5. The waveform shown below is displayed six times on the oscilloscope when the table load closes. Check that the p-p voltage is about 6V and that the top and bottom of the waveform are symmetrical.



(When recorded on a memory scope)

6. The waveform appears again if the OPEN/CLOSE button is pressed again. This allows for confirmation to be made. The pick-up is faulty if confirmation cannot be made.

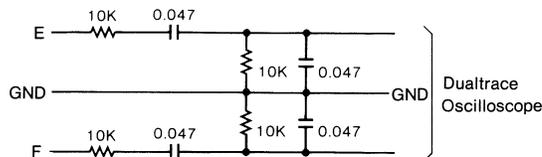


\* p-p voltage of 8V  
\* + and - voltage roughly same

# CD PLAYER ADJUSTMENT PROCEDURES (Continued)

## SETTING OF INITIAL POSITION OF VOLUME

- The variable resistors are set to the following initial positions.  
 VR201 (E-F BALANCE) ..... Mechanical Center  
 VR202 (FOCUS OFFSET) ..... Mechanical Center  
 VR203 (TRACKING OFFSET) ..... Mechanical Center  
 VR204 (TRACKING GAIN) ..... Mechanical Center  
 VR205 (FOCUS GAIN) ..... Mechanical Center



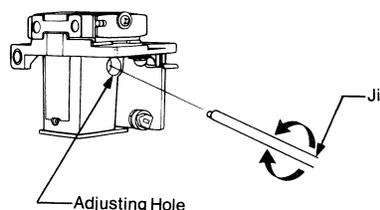
## FREE RUN FREQUENCY ADJUSTMENT

- Turn on the power switch and set the unit to the STOP mode.
- Connect the frequency counter between test pin **CK** of connector CN210 and test pin **GND** (use probes).
- Rotate the core of the PLL OSC coil (T202) with a plastic screwdriver so that the frequency counter indicates 4.320MHz ~ 4.330MHz.

## FOCUS OFFSET ADJUSTMENT

- Turn on the power switch and set the unit to the STOP mode.
- Connect a DC Voltmeter and oscilloscope between test pin **FF** of connector CN209 and test pin **GND**.
- Adjust VR202 so that the indication on the DC Voltmeter and oscilloscope is  $0V \pm 10mV$ .

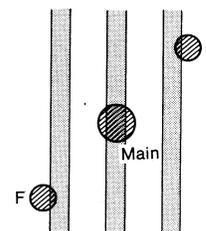
- Press the F FWD button. The TRACK/INDEX indication is "2" and the disc begins to rotate. Continue to press the PLAY/PAUSE button. The unit is rotating in this state with the tracking servo turned off.
- Observe the resurge waveform of the waveform indicated on the oscilloscope and insert the adjustment jig into the diffraction grid holes to adjust the diffraction grid so that the phase difference is  $180^\circ$ .



## TRACKING OFFSET ADJUSTMENT

- Turn on the power switch and set the unit to the STOP mode.
- Connect a DC Voltmeter and oscilloscope between test point **TRACKING COIL** CN6 and test pin **GND**.
- Adjust VR203 so that the indication on the DC Voltmeter and oscilloscope is  $0V \pm 50mV$ .

- Even if the phase difference is  $180^\circ$  in the above step, the E and F beams may be mistakenly on two different beam pit lines as shown below.



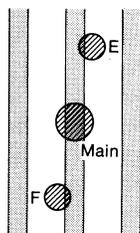
Be sure that the E and F beams are in the same pit line for subsequent adjustments.

### NOTE:

This adjustment should be made again after the adjustment of Tracking Gain.

## ADJUSTMENT OF DIFFRACTION GRID

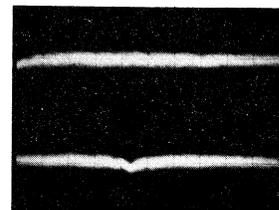
This unit uses a three beam method for the laser pick-up. Diffraction grid adjustment involves adjusting the position of the E and F beams in relation to the main beam so that they are in the same line.



The following is the adjustment procedure. This is a precise adjustment and must be made carefully.

- Turn on the power switch, place test disc YEDS4 on the table load and set the unit to the STOP mode.
- Short test pins **DO** and **E3** of connector CN211.
- Short test pin **TROF** of Connector CN209 and test pin **GND**. Pass test pins **E** and **F** through the band pass filter, and connect to the channels of the dualtrace oscilloscope. The ground is obtained from test point **GND**.

- Remove the short between test pin **TROF** and **GND**, and **DO** and **E3**, and play back the fourth selection on YEDS4.
- Observe the waveform of the signal between test pin **E** and test pin **F** using the dualtrace oscilloscope (Monitored in ALT mode). The beam **E** and beam **F** are in the same pit line if the trigger of waveform **F** is approximately  $30\mu s$  behind the point (Position where waveform hollows out) where the waveform **E** is triggered.



The two beam are on the same pit line. (100mV/DIV : 5μSec/DIV)

When observation of the waveform is difficult, the trigger level can be varied. When the beams are not in the same line, return to step 1, and rotate the adjustment jig at the  $180^\circ$  point. Confirm that the beams are in line at the  $180^\circ$  point. Repeat steps 1 to 7 until confirmation of this is possible.

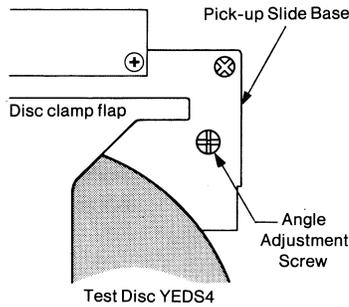
# CD PLAYER ADJUSTMENT PROCEDURES (Continued)

## Note:

When the pick-up is replaced, it is adjusted as a unit, and beams E and F can be brought in line and the phase made  $180^\circ$  by a slight adjustment. Slightly rotate the adjustment jig when making adjustment. If the beams come out of line, it is difficult to bring them back into the same pit line.

## ADJUSTMENT OF PICK-UP ANGLE

1. Remove the table load.
2. Directly mount test disc YEDS4 on the turntable.
3. Turn on the power switch and playback the fourth selection.
4. Connect the oscilloscope between test pin **HF** of connector CN207 and test pin **GND**. Monitor the waveform of **HF** and rotate the angle adjustment screw so that the waveform is at its maximum.

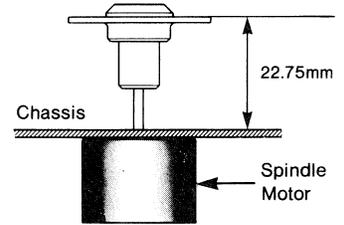


4. Press the F FWD button. The TRACK/INDEX indication is "2" and the disc begins to rotate. Continue to press the PLAY/PAUSE button. The unit is rotating in this state with the tracking servo turned off.
5. Adjust VR201 so that the DC Voltmeter and oscilloscope is  $0V \pm 15mV$ .

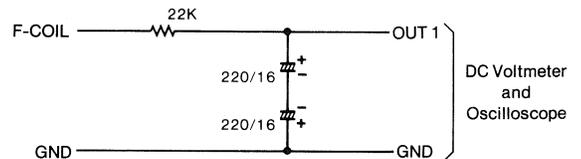
## ADJUSTMENT OF TURNTABLE HEIGHT

This adjustment must be made when the motor is replaced.

1. Attach the turntable so that its top surface is 22.75mm from the top of the chassis.

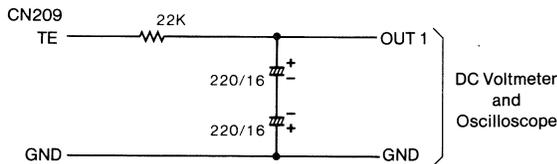


2. Connect test pin **FOCUS-COIL** of connector **FC** to a DC Voltmeter and oscilloscope through the low-pass filter.



## E-F BALANCE ADJUSTMENT

1. Turn on the power switch and mount test disc YEDS4 on the table load. Set the unit to the STOP mode.
2. Short test pins **D0** and **E3** of connector CN211.
3. Short test pin **TROF** of connector CN209 and test pin **GND**, and connect a DC Voltmeter and oscilloscope to test pin **TE** of connector CN209 through the low-pass filter shown below.

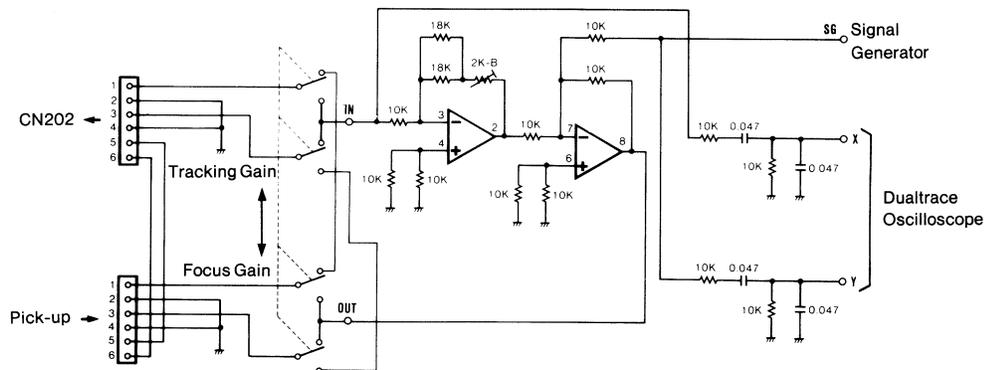


3. Turn on the power switch and playback the first selection on test disc YEDS4.
4. Readjust the height of the turntable if the reading on the DC Voltmeter is not in the range of  $0V \pm 0.25V$ . (Increase the height of the turntable when the DC Voltmeter reading is positive, and decrease it when negative.)

## ADJUSTMENT OF FOCUS/TRACKING GAIN

The measurement circuit shown below is necessary for accurate adjustment of the focus and tracking gain. If this circuit cannot be made, make adjustments using the simplified procedure.

- Remove connector CN202 from the pick-up and connect the measurement circuit between the PCB and pick-up.
- The IC used is TA7256P.
- Volume control  $2k\Omega -B$  shorts **IN** and **SG**. 1kHz 1Vp-p is supplied from the signal generator, and adjustment is made for minimum output from **OUT**.

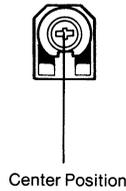


## CD PLAYER ADJUSTMENT PROCEDURES(Continued)

### SIMPLIFIED ADJUSTMENT PROCEDURE

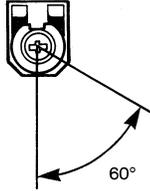
- **Focus gain adjustment**

VR205 is set to the mechanical center position as shown in the diagram.



- **Tracking gain adjustment**

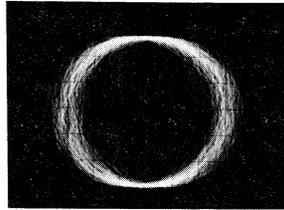
VR204 is set to a position 60° from its mechanical center as shown in the diagram.



### PRECISE ADJUSTMENT PROCEDURE

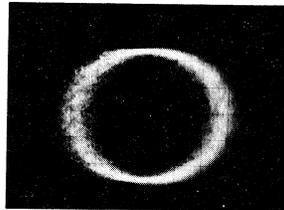
- **Focus gain adjustment**

1. Connect the measurement circuit shown above, turn on the power switch, and mount the test disc YEDS4.
2. Playback the first selection on the test disc, and apply a 800Hz 0.5Vp-p signal from the signal generator.
3. Observe the resurge waveforms on the oscilloscope, and adjust VR205 so that the phase difference of outputs **X** and **Y** from the measurement circuit is 90°.



- **Tracking gain adjustment**

1. Adjustment is made in the same manner as for focus gain. The input from the frequency generator is set to 1,400Hz, 0.5Vp-p, and VR204 is adjusted so that the phase difference is 90°.



# CASSETTE DECK ADJUSTMENT PROCEDURES

## PRECAUTIONS REGARDING ADJUSTMENT

If the tape surface which contacts the head, the capstan, and the pinch roller, etc., is stained, it will cause unstable running of the tape, wow and flutter, imperfect recording and erasing, deterioration of tonal quality, and the tape jam around the capstan, etc. Occasionally clean each part as follows;

1. Cut off power.
2. Open the cassette lid.
3. Wipe the head, the capstan, and the pinch roller with a cotton swab. If they are excessively stained, clean them with the swab soaked in absolute alcohol or cleaning liquid on the market.

## MEASURING INSTRUMENTS REQUIRED

- Dualtrace Oscilloscope
- AC VTVM (AC voltmeter with high impedance)
- DC VTVM (DC voltmeter with high impedance)
- Frequency Counter
- Audio Signal Oscillator
- Test Tapes
  - ‡ 10kHz Test Tape (For example: A.BEX TCC-153) for Head Azimuth Adjustment
  - ‡ 3kHz Test Tape (For example: TEAC MTT-111) for Normal Tape Speed Adjustment
  - ‡ 1.5kHz Test Tape (For example: A.BEX TCW-211) for Double Tape Speed Adjustment
  - ‡ 400Hz Test Tape (For example: TEAC MTT-150) for Playback sensitivity Adjustment
- Test Tapes for Recording and Playback Operations
  - ‡ Metal Tape (For example: TDK AC 712)
  - ‡ CrO<sub>2</sub> Tape (For example: TDK AC 512)
  - ‡ Normal Tape (For example: TDK AC 223)

## SWITCH POSITIONS

Unless especially indicated, set switch as follows;

SYNCHRO START Switch ..... SEQ. PLAY  
SPEED Switch ..... NORMAL  
DOLBY NR Switch ..... OFF  
SURROUND Switch ..... OFF  
GRAPHIC EQUALIZER Volume ..... CENTER

## TAPE SPEED ADJUSTMENT (NORMAL SPEED)

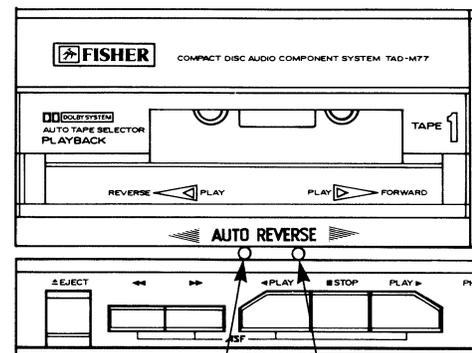
1. Connect the frequency counter to the set's left SPEAKER terminal.
2. Install the test tape (For example: TEAC MTT-111) in TAPE 1 and set to the forward playback mode.
3. Adjust the potentiometer in the capstan drive motor so that the reading on the frequency counter is 3000Hz  $\pm$ 5Hz.
4. Adjust TAPE 2 in the same way as for TAPE 1.

## TAPE SPEED ADJUSTMENT (HIGH SPEED)

1. Connect the frequency counter to the set's left SPEAKER terminal.
2. Short circuit test pins TP431 and GND. (The unit will be set to the high speed mode).
3. Install the test tape (For example: A.BEX TCW-211) in TAPE 1 and set to the forward playback mode.
4. Adjust VR431 on the Deck Control P.C.Board so that the reading on the frequency counter is 3000Hz  $\pm$ 5Hz.
5. Adjust TAPE 2 in the same way as for TAPE 1 using VR432.

## HEAD AZIMUTH ADJUSTMENT

1. Connect the dualtrace oscilloscope to the set's Dolby test pins TP501 (left) and TP502 (right) on the Main P.C.Board.
2. Install the test tape (For example: A.BEX TCC-153) in TAPE 1 and set to the forward playback mode.
3. Adjust the forward head azimuth adjustment screw so that the oscilloscope's waveform is maximum and so that the right waveform is over the left waveform.



Forward Head Azimuth  
Adjustment Screw

Reverse Head Azimuth  
Adjustment Screw

4. Next turn the same tape over and set to the reverse playback mode.
5. Adjust the reverse head azimuth adjustment screw in the same way as for the forward side.
6. Repeat the above several time.
7. Adjust TAPE 2 in the same way as for TAPE 1.

## PLAYBACK SENSITIVITY ADJUSTMENT

1. Connect the AC VTVM to the set's Dolby test pin TP501 (left) and TP502 (right).
2. Install the test tape (For example: TEAC MTT-150) in TAPE 1 and set to the playback mode.
3. Adjust VR751 (left) and VR752 (right) on the Pre-Amp P.C.Board so that the reading on the AC VTVM is 300mV.
4. Install the test tape (For example: TEAC MTT-150) in TAPE 2 and set to the playback mode.
5. Do the same for TAPE 1, and adjust VR753 (left) and VR754 (right) Pre-Amp P.C.Board so that the output is 300mV.

## NOTE:

When adjusting one Deck, set the other Deck to the stop mode.

# CASSETTE DECK ADJUSTMENT PROCEDURES (Continued)

## BIAS FREQUENCY ADJUSTMENT (TAPE 2 Only)

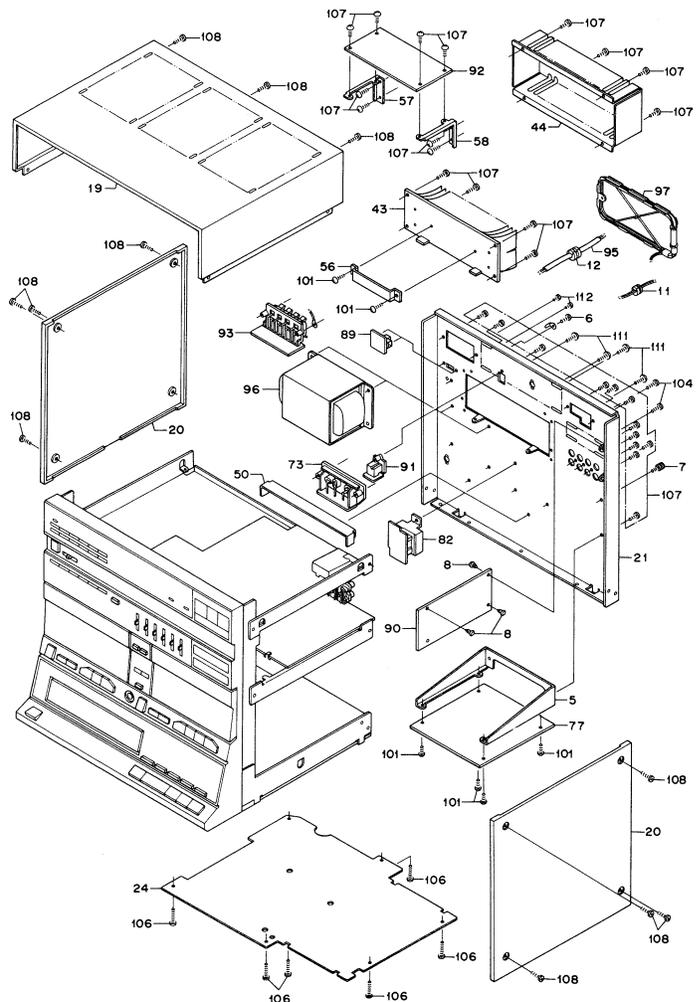
1. Connect the Pick-up coil into the Frequency counter.
2. Allow the Pick-up coil to come near the OSC coil (T503).
3. Install the Metal test tape (For example: TDK AC-712) in TAPE 2 and set to the recording mode.
4. Set the BEAT CANCEL switch in the OFF mode and Adjust Bias OSC coil (T503) on the Main P.C.Board so that the reading of the frequency counter is  $82.5\text{kHz} \pm 100\text{Hz}$ .
5. Change over the BEAT CANCEL switch and check that the bias frequency changes about 80kHz. Then, set the BEAT CANCEL switch to its original mode.

## RECORDING FREQUENCY CHARACTERISTIC RESPONS ADJUSTMENT

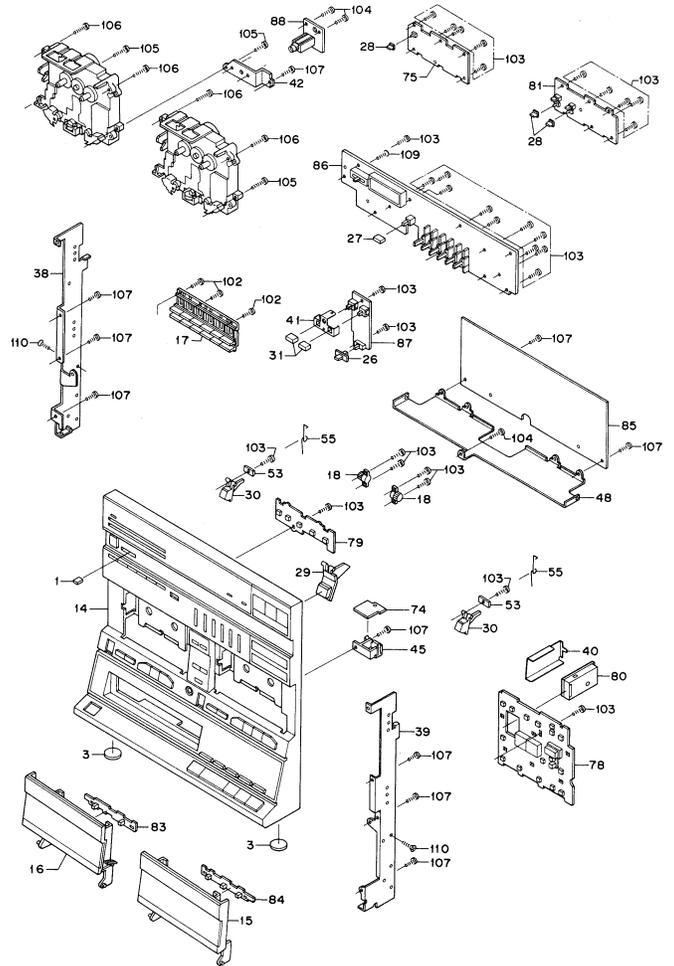
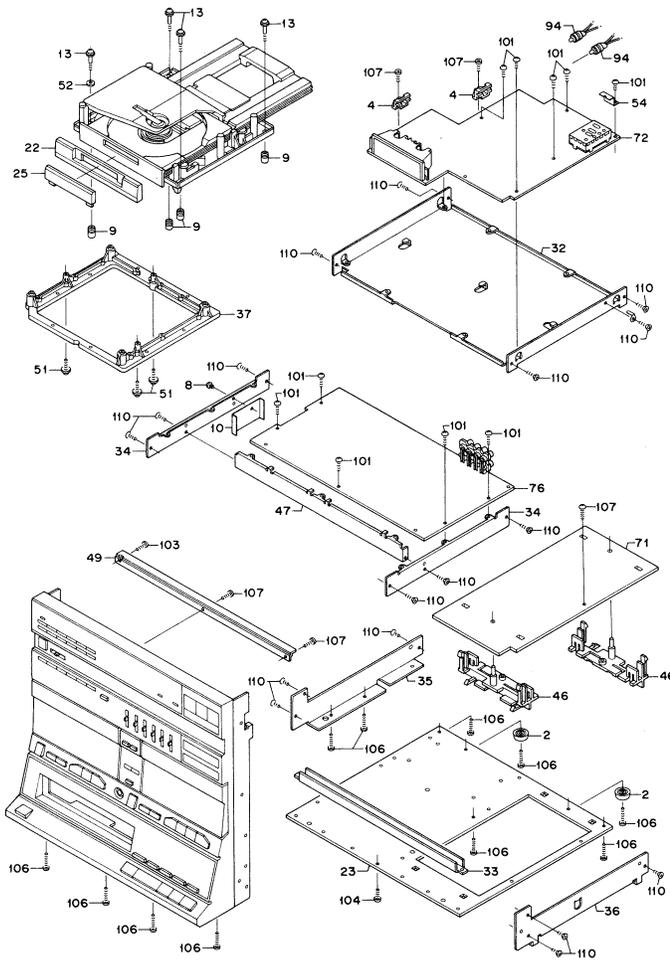
1. Connect the audio signal generator to the set's left AUX terminal.
2. Connect the AC VTVM to the set's Dolby test pins TP501 (left).
3. Install the normal tape (For example: TDK AC223) in TAPE 1 and set to the recording mode.
4. Output 1kHz and 10kHz with  $-28\text{dB}$ s (40mV) from the audio frequency oscillator and record these signals on the tape.
5. Play back the recorded signal and adjust VR456 so that the difference between 1kHz and 10kHz is  $\pm 1.0\text{dB}$ .
6. Adjust right side in the same way as for left side using VR456.
7. Then perform the recoding and play back operations using the CrO<sub>2</sub> tape (For example: TDK AC 512) and METAL tape (For example: TDK AC 712). After that adjust VR755 and VR756 until the recoding/play back frequency meets the specifications.

## CABINET/CHASSIS PARTS LIST & EXPLODED VIEW

Ref. No.	Part No.	Description	Q'ty
<b>PACKAGE</b>			
	131-6-1169-22600	Box Corrugate Exp. (Black)	1
	131-6-1169-22601	Box Corrugate Exp. (Pearl White)	1
	141-6-1469-24201	Pad Front	1
	141-6-1469-29600	Pad Rear	1
	141-6-2519-12025	Poly Cover 120 x 250 (Black)	1
	141-6-2519-10025	Poly Cover 120 x 250 (Pearl White)	1
	141-6-2519-27190	Poly Cover	1
	141-6-4559-00100	Serial No. Sheet (Black)	2
	141-6-4559-00100	Serial No. Sheet (Pearl White)	1
<b>ACCESSORIES</b>			
	4-1929-70283	REM-M77 (EUROPE) (Remote Control)	1
	131-0-4012-00180	FM Antenna Assy	1
	141-6-4519-27939	Certificate Card	1
	141-6-4559-00100	Serial No. Sheet (Black)	1
	131-6-4559-10900	Manufacturing No. (Pearl White)	1
	131-6-2719-10401	Bag Fan	1
	141-2-1919-11600	Stand Loop Antenna	1
	141-6-2519-28790	Poly Cover	1
	142-6-4119-33662	Explanatory Booklet	1
	142-6-4119-33762	Explanatory Booklet	1
<b>CABINET</b>			
	4-2379-21524	Terminal Lug	3
	131-2-3608-14100	Cramp Wire	20
	131-6-4159-39600	Notes (Laser)	1
	131-6-4159-40200	Notes (Laser)	1
	131-6-4159-40300	Notes (Laser)	1
	141-2-1449-80000	Plate Decorate	1
	141-2-2449-61800	Sheet	2
	141-2-2449-62200	Sheet	1
	141-6-4159-00661	Label	1
	141-6-4559-03300	Serial No. Sheet	1
	141-6-4729-37910	Label (Caution)	1
	141-6-4729-37911	Label (Caution)	1
CA101	4-2359-79424	Connector 1P Assy	1



# CABINET/CHASSIS PARTS LIST & EXPLODED VIEW (Continued)



Ref. No.	Part No.	Description	Q'ty
1	131-2-1601-71001	Knob (Timer Mode)	1
2	131-2-1801-14100	Leg	2
3	131-2-1801-16200	Leg	2
4	131-2-3614-18700	Mount P.C.B.	2
5	131-2-3614-27700	Metal Mount (RF-PCB)	1
6	131-2-4201-16700	Screw, Brazier Hd. Tapping-C, + M3.0x6	1
7	131-2-4201-17800	Screw Ground	1
8	131-2-4221-00600	Rivet	4
9	131-2-5205-32700	Cushion Rubber	4
10	131-2-6107-32000	Plate Sever	1
11	131-2-6111-11300	Bushing (3P-4)	1
12	131-2-6111-14200	Bushing (4N-4)	1
13	134-2-4106-27000	Shaft	4
14	141-0-1129-32301	Cabinet Front Assy (Black)	1
	131-2-1801-16201	Leg	2
	141-0-1619-37100	Knob Assy (Timer)	1
	141-0-1629-00901	Knob Deck Assy (Right)	1
	141-0-1629-01001	Knob Deck Assy (Left)	1
	141-0-1629-01101	Knob CD Assy	1
	141-2-1129-61001	Cabinet Front	1
	141-2-1449-77101	Clear Center	1
	141-2-1449-78701	Window Dial	1
	141-2-1449-79501	Plate Decorate	1
	141-2-1449-79601	Plate Decorate	1
	141-2-1449-79700	Plate Decorate	1
	141-2-1449-79800	Filter Decorate	1
	141-2-1449-81100	Plate Decorate EQ.	1
	141-2-1519-24700	Reflector	2

Ref. No.	Part No.	Description	Q'ty
	141-2-1659-86404	Knob Cap (FM)	1
	141-2-1659-86406	Knob Cap (LW)	1
	141-2-1659-86407	Knob Cap (MW)	1
	141-2-1659-86501	Knob Cap (Function)	1
	141-2-1659-86502	Knob Cap (VR)	1
	141-2-1659-86503	Knob Cap (Tuning)	1
	141-2-1659-86600	Knob Power	1
	141-2-1659-86700	Knob FF	2
	141-2-1659-96000	Knob Touch	1
	141-2-3769-23200	Spacer Button	1
14	141-0-1129-32303	Cabinet Front Assy (Pearl White)	1
	131-2-1801-16201	Leg	2
	141-0-1619-37100	Knob Assy (Timer)	1
	141-0-1629-00902	Knob Deck Assy (Right)	1
	141-0-1629-01002	Knob Deck Assy (Left)	1
	141-0-1629-01102	Knob CD Assy	1
	141-2-1129-61002	Cabinet Front	1
	141-2-1449-77101	Clear Center	1
	141-2-1449-78701	Window Dial	1
	141-2-1449-79501	Plate Decorate	1
	141-2-1449-79601	Plate Decorate	1
	141-2-1449-79700	Plate Decorate	1
	141-2-1449-79800	Filter Decorate	1
	141-2-1449-81102	Plate Decorate EQ.	1
	141-2-1519-24700	Reflector	2
	141-2-1659-86410	Knob Cap (FM)	1
	141-2-1659-86409	Knob Cap (LW)	1
	141-2-1659-86408	Knob Cap (MW)	1

# CABINET/CHASSIS PARTS LIST & EXPLODED VIEW(Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
	141-2-1659-86506	Knob Cap (Function)	1	71	141-0-1939-23591	CD P.C.B. Assy	1
	141-2-1659-86505	Knob Cap (VR)	1	72	141-0-1939-25240	Tuner P.C.B. Assy	1
	141-2-1659-86504	Knob Cap (Tuning)	1	73	141-0-1939-25250	Antenna P.C.B. Assy	1
	141-2-1659-86600	Knob Power	1	74	141-0-1939-25260	Indicator P.C.B. Assy	1
	141-2-1659-86700	Knob FF	2	75	141-0-1939-25270	Preset P.C.B. Assy	1
	141-2-1659-96000	Knob Touch	1	76	141-0-1939-25291	Main P.C.B. Assy	1
	141-2-3769-23200	Spacer Button	1	77	141-0-1939-25300	CD Sub P.C.B. Assy	1
15	141-0-1249-46001	Lid Cassette Assy (Right) (Black)	1	78	141-0-1939-25310	Switch M2 CD P.C.B. Assy	1
15	141-0-1249-46002	Lid Cassette Assy (Right) (Pearl White)	1	79	141-0-1939-25320	Switch M1 P.C.B. Assy	1
16	141-0-1249-46102	Lid Cassette Assy (Left) (Black)	1	80	141-0-1939-25330	IR P.C.B. Assy	1
16	141-0-1249-46103	Lid Cassette Assy (Left) (Pearl White)	1	81	141-0-1939-25340	CD Ind. P.C.B. Assy	1
17	141-0-1619-36800	Knob Assy (Tact) (Station)	1	82	141-0-1939-25350	Back Up Trans P.C.B. Assy	1
18	141-0-5519-07903	Gear Eject Assy	2	83	141-0-1939-25360	Lid LED M1 P.C.B. Assy	1
19	141-2-1129-57400	Cover (Black)	1	84	141-0-1939-25370	Lid LED M2 P.C.B. Assy	1
19	141-2-1129-57401	Cover (Pearl White)	1	85	141-0-1939-25380	Deck Control P.C.B. Assy	1
20	141-2-1219-40700	Panel Side (Black)	2	86	141-0-1939-25390	Amplifier Control P.C.B. Assy	1
20	141-2-1219-40701	Panel Side (Pearl White)	2	87	141-0-1939-25400	Switch Dolby P.C.B. Assy	1
21	141-2-1219-42800	Panel Rear	1	88	141-0-1939-25410	Head Phone P.C.B. Assy	1
22	141-2-1249-59701	Cover Table Load	1	89	141-0-1939-25420	Switch Beat Cancel P.C.B. Assy	1
23	141-2-1259-11000	Plate Bottom	1	90	141-0-1939-25430	Pre Amplifier P.C.B. Assy	1
24	141-2-1259-11800	Plate Bottom (Shield)	1	91	141-0-1939-25500	Socket P.C.B. Assy	1
25	141-2-1319-54201	Window CD	1	92	141-0-1939-25440	Power Amplifier P.C.B. Assy	1
26	141-2-1649-36400	Knob Slide Switch (Derection SW.)	1	93	141-0-1939-25450	Speaker Terminal P.C.B. Assy	1
27	141-2-1659-76701	Knob Push Switch (Surround) (Black)	1	94	4-6129-70780	Lamp	2
27	141-2-1659-76703	Knob Push Switch (Surround) (Pearl White)	1	95	△ 4-2432-00500	Power Cord	1
28	141-2-1659-86301	Button Switch (Tuner Memory)	3	96	△ 4-2512-36120	Power Trans	1
29	141-2-1659-87300	Knob (Open/Close) (Black)	1	97	4-2579-72790	Loop Antenna	1
29	141-2-1659-87301	Knob (Open/Close) (Pearl White)	1	101	411 020 8004	SCR S-TPG BRZ 3X8	16
30	141-2-1659-87600	Knob (Eject) (Black)	2	102	411 021 0809	SCR S-TPG BIN 2X6	3
30	141-2-1659-87601	Knob (Eject) (Pearl White)	2	103	411 021 3107	SCR S-TPG BIN 2.6X8	32
31	141-2-1659-95300	Knob Push Switch (Auto Play, Dolby NR) (Black)	2	104	411 021 3503	SCR S-TPG BIN 3X10	6
31	141-2-1659-95301	Knob Push Switch (Auto Play, Dolby NR) (Pearl White)	2	105	411 021 4005	SCR S-TPG BIN 3X12	3
32	141-2-3119-32401	Chassis	1	106	411 021 4302	SCR S-TPG BIN 3X14	21
33	141-2-3159-05400	Plate Reinforce	1	107	411 021 6405	SCR S-TPG BIN 3X8	43
34	141-2-3159-05500	Bracket P.C.B.	2	108	411 021 6603	SCR S-TPG BIN 3X8 (Black)	11
35	141-2-3159-05600	Frame Bottom (Left)	1	108	411 021 6207	SCR S-TPG BIN 3X8 (Pearl White)	11
36	141-2-3159-05700	Frame Bottom (Right)	1	109	411 022 2406	SCR S-TPG FLT 2.6X8	1
37	141-2-3169-29100	Bracket CD	1	110	411 022 4004	SCR S-TPG FLT 3X6	19
38	141-2-3169-35000	Bracket Side Left	1	111	411 024 8406	SCR S-TPG TRS 4X8	4
39	141-2-3169-35100	Bracket Side Right	1	112	411 031 0905	SCR BIN 2.6X4	2
40	141-2-3229-67100	Plate Shield	1				
41	141-2-3229-69300	Plate Shield	1				
42	141-2-3519-84900	Bracket Deck	1				
43	141-2-3689-17100	Heat Sink	1				
44	131-2-1410-34628	Cover Heat Sink	1				
45	141-2-3779-23100	Bracket P.C.B.	1				
46	141-2-3779-24600	Bracket P.C.B.	2				
47	141-2-3779-26100	Bracket P.C.B.	1				
48	141-2-3779-26200	Bracket P.C.B. Deck	1				
49	141-2-3779-26300	Bracket Cabinet Front	1				
50	141-2-3779-27100	Bracket CD Tray	1				
51	141-2-4219-45700	Screw, Brazier Hd. Tapping, + M3.0x20	3				
52	141-2-4539-45600	Washer	1				
53	141-2-4569-10400	Washer	2				
54	141-2-8539-61800	Plate Earth	1				
55	141-2-8549-40800	Spring Lid Cassette	2				
56	131-2-3101-90000	Metal Mount (IC)	1				
57	141-2-3779-26900	Bracket P.C.B. Amplifier	1				
58	141-2-3779-27000	Bracket P.C.B. Amplifier	1				

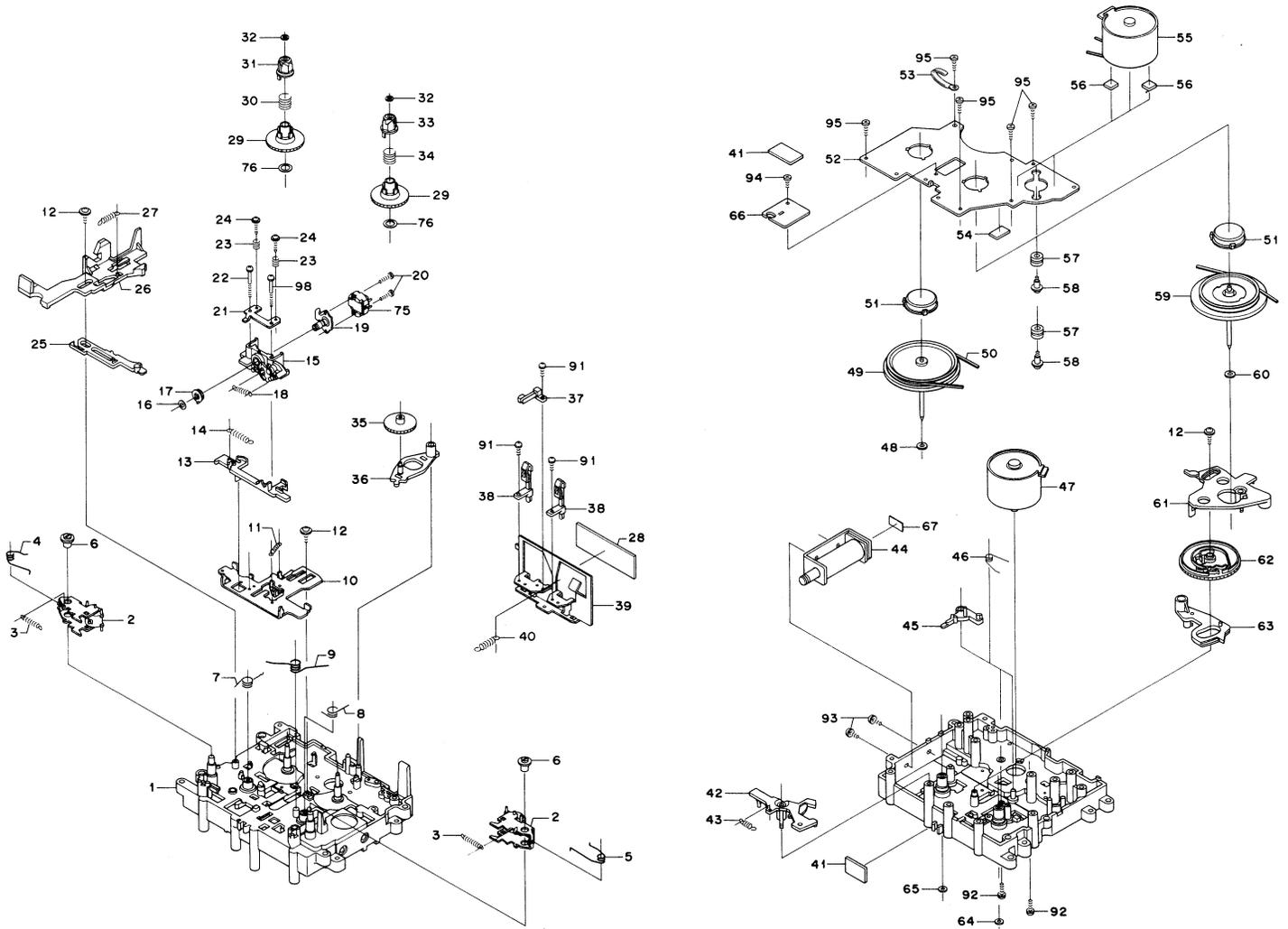
**NOTES:**

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

**PRODUCT SAFETY NOTICE**

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  $\Delta$  in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with  $\Delta$ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

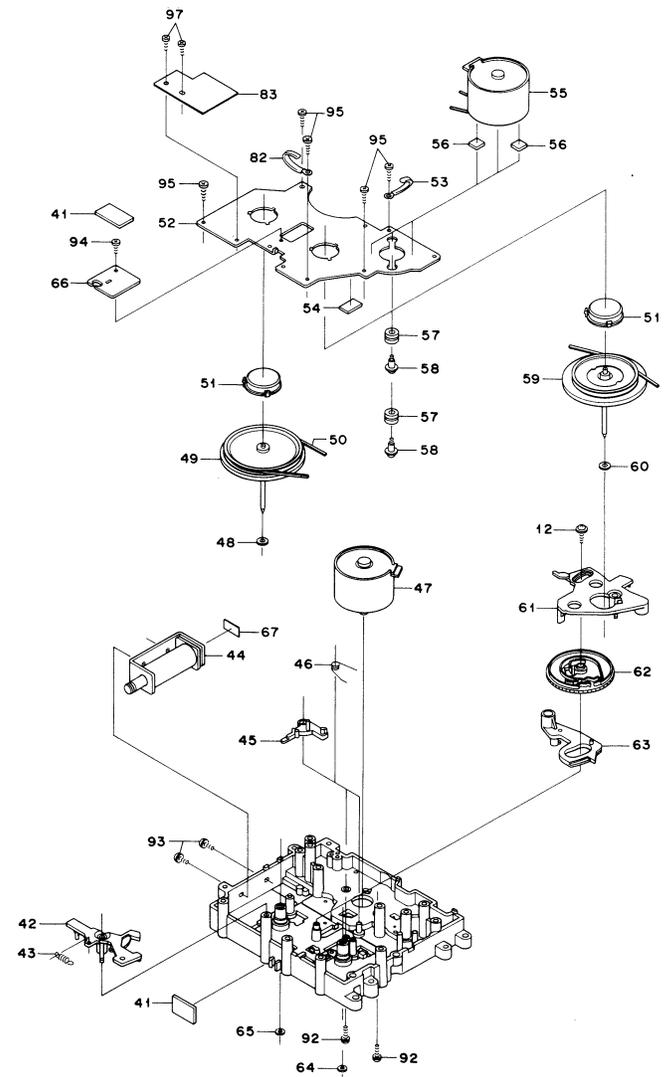
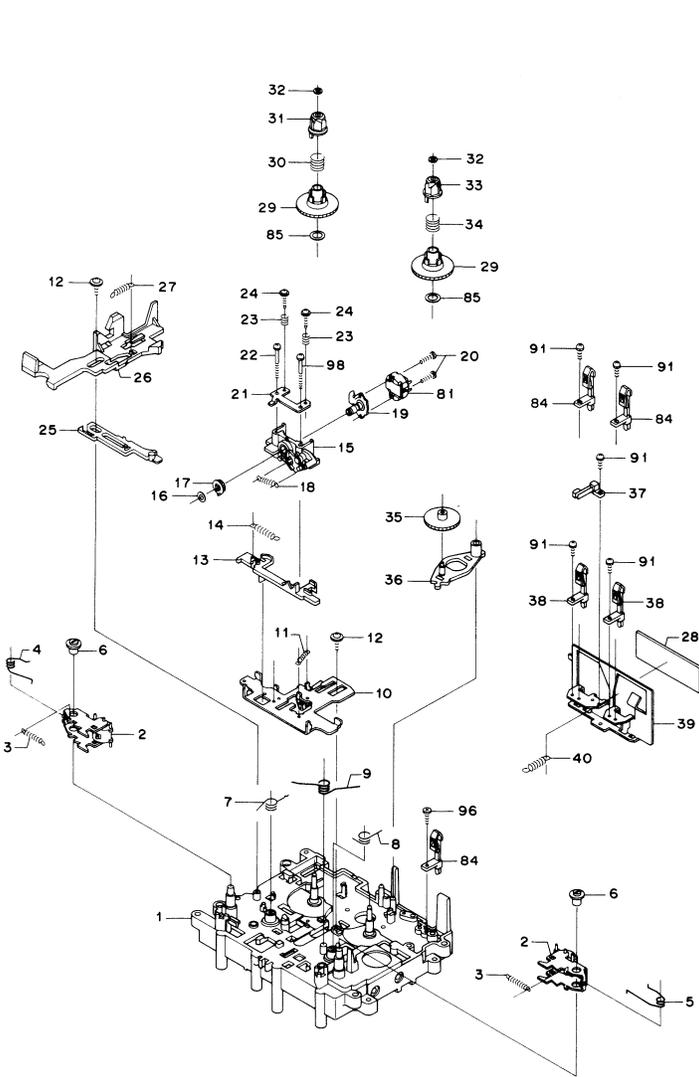
# CASSETTE DECK MECHANISM PARTS LIST & EXPLODED VIEW



Ref. No.	Part No.	Description	Q'ty
<b>TAPE 1 &amp; TAPE 2 SIMILAR PARTS</b>			
1	141-0-3119-27900	Chassis Assy	2
2	141-0-5459-03400	Arm Pinchroller Assy	4
3	141-2-8519-92700	Spring Base Head	4
4	141-2-8529-39100	Spring Arm Pinch Left	2
5	141-2-8529-39000	Spring Arm Pinch Right	2
6	141-2-5369-08600	Bush	4
7	141-2-8529-42200	Spring Earth Reverse	2
8	141-2-8529-42100	Spring Earth FWD	2
9	141-2-8529-39400	Spring Lever Base	2
10	141-0-7319-35900	Base Slide Assy	2
11	141-2-8549-39000	Spring Lever Base	2
12	141-2-4219-13201	Screw Washer	6
13	141-2-7319-79100	Plate Reverse	2
14	141-2-8519-48900	Spring Slide Base	2
15	141-0-3759-01900	Head Base Assy	2
16	141-2-4539-38600	Washer Cut	2
17	141-2-5519-69500	Gear Head	2
18	141-2-8549-40500	Spring Gear Reverse	2
19	141-0-3759-01500	Plate Head Assy	2
20	141-2-4219-40700	Screw, Pan Hd., + M1.6X6	4
21	141-2-7319-79000	Plate Azimuth	2
22	141-2-4219-44900	Screw C SW M2X20	2
23	141-2-8559-17900	Spring Azimuth	4
24	141-2-4219-43700	Screw Azimuth	4
25	141-2-7319-79300	Rod Eject Base	2
26	141-2-7319-88200	Rod Eject	2
27	141-2-8519-44500	Spring Tension Arm	2
28	141-2-4469-26000	Cushion	2
29	141-2-5319-18600	Reel Plate	4

Ref. No.	Part No.	Description	Q'ty
30	141-2-8559-18700	Spring Reel Reverse	2
31	141-2-5319-18700	Fin Reel Supply	2
32	141-2-4539-15700	Washer	4
33	141-2-5319-18800	Fin Reel Take UP	2
34	141-2-8559-18600	Spring Reel FWD	2
35	141-2-5519-69300	Gear Idler	2
36	141-2-7439-51600	Arm Idler	2
37	4-2319-79890	Leaf Switch (Eject) [S5]	1
37	4-2319-79890	Leaf Switch (Eject) [S9]	1
38	4-2319-79880	Leaf Switch (CrO <sub>2</sub> /Metal) [S4]	1
38	4-2319-79880	Leaf Switch (Tape) [S6]	1
38	4-2319-79880	Leaf Switch (A REC) [S7]	1
38	4-2319-79880	Leaf Switch (CrO <sub>2</sub> ) [S8]	1
39	141-2-3519-81800	Bracket Switch	2
40	141-2-8549-24500	Spring Base	2
41	141-2-4469-17201	Cushion	4
42	141-2-7429-03400	Lever Play Start	2
43	141-2-8549-39500	Spring Lever Start	2
44	4-2649-70860	Plunger [PL1]	1
44	4-2649-70860	Plunger [PL2]	1
45	141-2-7429-03100	Lever Lock Base	2
46	141-2-8529-39300	Spring Lever REV Select	2
47	141-0-5519-14400	Gear Motor Assy [M3]	1
47	141-0-5519-14400	Gear Motor Assy [M5]	1
48	141-2-4539-34801	Washer	2
49	141-0-5219-16100	Flywheel FWD P/B Assy	2
50	141-2-5649-30200	Belt Drive	2
51	141-2-5739-08400	Thrust Flywheel	4
52	141-2-3519-84001	Support Flywheel	2
53	141-2-4729-04200	Lug	2
54	141-2-4469-32000	Cushion	2

# CASSETTE DECK MECHANISM PARTS LIST & EXPLODED VIEW (Continued)



Ref. No.	Part No.	Description	Q'ty
55	4-5279-71511	Motor [M4]	1
55	4-5279-71511	Motor [M6]	1
56	141-2-4469-21300	Cushion	4
57	141-2-4459-11800	Cushion Motor	4
58	141-2-4219-30100	Screw	4
59	141-0-5219-16500	Flywheel REV Complete	2
60	141-2-4539-30903	Washer	2
61	141-2-7429-03300	Lever REV Select	2
62	141-2-5519-69600	Gear Actuate	2
63	141-0-7419-44300	Lever Assist B Assy	2
64	141-2-4539-18402	Washer	2
65	141-2-4539-43100	Washer	2
66	4-2262-31600	PCB Head	2
67	141-2-4359-51300	Sheet	2
<b>TAPE 1 only</b>			
	131-2-3608-14100	Cramp Wire	1
CA1	4-2352-03202	Connector 4P Assy	1
CA2	4-2352-02938	Connector 8P Assy	1
CA3	4-2352-03117	Connector 3P Assy	1
CA4	4-2352-02158	Connector 1P Assy	1
CA5	4-2352-02860	Connector 1P Assy	1
75	4-2429-73010	P/B Rotary Head [HD1]	1
76	141-2-4539-36000	Washer	2

Ref. No.	Part No.	Description	Q'ty
CA11	4-2352-02359	Connector 7P Assy	1
CA12	4-2352-02938	Connector 8P Assy	1
CA14	4-2352-02888	Connector 2P Assy	1
CA15	4-2352-02965	Connector 6P Assy	1
CA16	4-2352-02158	Connector 1P Assy	1
CA17	4-2352-02860	Connector 1P Assy	1

Ref. No.	Part No.	Description	Q'ty
81	4-2429-73020	R/P Erase Rotary Head [HD2]	1
82	141-2-4729-04100	Lug	1
83	131-2-6103-26800	Cover Shield	1
84	4-2319-79880	Leaf Switch (Metal) [S10]	1
84	4-2319-79880	Leaf Switch (Tape) [S11]	1
84	4-2319-79880	Leaf Switch (B REC) [S12]	1
85	141-2-4539-43900	Washer	2
<b>SCREW</b>			
91	411 044 7205	SCR PAN + SW 2X4	8
92	411 045 1202	SCR PAN + SW 2.6X5	4
93	411 045 5408	SCR PAN + SW 3X5	4
94	411 021 0809	SCR S-TPG BIN 2X6	2
95	411 021 1806	SCR S-TPG BIN 2.6X10	10
96	411 021 1202	SCR S-TPG BIN 2X8	1
97	411 021 3107	SCR S-TPG BIN 2.6X8	2
98	411 106 5606	SCR PAN + SW + W 2X20	2

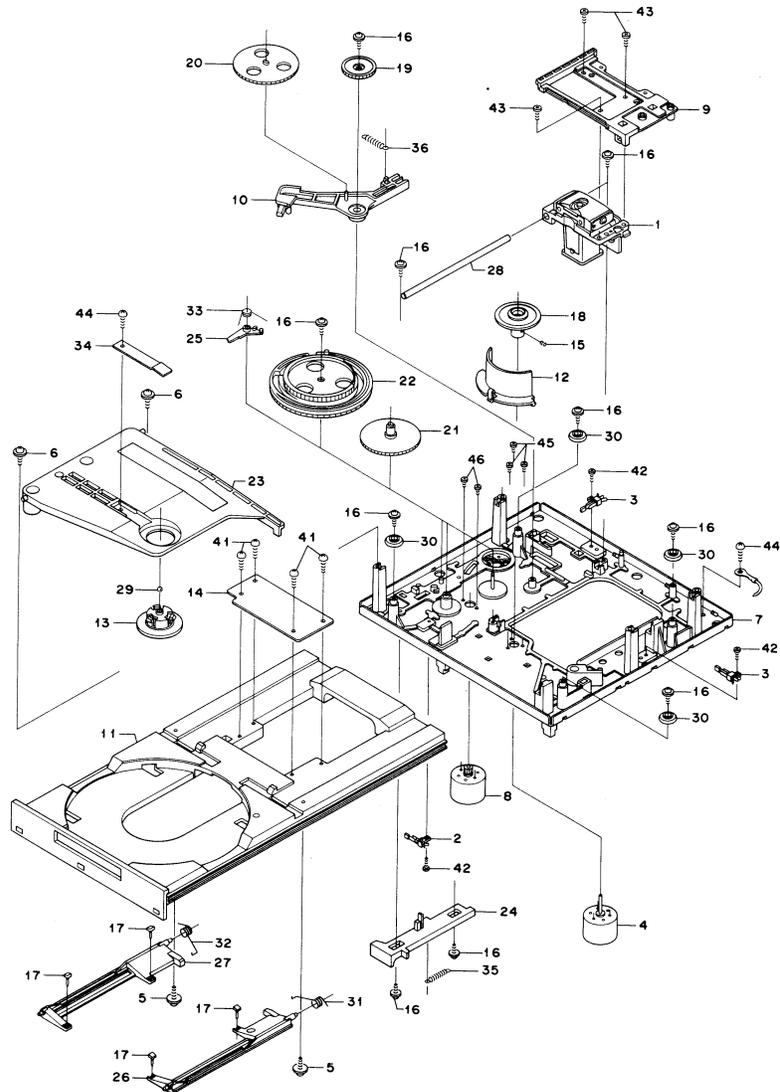
- NOTES:**
- Parts order must contain Model Number, Part Number and Description.
  - Ordering quantity of screws and resistors must be multiple of 10 pcs.

# COMPACT DISC PLAYER PARTS LIST & EXPLODED VIEW

Ref. No.	Part No.	Description	Q'ty
<b>CD PLAYER MECHANISM</b>			
1	134-0-4009-04100	Pick-up Assy	1
2	4-2319-74170	Leaf Switch (OPEN/CLOSE) [S3]	1
3	4-2319-75281	Leaf Switch (LOADING LIMIT) [S1]	1
3	4-2319-75281	Leaf Switch (PICK-UP LIMIT) [S2]	1
4	4-5279-71422	Motor [M2]	1
5	131-2-4201-28201	Screw	2
6	131-2-4201-28300	Screw	2
7	141-0-3119-24601	Chassis Assy	1
8	141-0-5519-11501	Gear Motor Assy [M1]	1
9	141-0-7319-29400	Slide Base Pick-up Assy T	1
10	141-0-7419-42400	Lever Rock Assy	1
11	141-2-1149-40109	Table Load	1
12	141-2-2419-31300	Shelter Turntable	1
13	141-2-3519-72400	Holder Disk	1
14	141-2-3519-73900	Plate Reinforce	1
15	141-2-4219-36700	Set Screw V-Cone 2X4	1
16	141-2-4219-42700	Screw Washer	10
17	141-2-4459-36000	Pad Disk	4
18	141-2-5229-01200	Turntable	1
19	141-2-5519-59700	Gear Pinion	1
20	141-2-5519-59800	Gear Pick-up	1
21	141-2-5519-59900	Gear Load	1
22	141-2-5519-60000	Gear Cam	1
23	141-2-6229-01400	Flap Disk Cramp	1
24	141-2-7319-64500	Slide Eject	1
25	141-2-7419-94300	Lever Stop	1
26	141-2-7419-94500	Lever Hold Disk Right	1
27	141-2-7419-94600	Lever Hold Disk Left	1
28	141-2-7519-72100	Shaft Pick-up	1
29	141-2-8259-04800	Ball	1
30	141-2-8259-12600	Roller Table Load	4
31	141-2-8529-23700	Spring Lever Right	1
32	141-2-8529-23800	Spring Lever Left	1
33	141-2-8529-23900	Spring Lever Stop	1
34	141-2-8539-58800	Spring Plate	1
35	141-2-8549-27700	Spring Slide Eject	1
36	141-2-8549-27800	Spring Lever Rock	1
41	411 099 9803	SCR S-TPG BRZ 3X8	4
42	411 021 0809	SCR S-TPG BIN 2X6	3
43	411 031 0905	SCR BIN 2.6X4	3
44	411 099 9704	SCR S-TPG BRZ 3X6	2
45	411 019 9401	SCR PAN PCS 1.7X2.5	3
46	411 019 8909	SCR PAN PCS 1.7X2	2

**NOTES:**

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.



# P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>CD P.C.B. ASSY</b>							
71	141-0-1939-23591	CD P.C.B. Assy	1	D208	407 008 0405	DIODE GMB01-BT	1
	4-2349-70710	ROHM-ICP-F10	1	D209	407 008 0405	DIODE GMB01-BT	1
	4-2369-73783	Pin 1P	1	D210	407 008 0405	DIODE GMB01-BT	1
	4-2369-73784	RT Pin 0.8 X7L	8	D211	407 008 0405	DIODE GMB01-BT	1
	131-2-6201-21500	Plate Heat Sink	1	D212	407 008 0405	DIODE GMB01-BT	1
	411 020 7700	SCR S-TPG BRZ 3X6	1	D213	407 005 3805	DIODE DS442-BT	1
CA201	4-2352-03119	Connector 3P Assy	1	D214	407 008 0405	DIODE GMB01-BT	1
CA202	4-2352-03101	Connector 7P Assy	1	D215	407 008 0405	DIODE GMB01-BT	1
CN201	4-2369-74990	Plug 8P	1	D216	407 008 0405	DIODE GMB01-BT	1
CN202	4-2369-74920	Plug 6P	1	D217	407 008 0405	DIODE GMB01-BT	1
CN203	4-2369-76070	Plug 12P	1	D218	407 008 0405	DIODE GMB01-BT	1
CN204	4-2369-74740	Plug 9P	1	D219	407 008 0405	DIODE GMB01-BT	1
CN206	4-2369-74940	Plug 11P	1	D220	407 005 3805	DIODE DS442-BT	1
CN207	4-2369-71482	Plug 3P	1	D233	407 008 0405	DIODE GMB01-BT	1
CN209	4-2369-72920	Plug 5P	1	D234	407 008 0405	DIODE GMB01-BT	1
CN210	4-2369-72920	Plug 5P	1	D235	407 005 3805	DIODE DS442-BT	1
CN211	4-2369-71482	Plug 3P	1	D236	407 005 2105	DIODE DS135D-KB3	1
T201	4-2539-72160	RF Filter	1	D237	407 005 2105	DIODE DS135D-KB3	1
or	4-2539-72162	RF Filter	1	D238	407 005 2105	DIODE DS135D-KB3	1
T202	4-2589-73310	OSC Coil	1	D239	407 005 2105	DIODE DS135D-KB3	1
or	4-2589-73250	OSC Coil	1	D240	407 000 3503	VARACTOR DI SVC211SP	1
T203	4-2529-70410	Filter	1	D241	407 005 3805	DIODE DS442-BT	1
T204	4-2529-70410	Filter	1	C201	403 072 2703	CERAMIC 0.022U Z 50V	1
VR201	4-2229-76740	Potentiometer (B-100kΩ)	1	C202	403 038 2303	ELECT 100U M 6.3V	1
VR202	4-2229-76560	Potentiometer (B-100kΩ)	1	C203	403 048 3109	ELECT 0.22U M 50V	1
VR203	4-2229-76740	Potentiometer (B-100kΩ)	1	C204	403 069 8404	CERAMIC 0.01U Z 50V	1
VR204	4-2229-76741	Potentiometer (B-10kΩ)	1	C205	403 014 6202	CERAMIC 18P K 50V	1
VR205	4-2229-76741	Potentiometer (B-10kΩ)	1	C206	403 014 6202	CERAMIC 18P K 50V	1
XTAL	4-2259-70772	Crystal	1	C207	403 039 2906	ELECT 47U M 6.3V	1
or	4-2259-70771	Crystal	1	C208	403 028 8001	CERAMIC 56P K 50V	1
or	4-2259-70770	Crystal	1	C209	403 028 8001	CERAMIC 56P K 50V	1
IC201	409 004 8300	IC CX20109	1	C210	403 069 0705	CERAMIC 1000P K 50V	1
IC202	409 065 8400	IC YM3805	1	C211	403 048 7602	ELECT 0.47U M 50V	1
IC203	409 020 6205	IC LC3517AM-15	1	C212	403 038 2303	ELECT 100U M 6.3V	1
IC204	409 021 7607	IC LC6523H-3064	1	C213	403 038 2303	ELECT 100U M 6.3V	1
IC205	409 065 8301	IC YM3015	1	C214	403 073 6502	CERAMIC 470P K 50V	1
IC206	409 070 4909	IC NJM2068S-D	1	C215	403 040 2704	ELECT 22U M 10V	1
IC207	409 070 4909	IC NJM2068S-D	1	C216	403 071 5903	CERAMIC 220P K 50V	1
IC208	409 018 5500	IC LA6510	1	C217	403 060 6607	POLYESTER 3300P K 50V	1
IC209	409 018 4206	IC LA6393S	1	C218	403 040 2704	ELECT 22U M 10V	1
IC210	409 018 5500	IC LA6510	1	C219	403 087 2507	STYRENE 1000P J 50V	1
IC211	409 018 5401	IC LA6462S	1	C220	403 057 0106	POLYESTER 0.01U J 50V	1
IC212	409 020 6601	IC LC4001B	1	C221	403 074 2701	CERAMIC 0.047U Z 50V	1
IC214	409 018 5401	IC LA6462S	1	C222	403 042 9008	ELECT 22U M 16V	1
IC215	409 020 6908	IC LC4011B	1	C223	403 067 6204	MT-COMPO 0.15U J 50V	1
IC216	409 018 5401	IC LA6462S	1	C224	403 042 9008	ELECT 22U M 16V	1
IC217	409 039 9402	IC NJM78L06A	1	C225	403 067 6709	MT-COMPO 0.22U J 50V	1
Q201	405 019 2708	TR 2SC536-F-NP	1	C226	403 067 7805	MT-COMPO 0.47U J 50V	1
Q202	405 019 2708	TR 2SC536-F-NP	1	C227	403 074 2701	CERAMIC 0.047U Z 50V	1
Q203	405 021 0907	TR 2SD1012-H-SPA	1	C228	403 068 9105	CERAMIC 100P K 50V	1
Q204	405 021 0907	TR 2SD1012-H-SPA	1	C229	403 042 3600	ELECT 100U M 16V	1
Q205	405 019 2708	TR 2SC536-F-NP	1	C230	403 042 3600	ELECT 100U M 16V	1
Q206	405 004 4502	TR 2SA608-F-NP	1	C231	403 067 6709	MT-COMPO 0.22U J 50V	1
Q207	405 024 9808	TR 2SD734-E-K	1	C232	403 086 2706	NP-ELECT 1U M 50V	1
Q208	405 019 2708	TR 2SC536-F-NP	1	C233	403 086 2706	NP-ELECT 1U M 50V	1
Q209	405 004 4502	TR 2SA608-F-NP	1	C234	403 074 2701	CERAMIC 0.047U Z 50V	1
Q210	405 004 4502	TR 2SA608-F-NP	1	C235	403 023 1700	CERAMIC 33P K 50V	1
Q211	405 019 2708	TR 2SC536-F-NP	1	C237	403 057 0908	POLYESTER 0.01U K 50V	1
Q218	405 018 2600	TR 2SC3400	1	C238	403 072 2703	CERAMIC 0.022U Z 50V	1
Q219	405 004 4502	TR 2SA608-F-NP	1	C239	403 072 2703	CERAMIC 0.022U Z 50V	1
Q220	405 021 0907	TR 2SD1012-H-SPA	1	C240	403 085 4206	NP-ELECT 10U M 16V	1
Q221	405 021 0907	TR 2SD1012-H-SPA	1	C241	403 042 0302	ELECT 10U M 16V	1
Q222	405 022 7004	TR 2SD1666-R	1	C242	403 043 1100	ELECT 220U M 16V	1
Q223	405 024 9808	TR 2SD734-E-K	1	C243	403 048 7602	ELECT 0.47U M 50V	1
Q224	405 008 2306	TR 2SB698-E	1	C244	403 069 8404	CERAMIC 0.01U Z 50V	1
Q225	405 019 2708	TR 2SC536-F-NP	1	C245	403 042 3501	ELECT 100U M 16V	1
Q227	405 008 2306	TR 2SB698-E	1	C246	403 042 3501	ELECT 100U M 16V	1
Q228	405 006 9109	TR 2SB1133-R	1	C247	403 059 4102	POLYESTER 2200P K 50V	1
Q229	405 008 2306	TR 2SB698-E	1	C248	403 057 8003	POLYESTER 0.012U K 50V	1
Q230	405 019 2708	TR 2SC536-F-NP	1	C249	403 059 4102	POLYESTER 2200P K 50V	1
Q233	405 024 4902	TR 2SD612K-E	1	C250	403 086 2706	NP-ELECT 1U M 50V	1
Q234	405 019 2708	TR 2SC536-F-NP	1	C251	403 057 8003	POLYESTER 0.012U K 50V	1
D201	407 008 0405	DIODE GMB01-BT	1	C252	403 072 2703	CERAMIC 0.022U Z 50V	1
D202	407 008 0405	DIODE GMB01-BT	1	C253	403 038 2303	ELECT 100U M 6.3V	1
D204	407 008 0405	DIODE GMB01-BT	1	C254	403 022 0902	CERAMIC 30P J 50V	1
D205	407 008 0405	DIODE GMB01-BT	1	C255	403 022 0902	CERAMIC 30P J 50V	1
D206	407 005 3805	DIODE DS442-BT	1	C256	403 069 8404	CERAMIC 0.01U Z 50V	1
D207	407 008 0405	DIODE GMB01-BT	1	C257	403 072 2703	CERAMIC 0.022U Z 50V	1
				C258	403 026 5408	CERAMIC 47P K 50V	1

## P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
C259	403 001 5805	CERAMIC 0.022U N 16V	1	R233	401 027 2600	CARBON 5.6K JA 1/6W	1
C260	403 042 0302	ELECT 10U M 16V	1	R234	401 027 2600	CARBON 5.6K JA 1/6W	1
C261	403 047 1502	ELECT 4.7U M 25V	1	R235	401 026 7408	CARBON 39K JA 1/6W	1
C262	403 047 1502	ELECT 4.7U M 25V	1	R236	401 027 2600	CARBON 5.6K JA 1/6W	1
C263	403 039 2906	ELECT 47U M 6.3V	1	R237	401 024 9701	CARBON 12K JA 1/6W	1
C265	403 041 3304	ELECT 47U M 10V	1	R238	401 027 0309	CARBON 47K JA 1/6W	1
C267	403 069 0705	CERAMIC 1000P K 50V	1	R239	401 027 0309	CARBON 47K JA 1/6W	1
C268	403 026 5408	CERAMIC 47P K 50V	1	R240	401 027 0309	CARBON 47K JA 1/6W	1
C269	403 039 2906	ELECT 47U M 6.3V	1	R241	401 026 7408	CARBON 39K JA 1/6W	1
C270	403 074 2701	CERAMIC 0.047U Z 50V	1	R242	401 025 8208	CARBON 22K JA 1/6W	1
C271	403 060 1008	POLYESTER 2700P K 50V	1	R243	401 024 7400	CARBON 10K JA 1/6W	1
C272	403 060 1008	POLYESTER 2700P K 50V	1	R244	401 027 1009	CARBON 5.6 JA 1/6W	1
C273	403 061 4404	POLYESTER 0.039U K 50V	1	R245	401 011 8908	CARBON 1 JA 1/4W	1
C274	403 061 4404	POLYESTER 0.039U K 50V	1	R246	401 027 9005	CARBON 82K JA 1/6W	1
C275	403 047 1502	ELECT 4.7U M 25V	1	R247	401 026 1307	CARBON 27K JA 1/6W	1
C276	403 047 1502	ELECT 4.7U M 25V	1	R248	401 025 8703	CARBON 220K JA 1/6W	1
C277	403 070 4709	CERAMIC 1200P K 50V	1	R249	401 012 8105	CARBON 100K JA 1/4W	1
C278	403 070 4709	CERAMIC 1200P K 50V	1	R250	401 012 8105	CARBON 100K JA 1/4W	1
C279	403 067 7300	MT-COMPO 0.33U J 50V	1	R251	401 025 2305	CARBON 150K JA 1/6W	1
C285	403 038 2303	ELECT 100U M 6.3V	1	R252	401 025 2305	CARBON 150K JA 1/6W	1
C286	403 069 0705	CERAMIC 1000P K 50V	1	R253	401 027 0309	CARBON 47K JA 1/6W	1
C287	403 042 0302	ELECT 10U M 16V	1	R255	401 024 7004	CARBON 1K JA 1/6W	1
C288	403 031 0306	CERAMIC 68P K 50V	1	R256	401 026 9600	CARBON 470 JA 1/6W	1
C289	403 039 2906	ELECT 47U M 6.3V	1	R257	401 027 5502	CARBON 6.8K JA 1/6W	1
C290	403 049 1609	ELECT 1U M 50V	1	R258	401 027 5502	CARBON 6.8K JA 1/6W	1
C291	403 039 2906	ELECT 47U M 6.3V	1	R259	401 027 2600	CARBON 5.6K JA 1/6W	1
C292	403 039 7802	ELECT 100U M 10V	1	R260	401 027 2600	CARBON 5.6K JA 1/6W	1
C293	403 039 2906	ELECT 47U M 6.3V	1	R261	401 026 1307	CARBON 27K JA 1/6W	1
C294	403 069 8404	CERAMIC 0.01U Z 50V	1	R262	401 024 9701	CARBON 12K JA 1/6W	1
C295	403 039 2906	ELECT 47U M 6.3V	1	R263	401 026 1000	CARBON 2.7K JA 1/6W	1
C296	403 043 1100	ELECT 220U M 16V	1	R264	401 027 5908	CARBON 68K JA 1/6W	1
C297	403 039 7802	ELECT 100U M 10V	1	R265	401 026 4605	CARBON 33K JA 1/6W	1
C298	403 039 2906	ELECT 47U M 6.3V	1	R266	401 024 7400	CARBON 10K JA 1/6W	1
C299	403 039 2906	ELECT 47U M 6.3V	1	R267	401 027 1009	CARBON 5.6 JA 1/6W	1
C300	403 049 1609	ELECT 1U M 50V	1	R268	401 011 8908	CARBON 1 JA 1/4W	1
C301	403 039 2906	ELECT 47U M 6.3V	1	R269	401 027 9005	CARBON 82K JA 1/6W	1
C302	403 043 3104	ELECT 2200U M 16V	1	R270	401 025 0004	CARBON 120K JA 1/6W	1
C303	403 043 3104	ELECT 2200U M 16V	1	R271	401 027 6103	CARBON 680K JA 1/6W	1
C304	403 069 8404	CERAMIC 0.01U Z 50V	1	R272	401 027 5908	CARBON 68K JA 1/6W	1
C305	403 069 8404	CERAMIC 0.01U Z 50V	1	R274	401 025 4903	CARBON 180K JA 1/6W	1
C306	403 069 8404	CERAMIC 0.01U Z 50V	1	R275	401 027 0309	CARBON 47K JA 1/6W	1
C307	403 069 8404	CERAMIC 0.01U Z 50V	1	R276	401 024 7707	CARBON 100K JA 1/6W	1
C308	403 074 2701	CERAMIC 0.047U Z 50V	1	R277	401 027 3003	CARBON 56K JA 1/6W	1
C309	403 074 2701	CERAMIC 0.047U Z 50V	1	R278	401 027 0309	CARBON 47K JA 1/6W	1
C310	403 008 5204	CERAMIC 10P D 50V	1	R279	401 027 0507	CARBON 470K JA 1/6W	1
C312	403 042 3600	ELECT 100U M 16V	1	R280	401 024 9701	CARBON 12K JA 1/6W	1
C313	403 039 7802	ELECT 100U M 10V	1	R281	401 024 9701	CARBON 12K JA 1/6W	1
R201	401 024 7004	CARBON 1K JA 1/6W	1	R282	401 024 8001	CARBON 1M JA 1/6W	1
R202	401 012 8105	CARBON 100K JA 1/4W	1	R283	401 025 1605	CARBON 1.5K JA 1/6W	1
R203	401 026 1307	CARBON 27K JA 1/6W	1	R284	401 025 1902	CARBON 15K JA 1/6W	1
R204	401 027 5205	CARBON 680 JA 1/6W	1	R285	401 026 7408	CARBON 39K JA 1/6W	1
R205	401 026 4308	CARBON 3.3K JA 1/6W	1	R286	401 025 4200	CARBON 1.8K JA 1/6W	1
R206	401 025 4903	CARBON 180K JA 1/6W	1	R287	401 027 5908	CARBON 68K JA 1/6W	1
R207	401 025 0905	CARBON 130K JA 1/6W	1	R288	401 027 0309	CARBON 47K JA 1/6W	1
R208	401 026 7606	CARBON 390K JA 1/6W	1	R289	401 024 7400	CARBON 10K JA 1/6W	1
R209	401 025 2305	CARBON 150K JA 1/6W	1	R290	401 025 7805	CARBON 2.2K JA 1/6W	1
R210	401 025 0004	CARBON 120K JA 1/6W	1	R291	401 025 8208	CARBON 22K JA 1/6W	1
R211	401 016 3809	CARBON 2.2K JA 1/4W	1	R292	401 024 7400	CARBON 10K JA 1/6W	1
R212	401 016 3809	CARBON 2.2K JA 1/4W	1	R293	401 012 7009	CARBON 10K JA 1/4W	1
R213	401 016 3809	CARBON 2.2K JA 1/4W	1	R294	401 024 7400	CARBON 10K JA 1/6W	1
R214	401 024 7707	CARBON 100K JA 1/6W	1	R295	401 025 7805	CARBON 2.2K JA 1/6W	1
R215	401 012 7009	CARBON 10K JA 1/4W	1	R296	401 024 7400	CARBON 10K JA 1/6W	1
R216	401 053 1301	MT-FILM 22K FA 1/6W	1	R297	401 012 7009	CARBON 10K JA 1/4W	1
R217	401 053 1301	MT-FILM 22K FA 1/6W	1	R298	401 025 8703	CARBON 220K JA 1/6W	1
R218	401 025 7805	CARBON 2.2K JA 1/6W	1	R299	401 011 8908	CARBON 1 JA 1/4W	1
R219	401 053 1301	MT-FILM 22K FA 1/6W	1	R300	401 024 7707	CARBON 100K JA 1/6W	1
R220	401 053 1301	MT-FILM 22K FA 1/6W	1	R301	401 027 3201	CARBON 560K JA 1/6W	1
R221	401 026 4308	CARBON 3.3K JA 1/6W	1	R302	401 027 3003	CARBON 56K JA 1/6W	1
R222	401 024 7707	CARBON 100K JA 1/6W	1	R303	401 026 1307	CARBON 27K JA 1/6W	1
R223	401 026 9907	CARBON 4.7K JA 1/6W	1	R304	401 026 1307	CARBON 27K JA 1/6W	1
R224	401 025 7409	CARBON 220 JA 1/6W	1	R305	401 015 6504	CARBON 2.2 JA 1/4W	1
R225	401 025 8208	CARBON 22K JA 1/6W	1	R306	401 025 7805	CARBON 2.2K JA 1/6W	1
R226	401 024 7004	CARBON 1K JA 1/6W	1	R307	401 011 8908	CARBON 1 JA 1/4W	1
R227	401 025 7805	CARBON 2.2K JA 1/6W	1	R308	401 027 3201	CARBON 560K JA 1/6W	1
R228	401 027 6103	CARBON 680K JA 1/6W	1	R309	401 024 7707	CARBON 100K JA 1/6W	1
R229	401 024 7004	CARBON 1K JA 1/6W	1	R310	401 012 7009	CARBON 10K JA 1/4W	1
R230	401 025 3807	CARBON 180 JA 1/6W	1	R311	401 024 7400	CARBON 10K JA 1/6W	1
R231	401 027 5502	CARBON 6.8K JA 1/6W	1	R312	401 024 7400	CARBON 10K JA 1/6W	1
R232	401 027 5502	CARBON 6.8K JA 1/6W	1	R313	401 015 3800	CARBON 18K JA 1/4W	1

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R314	401 015 3800	CARBON 18K JA 1/4W	1	<b>TUNER P.C.B. ASSY</b>			
R315	401 019 4001	CARBON 390K JA 1/4W	1	72	141-0-1939-25240	Tuner P.C.B. Assy	1
R316	401 017 3808	CARBON 270K JA 1/4W	1		4-1259-72068	Frontend FM4EU AGC	1
R317	401 025 4903	CARBON 180K JA 1/6W	1	(Component parts used in Front End are not serviceable and available.)			
R318	401 025 4903	CARBON 180K JA 1/6W	1				
R319	401 024 7400	CARBON 10K JA 1/6W	1				
R320	401 024 7400	CARBON 10K JA 1/6W	1				
R321	401 027 0309	CARBON 47K JA 1/6W	1				
R322	401 027 0309	CARBON 47K JA 1/6W	1				
R323	401 015 4708	CARBON 180K JA 1/4W	1				
R324	401 016 5803	CARBON 220K JA 1/4W	1				
R325	401 027 0309	CARBON 47K JA 1/6W	1				
R326	401 027 0309	CARBON 47K JA 1/6W	1				
R327	401 015 2704	CARBON 1.8K JA 1/4W	1		4-2349-70620	Protector ICP-5	1
R328	401 024 7400	CARBON 10K JA 1/6W	1		4-6129-70780	Lamp	2
R329	401 024 7400	CARBON 10K JA 1/6W	1		4-9549-70200	LCD	1
R330	401 027 0309	CARBON 47K JA 1/6W	1		131-2-6201-33600	Plate Heat Sink	1
R331	401 027 0309	CARBON 47K JA 1/6W	1		131-2-6306-12401	Reflector	1
R332	401 025 7805	CARBON 2.2K JA 1/6W	1		141-2-2449-60701	Filter	1
R333	401 024 7400	CARBON 10K JA 1/6W	1		141-2-2449-60702	Filter	1
R334	401 024 7400	CARBON 10K JA 1/6W	1		411 020 8004	SCR S-TPG BRZ 3X8	1
R335	401 024 7400	CARBON 10K JA 1/6W	1	X1	4-2252-00082	Crystal 7.2MHz	1
R336	401 024 6700	CARBON 100 JA 1/6W	1	or	4-2252-00081	Crystal 7.2MHz	1
R337	401 027 3201	CARBON 560K JA 1/6W	1	CF1	4-2272-00301	Ceramic Filter 10.7MHz	1
R338	401 025 8208	CARBON 22K JA 1/6W	1	CF2	4-2279-70190	Ceramic Filter 10.7MHz	1
R344	401 024 7400	CARBON 10K JA 1/6W	1	CF3	4-2272-00230	Ceramic Filter 450kHz	1
R345	401 027 0309	CARBON 47K JA 1/6W	1	CF4	4-2279-70080	Ceramic OSC	1
R346	401 012 7009	CARBON 10K JA 1/4W	1	L1	4-2539-71420	Choke Coil 100µH	1
R347	401 012 7009	CARBON 10K JA 1/4W	1	L2	4-2539-71420	Choke Coil 100µH	1
R348	401 012 7009	CARBON 10K JA 1/4W	1	PG1	4-2369-73970	Plug 3P	1
R349	401 012 7009	CARBON 10K JA 1/4W	1	PG2	4-2369-75570	Plug 3P	1
R350	401 026 9907	CARBON 4.7K JA 1/6W	1	PG3	4-2369-73130	Plug 3P	1
R351	401 012 7009	CARBON 10K JA 1/4W	1	PG4	4-2369-73140	Plug 4P	1
R352	401 016 2604	CARBON 220 JA 1/4W	1	PG5	4-2369-73980	Plug 4P	1
R353	401 025 8208	CARBON 22K JA 1/6W	1	PG6	4-2369-73160	Plug 6P	1
R354	401 027 0309	CARBON 47K JA 1/6W	1	PG7	4-2369-73140	Plug 4P	1
R355	401 025 7409	CARBON 220 JA 1/6W	1	T1	4-2579-71730	MW Antenna Coil	1
R356	401 024 7004	CARBON 1K JA 1/6W	1	T2	4-2579-71740	LW Antenna Coil	1
R357	401 025 7805	CARBON 2.2K JA 1/6W	1	T3	4-2569-72220	IFT, FM DET 1st	1
R358	401 024 6403	CARBON 10 JA 1/6W	1	T4	4-2569-72230	IFT, FM DET 2nd	1
R359	402 016 4506	FUSIBLE RES 10 J- 1/2W	1	T5	4-2529-70230	Anti Birdie Filter	1
R360	402 016 4506	FUSIBLE RES 10 J- 1/2W	1	T6	4-2589-72474	OSC Coil MW	1
R361	402 016 5404	FUSIBLE RES 4.7 J- 1/2W	1	T7	4-2589-72484	OSC Coil LW	1
R362	402 016 4506	FUSIBLE RES 10 J- 1/2W	1	T8	4-2529-70520	Low Pass Filter	1
R363	401 016 2604	CARBON 220 JA 1/4W	1	T9	4-2529-70520	Low Pass Filter	1
R364	401 024 8001	CARBON 1M JA 1/6W	1	T10	4-2569-72030	IFT AM	1
R365	401 024 7004	CARBON 1K JA 1/6W	1	T11	4-2529-70510	Filter 1st	1
R366	401 024 7004	CARBON 1K JA 1/6W	1	T12	4-2529-70511	Filter 2nd	1
R367	401 025 8703	CARBON 220K JA 1/6W	1	TC1	4-2249-70581	Trimmer Condenser	1
R368	401 025 8703	CARBON 220K JA 1/6W	1	TC2	4-2249-71160	Trimmer 20PF	1
R369	401 026 6609	CARBON 390 JA 1/6W	1	VR1	4-2229-76560	Potentiometer (B-100kΩ)	1
R370	401 026 6609	CARBON 390 JA 1/6W	1	VR2	4-2229-76561	Potentiometer (B-10kΩ)	1
R371	401 024 7400	CARBON 10K JA 1/6W	1	VR3	4-2229-76560	Potentiometer (B-100kΩ)	1
R372	401 024 7400	CARBON 10K JA 1/6W	1	IC1	409 073 9505	IC LA1266	1
R373	401 024 7707	CARBON 100K JA 1/6W	1	IC2	409 072 1005	IC TC9171P	1
R374	401 024 7707	CARBON 100K JA 1/6W	1	IC3	409 017 0803	IC LA3400	1
R375	401 026 4308	CARBON 3.3K JA 1/6W	1	IC4	409 074 0808	IC LA5667	1
R376	401 026 4308	CARBON 3.3K JA 1/6W	1	IC5	409 134 5408	IC TC9302AF-036	1
R379	401 027 0309	CARBON 47K JA 1/6W	1	Q1	405 019 2708	TR 2SC536-F-NP-AA	1
R380	401 027 0309	CARBON 47K JA 1/6W	1	Q2	405 027 0604	TR 2SK246-Y	1
R381	401 027 1009	CARBON 5.6 JA 1/6W	1	Q3	405 021 0907	TR 2SD1012-H-SPA-AC	1
R382	401 027 1009	CARBON 5.6 JA 1/6W	1	Q4	405 019 2708	TR 2SC536-F-NP-AA	1
R383	401 027 0309	CARBON 47K JA 1/6W	1	Q5	405 019 2708	TR 2SC536-F-NP-AA	1
R384	401 025 8208	CARBON 22K JA 1/6W	1	Q6	405 016 9502	TR 2SC3069	1
R385	401 026 3707	CARBON 33 JA 1/6W	1	Q7	405 027 0604	TR 2SK246-Y	1
R386	401 014 5201	CARBON 15K JA 1/4W	1	Q8	405 019 2708	TR 2SC536-F-NP-AA	1
R387	401 019 1000	CARBON 390 JA 1/4W	1	Q9	405 019 2708	TR 2SC536-F-NP-AA	1
R388	401 024 6700	CARBON 100 JA 1/6W	1	Q10	405 004 4502	TR 2SA608-F-NP-AA	1
R389	401 024 7400	CARBON 10K JA 1/6W	1	Q11	405 004 4502	TR 2SA608-F-NP-AA	1
R390	401 024 7400	CARBON 10K JA 1/6W	1	Q12	405 019 2708	TR 2SC536-F-NP-AA	1
R391	401 024 6700	CARBON 100 JA 1/6W	1	Q13	405 004 4502	TR 2SA608-F-NP-AA	1
R392	401 026 9907	CARBON 4.7K JA 1/6W	1	Q14	405 019 2708	TR 2SC536-F-NP-AA	1
R393	401 024 7004	CARBON 1K JA 1/6W	1	Q15	405 019 2708	TR 2SC536-F-NP-AA	1
R394	401 024 7400	CARBON 10K JA 1/6W	1	Q16	405 019 2708	TR 2SC536-F-NP-AA	1
R395	401 025 4200	CARBON 1.8K JA 1/6W	1	Q17	405 019 2708	TR 2SC536-F-NP-AA	1
R396	401 026 9907	CARBON 4.7K JA 1/6W	1	Q18	405 021 0204	TR 2SD1012-F-SPA-AC	1
R397	401 025 4606	CARBON 18K JA 1/6W	1	Q19	405 021 0204	TR 2SD1012-F-SPA-AC	1
R398	401 027 9302	CARBON 820K JA 1/6W	1	Q20	405 004 4502	TR 2SA608-F-NP-AA	1
				Q21	405 019 2708	TR 2SC536-F-NP-AA	1
				Q22	405 019 2708	TR 2SC536-F-NP-AA	1
				Q23	405 019 2708	TR 2SC536-F-NP-AA	1
				Q24	405 019 2708	TR 2SC536-F-NP-AA	1

## P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
If necessary, replace both Varactor Diode D1 (SVC 321) and D2 (SVC 321) together with new ones which have the equivalent characteristics.				C52	403 074 6303	CERAMIC 560P K 50V	1
D1	407 000 4708	VARACTOR DI SVC321C-2	1	C53	403 063 0503	POLYESTER 6800P K 50V	1
D2	407 000 4708	VARACTOR DI SVC321C-2	1	C54	403 056 8608	POLYESTER 1000P K 50V	1
D3	407 007 9904	DIODE GMA01-BT	1	C55	403 072 4707	CERAMIC 270P K 50V	1
D4	407 005 3805	DIODE DS442-BT	1	C56	403 072 4707	CERAMIC 270P K 50V	1
D5	407 005 3805	DIODE DS442-BT	1	C57	403 042 0302	ELECT 10U M 16V	1
D6	407 005 3805	DIODE DS442-BT	1	C58	403 047 1502	ELECT 4.7U M 25V	1
D7	407 005 3805	DIODE DS442-BT	1	C59	403 047 1502	ELECT 4.7U M 25V	1
D8	407 005 3805	DIODE DS442-BT	1	C60	403 001 2309	CERAMIC 0.01U N 16V	1
D9	407 005 3805	DIODE DS442-BT	1	C61	403 050 1209	ELECT 2.2U M 50V	1
D10	407 007 9904	DIODE GMA01-BT	1	C62	403 048 7602	ELECT 0.47U M 50V	1
D11	407 005 3805	DIODE DS442-BT	1	C63	403 049 1609	ELECT 1U M 50V	1
D12	407 005 3805	DIODE DS442-BT	1	C64	403 042 0302	ELECT 10U M 16V	1
D13	407 007 9904	DIODE GMA01-BT	1	C65	403 069 8404	CERAMIC 0.01U Z 50V	1
D14	407 004 9105	DIODE DSF10C-BT	1	C66	403 069 8404	CERAMIC 0.01U Z 50V	1
D15	407 004 9105	DIODE DSF10C-BT	1	C67	403 040 2704	ELECT 22U M 10V	1
D16	407 004 9105	DIODE DSF10C-BT	1	C68	403 049 1609	ELECT 1U M 50V	1
D17	407 004 9105	DIODE DSF10C-BT	1	C69	403 069 8404	CERAMIC 0.01U Z 50V	1
D18	407 012 8503	DIODE 1SS53	1	C70	403 022 5907	CERAMIC 33P J 50V	1
D19	407 005 3805	DIODE DS442-BT	1	C71	403 022 5907	CERAMIC 33P J 50V	1
D20	407 007 9904	DIODE GMA01-BT	1	C72	403 040 6702	ELECT 2200U M 10V	1
D21	407 005 3805	DIODE DS442-BT	1	C73	403 045 2907	ELECT 1000U M 25V	1
D22	407 007 9904	DIODE GMA01-BT	1	C74	403 038 2303	ELECT 100U M 6.3V	1
C1	403 001 2309	CERAMIC 0.01U N 16V	1	C75	403 074 2701	CERAMIC 0.047U Z 50V	1
C2	403 001 2309	CERAMIC 0.01U N 16V	1	C77	403 001 2309	CERAMIC 0.01U N 16V	1
C3	403 074 2701	CERAMIC 0.047U Z 50V	1	C78	403 042 0302	ELECT 10U M 16V	1
C4	403 050 1209	ELECT 2.2U M 50V	1	C79	403 062 0900	POLYESTER 0.047U K 50V	1
C5	403 074 2701	CERAMIC 0.047U Z 50V	1	C80	403 042 0302	ELECT 10U M 16V	1
C6	403 009 1809	CERAMIC 10P J 50V	1	C81	403 074 2701	CERAMIC 0.047U Z 50V	1
C7	403 026 2209	CERAMIC 47P J 50V	1	C82	403 026 2407	CERAMIC 47P J 50V	1
C8	403 074 2701	CERAMIC 0.047U Z 50V	1	C83	403 069 8404	CERAMIC 0.01U Z 50V	1
C9	403 074 2701	CERAMIC 0.047U Z 50V	1	C84	403 069 8404	CERAMIC 0.01U Z 50V	1
C10	403 074 2701	CERAMIC 0.047U Z 50V	1	C85	403 049 5508	ELECT 10U M 50V	1
C11	403 074 2701	CERAMIC 0.047U Z 50V	1	R1	401 018 3807	CARBON 3.3K JA 1/4W	1
C12	403 074 2701	CERAMIC 0.047U Z 50V	1	R2	401 024 7004	CARBON 1K JA 1/6W	1
C13	403 001 2309	CERAMIC 0.01U N 16V	1	R3	401 026 6609	CARBON 390 JA 1/6W	1
C14	403 044 0300	ELECT 47U M 16V	1	R4	401 024 8001	CARBON 1M JA 1/6W	1
C15	403 001 2309	CERAMIC 0.01U N 16V	1	R5	401 024 8001	CARBON 1M JA 1/6W	1
C16	403 001 2309	CERAMIC 0.01U N 16V	1	R6	401 026 1000	CARBON 2.7K JA 1/6W	1
C17	403 038 2303	ELECT 100U M 6.3V	1	R7	401 024 7004	CARBON 1K JA 1/6W	1
C18	403 001 6802	CERAMIC 3300P N 16V	1	R8	401 025 8208	CARBON 22K JA 1/6W	1
C19	403 001 6802	CERAMIC 3300P N 16V	1	R9	401 024 7004	CARBON 1K JA 1/6W	1
C20	403 041 3304	ELECT 47U M 10V	1	R10	401 016 4806	CARBON 22K JA 1/4W	1
C21	403 057 0908	POLYESTER 0.01U K 50V	1	R11	401 012 4107	CARBON 100 JA 1/4W	1
C22	403 001 2309	CERAMIC 0.01U N 16V	1	R12	401 026 7408	CARBON 39K JA 1/6W	1
C23	403 049 1609	ELECT 1U M 50V	1	R13	401 016 4806	CARBON 22K JA 1/4W	1
C24	403 074 6303	CERAMIC 560P K 50V	1	R14	402 015 9205	FUSIBLE RES 47 J- 1/4W	1
C25	403 001 2309	CERAMIC 0.01U N 16V	1	R15	401 012 7009	CARBON 10K JA 1/4W	1
C26	403 047 1502	ELECT 4.7U M 25V	1	R16	401 021 3009	CARBON 5.6K JA 1/4W	1
C27	403 049 1609	ELECT 1U M 50V	1	R18	401 026 4308	CARBON 3.3K JA 1/6W	1
C28	403 026 2209	CERAMIC 47P J 50V	1	R19	401 026 9600	CARBON 470 JA 1/6W	1
C29	403 042 0302	ELECT 10U M 16V	1	R20	401 027 2600	CARBON 5.6K JA 1/6W	1
C30	403 050 7706	ELECT 3.3U M 50V	1	R21	401 017 1804	CARBON 2.7K JA 1/4W	1
C31	403 047 1502	ELECT 4.7U M 25V	1	R22	401 024 7400	CARBON 10K JA 1/6W	1
C32	403 001 2309	CERAMIC 0.01U N 16V	1	R23	401 024 7004	CARBON 1K JA 1/6W	1
C33	403 001 2309	CERAMIC 0.01U N 16V	1	R24	401 024 7004	CARBON 1K JA 1/6W	1
C34	403 031 0306	CERAMIC 68P K 50V	1	R25	401 016 4806	CARBON 22K JA 1/4W	1
C35	403 069 9401	CERAMIC 0.01U Z 50V	1	R26	401 027 2600	CARBON 5.6K JA 1/6W	1
C36	403 017 9705	CERAMIC 22P J 50V	1	R27	401 024 7004	CARBON 1K JA 1/6W	1
C37	403 074 2701	CERAMIC 0.047U Z 50V	1	R28	401 012 8105	CARBON 100K JA 1/4W	1
C38	403 044 0300	ELECT 47U M 16V	1	R29	401 016 4806	CARBON 22K JA 1/4W	1
C39	403 049 1609	ELECT 1U M 50V	1	R30	401 012 8105	CARBON 100K JA 1/4W	1
C40	403 069 1504	CERAMIC 1000P K 50V	1	R31	401 012 4503	CARBON 100 JA 1/4W	1
C41	403 088 1103	STYRENE 330P J 50V	1	R32	401 023 3700	CARBON 82K JA 1/4W	1
C42	403 088 4104	STYRENE 430P J 50V	1	R33	401 027 5502	CARBON 6.8K JA 1/6W	1
C43	403 001 2309	CERAMIC 0.01U N 16V	1	R34	401 024 7400	CARBON 10K JA 1/6W	1
C44	403 039 2906	ELECT 47U M 6.3V	1	R35	401 026 1000	CARBON 2.7K JA 1/6W	1
C45	403 074 2701	CERAMIC 0.047U Z 50V	1	R36	401 027 0309	CARBON 47K JA 1/6W	1
C46	403 001 2309	CERAMIC 0.01U N 16V	1	R37	401 012 8105	CARBON 100K JA 1/4W	1
C47	403 042 0302	ELECT 10U M 16V	1	R38	401 027 8602	CARBON 8.2K JA 1/6W	1
C48	403 001 2309	CERAMIC 0.01U N 16V	1	R39	401 016 4806	CARBON 22K JA 1/4W	1
C49	403 001 2309	CERAMIC 0.01U N 16V	1	R40	401 018 3807	CARBON 3.3K JA 1/4W	1
C50	403 060 8700	POLYESTER 0.033U K 50V	1	R41	401 020 2904	CARBON 47K JA 1/4W	1
C51	403 059 4102	POLYESTER 2200P K 50V	1	R42	401 012 7009	CARBON 10K JA 1/4W	1
				R43	401 024 7004	CARBON 1K JA 1/6W	1
				R44	401 024 7004	CARBON 1K JA 1/6W	1
				R45	401 024 7707	CARBON 100K JA 1/6W	1
				R46	401 024 7707	CARBON 100K JA 1/6W	1
				R47	401 026 1000	CARBON 2.7K JA 1/6W	1



## P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
IC511	409 018 4503	IC LA6458DS	1	D514	407 008 0405	DIODE GMB01-BT	1
Q501	405 003 7702	TR 2SA1346	1	D516	407 008 0405	DIODE GMB01-BT	1
Q502	405 018 2600	TR 2SC3400	1	D517	407 049 6305	ZENER DIODE GZA12Y-BT	1
Q503	405 018 2600	TR 2SC3400	1	D518	407 049 6305	ZENER DIODE GZA12Y-BT	1
Q504	405 003 7702	TR 2SA1346	1	D520	407 008 0405	DIODE GMB01-BT	1
Q505	405 019 2708	TR 2SC536-F-NP-AA	1	D521	407 049 8507	ZENER DIODE GZA2.2X-BT	1
Q506	405 018 2600	TR 2SC3400	1	D522	407 004 9105	DIODE DSF10C-BT	1
Q507	405 019 2708	TR 2SC536-F-NP-AA	1	D523	407 003 7904	DIODE DBA40C-K15	1
Q508	405 019 2708	TR 2SC536-F-NP-AA	1	D524	407 061 9209	DIODE W02	1
Q509	405 019 2708	TR 2SC536-F-NP-AA	1	D525	407 050 5502	ZENER DIODE GZA5.6Y-BT	1
Q510	405 019 2708	TR 2SC536-F-NP-AA	1	D526	407 049 6206	ZENER DIODE GZA12X	1
Q511	405 010 9607	TR 2SC1571-F-NP	1	D527	407 049 6701	ZENER DIODE GZA13Z-BT	1
Q512	405 010 9607	TR 2SC1571-F-NP	1	D531	407 008 0405	DIODE GMB01-BT	1
Q513	405 018 2600	TR 2SC3400	1	D532	407 008 0405	DIODE GMB01-BT	1
Q514	405 018 2600	TR 2SC3400	1	D533	407 005 3805	DIODE DS442-BT	1
Q515	405 018 2600	TR 2SC3400	1	D535	407 008 0405	DIODE GMB01-BT	1
Q516	405 018 2600	TR 2SC3400	1	C501	403 042 3600	ELECT 100U M 16V	1
Q517	405 019 2708	TR 2SC536-F-NP-AA	1	C502	403 042 3600	ELECT 100U M 16V	1
Q518	405 019 2708	TR 2SC536-F-NP-AA	1	C503	403 042 0302	ELECT 10U M 16V	1
Q519	405 021 0204	TR 2SD1012-F-SPA-AC	1	C504	403 042 0302	ELECT 10U M 16V	1
Q520	405 021 0204	TR 2SD1012-F-SPA-AC	1	C505	403 070 7809	CERAMIC 150P K 50V	1
Q523	405 019 2708	TR 2SC536-F-NP-AA	1	C506	403 070 7809	CERAMIC 150P K 50V	1
Q524	405 019 2708	TR 2SC536-F-NP-AA	1	C507	403 047 1502	ELECT 4.7U M 25V	1
Q525	405 034 8006	TR DTA143-ES	1	C508	403 047 1502	ELECT 4.7U M 25V	1
Q526	405 034 8006	TR DTA143-ES	1	C509	403 042 0302	ELECT 10U M 16V	1
Q527	405 019 2708	TR 2SC536-F-NP-AA	1	C510	403 042 0302	ELECT 10U M 16V	1
Q528	405 019 2708	TR 2SC536-F-NP-AA	1	C511	403 039 7901	ELECT 100U M 10V	1
Q529	405 034 8006	TR DTA143-ES	1	C512	403 039 7901	ELECT 100U M 10V	1
Q530	405 018 2600	TR 2SC3400	1	C513	403 049 1609	ELECT 1U M 50V	1
Q531	405 003 7702	TR 2SA1346	1	C514	403 049 1609	ELECT 1U M 50V	1
Q532	405 003 7702	TR 2SA1346	1	C515	403 074 9205	CERAMIC 680P K 50V	1
Q533	405 018 2600	TR 2SC3400	1	C516	403 074 9205	CERAMIC 680P K 50V	1
Q534	405 019 2708	TR 2SC536-F-NP-AA	1	C517	403 060 1008	POLYESTER 2700P K 50V	1
Q535	405 018 2600	TR 2SC3400	1	C518	403 060 1008	POLYESTER 2700P K 50V	1
Q536	405 018 2600	TR 2SC3400	1	C519	403 047 1502	ELECT 4.7U M 25V	1
Q537	405 019 2708	TR 2SC536-F-NP-AA	1	C520	403 047 1502	ELECT 4.7U M 25V	1
Q538	405 003 7702	TR 2SA1346	1	C523	403 049 1609	ELECT 1U M 50V	1
Q539	405 018 2600	TR 2SC3400	1	C524	403 049 1609	ELECT 1U M 50V	1
Q540	405 003 7702	TR 2SA1346	1	C525	403 048 7602	ELECT 0.47U M 50V	1
Q541	405 019 2708	TR 2SC536-F-NP-AA	1	C526	403 048 7602	ELECT 0.47U M 50V	1
Q542	405 018 2600	TR 2SC3400	1	C527	403 044 0300	ELECT 47U M 16V	1
Q543	405 021 0204	TR 2SD1012-F-SPA-AC	1	C528	403 044 0300	ELECT 47U M 16V	1
Q544	405 021 0204	TR 2SD1012-F-SPA-AC	1	C529	403 042 0302	ELECT 10U M 16V	1
Q545	405 019 2708	TR 2SC536-F-NP-AA	1	C530	403 042 0302	ELECT 10U M 16V	1
Q546	405 019 2708	TR 2SC536-F-NP-AA	1	C531	403 042 0302	ELECT 10U M 16V	1
Q547	405 018 2600	TR 2SC3400	1	C532	403 042 0302	ELECT 10U M 16V	1
Q548	405 018 2600	TR 2SC3400	1	C533	403 117 7700	POLYESTER 0.033U K 50V	1
Q549	405 018 2600	TR 2SC3400	1	C534	403 117 7700	POLYESTER 0.033U K 50V	1
Q550	405 018 2600	TR 2SC3400	1	C535	403 061 8709	POLYESTER 4700P K 50V	1
Q551	405 018 2600	TR 2SC3400	1	C536	403 061 8709	POLYESTER 4700P K 50V	1
Q552	405 018 2600	TR 2SC3400	1	C537	403 042 0302	ELECT 10U M 16V	1
Q553	405 018 2600	TR 2SC3400	1	C538	403 042 0302	ELECT 10U M 16V	1
Q554	405 018 2600	TR 2SC3400	1	C539	403 067 7706	MT-COMPO 0.047U J 50V	1
Q560	405 003 7702	TR 2SA1346	1	C540	403 067 7706	MT-COMPO 0.047U J 50V	1
Q565	405 019 2708	TR 2SC536-F-NP-AA	1	C541	403 067 5603	MT-COMPO 0.1U J 50V	1
Q566	405 019 2708	TR 2SC536-F-NP-AA	1	C542	403 067 5603	MT-COMPO 0.1U J 50V	1
Q567	405 019 2708	TR 2SC536-F-NP-AA	1	C543	403 067 7300	MT-COMPO 0.33U J 50V	1
Q568	405 004 4502	TR 2SA608-F-NP-AA	1	C544	403 067 7300	MT-COMPO 0.33U J 50V	1
Q569	405 006 8102	TR 2SB1015-Y	1	C545	403 043 1100	ELECT 220U M 16V	1
Q570	405 022 5000	TR 2SD1406-Y	1	C546	403 042 3600	ELECT 100U M 16V	1
Q571	405 022 5000	TR 2SD1406-Y	1	C547	403 042 9008	ELECT 22U M 16V	1
Q572	405 022 5000	TR 2SD1406-Y	1	C548	403 107 9400	POLYPRO 0.015U J 250V	1
Q573	405 022 5000	TR 2SD1406-Y	1	C549	403 049 1609	ELECT 1U M 50V	1
Q575	405 027 0505	TR 2SK246-GR	1	C550	403 049 1609	ELECT 1U M 50V	1
Q576	405 027 0505	TR 2SK246-GR	1	C551	403 073 7004	CERAMIC 470P K 50V	1
Q577	405 027 0505	TR 2SK246-GR	1	C552	403 073 7004	CERAMIC 470P K 50V	1
Q579	405 018 2600	TR 2SC3400	1	C553	403 047 1502	ELECT 4.7U M 25V	1
Q580	405 018 2600	TR 2SC3400	1	C554	403 047 1502	ELECT 4.7U M 25V	1
D501	407 008 0405	DIODE GMB01-BT	1	C555	403 044 0300	ELECT 47U M 16V	1
D502	407 005 3805	DIODE DS442-BT	1	C556	403 044 0300	ELECT 47U M 16V	1
D503	407 050 7308	ZENER DIODE GZA8.2Y-BT	1	C557	403 071 6207	CERAMIC 220P K 50V	1
D504	407 050 7308	ZENER DIODE GZA8.2Y-BT	1	C558	403 071 6207	CERAMIC 220P K 50V	1
D505	407 008 0405	DIODE GMB01-BT	1	C559	403 042 0302	ELECT 10U M 16V	1
D506	407 008 0405	DIODE GMB01-BT	1	C560	403 060 6607	POLYESTER 3300P K 50V	1
D507	407 008 0405	DIODE GMB01-BT	1	C561	403 060 6607	POLYESTER 3300P K 50V	1
D508	407 008 0405	DIODE GMB01-BT	1	C562	403 060 6607	POLYESTER 3300P K 50V	1
D511	407 005 3805	DIODE DS442-BT	1	C563	403 057 0908	POLYESTER 0.01U K 50V	1
D512	407 008 0405	DIODE GMB01-BT	1	C565	403 071 6207	CERAMIC 220P K 50V	1
D513	407 008 0405	DIODE GMB01-BT	1	C566	403 071 6207	CERAMIC 220P K 50V	1

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
C569	403 071 6207	CERAMIC 220P K 50V	1	C692	403 071 6207	CERAMIC 220P K 50V	1
C570	403 071 6207	CERAMIC 220P K 50V	1	C693	403 071 6207	CERAMIC 220P K 50V	1
C571	403 049 1609	ELECT 1U M 50V	1	C694	403 071 6207	CERAMIC 220P K 50V	1
C572	403 049 1609	ELECT 1U M 50V	1	C695	403 071 6207	CERAMIC 220P K 50V	1
C573	403 067 8208	MT-COMPO 0.068U J 50V	1	C696	403 071 6207	CERAMIC 220P K 50V	1
C574	403 067 8208	MT-COMPO 0.068U J 50V	1	C697	403 072 8200	CERAMIC 330P K 50V	1
C575	403 042 0302	ELECT 10U M 16V	1	C698	403 072 8200	CERAMIC 330P K 50V	1
C576	403 042 0302	ELECT 10U M 16V	1	C699	403 042 3600	ELECT 100U M 16V	1
C577	403 042 0302	ELECT 10U M 16V	1	C700	403 042 3600	ELECT 100U M 16V	1
C578	403 042 0302	ELECT 10U M 16V	1	C701	403 072 2703	CERAMIC 0.022U Z 50V	1
C579	403 071 6207	CERAMIC 220P K 50V	1	C702	403 072 2703	CERAMIC 0.022U Z 50V	1
C580	403 071 6207	CERAMIC 220P K 50V	1	C703	403 072 8200	CERAMIC 330P K 50V	1
C581	403 044 0300	ELECT 47U M 16V	1	C704	403 072 8200	CERAMIC 330P K 50V	1
C582	403 044 0300	ELECT 47U M 16V	1	C705	403 070 7502	CERAMIC 150P K 50V	1
C596	404 031 3502	ELECT 4700U M 50V	1	C706	403 070 7502	CERAMIC 150P K 50V	1
C597	404 031 3502	ELECT 4700U M 50V	1	C707	403 069 5205	CERAMIC 0.01U K 50V	1
C600	403 042 0302	ELECT 10U M 16V	1	C708	403 069 5205	CERAMIC 0.01U K 50V	1
C601	403 047 6309	ELECT 470U M 25V	1	C709	403 069 5205	CERAMIC 0.01U K 50V	1
C602	403 046 0605	ELECT 2200U M 25V	1	R501	401 016 2604	CARBON 220 JA 1/4W	1
C603	403 059 0609	POLYESTER 0.018U K 50V	1	R502	401 016 2604	CARBON 220 JA 1/4W	1
C604	403 059 0609	POLYESTER 0.018U K 50V	1	R503	401 030 0709	CARBON 22K JA 1/8W	1
C605	403 042 3600	ELECT 100U M 16V	1	R504	401 030 0709	CARBON 22K JA 1/8W	1
C606	403 040 4807	ELECT 220U M 10V	1	R505	401 028 7604	CARBON 12K JA 1/8W	1
C607	403 042 3709	ELECT 100U M 16V	1	R506	401 028 7604	CARBON 12K JA 1/8W	1
C608	403 038 2402	ELECT 100U M 6.3V	1	R507	401 030 0204	CARBON 2.2K JA 1/8W	1
C609	403 039 8007	ELECT 100U M 10V	1	R508	401 030 0204	CARBON 2.2K JA 1/8W	1
C610	403 040 4807	ELECT 220U M 10V	1	R509	401 028 4207	CARBON 100K JA 1/8W	1
C611	403 038 7209	ELECT 220U M 6.3V	1	R510	401 028 4207	CARBON 100K JA 1/8W	1
C612	403 042 0302	ELECT 10U M 16V	1	R511	401 016 3809	CARBON 2.2K JA 1/4W	1
C613	403 042 0302	ELECT 10U M 16V	1	R512	401 030 0204	CARBON 2.2K JA 1/8W	1
C614	403 042 3600	ELECT 100U M 16V	1	R513	401 030 0204	CARBON 2.2K JA 1/8W	1
C615	403 042 3600	ELECT 100U M 16V	1	R514	401 030 0204	CARBON 2.2K JA 1/8W	1
C616	404 012 7000	CERAMIC 0.01U P 500V	1	R515	401 031 7202	CARBON 47K JA 1/8W	1
C617	404 012 7000	CERAMIC 0.01U P 500V	1	R516	401 031 7202	CARBON 47K JA 1/8W	1
C618	404 012 7000	CERAMIC 0.01U P 500V	1	R517	401 030 0204	CARBON 2.2K JA 1/8W	1
C619	404 012 7000	CERAMIC 0.01U P 500V	1	R518	401 016 3809	CARBON 2.2K JA 1/4W	1
C620	4-2239-70970	Capacitor 0.01MF400V	1	R519	401 021 3009	CARBON 5.6K JA 1/4W	1
C621	403 069 8404	CERAMIC 0.01U Z 50V	1	R520	401 032 0608	CARBON 5.6K JA 1/8W	1
C622	403 069 8404	CERAMIC 0.01U Z 50V	1	R521	401 020 0801	CARBON 470 JA 1/4W	1
C623	403 069 8404	CERAMIC 0.01U Z 50V	1	R522	401 020 0801	CARBON 470 JA 1/4W	1
C624	403 069 8404	CERAMIC 0.01U Z 50V	1	R523	401 030 0204	CARBON 2.2K JA 1/8W	1
C625	403 058 8606	POLYESTER 1800P K 50V	1	R524	401 030 0204	CARBON 2.2K JA 1/8W	1
C626	403 058 8606	POLYESTER 1800P K 50V	1	R525	401 016 3809	CARBON 2.2K JA 1/4W	1
C649	403 047 9607	ELECT 0.1U M 50V	1	R526	401 030 0204	CARBON 2.2K JA 1/8W	1
C650	403 047 9607	ELECT 0.1U M 50V	1	R529	401 031 7202	CARBON 47K JA 1/8W	1
C651	403 048 7602	ELECT 0.47U M 50V	1	R530	401 031 7202	CARBON 47K JA 1/8W	1
C652	403 048 7602	ELECT 0.47U M 50V	1	R531	401 030 4202	CARBON 2.7K JA 1/8W	1
C653	403 049 1609	ELECT 1U M 50V	1	R532	401 030 4202	CARBON 2.7K JA 1/8W	1
C654	403 049 1609	ELECT 1U M 50V	1	R533	401 032 1100	CARBON 56K JA 1/8W	1
C655	403 042 0302	ELECT 10U M 16V	1	R534	401 032 1100	CARBON 56K JA 1/8W	1
C656	403 042 0302	ELECT 10U M 16V	1	R535	401 032 8703	CARBON 8.2K JA 1/8W	1
C657	403 073 7004	CERAMIC 470P K 50V	1	R536	401 023 2802	CARBON 8.2K JA 1/4W	1
C658	403 073 7004	CERAMIC 470P K 50V	1	R537	401 012 7009	CARBON 10K JA 1/4W	1
C659	403 058 3700	POLYESTER 0.015U K 50V	1	R538	401 028 3705	CARBON 10K JA 1/8W	1
C660	403 058 3700	POLYESTER 0.015U K 50V	1	R539	401 030 9207	CARBON 3.3K JA 1/8W	1
C661	403 058 3700	POLYESTER 0.015U K 50V	1	R540	401 018 3807	CARBON 3.3K JA 1/4W	1
C662	403 058 3700	POLYESTER 0.015U K 50V	1	R541	401 029 2004	CARBON 150K JA 1/8W	1
C663	403 060 2807	POLYESTER 0.027U K 50V	1	R542	401 029 2004	CARBON 150K JA 1/8W	1
C664	403 060 2807	POLYESTER 0.027U K 50V	1	R543	401 032 1100	CARBON 56K JA 1/8W	1
C665	403 061 4404	POLYESTER 0.039U K 50V	1	R544	401 021 4105	CARBON 56K JA 1/4W	1
C666	403 061 4404	POLYESTER 0.039U K 50V	1	R545	401 028 3200	CARBON 1K JA 1/8W	1
C667	403 042 3600	ELECT 100U M 16V	1	R546	401 028 3200	CARBON 1K JA 1/8W	1
C668	403 042 3600	ELECT 100U M 16V	1	R547	401 029 5005	CARBON 1.8K JA 1/8W	1
C669	403 042 9008	ELECT 22U M 16V	1	R548	401 029 5005	CARBON 1.8K JA 1/8W	1
C670	403 047 1502	ELECT 4.7U M 25V	1	R549	401 031 0203	CARBON 330K JA 1/8W	1
C671	403 047 1502	ELECT 4.7U M 25V	1	R550	401 031 0203	CARBON 330K JA 1/8W	1
C672	403 042 3600	ELECT 100U M 16V	1	R551	401 020 2003	CARBON 4.7K JA 1/4W	1
C673	403 042 0302	ELECT 10U M 16V	1	R552	401 012 7009	CARBON 10K JA 1/4W	1
C675	403 061 8907	POLYESTER 4700P K 50V	1	R553	401 028 3705	CARBON 10K JA 1/8W	1
C676	403 061 8907	POLYESTER 4700P K 50V	1	R554	401 028 3705	CARBON 10K JA 1/8W	1
C677	403 047 1502	ELECT 4.7U M 25V	1	R555	401 028 4207	CARBON 100K JA 1/8W	1
C678	403 072 2703	CERAMIC 0.022U Z 50V	1	R556	401 028 4207	CARBON 100K JA 1/8W	1
C679	403 044 0300	ELECT 47U M 16V	1	R557	401 028 4207	CARBON 100K JA 1/8W	1
C680	403 044 0300	ELECT 47U M 16V	1	R558	401 028 4207	CARBON 100K JA 1/8W	1
C681	403 044 0706	ELECT 47U M 16V	1	R559	401 030 0204	CARBON 2.2K JA 1/8W	1
C682	403 044 0300	ELECT 47U M 16V	1	R560	401 030 0204	CARBON 2.2K JA 1/8W	1
C684	403 001 5102	CERAMIC 2200P M 16V	1	R561	401 028 7109	CARBON 1.2K JA 1/8W	1
C685	403 069 1207	CERAMIC 1000P K 50V	1	R562	401 028 7109	CARBON 1.2K JA 1/8W	1
C691	403 071 6207	CERAMIC 220P K 50V	1	R563	401 030 5209	CARBON 270K JA 1/8W	1



## P.C.BOARD PARTS LIST(Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
IC966	409 020 8308	IC LC4049B	1	S405	4-2312-05801	Keyboard Switch	1
Q961	405 021 0204	TR 2SD1012-F-SPA-AC	1	S406	4-2312-05801	Keyboard Switch	1
Q962	405 021 0204	TR 2SD1012-F-SPA-AC	1	S407	4-2312-05801	Keyboard Switch	1
Q963	405 021 0204	TR 2SD1012-F-SPA-AC	1	S408	4-2312-05801	Keyboard Switch	1
Q964	405 019 2708	TR 2SC536-F-NP	1	S409	4-2312-05801	Keyboard Switch	1
Q965	405 019 2708	TR 2SC536-F-NP	1	S410	4-2312-05801	Keyboard Switch	1
Q966	405 019 2708	TR 2SC536-F-NP	1	S411	4-2312-05801	Keyboard Switch	1
D901	407 061 9209	DIODE W02	1	S412	4-2312-05801	Keyboard Switch	1
D961	407 005 3805	DIODE DS442-BT	1	S413	4-2312-05801	Keyboard Switch	1
D962	407 005 3805	DIODE DS442-BT	1	S414	4-2312-05801	Keyboard Switch	1
D963	407 005 3805	DIODE DS442-BT	1	S415	4-2312-05801	Keyboard Switch	1
D964	407 007 9904	DIODE GMA01-BT	1	S416	4-2312-05801	Keyboard Switch	1
D965	407 007 9904	DIODE GMA01-BT	1	Q400	405 006 2704	TR 2SA937-R	1
D966	407 007 9904	DIODE GMA01-BT	1	Q401	405 006 2704	TR 2SA937-R	1
D967	407 005 3805	DIODE DS442-BT	1	Q402	405 006 2704	TR 2SA937-R	1
C901	403 069 8404	CERAMIC 0.01U Z 50V	1	Q403	405 006 2704	TR 2SA937-R	1
C902	403 069 8404	CERAMIC 0.01U Z 50V	1	Q404	405 034 9409	TR DTC114-YF	1
C903	403 069 8404	CERAMIC 0.01U Z 50V	1	Q405	405 034 9409	TR DTC114-YF	1
C904	403 069 8404	CERAMIC 0.01U Z 50V	1	Q406	405 034 9409	TR DTC114-YF	1
C905	403 044 8207	ELECT 10U M 25V	1	Q407	405 034 9409	TR DTC114-YF	1
C960	403 050 1209	ELECT 2.2U M 50V	1	Q408	405 034 9409	TR DTC114-YF	1
C961	403 086 2706	NP-ELECT 1U M 50V	1	D400	407 087 9207	LED TLO377	1
C962	403 067 7805	MT-COMPO 0.47U J 50V	1	D401	407 087 9207	LED TLO377	1
C963	403 067 7706	MT-COMPO 0.047U J 50V	1	D402	407 062 9208	LED SLB-55MG3	1
C964	403 067 5603	MT-COMPO 0.1U J 50V	1	D403	407 062 9109	LED SLB-55DU3	1
C965	403 039 7802	ELECT 100U M 10V	1	D404	407 062 9307	LED SLB-55VR3	1
C966	403 042 0302	ELECT 10U M 16V	1	D405	407 005 3805	DIODE DS442-BT	1
C967	403 067 7300	MT-COMPO 0.33U J 50V	1	D406	407 005 3805	DIODE DS442-BT	1
R955	401 020 2904	CARBON 47K JA 1/4W	1	D407	407 005 3805	DIODE DS442-BT	1
R956	401 020 2904	CARBON 47K JA 1/4W	1	D408	407 005 3805	DIODE DS442-BT	1
R957	401 030 0709	CARBON 22K JA 1/8W	1	D409	407 005 3805	DIODE DS442-BT	1
R958	401 028 4207	CARBON 100K JA 1/8W	1	D410	407 005 3805	DIODE DS442-BT	1
R959	401 028 4207	CARBON 100K JA 1/8W	1	D411	407 005 3805	DIODE DS442-BT	1
R960	401 016 4806	CARBON 22K JA 1/4W	1	D412	407 005 3805	DIODE DS442-BT	1
R961	401 016 3809	CARBON 2.2K JA 1/4W	1	D413	407 005 3805	DIODE DS442-BT	1
R962	401 031 7202	CARBON 47K JA 1/8W	1	D414	407 005 3805	DIODE DS442-BT	1
R963	401 012 5708	CARBON 1K JA 1/4W	1	D415	407 005 3805	DIODE DS442-BT	1
R964	401 031 7202	CARBON 47K JA 1/8W	1	D416	407 005 3805	DIODE DS442-BT	1
R965	401 028 2609	CARBON 100 JA 1/8W	1	D417	407 005 3805	DIODE DS442-BT	1
R966	401 029 2004	CARBON 150K JA 1/8W	1	D418	407 005 3805	DIODE DS442-BT	1
R967	401 028 7604	CARBON 12K JA 1/8W	1	D419	407 005 3805	DIODE DS442-BT	1
R968	401 030 0709	CARBON 22K JA 1/8W	1	C400	403 042 3600	ELECT 100U M 16V	1
R969	401 030 0709	CARBON 22K JA 1/8W	1	R400	401 014 2903	CARBON 150 JA 1/4W	1
R970	401 028 2104	CARBON 10 JA 1/8W	1	R401	401 025 1308	CARBON 150 JA 1/6W	1
R971	401 031 7202	CARBON 47K JA 1/8W	1	R402	401 025 1308	CARBON 150 JA 1/6W	1
R972	401 028 4207	CARBON 100K JA 1/8W	1	R403	401 025 1308	CARBON 150 JA 1/6W	1
R973	401 028 4207	CARBON 100K JA 1/8W	1	R404	401 025 1308	CARBON 150 JA 1/6W	1
R974	401 028 4207	CARBON 100K JA 1/8W	1	R405	401 025 1308	CARBON 150 JA 1/6W	1
R975	401 028 4207	CARBON 100K JA 1/8W	1	R406	401 014 2903	CARBON 150 JA 1/4W	1
R976	401 020 2904	CARBON 47K JA 1/4W	1	R407	401 014 2903	CARBON 150 JA 1/4W	1
R977	401 020 2904	CARBON 47K JA 1/4W	1	R408	401 027 8107	CARBON 82 JA 1/6W	1
R978	401 028 2104	CARBON 10 JA 1/8W	1	R409	401 025 7805	CARBON 2.2K JA 1/6W	1
R979	401 022 4104	CARBON 68K JA 1/4W	1	R410	401 024 7004	CARBON 1K JA 1/6W	1
R980	401 028 3705	CARBON 10K JA 1/8W	1	R411	401 026 9907	CARBON 4.7K JA 1/6W	1
R981	401 031 7202	CARBON 47K JA 1/8W	1	R412	401 026 9907	CARBON 4.7K JA 1/6W	1
R982	401 031 7202	CARBON 47K JA 1/8W	1				
R983	401 031 7202	CARBON 47K JA 1/8W	1				
R984	401 031 7202	CARBON 47K JA 1/8W	1				
R985	401 031 7202	CARBON 47K JA 1/8W	1				
R986	401 028 3200	CARBON 1K JA 1/8W	1				
R987	401 028 3200	CARBON 1K JA 1/8W	1				
R988	401 028 3200	CARBON 1K JA 1/8W	1				
R989	401 028 3200	CARBON 1K JA 1/8W	1				
R993	401 028 2609	CARBON 100 JA 1/8W	1				
R994	401 028 3705	CARBON 10K JA 1/8W	1				
R995	401 016 4806	CARBON 22K JA 1/4W	1				
R996	401 012 8105	CARBON 100K JA 1/4W	1				
<b>SWITCH M2 CD P.C.B. ASSY</b>							
78	141-0-1939-25310	Switch M2 CD P.C.B. Assy	1				
CA401	4-2359-77391	Connector 9P Assy	1				
CA402	4-2352-02234	Connector 9P Assy	1				
CA403	4-2352-03100	Connector 11P Assy	1				
CA404	4-2352-03102	Connector 6P Assy	1				
S400	4-2312-05801	Keyboard Switch	1				
S401	4-2312-05801	Keyboard Switch	1				
S402	4-2312-05801	Keyboard Switch	1				
S403	4-2312-05801	Keyboard Switch	1				
S404	4-2312-05801	Keyboard Switch	1				
<b>SWITCH M1 P.C.B. ASSY</b>							
79	141-0-1939-25320	Switch M1 P.C.B. Assy	1				
CA890	4-2359-76978	Connector 6P Assy	1				
S890	4-2312-05801	Keyboard Switch	1				
S891	4-2312-05801	Keyboard Switch	1				
S892	4-2312-05801	Keyboard Switch	1				
S893	4-2312-05801	Keyboard Switch	1				
S894	4-2312-05801	Keyboard Switch	1				
<b>IR P.C.B. ASSY</b>							
80	141-0-1939-25330	IR P.C.B. Assy	1				
	131-2-3608-16600	Filter	1				
	141-2-3229-62100	Case Shield	1				
CA840	4-2352-03111	Connector 3P Assy	1				
IC840	409 056 9409	IC UPC1490HA	1				
D840	407 061 8509	DIODE TPS704	1				
or	407 065 0905	PHOTO DIODE SPS-501C-1	1				
C840	403 039 3200	ELECT 47U M 6.3V	1				
C841	403 072 7906	CERAMIC 330P K 50V	1				
C842	403 050 8000	ELECT 3.3U M 50V	1				
C843	403 048 3406	ELECT 0.22U M 50V	1				
R840	401 024 6700	CARBON 100 JA 1/6W	1				
R841	401 025 8208	CARBON 22K JA 1/6W	1				

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R842	401 025 3500	CARBON 160K JA 1/6W	1	D432	407 008 0405	DIODE GMB01-BT	1
R843	401 026 8108	CARBON 4.7 JA 1/6W	1	D433	407 008 0405	DIODE GMB01-BT	1
<b>CD IND. P.C.B. ASSY</b>							
81	141-0-1939-25340	CD Ind. P.C.B. Assy	1	D434	407 005 3805	DIODE DS442-BT	1
	4-6129-70690	Lamp	1	D435	407 004 9105	DIODE DSF10C-BT	1
CA990	4-2352-03160	Connector 2P Assy	1	D436	407 008 0405	DIODE GMB01-BT	1
R990	401 063 0608	OXIDE-MT 68 JA 1W	1	D437	407 008 0405	DIODE GMB01-BT	1
<b>BACK UP TRANS P.C.B. ASSY</b>							
82	141-0-1939-25350	Back Up Trans P.C.B. Assy	1	D438	407 005 3805	DIODE DS442-BT	1
	△ 4-2512-34920	Power Trans	1	D439	407 005 3805	DIODE DS442-BT	1
<b>LID LED M1 P.C.B. ASSY</b>							
83	141-0-1939-25360	Lid LED M1 P.C.B. Assy	1	D440	407 005 3805	DIODE DS442-BT	1
CA820	4-2352-03116	Connector 3P Assy	1	D441	407 008 0405	DIODE GMB01-BT	1
D820	407 062 9208	LED SLB-55MG3	1	D442	407 005 3805	DIODE DS442-BT	1
D821	407 062 9208	LED SLB-55MG3	1	D443	407 008 0405	DIODE GMB01-BT	1
<b>LID LED M2 P.C.B. ASSY</b>							
84	141-0-1939-25370	Lid LED M2 P.C.B. Assy	1	D444	407 005 3805	DIODE DS442-BT	1
CA825	4-2352-02879	Connector 4P Assy	1	D445	407 005 3805	DIODE DS442-BT	1
D825	407 062 9208	LED SLB-55MG3	1	D446	407 005 3805	DIODE DS442-BT	1
D826	407 062 9307	LED SLB-55VR3	1	D447	407 008 0405	DIODE GMB01-BT	1
D827	407 062 9208	LED SLB-55MG3	1	D448	407 008 0405	DIODE GMB01-BT	1
R825	401 025 3807	CARBON 180 JA 1/6W	1	D449	407 008 0405	DIODE GMB01-BT	1
R826	401 026 3905	CARBON 330 JA 1/6W	1	D450	407 005 3805	DIODE DS442-BT	1
R827	401 025 3807	CARBON 180 JA 1/6W	1	D451	407 005 3805	DIODE DS442-BT	1
<b>DECK CONTROL P.C.B. ASSY</b>							
85	141-0-1939-25380	Deck Control P.C.B. Assy	1	D452	407 005 3805	DIODE DS442-BT	1
CA430	4-2352-03110	Connector 3P Assy	1	D453	407 005 3805	DIODE DS442-BT	1
CA431	4-2352-03103	Connector 8P Assy	1	D454	407 005 3805	DIODE DS442-BT	1
CA432	4-2352-03091	Connector 10P Assy	1	D455	407 005 3805	DIODE DS442-BT	1
CA433	4-2352-03090	Connector 9P Assy	1	D456	407 005 3805	DIODE DS442-BT	1
CA434	4-2352-02853	Connector 3P Assy	1	D457	407 005 3805	DIODE DS442-BT	1
CF431	4-2539-72540	Ceramic Resonator	1	D458	407 008 0405	DIODE GMB01-BT	1
CN431	4-2369-73671	Plug 8P	1	D459	407 008 0405	DIODE GMB01-BT	1
CN432	4-2369-73673	Plug 4P	1	D460	407 005 3805	DIODE DS442-BT	1
CN433	4-2369-73675	Plug 6P	1	D461	407 005 3805	DIODE DS442-BT	1
CN434	4-2369-71561	Plug 3P	1	D462	407 005 3805	DIODE DS442-BT	1
CN435	4-2369-73677	Plug 9P	1	D463	407 049 8507	ZENER DIODE GZA2.2X-BT	1
CN436	4-2369-71571	Plug 4P	1	D464	407 005 3805	DIODE DS442-BT	1
CN437	4-2369-73671	Plug 8P	1	D465	407 005 3805	DIODE DS442-BT	1
CN438	4-2369-73676	Plug 7P	1	D466	407 005 3805	DIODE DS442-BT	1
CN439	4-2369-73678	Plug 10P	1	D467	407 005 3805	DIODE DS442-BT	1
CN440	4-2369-73677	Plug 9P	1	D468	407 008 0405	DIODE GMB01-BT	1
CN441	4-2369-75730	Plug 11P	1	D469	407 008 0405	DIODE GMB01-BT	1
L430	4-2532-00540	Choke Coil 47μH	1	D470	407 008 0405	DIODE GMB01-BT	1
VR431	4-2229-73065	Potentiometer (B-200Ω)	1	D471	407 050 5502	ZENER DIODE GZA5.6Y-BT	1
VR432	4-2229-73065	Potentiometer (B-200Ω)	1	D472	407 005 3805	DIODE DS442-BT	1
IC431	409 071 7404	IC TA8121N	1	D473	407 008 0405	DIODE GMB01-BT	1
IC432	409 072 1708	IC TC9312N-036	1	D474	407 005 3805	DIODE DS442-BT	1
IC433	409 072 1609	IC TC9312N-035	1	D475	407 005 3805	DIODE DS442-BT	1
IC434	409 071 7404	IC TA8121N	1	D476	407 004 9105	DIODE DSF10C-BT	1
IC435	409 115 9104	IC LC6554D-3334	1	D477	407 008 0405	DIODE GMB01-BT	1
IC436	409 072 0800	IC TC9149P	1	D478	407 008 0405	DIODE GMB01-BT	1
Q431	405 018 2600	TR 2SC3400	1	D479	407 005 3805	DIODE DS442-BT	1
Q432	405 019 2708	TR 2SC536-F-NP-AA	1	C431	403 038 2303	ELECT 100U M 6.3V	1
Q433	405 008 6809	TR 2SB808-F-SPA-AC	1	C432	403 047 1502	ELECT 4.7U M 25V	1
Q434	405 019 2708	TR 2SC536-F-NP-AA	1	C433	403 042 3600	ELECT 100U M 16V	1
Q435	405 019 2708	TR 2SC536-F-NP-AA	1	C434	403 049 1609	ELECT 1U M 50V	1
Q436	405 019 2708	TR 2SC536-F-NP-AA	1	C435	403 082 5503	POLYPRO 8200P J 100V	1
Q437	405 019 2708	TR 2SC536-F-NP-AA	1	C436	403 057 0908	POLYESTER 0.01U K 50V	1
Q438	405 019 2708	TR 2SC536-F-NP-AA	1	C437	403 039 7901	ELECT 100U M 10V	1
Q439	405 019 2708	TR 2SC536-F-NP-AA	1	C438	403 082 5503	POLYPRO 8200P J 100V	1
Q440	405 019 2708	TR 2SC536-F-NP-AA	1	C439	403 057 0908	POLYESTER 0.01U K 50V	1
Q441	405 019 2708	TR 2SC536-F-NP-AA	1	C440	403 039 7901	ELECT 100U M 10V	1
Q442	405 018 2600	TR 2SC3400	1	C441	403 038 2303	ELECT 100U M 6.3V	1
Q443	405 008 6809	TR 2SB808-F-SPA-AC	1	C442	403 047 1502	ELECT 4.7U M 25V	1
Q444	405 019 2708	TR 2SC536-F-NP-AA	1	C443	403 042 3600	ELECT 100U M 16V	1
Q445	405 019 2708	TR 2SC536-F-NP-AA	1	C444	403 039 7901	ELECT 100U M 10V	1
Q446	405 023 5306	TR 2SD400-F-MP	1	C445	403 001 2309	CERAMIC 0.01U N 16V	1
Q447	405 004 4502	TR 2SA608-F-NP-AA	1	C446	403 001 2309	CERAMIC 0.01U N 16V	1
Q448	405 019 2708	TR 2SC536-F-NP-AA	1	C447	403 001 2309	CERAMIC 0.01U N 16V	1
Q449	405 019 2708	TR 2SC536-F-NP-AA	1	C448	403 050 7706	ELECT 3.3U M 50V	1
Q450	405 019 2708	TR 2SC536-F-NP-AA	1	C449	403 050 7706	ELECT 3.3U M 50V	1
D430	407 008 0405	DIODE GMB01-BT	1	C450	403 047 1502	ELECT 4.7U M 25V	1
D431	407 008 0405	DIODE GMB01-BT	1	C451	403 039 7901	ELECT 100U M 10V	1
				C452	403 069 1207	CERAMIC 1000P K 50V	1
				C453	403 069 1207	CERAMIC 1000P K 50V	1
				C454	403 069 1207	CERAMIC 1000P K 50V	1
				C455	403 042 0302	ELECT 10U M 16V	1
				C456	403 069 1207	CERAMIC 1000P K 50V	1
				R430	401 020 2904	CARBON 47K JA 1/4W	1
				R431	402 015 8802	FUSIBLE RES 33 J- 1/4W	1
				R432	401 012 4503	CARBON 100 JA 1/4W	1
				R433	401 016 4806	CARBON 22K JA 1/4W	1
				R434	401 031 6601	CARBON 4.7K JA 1/8W	1

## P.C.BOARD PARTS LIST(Continued)

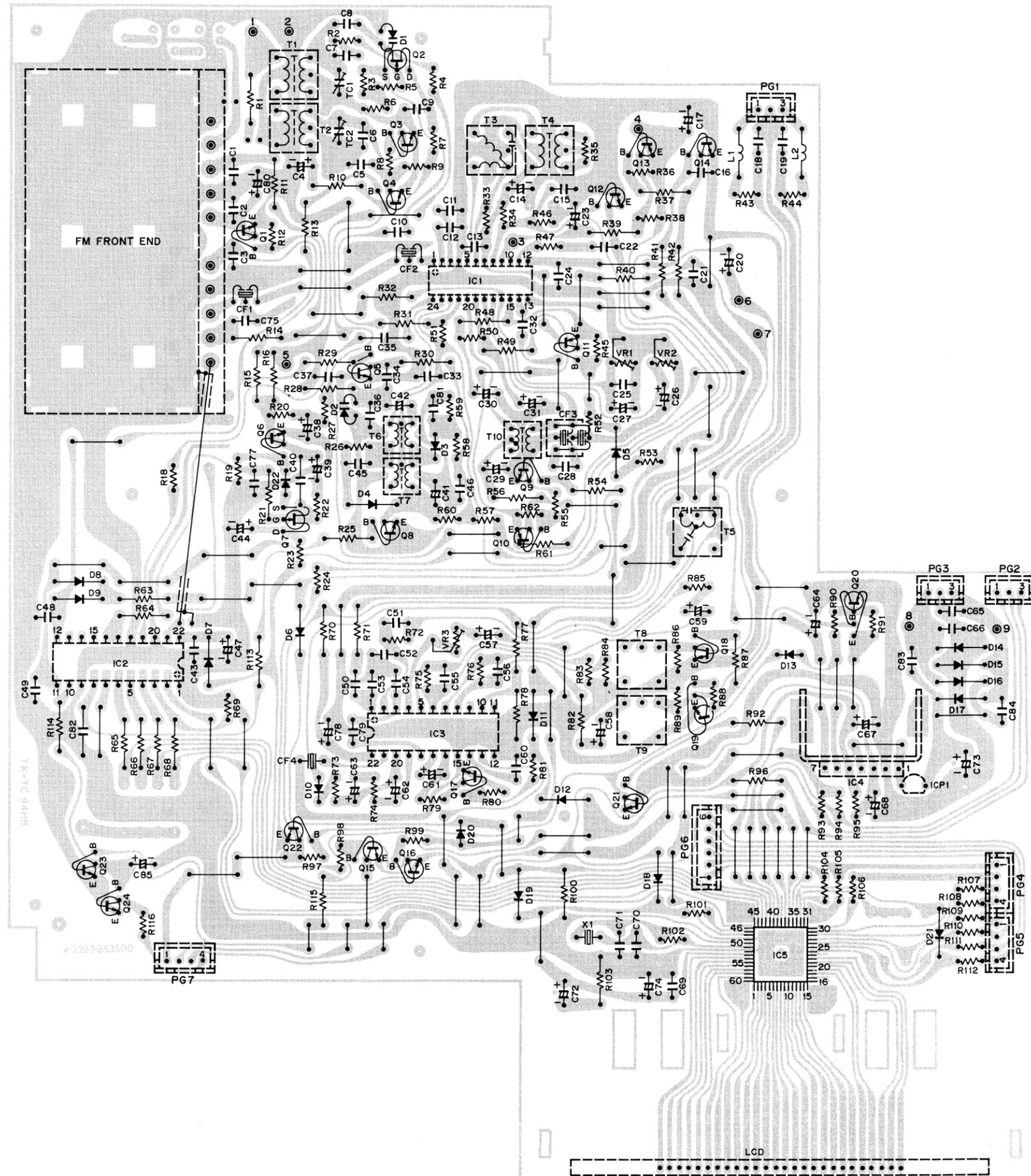
Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty		
R435	401 095 1208	MT-FILM	620 JV 1/4W	1	SW861	4-2319-76620	Switch Push 1 Key	1	
R436	401 013 4205	CARBON	120 JA 1/4W	1	VR850	4-2229-77440	Slide Volume (W-200kΩ)	1	
R437	401 019 1000	CARBON	390 JA 1/4W	1	VR851	4-2229-77230	Slide Volume (SW-50kΩx2)	1	
R438	401 029 8501	CARBON	20K JA 1/8W	1	VR852	4-2229-77230	Slide Volume (SW-50kΩx2)	1	
R439	401 029 1502	CARBON	15K JA 1/8W	1	VR853	4-2229-77230	Slide Volume (SW-50kΩx2)	1	
R440	401 030 0709	CARBON	22K JA 1/8W	1	VR854	4-2229-77230	Slide Volume (SW-50kΩx2)	1	
R441	401 031 9602	CARBON	56 JA 1/8W	1	VR855	4-2229-77230	Slide Volume (SW-50kΩx2)	1	
R442	401 028 4207	CARBON	100K JA 1/8W	1	IC850	409 018 4909	IC LA6458S	1	
R443	401 028 4207	CARBON	100K JA 1/8W	1	IC851	409 036 7906	IC M5227P	1	
R444	401 030 7708	CARBON	30K JA 1/8W	1	IC852	409 036 7906	IC M5227P	1	
R445	401 028 3200	CARBON	1K JA 1/8W	1	Q852	405 012 8509	TR 2SC2021-R	1	
R446	401 031 2801	CARBON	39K JA 1/8W	1	Q853	405 012 8509	TR 2SC2021-R	1	
R447	401 030 0204	CARBON	2.2K JA 1/8W	1	Q854	405 012 8509	TR 2SC2021-R	1	
R448	401 016 4806	CARBON	22K JA 1/4W	1	Q855	405 012 8509	TR 2SC2021-R	1	
R449	401 030 0709	CARBON	22K JA 1/8W	1	Q856	405 012 8509	TR 2SC2021-R	1	
R450	401 016 4806	CARBON	22K JA 1/4W	1	Q857	405 012 8509	TR 2SC2021-R	1	
R451	401 016 4806	CARBON	22K JA 1/4W	1	Q858	405 012 8509	TR 2SC2021-R	1	
R452	401 016 4806	CARBON	22K JA 1/4W	1	Q859	405 012 8509	TR 2SC2021-R	1	
R453	401 016 4806	CARBON	22K JA 1/4W	1	D850	407 007 9904	DIODE GMA01-BT	1	
R454	401 016 4806	CARBON	22K JA 1/4W	1	D851	407 005 3805	DIODE DS442-BT	1	
R455	401 015 1608	CARBON	180 JA 1/4W	1	D852	407 007 9904	DIODE GMA01-BT	1	
R456	401 015 1608	CARBON	180 JA 1/4W	1	D853	407 007 9904	DIODE GMA01-BT	1	
R457	401 030 7708	CARBON	30K JA 1/8W	1	D854	407 063 1409	LED SLR-54DC3	1	
R458	401 020 2904	CARBON	47K JA 1/4W	1	D855	407 063 1805	LED SLR-54PT3	1	
R459	401 020 2904	CARBON	47K JA 1/4W	1	D856	407 063 1805	LED SLR-54PT3	1	
R460	402 015 8802	FUSIBLE RES	33 J- 1/4W	1	D857	407 063 1805	LED SLR-54PT3	1	
R461	401 012 4503	CARBON	100 JA 1/4W	1	D858	407 063 1805	LED SLR-54PT3	1	
R462	401 029 8501	CARBON	20K JA 1/8W	1	D859	407 063 1805	LED SLR-54PT3	1	
R463	401 029 1502	CARBON	15K JA 1/8W	1	D860	407 063 1805	LED SLR-54PT3	1	
R464	401 016 4806	CARBON	22K JA 1/4W	1	D861	407 063 1805	LED SLR-54PT3	1	
R465	401 031 9602	CARBON	56 JA 1/8W	1	D862	407 063 1805	LED SLR-54PT3	1	
R466	401 031 7202	CARBON	47K JA 1/8W	1	D863	407 063 1409	LED SLR-54DC3	1	
R467	401 016 4806	CARBON	22K JA 1/4W	1	D864	407 063 1409	LED SLR-54DC3	1	
R468	401 028 4702	CARBON	1M JA 1/8W	1	D865	407 063 1409	LED SLR-54DC3	1	
R469	401 012 7009	CARBON	10K JA 1/4W	1	D866	407 063 1409	LED SLR-54DC3	1	
R470	401 028 3705	CARBON	10K JA 1/8W	1	D867	407 063 1409	LED SLR-54DC3	1	
R471	401 028 3705	CARBON	10K JA 1/8W	1	D868	407 063 1409	LED SLR-54DC3	1	
R472	401 020 2003	CARBON	4.7K JA 1/4W	1	D869	407 007 9904	DIODE GMA01-BT	1	
R473	401 095 1208	MT-FILM	620 JV 1/4W	1	D871	407 007 9904	DIODE GMA01-BT	1	
R474	401 013 4205	CARBON	120 JA 1/4W	1	D872	407 007 9904	DIODE GMA01-BT	1	
R475	401 019 1000	CARBON	390 JA 1/4W	1	D873	407 005 3805	DIODE DS442-BT	1	
R476	401 030 0709	CARBON	22K JA 1/8W	1	D874	407 005 3805	DIODE DS442-BT	1	
R477	401 016 4806	CARBON	22K JA 1/4W	1	D875	407 007 9904	DIODE GMA01-BT	1	
R478	401 019 1000	CARBON	390 JA 1/4W	1	D877	407 007 9904	DIODE GMA01-BT	1	
R479	401 030 0709	CARBON	22K JA 1/8W	1	D878	407 007 9904	DIODE GMA01-BT	1	
R480	401 016 4806	CARBON	22K JA 1/4W	1	D879	407 031 7402	LED SLP-278C	1	
R481	401 028 3200	CARBON	1K JA 1/8W	1	D880	407 031 7402	LED SLP-278C	1	
R482	401 028 3200	CARBON	1K JA 1/8W	1	D881	407 005 3805	DIODE DS442-BT	1	
R483	401 028 3200	CARBON	1K JA 1/8W	1	D882	407 005 3805	DIODE DS442-BT	1	
R484	401 030 0709	CARBON	22K JA 1/8W	1	C851	403 047 1809	ELECT	4.7U M 25V	1
R485	401 030 0709	CARBON	22K JA 1/8W	1	C852	403 044 0706	ELECT	47U M 16V	1
R486	401 030 0709	CARBON	22K JA 1/8W	1	C853	403 044 0706	ELECT	47U M 16V	1
R487	401 016 4806	CARBON	22K JA 1/4W	1	C854	403 050 8000	ELECT	3.3U M 50V	1
R488	401 016 4806	CARBON	22K JA 1/4W	1	C855	403 050 8000	ELECT	3.3U M 50V	1
R489	401 020 2904	CARBON	47K JA 1/4W	1	C856	403 073 3006	CERAMIC	390P K 50V	1
R490	401 020 2904	CARBON	47K JA 1/4W	1	C857	403 073 3006	CERAMIC	390P K 50V	1
R491	401 020 2904	CARBON	47K JA 1/4W	1	C858	403 057 0304	POLYESTER	0.01U J 50V	1
R492	401 028 4207	CARBON	100K JA 1/8W	1	C859	403 057 0304	POLYESTER	0.01U J 50V	1
					C860	403 058 1003	POLYESTER	1500P J 50V	1
					C861	403 058 1003	POLYESTER	1500P J 50V	1
					C862	403 067 7409	MT-COMPO	0.039U J 50V	1
					C863	403 067 7409	MT-COMPO	0.039U J 50V	1
					C864	403 062 5004	POLYESTER	5600P J 50V	1
					C865	403 062 5004	POLYESTER	5600P J 50V	1
					C866	403 067 6204	MT-COMPO	0.15U J 50V	1
					C867	403 067 6204	MT-COMPO	0.15U J 50V	1
					C868	403 059 5802	POLYESTER	0.022U J 50V	1
					C869	403 059 5802	POLYESTER	0.022U J 50V	1
					C870	403 067 8307	MT-COMPO	0.68U J 50V	1
					C871	403 067 8307	MT-COMPO	0.68U J 50V	1
					C872	403 067 8406	MT-COMPO	0.082U J 50V	1
					C873	403 067 8406	MT-COMPO	0.082U J 50V	1
					C874	403 050 1605	ELECT	2.2U M 50V	1
					C875	403 050 1605	ELECT	2.2U M 50V	1
					C876	403 068 9105	CERAMIC	100P K 50V	1
					C877	403 068 9105	CERAMIC	100P K 50V	1
					C878	403 050 8000	ELECT	3.3U M 50V	1
					C879	403 050 8000	ELECT	3.3U M 50V	1
					C880	403 050 8000	ELECT	3.3U M 50V	1
<b>AMPLIFIER CONTROL P.C.B. ASSY</b>									
86	141-0-1939-25390	Amplifier Control P.C.B. Assy		1					
	4-9549-70210	LCD Module (DQ-991)		1					
CA850	4-2359-78965	Connector 2P Assy		1					
CA851	4-2352-02935	Connector 8P Assy		1					
CA852	4-2352-02957	Connector 11P Assy		1					
CA853	4-2359-78177	Connector 3P Assy		1					
CA854	4-2359-77391	Connector 9P Assy		1					
S850	4-2312-01880	Keyboard Switch		1					
S851	4-2312-05300	Keyboard Switch 6 mm		1					
S852	4-2312-05300	Keyboard Switch 6 mm		1					
S853	4-2312-05300	Keyboard Switch 6 mm		1					
S854	4-2312-05300	Keyboard Switch 6 mm		1					
S855	4-2312-05300	Keyboard Switch 6 mm		1					
S856	4-2312-05300	Keyboard Switch 6 mm		1					
S857	4-2312-05300	Keyboard Switch 6 mm		1					
S862	4-2312-05300	Keyboard Switch 6 mm		1					
S863	4-2312-05300	Keyboard Switch 6 mm		1					
S864	4-2312-05300	Keyboard Switch 6 mm		1					
SW857	4-2312-06310	Slide Switch 1P5T		1					

## P.C.BOARD PARTS LIST (Continued)

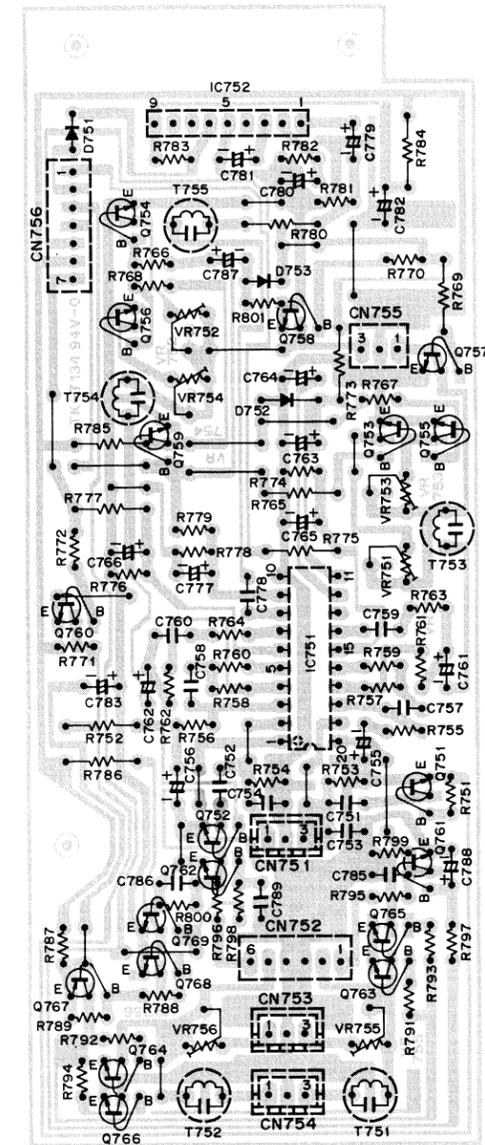
Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty	
C881	403 038 4505	ELECT	1000U M 6.3V	1	T751	4-2559-70250	Bias Trap Coil	1
C882	403 038 4505	ELECT	1000U M 6.3V	1	T752	4-2559-70250	Bias Trap Coil	1
C883	403 047 9607	ELECT	0.1U M 50V	1	T753	4-2559-70250	Bias Trap Coil	1
R850	401 020 2003	CARBON	4.7K JA 1/4W	1	T754	4-2559-70250	Bias Trap Coil	1
R851	401 020 2003	CARBON	4.7K JA 1/4W	1	T755	4-2559-70250	Bias Trap Coil	1
R852	401 020 2003	CARBON	4.7K JA 1/4W	1	VR751	4-2229-76136	Potentiometer (B-10kΩ)	1
R853	401 020 2003	CARBON	4.7K JA 1/4W	1	VR752	4-2229-76136	Potentiometer (B-10kΩ)	1
R854	401 029 9102	CARBON	22 JA 1/8W	1	VR753	4-2229-76136	Potentiometer (B-10kΩ)	1
R855	401 029 9102	CARBON	22 JA 1/8W	1	VR754	4-2229-76136	Potentiometer (B-10kΩ)	1
R856	401 030 3304	CARBON	27 JA 1/8W	1	VR755	4-2229-76134	Potentiometer (B-100kΩ)	1
R857	401 016 9702	CARBON	27 JA 1/4W	1	VR756	4-2229-76134	Potentiometer (B-100kΩ)	1
R864	401 028 4207	CARBON	100K JA 1/8W	1	IC751	409 074 0600	IC LA3245	1
R865	401 031 7202	CARBON	47K JA 1/8W	1	IC752	409 016 5502	IC LA2000	1
R866	401 028 4207	CARBON	100K JA 1/8W	1	Q751	405 010 9607	TR 2SC1571-F-NP	1
R867	401 020 2904	CARBON	47K JA 1/4W	1	Q752	405 010 9607	TR 2SC1571-F-NP	1
R868	401 029 4503	CARBON	180 JA 1/8W	1	Q753	405 019 2708	TR 2SC536-F-NP-AA	1
R869	401 031 7202	CARBON	47K JA 1/8W	1	Q754	405 019 2708	TR 2SC536-F-NP-AA	1
R870	401 031 7202	CARBON	47K JA 1/8W	1	Q755	405 019 2708	TR 2SC536-F-NP-AA	1
R873	401 031 7202	CARBON	47K JA 1/8W	1	Q756	405 019 2708	TR 2SC536-F-NP-AA	1
R874	401 028 2609	CARBON	100 JA 1/8W	1	Q757	405 021 0204	TR 2SD1012-F-SPA-AC	1
R875	401 028 2609	CARBON	100 JA 1/8W	1	Q758	405 021 0204	TR 2SD1012-F-SPA-AC	1
R876	401 029 5005	CARBON	1.8K JA 1/8W	1	Q759	405 018 2600	TR 2SC3400	1
R877	401 029 5005	CARBON	1.8K JA 1/8W	1	Q760	405 019 2708	TR 2SC536-F-NP-AA	1
R878	401 029 5005	CARBON	1.8K JA 1/8W	1	Q761	405 010 9607	TR 2SC1571-F-NP	1
R879	401 029 5005	CARBON	1.8K JA 1/8W	1	Q762	405 010 9607	TR 2SC1571-F-NP	1
R880	401 030 1300	CARBON	220K JA 1/8W	1	Q763	405 018 7209	TR 2SC3708-S	1
R882	401 031 7202	CARBON	47K JA 1/8W	1	Q764	405 018 7209	TR 2SC3708-S	1
R883	401 031 7202	CARBON	47K JA 1/8W	1	Q765	405 018 7209	TR 2SC3708-S	1
R884	401 029 4503	CARBON	180 JA 1/8W	1	Q766	405 018 7209	TR 2SC3708-S	1
R885	401 032 0103	CARBON	560 JA 1/8W	1	Q767	405 001 8107	TR 2SA1016K-F	1
R886	401 012 5708	CARBON	1K JA 1/4W	1	Q768	405 019 2708	TR 2SC536-F-NP-AA	1
<b>SWITCH DOLBY P.C.B. ASSY</b>					D769	405 018 2600	TR 2SC3400	1
87	141-0-1939-25400	Switch Dolby P.C.B. Assy	1	D751	407 008 0405	DIODE GMB01-BT	1	
	141-2-3769-22200	Spacer LED	2	D752	407 050 7308	ZENER DIODE GZA8.2Y-BT	1	
	141-2-3769-22400	Spacer LED	2	D753	407 008 0405	DIODE GMB01-BT	1	
CA830	4-2352-02954	Connector 2P Assy	1	C751	403 075 4506	CERAMIC 820P K 50V	1	
CA831	4-2352-03216	Connector 10P Assy	1	C752	403 075 4506	CERAMIC 820P K 50V	1	
S830	4-2312-06200	Push Switch 1 Key	1	C753	403 070 7809	CERAMIC 150P K 50V	1	
S831	4-2312-06200	Push Switch 1 Key	1	C754	403 070 7809	CERAMIC 150P K 50V	1	
S832	4-2312-05300	Keyboard Switch 6 mm	1	C755	403 041 3304	ELECT 47U M 10V	1	
S833	4-2312-05300	Keyboard Switch 6 mm	1	C756	403 041 3304	ELECT 47U M 10V	1	
S834	4-2319-74200	Slide Switch	1	C757	403 057 0908	POLYESTER 0.01U K 50V	1	
D830	407 035 3400	LED SLP-673B-51	1	C758	403 057 0908	POLYESTER 0.01U K 50V	1	
D831	407 035 3400	LED SLP-673B-51	1	C759	403 067 7706	MT-COMPO 0.047U J 50V	1	
D832	407 088 8902	LED SLP-651B-50	1	C760	403 067 7706	MT-COMPO 0.047U J 50V	1	
D833	407 088 8902	LED SLP-651B-50	1	C761	403 042 0302	ELECT 10U M 16V	1	
R830	401 029 4503	CARBON 180 JA 1/8W	1	C762	403 042 0302	ELECT 10U M 16V	1	
R831	401 029 4503	CARBON 180 JA 1/8W	1	C763	403 039 7901	ELECT 100U M 10V	1	
R832	401 031 6601	CARBON 4.7K JA 1/8W	1	C764	403 039 7901	ELECT 100U M 10V	1	
R833	401 030 3700	CARBON 270 JA 1/8W	1	C765	403 042 0302	ELECT 10U M 16V	1	
R834	401 030 3700	CARBON 270 JA 1/8W	1	C766	403 042 0302	ELECT 10U M 16V	1	
R835	401 031 6601	CARBON 4.7K JA 1/8W	1	C777	403 042 0302	ELECT 10U M 16V	1	
R836	401 031 6601	CARBON 4.7K JA 1/8W	1	C778	403 063 0503	POLYESTER 6800P K 50V	1	
<b>HEAD PHONE P.C.B. ASSY</b>					C779	403 049 1609	ELECT 1U M 50V	1
88	141-0-1939-25410	Head Phone P.C.B. Assy	1	C780	403 048 7602	ELECT 0.47U M 50V	1	
	4-2262-36530	PCB Spacer	1	C781	403 049 1609	ELECT 1U M 50V	1	
	4-2359-78381	Jack 7P Black	1	C782	403 042 3600	ELECT 100U M 16V	1	
CA815	4-2359-79468	Connector 5P Assy	1	C783	403 043 7102	ELECT 330U M 16V	1	
R815	401 098 4602	OXIDE-MT 220 JB 1/2W	1	C785	403 056 8608	POLYESTER 1000P K 50V	1	
R816	401 098 4602	OXIDE-MT 220 JB 1/2W	1	C786	403 056 8608	POLYESTER 1000P K 50V	1	
R817	401 016 2901	CARBON 220 JA 1/4W	1	C787	403 042 9008	ELECT 22U M 16V	1	
R818	401 016 2901	CARBON 220 JA 1/4W	1	C788	403 049 1609	ELECT 1U M 50V	1	
<b>SWITCH BEAT CANCEL P.C.B. ASSY</b>					C789	403 049 1609	ELECT 1U M 50V	1
89	141-0-1939-25420	Switch Beat Cancel P.C.B. Assy	1	R751	401 028 3705	CARBON 10K JA 1/8W	1	
	4-2319-76690	Switch Slide 2-2	1	R752	401 012 7009	CARBON 10K JA 1/4W	1	
CA101	4-2359-79462	Connector 2P Assy	1	R753	401 030 1300	CARBON 220K JA 1/8W	1	
	403 056 8608	POLYESTER 1000P K 50V	1	R754	401 030 1300	CARBON 220K JA 1/8W	1	
<b>PRE AMPLIFIER P.C.B. ASSY</b>					R755	401 028 2609	CARBON 100 JA 1/8W	1
90	141-0-1939-25430	Pre Amplifier P.C.B. Assy	1	R756	401 028 2609	CARBON 100 JA 1/8W	1	
CN751	4-2369-73130	Plug 3P	1	R757	401 028 7604	CARBON 12K JA 1/8W	1	
CN752	4-2369-71452	Plug 6P	1	R758	401 028 7604	CARBON 12K JA 1/8W	1	
CN753	4-2369-73970	Plug 3P	1	R759	401 029 5500	CARBON 18K JA 1/8W	1	
CN754	4-2369-75570	Plug 3P	1	R760	401 029 5500	CARBON 18K JA 1/8W	1	
CN755	4-2369-71482	Plug 3P	1	R761	401 030 0204	CARBON 2.2K JA 1/8W	1	
CN756	4-2369-71871	Plug 7P	1	R762	401 030 0204	CARBON 2.2K JA 1/8W	1	
				R763	401 028 3200	CARBON 1K JA 1/8W	1	
				R764	401 028 3200	CARBON 1K JA 1/8W	1	
				R765	401 012 7009	CARBON 10K JA 1/4W	1	
				R766	401 028 3705	CARBON 10K JA 1/8W	1	



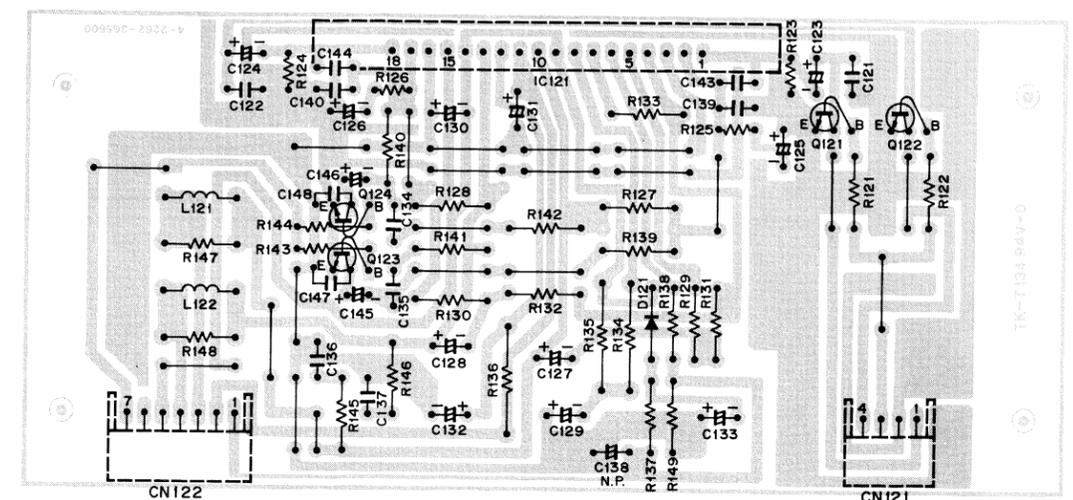
**TUNER PRINTED CIRCUIT BOARD  
(BOTTOM VIEW)**



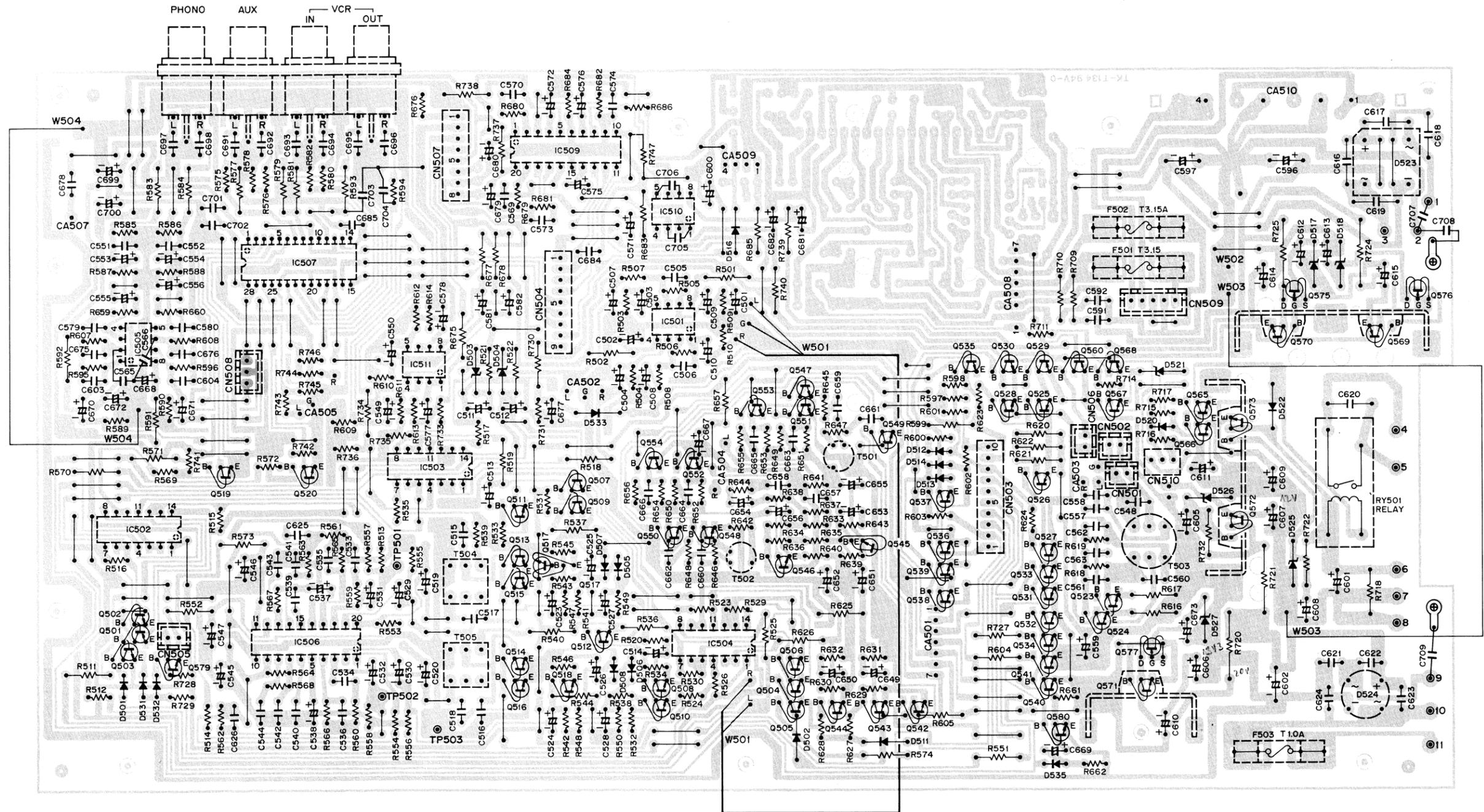
**PRE AMP P.C. BOARD  
(BOTTOM VIEW)**



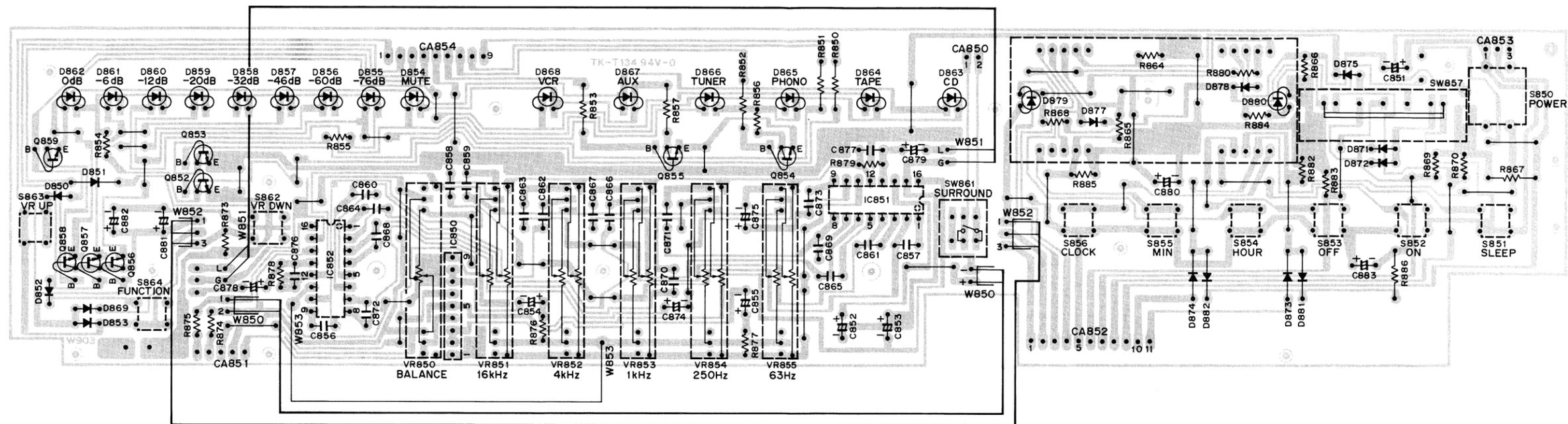
**POWER AMP P.C. BOARD  
(BOTTOM VIEW)**



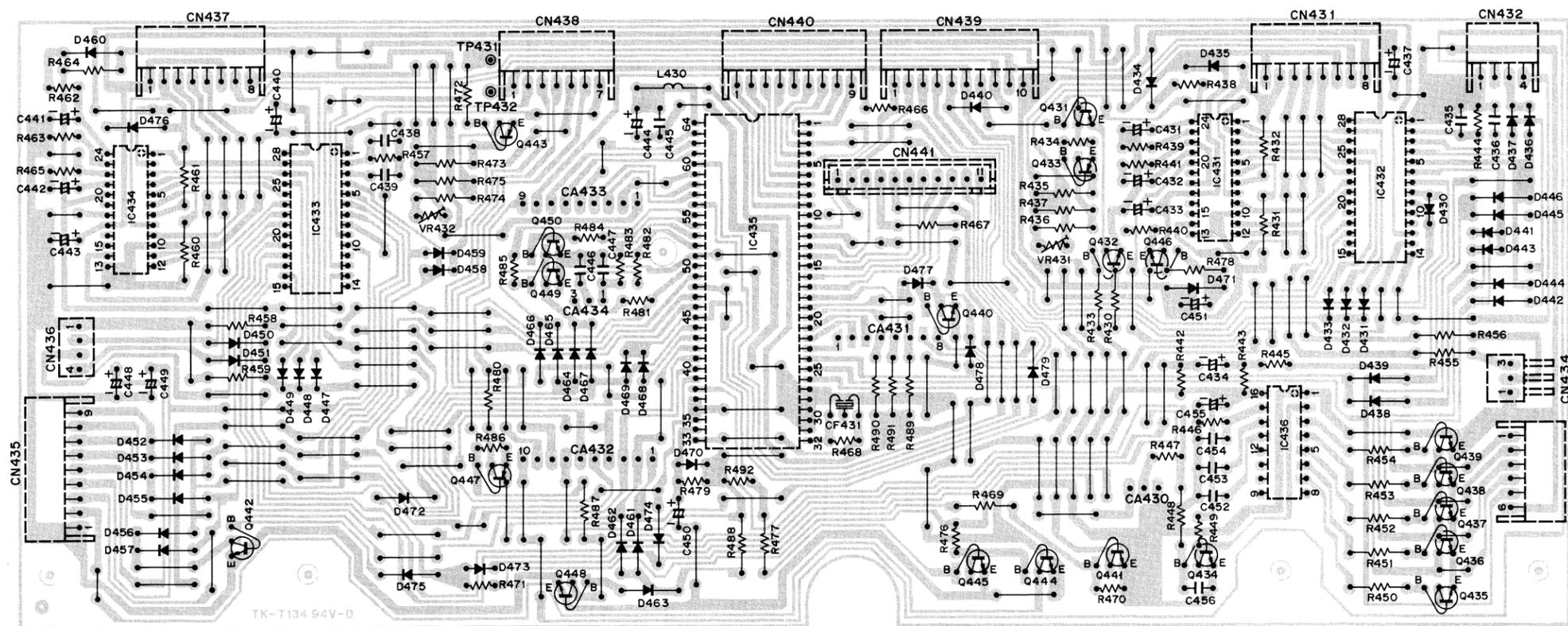
# MAIN PRINTED CIRCUIT BOARD (BOTTOM VIEW)



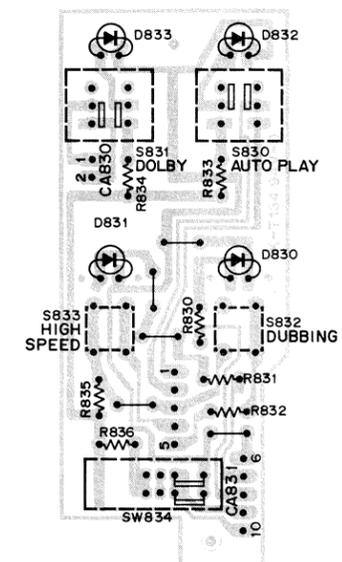
**AMP CONTROL PRINTED CIRCUIT BOARD  
(BOTTOM VIEW)**



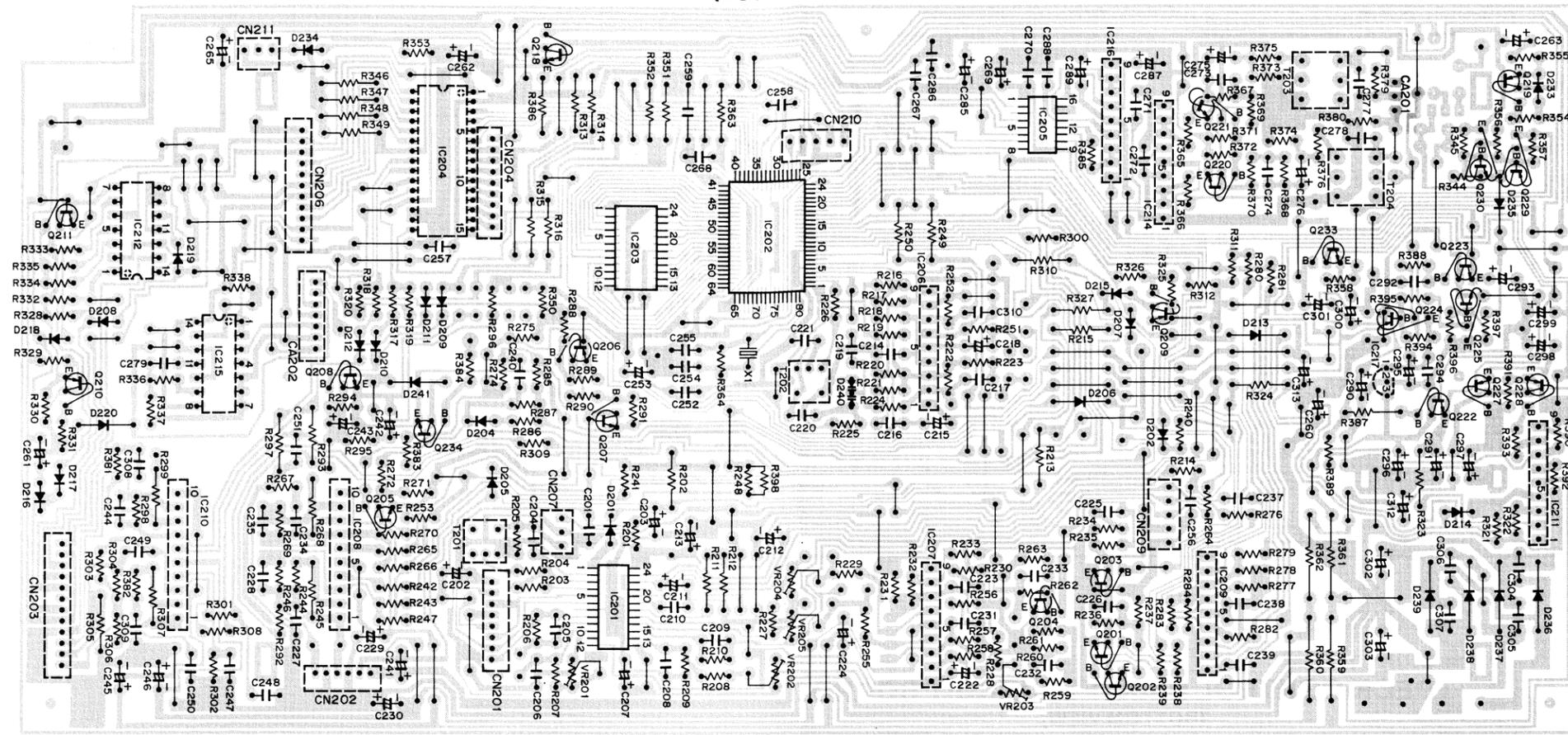
**DECK CONTROL PRINTED CIRCUIT BOARD  
(BOTTOM VIEW)**



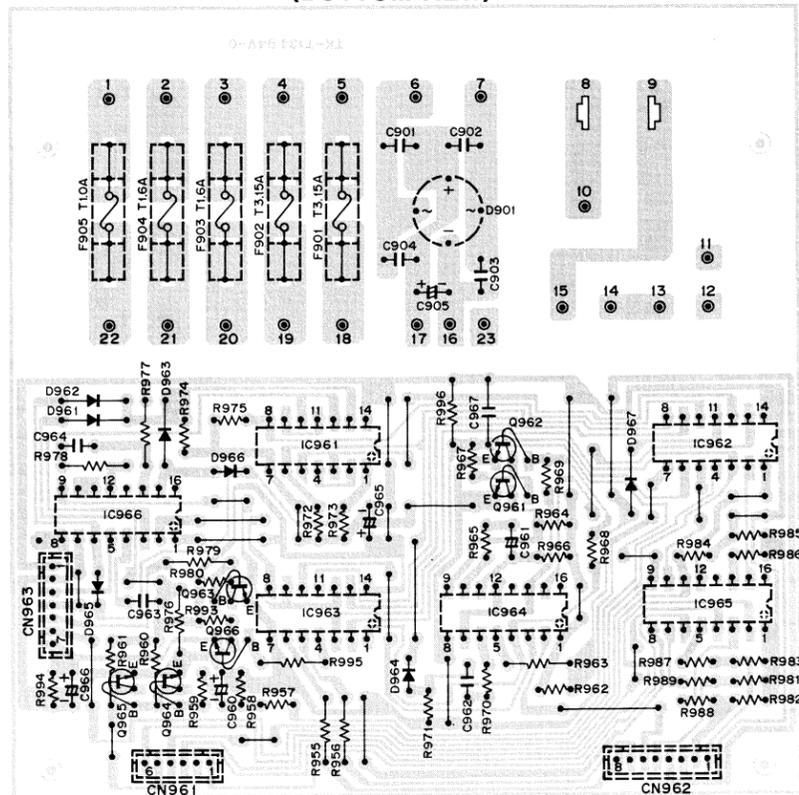
**SWITCH DOLBY P.C. BOARD  
(BOTTOM VIEW)**



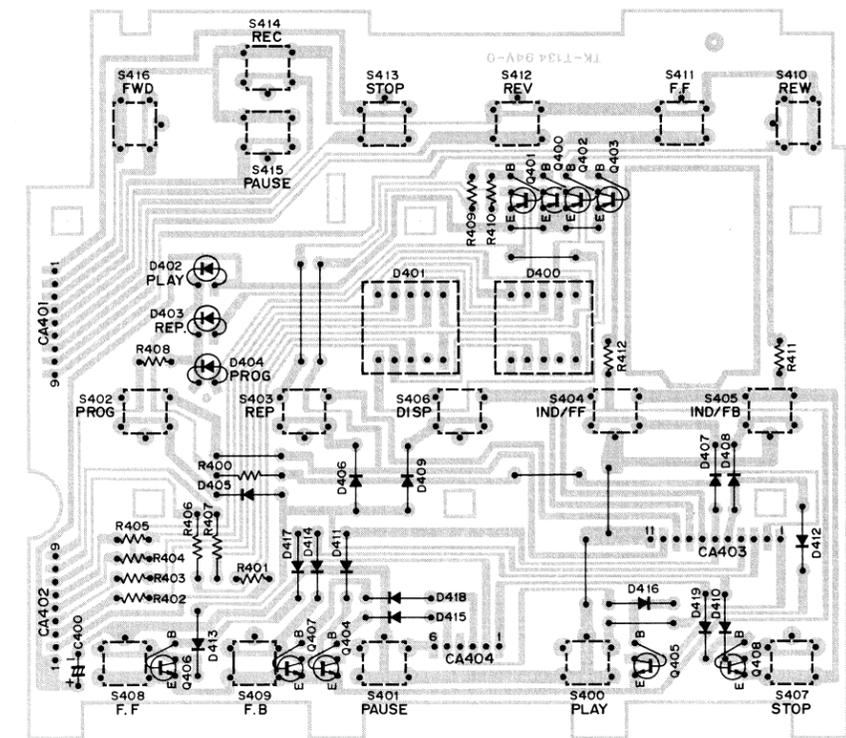
**CD PRINTED CIRCUIT BOARD  
(BOTTOM VIEW)**



**CD SUB PRINTED CIRCUIT BOARD  
(BOTTOM VIEW)**

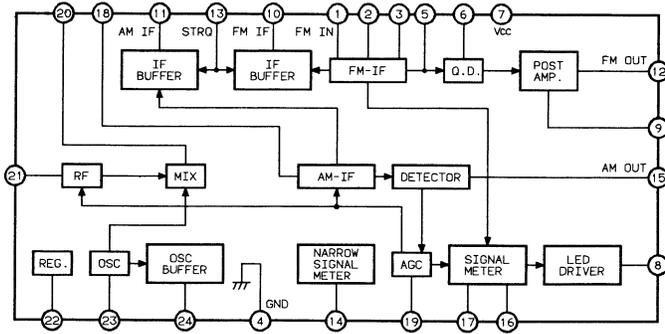


**SWITCH M2 CD SUB PRINTED CIRCUIT BOARD  
(BOTTOM VIEW)**

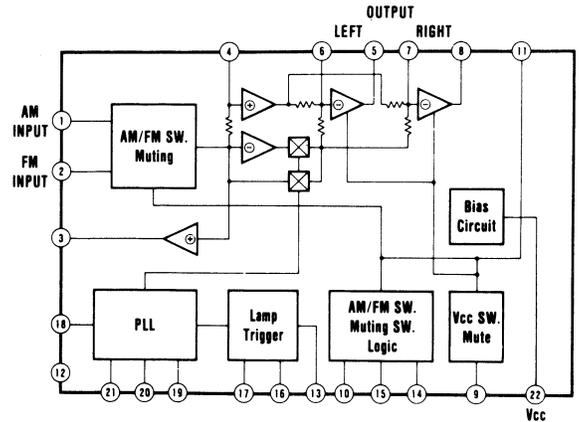


# INTEGRATED CIRCUIT BLOCK DIAGRAM

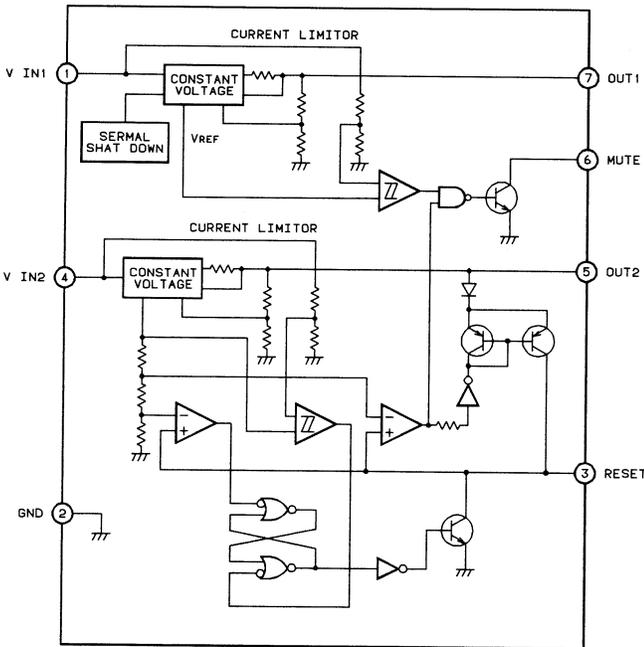
## LA 1266 BLOCK DIAGRAM



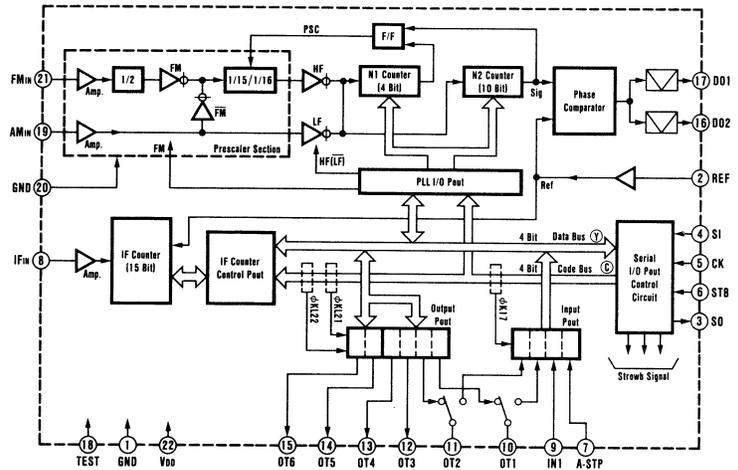
## LA 3400 BLOCK DIAGRAM



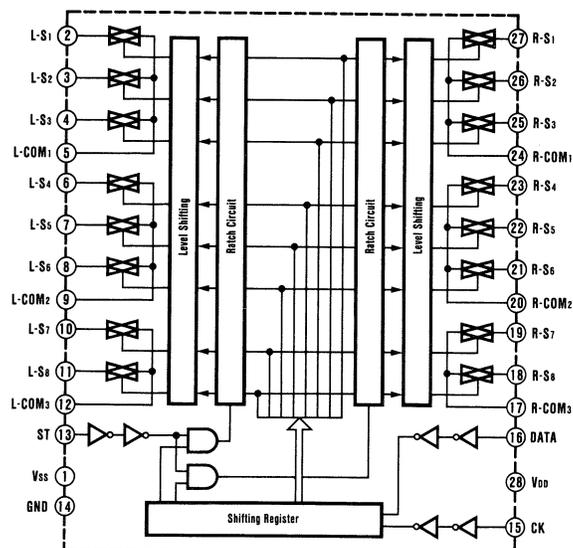
## LA 5667 BLOCK DIAGRAM



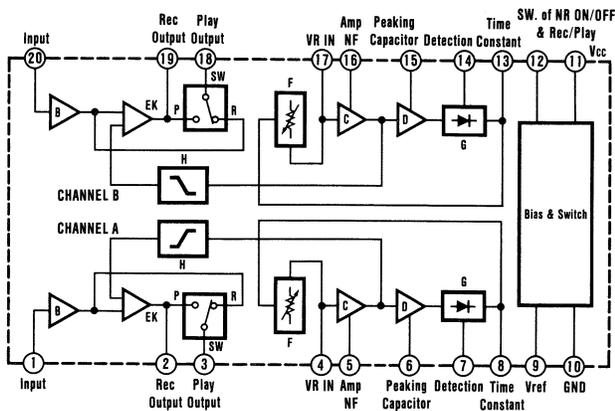
## TC 9171P BLOCK DIAGRAM



## TC 9163N BLOCK DIAGRAM

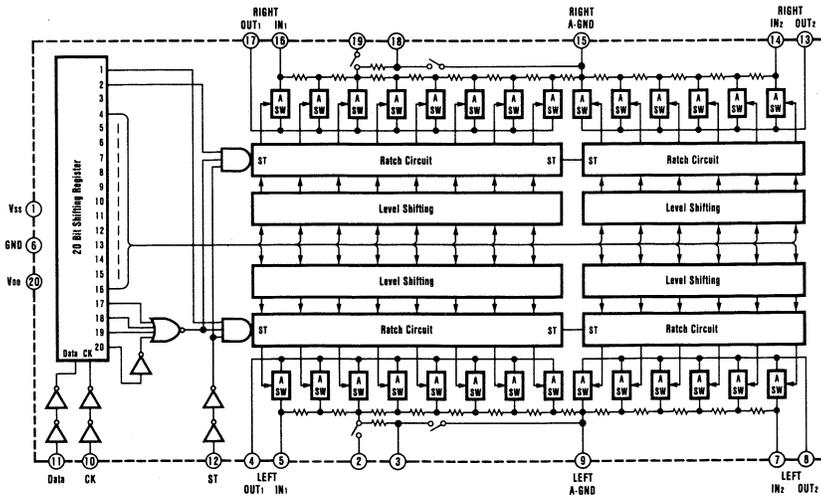


## TA 7719P BLOCK DIAGRAM

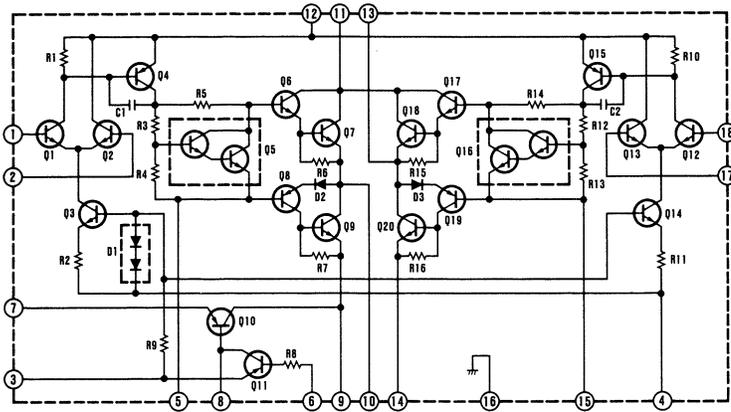


# INTEGRATED CIRCUIT BLOCK DIAGRAM(Continued)

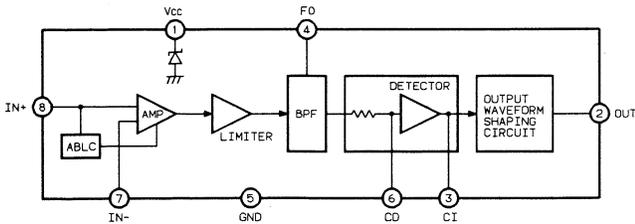
## TC 9177P BLOCK DIAGRAM



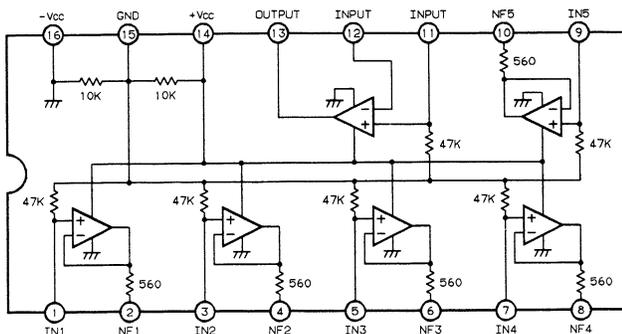
## STK 4152 MK2 BLOCK DIAGRAM



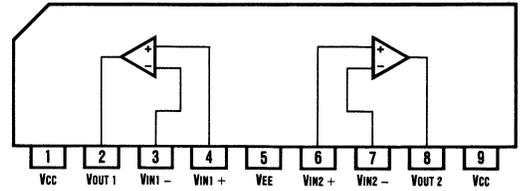
## μPC 1490HA BLOCK DIAGRAM



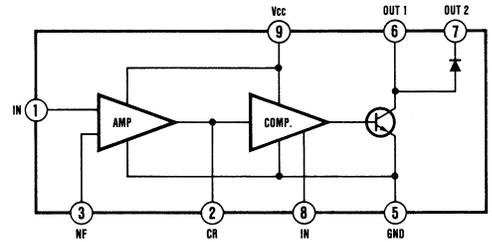
## M 5227P BLOCK DIAGRAM



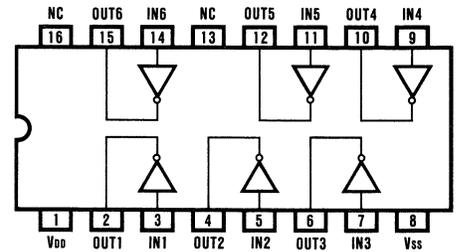
## LA 6458S/LA 6462S BLOCK DIAGRAM



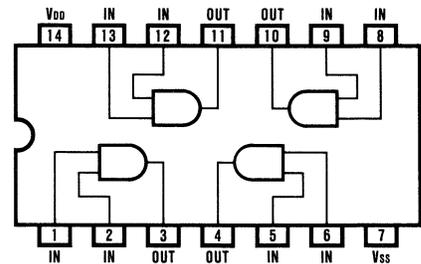
## LA 2000 BLOCK DIAGRAM



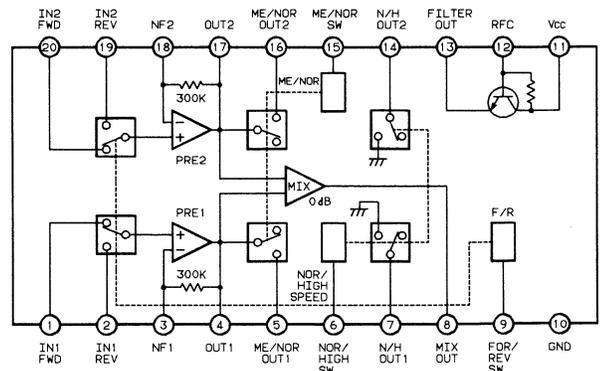
## LC 4049 BLOCK DIAGRAM



## LC 4081B BLOCK DIAGRAM

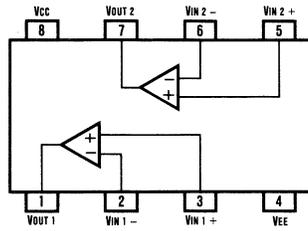


## LA 3245 BLOCK DIAGRAM

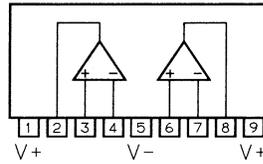


# INTEGRATED CIRCUIT BLOCK DIAGRAM(Continued)

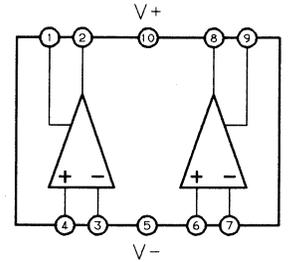
**LA 6458 BLOCK DIAGRAM**



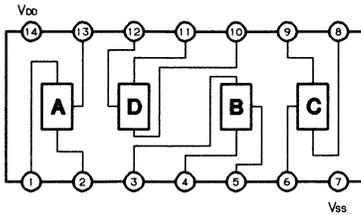
**NJM 2068S BLOCK DIAGRAM**



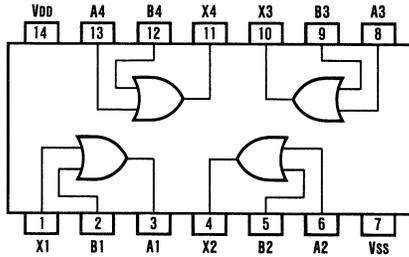
**LA 6510 BLOCK DIAGRAM**



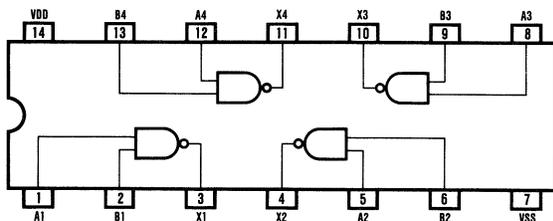
**LC 4066B BLOCK DIAGRAM**



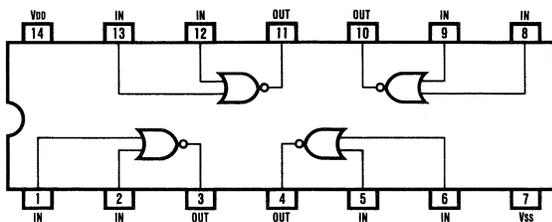
**LC 4071 BLOCK DIAGRAM**



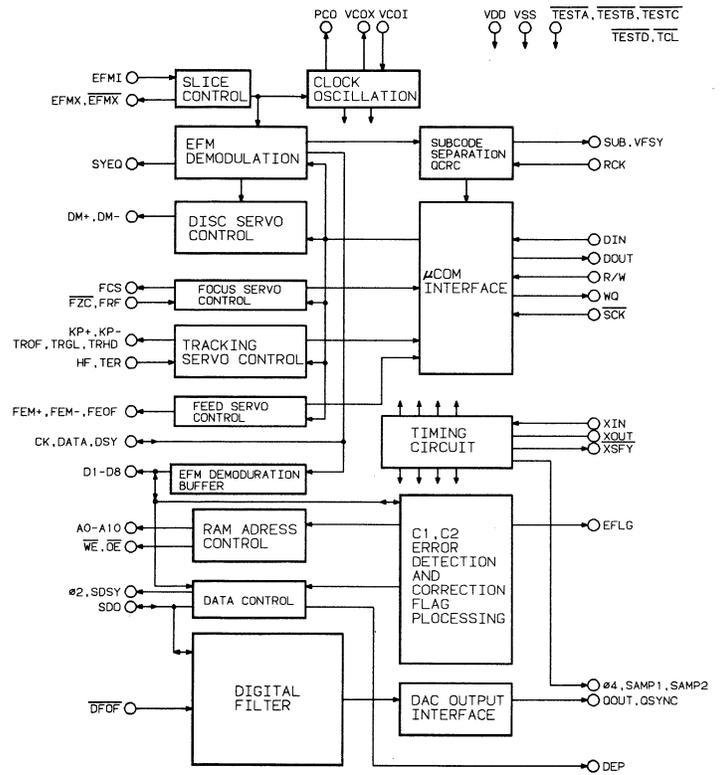
**LC 4011B BLOCK DIAGRAM**



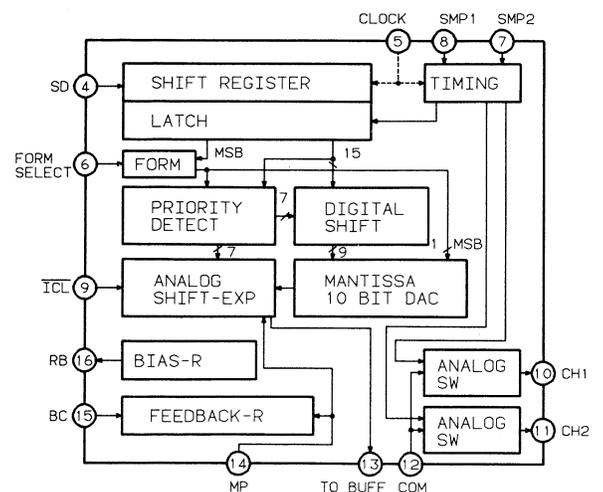
**LC 4001B BLOCK DIAGRAM**



**YM 3805 BLOCK DIAGRAM**

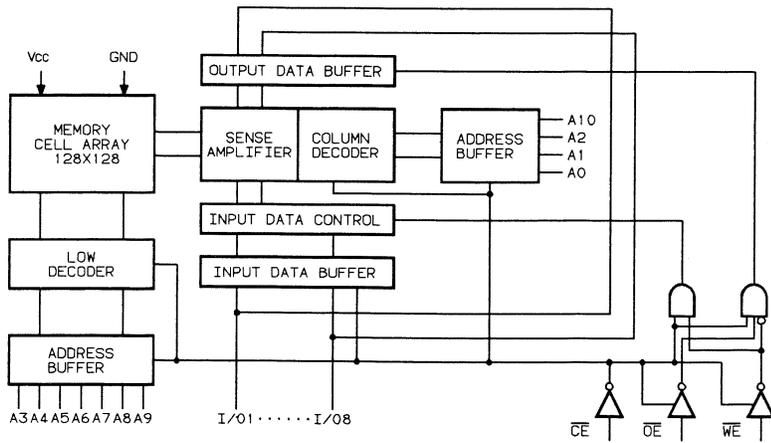


**YM 3015 BLOCK DIAGRAM**

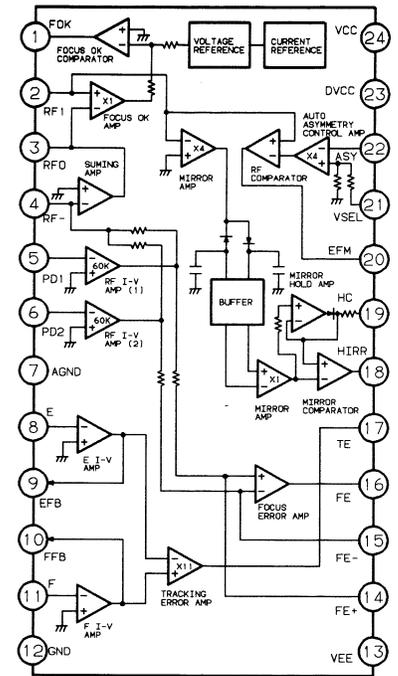


# INTEGRATED CIRCUIT BLOCK DIAGRAM (Continued)

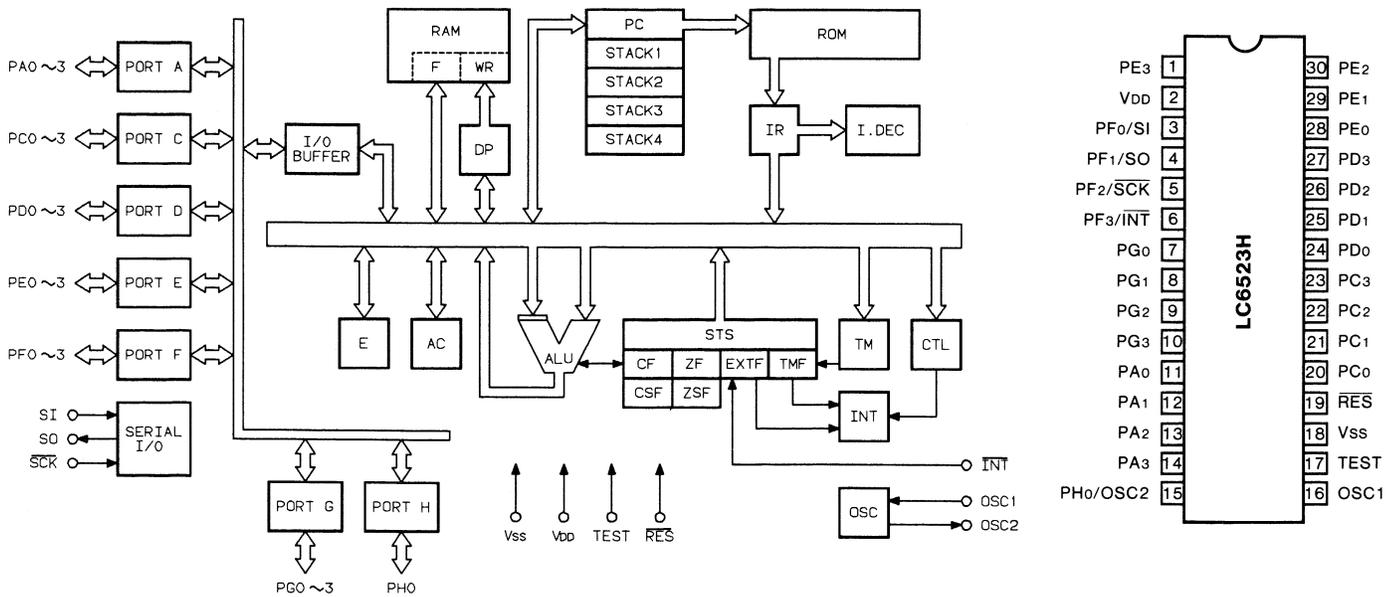
## LC 3517 AM-15 BLOCK DIAGRAM



## CX 20109 BLOCK DIAGRAM

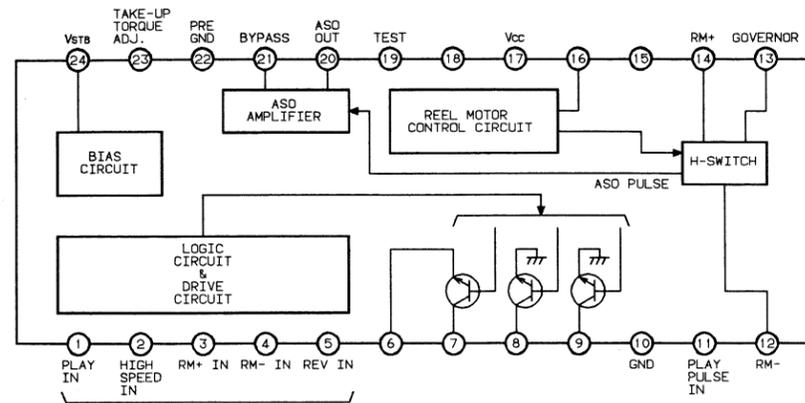


## LC 6523H-3064 BLOCK DIAGRAM

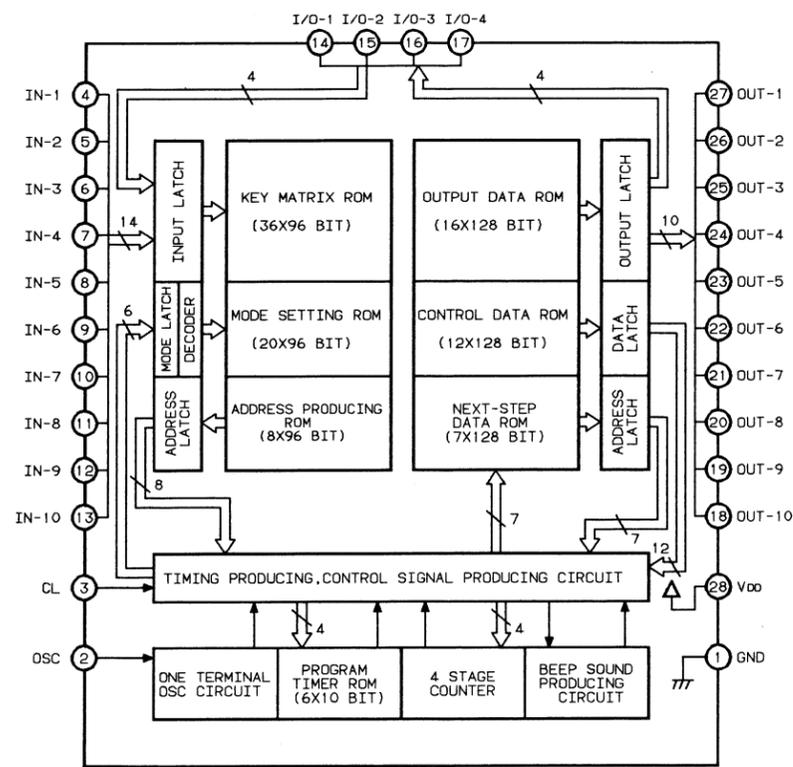


**INTEGRATED CIRCUIT BLOCK DIAGRAM(Continued)**

**TA 8121N BLOCK DIAGRAM**

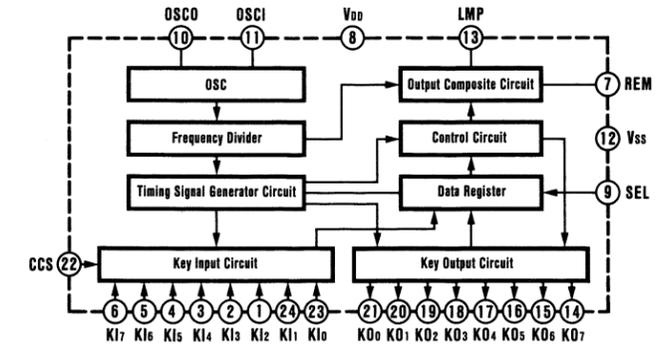


**TC 9312N-035 / TC 9312N-036 BLOCK DIAGRAM**

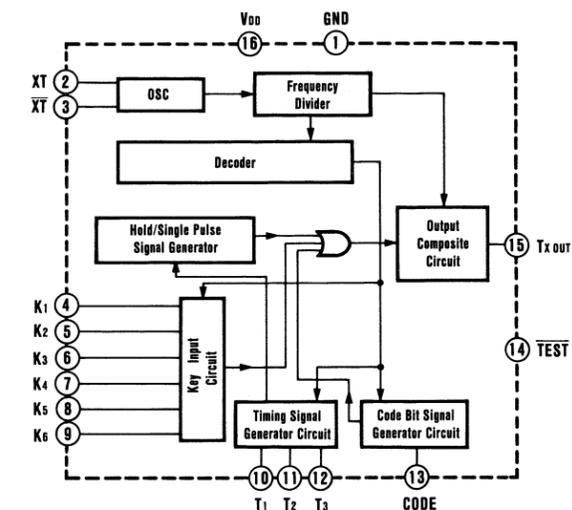


**INTEGRATED CIRCUIT BLOCK DIAGRAM(Continued)**

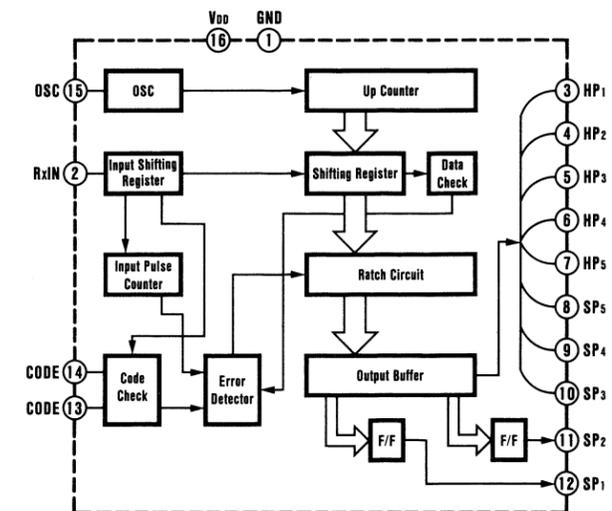
**μPD 6102G BLOCK DIAGRAM**



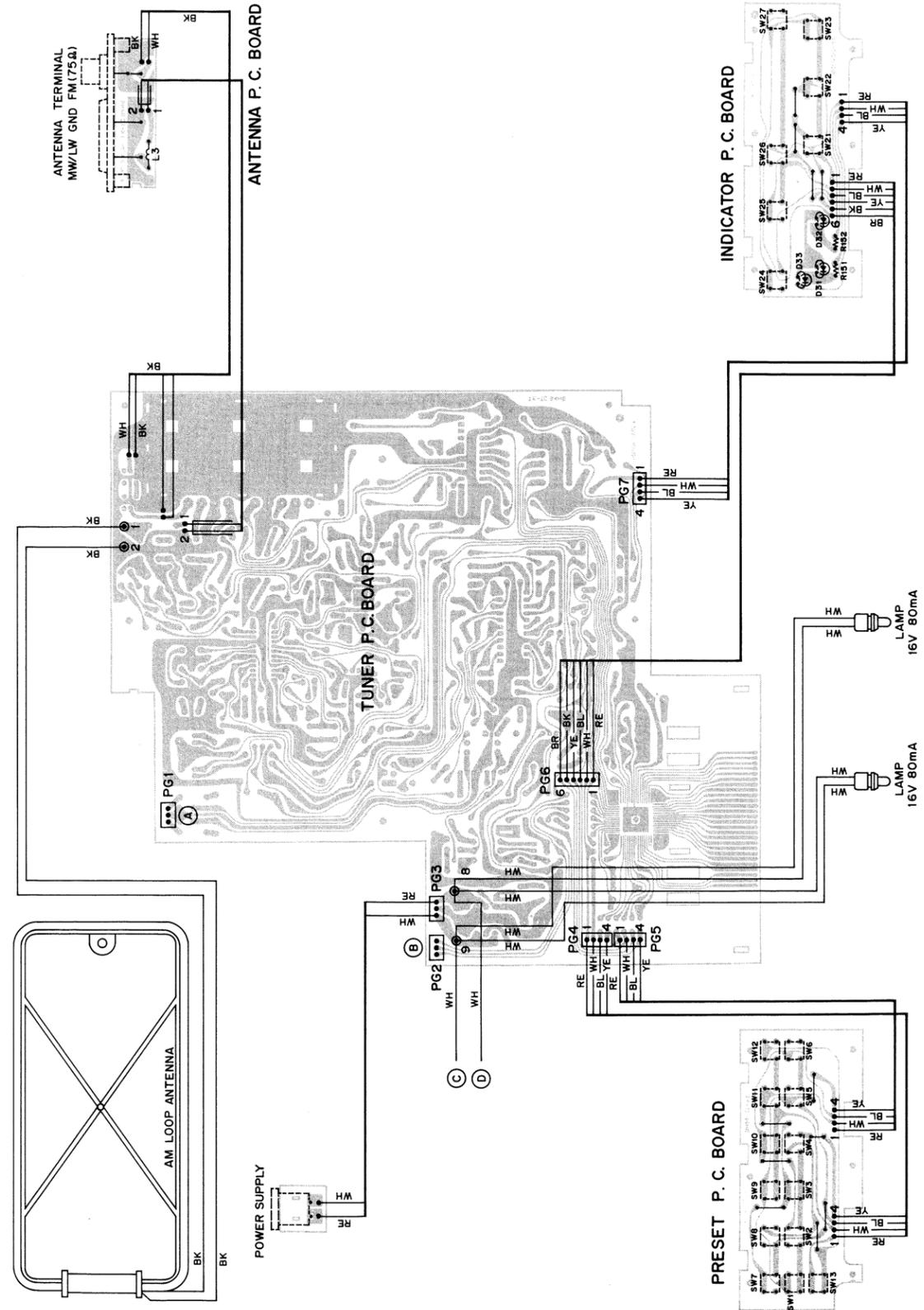
**TC 9148P BLOCK DIAGRAM**



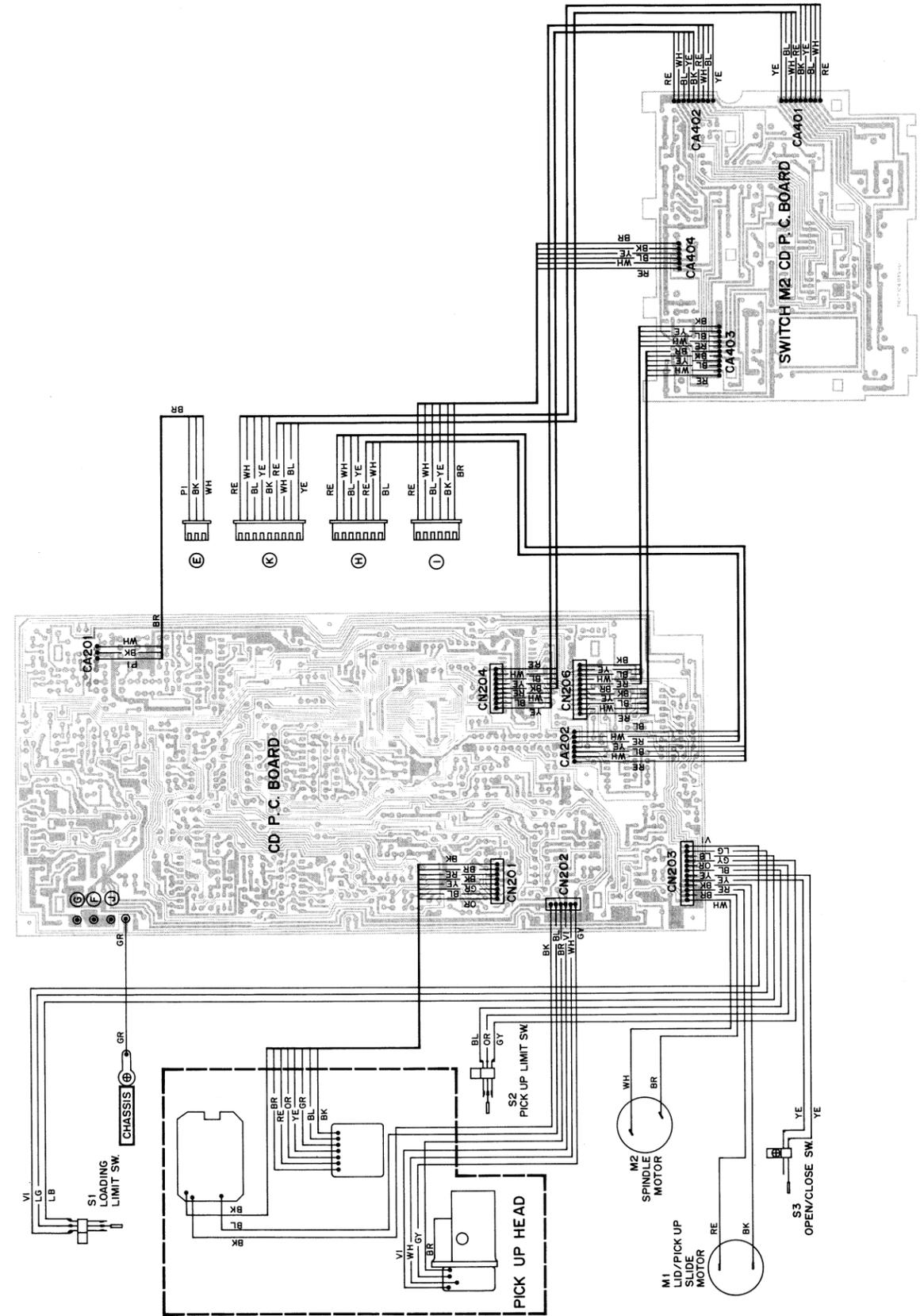
**TC 9149P BLOCK DIAGRAM**



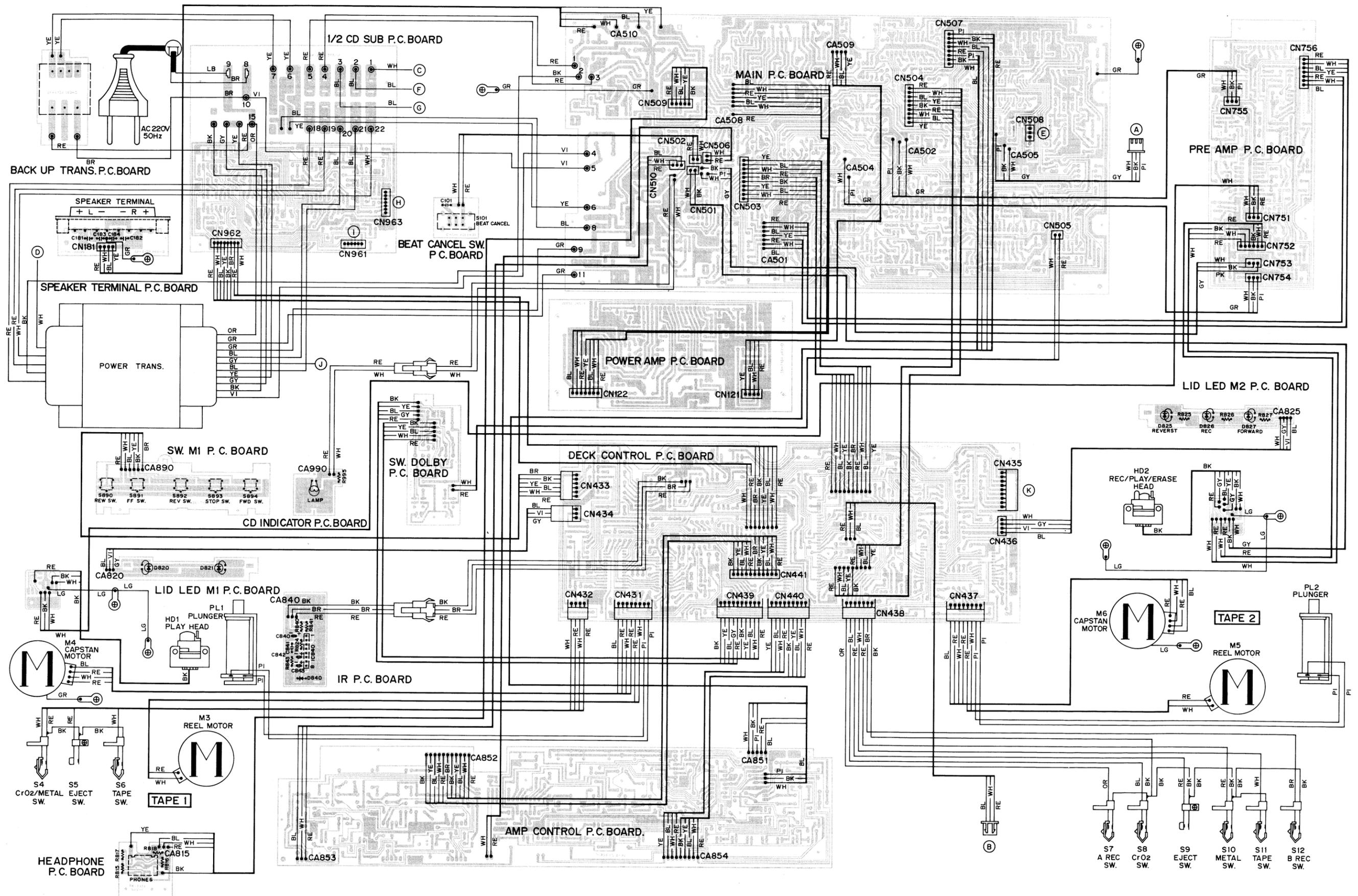
# POINT TO POINT WIRING DIAGRAM (Tuner Section)



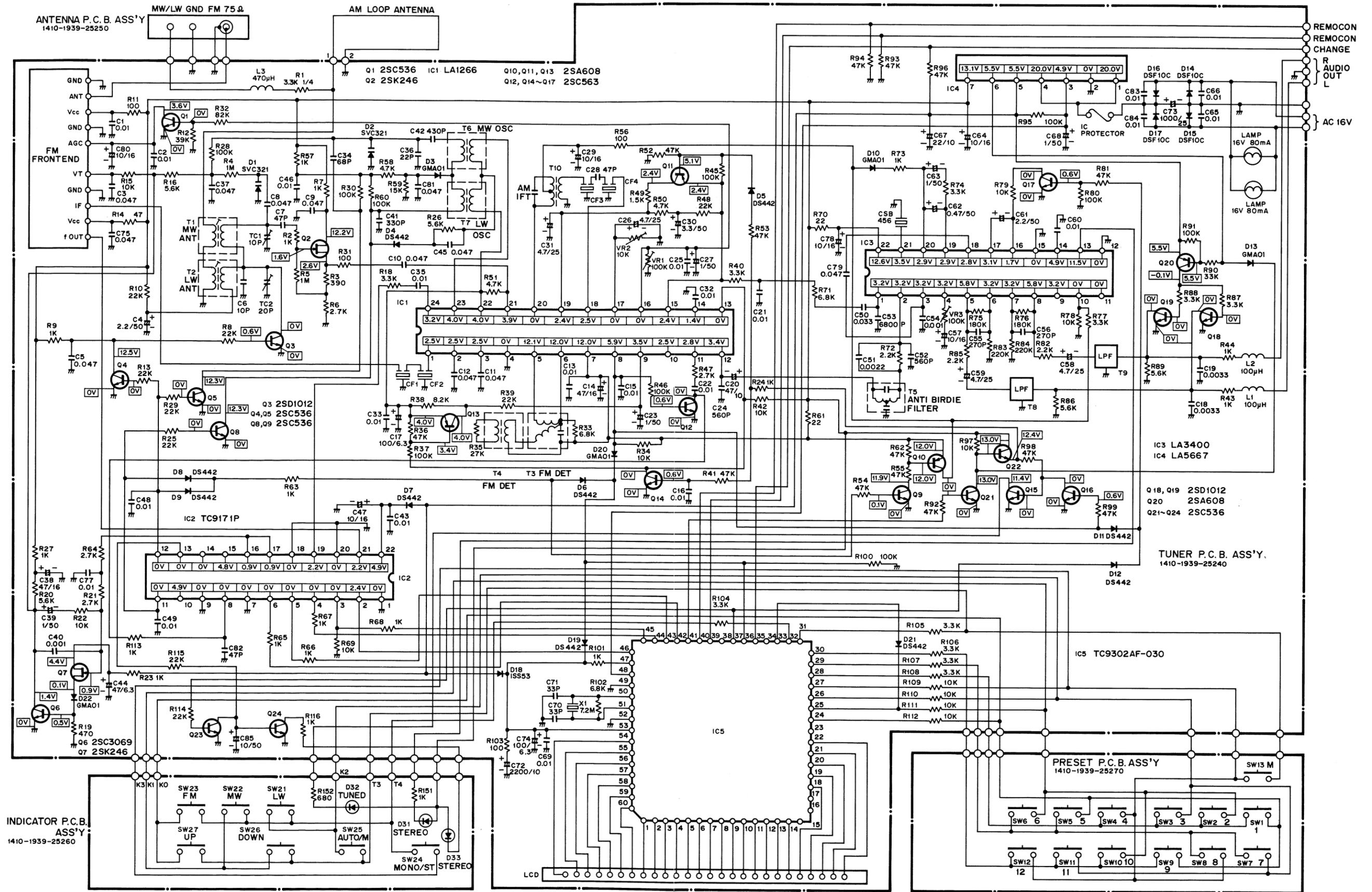
# POINT TO POINT WIRING DIAGRAM (CD Section)



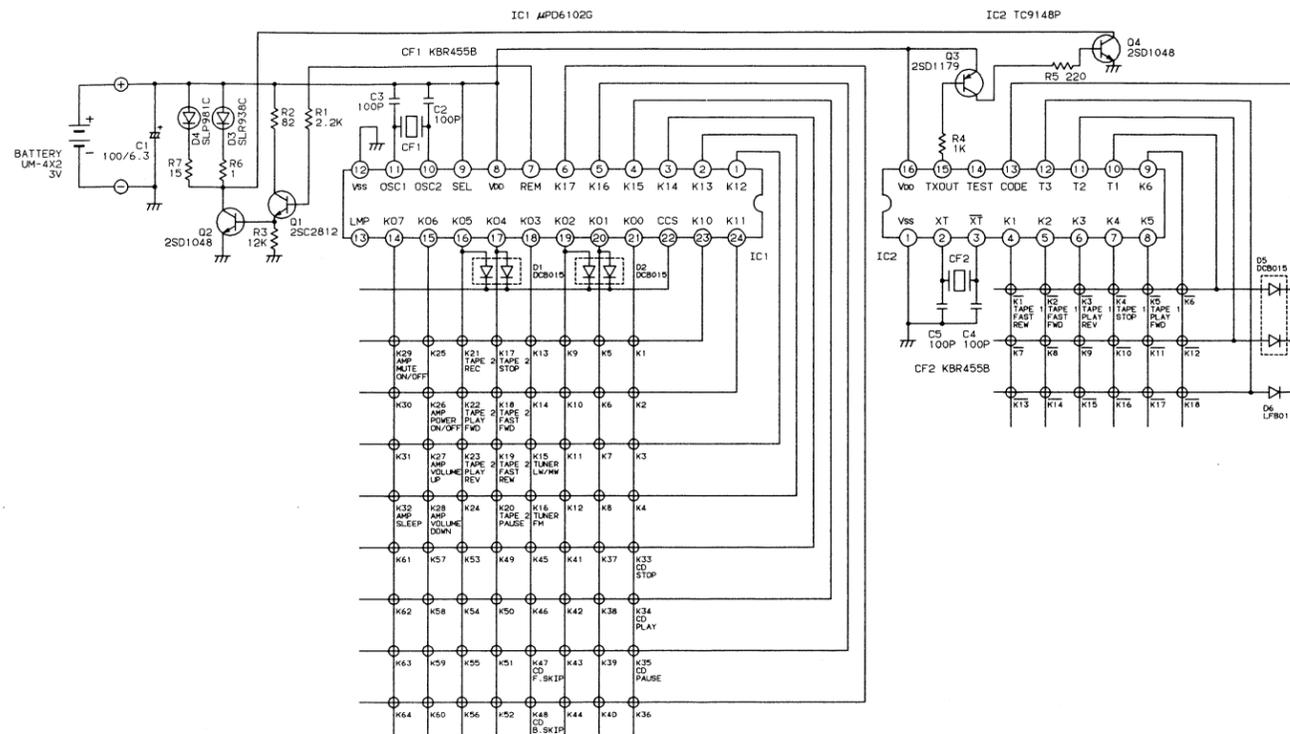
# POINT TO POINT WIRING DIAGRAM (Main & Tape Deck Section)



# SCHEMATIC DIAGRAM (Tuner Section)



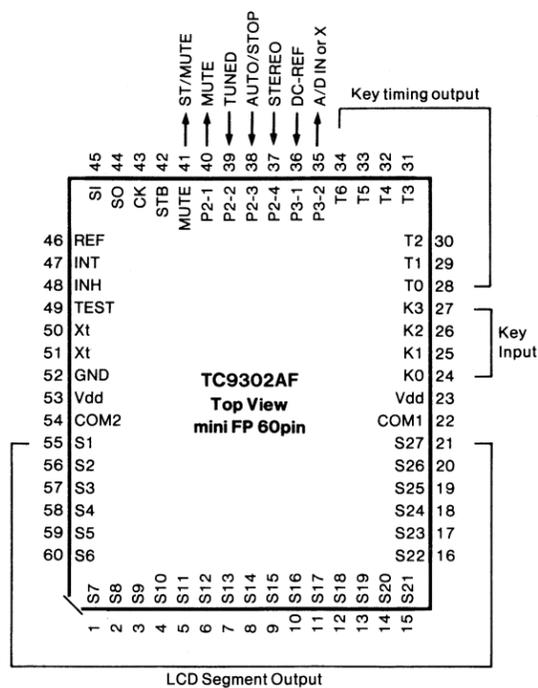
# REMOTE CONTROL REM-M77 SCHEMATIC DIAGRAM



# SEMICONDUCTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SK246		
2SA608 2SA1016 2SB698 2SC536 2SC1571 2SC3069 2SC3708 2SD734		
2SD400		
2SB1133 2SD1666		
2SA1346 2SB808 2SC3400 2SD1012		
2SA937 2SC3069 DTA143 DTC114		
2SB1015 2SD612K 2SD1406		
<b>TERMINAL NAME</b>		
B → BASE                      G → GATE C → COLLECTOR              D → DRAIN E → EMITTER                  S → SOURCE		

# CPU PORT DESIGNATIONS (TC9302AF-030)



Port	Pin No.	Segment Name		Explanation of Function
		COM1	COM2	
COM1	22	COM1	-	Common 1
S27	21	AM	FM1	AM : MW (2 band) FM1 : FM1 band
S26	20	MW	FM2	MW : MW band FM2 : FM2 band
S25	19	LW	FM3	LW : LW band FM3 : FM3 band
S24	18	AUTO	MANUAL	AUTO : Auto Scan MANUAL : Manual Scan
S23	17	CH	1bc	CH : 6 CH 1bc : 108.00MHz segment
S22	16	[5]	STEREO	[5] : point 5 on level meter STEREO : Stereo In
S21	15	TUNED	MUTING	TUNED : Input On MUTING : Stereo/Mute On
S20	14	2f	2b	2f-a : 108.00MHz segment
S19	13	2e	2g	
S18	12	2d	2c	
S17	11	-	2a	
S16	10	3f	3b	3f-a : 108.00MHz segment
S15	9	3e	3g	
S14	8	3d	3c	
S13	7	FM dot	3a	: 108.00MHz mark
S12	6	4f	4b	4f-a : 108.00MHz segment
S11	5	4e	4g	
S10	4	4d	4c	
S9	3	[1]	4a	[1] : point 1 on level meter (normally ON)
S8	2	5g	5b	5g-f : 108.00MHz segment, 0/5
S7	1	5acd	[2]	[2] : point 2 on level meter
S6	60	[3]	kHz	[3] : point 3 on level meter kHz : MW/LW unit
S5	59	[4]	MHz	[4] : point 4 on level meter MHz : FM unit
S4	58	7f	7b	75-a : 6 CH segment
S3	57	7e	7g	
S2	56	7d	7c	
S1	55	MEMORY	7a	MEMORY : Store mode
COM2	54	-	COM2	Common 2

Port	Pin No.	Name	Assignment	Active	Initial
MUTE	41	ST/MUTE	Stereo/Mute Output	L	L
P2-1	40	MUTE	Mute Output	L	H
P2-2	39	TUNED	Tuned Input	L	-
P2-3	38	AUTO/STOP	Auto/Stop Input	L	-
P2-4	37	STEREO	Stereo Ind. Input	L	-
P3-1	36	DC-REF	A/D Ref Input	-	-
P3-2	35	A/D IN or X	Signal Meter Input	-	-
			Function Output	H	L

# CD P.C.BOARD SECTION VOLTAGE TABLE

IC PIN NUMBERS DC VOLTAGES																					
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC201	CX20109	5.7V	0V	1.7V	0V	0V	0V	0V	0V	-0.3V	-0.3V	0V	0V	-5.9V	-0.2V	0V	0V	0V	0V	0V	1.9V
		21	22	23	24																
IC203	LC3517AM	4.8V	2.4V	4.8V	5.9V																
		2.3V	2.3V	2.3V	2.3V	2.3V	2.8V	0V	2.3V	1.9V	2.3V	2.3V	0V	0V	0V	0V	0V	2.3V	0V	0V	0V
		21	22	23	24																
IC204	LC6523H	4.4V	2.3V	0V	4.8V																
		3.6V	0V	3.6V	3.6V	4.8V	4.8V	4.8V	0V	0V	0.3V	0V	4.8V	0V	0V	1.6V	0V	1.3V	3.3V	3.0V	2.3V
		21	22	23	24	25	26	27	28	29	30										
IC205	YM3015	2.3V	2.2V	1.4V	2.2V	0.1V	4.6V	4.8V	0.3V	4.8V	4.7V										
		5.2V	0V	1.5V	1.9V	0V	0.9V	5.2V	0V	2.6V	2.6V	0V	2.6V	0V	2.6V						
IC206	NJM2068	5.9V	2.5V	2.4V	-5.9V	0V	0V	0V													
IC207	NJM2068	10.4V	0V	0V	0V	11.7V	0V	0V													
IC208	LA6510	0V	0V	0V	0V	-11.7V	0V	0V	0.2V	10.4V											
IC209	LA6393S	5.9V	-2.7V	0V	0V	-5.9V	0V	-0.5V	4.8V												
IC210	LA6510	1.1V	1.1V	0.1V	0.1V	-11.6V	0V	0V	0V	0V	10.9V										
LC211	LA6462S	-	-10.3V	1.0V	0V	-11.8V	0V	0V	-6.9V	11.0V											
IC214	LA6462S	5.3V	2.6V	2.6V	2.6V	-5.3V	2.6V	2.6V	2.6V												
IC216	LA6462S	5.3V	2.6V	2.6V	2.6V	-2.3V	2.6V	2.6V	2.6V												

IC PIN NUMBERS DC VOLTAGES																						
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
IC202	YM3805	4.8V	2.1V	2.1V	2.1V	0V	2.4V	2.3V	2.1V	0V	4.8V	6.8V	0V	0V	4.8V	5.3V	6V	1.6V	4.7V	0V	4.8V	
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
		0V	0V	0V	0V	0V	1.7V	1.0V	0V	0V	4.7V	4.8V	4.7V	4.7V	1.5V	0.1V	0V	0.3V	4.8V	4.8V	2.3V	
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
		0V	2.3V	2.4V	2.7V	1.3V	2.4V	2.3V	2.4V	2.4V	2.3V	2.2V	2.2V	2.2V								
		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	
		1.9V	0V	4.8V	2.4V	1.5V	0V	2.3V	1.7V	4.7V	4.7V	4.7V	4.7V	4.7V	0V	4.7V	0V	0.9V	1.0V	0V	2.3V	1.7V

TRANSISTOR DC VOLTAGES														
SYMBOL No.	DEVICE	B	C	E	SYMBOL No.	DEVICE	B	C	E	SYMBOL No.	DEVICE	B	C	E
Q201	2SC536	0.6V	0V	0V	Q210	2SA608	5.8V	4.4V	5.9V	Q225	2SC536	0.6V	0V	0V
Q202	2SC536	0V	0V	0V	Q211	2SC536	0.1V	3.6V	0V	Q227	2SB698	-5.9V	-11.0V	-5.3V
Q203	2SD1012	-2.1V	0V	0V	Q218	2SC3400	0V	4.8V	0V	Q228	2SB1133	-5.9V	-11.0V	-5.3V
Q204	2SD1012	0V	0V	0V	Q219	2SA608	4.8V	0V	4.8V	Q229	2SB698	5.1V	5.9V	5.9V
Q205	2SC536	0.5V	0V	0V	Q220	2SD1012	0V	2.5V	0V	Q230	2SC536	0.6V	0V	0V
Q206	2SA608	4.8V	2.8V	4.1V	Q221	2SD1012	0V	2.5V	0V	Q233	2SD612	5.1V	9.4V	5.1V
Q207	2SD734	-5.1V	-5.9V	-5.9V	Q222	2SD1666	5.4V	9.2V	4.8V	Q234	2SC536	0.6V	0V	0V
Q208	2SC536	0V	0V	0V	Q223	2SD734	5.8V	9.4V	5.2V	Q235	2SC3400	0V	0.6V	0V
Q209	2SA608	4.2V	4.8V	4.8V	Q224	2SB698	5.2V	5.9V	5.9V					

## PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  $\triangle$  in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with  $\triangle$ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.

Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

### NOTES:

1. All resistors values are indicated in "ohm" (K=10<sup>3</sup>, M=10<sup>6</sup>).
2. All capacitors values are indicated in "μF" (P=10<sup>-12</sup>).
3. All voltages indicated on the schematics are measured under the following conditions.
  - a. Use a V.T.V.M.

- b. All voltages ±10 % with respect to chassis ground
- c. No signals at input terminals
- d. AC input at 220 volts 50 Hz
4. This is a basic schematic diagram.

Because Fisher products are subject to continuous improvement, Fisher Corporation reserves the right to make any changes or modifications without notice.



# FISHER

## FISHER Hi-Fi Europa Vertriebs GmbH

Stahlgruberring 4      Tel: 089/420 45-0  
8000 München 82      Tlx: 524033

Technisches Labor/      Durchwahl -120/121  
Qualitätskontrolle

Funkstörmeßlabor      -127/128

### Service-Zentrale

Color TV      -166

Hi-Fi/Audio      -168

Video      -172

Autoradio      -170

Ersatzteillager      -155/156

Techn. Schulung      -174

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### Weitere Service-Zentralen in BRD (keine Ersatzteilbestellungen)

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Military	Frankfurter Straße 121 6050 Offenbach	Tel: 069/88 80 45/48 Tlx: 4 12 558	Ditzingen	Max-Eyth-Straße 11 7257 Ditzingen	Tel: 07156/50 88 Tlx: 7 245 278
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Unser FISHER-Team steht Ihnen jederzeit gerne zur Verfügung. Ersatzteilbestellungen wickeln Sie bitte ausschließlich mit unserer Service-Zentrale München ab.

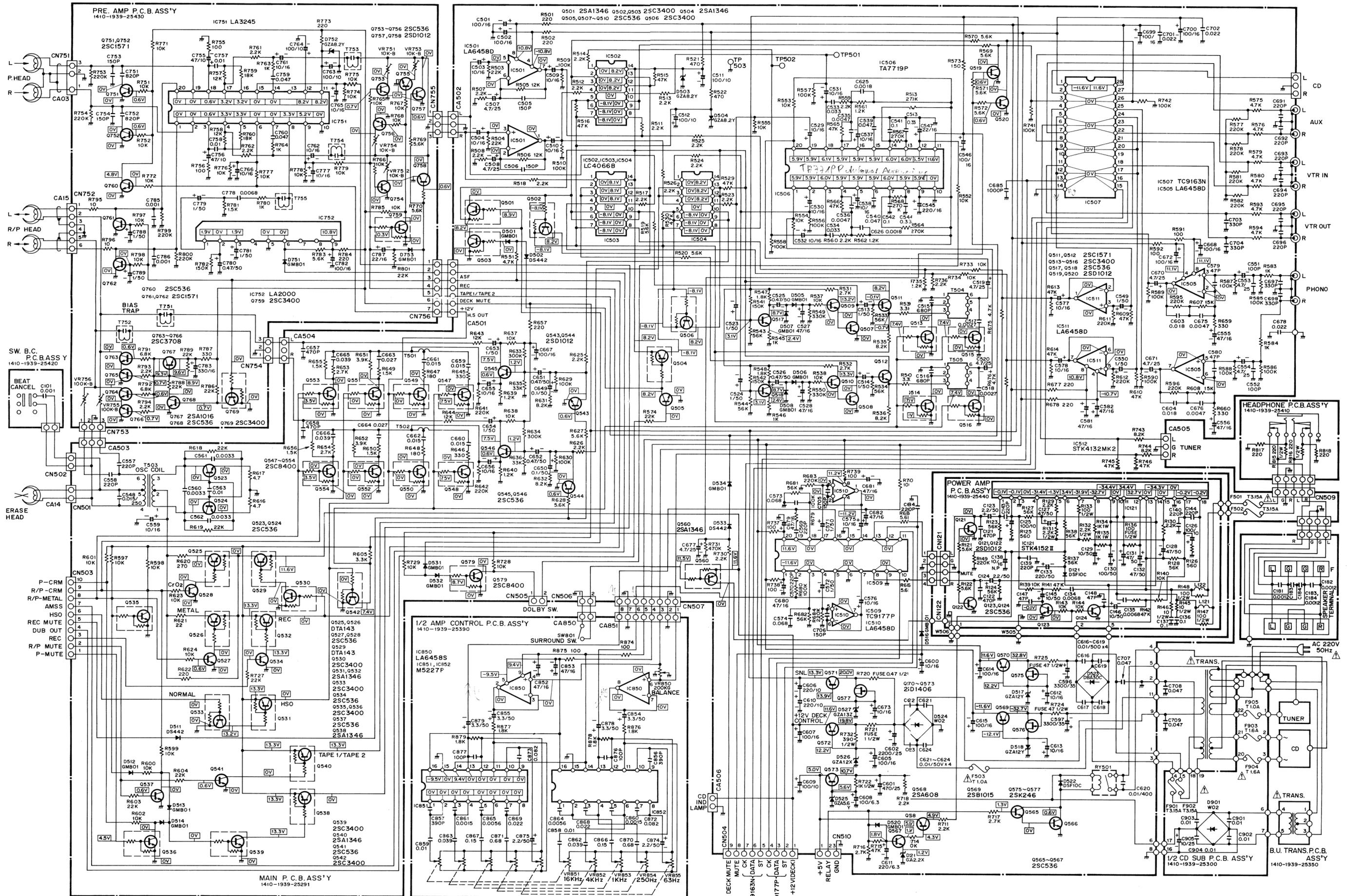
Senden Sie uns im Garantiefall die ausgefüllte Garantiekarte ein. Bei unverkauften Lagergeräten des Fachhandels gilt als Garantienachweis eine eidesstattliche Versicherung mit eingetragener Modellbezeichnung und Geräte-Nummer oder ein Liefernachweis. Die gleiche Regelung besteht auch für Reparaturaufträge.

Bitte geben Sie unbedingt die Ersatzteil-Nummer und die Modellbezeichnung an.

Sie sparen so wertvolle Zeit. Vielen Dank.



# TAD-M77 SCHEMATIC DIAGRAM (MAIN CONTROL SECTION)



# TAD-M77 SCHEMATIC DIAGRAM (DECK CONTROL SECTION)

