TEAC®

VHS PAL Video Cassette Recorder

MV-6010G

Service Manual

NO.289C2670

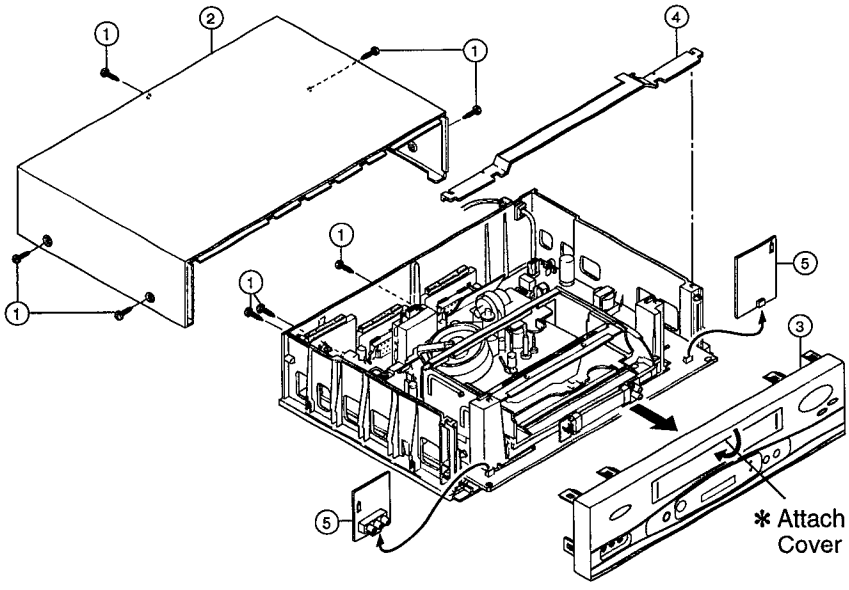
CONTENTS

SUMMARY

1. REMOVAL OF THE DECK MECHANISM

1-1. REMOVING THE TOP COVER AND FP ASSY

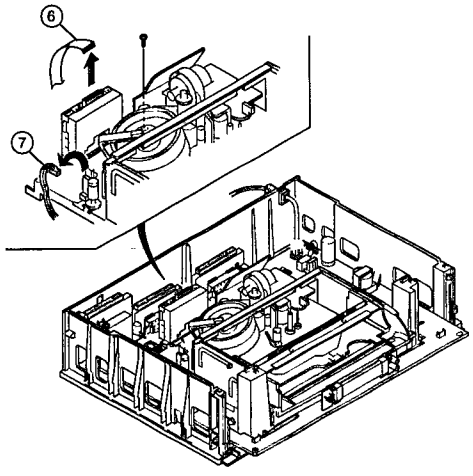
① Remove the screws.
② Remove the Top Cover.
③ Remove the FP Assy, held in position by the eight prongs, the direction of arrow.
④ Remove the Bracket.
⑤ Remove the Sub PCB, if one is attached, from the Main PCB.



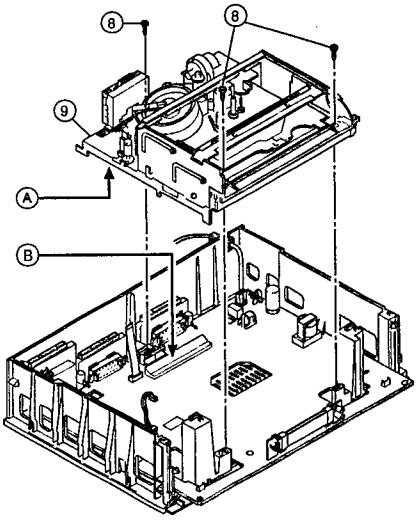
* Attach the Face Plate with the Dust Cover pushed open.

1-2. REMOVING THE DECK MECHANISM

⑥ Disconnect the Flexible Wire 16P (N101) from the Head Amp Unit.
⑦ Disconnect the Connector (N401) from the Deck Mechanism.
⑧ Remove three screws.
⑨ Remove the Deck Mechanism.



* When handling the Deck Mechanism, take care not to touch the cylinder head.
* Never touch the gold plated part on the Base PWB Ass'y Ⓐ as oil or other dirt will cause the electrical connection to deteriorate.
The spring connection point Ⓑ of the connector will also be distorted if touched.
Therefore, never touch these parts.



2. BRIEF SERVICE INSTRUCTION

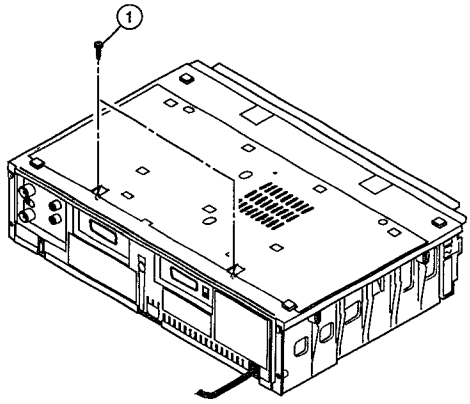
2-1. REMOVING THE MAIN PCB

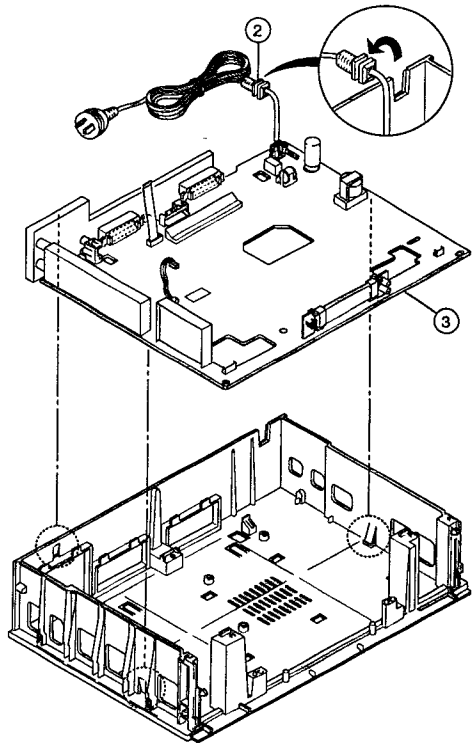
- Remove the Deck Mechanism as described in steps 1-1 and 1-2 of 1. REMOVAL OF THE DECK MECHANISM.

① Remove the two screws.

② Disconnect the Power Cord from the chassis.

③ Remove the Main PCB from the three prongs on the chassis. (Do not hold the Tuner when removing the Main PCB.) Remove the Sub PCB, if one is attached, from the Main PCB.





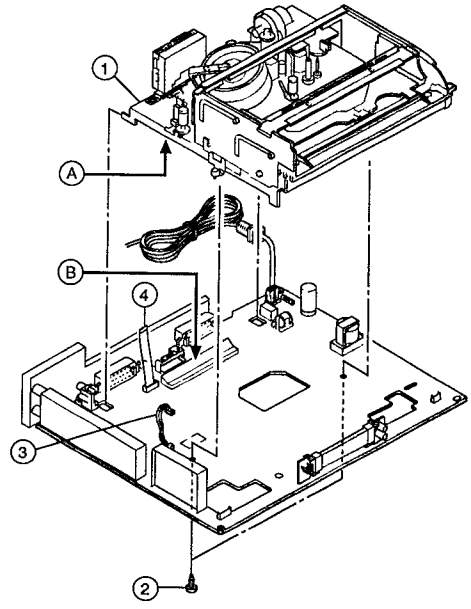
2-2. INSTALLING THE DECK MECHANISM FOR BRIEF OPERATION

① Attach the Deck Mechanism to the Main PCB removed from the chassis.

② Fix the two spacers of the Deck Mechanism to the back of the Main PCB with screws.

③ Attach the Connector (N401) to the Deck Mechanism.

④ Attach the Flexible Wire 16P (N101) to the Head Amp Unit.



* Never touch the gold plated part on the Base PWB Ass'y Ⓐ as oil or other dirt will cause the electrical connection to deteriorate. The spring connection point Ⓑ of the connector will also be distorted if touched. Therefore, never touch these parts.

ELECTRICAL ADJUSTMENT

1. PLAYBACK SWITCHING POINT ADJUSTMENT

Mode : PLAY

Test Signal : TPS-13 or 13S

Check Point : FIP

Adjustment Point : CH UP/DOWN (▲/▼) KEY

Adjustment :

(1) Playback the test tape and allow the automatic ATR to finish. The ATR is finished when "ATR" on the FIP stops blinking.

(2) Short the connection between PG ADJ (J227) and GND (J225) on the MAIN PCB as indicated in Figure 1.Then, most of the segments on the FIP, for example, "ATR" goes OFF. See Figure 2 below.

(3) Adjust the display for FIP (H701) with the CH UP/DOWN (▲/▼) keys until it is as shown in Figure 2 Display B below.

(4) Clear the TEST POINT short.

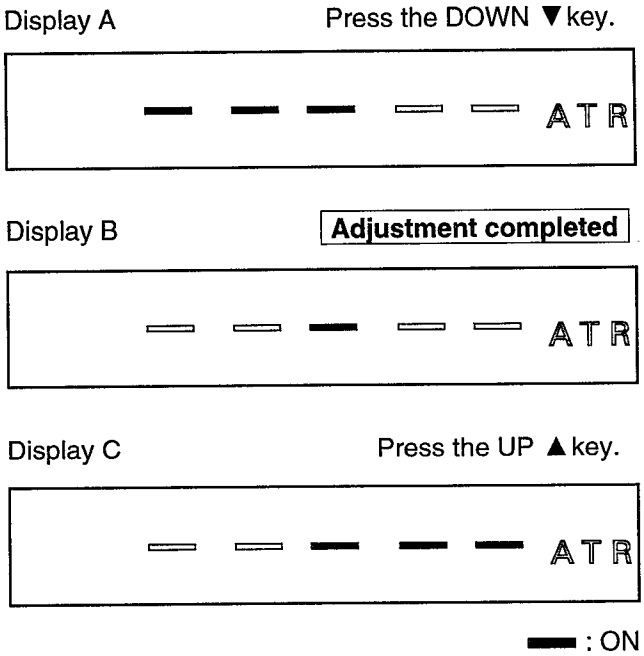


Figure 2

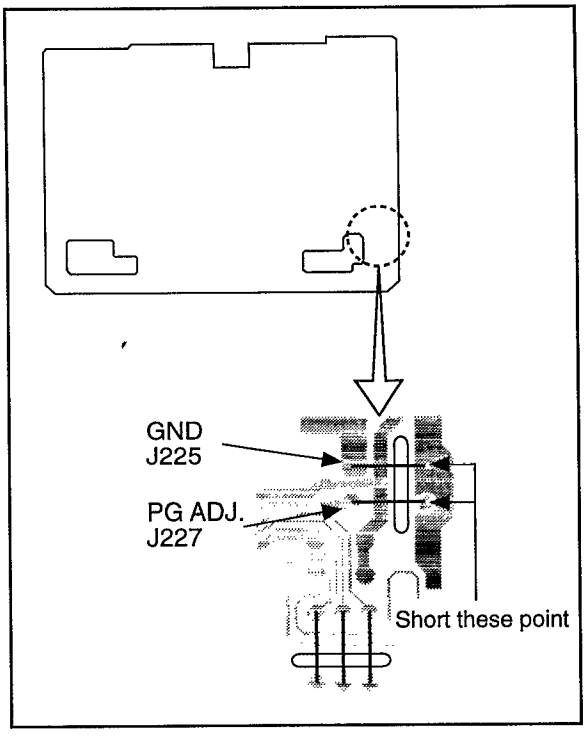
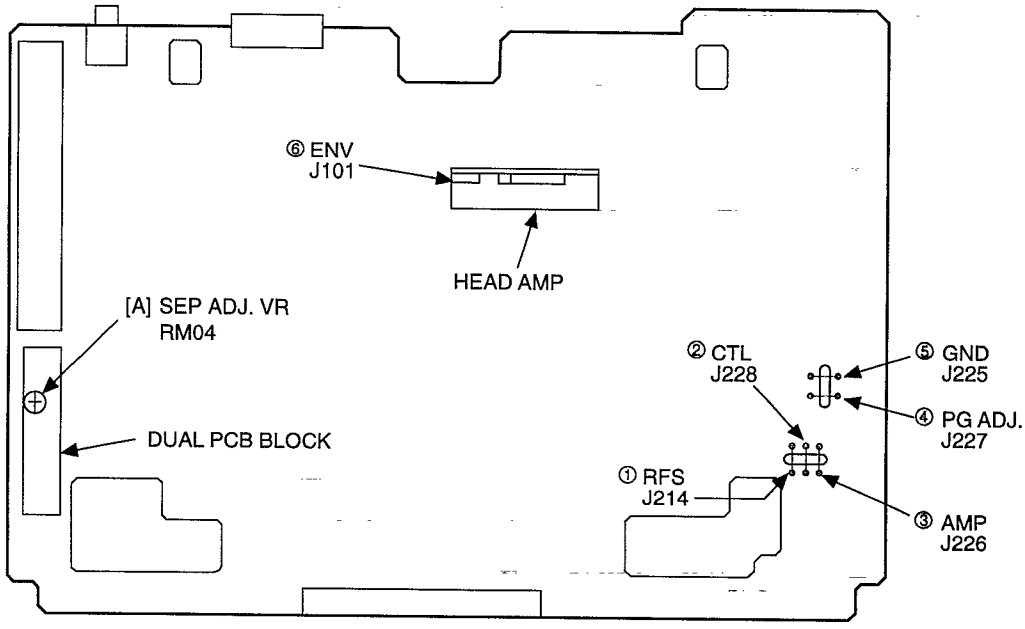


Figure 1

2. PCB ADJUSTMENT AND TEST POINTS

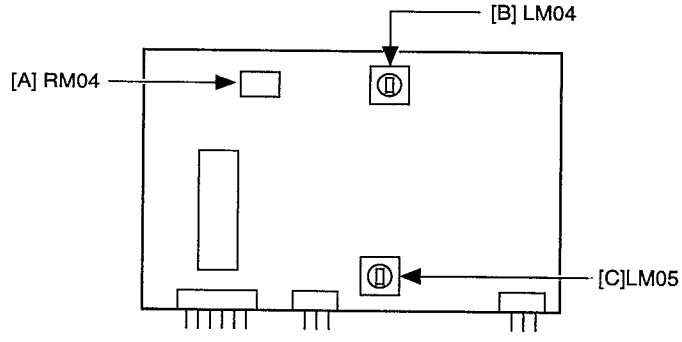
MAIN PCB



① J214 RFS TEST POINT
② J228 CTL TEST POINT
③ J226 AMP TEST POINT
④ J227 PG ADJ. TEST POINT
⑤ J225 GND TEST POINT
⑥ J101 ENV. TEST POINT

[A] RM04 (SEP-ADJ.) VOLUME
SEP-ADJ. SEMI-FIXED VOLUME

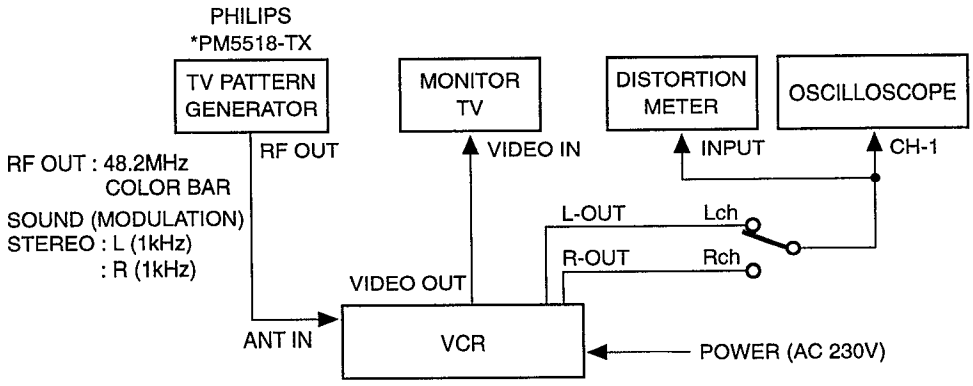
DUAL PCB BLOCK



[A] RM04 (SEP-ADJ.) VOLUME SEP-ADJ. SEMI-FIXED VOLUME
[B] LM04 (5.74M/Rch-ADJ.) R-ch-ADJ. SEMI-FIXED COIL
[C] LM05 (5.5M/Lch-ADJ.) Lch-ADJ. SEMI-FIXED COIL

3. AUDIO DISTORTION AND SEPARATION ADJUSTMENT (DUAL PCB)

Connections:



Settings:

- **PM5518-TX**
  - FREQUENCY : 48.25MHz (2ch)
  - PATTERN : COLOR BAR (PAL)
  - MODULATION : STEREO L (1kHz) / R (1kHz)

- **DISTORTION METER**
  - RANGE : 10mV

- **OSCILLOSCOPE**
  - TIME / DIV : 1ms / COUPLING : AC
  - VOLTS / DIV : CH-1 = 0.2V
  - PROBE : 1 : 1

Adjustment:

(1) Rch (Lch) AUDIO DISTORTION ADJUSTMENT
Receive a signal on 2ch (48.25MHz) and adjust the Semi-fixed coil LM04 (LM05) until the AUDIO OUT distortion is at its lowest level.
Make sure that the distortion level is less than 2%.

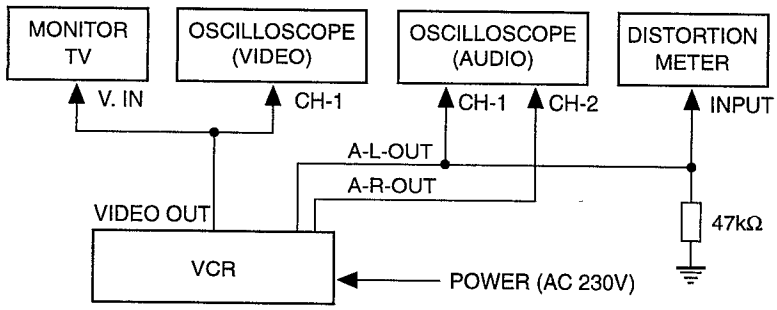
(2) SEPARATION ADJUSTMENT
Turn SG (PM5518-TX) MODULATION off for Rch only. Then adjust the Semi-fixed VOLUME RM04 for AUDIO OUT to reduce cross-talk to a minimum.
Make sure that the AUDIO OUT level for Lch at its lowest level.
Check that the SEPARATION level is 20dB or higher.

SEPARATION SPEC = 20dB or higher

* This service manual gives examples using the PM5518-TX that is available at the production factory. At service centers, use a TV Pattern Generator, such as, PM5518-TX (PHILIPS) or better, to perform the adjustment shown above.

4. Hi-Fi AUDIO PLAYBACK CHECK

Connections:



Settings:

- **OSCILLOSCOPE (VIDEO)**
  TIME / DIV : 10µs / COUPLING : TV-H
  VOLTS / DIV : 0.2V / PROBE : 1:1

- **OSCILLOSCOPE (AUDIO)**
  TIME / DIV : 0.5ms / COUPLING : AC
  VOLTS / DIV : CH-1=0.2V / CH-2=0.2V
  PROBE : 1 : 1

- **DISTORTION METER**
  LEVEL RANGE : 1V / DISTORTION : 10%

Mode : PLAY

Test Signal : PAL HiFi TEST TAPE
VIDEO (COLOR BAR) / AUDIO (Lch=1kHz / Rch=400Hz)

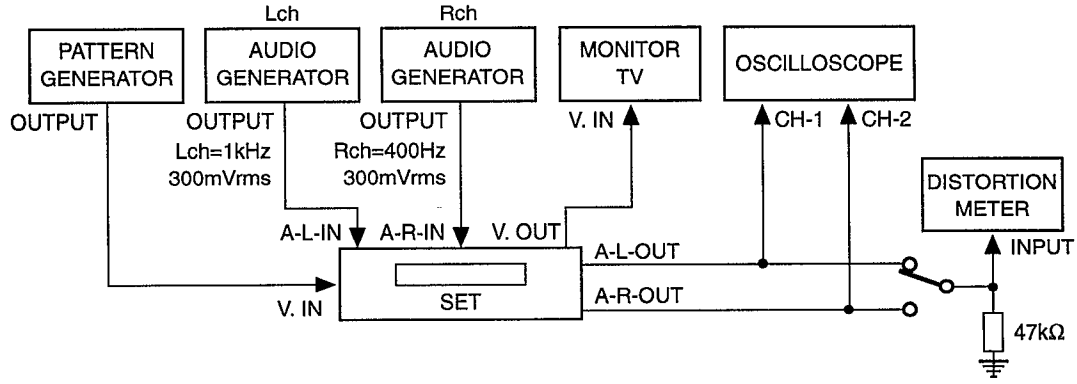
Measuring Equipment : TWO OSCILLOSCOPES
TV MONITOR
DISTORTION METER

Check Point : VIDEO = TV MONITOR
AUDIO = OSCILLOSCOPE
STEREO INDICATOR (LED)

Check Method : (1) Playback the prerecorded, PAL reference Hi-Fi TEST tape and check that the colour bar is displayed correctly.
(2) Check that the AUDIO output for Lch is 1kHz and check that the Rch output is 400Hz.
(3) Check that the STEREO INDICATOR (LED) L and R lamps light.

5. AUDIO SELF-RECORD AND PLAYBACK CHECK (NORMAL / Hi-Fi)

Connections:



Settings:

- **OSCILLOSCOPE**
  TIME / DIV : 1 ms
  VOLTS / DIV : CH-1=0.2V / CH-2=0.2V

- **AUDIO GENERATOR**
  Lch=1kHz / 300m Vrms / Rch=400Hz / 300m Vrms

- **PATTERN GENERATOR**
  PAL COLOR BAR

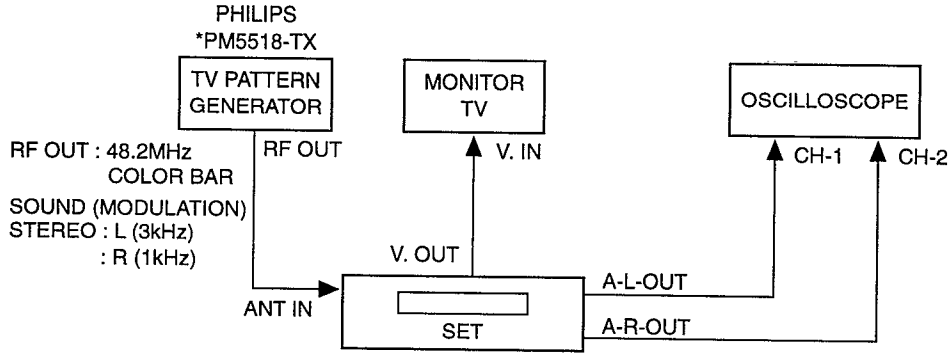
Mode : REC
Test Signal : VIDEO / PAL COLOR BAR
AUDIO / Lch=1kHz / Rch=400Hz
Measuring Equipment : OSCILLOSCOPE / TV MONITOR / PATTERN GENERATOR
TWO AUDIO GENERATOR
Check Point : VIDEO OUTPUT / AUDIO OUTPUT

Check Method : (1) Record the AUDIO Lch (1kHz) and Rch (400Hz) signals on a blank tape, or an old tape that can be erased.
(2) Playback the tape recorded in (1) and check that the sound is normal. Press the AUDIO SELECT key on the remote control and check that the Lch and Rch output for the STEREO IND. display is as shown below.

Key Press	STEREO INDICATOR		AUDIO OUTPUT	
	Lch	Rch	Lch	Rch
Initial	○	○	1kHz	400Hz
1st	○	×	1kHz	1kHz
2nd	×	○	400Hz	400Hz
3rd	×	×	1kHz + 400Hz	1kHz + 400Hz

6. STEREO AND DUAL FUNCTION CHECK

Connections:



Settings:

- **PM5518-TX**

  FREQUENCY : 48.25MHz (2ch)
  PATTERN : COLOR BAR (PAL)
  MODULATION : STEREO or DUAL L (3kHz) / R (1kHz)

- **OSCILLOSCOPE**

  TIME / DIV : 1ms / COUPLING : AC
  VOLTS / DIV : CH-1=0.2V / CH-2=0.2V
  PROBE : 1 : 1

Mode : TUNER 4CH

Test Signal : VIDEO / PAL COLOR BAR
AUDIO / STEREO Lch=3kHz / Rch=1kHz

Measuring Equipment : OSCILLOSCOPE / TV MONITOR / PM5518-TX

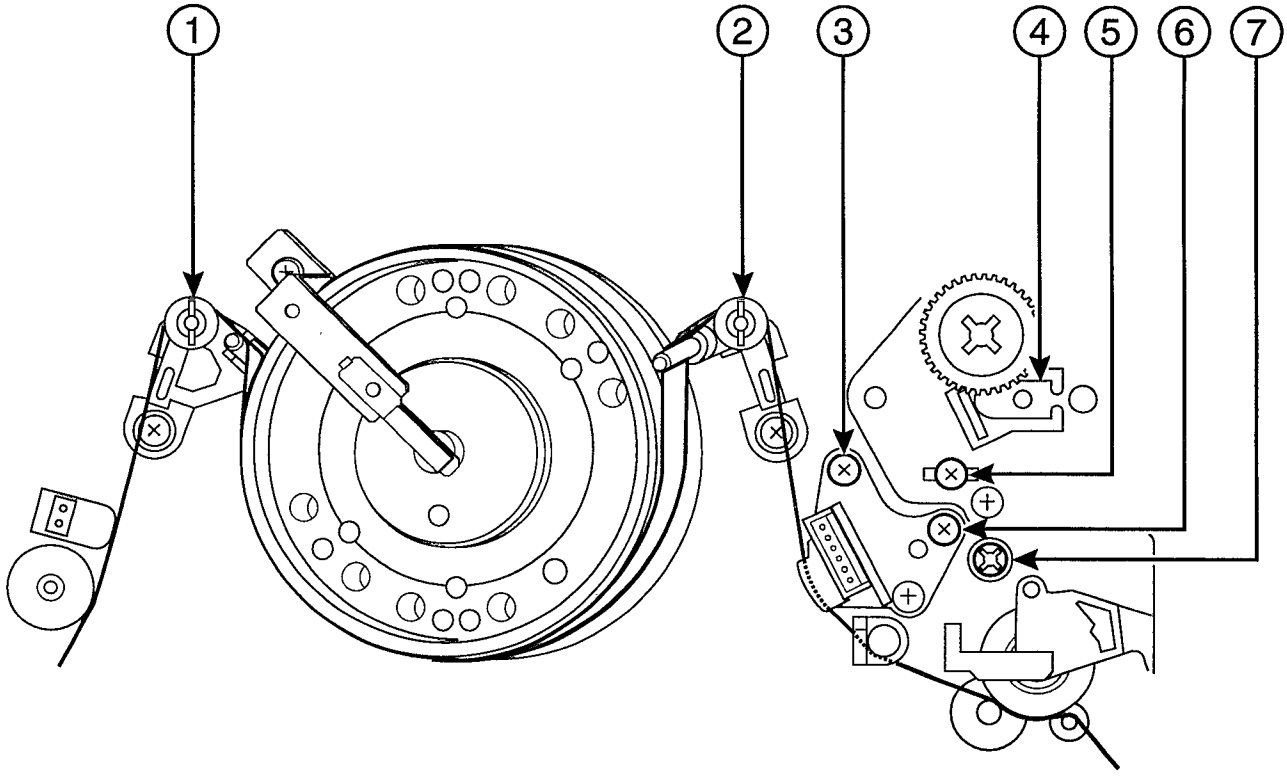
Check Point : AUDIO OUTPUT Lch / Rch

Check Method :
(1) Set the sound for PM5518-TX to STEREO and receive a signal on 2ch (48.25MHz). Check that STEREO appears on the OSD (for two seconds). Check that the AUDIO OUTPUT for Lch is 3kHz and check that the output for Rch is 1kHz. (Check that both the STEREO L and R lamps on the front panel are ON.)
(2) Set the sound for PM5518-TX to DUAL and receive a signal on 2ch (48.25MHz). Check that DUAL appears on the OSD (for two seconds). Check that the AUDIO OUTPUT for Lch is 3kHz and check that the output for Rch is 1kHz. (Check that both the STEREO L and R lamps on the front panel are ON.)

MECHANICAL ADJUSTMENT

DECK ADJUSTMENT POINTS

① FM Waveform (Envelope) entrance adjustment screw
② FM Waveform (Envelope) exit adjustment screw
③ Audio Azimuth adjustment screw
④ Control Head phase (X-value) adjustment point
⑤ Audio/CTL Head height adjustment screw
⑥ A/C Head tilt adjustment screw
⑦ RG Post height adjustment screw



1. MECHANISM CONTROL

The mechanism includes its own mode as well as the operation mode of the VCR as shown in the chart below. This mode *serves* an important function in working to protect the tape by passing through the VCR when the mode is switched over.

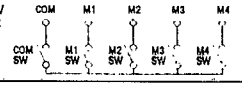
The movement of the mechanism mode is performed by the control signal of the loading motor's rotary control circuit. With this control, the operation mode position is detected by the Mode switch (4-bit mode data output), Cassetle In switch, tape top sensor and the tape end semsor which detects all modes of the mechanism.

1-1. MODE SW

The composition of the 4 terminals, COM DATA 1, 2, 3, 4, are treated as a 4 bit signal.

POSITION NO		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
POSITION NAME		EJECT		SI REW		ES	LOAD		REW		FF		STOP		PLAY		FI SLOW		CT		RI SLOW		REVERSE	
SWITCH ON/OFF TIMING WHITE=OFF BLACK=ON	M1 SW	■		■		■	■														■		■	
	M2 SW	■		■							■		■						■				■	
	M3 SW												■		■		■				■		■	
	M4 SW			■		■			■		■		■		■									
	COM SW	■		■		■	■		■		■		■		■		■		■		■		■	
POSITION CODE 1=OFF 0=ON	COM-M1	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1
	COM-M2	0	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	0	1
	COM-M3	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	0	1	0	1
	COM-M4	1	1	0	1	0	1	1	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1

MODE SW Equivalent Circuit



1-2. CONFIGURATION OF THE TN6500 VCR MECHANISM

1-2-1. Cassette Drive Mechanism

The cassette is loaded and ejected via the drive from the capstan motor.

(A) Detection of cassette insertion

When an cassette is inserted, the capstan motor starts and simultaneously causes the shutter on the main unit to break the light beam of the Tape Top Sensor. This capstan FG pulse and the Tape Top Sensor change cause the cassette to be pulled into the VCR.

(B) Detection of completed cassette insertion operation

This is detected by the Cassette Insertion Switch that is linked to the actuator activated when a cassette is inserted.

Note: The Cassette Insertion Switch is not included with the deck mechanism.

(C) Detection of completed cassette ejection operation

As above, this is detected by the shutter on the shutter detecting the change in the Tape Top Sensor. The light beam that is broken by cassette insertion/ejection is restored when the cassette has been ejected.

1-2-2. Tape Loading Mechanism

Tape loading mechanism is the mechanism that is loaded with the tape loading motor linked to the mode switch. The following actions occur when the 4-bit position code output from the mode detection switch is used.

(A) The tape is pulled out of the cassette and wound on the cylinder. (tape loading)

(B) The tape is returned to the cassette. (tape unloading)

(C) Function are switched so that each mechanism can operate.

1-2-3. Tape Transportation Mechanism

The tape is fed through the VCR by the action of the capstan, pinch roller and reel drive.

1-2-4. Motor

(A) Capstan Motor

The drives the capstan axle directly and also drives the reel that has been loaded on the belt. This motor is also used to drive the cassette loading mechanism.

(B) Tape Loading Motor

In addition to cassette loading/unloading, this motor also switched between the various operating modes(PLAY, FF/REW etc.)

(C) Cylinder Motor

Connected to the rotating head drum and drives the rotating head.

1-2-5. Safety Tab Sensor/Lever

This lever detects the tab that operates the REC SAFETY switch.

Note: This mechanism does not include the switch.

1-2-6. Mode Sensor Switch

This detects the 4-bit code before each position and is connected to the tape loading mechanism.

1-2-7. Take-up/Supply Reel Sensor Photoelectric Cell

A luminous diode and phototransister at the fixed position for the cell comprise the reel sensor. (Pulse rate=8pulses/rotation)

Note: This mechanism does not include the luminous diode or the phototransister.

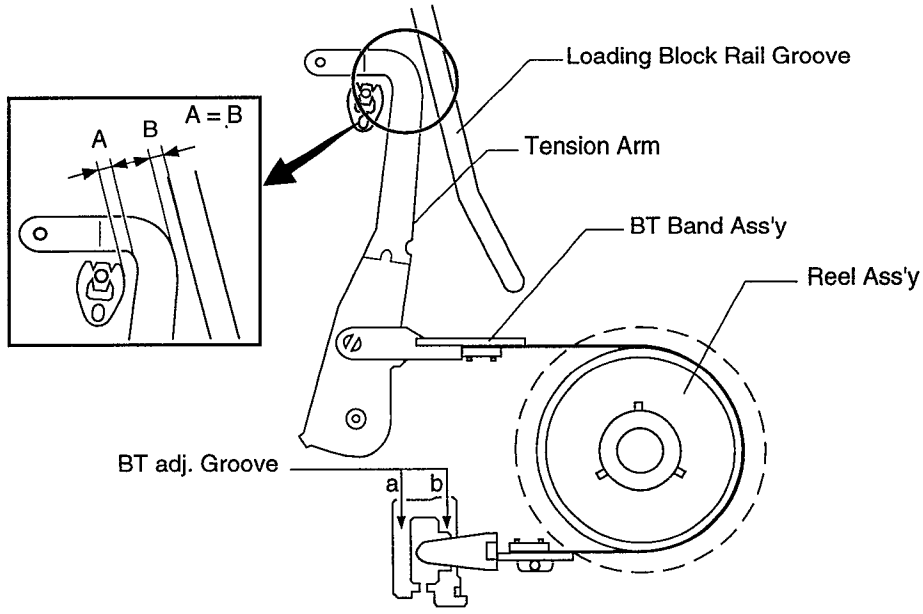
1-2-8. Tape Start/End Sensor Photoelectric Cell

A luminous diode and phototransister at the fixed position for the cell comprise the start/end sensor. (Pulse rate=8pulses/rotation)

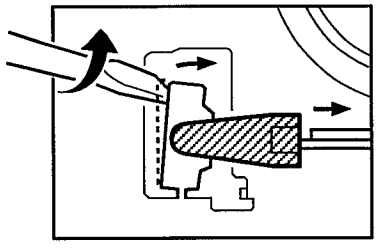
Note: This mechanism does not include the luminous diode or the phototransister.

2. ADJUSTMENT OF BT TORQUE IN PLAY MODE (ADJUSTMENT OF THE TENSION ARM POSITON)

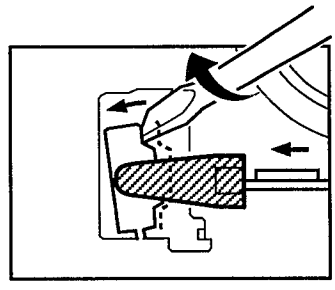
1. Remove the FL Ass'y.
2. Rotate the loading pulley with your finger until PLAY mode is reached.
3. Insert a standard screwdriver into the BT adjustment groove (a or b) of the main chassis. Twist the screwdriver left and right to adjust gap (A) and gap (B) so that they are the same.



- To reduce the gap (BT torque reduction), insert into adjustment groove "a" and twist counter-clockwise as shown in the figure below.



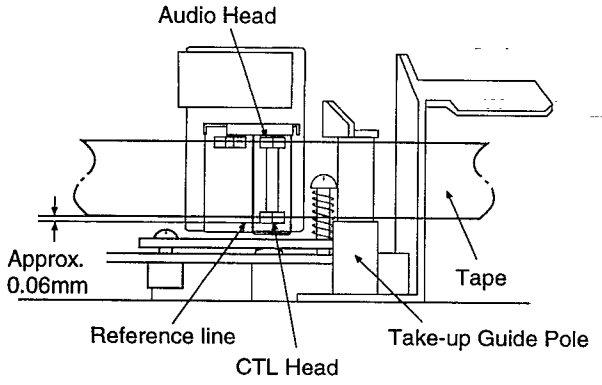
- To increase the gap (BT torque increase), insert into adjustment groove "b" and twist clockwise as shown in the figure below.



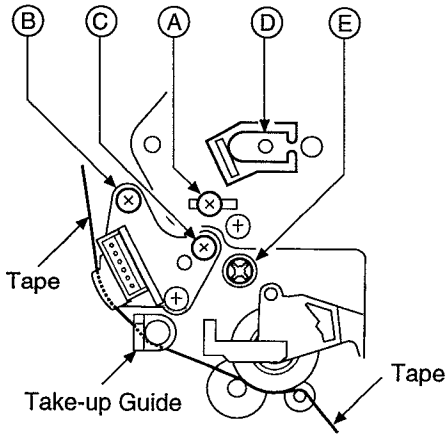
CAUTION: Do not twist at too much of an angle. Doing so will have adverse effects on other areas as well.

3. AUDIO/CTL HEAD

3-1. TAPE TRANSPORT ADJUSTMENT



Audio/CTL Head Adjustment



1. Using an ordinary cassette tape, set to CUE mode.
2. Turn screw Ⓒ and adjust for smooth transport at the take-up guide.

3-2. AUDIO/CTL HEAD HEIGHT AND AZIMUTH ADJUSTMENT

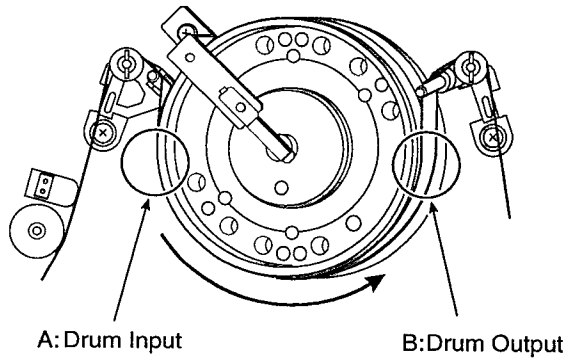
1. Connect the noise meter to the audio output.
2. Play the test tape (1 KHz color bar signal), turn screw Ⓐ back and forth a little at a time to set maximum audio output level. (Rotate in a clockwise direction to adjust the settings.)
3. Play the test tape, (8 KHz stair step signal), turn screw Ⓑ back and forth a little at a time to adjust the azimuth so that the audio output level will reach a maximum.
4. Play the test tape (1 KHz color bar signal), and make sure that there is no significant change in the audio output level. If a large change remains, turn screw Ⓒ back and forth a little at a time to adjust so that the level change will reach a minimum.
5. When all adjustment is finished, lock up screw Ⓑ.

4. TAPE TRANSPORT SYSTEM CHECKS AND ADJUSTMENT

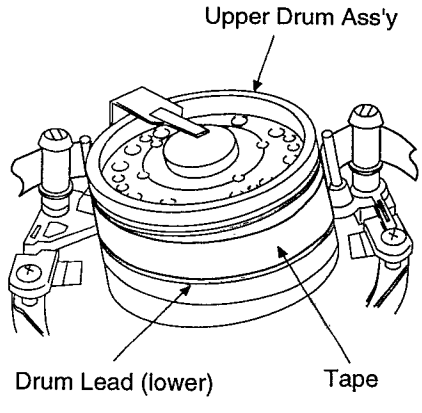
The tape transport system has been precisely aligned at the factory and normally does not require readjustment. The following steps are therefore necessary only in cases of frequent use or when replacing parts which have an effect on the tape transport system.

4-1. TAPE TRANSPORT CHECK

1. Using an ordinary cassette tape, switch back and forth between PLAY and STOP modes several times.
2. During PLAY mode, observe the input and output portions of the tape (A and B in the figure below) of the head drum lead. Confirm that the tape slips neither upward nor downward with respect to the lead as shown in Figure "Drum Lead Check-1".



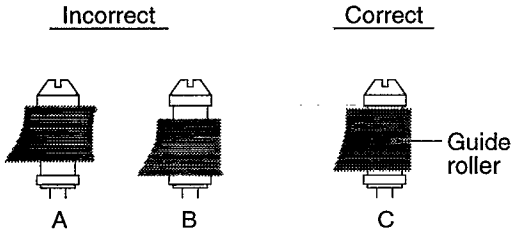
Tape Transport Check



Drum Lead Check-1

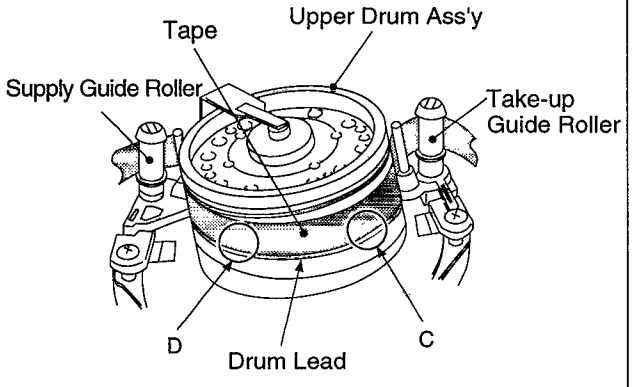
NOTES:

1. If the tape slips upward; sound is produced by contact between the tip of rotating heads and the edge of the tape.
2. If the tape slips downward; the tape curls or wrinkles (or makes noise) at its connection with the lead face of the drum lead.
3. During loading, play, and unloading of the cassette tape, observe the tape at the supply guide roller, and take-up guide roller.
4. Make sure that there are no curls or wrinkles as shown in the figure below.



Guide Roller

5. Observe the tape as it wraps around the drum during PLAY and separates from the drum during STOP.
6. As shown in the figure below, make sure that there is no damage to C and D and that there is no contact noise between the head tips and tape edge.

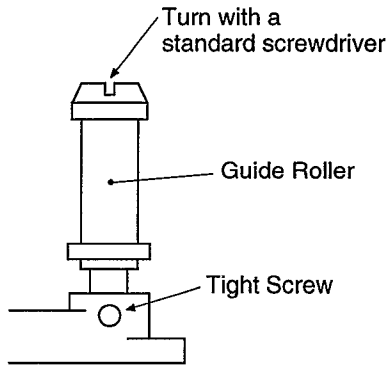


Drum Lead Check-2

7. If a defect is detected during check, perform the follwoing procedure for adjusting Guide Roller height.

4-2. GUIDE ROLLER HEIGHT ADJUSTMENT

1. Slightly loosen the tight-screw of the supply and take-up guide rollers as shown in the figure below.
2. Using an ordinary cassette tape, set to PLAY mode.
3. With a standard screwdriver, slightly turn the supply guide roller (no more than 180° at a time), and adjust so that at the drum input portion, the tape travels smoothly along the drum lead without slipping upwards or downwards.
4. Similarly, adjust the take-up roller for the drum output.



Adjusting Guide Roller Height

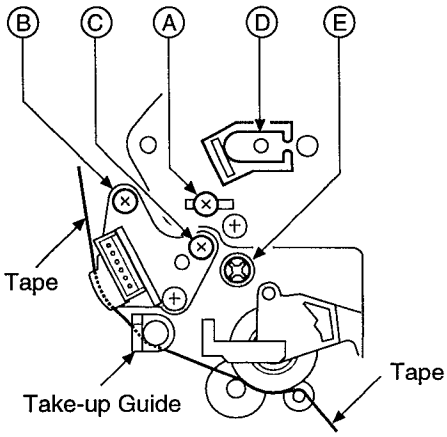
NOTES:

1. Loosen the tight-screw only enough to allow the guide rollers to be rotated. Loosening it anymore than that may rotate the roller inadvertently as a result of tape motion.
2. Rotate the roller carefully to avoid damage to the tape.
3. When the adjustment is completed, tighten the screw and set by locking up the screw.

4-3. TAPE TRANSPORT CHECK AT THE TAKE-UP GUIDE

In general, no adjustment will be necessary for the take-up guide. However, adjustments or checks will be necessary when replacing the Audio/CTL Head or parts affecting the tape transport system after a long period of operation.

1. Using an ordinary cassette tape, set to PLAY mode.
2. Turn Audio/CTL Head screw Ⓒ as shown in the figure below and adjust for smooth transport at the Take-up Guide.



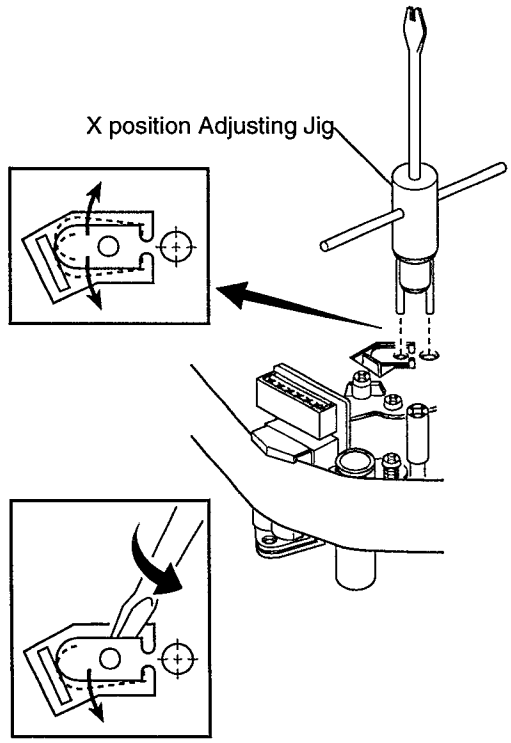
5. INTERCHANGEABILITY ADJUSTMENT

Before using the test tape, make sure that the tape transport is normal using an ordinary cassette tape. Also, make sure that the switching point (Refer to EA) is adjusted. If they are not, do the following checks after adjusting.

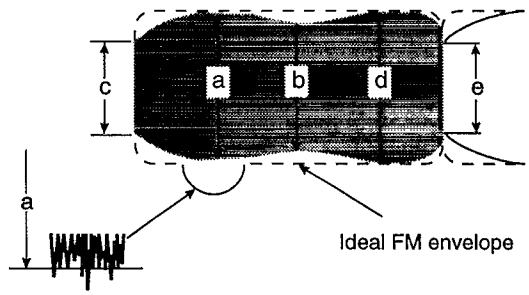
5-1. PRELIMINARY CHECKS

1. FM Envelope Waveform Check

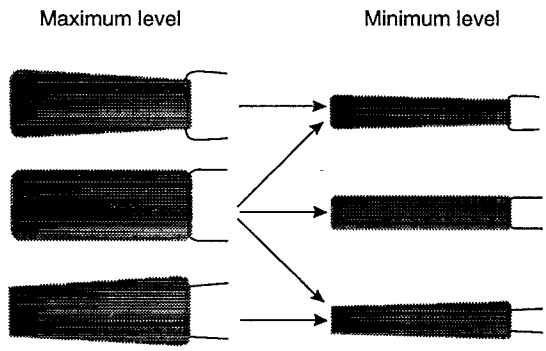
1. Connect the CH-1 oscilloscope to TP of PB ENV and CH-2 to TP of CTL. At this time, trigger the oscilloscope externally with the signal (RF Switching Pulse) from TP of RFS.
2. Play the test tape (Stairstep).
3. Use the Channel ▼/▲ buttons to tune the tracking to center position. Adjust point ④ (X value adjustment point: test point reference page 3) so that the FM envelope output at TP of PB ENV reaches a maximum.



4. Using the Channel ▼/▲ buttons. Perform the following 3 steps (5-7) by moving the TP of CTL waveform in both positive (+) and negative (–) directions in 3 ms increments.
5. Refer to the figure below. Read the level of portion (a) of the waveform. If the waveform is serrated at point (a), adjust the level so that the serrations are as smooth as possible (refer to the second figure).



FM Waveform (Maximum Output)



Normal Waveform Examples

6. As shown in the equation below, read the FM waveform value at point (b) and make sure that:

$$\frac{b}{a} \geqq 0.75 \text{ or } 20 \log \frac{b}{a} \geqq -2.5 \text{ dB}$$

7. Read the values at points (c) and (d) [drum input and output] and make sure that:

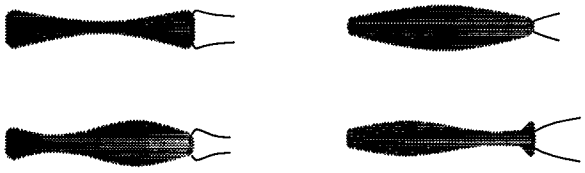
$$\frac{c}{a} \geqq 0.75 \text{ and } \frac{d}{a} \geqq 0.75 \text{ or}$$
$$20 \log \frac{c}{a} = -2.5 \text{ dB and}$$
$$20 \log \frac{e}{a} = -2.5 \text{ dB}$$

NOTES:

1. Read the minimum levels for (b), (c), and (d).
2. If above checks yield normal results, proceed to section "ADJUSTMENT".
3. If defects are noted, perform the following FM envelope waveform adjustment.

2. FM ENVELOPE WAVEFORM ADJUSTMENT

1. As in the previous section, observe the FM waveform and press the CHANNEL ▼/▲ buttons. Waveform alterations must be nearly parallel to each other as shown in Figure "Normal Waveform Examples" on page 14.
2. If the waveform changes as shown in the figure below, adjustment is necessary.



Abnormal Waveform Example

5-2. ADJUSTMENT

1. Connect the TP of PB ENV to the oscilloscope CH-1. At this time, trigger the oscilloscope externally with the signal (RF Switching Pulse) from TP of RFS.
2. Play the test tape (Stairstep).

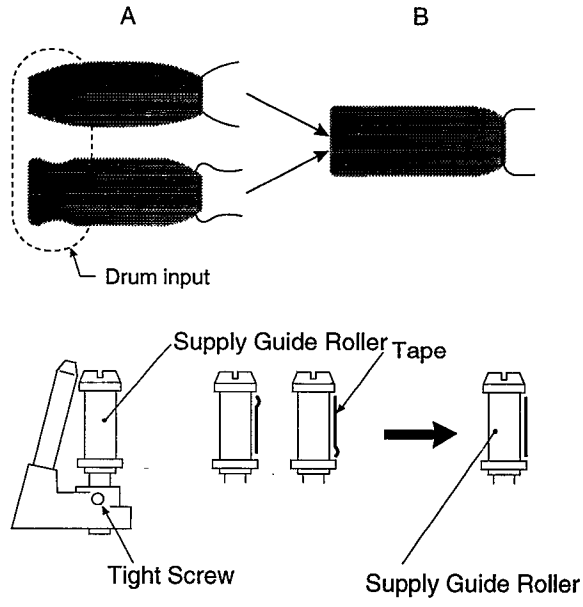
1. DRUM INPUT ADJUSTMENT

1. Observe the FM envelope output wave at the TP of PB ENV with the oscilloscope and press the CHANNEL ▼/▲ buttons in both positive (+) and negative (–) directions.
2. A of the following figure shows incorrect waveforms. With a standard screwdriver, adjust the transport guide roller to flatten the peak of the FM envelope waveform as shown in B.

NOTES:

1. If the guide roller rotates freely, tighten the screw slightly.
2. Be sure to adjust the guide roller only by small increments at a time to avoid damaging the test tape.

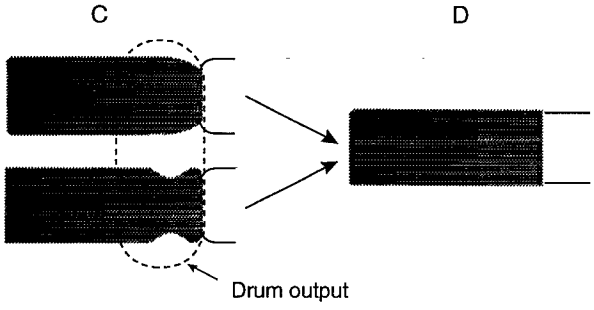
   In addition to observing the waveform, make sure that there is no slipping of the tape or curling at the drum lead.



Drum Input Adjustment

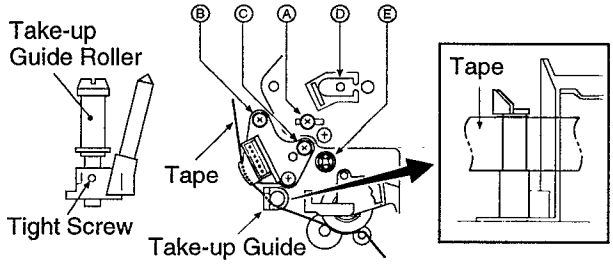
2. DRUM OUTPUT ADJUSTMENT

1. Adjust the take-up guide roller so that the FM envelope output flattens as shown in D of the figure below.



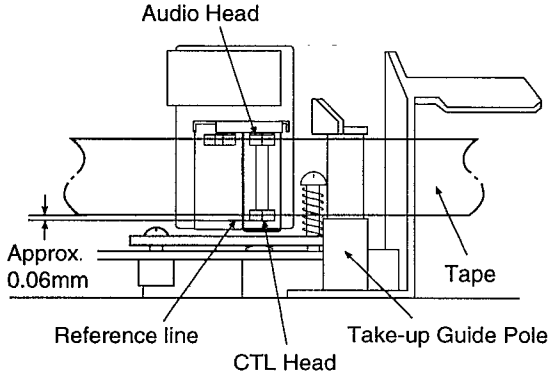
Drum Output Adjustment

2. If the tape separates from the guide or wrinkling occurs at the take-up guide, adjust by turning screw Ⓒ of the Audio/CTL Head as shown in the figure below.



Take-up Guide

3. As shown in the figure below, adjust screws Ⓑ and Ⓒ and screw Ⓐ to align the Audio/CTL Head height with the tape.



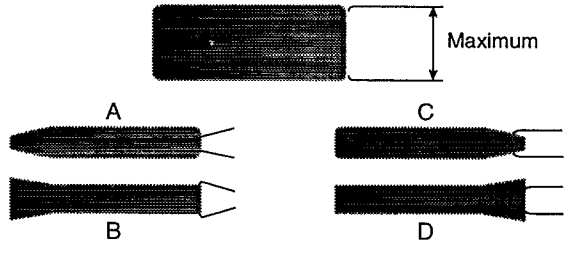
Audio/CTL Head Height

NOTES:

1. Fine adjustments are not required at this time. It is sufficient if the tape is engaged with the guide and that the servo operates properly (control signal picked up).
2. If the tape separates from the take-up guide or wrinkling occurs, screw Ⓒ must have been excessively tightened with respect to screw Ⓐ and screw Ⓑ, which is causing the Audio/CTL Head to incline forward or backward. Use care in adjusting screws Ⓑ and Ⓒ, and screw Ⓐ evenly and observe that wrinkles are not produced at the take-up guide.

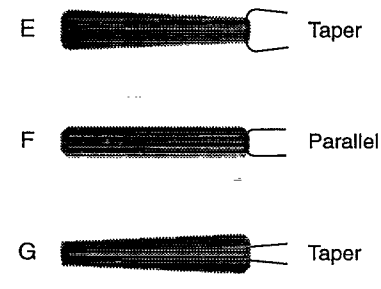
5-3. INTERCHANGEABILITY ADJUSTMENT

1. Observe the FM envelope output waveform at the oscilloscope and press to adjust the CHANNEL ▼ / ▲ buttons in both positive(+) and negative(–) directions.



Minimum FM Output (Incorrect Examples)

2. If there are waveforms as shown in A or B in the above figure, adjust the supply guide roller height so that the waveform appears as shown by E, F, or G in the figure below. At this time, if the waveform fluctuates, adjust to the point of minimum fluctuation.



Minimum FM Output (Correct Examples)

3. If the FM waveform appears as shown by C or D in the above figure, adjust the take-up guide roller height to obtain a waveform such as shown in E, F, or G.

   At this time, if the waveform fluctuates, adjust to the point of minimum fluctuation.

4. Vary the tracking control from maximum to minimum FM output.

   Perform fine adjustment of supply and take-up guide rollers so that waveform variation appears as shown in E, F, or G.

5-4. AUDIO/CTL HEAD HEIGHT, AZIMUTH AND SLANT

Refer to 3-2 (page 12) for details regarding AUDIO/CTL HEAD HEIGHT AND AZIMUTH ADJUSTMENT.

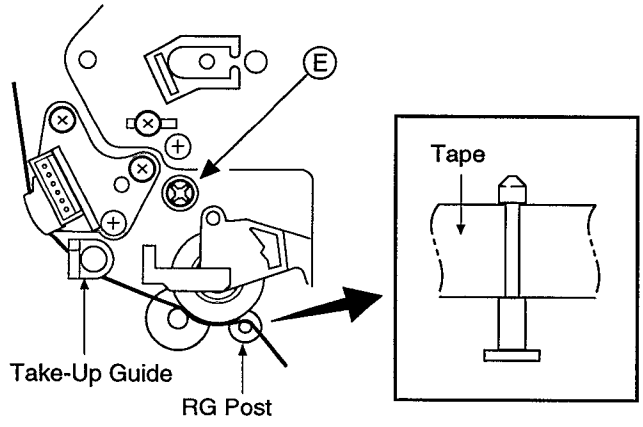
5-5. SETSCREW TIGHTENING

1. Check for maximum FM output waveform, maximum audio output, and be sure that there is no wrinkling on the tape or other transport irregularities. When finished, secure the guide rollers. (This must be performed in STOP mode.)
2. Because the guide rollers are easily moved, use care when securing.
3. After tightening the screws, perform the final interchangeability check.

5-6. FINAL INTERCHANGEABILITY CHECK

Perform preliminary checks referring to section "5-1. PRELIMINARY CHECKS" on page 14.

6. RG POST HEIGHT ADJUSTMENT



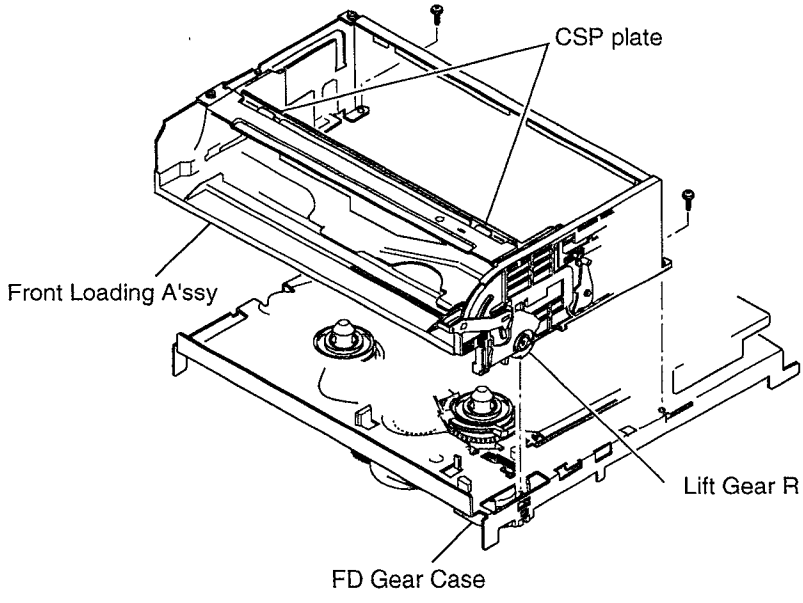
1) Use a blank tape and set the VCR to REV mode.
2) Adjust the RG Post height adjusting screw Ⓔ so that the tape runs along the lower flange of the Take-Up Guide.

7. FRONT LOADING ASSEMBLY ATTACHMENT

To attach the Front Loading Assembly, follow the procedures below.

1) Twist the loading motor with your finger until it is in EJECT mode.
2) Twist the FD Pinion Gear counterclockwise until it stops. (The FD Face Gear is loose.)
3) Twist the FD face Gear counterclockwise until it stops, then apply gentle pressure in the counterclockwise direction.
4) In the position at step 2) , rotate the FD Pinion Gear clockwise. After about 3 1/2 turns, the FD Pinion Gear should begin to interlock with the FD Relay Gear. Now twist the FD Pinion Gear until it stops. (The assembly should now resemble Fig. 2)
5) Twist the FD Pinion Gear about 1/3 of a turn counterclockwise so that the Lift Gear R attachment position is horizontal making attachment easier, as shown in Fig. 3. Also, the FD Relay Gear and FD Face Gear eye marks should be aligned when the MD is viewed from the back. (Fig. 4)
6) Attach the front assembly.
   Insert the first Lift Gear R between the first and second gear of the front assembly. (Fig. 3)

Note: Do not touch the CSP plate of the Front Loading Assembly. (Take care not to distort it.)



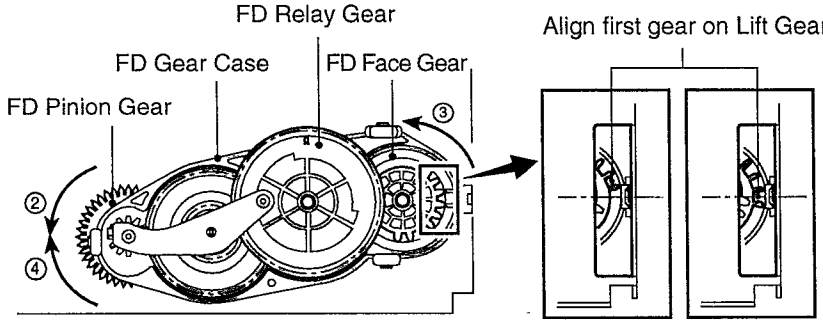


Fig. 1 View from above the FD

Fig. 2

Fig. 3

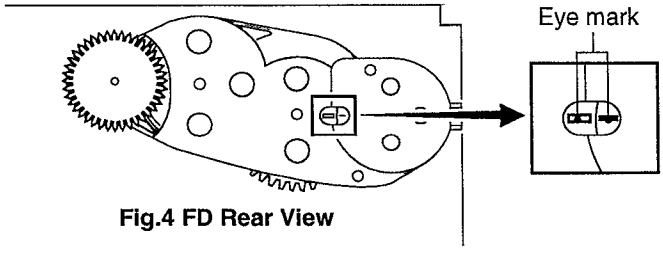


Fig.4 FD Rear View

PERIODIC MAINTENANCE

The following procedures are recommended for maintaining optimum performance and reliability of this video cassette recorder.

CLEANING

For cleaning, use a lint-free cloth or gauze dampened with alcohol.

TAPE TRANSPORT SYSTEM

1. The following components should be cleaned after every 500 hours of use.
   - Impedance Roller
   - Tension Post
   - Transport Slide Post
   - Supply Guide Roller
   - Take-up Slide Post
   - Take-up Guide Roller
   - Video Head & Drum System
   - Drum Ground
   - Drum Motor Shaft
   - Audio/CTL Head
   - Pinch Roller
   - Capstan
   - Reverse Guide Post
   - Full Erase Head
   - Tape Guide
   - F Post
2. Since the above parts come in direct contact with video tape, they tend to collect dust particles. If allowed to accumulate, dust may lead to damage to the video tape and above parts.
3. After cleaning with alcohol, allow the parts to dry thoroughly before using a cassette tape.

NOTE:

- When cleaning the two video heads on the upper drum, do not clean them with a vertical stroke.
- Use only a gentle back and forth motion in the direction of the tape path.

REEL DRIVE SYSTEM

1. The following components should be cleaned after every 1000 hours of use.

TOP

- Take-up Reel Table Ass'y
- Supply Reel Table Ass'y
- T Soft Brake Ass'y
- T Main Brake Ass'y
- S Main Brake Ass'y
- BT Band Ass'y

BOTTOM

- Capstan Motor Pulley
- Clutch Pulley
- Drive Belt
- C Brake

2. The above revolving parts are of rubber or come in direct contact with rubber parts. Dust on rubber accumulates and interferes with proper operation.
3. Avoid using excessive alcohol when cleaning rubber parts.

SERVICE SCHEDULE FOR MAIN COMPONENTS

The following table lists the parts which should receive periodic servicing at the recommended intervals.

59306

Ref. No	Part No.	Description	Periodic Service Schedule (operating hours)				
			1000	2000	3000	4000	5000
1	62D806501610	Cylinder Ass'y	○	●	○	●	○
90	62D806506301	Pinch Roller Arm Ass'y		●		●	
116	62D806508303	BT Band Ass'y		●		●	
128	62D806509302	Clutch Ass'y		●		●	
131	62D80650920	Drive Belt		●		●	
132	62D806510301	T Main Brake Ass'y		●		●	
133	62D806510302	S Main Brake Ass'y		●		●	
134	62D806510303	T Soft Brake Ass'y		●		●	
61	62D62041520	Audio/CTL Head			●		
80	62D806505301	T Reel Ass'y			○		
81	62D806505302	S Reel Ass'y			○		
100	62D60030360	Capstan Motor Ass'y			○		
142	62D806511303	Loading Motor Ass'y			○		

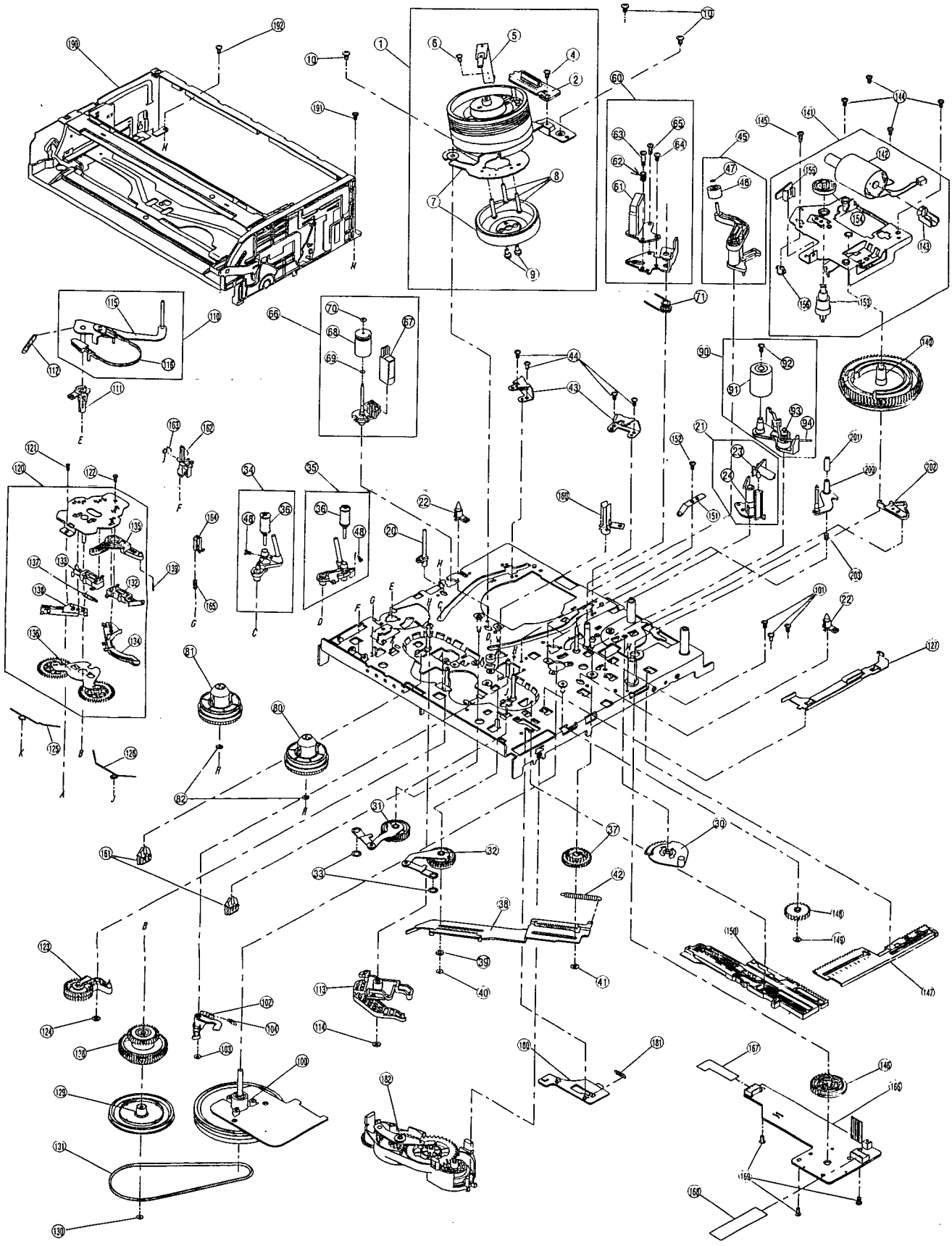
Standard Service Periods

○ Check and replace if necessary
● Replace

NOTE:
Cleaning and replacement of the belts should be undertaken every 2 years even if the unit is not used frequently.

SERVICING DIAGRAM AND PARTS LIST

1. CASSETTE DECK ASSEMBLY



CASSETTE DECK MECHANISM 59306

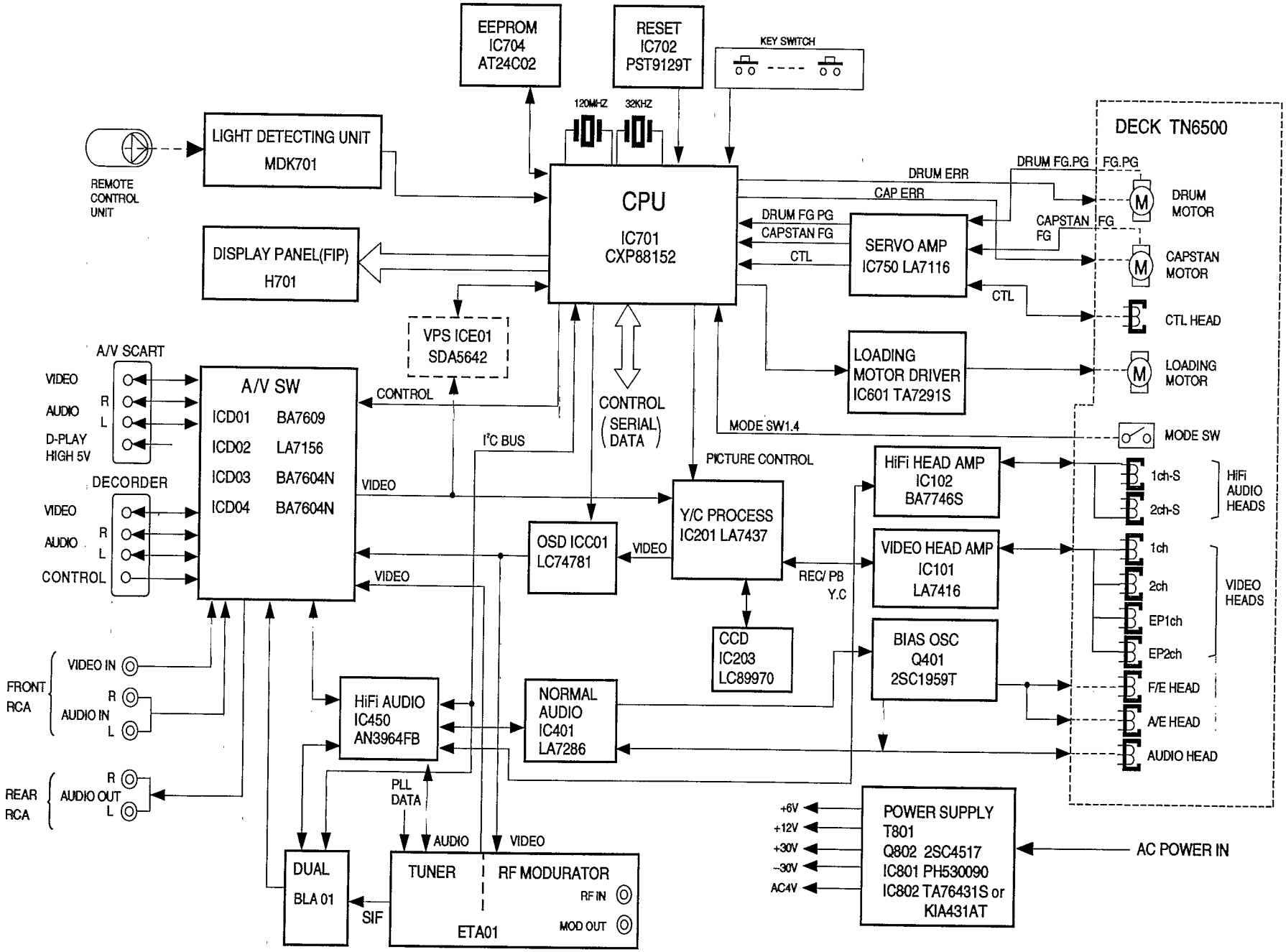
Ref. No.	Part No.	Description
1	62D806501610	CYLINDER ASS'Y
2	62D806501312	V OUT PWB ASS'Y
4	62D9P1226064	TAMS SCREW, 2.6X6MM
5	62D806501501	DRUM EARTH ASS'Y
6	62D9P0426041	TAPPING SCREW, 2.6X4MM
7	62D806501316	DRUM MOTOR ASS'Y
8	62D9P0226151	TAMS SCREW 2.6X15
9	62D806501315	ROTOR SCREW ASS'Y
10	62D9P0430051	TAPPING SCREW 3.0X5
20	62D806502301	F POST METAL ASS'Y
21	62D806502303	TAPE GUIDE BASE ASS'Y
22	62D80630223	CASSETTE GUIDE BOSS
23	62D80650221	TAPE PROTECT
24	62D806502304	TAPE GUIDE ASS'Y
30	62D806503502	LOADING LEVER KASIME
31	62D806303305	LOADING PLATE L ASS'Y
32	62D806503305	LOADING PLATE R ASS'Y
33	62D9W0650110	HL WASHER, 4.5X7X0.5 (CUT)
34	62D806503303	L BLOCK L ASS'Y
35	62D806503304	L BLOCK R ASS'Y
36	62D80630309	ROLLER POST
37	62D80650304	LOADING GEAR
38	62D80650305	L GEAR PLATE
39	62D80650311	L GEAR PLATE COLLOR
40	62D9W0250100	P. WASHER, 2.1X5X0.5 (CUT)
41	62D9W0250110	P. WASHER, 2.6X6X0.5 (CUT)
42	62D80650310	L GEAR PLATE SPRING
43	62D80650301	LD CATCHER
44	62D9P0426051	SCREW, 2.6X5MM
45	62D806503306	HEAD CLEANING ASS'Y
46	62D80630329	CLEANING ROLLER ASS'Y
47	62D9W0230050	P. WASHER, 1.6X3.8X0.3 (CUT)
48	62D9C1720233	CAMERA SCREW 2X2.3MM
60	62D806504302	ACE HEAD BASE ASS'Y
61	62D62041520	ACE HEAD HVMZA1220
62	62D80000604	AZIMUTH SPRING
63	62D80000626	AZIMUTH SPRING SCREW
64	62D9P0930061	SCREW, 3X6MM (FIXING)
65	62D9P0126072	SCREW, 2.6X7MM
66	62D806504301	FE HEAD BASE ASS'Y
67	62D62091504	VTR1X2ERS11107
68	62D806304306	IMPEDANCE ROLLER ASS'Y
69	62D9W0230050	P. WASHER, 1.6X3.8X0.3 (CUT)
70	62D9W0630040	HL WASHER, 1.55X4.5X0.3 (CUT)
71	62D80650402	HEAD BASE SPRING

CASSETTE DECK MECHANISM 59306

Ref. No.	Part No.	Description
80	62D806505301	T REEL ASS'Y
81	62D806505302	S REEL ASS'Y
82	62D9W0330110	NYLON WASHER 2.5X5X0.3
90	62D806506301	PINCH ROLLER ARM ASS'Y
91	62D80650605	PINCH ROLLER
92	62D9B0126041	SCREW,2.6X4MM
93	62D806506501	PINCH ROLLER KASIME
94	62D80650604	PINCH ROLLER SPRING
100	62D60030360	CAPSTAN MOTOR (F2QTB10)
101	62D9P0726061	TAPPING SCREW P 2.6X6
102	62D806507301	C BRAKE ASS'Y
103	62D9W0250100	P. WASHER, 2.1X5X0.5 (CUT)
104	62D80650702	C BRAKE SPRING
110	62D806508301	TENSION ARM ASS'Y
111	62D80630804	BT ARM METAL
112	62D80650802	BT SPRING
113	62D80650806	BT LEVER
114	62D9W0250110	P. WASHER, 2.6X6X0.5 (CUT)
115	62D806508302	TENSION ARM SEMI ASS'Y
116	62D806508303	BT BAND ASS'Y
120	62D806509303	SUB PLATE ASS'Y
121	62D9C0426503	CAMERA SCREW(TAPPING)S 2.6X5
122	62D9P0420041	TAPPING SCREW 2.0X4
123	62D806509304	RF CLUTCH ASS'Y
124	62D9W0250110	P. WASHER, 2.6X6X0.5 (CUT)
125	62D80651009	SS BRAKE SPRING
126	62D80651007	TS BRAKE SPRING
127	62D80651010	TS BRAKE LEVER
128	62D806509302	CLUTCH ASS'Y
129	62D806509301	CLUTCH PULLY ASS'Y
130	62D9W0230060	P. WASHER, 2.1X5X0.3 (CUT)
131	62D80650920	DRIVE BELT
132	62D806510301	T MAIN BRAKE ASS'Y
133	62D806510302	S MAIN BRAKE ASS'Y
134	62D806510303	T SOFT BRAKE ASS'Y
135	62D80651113	REVERSE LEVER
136	62D806509307	GEAR PLATE ASS'Y
137	62D80651005	MAIN BRAKE SPRING
138	62D80651008	S SOFT BRAKE ARM
139	62D80651114	REVERSE LEVER PIN
140	62D806511302	CAM GEAR ASS'Y
141	62D806511301	CAM PLATE ASS'Y
142	62D806511303	LOADING MOTOR ASS'Y
143	62D80651111	MOTOR HOLDER
144	62D9P0226051	TAMS SCREW 2.6X5

CASSETTE DECK MECHANISM 59306

Ref. No.	Part No.	Description
145	62D9F2226081	ADJUST SCREW 2.6X8
146	62D80651104	M GEAR
147	62D806511305	M GEAR PLATE ASS'Y
148	62D80651107	M RELAY GEAR
149	62D9W0630100	HLW(C) 2.6X6X0.3
150	62D80651108	M SLIDE PLATE
151	62D80651117	R LEVER SPRING PLATE
152	62D9P0426051	SCREW, 2.6X5MM
153	62D80651103	CAM DRIVE GEAR
154	62D80651110	WORM WHEEL
155	62D80651115	OPEN ANGLE
156	62D80651116	AH ADJUST NUT
160	62D80651301	OPTICAL LEADER
161	62D806513303	RS LEADER
162	62D80651304	REC SWITCH LEVER
163	62D80651305	REC LEVER SPRING
164	62D80651306	IN SWITCH SLIDER
165	62D80651307	IN SW SLIDER SPRING
166	62D806513302	BASE PWB ASS'Y
167	62D80651311	DM LEAD PWB
168	62D80651312	CM LEAD PWB
169	62D9P0426051	SCREW, 2.6X5MM
180	62D80651509	FD SLIDE PLATE
181	62D80651510	FD SLIDE PLATE SP
182	62D806515301	FD GEAR CASE ASS'Y
190	62D806516301	FRONT LOADING ASS'Y
191	62D9B0326051	SCREW, 2.6X5MM
192	62D9P0426051	SCREW, 2.6X5MM
200	62D806517501	RG ARM KASIME
201	62D80651703	RG ADJUST NUT
202	62D80651704	RG LEVER
203	62D80651705	RG ARM SPRING


EEPROM
IC704
AT24C02
RESET
IC702
PST9129T
KEY SWITCH
120MHZ
32KHZ
LIGHT DETECTING UNIT
MDK701
REMOTE
CONTROL
UNIT
CPU
IC701
CXP88152
DECK TN6500
DRUM ERR
CAP ERR
DRUM FG PG
CAPSTAN FG
CTL
DRUM FG.PG
FG.PG
CAPSTAN FG
SERVO AMP
IC750 LA7116
DRUM
MOTOR
CAPSTAN
MOTOR
CTL HEAD
DISPLAY PANEL(FIP)
H701
VPS ICE01
SDA5642
LOADING
MOTOR DRIVER
IC601 TA7291S
LOADING
MOTOR
A/V SCART
VIDEO
AUDIO
R
L
D-PLAY
HIGH 5V
A/V SW
ICD01 BA7609
ICD02 LA7156
ICD03 BA7604N
ICD04 BA7604N
CONTROL
I²C BUS
CONTROL
(SERIAL)
DATA
MODE SW1.4
MODE SW
PICTURE CONTROL
DECORDER
VIDEO
AUDIO
R
L
CONTROL
VIDEO
OSD ICC01
LC74781
Y/C PROCESS
IC201 LA7437
REC/ PB
Y.C
HiFi HEAD AMP
IC102
BA7746S
1ch-S
2ch-S
HiFi
AUDIO
HEADS
VIDEO HEAD AMP
IC101
LA7416
1ch
2ch
EP1ch
EP2ch
VIDEO
HEADS
CCD
IC203
LC89970
BIAS OSC
Q401
2SC1959T
F/E HEAD
A/E HEAD
AUDIO HEAD
FRONT
RCA
VIDEO IN
R
AUDIO IN
L
HiFi AUDIO
IC450
AN3964FB
NORMAL
AUDIO
IC401
LA7286
REAR
RCA
R
AUDIO OUT
L
PLL
DATA
AUDIO
VIDEO
DUAL
BLA 01
SIF
TUNER
RF MODURATOR
RF IN
MOD OUT
ETA01
+6V
+12V
+30V
-30V
AC4V
POWER SUPPLY
T801
Q802 2SC4517
IC801 PH530090
IC802 TA76431S or
KIA431AT
AC POWER IN

3. TERMINOLOGY REFERENCE

The following terms have been changed as a result of the use of a new CAD system.

Description	Ref. No.	CAD Code
♦ IC	IC101	LA3373, MT No Connection Description (LA3373) **Circuit Ref. Number** Head Name
♦ Transistor	Q101	2SC2785T. E. F Rank No Connection Description (2SC2785) **Circuit Ref. Number** Head Name
♦ Diode	D101	1S2835T No Connection Description (1S2835) **Circuit Ref. Number** Head Name
♦ Resistor	R101	RC102F Tolerance F: ±1 % G: ±2 % J: ±5 % (No Mark) K: ±10% M: ±20% H: No Connection Resistance (10 x 10^2 = 1000 ohms) Carbon Resistor 1/6W **Circuit Ref. Number** Head Name
	R102	RA1R1 Resistance (1.1 ohm) Decimal Point Mark Chip Resistor 2125 Type 1/10W
♦ Capacitor (Chip)	C101	CA200C Temperature Characteristic C: CH, CJ, CK U: UJ S: SL B: B D: D **Capacitance (20 x 10^0 = 20pF)** Chip Capacitor 2125 Type **Circuit Ref. Number** Head Name
♦ Capacitor (Ceramic)	C101	SL1R5H or S or Z No Connection **Capacitance (1.5pF)** Decimal Point Mark Characteristic (Ceramic SL)
♦ Capacitor (Electrolytic)	C101	ES1/50H or F or Z No Connection Voltage Proof (50V) **Capacitance (1μF)** Electrolytic SSM Type
♦ Hybrid IC	IC102	HIC* * * * * *
♦ CR Component	CR101	CR* * * * * *
♦ In-Line Block	IB101	IB* * * * * *
♦ Surge Absorber	D102	Z* * * * * *
♦ LED	LD101	LED* * * * * *
♦ LCD	H101	LCD* * * * * *
♦ FIP	H102	FIP* * * * * *
♦ Pilot Lamp	PL101	PL* * * * * *
♦ Neon Bulb	NE101	NE* * * * * *
♦ Trimmer Cap.	C102	CT* * * * *
♦ CFC Assy	C103	CFC* * * * *
♦ Coil	L101	L* * * * * *
♦ Filter	F101	F* * * * * *

♦ Hybrid IC	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ CR Component	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ In-Line Block	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ Surge Absorber	Code No. (3 ~ 8 Column → 13* * * * * *0)
♦ LED	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ LCD	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ FIP	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ Pilot Lamp	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ Neon Bulb	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ Trimmer Cap.	Code No. (5 ~ 9 Column → 1591* * * * *)
♦ CFC Assy	Code No. (5 ~ 9 Column → 1501* * * * *)
♦ Coil	Code No. (3 ~ 8 Column → 17* * * * * *0)
♦ Filter	Code No. (3 ~ 8 Column → 17* * * * * *0)

Description	Type	Capacitance Limit	No Marked Tolerance
Chip	CK, CJ, CH, UJ CH, UJ CH, SL SL, B D	1PF ~ 5PF 6PF ~ 10PF 12PF ~ 470PF 680PF ~ 0.022μF 0.033μF ~ 0.1μF	C (±0.25PF) D (±0.5PF) J (±5%) K (±10%) M (±20%)
Ceramic	General B	1PF ~ 5PF 6PF ~ 10PF 12PF ~ 270PF 100PF ~ 680PF	C D J K
Semi-Conductor	SR BC	0.001μF ~ 0.068μF 0.1μF ~ 0.2μF	K Z (–20% ~ +80%)
Mylar (M)		0.001μF ~ 0.1μF	J
TF		0.1μF ~ 0.47μF	J
PS, NPS		470PF ~ 1000PF	G (±2%), J
ALSICON (AS)		0.1μF ~ 0.22μF	M
Tantalum (TA)		0.15μF ~ 10μF	M
Electrolytic	General	0.1μF ~ 220μF	M

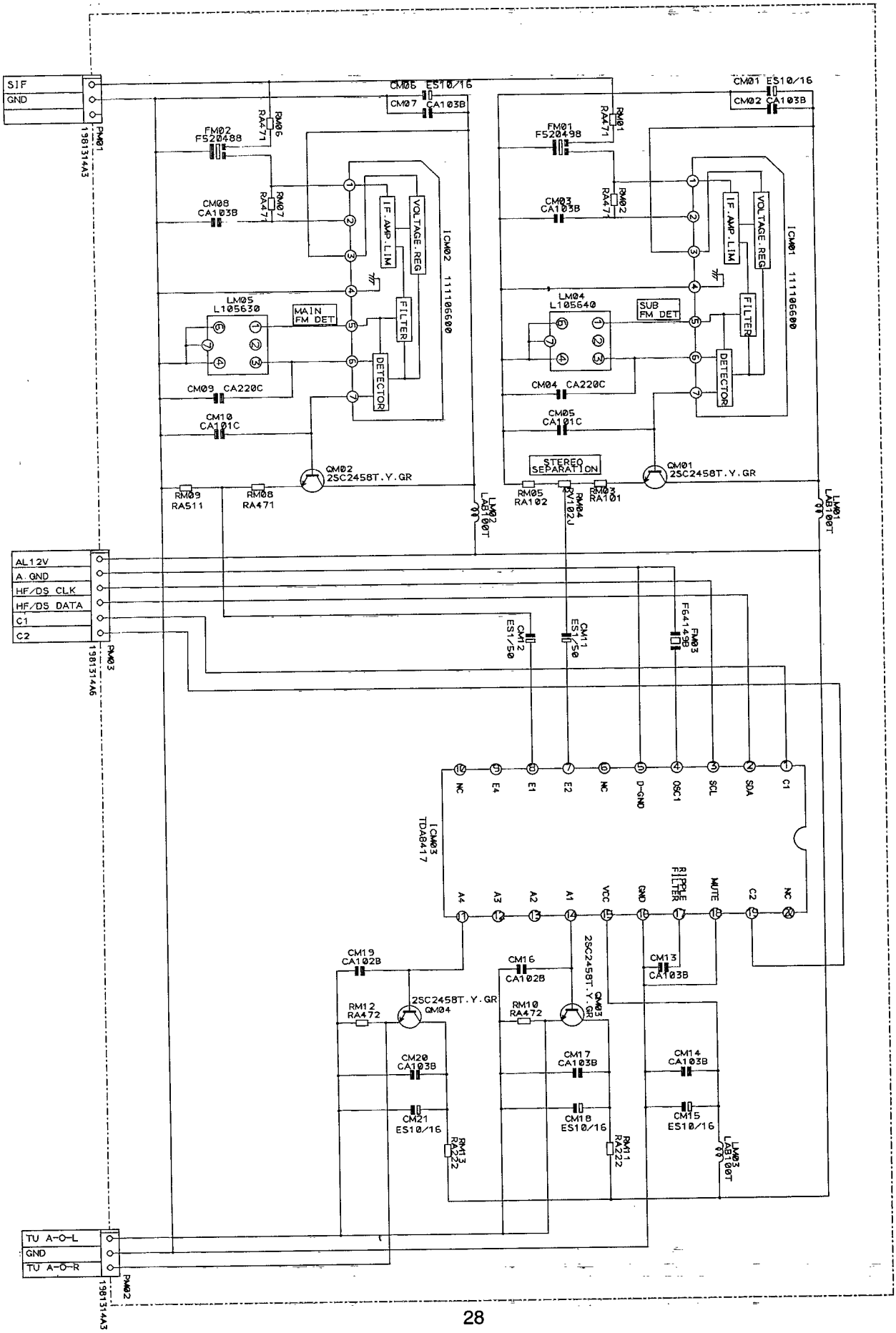
Head	Description	Head Name	Description
ET	Electrolytic Tuner	NE	Neon Bulb
MT	Manual Tuner	PL	Pilot Lamp
PT	Push Button Tuner	C*	Capacitor
K	Relay	R* *	Resistor
MC	Microphone	L	Transformer
SP	Speaker	L	Coil, Inductor
IC	IC, Hybrid IC	F	Ceramic Filter, Crystal
IB	In-Line Block	W	Printed Circuit Board
CR	CR Component	BL	Block PC Ass'y
Q	Transistor	P	Connector Post
D	Diode, Surge Absorber	TP	Check Pin
LD	LED	AJ	Antenna Jack
H	LCD	SW	Switch
H	FIP	VR	Volume

CAD Code	*Capacitor
CA* * * *	Chip Capacitor 2125 Type
CB* * * *	Chip Capacitor 3216 Type
SL* * *	Ceramic Capacitor SL Type
B* * *	Ceramic Capacitor B Type
F* * *	Ceramic Capacitor F Type
CH* * *	Ceramic Capacitor CH Type
LH* * *	Ceramic Capacitor LH Type
PH* * *	Ceramic Capacitor PH Type
RH* * *	Ceramic Capacitor RH Type
SH* * *	Ceramic Capacitor SH Type
TH* * *	Ceramic Capacitor TH Type
UJ* * *	Ceramic Capacitor UJ Type
SR* * *	Semi-Conductor Cap. SR Type
BC* * *	Semi-Conductor Cap. BC Type
M* * *	Mylar Capacitor
TF* * *	TF Capacitor
NP* * *	NPS Capacitor
AS* * / * *	ALSICON Capacitor
TA* * / * *	Tantalum Capacitor
ES* * / * *	Electrolytic Cap. SSM Type
ESL* * / * *	Electrolytic Cap. SSM-L Type
ESH* * / * *	Electrolytic Cap. SSM-H Type
ESB* * / * *	Electrolytic Cap. Bi-Polar
EG* * / * *	Electrolytic Cap. GSM Type
EE* * * *	Electrolytic Cap. SEM Type

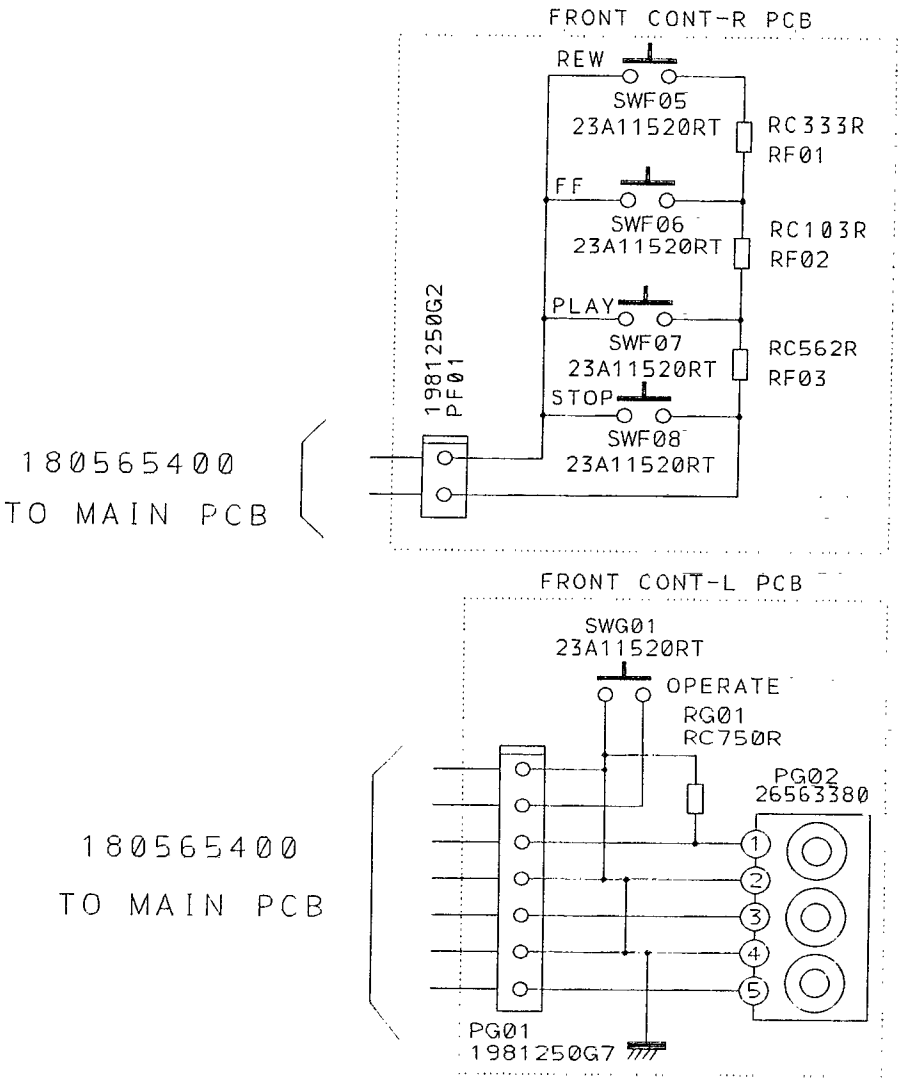
CAD Code	*Capacitor
EA* */* *	Electrolytic Cap. Aibis Type
EL* */* *	Electrolytic Cap. LSM Type
EH* */* *	Electrolytic Cap. HPW Type
CT* * * * *	Trimmer Capacitor

CAD Code	* *Resistor
RA* * *	Chip Resistor 2125 Type
RB* * *	Chip Resistor 3216 Type
RC* * *	Carbon Resistor 1/6W S Type
RD* * *	Carbon Resistor 1/4W U Type
RU* * *	Carbon Resistor 1/6W U Type
RF* * *	Carbon Resistor 1/2W S Type
RK* * *F	Metal Film Resistor 1/4W S ±1%
RL* * *F	Metal Film Resistor 1/6W S ±1%
RP* * *	Metal Oxide Resistor 1W S Type
RQ* * *	Metal Oxide Resistor 2W S Type
RM* * *	Cement Resistor 5W S Type
RV* * *	Variable Resistor Vertical Type 6ϕ
RV* * *A	Variable Resistor Vertical Metal 6ϕ
RV* * *B	Variable Resistor Down Type 6ϕ
RV* * *C	Variable Resistor Vertical 6ϕ 4 pin
PR* * *	Printed Resistor (on PC Board)

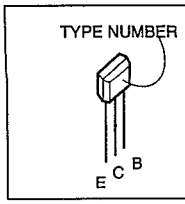
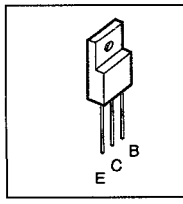
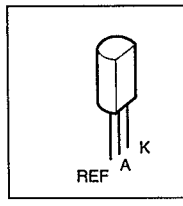
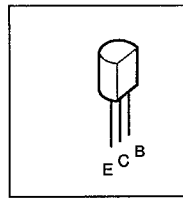
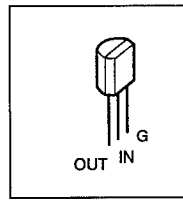
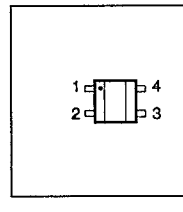
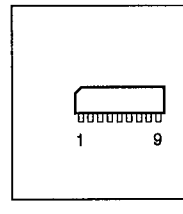
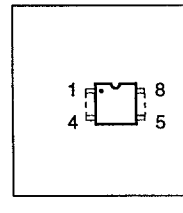
SCHEMATIC DIAGRAM (DUAL)

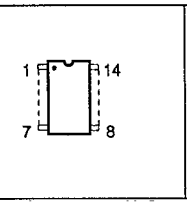
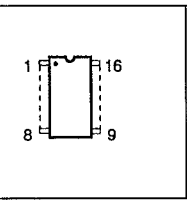
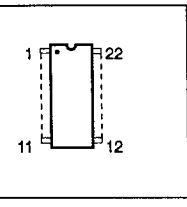
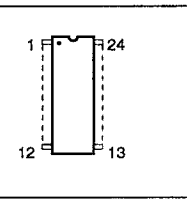
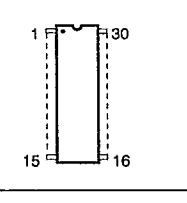
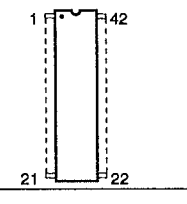
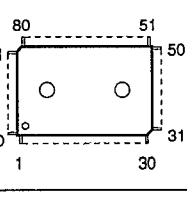
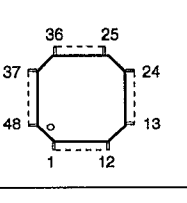


SCHEMATIC DIAGRAM (CONT-R, CONT-L)

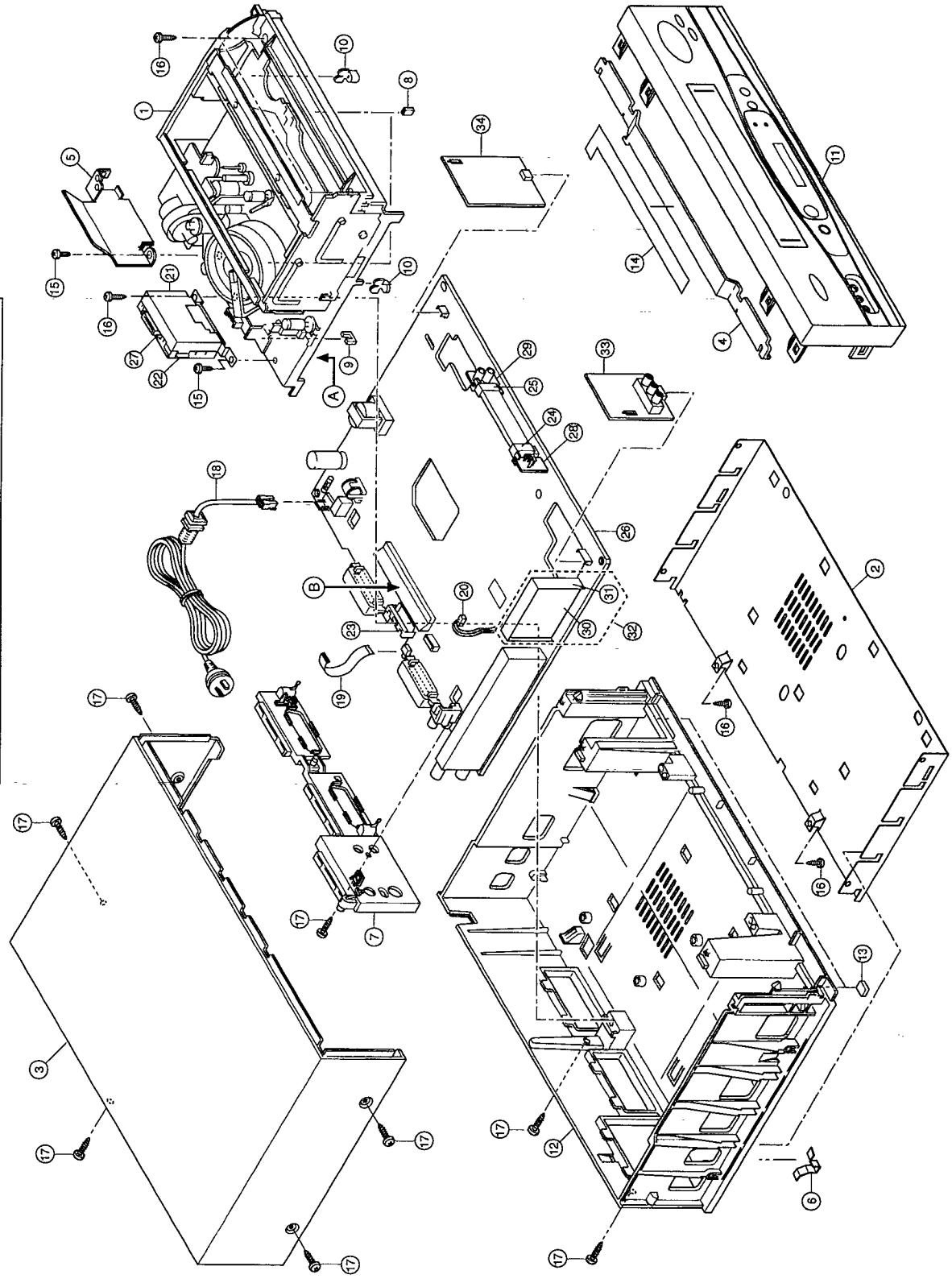


5. IC, TRANSISTOR LEAD IDENTIFICATION

	2SC2458T-Y,GR RN1203.TPE4 DTA124EST 2SA1048-GR
	2SC4517
	TA76431S KIA431AT
	2SD2132T-V,W 2SC1959T-GR
	PST9129T
	PH530090
	TA7291S
	AT24C01A AT24C02

	SDA5642
	CD4052BE BA7609
	LC89970
	LA7411 LA7156 LA7116 LA7286 LC74781
	LA7416
	LA7437
	CXP88152
	AN3964FB

6. CABINET & CHASSIS ASSEMBLY



* Never touch the gold plated part on the Base PWB Ass'y Ⓐ as oil or other dirt will cause the electrical connection to deteriorate.
The spring connection point Ⓑ of the connector will also be distorted if touched.
Therefore, never touch these parts.

7. PARTS LIST FOR FINAL ASSEMBLY

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	59306	DECK MECHANISM (59306)
2	21046150	COVER (BOTTOM) PAL
3	21046171	COVER (TOP) PAL
4	21175771	BKT (BAR)
5	21234720	S.PLATE (AUD)
6	21291180	PLATE SPRING
7	22128980	REAR PANEL
8	22151730	SPACER DECK-S
9	22151740	SPACER DECK-L
10	22151750	SPACER (DECK-2)
11	22328340	FACE PLATE ASS'Y (22328340)
12	22703901	CHASSIS
13	25350970	CUSHION
14	28004430	INSULATOR
15	2952305A	DPBS-3X5SSA
16	2953310A	DPBB-3X10SSA
17	2953310C	DPBB-3X10SSC
18	26021610	N801 POWER CORD
19	194001120	N101 FLEXIBLE WIRE 16P
20	1963083E0	N401 QS-CONN-8283-02 ##
21	21234740	SHIELD PLATE (HEAD)
22	21234751	SHIELD PLATE (B-HA)
23	21234760	SHIELD PLATE (DECK)
24	22128210	HOLDER FIP-L
25	22128231	HOLDER FIP-R
	35Q78C0	VIDEO CIRCUIT BOARD (MV-6010G)
26*		├ MAIN CIRCUIT BOARD (MV-6010G)
27*		├ HEAD CIRCUIT BOARD (MV-6010G)
28*		├ SUB2 CIRCUIT BOARD (MV-6010G)
29*		├ SUB3 CIRCUIT BOARD (MV-6010G)
30*		└ DUAL CIRCUIT BOARD (MV-6010G)
31	21234920	SHIELD PLATE
32*	37279B0	BL ASS'Y DUAL (DUAL CIRCUIT BOARD IN A SHIELD PLATE)
	35Q65D0	CONTROL CIRCUIT BOARD
33*		├ CONT-L CIRCUIT BOARD (MV-6010G)
34*		└ CONT-R CIRCUIT BOARD (MV-6010G)

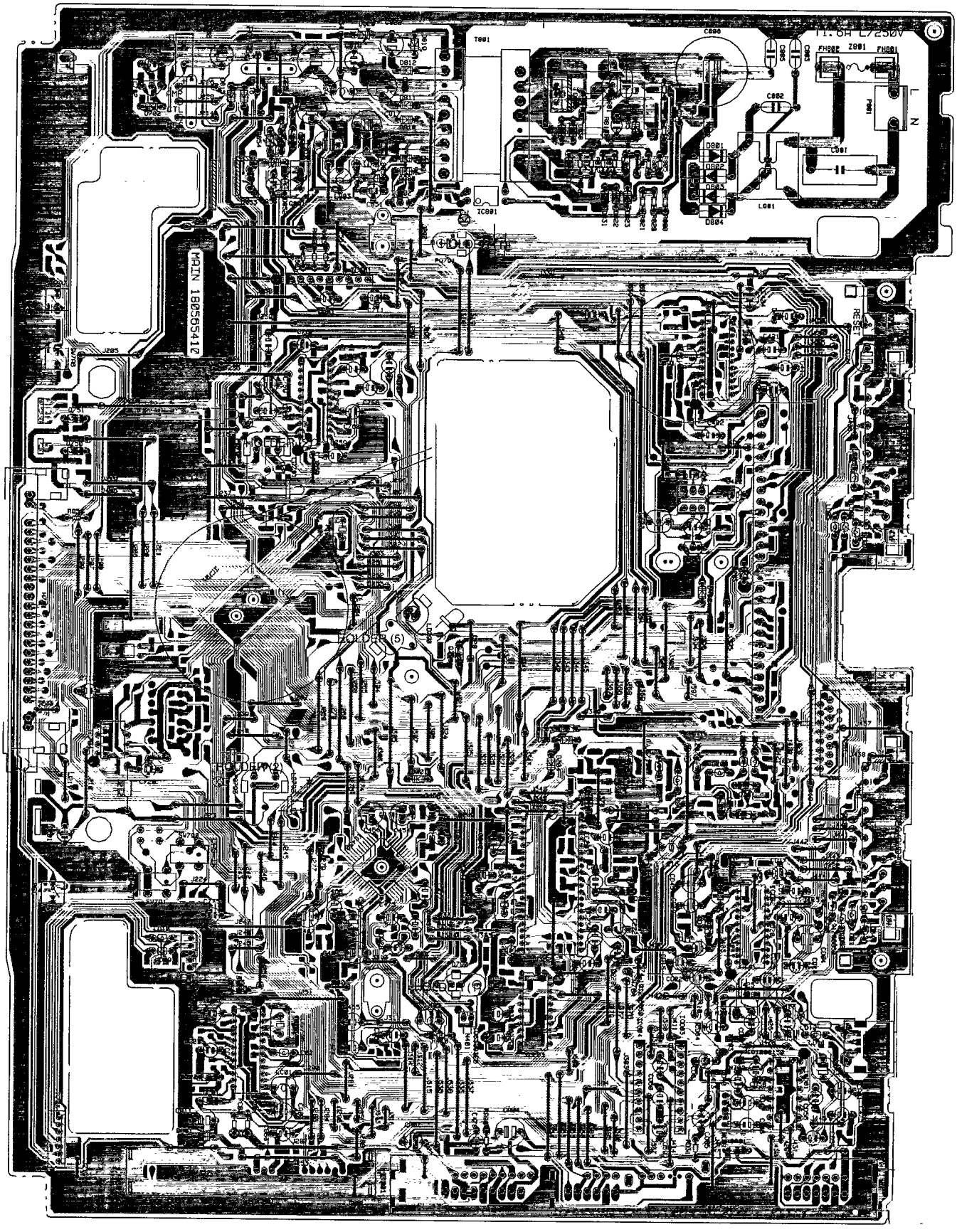
For details of item marked*, refer to pages 35 ~ 47.

ACCESSORIES

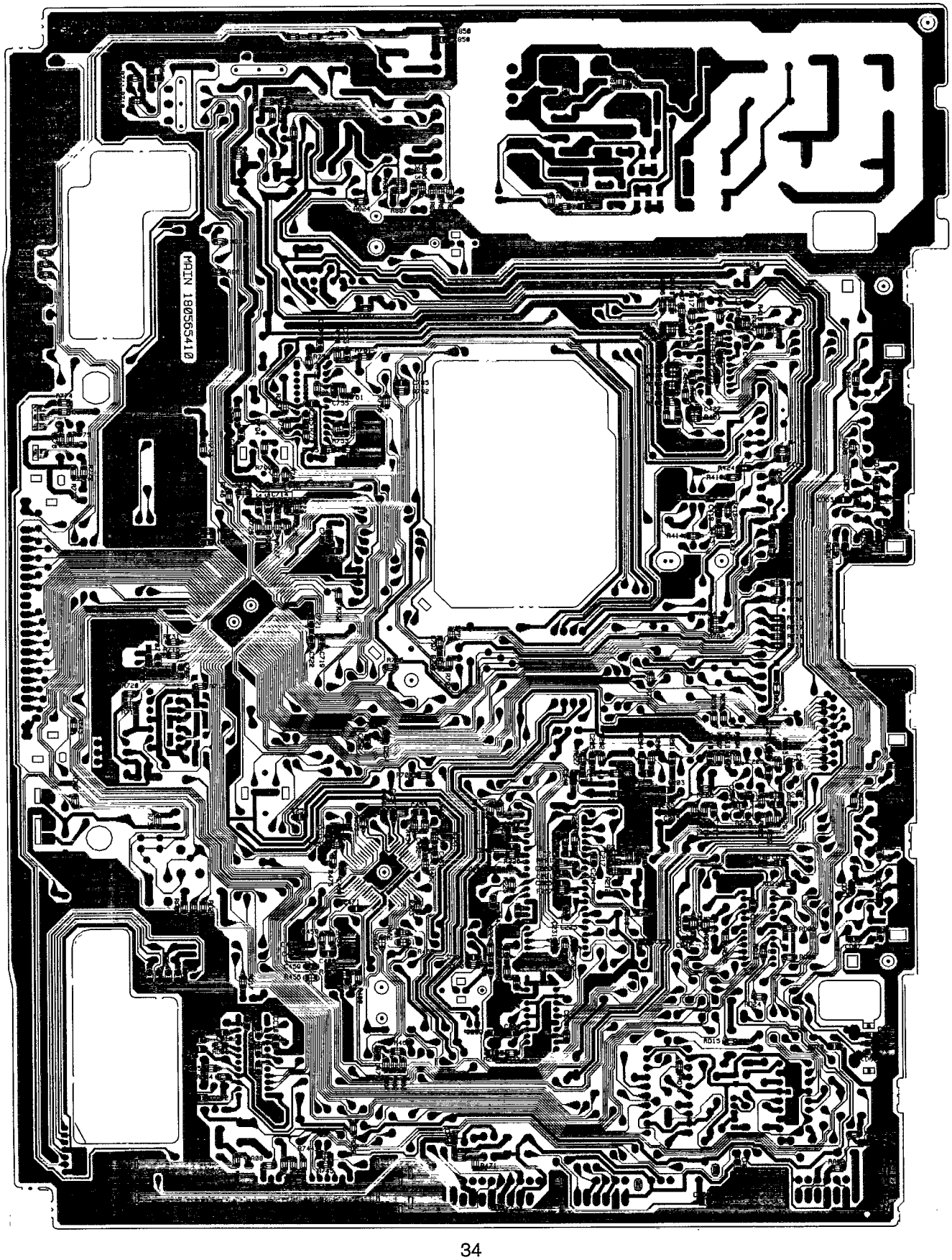
Ref. No.	Part No.	Description
1	1080681H0	RC-681
2	28528460	IN-BOX MV-6010G
3	28938460	MANUAL KIT MV-6010G

8. PC BOARD ASS'Y (MAIN) PARTS LOCATION

PC BOARD ASS'Y (MAIN)



PC BOARD ASS'Y (MAIN)



9. PC BOARD ASS'Y (MAIN) PARTS LIST

PC BOARD ASS'Y (MAIN)

Ref. No.	Part No.	Description
BLA01	37279B0	BL ASSY DUAL
C201, C219	157F3910E	CAPACITOR,CHIP,390PF 50V
C202, C217	15781810E	CAPACITOR,CHIP,180PF 50V
C203	15715600E	CAPACITOR,CHIP,56PF 50V
C204, C706	15712200E	CAPACITOR,CHIP,22PF 50V
C205, C212	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C206, C264	15715R00E	CAPACITOR,CHIP,5PF 50V
C207	15711200E	CAPACITOR,CHIP,12PF 50V
C209, CC10	15713300E	CAPACITOR,CHIP,33PF 50V
C210, C250	15711510E	CAPACITOR,CHIP,150PF 50V
C211	15785610E	CAPACITOR,CHIP,560PF 50V
C213, C258	15714700E	CAPACITOR,CHIP,47PF 50V
C215, C235	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C216, C218	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C220	15712210E	CAPACITOR,CHIP,220PF 50V
C221, C223	157C2230E	CI-2125F223Z25-CT
C222, C227	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C225, C230	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C226, C229	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C228, C233	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C231, C232	157C2230E	CI-2125F223Z25-CT
C234, C474	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C236, C254	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C237, C241	157C2230E	CI-2125F223Z25-CT
C238, C242	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C239, C404	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C240, C717	15711010E	CAPACITOR,CHIP,100PF 50V
C243, C246	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C244, C245	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C247, C249	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C248, C758	157C2230E	CI-2125F223Z25-CT
C253	15781210E	CAPACITOR,CHIP,120PF 50V
C255, C259	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C260, C753	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C263	157C1050E	CAPACITOR,CHIP,1UF 16V
C265, C266	157C2240E	CAPACITOR,CHIP,0.22UF 25V
C401, C412	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C402, C421	155347625	CE-SSM47M16-FT
C403, C410	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C405, C409	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C406, C851	155633525	CAPACITOR,ELECTROLYTIC,3.3UF 50V
C408	155447525	CAPACITOR,ELECTROLYTIC,4.7UF 25V
C411, C417	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C413, C602	157B1040E	CAPACITOR,CHIP,0.1UF 25V

PC BOARD ASS'Y (MAIN)

Ref. No.	Part No.	Description
C414, C810	157F8220E	CAPACITOR,CHIP,8200PF 50V
C415	157F1820E	CAPACITOR,CHIP,1800PF 50V
C416, CD39	157A1520E	CAPACITOR,CHIP,1500PF 50V
C418, C458	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C419	155005325	CAPACITOR,ELECTROLYTIC,0
C420	153C47305	CAPACITOR,MYLAR,0.047UF 100V
C422, C756	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V
C423	157F2720E	CAPACITOR,CHIP,2700PF 50V
C424	155310725	CAPACITOR,ELECTROLYTIC,100UF 16V
C425	157F5620E	CAPACITOR,CHIP,5600PF 50V
C426	15712710E	CAPACITOR,CHIP,270PF 50V
C427, CC02	15714700E	CAPACITOR,CHIP,47PF 50V
C451	1553226K6	CAPACITOR,ELECTROLYTIC,22UF 16V
C452, C461	157C2240E	CAPACITOR,CHIP,0.22UF 25V
C453, C470	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C454	1553476K6	CAPACITOR,ELECTROLYTIC,47UF 16V
C455	1556225K6	CAPACITOR,ELECTROLYTIC,2.2UF 50V
C456	1553107K6	CAPACITOR,ELECTROLYTIC,100UF 16V
C457, C466	157A1530E	CAPACITOR,CHIP,0.015UF 25V
C459, C714	157A1020E	CAPACITOR,CHIP,1000PF 50V
C460, C462	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C463, C705	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C464, C469	1553476K5	CAPACITOR,ELECTROLYTIC,47UF 16V
C465, C766	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C467	1553107K5	CAPACITOR,ELECTROLYTIC,100UF 16V
C468	1556225K5	CAPACITOR,ELECTROLYTIC,2.2UF 50V
C471, C472	157C2240E	CAPACITOR,CHIP,0.22UF 25V
C473, C476	1553106K5	CAPACITOR,ELECTROLYTIC,10UF 16V
C475, C601	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C477, C478	1553106K5	CAPACITOR,ELECTROLYTIC,10UF 16V
C480, C481	157A2220E	CAPACITOR,CHIP,2200PF 50V
C701, C711	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C702	1552227G5	CAPACITOR,ELECTROLYTIC,220UF 10V
C703, C721	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C704	155322625	CAPACITOR,ELECTROLYTIC,22UF 16V
C707, C708	15712200E	CAPACITOR,CHIP,22PF 50V
C709, CC08	15712200E	CAPACITOR,CHIP,22PF 50V
C710	1507015C5	CAPACITOR,SUPER,DFM479Z5T
C712, C720	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C713, C715	157A3320E	CAPACITOR,CHIP,3300PF 50V
C716	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C719, CD40	15784710E	CAPACITOR,CHIP,470PF 50V
C722, C784	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C754, C759	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C755	157F1220E	CAPACITOR,CHIP,1200PF 50V
C761, CA09	15711010E	CAPACITOR,CHIP,100PF 50V

PC BOARD ASS'Y (MAIN)

Ref. No.	Part No.	Description
C762, C763	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C765, CC04	157A1020E	CAPACITOR,CHIP,1000PF 50V
C767, CD11	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C768, C850	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C769, CA01	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C775, CC03	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C783, CA02	157C2230E	CI-2125F223Z25-CT
C785, CC12	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C786	157C2240E	CAPACITOR,CHIP,0.22UF 25V
C801	150908900	CC-CFJC22E104M
C802	150908210	CC-KC472M250
C803	150909210	CC-KD221M250
C805	150908850	CC-ECKDNA332M250
C806	155K476G0	CAPACITOR,ELECTROLYTIC,47UF 400V
C807	150907710	CC-B103K500
C808	150908015	CC-SL560J1000-FT
C809	157A3320E	CAPACITOR,CHIP,3300PF 50V
C811	157A2730E	CAPACITOR,CHIP,0.027UF 25V
C812	157A2230E	CAPACITOR,CHIP,0.022UF 25V
C813	157A3330E	CAPACITOR,CHIP,0.033UF 25V
C817, C818	1553477T5	CAPACITOR,ELECTROLYTIC,470UF 16V
C819	1556226T5	CAPACITOR,ELECTROLYTIC,22UF 50V
C820	1553108T0	CAPACITOR,ELECTROLYTIC,1000UF 16V
C821	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16V
C822	1553107T5	CAPACITOR,ELECTROLYTIC,100UF 16V
C852, CA04	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C853	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V
C854, CD45	155347625	CE-SSM47M16-FT
CA03, CA07	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CA06, CC07	157C2230E	CI-2125F223Z25-CT
CA08	157F8220E	CAPACITOR,CHIP,8200PF 50V
CA10, CC13	15711010E	CAPACITOR,CHIP,100PF 50V
CA11, CD21	1553107G5	CAPACITOR,ELECTROLYTIC,100UF 16V
CC06, CD43	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CC09, CC11	15712200E	CAPACITOR,CHIP,22PF 50V
CD04, CD24	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
CD05, CD06	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD07, CD08	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD12	157C1030E	CAPACITOR,CHIP,0.01UF 25V
CD13, CD14	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD15, CD17	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD16	157B1040E	CAPACITOR,CHIP,0.1UF 25V
CD19, CD20	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD22, CD25	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD27, CD28	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD29, CD31	157A1020E	CAPACITOR,CHIP,1000PF 50V

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Ref. No.	Part No.	Description
CD33, CD34	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD35, CD36	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD37, CD38	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD41	157A1520E	CAPACITOR,CHIP,1500PF 50V
CD42	15784710E	CAPACITOR,CHIP,470PF 50V
CD46, CD47	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD48, CD55	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD49, CD50	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD51, CD52	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD56, CD57	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD58, CD59	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD60, CD61	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD62, CD63	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD64, CD68	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD65	155347625	CE-SSM47M16-FT
CD69, CD70	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD71, CD72	157A1020E	CAPACITOR,CHIP,1000PF 50V
D201, D202	131002101	DIODE,1SS254T
D204, D402	131002101	DIODE,1SS254T
D701, D702	131002101	DIODE,1SS254T
D703	134014131	DIODE,ZENER,MTZJ3.9T-B
D801, D802	132014201	DIODE,1A5T
D803, D804	132014201	DIODE,1A5T
D805	132014606	DIODE,EG01C-FT
D806, D807	131002101	DIODE,1SS254T
D808, D810	131003001	DIODE,1SS244T
D809	132013508	DIODE,RU2YX-PF
D811	132013709	DIODE,AK03-RT
D812, D821	131003001	DIODE,1SS244T
D815, D816	132014101	DIODE,1A4T
D819	134015131	DIODE,ZENER,MTZJ6.8T-B
D820	134015021	DIODE,ZENER,MTZJ6.2T-B
D822, D830	131002101	DIODE,1SS254T
D823	134014721	DIODE,ZENER,MTZJ10T-C
D831, D852	131002101	DIODE,1SS254T
D850	134019511	DIODE,ZENER,MTZJ33T-A,B
D853, D855	131002101	DIODE,1SS254T
D854	134016621	DIODE,ZENER,MTZJ11T-A
D880	131002101	DIODE,1SS254T
DA01	134021911	DIODE,ZENER,MTZJ12T-B
ETA01	104306720	ELECTRONIC TUNER,TMUG2X-130A
F201	1764139B0	X'TAL,HC49U-4.433619MHZ
F701	1764134B0	X'TAL,HC-49U-S12.00MHZ
F702	176300500	X'TAL,32.768KHZ-10PPM
FC01	1764084C0	X'TAL,HC-49U17.734475MHZ
FH801, FH802	26N20110	FUSE HOLDER CNT47

PC BOARD ASS'Y (MAIN)

Ref. No.	Part No.	Description
H701	143002000	FIP,7-MT-183G
IC201	111729300	IC,LA7437
IC203	112285300	IC,LC89970
IC401	111717300	IC,LA7286
IC450	111756400	IC,AN3964FB
IC601	111718200	IC,TA7291S
IC701	119386400	IC,CXP88152-111Q
IC702	111721507	IC,PST9129T-RT
IC704	113112B00	IC,AT24C02
(*The IC ROM settings vary for each model, so please specify the model you are using when ordering replacement IC-ROM 704 parts.)		
IC750	111380300	IC,LA7116
IC801	145300900	PHOTOCOUPLER,PS2561-1-MDHW-V
IC802	111737A07	IC-KIA431AT-RT
ICC01	119339300	IC,LC74781-9155
ICD01	111760600	IC,BA7609
ICD02	111731300	IC,LA7156
ICD03, ICD04	111419600	IC,BA7604N
J212	161310104	RESISTOR,CARBON,100OHM 1/6W
L201	172015627	L-LF-5.0-181J-ST
L203, LC02	172012327	L-LF-5.0-330J-ST
L204	172015427	L-LF-5.0-820J-ST
L205, L214	172012227	L-LF-5.0-470J-ST
L206, L211	172019427	COIL,LF-5.0-390J-ST
L207	172012127	L-LF-5.0-100J-ST
L209	172012527	L-LF-5.0-101J-ST
L213, L403	172007634	COIL,EL0606RA-100J-FT
L401	171055600	COIL,OSC-BIAS (11V)
L402, LC01	172007734	COIL,EL0606RA-101J-FT
L801	173006180	COIL,ELF18D290A
L803, L804	172022944	COIL,LHL06TB220K-FT
L805	172007634	COIL,EL0606RA-100J-FT
LD01, LD02	172011827	L-LF-5.0-3R3J-ST
LD03, LD04	172011827	L-LF-5.0-3R3J-ST
LD05, LD06	172011827	L-LF-5.0-3R3J-ST
LD07, LD08	172011827	L-LF-5.0-3R3J-ST
LD09, LD10	172011827	L-LF-5.0-3R3J-ST
LD11	172011827	L-LF-5.0-3R3J-ST
LD12	172011827	L-LF-5.0-3R3J-ST
LD790	141014900	LED,SLR-932A
LD791, LD792	141023500	LED,SLR-981A
MP201	22128210	HOLDER (FIP-L)
MP202	22128231	HOLDER (FIP-R)
MP203, MP207	22127580	HOLDER (1)
MP204, MP208	22127590	HOLDER (2)
MP205	22127600	HOLDER (5)
MP206	21234760	SHIELD PLATE (DECK)

PC BOARD ASS'Y (MAIN)

Ref. No.	Part No.	Description
MP209, MP212	21144810	HEATSINK
MP210, MP213	2953308A	DPBB-3X8SSA
N401	1963083E0	QS-CONN-8283-02 ##
N702	191208150	WIRE ##
N703	191208850	WIRE ##
N704	191206650	WIRE ##
ND01	196312000	QS-CONN-8283-05
P201	19813052G	POST-16FE-BT-VK-N
P701	1981299AS	POST-TVK-A28X-B1
P702	1981270G2	POST-00-8283-0212-0
P703	1981270G7	POST-00-8283-0712-0
P801	198130722	POST-B2P3-VH
PD01, PD02	26563170	CONN
PD03	26563340	CONN YKC21-3035
PQ790, PQ791	120013100	TRANSISTOR,SPS-1118C
PQ792, PQ793	120013100	TRANSISTOR,SPS-1118C
Q201, Q202	123245811	TRANSISTOR,2SC2458T-Y,GR
Q203, Q206	123245811	TRANSISTOR,2SC2458T-Y,GR
Q205	120002401	TRANSISTOR,DTA124EST
Q401	123195901	TRANSISTOR,2SC1959T-GR
Q750, Q751	123245811	TRANSISTOR,2SC2458T-Y,GR
Q790, QD03	120004601	TRANSISTOR,RN1203,TPE4
Q801	124213201	TRANSISTOR,2SD2132T-V,W
Q802	123451700	TRANSISTOR,2SC4517
Q803, Q852	123245811	TRANSISTOR,2SC2458T-Y,GR
Q851, Q853	124239600	TRANSISTOR,2SD2396-J,K
QA01	120003201	TRANSISTOR,RN2205ST
QC01, QC02	121104811	TRANSISTOR,2SA1048T-GR
QD04	123245811	TRANSISTOR,2SC2458T-Y,GR
R200, R202	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R203, R207	165268106	RESISTOR,CHIP,680OHM 1/10W
R204, R205	165239106	RESISTOR,CHIP,390OHM 1/10W
R206, R215	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R208, R212	165210206	RESISTOR,CHIP,1KOHM 1/10W
R209, R255	165256106	RESISTOR,CHIP,560OHM 1/10W
R210, R813	165247106	RESISTOR,CHIP,470OHM 1/10W
R211, R461	165212206	RESISTOR,CHIP,1.2KOHM 1/10W
R214, R418	165239206	RESISTOR,CHIP,3.9KOHM 1/10W
R216, R451	165215206	RESISTOR,CHIP,1.5KOHM 1/10W
R217, R454	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R218, R409	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R219	165268106	RESISTOR,CHIP,680OHM 1/10W
R220, R408	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R221, R223	165210206	RESISTOR,CHIP,1KOHM 1/10W
R222	165282306	RESISTOR,CHIP,82KOHM 1/10W
R224	165218206	RESISTOR,CHIP,1.8KOHM 1/10W

PC BOARD ASS'Y (MAIN)

Ref. No.	Part No.	Description
R225, R735	165282206	RESISTOR,CHIP,8.2KOHM 1/10W
R226, R405	165210206	RESISTOR,CHIP,1KOHM 1/10W
R227, R757	165233106	RESISTOR,CHIP,330OHM 1/10W
R228, R229	165210306	RESISTOR,CHIP,10KOHM 1/10W
R230, R257	165210306	RESISTOR,CHIP,10KOHM 1/10W
R231, R727	165247306	RESISTOR,CHIP,47KOHM 1/10W
R401, R416	165218106	RESISTOR,CHIP,180OHM 1/10W
R402, R715	165233406	RESISTOR,CHIP,330KOHM 1/10W
R403, R466	165212306	RESISTOR,CHIP,12KOHM 1/10W
R404, R407	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
R406, R712	165210406	RESISTOR,CHIP,100KOHM 1/10W
R410, R452	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R411, R419	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R412	165227306	RESISTOR,CHIP,27KOHM 1/10W
R413, RD22	165215306	RESISTOR,CHIP,15KOHM 1/10W
R414, R420	165247006	RESISTOR,CHIP,47OHM 1/10W
R415	16524R706	RESISTOR,CHIP,4.7OHM 1/10W
R417, R704	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R421, RD08	165210106	RESISTOR,CHIP,100OHM 1/10W
R422, R456	165200006	RESISTOR,CHIP,0OHM 1/10W
R423, R469	165210206	RESISTOR,CHIP,1KOHM 1/10W
R424	165215406	RESISTOR,CHIP,150KOHM 1/10W
R453, R459	165251106	RESISTOR,CHIP,510.0OHM 1/10W
R455	165D15306	RESISTOR,CHIP,15KOHM 1/10W
R457	165D11306	RESISTOR,CHIP,11KOHM 1/10W
R458, R713	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R460, R468	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R462, R463	165222106	RESISTOR,CHIP,220OHM 1/10W
R464, R465	165200006	RESISTOR,CHIP,0OHM 1/10W
R467, R756	165212306	RESISTOR,CHIP,12KOHM 1/10W
R470, RA06	16131R004	RESISTOR,CARBON,1OHM 1/6W
R471, R710	165210206	RESISTOR,CHIP,1KOHM 1/10W
R472, R812	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R473, R709	165210306	RESISTOR,CHIP,10KOHM 1/10W
R601, R602	161310004	RESISTOR,CARBON,10OHM 1/6W
R603, RD31	161310004	RESISTOR,CARBON,10OHM 1/6W
R705, R714	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R706	165215206	RESISTOR,CHIP,1.5KOHM 1/10W
R707, RA08	165212206	RESISTOR,CHIP,1.2KOHM 1/10W
R711, R732	165210306	RESISTOR,CHIP,10KOHM 1/10W
R716, R717	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R718, R719	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R720, R730	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R721	165256306	RESISTOR,CHIP,56KOHM 1/10W
R722	165212406	RESISTOR,CHIP,120KOHM 1/10W
R723, R793	165256206	RESISTOR,CHIP,5.6KOHM 1/10W

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Ref. No.	Part No.	Description
R724	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R726, R729	165222306	RESISTOR,CHIP,22KOHM 1/10W
R728, R733	165247306	RESISTOR,CHIP,47KOHM 1/10W
R731	165239306	RESISTOR,CHIP,39KOHM 1/10W
R734, R739	165247306	RESISTOR,CHIP,47KOHM 1/10W
R737, R744	165210306	RESISTOR,CHIP,10KOHM 1/10W
R743	165247306	RESISTOR,CHIP,47KOHM 1/10W
R745, R753	165210306	RESISTOR,CHIP,10KOHM 1/10W
R746, R759	165210206	RESISTOR,CHIP,1KOHM 1/10W
R750, R785	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R751, R811	165239206	RESISTOR,CHIP,3.9KOHM 1/10W
R752, RC06	165210406	RESISTOR,CHIP,100KOHM 1/10W
R754, R755	165210306	RESISTOR,CHIP,10KOHM 1/10W
R758	165233406	RESISTOR,CHIP,330KOHM 1/10W
R760, RC04	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R761, R770	165210206	RESISTOR,CHIP,1KOHM 1/10W
R771, R774	165222106	RESISTOR,CHIP,220OHM 1/10W
R772, R775	165210206	RESISTOR,CHIP,1KOHM 1/10W
R773, R776	165210306	RESISTOR,CHIP,10KOHM 1/10W
R781, R782	165210306	RESISTOR,CHIP,10KOHM 1/10W
R784, R859	165210306	RESISTOR,CHIP,10KOHM 1/10W
R786, R850	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R790, R792	165256406	RESISTOR,CHIP,560KOHM 1/10W
R791, R796	165218006	RESISTOR,CHIP,18OHM 1/10W
R794, R798	165247006	RESISTOR,CHIP,47OHM 1/10W
R795, RA01	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
R797	165218006	RESISTOR,CHIP,18OHM 1/10W
R802	16C34R71A	RESISTOR4.7OHM 3W
R803, R804	161382304	RESISTOR,CARBON,82KOHM 1/6W
R805, R806	161382304	RESISTOR,CARBON,82KOHM 1/6W
R807, R808	161368304	RESISTOR,CARBON,68KOHM 1/6W
R809	16428230A	RESISTOR,OXIDE METAL FILM,82KOHM 2W
R810	16411210A	RESISTOR,OXIDE METAL FILM,120OHM 1W
R814	16311R20A	RESISTOR,METAL FILM,1.2OHM 1/2W
R820, R821	161368304	RESISTOR,CARBON,68KOHM 1/6W
R824, R860	165210206	RESISTOR,CHIP,1KOHM 1/10W
R832, R833	161315204	RESISTOR,CARBON,1.5KOHM 1/6W
R834, R836	161382104	RESISTOR,CARBON,820OHM 1/6W
R852, R853	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R854	165218306	RESISTOR,CHIP,18KOHM 1/10W
R856, R857	165247006	RESISTOR,CHIP,47OHM 1/10W
R858	16136R804	RESISTOR,CARBON,6.8OHM 1/6W
R880, R883	165210206	RESISTOR,CHIP,1KOHM 1/10W
R881, RD20	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R882	165222106	RESISTOR,CHIP,220OHM 1/10W
R884	165C30206	RESISTOR,CHIP,2KOHM 1/10W

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Ref. No.	Part No.	Description
R885	165C20206	RESISTOR,CHIP,2KOHM 1/10W
R886	165282106	RESISTOR,CHIP,820OHM 1/10W
R887	165247006	RESISTOR,CHIP,47OHM 1/10W
RA02, RA05	165210206	RESISTOR,CHIP,1KOHM 1/10W
RA07	165210006	RESISTOR,CHIP,10OHM 1/10W
RA09, RA11	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
RA10	165239106	RESISTOR,CHIP,390OHM 1/10W
RC01, RC02	161247108	RESISTOR,CARBON,470OHM 1/4W
RC05, RD25	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
RD09, RD29	165210106	RESISTOR,CHIP,100OHM 1/10W
RD10, RD11	165275006	RESISTOR,CHIP,75OHM 1/10W
RD12, RD13	165275006	RESISTOR,CHIP,75OHM 1/10W
RD14, RD15	165210206	RESISTOR,CHIP,1KOHM 1/10W
RD16, RD17	165210306	RESISTOR,CHIP,10KOHM 1/10W
RD18	165210206	RESISTOR,CHIP,1KOHM 1/10W
RD21	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
RD23	165215306	RESISTOR,CHIP,15KOHM 1/10W
RD24, RD30	165210306	RESISTOR,CHIP,10KOHM 1/10W
SW701, SW7A5	23A11520	SWITCH SOR-142HS
SW790, SW791	23M10070	LEAF SW 10480 MLB0
SW7A6, SW7A7	23A11520	SWITCH SOR-142HS
T801	174401080	TRANSFORMER,SWT-ZTS2714V
Z801	26GA022	MINI FUSE T1.6A250V

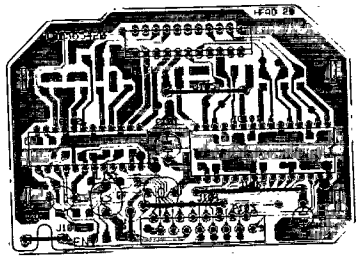
10. PC BOARD ASS'Y (HEAD) PARTS LIST

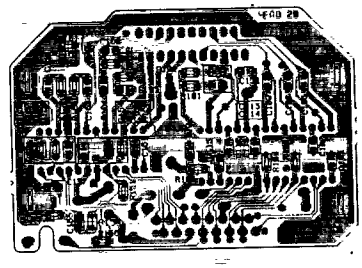
PC BOARD ASS'Y (HEAD)

Ref. No.	Part No.	Description
C101	1563335B5	CAPACITOR, TANTALUM, 3.3UF 16V
C102	157C2230E	CI-2125F223Z25-CT
C103	155610525	CAPACITOR, ELECTROLYTIC, 1UF 50V
C105, C106	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C107, C108	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C109, C110	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C111, C112	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C113, C114	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C115, C152	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C151	157C4730E	CAPACITOR, CHIP, 0.047UF 25V
C153	155310725	CAPACITOR, ELECTROLYTIC, 100UF 16V
C154, C155	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
C156, C158	157B1040E	CAPACITOR, CHIP, 0.1UF 25V
C157	157C2240E	CAPACITOR, CHIP, 0.22UF 25V
C159	15782210E	CAPACITOR, CHIP, 220PF 50V
C160, C165	157B1040E	CAPACITOR, CHIP, 0.1UF 25V
C161, C162	15711010E	CAPACITOR, CHIP, 100PF 50V
C163, C164	157C1030E	CAPACITOR, CHIP, 0.01UF 25V
IC101	111715300	IC, LA7416
IC102	111740600	IC, BA7746S
L101, L151	172007734	COIL, EL0606RA-101J-FT
MP101	21234930	SHIELD PLATE
MP102	21234940	SHIELD PLATE
P101	1981250GB	POST-20-8283-011
P103	19813062G	POST-16FE-ST-VK-N
R101, R102	165218306	RESISTOR, CHIP, 18KOHM 1/10W
R103, R152	165218206	RESISTOR, CHIP, 1.8KOHM 1/10W
R104	165233306	RESISTOR, CHIP, 33KOHM 1/10W
R109, R153	165210306	RESISTOR, CHIP, 10KOHM 1/10W
R151	165239106	RESISTOR, CHIP, 390OHM 1/10W
R154	165200006	RESISTOR, CHIP, 0OHM 1/10W
R156	165268306	RESISTOR, CHIP, 68KOHM 1/10W
R157	165222406	RESISTOR, CHIP, 220KOHM 1/10W
R158	165218006	RESISTOR, CHIP, 18OHM 1/10W
R159	165268106	RESISTOR, CHIP, 680OHM 1/10W
R160, R161	165256106	RESISTOR, CHIP, 560OHM 1/10W
R162, R163	165256106	RESISTOR, CHIP, 560OHM 1/10W

11. PC BOARD ASS'Y (HEAD) PARTS LOCATION

PC BOARD ASS'Y (HEAD)





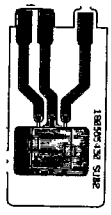
12. PC BOARD ASS'Y (SUB 2) PARTS LIST

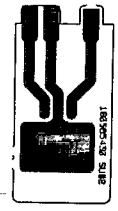
PC BOARD ASS'Y (SUB 2)

Ref. No.	Part No.	Description
MDK01	106012400	MODULE,PIC-12043TH2

13. PC BOARD ASS'Y (SUB 2) PARTS LOCATION

PC BOARD ASS'Y (SUB 2)





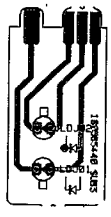
14. PC BOARD ASS'Y (SUB 3) PARTS LIST

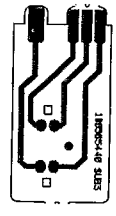
PC BOARD ASS'Y (SUB 3)

Ref. No.	Part No.	Description
LDJ01, LDJ02	141025100	LED,SLR-56MC
MP211	22128780	HOLDER (2LED)-WHITE

15. PC BOARD ASS'Y (SUB 3) PARTS LOCATION

PC BOARD ASS'Y (SUB 3)





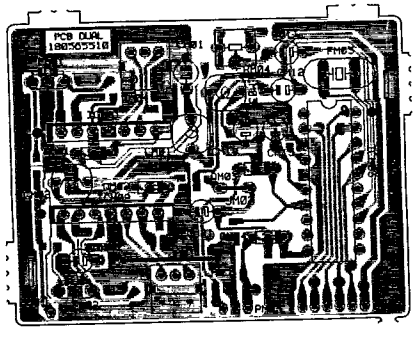
16. PC BOARD ASS'Y (DUAL) PARTS LIST

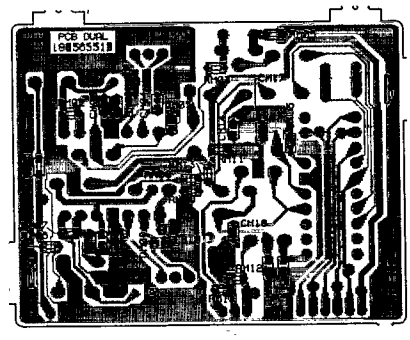
PC BOARD ASS'Y (DUAL)

Ref. No.	Part No.	Description
CM01, CM06	155310625	CAPACITOR, ELECTROLYTIC, 10UF 16V
CM02, CM03	157A1030E	CAPACITOR, CHIP, 0.01UF 25V
CM04, CM09	15712200E	CAPACITOR, CHIP, 22PF 50V
CM05, CM10	15711010E	CAPACITOR, CHIP, 100PF 50V
CM07, CM08	157A1030E	CAPACITOR, CHIP, 0.01UF 25V
CM11, CM12	155610525	CAPACITOR, ELECTROLYTIC, 1UF 50V
CM13, CM14	157A1030E	CAPACITOR, CHIP, 0.01UF 25V
CM15, CM18	155310625	CAPACITOR, ELECTROLYTIC, 10UF 16V
CM16, CM19	157A1020E	CAPACITOR, CHIP, 1000PF 50V
CM17, CM20	157A1030E	CAPACITOR, CHIP, 0.01UF 25V
CM21	155310625	CAPACITOR, ELECTROLYTIC, 10UF 16V
FM01	175204980	CERAMIC FILTER, SIF5.74MHZ
FM02	175204880	CERAMIC FILTER, SIF5.5MHZ
FM03	1764149B0	X-HC-49U10.000
ICM01, ICM02	111106600	IC, BA403
ICM03	111762800	IC, TDA8417
LM01, LM02	172007634	COIL, EL0606RA-100J-FT
LM03	172007634	COIL, EL0606RA-100J-FT
LM04	171056400	COIL, SIF-5.74MHZ
LM05	171056300	COIL, SIF-5.5MHZ
MP103	21234920	SHIELD PLATE
PM01, PM02	1981314A3	POST-TKX-P03P-F1
PM03	1981314A6	POST-TKX-P06P-F1
QM01, QM02	123245811	TRANSISTOR, 2SC2458T-Y, GR
QM03, QM04	123245811	TRANSISTOR, 2SC2458T-Y, GR
RM01, RM02	165247106	RESISTOR, CHIP, 470OHM 1/10W
RM03	165210106	RESISTOR, CHIP, 100OHM 1/10W
RM04	169159497	RESISTOR, SEMI-FIXED, RH0614C-102B-MT
RM05	165210206	RESISTOR, CHIP, 1KOHM 1/10W
RM06, RM07	165247106	RESISTOR, CHIP, 470OHM 1/10W
RM08	165247106	RESISTOR, CHIP, 470OHM 1/10W
RM09	165251106	RESISTOR, CHIP, 510.0OHM 1/10W
RM10, RM12	165247206	RESISTOR, CHIP, 4.7KOHM 1/10W
RM11, RM13	165222206	RESISTOR, CHIP, 2.2KOHM 1/10W

17. PC BOARD ASS'Y (DUAL) PARTS LOCATION

PC BOARD ASS'Y (DUAL)





18. PC BOARD ASS'Y (CONT-L) & (CONT-R) PARTS LIST

PC BOARD ASS'Y (CONT-L)

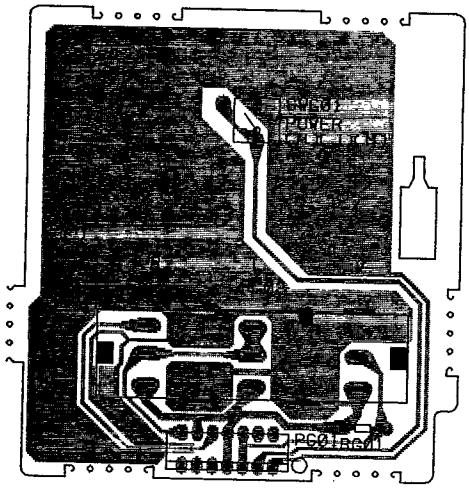
Ref. No.	Part No.	Description
PG01	1981250G7	POST-20-8283-007
PG02	26563380	CONN LPV1429-0100M
RG01	161375009	RESISTOR,CARBON,0
SWG01	23A11520	SWITCH SOR-142HS

PC BOARD ASS'Y (CONT-R)

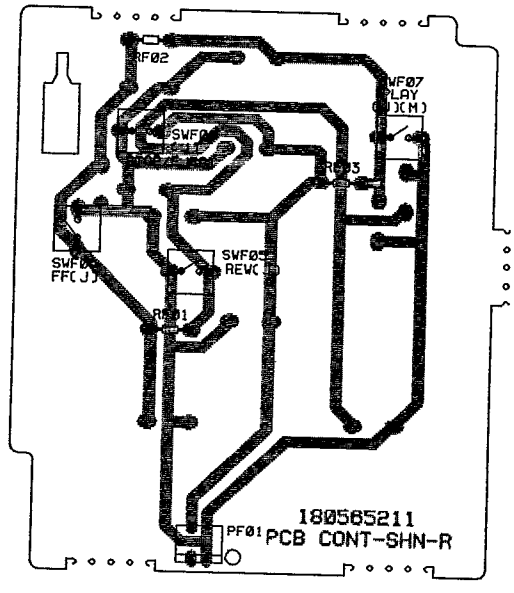
Ref. No.	Part No.	Description
PF01	1981250G2	POST-20-8283-002
RF01	161333309	RESISTOR, CARBON, 0
RF02	161310309	RESISTOR, CARBON, 10KOHM 1/6W
RF03	161356209	RESISTOR, CARBON, 5.6KOHM 1/6W
SWF05, SWF06	23A11520	SWITCH SOR-142HS
SWF07, SWF08	23A11520	SWITCH SOR-142HS

19. PC BOARD ASS'Y (CONT-L) & (CONT-R) PARTS LOCATION

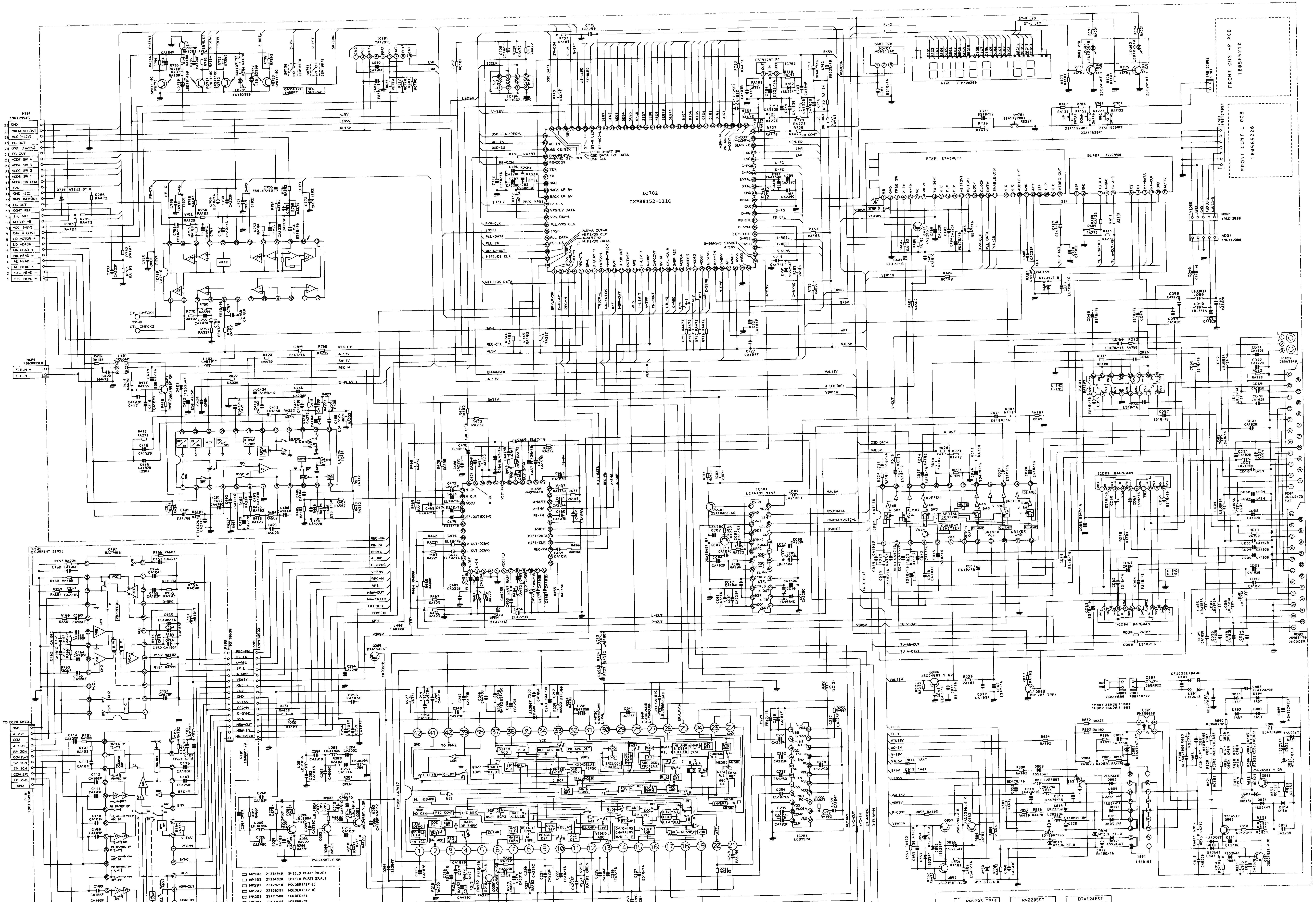
PC BOARD ASS'Y (CONT-L)



PC BOARD ASS'Y (CONT-R)



4. SCHEMATIC DIAGRAM



Service Manual
Video Cassette Recorder
MV-6010G No. 289C2670