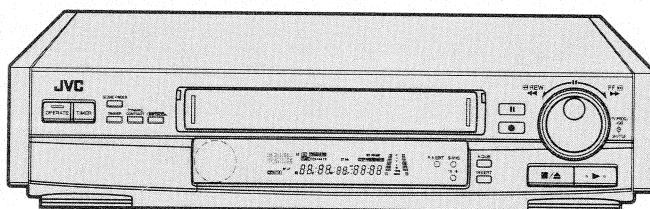
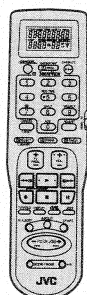


JVC

SERVICE MANUAL

VIDEO CASSETTE RECORDER

HR-S7000EG/EH



SHOWVIEW

Hi-Fi

S VHS

625

SPECIFICATIONS *(The specifications shown pertain specifically to the model HR-S7000EG)*

GENERAL

Power requirement : AC 220 – 240 V~, 50/60 Hz
Power consumption : 24 W
Temperature
 Operating : 5°C to 40°C
 Storage : -20°C to 60°C
Dimensions (WxHxD) : 426 x 94 x 341 mm
Weight : 4.5 kg
Format : S-VHS/VHS PAL standard with Hi-Fi audio
Maximum recording time (SP) : 240 min. with E-240 video cassette
(LP) : 480 min. with E-240 video cassette

VIDEO/AUDIO

Signal system : PAL-type colour signal and CCIR monochrome signal, 625 lines/50 fields
Recording/Playback system : DA-4 (Double Azimuth) head helical scan system
Signal-to-noise ratio : 45 dB
Horizontal resolution : 250 lines (VHS)
400 lines (S-VHS)
Frequency range : 70 Hz to 10,000 Hz (Normal audio)
20 Hz to 20,000 Hz (Hi-Fi audio)
Input/Output : 21-pin scart connectors (IN/OUT x 1, IN/DECODER x 1)
RCA connectors (VIDEO IN x 1, AUDIO IN x 2, AUDIO OUT x 1)
S connectors (IN x 1, OUT x 1)

TUNER/TIMER

TV channel storage capacity : 80 positions (+AUX position "AU")
Channel coverage : VHF 47 – 89/104 – 300/
302 – 470 MHz
UHF 470 – 862 MHz
Aerial output : UHF channel 36
(Adjustable 32 – 40)
Memory backup time : Approx. 3 min.

ACCESSORIES

Provided accessories : Aerial cable,
Infrared remote control unit,
"R03" battery x 2,
Audio cable,
S-Video cable

*Design and specifications subject to change without notice.
Specifications shown are for SP mode unless otherwise specified.*

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  symbol and shaded (■) parts are critical for safety.

Replace only with specified part numbers.

Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.

Caution for continued protection against fire hazard.

Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:

- 1) Wires covered with PVC tubing
- 2) Double insulated wires
- 3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:

- | | | |
|--------------------|--------------------------------------|------------|
| 1) Insulation Tape | 3) Spacers | 5) Barrier |
| 2) PVC tubing | 4) Insulation sheets for transistors | |

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

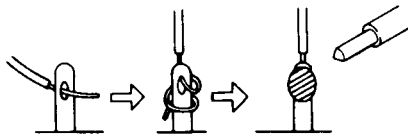


Fig. 1

7. Observe that wires do not contact heat producing parts (heat-sinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10–15 kg of force in any direction will not loosen it.

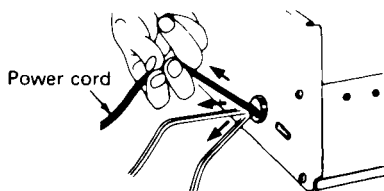


Fig. 2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)

In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector

In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

1) **Connector part number** : E03830-001

2) **Required tool** : Connector crimping tool of the proper type which will not damage insulated parts.

3) **Replacement procedure**

(1) Remove the old connector by cutting the wires at a point close to the connector.

Important : Do not reuse a connector (discard it).

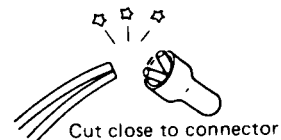


Fig. 3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

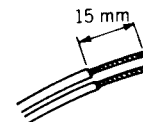


Fig. 4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

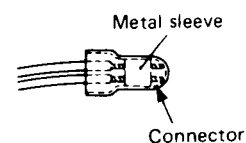


Fig. 5

(4) As shown in Fig. 6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

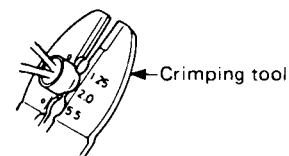
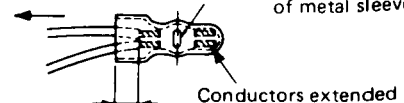


Fig. 6

(5) Check the four points noted in Fig. 7.

Not easily pulled free Crimped at approx. center of metal sleeve



Wire insulation recessed more than 4 mm

Fig. 7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

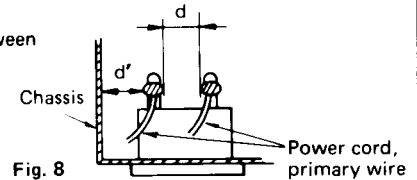
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

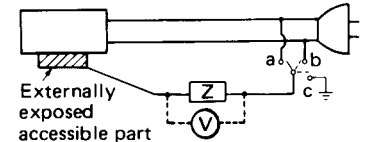


4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method: (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

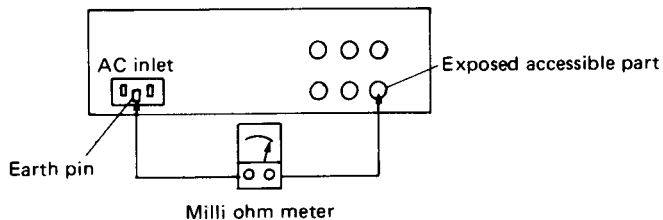


5. Grounding (Class I model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

Fig. 10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	$R \geq 1 \text{ M}\Omega / 500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3 \text{ mm}$
100 to 240 V			AC 1.5 kV 1 minute	$d, d' \geq 4 \text{ mm}$
110 to 130 V	USA & Canada	—	AC 1 kV 1 minute	$d, d' \geq 3.2 \text{ mm}$
110 to 130 V 200 to 240 V	Europe & Australia	$R \geq 10 \text{ M}\Omega / 500 \text{ V DC}$	AC 3 kV 1 minute (Class II) AC 1.5 kV 1 minute (Class I)	$d \geq 4 \text{ mm}$ $d' \geq 8 \text{ mm}$ (Power cord) $d' \geq 6 \text{ mm}$ (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	$1 \text{ k}\Omega$	$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada	$0.15 \mu\text{F}$ and $1.5 \text{ k}\Omega$	$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	$2 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
		$50 \text{ k}\Omega$	$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

Safety Precautions

The rating plate and the safety caution are on the rear of the unit.

WARNING: DANGEROUS VOLTAGE INSIDE
WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

The OPERATE button does not completely shut off mains power from the unit, but switches operating current on and off.

CAUTION

- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the AC outlet prior to connecting or disconnecting any signal lead or aerial.

WARNING

There are two different types of SECAM colour systems: SECAM-L, used in FRANCE (also called SECAM-West), and SECAM-B, used in Eastern European countries (also called SECAM-East).

- This recorder can also receive SECAM-B colour television signals for recording and playback.
- Recordings made of SECAM-B television signals produce monochrome pictures if played back on a video recorder of SECAM-L standard, or do not produce normal colour pictures if played back on a PAL video recorder with SECAM-B system incorporated (even if the TV set is SECAM-compatible).
- SECAM-L prerecorded cassettes or recordings made with a SECAM-L video recorder produce monochrome pictures when played back with this recorder.
- This recorder cannot be used for the SECAM-L standard. Use a SECAM-L recorder to record SECAM-L signals.

IMPORTANT:

- It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.
- Please read the "Precautions" section of this instruction manual before installing or operating the recorder.

Video tapes recorded with this video recorder in the LP(Long Play) mode cannot be played back on a single-speed video recorder.

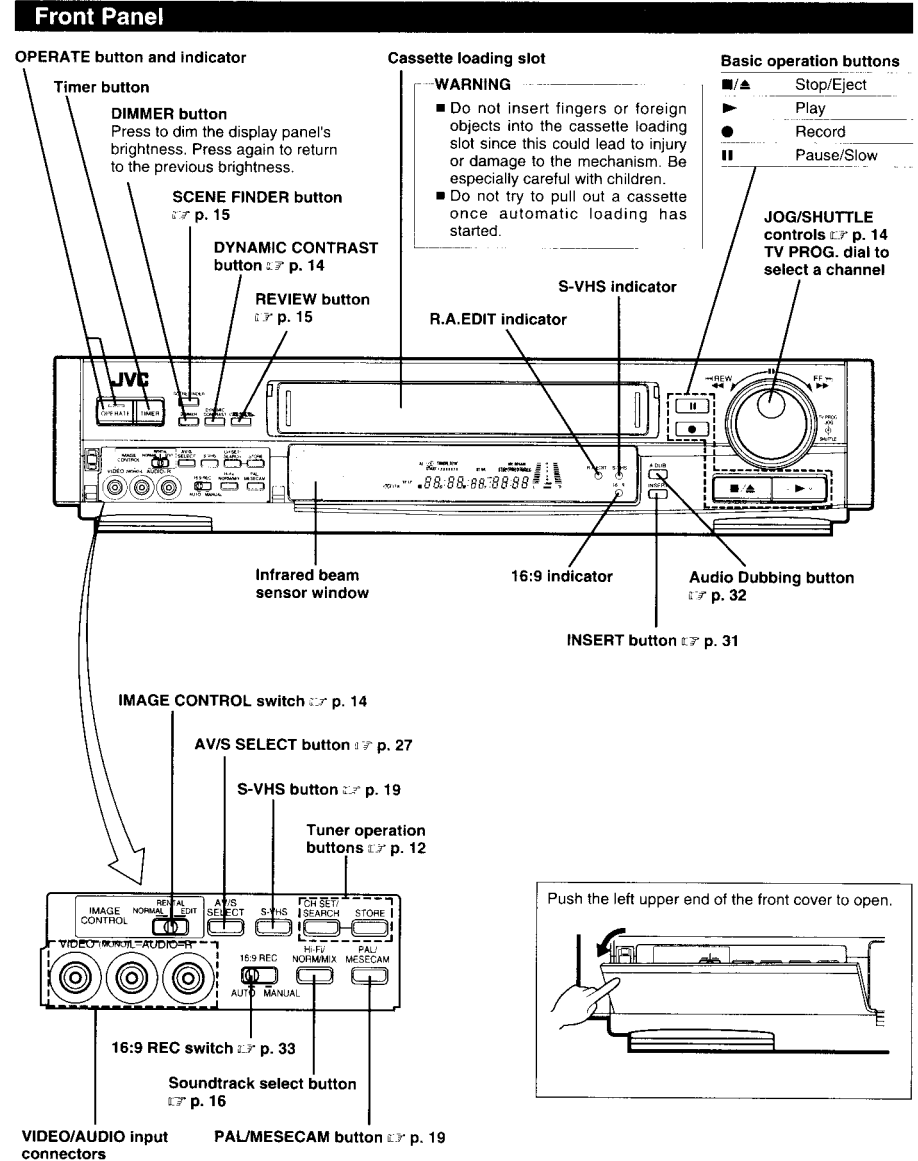


- Cassettes marked "S-VHS" and "VHS" can be used with this video cassette recorder. However, S-VHS recordings are possible only with cassettes marked "S-VHS".
- ShowView is a trademark applied for by Gemstar Development Corp. ShowView system is manufactured under licence from Gemstar Development Corporation.

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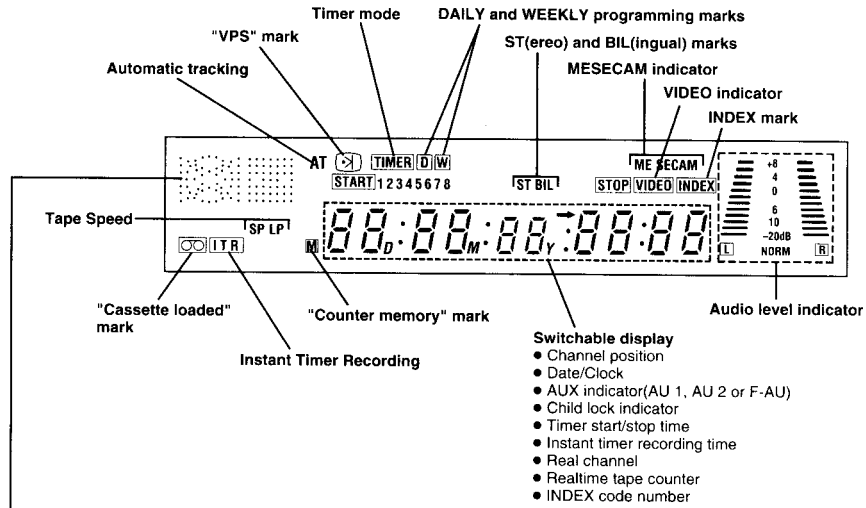
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Controls And Indicators



Controls And Indicators (cont'd)

Display Panel

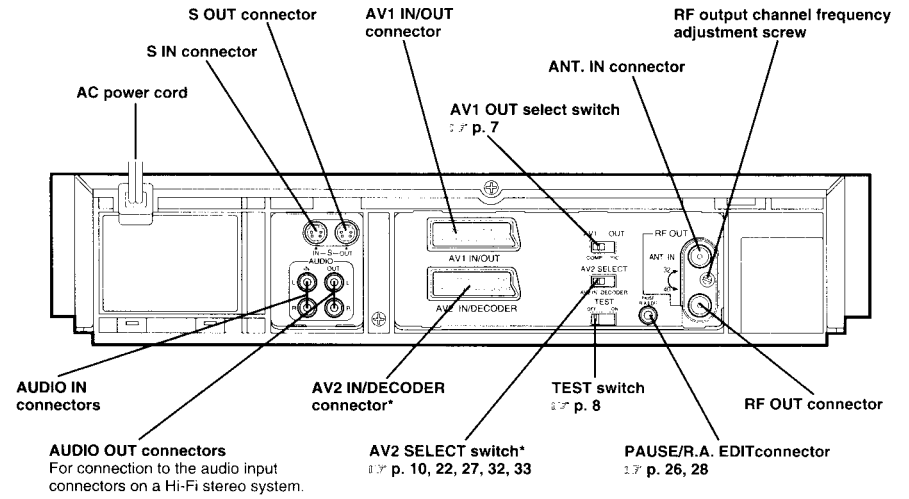


Symbolic mode indicators

PLAY:		REVERSE PLAY:		RECORD:		INSERT:	
FF:		REW VARIABLE SHUTTLE SEARCH:		RECORD PAUSE:		INSERT PAUSE:	
REW:		STILL FORWARD SLOW:		AUDIO DUBBING:		AUDIO DUBBING INSERT:	
FF VARIABLE SHUTTLE SEARCH:		STILL REVERSE SLOW:		AUDIO DUBBING PAUSE:		AUDIO DUBBING INSERT PAUSE:	

* The indicator will blink during turbo search.

Rear Panel



*When AV2 SELECT switch is set to AV2 IN:
AV2 IN/DECODER connector works as auxiliary input connector.
When AV2 SELECT switch is set to DECODER:
AV2 IN/DECODER connector works as input connector for a decoder.

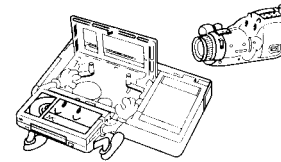
Usable Cassettes

Full-Size VHS

E-30 (SE-30**)
E-60 (SE-60**)
E-90
E-120
E-180 (SE-180**)
E-240

Compact VHS*

EC-30 (SE-C30**)
EC-45 (SE-C45**)

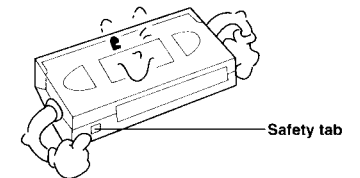


* Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.

** This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS signals only. It is not possible to play back a recorded Super VHS tape.

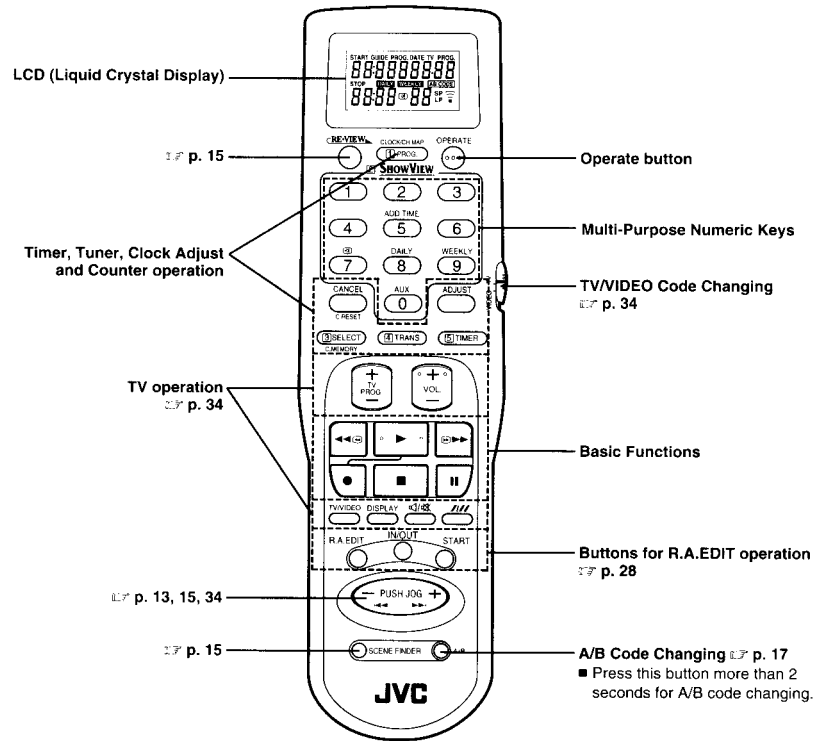
Accidental Erasure Prevention

To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



Controls And Indicators (cont'd)

Wireless Remote Control



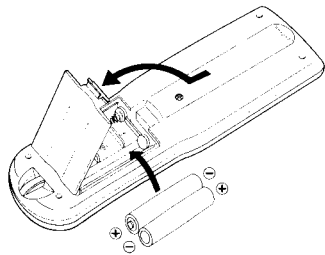
Installing Batteries

- 1 Open the battery compartment cover.
- 2 Insert 2 "R03"-size batteries (provided) in the correct directions.
- 3 Replace the cover.

How To Use

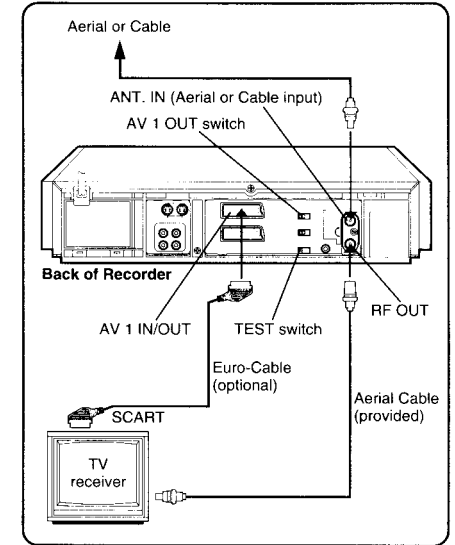
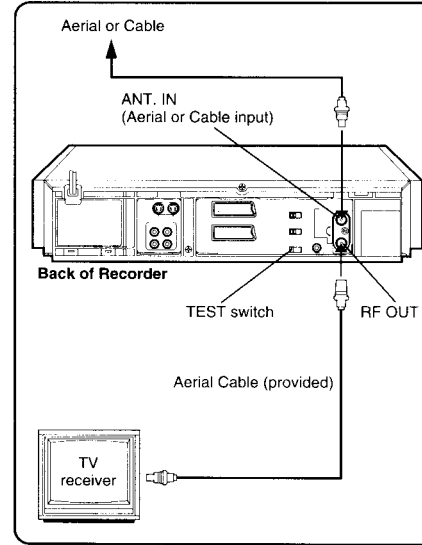
The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets of JVC and other brands. p. 34.

- Point the remote control toward the sensor window.
- The maximum operating distance of the remote control is about 8 m.



Connections

It's essential that your video recorder be properly connected. Follow these steps carefully. THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.



A RECORDER-TO-TV CONNECTION

RF CONNECTION

For TV sets without AV input terminals:

- 1 Connect the TV aerial cable to the recorder.
- 2 Connect the recorder to the TV's aerial terminal.

AV CONNECTION

For TV sets with AV input terminals:

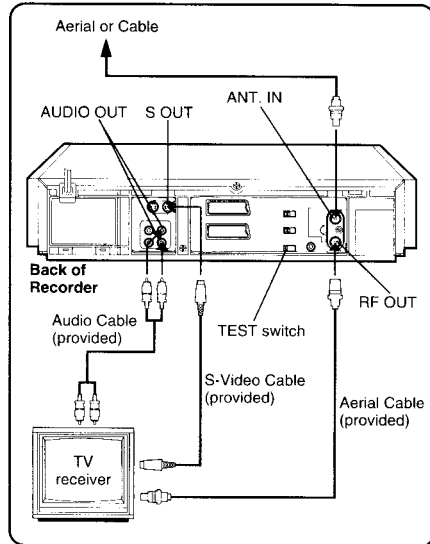
- 1 Connect the aerial, recorder and TV as per "RF CONNECTION".
- 2 Connect the recorder to the TV's 21-pin SCART connector.

AV1 OUTPUT SIGNAL SELECTION

The AV1 IN/OUT connector accepts only a composite video signal (regular video signal), but can deliver either a composite video signal or a Y/C signal (a signal in which the luminance and chrominance signals are separated) according to the setting of the rear panel AV1 OUT switch.

- If your TV's SCART connector is compatible only with the regular video signal, set this switch to COMP.
- If your TV's SCART connector is compatible with the Y/C signal, set this switch to Y/C. You will better enjoy high-quality S-VHS pictures.
- If your TV's SCART connector is RGB-compatible, connect the KM-V7EG RGB Signal Converter (optional) between the AV1 IN/OUT connector and the TV's SCART connector, and set this switch to Y/C. The Y/C signal will be converted into an RGB signal for reproduction of high-quality S-VHS pictures.

Connections (cont'd)



RECORDER-TO-TV CONNECTION (cont'd)

S-VIDEO CONNECTION

For TV sets with an S-VIDEO input terminal:

- 1 Connect the aerial, recorder and TV as per "RF CONNECTION".
- 2 Connect the recorder's S OUT terminal to the TV's S-VIDEO IN terminal.
- 3 Connect the recorder's AUDIO OUT terminals to the TV's AUDIO IN terminals.

NOTES:

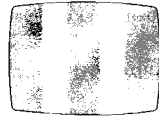
- To make the most of Super VHS picture performance, we recommend you use the S-VIDEO connection.
- To operate the recorder with your TV using the S-VIDEO connection, set your TV to the VIDEO (or AV) mode.
- If your television is not stereo-capable, use the recorder's AUDIO OUT connectors to connect to an audio amplifier for Hi-Fi stereo sound reproduction.

B TUNE THE TV TO YOUR VIDEO RECORDER

The video recorder sends picture and sound signals via the RF connecting cable to your TV on UHF channel 36.

TEST SIGNAL

- 1 Turn on the recorder.
- 2 Set the TEST switch to ON.
- 3 Press TV/VIDEO to engage the VIDEO mode.
- 4 Set your TV to the video channel. Tune the TV to bring the two vertical white bars on the screen most clearly. (UHF/CH 36)
 - Your TV should be set to the channel designated for use with a video recorder or to a spare channel if there is not a specified video channel on your TV.
- 5 Reset the TEST switch to OFF.



NOTES:

- If CH36 is occupied by a local station, adjust the RF output channel adjustment screw to use another channel between CH32 and CH40 instead.
- If some interference noise is continually seen on the screen, consult your JVC dealer.

IMPORTANT:

With RF Connection

- It is always necessary to set your TV's channel to UHF channel 36 (or adjusted channel) to operate the recorder with your TV.

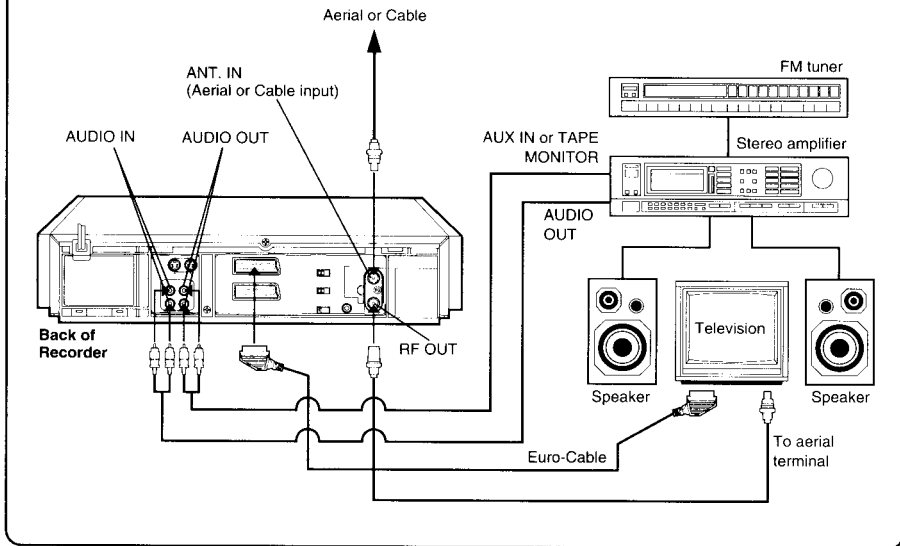
With AV Connection

- Set your TV to the VIDEO (or AV), Y/C, or RGB mode according to the type of your TV's SCART connector.
- For switching the TV's mode, refer to the instruction manual of your television.
- The TV/VIDEO button switches the recorder's mode between TV and VIDEO. When the power is turned on, the recorder's TV mode is selected. To use the recorder's function, select the VIDEO mode.
- When the TV/VIDEO button is used to change the recorder's mode to VIDEO, the connected TV's mode also switches to VIDEO automatically.

With S-VIDEO Connection

- Set your TV to the VIDEO (or AV) mode. The S-VIDEO connection has priority over AV connection.

CONNECTING TO HI-FI STEREO SYSTEM



If you have a Hi-Fi stereo system, you can connect your video recorder to it so that the sound can be heard through your Hi-Fi system. Please make these additional connections:

HI-FI AUDIO CONNECTION

- 1 Connect the AUDIO IN L and R connectors of the recorder to the recording output terminals of the amplifier.
- 2 Connect the AUDIO OUT L and R connectors of the recorder to the AUX IN or TAPE MONITOR terminals of the amplifier.

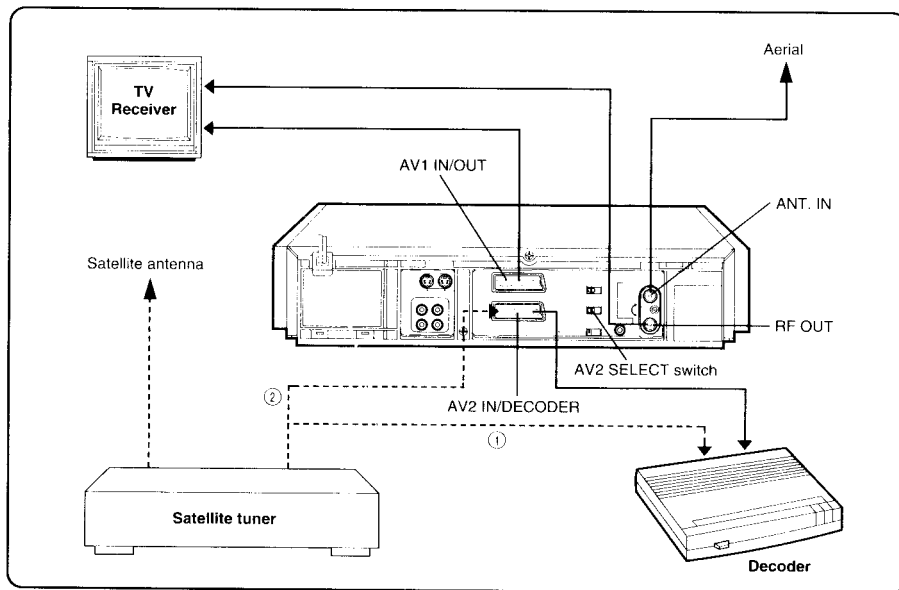
NOTES:

- Make sure L and R are correct when connecting the audio input and output connectors of the recorder to a stereo amplifier.
- If stereo or bilingual TV broadcasts are receivable in your area, this recorder can record them independently of the TV set and play them back through the connected audio system.
- When listening to sound from the connected stereo system, turn down the sound volume of the TV completely.

CAUTION:

- This recorder has a dynamic range of more than 90 dB with regards to its hi-fi audio capability. It is recommended that you check the maximum level if you are going to listen to the hi-fi audio signals through a stereo amplifier. A sudden surge in speaker input may cause speaker damage.
- Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set, otherwise the video playback picture may be adversely affected.

Information On Scrambled Broadcasts



SET UP

The AV2 IN/DECODER connector can be used as an input terminal for an external decoder (descrambler). Simply connect a decoder and you can enjoy the variety of programming that is available through scrambled channels.

1. Connect your recorder and TV via their AV connectors (see p. 7, AV CONNECTION).
2. Set the AV2 SELECT switch on the recorder's rear panel to "DECODER".
3. Connect your recorder's AV2 IN/DECODER connector to the decoder's Euroconnector using a 21-pin SCART cable.
4. Set the tuner to receive scrambled channels (see p. 12, Setting The Tuner).

NOTES:

When connecting a satellite tuner...

- Connect the satellite tuner to the decoder ①, or if you don't have a decoder connect the satellite tuner directly to the video recorder ②.
- Set the AV2 SELECT switch on the rear panel to "AV2 IN".
- To view a programme via the satellite tuner, select AU 2 mode by pressing the numeric key "0" and then AV/S SELECT until "AU 2" appears on the display panel.

WATCHING SCRAMBLED CHANNELS

Preparation

- Turn on the TV.
- Select VIDEO channel (or AV mode).

1. Press TV/VIDEO to select the VIDEO mode.
2. Choose a scrambled channel using the Numeric keys or TV PROG. just as you would with regular stations.

Watching One Programme While Recording Another

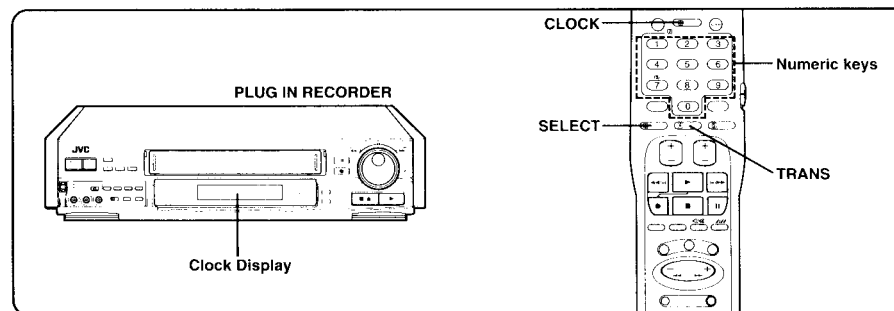
To watch a regular TV programme while recording a scrambled programme:

- Press the TV PROGRAM button on the TV's remote control and select the channel you want to watch.
- To watch the scrambled programme that is being recorded, press TV/VIDEO and select the VIDEO mode.

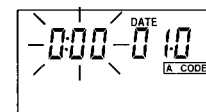
To watch a scrambled TV programme while recording a regular programme:

- Press the TV PROGRAM button on the TV's remote control and select the scrambled channel. After displaying a scrambled picture for a few seconds, the programme will become descrambled and a viewable picture will appear on the TV screen.

Setting The Clock

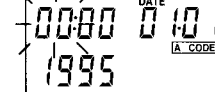


1. Load batteries (see p. 6).



Remote Control's LCD

2. Press CLOCK.



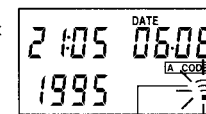
3. Press the appropriate numeric keys to input the time.

- Example: For 21:05, press 2 1 0 5.



4. Press the appropriate numeric keys to input the day, month and year.

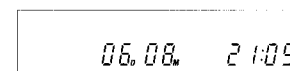
- Example: For 6th August, 1995, press 0 6 0 8 1 9 9 5.



Transfer-ready mark

5. Press TRANS with the remote control directed to the recorder's remote sensor window.

- The remote control's clock will start. At the same time, the set data will be transferred to the recorder.



Recorder's Display Panel

TO MAKE CORRECTIONS

Press SELECT button so that the item you want to change blinks. Re-input that item. Continue to step 5.

AFTER A POWER CUT

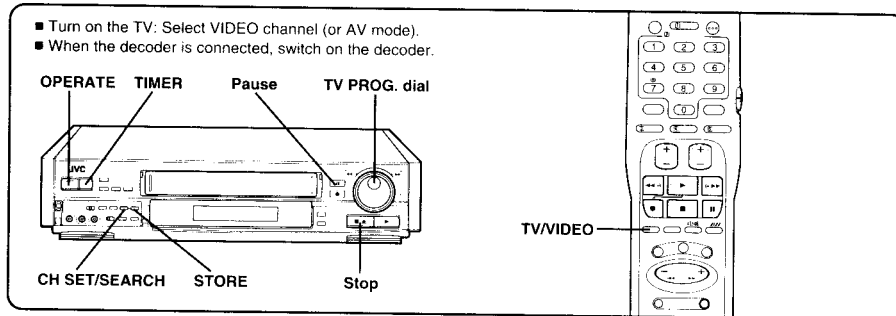
Since your video recorder has a 3-minute backup memory, it will not be affected by short power cuts. If mains power is unavailable for over 3 minutes, however, the recorder's display will reset to 0:00. In such a case, simply transfer the remote control's time to the recorder.

1. Press CLOCK three times.
2. Press TRANS with the remote control directed to the recorder's remote sensor window.

NOTES:

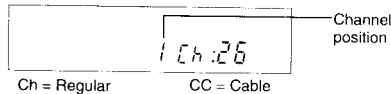
- If the day and month data is invalid (such as 31st April), the month digits are cleared automatically and the day digits will blink. Input again.
- If the year digits are automatically cleared in step 4, it is possible that you have input 29th February for a non-leap year. Input again.
- When the batteries are exhausted, the time display will change to "0:00" and start blinking. Replace all the batteries and set the clock again.

Setting The Tuner



Turn on the TV: Select VIDEO channel (or AV mode).
When the decoder is connected, switch on the decoder.

1. Press **OPERATE** to turn on the recorder.
2. Press **TV/VIDEO** to engage the VIDEO mode.
3. Press **CH SET/SEARCH** until the display panel shows the following.

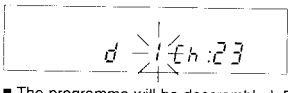


4. Press **CH SET/SEARCH** again briefly to start automatic scanning for receivable channels.



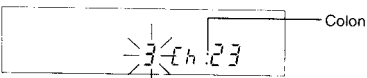
- Automatic scanning stops when a station is detected, and the channel position will blink.
- Holding down **CH SET/SEARCH** will start reverse search.
- If you don't want to store the station detected, simply press **CH SET/SEARCH** to continue automatic scanning.

5. Press **TV/VIDEO** on the remote control when a scrambled broadcast is detected.



- The programme will be descrambled. For normal (non-scrambled) broadcasts, do not press **TV/VIDEO**.

6. Turn the **TV PROG. dial** to select the channel position where you wish to store that TV station.



7. Press **STORE** to store the station.

- The colon will disappear when the station is stored.

8. Repeat steps 4 through 7 for other receivable channels.

- If the picture of the detected station is not satisfactory, try fine-tuning. See below.

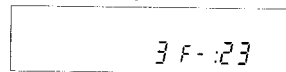
9. Press **Stop** on the recorder to disengage the Channel Set mode.

TO GET A CLEARER PICTURE — Fine-Tuning —

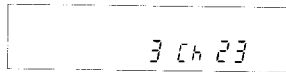
After step 8, you can perform Auto Fine-Tuning for all the stored stations at once.

1. Press **Pause** for more than 2 seconds.

- Auto Fine-Tuning will start.



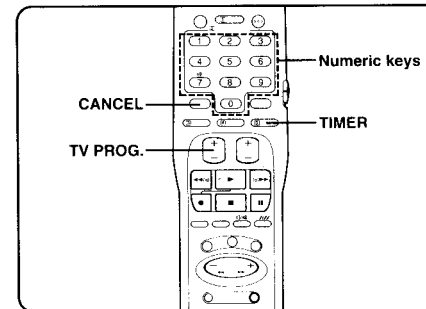
- After completion of Auto Fine-Tuning for all the stored stations, the display panel will return to step 7.



2. Continue to step 9.

If you want to fine-tune a specified station, try fine-tuning manually.

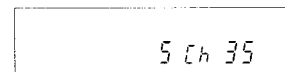
1. Turn the **TV PROG. dial** to select the station you wish to fine-tune.
2. Press **Pause** briefly.
3. Turn the **TV PROG. dial** so that the picture becomes clearer.
4. Press **Pause** briefly again.
5. Continue to step 9.



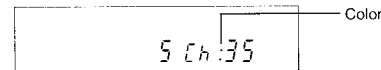
TO DELETE STORED CHANNELS

Please follow the procedure described below when you wish to delete a poorly received channel.

1. Press **TV PROG.** to select the channel position you want to skip.
2. Press **CH SET/SEARCH** for more than 2 seconds.



3. Press **CANCEL**.



- The colon will appear when the station is deleted. Channel position 5 can no longer be chosen by **TV PROG.** buttons.

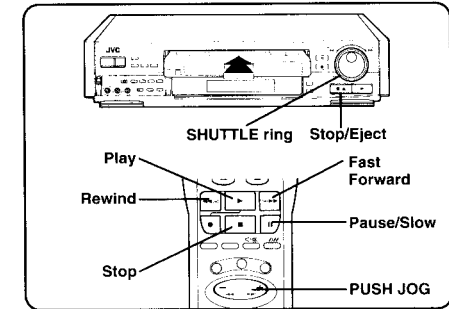
4. Press **Stop** on the recorder to disengage the Channel Set mode.

TO STORE NEW CHANNELS

Please follow the procedure described below when you wish to add a new channel.

1. Press **CH SET/SEARCH** for more than 2 seconds.
2. Press **TIMER**.
 - Real channel starts blinking.
3. Press **TIMER** to change the band between Ch and CC, if necessary.
4. Press numeric keys to input the number of the real channel you want to store.
5. Press numeric keys to input the number of a vacant channel position.
6. Press **STORE** to store the channel.
7. Press **Stop** on the recorder to disengage the Channel Set mode.

Playback



Basic Operations

Preparation

- Turn on the TV.
- Select VIDEO channel (or AV mode).

1. Load a cassette.

- The recorder power will come on automatically.
- The counter will be reset to "0:00:00" automatically.
- If the safety tab on the cassette is removed, playback will start automatically.
- Select the appropriate colour system by pressing the **PAL/MESECAM** button. (p. 19)

2. Press **Play** to start playback.

3. Press **Stop** to stop playback.

- To rewind the tape, press **Rewind** or turn the **SHUTTLE** to the left and release it.
- To fast-forward the tape, press **Fast Forward** or turn the **SHUTTLE** to the right and release it.
- To stop rewind or fast-forward, press **Stop**.

4. Press **Stop/Eject** on the recorder to eject the tape.

Variable-Speed/High-Speed (Turbo) Search, Still Playback/Frame Advance/Slow Motion

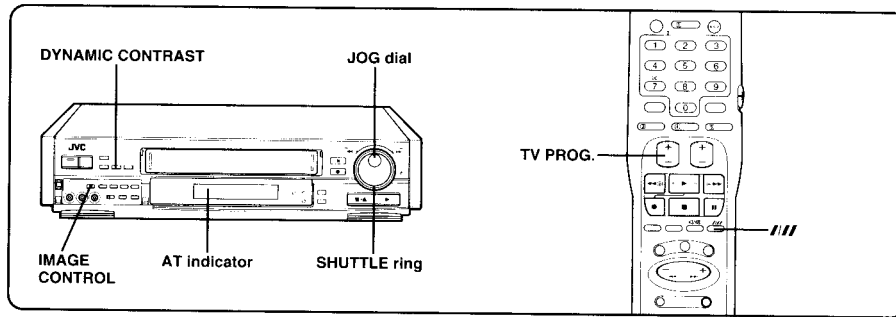
During Playback:

- Press **PUSH JOG** ◀◀ or ▶▶ for variable-speed search.
- The more times the button is pressed, the faster the playback picture will move.
- To decrease speed, press the button for the opposite direction.
- Press **Fast Forward** for high-speed forward search, or **Rewind** for high-speed reverse search.
- For short searches, keep **Fast Forward** or **Rewind** pressed for more than 2 seconds. When released, normal playback will continue.
- Press **Pause/Slow** to view a still picture.
- Press again to advance the picture frame by frame.
- Press **Pause/Slow** for 2 seconds for slow motion.

During Still:

- For frame-by-frame playback in the forward or reverse direction, press **PUSH JOG** ◀◀ or ▶▶ in the corresponding direction.

Playback (cont'd)



Other Functions

JOG/SHUTTLE Control

You can view pictures in slow to fast motion, or frame-by-frame.

During Playback or Still:

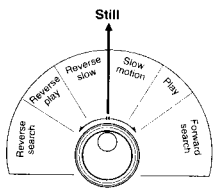
1. Turn the outer ring (SHUTTLE) in either direction. The farther the ring is rotated, the faster the search speed. Releasing the ring stops the picture in the Still mode.

- For fast-forward with a visible picture, turn the SHUTTLE all the way to the right and release it within 1 second.
- For rewind with a visible picture, turn the SHUTTLE all the way to the left and release it within 1 second.

During Playback or Still:

1. Turn the inner dial (JOG) clockwise or counterclockwise for jog control. The tape moves frame-by-frame at the speed with which the dial is turned, in the direction the dial is rotated.

To resume normal playback, press Play button.



Manual Tracking

Your video recorder is equipped with automatic tracking control. If you wish to adjust tracking manually, you can override this function.

During Playback:

1. Press the **TV PROG.** button.
 - The AT indicator will go out.
2. Press TV PROG. + or - to adjust tracking.
 - Press the **TV PROG.** button to return to automatic tracking.

During Slow:

1. Simply press TV PROG. + or - to adjust tracking.

Dynamic Contrast

Use this function to improve image contrast which tends to degrade especially with wide-screen pictures.

During Playback:

1. Press DYNAMIC CONTRAST on the recorder.
 - The button will light in green.
 - Pressing the button again turns off the light.
 - Turn on/off the light according to the type of playback picture you want.
 - The setting will remain effective even though you turn on/off the recorder.

Image Control

You can choose the type of playback picture that's best for the given application.

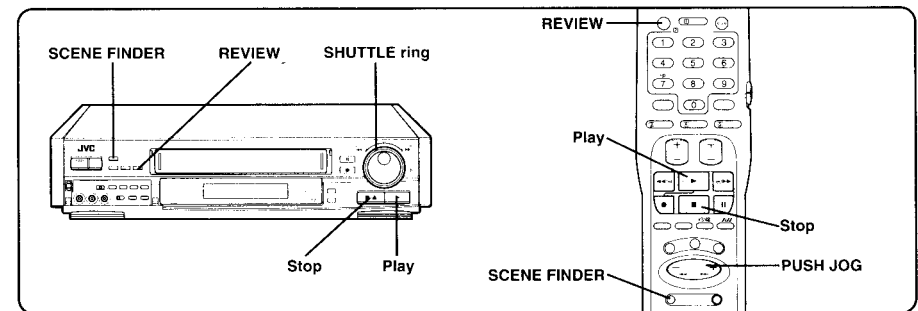
NORMAL: Normally set the IMAGE CONTROL switch to this position.

RENTAL: Makes the picture clearer when viewing tapes with noise due to repeated playback, such as rental videos.

EDIT: For improved dubbing and editing results.

NOTES:

- The recorder automatically stops when still continues for more than 5 minutes.
- If the still picture is unstable, use the TV PROG. buttons to correct the picture.
- During search playback, some noise bars will appear.
- There is no audio during search, slow, still, or frame-by-frame playback.
- When a new tape is inserted, the recorder enters the automatic tracking mode automatically.
- When playing back LP recordings in the search, still or frame-by-frame playback mode, the picture will be distorted and there will be a loss of colour.
- When the DYNAMIC CONTRAST button is lit, Dynamic Contrast has priority over Image Control regardless of the setting of the IMAGE CONTROL switch.



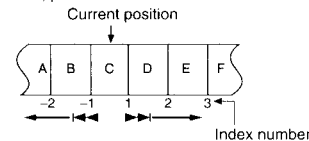
Index Search

Your recorder automatically marks index codes at the beginning of each recording. This function gives you quick access to any one of 9 index codes in either direction.

During Stop:

1. Press PUSH JOG **◀** or **▶**. "INDEX -1" or "INDEX 1" will be displayed on the display panel and search will begin in the corresponding direction.
2. If you wish to access index codes 2 through 9, press PUSH JOG repeatedly until the correct index number is displayed.

Ex.: To locate the beginning of B from the current position, press PUSH JOG **◀** twice.
To locate the beginning of D from the current position, press PUSH JOG **▶** once.



- When the specified index code is found, playback will start automatically

ReView Function

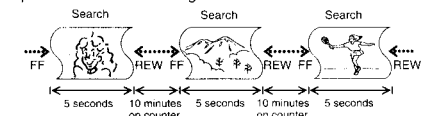
Simply by pressing a single button, the recorder power comes on, rewinds, and begins playback of the last recording. This makes it easier to "review" the programme you have timer-recorded.

When the recorder power is off:

- Press REVIEW.
- After the recorder power comes on, the tape will be rewound to the beginning of the last recording (where the index code is placed) and playback will start automatically.
 - To play back a recording located 2 index codes away, press REVIEW twice. You can access any one of up to 9 index codes.
 - ReView is not possible while the recorder is in the Timer mode.
 - The recorder's REVIEW button lights when timer-recording is finished, and blinks while the tape is being rewound.

Scene Finder

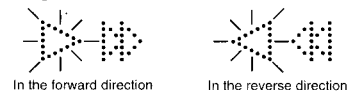
This function helps you check contents of unlabeled recorded tapes at the touch of a single button.



Anytime except during Record:

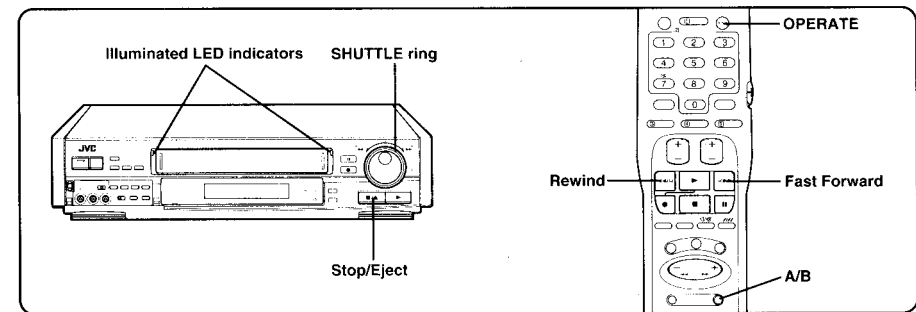
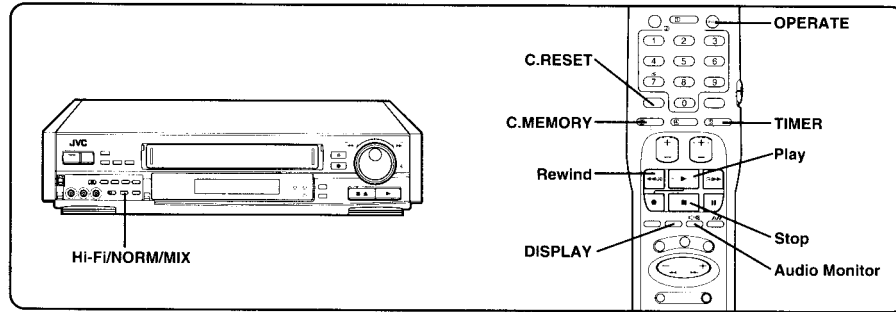
1. Press SCENE FINDER.

- The recorder starts high-speed forward search for 5 seconds and then fast-forwards 10 minutes on counter. This will be repeated until the end of the tape is reached.
- To start Scene Finder in the reverse direction, press SCENE FINDER and then turn the SHUTTLE ring to the left within 2 seconds. It will be repeated until the beginning of the tape.
- During Scene Finder, the display panel shows the following.



- During Scene Finder High-Speed Search, you can also hear the tape sound. During Fast Forward (or Rewind), you will hear the current TV sound instead.
 - Scene Finder does not function during Index Search and Random Assemble Editing.
2. Press Stop to stop Scene Finder.

Playback (cont'd)



Other Functions (cont'd)

Counter Memory

During Playback:

- Press DISPLAY until a counter reading appears on the display panel.
 - Press C.RESET at a point you wish to locate later.
 - The counter will read "0:00:00".
 - Press C.MEMORY.
 - The M indicator will light on the display panel.
- When you wish to return to that point, press Stop and then Rewind.
 - The tape will rewind and stop at about "0:00:00" automatically.
- To cancel the Counter Memory mode, press C.MEMORY again.

Next Function Memory

Your recorder can memorise what to do after rewind.

During Stop:

For automatic start of playback after the tape is rewound:

- Press Rewind.
- Press Play within 2 seconds.

For automatic power off after the tape is rewound:

- Press Rewind.
- Press OPERATE within 2 seconds.

For automatic timer standby after the tape is rewound:

- Press Rewind.
- Press TIMER within 2 seconds.

Repeat Playback

During Playback:

- Press Play for more than 5 seconds, and release.
 - The Play indicator (▶) on the display panel will blink slowly.
 - The tape will be played all the way to the end 20 times automatically, and then stop.
- To stop playback at any time, press Stop.

Soundtrack Selection

During Playback:

Your video recorder is capable of recording three soundtracks (HIFI L, HIFI R and NORM) simultaneously, and playing back the selected soundtrack.

- Pressing Audio Monitor on the remote control changes the track:

Track: (on display panel)	Use:
L + R	for Hi-Fi stereo tapes.
↓	for main audio of bilingual tapes.
R	for sub audio of bilingual tapes.

- Pressing Hi-Fi/NORM/MIX on the recorder changes the mode:

Mode:	Track: (on display panel)	Use:
HIFI	L and/or R	for Hi-Fi stereo tapes.
↓	NORM	for audio-dubbed tapes.
MIX	NORM + L and/or R	for audio-dubbed tapes.

NOTE:

- Normally use the L + R position. Then Hi-Fi stereo tapes are played back in stereo, and tapes with normal audio only are played back automatically in the NORM mode.

Illuminated Operation Confirmation

The two LED indicators, located on both sides of the cassette loading slot, confirm the recorder has received commands you send from the remote control. The operation modes and the corresponding indications are listed below.

Mode	Colour of LED indicators		How they're displayed
	Left	Right	
When loading a cassette. When power is turned on (with a cassette already loaded).	G	G	Lit for 2 seconds
When playback starts.	G	G	Blink 3
When recording starts.	R	R	Blink 3
While in the Record-Pause mode.	R	R	Lit
When FF (or Index Search FF) starts.	—	G	Blink for 5 seconds
When REW (or Index Search REW or Instant ReView) starts.	G	—	Blink for 5 seconds
When timer-programmed data is transferred from the remote control to the recorder.	O	O	Lit for 3 seconds
When timer-programmed data is not successfully transferred from the remote control to the recorder.	O	O	Blink for 5 seconds

G:Green R:Red O:Orange

To stop the indications:

If you don't need the LED indications, you can turn it OFF by following the instructions below.

- If there is a cassette inserted in the recorder, press the Stop/Eject button to eject the cassette, and then turn off the power.
- Hold the Stop/Eject button for more than 3 seconds.
 - Both of the LED indicators in Green will blink twice, and the function will be turned OFF.
 - If you want to turn it ON again, eject the cassette from the recorder and turn off the power, and then hold down the Stop/Eject button for more than 3 seconds. Both of the LED indicators will light up for a second and the function will be turned ON again.

Open Search Function

Your video recorder lets you view the picture being rewound or fast-forwarded so you can easily check how far the tape has gone.

During Rewind:

- Keep the remote's Rewind button pressed, or turn the SHUTTLE ring fully to the left.
 - The rewinding tape's picture will be visible.
- Release the Rewind button or SHUTTLE ring to resume normal rewinding.

During Fast Forward:

- Keep the remote's Fast Forward button pressed, or turn the SHUTTLE ring fully to the right.
 - The fast forwarding tape's picture will be visible.
- Release the Fast Forward button or SHUTTLE ring to resume normal fast forwarding.

Remote A/B Code Switching

The remote control is capable of controlling two JVC video recorders independently; one set to respond to your remote control's A code control signals and another set to respond to B code control signals.

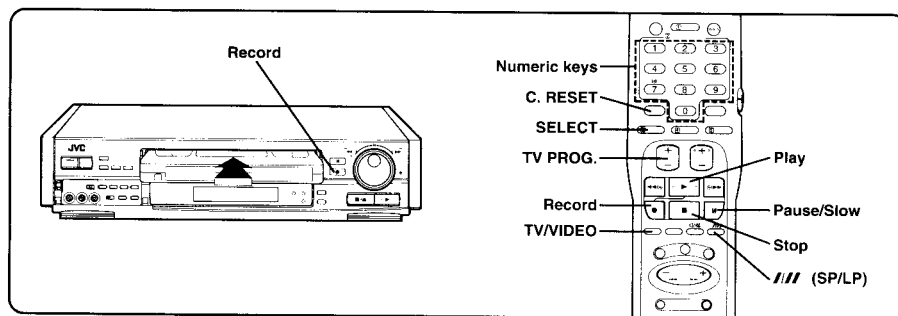
The remote control is preset to send A code signals because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

- Unplug the recorder's power cord from the AC outlet.
- Press the A/B button for more than 2 seconds to switch to B code.
- Plug the power cord back into the AC outlet. Do not use other remote controls at this stage.
- Turn the recorder power on by using the remote control's OPERATE button. The recorder will now only respond to B code signals.

NOTE:

Some TV sets may malfunction in response to the B mode. If this happens switch back to the A mode.

Recording



Basic Operations

Preparation

- Turn on the TV.
- Select VIDEO channel (or AV mode).

1. Load a cassette.

- The recorder power will come on automatically.
- Select the appropriate colour system by pressing the PAL/MESECAM button. (p. 19)

2. Press TV/VIDEO to engage the VIDEO mode.

3. Press TV PROG. or the numeric keys to select the channel you wish to record.

- You can also use the recorder's TV PROG. dial to select the channel.

4. Press SP/LP to select the tape speed.

5. Press Record and Play simultaneously.

6. Press Pause/Slow to pause recording.

7. Press Play to resume recording.

8. Press Stop to stop recording.

NOTES:

- To start recording with the recorder's Record button, press it once on its own.
- After pause, when recording is resumed, a few frames recorded before the pause may be overlapped by the new recording. This is meant to reduce picture distortion and is not a malfunction.
- The recorder automatically stops when record-pause continues for more than 5 minutes.
- If the Record button does not work, check to see if the cassette's safety tab has been removed.
- The channel cannot be changed while recording is in progress. To change the channel, engage the record-pause mode, then change the channel.
- The recorder automatically rewinds when the end of the tape is reached during recording.
- When a VPS programme is being broadcast on the selected channel, "VPS" mark appears on the display panel. (p. 25 for information on VPS).

Other Functions

To Watch Another Programme While Recording

During Record:

1. If your recorder is connected to the TV via AV connection, press TV/VIDEO.
 - The recorder's VIDEO indicator and the TV broadcast being recorded will disappear.
2. Use the channel controls on the TV to select the other channel you wish to view.
 - The programme selected with the TV channel controls will appear on the TV screen while the one selected with the video recorder's channel controls will be recorded on the tape.
 - If a decoder is connected to the recorder (p. 10), you can select a scrambled channel as well with the TV channel controls.

Instant Timer Recording (Off Timer)

You can start a recording and then set the recorder to shut off automatically after a set duration.

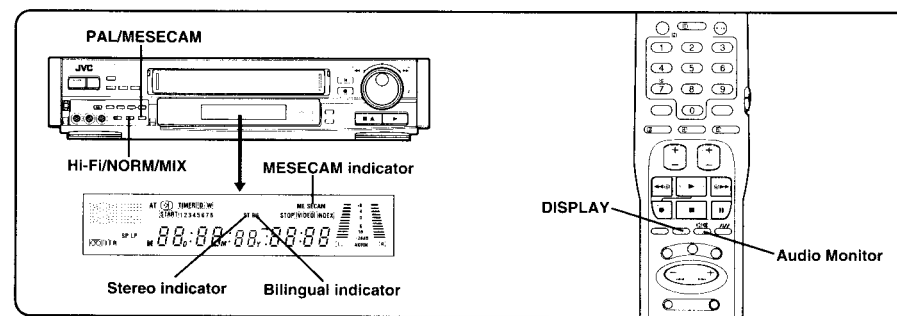
During Record:

1. Press recorder's Record. "ITR" and "0:30" indications appear, advising that power will switch off after 30 minutes.
2. Press Record again to delay the off-time by 30-minute increments (up to 4 hours).
 - For more precise setting, use the remote control's SELECT and TV PROG. buttons to set the exact time required (possible up to 8 hours and 59 minutes).

Elapsed Recording Time Indication

When you need to know the exact time of a recording.

1. Press DISPLAY until a counter reading appears on the display panel.
2. Press C.RESET before starting recording or playback.
 - The counter will be reset to "0:00:00" and show the exact elapsed time as the tape runs.



Stereo And Bilingual

Your recorder is equipped with a Sound-Multiplex decoder for reception of stereo and bilingual broadcasts.

- When a stereo programme is being received, the ST indicator lights on the display panel.
- When a bilingual programme is being received, the BIL indicator lights on the display panel.

To Record Stereo Programmes

Stereo programmes are automatically recorded in stereo on the Hi-Fi audio track (with the normal audio track recording mixed L and R channel sound). No special operation is required. Simply follow the basic recording procedure.

- To listen to the stereo soundtrack while recording, select "L+R" with Audio Monitor. (p. 17).

NOTE:

- If the quality of stereo sound being received is poor, the ST indicator will go off, and the broadcast will be received in monaural with better quality.

To Record Bilingual Programmes

Bilingual programmes are automatically recorded in bilingual on the Hi-Fi audio track. The main soundtrack will be recorded on the normal audio track.

- To listen to the Hi-Fi soundtrack during recording, select "L" for Main, and "R" for Sub.
- To listen to the normal soundtrack, select "NORM" with the HI-FI/NORM/MIX button on the recorder.

Display Button

When you wish to check the time, date, or counter reading

1. Press DISPLAY to display the current clock time.
2. Press DISPLAY again to display the current date.
3. Press DISPLAY again to display the counter reading.

Colour System Selection



You can also record SECAM signals, or play back a MESECAM tape on this recorder.

- Hold down PAL/MESECAM for more than 2 seconds so that the MESECAM indicator appears on the display panel.
- When recording PAL signals or playing back a PAL tape, hold down PAL/MESECAM for more than 2 seconds again until the MESECAM indicator disappears.
- MESECAM is the designation for tapes with SECAM signals that have been recorded on MESECAM-capable PAL recorder.

S-VHS And VHS

Your video recorder can record in either S-VHS or VHS.

- To record in S-VHS, insert a cassette marked "S-VHS". The S-VHS indicator will light and the S-VHS recording mode is automatically selected.
- To record in VHS, insert a cassette marked "VHS". The VHS recording mode is automatically selected.
- You can also record in VHS on S-VHS cassettes. For this purpose, after inserting an S-VHS cassette, press the S-VHS button. The S-VHS indicator will go out.

Cassette	Type of recording	S-VHS indicator
	S-VHS	On
	VHS	Off
	VHS	Off

Preparation for ShowView Timer Programming

What is ShowView?

For timer-recording to take place, information such as the channel, date, start time and stop time of the programme you wish to record, must be programmed into the recorder's timer memory. The ShowView system condenses all this information into a simple ShowView code number. Since the ShowView number contains information on the channel number, if you live in an area that uses channel numbers that are different from those listed in your TV directory, these "differences" must be input into the remote control. This process is called "Channel Mapping" (CH MAP).

CHECK THE GUIDE PROG. NUMBERS

Preparation

- Make sure you have set the clock. (☞ p. 11)
- Make sure you have set the tuner. (☞ p. 12)
- Get a TV schedule listing (magazine, newspaper, etc.) which carries ShowView code numbers.

A Find out the channel position numbers your recorder tunes to when you use the TV PROG. +/- buttons (the positions you stored on page 12) and write them into the list.

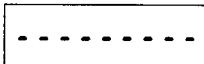
Example: 1, 2, 3, 4, 6, 8, 10, 12

B Look through the TV listing and find out the broadcast station name of each of the channels.

C Use the ShowView numbers to find out the GUIDE PROG. numbers for each of the stations.

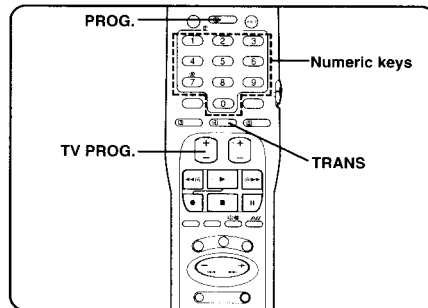
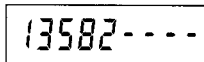
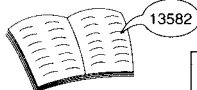
How to check:

1. Press PROG.

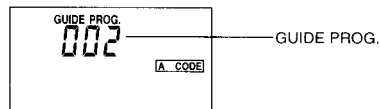


2. Press the appropriate numeric keys to enter the ShowView number for a programme as it appears in your TV listing.

- Make sure the ShowView number is for a programme which has not been broadcast yet.



3. Press TRANS.



- The number is the GUIDE PROG. number for that station. Write it into the list.

ATTENTION

- When you press the TRANS button in step 3, "Err(or)" may appear on the LCD. This may mean that you have entered a ShowView number for a programme which has already been broadcast.
- For GUIDE PROG. numbers, refer to the GUIDE PROG. number list enclosed with this instruction manual too or consult your JVC dealer.

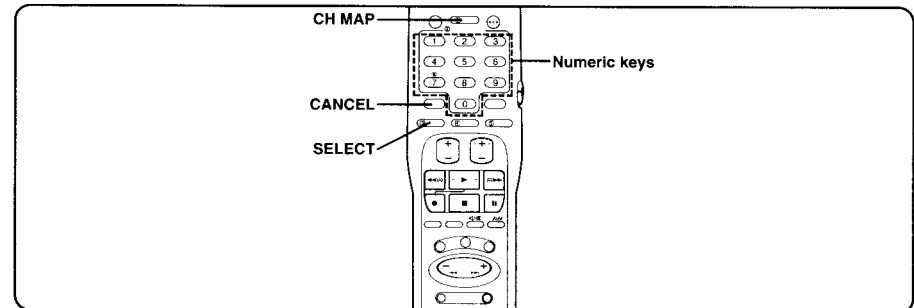
4. Press PROG.

- Repeat steps 1- 4 and check the GUIDE PROG. number for each of the channels your recorder receives.

A	B	C
Channel on your recorder (TV PROG. number)	Station name	GUIDE PROG. number
(ex.) 1	ARD	1
2	ZDF	2
3	WDR	17

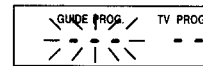
5. Press PROG. until the display shows the clock time.

- D** If the channel number that your recorder receives **A** and the GUIDE PROG. number **C** for that station do not match, it is necessary to change the remote control's Channel Map. (continued on next page)



INPUT GUIDE PROG. NUMBERS INTO REMOTE

1. Press CH MAP until the Channel Map display (below) appears in the remote control's LCD.



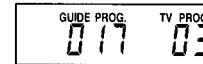
2. Press the appropriate numeric keys to enter the GUIDE PROG. number (C column in your list).

- Ex.: For "1", press
0, 0, 1.
For "10", press
0, 1, 0.



3. Press the appropriate numeric keys to enter the channel number your recorder receives that station on. (TV PROG. number, A column in your list.)

- Ex.: For "3", press
0, 3.

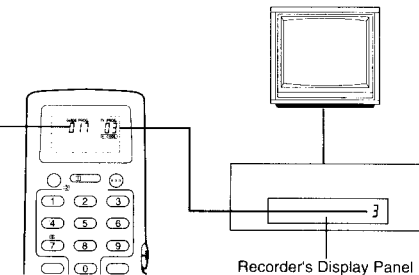


4. Press SELECT.

- To input other channels into the Channel Map, repeat steps 2- 4 above.

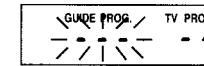
5. Press CH MAP and display the clock time.

- Ex.: From column **C** in the list: The GUIDE PROG. number for WDR is "17".
From column **A** in the list: The TV PROG. number for WDR is "3".

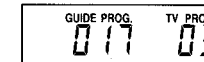


TO CHECK/CANCEL GUIDE PROG. NUMBERS IN THE REMOTE

1. Press CH MAP until the Channel Map display (below) appears in the remote control's LCD.



2. Press SELECT until the GUIDE PROG. number you wish to check or cancel is displayed.



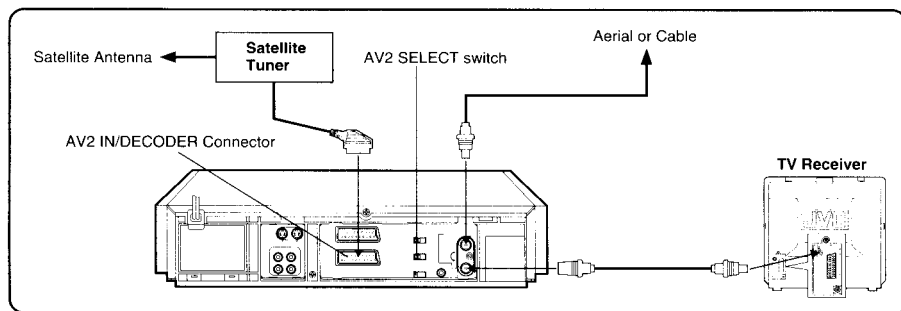
To Cancel:

3. Press CANCEL.
4. Press CH MAP and display the clock time.

NOTES:

- When you move to another area, be sure to make changes in the Channel Map as necessary.
- When the remote control's batteries are replaced, the time or Guide Channel numbers you have set may be erased. If this happens, reset them again.

Preparation for ShowView Timer Programming (cont'd)

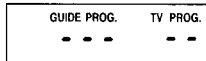


TO RECORD SATELLITE PROGRAMMES

Timer programming is also possible for programmes received via satellite tuner.

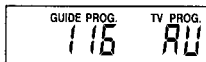
Preparation

1. Connect the satellite tuner as illustrated to the AV2 IN/DECODER connector.
 - Make sure the AV2 SELECT switch is set to "AV2 IN".
2. Press CH MAP until the Channel Map display (below) appears in the remote control's LCD.



3. Press the appropriate numeric keys to enter the GUIDE PROG. and TV PROG. numbers as follows:

- For GUIDE PROG., enter the GUIDE PROG. numbers of the satellite stations that are receivable through your satellite tuner.
- For TV PROG., always enter "00". When "00" is entered, "AU" will appear in the LCD.



4. Press SELECT.

- To input other satellite stations into the Channel Map, repeat steps 3 - 4 above.

5. Press CH MAP and display the clock time.

Operation

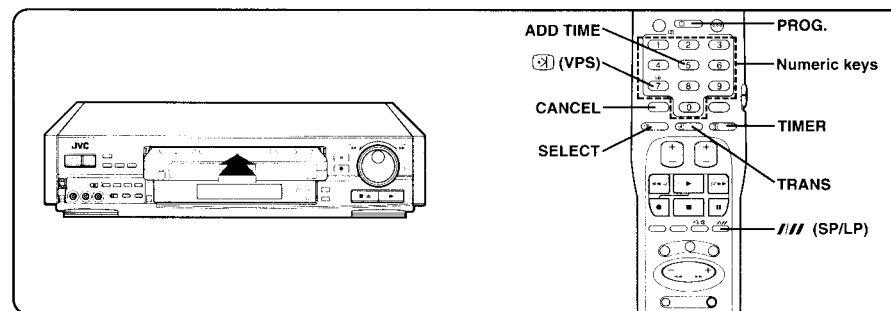
1. Turn on the satellite tuner and select the channel you wish to record.
2. Enter the ShowView number in the same way as shown in steps 1 - 7 of ShowView Timer Programming on p. 23.

NOTE:

- After selecting the programme you wish to record from your satellite tuner, set the system's timer. If your satellite tuner does not have a timer, leave it switched on.

Timer-Recording

— ShowView Timer Programming —



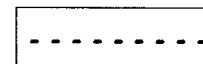
The built-in ShowView programming system greatly simplifies timer programming because you won't have to enter all the data that is usually necessary (such as date, start and stop time, and channel).

TIMER PROGRAMMING IS NOT POSSIBLE UNLESS THE CLOCK HAS BEEN SET.

Preparation

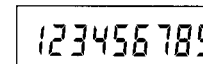
- Make sure you have set the GUIDE PROG. numbers (p. 20 - 22).
- Insert a cassette with the safety tab in place. The recorder power will come on automatically.
- Select the appropriate colour system by pressing the PAL/MESECAM button (p. 19).

1. Press PROG.



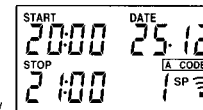
2. Press the appropriate numeric keys to enter the ShowView number for the TV programme you wish to record.

- For ShowView numbers, refer to your newspaper or TV directory.



3. Press SELECT.

- The LCD will show the data for the ShowView number you just entered.
- If the entered ShowView number is not proper, "Err" appears on the LCD. Check the ShowView number again and re-enter it.
- If you wish to take advantage of VPS recording (p. 25), "VPS" should be displayed on the LCD; if not, press (7) (the numeric key "7") to make it appear.



- WEEKLY program: After step 3, press numeric key "9".
- DAILY (Mon. - Fri.) program: After step 3, press numeric key "8".

4. Press SP/LP to select the tape speed.
5. Press TRANS with the remote control directed toward the recorder's Remote Sensor window.
6. Press PROG.
 - The LCD returns to the clock display and the entered data will be automatically cleared.
 - If you need to set another program, repeat steps 1 - 6.
7. Press TIMER.
 - The recorder will enter the Timer mode and power will go off.

TO DELAY THE STOP TIME

After you press SELECT in step 3, press the ADD TIME button. Each time the ADD TIME button is pressed, the Stop time is delayed by 5 minutes (5 minutes of recording time is added). You can easily compensate for anticipated programme schedule delays this way.

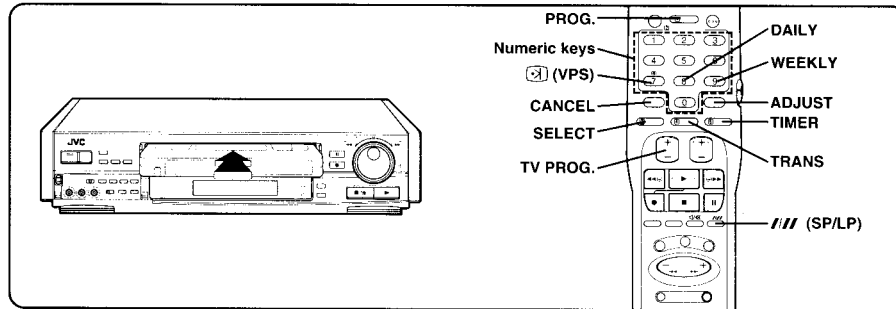
TO MAKE CORRECTIONS

- In step 2, press CANCEL to backspace and re-enter the correct ShowView number.
- After checking the data in step 3, press PROG. twice and re-enter the correct ShowView number.
- After checking the data in step 3, if you want to delay the stop time, etc. press SELECT to make the item you want to change blink, and input new data.
- Pressing PROG. clears the programmed data.

To check, cancel and replace programs, p. 24.

To use the recorder after setting to the Timer mode, p. 24.

Timer-Recording (cont'd) — LCD Timer Programming —



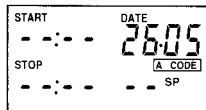
The LCD timer programming lets you input all necessary settings manually. It's helpful if the ShowView number for the TV programme you want isn't readily available.

Preparation

- Insert a cassette with the safety tab in place. The recorder power will come on automatically.
- Select the appropriate colour system by pressing the PAL/MESECAM button. (p. 19)

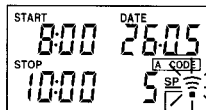
1. Press **PROG.** twice.
2. Press numeric keys to input the date.

Ex.: For 26th May, press 2 6 0 5.



3. Press numeric keys to input the start time, stop time and channel.

Ex.: For 8:00, press 0 8 0 0.



Transfer-ready mark

WEEKLY program: After you input the channel and the transfer-ready mark has appeared on the LCD, press numeric key "9".

DAILY (Mon. - Fri.) program:

After you input the channel and the transfer-ready mark has appeared on the LCD, press numeric key "8".

- If you wish to take advantage of VPS recording (p. 25), "A CODE" should be displayed on the LCD; if not, press (7) (the numeric key "7") to make it appear.
4. Press **SP/LP** to select the tape speed.
 5. Press **TRANS** with the remote control directed to the recorder's Remote Sensor window.
 6. Press **PROG.**
 - The LCD returns to the clock display and the entered data will be automatically cleared.
 7. Press **TIMER.**
 - The recorder will enter the Timer mode and power will go off.

TO MAKE CORRECTIONS

- During steps 2 and 3, press **CANCEL** to backspace and input new data.
- After setting the channel in step 3, press **SELECT** to make the item you want to change blink, and input new data.
- Pressing **PROG.** clears the programmed data.

TO CHECK, CANCEL AND REPLACE PROGRAMS

To check preset programs:

1. Press **ADJUST** until the program settings are displayed on the display panel.
 - Program 1 is displayed with the number blinking.
2. Press **SELECT** to review the program contents in succession.
3. To check another program, press **ADJUST** again.

To cancel the program:

4. Press **CANCEL.**
 - You can press **CANCEL** at any stage while the program is open.

To replace a program:

5. Use the **SELECT** and **TV PROG.** buttons to input new data.

TO USE THE RECORDER AFTER SETTING TO THE TIMER MODE

For safety, your recorder disables all other functions while in the Timer mode.

- Press **TIMER** to disengage the Timer mode.
- To re-engage the Timer mode, press **TIMER.**

NOTE:

- If you are using a satellite tuner and wish to timer-record satellite programmes, make sure to select the "AU 2" mode with the recorder's AV/S **SELECT** button (p. 27) before step 1 and input "0" for the channel number in step 3.

Error Indications

The following error indications may appear on the recorder when you press the **TIMER** button to engage the Timer Standby mode. Here's why, and what you should do.

- "TIMER" and "A CODE" on the display panel continue blinking.
 - WHY:** There is no cassette in the recorder.
 - WHAT TO DO:** Insert a cassette.
- The cassette is automatically ejected. "TIMER" and "A CODE" continue blinking.
 - WHY:** The inserted cassette has its safety tab removed.
 - WHAT TO DO:** Insert a cassette with its safety tab intact. Or cover the safety tab hole of the cassette with adhesive tape and re-insert it. (p. 5).
- "TIMER" blinks for 10 seconds and the Timer Standby mode is cancelled.
 - WHY:** There are no preset programs in memory, or they have all been incorrectly preset.
 - WHAT TO DO:** Check the programmed data and re-program it as necessary. Press **TIMER** again.

Other Indications

- "TIMER" steady lit (with clock display).
 - WHY:** The recorder is in the Timer Standby mode. This is the normal display you should see when you press the **TIMER** button.
- "A CODE" and "TIMER" steady lit.
 - WHY:** Normal display while timer-recording is in progress.
- The cassette is ejected, with power off and "TIMER" and "A CODE" are blinking.
 - WHY:** This means that the end of the tape was reached while timer-recording was in progress. Therefore, the preset program may not be recorded in its entirety.
- "0:00" blinking.
 - WHY:** This means the clock must be set. It's displayed when time-keeping is terminated due to a power failure or because the recorder's power plug was pulled from the AC outlet.
 - WHAT TO DO:** Set the clock. (p. 11).
- If power was interrupted, it's also likely that all preset timer programming data has been erased. Please check and re-program as necessary.

- "....." is displayed for about 5 seconds when the **TRANS** button is pressed.
 - WHY:** Data was not successfully transferred. The program may have been incorrectly preset, or the recorder's clock has not been set, or all the recorder's timer programs (1 - 8) are preset.
 - WHAT TO DO:** Check the LCD program, and re-program as necessary. Transfer the correct data. Or cancel unnecessary programs, and transfer again.

Other Functions

VPS Recording

Now available from some TV stations, VPS (Video Program System) is a service designed to assure safe, accurate timer-recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over advertised times you preset in the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed.

TO USE VPS SERVICE

- During ShowView or LCD timer programming, make sure that "A CODE" is displayed on the LCD before transferring the programme data to the recorder.
- If "A CODE" is not displayed on the LCD, press the (7) button (the numeric key "7") to make it appear. Pressing the (7) button alternates the setting.

NOTES:

- When you enter programmes, set the start time (VPS time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.
- VPS recording is not possible via external input.

Child Lock

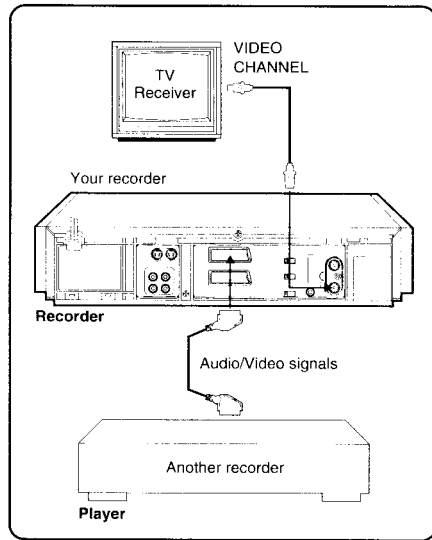
(Locking The Recorder's Controls)

To avoid unwanted operation and prevent accidental recording...

1. Press the remote control's **OPERATE** button to turn the recorder's power off. Keep this button pressed for about 2 more seconds after the power LED indicator has gone off.
 - The Child Lock indicator (-) will appear on the display panel.
2. Child Lock is cancelled when you switch the recorder's power on with the remote's **OPERATE** button.
 - Pressing the **TIMER** button during timer-recording also cancels the Child Lock mode.

NOTES:

- While Child Lock is engaged, make sure you keep your remote control in a safe place inaccessible to children.
- Timer-recording is possible in the Child Lock mode. After timer-recording is done, Child Lock remains in effect.



Editing From Another Recorder

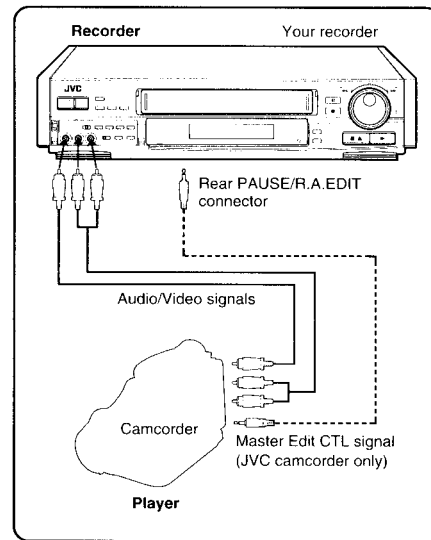
Preparation

- Connect another video recorder to the rear panel 21-pin AV1 or AV2 socket, or S IN and AUDIO IN connectors, or front panel VIDEO and AUDIO connectors.
- Engage the external input mode.
 - To select the input connectors and the corresponding external input mode, (p. 27).
- Set the IMAGE CONTROL switch to EDIT.
- Press your recorder's PAL/MESECAM button to select the appropriate colour system. (p. 19)

1. Load the source tape in the player, and the recording tape in your recorder.
2. Select the recording speed (SP or LP).
3. Put your recorder in the Record-Pause mode.
4. Play back the source tape to search for scene to be edited.
5. Press the recorder's Play button where you want to start editing.
6. Press the recorder's Pause button to stop editing.
7. Repeat steps 4 through 6 to continue editing.

NOTE:

- To minimize picture degradation while editing, set the IMAGE CONTROL switch to EDIT. After you finish editing, be sure to set the IMAGE CONTROL switch back to NORMAL.



Editing From A Camcorder

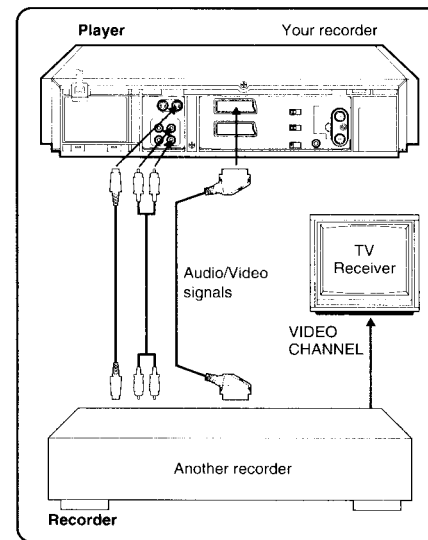
Preparation

- Connect the camcorder's AV OUT connector to the recorder's front panel VIDEO and AUDIO connectors.
- Connect the AV output cable's mini-plug to the PAUSE/R.A.EDIT connector of the recorder.
- Engage the external input mode. (p. 27)
- Set the IMAGE CONTROL switch to EDIT.
- Press your recorder's PAL/MESECAM button to select the appropriate colour system. (p. 19)

1. Follow steps 1 through 7 of "Editing From Another Recorder" on the left.

NOTES:

- If the camcorder is equipped with the Master Edit Control system, you can control the recorder using the camcorder's controls. See the camcorder's instruction manual for operating procedures.
- With this connection, you can also use the camcorder as a video camera for direct recording onto the recorder's tape. Put the recorder in Record-Pause and use the camcorder's start/stop trigger to start and pause recording. (For direct recording with a separate video camera, a camera adapter is necessary.)
- To minimize picture degradation while editing, set the IMAGE CONTROL switch to EDIT. After you finish editing, be sure to set the IMAGE CONTROL switch back to NORMAL.



Editing To Another Recorder

Preparation

- Connect your recorder's 21-pin AV1 IN/OUT socket or S OUT and AUDIO OUT connectors to the audio and video input connectors of the recording deck.
- Load the source tape in the player and the recording tape in the recorder.
- Set the IMAGE CONTROL switch to EDIT.
- Engage the recorder's AUX mode.
- Press your recorder's PAL/MESECAM button to select the appropriate colour system. (p. 19)

1. Put the recorder in the Record-Pause mode.
2. Play back the source tape to search for a scene to be edited.
3. Press the recorder's Play button.
4. Press the recorder's Pause button to stop editing.
5. Repeat steps 2 through 4 to continue editing.

NOTE:

- To minimize picture degradation while editing, set the IMAGE CONTROL switch to EDIT. After you finish editing, be sure to set the IMAGE CONTROL switch back to NORMAL.

Advantages Of S-VHS Video Recorders

You can edit from VHS to S-VHS, S-VHS to VHS, or, needless to say, from S-VHS to S-VHS.

- From VHS to S-VHS: Record VHS playback signals in the S-VHS mode. Although the picture quality is inherently limited by that of the original, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to VHS: Because the picture quality of the source material is very high, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to S-VHS: All signals will be transferred without degradation.

How To Select The External Input Mode

To record external audio and video signals;

1. Press the remote control's numeric key "0".
2. Press the AV/S SELECT on the front of the recorder to select the appropriate external input mode.
 - Pressing AV/S SELECT rotates the input mode as follows:

When using rear panel input connectors:

Connector	Mode (on display panel)
AV1 IN/OUT	AU 1
AV2 IN	AU 2
S IN and AUDIO IN	[S]

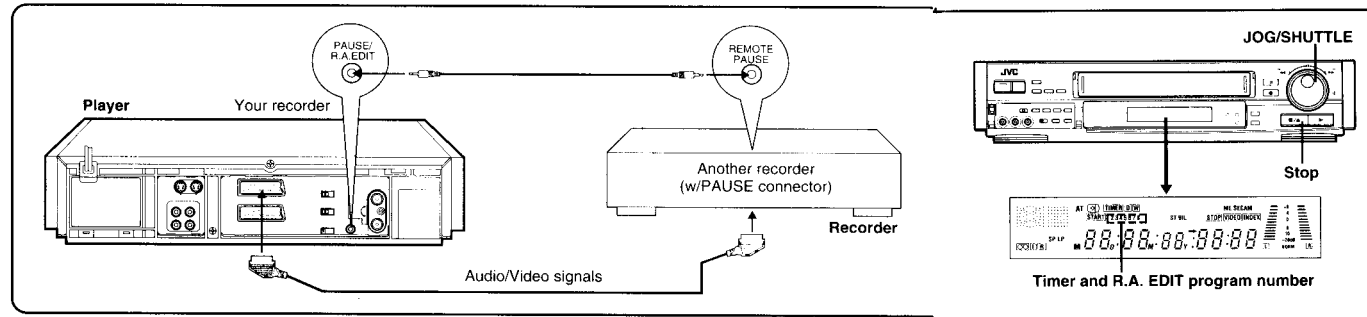


When using front panel input connectors:

Connector	Mode (on display panel)
V (Video), A (Audio) L and R	F-AU

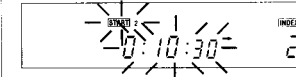
NOTES:

- To record input signals from the AV2 IN/DECODER connector, set the AV2 SELECT switch on the rear of the recorder to AV2 IN.
- Connections made to the front panel Video and Audio inputs automatically override the rear panel AUDIO/VIDEO input connection. If you wish to edit with another machine connected to the rear input connector, make sure that there is nothing connected to the front connectors.
- Use the L connector for monaural connection.



Using Index Search With Random Assemble Editing

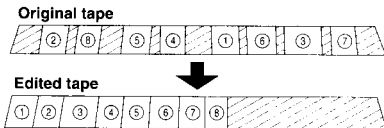
In step 4, Index Search can also be used to locate your edit points. When used, "INDEX" and the index number will appear on the display panel. For Index Search see p. 15.



■ Using Index Search during R.A.Edit will result in a reduction in accuracy.

PREPARATION

This function makes it easier to create edited videos when your recorder is used as the source player in combination with another video deck which is equipped with a PAUSE (i.e. REMOTE PAUSE) terminal. You can pre-program up to 8 scenes or "cuts" for automatic editing in the sequence you have specified.



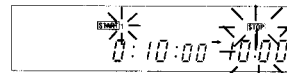
1. Connect your recorder's AV1 IN/OUT connector to the recording deck's AUDIO/VIDEO IN connectors.
2. Connect your recorder's PAUSE/R.A.EDIT connector to the recording deck's PAUSE connector.
 - If the recording deck does not have a PAUSE connector, connect to the R.A.EDIT connector.
3. Turn both units on.
4. Engage the recorder's AUX (iliary) mode.

OPERATION

1. Insert a recorded cassette into your recorder, and insert a cassette (with safety tab intact) into the recording deck.
2. Play back the tape in your recorder.
3. Press the R.A.EDIT button.
 - The display panel will change to the R.A.EDIT mode.



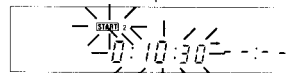
4. Use the JOG/SHUTTLE to search for the point where you want an edited scene to start, and press IN/OUT.
 - The cut-in point is registered in memory.



5. Use the JOG/SHUTTLE to search for the point where you want the scene to end, and press IN/OUT.
 - The cut-out point is registered in memory.

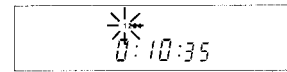


After 3 seconds.



6. Specify additional scenes by repeating steps 4 - 5.
7. Put the recording deck in the Record-Pause mode.

8. Press START.
 - The function begins automatic editing; all the specified scenes are copied to the recording deck in sequential order.



9. Press R.A.EDIT again.
10. Press Stop on both decks to end Random Assemble Editing.
 - While a scene is being searched, the recording deck automatically enters the Record-Pause mode.
 - When Random Assemble Editing is finished, your recorder enters the Still mode, the recording deck enters the Record-Pause mode, and the cursor blinks at the next available scene number.

To check, cancel and replace programs, see p. 30.

Sound Shuttle

You can also monitor the sound when searching for scenes you want to edit in steps 4 - 5. Since you can hear the soundtrack during selection, you can avoid abrupt or unnatural sounding scene-to-scene connections.

Using The Remote Control

You can also use the remote control's buttons for R.A.EDIT operation. Make sure the remote control is set to the code corresponding to the player.

Memory Capacity

Random Assemble Editing utilizes the same memory space as the recorder's timer; so the number of sequences available to this function may not be 8, depending on how many programs are already stored in memory.

Example: When three programs are stored in memory (timer program number 1, 3 and 4).

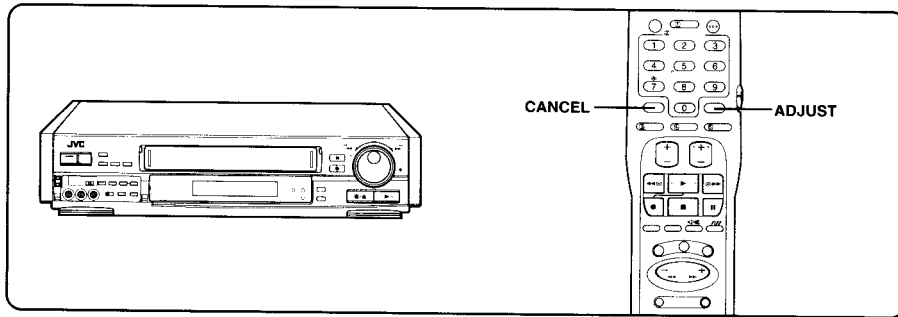
	Program number on display panel							
Timer program	1		3	4				
R.A.EDIT program		2			5	6	7	8

Only 5 programs can be programmed for R.A.EDIT. The program numbers 2, 5, 6, 7, 8 are available and R.A.EDIT will be performed in this order.

■ If the display panel shows "-- -- -- --" when you press R.A.EDIT, the memory is already full of timer programs. If this happens, cancel some of the timer programs. (see p. 25.)

NOTES:

- When editing, there may be a discrepancy of about 2 seconds on the playback tape between the locations you chose as cut-in/out points and the locations the recorder recognizes as those points.
- For any scene, the cut-out point must have a counter reading that is at least 1 second after the cut-in point. A cut-out point with a counter reading less than or the same as the cut-in point will not be registered.
- Since the playback deck prerolls during Random Assemble Editing, there must be at least 15 seconds worth of recorded material prior to any cut-in point on the playback tape.
- If the search time for a cut-in point exceeds 5 minutes, the recording deck's Record-Pause mode will be cancelled and editing will not take place.

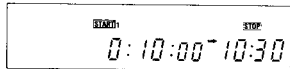


TO CHECK PROGRAMS

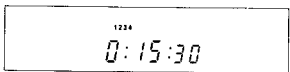
While in the R.A.EDIT mode:

1. Press ADJUST.

- The display panel shows the program number and contents in chronological order as the button is pressed.



- If you press ADJUST again after the last program is displayed, the total running time of the edited program will appear.



- You can also check the current total running time during programming.

TO CANCEL AND REPLACE PROGRAMS

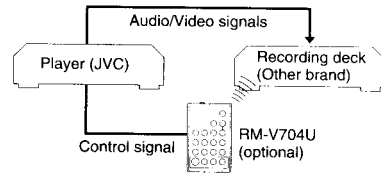
During steps 4 and 5 (p. 28) or when checking programs:

1. Press CANCEL.

- The displayed program will be cleared.
- To cancel another program, press ADJUST until the program you want to cancel appears on the display panel, and then press CANCEL.
- To replace a program, perform steps 4 and 5.

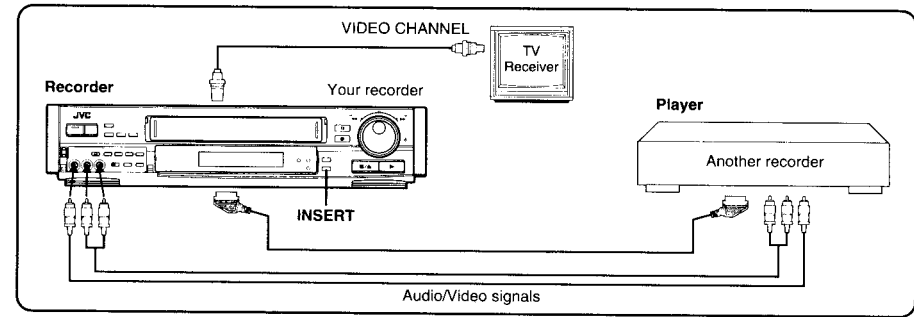
Optional RM-V704U Multi-Brand R.A.Edit Remote Control

By connecting this remote control to your recorder's R.A.EDIT Connector, Random Assemble Editing will become possible in conjunction with a second non-JVC deck. The RM-V704U is compatible with various European VCR brands — convenient especially if you already own a recorder other than JVC. For compatible systems and availability, please consult your JVC dealer.



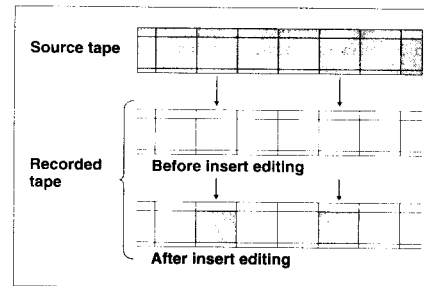
NOTE:

- Although the RM-V704U is designed to operate the recording deck, it may not work with some VCRs, or may have limited function capability.



Insert Editing

Insert editing replaces part of the recorded scene with new material. Both the picture and Hi-Fi audio soundtrack are replaced with new ones, while the normal audio soundtrack remains unchanged. If you wish to change the normal audio track as well, use the audio dubbing function simultaneously.



Preparation

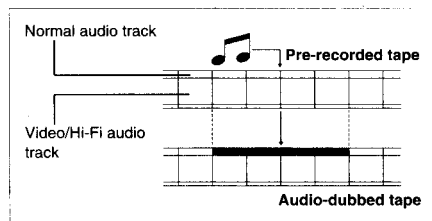
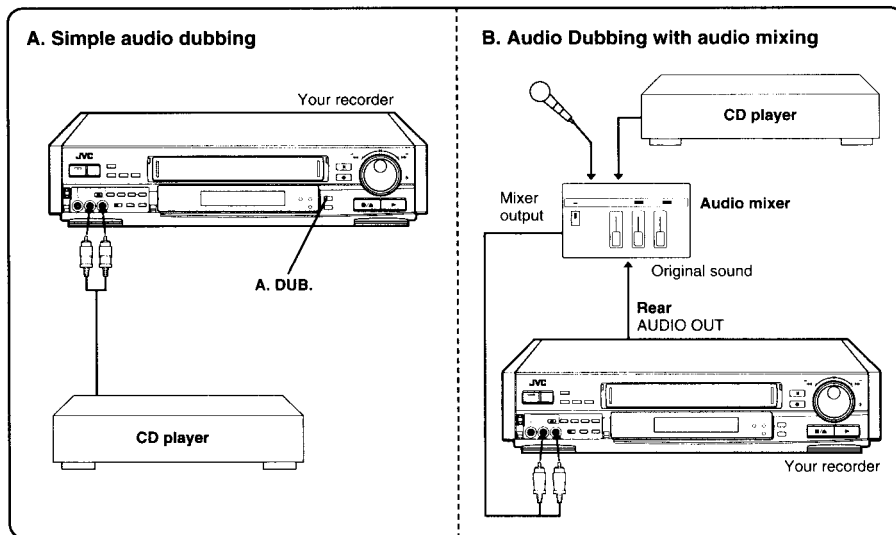
- Connect another video recorder to the rear panel 21-pin AV1 or AV2 socket, or front panel AUDIO and VIDEO connectors.
- Engage the external input mode.
 - To select the input connectors and the corresponding external input mode, see p. 27.

1. Load the source tape in the player, and the recording tape in your recorder.
2. Play back the recording tape and determine the edit-out point (the end of the segment to be replaced) using the JOG/SHUTTLE controls.
 - Releasing the JOG/SHUTTLE controls engages the Still mode.
3. Press C. RESET. (0:00:00)
4. Determine the edit-in point (the beginning of the segment to be replaced) using the JOG/SHUTTLE controls.
5. Press INSERT. (Insert-Pause mode)
 - For simultaneous replacement of the normal audio soundtrack, press A. DUB as well.
 - The TV screen changes from the still picture to the input signal you are going to record.
6. Play back the segment of the source tape to be inserted.
7. Press Play.
 - Insert editing will start. At counter 0:00:00, insert editing will stop automatically while the tape continues running in the Play mode.
 - If you wish to stop insert editing before the specified edit-out point, press C. RESET.

NOTES:

- Suitable leads can be obtained from your dealer.
- Insert editing is not possible with cassettes whose safety tab has been removed.
- In insert editing, the recording speed (SP/LP) is determined by the previous recording to be replaced. If the previous recording's speed changes within a single edit, the inserted picture will be distorted at the switching point.

Audio Dubbing



Audio dubbing replaces the normal audio sound of a previously recorded tape with a new soundtrack.

Preparation

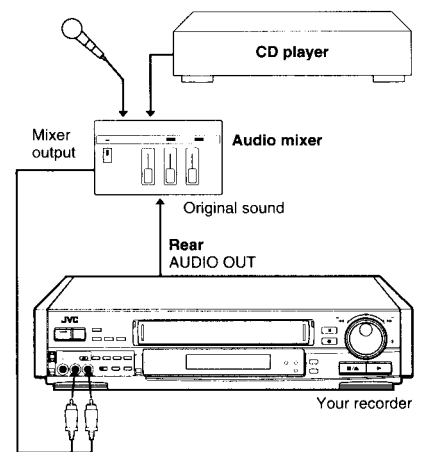
Connect an audio component to the recorder's front panel AUDIO L, R connectors. (For monaural equipment, use the L connector.)

Operation

A. Simple audio dubbing

- Select the recorder's external input mode by pressing numeric key "0". "F-AU" will appear instead of a preset number.
- Start playback and engage the Still mode at the point from which you wish to start audio dubbing.
- Press A. DUB.
- Start playback of the audio source, and then press Play.
 - Audio dubbing will start.
- Press Pause/Slow to stop audio dubbing temporarily.
- Press Stop to stop audio dubbing.

B. Audio Dubbing with audio mixing



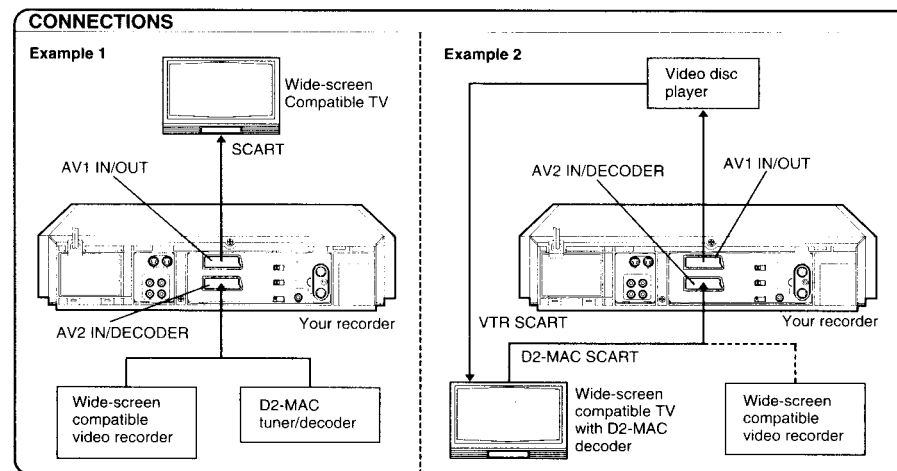
B. Audio Dubbing with audio mixing

Perform the same procedure as described on the left, however, when the recorder is in the Audio Dubbing Pause mode in step 3, be sure to select the L+R position by pressing the Hi-Fi/NORM/MIX button. This operation is not possible without an audio mixer nor with a monaural tape.

NOTES:

- When monitoring the sound during Audio Dubbing, the normal soundtrack will be automatically selected. If you wish to hear the mixed sound (Hi-Fi + normal soundtracks), press the Hi-Fi/NORM/MIX button to select the MIX mode. (p. 16.)
- Audio dubbing will stop automatically at the counter reading of "0:00:00", and the recorder will enter the Play mode. Check the counter before starting audio dubbing.
- Audio dubbing is also possible with input via the rear panel AV1 IN/OUT or AV2 IN. In these cases, select the appropriate input mode. (p. 27)
- Connections made to the front panel VIDEO and AUDIO input automatically override the rear panel AV input connection.
- Audio dubbing is not possible with cassettes whose safety tab has been removed.
- When playing back an audio-dubbed tape, press the Hi-Fi/NORM/MIX button to select the soundtrack you wish to hear. (p. 16)

Information On Wide-Screen Viewing And Recording - D2-MAC -



Wide-Screen Viewing And Recording

If your television is compatible with the 16:9 wide-screen format, please read this page to take full advantage of this recorder's Auto 16:9 function.

Set this switch to AUTO. Then your recorder will automatically record wide-screen programmes as "wide" and normal programmes as "normal".



Whichever position of this switch is selected, your recorder will automatically:

- play back wide-screen programmes as "wide" and normal programmes as "normal".
- control the television (if equipped with Auto Aspect Ratio Switching function) so that both types of programmes are displayed with the right proportions.

NOTES:

- When using the Auto 16:9 function, press TV/VIDEO to make the VIDEO indicator disappear from the display panel.
- When connecting a wide-screen compatible TV to the AV2 IN/DECODER connector, set the AV2 SELECT switch on the rear of the recorder to "AV2 IN".
- For the recorder to control the television, it must be connected to the TV via the AV1 IN/OUT connector.
- For the recorder to record in the correct mode automatically, the signal must be applied to either the AV1 IN/OUT or AV2 IN/DECODER connector.
- When recording wide-screen programmes via the S INPUT (S IN) or V INPUT connector, for example in tape-to-tape dubbing, set the 16:9 REC switch to MANUAL.
- When playing back wide-screen programmes via the S OUT connector, switch the television to the 16:9 mode manually.

What You See On The Screen

Normal programmes Wide-screen programmes

Normal television (4:3 aspect ratio)



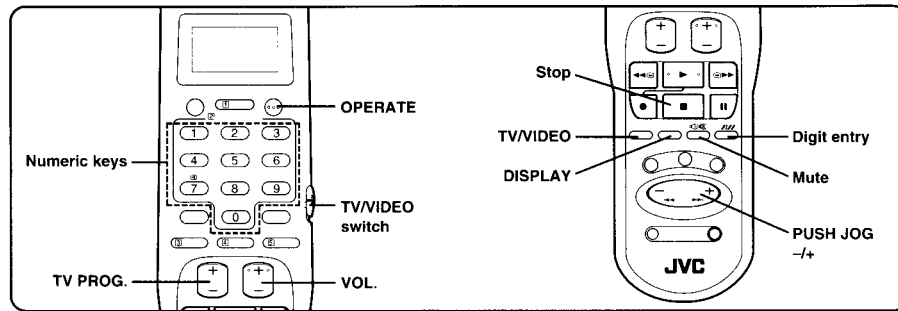
Wide-compatible normal television (4:3 aspect ratio)



Wide-screen television (16:9 aspect ratio)



Using The Remote Control For TV Operation



TV Code Setting

Your remote control can operate the basic functions of your TV set. In addition to JVC televisions, other manufacturers' televisions listed on the right can also be controlled by setting the remote control to "TV". If your television is a JVC (Code 01), you don't have to set the TV code in step 2.

- Set the TV/VIDEO switch to "TV".
- While holding down the OPERATE button, press the numeric keys corresponding to the code number for your TV's brand and then press Stop.
 - Press OPERATE to turn the TV power on.
 - Press TV/VIDEO to switch the TV between TV and VIDEO (or AV) mode.
 - Press TV PROG. to select the TV's channel.
 - Press VOL. to adjust the TV's sound volume.
 - Press Mute to mute the TV's sound.
- To operate your recorder, set the TV/VIDEO switch back to "VIDEO".

NOTES:

- The TV PROG. button does not function with televisions using Code 02.
- The TV/VIDEO button does not function with televisions using Code 03.
- With some televisions, the OPERATE button functions only to turn the TV power off, and the TV/VIDEO button functions only to switch the TV to the VIDEO (AV) mode.
- Whenever you replace batteries in the remote control, it is necessary to re-set the TV code if your television is not a JVC TV.

IMPORTANT

Although the provided remote control unit is compatible with JVC television, as well as many other TV models, it may not work with your TV, or in some instances, may have limited function capability.

CODE	TV BRAND NAME
01	JVC
02	BRANDT, NORDMENDE, SABA, TELEAVIA, TELEFUNKEN, THOMSON
03	FERGUSON
04	PHILIPS
05	BLAUPUNKT, GRUNDIG
06	SONY
07	PANASONIC
08	GRAETZ, ITT, LUXOR, SALORA, SELECO
09	MIVAR

To Control Your Television With Additional Buttons

The numeric keys can also be used to select the TV's channel by setting the remote control to the TV mode.

- Set the TV/VIDEO switch to "TV".
- Use the numeric keys and the Digit entry button or the PUSH JOG button or DISPLAY button to select the TV's channel.
 - With televisions under Code 01, 03, 04, 06 or 07 the Digit entry button corresponds to the 1-digit/2-digit entry switching button (often labelled -/-) of your TV's remote control.
 - With televisions under Code 01, 08 or 09, the PUSH JOG - button corresponds to the 10 + button, and the PUSH JOG + button, to the 20 + button of your TV's remote control.
 - With televisions using Code 09 the DISPLAY button corresponds to the 30 + button.

NOTE:

The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

Precautions

Please follow these safety precautions. Not doing so may result in damage to the recorder, remote control, or video cassette.

- Avoid extreme heat and direct sunlight.
- Avoid extreme cold.
- Avoid extreme humidity.
- Avoid dust.
- Avoid places subject to vibrations.
- Avoid strong magnetic fields.
- Do not block the recorder's ventilation openings.
- Do not place anything heavy on the recorder or remote control.
- Do not place anything which might spill on top of the recorder or remote control.
- Do not place the recorder on cushions, pillows, or thick carpeting.
- Use the recorder in a stable, horizontal position only.

Beware of moisture condensation

Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions — just as water droplets form on the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder's power turned on for a few hours to let the moisture dry.

When transporting

- Be sure to remove cassette from recorder before packing.
- Avoid violent shocks to the recorder during packing and transport.

Place cassettes in cassette cases and store vertically.

Specifications

GENERAL

Power requirement	: AC 220 – 240 V~, 50/60 Hz
Power consumption	: 24 W
Temperature	
Operating	: 5°C to 40°C
Storage	: -20°C to 60°C
Dimensions (WxHxD)	: 426 x 94 x 341 mm
Weight	: 4.5 kg
Format	: S-VHS/VHS PAL standard with Hi-Fi audio
Maximum recording time (SP)	: 240 min. with E-240 video cassette
(LP)	: 480 min. with E-240 video cassette

VIDEO/AUDIO

Signal system	: PAL-type colour signal and CCIR monochrome signal, 625 lines/50 fields
Recording/Playback system	: DA-4 (Double Azimuth) head helical scan system
Signal-to-noise ratio	: 45 dB
Horizontal resolution	: 250 lines (VHS) 400 lines (S-VHS)
Frequency range	: 70 Hz to 10,000 Hz (Normal audio) 20 Hz to 20,000 Hz (Hi-Fi audio)
Input/Output	: 21-pin scart connectors (IN/OUT x 1, IN/DECODER x 1) RCA connectors (VIDEO IN x 1, AUDIO IN x 2, AUDIO OUT x 1, S connectors (IN x 1, OUT x 1)

TUNER/TIMER

TV channel storage capacity	: 80 positions (+AUX position "AU")
Channel coverage	: VHF 47 – 89/104 – 300/ 302 – 470 MHz UHF 470 – 862 MHz
Aerial output	: UHF channel 36 (Adjustable 32 – 40)
Memory backup time	: Approx. 3 min.

ACCESSORIES

Provided accessories	: Aerial cable, Infrared remote control unit, "R03" battery x 2, Audio cable, S-Video cable
----------------------	---

Design and specifications subject to change without notice. Specifications shown are for SP mode unless otherwise specified.

In Case Of Difficulty

POWER AND TAPE TRANSPORT PROBLEMS

Symptoms	Check points
No power is applied to the recorder.	<ul style="list-style-type: none"> Is the power cord disconnected? — Connect it.
Clock is functioning properly, but the recorder cannot be powered.	<ul style="list-style-type: none"> Is "TIMER" displayed on the display panel? — Press the TIMER button to extinguish the display.
Tape stops during rewind or fast-forward.	<ul style="list-style-type: none"> Is the C. MEMORY button pressed? — Press again to make "M" disappear from the display panel.

RECORDING PROBLEMS

Symptoms	Check points
Recording cannot be started.	<ul style="list-style-type: none"> Is a cassette loaded? Is the safety tab on the cassette removed? — Reseal the slot with adhesive tape.
TV broadcasts cannot be recorded.	<ul style="list-style-type: none"> Has "external input" been selected? — Set to the desired channel.
Tape-to-tape editing or camera recording is not possible.	<ul style="list-style-type: none"> Is the camcorder or another video recorder correctly connected? Are all necessary power switches turned ON? Has "external input" been selected? — Set to the correct input mode. (☞ p. 27)
Timer recording is not possible.	<ul style="list-style-type: none"> Have you set the clock correctly and programmed the timer correctly? — Check once again. Is "TIMER" displayed on the display panel? — If not, press the TIMER button to display "TIMER".
ShowView timer recording is not possible, or cannot be done correctly.	<ul style="list-style-type: none"> Have you set GUIDE PROG. numbers into the remote control correctly? (☞ p. 20, 21) Did you enter the correct ShowView number for that programme? (☞ p. 23)
Satellite programmes are not correctly timer-recorded.	<ul style="list-style-type: none"> Have you connected the satellite tuner to the recorder's AV2 IN/DECODER connector? — If not, make this connection. (☞ p. 22) Have you selected "AU 2" as the channel? — Make sure "AU 2" is selected as the recording channel. (☞ p. 24)

PLAYBACK PROBLEMS

Symptoms	Check points
Playback picture does not appear while the tape is running.	<ul style="list-style-type: none"> If you are using RF OUT connection, is the TV receiver's channel selector set to the correct video channel? — Set it to the RF converter channel (UHF 36). (☞ p. 8) If you are using AV connection, is the TV receiver set to the AV mode? — Set it to the AV mode.
Noise occurs during visual search.	<ul style="list-style-type: none"> This is normal.
Noise occurs during normal or slow-motion playback.	<ul style="list-style-type: none"> Is the automatic tracking mode engaged? — Try manual tracking. (☞ p. 14)
Playback picture is blurred or interrupted while TV broadcasts are clear.	<ul style="list-style-type: none"> Video heads may be dirty. — Head cleaning is necessary. Consult your JVC dealer. (☞ p. 37)
Playback picture has a loss of colour.	<ul style="list-style-type: none"> Have you selected the appropriate colour system for the tape being played back? — Select the correct colour system by pressing the PAL/MESECAM button. (☞ p. 19) Was the PAL/MESECAM button set to the wrong setting during recording? — Once recorded, the signal cannot be corrected. Be sure to choose the correct setting before recording.
Breaks are noticeable in Hi-Fi audio reproduction.	<ul style="list-style-type: none"> Is the automatic tracking mode engaged? — Try manual tracking (☞ p. 14)

OTHERS

Symptoms	Check points
Whistling or howling is heard from TV during camera recording.	<ul style="list-style-type: none"> Move camcorder or camera's microphone away from TV or reduce TV sound volume.
Channel cannot be switched.	<ul style="list-style-type: none"> Is recording in progress? — Press the Pause/Slow button, change the channel, and press the Play button.
Remote control does not function.	<ul style="list-style-type: none"> Are the batteries discharged? — Replace with new ones. Is the TV/VIDEO code switch set to the appropriate position? — Check once again. Check the A/B code changeover mechanism. The code should change when you press the A/B button on the remote control for more than 2 seconds.

ATTENTION:

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the power off and unplug the power cord. Then plug it in again and switch on. Take out the cassette. After checking the cassette, operate the unit as usual.

Special Note on Head Cleaning

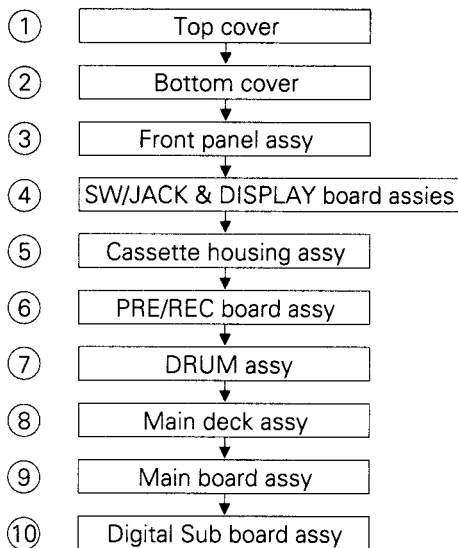


- If the picture playback becomes blurred, it does not mean that the recorded program has been erased.
- Dirt accumulated on the video heads after long periods of use causes such troubles. In this case, head cleaning requiring highly technical care is necessary.
- For head cleaning, consult the nearest JVC dealer.

SECTION 1 DISASSEMBLY

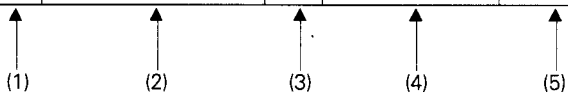
1.1 DISASSEMBLY FLOW CHART

This flowchart lists shows the disassembly steps for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend,route and dress the flat cables as they were originally.



1.2 HOW TO READ THE DISASSEMBLY AND ASSEMBLY

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1)	
②	BOTTOM COVER	D2	(S2), 7(L1)	
③	FRONT PANEL ASSY	D3	7(L2),*JOG/SHUTTLE	<NOTE 1>
④	SW/JACK & DISPLAY BOARD ASSIES	D4	12(L3),*CN1	<NOTE 2>
⑤	CASSETTE HOUSING ASSY	D5	4(S3) EARTH PLATE	<NOTE 3>
⑥	PRE/REC BOARD ASSY	D6	2(S4),*CN1 *CN201,*CN202 SHIELD CASE	



- (1) Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) NO. of parts Figures.
- (2) Part name to be removed or installed.
- (3) Fig.No. showing procedure or part location
- (4) Identification of part to be removed,unhooked,unlocked, released,unplugged,unclamped or unsoldered. P = Spring, W = Washer, S = Screw, L = Locking tab, * = Unhook,unlock, release,unplug or unsolder.
- (5) Adjustment information for installation

1.3 DISASSEMBLY/ASSEMBLY METHOD

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	TOP COVER	D1	4(S1),(S2) SIDE PANEL (L),(R)	
②	BOTTOM COVER	D2	(S3), 7(L1),2(P1)	
③	FRONT PANEL ASSY	D3	7(L2),*JOG/SHUTTLE	<NOTE1>
④	SW/JACK & DISPLAY BOARD ASSIES	D4	13(L3),*CN1,*CN4	<NOTE2>
⑤	CASSETTE HOUSING ASSY	D5	2(S4),2(S5) EARTH PLATE	<NOTE3>
⑥	PRE/REC BOARD ASSY	D6	2(S6),*CN1 *CN201,*CN103 SHIELD CASE	
⑦	DRUM ASSY	D7	3(S7),WR1,4(L4), INERTIA PLATE	<NOTE4>
⑧	MAIN DECK ASSY	D8	2(S8),WR2 WR3,2(L5),*CN603	<NOTE5>
⑨	MAIN BOARD ASSY	D9	2(S9),(L6)	
⑩	DIGITAL SUB BOARD ASSY	D9	2(S10),(L7)	

<NOTE1>

When reattaching the front panel assy, make sure that the door opener (a) of the cassette housing assy is lowered in position prior to the reinstallation.

<NOTE2>

When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE3>

When reattaching the cassette housing assy, pay careful attention to the switch lever not to make it touch the REC switch knob of the REC SAFETY board assy from the up-side.

(If the REC switch knob of the REC SAFETY board assy is damaged, cassette loading is impossible.)

<NOTE4>

When plugging the connector in, check that the flat wire is inserted properly and fully.

<NOTE5>

- When removing the Main deck assy only, unhook the two spacers connecting it with the Main board assy with pliers from the back side of the Main board assy first, and then remove the Main deck assy.
- When reattaching the Main deck assy to the Main board assy, make sure to set the spacers into the retaining slots respectively.

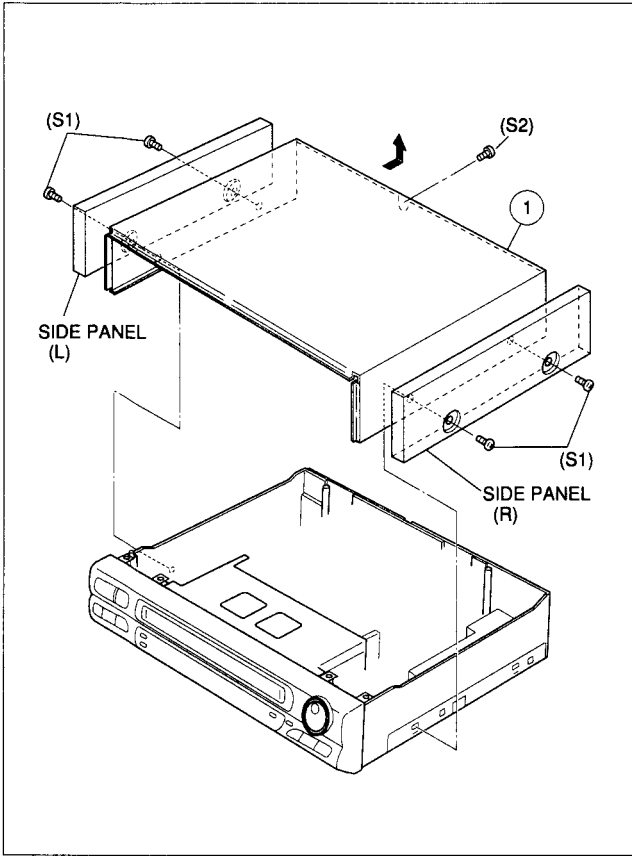


Fig. D1

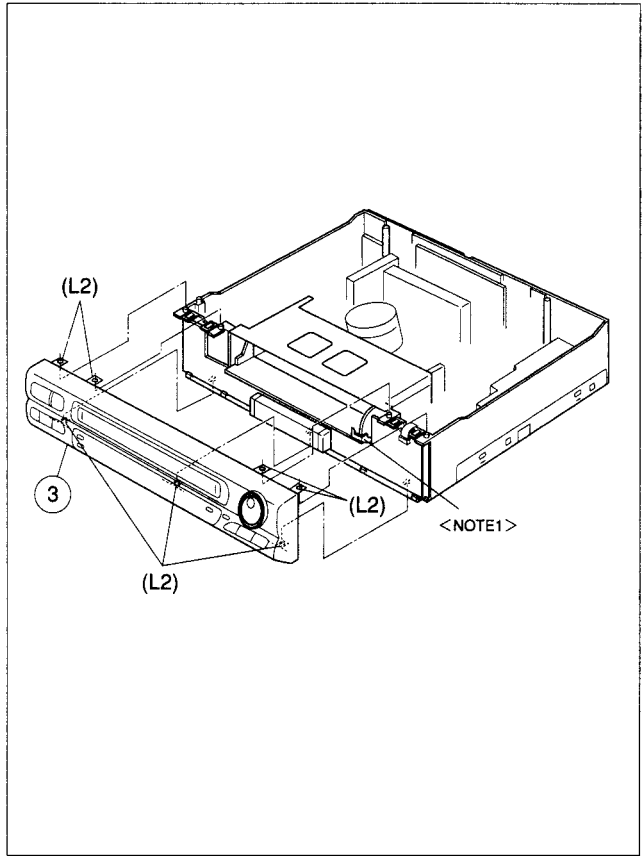


Fig. D3

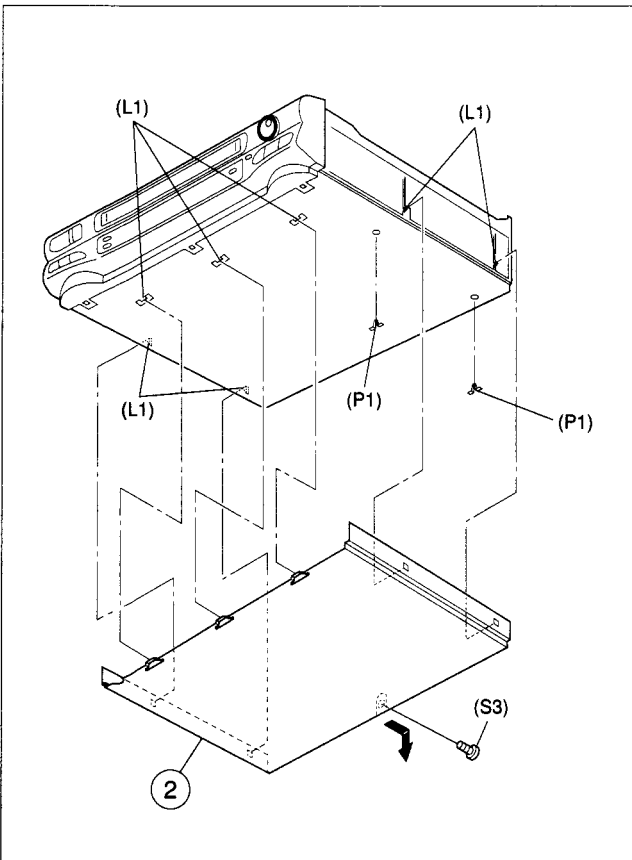


Fig. D2

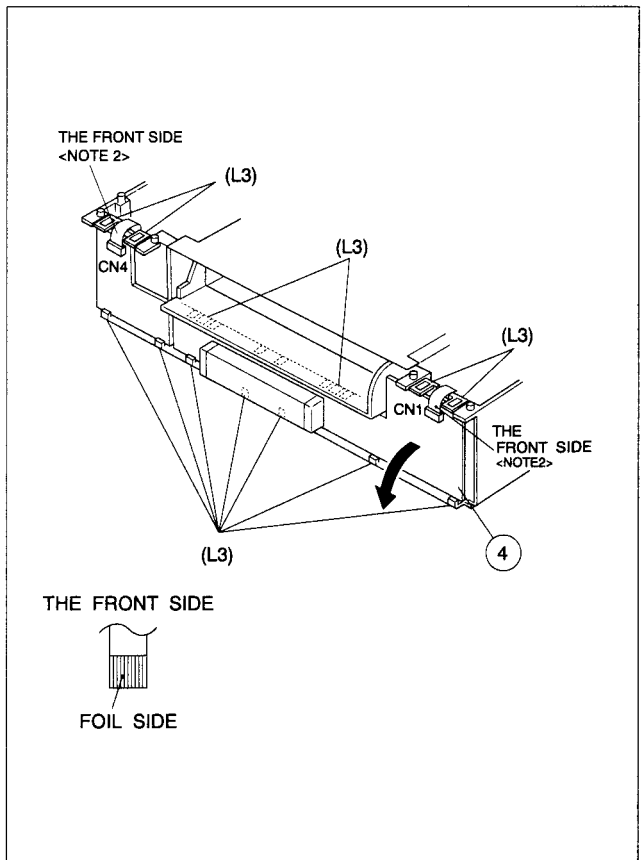


Fig. D4

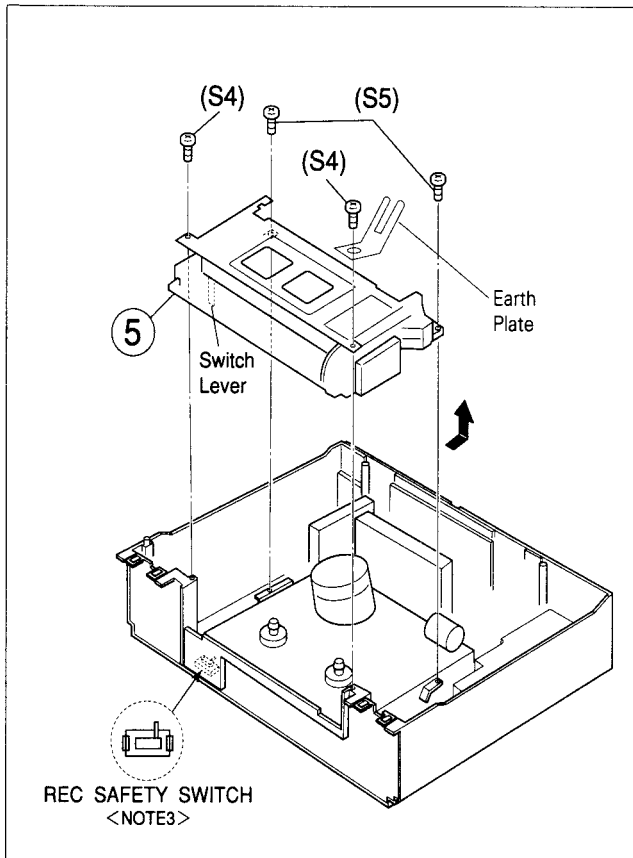


Fig. D5

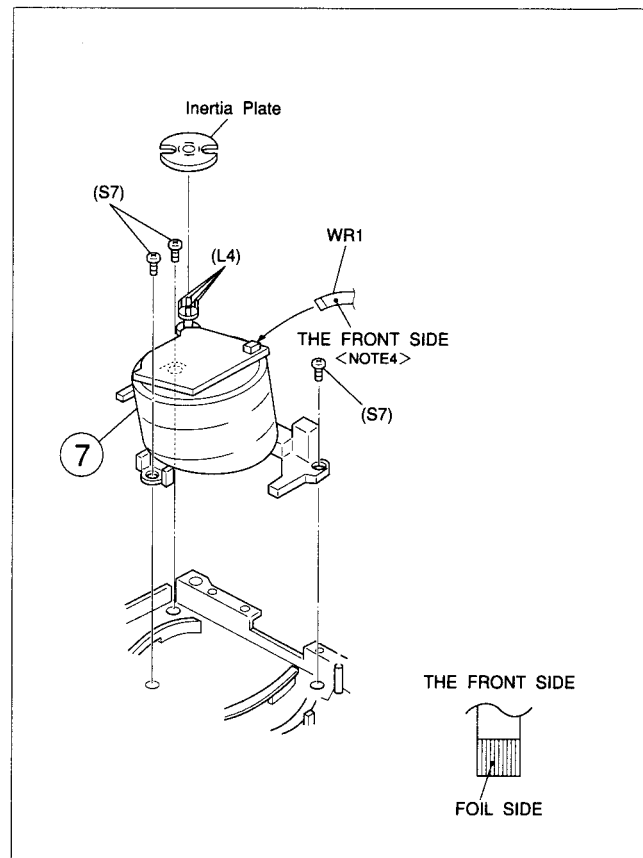


Fig. D7

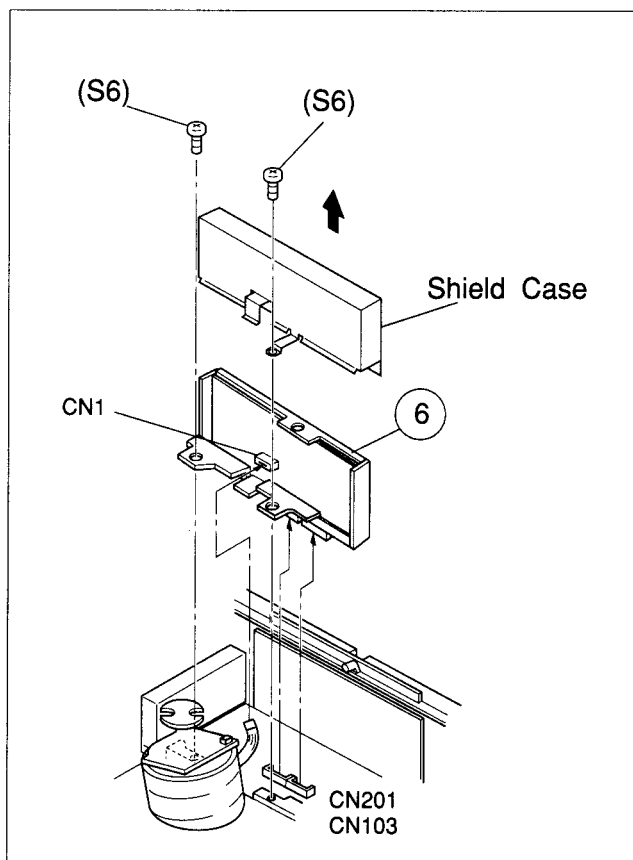


Fig. D6

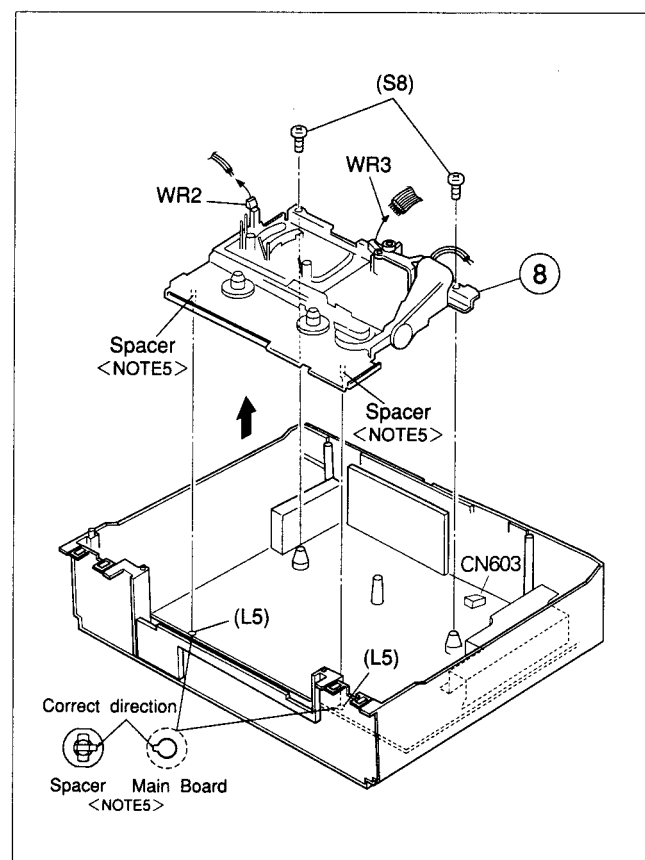


Fig. D8

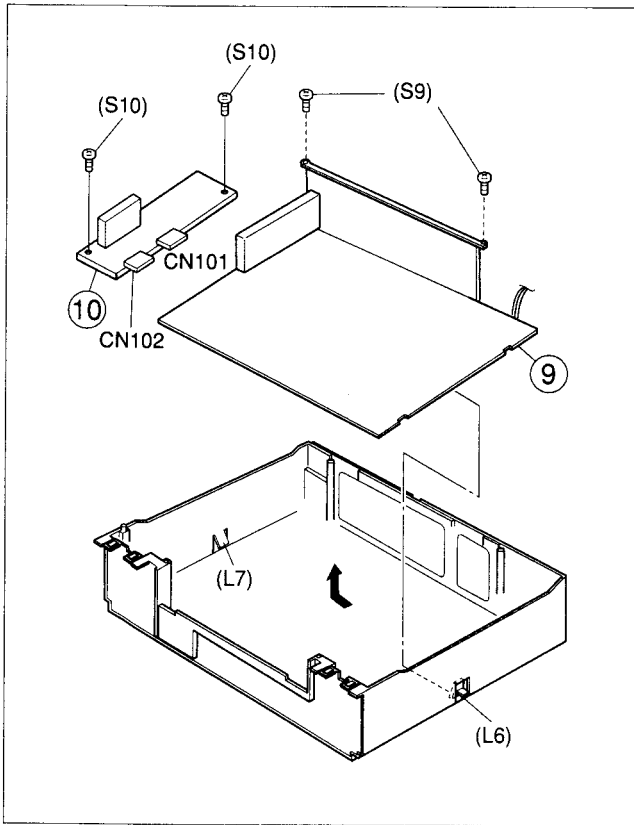


Fig. D9

1.4 CASSETTE HOUSING INSTALLATION

NOTE: Observe the mechanical phase and position (see figure) when installing the cassette housing assembly. If these are incorrect, the system will not operate properly even when tape is inserted.

1. Check that the hole of the control cam are aligned to the deck hole. If necessary, turn the mode motor belt by hand to adjust the position.

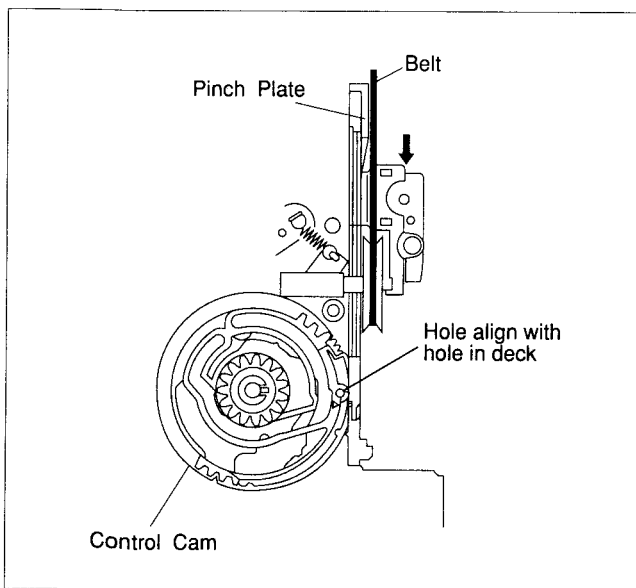


Fig. 1-4-1

1.5 SERVICE POSITION

1.5.1 How to take out the Mechanism and Main board assemblies.

- (1) Remove the Top cover, Front panel assy and CN1 and CN4 of the DISPLAY board assy.
- (2) Take out 4 screws (A), 2 screws (B), 1 screw (C) and 2 screws (D) as shown in Fig.1-5-1.

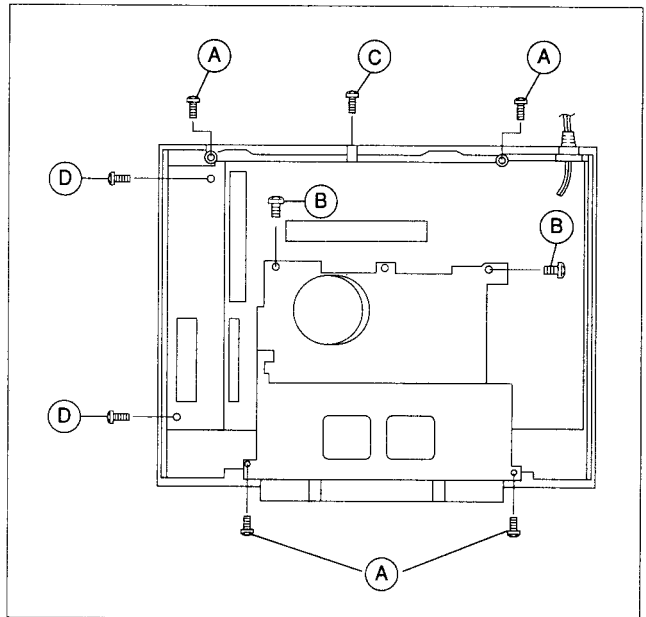


Fig. 1-5-1

- (3) Disengage 2 claws (a) from the chassis.
- (4) Remove the Mechanism assy (including Cassette housing) and Main board assy out of the chassis as shown in Fig. 1-5-2.

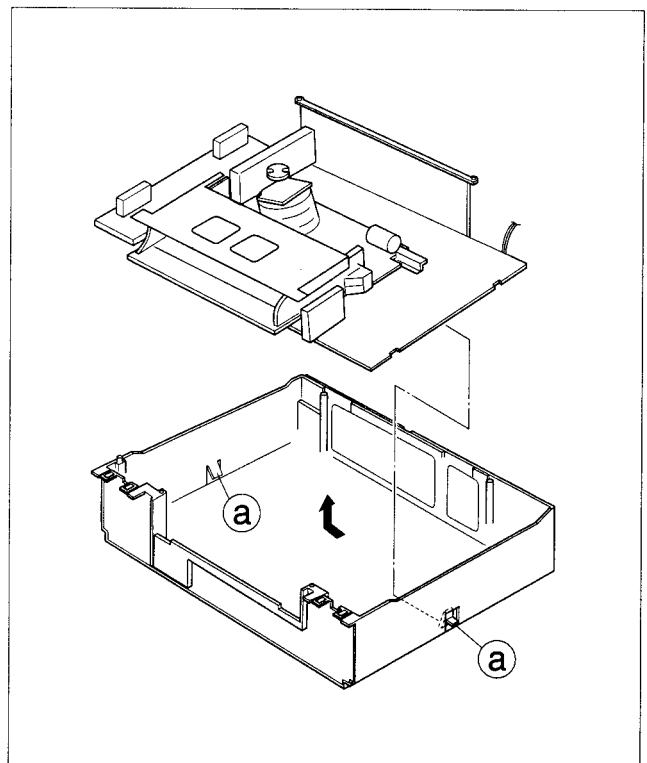


Fig. 1-5-2

- (5) Turn over the Mechanism assy and Main board assy then connect CN1 of the DISPLAY board assy.
- (6) Carry out checks & repairs as necessary as shown in Fig.1-5-3.

Note: When input the AUDIO/VIDEO signal from connector, connect CN4 of the SW/JACK board assy.

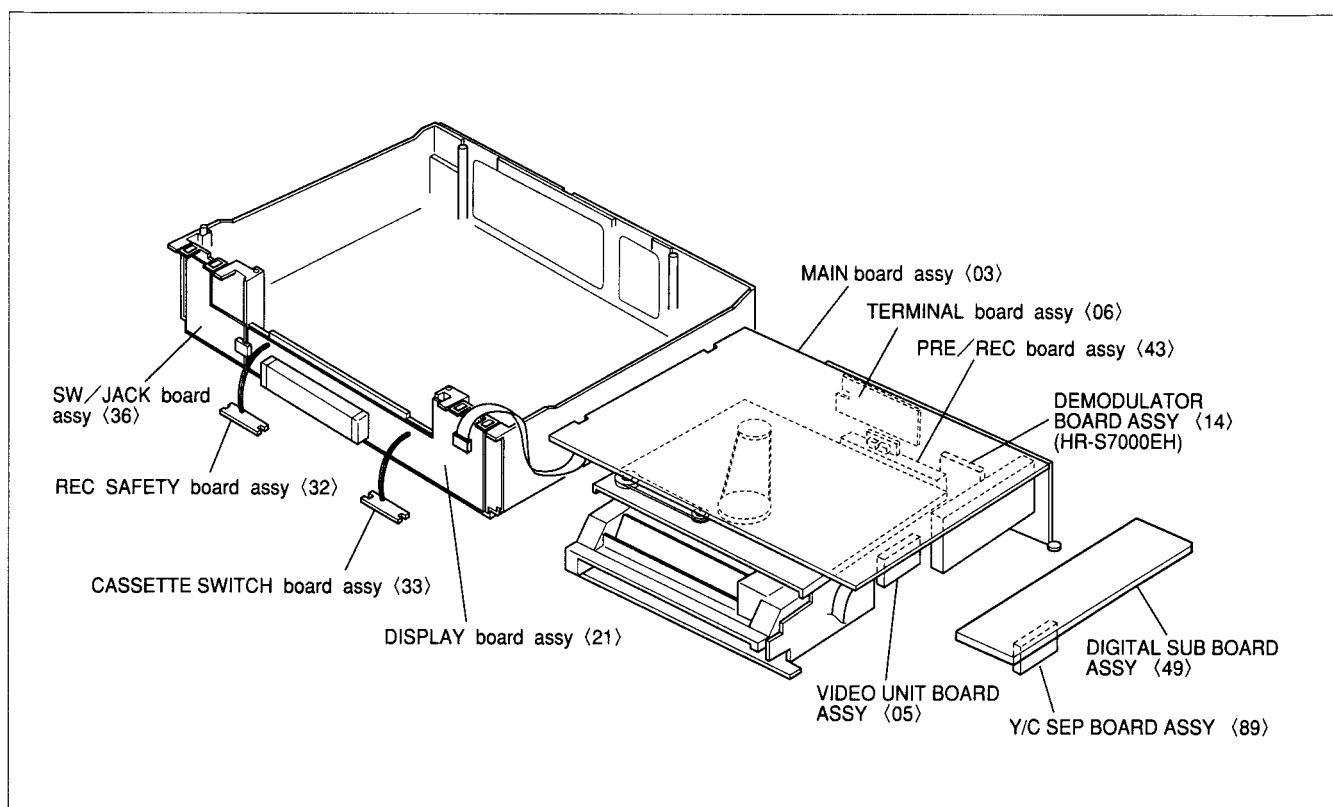


Fig. 1-5-3

1.5.2 Cautions on cassette loading when mechanism is in service position

The REC SAFETY board assembly of this set serves both for detecting the safety tab (erasure prevention tab) of a cassette and detecting a cassette loaded. Therefore, cassette loading in the condition that the mechanism is disassembled from the set needs manual operation of the switches of the REC SAFETY board assembly and the CASSETTE SWITCH board assembly.

1.5.3 Cassette loading and ejecting procedures when mechanism is in service position

- (1) Insert a cassette tape halfway into the cassette housing assembly.
- (2) Press the switch of the REC SAFETY board assembly to turn on.
- (3) When the cassette loading begins and the cassette goes down to the bottom, immediately press the switch of the REC SAFETY board assembly to turn off and hold the status that the switch of the CASSETTE SWITCH board assembly is turned on. (Fix the switch with adhesive tape or put a screwdriver, etc. on it to leave the switch in the ON status.)

- (4) In this status, desired operations (recording, playback, fast forward, rewind, etc.) can be performed.

Note: When the mechanism is in the service position, the safety tab of cassette tape is not detected and recording on cassette tapes without safety tab is possible. Therefore, carefully choose a cassette tape for operation in this mode so as to avoid using cassette tapes of important recording.

- (5) For ejecting the cassette in this status, do it in the reverse order of cassette loading mentioned above.

Note: If the manual operation REC SAFETY switch timing is incorrect, the cassette may be completely or partially ejected, and the cassette is often ejected incompletely. In such a case, it is possible to take out the cassette by hand.

If it is desired to load a cassette again after the cassette is ejected in the above procedure, make sure to set the tray of the cassette housing assembly in the frontmost position prior to loading the cassette once again.

1.5.4 Opening on the chassis.

The chassis assy has openings for easy access to the check-points and connector pins as shown in Fig.1-5-4.

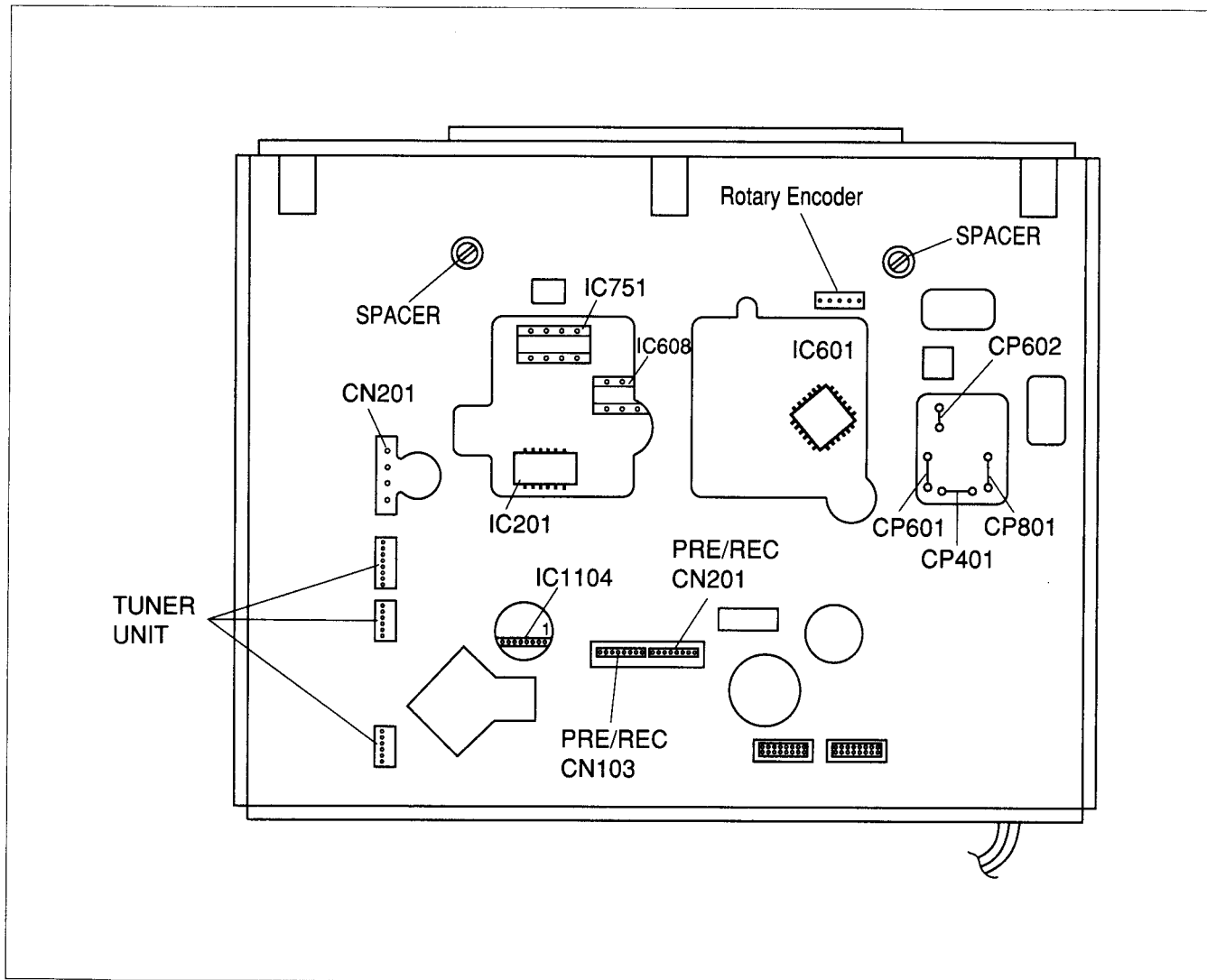


Fig. 1-5-4

1.6 MECHANISM SERVICE MODE

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "MECHANISM SERVICE MODE".

1.6.1 How to set the "MECHANISM SERVICE MODE"

- (1) Disconnect VCR from AC.
- (2) Remove the Top cover, Front panel assy and cassette housing assy. (See Page 1-2, 1-3)

- (3) Connect TP2 (GND) and TP1 (TEST) on the DISPLAY board assy with a jump wire.
- (4) Connect VCR to AC.
- (5) Press the POWER button.
- (6) Select the desired operation modes with the operation buttons or remote controller.

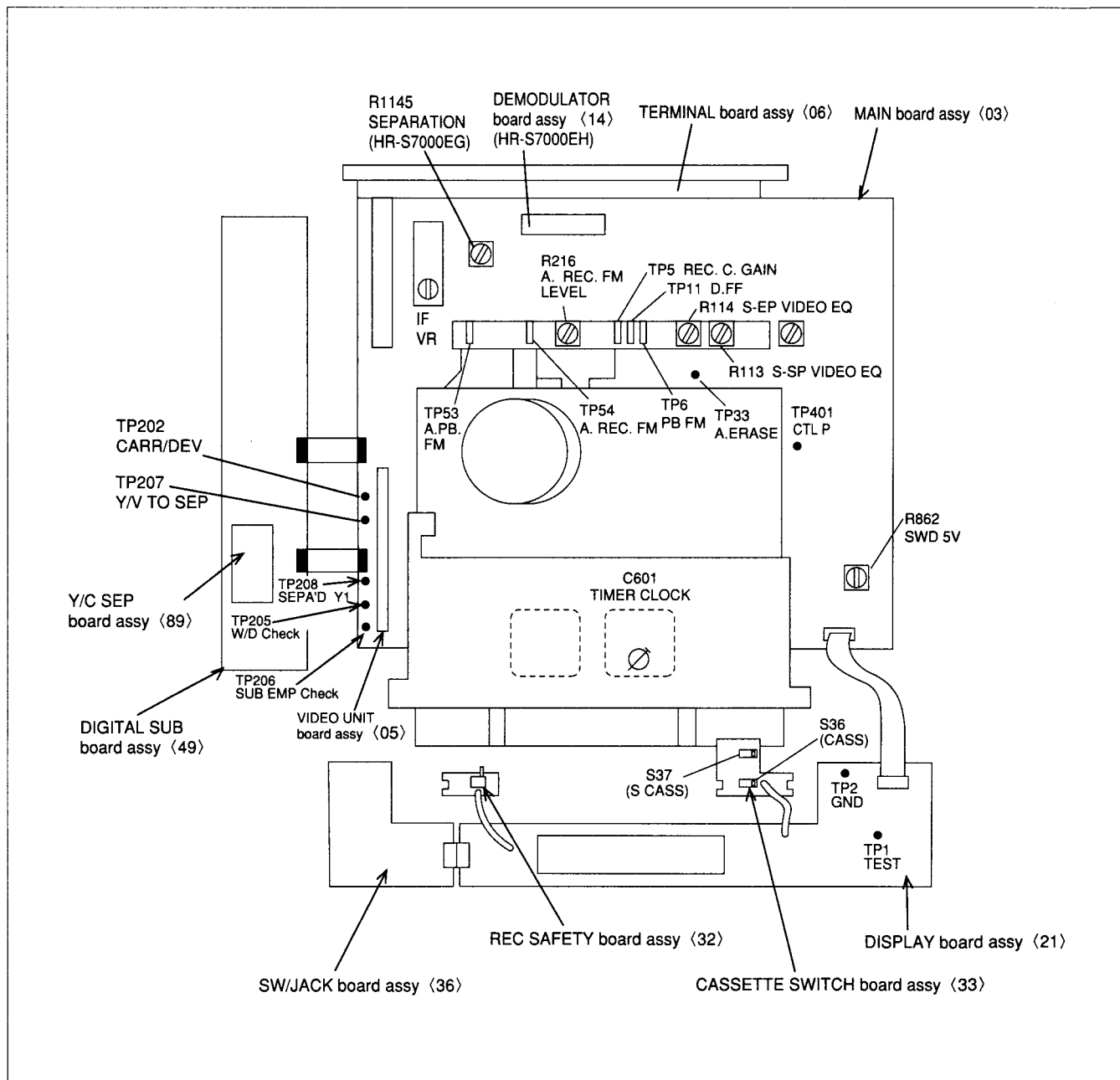


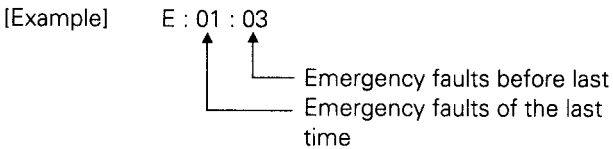
Fig. 1-6-1

1.7 EMERGENCY DISPLAY FUNCTION

This product has the function to store the last two previous emergency faults which can be displayed in the FDP when servicing.

1.7.1 How to display record of an emergency faults

- (1) Press "N" button of the presetting unit more than 2 seconds, and the two previous emergency faults are shown in the FDP.
- (2) Press "N" button of the presetting unit again to return to the normal mode.



[Example] E : — : — ← No record of emergency

1.7.3 How to clear emergency record

Press the COUNTER RESET button on the remote controller in the emergency record display mode, and the record of the emergency fault(s) is cleared.

1.7.2 Detail of emergency faults

FDP	Symptom	Detect mode	Resulting mode
E : 01	Loading motor rotates for more than 8 Sec without shift to next mode.	Loading	POWER OFF
E : 02	Loading motor rotates for more than 8 Sec without shift to next mode.	Unloading	POWER OFF
E : 03	SUP or TU REEL FG input is absent (for more than 4 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP → POWER OFF
E : 04	DRUM FF input is absent (for more than 3 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP
E : 06	CAPSTAN FG input is absent (for more than 1 Sec)	REC/PLAY/FF/REW SEARCH FF/SEARCH REW	STOP → POWER OFF
E : 07	No SWD5V/12V	POWER ON	POWER OFF

Table 1-7-1 EMERGENCY FAULTS

SECTION 2 MECHANISM ADJUSTMENT

2.1 PREPARATION

2.1.1 Precautions

- (1) Disconnect VCR from AC power before soldering.
- (2) Avoid imparting stress to wires when disengaging connectors.
- (3) Determine and correct the cause of difficulty before proceeding to adjustments. Do not disturb settings unnecessarily.
- (4) Use care not to damage tabs, claws, etc during repairs.
- (5) Install the cassette housing assy only when the mechanism is in the MECHANISM ASSEMBLING MODE position.
- (6) When installing the Front panel assy, be sure to engage the housing door with the door opener of the cassette housing assy.
If this is omitted, the cassette door will not open at Eject and the cassette can not be removed. (See SECTION 1 DISASSEMBLY.)

2.1.2 Check without cassette housing assy.

Mechanism operations can be observed easily by removing the cassette housing assy. Use the MECHANISM SERVICE MODE (See SECTION 1 DIASSEMBLY)

2.1.3 Manual removal of loaded tape

When the deck enters the emergency mode with cassette tape loaded and it can not be ejected by pressing the EJECT button, take out of the cassette tape according to the following procedure.

- (1) Disconnect the power cord from AC outlet then take out the Top cover and Front panel assy.
- (2) Turn the mode motor on the Main deck assy by hand in the unloading direction to where the pole base assy (supply and take-up) is positioned below the cassette tape. At that time, pay careful attention to the tape not to get soiled with grease.
- (3) Take out 4 screws of the cassette housing assy. (See SECTION 1 DISASSEMBLY)
- (4) Remove the cassette housing with slackened tape and guard panel of cassette.
- (5) Wind up the tape by turning the reel hub (either supply or take-up side for convenience) from the bottom of the cassette, and remove the cassette tape.

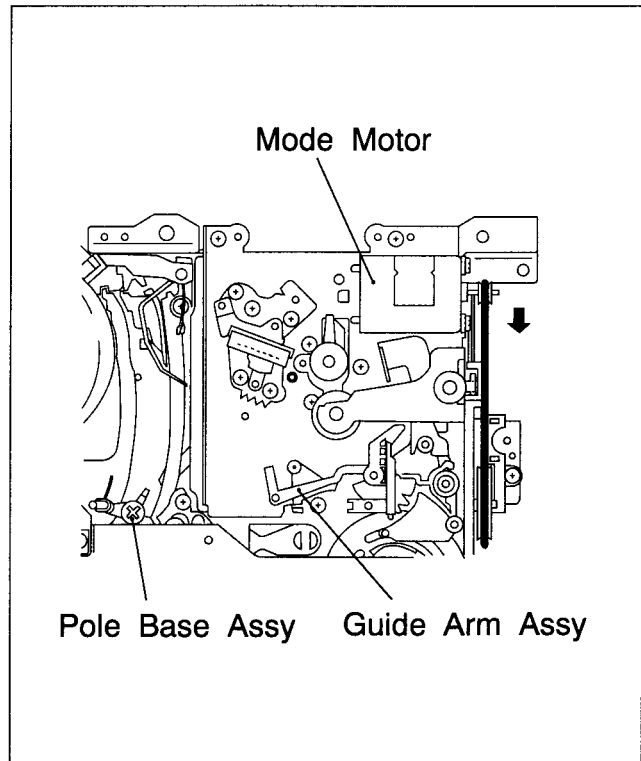


Fig. 2-1-1

2.1.4 Test Equipment

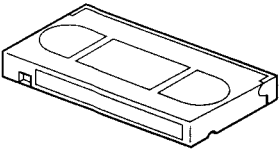
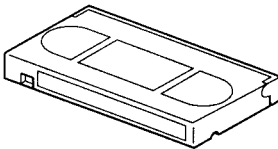
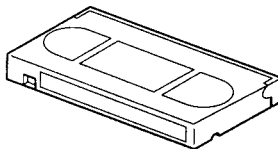

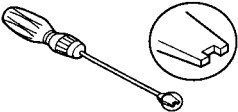
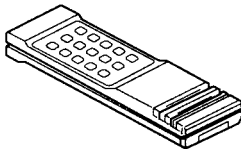

Alignment tape (SP) MHPE	Alignment tape (LP) MHPE-L	Back tension cassette gauge PUJ48076-2	A/C head positioning tool PTU94010
			
Roller driver PTU94002	Presetting unit PTU94008	Grease KYODO-SH-P	
			

Table 2-1 Test equipment

2.2 MAIN MECHANISM PARTS

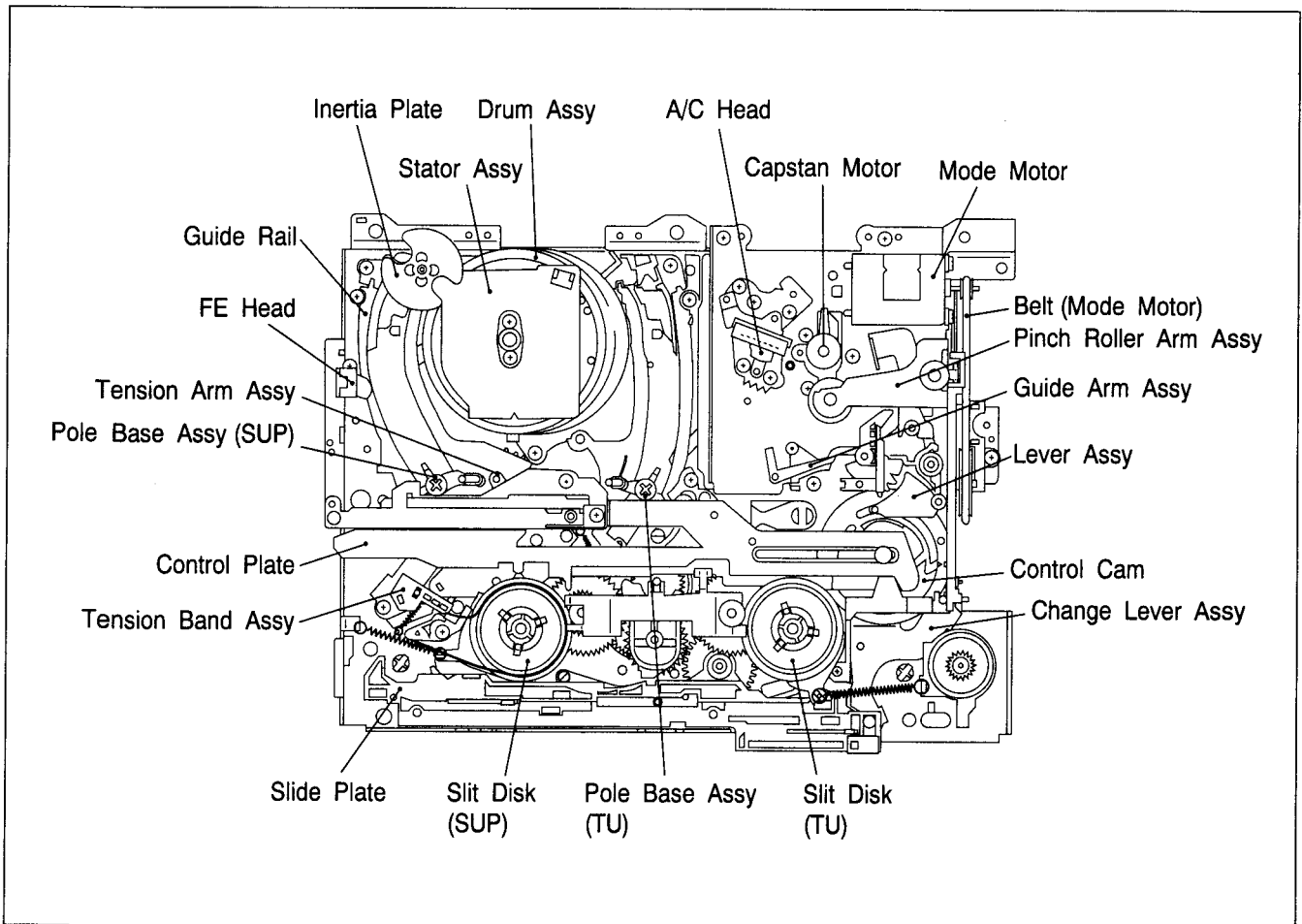


Fig. 2-2-1 Top view of main deck

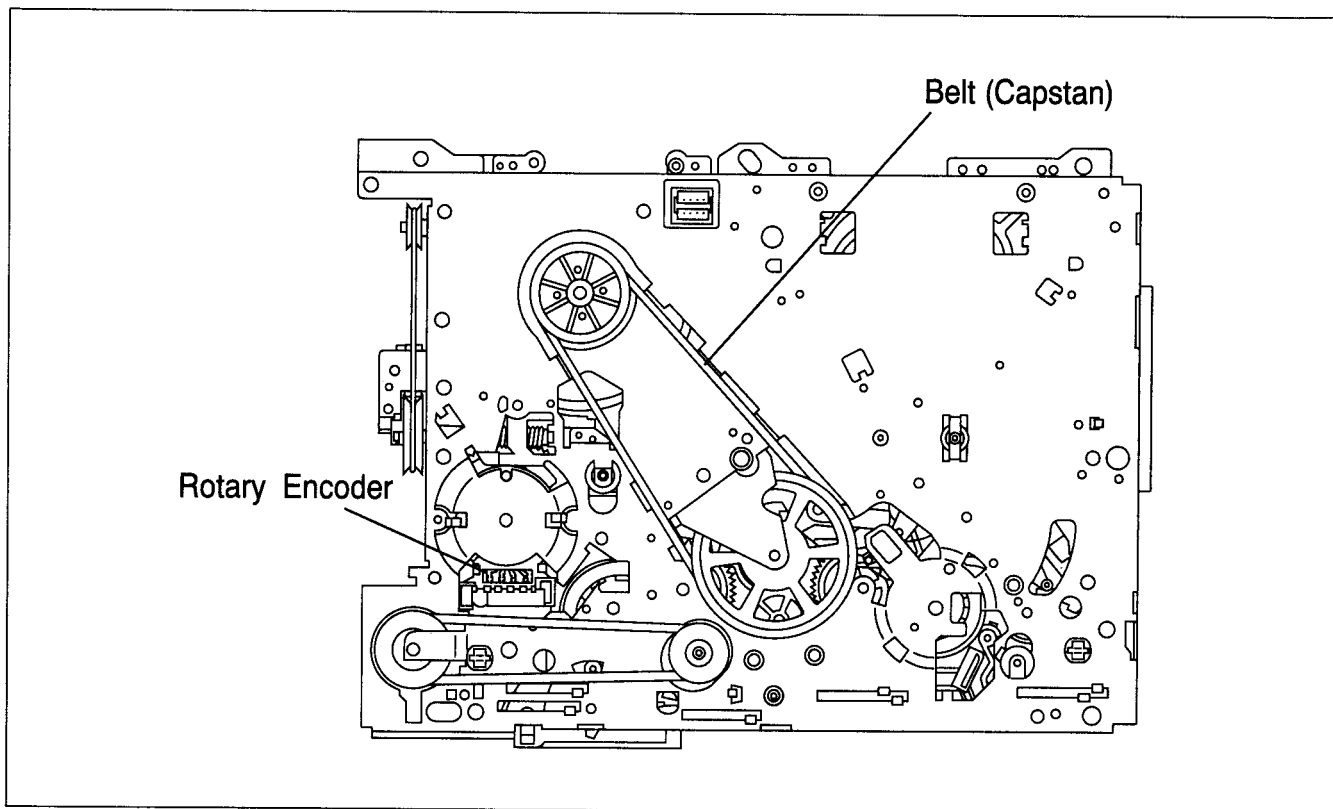


Fig. 2-2-2 Bottom view of main deck

2.2.1 Cleaning

Periodic cleaning of the tape transport system is desirable, but ordinarily not feasible in practice. Therefore, perform cleaning when a set is brought in for repairs or maintenance. Contamination of the video heads, tape guides and brush can detract from playback picture quality and in extreme cases, even damage the tape. For cleaning, use a finemesh cotton cloth (about the texture of a white dress-shirt) moistened in alcohol. It is recommended to also clean the tape tension posts and capstan.

- To clean the video heads, press the moistened cloth gently against the upper drum with fingertip and turn the drum by hand.
- Do not use a vertical stroke, as this may damage the heads.

2.2.2 Lubrication

Oil and grease do not normally require periodic replenishing. Apply only when replacing lubricated parts (also clean and replace lubrication of mating parts if soiled). For parts and points to apply oil and grease, refer to the exploded views of the mechanism assembly. Before oiling, clean with alcohol. Apply one or two drops of oil. Avoid excess oil.

1. Table 2-2-1 indicates the oil and grease used in this set. Use these or recommended locally available equivalents.

Category	Part No.
Oil	COSMO-HV56
Grease	KYODO-SH-P

Table 2-2-1

2. Grease is not required for a replacement cassette housing assembly, as this has been applied at the factory.

NOTE : *Stir grease that has been stored for an extended period.*

2.3 INSPECTION AND MAINTENANCE

This product employs rotary and moving parts which wear out in the course of usage. Periodic inspection, cleaning, lubrication and maintenance are therefore important for ensuring maximum performance. Worn parts must also be replaced as and when required.

2.3.1 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning, lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions. However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time, even if the set is not used.

System	Parts Name	Operation Hours	
		~1000H	~2000H
Tape transport	Upper drum assy	★ ○	○
	A/C head	★ ○	★ ○
	Lower drum motor assy	★	★ ○
	Pinch roller arm assy	★	★
	Full erase head	★	★
	Tension arm assy	★	★
	Guide arm assy	★	★
Drive	Capstan motor		○
	Belt (Capstan)	○	○
	Belt (Mode motor)		○
	Mode motor		○
	Slit disk (supply, take-up)		○
	Clutch unit (supply, take-up)		○
	Worm gear assy		○
	Control plate		○
	Slide plate		○
	Other	Brush assy	★ ○
Tension band assy		○	○
Rotary encoder			○

★ : Cleaning

○ : Inspection or Replacement if necessary

Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY PROCEDURE OF MECHANISM

2.4.1 Precaution before disassembling mechanism

This mechanism has an exclusive operation mode provided for disassembling and installation of the mechanism (MECHANISM ASSEMBLING MODE), and it is suggested to set the mechanism to this mode before disassembly and installation. The exclusive mechanism operation mode is not generally used and becomes available by manual setting only. Then this procedure starts with the condition that the cabinet parts, cassette housing assy and PRE/REC board assy have been removed.

2.4.2 How to set the exclusive mechanism operation mode (MECHANISM ASSEMBLING MODE)

- (1) Turn the mode motor belt by hand.
- (2) Confirm that the hole of the control cam are aligned to the deck hole as shown in Fig.2-4-1.

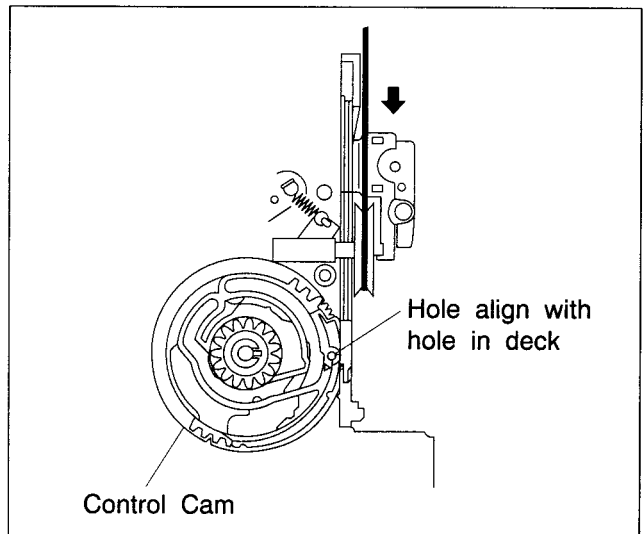


Fig. 2-4-1

2.5 MAIN PARTS REPLACEMENT OF MECHANISM

2.5.1 Pinch Roller Arm Assy

- (1) Remove the slit washer.
- (2) Tilt up the pinch roller assy in direction of arrow.

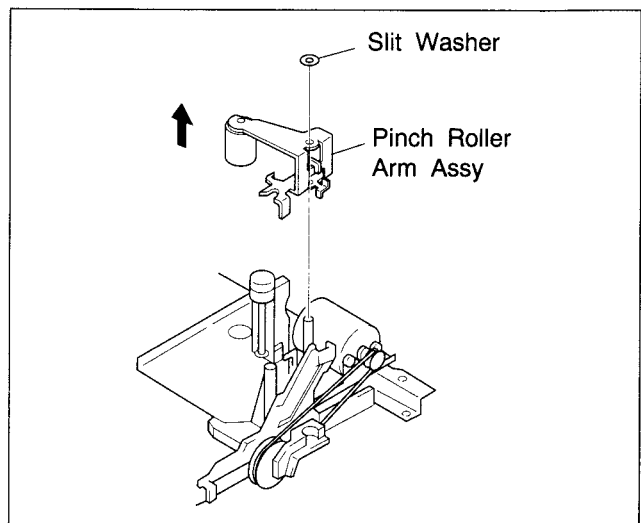


Fig.2-5-1

2.5.2 A/C Head

1. Removal

- (1) Take out 2 screws (A).
- (2) Remove the A/C head with head base.

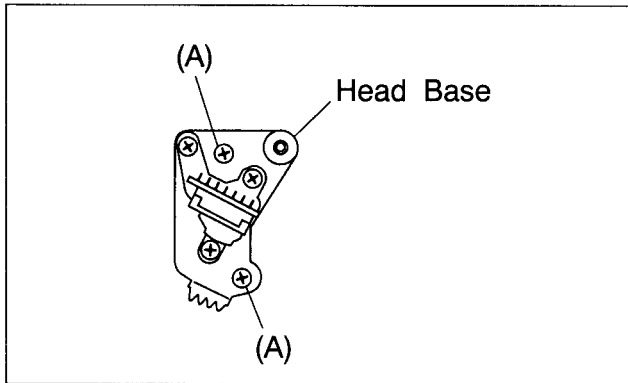


Fig.2-5-2

- (3) When replacing the A/C head only, remove 3 screws (B), use care not to misplace the 3 springs.

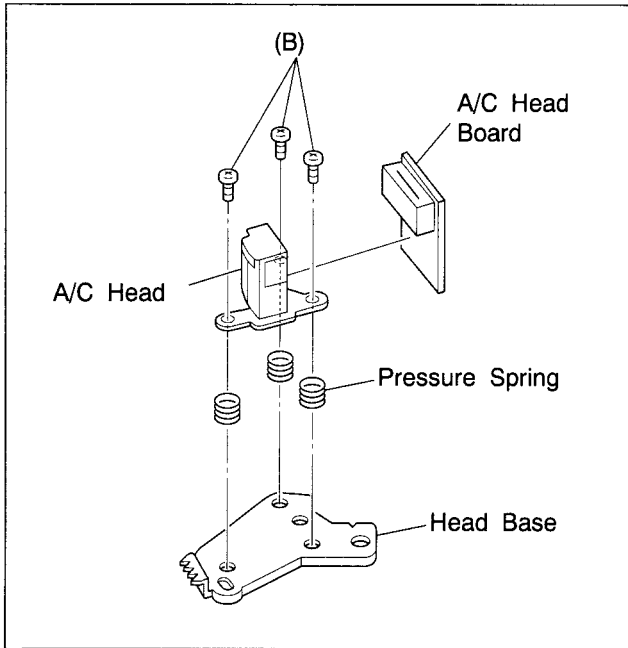


Fig.2-5-3

2. Installation

- (1) Temporarily set A/C head height as indicated in Fig. 2-5-4.

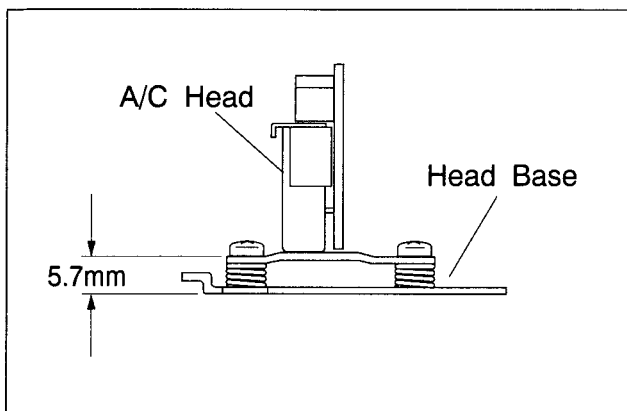


Fig.2-5-4

NOTES:

- It is very important to correctly adjust the control pulse and audio signal in addition to the mechanical tape path.
- Perform interchangeability adjustments after electrical adjustments.

2.5.3 Pinch Plate

1. Removal

- (1) Disengage 2 claws, then remove the pinch plate.

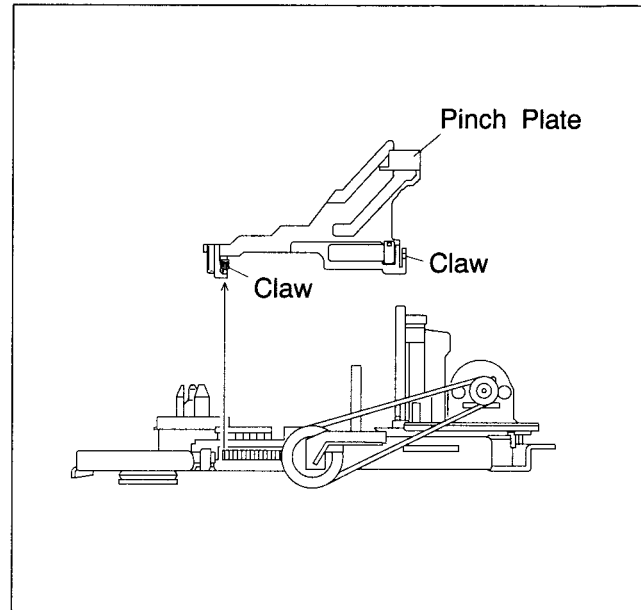


Fig.2-5-5

2. Installation

- (1) When installing pinch plate, align rack of pinch plate and triangle mark of control cam as indicated in Fig.2-5-6.

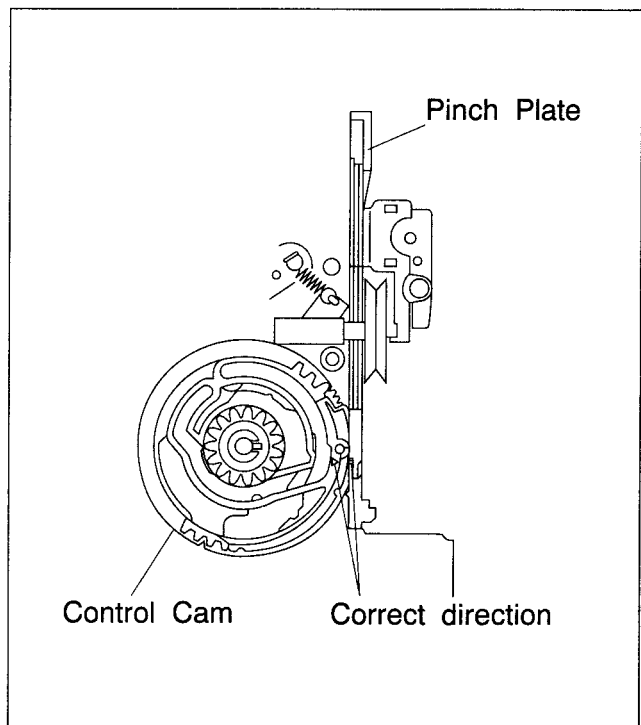


Fig. 2-5-6

2.5.4 Mode Motor

- (1) Disengage the belt between mode motor and worm gear.
- (2) Take out 2 screws (A) then remove the mode motor.

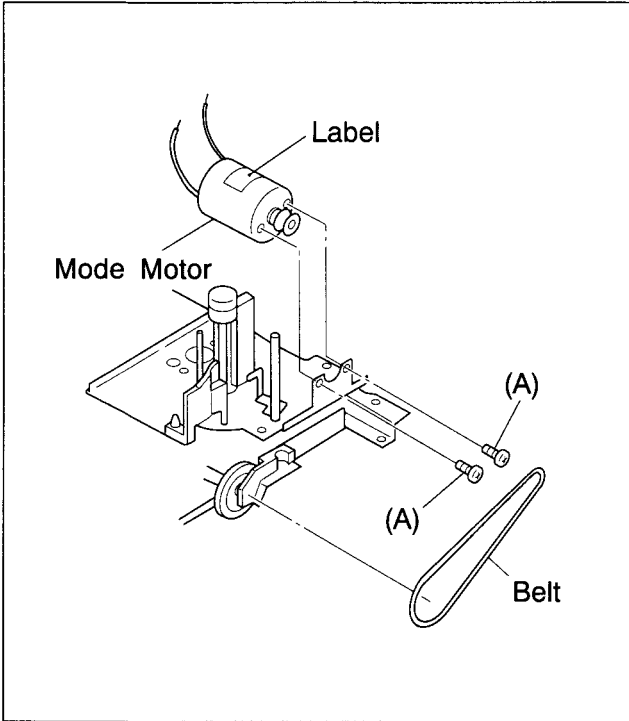


Fig.2-5-7

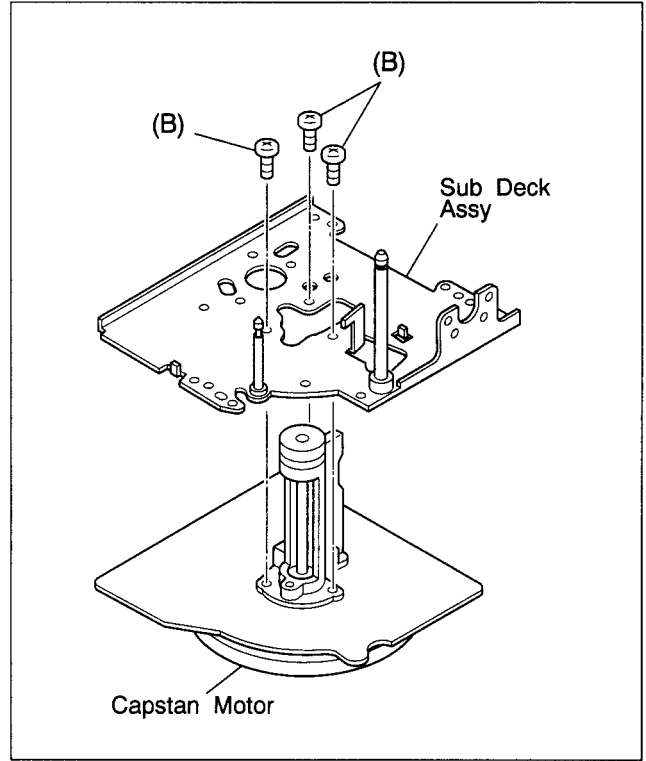


Fig.2-5-9

2.5.5 Lever Assy,Sub Deck Assy,Capstan Motor

- (1) Take out 1 slit washer, then remove the lever assy.
- (2) Disengage the belt(capstan motor) from bottom of mechanism assy first as indicated in Fig.2-5-10.
- (3) Take out 3 screws (A) and remove the sub deck assy as indicated in Fig.2-5-8.
- (4) Take out 3 screws (B) and remove the capstan motor from the sub deck assy as indicated in Fig.2-5-9.

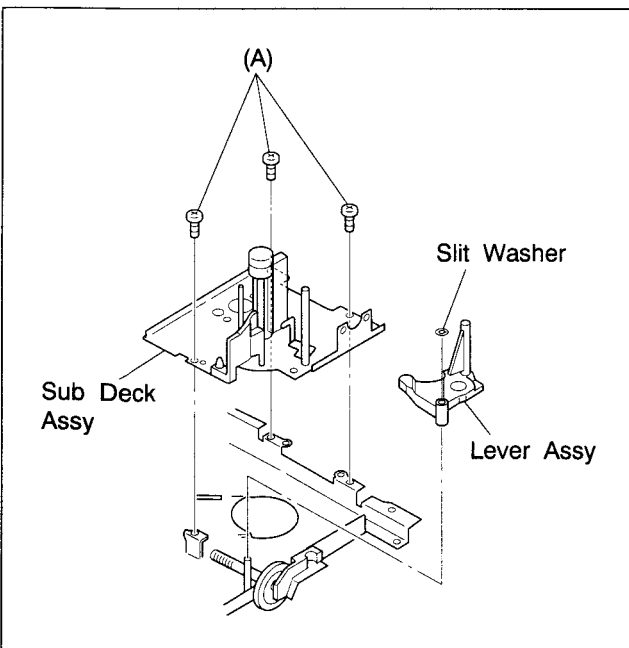


Fig.2-5-8

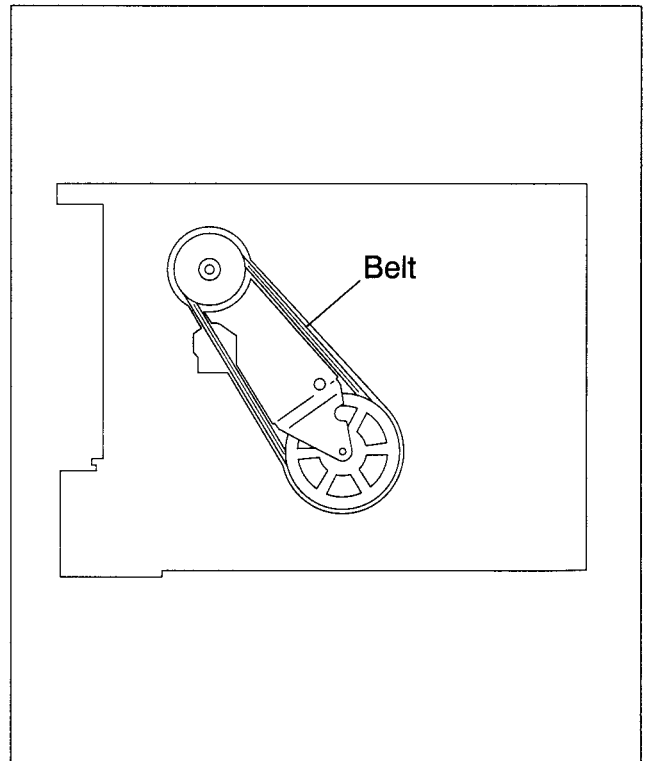


Fig.2-5-10

2.5.6 Control Bracket-1, Earth Plate

- (1) Take out 1 screw (A) and 1 screw (B).
- (2) Remove the control bracket-1 and earth plate.

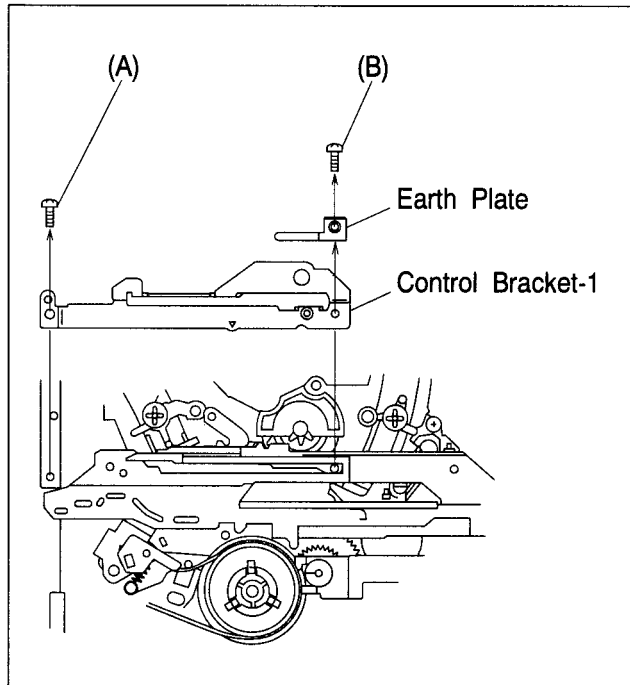


Fig.2-5-11

2.5.7 Reel Bracket, Slit disk (take-up)

- (1) Take out 2 slit washers.
- (2) Remove the reel bracket and slit disk (take-up).

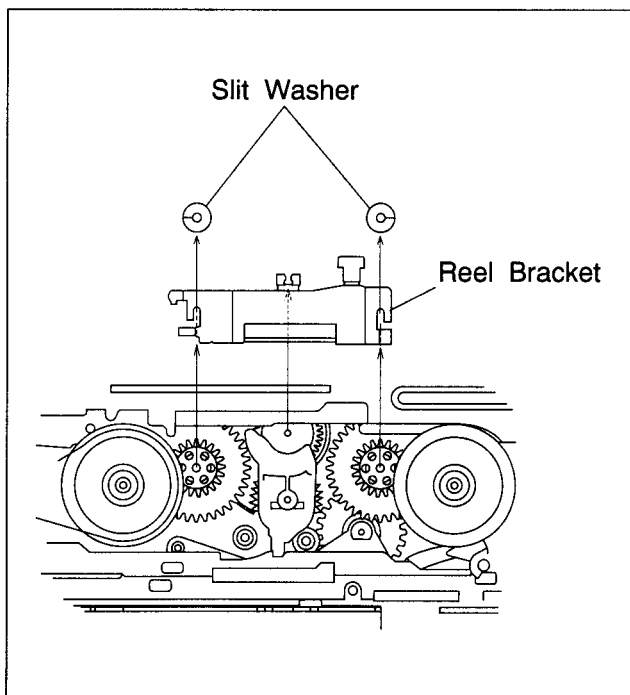


Fig.2-5-12

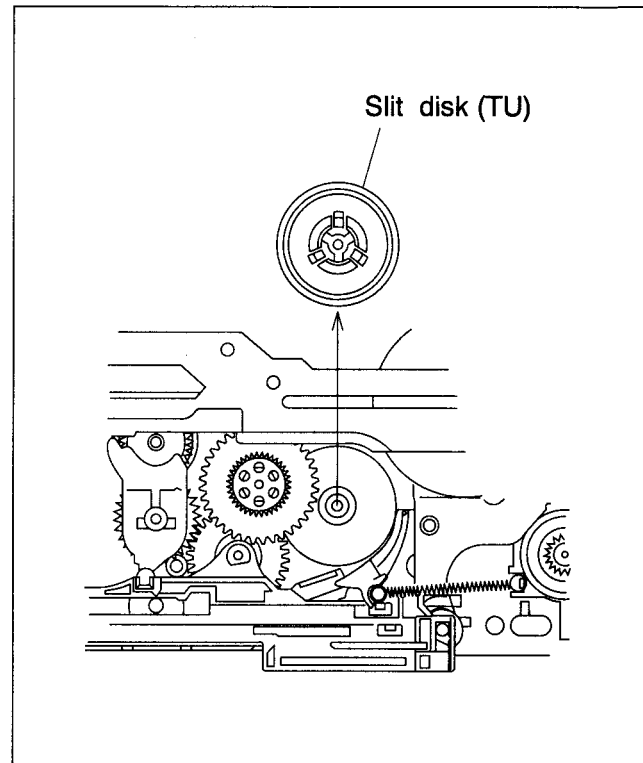


Fig.2-5-13

2.5.8 Control Bracket-2, Control Plate

- (1) Take out 1 screw (A) and remove the control bracket-2.
- (2) Take out 1 slit washer.
- (3) Disengage 2 claws and remove the control plate.

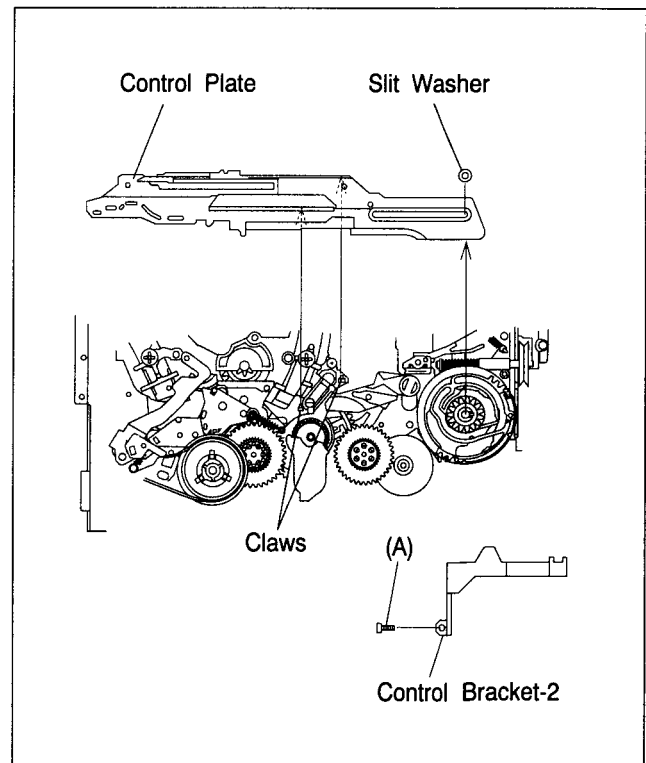


Fig.2-5-14

2.5.9 Sub Brake (take-up), Control Cam

- (1) Disengage 1 spring (a) and 1 claw then remove the sub brake (take-up).
- (2) Disengage 1 claw and remove the control cam.

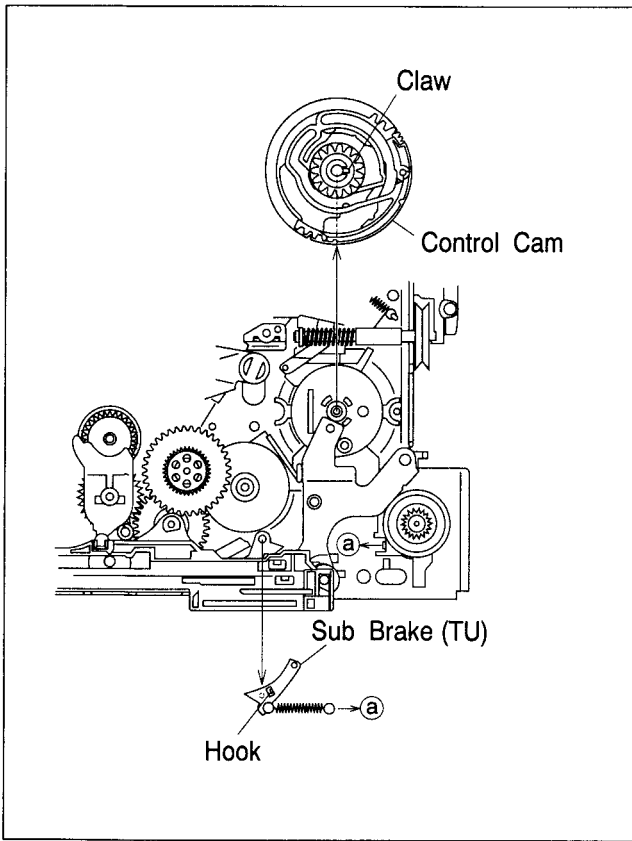


Fig. 2-5-15

2.5.10 Slide Plate

- (1) Disengage 7 claws from bottom of the mechanism assy and remove the slide plate.

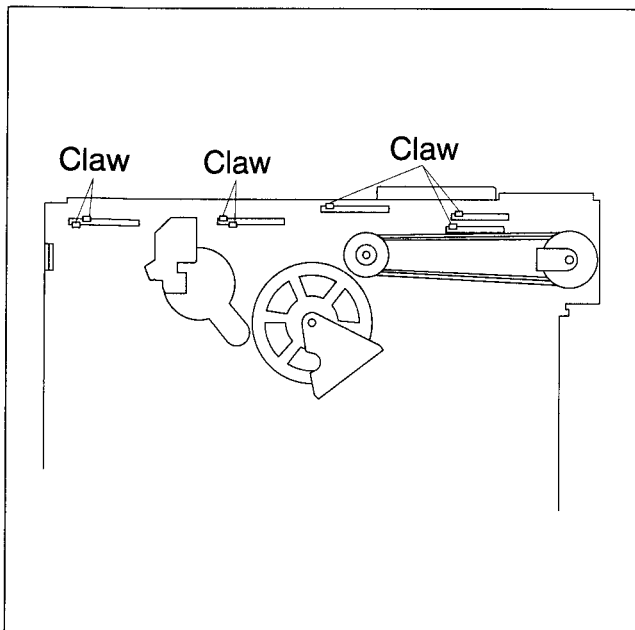


Fig. 2-5-16

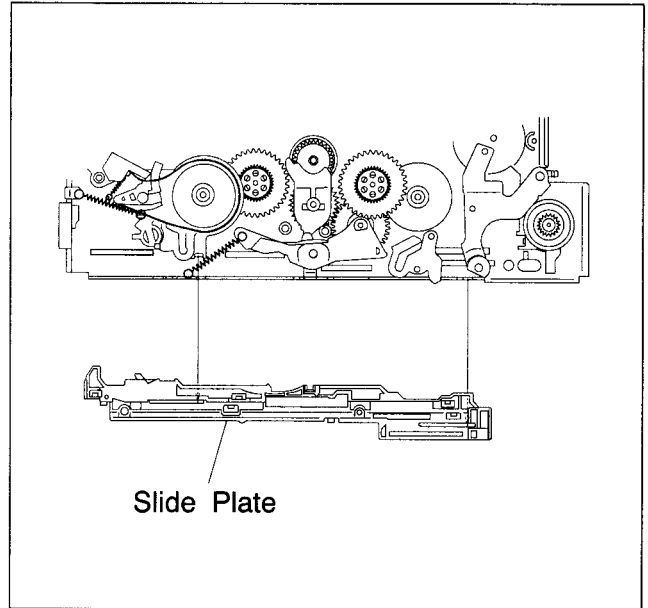


Fig. 2-5-17

2.5.11 Change Lever, Rotary Encoder

- (1) Remove the change lever.
- (2) Disengage 2 claws and remove the rotary encoder.

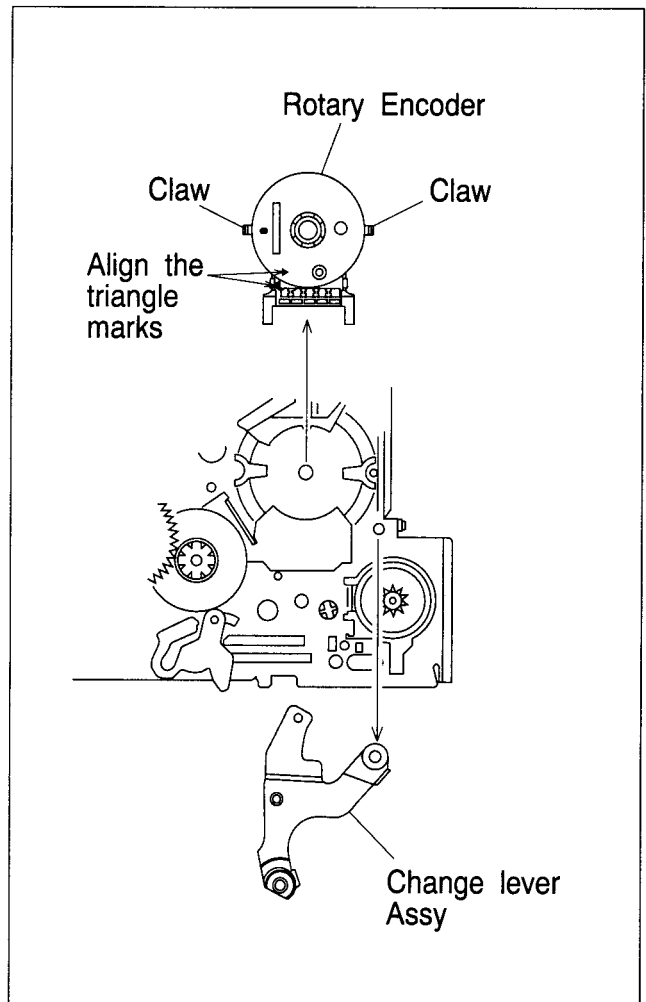


Fig. 2-5-18

2.5.12 Sub Brake (supply),Tension Band Assy,Tension Arm Assy,Take-up Lever Assy,Slit Disk(supply)

- (1) Disengage 1 spring (a).
- (2) Disengage 1 claw and remove the sub brake (supply).
- (3) Take out 1 screw (A),spring (c) and slit washer.
- (4) Remove the tension arm assy with tension band assy.
- (5) Disengage 1 spring (b) and remove the take-up lever assy.
- (6) Remove the slit disk(supply).

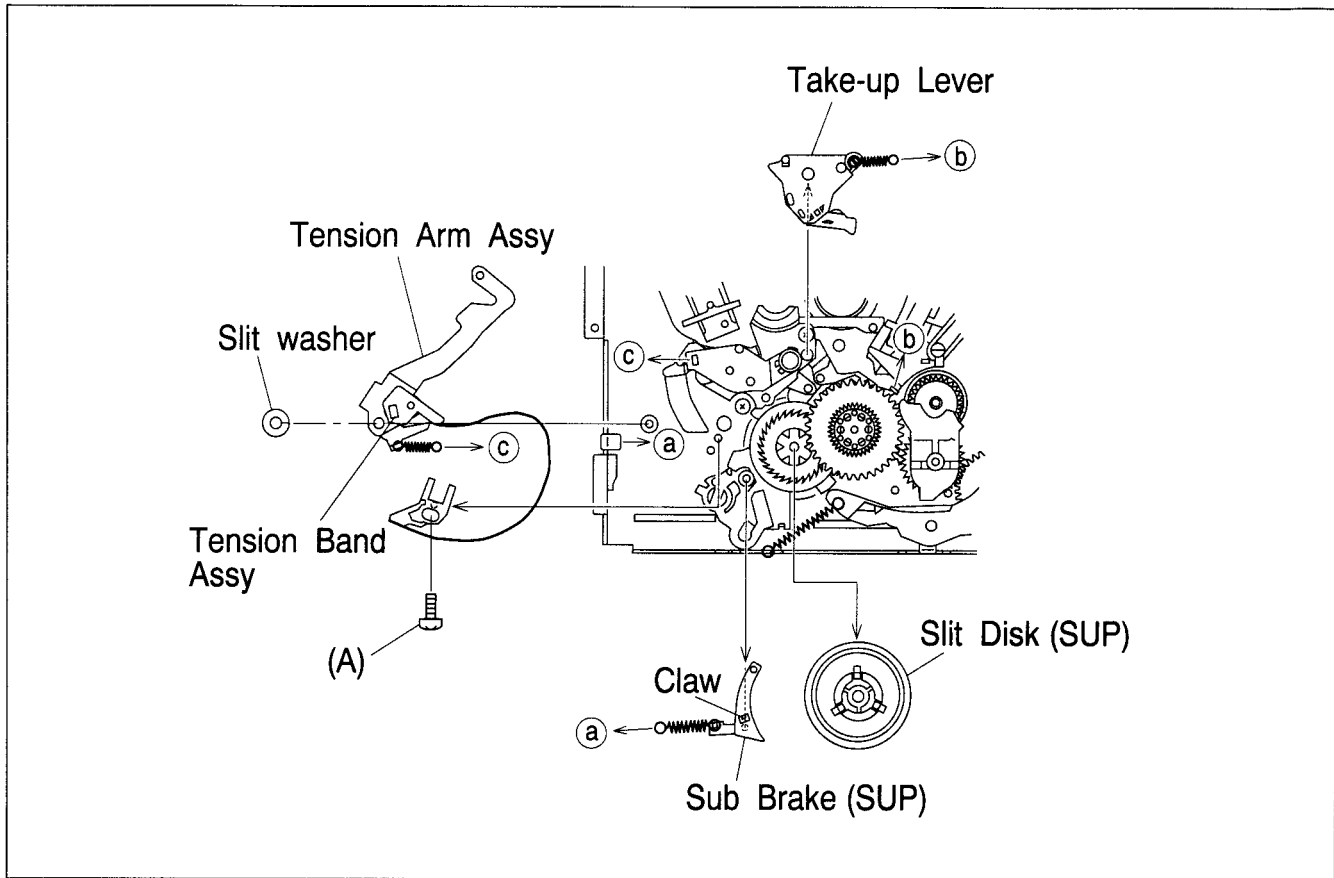


Fig. 2-5-19

2.5.13 Take-up Head,Tension Arm Lever

- (1) Remove the take-up head and tension arm lever.

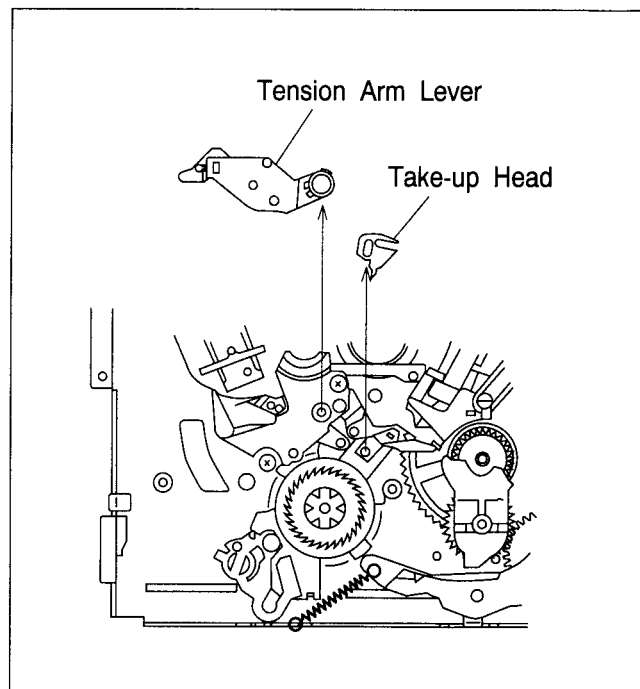


Fig.2-5-20

2.5.14 Guide Rail

- (1) Take out 5 screws (A) and 1 screw (B).
- (2) Disengage 4 claws and remove the guide rail.

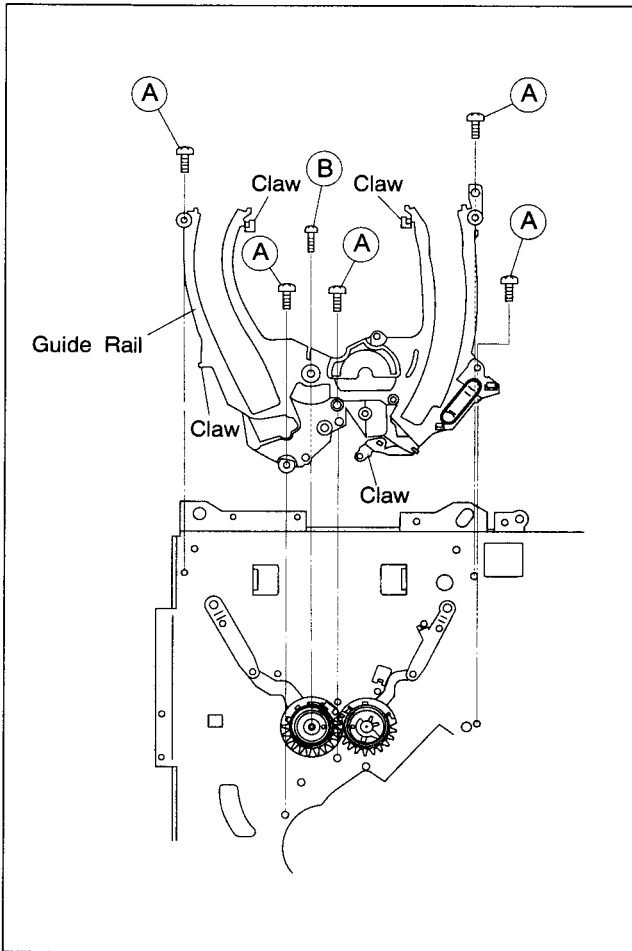


Fig. 2-5-21

2.5.15 Stator Assy

- (1) Take out 2 screws (A).
- (2) Raise the stator assy in the direction indicated by the arrow to remove it (also remove the inertia roller).
- (3) Remove the flat cable.
- (4) To reinstall, first secure the flat cable, then insert 2 screws (A).
- (5) After reinstalling, be sure to perform PB switching point adjustment (See SECTION 3 ELECTRICAL ADJUSTMENT).

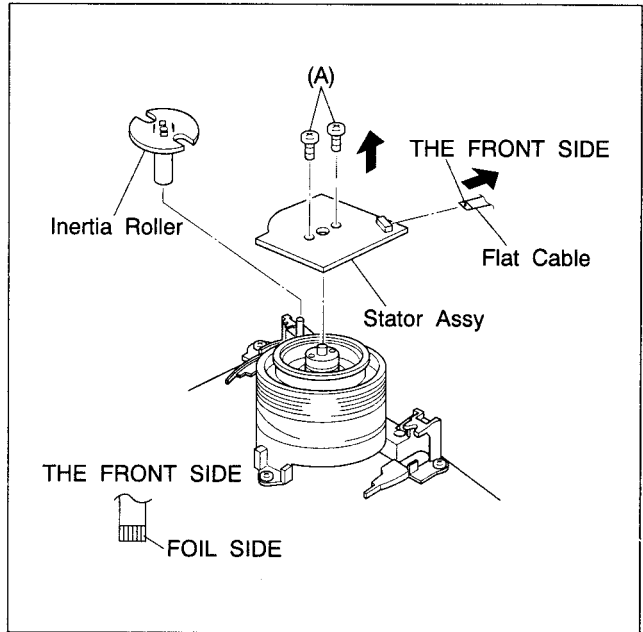


Fig. 2-5-22

NOTE : When refitting the connector, check that the flat wire is inserted correctly.

2.5.16 Rotor Assy

- (1) Remove the stator assy.
- (2) Take out 2 screws (B) and remove the rotor assy.

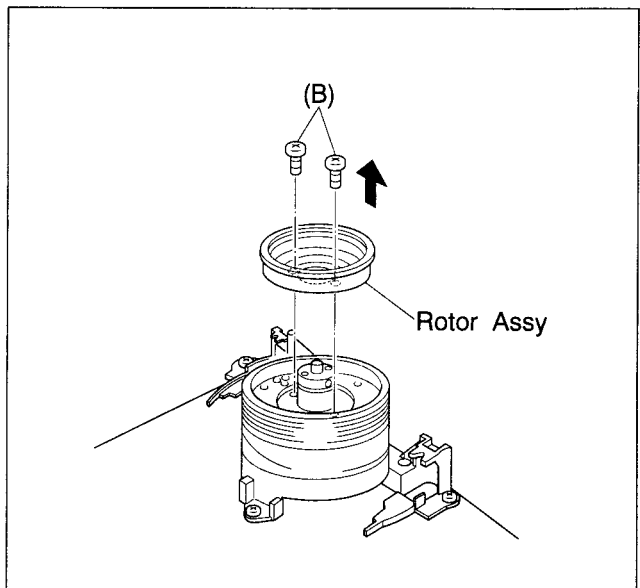


Fig.2-5-23

- (3) Align the upper drum assy and rotor assy phase as indicated in Fig.2-5-22.
- (4) Overlap holes (a) of the upper drum assy with holes (b) of the rotor assy (align holes in 3 locations) and secure with 2 screws (B) as indicated in Fig.2-5-21.

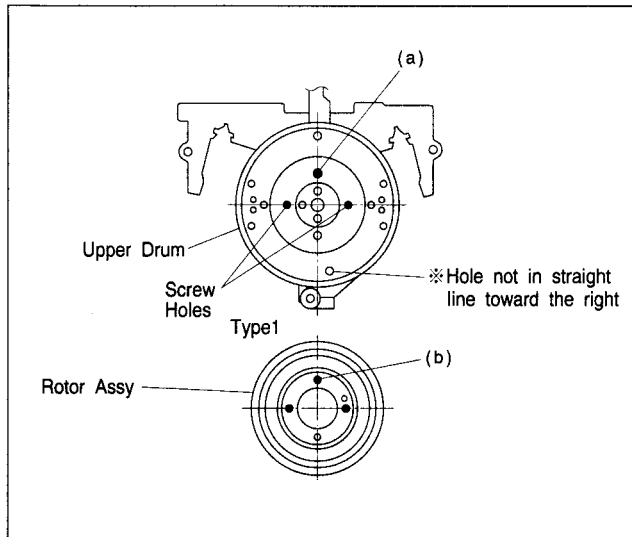


Fig. 2-5-24

2.5.17 Upper Drum Assy

1. Removal

- (1) Remove the stator assy and rotor assy.
- (2) Use a 1.5 mm hexagonal wrench to loosen the collar assy screw and remove the collar assy.
- (3) Remove the upper drum assy and use tweezers to remove the Washer.

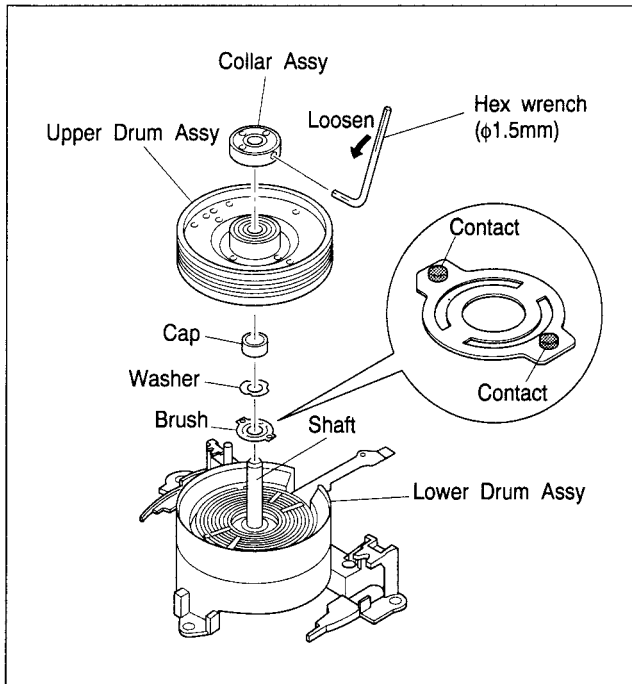


Fig. 2-5-25

NOTE : If the Brush is replaced, do not apply the grease to the contacts.

2. Installation

- (1) Use an air brush to clean the lower drum assy and the coil section of the new upper drum assy.
- (2) Set a new washer on the drum shaft as indicated in Fig.2-5-25.

NOTE : Be sure to use the new washer when replace the upper drum assy.

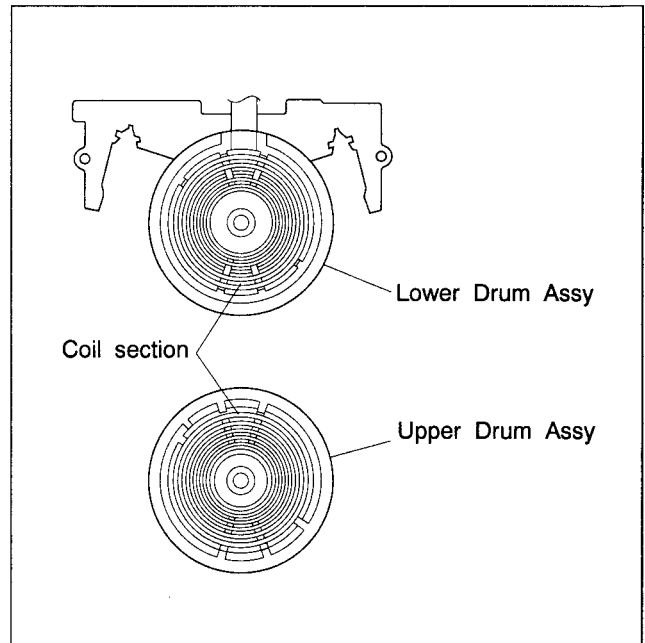


Fig.2-5-26

- (3) Note the top and bottom of the collar assy and determine the position as indicated in Fig.2-5-25.

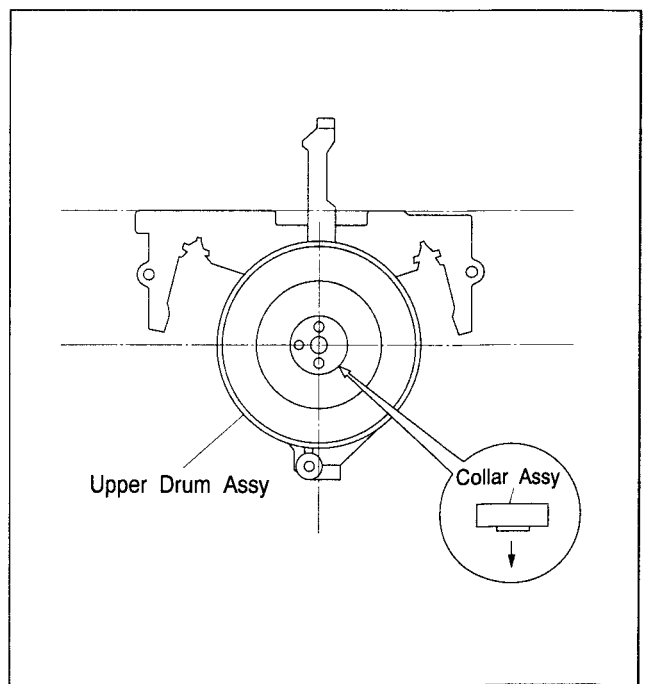


Fig.2-5-27

- (4) While pressing the collar assy evenly from above with your fingertips, secure the hexagonal screw.

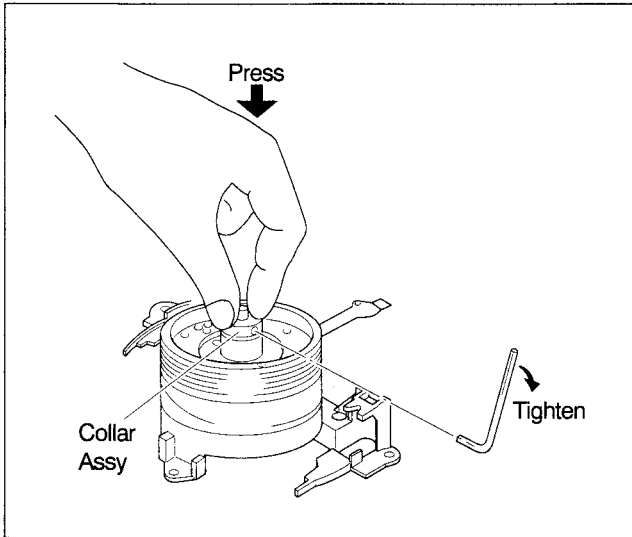


Fig.2-5-28

- (5) After installing, gently turn the upper drum by hand and confirm normal rotation.
- (6) Install the rotar assy and stator assy.
- (7) Clean the upper and lower drum assies and perform the following adjustments;
- PB switching point adjustment
 - Slow tracking preset adjustment
 - Interchangeability adjustment (be sure to check LP mode)

2.6 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

2.6.1 Precaution

The rotary encoder and syson circuit are closely interrelated. Therefore, the rotary encoder and control cam conection determines the operations of mechanical parts such as plates, gears, brakes, etc. Correct positioning of these parts is essential for smooth tape loading and mechanical operations.

2.6.2 Loading Arm Assy (supply, take-up)

- (1) Install the supply loading arm assy and the take-up loading arm assy so that their positioning markings on the respective gear face each other and the holes of their arms correspond to the holes on the main deck assy respectively.
- (2) After setting the guide rails, engage the pole base assies with the tip of the loading arms respectively. Then, enter the mechanism into the unloading mode to return the pole base assies to the front position.
- (3) Reassemble the peripheral parts of the guide rail as originally.

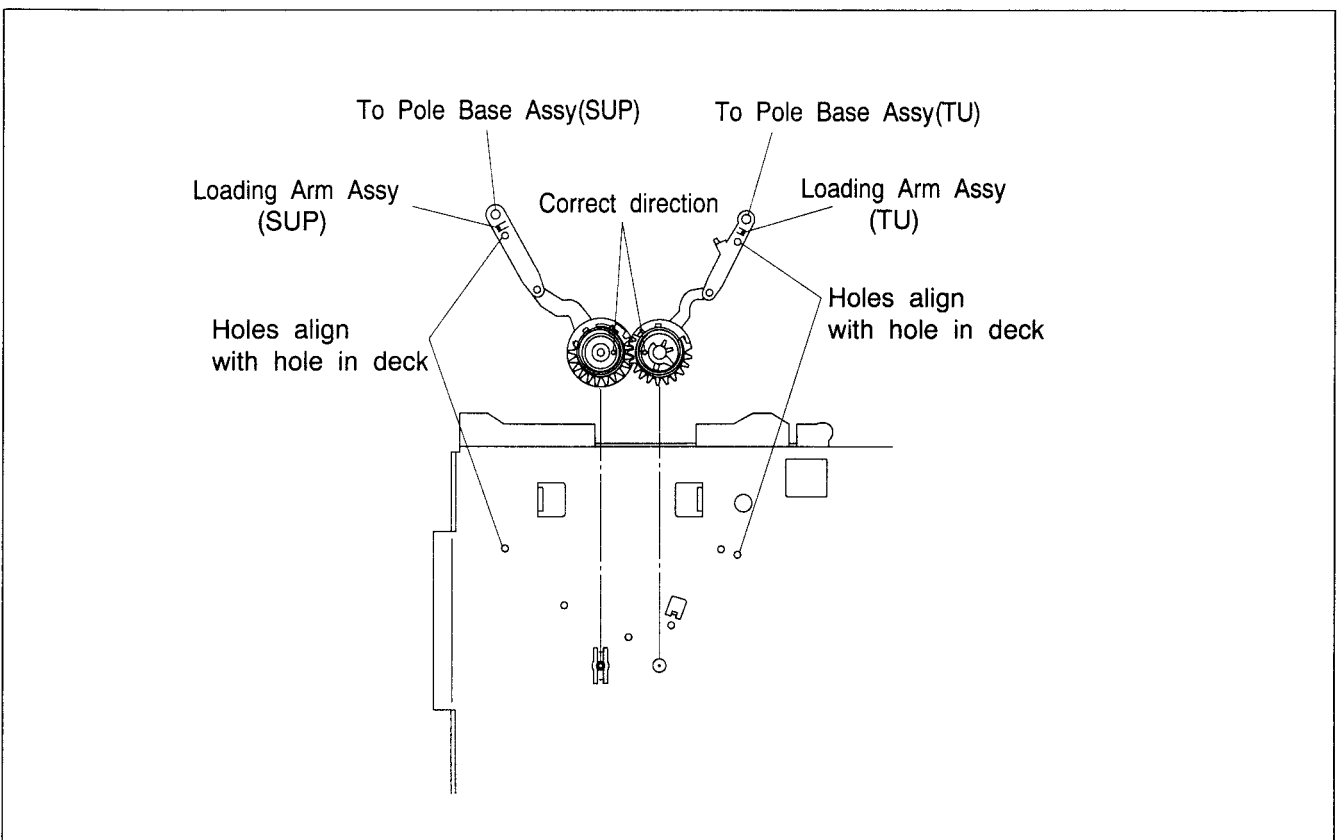


Fig. 2-6-1

2.6.3 Rotary Encoder, Change Lever, Control Cam

- (1) When reinstalling the rotary encoder, adjust its position so as to fit the triangle marks each other and push it deep until it is locked by the pawls.
- (2) When reinstalling the change lever, set it so as to make its positioning hole correspond to the hole of the main deck assy.
- (3) When re-engaging the control cam, lower the capstan brake assy while setting it so as to make its positioning hole correspond to the hole of the main deck assy.

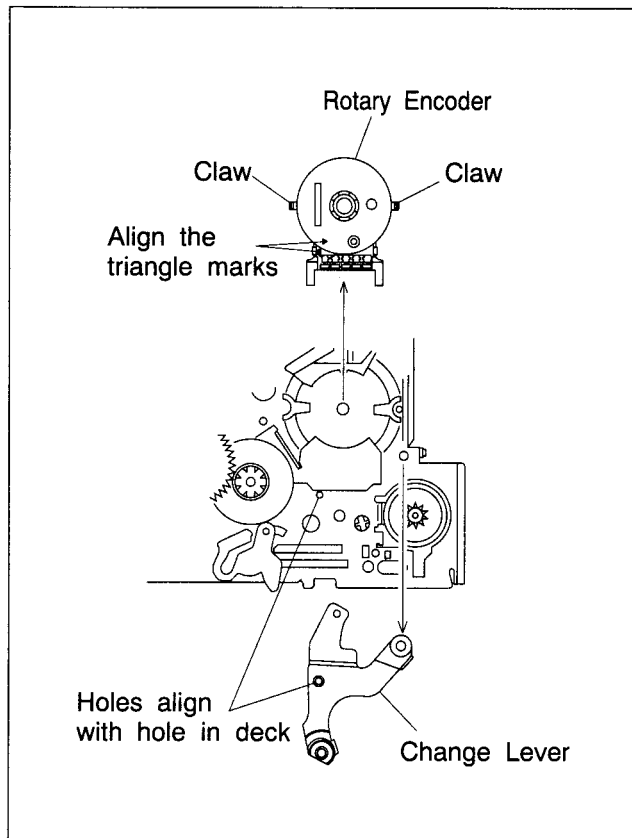


Fig. 2-6-2

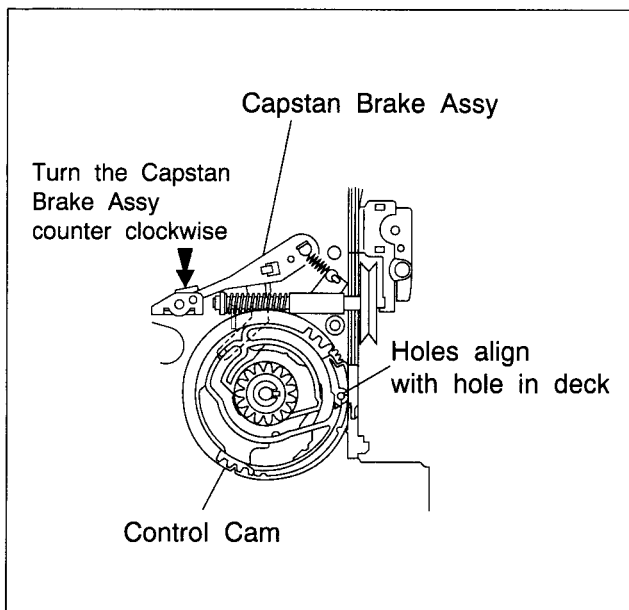


Fig. 2-6-3

2.6.4 Slide Plate

- (1) Lower both the main brake assies (supply and take-up) until they touch the edge of the main deck assy while reinstalling the slide plate so as to make the respective positioning holes of the main brake assies correspond to the holes on the main deck assy.

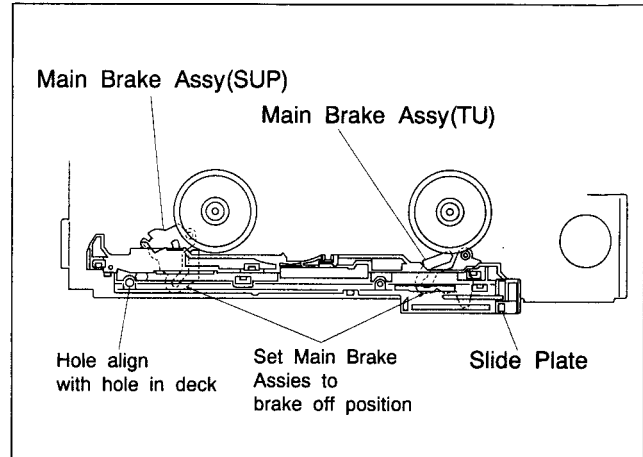


Fig.2-6-4

2.6.5 Control Plate

- (1) Reinstall the control plate so as to set the two positioning holes of it on the holes on the main deck assy respectively and to set the positioning hole of the take-up lever on the hole of the main deck at the same time. When adjusting the hole position of the take-up lever, use a pair of tweezers to hold and move it since it is pulled by a tension spring.
- (2) After reinstalling the control plate, fix it with the slit washer, control bracket-1 and -2.

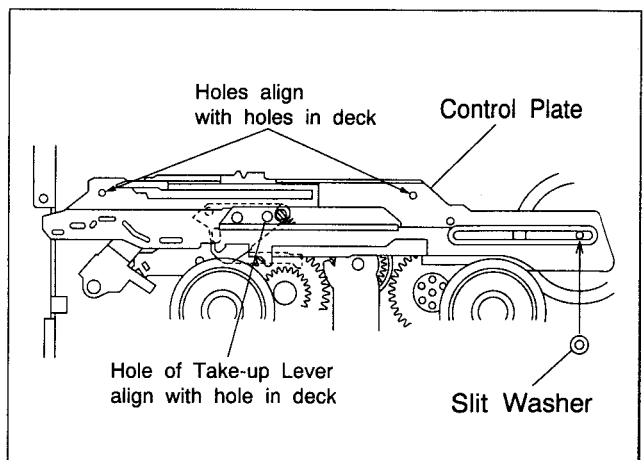


Fig. 2-6-5

2.7 TAPE INTERCHANGEABILITY ADJUSTMENT

- NOTE :**
- This adjustment is extremely important. However, it is normally not required during routine service. Perform only after replacing major components(A/C head,upper/lower drum assy,pole base assy,etc).
 - Before using costly alignment tape,use a spare tape and confirm correct operation of the tape transport.

2.7.1 Tape pattern

- (1) Connect the oscilloscope to TP6(PB FM) on the PRE/REC board.Use TP11(D.FF) on the PRE/REC board as a trigger.
- (2) Playback the SP stairstep portion of the alignment tape [MHPE].Confirm that the FM waveform appears as indicated in Fig.2-7-1.
- (3) Set the manual tracking position by pressing the **///** button on the remote controller or TV PROG "-" and "+" buttons simultaneously.
- (4) Operate the tracking adjustment (press the TV PROG buttons during playback) and set for maximum playback FM waveform.
- (5) By operating the TV PROG button, vary the FM waveform from maximum to minimum and vice versa to confirm that the waveform varies nearly in a flat shape as shown in Fig.2-7-1.
- (6) When the FM waveform does not remain flat during this process,first slightly loosen the set screw located at the bottom of the guide rollers.Using the guide roller adjustment tool (Roller driver) ,adjust the supply and take-up guide rollers (refer to Fig.2-7-2) to obtain the correct waveform as indicated in Fig.2-7-3.
- (7) By pressing the TV PROG buttons several times, vary the FM waveform output from maximum to minimum (and vice versa) gradually,and confirm that the variation proceeds in flat shape, as shown in Fig.2-7-3.
- (8) Next playback the LP stairstep portion of the alignment tape [MHPE-L] and adjust the tracking control from maximum to minimum the FM waveform,confirm that FM waveform variation is always flat.
- (9) Record the signal and play it back in both of the SP and LP mode,confirm that the FM waveform is flat in both mode.
- (10) After adjustments,tighten the set screw of the guide rollers.
- (11) Confirm that the tape wrinkling does not occur at the roller upper or lower limits as indicated in Fig.2-7-4.

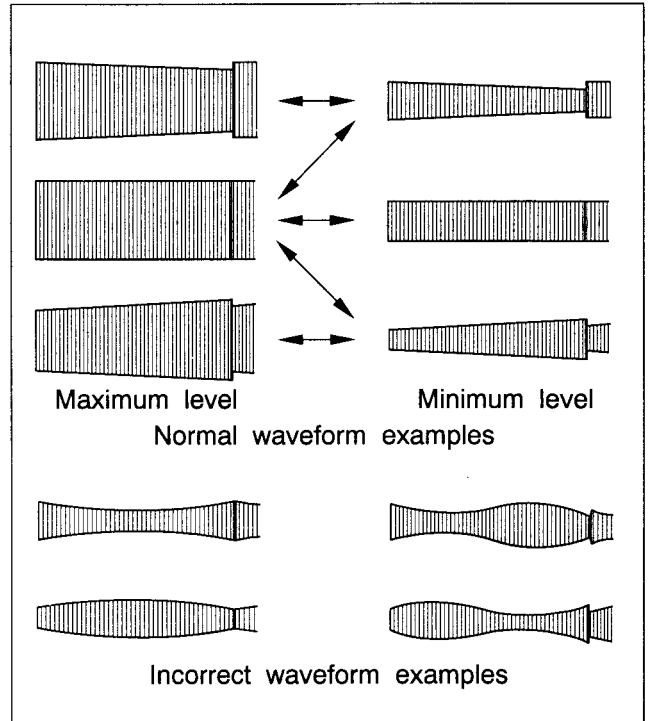


Fig. 2-7-1

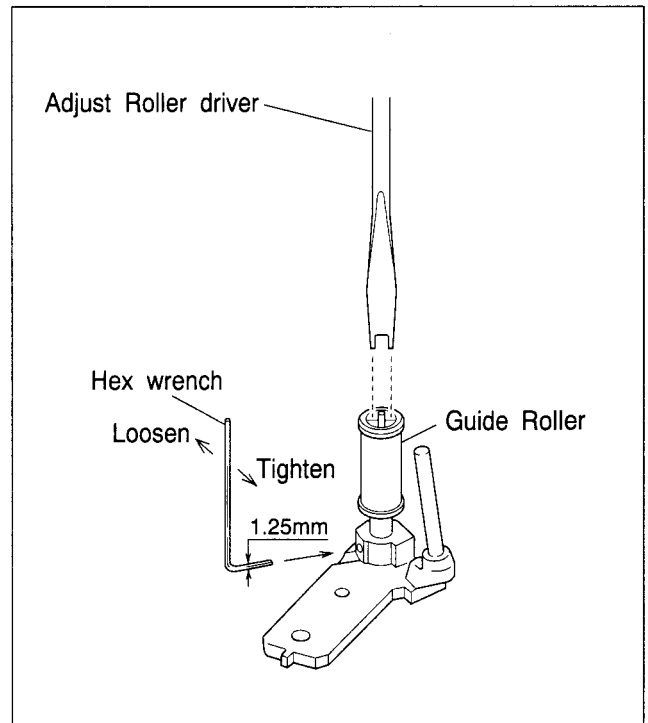


Fig. 2-7-2

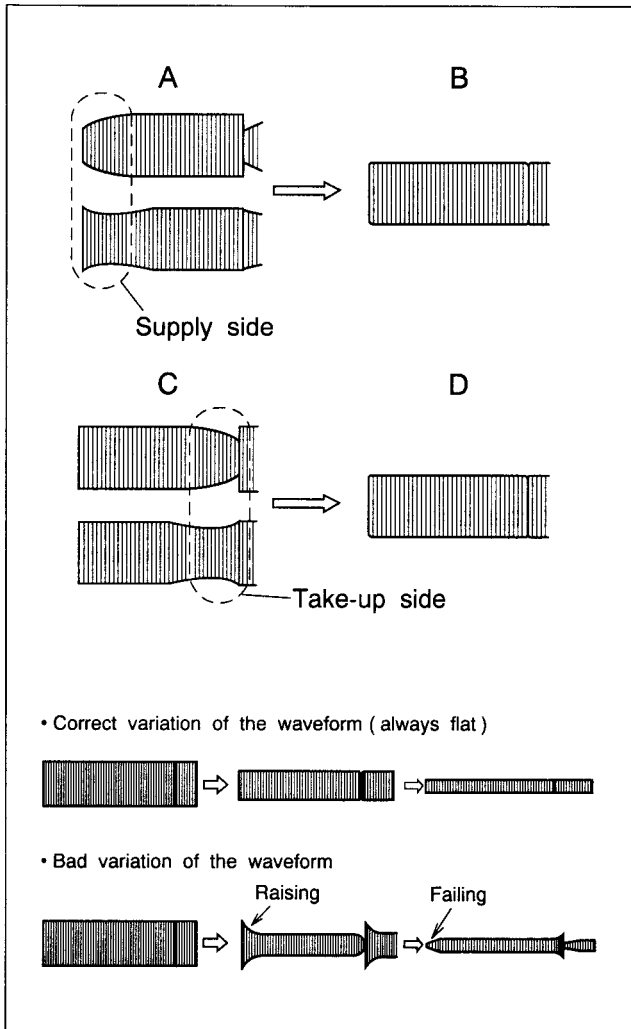


Fig. 2-7-3

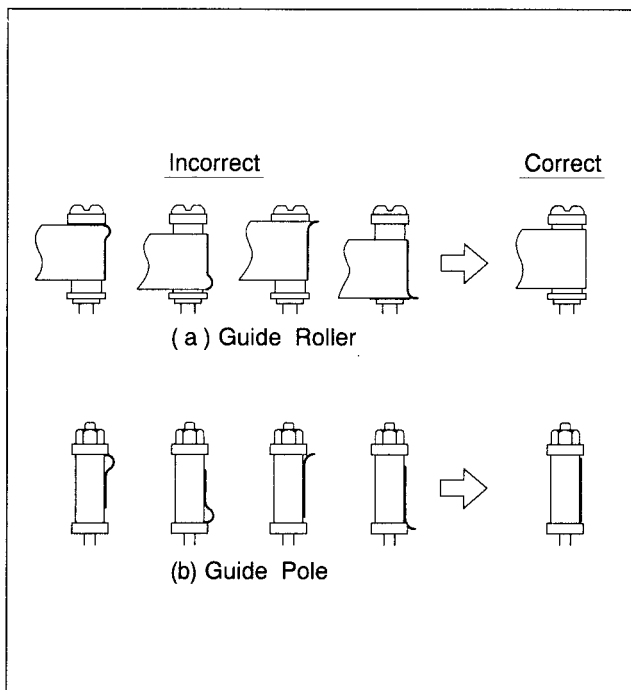


Fig. 2-7-4

2.7.2 A/C head height & azimuth

- NOTE :**
- Temporarily set A/C head height as indicated in Fig. 2-5-4.
 - Use spare tape to check the transport and confirm the tape is not scratched or damaged.

1. Tilt

- (1) Use spare tape and set for playback.
- (2) Turn screw (3) clockwise to where the tape curls just slightly at the TU guide pole bottom flange as shown in Fig.2-7-5.
- (3) Then slowly turn screw (3) counterclockwise to where the curling ceases.

2. Height

- (1) Connect CH-1 of a dual trace oscilloscope to Audio Out.
- (2) Connect CH-2 to TP401 (CTL PULSE) of the Main board assy and use the ALT mode.
- (3) Playback the SP stairstep portion of the alignment tape [MHPE].
- (4) Adjust screws (1),(2) and (3) for maximum audio output and control pulse level.

3. Azimuth

- (1) Connect the oscilloscope to Audio Out.
- (2) Playback the SP stairstep portion of the alignment tape [MHPE].
- (3) Adjust screw (2) so that the audio output is both maximum and with minimum fluctuation.

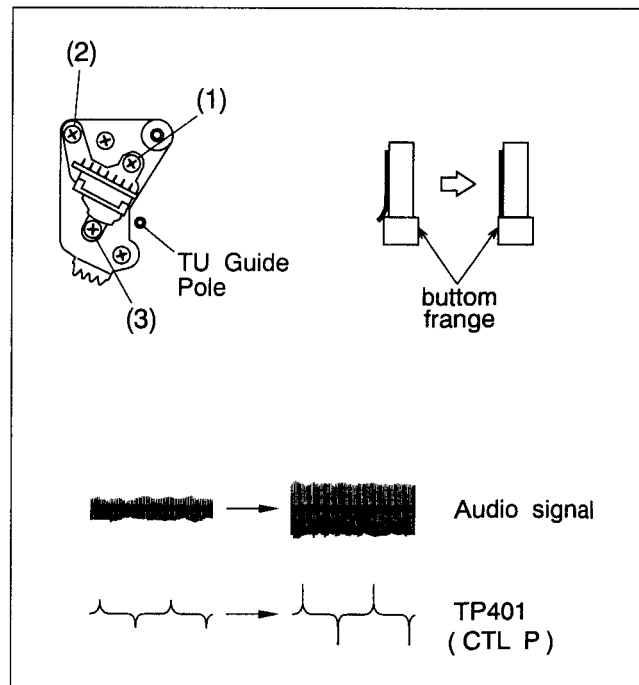


Fig. 2-7-5

2.7.3 A/C head phase(X-value)

- (1) Connect the oscilloscope to TP6(PB FM) on the PRE/REC board. Use TP11(D.FF) on the PRE/REC board as a trigger.
- (2) Playback the SP stairstep portion of the alignment tape [MHPE].
- (3) Set the neutral manual tracking position by pressing the **///** button on the remote controller or TV PROG "-" and "+" buttons simultaneously.
- (4) If adjustment is required, slightly loosen screws (4) and (5). Set A/C head positioning tool on the A/C head adjusting boss as indicated in Fig.2-7-6.
- (5) Turn the tool first to position the A/C head fully toward the drum and stop at the position of maximum FM waveform output level as shown in Fig.2-7-7.
- (6) Tighten screw (5). Remove the tool and tighten screw (4).
- (7) Eject the SP alignment tape [MHPE] and then re-insert the LP alignment tape [MHPE-L].
- (8) Playback the LP stairstep portion of the alignment tape [MHPE-L].
- (9) Set the neutral manual tracking position by pressing the **///** button on the remote controller or TV PROG "-" and "+" buttons simultaneously.
- (10) Confirm maximum playback FM waveform output level as shown in Fig.2-7-7.
- (11) If not maximum, slightly loosen the screws (4) and (5). Use the tool and adjust the head position for the nearest maximum point. Then tighten screws (4) and (5).

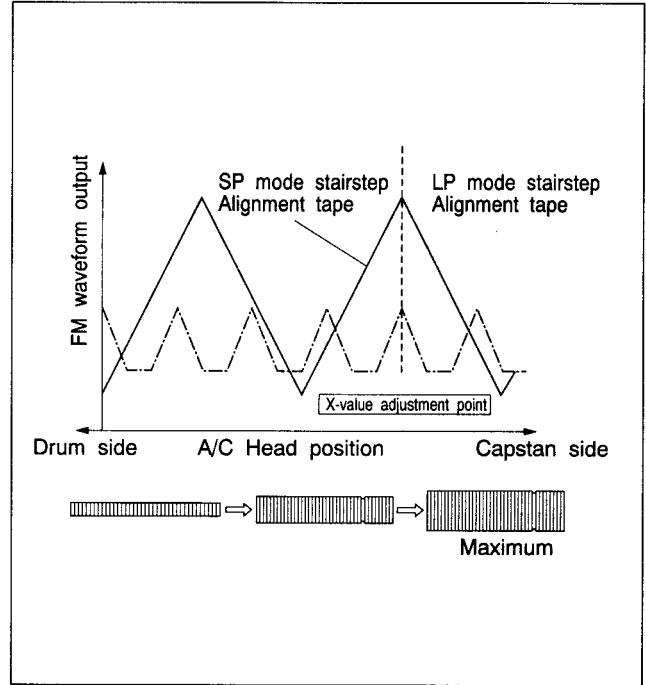


Fig. 2-7-7

2.7.4 LP mode auto tracking

NOTE : Set VCR to the mode A by remote controller.

- (1) Playback the LP stairstep portion of the alignment tape [MHPE-L].
- (2) Confirm that the Automatic tracking indication[AT] stops flashing and remains on.
- (3) Press the "D" button on the presetting unit[PTU94008] to turn off the Automatic tracking indication[AT].
- (4) Press the "D" button again to change the mode to the LP interchangeability adjustment mode and confirm that Automatic tracking indication[AT] stops flashing and goes off.
- (5) If the alignment tape ejects automatically, repeat the A/C head phase adjustment(X-value).

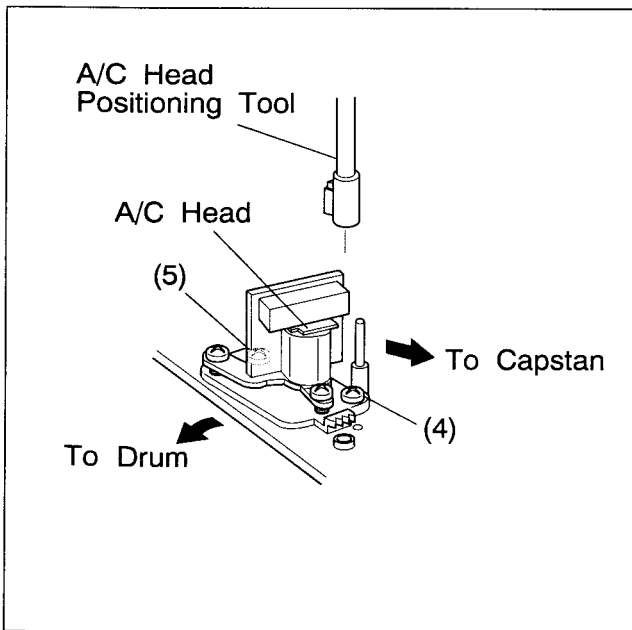


Fig. 2-7-6

2.7.5 Tension pole position

- (1) Set for playback mode using MECHANISM SERVICE MODE(See SECTION 1 DISASSEMBLY).
- (2) Slightly loosen the screw (A) .
- (3) Turn the adjust pin so that the tension arm assy does not touch $\phi 2.5$ pole on the outside.
- (4) Tighten the screw (A).
- (5) After adjustment,use the back tension cassette gauge and set for the playback mode.
- (6) Confirm reading of 29 to 46 g•cm.

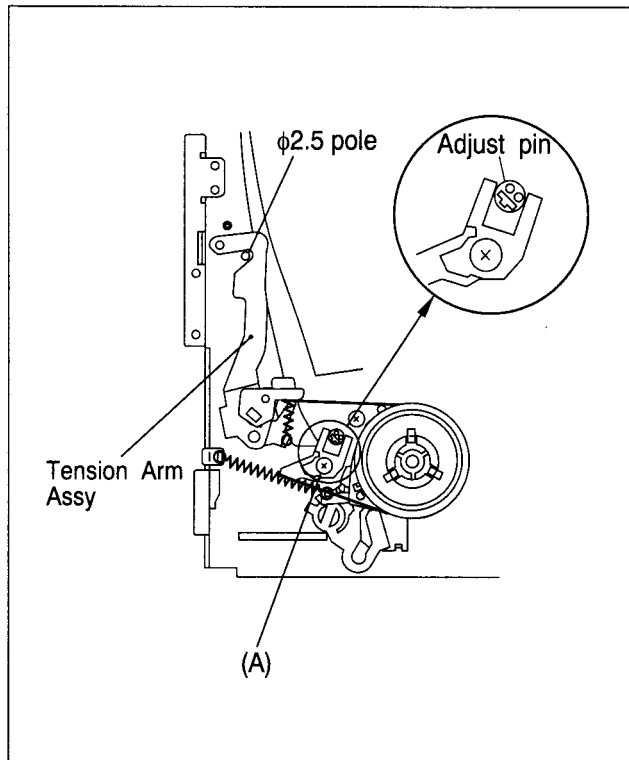


Fig. 2-7-8

2.7.6 Take-up torque

- (1) Use the back tension cassette gauge and set for the playback mode.
- (2) Confirm reading of 60 to 100 g•cm.

SECTION 3 ELECTRICAL ADJUSTMENT

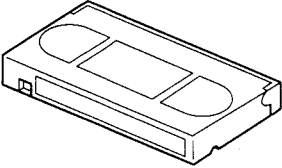
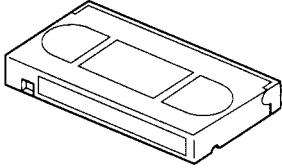
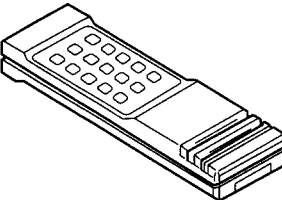
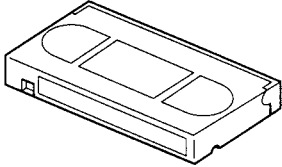
3.1 PRECAUTION

Electrical adjustment are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also do not attempt these adjustments unless the proper equipments is available.

3.1.1 Required test equipment

- ① Colour television or monitor
- ② Oscilloscope: wide-band, dual-trace, triggered delayed sweep
- ③ Frequency counter
- ④ Digital voltmeter
- ⑤ Signal generator: RF/IF sweep/marker
- ⑥ Signal generator: PAL colour bar, stairstep
- ⑦ Recording tape
- ⑧ Numeric-key remote controller(provided)

3.1.2 Required adjustment tools

Alignment tape (SP,stairstep) MHPE	Alignment tape (SP,colour bar) MHVE-2
	
Presetting unit PTU94008	Alignment tape (S-VHS SP/LP colour bar) MH-2H
	

3.1.3 Colour bar signal, colour bar pattern

● Colour bar signal

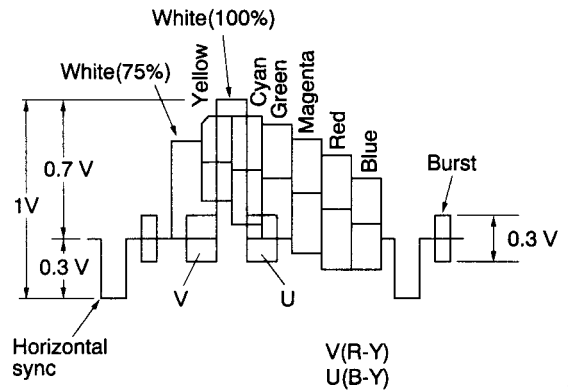


Fig.3-1-1 Colour bar signal waveform

● Colour bar pattern

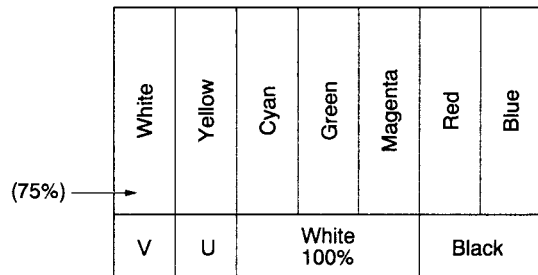


Fig.3-1-2 Colour bar pattern

3.2 SWITCHING REGULATOR CIRCUIT

Note: • Unless otherwise specified, all measurement points and adjustment parts are located on the MAIN BOARD.

3.2.1 5V DC output voltage

Signal	• AUX • TUNER
Mode	• REC : SP
Equipment	• Digital voltmeter
Measurement point	• CN206-pin16 (SWD 5V)
Adjustment part	• R862 (SWD 5V)
Specification	• $5.22 \pm 0.10V$ DC

- (1) Connect a digital voltmeter to CN206-pin16 and GND.
- (2) Adjust R862 for $5.22 \pm 0.10V$ DC.

3.3 SERVO CIRCUIT

Notes: • Unless otherwise specified, all measurement point and adjustment parts are located on the MAIN BOARD.

- Set VCR to the mode A by remote controller.
- Use only buttons "E" and "F", depressing other buttons during adjustment may cause adjustment errors.

3.3.1 PB switching point

Signal	• Alignment tape [MHPE], Stairstep
Mode	• PB, Automatic tracking OFF
Equipment	• Oscilloscope
Measurement point	• TP3(V.OUT) [TERMINAL board]
Trigger slope (-)	• TP11(DRUM FF) , [PRE/REC BOARD]
Adjustment tool	• Presetting unit [PTU94008]
Specification	• $6.5 \pm 0.5H$

- (1) Connect an oscilloscope to TP3 and external trigger from TP11 (negative slope).
- (2) Playback the stairstep signal of the alignment tape.
- (3) Set the tracking control to the centre position by pressing the **///** button of the remote controller.
- (4) Adjust by pressing "E" or "F" buttons of presetting unit for position the trigger point $6.5 \pm 0.5 H$ from V.sync.
- (5) Depress the STOP button.

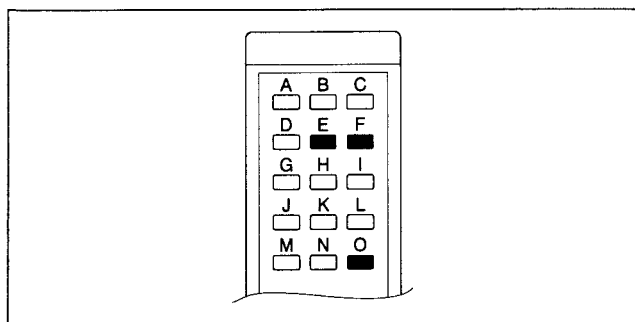


Fig.3-3-1 Presetting unit

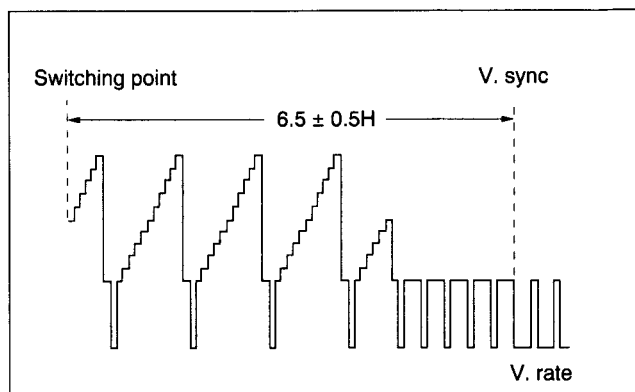


Fig.3-3-2 PB switching point

Alternate method

- (1) Playback the stairstep signal of the alignment tape.
- (2) Press the "O" button of the presetting unit.
- (3) Confirm that VCR mode becomes STOP mode.

3.3.2 Slow tracking preset

Signal	• Tuner or colour bar
Mode	• SP/LP, REC → PB(SLOW)
Equipment	• TV-Monitor
Adjustment tool	• Presetting unit [PTU94008]
Specification	• Minimum noise

Notes: • Set VCR to the mode A by remote controller.
• Use only buttons "B" and "C", depressing other buttons during adjustment may cause adjustment errors.

- (1) Record a colour bar signal in the SP mode.
- (2) Playback recorded signal on the FWD slow mode.
- (3) Observe the display on the TV monitor and adjust for optimum noise condition (best tracking) by depressing "B" or "C" buttons of the presetting unit.
- (4) Depress the STOP button.
- (5) Confirm that the bar noise is not visible on the TV monitor in the slow mode.
- (6) Repeat steps (2) to (5) in REV slow mode.
- (7) Repeat steps (1) to (6) in LP mode.

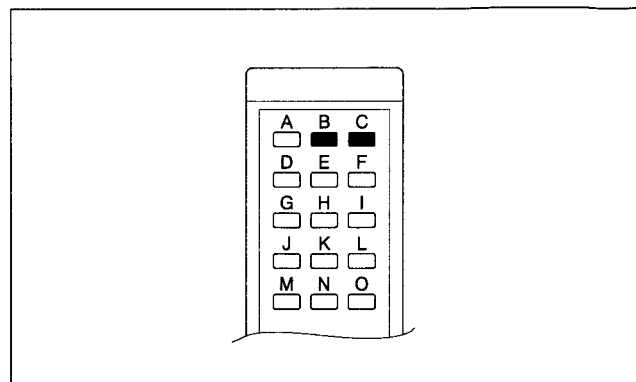


Fig.3-3-3 Presetting unit

3.4 VIDEO CIRCUIT

Notes: • Unless otherwise specified, all measurement point and adjustment parts are located on the MAIN BOARD.

- VIDEO circuit adjustments are performed by the EVR system by use of the presetting unit and numeric-key remote controller.
- S-INPUT means Y/C separated video signal in the chart.
- Set VCR to the mode A by remote controller.
- Set DYNAMIC CONTRAST to off mode.

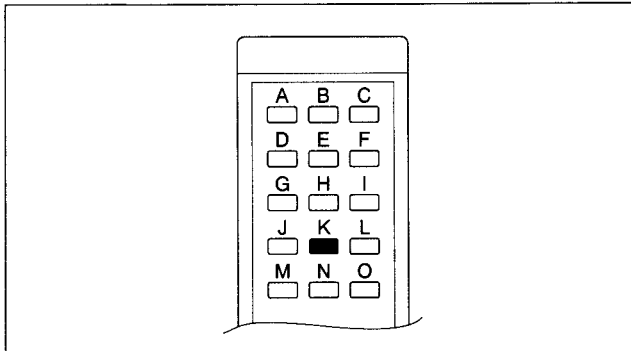


Fig.3-4-1 Presetting unit

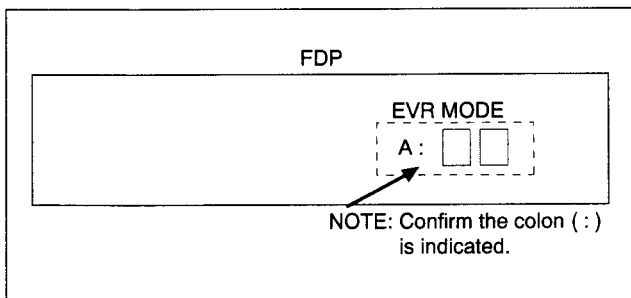


Fig.3-4-2 EVR mode

3.4.1 AGC Y LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP3 (V.OUT) [TERMINAL board]
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 11
Specification	• $1.00 \pm 0.03V_{p-p}$ (terminated)

- (1) Connect an oscilloscope to TP3.
- (2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
- (3) Set "A : 11" pressing 1 numeric key twice of the remote controller.
- (4) Adjust TV PROG "-" or "+" button for $1.00 \pm 0.03 V_{p-p}$.
- (5) Set normal VCR mode by pressing "K" button of the presetting unit again so adjustment data is memorized.

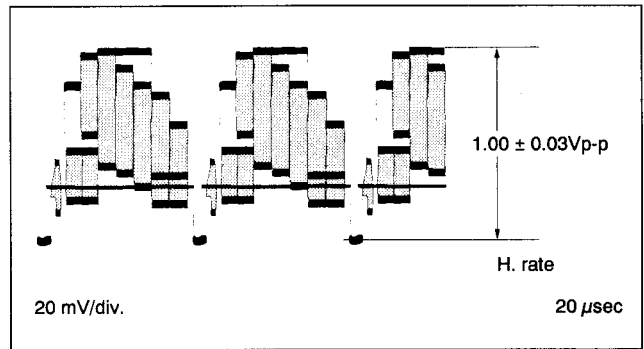


Fig. 3-4-3 EE Y level

3.4.2 WHITE/DARK CLIP (S-VHS/VHS)

Signal	• Colour bar
Mode	• EE • S-VHS/VHS
Equipment	• Oscilloscope
Measurement point	• TP205 (W/D CHECK)
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 14
Specification	• WHITE CLIP : $110 \pm 4\%$ (S-VHS) $90 \pm 4\%$ (VHS) DARK CLIP : $70 \pm 8\%$ (S-VHS) $45 \pm 8\%$ (VHS)

- (1) Connect an oscilloscope to TP205.
- (2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
- (3) Set "A : 14" pressing 1 and 4 numeric keys of the remote controller.
- (4) Adjust TV PROG "-" or "+" button for $110 \pm 4\%$ (S-VHS), $90 \pm 4\%$ (VHS) white clip and $70 \pm 8\%$ (S-VHS), $45 \pm 8\%$ (VHS) dark clip as shown in Fig.3-4-4.
- (5) Set normal VCR mode by pressing "K" button of the presetting unit again so adjustment data is memorized.

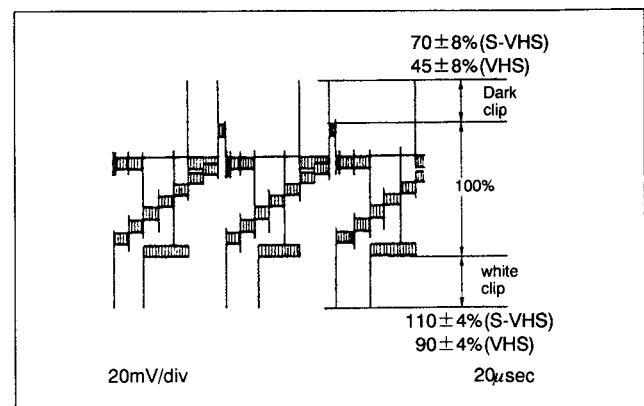


Fig.3-4-4 White/dark clip

3.4.3 SUB EMPHASIS INPUT LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP206 (SUB EMP CHECK)
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 15
Specification	• 400 ± 20 mVp-p

- (1) Connect an oscilloscope to TP206.
- (2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
- (3) Set "A : 15" pressing 1 and 5 numeric keys of the remote controller.
- (4) Adjust TV PROG "-" or "+" button of the remote controller for 400 ± 20 mVp-p.
- (5) Set normal VCR mode by pressing "K" button of the pre-setting unit again so adjustment data is memorized.

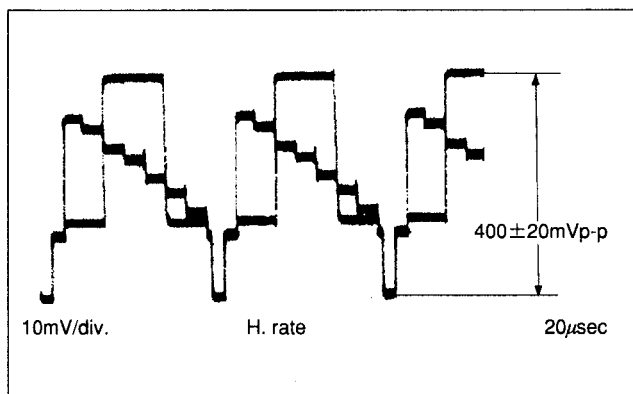


Fig. 3-4-5 Sub emphasis input level

3.4.4 PB Y LEVEL (S-VHS/VHS)

Signal	• Alignment tape [MHVE-2, MH-2H], • Colour bar
Mode	• PB
Equipment	• Oscilloscope
Measurement point	• TP3(V,OUT) [TERMINAL board]
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 11
Specification	• 1.00 ± 0.03 Vp-p (terminated)

- (1) Connect an oscilloscope to TP3.
- (2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
- (3) Set "A : 11" pressing 1 numeric key twice of the remote controller.
- (4) Playback the color bar signal of the alignment tape. (MH-2H and MHVE-2)
- (5) Adjust TV PROG "-" or "+" button for 1.00 ± 0.03 Vp-p as shown in Fig.3-4-6.
- (6) Set normal VCR mode by pressing "K" button of the pre-setting unit again so adjustment data is memorized.

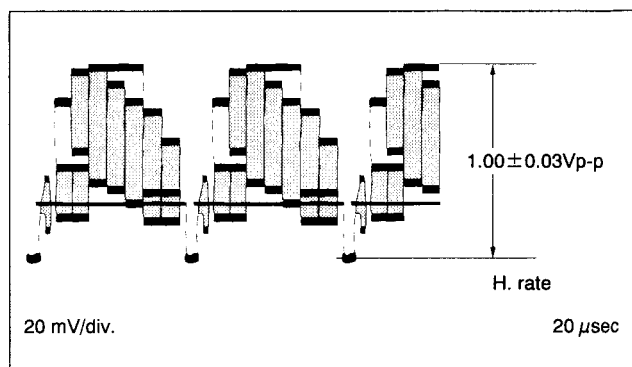


Fig.3-4-6 PB Y level

3.4.5 SP/LP REC COLOUR LEVEL

Signal	• Alignment tape [MH-2H] Colour bar
Mode	• PB (SP/LP) • REC → PB : SP/LP • S-VHS
Equipment	• Oscilloscope
Measurement point	• PB colour out
Trigger slope (-)	• TP11 (DRUM FF) [PRE/REC board]
Adjustment tool	• Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 2
Specification	• "B" x $130 \pm 5\%$: SP • "B" x $100 \pm 5\%$: LP

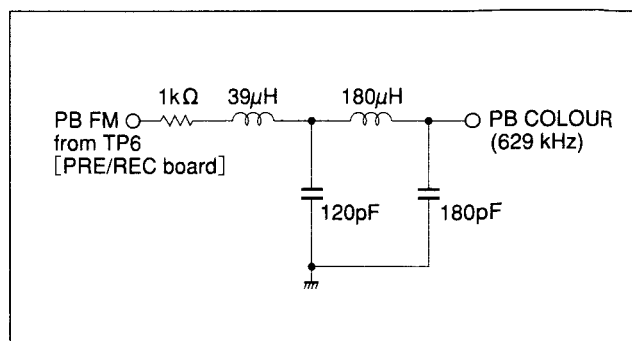


Fig. 3-4-7 LPF

- (1) Use a LPF as shown in Fig. 3-4-7.
- (2) Playback the SP (LP) colour bar signal of MH-2H alignment tape.
- (3) Set the tracking to the Auto tracking off position by pressing the **///** button of the remote controller.
- (4) Adjust by pressing the TV PROG “-” or “+” buttons of the remote controller for maximum level of the colour waveform and make a note of the higher colour level “B”.
- (5) Press the STOP/EJECT button and eject the MH-2H alignment tape.
- (6) Set EVR mode by pressing “K” button of the presetting unit more than 2 seconds.
- (7) Set “A : 2” by pressing 2 numeric key of the remote controller.
- (8) Record a colour bar signal in SP (LP) mode, and playback recorded colour bar signal.
- (9) Before recording, adjust TV PROG “-” or “+” button of the remote controller so that the higher level channel becomes $130 \pm 5\%$: SP ($100 \pm 5\%$: LP) of the note “B” level during playback as shown in Fig. 3-4-8.
- (10) Set normal VCR mode by pressing “K” button again so adjustment data is memorized.

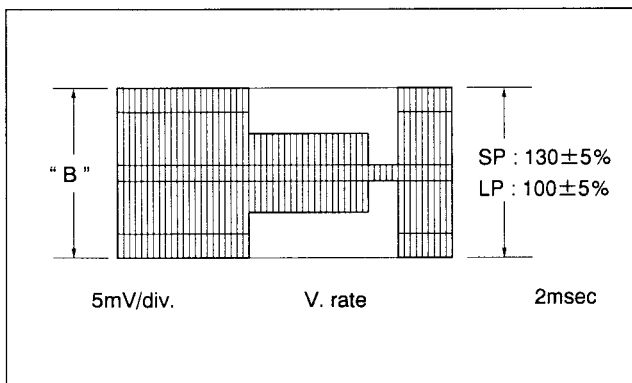


Fig. 3-4-8 REC colour level

3.4.6 S-VHS VIDEO EQ

Signal	<ul style="list-style-type: none"> • S INPUT • Video sweep
Mode	<ul style="list-style-type: none"> • SP/LP • REC (IMAGE CONTROL SW : NORMAL) • PB (IMAGE CONTROL SW : EDIT) • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP1 (Y.OUT) [TERMINAL BOARD]
Adjustment part	<ul style="list-style-type: none"> • R113 (S-SP VIDEO EQ) [PRE/REC board] • R114 (S-EP VIDEO EQ) [PRE/REC board]
Specification	<ul style="list-style-type: none"> • 3.6 ± 0.2 scale R113 : SP • 2.8 ± 0.2 scale R114 : LP

- (1) Connect an oscilloscope to TP1.
- (2) Record a video sweep signal in S-VHS SP mode, then play it back.
- (3) If the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, adjust R113 so that 3.58 MHz marker level becomes 3.6 ± 0.2 scale divisions.
- (4) Record a video sweep signal in S-VHS LP mode, then play it back.
- (5) If the sweeper's 100 kHz marker frequency is for 4 scale divisions on the oscilloscope screen, adjust R114 so that 3.58 MHz marker level becomes 2.8 ± 0.2 scale divisions.

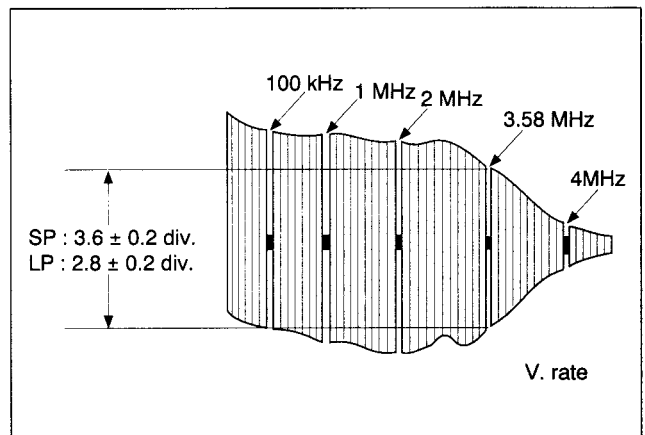


Fig. 3-4-9 S-VHS VIDEO EQ

Alternate method

- (1) Record a colour bar signal in S-VHS SP mode,
- (2) Play it back to observe the picture and adjust R113 for best resolution, without impaired S/N.
- (3) So after adjustment, confirm black or white spot.
- (4) Record a colour bar signal in S-VHS LP mode.
- (5) Play it back to observe the picture and adjust R114 for best resolution, without impaired S/N.
- (6) So after adjustment, confirm black or white spot.

3.4.7 PILOT BURST LEVEL

Signal	• Colour bar
Mode	<ul style="list-style-type: none"> • EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• CN203 pin 4
Adjustment tool	<ul style="list-style-type: none"> • Presetting unit [PTU94008] • Numeric-key remote controller
EVR mode	• A : 16
Specification	• Equal level

- (1) Connect an oscilloscope to pin 4 of CN203.
- (2) Set EVR mode by pressing "K" button of the presetting unit more than 2 seconds.
- (3) Set "A : 16" by press 1 and 6 numeric keys of the remote controller.
- (4) Adjust TV PROG “-” or “+” button of the remote controller for equal pilot burst level.
- (5) Set normal VCR mode by pressing "K" button again so adjustment data is memorized.

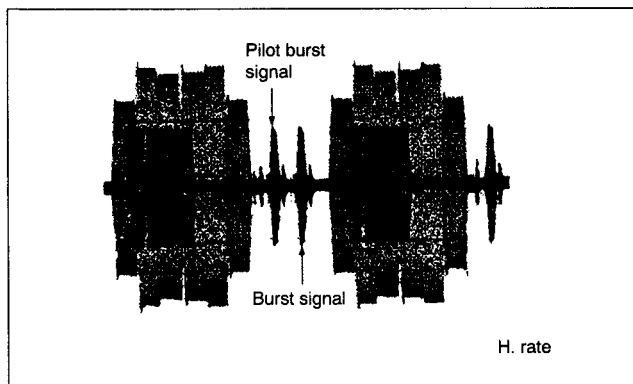


Fig. 3-4-10 Pilot burst level

3.5 SYSCON CIRCUIT

- Notes:**
- Unless otherwise specified, all measurement point and adjustment parts are located on the MAIN BOARD.
 - When performing this adjustment, remove the MECHANISM assy.

3.5.1 TIMER CLOCK

Signal	• No signal
Mode	• EE
Equipment	• Frequency counter
Measurement point	• IC601 pin 64
Adjustment part	• C601 (TIMER CLOCK)
Specification	• 1024.008 ± 0.001 Hz [976.5549 ± 0.0010 usec]

- (1) Connect the frequency counter to IC601 pin 64 and GND.
- (2) Connect the short wire between IC601 pin 33 and IC601 pin 63.
- (3) Short the leads of capacitor C604 once in order to reset IC601.
- (4) Disconnect the short wire then connect it again quickly.
- (5) Adjust C601 for 1024.008 ± 0.001 Hz.
(976.5549 ± 0.0010 usec)

3.6 AUDIO CIRCUIT

- Note:** Unless otherwise specified, all measurement point and adjustment parts are located on the PRE/REC BOARD.

3.6.1 AUDIO REC FM

Signal	• AUX • VIDEO : Colour bar • Audio : No signal
Mode	• REC → PB : LP • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP53 (A. PB FM)
Trigger slope (-)	• TP11 (DRUM FF)
Adjustment part	• R216 (A. REC FM LEVEL)
Specification	• 90 ± 10 mVp-p

- (1) Connect an oscilloscope to TP53.
- (2) Record a colour bar signal without an audio signal in S-VHS LP mode then playback.
- (3) Adjust R216 for 90 mVp-p playback level of higher channel level before recording.
- (4) Confirm that the lower channel level is more than 60 mVp-p.

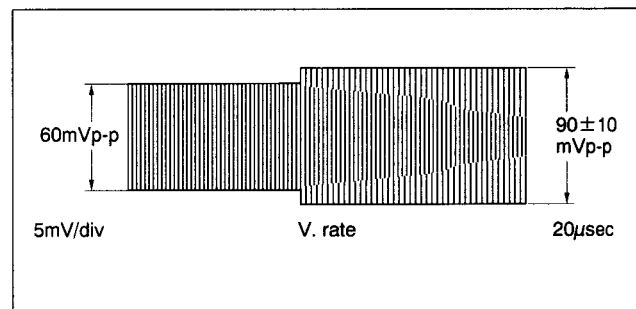


Fig. 3-6-1 Audio REC FM level

3.7 TUNER CIRCUIT

- Note:** Unless otherwise specified, all measurement point and adjustment parts are located on the IF UNIT.

3.7.1 RF VCO

Signal	• TV broadcasting
Mode	• Tuner
Equipment	• TV monitor
Measurement point	• IF UNIT
Adjustment tool	• IF VR
Specification	• Minimum noise

- Note:** Adjust IF VR (RF AGC) to correct for excess noise in the picture or when streaks cross interference occurs due to strong electrical fields.

- (1) Adjust IF VR to minimize noise or streaks on the TV screen.
- (2) Adjust for noisy picture with strong signal. Then adjust until noise just disappears. Select other channels to confirm proper pick-up of channels.

3.8 Y/C SEP CIRCUIT

Note: Unless otherwise specified, all measurement point and adjustment parts are located on the Y/C SEP BOARD.

- (1) Use a sweeper probe as shown in Fig. 3-9-1.
- (2) Supply 1 kHz R-only modulated IF signal to IF terminal of U/V tuner (front end).
- (3) Connect an oscilloscope to IC101-pin48.
- (4) Adjust R45(R1145) for minimum output level.

3.8.1 DIGITAL I/O LEVEL

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP207 (Y/V To SEP) • TP208 (SEPAD Y1) [MAIN board]
Adjustment part	• R68 (DIGITAL I/O LEVEL)
Specification	• Equal level

- (1) Connect the channel (CH-1) of a dual trace oscilloscope to TP207 and the other channel (CH-2) to TP208.
- (2) Set the oscilloscope for DUAL mode, and overlap the waveform.
- (3) Adjust R68 for equal Y levels.

3.9 DEMODULATOR CIRCUIT

Note: Unless otherwise specified, all measurement points and adjustment parts are located on the DEMODULATOR BOARD.

3.9.1 STEREO SEPARATION

Signal	• Sweep generator output (90 dB μ , 1 kHz)
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• IC101-pin48 [MAIN board]
Adjustment part	• R45 (SEPARATION) [HR-S7000EH] • R1145 (SEPARATION) [HR-S7000EG] [MAIN board]
Specification	• Minimum

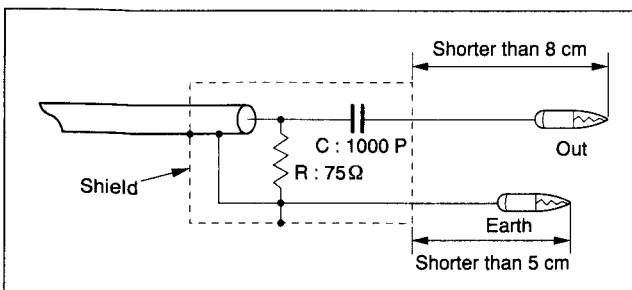



Fig. 3-9-1 Sweeper probe

SECTION 4 CHARTS AND DIAGRAMS

SCHEMATIC DIAGRAM NOTES

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufactures recommended parts.

1. Schematic diagram values

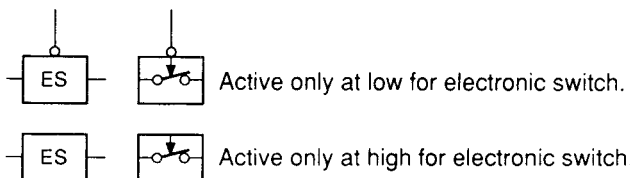
Unless otherwise specified.

- 1) All resistance values are in ohms. 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K: K Ω (1000 Ω), M: M Ω (1000K Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values in μ H, (m: mH).
- 4) All diodes are 1SS133 or MA165, (refer to parts list).

2. Indications

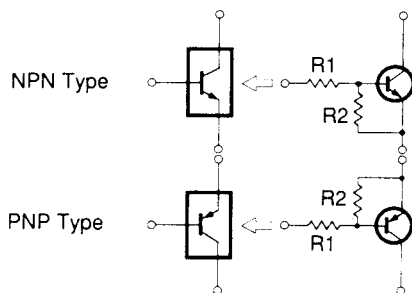
AUX : Active only at high.

$\overline{\text{AUX}}$: Active only at low.

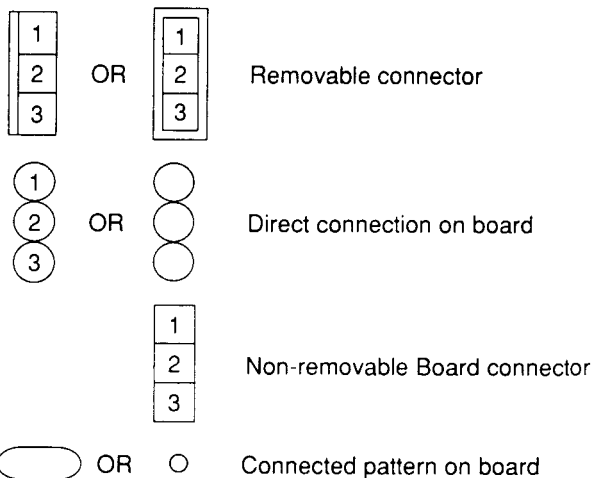


Digital transistor :

The digital transistor includes built in resistors. It features small size and high reliability.

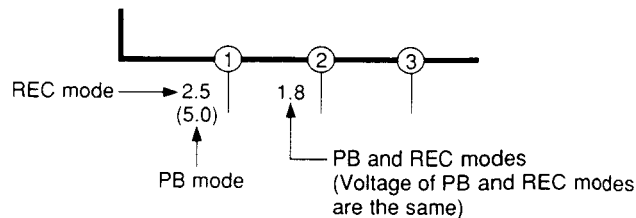


3. Interpreting Connector indications



4. Voltage measurement

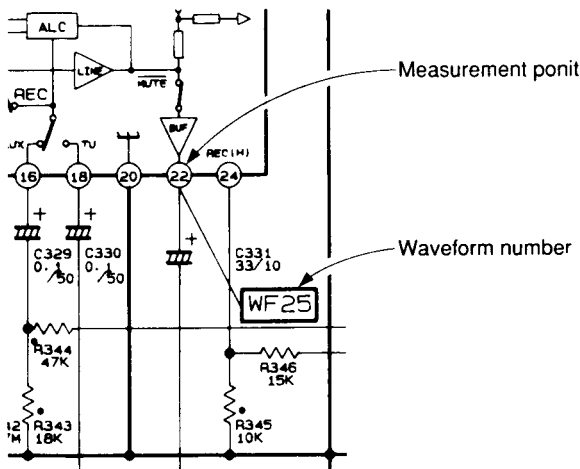
- 1) Video circuits
REC: Colour bar signal in SP mode, normal VHS mode.
PB : Alignment tape, colour bar SP mode, normal VHS mode.
— : Unmeasurable or unnecessary to measure.
- 2) Audio circuits
REC: 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode.
PB : REC then playback it.
- 3) Movie Camera circuits
Measured using a correctly illuminated grey scale or colour bar test charts in the E-E mode.
- 4) Indication on schematic diagram
Voltage Indications for REC and PB modes on the schematic diagram are as shown below.



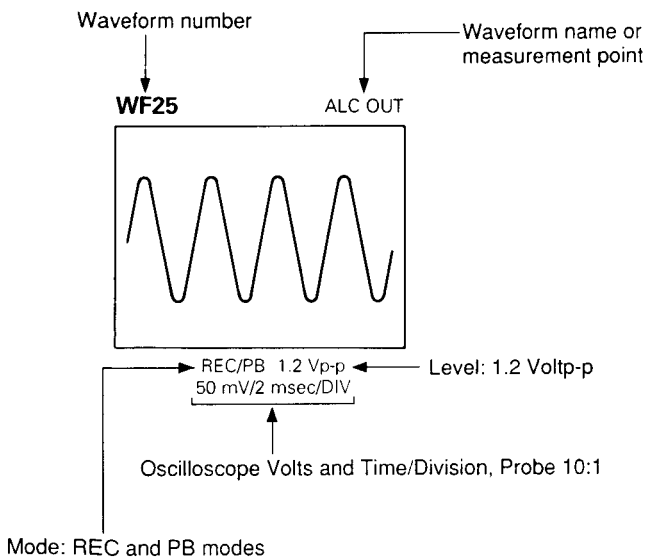
Note: If do not indicate for voltage measurement on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

- 1) Video circuits
REC: Colour bar signal in SP mode, normal VHS mode.
PB : Alignment tape, colour bar SP mode, normal VHS mode.
- 2) Audio circuits
REC: 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode.
PB : REC then playback it.
- 3) Movie Camera circuits
Measured using a correctly illuminated grey scale or colour bar test charts in the E-E mode.
- 4) Indication on schematic diagram
Waveform indications on the schematic diagram are as shown below.



5) Waveform indications



6. Signal path Symbols

The arrows indicate the signal path as follows.

- Playback signal path
- Playback and recording signal path
- Recording signal path (including E-E signal path)
- Y signal path
- Colour (Chroma) signal path
- R or R-Y signal path
- B or B-Y signal path
- Capstan servo path
- Drum servo path
- Reel servo path

CIRCUIT BOARD NOTES

1. Colour indications

- 1) Foil side :
Foil side patterns are indicated at GREY shading.
- 2) Component side :
Component side patterns are indicated at RED shading.

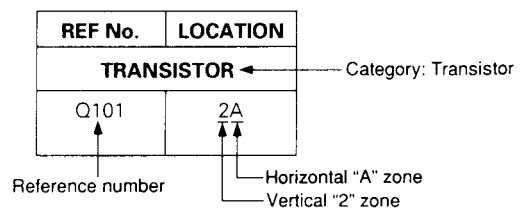
2. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side seen from component face (parts face) are indicated.

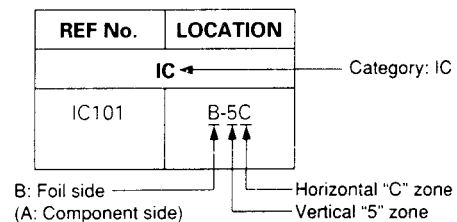
3. Parts location guides

Parts location are indicated by guide scale on the circuit board.

1) Signal pattern :



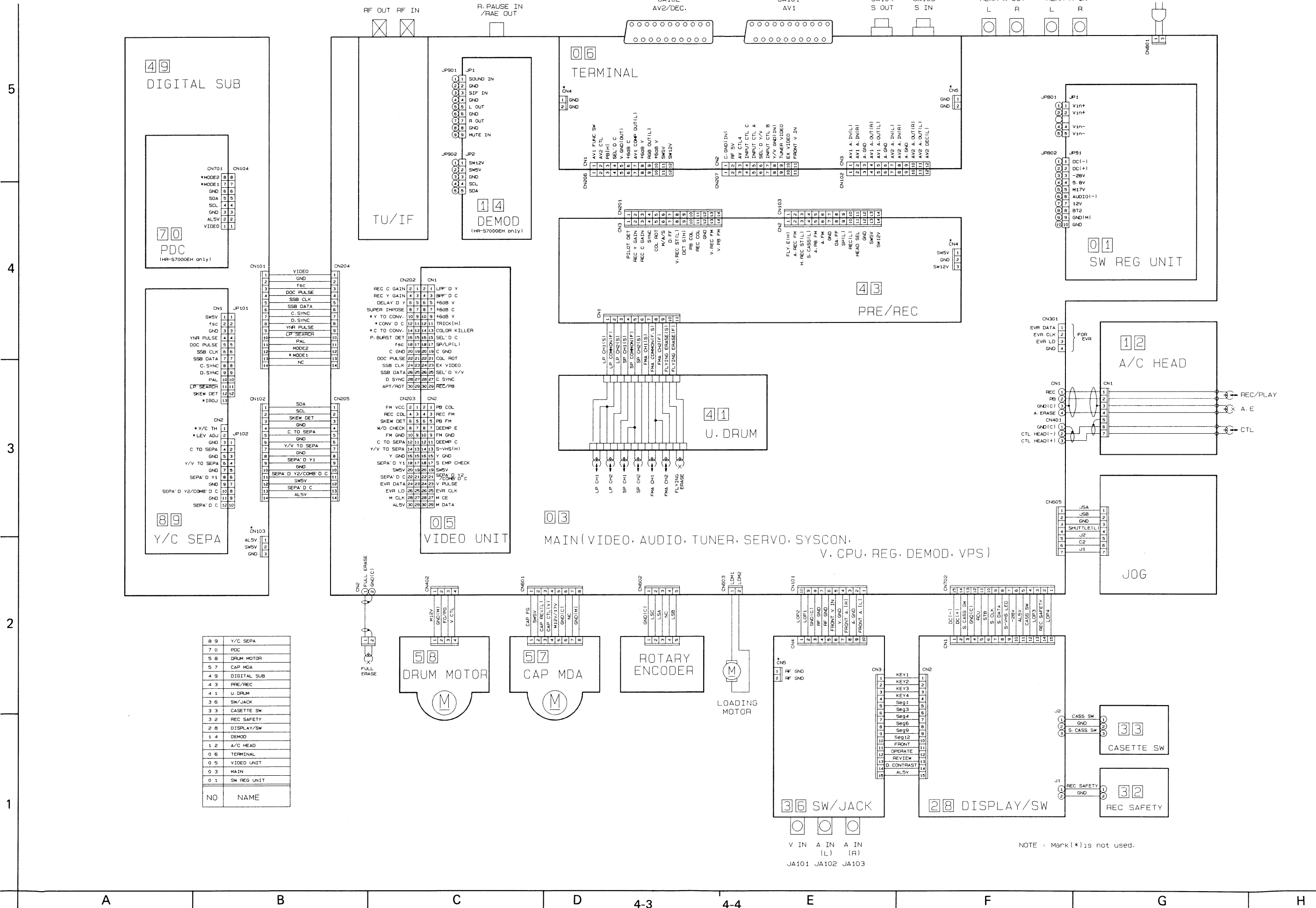
2) Double pattern :



Notes:

- 1) For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).
- 2) For repairing SMC (Surface Mounted Components), please refer to the VIDEO SERVICE GUIDE No. VTS81001.

4.1 BOARD INTERCONNECTIONS

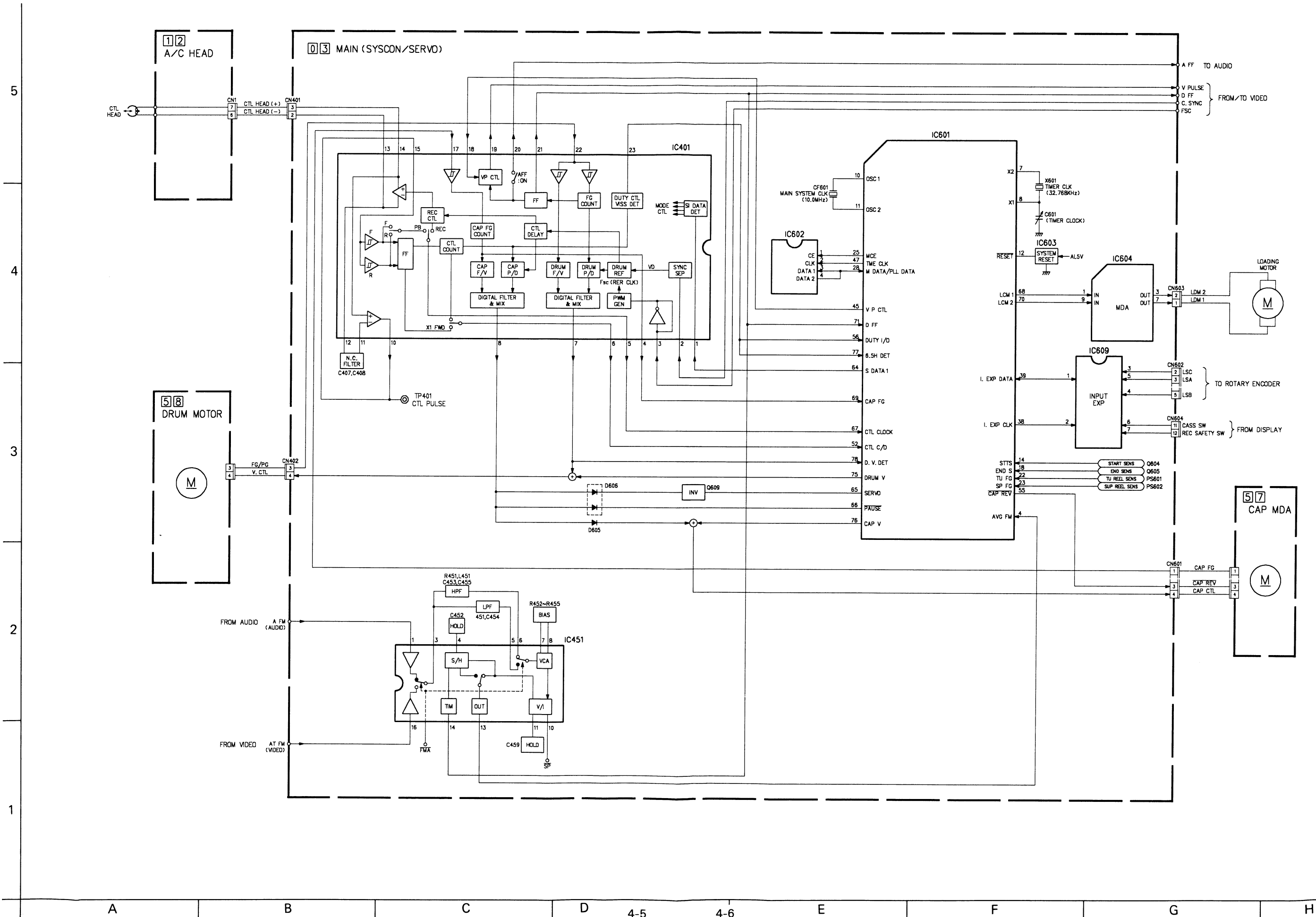


NO	NAME
8 9	Y/C SEPA
7 0	PDC
5 8	DRUM MOTOR
5 7	CAP MDA
4 9	DIGITAL SUB
4 3	PRE/REC
4 1	U. DRUM
3 6	SW/JACK
3 3	CASSETTE SW
3 2	REC SAFETY
2 8	DISPLAY/SW
1 4	DEMOD
1 2	A/C HEAD
0 6	TERMINAL
0 5	VIDEO UNIT
0 3	MAIN
0 1	SW REG UNIT
NO	NAME

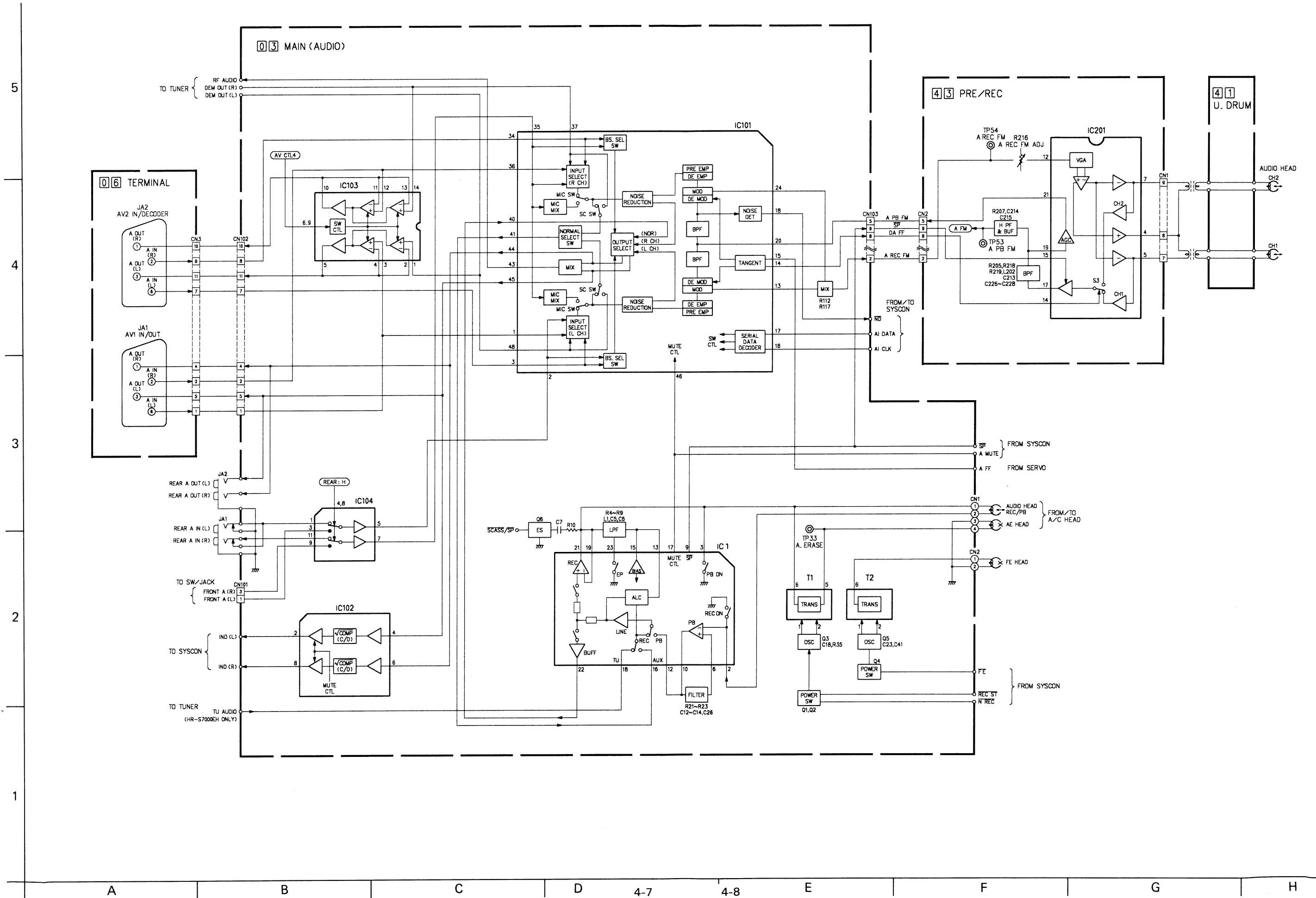
NOTE: Mark (*) is not used.

V IN A IN A IN
(L) (R)
JA101 JA102 JA103

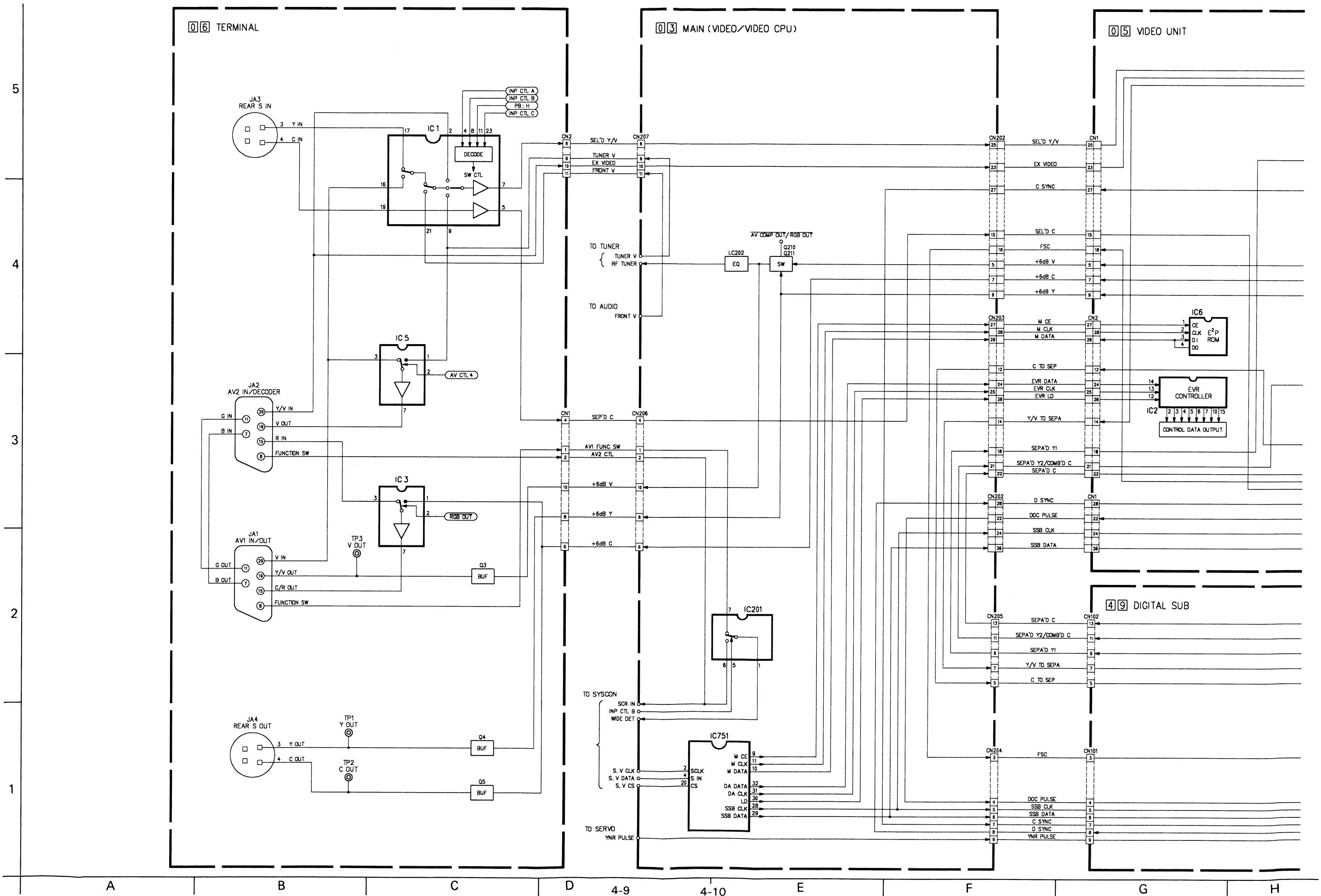
4.2 SYSCON/SERVO BLOCK DIAGRAM

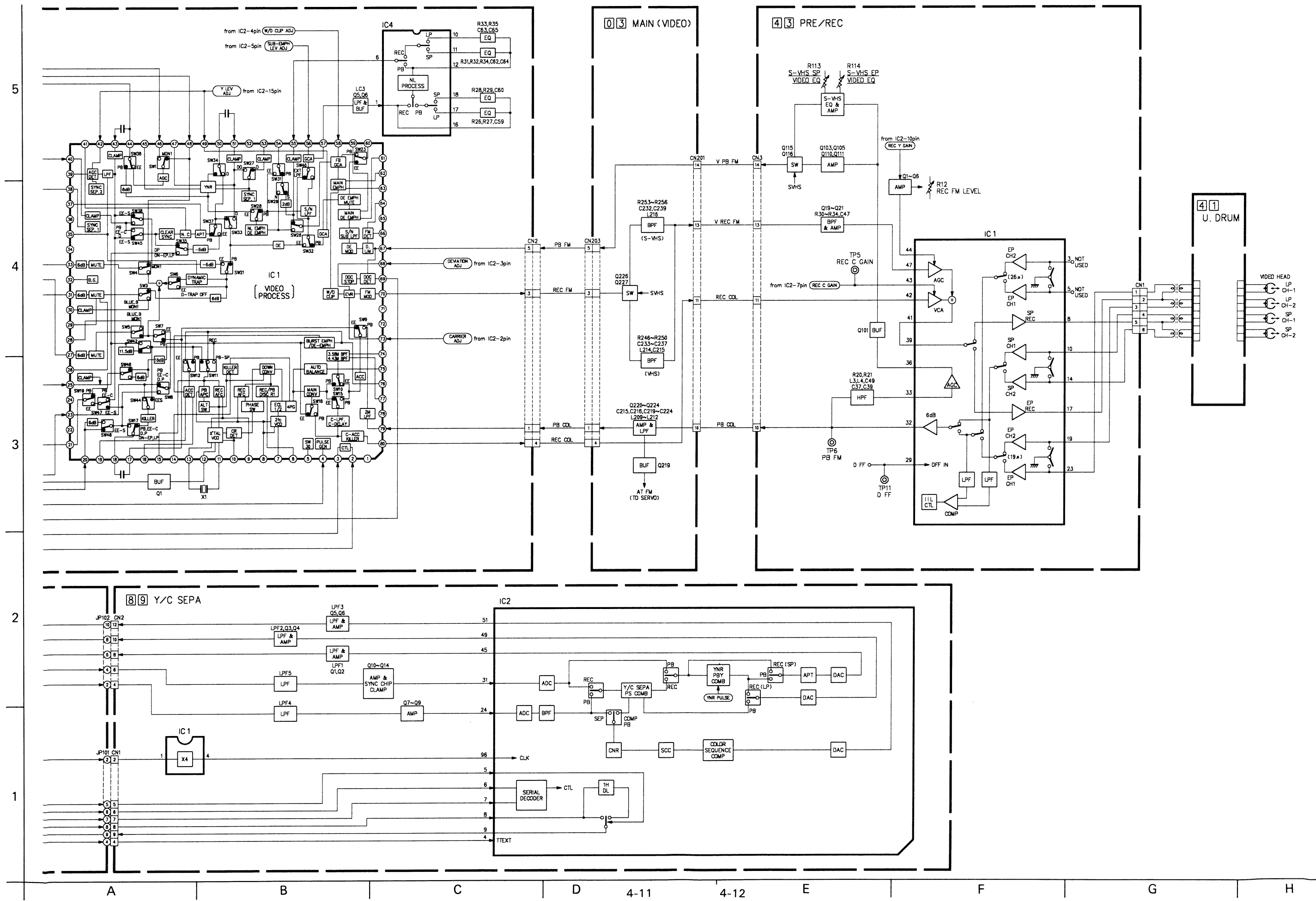


4.3 AUDIO BLOCK DIAGRAM

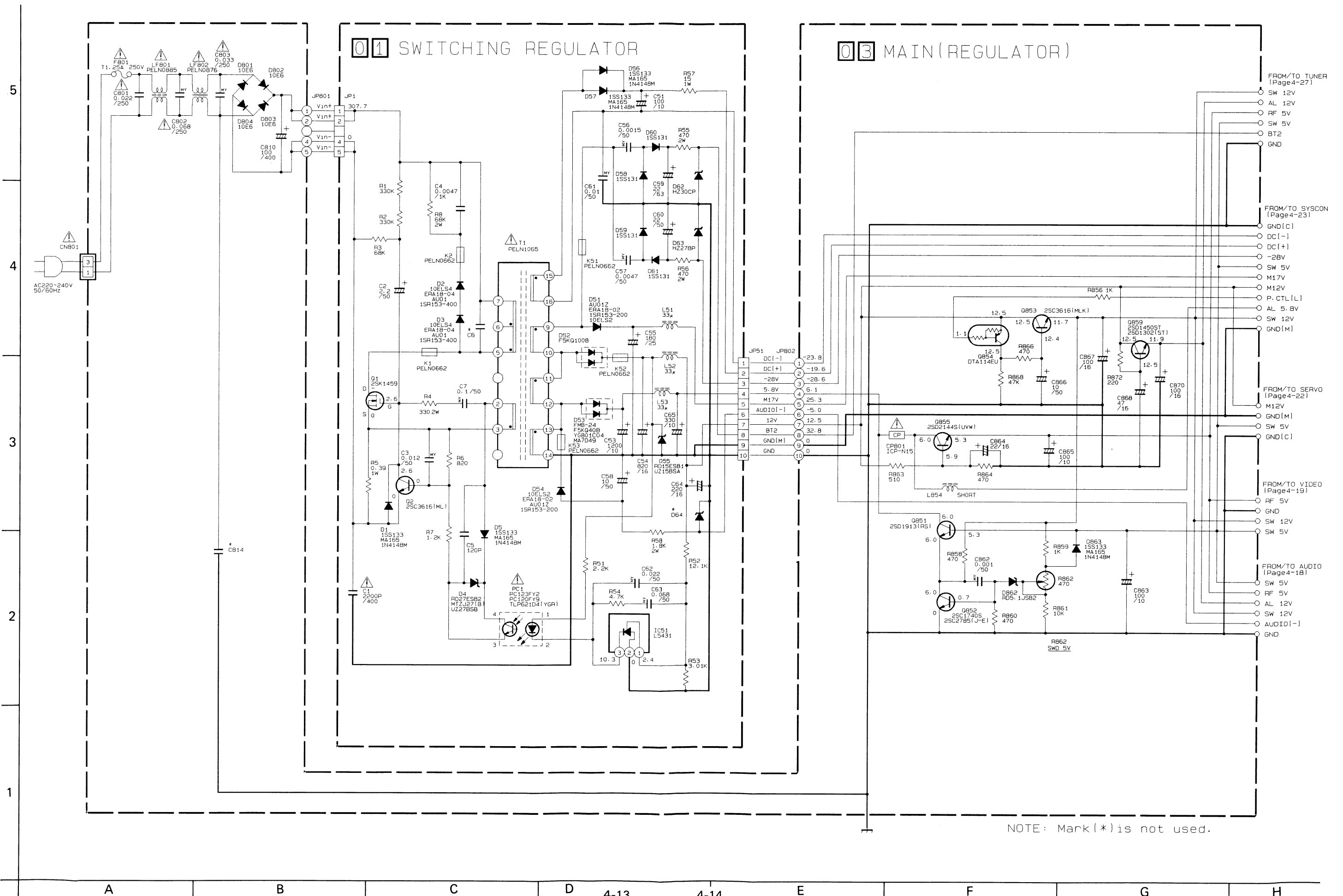


4.4 VIDEO BLOCK DIAGRAM

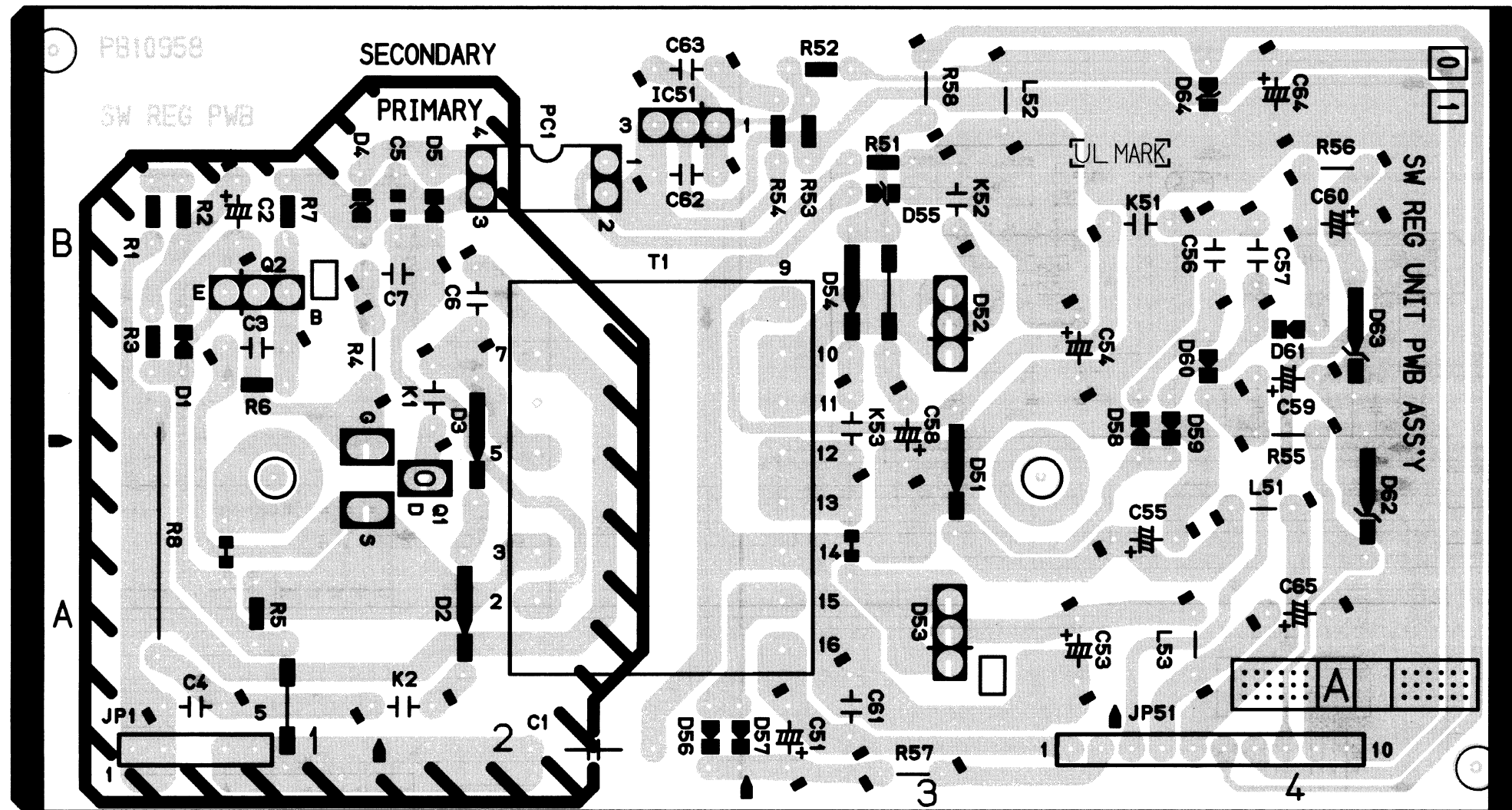




4.5 SWITCHING REGULATOR SCHEMATIC DIAGRAM

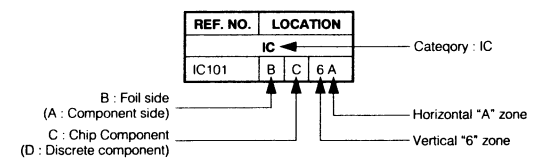


4.6 SWITCHING REGULATOR CIRCUIT BOARD

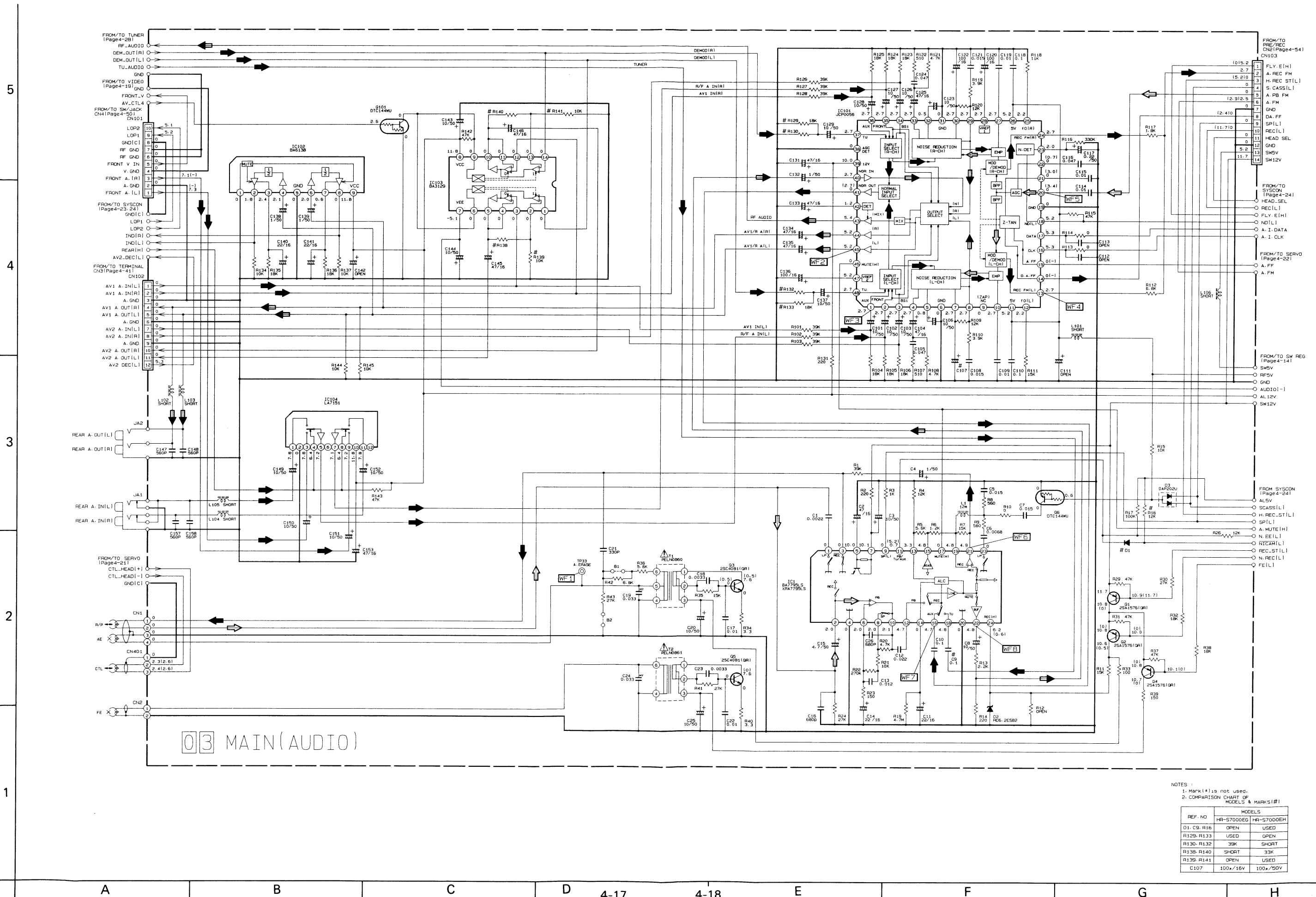


COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR							
C1	A D 2A	D2	A D 2A	L53	A D 4A	K1	A D 2B
C2	A D 1B	D3	A D 2B	TRANSISTOR			
C3	A D 1B	D4	A D 1B	Q1	A D 1A	K2	A D 2A
C4	A D 1A	D5	A D 2B	Q2	A D 1B	K51	A D 4B
C5	A D 2B	D51	A D 3B	R1	A D 1B	K52	A D 3B
C6	A D 2B	D52	A D 3B	R2	A D 1B	K53	A D 3A
C7	A D 2B	D53	A D 3A	R3	A D 1B	PC1	A D 2B
C51	A D 3A	D54	A D 3B	R4	A D 1B	T1	A D 2A
C53	A D 3A	D55	A D 3B	R5	A D 1A		
C54	A D 3B	D56	A D 2A	R6	A D 1B		
C55	A D 4A	D57	A D 2A	R7	A D 1B		
C56	A D 4B	D58	A D 4A	R8	A D 1A		
C57	A D 4B	D59	A D 4B	R51	A D 3B		
C58	A D 3A	D60	A D 4B	R52	A D 3C		
C59	A D 4B	D61	A D 4B	R53	A D 3B		
C60	A D 4B	D62	A D 4B	R54	A D 3B		
C61	A D 3A	D63	A D 4B	R55	A D 4B		
C62	A D 2B	D64	A D 4C	R56	A D 4B		
C63	A D 2C	IC		R57	A D 3A		
C64	A D 4C	IC51	A D 2B	R58	A D 3C		
C65	A D 4A	COIL		OTHER			
DIODE				L51	A D 4A	JP1	A D 1A
D1	A D 1B	L52	A D 3B	JP51	A D 3A		



4.7 AUDIO SCHEMATIC DIAGRAM



03 MAIN(AUDIO)

NOTES:
 1. Mark(*) is not used.
 2. COMPARISON CHART OF MODELS & MARKS#1

REF. NO	MODEL	HR-5700DEG	HR-5700DEH
D1, C9, R16	OPEN	USED	
R129, R133	USED	OPEN	
R130, R132	33K	SHORT	
R138, R140	SHORT	33K	
R139, R141	OPEN	USED	
C107	100 μ /16V	100 μ /50V	

4.8 VIDEO SCHEMATIC DIAGRAM



NOTES

1. Mark(*) is not used.
2. Unless otherwise specified, all PNP type transistors are 2SC481(BSI).
3. All NPN type transistors are 2SC4081(BSI).
3. COMPARISON CHART OF MODELS & MARKS(*)

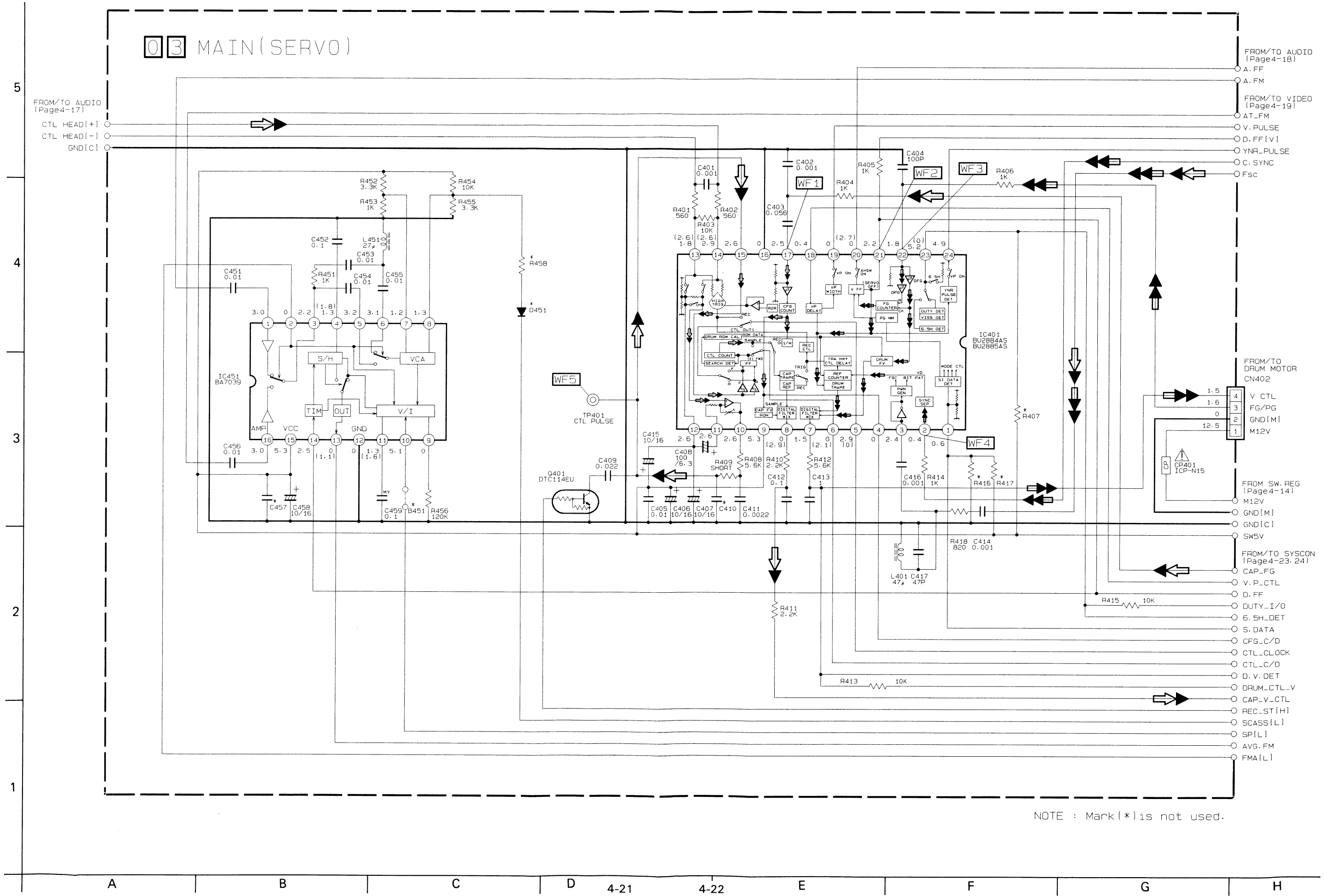
VIDEO		
REF. NO.	MODELS	
CN201	HR-S7000EG HR-S7000EH	
CN204	2-11	1-12
CN205	4-13	1-14

DIGITAL SUB		
REF. NO.	MODELS	
CN101	HR-S7000EG HR-S7000EH	
CN102	2-11	1-12
CN103	4-13	1-14
CN104	1-6	OPEN

03 MAIN (VIDEO)

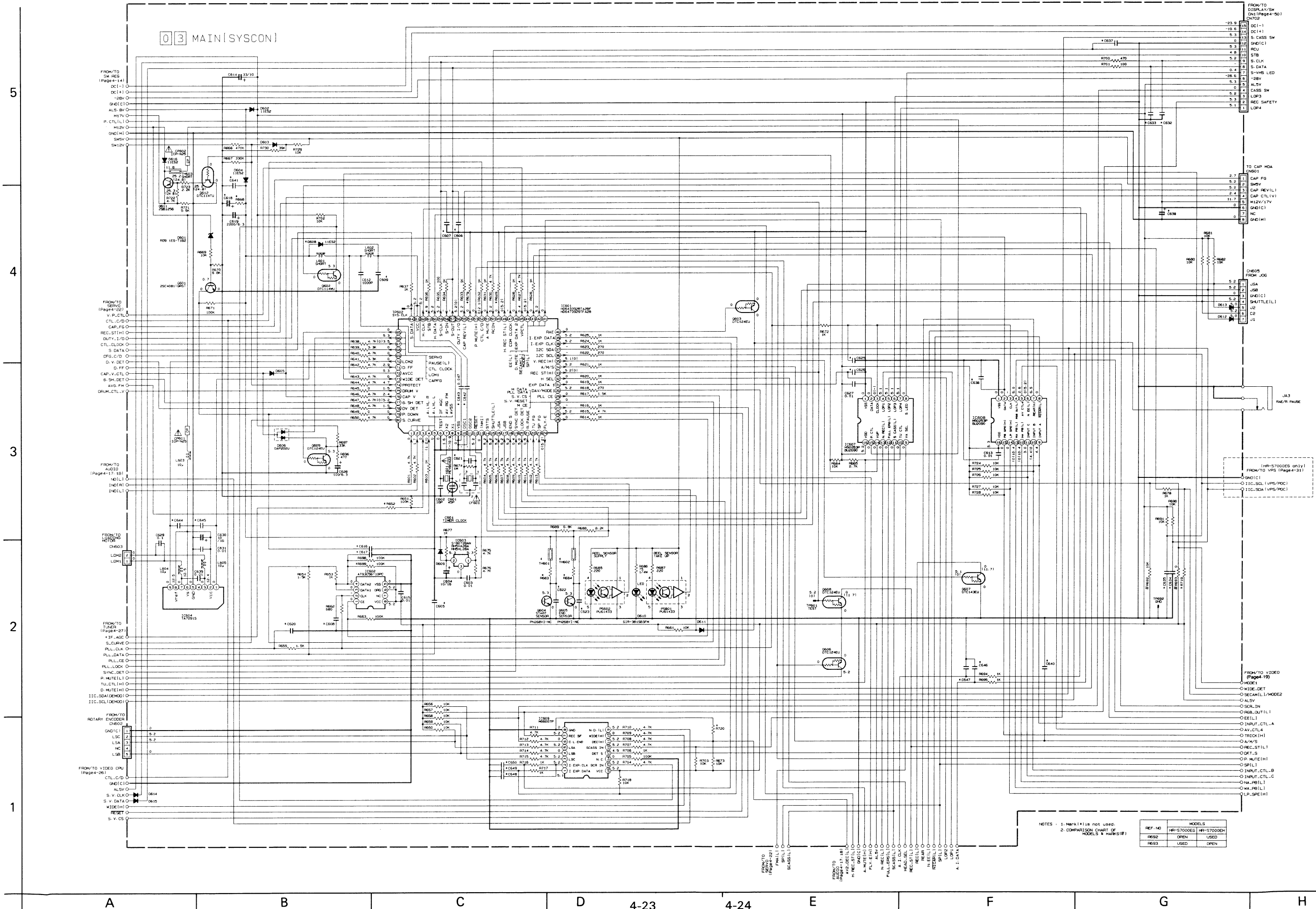
49 DIGITAL SUB

4.9 SERVO SCHEMATIC DIAGRAM

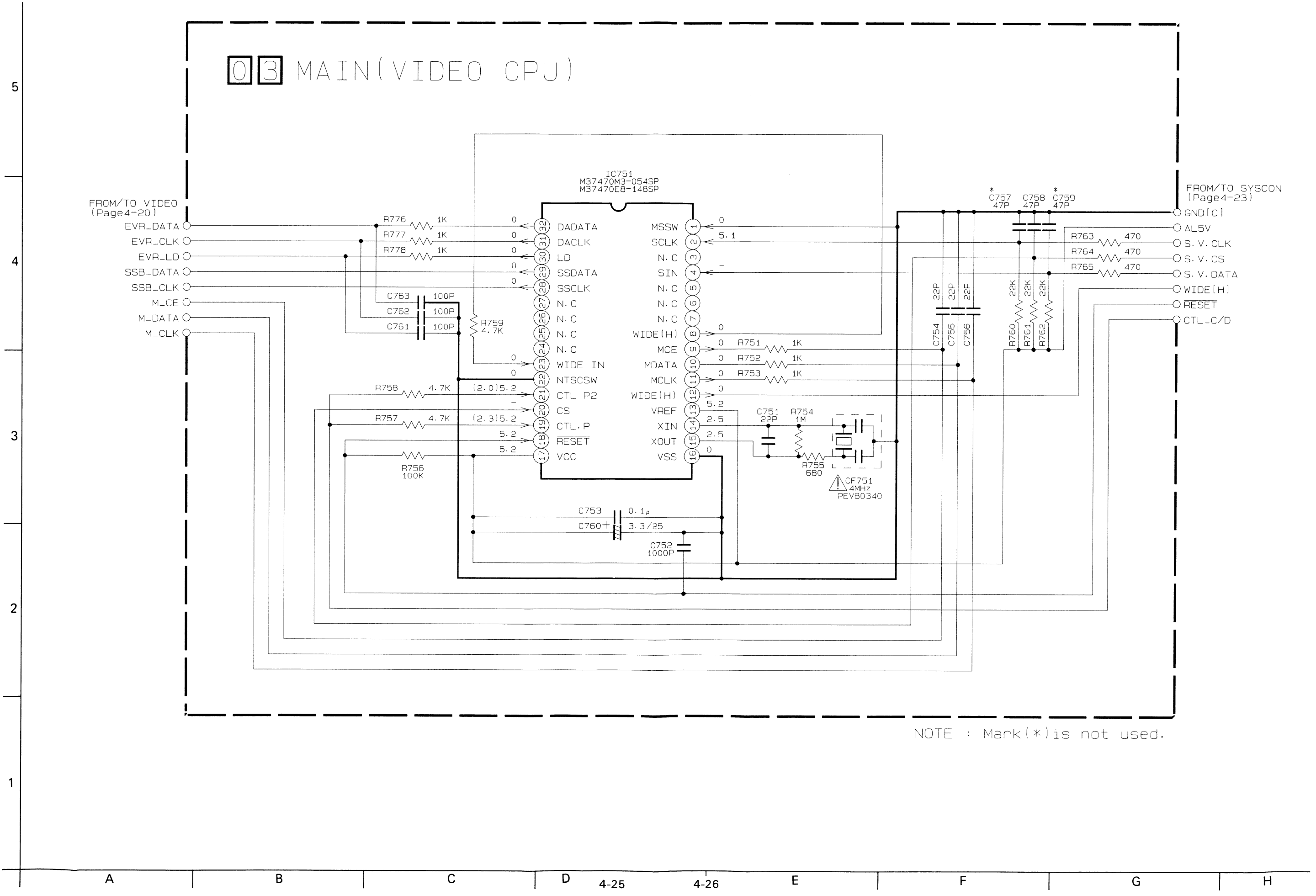


NOTE : Mark(*) is not used.

4.10 SYSTEM CONTROL SCHEMATIC DIAGRAM



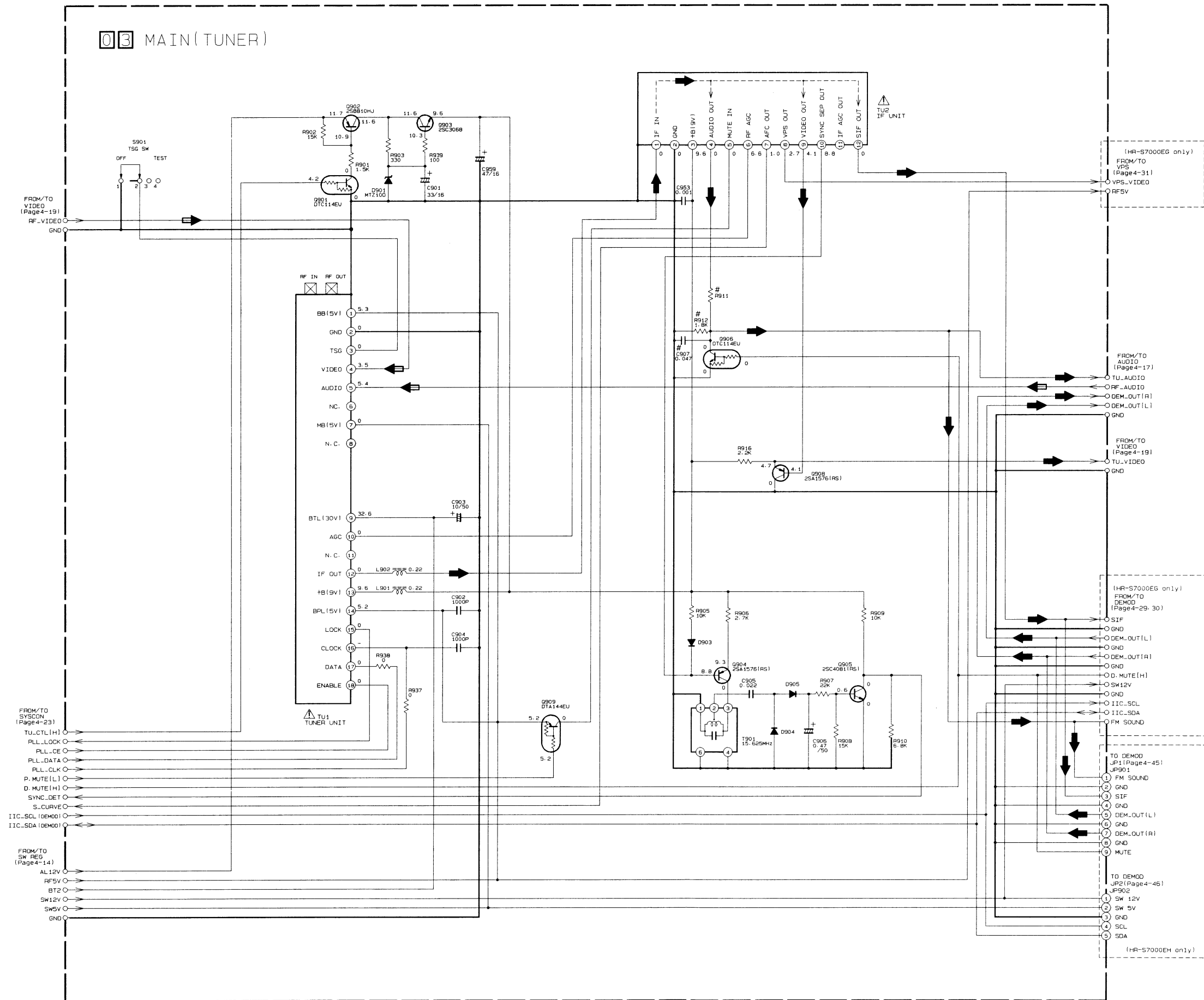
4.11 VIDEO CPU SCHEMATIC DIAGRAM



NOTE : Mark(*) is not used.

4.12 TUNER SCHEMATIC DIAGRAM

5
4
3
2
1

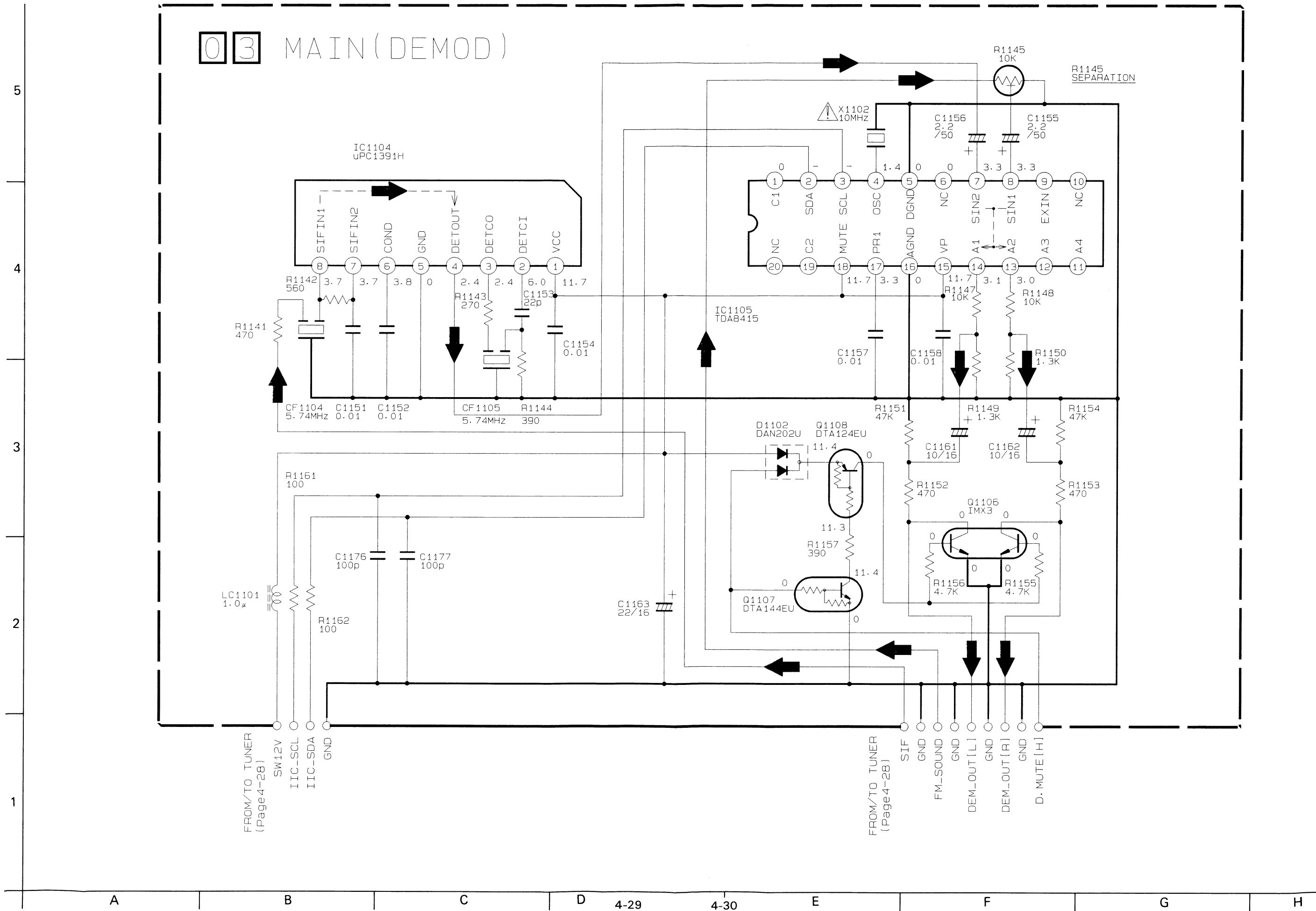


NOTES:
1. Mark(*) is not used.
2. COMPARISON CHART OF MODELS & MARKS(#)

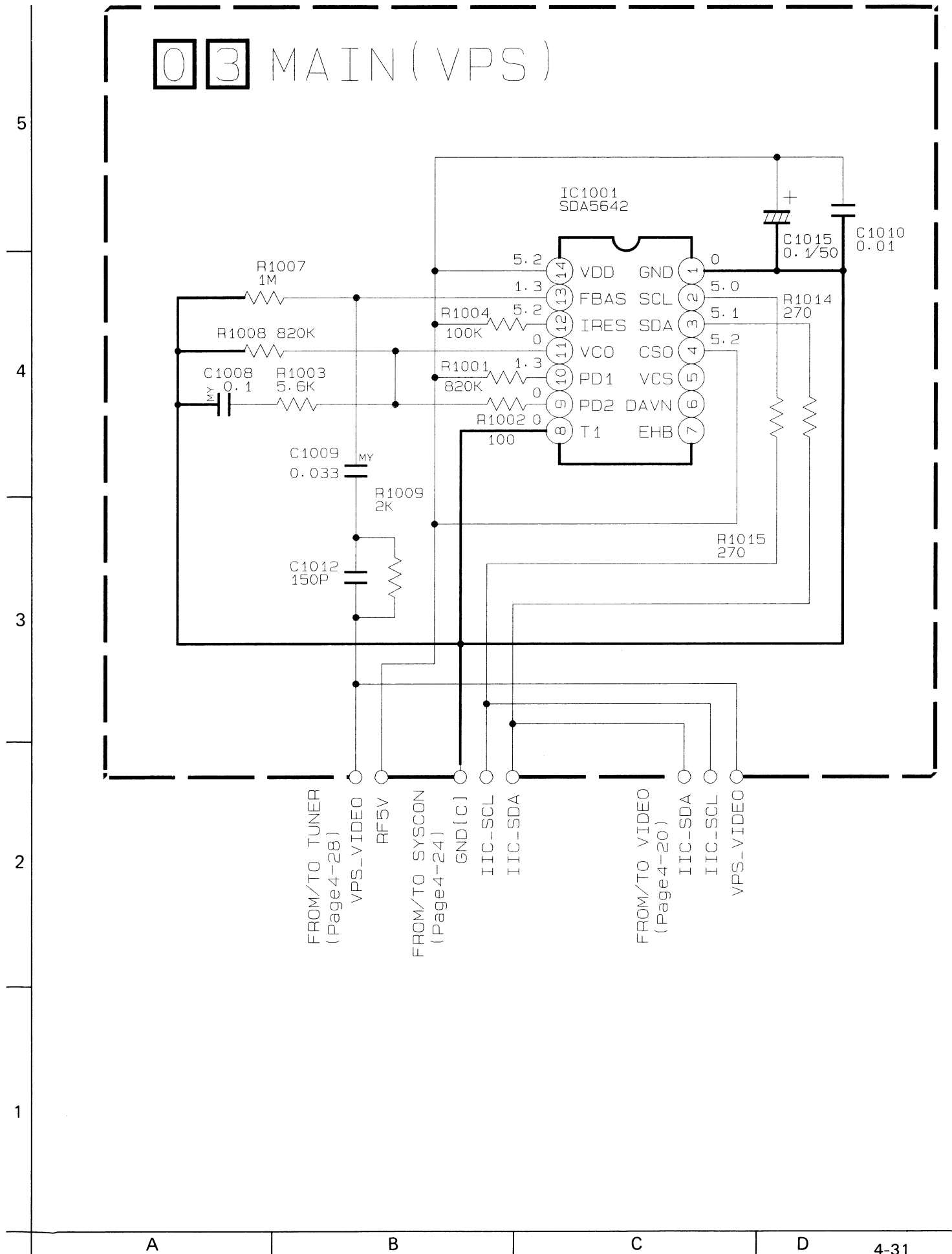
REF. NO	MODELS	
	HR-S7000EG	HR-S7000EH
R911	0 Ω	3.9K
R912	OPEN	USED
C907	OPEN	USED

A B C D 4-27 E 4-28 F G H

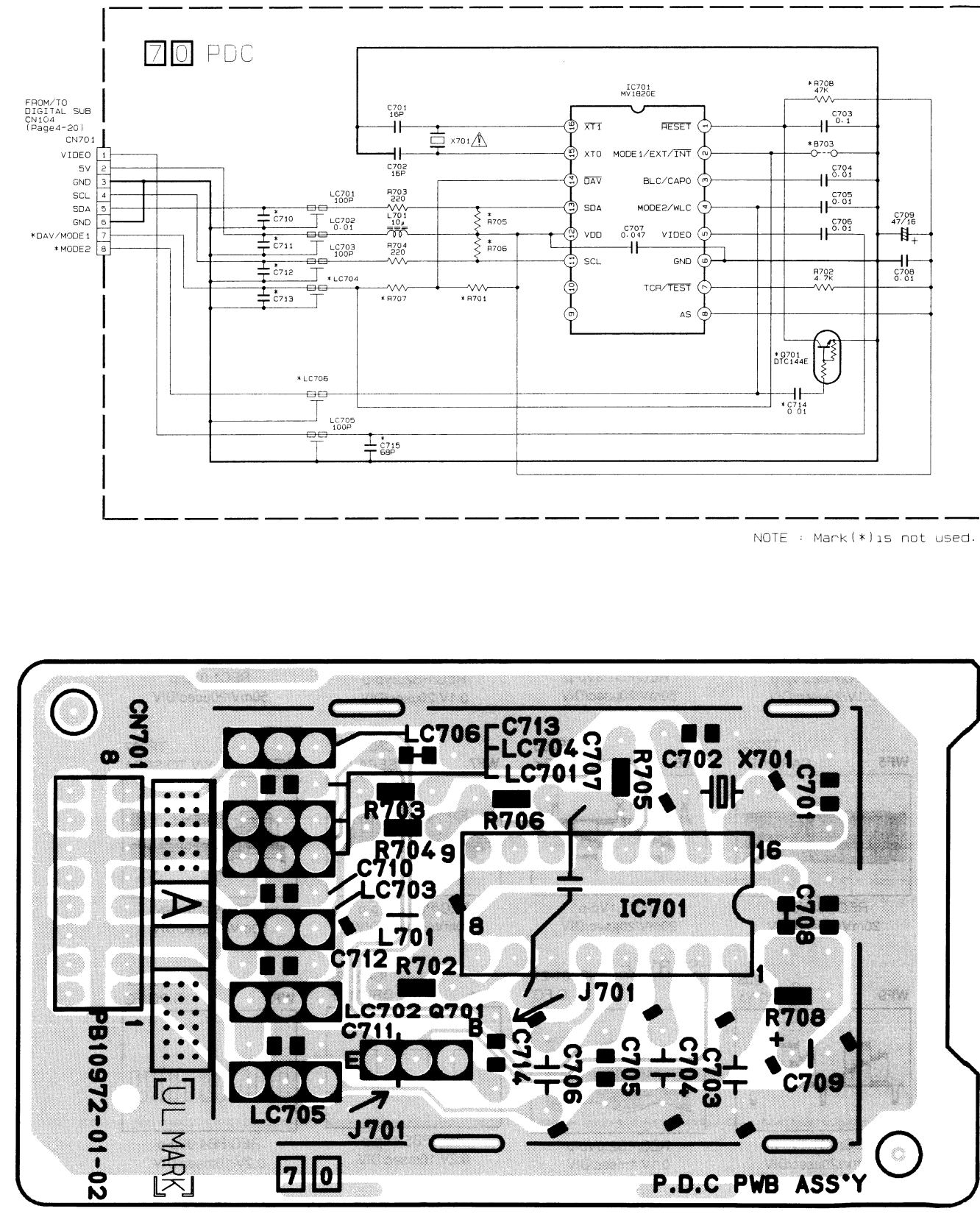
4.13 DEMODULATOR SCHEMATIC DIAGRAM (for HR-S7000EG)

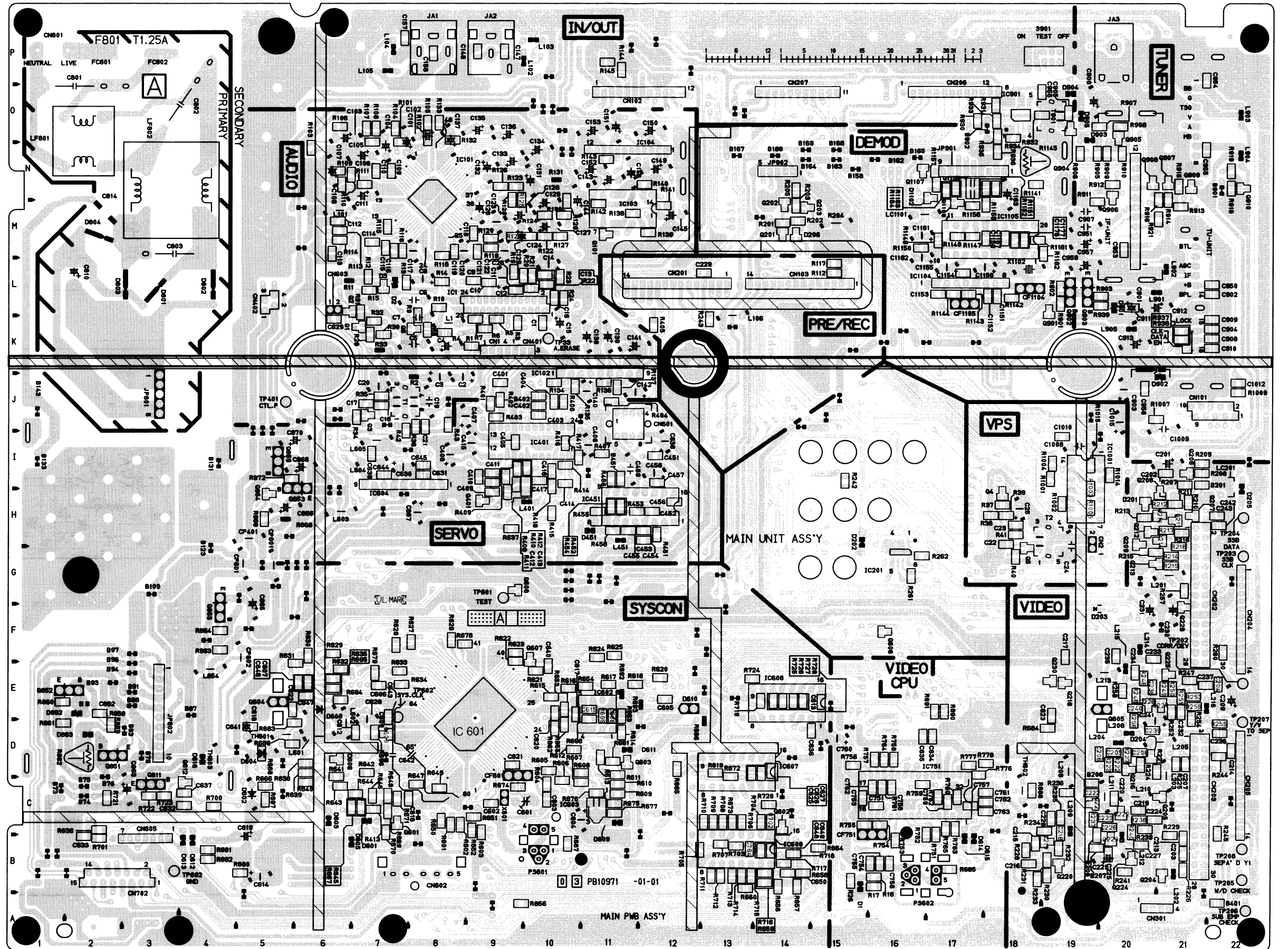


4.14 VPS SCHEMATIC DIAGRAM (for HR-S7000EG)

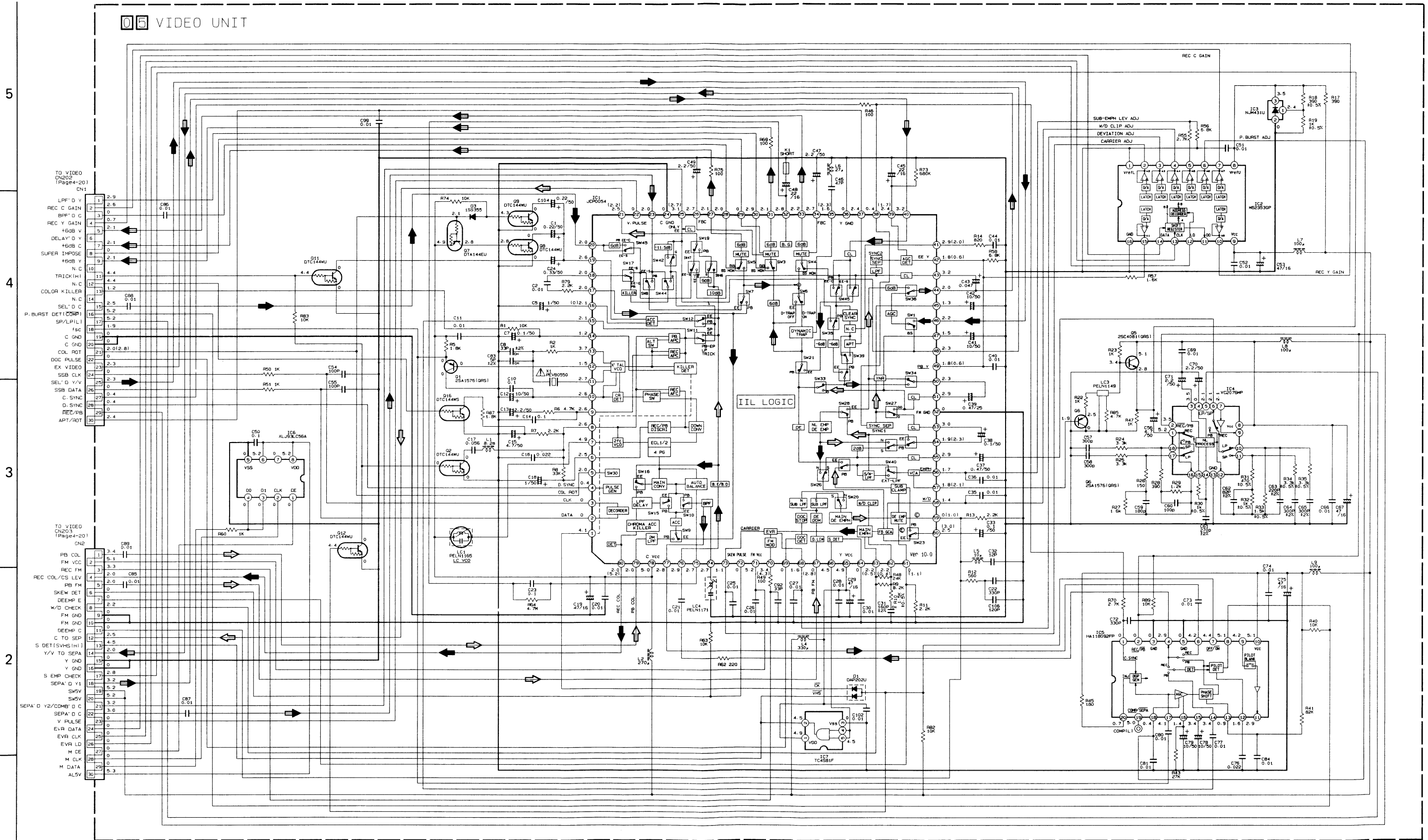


4.15 PDC SCHEMATIC DIAGRAM AND CIRCUIT BOARD (for HR-S7000EH)





4.17 VIDEO UNIT SCHEMATIC DIAGRAM



NOTE: Mark (*) is not used.

A

B

C

D

4-37

4-38

E

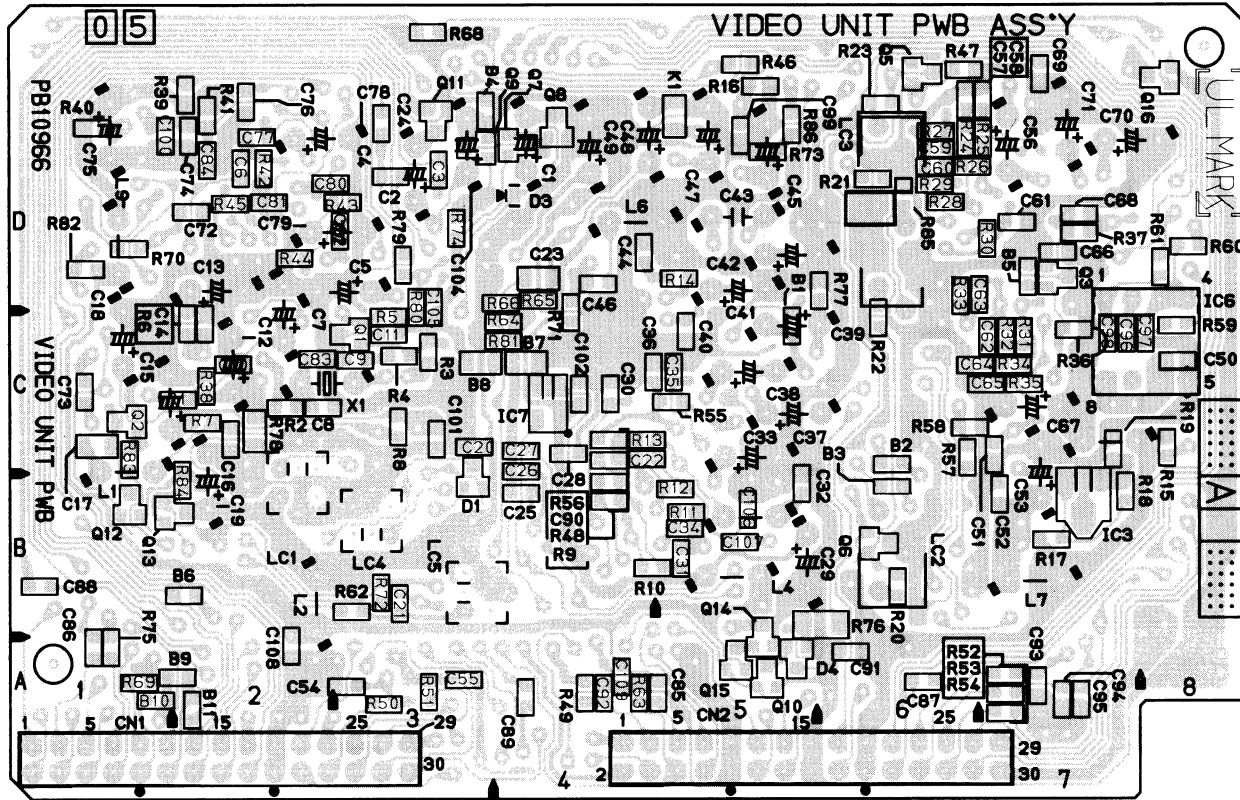
F

G

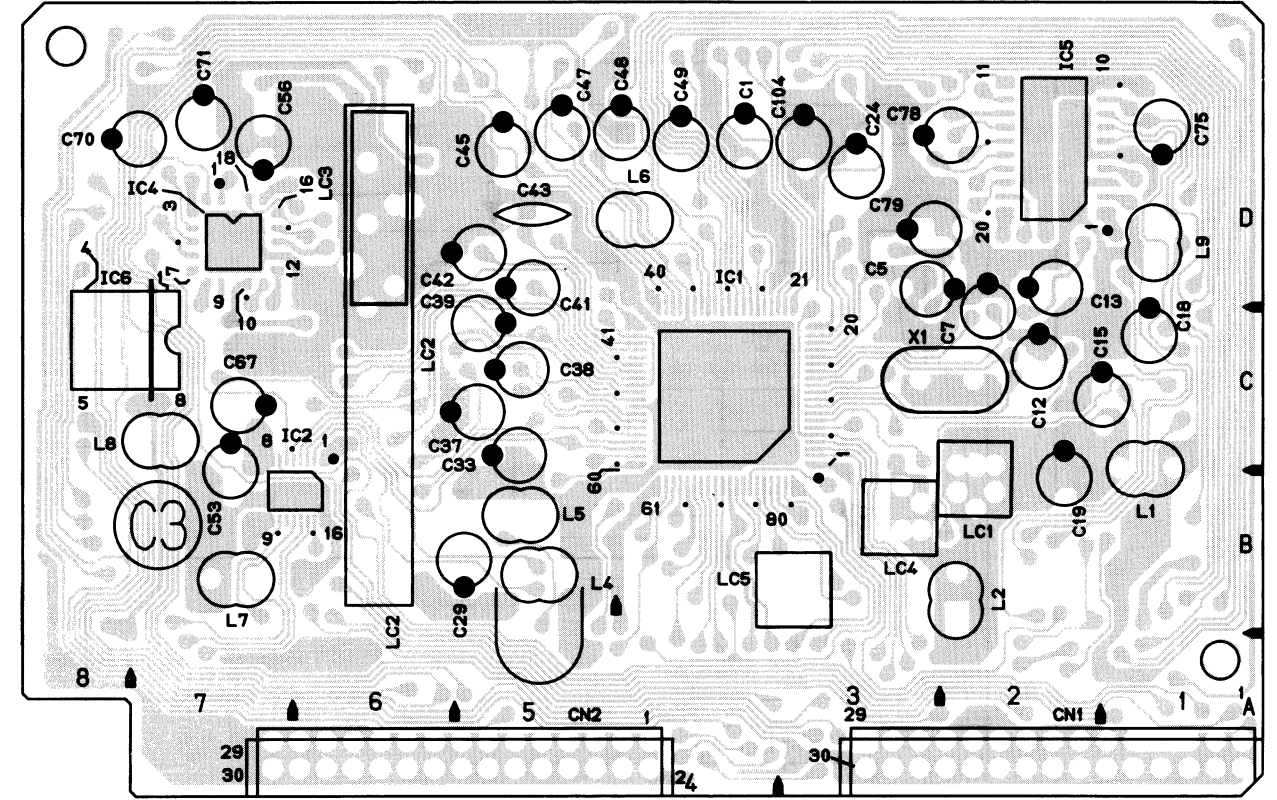
H

4.18 VIDEO UNIT CIRCUIT BOARD

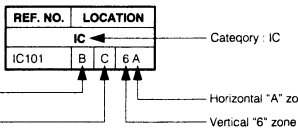
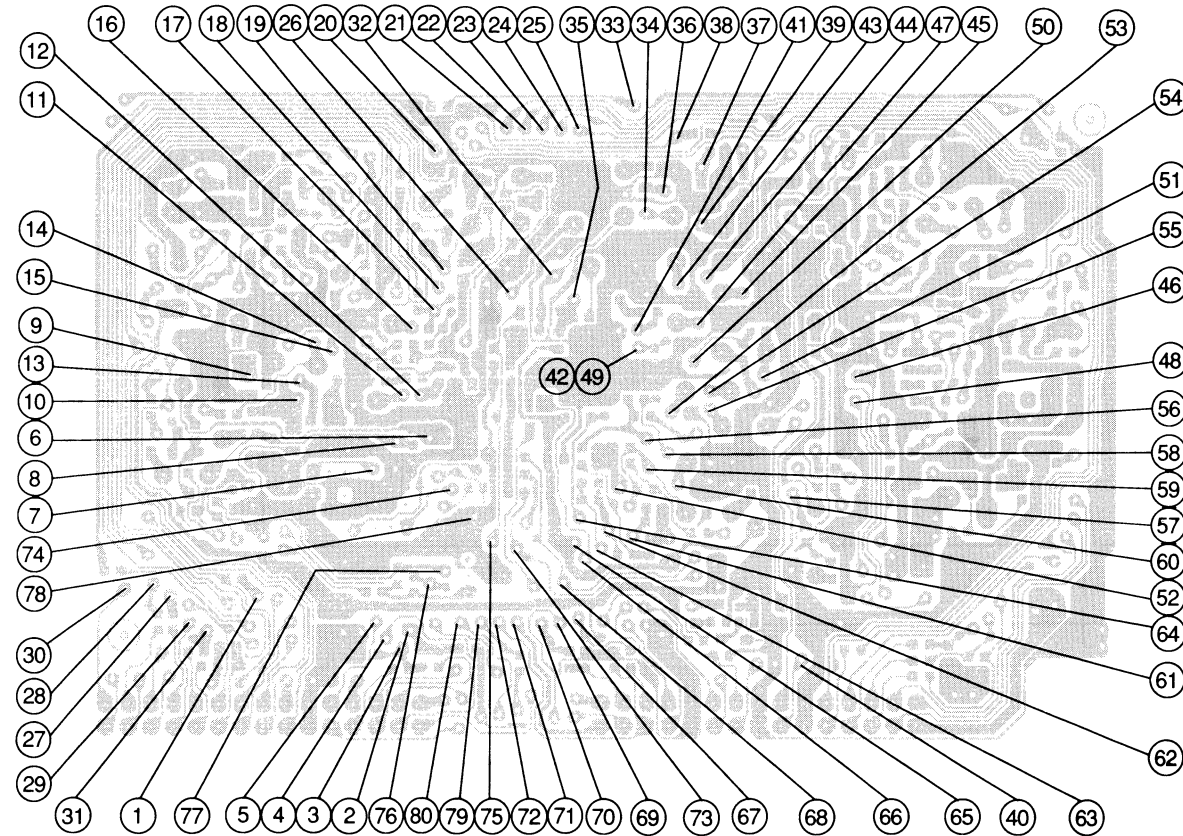
— FOIL SIDE (B) —



— COMPONENT SIDE (A) —



— IC1 PIN NUMBER LOCATION —

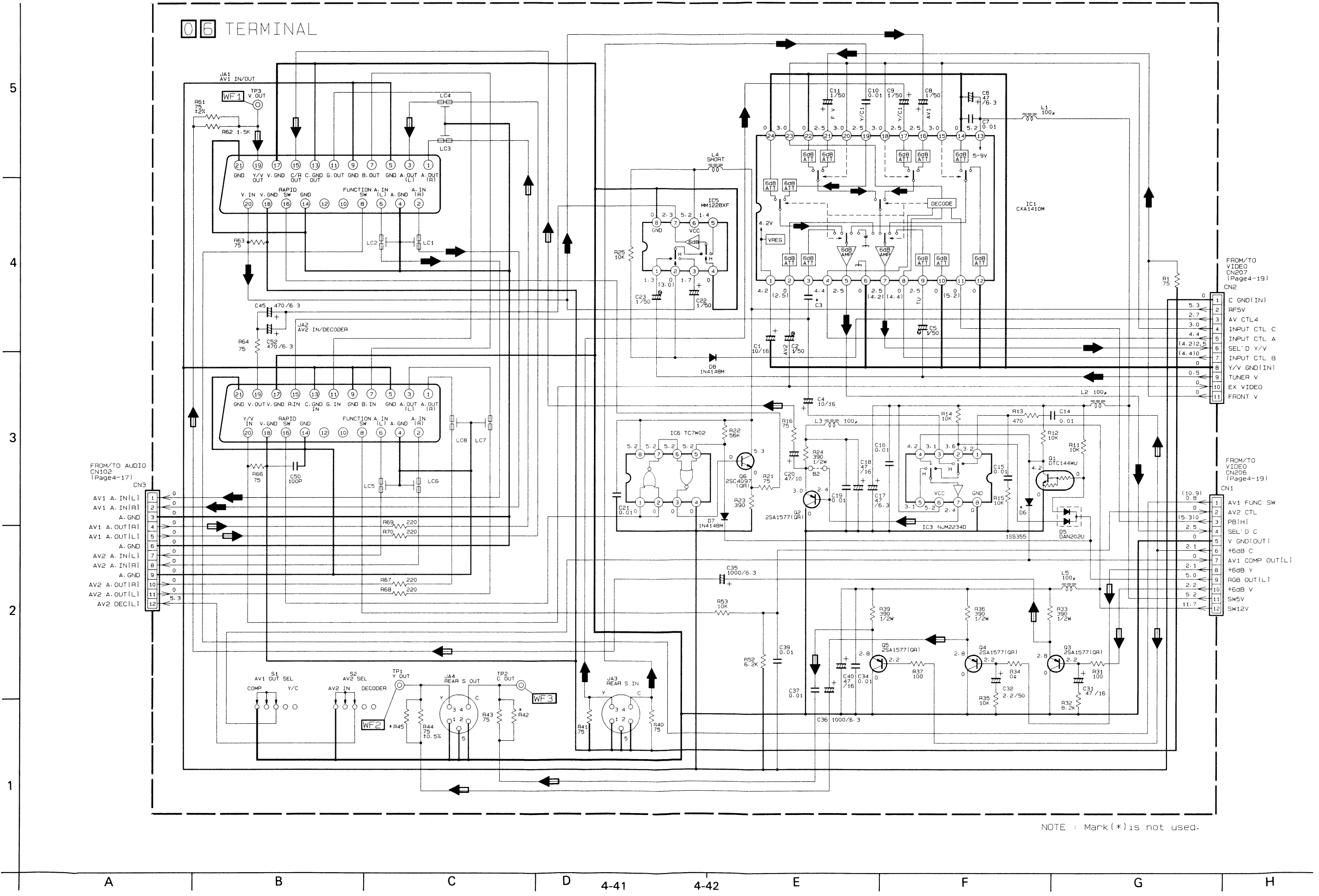


COMPONENT PARTS LOCATION GUIDE

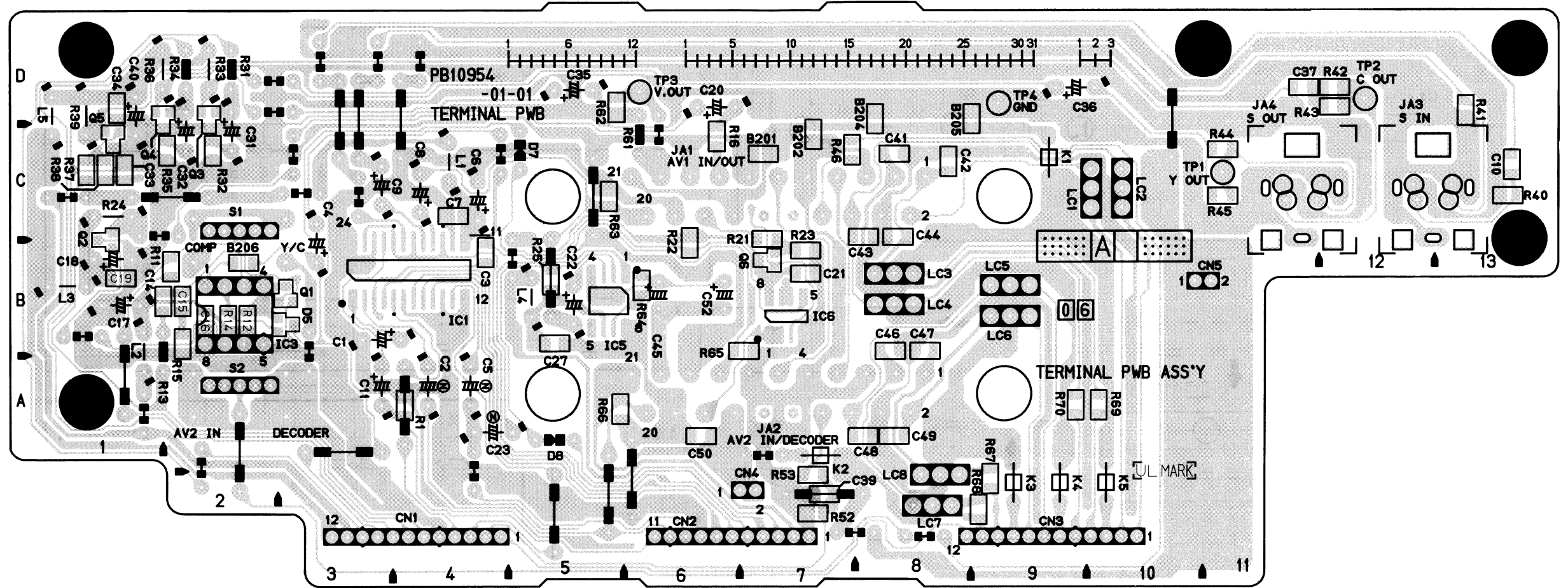
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR											
C1	A D	5B	C36	B C	4C	C72	B C	7B	Q7	B C	5A
C2	B C	5B	C37	A D	3C	C73	B C	7C	Q8	B C	4A
C3	B C	5B	C38	A D	3C	C74	B C	7A	Q9	B C	5A
C4	B C	5A	C39	A D	3B	C75	A D	7A	Q10	B C	3E
C5	A D	6B	C40	A D	3B	C76	B C	6A	Q11	B C	5A
C6	B C	6B	C41	A D	3B	C77	A D	6A	Q12	B C	7D
C7	A D	6C	C42	A D	3B	C78	A D	6A	Q13	B C	7D
C8	B C	6C	C43	A D	3B	C79	A D	6B	Q14	B C	3D
C9	B C	6C	C44	B C	4B	C80	B C	6B	Q15	B C	3E
C10	B C	6C	C45	A D	3B	C81	B C	6B	Q16	B C	1A
C11	B C	5C	C46	B C	4B	C82	B C	6B	R1	B C	1C
C12	A D	6C	C47	A D	3A	C83	B C	6C	R2	B C	1B
C13	A D	7B	C48	A D	4A	C84	B C	7A	R3	B C	7C
C14	B C	7B	C49	A D	4B	C85	B C	4E	R4	B C	5C
C15	A D	7C	C50	B C	1C	C86	B C	7D	R5	B C	5C
C16	B C	6C	C51	B C	2C	C87	B C	2E	R6	B C	5B
C17	B C	7C	C52	B C	2D	C88	B C	8D	R7	B C	7B
C18	A D	7C	C53	A D	1D	C89	B C	5E	R8	B C	7C
C19	A D	7D	C54	B C	6E	C90	B C	4C	R9	B C	5C
C20	B C	5C	C55	A D	5E	C91	B C	3D	R10	B C	4D
C21	B C	5D	C56	A D	2A	C92	B C	4E	R11	B C	4D
C22	B C	4C	C57	B C	2A	C93	B C	1E	R12	B C	4C
C23	B C	4B	C58	B C	2A	C94	B C	1E	R13	B C	4C
C24	A D	5B	C59	B C	2A	C95	B C	1E	R14	B C	4C
C25	B C	5C	C60	B C	2A	C96	B C	1C	R15	B C	4C
C26	B C	5C	C61	B C	2B	C97	B C	1C	R16	B C	4B
C27	B C	5C	C62	B C	2C	C98	B C	1C	R17	B C	3A
C28	B C	4C	C63	B C	2B	C99	B C	3A	R18	B C	1D
C29	A D	3D	C64	B C	2C	C100	B C	7A	R19	B C	1C
C30	B C	4C	C65	B C	2C	C101	B C	5C	R20	B C	2D
C31	B C	4D	C66	B C	1B	C102	B C	4C	R21	B C	2B
C32	B C	3C	C67	A D	1C	C104	A D	5B	R22	B C	2B
C33	A D	3C	C68	B C	1B	C105	B C	5B	R23	B C	2A
C34	B C	4D	C69	B C	1A	C106	B C	3D	R24	B C	2A
C35	B C	4C	C70	A D	1A	C107	B C	3D			
			C71	A D	1A	C108	B C	6D			
						C109	B C	4E			

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CONNECTOR											
CN1	A D	8E	CN2	A D	4E	Q8	B C	5A	R25	B C	2A
DIODE											
D1	B C	5C	D3	B C	5B	Q9	B C	5A	R26	B C	2A
D4	B C	3E	Q10	B C	3E	R27	B C	2A	R28	B C	2B
IC											
IC1	A C	4C	IC2	B C	2C	Q11	B C	5A	R29	B C	2B
IC3	A C	1D	IC4	A C	1B	Q12	B C	7D	R30	B C	2B
IC5	A C	6A	IC6	A D	1B	Q13	B C	7D	R31	B C	1C
IC7	B C	4C	Q14	B C	3D	R32	B C	2C	R33	B C	2B
COIL											
L1	A D	7C	L2	A D	6D	R34	B C	2C	R35	B C	1C
L3	A D	3D	L4	A D	3D	R36	B C	1B	R37	B C	1B
L5	A D	3D	L6	A D	4B	R38	B C	7C	R39	B C	7A
L7	A D	2D	L8	A D	1C	R40	B C	7A	R41	B C	7A
L9	A D	7B	R42	B C	6B	R43	B C	6B	R44	B C	6B
TRANSISTOR											
Q1	B C	6C	Q2	B C	7C	R45	B C	6B	R46	B C	3A
Q3	B C	1B	Q4	B C	2A	R47	B C	2A	R48	B C	4C
Q5	B C	2A	Q6	B C	2D	R49	B C	4E	R50	B C	5E
OTHER											
X1	A D	6C	K1	B C	4A	R51	B C	5E	R52	B C	2E
LC1	A D	6C	LC2	A D	2D	R53	B C	3A	R54	B C	2E
LC3	A D	2A	LC4	A D	5D	R55	B C	4C	R56	B C	4C
LC5	A D	5D	PC0313	B C	1D	R57	B C	2C	R58	B C	2C
						R59	B C	1B	R60	B C	7B
						R61	B C	1B			

4.19 TERMINAL SCHEMATIC DIAGRAM



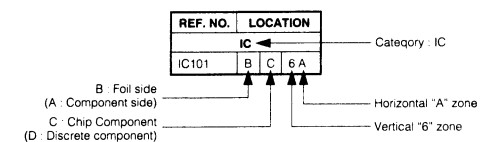
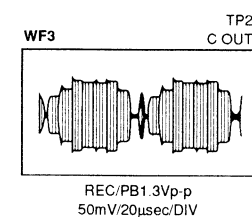
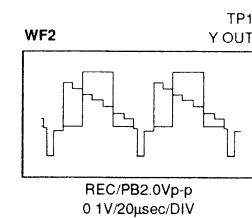
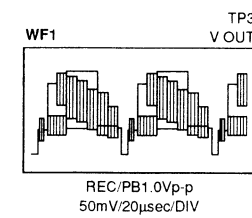
4.20 TERMINAL CIRCUIT BOARD



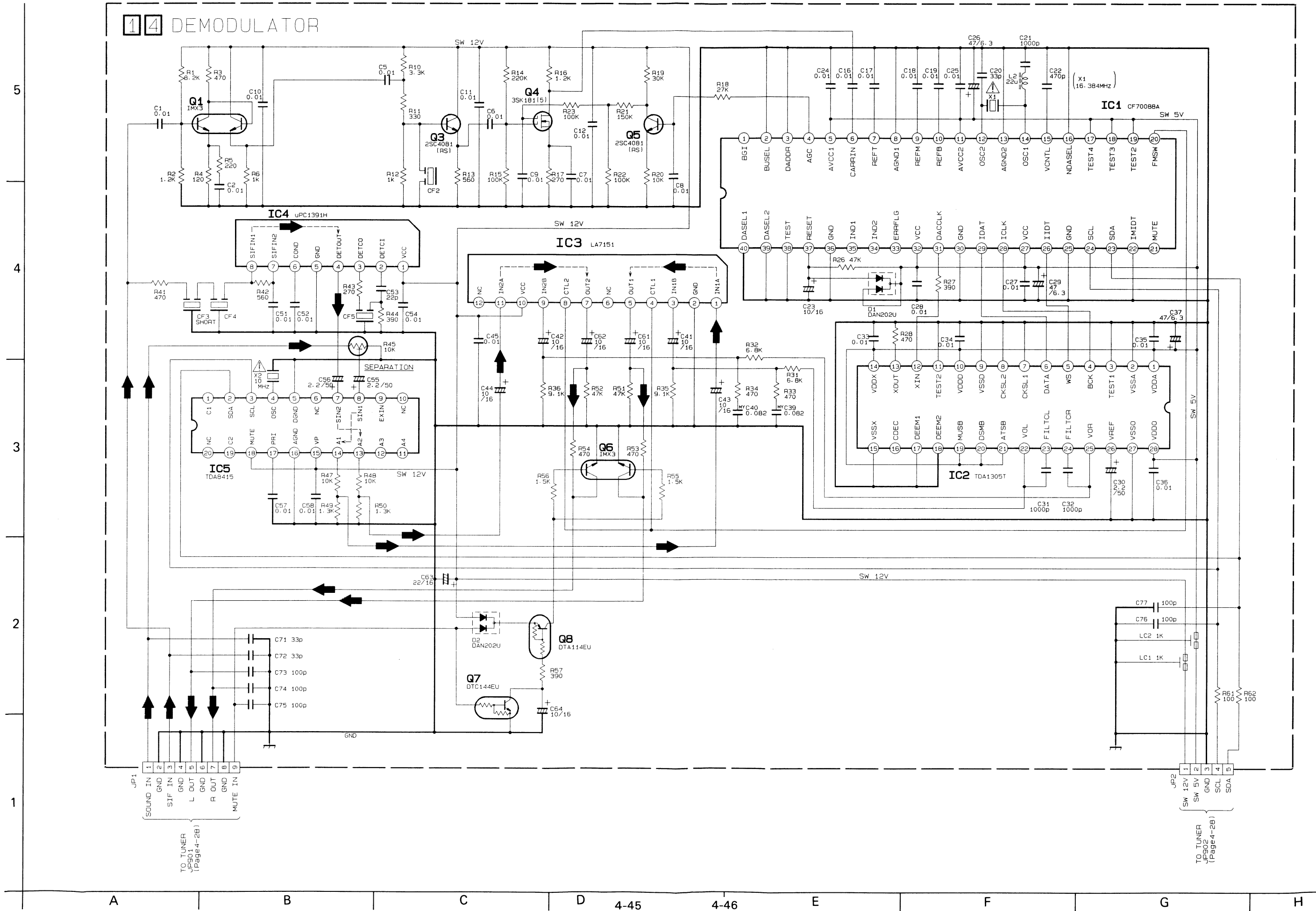
COMPONENT PARTS LOCATION GUIDE

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR											
C1	A D 4C	C35	A D 5E	C36	A D 10E	C37	B C 12E	C39	B C 8A	C40	A D 2E
C2	A D 4B	C41	B C 8D	C42	B C 9D	C43	B C 8D	C44	B C 8D	C45	A D 6C
C3	B C 5C	C46	B C 8C	C47	B C 8C	C48	B C 8B	C49	B C 8B	C50	B C 7B
C4	A D 3C	C47	B C 8C	C52	A D 7C	C50	B C 7B	C52	A D 7C		
C5	A D 5B										
C6	A D 5D										
C7	B C 4D										
C8	A D 4D										
C9	A D 4D										
C10	B C 14D										
C11	A D 4B										
C14	B C 2C										
C15	B C 2C										
C16	B C 2C										
C17	A D 2C										
C18	A D 1C										
C19	B C 1C										
C20	A D 6E										
C21	B C 7C										
C22	A D 5C										
C23	A D 5B										
C27	B C 5C										
C31	A D 2E										
C32	A D 2E										
C33	B C 2D										
C34	B C 1E										
IC											
		IC1	B C 4C	IC3	A D 2C	IC5	B C 6C	IC6	B C 7C		
COIL											
		L1	A D 4D	L2	A D 2B	L3	A D 1C	L4	A D 5C	L5	A D 1D
SWITCH											
		S1	A D 3C	S2	A D 3B						
TEST POINT											
		TP1	A D 11D	TP2	A D 12E	TP3	A D 6E	TP4	A D 9E		
OTHER											
		JA1	A D 7D	JA2	A D 7B	JA3	A D 13D	JA4	A D 12D	K1	A D 10D
		R1	B C 4B	R11	B C 2C	R12	B C 3C	R13	A D 2B	R14	B C 2C
		R15	B C 2C	R16	B C 7D	R21	B C 7D	R22	B C 6C	R23	B C 7C
		R24	A D 2D	R25	B C 5C	R31	A D 2E	R32	B C 2D	R33	A D 2E
		R34	A D 2E	R35	B C 2D	R36	A D 2E	R37	B C 1D	R38	B C 1D
		R39	A D 1D	R40	B C 13D	R41	B C 13E	R42	B C 12E	R43	B C 12E
		R44	B C 11D	R45	B C 11D	R46	B C 8D	R52	B C 7A	R53	B C 7A
		R61	A D 6D	R62	B C 6E	R63	B C 6D	R64	B C 6C	R65	B C 7C
		R66	B C 6B	R67	B C 9A	R68	B C 9A	R69	B C 10B	R70	B C 10B
		R70	B C 10B								
		K2	A D 8B	K3	A D 9A	K4	A D 10A	K5	A D 10A		
		LC1	A D 10D	LC2	A D 10D	LC3	A D 8C	LC4	A D 8C	LC5	A D 9C
		LC6	A D 9C	LC7	A D 9A	LC8	A D 9A				

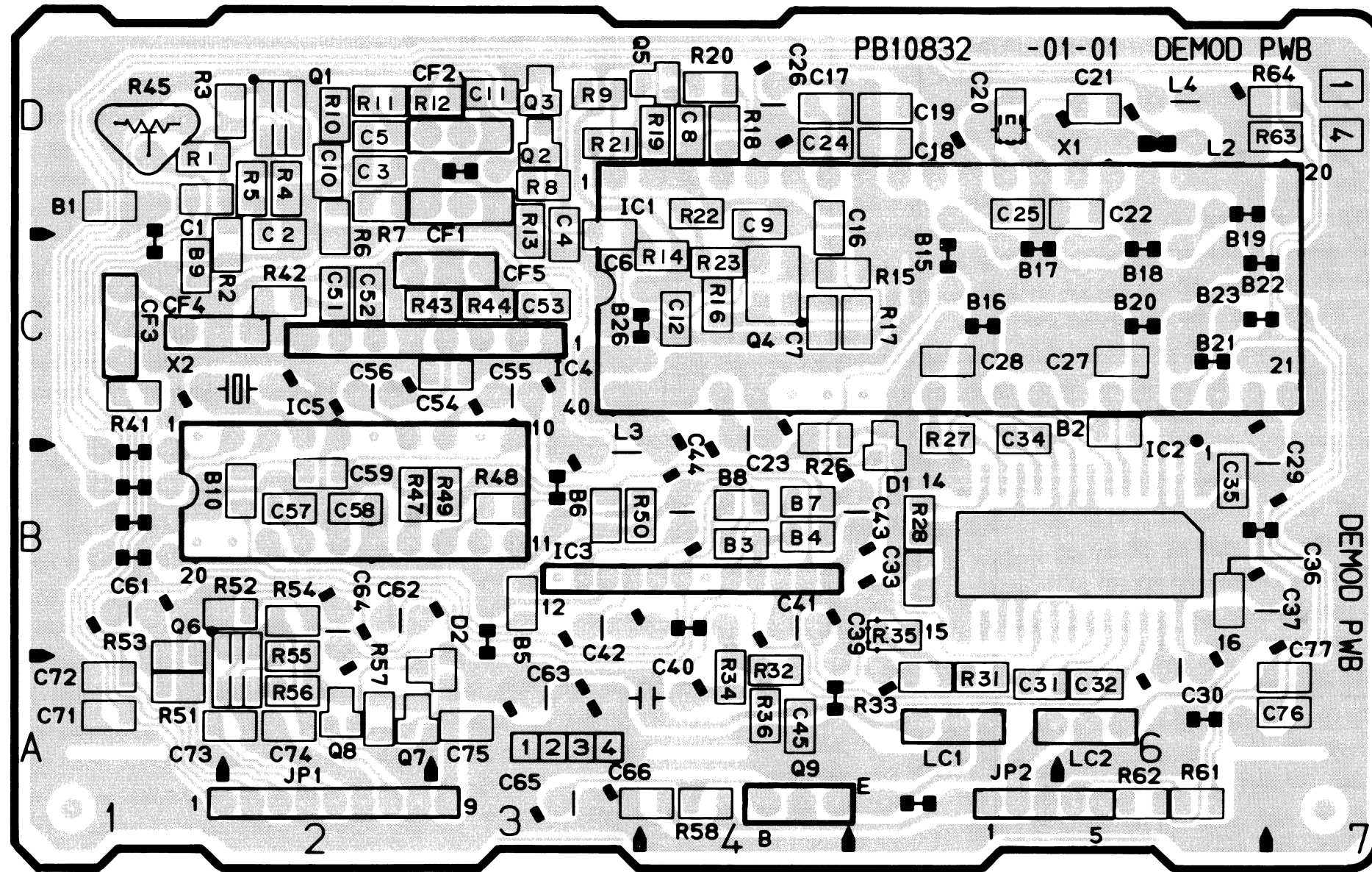
WAVEFORMS



4.21 DEMODULATOR SCHEMATIC DIAGRAM (for HR-S7000EH)

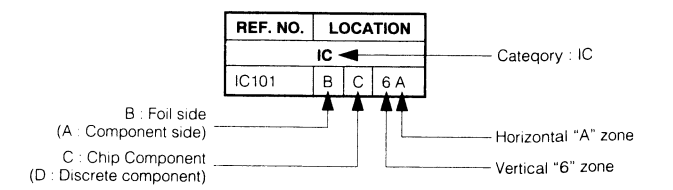


4.22 DEMODULATOR CIRCUIT BOARD (for HR-S7000EH)

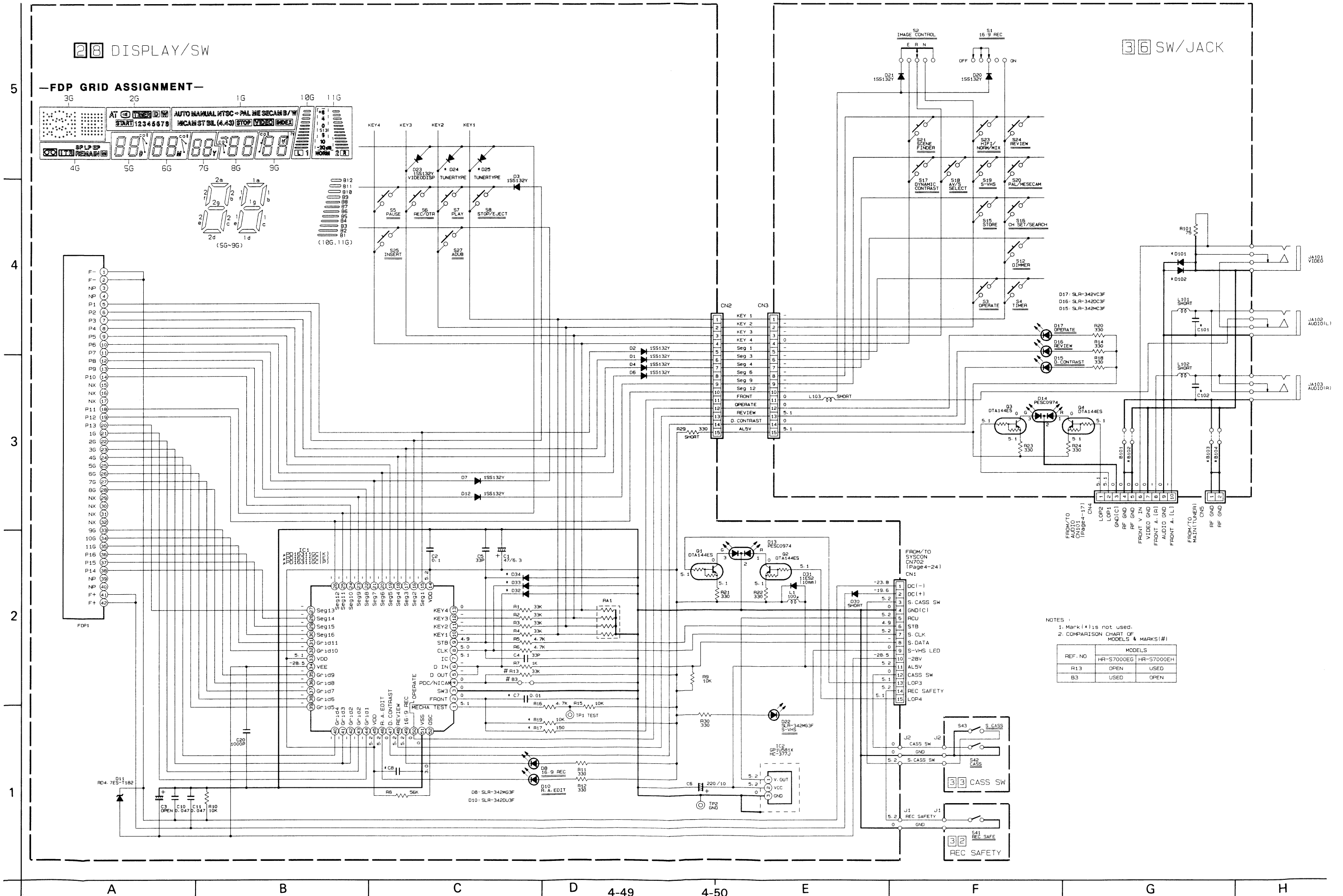


COMPONENT PARTS LOCATION GUIDE

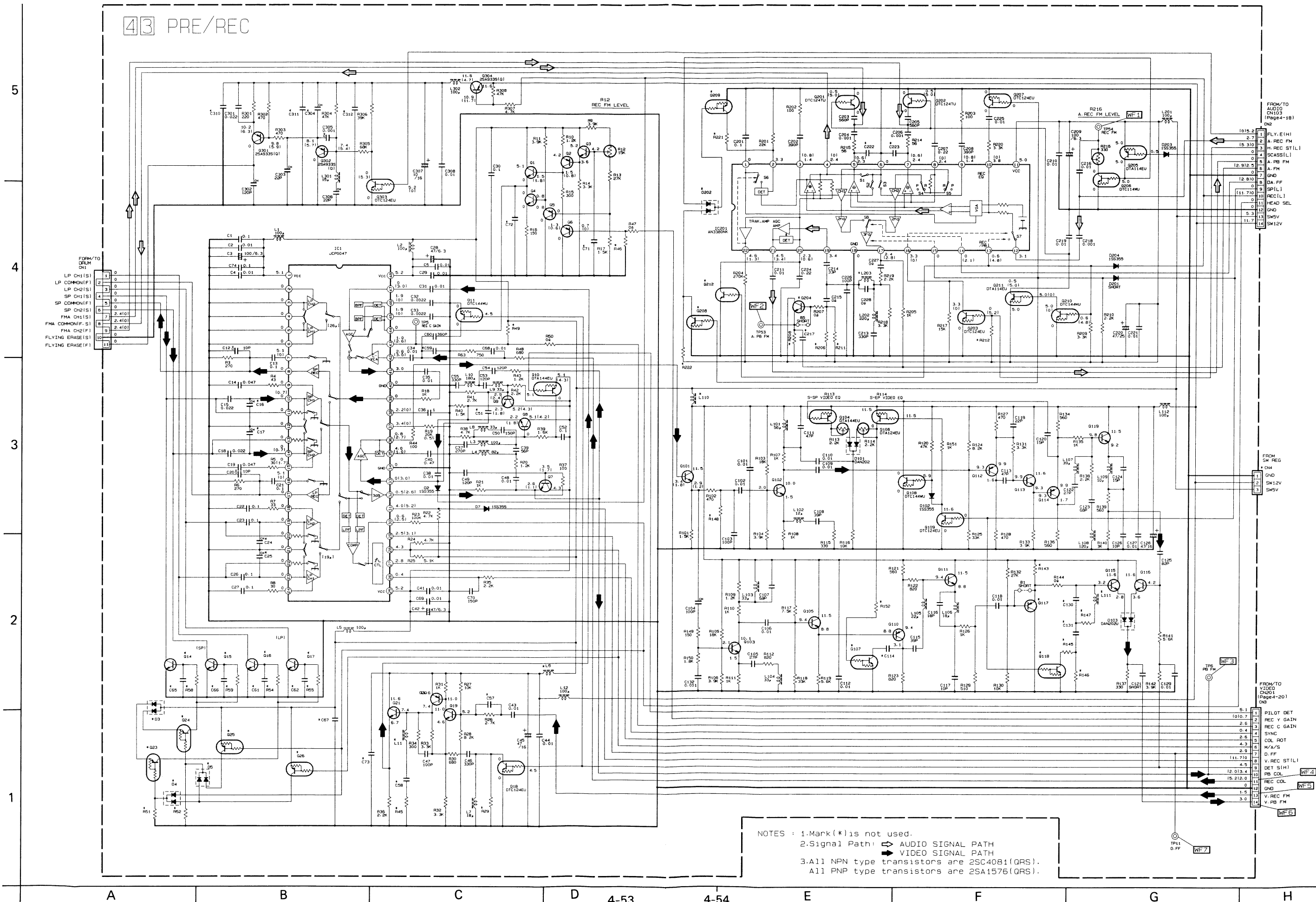
REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		TRANSISTOR	
C1	B C 1D	Q1	B C 2D
C2	B C 2D	Q2	B C 3D
C3	B C 2D	Q3	B C 3D
C4	B C 3D	Q4	B C 4D
C5	B C 2D	Q5	B C 4D
C6	B C 3D	Q6	B C 2B
C7	B C 4C	Q7	B C 2A
C8	B C 4D	Q8	B C 2B
C9	B C 4D	Q9	A D 4A
C10	B C 2D	RESISTOR	
C11	B C 3D	R1	B C 1D
C12	B C 4C	R2	B C 2D
C16	B C 4D	R3	B C 2D
C17	B C 4D	R4	B C 2D
C18	B C 5D	R5	B C 2D
C19	B C 5D	R6	B C 2D
C20	B C 5D	R7	B C 2D
C21	B C 6D	R8	B C 3D
C22	B C 6D	R9	B C 3D
C23	A D 4C	R10	B C 2D
C24	B C 4C	R11	B C 2D
C25	B C 5D	R12	B C 3D
C26	A D 4D	R13	B C 3D
C27	B C 6C	R14	B C 4D
C28	A D 7C	R15	B C 4D
C30	A D 6B	R16	B C 4C
C31	B C 5B	R17	B C 5C
C32	B C 6B	R18	B C 4D
C33	B C 5B	R19	B C 4D
C34	B C 5C	R20	B C 4D
C35	B C 6C	R21	B C 3D
C36	B C 6B	R22	B C 4D
C37	A D 7B	R23	B C 4D
C39	A D 5B	R26	B C 4C
C40	A D 4B	R27	B C 5C
C41	A D 4B	R28	B C 5B
C42	A D 3B	R31	B C 5B
C43	A D 5C	R32	B C 4B
C44	A D 4C	R33	B C 5B
C45	B C 4A	R34	B C 4B
C51	B C 2C	R35	B C 5B
C52	B C 2C	R36	B C 4A
C53	B C 3C	R41	B C 1C
C54	B C 3C	R42	B C 2C
C55	A D 3C	R43	B C 3C
C56	A D 2C	R44	B C 3C
C57	B C 2B	R45	A D 1D
C58	B C 2B	R47	B C 2C
C59	B C 2C	R48	B C 3B
C61	A D 1B	R49	B C 3C
C62	A D 2B	R50	B C 4B
C63	A D 3B	R51	B C 1B
C64	A D 2B	R52	B C 2B
C65	A D 3A	R53	B C 1B
C66	B C 4A	R54	B C 2B
C71	B C 1A	R55	B C 2B
C72	B C 1B	R56	B C 2B
C73	2A	R57	B C 2A
C74	B C 2A	R58	B C 4A
C75	B C 3A	R61	B C 6A
C76	B C 7B	R62	B C 6A
C77	B C 7B	R63	B C 7D
CF1	A D 2D	R64	B C 7D
DIODE		OTHER	
D1	B C 5C	CF2	A D 3D
D2	B C 3B	CF3	A D 1C
IC		CF4	A D 1C
IC1	A D 3D	CF5	A D 3D
IC2	B C 6B	JP1	A D 2A
IC3	A D 4B	JP2	A D 5A
IC4	A D 3C	LC1	A D 5A
IC5	A D 1C	LC2	A D 6A
COIL		X1	A D 5D
L2	A D 6D	X2	A D 2C
L3	A D 3C		
L4	A D 6D		



4.23 DISPLAY/SW AND SW/JACK SCHEMATIC DIAGRAM



4.25 PRE/REC SCHEMATIC DIAGRAM



FROM/TO
DRUM
CH1

1	0
2	0
3	0
4	0
5	0
6	0
7	2.410
8	2.410
9	2.410
10	0
11	0

FROM/TO
AUDIO
CH103
(Page4-18)
CH2

1	1015.2
2	2.7
3	15.310
4	0
5	12.912.5
6	0
7	12.810
8	0
9	11.710
10	0
11	0
12	0
13	5.3
14	11.7

FROM
SW REG
CH4

1	0
2	12.12V
3	5W5V

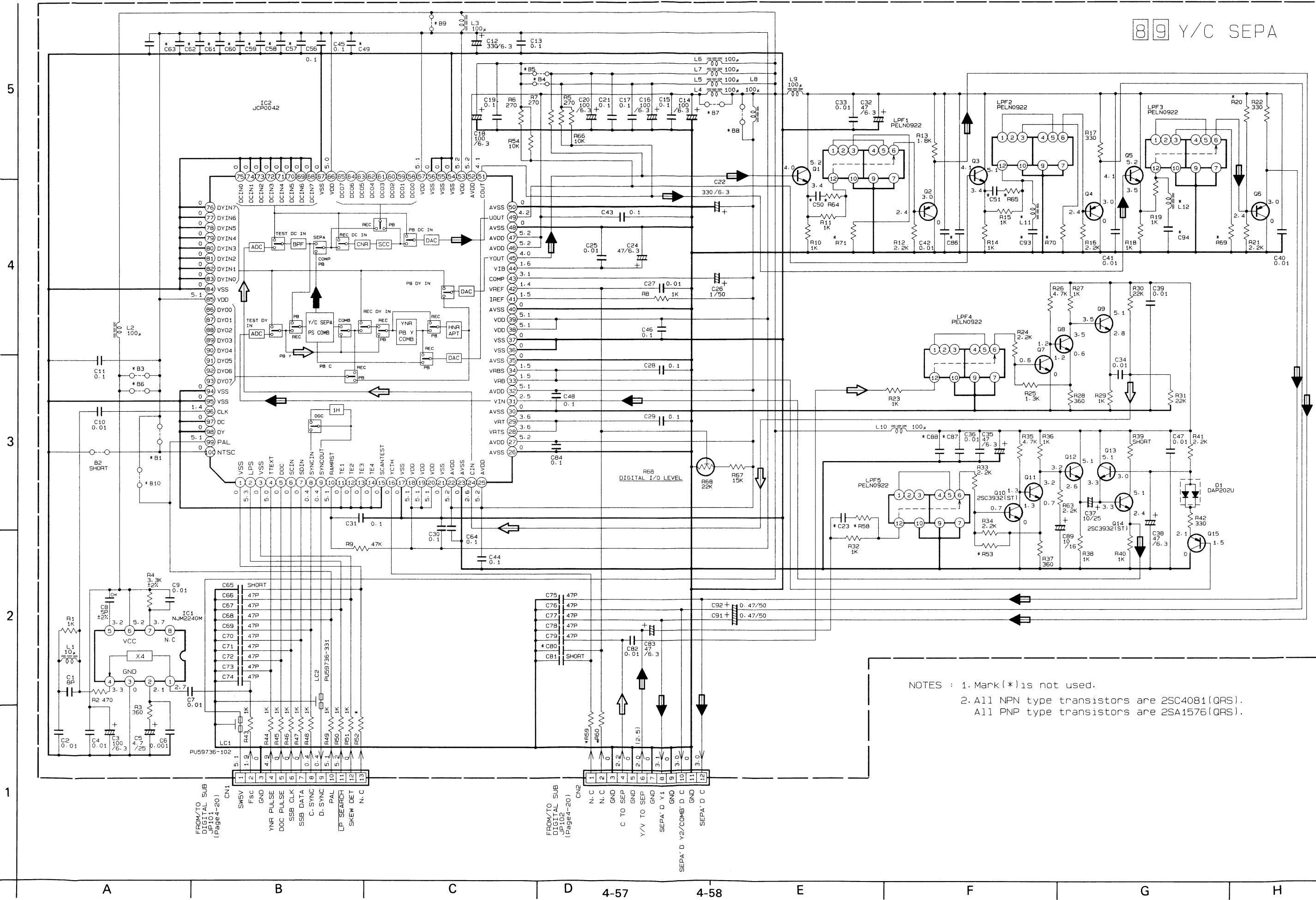
FROM/TO
VIDEO
CH201
(Page4-20)
CH3

1	5.1
2	1010.7
3	2.6
4	0.4
5	2.6
6	4.3
7	2.9
8	11.710
9	4.5
10	12.013.4
11	15.212.0
12	0
13	0
14	3.0

NOTES : 1.Mark(*) is not used.
 2.Signal Path: \Rightarrow AUDIO SIGNAL PATH
 \Rightarrow VIDEO SIGNAL PATH
 3.All NPN type transistors are 2SC4081(QRS).
 All PNP type transistors are 2SA1576(QRS).

4.27 Y/C SEPA SCHEMATIC DIAGRAM

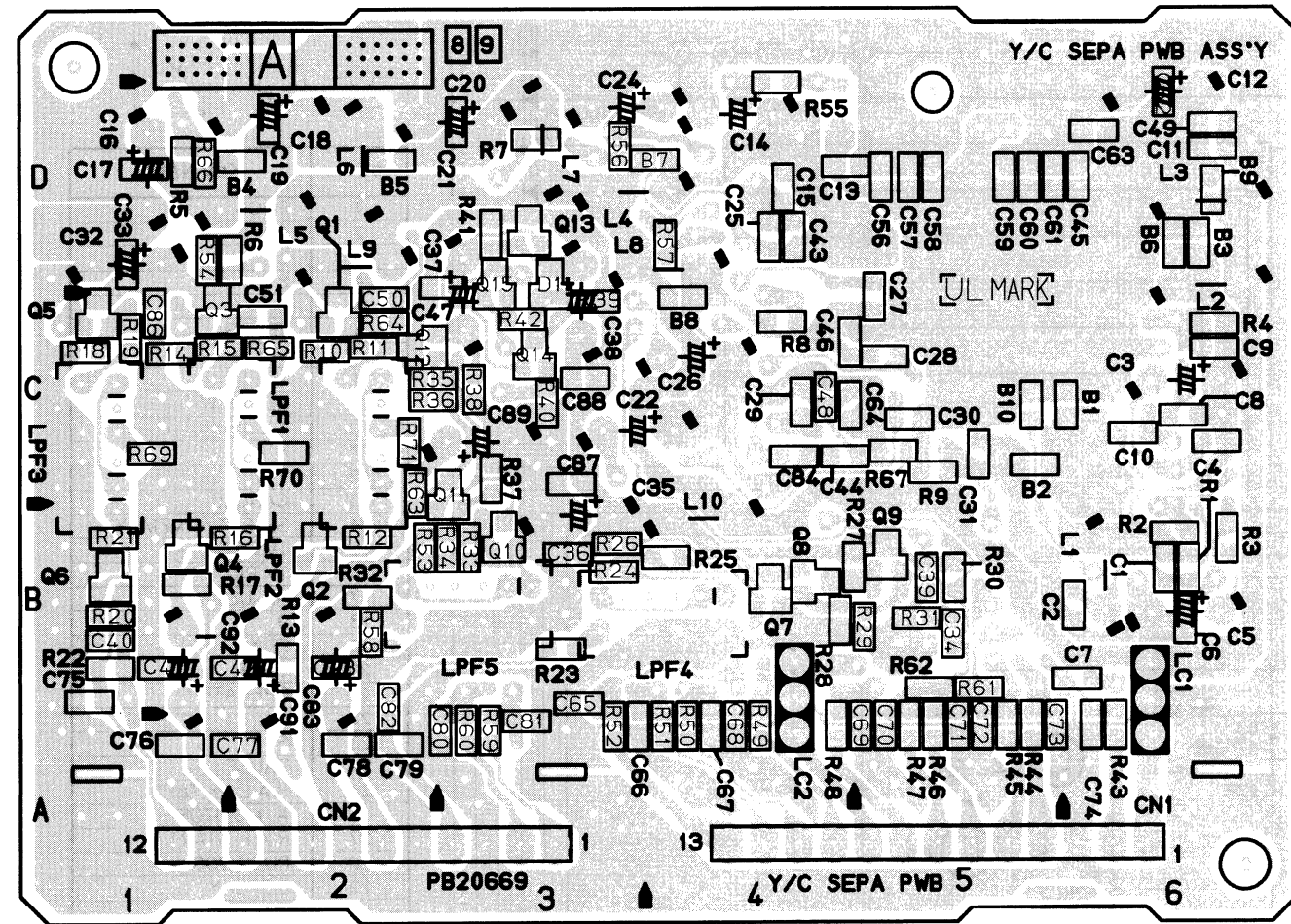
89 Y/C SEPA



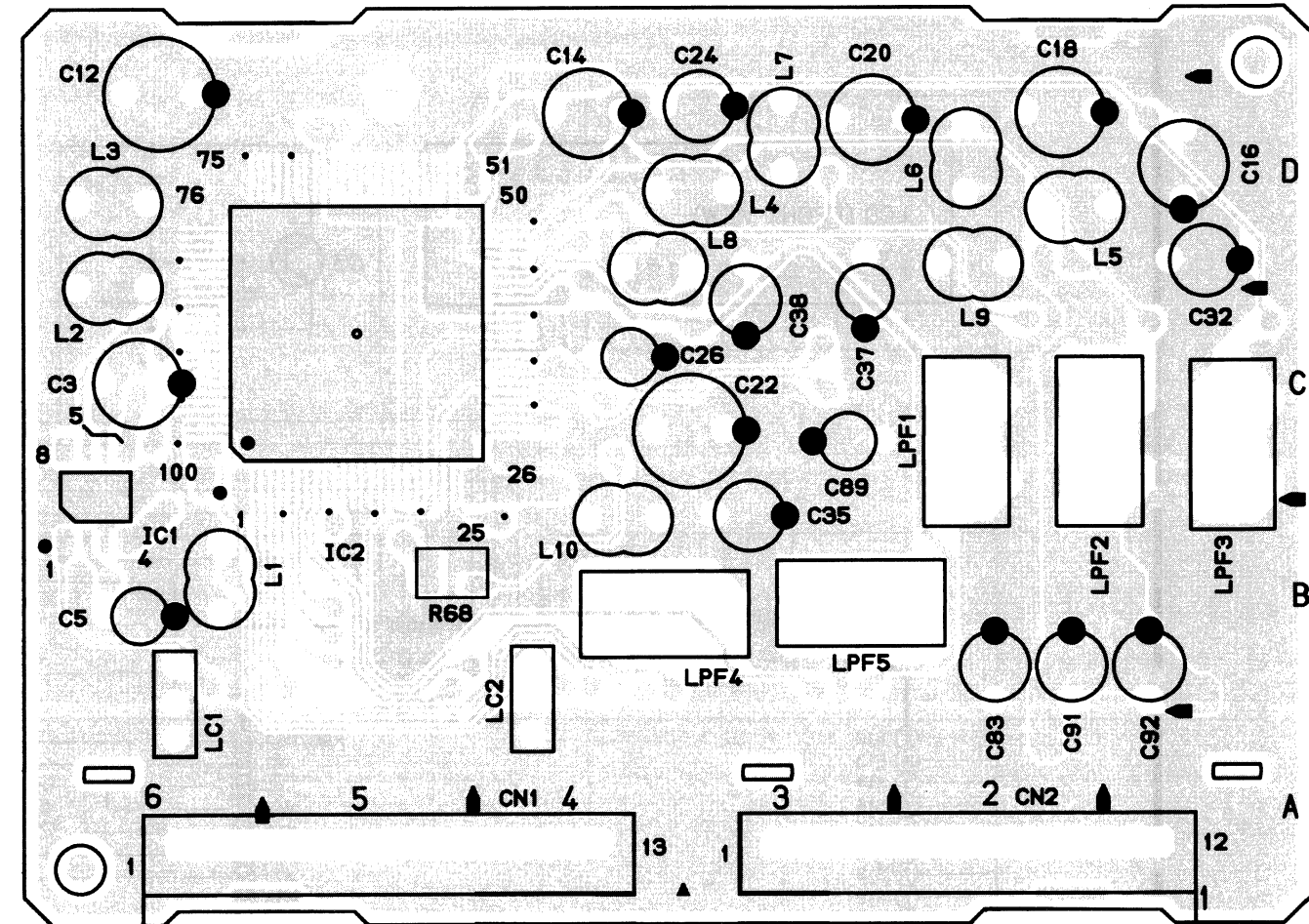
NOTES : 1. Mark (*) is not used.
 2. All NPN type transistors are 2SC4081(QRS).
 All PNP type transistors are 2SA1576(QRS).

4.28 Y/C SEPA CIRCUIT BOARD

- FOIL SIDE(B) -

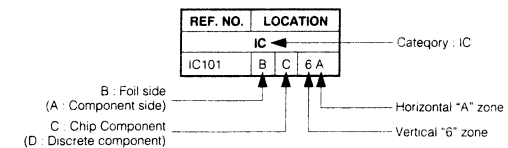


- COMPONENT SIDE(A) -



COMPONENT PARTS LOCATION GUIDE

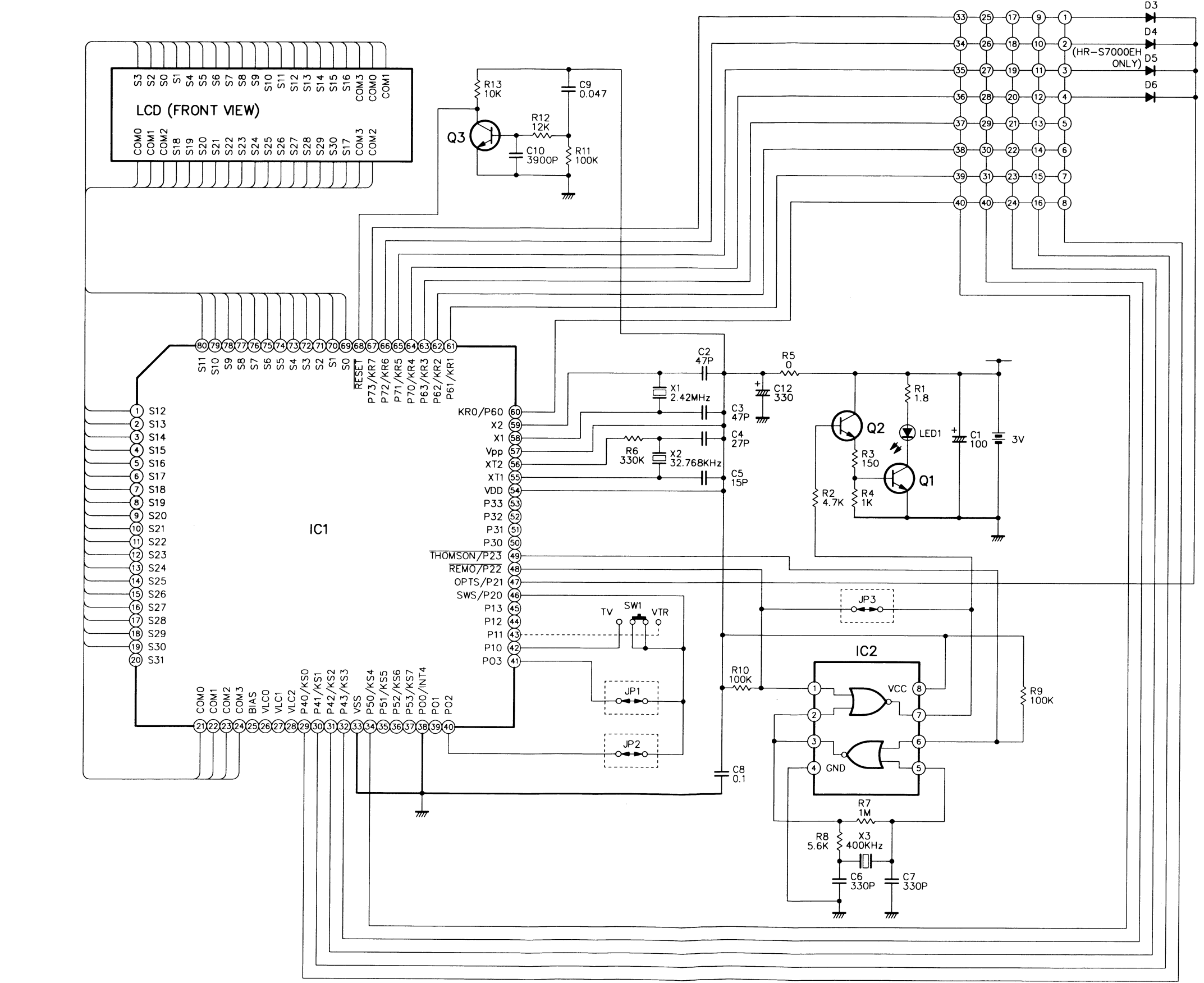
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR				CONNECTOR			
C1	B C	C43	B C	CN1	A D	R1	B C
C2	B C	C44	B C	CN2	A D	R2	B C
C3	B C	C45	B C	DIODE			
C4	A D	C46	B C	D1	B C	R3	B C
C5	A D	C47	B C	IC			
C6	B C	C48	B C	IC1	A C	R4	6C
C7	B C	C49	B C	IC2	A C	R5	1D
C8	B C	C50	B C	COIL			
C9	B C	C51	B C	L1	A D	R6	2D
C10	B C	C52	B C	L2	A D	R7	3D
C11	B C	C53	B C	L3	A D	R8	4C
C12	A D	C54	B C	L4	A D	R9	5C
C13	A D	C55	B C	L5	A D	R10	2C
C14	A D	C56	B C	L6	A D	R11	2C
C15	A D	C57	B C	L7	A D	R12	2B
C16	A D	C58	B C	L8	A D	R13	2B
C17	A D	C59	B C	L9	A D	R14	1C
C18	A D	C60	B C	L10	A D	R15	1C
C19	A D	C61	B C	TRANSISTOR			
C20	A D	C62	B C	Q1	B C	R16	2B
C21	A D	C63	B C	Q2	B C	R17	2B
C22	A D	C64	B C	Q3	B C	R18	1C
C23	A D	C65	B C	Q4	B C	R19	1C
C24	A D	C66	B C	Q5	B C	R20	1B
C25	A D	C67	B C	Q6	B C	R21	1B
C26	A D	C68	B C	Q7	B C	R22	1B
C27	A D	C69	B C	Q8	B C	R23	3B
C28	A D	C70	B C	Q9	B C	R24	3B
C29	A D	C71	B C	Q10	B C	R25	4B
C30	A D	C72	B C	Q11	B C	R26	3B
C31	A D	C73	B C	Q12	B C	R27	3B
C32	A D	C74	B C	Q13	B C	R28	4B
C33	A D	C75	B C	Q14	B C	R29	5B
C34	A D	C76	B C	Q15	B C	R30	5B
C35	A D	C77	B C	OTHERS			
C36	A D	C78	B C	LC1	A D	R31	6A
C37	A D	C79	B C	LC2	A D	R32	4A
C38	A D	C80	B C	LPF1	A D	R33	2C
C39	A D	C81	B C	LPF2	A D	R34	2C
C40	A D	C82	B C	LPF3	A D	R35	1C
C41	A D	C83	B C	LPF4	A D	R36	3B
C42	A D	C84	B C	LPF5	A D	R37	2C
		C85	B C			R38	3C
		C86	B C			R39	3C
		C87	B C			R40	3C
		C88	B C			R41	3C
		C89	B C			R42	3C
		C90	B C			R43	3C
		C91	B C				
		C92	B C				



4.29 REMOTE CONTROL SCHEMATIC DIAGRAM

NOTES:
 1. All parts shown in this schematic are critical for safety.
 2. This schematic is only for reference.
 Avoid replacing individual parts.
 Replace the entire unit only.

REMOTE CONTROL



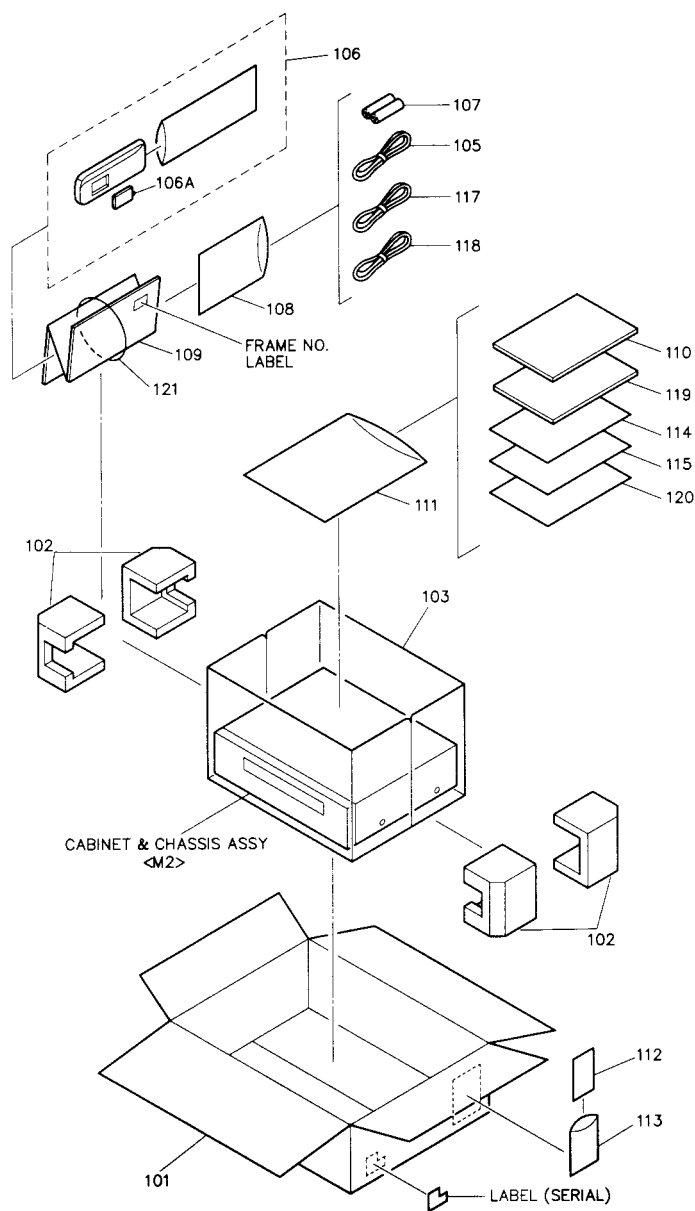
Key No.	Key NAME
1	PROG.
2	2
3	5
4	8
5	0
6	TRANS
7	VOL +
8	VOL -
9	RE-VIEW
10	1
11	4
12	7
13	CANCEL
14	SELECT/C.MEMOY
15	TV PROG. +
16	TV PROG. -
17	ADJUST
18	9
19	FF >>
20	TIMER
21	OPERATE
22	3
23	6
24	PAUSE
25	R.A.E IN/OUT
26	A. MONITOR
27	R.A.E START
28	PUSH JOG +
29	DISPLAY
30	PLAY >
31	STOP ■
32	-/--
33	A/B
34	STORE
35	R.A. EDIT
36	PUSH JOG -
37	REC ●
38	TV/VIDEO
39	REW <<
40	SCENE FINDER
37+30	REC START
37+24	REC PAUSE

SECTION 5 PARTS LIST

SAFETY PRECAUTION

Parts identified by the symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>



REF No. PART No. PART NAME, DESCRIPTION

PACKING AND ACCESSORY ASSEMBLY <M1>

	101	PQ35361-11	PACKING CASE,S7000EG
		PQ35361-12	PACKING CASE,S7000EH
	102	PQ35362A-1	CUSHION ASSEMBLY
	103	PQM30021-95	POLY(FOAM)BAG
	105	PEAC0300-02	RF CABLE
	106	PQ21831G	REMOTE CONTROLLER,S7000EG
		PQ21831H	REMOTE CONTROLLER,S7000EH
	106A	PQ46491	COVER(BATTERY)
	107	R03BPA-2ST	BATTERY,X2
	108	PQ35364	POLY BAG

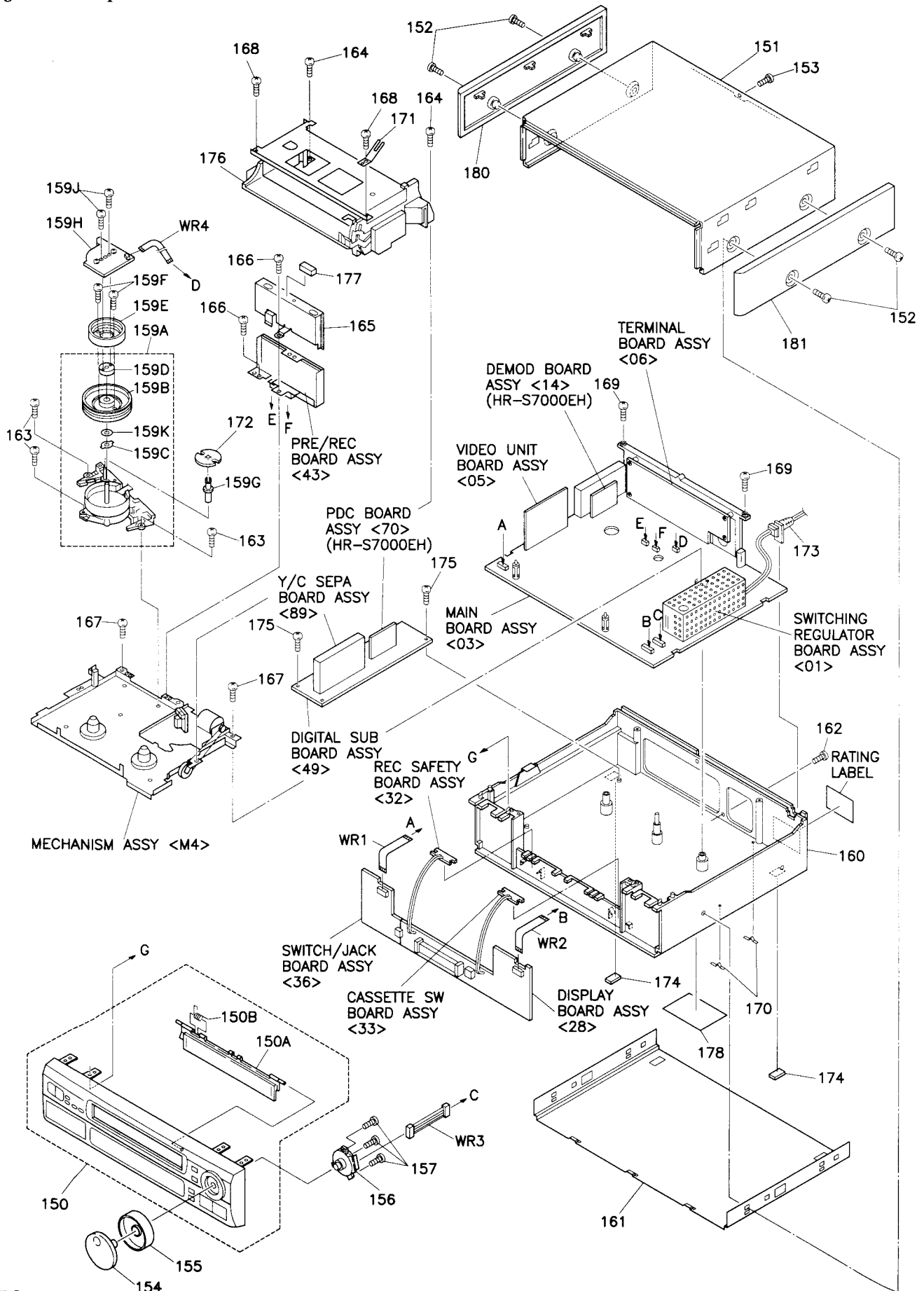
REF No. PART No. PART NAME, DESCRIPTION

	109	PQ35274-1-1	SHEET,ACCESSORY
	110	PU30425-1768	INSTRUCTIONS,S7000EH
		PU30425-1762	INSTRUCTIONS,S7000EG
	111	PQ35364-4	POLY BAG
	112	BT-20135	WARRANTY CARD,S7000EG
	113	PQ33909	POLY BAG,S7000EG
	114	PQ34978-15	SHEET(S.V.)
	115	PQ35231	SHEET(G.PROG.)
	117	PU60111	S CABLE
	118	PU56142-5	PIN CORD ASSEMBLY
	119	PU30425-1769	INSTRUCTIONS,S7000EH
	120	PQ45146-89	SHEET(SPAIN),S7000EH
	121	PQ46504	RUBBER BAND

5.2 CABINET AND CHASSIS ASSEMBLY <M2>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

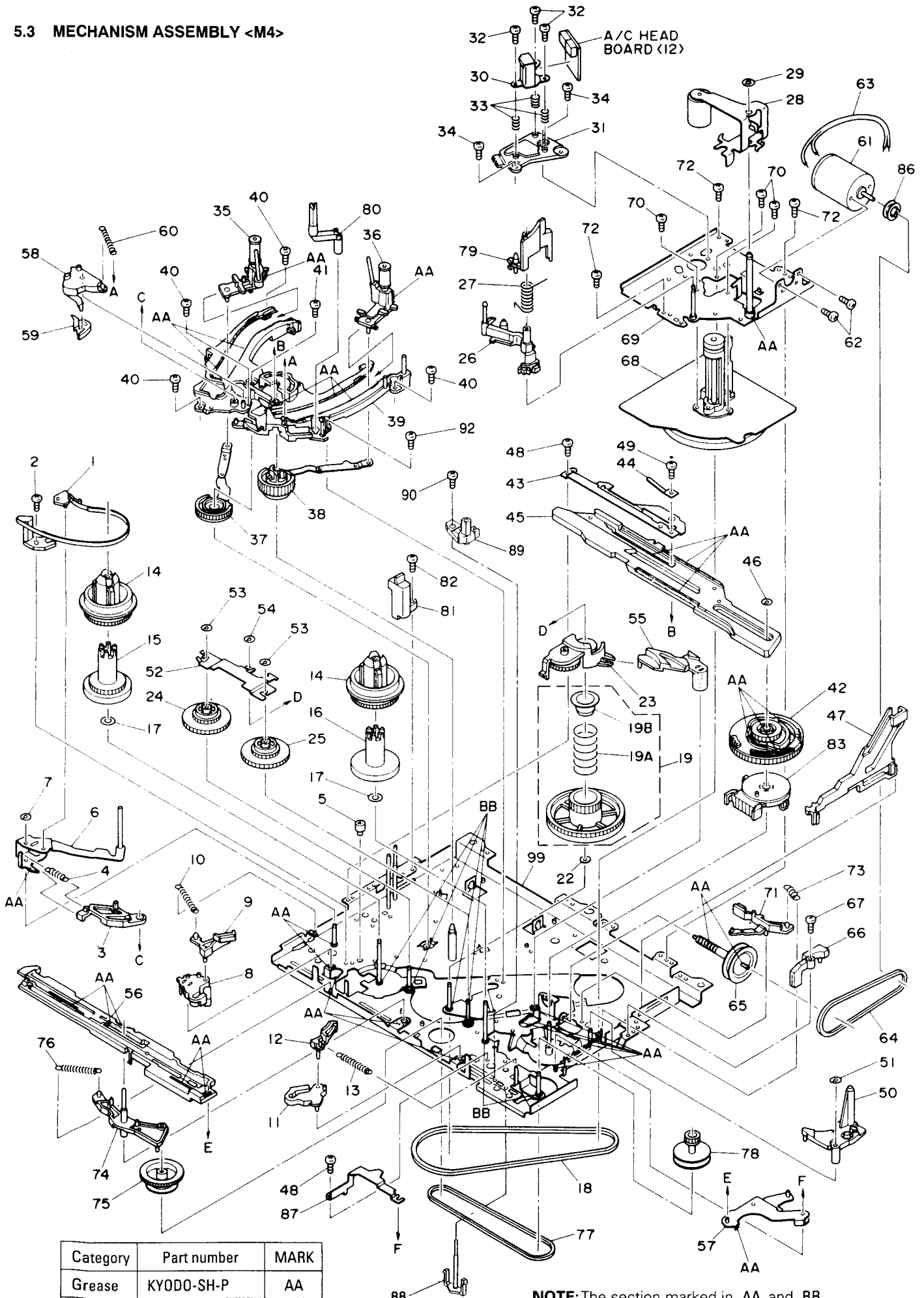


#△ REF No. PART No. PART NAME, DESCRIPTION

CABINET AND CHASSIS ASSEMBLY < M2 >

150	PQ11802AD-6	FRONT PANEL ASSEMBLY,S7000EG
	PQ11802AE	FRONT PANEL ASSEMBLY,S7000EH
150A	PQ21818-22	CASSETTE DOOR,S7000EG
	PQ21818-23	CASSETTE DOOR,S7000EH
150B	PQ46448	TORSION SPRING
△ 151	PQ11676-19	TOP COVER
152	PQ43930	SPECIAL SCREW,X4 SIDE PANEL
153	SDSF3010M	SCREW, TOP COVER
154	PQ35247-5	KNOB(JOG)
155	PQ35295-5	KNOB(SHUTTLE)
156	PEME0757-03	JOG SHUTTLE ASSEMBLY
157	SDSF2608Z	SCREW,X3
159A	PDM2261AB	DRUM SUB ASSEMBLY
159B	PDM3353AU	UPPER DRUM ASSEMBLY
159C	PDM4400C	BRUSH ASSEMBLY
159D	PDM4345A	COLLAR ASSEMBLY
159E	PDZ0141-2	ROTOR ASSEMBLY
159F	SPSH2660Z	SCREW,X2
159G	PDM4311A-1	ROLLER ASSEMBLY
△ 159H	PDZ0141-1-2	STATOR ASSEMBLY
159J	SPSP2606Z	SCREW,X2
159K	PDM4050-9	WASHER
△ 160	PQ11666-3	BOTTOM CHASSIS
△ 161	PQ11668-2	BOTTOM COVER
162	SDSF3010M	SCREW TERMINAL
163	SPST2608Z	SCREW,X3 DRUM
164	SPST2610Z	SCREW,X2 CASS HOUSING ASSY
165	PQ21806	SHIELD CASE,PRE REC
166	SDST2606Z	SCREW,X2 PRE REC
167	SDSF4012Z	SCREW,X2 MECH
168	SDSF3010Z	SCREW,X2 CASS HOUSING
169	SDSF3010Z	SCREW,X2 TERMINAL
△ 170	PQ46412-2	EARTH SPRING,X2
171	PQ41556	EARTH PLATE,CASS HOUSING
172	PQ45160	INERTIA PLATE
△ 173	QMP4A10-170	POWER CORD
174	PQ43013-5	FOOT,X2
175	SDSF3010Z	SCREW,X2 DIGITAL SUB BOARD
176	PUS29724A-5	CASSETTE HOUSING ASSY
177	PQM30029-235	SPACER,S CASE
△ 178	PQ46485	SPACER(SAFETY),BOTTOM CHASSIS
180	PQ11842	SIDE PANEL(L)
181	PQ11843	SIDE PANEL(R)
WR1	PW30802-1026	WIRE,CN101
WR2	PW30802-1516	WIRE,CN702
WR3	PW30202-0771613	WIRE,JOG
WR4	PW30803-0422	WIRE,DRUM

5.3 MECHANISM ASSEMBLY <M4>



Category	Part number	MARK
Grease	KYODO-SH-P	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in AA and BB indicate lubrication and greasing areas.

#△ REF No. PART No. PART NAME, DESCRIPTION

MECHANISM ASSEMBLY < M4 >

1	PQ46298A-5	TENSION BAND ASSEMBLY
2	SDST2608Z	SCREW
3	PQ35012-1-3	TENSION ARM LEVER
4	PQM30001-385109	TENSION SPRING
5	PQ46302-1-3	ADJUST PIN
6	PQ46303A-3	TENSION ARM ASSEMBLY
7	PQM30017-47	SLIT WASHER
8	PQ46305B-3	MAIN BRAKE ASSEMBLY(SUPPLY)
9	PQ46306A-3	SUB BRAKE ASSEMBLY(SUPPLY)
10	PQM30001-393	TENSION SPRING
11	PQ46308A-3	MAIN BRAKE ASSEMBLY(TAKE UP)
12	PQ46309A-4	SUB BRAKE ASSEMBLY (TAKE UP)
13	PQM30001-389102	TENSION SPRING
14	PQ21683-1-7	REEL DISK,X2
15	PQ35014-1-1	SLIT DISK(SUPPLY)
16	PQ35015-1-1	SLIT DISK(TAKE UP)
17	Q03093-828	WASHER,X2
18	PQM30003-33	BELT(CAPSTAN)
19	PQ46497B	PULLEY ASSEMBLY
19A	PQM30002-233	COMPRESSION SPRING
19B	PQ46311	SPRING CAP
22	PQM30018-69	SPACER
23	PQ46312B	IDLER ARM ASSEMBLY
24	PQ46316A-1	CLUTCH UNIT(SUPPLY)
25	PQ46323A-1	CLUTCH UNIT(TAKE UP)
26	PQ46325B	GUIDE ARM ASSEMBLY
27	PQ46326-1-2	TORSION SPRING
28	PQ46327A	PINCH ROLLER ARM ASSEMBLY
29	PQM30017-24	SLIT WASHER
30	PEHE0182	AUDIO/CONTROL HEAD
31	PQ35206	HEAD BASE
32	PQ43687A	SPECIAL SCREW,X3
33	PQM30002-192	COMPRESSION SPRING,X3
34	SDST2604Z	SCREW,X2
35	PQ46330A-1	POLE BASE ASSY(SUPPLY)
36	PQ46331A-1	POLE BASE ASSY(TAKE UP)
37	PQ46332A-3	LOADING ARM ASSY(SUPPLY)
38	PQ46337A-4	LOADING ARM ASSY(TAKE UP)
39	PQ11657-1-9	GUIDE RAIL
40	SPST2608Z	SCREW,X4
41	SDST2612Z	SCREW
42	PQ21684-1-3	CONTROL CAM
43	PQ35138-1-2	CONTROL BRACKET
44	PQ46423	EARTH PLATE
45	PQ11658-1-5	CONTROL PLATE

#△ REF No. PART No. PART NAME, DESCRIPTION

46	PQM30017-8	SLIT WASHER
47	PQ21685-2-6	PINCH PLATE
48	SPST2606Z	SCREW,X2
49	SPSF2608M	SCREW
50	PQ46342A-6	LEVER ASSY
51	PQM30017-8	SLIT WASHER
52	PQ35083-1-7	REEL BRACKET
53	PQM30017-51	SLIT WASHER,X2
54	Q03093-830	WASHER
55	PQ35026-1-4	IDLER LEVER
56	PQ11659-1-10	SLIDE PLATE
57	PQ46344A-2	CHANGE LEVER ASSEMBLY
58	PQ21686	TAKE UP LEVER
59	PQ46345	TAKE UP HEAD
60	PQM30001-387106	TENSION SPRING
△ 61	PU60628-4	LOADING MOTOR
62	SPSP3003Z	SCREW,X2
63	PW30101-80AJ632	WIRE
64	PQM30003-34-17	BELT
65	PQ46395A	WORM GEAR ASSEMBLY
66	PQ21699	WORM BEARING
67	SPST2606Z	SCREW
△ 68	PU61435	CAPSTAN MOTOR
69	PQ46347B-8	SUB DECK ASSEMBLY
70	SPSG2608Z	SCREW,X3
71	PQ46356A-1	CAPSTAN BRAKE ASSEMBLY
72	SDST2608Z	SCREW,X3
73	PQM30001-384101	TENSION SPRING,C.BRAKE
74	PQ46353A-2	CHANGE ARM ASSEMBLY
75	PQ46354	CHANGE GEAR
76	PQM30001-386	TENSION SPRING
77	PQM30003-35	BELT
78	PQ46355	CASSETTE GEAR
79	PQ35030-1-4	LID GUIDE
80	PQ21689	LED PRISM
81	PEHE0237	FULL ERASE HEAD
82	SDST2610Z	SCREW
83	PU61432-1-1	ROTARY ENCODER
86	PQ43546-1-2	MOTOR PULLEY
87	PQ35217-1-2	CONTROL BRACKET 2
88	PQ46473	S-SW PIN
89	PQ46474-1-2	S-SW HOLDER
90	SPST2606Z	SCREW
92	SDST2608Z	SCREW
99	PQ21680B-11	MAIN DECK ASSEMBLY

5.4 ELECTRICAL PARTS LIST

#△ REF No. PART No. PART NAME, DESCRIPTION

SW.REGULATOR BOARD ASSEMBLY <01>

PWBA	PB10958A	SWITCH REG UNIT BOARD ASSY	
IC51	L5431	IC	
Q1	2SK1459-CB14	FE TRANSISTOR	
Q2	2SC3616(ML)	TRANSISTOR	
D1	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D2	10ELS4	FR DIODE	
	or AU01	FR DIODE	
	or ERA18-04-T2	FR DIODE	
	or 1SR153-400-T2	FR DIODE	
D3	10ELS4	FR DIODE	
	or AU01	FR DIODE	
	or ERA18-04-T2	FR DIODE	
	or 1SR153-400-T2	FR DIODE	
D4	RD27ES-T1B2	ZENER DIODE	
	or UZ27BSB	ZENER DIODE	
	or MTZJ27(B)	ZENER DIODE	
D5	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D51	1SR153-200-T2	FR DIODE	
	or ERA18-02-T2	FR DIODE	
	or 10ELS2	FR DIODE	
	or AU01Z	FR DIODE	
D52	F5KQ100B	SB DIODE	
D53	FMB-24	BARRIER DIODE	
	or F5KQ40B	BARRIER DIODE	
	or MA7D49	SB DIODE	
	or YG801C04	SB DIODE	
D54	10ELS2	FR DIODE	
	or 1SR153-200-T2	FR DIODE	
	or AU01Z	FR DIODE	
	or ERA18-02-T2	FR DIODE	
D55	RD15ES-T1B1	ZENER DIODE	
	or UZ15BSA	DIODE	
D56	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D57	1N4148M	DIODE	
	or 1SS133	DIODE	
	or MA165	DIODE	
D58	1SS131Y	DIODE	
D59	1SS131Y	DIODE	
D60	1SS131Y	DIODE	
D61	1SS131Y	DIODE	
D62	HZ30CP	ZENER DIODE	
D63	HZ27BP	ZENER DIODE	
R1	QRD161J-334	RESISTOR	330kΩ,1/6W
R2	QRD161J-334	RESISTOR	330kΩ,1/6W
R3	QRD161J-683	RESISTOR	68kΩ,1/6W
R4	QRG02DJ-331X	OMF RESISTOR	330Ω,2W
R5	QRX014J-R39Z	MF RESISTOR	0.39Ω,1W
R6	QRD161J-821	RESISTOR	820Ω,1/6W
R7	QRD161J-122	RESISTOR	1.2kΩ,1/6W
R8	QRG029J-683G	OMF RESISTOR	68kΩ,2W
R51	QRD161J-222	RESISTOR	2.2kΩ,1/6W
R52	QRV144F-1212AY	CMF RESISTOR	12.1kΩ,1/4W

#△ REF No. PART No. PART NAME, DESCRIPTION

R53	QRV144F-3011AY	RESISTOR	3.01kΩ,1/4W
R54	QRD161J-472	RESISTOR	4.7kΩ,1/6W
R55	QRG02DJ-471X	OMF RESISTOR	470Ω,2W
R56	QRG02DJ-471X	OMF RESISTOR	470Ω,2W
R57	QRG01DJ-150X	MF RESISTOR	15Ω,1W
R58	QRG02DJ-182X	OMF RESISTOR	1.8kΩ,2W
△ C1	QCZ9026-222	CAPACITOR	0.0022μF
C2	QETC1HM-225	E CAPACITOR	2.2μF,50V
C3	QFLA1HJ-123Z	F CAPACITOR	0.012μF,50V
C4	QCZ0212-472	CAPACITOR	0.0047μF,1kV
C5	QCBB1HJ-121	CAPACITOR	120pF,50V
C7	QFV11HJ-104	F CAPACITOR	0.1μF,50V
C51	QEMR1AM-107	E CAPACITOR	100μF,10V
C53	QEMQ1AM-128	E CAPACITOR	1200μF,10V
C54	QEMQ1CM-827	E CAPACITOR	820μF,16V
C55	QEMN1EM-187	E CAPACITOR	180μF,25V
C56	QCY31HK-152	CAPACITOR	0.0015μF,50V
C57	QCY31HK-472	CAPACITOR	0.0047μF,50V
C58	QETC1HM-106	E CAPACITOR	10μF,50V
C59	QETC1JM-226	E CAPACITOR	22μF,63V
C60	QETC1HM-226	E CAPACITOR	22μF,50V
C61	QFLA1HJ-103Z	F CAPACITOR	0.01μF,50V
C62	QFLA1HJ-223Z	F CAPACITOR	0.022μF,50V
C63	QFN31HJ-683	F CAPACITOR	0.068μF,50V
C64	QETC1CM-227	E CAPACITOR	220μF,16V
C65	QETC1AM-337	E CAPACITOR	330μF,10V
L51	PELN0270-330KZ	COIL	33μH
L52	PELN0270-330KZ	COIL	33μH
L53	PELN0270-330KZ	COIL	33μH
K1	PELN0662-Z	FERRATE BEADS	
K2	PELN0662-Z	FERRATE BEADS	
△ PC1	PC123FY2	PH COUPLER	
△ T1	PELN1065	SW TRANS	
K51	PELN0662-Z	FERRATE BEADS	
K52	PELN0662-Z	FERRATE BEADS	
K53	PELN0662-Z	FERRATE BEADS	
△ HS1	PQ46583	HEAT SINK,X2 Q1 D52 D53	
JP1	PEMC0712-105	PIN HEADER	
SCW1	SDST3008Z	SCREW,X2	
SCW3	SDST3006Z	SCREW,X3 Q1 D52 D53	
JP51	PEMC0712-110	PIN HEADER	

MAIN BOARD ASSEMBLY <03>

PWBA	PB10971C-01	MAIN BOARD ASSEMBLY,S7000EH
	PB10971A-02	MAIN BOARD ASSEMBLY,S7000EG
OTH1	PQ46408-1-2	SENSOR CAP,X2
△ TU1	PERF0202	TUNER UNIT,S7000EG
△ TU2	PERF0202-02	TUNER UNIT,S7000EH
△ IC1	PERF0191	IF UNIT
	BA7795LS	IC
	or XRA7795LS	IC,S7000EG
	or XLA7795LS	IC,S7000EH
IC101	JCP0056	IC
IC102	BA6138	IC
IC103	BA3129	IC

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
IC104	LA7151	IC	Q601	2SC4081(QRS)	TRANSISTOR
IC201	TC4W53F	IC	Q602	DTC114WU	TRANSISTOR
IC451	BA7039	IC	Q603	DTC124EU	TRANSISTOR
	or XRA7039	IC	Q604	PN268VI	PHOTO TRANSISTOR
IC601	HD6433928TA28F	QFP IC (MCU)	Q605	PN268VI	PHOTO TRANSISTOR
	or HD6473929TFA28	QFP IC (MCU)	Q606	DTC124EU	TRANSISTOR
IC602	AT93C56-10PC	IC	Q607	DTC143EU	TRANSISTOR
	or XLJ93LC56A	IC,S7000EG	Q608	DTC124EU	TRANSISTOR
	or XL93LC56AP	IC,S7000EH	Q609	DTC124EU	TRANSISTOR
	or 93LC56/P	IC	Q611	2SB1256	TRANSISTOR
	or P3LC56B/P	IC	Q612	DTC114TU	TRANSISTOR
	or 93C56/P	IC	Q851	2SD1913(RS)	TRANSISTOR
IC603	S-80728AN-DR-X	IC	Q852	2SC1740S	TRANSISTOR
	or RH5VL28AA-XE	IC		or 2SC2785(J-E)-T	TRANSISTOR
	or RH5VA28AA-XE	IC	Q853	2SC3616(MLK)	TRANSISTOR
IC604	TA7291S	IC	Q854	DTA114EU	TRANSISTOR
IC607	M50253P	IC	Q855	2SD2144S(UVW)	TRANSISTOR
	or BU2090	IC	Q859	2SD1450S,T	TRANSISTOR
IC608	M50253P	IC		or 2SD1302(ST)	TRANSISTOR
	or BU2090	IC	Q901	DTC114EU	TRANSISTOR
IC609	M66007P	IC	Q902	2SB810H,J	TRANSISTOR
IC751	M37470M3-054SP	IC	Q903	2SC3068	TRANSISTOR
	or M37470E8-148SP	IC	Q904	2SA1576(RS)	TRANSISTOR
IC1001	SDA5642	IC	Q905	2SC4081(RS)	TRANSISTOR
IC1104	UPC1391H	IC	Q906	DTC114EU	TRANSISTOR
IC1105	TDA8415	IC	Q908	2SA1576(RS)	TRANSISTOR
Q1	2SA1576(QR)	TRANSISTOR	Q909	DTA144EU	TRANSISTOR
Q2	2SA1576(QR)	TRANSISTOR	Q1106	IMX3	TRANSISTOR
Q3	2SC4081(QR)	TRANSISTOR	Q1107	DTC144EU	TRANSISTOR
Q4	2SA1576(QR)	TRANSISTOR	Q1108	DTA124EU	TRANSISTOR
Q5	2SC4081(QR)	TRANSISTOR	D1	1SS133	DIODE,S7000EH
Q6	DTC144WU	TRANSISTOR		or MA165	DIODE,S7000EH
Q101	DTC144WU	TRANSISTOR		or 1N4148M	DIODE,S7000EH
Q201	2SA1577(QR)	TRANSISTOR	D2	RD6.2ESB2	ZENER DIODE
Q202	2SC4097(QR)	TRANSISTOR	D3	DAP202U	DIODE
Q203	DTA144TU	TRANSISTOR	D201	DAP202U	DIODE
Q204	DTC144WU	TRANSISTOR	D202	1N4148M	DIODE
Q205	DTA144WU	TRANSISTOR		or MA165	DIODE
Q206	2SC4081(RS)	TRANSISTOR		or 1SS133	DIODE
Q207	2SA1576(RS)	TRANSISTOR	D203	1SS356	DIODE
Q208	DTA144EU	TRANSISTOR	D204	DAP202U	DIODE
Q209	DTC144WU	TRANSISTOR	D205	1N4148M	DIODE
Q210	2SC4081(RS)	TRANSISTOR		or MA165	DIODE
Q211	2SC4081(RS)	TRANSISTOR		or 1SS133	DIODE
Q212	DTC144WU	TRANSISTOR	D206	DAP202U	DIODE
Q213	2SA1576(QRS)	TRANSISTOR	D601	RD9.1ES-T1B2	ZENER DIODE
Q214	2SA1576(QRS)	TRANSISTOR	D602	11ES2	DIODE
Q216	DTC144WU	TRANSISTOR	D603	1N4148M	DIODE
Q218	DTA124EU	TRANSISTOR		or 1SS133	DIODE
Q219	2SA1576(QRS)	TRANSISTOR		or MA165	DIODE
Q220	2SC4081(RS)	TRANSISTOR	D604	11ES2	DIODE
Q221	DTC144WU	TRANSISTOR	D605	1N4148M	DIODE
Q222	2SC4081(RS)	TRANSISTOR		or 1SS133	DIODE
Q224	2SA1576(QRS)	TRANSISTOR		or MA165	DIODE
Q225	DTC144EU	TRANSISTOR	D606	DAP202U	DIODE
Q226	2SC4081(RS)	TRANSISTOR	D609	1N4148M	DIODE
Q227	2SC4081(RS)	TRANSISTOR		or MA165	DIODE
Q228	DTC144EU	TRANSISTOR		or 1SS133	DIODE
Q230	DTC124EU	TRANSISTOR	D610	SIR-381SB3FM	LE DIODE
Q231	DTC144WS	TRANSISTOR	D611	1N4148M	DIODE
Q232	DTC144WS	TRANSISTOR		or MA165	DIODE
Q401	DTC114EU	TRANSISTOR		or 1SS133	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION		#△ REF No.	PART No.	PART NAME, DESCRIPTION	
D612	1N4148M	DIODE		R36	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W
	or 1SS133	DIODE		R37	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
	or MA165	DIODE		R38	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
D613	1N4148M	DIODE		R39	QRSA08J-151YN	RESISTOR	150Ω,1/10W
	or MA165	DIODE		R40	QRSA08J-3R3YN	RESISTOR	3.3Ω,1/10W
	or 1SS133	DIODE		R41	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
D614	1N4148M	DIODE		R42	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
	or 1SS133	DIODE		R43	QRSA08J-273YN	RESISTOR	27kΩ,1/10W
	or MA165	DIODE		R51	QRD161J-0R0	RESISTOR	0Ω,1/6W
D615	1N4148M	DIODE		R52	QRD161J-0R0	RESISTOR	0Ω,1/6W
	or MA165	DIODE		R101	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
	or 1SS133	DIODE		R102	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
D616	11ES2	DIODE		R103	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
D801	10E6-F2	DIODE		R104	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
D802	10E6-F2	DIODE		R105	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
D803	10E6-F2	DIODE		R106	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
D804	10E6-F2	DIODE		R107	QRSA08J-511YN	RESISTOR	510Ω,1/10W
D862	RD5.1JS-T1B2	ZENER DIODE		R108	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
D863	1N4148M	DIODE		R109	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
	or 1SS133	DIODE		R110	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
	or MA165	DIODE		R111	NRVA62B-153N	RESISTOR	15kΩ,1/16W
D901	MTZ10D	ZENER DIODE		R112	QRSA08J-682YN	RESISTOR	6.8kΩ,1/10W
D903	1SS133	DIODE		R113	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
	or 1N4148M	DIODE		R114	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
	or MA165	DIODE		R115	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
D904	1SS133	DIODE		R116	QRSA08J-334YN	RESISTOR	330kΩ,1/10W
	or MA165	DIODE		R117	QRSA08J-182YN	RESISTOR	1.8kΩ,1/10W
	or 1N4148M	DIODE		R118	NRVA62B-113N	RESISTOR	11kΩ,1/16W
D905	1SS133	DIODE		R119	QRSA08J-392YN	RESISTOR	3.9kΩ,1/10W
	or 1N4148M	DIODE		R120	QRSA08J-123YN	RESISTOR	12kΩ,1/10W
	or MA165	DIODE		R121	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W
D1102	DAN202U	DIODE		R122	QRSA08J-511YN	RESISTOR	510Ω,1/10W
R1	QRSA08J-393YN	RESISTOR	39kΩ,1/10W	R123	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R2	QRD161J-221	RESISTOR	220Ω,1/6W	R124	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R3	QRSA08J-102YN	RESISTOR	1kΩ,1/10W	R125	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R4	QRSA08J-123YN	RESISTOR	12kΩ,1/10W	R126	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R5	QRSA08J-562YN	RESISTOR	5.6kΩ,1/10W	R127	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R6	QRSA08J-122YN	RESISTOR	1.2kΩ,1/10W	R128	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R7	QRSA08J-153YN	RESISTOR	15kΩ,1/10W	R129	QRSA08J-183YN	RESISTOR,S7000EG	18kΩ,1/10W
R8	QRSA08J-561YN	RESISTOR	560Ω,1/10W	R130	QRSA08J-0R0Y	RESISTOR,S7000EH	0Ω,1/10W
R9	QRSA08J-561YN	RESISTOR	560Ω,1/10W		QRSA08J-393YN	RESISTOR,S7000EG	39kΩ,1/10W
R10	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W	R131	QRD161J-221	RESISTOR	220Ω,1/6W
R11	QRD161J-153	RESISTOR	15kΩ,1/6W	R132	QRSA08J-0R0Y	RESISTOR,S7000EH	0Ω,1/10W
R13	QRSA08J-222YN	RESISTOR	2.2kΩ,1/10W		QRSA08J-393YN	RESISTOR,S7000EG	39kΩ,1/10W
R14	QRSA08J-221YN	RESISTOR	220Ω,1/10W	R133	QRSA08J-183YN	RESISTOR,S7000EG	18kΩ,1/10W
R15	QRSA08J-103YN	RESISTOR	10kΩ,1/10W	R134	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R16	QRSA08J-123YN	RESISTOR,S7000EH	12kΩ,1/10W	R135	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R17	QRSA08J-104YN	RESISTOR	100kΩ,1/10W	R136	QRSA08J-183YN	RESISTOR	18kΩ,1/10W
R19	QRSA08J-475YN	RESISTOR	4.7MΩ,1/10W	R137	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R20	QRSA08J-472YN	RESISTOR	4.7kΩ,1/10W	R138	QRSA08J-0R0Y	RESISTOR,S7000EG	0Ω,1/10W
R21	QRSA08J-103YN	RESISTOR	10kΩ,1/10W		QRSA08J-333YN	RESISTOR,S7000EH	33kΩ,1/10W
R22	QRSA08J-274YN	RESISTOR	270kΩ,1/10W	R139	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R23	QRSA08J-151YN	RESISTOR	150Ω,1/10W	R140	QRSA08J-0R0Y	RESISTOR,S7000EG	0Ω,1/10W
R24	QRSA08J-273YN	RESISTOR	27kΩ,1/10W		QRSA08J-333YN	RESISTOR,S7000EH	33kΩ,1/10W
R26	QRSA08J-123YN	RESISTOR	12kΩ,1/10W	R141	QRSA08J-103YN	RESISTOR,S7000EH	10kΩ,1/10W
R29	QRSA08J-473YN	RESISTOR	47kΩ,1/10W	R142	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R30	QRSA08J-273YN	RESISTOR	27kΩ,1/10W	R143	QRSA08J-473YN	RESISTOR	47kΩ,1/10W
R31	QRSA08J-473YN	RESISTOR	47kΩ,1/10W	R144	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R32	QRSA08J-183YN	RESISTOR	18kΩ,1/10W	R145	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R33	QRD161J-101	RESISTOR	100Ω,1/6W	R201	QRSA08J-393YN	RESISTOR	39kΩ,1/10W
R34	QRSA08J-3R3YN	RESISTOR	3.3Ω,1/10W	R202	QRSA08J-223YN	RESISTOR	22kΩ,1/10W
R35	QRSA08J-153YN	RESISTOR	15kΩ,1/10W	R203	QRSA08J-512YN	RESISTOR	5.1kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R204	QRD123J-331SX	RESISTOR 330Ω,1/2W	R411	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R205	QRSA08J-752YN	RESISTOR 7.5kΩ,1/10W	R412	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W
R207	QRSA08J-911YN	RESISTOR 910Ω,1/10W	R413	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R208	QRSA08J-910YN	RESISTOR 91Ω,1/10W	R414	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R209	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R415	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R210	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R418	QRSA08J-821YN	RESISTOR 820Ω,1/10W
R211	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R451	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R212	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R452	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R213	QRSA08J-471YN	RESISTOR 470Ω,1/10W	R453	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R214	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R454	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R215	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R455	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R216	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R456	QRSA08J-124YN	RESISTOR 120kΩ,1/10W
R217	QRSA08J-330YN	RESISTOR 33Ω,1/10W	R601	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R218	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R602	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R219	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R603	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R222	QRSA08J-363YN	RESISTOR 36kΩ,1/10W	R604	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R223	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W	R605	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R224	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R606	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R225	QRSA08J-104YN	RESISTOR 100kΩ,1/10W	R607	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R226	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R608	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R228	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R609	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R229	QRSA08J-224YN	RESISTOR 220kΩ,1/10W	R610	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R230	QRSA08J-333YN	RESISTOR 33kΩ,1/10W	R611	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R231	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R612	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R232	QRSA08J-333YN	RESISTOR 33kΩ,1/10W	R613	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R233	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R614	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R234	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R615	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R236	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R616	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R237	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R617	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R238	QRSA08J-821YN	RESISTOR 820Ω,1/10W	R618	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R239	QRSA08J-561YN	RESISTOR 560Ω,1/10W	R619	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R241	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R620	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R242	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W	R621	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R243	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R622	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R245	QRSA08J-473YN	RESISTOR 47kΩ,1/10W	R623	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R246	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R624	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R247	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R625	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R248	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R626	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R249	QRSA08J-153YN	RESISTOR 15kΩ,1/10W	R627	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R250	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R628	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R251	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R630	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R252	QRSA08J-123YN	RESISTOR 12kΩ,1/10W	R631	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R253	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W	R632	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R254	QRSA08J-270YN	RESISTOR 27Ω,1/10W	R633	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R255	QRSA08J-331YN	RESISTOR 330Ω,1/10W	R634	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R256	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R635	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R257	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R636	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R258	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W	R637	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R259	QRSA08J-331YN	RESISTOR 330Ω,1/10W	R638	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R260	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R639	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R261	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R640	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R262	QRSA08J-622YN	RESISTOR 6.2kΩ,1/10W	R641	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R263	QRD161J-103	RESISTOR 10kΩ,1/6W	R642	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R401	QRSA08J-561YN	RESISTOR 560Ω,1/10W	R643	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R402	QRSA08J-561YN	RESISTOR 560Ω,1/10W	R644	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R403	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R645	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R404	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R646	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R405	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R647	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R406	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R648	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R408	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W	R649	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R409	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R650	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R410	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	R651	QRSA08J-104YN	RESISTOR 100kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R653	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R721	QRSA08J-562YN	RESISTOR 5.6kΩ,1/10W
R654	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W	R722	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R655	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W	R723	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R656	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R724	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R657	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R725	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R658	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R726	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R659	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R727	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R660	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R728	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R661	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R729	QRD161J-103	RESISTOR 10kΩ,1/6W
R662	QRSA08J-681YN	RESISTOR 680Ω,1/10W	R730	QRD161J-393	RESISTOR 39kΩ,1/6W
R663	QRSA08J-104YN	RESISTOR 100kΩ,1/10W	R751	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R664	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R752	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R665	QRSA08J-272YN	RESISTOR 2.7kΩ,1/10W	R753	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R666	QRSA08J-474YN	RESISTOR 470kΩ,1/10W	R754	QRSA08J-105YN	RESISTOR 1MΩ,1/10W
R667	QRSA08J-334YN	RESISTOR 330kΩ,1/10W	R755	QRSA08J-681YN	RESISTOR 680Ω,1/10W
R668	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W	R756	QRSA08J-104YN	RESISTOR 100kΩ,1/10W
R669	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R757	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R670	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W	R758	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R671	QRSA08J-104YN	RESISTOR 100kΩ,1/10W	R759	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W
R672	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R760	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R673	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R761	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R674	QRSA08J-105YN	RESISTOR 1MΩ,1/10W	R762	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R675	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R763	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R676	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R764	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R677	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R765	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R678	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R776	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R680	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R777	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R681	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R778	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R682	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R856	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R685	QRSA08J-221YN	RESISTOR 220Ω,1/10W	R858	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R686	QRD161J-750	RESISTOR 75Ω,1/6W	R859	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R687	QRSA08J-221YN	RESISTOR 220Ω,1/10W	R860	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R688	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W	R861	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R689	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W	R862	QVPA606-471Z	V RESISTOR,SWD 5V
R690	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R863	QRSA08J-511YN	RESISTOR 510Ω,1/10W
R691	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R864	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R692	QRD161J-103	RESISTOR,S7000EH 10kΩ,1/6W	R866	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R693	QRD161J-0R0	RESISTOR,S7000EG 0Ω,1/6W	R868	QRD161J-473	RESISTOR 47kΩ,1/6W
R694	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R872	QRSA08J-221YN	RESISTOR 220Ω,1/10W
R695	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R901	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R696	QRSA08J-471YN	RESISTOR 470Ω,1/10W	R902	QRSA08J-153YN	RESISTOR 15kΩ,1/10W
R697	QRSA08J-333YN	RESISTOR 33kΩ,1/10W	R903	QRSA08J-331YN	RESISTOR 330Ω,1/10W
R698	QRSA08J-104YN	RESISTOR 100kΩ,1/10W	R905	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R700	QRSA08J-471YN	RESISTOR 470Ω,1/10W	R906	QRSA08J-182YN	RESISTOR 1.8kΩ,1/10W
R701	QRSA08J-101YN	RESISTOR 100Ω,1/10W	R907	QRSA08J-223YN	RESISTOR 22kΩ,1/10W
R702	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R908	QRSA08J-153YN	RESISTOR 15kΩ,1/10W
R703	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R909	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R704	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R910	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R705	QRSA08J-104YN	RESISTOR 100kΩ,1/10W	R911	QRSA08J-0R0Y	RESISTOR,S7000EG 0Ω,1/10W
R706	QRSA08J-102YN	RESISTOR 1kΩ,1/10W		QRSA08J-392YN	RESISTOR,S7000EH 3.9kΩ,1/10W
R707	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R912	QRSA08J-182YN	RESISTOR,S7000EH 1.8kΩ,1/10W
R708	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R916	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W
R709	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R937	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R710	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R938	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R711	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R939	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R712	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R1001	QRSA08J-824YN	RESISTOR,S7000EG 820kΩ,1/10W
R713	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R1002	QRSA08J-101YN	RESISTOR,S7000EG 100Ω,1/10W
R714	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R1003	QRSA08J-562YN	RESISTOR,S7000EG 5.6kΩ,1/10W
R715	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	R1004	QRSA08J-104YN	RESISTOR,S7000EG 100kΩ,1/10W
R716	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R1007	QRSA08J-105YN	RESISTOR,S7000EG 1MΩ,1/10W
R717	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	R1008	QRSA08J-824YN	RESISTOR,S7000EG 820kΩ,1/10W
R718	QRSA08J-103YN	RESISTOR 10kΩ,1/10W	R1009	QRSA08J-202YN	RESISTOR,S7000EG 2kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R1014	QRSA08J-271YN	RESISTOR,S7000EG 270Ω,1/10W	C119	QCYA1HK-103	CAPACITOR 0.01μF,50V
R1015	QRSA08J-271YN	RESISTOR,S7000EG 270Ω,1/10W	C120	QEKJ1CM-107	E CAPACITOR 100μF,16V
R1141	QRSA08J-471YN	RESISTOR,S7000EG 470Ω,1/10W	C121	QCYA1HK-153	CAPACITOR 0.015μF,50V
R1142	QRSA08J-561YN	RESISTOR,S7000EG 560Ω,1/10W	C122	QEKJ1CM-107	E CAPACITOR 100μF,16V
R1143	QRSA08J-271YN	RESISTOR,S7000EG 270Ω,1/10W	C123	QEKJ1HM-106	E CAPACITOR 10μF,50V
R1144	QRSA08J-391YN	RESISTOR,S7000EG 390Ω,1/10W	C124	QCYA1EK-473	CAPACITOR 0.047μF,25V
R1145	QVPA606-103Z	V RESISTOR,SEPARATION S7000EG	C125	QEKJ1CM-476	E CAPACITOR 47μF,16V
R1147	QRSA08J-272YN	RESISTOR,S7000EG 2.7kΩ,1/10W	C126	QETC1HM-106	E CAPACITOR 10μF,50V
R1148	QRSA08J-272YN	RESISTOR,S7000EG 2.7kΩ,1/10W	C127	QETC1HM-106	E CAPACITOR 10μF,50V
R1149	QRSA08J-222YN	RESISTOR,S7000EG 2.2kΩ,1/10W	C128	QETC1HM-106	E CAPACITOR 10μF,50V
R1150	QRSA08J-222YN	RESISTOR,S7000EG 2.2kΩ,1/10W	C129	QETC1HM-106	E CAPACITOR 10μF,50V
R1151	QRSA08J-473YN	RESISTOR,S7000EG 47kΩ,1/10W	C131	QETC1CM-476	E CAPACITOR 47μF,16V
R1152	QRSA08J-471YN	RESISTOR,S7000EG 470Ω,1/10W	C132	QETC1HM-105	E CAPACITOR 1μF,50V
R1153	QRSA08J-471YN	RESISTOR,S7000EG 470Ω,1/10W	C133	QETC1CM-476	E CAPACITOR 47μF,16V
R1154	QRSA08J-473YN	RESISTOR,S7000EG 47kΩ,1/10W	C134	PECA0772-476MZ	E CAPACITOR
R1155	QRSA08J-472YN	RESISTOR,S7000EG 4.7kΩ,1/10W	C135	PECA0772-476MZ	E CAPACITOR
R1156	QRSA08J-472YN	RESISTOR,S7000EG 4.7kΩ,1/10W	C136	QE231CM-107ZE	E CAPACITOR 100μF,16V
R1157	QRSA08J-391YN	RESISTOR,S7000EG 390Ω,1/10W	C137	QETC1HM-106	E CAPACITOR 10μF,50V
R1161	QRSA08J-101YN	RESISTOR,S7000EG 100Ω,1/10W	C138	QETC1HM-105	E CAPACITOR 1μF,50V
R1162	QRSA08J-101YN	RESISTOR,S7000EG 100Ω,1/10W	C139	QETC1HM-105	E CAPACITOR 1μF,50V
C1	QCYA1HK-222	CAPACITOR 0.0022μF,50V	C140	QERF1CM-226	E CAPACITOR 22μF,16V
C2	QEKJ1CM-476	E CAPACITOR 47μF,16V	C141	QETC1CM-226	E CAPACITOR 22μF,16V
C3	QEKJ1HM-106	E CAPACITOR 10μF,50V	C143	QETC1HM-106	E CAPACITOR 10μF,50V
C4	QETC1HM-105	E CAPACITOR 1μF,50V	C144	QETC1HM-106	E CAPACITOR 10μF,50V
C5	QCC11EJ-153	CAPACITOR 0.015μF,25V	C145	QETC1CM-476	E CAPACITOR 47μF,16V
C6	QCC11EJ-682	CAPACITOR 0.0068μF,25V	C146	QETC1CM-476	E CAPACITOR 47μF,16V
C7	QCC11EJ-153	CAPACITOR 0.015μF,25V	C147	QCTA1CH-561	CAPACITOR 560pF,16V
C8	QEKJ1HM-106	E CAPACITOR 10μF,50V	C148	QCTA1CH-561	CAPACITOR 560pF,16V
C9	QCYA1EK-104	CAPACITOR,S7000EH 0.1μF,25V	C149	QETC1HM-106	E CAPACITOR 10μF,50V
C10	QCYA1EK-104	CAPACITOR 0.1μF,25V	C150	QETC1HM-106	E CAPACITOR 10μF,50V
C11	QERF1CM-226	E CAPACITOR 22μF,16V	C151	QETC1HM-106	E CAPACITOR 10μF,50V
C12	QCYA1EK-223	CAPACITOR 0.022μF,25V	C152	QETC1HM-106	E CAPACITOR 10μF,50V
C13	QCYA1EK-123	CAPACITOR 0.012μF,25V	C153	QETC1CM-476	E CAPACITOR 47μF,16V
C14	QERF1CM-226	E CAPACITOR 22μF,16V	C157	QCTA1CH-561	CAPACITOR 560pF,16V
C15	QETC1HM-475	E CAPACITOR 4.7μF,50V	C158	QCTA1CH-561	CAPACITOR 560pF,16V
C16	QCYA1HK-681	CAPACITOR 680pF,50V	C201	QETC1CM-476	E CAPACITOR 47μF,16V
C17	QCYA1HK-103	CAPACITOR 0.01μF,50V	C202	QCYA1HK-103	CAPACITOR 0.01μF,50V
C18	QCYA1HK-332	CAPACITOR 0.0033μF,50V	C203	QCTA1CH-470	CAPACITOR 47pF,16V
C19	QFLC1HJ-333Z	F CAPACITOR 0.033μF,50V	C204	QCYA1HK-103	CAPACITOR 0.01μF,50V
C20	QEKJ1HM-106	E CAPACITOR 10μF,50V	C205	QCTA1CH-470	CAPACITOR 47pF,16V
C21	QCYA1HK-331	CAPACITOR 330pF,50V	C206	QCTA1CH-100	CAPACITOR 10pF,16V
C22	QCYA1HK-103	CAPACITOR 0.01μF,50V	C207	QCTA1CH-330	CAPACITOR 33pF,16V
C23	QCYA1HK-332	CAPACITOR 0.0033μF,50V	C209	QETC1CM-476	E CAPACITOR 47μF,16V
C24	QFLC1HJ-333Z	F CAPACITOR 0.033μF,50V	C213	QCTA1CH-270	CAPACITOR 27pF,16V
C25	QEKJ1HM-106	E CAPACITOR 10μF,50V	C214	QCYA1EK-104	CAPACITOR 0.1μF,25V
C26	QCYA1HK-681	CAPACITOR 680pF,50V	C215	QCTA1CH-390	CAPACITOR 39pF,16V
C101	QETC1HM-106	E CAPACITOR 10μF,50V	C216	QCYA1HK-103	CAPACITOR 0.01μF,50V
C102	QETC1HM-106	E CAPACITOR 10μF,50V	C217	QCYA1EK-104	CAPACITOR 0.1μF,25V
C103	QETC1HM-106	E CAPACITOR 10μF,50V	C219	QCTA1CH-390	CAPACITOR 39pF,16V
C104	QETC1CM-476	E CAPACITOR 47μF,16V	C220	QCYA1EK-473	CAPACITOR 0.047μF,25V
C105	QCYA1EK-473	CAPACITOR 0.047μF,25V	C221	QER61CM-476	E CAPACITOR,S7000EG 47μF,16V
C106	QETC1HM-106	E CAPACITOR 10μF,50V		QETC1CM-476	E CAPACITOR,S7000EH 47μF,16V
C107	QETC1CM-107	E CAPACITOR,S7000EG 100μF,16V	C222	QCTA1CH-560	CAPACITOR 56pF,16V
	QETC1HM-107	E CAPACITOR,S7000EH 100μF,50V	C224	QCYA1HK-103	CAPACITOR 0.01μF,50V
C108	QCYA1HK-153	CAPACITOR 0.015μF,50V	C226	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
C109	QCYA1HK-103	CAPACITOR 0.01μF,50V	C228	QCYA1HK-103	CAPACITOR 0.01μF,50V
C110	QCYA1EK-104	CAPACITOR 0.1μF,25V	C229	QCTA1CH-470	CAPACITOR 47pF,16V
C114	QCYA1HK-103	CAPACITOR 0.01μF,50V	C230	QEK61CM-106	E CAPACITOR,S7000EG 10μF,16V
C115	QCYA1HK-103	CAPACITOR 0.01μF,50V		QETC1HM-106	E CAPACITOR,S7000EH 10μF,50V
C116	QCYA1EK-473	CAPACITOR 0.047μF,25V	C231	QEK61CM-106	E CAPACITOR,S7000EG 10μF,16V
C117	QERF1HM-224	E CAPACITOR 0.22μF,50V		QETC1HM-106	E CAPACITOR,S7000EH 10μF,50V
C118	QCYA1EK-104	CAPACITOR 0.1μF,25V	C232	QCYA1HK-103	CAPACITOR 0.01μF,50V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
C233	QCTA1CH-180	CAPACITOR 18pF,16V		QCTA1CH-220	CAPACITOR,S7000EH 22pF,16V
C234	QCTA1CH-151	CAPACITOR 150pF,16V	C752	QCYA1HK-102	CAPACITOR 0.001μF,50V
C235	QCTA1CH-220	CAPACITOR 22pF,16V	C753	QCYA1EK-104	CAPACITOR 0.1μF,25V
C236	QCYA1HK-103	CAPACITOR 0.01μF,50V	C754	QCSA1HJ-220	CAPACITOR,S7000EG 22pF,50V
C237	QCTA1CH-680	CAPACITOR 68pF,16V		QCTA1CH-220	CAPACITOR,S7000EH 22pF,16V
C238	QCYA1HK-103	CAPACITOR 0.01μF,50V	C755	QCSA1HJ-220	CAPACITOR,S7000EG 22pF,50V
C239	QCTA1CH-821	CAPACITOR 820pF,16V		QCTA1CH-220	CAPACITOR,S7000EH 22pF,16V
C240	QCYA1HK-103	CAPACITOR 0.01μF,50V	C756	QCSA1HJ-220	CAPACITOR,S7000EG 22pF,50V
C241	QEKJ1CM-476	E CAPACITOR 47μF,16V		QCTA1CH-220	CAPACITOR,S7000EH 22pF,16V
C242	QCYA1HK-103	CAPACITOR 0.01μF,50V	C758	QCSA1HJ-470	CAPACITOR,S7000EG 47pF,50V
C243	QCYA1HK-103	CAPACITOR 0.01μF,50V		QCTA1CH-470	CAPACITOR,S7000EH 47pF,16V
C244	QCVB1CN-103	CAPACITOR 0.01μF,16V	C760	QEKF1HM-335	E CAPACITOR,S7000EG 3.3μF,50V
C245	QCVB1CN-103	CAPACITOR 0.01μF,16V		QERF1HM-335	E CAPACITOR,S7000EH 3.3μF,50V
C246	QCVB1CN-103	CAPACITOR 0.01μF,16V	C761	QCSA1HJ-101	CAPACITOR,S7000EG 100pF,50V
C401	QCYA1HK-102	CAPACITOR 0.001μF,50V		QCTA1CH-101	CAPACITOR,S7000EH 100pF,16V
C402	QCYA1HK-102	CAPACITOR 0.001μF,50V	C762	QCSA1HJ-101	CAPACITOR,S7000EG 100pF,50V
C403	QCYA1HK-563	CAPACITOR 0.056μF,50V		QCTA1CH-101	CAPACITOR,S7000EH 100pF,16V
C404	QCSA1HJ-101	CAPACITOR,S7000EG 100pF,50V	C763	QCSA1HJ-101	CAPACITOR,S7000EG 100pF,50V
	QCTA1CH-101	CAPACITOR,S7000EH 100pF,16V		QCTA1CH-101	CAPACITOR,S7000EH 100pF,16V
C405	QCYA1HK-103	CAPACITOR 0.01μF,50V	△ C801	QFZ9051-223	F CAPACITOR 0.022μF
C406	QEKF1CM-106	E CAPACITOR,S7000EG 10μF,16V	△ C802	QFZ9051-683	F CAPACITOR 0.068μF
	QEKJ1CM-106	E CAPACITOR,S7000EH 10μF,16V	△ C803	QFZ9051-333	F CAPACITOR 0.033μF
C407	QEKJ1CM-106	E CAPACITOR 10μF,16V	C810	PECA0738-107	E CAPACITOR
C408	QEKF0JM-107	E CAPACITOR,S7000EG 100μF,6.3V	C863	QETC1AM-107	E CAPACITOR 100μF,10V
	QEKJ0JM-107	E CAPACITOR,S7000EH 100μF,6.3V	C864	QETC1CM-226	E CAPACITOR 22μF,16V
C409	QCYA1EK-223	CAPACITOR 0.022μF,25V	C865	QETC1AM-107	E CAPACITOR 100μF,10V
C411	QCYA1HK-222	CAPACITOR 0.0022μF,50V	C866	QETC1HM-106	E CAPACITOR 10μF,50V
C412	QCYA1EK-104	CAPACITOR 0.1μF,25V	C867	QEKJ1CM-107	E CAPACITOR 100μF,16V
C413	QCY81CK-105	CAPACITOR 1μF,16V	C868	QETC1CM-476	E CAPACITOR 47μF,16V
C414	QCYA1HK-102	RESISTOR	C870	QETC1CM-107	E CAPACITOR 100μF,16V
C415	QEKF1CM-106	E CAPACITOR,S7000EG 10μF,16V	C901	QETC1CM-336	E CAPACITOR 33μF,16V
	QEKJ1CM-106	E CAPACITOR,S7000EH 10μF,16V	C902	QCYA1HK-102	CAPACITOR 0.001μF,50V
C416	QCYA1HK-102	CAPACITOR 0.001μF,50V	C903	QERF1HM-106	E CAPACITOR 10μF,50V
C417	QCTA1CH-470	CAPACITOR 47pF,16V	C904	QCYA1HK-102	CAPACITOR 0.001μF,50V
C451	QCYA1HK-103	CAPACITOR 0.01μF,50V	C905	QCYA1EK-223	CAPACITOR 0.022μF,25V
C452	QCF A1EZ-104	CAPACITOR 0.1μF,25V	C906	QETC1HM-474	E CAPACITOR 0.47μF,50V
C453	QCYA1HK-103	CAPACITOR 0.01μF,50V	C907	QFLC1HJ-473Z	F CAPACITOR 0.047μF,50V
C454	QCYA1HK-103	CAPACITOR 0.01μF,50V	C953	QCYA1HK-102	CAPACITOR 0.001μF,50V
C455	QCYA1HK-103	CAPACITOR 0.01μF,50V	C959	QETC1CM-476	E CAPACITOR 47μF,16V
C456	QCYA1HK-103	CAPACITOR 0.01μF,50V	C1008	QFV11HJ-104	F CAPACITOR 0.1μF,50V
C458	QEKF1CM-106	E CAPACITOR,S7000EG 10μF,16V	C1009	QFV11HJ-333	F CAPACITOR 0.033μF,50V
	QEKJ1CM-106	E CAPACITOR,S7000EH 10μF,16V	C1010	QCF A1HZ-103	CAPACITOR 0.01μF,50V
C459	QFV11HJ-104	F CAPACITOR 0.1μF,50V	C1012	QCTA1CH-151	CAPACITOR 150pF,16V
C601	QAT3120-450Z	TRIM CAPACITOR,TIMER CLOCK	C1015	QERF1HM-104	E CAPACITOR 0.1μF,50V
C602	QCTA1CH-180	CAPACITOR 18pF,16V	C1151	QCYA1HK-103	CAPACITOR,S7000EG 0.01μF,50V
C603	QCYA1HJ-103	CAPACITOR 0.01μF,50V	C1152	QCYA1HK-103	CAPACITOR,S7000EG 0.01μF,50V
C604	QEKF1CM-106	E CAPACITOR 10μF,16V	C1153	QCTA1CH-220	CAPACITOR,S7000EG 22pF,16V
C609	QCYA1HK-103	CAPACITOR 0.01μF,50V	C1154	QCYA1HK-103	CAPACITOR,S7000EG 0.01μF,50V
C612	QCYA1HJ-102	CAPACITOR 0.001μF,50V	C1155	QEKJ1HM-225	E CAPACITOR,S7000EG 2.2μF,50V
C613	QCYA1HJ-103	CAPACITOR 0.01μF,50V	C1156	QEKJ1HM-225	E CAPACITOR,S7000EG 2.2μF,50V
C614	QEKF1AM-336	E CAPACITOR,S7000EG 33μF,10V	C1157	QCYA1HK-103	CAPACITOR,S7000EG 0.01μF,50V
	QERF1AM-336	E CAPACITOR,S7000EH 33μF,10V	C1158	QCYA1HK-103	CAPACITOR,S7000EG 0.01μF,50V
C615	QCYA1HJ-103	CAPACITOR 0.01μF,50V	C1161	QEKJ1CM-106	E CAPACITOR,S7000EG 10μF,16V
C618	QETC1AM-107	E CAPACITOR 100μF,10V	C1162	QEKJ1CM-106	E CAPACITOR,S7000EG 10μF,16V
C619	PU60676-223	E CAPACITOR 0.022μF,5.5V	C1163	QETC1CM-226	E CAPACITOR,S7000EG 22μF,16V
C627	QCYA1HJ-103	CAPACITOR 0.01μF,50V	C1176	QCTA1CH-101	CAPACITOR,S7000EG 100pF,16V
C628	QEKF0JM-107	E CAPACITOR 100μF,6.3V	C1177	QCTA1CH-101	CAPACITOR,S7000EG 100pF,16V
C629	QCYA1EK-104	CAPACITOR 0.1μF,25V	L1	PU58308-123J	COIL 12mH
C630	QEKF1CM-106	E CAPACITOR 10μF,16V	L201	PU48530-101K	COIL 100μH
C631	QCYA1HJ-103	CAPACITOR 0.01μF,50V	L202	PU59988-560J	COIL 56μH
C639	QCYA1HK-103	CAPACITOR 0.01μF,50V	L203	PU48530-102J	COIL 1mH
C751	QCSA1HJ-220	CAPACITOR,S7000EG 22pF,50V	L204	PU59988-101J	COIL 100μH

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
L205	PU59988-151JY	COIL	150 μ H
L206	PU59988-560J	COIL	56 μ H
L208	PU48530-101K	COIL	100 μ H
L210	PU48530-222J	COIL	2.2mH
L211	PU59988-221J	COIL	220 μ H
L213	PU48530-101K	COIL	100 μ H
L214	PU59988-560J	COIL	56 μ H
L215	PU59988-470J	COIL	47 μ H
L216	PU59988-101J	COIL	100 μ H
L401	PU59988-270J	COIL	27 μ H
L451	PU59988-270J	COIL	27 μ H
L601	QRD161J-0R0	RESISTOR	0 Ω ,1/6W
L602	QRD161J-0R0	RESISTOR	0 Ω ,1/6W
L603	PU48530-100J	COIL	10 μ H
L604	PU48530-100J	COIL	10 μ H
L605	PU48530-100J	COIL	10 μ H
L901	PU59152-R22J	COIL	0.22 μ H
L902	PU59152-R22J	COIL	0.22 μ H
△ CF601	PEVB0497	RESONATOR	
△ CF751	PEVB0340	RESONATOR	
LC201	PU60714	EQUALIZER	
CF1104	PU52775-2	CERAMIC FILTER,S7000EG	
CF1105	PEVB0481	C DISCRIMINATER,S7000EG	
LC1101	PU48530-1R0J	COIL,S7000EG	1 μ H
△ X601	PEVB0422	CRYSTAL RESONATOR	
△ X1102	PEVB0479	CRYSTAL RESONATOR,S7000EG	
S901	PESW0671	SLIDE SWITCH,RF/TEST S7000EG	
△ T1	PELN0860	OSC TRANSFORMER	
△ T2	PELN0861	OSC TRANSFORMER	
PS601	PU61433	REEL SENSOR	
PS602	PU61433	REEL SENSOR	
T901	PELN0806	COIL	
ETH1	PQ21623-1-2	EARTH PLATE(RF),TUNER	
JA1	PU61150-2	PIN JACK(SW),R AUDIO IN	
JA2	PU61149-4	PIN JACK,AUDIO OUT	
JA3	PU60612	MINI JACK,PAUSE/RAE	
SCW1	SDSF3008Z	SCREW,TERMINAL BOARD L	
SLD1	PQ21911	SHIELD CASE	
SPC1	PEME0947-01-01	SPACER,X2	
△ FC801	PEMC0965-Z	FUSE CLIP,F801	
△ FC802	PEMC0965-Z	FUSE CLIP,F801	
△ LF801	PELN0885	LINE FILTER	
△ LF802	PELN0876	LINE FILTER	
CN1	PW30705-12AAYY	WIRE,(1-4)	
CN2	PW30701-12AAYY	WIRE,(1-2)	
CN101	PEMC1102-010	CONNECTOR,(1-10)SW/JACK	
CN102	PEMC0969-112	CONNECTOR,(1-12)TERMINAL	
CN103	PEMC1055-014	CONNECTOR,(1-14)PRE/REC	
CN201	PEMC1055-014	CONNECTOR,(1-14)PRE/REC	
CN204	PEMC0846-010	CONNECTOR,(2-11)DIGITAL SUB EG	
	PEMC0846-012	CONNECTOR,(1-12)DIGITAL SUB EH	
CN205	PEMC0846-010	CONNECTOR,(4-13)DIGITAL SUB EG	
	PEMC0846-014	CONNECTOR,(1-14)DIGITAL SUB EH	
CN206	PEMC0969-112	CONNECTOR,(1-12)TERMINAL	
CN207	PEMC0969-111	CONNECTOR,(1-11)TERMINAL	
CN301	PU59555-4	CONNECTOR,(1-4)EVR	
CN401	PW30702-12AAYY	WIRE,(1-3)	
CN402	PEMC1102-004	CONNECTOR,(1-4)DRUM MOTOR	
CN601	PEMC1077	CONNECTOR,(1-8)CAP MDA	
CN602	PU61434-1-1	CONNECTOR,(1-5)ROTARY ENCODER	
CN603	PU60727-2	CONNECTOR,(1-2)LOADING MOTOR	
CN605	PU59555-7	CONNECTOR,(1-7)JOG	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
CN702	PEMC1102-015	CONNECTOR,(1-15)DISPLAY/SW	
△ CN801	PU60250-2	CONNECTOR,(1-2)AC IN	
△ CP401	ICP-N15	CIRCUIT PROTECTOR	
△ CP601	ICP-N25	CIRCUIT PROTECTOR	
△ CP602	ICP-N25	CIRCUIT PROTECTOR	
△ CP801	ICP-N15	CIRCUIT PROTECTOR	
△ F801	QMF51E2-1R25J1	FUSE	T1.2

VIDEO UNIT BOARD ASSEMBLY <05>

PWBA	PART No.	PART NAME, DESCRIPTION	
	PB10966E	VIDEO UNIT BOARD ASSEMBLY	
IC1	JCP0054	IC	
IC2	M62353GP	IC	
IC3	NJM431U-XE	IC	
IC4	VC2076MP-XE	IC	
IC5	HA118092FP-XE	IC	
IC6	93LC56/P	IC	
	or 93LC56B/P	IC	
IC7	TC4S81F	IC	
Q1	2SA1576(QRS)	TRANSISTOR	
Q2	DTC144WU	TRANSISTOR	
Q5	2SC4081(QRS)	TRANSISTOR	
Q6	2SA1576(QRS)	TRANSISTOR	
Q7	DTA144EU	TRANSISTOR	
Q8	DTC144WU	TRANSISTOR	
Q9	DTC144WU	TRANSISTOR	
Q11	DTC144WU	TRANSISTOR	
Q12	DTC144WU	TRANSISTOR	
Q16	DTC144WS	TRANSISTOR	
D1	DAP202U	DIODE	
D3	1S355	DIODE	
R1	NRSA63J-103N	RESISTOR	10k Ω ,1/16W
R2	NRSA63J-102N	RESISTOR	1k Ω ,1/16W
R3	NRSA63J-0R0N	RESISTOR	0 Ω ,1/16W
R5	NRSA63J-182N	RESISTOR	1.8k Ω ,1/16W
R6	NRSA63J-472N	RESISTOR	4.7k Ω ,1/16W
R7	QRD162J-222	RESISTOR	2.2k Ω ,1/6W
R8	NRSA63J-333N	RESISTOR	33k Ω ,1/16W
R9	NRVA63D-822N	MF RESISTOR	8.2k Ω ,1/16W
R10	NRVA63D-152N	MF RESESTOR	
R11	NRSA63J-222N	RESISTOR	2.2k Ω ,1/16W
R12	NRSA63J-561N	RESISTOR	560 Ω ,1/16W
R13	NRSA63J-222N	RESISTOR	2.2k Ω ,1/16W
R14	NRSA63J-821N	RESISTOR	820 Ω ,1/16W
R17	NRSA63J-391N	RESISTOR	390 Ω ,1/16W
R18	NRVA63D-391N	RESISTOR	390 Ω ,1/16W
R19	NRVA63D-102N	MF RESISTOR	1k Ω ,1/16W
R20	NRVA63D-391N	RESISTOR	390 Ω ,1/16W
R22	NRSA63J-102N	RESISTOR	1k Ω ,1/16W
R23	NRSA63J-102N	RESISTOR	1k Ω ,1/16W
R24	NRSA63J-332N	RESISTOR	3.3k Ω ,1/16W
R25	NRSA63J-332N	RESISTOR	3.3k Ω ,1/16W
R26	NRSA63J-151N	RESISTOR	150 Ω ,1/16W
R27	NRSA63J-162N	RESISTOR	1.6k Ω ,1/16W
R28	NRSA63J-391N	RESISTOR	390 Ω ,1/16W
R29	NRSA63J-122N	RESISTOR	1.2k Ω ,1/16W
R30	NRVA63D-102N	MF RESISTOR	1k Ω ,1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION		
R31	NRVA63D-471N	RESISTOR	470Ω,1/16W	C25	NCB31EK-103A	CAPACITOR	0.01μF,25V
R32	NRVA63D-102N	MF RESISTOR	1kΩ,1/16W	C26	NCB31EK-103A	CAPACITOR	0.01μF,25V
R33	NRVA63D-152N	MF RESESTOR		C27	NCB31EK-103A	CAPACITOR	0.01μF,25V
R34	NRVA63D-332N	MF RESISTOR	3.3kΩ,1/16W	C28	NCB31EK-103A	CAPACITOR	0.01μF,25V
R35	NRVA63D-332N	MF RESISTOR	3.3kΩ,1/16W	C29	QETC1CM-476	E CAPACITOR	47μF,16V
R37	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C30	NCB31EK-103A	CAPACITOR	0.01μF,25V
R39	NRSA63J-103N	RESISTOR	10kΩ,1/16W	C31	NCT08CH-161A	CAPACITOR	160pF,50V
R40	NRSA63J-103N	RESISTOR	10kΩ,1/16W	C32	NCS31HJ-120A	CAPACITOR	12pF,50V
R41	NRSA63J-823N	RESISTOR	82kΩ,1/16W	C33	QETC1HM-104	E CAPACITOR	0.1μF,50V
R43	NRSA63J-273N	RESISTOR	27kΩ,1/16W	C35	NCB31EK-103A	CAPACITOR	0.01μF,25V
R45	NRSA63J-181N	RESISTOR	180Ω,1/16W	C36	NCB31EK-103A	CAPACITOR	0.01μF,25V
R46	NRSA63J-101N	RESISTOR	100Ω,1/16W	C37	QETC1HM-474	E CAPACITOR	0.47μF,50V
R47	NRSA63J-102N	RESISTOR	1kΩ,1/16W	C38	QETC1HM-104	E CAPACITOR	0.1μF,50V
R48	NRVA63D-243N	RESISTOR	24kΩ,1/16W	C39	QETC1HM-474	E CAPACITOR	0.47μF,50V
R49	NRSA63J-101N	RESISTOR	100Ω,1/16W	C40	NCB31EK-103A	CAPACITOR	0.01μF,25V
R50	NRSA63J-102N	RESISTOR	1kΩ,1/16W	C41	QETC1HM-106	E CAPACITOR	10μF,50V
R51	NRSA63J-102N	RESISTOR	1kΩ,1/16W	C42	QETC1HM-106	E CAPACITOR	10μF,50V
R52	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C43	QCC31CK-473	CAPACITOR	0.047μF,16V
R53	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C44	NCB31EK-103A	CAPACITOR	0.01μF,25V
R54	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C45	QETC1CM-226	E CAPACITOR	22μF,16V
R55	NRVA63D-272N	MF RESISTOR	2.7kΩ,1/16W	C46	NCS31HJ-470A	CAPACITOR	47pF,50V
R56	NRVA63D-682N	MF RESISTOR	6.8kΩ,1/16W	C47	QETC1HM-225	E CAPACITOR	2.2μF,50V
R57	NRVA63D-162N	MF RESISTOR	1.6kΩ,1/16W	C48	QETC1CM-226	E CAPACITOR	22μF,16V
R58	NRVA63D-682N	MF RESISTOR	6.8kΩ,1/16W	C49	QETC1HM-225	E CAPACITOR	2.2μF,50V
R59	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C50	NCB31CK-104A	CAPACITOR	0.1μF,16V
R60	NRSA63J-102N	RESISTOR	1kΩ,1/16W	C51	NCB31EK-103A	CAPACITOR	0.01μF,25V
R61	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C52	NCB31EK-103A	CAPACITOR	0.01μF,25V
R62	NRSA63J-221N	RESISTOR	220Ω,1/16W	C53	QETC1CM-476	E CAPACITOR	47μF,16V
R63	NRSA63J-103N	RESISTOR	10kΩ,1/16W	C54	NCT06CH-101A	CAPACITOR	100pF,50V
R64	NRSA63J-475N	RESISTOR	4.7MΩ,1/16W	C55	NCT06CH-101A	CAPACITOR	100pF,50V
R65	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C56	QETC1HM-475	E CAPACITOR	4.7μF,50V
R68	NRSA63J-0R0N	RESISTOR	0Ω,1/16W	C57	NCT08CH-301A	CAPACITOR	300pF,50V
R69	NRSA63J-101N	RESISTOR	100Ω,1/16W	C58	NCT08CH-301A	CAPACITOR	300pF,50V
R70	NRSA63J-272N	RESISTOR	2.7kΩ,1/16W	C59	NCT06CH-181A	CAPACITOR	180pF,50V
R73	NRSA63J-684N	RESISTOR	680kΩ,1/16W	C60	NCT06CH-101A	CAPACITOR	100pF,50V
R74	NRSA63J-103N	RESISTOR	10kΩ,1/16W	C61	NCT08CH-271A	CAPACITOR	270pF,50V
R75	NRSA63J-101N	RESISTOR	100Ω,1/16W	C62	NCT08CH-820A	CAPACITOR	82pF,50V
R79	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W	C63	NCT08CH-221A	CAPACITOR	220pF,50V
R82	NRSA63J-103N	RESISTOR	10kΩ,1/16W	C64	NCT08CH-301A	CAPACITOR	300pF,50V
R83	NRSA63J-103N	RESISTOR	10kΩ,1/16W	C65	NCT08CH-301A	CAPACITOR	300pF,50V
R85	NRSA63J-472N	RESISTOR	4.7kΩ,1/16W	C66	NCB31EK-103A	CAPACITOR	0.01μF,25V
R87	QRD161J-182	RESISTOR	1.8kΩ,1/6W	C67	QETC1CM-476	E CAPACITOR	47μF,16V
C1	QETC1HM-224	E CAPACITOR	0.22μF,50V	C69	NCB31EK-103A	CAPACITOR	0.01μF,25V
C2	NCB31EK-103A	CAPACITOR	0.01μF,25V	C70	QETC1HM-225	E CAPACITOR	2.2μF,50V
C5	QETC1HM-105	E CAPACITOR	1μF,50V	C71	QETC1HM-225	E CAPACITOR	2.2μF,50V
C7	QETC1HM-104	E CAPACITOR	0.1μF,50V	C72	NCT08CH-331A	CAPACITOR	330pF,50V
C8	NCT08CH-330A	CAPACITOR	33pF,50V	C73	NCB31EK-103A	CAPACITOR	0.01μF,25V
C10	NCB31CK-104A	CAPACITOR	0.1μF,16V	C74	NCB31EK-103A	CAPACITOR	0.01μF,25V
C11	NCB31EK-103A	CAPACITOR	0.01μF,25V	C75	QETC1CM-476	E CAPACITOR	47μF,16V
C12	QETC1HM-106	E CAPACITOR	10μF,50V	C76	NCB31EK-223A	CAPACITOR	0.022μF,25V
C13	QETC1HM-225	E CAPACITOR	2.2μF,50V	C77	NCB31EK-103A	CAPACITOR	0.01μF,25V
C14	NCB31CK-104A	CAPACITOR	0.1μF,16V	C78	QETC1HM-105	E CAPACITOR	1μF,50V
C15	QETA1HM-475	E CAPACITOR	4.7μF,50V	C79	QETC1HM-106	E CAPACITOR	10μF,50V
C16	NCB31EK-123A	CAPACITOR	0.012μF,25V	C80	NCB31EK-103A	CAPACITOR	0.01μF,25V
C17	QCYA1EK-563	CAPACITOR	0.056μF,25V	C81	NCB31EK-103A	CAPACITOR	0.01μF,25V
C18	QETC1HM-105	E CAPACITOR	1μF,50V	C83	NCT08CH-5R0A	CAPACITOR	5pF,50V
C19	QETC1CM-476	E CAPACITOR	47μF,16V	C84	NCB31EK-103A	CAPACITOR	0.01μF,25V
C20	NCB31EK-103A	CAPACITOR	0.01μF,25V	C85	NCB31EK-103A	CAPACITOR	0.01μF,25V
C21	NCB31EK-103A	CAPACITOR	0.01μF,25V	C86	NCB31EK-103A	CAPACITOR	0.01μF,25V
C22	NCT08CH-331A	CAPACITOR	330pF,50V	C87	NCB31EK-103A	CAPACITOR	0.01μF,25V
C23	QCYA1EK-104	CAPACITOR	0.1μF,25V	C88	NCB31EK-103A	CAPACITOR	0.01μF,25V
C24	QETC1HM-334	E CAPACITOR	0.33μF,50V	C89	NCB31EK-103A	CAPACITOR	0.01μF,25V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C92	NCT06CH-101A	CAPACITOR	100pF,50V
C99	NCB31EK-103A	CAPACITOR	0.01μF,25V
C102	NCB31EK-103A	CAPACITOR	0.01μF,25V
C104	QETC1HM-224	E CAPACITOR	0.22μF,50V
C106	NCT08CH-121A	CAPACITOR	120pF,50V
L1	PU59153-822J	COIL	8.2mH
L2	PU48530-271K	COIL	270μH
L4	PU48530-331K	COIL	330μH
L5	PU48530-100J	COIL	10μH
L6	PU48530-270J	COIL	27μH
L7	PU48530-101K	COIL	100μH
L8	PU48530-101K	COIL	100μH
L9	PU48530-101K	COIL	100μH
LC1	PELN1165	LC TRA,LC VCO	
LC3	PELN1149	EQUALIZER	
LC4	PELN1171	LC TRAP	
△ X1	PEVB0550-Z	CRYSTAL RESONATOR	
K1	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
CN1	PEMC0919-130K	PIN HEADER	
CN2	PEMC0919-130K	PIN HEADER	

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R35	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R36	QRD123J-391SX	RESISTOR	390Ω,1/2W
R37	QRSA08J-101YN	RESISTOR	100Ω,1/10W
R39	QRD123J-391SX	RESISTOR	390Ω,1/2W
R40	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R41	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R43	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R44	NRVA62D-750N	RESISTOR	75Ω,1/16W
R46	QRSA08J-0R0Y	RESISTOR	0Ω,1/10W
R52	QRSA08J-622YN	RESISTOR	6.2kΩ,1/10W
R53	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R61	QRD161J-750	RESISTOR	75Ω,1/6W
R62	QRSA08J-152YN	RESISTOR,S7000EH	1.5kΩ,1/10W
	QRD161J-152	RESISTOR,S7000EG	1.5kΩ,1/6W
R63	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R64	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R66	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R67	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R68	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R69	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R70	QRSA08J-221YN	RESISTOR	220Ω,1/10W
R72	QRD161J-105	RESISTOR	1MΩ,1/6W
C1	QEK1CM-106	E CAPACITOR	10μF,16V
C2	QEP61HM-105	NP E CAPACITOR	1μF,50V
C4	QEK1CM-106	E CAPACITOR	10μF,16V
C5	QEP61CM-106	NP E CAPACITOR	10μF,16V
C6	QEK0JM-476	E CAPACITOR	47μF,6.3V
C7	QCYA1HK-103	CAPACITOR	0.01μF,50V
C8	QEK1CM-106	E CAPACITOR	10μF,16V
C9	QEK1CM-106	E CAPACITOR	10μF,16V
C10	QCYA1HK-103	CAPACITOR	0.01μF,50V
C11	QEK1CM-106	E CAPACITOR	10μF,16V
C14	QCYA1HK-103	CAPACITOR	0.01μF,50V
C15	QCYA1HK-103	CAPACITOR	0.01μF,50V
C16	QCYA1HK-103	CAPACITOR	0.01μF,50V
C17	QEK1CM-476	E CAPACITOR	47μF,16V
C18	QEK0JM-476	E CAPACITOR	47μF,6.3V
C19	QCYA1HK-103	CAPACITOR	0.01μF,50V
C20	QEK1AM-476	E CAPACITOR	47μF,10V
C21	QCYA1HK-103	CAPACITOR	0.01μF,50V
C22	QEK1HM-105	E CAPACITOR	1μF,50V
C23	QEP61HM-105	NP E CAPACITOR	1μF,50V
C27	QCYA1HK-103	CAPACITOR	0.01μF,50V
C31	QEK1CM-476	E CAPACITOR	47μF,16V
C32	QEK1HM-225	E CAPACITOR	2.2μF,50V
C34	QCYA1HK-103	CAPACITOR	0.01μF,50V
C35	PECA0783-108MZ	E CAPACITOR	
C36	PECA0783-108MZ	E CAPACITOR	
C37	QCYA1HK-103	CAPACITOR	0.01μF,50V
C39	QCYA1HK-103	CAPACITOR	0.01μF,50V
C40	QEK1CM-476	E CAPACITOR	47μF,16V
C45	QETA0JM-477	E CAPACITOR	470μF,6.3V
C50	QCTA1CH-101	CAPACITOR	100pF,16V
C52	QETA0JM-477	E CAPACITOR	470μF,6.3V
L1	PU48530-101K	COIL	100μH
L2	PU48530-101K	COIL	100μH
L3	PU48530-101K	COIL	100μH
L5	PU48530-101K	COIL	100μH
LC1	PU59885-102	N FILTER	
LC2	PU59885-102	N FILTER	
LC3	PU59885-102	N FILTER	
LC4	PU59885-102	N FILTER	

TERMINAL BOARD ASSEMBLY <06>

PWBA	PB10954C-01	TERM BOARD ASSY,S7000EH	
	PB10954A-01	TERM BOARD ASSY,S7000EG	
IC1	CXA1410M-XE	IC	
IC3	NJM2234D	IC	
IC5	MM1228XF	IC	
IC6	TC7W02F	IC	
Q1	DTC144WU	TRANSISTOR	
Q2	2SA1577(QR)	TRANSISTOR	
Q3	2SA1577(QR)	TRANSISTOR	
Q4	2SA1577(QR)	TRANSISTOR	
Q5	2SA1577(QR)	TRANSISTOR	
Q6	2SC4097(QR)	TRANSISTOR	
D5	DAN202U	DIODE	
D7	1N4148M	DIODE	
	or MA165	DIODE	
	or 1SS133	DIODE	
D8	1N4148M	DIODE	
	or 1SS133	DIODE	
	or MA165	DIODE	
R1	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R11	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R12	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R13	QRD161J-471	RESISTOR	470Ω,1/6W
R14	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R15	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R16	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R21	QRSA08J-750YN	RESISTOR	75Ω,1/10W
R22	QRSA08J-563YN	RESISTOR	56kΩ,1/10W
R23	QRSA08J-391YN	RESISTOR	390Ω,1/10W
R24	QRD123J-391SX	RESISTOR	390Ω,1/2W
R25	QRSA08J-103YN	RESISTOR	10kΩ,1/10W
R31	QRD161J-101	RESISTOR	100Ω,1/6W
R32	QRSA08J-822YN	RESISTOR	8.2kΩ,1/10W
R33	QRD123J-391SX	RESISTOR	390Ω,1/2W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
LC5	PU59885-102	N FILTER
LC6	PU59885-102	N FILTER
LC7	PU59885-102	N FILTER
LC8	PU59885-102	N FILTER
S1	PU58486-1-1	SLIDE SWITCH,AV1 OUT SEL
S2	PU58486-1-1	SLIDE SWITCH,AV2 SEL
JA1	PU59592	RGB21P SOCKET,AV1
JA2	PU59592	RGB21P SOCKET,AV2/DEC
JA3	PEMC0963	S JACK,S IN
JA4	PEMC0963	S JACK,S OUT
SCW1	SDSF3008Z	SCREW,X9 TERMINAL BOARD ASSY
TB1	PQ35456A	TERMINAL BOARD ASSEMBLY
CN1	PEMC0970-212	CONNECTOR,(1-12)MAIN VIDEO
CN2	PEMC0970-211	CONNECTOR,(1-11)MAIN VIDEO
CN3	PEMC0970-212	CONNECTOR,(1-12)MAIN AUDIO

A/C HEAD BOARD < 12 >

PWBA	PB40068A	A/CTL HEAD BOARD ASSEMBLY
CN1	PU60910-107	CONNECTOR,(1-7)MAIN

DEMOD BOARD ASSEMBLY(S7000EH) < 14 >

PWBA	PB10832F-01	DEMOD BOARD ASSEMBLY
IC1	CF70088A	IC
IC2	TDA1305T-XE	IC
IC3	LA7151	IC
IC4	UPC1391H	IC
IC5	TDA8415	IC
	or TDA8416	IC
Q1	IMX3	TRANSISTOR
Q3	2SC4081(RS)	TRANSISTOR
Q4	3SK181(5)	FE TRANSISTOR
Q5	2SC4081(RS)	TRANSISTOR
Q6	IMX3	TRANSISTOR
Q7	DTC144EU	TRANSISTOR
Q8	DTA114EU	TRANSISTOR
D1	DAN202U	DIODE
D2	DAN202U	DIODE
R1	QRSA08J-822YN	RESISTOR 8.2kΩ,1/10W
R2	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W
R3	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R4	QRSA08J-121YN	RESISTOR 120Ω,1/10W
R5	QRSA08J-221YN	RESISTOR 220Ω,1/10W
R6	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R10	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W
R11	QRSA08J-331YN	RESISTOR 330Ω,1/10W
R12	QRSA08J-102YN	RESISTOR 1kΩ,1/10W
R13	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R14	QRSA08J-224YN	RESISTOR 220kΩ,1/10W
R15	QRSA08J-104YN	RESISTOR 100kΩ,1/10W
R16	QRSA08J-122YN	RESISTOR 1.2kΩ,1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION
R17	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R18	QRSA08J-273YN	RESISTOR 27kΩ,1/10W
R19	QRSA08J-303YN	RESISTOR 30kΩ,1/10W
R20	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R21	QRSA08J-154YN	RESISTOR 150kΩ,1/10W
R22	QRSA08J-104YN	RESISTOR 100kΩ,1/10W
R23	QRSA08J-104YN	RESISTOR 100kΩ,1/10W
R26	QRSA08J-473YN	RESISTOR 47kΩ,1/10W
R27	QRSA08J-391YN	RESISTOR 390Ω,1/10W
R28	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R31	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W
R32	QRSA08J-682YN	RESISTOR 6.8kΩ,1/10W
R33	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R34	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R35	QRSA08J-912YN	RESISTOR 9.1kΩ,1/10W
R36	QRSA08J-912YN	RESISTOR 9.1kΩ,1/10W
R41	QRSA08J-0R0Y	RESISTOR 0Ω,1/10W
R42	QRSA08J-561YN	RESISTOR 560Ω,1/10W
R43	QRSA08J-271YN	RESISTOR 270Ω,1/10W
R44	QRSA08J-391YN	RESISTOR 390Ω,1/10W
R45	QVZ3521-103Z	V RESISTOR,SEPARATION
R47	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R48	QRSA08J-103YN	RESISTOR 10kΩ,1/10W
R49	QRSA08J-132YN	RESISTOR 1.3kΩ,1/10W
R50	QRSA08J-132YN	RESISTOR 1.3kΩ,1/10W
R51	QRSA08J-473YN	RESISTOR 47kΩ,1/10W
R52	QRSA08J-473YN	RESISTOR 47kΩ,1/10W
R53	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R54	QRSA08J-471YN	RESISTOR 470Ω,1/10W
R55	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R56	QRSA08J-152YN	RESISTOR 1.5kΩ,1/10W
R57	QRSA08J-391YN	RESISTOR 390Ω,1/10W
R61	QRSA08J-101YN	RESISTOR 100Ω,1/10W
R62	QRSA08J-101YN	RESISTOR 100Ω,1/10W
C1	QCYA1HK-103	CAPACITOR 0.01μF,50V
C2	QCYA1HK-103	CAPACITOR 0.01μF,50V
C5	QCYA1HK-103	CAPACITOR 0.01μF,50V
C6	QCYA1HK-103	CAPACITOR 0.01μF,50V
C7	QCYA1HK-103	CAPACITOR 0.01μF,50V
C8	QCYA1HK-103	CAPACITOR 0.01μF,50V
C9	QCYA1HK-103	CAPACITOR 0.01μF,50V
C10	QCYA1HK-103	CAPACITOR 0.01μF,50V
C11	QCYA1HK-103	CAPACITOR 0.01μF,50V
C12	QCYA1HK-103	CAPACITOR 0.01μF,50V
C16	QCYA1HK-103	CAPACITOR 0.01μF,50V
C17	QCYA1HK-103	CAPACITOR 0.01μF,50V
C18	QCYA1HK-103	CAPACITOR 0.01μF,50V
C19	QCYA1HK-103	CAPACITOR 0.01μF,50V
C20	QCTA1CH-330	CAPACITOR 33pF,16V
C21	QCSA1HJ-102	CAPACITOR 0.001μF,50V
C22	QCSA1HJ-471	CAPACITOR 470pF,50V
C23	QEKF1CM-106	E CAPACITOR 10μF,16V
C24	QCYA1HK-103	CAPACITOR 0.01μF,50V
C25	QCYA1HK-103	CAPACITOR 0.01μF,50V
C26	QEKF0JM-476	E CAPACITOR 47μF,6.3V
C27	QCYA1HK-103	CAPACITOR 0.01μF,50V
C28	QCYA1HK-103	CAPACITOR 0.01μF,50V
C29	QEK40JM-476	E CAPACITOR 47μF,6.3V
C30	QEKF1HM-225	E CAPACITOR 2.2μF,50V
C31	QCSA1HJ-102	CAPACITOR 0.001μF,50V
C32	QCSA1HJ-102	CAPACITOR 0.001μF,50V
C33	QCYA1HK-103	CAPACITOR 0.01μF,50V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
C34	QCYA1HK-103	CAPACITOR	D2	1SS132Y	DIODE
C35	QCYA1HK-103	CAPACITOR		or 1N4148M	DIODE
C36	QCYA1HK-103	CAPACITOR	D3	1SS132Y	DIODE
C37	QEKF0JM-476	E CAPACITOR		or 1N4148M	DIODE
C39	QFLA1HJ-823Z	F CAPACITOR	D4	1SS132Y	DIODE
C40	QFLA1HJ-823Z	F CAPACITOR		or 1N4148M	DIODE
C41	QEKF1CM-106	E CAPACITOR	D6	1SS132Y	DIODE
C42	QEKF1CM-106	E CAPACITOR		or 1N4148M	DIODE
C43	QEKF1CM-106	E CAPACITOR	D7	1SS132Y	DIODE,A DUB
C44	QEKF1CM-106	E CAPACITOR		or 1N4148M	DIODE
C45	QCYA1HK-103	CAPACITOR	D8	SLR-342MG3F	LE DIODE,16:9 REC
C51	QCYA1HK-103	CAPACITOR	D10	SLR-342DU3F	LE DIODE,RAE
C52	QCYA1HK-103	CAPACITOR	D11	RD4.7ES-T1B2	ZENER DIODE
C53	QCSA1HJ-220	CAPACITOR	D12	1SS132Y	DIODE
C54	QCYA1HK-103	CAPACITOR		or 1N4148M	DIODE
C55	QEKF1HM-225	E CAPACITOR	D13	PESC0974	LE DIODE,LIGHT OP
C56	QEKF1HM-225	E CAPACITOR	D22	SLR-342MG3F	LE DIODE,S-VHS
C57	QCYA1HK-103	CAPACITOR	D23	1SS132Y	DIODE,VIDEO DISP
C58	QCYA1HK-103	CAPACITOR		or 1N4148M	DIODE
C61	QEKF1CM-106	E CAPACITOR	D31	11ES2	DIODE
C62	QEKF1CM-106	E CAPACITOR	D32	1SS133	DIODE
C63	QEKF1CM-226	E CAPACITOR		or MA165	DIODE
C64	QEKF1CM-106	E CAPACITOR		or 1N4148M	DIODE
C71	QCSA1HJ-330	CAPACITOR	D33	1SS133	DIODE
C72	QCSA1HJ-330	CAPACITOR		or 1N4148M	DIODE
C73	QCSA1HJ-101	CAPACITOR		or MA165	DIODE
C74	QCSA1HJ-101	CAPACITOR	D34	1SS133	DIODE
C75	QCSA1HJ-101	CAPACITOR		or MA165	DIODE
C76	QCSA1HJ-101	CAPACITOR		or 1N4148M	DIODE
C77	QCSA1HJ-101	CAPACITOR	R1	QRD161J-333	RESISTOR
L2	PU59152-220J	COIL	R2	QRD161J-333	RESISTOR
CF2	PEVB0556-02	C TRAP	R3	QRD161J-333	RESISTOR
CF4	PU52775-2	CERAMIC FILTER	R4	QRD161J-333	RESISTOR
CF5	PEVB0481	C DISCRIMINATER	R5	QRD161J-472	RESISTOR
LC1	PU59736-102	N FILTER	R6	QRD161J-472	RESISTOR
LC2	PU59736-102	N FILTER	R7	QRD161J-102	RESISTOR
△ X1	PEVB0573	CRYSTAL RESONATOR	R8	QRD161J-563	RESISTOR
△ X2	PEVB0479	CRYSTAL RESONATOR	R9	QRD161J-103	RESISTOR
JP1	PEMC0778-109	PIN HEADER	R10	QRD161J-103	RESISTOR
JP2	PEMC0778-105	PIN HEADER	R11	QRD161J-331	RESISTOR
SLD1	PQ35058	SHIELD COVER,X2	R12	QRD161J-331	RESISTOR
SLD2	PQ35057	SHIELD FRAME	R13	QRD161J-333	RESISTOR,S7000EH
			R15	QRD161J-103	RESISTOR
			R16	QRD161J-472	RESISTOR
			R17	QRD161J-151	RESISTOR
			R19	QRD161J-103	RESISTOR
			R21	QRD161J-331	RESISTOR
			R22	QRD161J-331	RESISTOR
			R30	QRD161J-331	RESISTOR
			RA1	QRB045J-333F	RESISTOR ARRAY
			C1	QERF0JM-476	E CAPACITOR
			C2	QCFB1HZ-104	CAPACITOR
			C3	QERF1HM-106	E CAPACITOR
			C4	QCSB1HJ-330	CAPACITOR
			C5	QCSB1HJ-330	CAPACITOR
			C6	QERF0JM-227	E CAPACITOR
			C7	QCVB1CN-103	CAPACITOR
			C10	QCFB1HZ-473	CAPACITOR
			C11	QCFB1HZ-473	CAPACITOR
			C20	QCB1HJ-102	CAPACITOR
			L1	PU48530-101J	COIL
			S5	PESW0525-02Z	TACT SWITCH,PAUSE
					100μH

DISPLAY/SW BOARD ASSEMBLY <28>

PWBA1	PB10972C1	DISPLAY BOARD ASSY,S7000EH
	PB10972A1-02	DISPLAY BOARD ASSY,S7000EG
IC1	UPD16311GC(K)	IC
	or UPD16311GC(E)	IC
	or UPD16311GC(P)	IC
IC2	GP1U581X	IR DETECT UNIT
	or HC-377J	IR DETECT UNIT
Q1	DTA144ES	TRANSISTOR
Q2	DTA144ES	TRANSISTOR
D1	1SS132Y	DIODE
	or 1N4148M	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION
S6	PESW0525-02Z	TACT SWITCH,REC/OTR
S7	PESW0525-02Z	TACT SWITCH,PLAY
S8	PESW0525-02Z	TACT SWITCH,STOP/EJECT
S25	PESW0525-02Z	TACT SWITCH,INSERT
S27	PESW0525-02Z	TACT SWITCH,A DUB
FDP1	PEDP0106-03	FLUORESCENT DISPLAY PANEL
CL1	PU56729-2	WIRE CLAMP,J3
HD1	PQ34668	FDP HOLDER(L)
HD2	PQ34669	FDP HOLDER(R)
HD3	PQM30038-6	LED HOLDER,D8
HD4	PQM30038-6	LED HOLDER,D10
HD5	PQ46516	LED HOLDER,D13
HD6	PQM30038-6	LED HOLDER,D22
J1	PW30101-60AA442	PARALLEL WIRE
J2	PW30101-60AA443	PARALLEL WIRE
J3	PW30219-0661824	WIRE
CN1	PEMC1102-115	CONNECTOR,(1-15)MAIN
CN2	PEMC0889-015	CONNECTOR,(1-15)SW/JACK

REC SAFETY BOARD ASSEMBLY < 32 >

PWBA4	PB10972A4	REC SAFETY BOARD ASSEMBLY
S41	PESW0589	PUSH SWITCH,REC SAFETY

CASSETTE SW BOARD ASSEMBLY < 33 >

PWBA3	PB10972A3	CASSETTE SWITCH BOARD ASSEMBL
S42	PU61320	PUSH SWITCH,CASS
S43	PU61320	PUSH SWITCH,S CASS

SWITCH/JACK BOARD ASSEMBLY < 36 >

PWBA2	PB10972C2	SWITCH JACK BOARD ASSY,S7000EH
	PB10972A2-02	SWITCH JACK BOARD ASSY,S7000EG
Q3	DTA144ES	TRANSISTOR
Q4	DTA144ES	TRANSISTOR
D14	PESC0974	LE DIODE,LIGIT OP
D15	SLR-342MC3F	LE DIODE,D CONTRAST
D16	SLR-342DC3F	LE DIODE,REVIEW
D17	SLR-342VC3F	LE DIODE,OPERATE
D20	1N4148M	DIODE
	or 1SS132Y	DIODE
D21	1N4148M	DIODE
	or 1SS132Y	DIODE
D101	1N4148M	DIODE
	or MA165	DIODE
	or 1SS133	DIODE

#△ REF No.	PART No.	PART NAME, DESCRIPTION
D102	1N4148M	DIODE
	or 1SS133	DIODE
	or MA165	DIODE
R14	QRD161J-331	RESISTOR 330Ω,1/6W
R18	QRD161J-331	RESISTOR 330Ω,1/6W
R20	QRD161J-331	RESISTOR 330Ω,1/6W
R23	QRD161J-331	RESISTOR 330Ω,1/6W
R24	QRD161J-331	RESISTOR 330Ω,1/6W
R101	QRD161J-750	RESISTOR 75Ω,1/6W
S1	PESW0575	SLIDE SWITCH,16:9 REC
S2	PESW0574	SLIDE SWITCH,IMAGE CTL
S3	PESW0525-02Z	TACT SWITCH,OPERATE
S4	PESW0525-02Z	TACT SWITCH,TIMER
S12	PESW0525-02Z	TACT SWITCH,DIMMER
S15	PESW0525-02Z	TACT SWITCH,STORE
S16	PESW0525-02Z	TACT SWITCH,CH SEARCH
S17	PESW0525-02Z	TACT SWITCH,D CONTRAST
S18	PESW0525-02Z	TACT SWITCH,AV/S SEL
S19	PESW0525-02Z	TACT SWITCH,S-VHS
S20	PESW0525-02Z	TACT SWITCH,P/M
S21	PESW0525-02Z	TACT SWITCH,S FINDER
S23	PESW0525-02Z	TACT SWITCH,H/N/M
S24	PESW0525-02Z	TACT SWITCH,REVIEW
HD1	PQ46516	LED HOLDER,D14
HD2	PQM30038-2-2	LED HOLDER,D15
HD3	PQM30038-2-2	LED HOLDER,D16
HD4	PQM30038-6	LED HOLDER,D17
JA101	PEMC1076	PIN JACK(SW),VIDEO IN
JA102	PEMC1076	PIN JACK(SW),AUDIO IN L
JA103	PEMC1076	PIN JACK(SW),AUDIO IN R
CN3	PEMC0825-015	CONNECTOR,(1-15)DISPLAY
CN4	PEMC1102-110	CONNECTOR,(1-10)MAIN

PRE/REC BOARD ASSEMBLY < 43 >

PWBA	PB10965E-01	PRE/REC BOARD ASSEMBLY
IC1	JCP0047-WE	IC
IC201	AN3380NK	IC
Q1	2SC4081(QRS)	TRANSISTOR
Q2	2SA1576(QR)	TRANSISTOR
Q3	2SC4081(QRS)	TRANSISTOR
Q4	2SC4081(QRS)	TRANSISTOR
Q5	2SA1576(QR)	TRANSISTOR
Q6	2SA1576(QR)	TRANSISTOR
Q7	2SC4081(QRS)	TRANSISTOR
Q8	2SC4081(QRS)	TRANSISTOR
Q9	2SC4081(QRS)	TRANSISTOR
Q10	DTA144EU	TRANSISTOR
Q11	DTC144WU	TRANSISTOR
Q18	DTC143EU	TRANSISTOR
Q19	2SC4081(QRS)	TRANSISTOR
Q20	2SA1576(QR)	TRANSISTOR
Q21	2SC4081(QRS)	TRANSISTOR
Q101	2SC4081(QRS)	TRANSISTOR
Q102	2SC4081(QRS)	TRANSISTOR
Q103	2SC4081(QRS)	TRANSISTOR
Q104	DTA144EU	TRANSISTOR

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
Q105	2SC4081(QRS)	TRANSISTOR	
Q106	DTA124EU	TRANSISTOR	
Q108	DTC144WU	TRANSISTOR	
Q109	DTC124EU	TRANSISTOR	
Q110	2SA1576(QR)	TRANSISTOR	
Q111	2SC4081(QRS)	TRANSISTOR	
Q112	2SA1576(QR)	TRANSISTOR	
Q113	2SC4081(QRS)	TRANSISTOR	
Q114	2SA1576(QR)	TRANSISTOR	
Q115	2SC4081(QRS)	TRANSISTOR	
Q116	2SC4081(QRS)	TRANSISTOR	
Q119	2SC4081(QRS)	TRANSISTOR	
Q201	DTC124TU	TRANSISTOR	
Q202	DTC124TU	TRANSISTOR	
Q203	DTC124EU	TRANSISTOR	
Q205	DTA114EU	TRANSISTOR	
Q206	DTC114WU	TRANSISTOR	
Q207	DTC124EU	TRANSISTOR	
Q210	DTC144WU	TRANSISTOR	
Q211	DTA114EU	TRANSISTOR	
Q301	2SA933S(Q)	TRANSISTOR	
Q302	2SA933S(Q)	TRANSISTOR	
Q303	DTC124EU	TRANSISTOR	
Q304	2SA933S(Q)	TRANSISTOR	
D2	1SS355	DIODE	
D7	1SS355	DIODE	
D101	DAN202U	DIODE	
	or MA141WK	DIODE	
D102	1SS355	DIODE	
D103	DAN202U	DIODE	
	or MA141WK	DIODE	
D203	1SS355	DIODE	
D204	1SS355	DIODE	
R3	QRSA08J-271YN	RESISTOR	270Ω, 1/10W
R4	QRSA08J-430YN	RESISTOR	43Ω, 1/10W
R5	QRSA08J-300YN	RESISTOR	30Ω, 1/10W
R6	QRSA08J-271YN	RESISTOR	270Ω, 1/10W
R7	QRSA08J-330YN	RESISTOR	33Ω, 1/10W
R8	QRSA08J-300YN	RESISTOR	30Ω, 1/10W
R9	QRSA08J-392YN	RESISTOR	3.9kΩ, 1/10W
R10	QRSA08J-122YN	RESISTOR	1.2kΩ, 1/10W
R11	QRSA08J-392YN	RESISTOR	3.9kΩ, 1/10W
R12	NVP1311-153N	V RESISTOR, REC FM LEVEL	
R13	QRSA08J-273YN	RESISTOR	27kΩ, 1/10W
R14	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R15	QRSA08J-301YN	RESISTOR	300Ω, 1/10W
R16	QRSA08J-151YN	RESISTOR	150Ω, 1/10W
R17	QRSA08J-152YN	RESISTOR	1.5kΩ, 1/10W
R18	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R19	NRVA62D-203N	RESISTOR	20kΩ, 1/16W
R20	QRSA08J-122YN	RESISTOR	1.2kΩ, 1/10W
R21	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R22	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R23	QRSA08J-104YN	RESISTOR	100kΩ, 1/10W
R24	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R25	QRSA08J-512YN	RESISTOR	5.1kΩ, 1/10W
R26	QRSA08J-272YN	RESISTOR	2.7kΩ, 1/10W
R27	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R28	QRSA08J-822YN	RESISTOR	8.2kΩ, 1/10W
R30	QRSA08J-681YN	RESISTOR	680Ω, 1/10W
R31	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R32	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
R33	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R34	QRSA08J-301YN	RESISTOR	300Ω, 1/10W
R35	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R36	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R37	QRSA08J-101YN	RESISTOR	100Ω, 1/10W
R38	QRSA08J-472YN	RESISTOR	4.7kΩ, 1/10W
R39	QRSA08J-162YN	RESISTOR	1.6kΩ, 1/10W
R40	QRSA08J-152YN	RESISTOR	1.5kΩ, 1/10W
R41	QRSA08J-272YN	RESISTOR	2.7kΩ, 1/10W
R42	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R43	QRSA08J-122YN	RESISTOR	1.2kΩ, 1/10W
R44	QRSA08J-101YN	RESISTOR	100Ω, 1/10W
R48	QRSA08J-681YN	RESISTOR	680Ω, 1/10W
R101	QRSA08J-152YN	RESISTOR	1.5kΩ, 1/10W
R102	QRSA08J-471YN	RESISTOR	470Ω, 1/10W
R103	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
R104	QRSA08J-392YN	RESISTOR	3.9kΩ, 1/10W
R105	QRSA08J-183YN	RESISTOR	18kΩ, 1/10W
R106	QRSA08J-392YN	RESISTOR	3.9kΩ, 1/10W
R107	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R108	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R109	QRSA08J-122YN	RESISTOR	1.2kΩ, 1/10W
R110	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R111	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R112	QRSA08J-821YN	RESISTOR	820Ω, 1/10W
R113	QVPA603-222Z	V RESISTOR, S-SP VIDEO EQ	
R114	QVPA603-222Z	V RESISTOR, S-EP VIDEO EQ	
R115	QRSA08J-331YN	RESISTOR	330Ω, 1/10W
R116	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R117	QRSA08J-752YN	RESISTOR	7.5kΩ, 1/10W
R118	QRSA08J-333YN	RESISTOR	33kΩ, 1/10W
R119	QRSA08J-562YN	RESISTOR	5.6kΩ, 1/10W
R120	QRSA08J-473YN	RESISTOR	47kΩ, 1/10W
R121	QRSA08J-561YN	RESISTOR	560Ω, 1/10W
R122	QRSA08J-821YN	RESISTOR	820Ω, 1/10W
R123	QRSA08J-821YN	RESISTOR	820Ω, 1/10W
R124	QRSA08J-822YN	RESISTOR	8.2kΩ, 1/10W
R125	QRSA08J-333YN	RESISTOR	33kΩ, 1/10W
R126	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R127	QRSA08J-471YN	RESISTOR	470Ω, 1/10W
R128	QRSA08J-471YN	RESISTOR	470Ω, 1/10W
R129	QRSA08J-511YN	RESISTOR	510Ω, 1/10W
R130	QRSA08J-103YN	RESISTOR	10kΩ, 1/10W
R131	QRSA08J-332YN	RESISTOR	3.3kΩ, 1/10W
R132	QRSA08J-273YN	RESISTOR	27kΩ, 1/10W
R133	QRSA08J-392YN	RESISTOR	3.9kΩ, 1/10W
R134	QRSA08J-561YN	RESISTOR	560Ω, 1/10W
R135	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R136	QRSA08J-561YN	RESISTOR	560Ω, 1/10W
R137	QRSA08J-331YN	RESISTOR	330Ω, 1/10W
R138	QRSA08J-222YN	RESISTOR	2.2kΩ, 1/10W
R139	QRSA08J-561YN	RESISTOR	560Ω, 1/10W
R140	QRSA08J-302YN	RESISTOR	3kΩ, 1/10W
R141	QRSA08J-562YN	RESISTOR	5.6kΩ, 1/10W
R142	QRSA08J-392YN	RESISTOR	3.9kΩ, 1/10W
R149	QRSA08J-151YN	RESISTOR	150Ω, 1/10W
R150	QRSA08J-182YN	RESISTOR	1.8kΩ, 1/10W
R151	QRSA08J-102YN	RESISTOR	1kΩ, 1/10W
R201	QRSA08J-223YN	RESISTOR	22kΩ, 1/10W
R202	QRSA08J-101YN	RESISTOR	100Ω, 1/10W
R203	QRSA08J-101YN	RESISTOR	100Ω, 1/10W
R204	QRSA08J-274YN	RESISTOR	270kΩ, 1/10W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R205	QRSA08J-102YN	RESISTOR 1kΩ,1/10W	C68	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R209	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W	C69	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R214	QRSA08J-560YN	RESISTOR 56Ω,1/10W	C70	QCTA1CH-151	CAPACITOR 150pF,16V
R215	QRSA08J-560YN	RESISTOR 56Ω,1/10W	C74	QCYA1EK-104	CAPACITOR 0.1μF,25V
R216	QVPA603-331Z	V RESISTOR,AUDIO REC FM LEVEL	C101	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R217	QRSA08J-153YN	RESISTOR 15kΩ,1/10W	C102	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R218	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W	C103	QCTA1CH-101	CAPACITOR 100pF,16V
R219	QRSA08J-222YN	RESISTOR 2.2kΩ,1/10W	C104	QCTA1CH-101	CAPACITOR 100pF,16V
R220	QRSA08J-332YN	RESISTOR 3.3kΩ,1/10W	C105	QCTA1CH-270	CAPACITOR 27pF,16V
R301	QRSA08J-221YN	RESISTOR 220Ω,1/10W	C106	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R302	QRSA08J-471YN	RESISTOR 470Ω,1/10W	C107	QCTA1CH-680	CAPACITOR 68pF,16V
R303	QRSA08J-471YN	RESISTOR 470Ω,1/10W	C108	QCTA1CH-390	CAPACITOR 39pF,16V
R304	QRSA08J-473YN	RESISTOR 47kΩ,1/10W	C109	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R305	QRSA08J-683YN	RESISTOR 68kΩ,1/10W	C110	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R306	QRSA08J-393YN	RESISTOR 39kΩ,1/10W	C111	QCTA1CH-470	CAPACITOR 47pF,16V
R307	QRSA08J-472YN	RESISTOR 4.7kΩ,1/10W	C112	QCFA1HZ-103	CAPACITOR 0.01μF,50V
R308	QRSA08J-473YN	RESISTOR 47kΩ,1/10W	C113	QCTA1CH-470	CAPACITOR 47pF,16V
C1	QCYA1EK-104	CAPACITOR 0.1μF,25V	C115	QCTA1CH-390	CAPACITOR 39pF,16V
C2	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C116	QCTA1CH-180	CAPACITOR 18pF,16V
C3	QEK60JM-107	E CAPACITOR 100μF,6.3V	C117	QCTA1CH-100	CAPACITOR 10pF,16V
C4	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C118	QCFA1HZ-103	CAPACITOR 0.01μF,50V
C5	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C119	QCTA1CH-220	CAPACITOR 22pF,16V
C12	QCTA1CH-100	CAPACITOR 10pF,16V	C120	QCTA1CH-150	CAPACITOR 15pF,16V
C13	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C122	QCTA1CH-270	CAPACITOR 27pF,16V
C14	QCYA1EK-473	CAPACITOR 0.047μF,25V	C123	QCTA1CH-680	CAPACITOR 68pF,16V
C15	QCYA1EK-223	CAPACITOR 0.022μF,25V	C124	QCTA1CH-150	CAPACITOR 15pF,16V
C18	QCYA1EK-223	CAPACITOR 0.022μF,25V	C125	QCSA1HJ-820	CAPACITOR 82pF,50V
C19	QCYA1EK-473	CAPACITOR 0.047μF,25V	C126	QCTA1CH-100	CAPACITOR 10pF,16V
C20	QCTA1CH-100	CAPACITOR 10pF,16V	C127	QCFA1HZ-103	CAPACITOR 0.01μF,50V
C21	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C128	QEK61CM-476	E CAPACITOR 47μF,16V
C22	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C129	QCFA1HZ-103	CAPACITOR 0.01μF,50V
C23	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C132	QCYA1HK-102	CAPACITOR 0.001μF,50V
C26	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C201	QCFA1EZ-104	CAPACITOR 0.1μF,25V
C27	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C202	QCTA1CH-391	CAPACITOR 390pF,16V
C28	QEK60JM-476	E CAPACITOR 47μF,6.3V	C203	QCTA1CH-561	CAPACITOR 560pF,16V
C29	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C204	QCTA1CH-102	CAPACITOR 0.001μF,16V
C30	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C205	QCTA1CH-561	CAPACITOR 560pF,16V
C31	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C206	QCTA1CH-102	CAPACITOR 0.001μF,16V
C32	QCYA1HJ-222	CAPACITOR 0.0022μF,50V	C207	QCFA1CZ-224	CAPACITOR 0.22μF,16V
C33	QCYA1HJ-222	CAPACITOR 0.0022μF,50V	C208	QCTA1CH-391	CAPACITOR 390pF,16V
C34	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C209	QEK60JM-107	E CAPACITOR 100μF,6.3V
C35	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C210	QCYA1HK-103	CAPACITOR 0.01μF,50V
C36	QCFA1CZ-105	CAPACITOR 1μF,16V	C211	QCYA1HK-103	CAPACITOR 0.01μF,50V
C37	QCTA1CH-391	CAPACITOR 390pF,16V	C213	QCTA1CH-331	CAPACITOR 330pF,16V
C38	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C214	QCTA1CH-330	CAPACITOR 33pF,16V
C39	QCTA1CH-151	CAPACITOR 150pF,16V	C216	QCYA1HK-103	CAPACITOR 0.01μF,50V
C40	QCFA1CZ-474	CAPACITOR 0.47μF,16V	C218	QCTA1CH-102	CAPACITOR 0.001μF,16V
C41	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C219	QCYA1HK-103	CAPACITOR 0.01μF,50V
C42	QEKF0JM-476	E CAPACITOR 47μF,6.3V	C220	QEK61AM-476	E CAPACITOR 47μF,10V
C43	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C221	QCYA1HK-103	CAPACITOR 0.01μF,50V
C44	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C224	QCFA1CZ-224	CAPACITOR 0.22μF,16V
C45	QEKF1CM-476	E CAPACITOR 47μF,16V	C225	QCYA1HK-103	CAPACITOR 0.01μF,50V
C46	QCTA1CH-331	CAPACITOR 330pF,16V	C226	QCTA1CH-101	CAPACITOR 100pF,16V
C47	QCTA1CH-101	CAPACITOR 100pF,16V	C301	QCYA1EK-223	CAPACITOR 0.022μF,25V
C48	QCFA1HZ-103	CAPACITOR 0.01μF,50V	C302	QCTA1CH-121	CAPACITOR 120pF,16V
C49	QCTA1CH-121	CAPACITOR 120pF,16V	C303	QCTA1CH-220	CAPACITOR 22pF,16V
C50	QCTA1CH-151	CAPACITOR 150pF,16V	C305	QCTA1CH-102	CAPACITOR 0.001μF,16V
C52	QCFA1EZ-104	CAPACITOR 0.1μF,25V	C306	QCTA1CH-220	CAPACITOR 22pF,16V
C53	QCTA1CH-121	CAPACITOR 120pF,16V	C307	QEKF1CM-106	E CAPACITOR 10μF,16V
C54	QCTA1CH-121	CAPACITOR 120pF,16V	C308	QCYA1HK-103	CAPACITOR 0.01μF,50V
C55	QCTA1CH-331	CAPACITOR 330pF,16V	L1	PELN0975-101JZ	COIL 100μH
C60	QCTA1CH-361	CAPACITOR 360pF,16V	L2	PELN0975-101JZ	COIL 100μH

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
L3	PU59988-151JY	COIL	150μH
L4	PU59988-221J	COIL	220μH
L5	PELN0975-101JZ	COIL	100μH
L7	PU59988-180J	COIL	18μH
L8	PU59988-330J	COIL	33μH
L9	PU59988-330J	COIL	33μH
L10	PU59988-181J	COIL	180μH
L12	PELN0975-101JZ	COIL	100μH
L101	PU59988-560J	COIL	56μH
L102	PU59988-120J	COIL	12μH
L103	PU59988-330J	COIL	33μH
L104	PU59988-330J	COIL	33μH
L105	PU59988-220JY	COIL	22μH
L106	PU59988-180J	COIL	18μH
L107	PU59988-390J	COIL	39μH
L108	PU59988-121JY	COIL	120μH
L109	PU59988-100J	COIL	10μH
L112	PELN0975-101JZ	COIL	100μH
L201	PELN0975-101JZ	COIL	100μH
L202	PELN0530-221JZ	COIL	220μH
L301	PU59988-150J	COIL	15μH
L302	PELN0975-101JZ	COIL	100μH
SLD1	PQ21805	SHIELD FLAME	
CN1	PU59973-11	CONNECTOR,(1-11)UPPER DRUM	
CN2	PEMC1056-114	CONNECTOR,(1-14)MAIN AUDIO	
CN3	PEMC1056-114	CONNECTOR,(1-14)MAIN VIDEO	

DIGITAL SUB BOARD ASSEMBLY < 49 >

PWBA5	PB10972C5	DIGITAL SUB BOARD ASSY,S7000EH	
	PB10972A5-01	DIGITAL SUB BOARD ASSY,S7000EG	
CN101	PEMC0723-010	CONNECTOR,(2-11)MAIN,S7000EG	
	PEMC0723-012	CONNECTOR,(1-12)MAIN,S7000EH	
CN102	PEMC0723-010	CONNECTOR,(4-13)MAIN,S7000EG	
	PEMC0723-014	CONNECTOR,(1-14)MAIN,S7000EH	
CN104	PEMC1079-006	CONNECTOR,(1-6)PDC S7000EH	

PDC BOARD ASSEMBLY(S7000EH) < 70 >

PWBA6	PB10940C6	PDC BOARD ASSEMBLY	
IC701	MV1820E	IC	
	or MV1820F	IC	
R702	QRD161J-472	RESISTOR	4.7kΩ,1/6W
R703	QRD161J-221	RESISTOR	220Ω,1/6W
R704	QRD161J-221	RESISTOR	220Ω,1/6W
C701	QCT30CH-160	CAPACITOR	16pF
C702	QCT30CH-160	CAPACITOR	16pF
C703	QCC11CJ-104	CAPACITOR	0.1μF,16V
C704	QCVB1CN-103	CAPACITOR	0.01μF,16V
C705	QCVB1CN-103	CAPACITOR	0.01μF,16V
C706	QCVB1CN-103	CAPACITOR	0.01μF,16V
C707	QCC11CJ-473	CAPACITOR	0.047μF,16V

#△ REF No.	PART No.	PART NAME, DESCRIPTION	
C708	QCVB1CN-103	CAPACITOR	0.01μF,16V
C709	QEKJ1CM-476	E CAPACITOR	47μF,16V
L701	PU48530-100J	COIL	10μH
LC701	PU60950-101GZ	N FILTER	
LC702	PU59736-103	N FILTER	
LC703	PU60950-101GZ	N FILTER	
LC705	PU60950-101GZ	N FILTER	
△ X701	PEVB0480	CRYSTAL RESONATOR	
SLD1	PU61069-1-2	SHIELD CASE	
SLD2	PU61070	SHIELD COVER	
SLD3	PU61071	SHIELD PLATE	
CN701	PEMC1080-106	CONNECTOR,(1-6)DIGITAL SUB	

Y/C SEPA BOARD ASSEMBLY < 89 >

PWBA	PB20669D	Y/C SEPA BOARD ASSEMBLY	
IC1	NJM2240M	IC	
IC2	JCP0042	IC	
Q1	2SC4081(QRS)	TRANSISTOR	
Q2	2SA1576(QRS)	TRANSISTOR	
Q3	2SC4081(QRS)	TRANSISTOR	
Q4	2SA1576(QRS)	TRANSISTOR	
Q5	2SC4081(QRS)	TRANSISTOR	
Q6	2SA1576(QRS)	TRANSISTOR	
Q7	2SC4081(QRS)	TRANSISTOR	
Q8	2SC4081(QRS)	TRANSISTOR	
Q9	2SC4081(QRS)	TRANSISTOR	
Q10	2SC3932(ST)	TRANSISTOR	
Q11	2SC4081(QRS)	TRANSISTOR	
Q12	2SC4081(QRS)	TRANSISTOR	
Q13	2SC4081(QRS)	TRANSISTOR	
Q14	2SC3932(ST)	TRANSISTOR	
Q15	2SA1576(QRS)	TRANSISTOR	
D1	DAP202U	DIODE	
R1	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R2	NRSA63J-471N	RESISTOR	470Ω,1/16W
R3	NRSA63J-361N	RESISTOR	360Ω,1/16W
R4	NRSA63G-332N	RESISTOR	3.3kΩ,1/16W
R5	NRSA63J-271N	RESISTOR	270Ω,1/16W
R6	NRSA63J-271N	RESISTOR	270Ω,1/16W
R7	NRSA63J-271N	RESISTOR	270Ω,1/16W
R8	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R9	NRSA63J-473N	RESISTOR	47kΩ,1/16W
R10	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R11	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R12	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R13	NRSA63J-182N	RESISTOR	1.8kΩ,1/16W
R14	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R15	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R16	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R17	NRSA63J-681N	RESISTOR	680Ω,1/16W
R18	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R19	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R21	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W
R22	NRSA63J-681N	RESISTOR	680Ω,1/16W
R23	NRSA63J-102N	RESISTOR	1kΩ,1/16W
R24	NRSA63J-222N	RESISTOR	2.2kΩ,1/16W

#△ REF No.	PART No.	PART NAME, DESCRIPTION	#△ REF No.	PART No.	PART NAME, DESCRIPTION
R25	NRSA63J-132N	RESISTOR	C32	QEK60JM-476	E CAPACITOR
R26	NRSA63J-472N	RESISTOR	C33	NCB31HK-103A	CAPACITOR
R27	NRSA63J-102N	RESISTOR	C34	NCB31HK-103A	CAPACITOR
R28	NRSA63J-361N	RESISTOR	C35	QEK60JM-476	E CAPACITOR
R29	NRSA63J-102N	RESISTOR	C36	NCB31HK-103A	CAPACITOR
R30	NRSA63J-223N	RESISTOR	C37	QEK61CM-106	E CAPACITOR
R31	NRSA63J-223N	RESISTOR	C38	QEK60JM-476	E CAPACITOR
R32	NRSA63J-102N	RESISTOR	C39	NCB31HK-103A	CAPACITOR
R33	NRSA63J-222N	RESISTOR	C40	NCB31HK-103A	CAPACITOR
R34	NRSA63J-222N	RESISTOR	C41	NCB31HK-103A	CAPACITOR
R35	NRSA63J-472N	RESISTOR	C42	NCB31HK-103A	CAPACITOR
R36	NRSA63J-102N	RESISTOR	C43	NCF31EZ-104A	CAPACITOR
R37	NRSA63J-361N	RESISTOR	C44	NCF31EZ-104A	CAPACITOR
R38	NRSA63J-102N	RESISTOR	C45	NCF31EZ-104A	CAPACITOR
R39	NRSA63J-0R0N	RESISTOR	C46	NCF31EZ-104A	CAPACITOR
R40	NRSA63J-102N	RESISTOR	C47	NCB31HK-103A	CAPACITOR
R41	NRSA63J-222N	RESISTOR	C48	NCF31EZ-104A	CAPACITOR
R42	NRSA63J-331N	RESISTOR	C56	NCF31EZ-104A	CAPACITOR
R43	NRSA63J-102N	RESISTOR	C64	NCF31EZ-104A	CAPACITOR
R44	NRSA63J-102N	RESISTOR	C66	NCS31HJ-470A	CAPACITOR
R45	NRSA63J-102N	RESISTOR	C67	NCS31HJ-470A	CAPACITOR
R46	NRSA63J-102N	RESISTOR	C68	NCS31HJ-470A	CAPACITOR
R47	NRSA63J-102N	RESISTOR	C69	NCS31HJ-470A	CAPACITOR
R48	NRSA63J-102N	RESISTOR	C70	NCS31HJ-470A	CAPACITOR
R49	NRSA63J-102N	RESISTOR	C71	NCS31HJ-470A	CAPACITOR
R50	NRSA63J-102N	RESISTOR	C72	NCS31HJ-470A	CAPACITOR
R51	NRSA63J-102N	RESISTOR	C73	NCS31HJ-470A	CAPACITOR
R54	NRSA63J-103N	RESISTOR	C74	NCS31HJ-470A	CAPACITOR
R63	NRSA63J-222N	RESISTOR	C75	NCS31HJ-470A	CAPACITOR
R66	NRSA63J-103N	RESISTOR	C76	NCS31HJ-470A	CAPACITOR
R67	NRSA63J-153N	RESISTOR	C77	NCS31HJ-470A	CAPACITOR
R68	NVP1311-223N	V RESISTOR,DIGITAL I/O LEVEL	C78	NCS31HJ-470A	CAPACITOR
C1	NCS31HJ-8R0A	CAPACITOR	C79	NCS31HJ-470A	CAPACITOR
C2	NCB31HK-103A	CAPACITOR	C82	NCB31HK-103A	CAPACITOR
C3	QEK60JM-107	E CAPACITOR	C83	QEK60JM-476	E CAPACITOR
C4	NCB31HK-103A	CAPACITOR	C84	NCF31EZ-104A	CAPACITOR
C5	QEK61EM-475	E CAPACITOR	C89	QEK61CM-106	E CAPACITOR
C6	NCB31HK-102A	CAPACITOR	C91	QEK61HM-474	E CAPACITOR
C7	NCB31HK-103A	CAPACITOR	C92	QEK61HM-474	E CAPACITOR
C8	NCT06CH-5R0A	CAPACITOR	L1	PU48530-100J	COIL
C9	NCB31HK-103A	CAPACITOR	L2	PU48530-101K	COIL
C10	NCB31HK-103A	CAPACITOR	L3	PU59153-101K	COIL
C11	NCF31EZ-104A	CAPACITOR	L4	PU59153-101K	COIL
C12	QEK60JM-337	E CAPACITOR	L5	PU48530-101K	COIL
C13	NCF31EZ-104A	CAPACITOR	L6	PU48530-101K	COIL
C14	QEK60JM-107	E CAPACITOR	L7	PU48530-101K	COIL
C15	NCF31EZ-104A	CAPACITOR	L8	PU59153-101K	COIL
C16	QEK60JM-107	E CAPACITOR	L9	PU48530-101K	COIL
C17	NCF31EZ-104A	CAPACITOR	L10	PU48530-101K	COIL
C18	QEK60JM-107	E CAPACITOR	LPF1	PELN0922-S	LOW PASS FILTER
C19	NCF31EZ-104A	CAPACITOR	LPF2	PELN0922-S	LOW PASS FILTER
C20	QEK60JM-107	E CAPACITOR	LPF3	PELN0922-S	LOW PASS FILTER
C21	NCF31EZ-104A	CAPACITOR	LPF4	PELN0922-S	LOW PASS FILTER
C22	QEK60JM-337	E CAPACITOR	LPF5	PELN0922-S	LOW PASS FILTER
C24	QEK60JM-476	E CAPACITOR	LC1	PU59736-102	N FILTER
C25	NCB31HK-103A	CAPACITOR	LC2	PU59736-331	N FILTER
C26	QEK61HM-105	E CAPACITOR	SLD1	PQ34851-1-1	SHIELD FRAME
C27	NCB31HK-103A	CAPACITOR	SLD2	PQ34852-1-2	SHIELD COVER
C28	NCF31EZ-104A	CAPACITOR	CN1	PEMC0712-112	PIN HEADER
C29	NCF31EZ-104A	CAPACITOR	CN2	PEMC0712-110	PIN HEADER
C30	NCF31EZ-104A	CAPACITOR			
C31	NCF31EZ-104A	CAPACITOR			

SECTION 6 TECHNICAL INFORMATION

6.1 SYSCON CIRCUIT

6.1.1 Syscon CPU pin function(IC601) 1/2

PIN NO.	LABEL	IN/OUT	NOTE
1	A. LVL. R	IN	AUDIO INDICATOR LEVEL INPUT (Rch)
2	A. LVL. L	IN	AUDIO INDICATOR LEVEL INPUT (Lch)
3	IF AGC	IN	IF AGC DETECT
4	AVRG FM	IN	AUTO TRACKING DATA (AVRG VOLTAGE OF PB LEVEL INPUT)
5	AVSS	-	GND
6	TEST	-	GND
7	X2	-	TIMER CLOCK (32.768KHz)
8	X1	-	TIMER CLOCK (32.768KHz)
9	VSS	-	GND
10	OSC1	IN	SYSTEM CLOCK (10MHz)
11	OSC2	OUT	SYSTEM CLOCK (10MHz)
12	RESET	IN	RESET AT CONNECT VCR TO AC
13	(NMI)	-	NC
14	STTS	IN	LEADER TAPE DETECT (DETECT ON:L)
15	SHUTTLE	IN	SHUTTLE SWITCH
16	JSA	IN	JOG DIAL PULSE INPUT (A)
17	JSB	IN	JOG DIAL PULSE INPUT (A)
18	END. S	IN	TRAILER TAPE DETECT (DETECT ON:L)
19	SYNC DET	IN	SYNC DETECT (NO SYNC:H)
20	LOCK DET	IN	TUNING LOCK CHECK
21	R. PAUSE	IN	REMOTE PAUSE CONTROL (PAUSE ON:L)
22	TU FG	IN	TAKE-UP REEL ROTATION DET/TAPE REMAIN
23	SUP FG	IN	SUPPLY REEL ROTATION DET/TAPE REMAIN
24	FLY E.	OUT	FLYING ERASE HEAD CONTROL (FE ON:H)
25	M. CE	OUT	MEMORY IC CHIP ENABLE
26	S. V. RESET	OUT	VIDEO CPU RESET
27	S. V. CS	OUT	VIDEO CPU CHIP ENABLE
28	M DATA	OUT	MEMORY IC DATA
29	PLL CE	IN	TUNING IC CHIP ENABLE
30	MODE1	-	NC
31	EXP DATA	OUT	EXPANDER IC DATA OUTPUT
32	H SEL	OUT	HEAD SELECT CONTROL (SP:L/LP:M/EP:H)
33	REC ST (H)	OUT	REC START:H
34	A/M/S	OUT	PRE/REC CIRCUIT CONTROL (AUTO:M/MANUAL:H/S&S:L)
35	V. REC (H)	OUT	VIDEO REC MODE:H
36	I2C SCL	OUT	NICAM DATA TRANSFER CLOCK
37	I2C SDA	OUT	NICAM CONTROL DATA OUTPUT
38	I. EXP CLK	OUT	EXPANDER IC (IC609) TRANSFER CLOCK
39	I. EXP DATA	OUT	EXPANDER IC (IC609) SERIAL DATA
40	RAE	OUT	REMOTE PAUSE CONTROL OUTPUT

Table 6-1-1 SYSCON CPU pin function (1/2)

6.1.2 Syscon CPU pin function(IC601) 2/2

PIN NO.	LABEL	IN/OUT	NOTE
41	SP (L)	OUT	SP MODE:L
42	MODE2	-	NC
43	D. MUTE	OUT	DEMODULATOR AUDIO MUTE CONTROL (MUTE ON:H)
44	EE	OUT	EE MODE:L
45	VPCTL	OUT	V. PULSE ADDITION TIMING CONTROL
46	EXP DATA 2	OUT	EXPANDER IC(IC608) DATA OUTPUT
47	COM CLOCK	OUT	MEMORY IC DATA TRANSFER CLOCK
48	H REC ST	OUT	HiFi AUDIO REC START:L
49	-	-	GND
50	RC IN	IN	REMOTE CONTROL DATA INPUT
51	A. MUTE	OUT	AUDIO MUTE CONTROL (MUTE ON:H)
52	CTL C/D	IN	CTL PULSE INPUT (MODE DETECT/BLANK PORTION DET)
53	P. MUTE	OUT	PICTURE MUTE CONTROL (MUTE:L)
54	-	-	GND
55	CAP REV	OUT	CAPSTAN MOTOR CONTROL (FWD:H/REV:L)
56	DUTY I/O	IN/OUT	IN/OUT INDEX DATA CONTROL
57	S-OUT	OUT	ON SCREEN CONTROL DATA
58	S-IN	IN	ON SCREEN/FDP CONTROL DATA
59	S-CLK	OUT	DATA TRANSFER CLOCK
60	H DATA	OUT	VIDEO IC CONTROL DATA
61	STB	OUT	CLOCK OUTPUT PERMISSION
62	H CLK	OUT	VIDEO IC DATA TRANSFER CLOCK
63	VCC	-	SYSTEM POWER
64	S. DATA	OUT	SERVO IC CONTROL DATA
65	SERVO	OUT	CAPSTAN MOTOR CONTROL (SERVO:L/SYSCON:H)
66	PAUSE (L)	OUT	CAPSTAN MOTOR CONTROL (PAUSE:L)
67	CTL CLOCK	IN	INDEX CONTROL
68	LCM1	OUT	LOADING MOTOR DRIVE (1)
69	CAP FG	IN	TAPE SPEED DETECT/BACK SPACE COUNT
70	LCM2	OUT	LOADING MOTOR DRIVE (2)
71	D. FF	IN	DRUM ROTATION DETECT/REC TIMING CONTROL
72	AVCC	-	SYSTEM POWER (for ANALOG)
73	WIDE DET	IN	NC
74	PROTECT	IN	SWD5V/12V DETECT
75	DRUM V	OUT	DRUM MOTOR VOLTAGE CONTROL
76	CAP V	OUT	CAPSTAN MOTOR VOLTAGE DETECT
77	6.5H DET	IN	PB SWITCHING POINT ADJUST PULSE
78	DV DET	IN	DRUM DRIVE VOLTAGE DET
79	P. DOWN	IN	POWER DOWN DETECT (POWER DOWN:L)
80	S CURVE	IN	TUNING CHECK

Table 6-1-2 SYSCON CPU pin function(1/2)