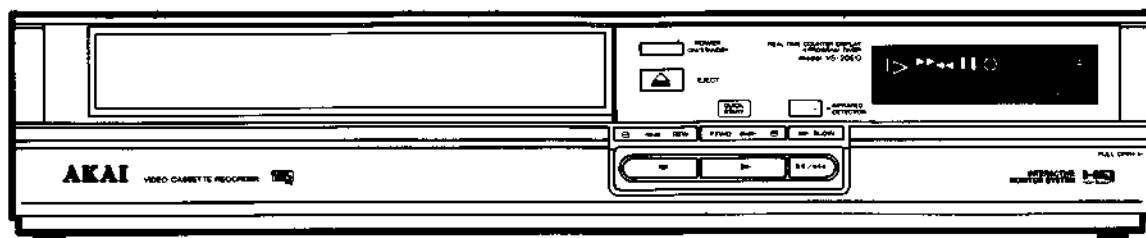


# AKAI SERVICE MANUAL



## VIDEO CASSETTE RECORDER

MODEL **VS-26**<sup>EA/ES/EV</sup><sub>/EO/(E/V)</sub>

MODEL **VS-20**<sup>EO</sup>, **27**<sup>EV</sup>

## SPECIFICATIONS

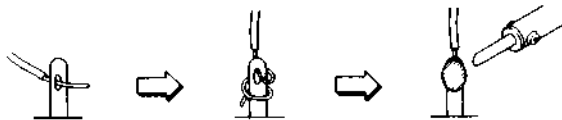
Format	EA/ES . . . . . VHS standard	Video	Line input level . . . . . 0.5 – 2.0 Vp-p/75 ohms, unbalanced
	EV/EO . . . . . VHS standard (PAL, MESECAM)		Line output level . . . . . 1.0 Vp-p/75 ohms, unbalanced
Video recording system	Rotary, slant azimuth two-head helical scan system		S/N ratio . . . . . More than 45 dB
Rotary heads	Two video heads		Horizontal resolution . . . . . More than 250 lines
RF input EA	System B, G	Audio	Line input level . . . . . –8 dBm/50 K ohms, unbalanced
	VHF ch 0 – 5, 5A, 6 – 11, UHF ch 21 – 69		Line output level . . . . . –6 dBm/ 1 K ohms, unbalanced
	EV . . . . . System B, G (PAL, SECAM)		S/N ratio . . . . . More than 40 dB
MIDDLE EAST	VHF ch 2 – 12, UHF ch 21 – 69		Frequency response . . . . . 70 – 10,000 Hz
NEW ZEALAND	VHF ch 1 – 9, UHF ch 21 – 69		Recording/playback time . . . . . 240 min. with E-240 cassette
EO	System B, G (PAL, SECAM)		Tape speed . . . . . 23.39 mm/sec.
	VHF Low ch 2 – 4, S1 – S3 High ch M1 – M10, 5 – 12, U1 – U10		Quick finder . . . . . approx. 7 times normal speed
	ES . . . . . System I		FF, REW time . . . . . approx. 5 min. with E-180 cassette
	VHF ch A – J (Ireland) ch 4 – 13 (South Africa) UHF ch 21 – 69	Timer	Program . . . . . 4 program/1 month and QUICK TIMER
RF output EA	System B type modulation		Clock reference . . . . . Quartz crystal
	VHF ch 0,1 switchable (preset ch 1)	Display	TV screen & FL (Tape counter, Timer etc.)
EO	System G type modulation	Power requirements	
	UHF ch 30 – 39 adjustable (preset ch 36)	EA . . . . . 240 V AC, 50 Hz	
ES	System I type modulation	EO . . . . . 220 V AC, 50 Hz	
	UHF ch 30 – 39 adjustable (preset ch 36)	ES . . . . . 200 – 220 V AC, 50 Hz	
EV	System B type modulation	26EV . . . . . 230 V AC, 50 Hz	
MIDDLE EAST	VHF ch 3, 4 switchable (preset ch 4)	27EV . . . . . 127/220 – 240 V AC, 60 Hz	
NEW ZEALAND	VHF ch 2, 3 switchable (preset ch 3)	Power consumption	
Recording (line input)		EA . . . . . 23 W	
EA/ES . . . . . PAL		ES . . . . . 24 W (at 220 V)	
EV/EO . . . . . PAL, SECAM (recorded as MESECAM)		EO . . . . . 25 W	
Playback (line output)		26EV . . . . . 23 W	
EA/ES . . . . . PAL		27EV . . . . . 27 W	
EV/EO . . . . . PAL, SECAM (MESECAM TAPE)		Operating temperature . . . . . 5°C – 40°C	
		Dimensions . . . . . 425 (W) x 84 (H) x 340 (D) mm	
		Weight . . . . . 5.5 Kg	
		Standard accessories	
		Connection cord . . . . . 1	
		Remote control unit . . . . . 1	
		Batteries for remote control . . . . . 2	
		Operator's manual . . . . . 1	

\* For improvement purposes, specifications and design are subject to change without notice.

# ★ SAFETY INSTRUCTIONS

## PRECAUTIONS DURING SERVICING

1. Parts identified by the  $\Delta$  (\*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.  
These must also be replaced only with specified replacements.  
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
  - 1) Wires covered with PVC tubing
  - 2) Double insulated wires
  - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
  - 1) Insulation Tape
  - 2) PVC tubing
  - 3) Spacers (Insulating Barriers)
  - 4) Insulation sheets for transistors
  - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

## SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15  $\mu$ F capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.

The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.

# ★ INFORMATION

## SYMBOLS OF MODEL NAME FOR PRIMARY DESTINATION

Symbol indicates the destination of the units as listed below.

Symbol	Classification	Principal Destination	System	
			Color	Broadcast
EA	S	Australia	PAL	B, G
ED	E	China	PAL	D
EDG	E	East Europe	PAL	D, K
EDI	E	China, Hong Kong	PAL	D, K, I
	Y1	China	PAL	D, K
EG	E	Spain, Northern Europe, Other	PAL	B, G
	Y7	Saudi Arabia		
EK	B	U.K.	PAL	I
	Y1	Hong Kong		
EM	E	Middle East	PAL	B, G
	Y7	Saudi Arabia		
EO	E	Holland, Switzerland, Northern Europe	PAL	B, G
	V	Italy		
EOH	E	Holland, Belgium	PAL	B, G
	V	Italy		
EOG	V	W. Germany	PAL	B, G
ES	E	South Africa, Ireland, Hong Kong	PAL	I
EV	E	South-East Asia	PAL	B, G
	U	Middle East, South-East Asia		
	Y1	New Zealand		
	Y7	Saudi Arabia		
EZ	S	New Zealand	PAL	B, G
EGN	E	Middle East	PAL, NTSC	B, G
	Y7	Saudi Arabia		
S	E	France	SECAM	L
SK	E	Latin America, Oceania, SECAM-OIRT	SECAM	K, K1
SEG	E	France, Switzerland	SEDAM, PAL	L, B, G
U	A	U.S.A.	NTSC	M
	C	Canada		
UM	U	Latin America	NTSC	M
J	J	Japan	NTSC	M

### Quick start function

This VCR contains the quick start function.

This means that when a cassette tape is inserted into the VCR or the POWER is turned on with a cassette tape in the VCR, the tape will be loaded automatically, and at the same time QUICK START indicator will be turned on and the drum motor will be started to rotate.

\* If the VCR is neglected in stop mode for several minutes, the quick start function will be automatically canceled. Accordingly, QUICK START indicator will be turned off and the drum motor will be stopped with the tape loaded. When the POWER is turned off with a cassette tape in the VCR, the tape will be unloaded and remain in the VCR.

### Auto functions

This VCR contains the following auto functions.

1. If a cassette tape is inserted when the POWER is off, the POWER will be automatically turned on.
2. If a cassette tape without its recording safety tab is inserted, the VCR will automatically begin to playback the tape.
3. While a cassette tape without its recording safety tab is in the VCR, if the REC button is pressed, the cassette tape will be ejected automatically.
4. Even if the POWER is OFF, the cassette tape can be ejected by pressing the EJECT button.
5. Between the hours of 23:00 and 6:00, if the VCR is not in use, the front panel display is automatically dimmed to a lower light level.

## EDIT switch

The EDIT switch is used only when you want to record from this VCR to another VCR. When recording on another VCR, you may not want to record the Monitor Displays as they appear on this VCR (for example, the PLAY ► indicator, STOP ■ indicator etc.), onto the new tape. In that case, set the EDIT switch to ON. Now when you press a tape transport button, the indicator appears only on the VCR's front panel display, not on the TV screen or the new tape.

## Safety lock system (Remote control only)

This VCR's PLAY button can be locked to prevent access by small children.

**To lock:** With the VCR POWER ON press and hold the remote control's STOP button for about 8 seconds. An "L" will appear on the front panel display. Tape play will not function until the VCR is unlocked.

Even if the POWER is turned off, the VCR PLAY mode will remain locked until released. Other modes will remain operable.

**To unlock:** Press and hold the remote control's PLAY button for about 8 seconds.

## INTRO SCAN system (Remote control only)

This VCR is capable of quickly fast forwarding to the beginning of each recorded segment on a tape, briefly playing back that segment, and then fast forwarding to the next segment.

This system also works in combination with the control signal which is recorded at the beginning of each recorded segment.

Press the INTRO SCAN button on the remote control. The VCR will immediately fast forward the tape to the beginning of the program and play about the first 8 seconds. Then, the VCR will again fast forward the tape to the beginning of the next recorded segment and again playback the first 8 seconds of the program.

This operation continues until the tape is finished or until you selected another mode (such as PLAY or STOP). While INTRO SCAN is searching, the F.FWD indicator lights and the PLAY indicator flashes. When INTRO SCAN is in playback, the F.FWD indicator flashes and the PLAY indicator lights. The **[S]** indicator lights all the time that INTRO SCAN is working.

## Double speed playback (Remote control only)

This VCR can play back a tape at twice its normal speed. Press the x2 button on the remote control while the tape is in play. No sound will be heard in this mode. Press PLAY to resume normal speed.

## INDEX SEARCH system (Remote control only)

This VCR is equipped with the INDEX SEARCH system which allows you to directly locate the beginning of any recorded segment on a tape, within 9 segments (EV MODEL: 1 segment) of your starting point, in either forward or reverse direction, provided the recording was made on this VCR, or providing the recording is equipped with control signals. Each time a recording is made on this VCR, i.e. each time the REC button is pressed, a control signal is automatically recorded along with the program. This means that even while a recording is being made, if you press the REC button again, a new control signal is added to the tape at that point. This feature is very convenient for marking any important point on a tape.

**NOTE:**

1. When you press the REC button to begin recording from the recording standby mode (PAUSE/STILL button), new control signals will not be added.
2. If the control signals are located within 3 minutes of the playback time from the present position, INDEX SEARCH may not be executed correctly.

**Example 1:** To search 4th program

1. Insert a recorded tape.
2. Let's say you are at the beginning of the tape and you want to view the 4th program on the tape. Press the right side of the INDEX SEARCH button 4 times. The VCR display shows the number of programs being searched, 4 in this case, along with the fast forward indicator and the **[S]** indicator. The TV display will also say Index 4. Both displays will count down as the VCR gets closer to the correct program, and then playback of segment 4 will begin automatically.

**Example 2:** To search 11th program then search 5th one from the beginning

1. Imagine that you have recorded 12 individual segments on a tape (Music videos for example). Let's say you want to view segment 11. Press the right side of the INDEX SEARCH button 9 times (the maximum). The VCR will fast forward to the beginning of segment 9 and begin playback.
2. Now press the right side of the INDEX SEARCH button 2 more times and the VCR fast forwards to segment 11 and begins playback.
3. Let's say segment 11 is finished and you want to go back and view segment 5. Since 11 is already finished, press the left side of the INDEX SEARCH button 7 times. The VCR will rewind all the way back to the beginning of segment 5 and begin playback.

# I. CONTROLS

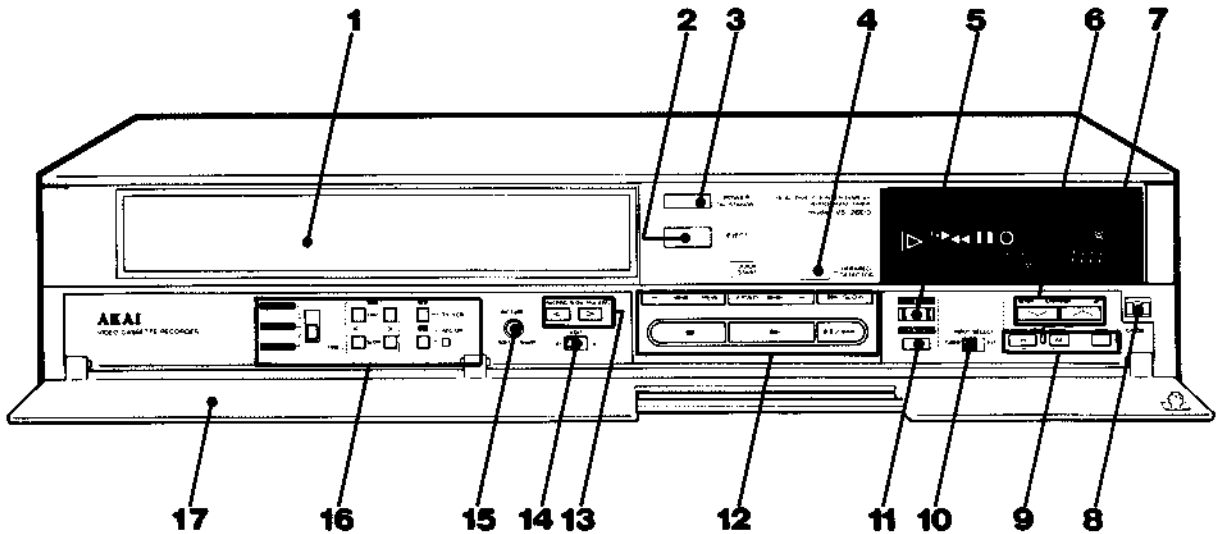


Fig. 1-1 Front view

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. <b>Cassette loading slot</b></li> <li>2. <b>EJECT button</b><br/>To eject the video cassette tape.</li> <li>3. <b>POWER button</b><br/>To turn on or off the VCR.</li> <li>4. <b>Remote sensor window</b><br/>For reception of the remote control's signal.<br/>*Keep this window clean for remote control operation.</li> <li>5. <b>REC (Recording) button</b></li> <li>6. <b>CHANNEL selector</b><br/>To select a preset channel with the built-in tuner of the VCR.</li> <li>7. <b>FL (Fluorescent) display</b><br/>Tells you what the VCR is doing.</li> <li>8. <b>Sub-panel door latch</b></li> <li>9. <b>QUICK TIMER buttons</b><br/>To preset recording end time or quick programme recording.</li> </ul> | <ul style="list-style-type: none"> <li>10. <b>INPUT SELECTOR switch</b><br/>To switch between internal tuner and external input.</li> <li>11. <b>TIMER button</b><br/>To stand by for automatic recording.</li> <li>12. <b>Tape transport buttons</b><br/>To run the tape for recording or playback.</li> <li>13. <b>TRACKING/SLOW TRACKING control</b><br/>To fine tune the playback picture.</li> <li>14. <b>EDIT switch</b><br/>For removing the on-screen characters during tape dubbing.</li> <li>15. <b>SHARP/SOFT PICTURE control</b><br/>To soften or sharpen the video picture.</li> <li>16. <b>Tuning controls</b><br/>Used when presetting stations.</li> <li>17. <b>Sub-panel door.</b></li> </ul> |
|--|--|

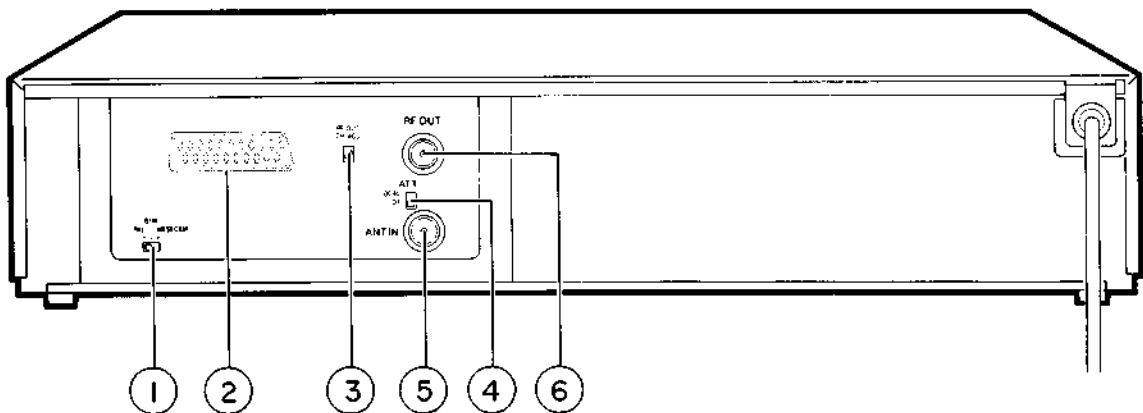


Fig. 1-2 Rear view (EO)

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1. <b>VIDEO MODE SELECTOR</b></li> <li>2. <b>21 PIN JACK</b></li> <li>3. <b>RF OUT CH. ADJ.</b></li> </ul> | <ul style="list-style-type: none"> <li>4. <b>ATTENUATOR SWITCH</b></li> <li>5. <b>ANT. IN JACK</b></li> <li>6. <b>RF OUT TERMINAL</b></li> </ul> |
|---|--|

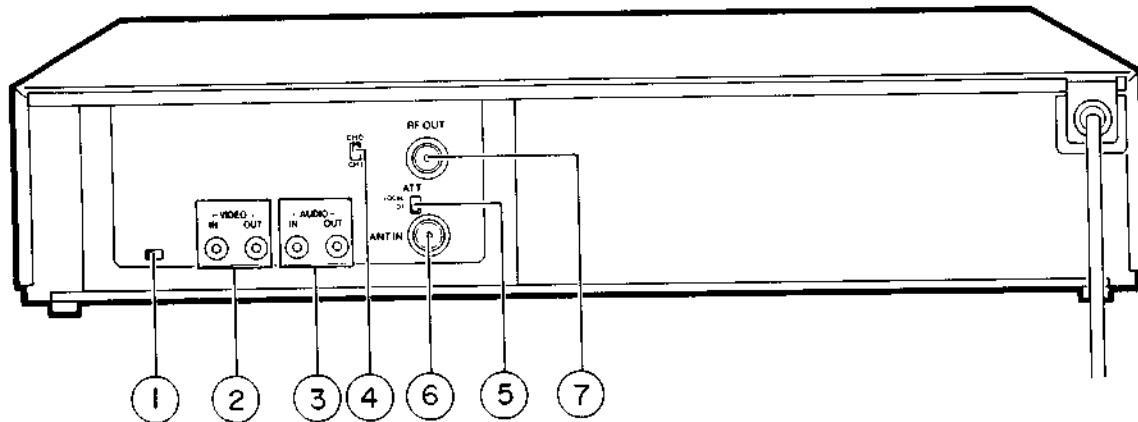


Fig. 1-3 Rear view (EA, EV, ES)

1. VIDEO MODE SELECTOR
2. VIDEO IN/OUT JACKS
3. AUDIO IN/OUT JACKS
4. RF OUT CH. ADJ

5. ATTENUATOR SWITCH
6. ANT. IN JACK
7. RF OUT TERMINAL

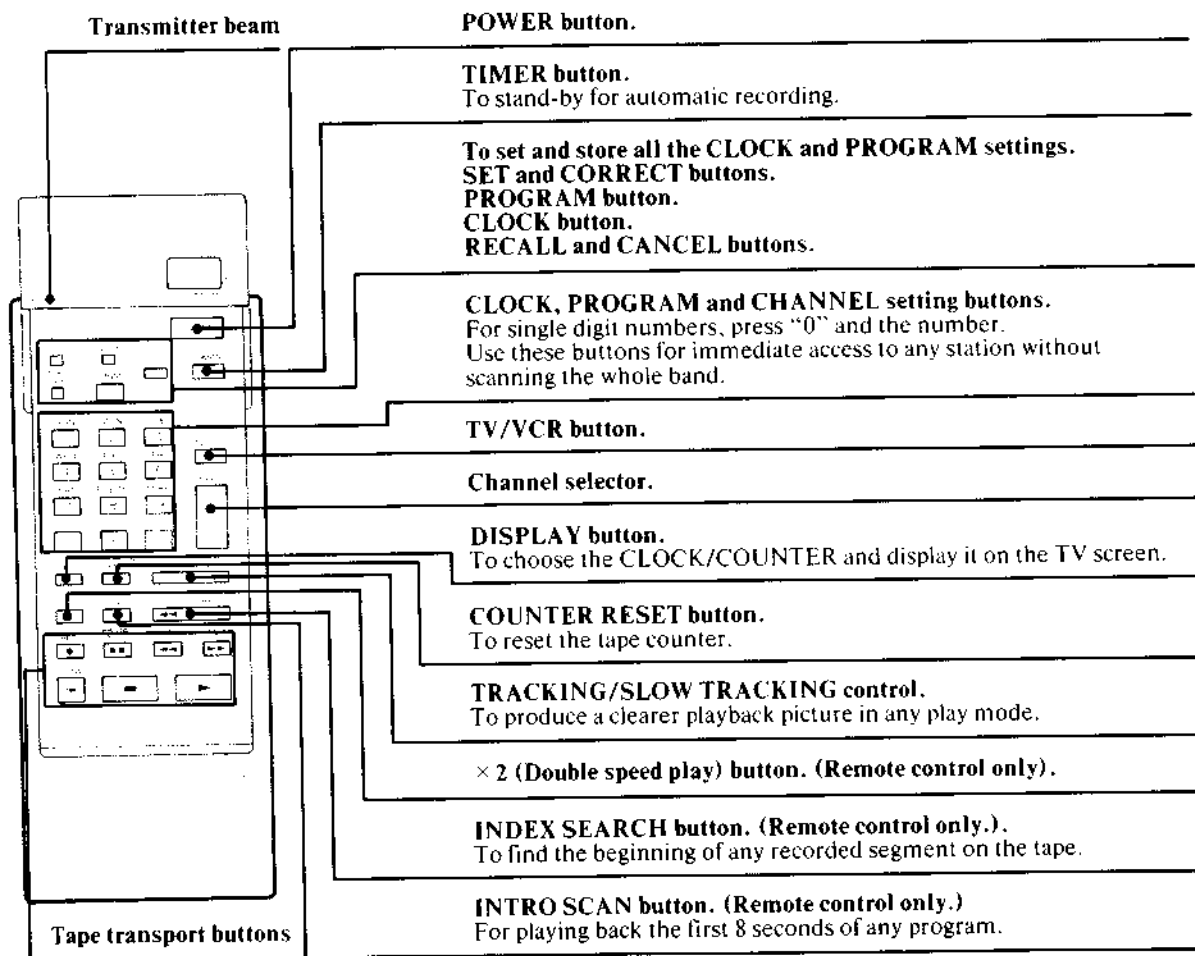


Fig. 1-4 Remote Control Unit

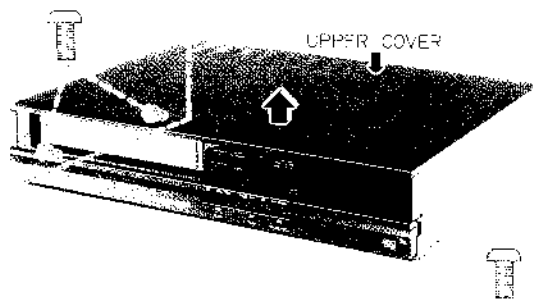
\* The remote control contains operation buttons which are used the same way as the operation buttons on the front panel of the Akai VCR, and many which appear on the remote control only. The remote control can be used from a distance of up to 5 meters.

## II. DISASSEMBLY

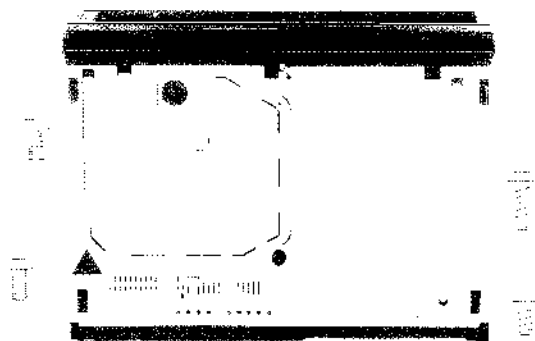
In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

\* Photographs employed on this page are of model VS-23EV

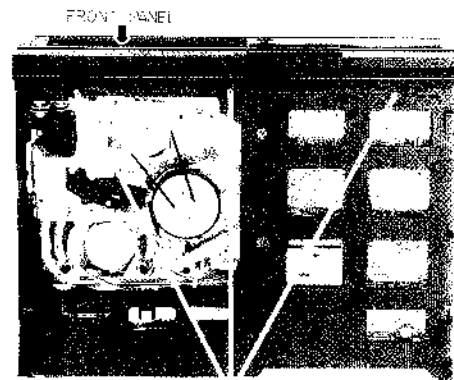
### 1 Removal of UPPER COVER



### 2 Removal of BOTTOM COVER



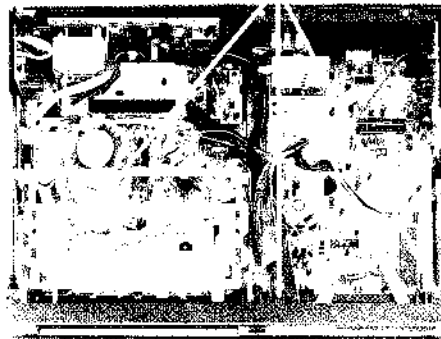
### 3 Removal of FRONT PANEL



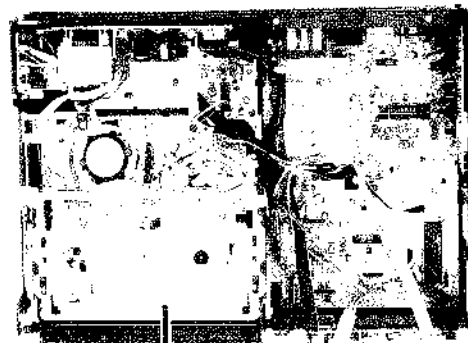
Release the HOOKS

### 4

Release the HOOKS



### 5



\* Please refer to "REMOVAL OF THE EJECTOR BLOCK"

### III. PRINCIPAL PARTS LOCATION

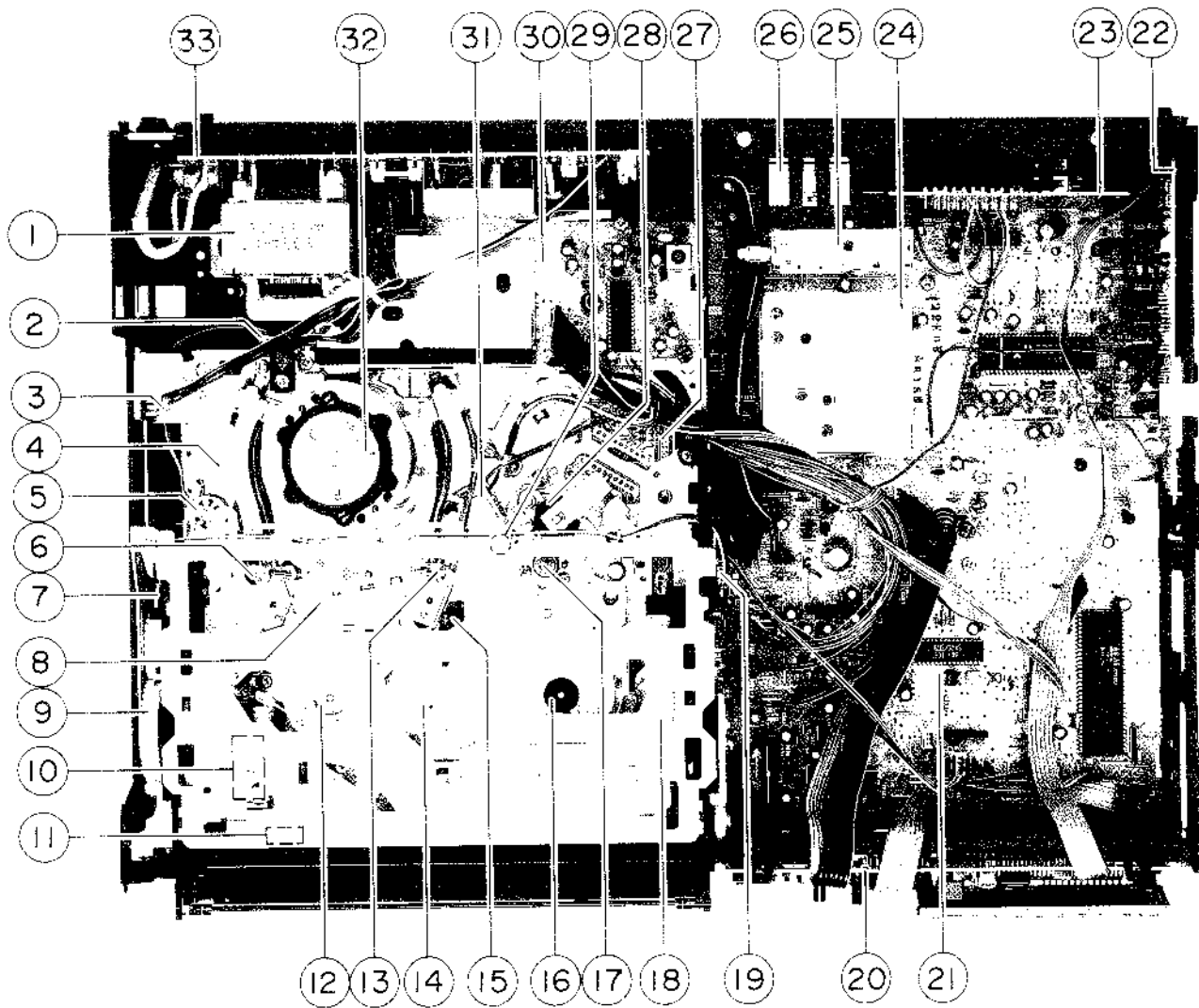


Fig. 3-1 Top view

- |  |                          |
|--|--------------------------|
| 1. POWER TRANSFORMER                                       | 17. CAPSTAN MOTOR SHAFT  |
| 2. TR (2) PCB (EXCEPT VS-27EV)<br>TR PCB (VS-27EV ONLY)    | 18. EJECTOR BLK          |
| 3. TR (1) PCB (EXCEPT VS-27EV)<br>DIODE PCB (VS-27EV ONLY) | 19. SENSOR(T) PCB        |
| 4. FULL TRACK ERASE HEAD                                   | 20. OPERATION PCB        |
| 5. SUPPLY GUIDE ROLLER                                     | 21. MAIN PCB             |
| 6. S. LOADING LEADER (LEFT)                                | 22. CHROMA PCB           |
| 7. SENSOR(S) PCB   | 23. 21 PIN PCB (EO ONLY) |
| 8. TENSION ARM   | 24. VIF UNIT             |
| 9. LOADING MECH. BLK.                                      | 25. TUNER UNIT           |
| 10. LOADING MOTOR  | 26. RF CONVERTOR UNIT    |
| 11. REC SAFETY SWITCH                                      | 27. CAPSTAN MOTOR PCB    |
| 12. SUPPLY REEL TABLE                                      | 28. PINCH ROLLER         |
| 13. T.U. LOADING LEADER (RIGHT)                            | 29. TAKE-UP TAPE GUIDE   |
| 14. CLUTCH BLK   | 30. AUDIO & PRE AMP PCB  |
| 15. SENSOR LED   | 31. AUDIO CONTROL HEAD   |
| 16. TAKE-UP REEL TABLE                                     | 32. HEAD DRUM BLK.       |
|  | 33. POWER SUPPLY PCB     |

\* Photograph employed on the page is of model VS-26EO.



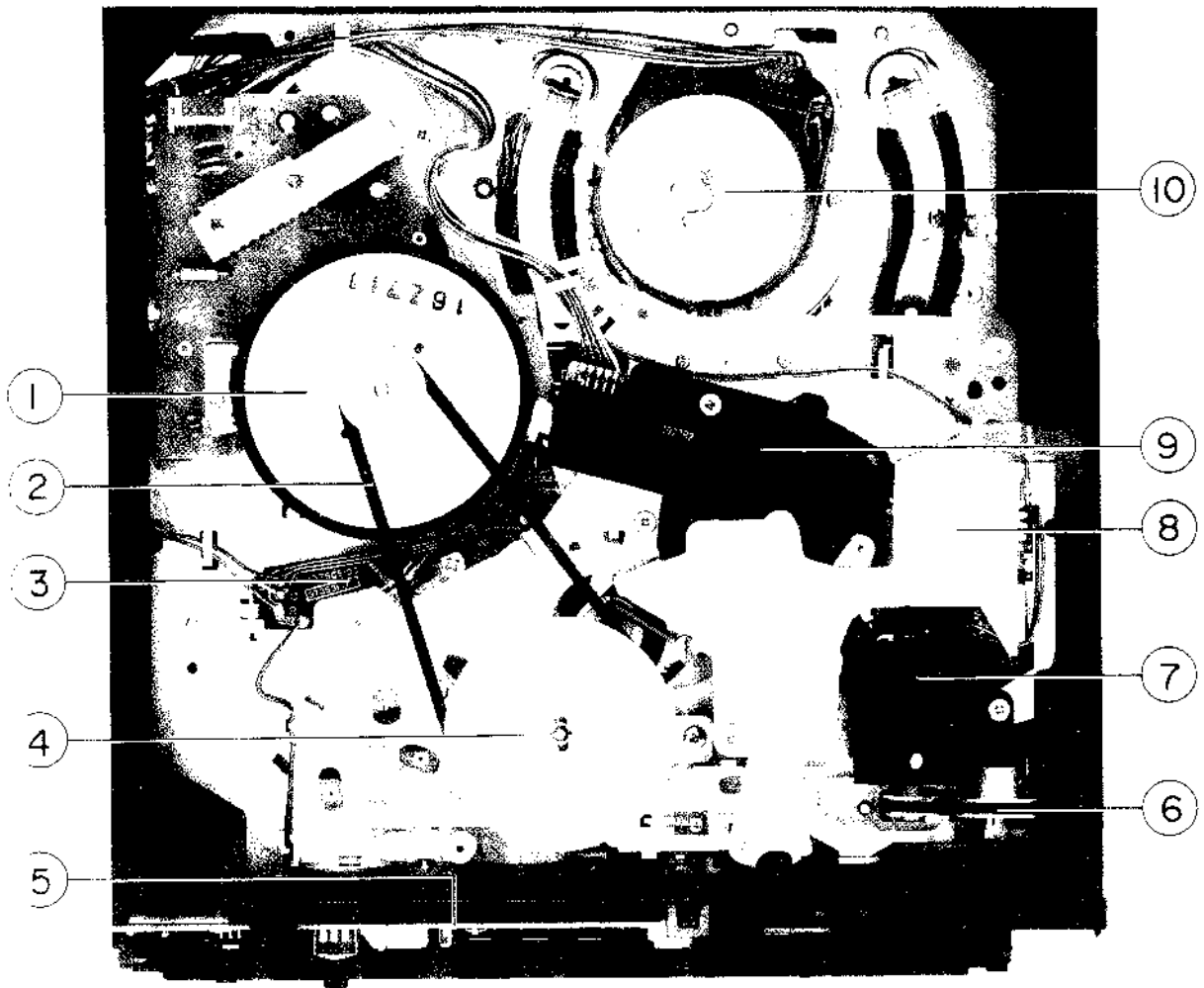


Fig. 3-2 Bottom view

- 1. CAPSTAN MOTOR BLK
- 2. IDLER BELT
- 3. SENSOR PCB
- 4. CLUTCH BLK
- 5. PRE SET PCB

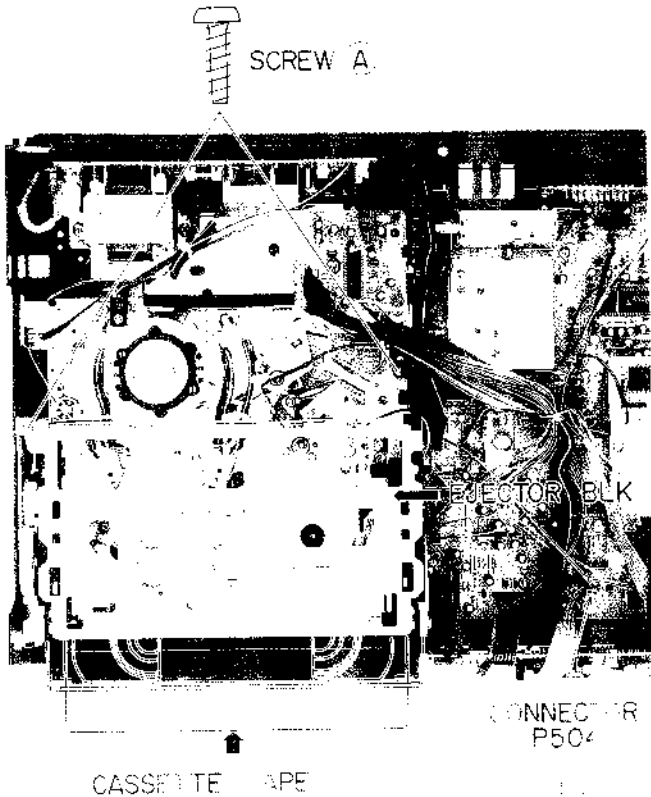
- 6. LOADING BELT
- 7. LOADING DRIVE BLK
- 8. LOADING MECH. BLK
- 9. MODE SELECTOR
- 10. DRUM MOTOR BLK

# IV. MAIN COMPONENTS REPLACEMENT

## 4-1. EJECTOR BLOCK

### 4-1-1. REMOVING THE EJECTOR BLOCK

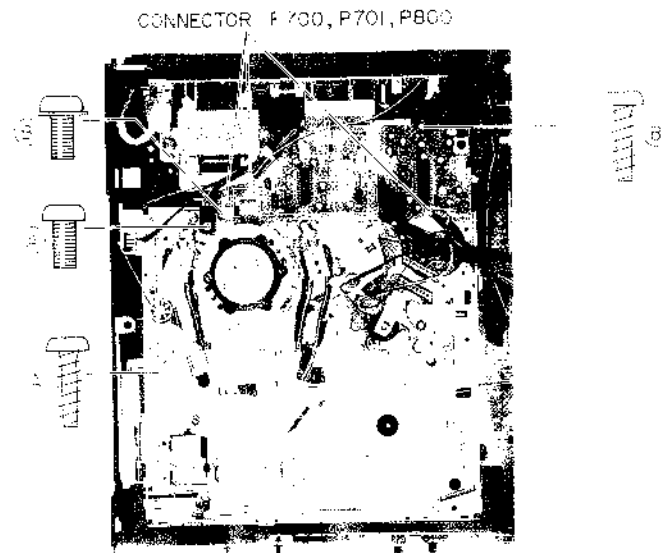
- 1) Press the POWER button to turn ON the VCR and insert the cassette tape into the VCR. The unit will enter the PLAY mode automatically.
- 2) Press the POWER button again to turn OFF the VCR. Disconnect AC power cord after the tape is unloaded completely.
- 3) Remove two screws A and disconnect P504 from MAIN P.C. Board.
- 4) Remove the EJECTOR BLOCK.



## 4-2. LOADING MECHANISM BLOCK

### 4-2-1. REMOVAL OF MECHANISM BLOCK

- 1) Remove the EJECTOR BLOCK. (Refer to 4-1-1 REMOVING THE EJECTOR BLOCK.)
- 2) Remove two screws A, then remove the TRANSISTOR.
- 3) Disconnect P700, P701 and P800 from the PRE-AMP P.C. Board.
- 4) Remove two screws B, then remove the PRE-AMP P.C. Board.



5) Remove the PRE-AMP P.C. Board from the bottom of the chassis. Then remove three screws C. Then remove the MECHANISM BLOCK.

### 4-1-2. INSTALLATION OF THE EJECTOR BLOCK

- 1) Install the EJECTOR BLOCK to the MECHANISM CHASSIS as shown in Fig. 4-2.
- 2) Tighten two screws A to connect P504.
- 3) Plug in AC POWER CORD and press the POWER button to turn ON the VCR.
- 4) Confirm that the operation correct.

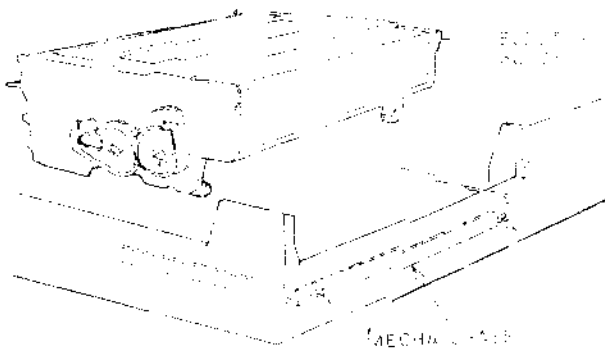


Fig. 4-2

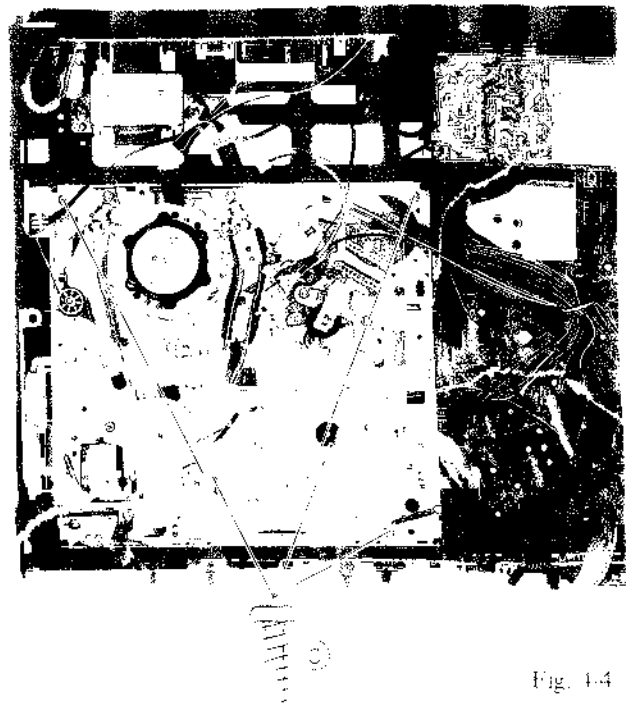


Fig. 4-4

**4-2.2. REASSEMBLE OF THE LOADING MECHANISM BLOCK**

1) Attach the GEAR FL DRIVE to CHASSIS CAM GEAR PART.

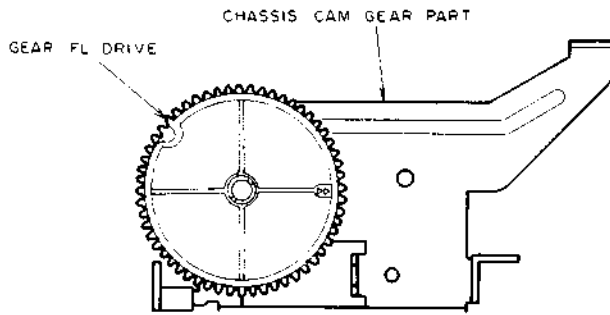


Fig. 4-5

2) Install the GEAR WARM PART as shown in Fig. 4-6.

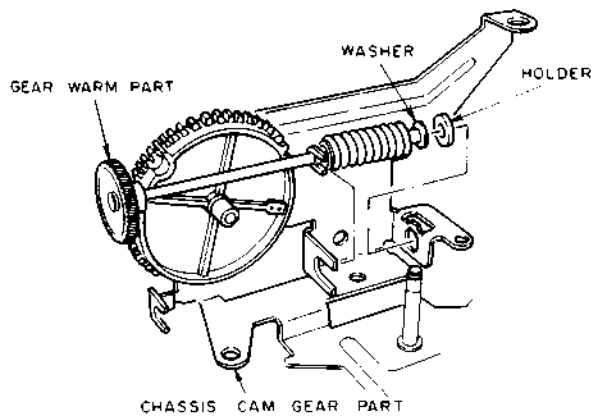


Fig. 4-6

3) Attach the GEAR WHEEL to CHASSIS CAM GEAR PART so that the GEAR FL DRIVE mark (a) coincide with the GEAR WHEEL mark (b-1), and fasten the GEAR WHEEL with slit washer.

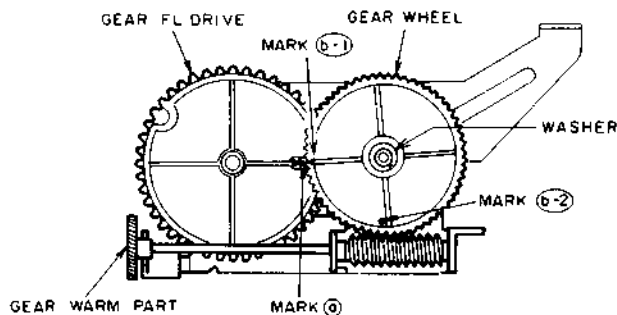


Fig. 4-7

4) Attach the LEVER CAM SLIDER as shown in Fig. 4-8.

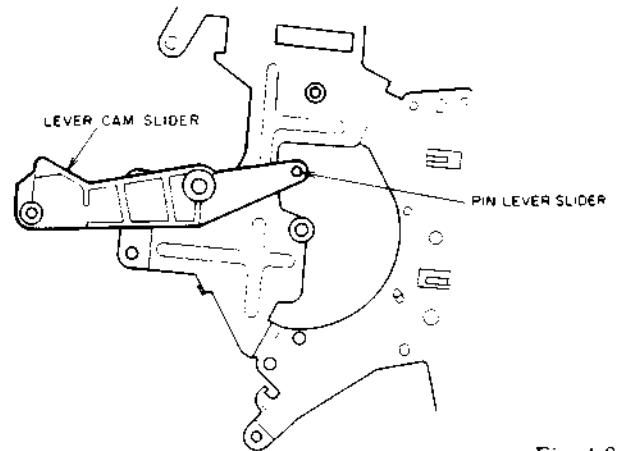


Fig. 4-8

5) Attach the GEAR CAM CENTER so that PIN LEVER SLIDER head appears through the HALL (A) of the GEAR CAM CENTER.

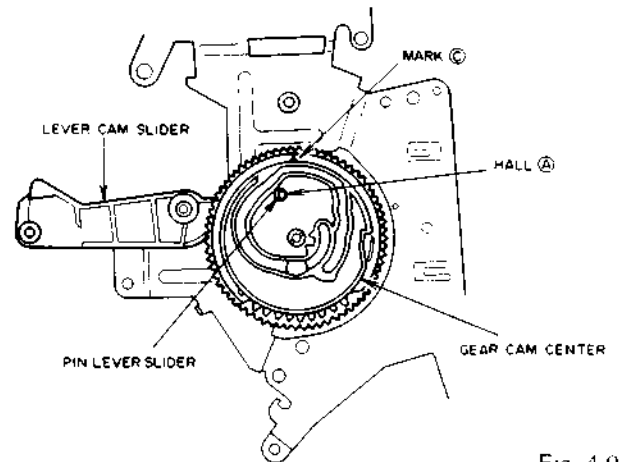


Fig. 4-9

6) Attach the GEAR CAM TENSION so that the GEAR CAM TENSION mark (d-1) coincide with the GEAR WHEEL mark (b-2), and moreover the GEAR CAM CENTER mark (c) should be located between the marks (d-2) of the GEAR CAM TENSION.

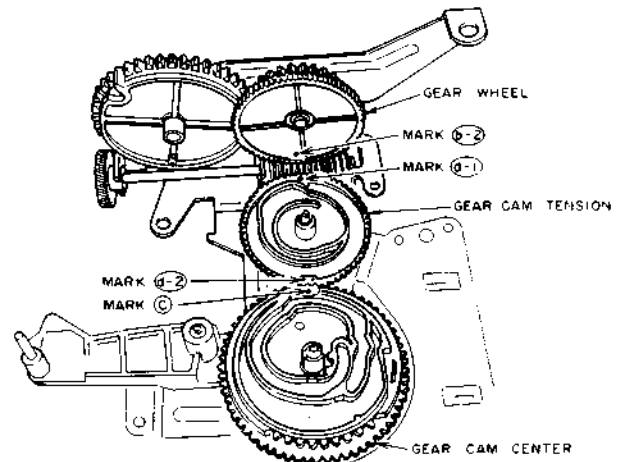


Fig. 4-10

- 7) Attach the ARM FWD BRAKE and SPRING as shown in Fig. 4-11.

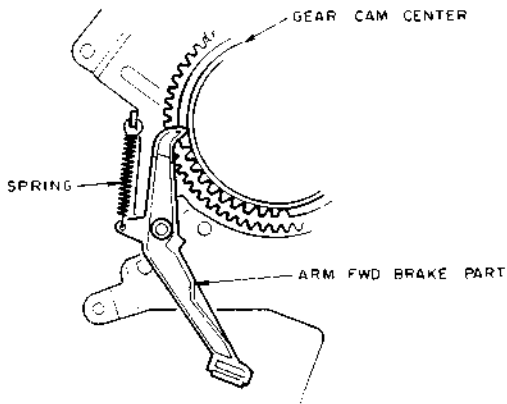


Fig. 4-11

- 10) Coincide the marks of MODE SELECT SW and attach the MODE SELECT SW BLK onto the LOADING MECHA BLK as shown in Fig. 4-14. Tighten the MODE SELECT SW BLK with a screw (C).

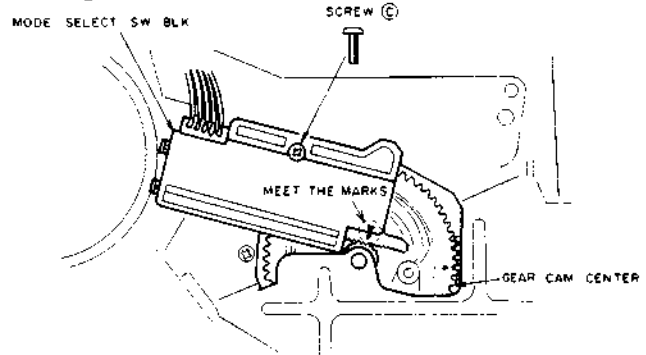


Fig. 4-14

- 8) Set the GEAR TOGGLE (TU) and (S) to the unloaded position with your fingers. At this time match the marks of the GEAR TOGGLE (TU) and (S) as shown in Fig. 4-12.

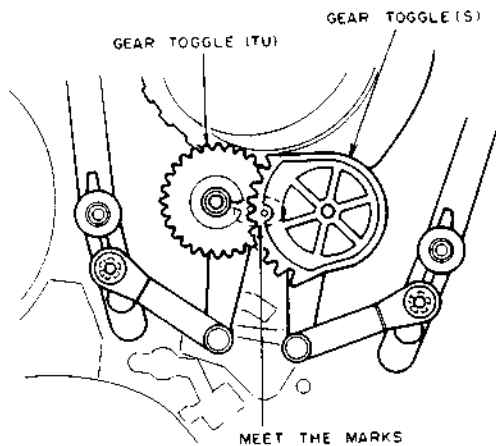


Fig. 4-12

- 11) Attach the BELT IDLER as shown in Fig. 4-15.

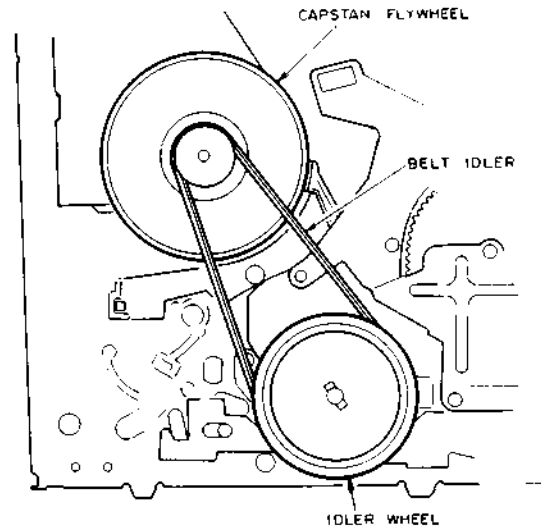


Fig. 4-15

- 9) Attach the LOADING MECHA. BLK with holding the GEAR TOGGLE (TU) in the direction of the arrow as shown in Fig. 4-13. Tighten the LOADING MECHA BLK with four screws (A) and (B).

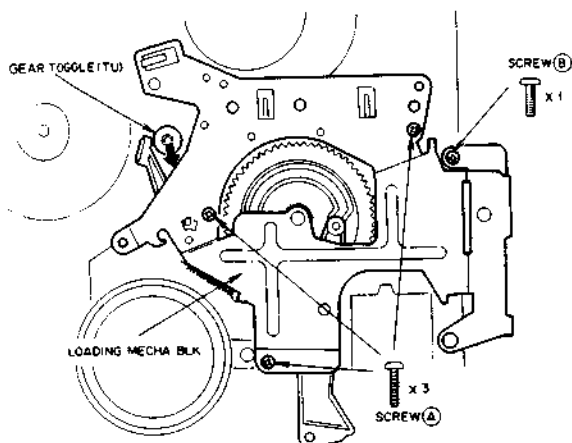


Fig. 4-13

- 12) Attach the LOADING DRIVE BLK and tighten with a screw (D).

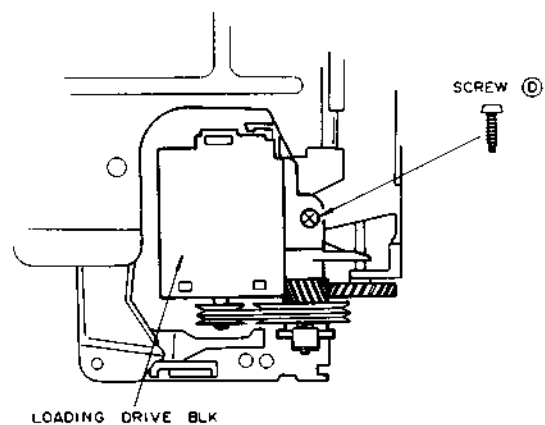


Fig. 4-16

### 4-3. UPPER DRUM (HEAD DRUM REPLACEMENT)

#### 4-3-1. REMOVAL OF UPPER DRUM

- 1) Unsolder the four RELAY LEADS and remove two upper drum fixing screws.
- 2) Gently lift and remove the UPPER DRUM.

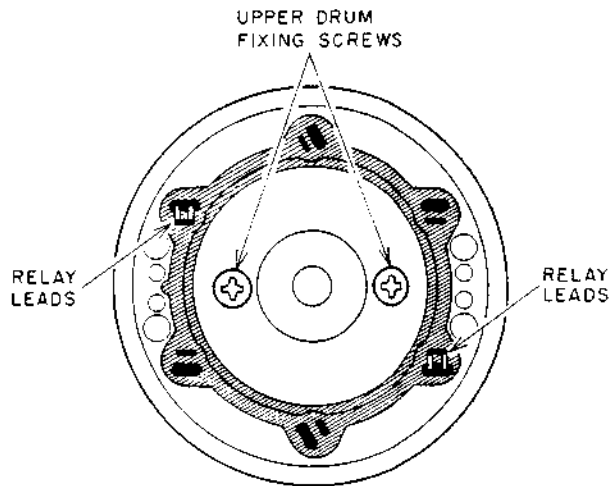


Fig. 4-17

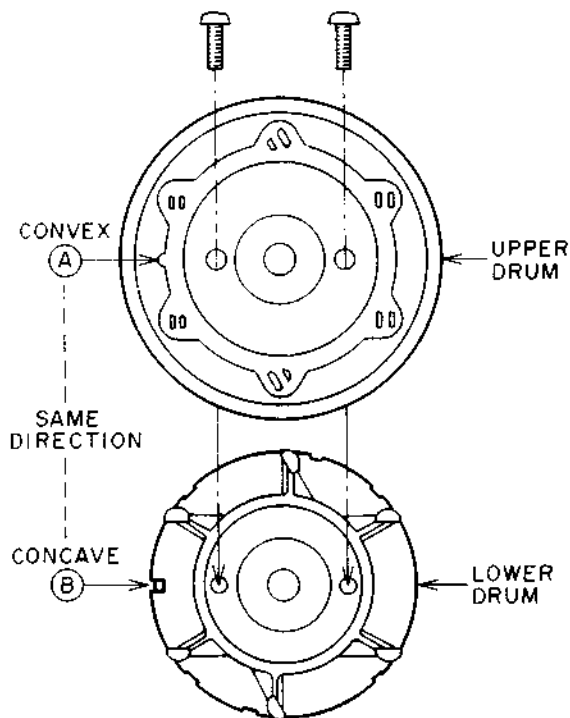


Fig. 4-18

#### 4-3-2. INSTALLATION OF UPPER DRUM

- 1) Install the UPPER DRUM to the LOWER DRUM so that upper drum convex (A) and lower drum concave (B) become same direction.

**NOTE:** Height precision is required for the proper performance, and the head tips are fragile, so the following points should be noted when replacing the UPPER DRUM BLOCK

- (a) Do not loosen the set screw on the collar preload.
- (b) Before fixing, clean both surfaces where the upper drum and the rotary transformer part meet with alcohol.
- (c) When installation of the UPPER DRUM, if it does not go on to the shaft easily, clean the hole in the UPPER DRUM with alcohol and put a little oil on the shaft.
- (d) Make sure that the upper drum fixing screw holes on the rotary transformer part and the upper drum fixing screw penetration holes match exactly before inserting the fixing screws.
- (e) Tighten the two upper drum fixing screws alternately and gradually. Tighten them at 6 kg-cm torque.

#### 4-3-3. AFTER REPLACEMENT

After replacement, the following adjustments are necessary for the proper performance.

- 1) Control head phase adjustment. (Tape transport adj. 5-2-4)
- 2) PB switching point adjustment. (Electrical adj. Step 2)
- 3) Video REC current adjustment. (Electrical adj. Step 9)

### 4.4. DRUM MOTOR REPLACEMENT

- 1) Disconnect the connector P102 from the Drum Motor P.C. Board.
- 2) Remove two screws (A) then remove the ROTARY PLATE.

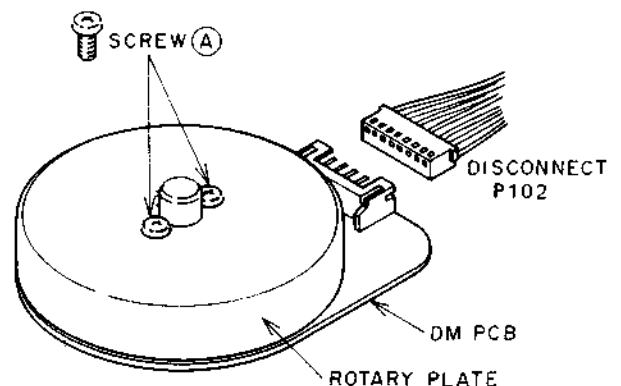


Fig. 4-19

3) Remove three screws ⑥ then replace the DRUM MOTOR.

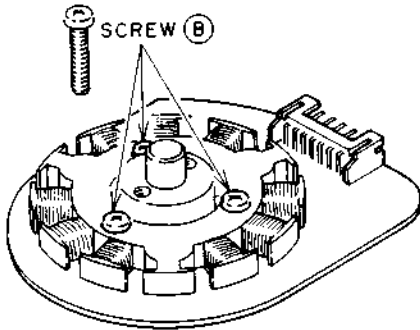


Fig. 4-20

4) Attach the ROTARY PLATE to the DRUM MOTOR so that the rotary plate hall ① and collar preload hall ② are in a opposite direction.

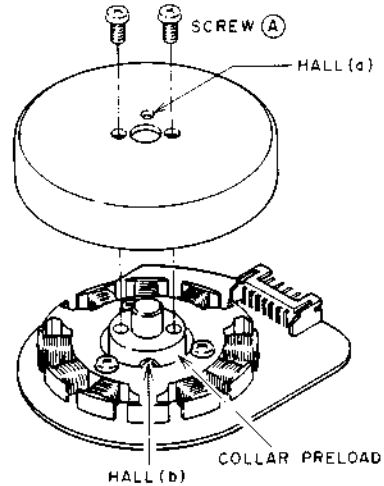


Fig. 4-21

## V. MECHANICAL ADJUSTMENT

### 5-1. BACK TENSION ADJUSTMENT

- 1) Remove the EJECTOR BLOCK. (Refer to 4-1-1 REMOVING THE EJECTOR BLOCK.)
- 2) Press the POWER button to turn ON the VCR. the VCR will enter the tape loaded mode without cassette tape.
- 3) In the play mode, loosen the screw ① and set the TENSION ARM position to the correct position as shown in Fig. 5-1 by the tension band holder position, then tighten the screw ①.

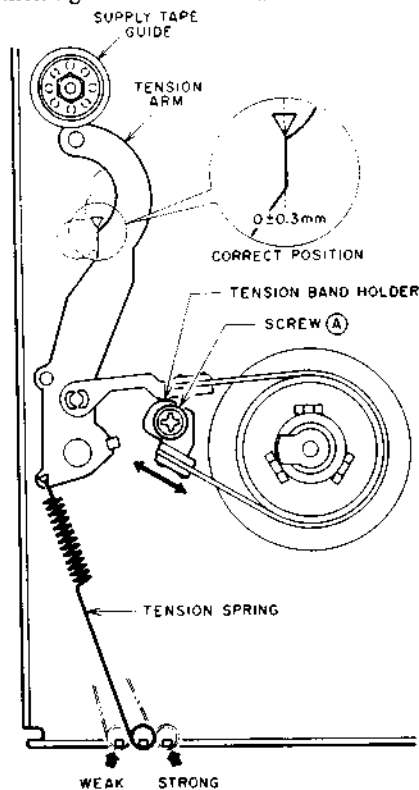


Fig. 5-1

- 4) Press the POWER button to turn OFF.
- 5) Set the reference tape TF-532CBS (AT-751360) and put some weight on the reference tape as a stabilizer.
- 6) Press POWER button and PLAY button.
- 7) Observe the TV screen and adjust V-HOLD for TV so that switching point appears on the TV screen as shown in Fig. 5-2.
- 8) Select the hook position of the TENSION SPRING where the smallest skew should be obtained.

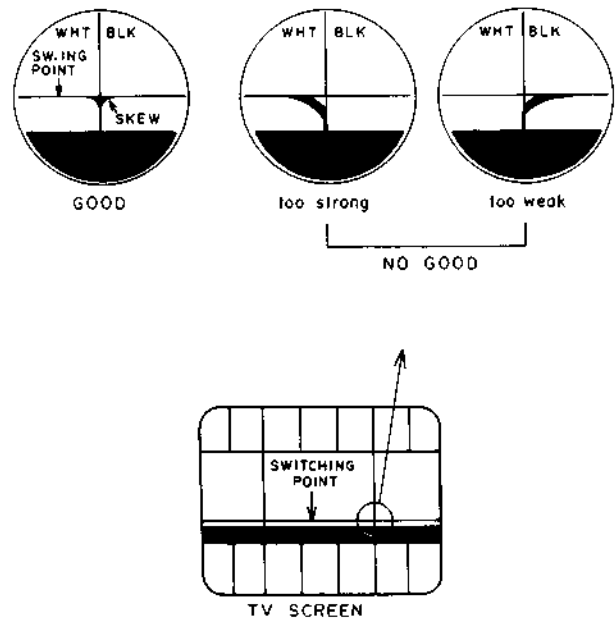


Fig. 5-2

## 5-2. TAPE TRANSPORT ADJUSTMENTS

### 5-2-1. TAPE CURL ADJUSTMENT AT THE TAKE-UP TAPE GUIDE

- 1) Play back the reference tape TF-530RFS (AT-751775).
- 2) Turn the screw (a) on the A/C HEAD BLK until the edge of the tape barely touches the lower part of TAKE-UP TAPE GUIDE without any curl or wrinkle.

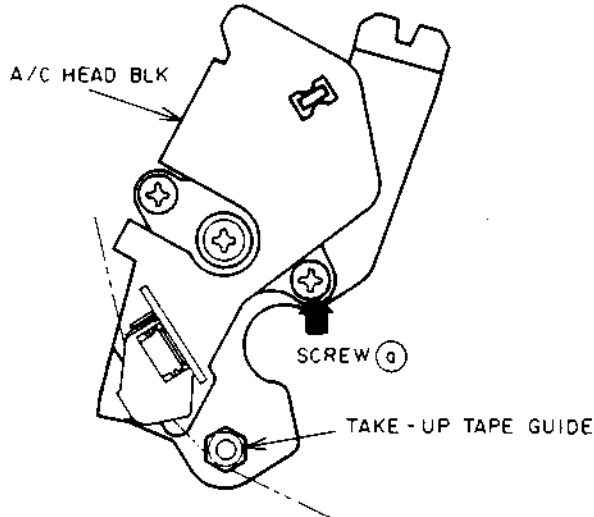


Fig. 5-3

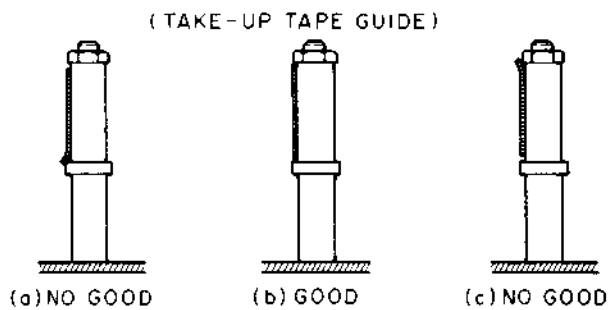


Fig. 5-4

### 5-2-2. CONFIRMATION OF TAPE CURL AT THE SUPPLY TAPE GUIDE

Confirm that the edge of the tape barely touches the lower part of the SUPPLY TAPE GUIDE without any curl or wrinkle.



Fig. 5-5

### 5-2-3. AUDIO HEAD AZIMUTH ADJUSTMENT

- 1) Connect an AC volt meter or an oscilloscope to AUDIO OUT jack on the rear panel.
- 2) Play back the reference tape TF-530RFS (AT-751775).
- 3) Adjust the screw (b) to obtain the maximum audio output.

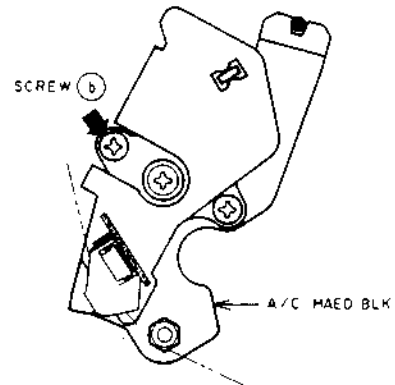


Fig. 5-6

### 5-2-4. CONTROL HEAD PHASE ADJUSTMENT

- 1) Connect an oscilloscope to TP202 (ENVE) on the MAIN P.C. Board.
- 2) Play back the reference the TF-530RFS (AT-751775).
- 3) Press the TRACKING button  or  on the front panel until "T" mark can be seen in the center position as shown in Fig. 5-7.
- 4) Insert a sharpness screwdriver into A/C HEAD BASE and hall (a) as shown in Fig. 5-8.
- 5) Move the A/C HEAD BASE by moving a screwdriver in the directions of the arrow as shown in Fig. 5-8 to obtain the maximum RF output.

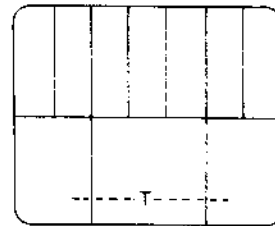


Fig. 5-7 On the TV screen

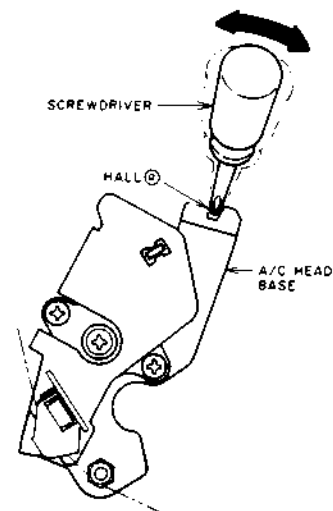


Fig. 5-8

### 5-2-5. ARM REVIEW HEIGHT ADJUSTMENT

- 1) Play back the beginning part of E-180 tape and set the unit in REVIEW mode with pressing REW button.
- 2) Turn the ARM REVIEW height nut (a) so that the edge of the tape barely touches the lower part of TAKE-UP TAPE GUIDE without any curl or wrinkle between TAKE-UP TAPE GUIDE and CAPSTAN SHAFT.

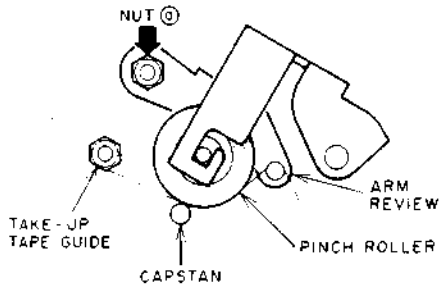


Fig. 5-9

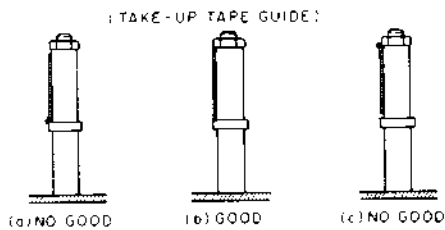


Fig. 5-10

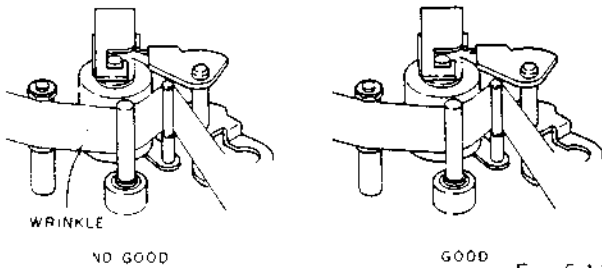


Fig. 5-11

### 5-2-6. LOADING LEADER HEIGHT ADJUSTMENTS

- 1) Slightly loosen the set screw at lower part of the LOADING LEADERS (L), (R) so that LOADING LEADERS can be adjusted with reasonable tightness (Refer to Fig. 5-12.)
- 2) Play back the reference tape TF-530RFS (AT-751775).
- 3) Connect an oscilloscope to TP202 (ENVE) on the MAIN P.C. Board.
- 4) Turn the LOADING LEADER heads with a screw driver to obtain flat RF envelope as ideal envelope shown in Fig. 5-13.
- 5) After the adjustments, tighten the LOADING LEADER set screws.

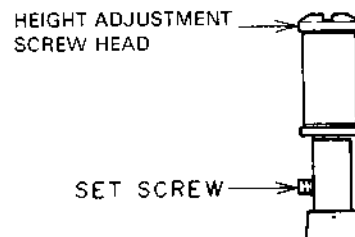


Fig. 5-12

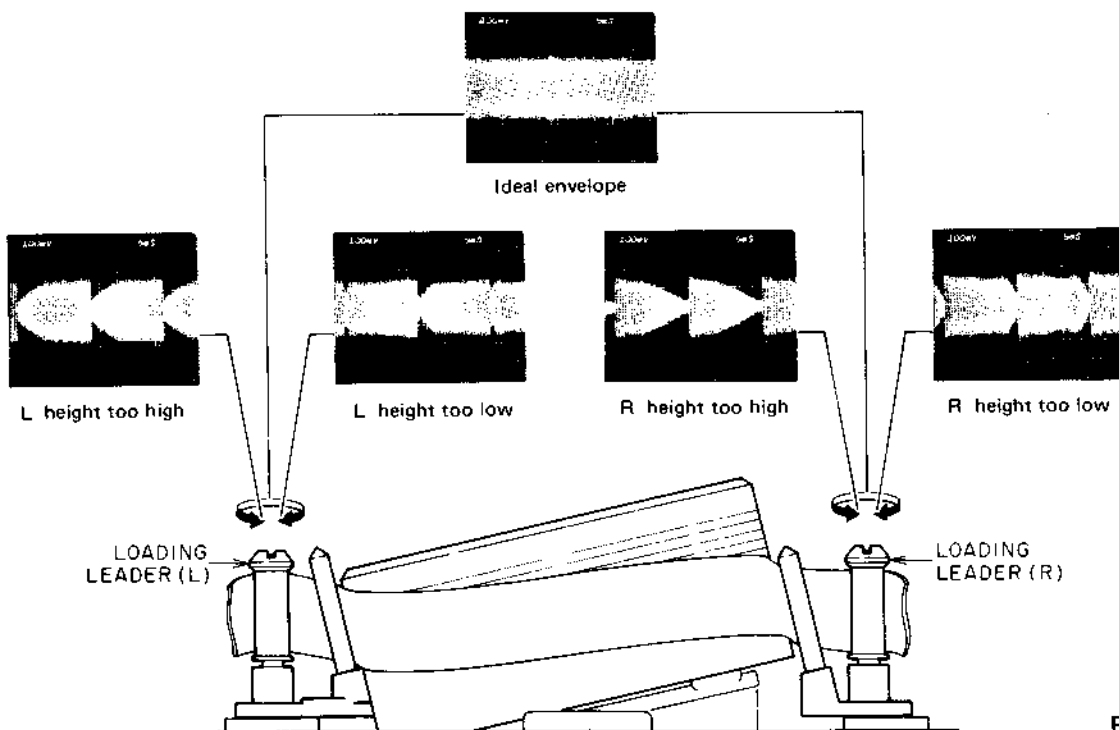


Fig. 5-13



### 5-2-7. A/C HEAD HEIGHT ADJUSTMENTS

- 1) Play back the test tape TF-526HH (AT-751778).
- 2) Connect the oscilloscope CH-1 to AUDIO OUTPUT and CH2 to TP500.
- 3) Turn the hexagon screw to obtain  $1/2$  of the output level of either CH1 or CH2 whichever has output signal.

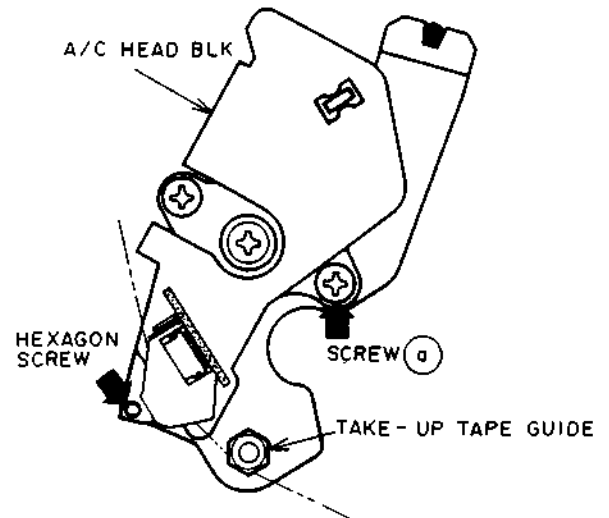


Fig. 5-14

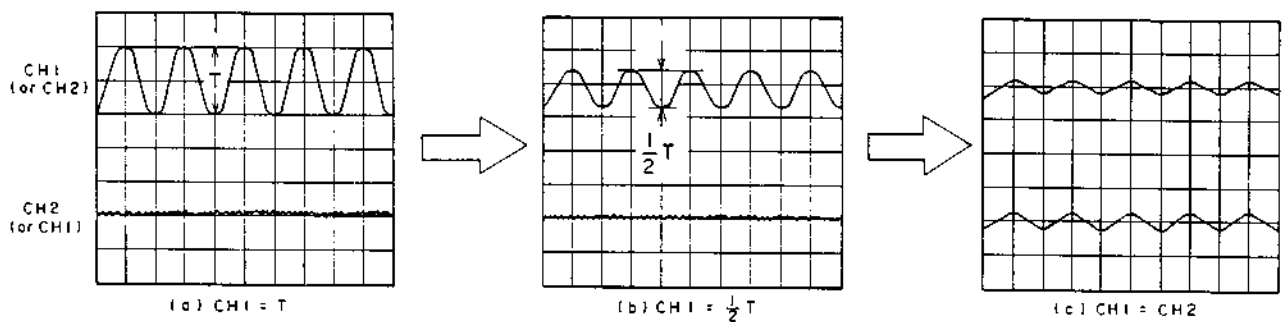


Fig. 5-15

- 4) Slightly turn the screw ② until the tape edge barely touches the lower part of the TAKE-UP TAPE GUIDE without any curl as shown in Fig. 5-4.
- 5) Confirm that both signals of CH1 and CH2 are nearly same level. Repeat the adjustments 3), 4) if it is not nearly same level.

# VI. ELECTRICAL ADJUSTMENT

Precautionary items prior to adjustments

1. The color bar generator output should be 1.0 Vp-p.
2. Video output terminal should be terminated with 75 ohms (dummy or load).

Required following test tapes.

Test tape	Parts No.
TF-527BL	AT-711880
TF-530RFS	AT-751775
TF-532CBS	AT-751360

STEP	ADJUSTMENT ITEM	ADJ. PART	TEST POINT
1.	MODE and INPUT SIGNAL/TEST TAPE		
2.	TEST POINT and ADJ. part		
3.	RESULT & REMARKS		

**12 SP STILL VERTICAL STABILITY**

1. "PB" → "PAUSE/STILL" (Test tape AF-532CBS)
2. TV screen & VR210
3. In the PB/STILL mode observe the TV screen and adjust VR210 until no picture vibration is obtained.

75%L	Y	C	G	M	R	BLU	become a line
BLK	100% WHT			BLK			

**3 AUDIO PB LEVEL**

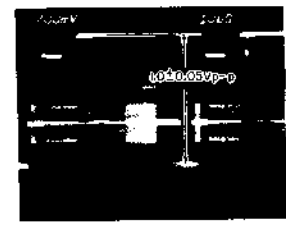
1. "PB" test tape TF-527BL
2. AUDIO OUT & VR700
3. Connect AC voltmeter for AUDIO OUT.

• -5.0 ± 0.5 dBs

**5 VIDEO E-E LEVEL**

1. "E-E" (Stop mode) input PAL color bar signal.
2. TP206 (V-OUT) & VR201
3. Connect oscilloscope to TP206.


• 1.0 ± 0.05 Vp-p



**10 REC/PB VIDEO LEVEL**

1. "REC" - "PB" PAL color bar signal.
2. TP206 (V-OUT) & VR200 (PB LEVEL)
3. Connect oscilloscope to TP206 (V-OUT).

• 1.6 ± 0.05 Vp-p

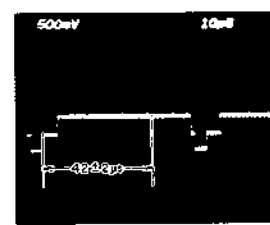


**14 CHARACTER POSITION**

1. "E-E" (Stop mode) No signal input
2. TP206 (V-OUT) & VR401 (CHARACTER POSITION)
3. Connect oscilloscope to TP206 (V-OUT).

• Press EXT and CLOCK buttons on the remote control.

• Adjust VR401 so that the time constant becomes 42 ± 2 μs as shown.



**6 FSC**


1. "E-E" (Stop mode) input PAL color bar signal.
2. TP207 (FSC) & VR400
3. Connect FRQ counter to TP207 (FSC).

• 4.433619 MHz ± 10 Hz

**11 CCD**

1. "PB" test tape TF-532CBS
2. TP204 (CCD) & VR208 (CCD)
3. Connect oscilloscope to TP204 (CCD).

• Adjust VR208 so that CCD level becomes minimum.




**8 WHITE & DARK CLIP**

1. "REC" PAL color signal.
2. TP205 (W/D CLIP) & VR205 (W. CLIP), VR204 (D. CLIP)
3. Connect oscilloscope to TP205 (W/D CLIP).

• VR205 (WHITE CLIP) ... 195%

• VR204 (DARK CLIP) ... 50%

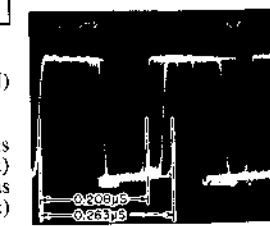


**7 CARRIER SET & DEVIATION**

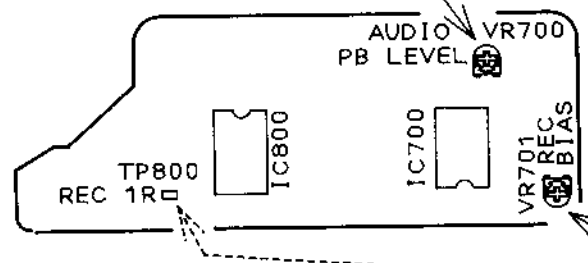
1. "REC" PAL color bar signal.
2. TP208 (REC FM) & VR203 (CARRIER), VR202 (DEVIATION)
3. Connect oscilloscope to TP208 (REC FM).

• VR203 (CARRIER) ... 0.263 μs (3.8 MHz)

• VR202 (DEVIATION) ... 0.208 μs (4.8 MHz)



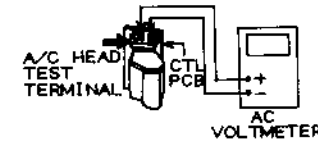
## AUDIO & PRE AMP PCB



**4 AUDIO REC BIAS**

1. "REC" (no signal input)
2. Test terminal on the A/C HEAD & VR701 (REC BIAS)
3. Connect AC voltmeter to test terminal.

• 3.0 ± 0.1 mV



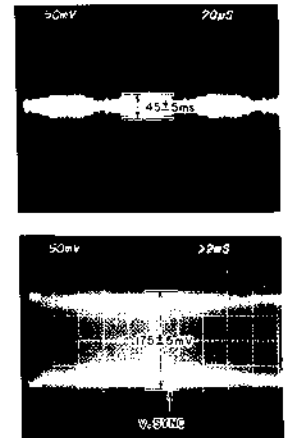
**9 VIDEO REC CURRENT**

1. "REC" PAL color bar signal.
2. TP800 (REC I.R) & VR207 (CHROMA).
3. Connect oscilloscope to TP800 (REC I.R).

• Turn the VR206 (Y) fully counterclockwise.

• Adjust VR207 (CHROMA) so that chroma REC current becomes 45 ± 5 mVp-p.

• Adjust VR206 (Y) so that Y REC current becomes 175 ± 5 mVp-p at V SYNC area.

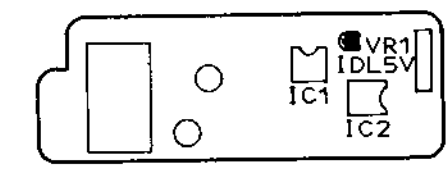


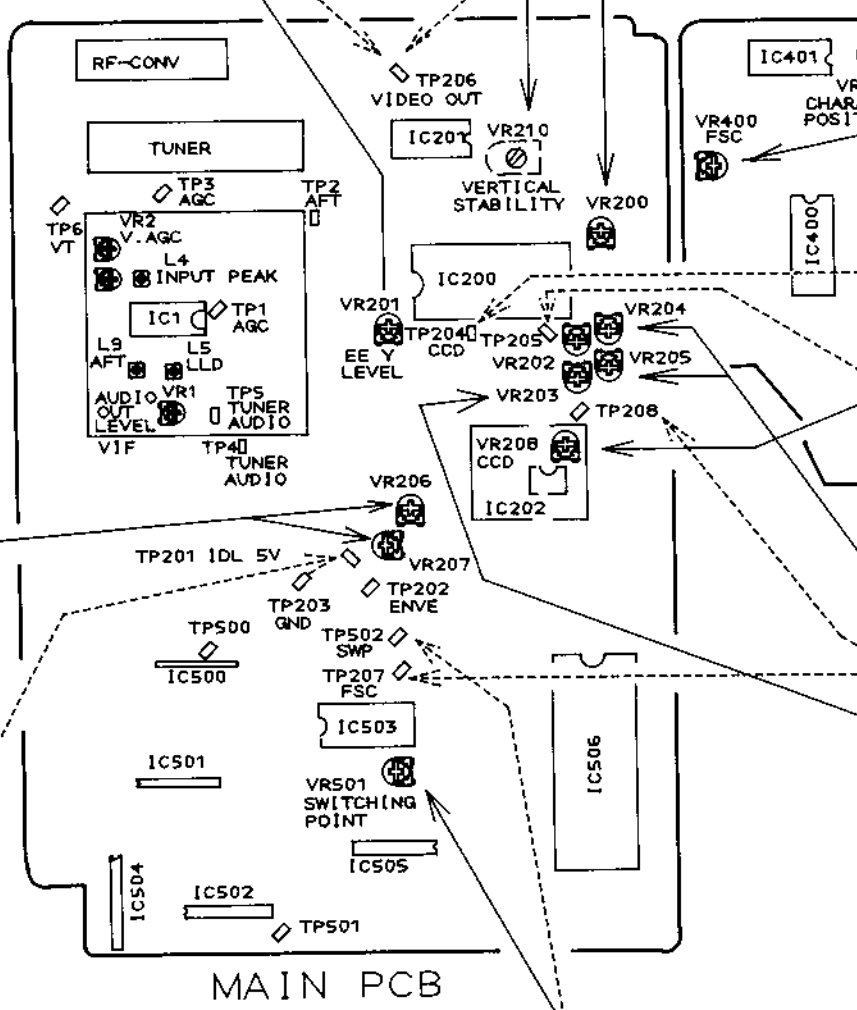
**1 IDL 5V**

1. "E-E" (Stop mode)
2. TP201 & VR1
3. Connect DC voltmeter to TP201.

• 5 ± 0.05 V DC

**POWER SUPPLY PCB**

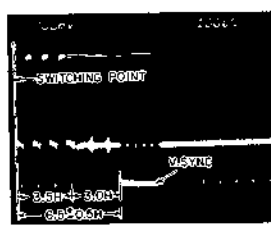




**2 PB SWITCHING POINT**

1. "PB" test tape TF-530RFS
2. TP502 (SWP), TP206 (V-OUT) & VR501
3. Connect oscilloscope to TP502 (SWP) for triggering and connect to TP206 (V-OUT).

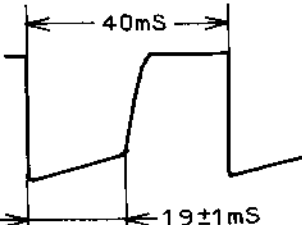
• Adjust VR501 so that switching point becomes 6.5 ± 0.5 H from the V-SYNC.



**13 TRACKING PRESET**

Tracking preset data can be adjusted as following.

1. Plug in the AC power cord with the POWER, EJECT and REW buttons pressed steadily at the same time.
2. In an SP play mode, tracking data 0 to 3F which will be displayed in the FLD CH. No. window may be set to 1F or 20 with the tracking buttons. At this time, tracking M.M waveform, IC 503 pin 24, should be within 19 ± 1 ms.
3. Press the BAND selector button to memorize the tracking preset data.
4. Confirm that the maximum RF output (at TP202) should be obtained on REC/PB mode and tracking marker "T" is in the center on the monitor screen.



# VII. PARTS LIST

**ATTENTION**

1. When placing an order for parts, be sure to list Part No., Model No., and the description of each part. Otherwise, the possibility of the part or the delivery of a wrong part may result.
2. Please do not use the Part No. as garages unless permitted.
3. This list of parts from this manual should not be altered.
4. Since this publication, Parts List & Preliminary Service Manual may have been the subject of changes, please see the Parts List for all future reference.

## HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

b) PC Board

### 2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

### 6. MAIN PC BOARD

REF. NO.	PART NO.	DESCRIPTION
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A)    [S] : SAA (Australia)  
 [B] : BEAB (England) [U] : U/T (Universa Area)  
 [C] : CSA (Canada)  
 [E] : CEE (Europe)    [V] : VDE (W. Germany)  
 [J] : JPN (Japan)    [Y] : Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

**WARNING**

▲ (▲) INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

**AVERTISSEMENT**

▲ (▲) ILLINDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL. NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

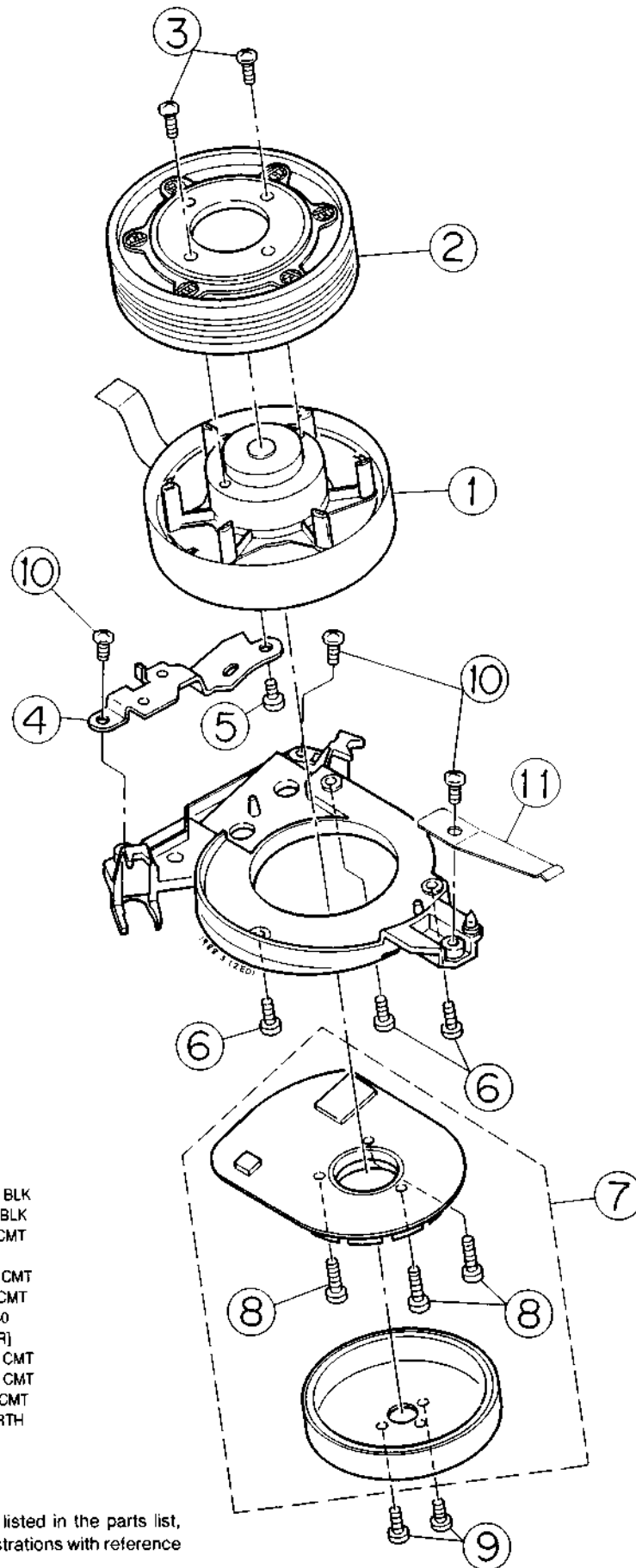
## 1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	BL-V1075A130A	PINCH ROLLER BLK VS-35EA	52	*EF-601301	FUSE SEMKO T 250V 2.00A
2	BM-373098	MOTOR DVX-67A2R2 [CAPSTAN MOTOR]	53	*EF-601942	FUSE SEMKO T 250V 630MA
3	BM-367631	MOTOR PART [LOADING MOTOR][M901]	54	*EF-258344	FUSE SEMKO T 250V 800MA
4	BM-M3225A010A	MOTOR SM-250 [DRUM MOTOR]	55	EH-378541J	COMP R RGL3X 473J
5	BR-367618	DISK(S)PART	56	EH-378540J	COMP R RGL5X 103J
6	BR-367619	DISK(T)PART	57	EH-383057J	COMP R RGL5X 473J
7	*BT-380096J1	TRANS POW V1084EO [EO-E,EO-V]	58	EH-386636J	COMP R RGL6X 103J
8	BV-V1075A410C	LOWER DRUM BLK	59	EH-371021	DL EFD-HR124A13J
9	BV-373938	RF CONVERTER MDLK-3D063A EO [EO-E,EO-V]	60	EH-379367	FILTER CE CDA5.5ME23A [EA,EV,EO-E,EO-V]
10	BV-373939	RF CONVERTER MDLK2D103A EV [EV]	61	EH-379368	FILTER CE CDA6.0ME23A [ES]
11	BV-373935	RF CONVERTER MDLK2S100A EA [EA]	62	EH-373916	FILTER CE SAF36.9MZ70Z [EA]
12	BV-373936	RF CONVERTER MDLK3B063A EK,ES [ES]	63	EH-376120	FILTER CE SAF38.9MW70Z [ES]
13	BV-V1075A070A	S.LOADING LEADER BLK VS-35EA	64	EH-376119	FILTER CE SAF38.9MZH71Z [EO-V]
14	BV-V1075A080A	T.U LOADING LEADER BLK VS-35EA	65	EH-373914	FILTER CE SAF38.9MZ70Z [EV,EO-E]
15	BV-V1075A420G	UPPER DRUM BLK	67	EH-373920	FILTER CE SFE5.5MB [EA,EV,EO-E]
16	EC-368118	C DBL LAYER EECS5R5H 224 5.5DC [ES,EV]	68	EH-373921	FILTER CE SFE6.0MB [ES]
17	EC-368823	C DBL LAYER EECS5R5H 473Z5.5DC [EA,EO-E,EO-V]	69	EH-373918	FILTER CE TPS5.5MB [EA,EV,EO-E]
18	ED-373101	D LED LN59AK INFRARED [SENSOR PCB D1]	70	EH-368948	FILTER CE TPS5.5MW [EO-V]
19	ED-376111	D LED SE303AC INFRARED	71	EH-373919	FILTER CE TPS6.0MB [ES]
20	ED-383034J	D LED SLR-54PC3F L,M GREEN [QUICK START]	72	EH-360339	FILTER LC AP AF-25P [EA,EV,EO-E,EO-V]
21	ED-382358J	D LED SLR34PC 3F K,L,M GREEN [AFC/MEMO]	73	EH-364045	FILTER LC FF-78P
22	ED-360409	D PHOTO PN323B	74	EH-373144	FILTER LC LP LF-69P-02 5P
23	*ED-379298	D SILICON DBA20B 100/2.0A	75	EH-368821	FILTER LC LP MYV-23R
24	ED-380089J	D SILICON DFC15TC-FD1 200/1.5A	76	EH-368136	FILTER LC TPS 134-5052-04 [EO-V]
25	*ED-378455	D SILICON DSA12TG 600/1.2A	77	EI-380085J	IC AN3231K
26	ED-371512	D SILICON ERA22-04Y F05 400/1.5	78	*EI-376794J1	IC BA10393
27	*ED-380715J	D SILICON ERB83-004 40/1.7A	79	EI-373981J1	IC BA10383N
28	ED-344280	D SILICON H GMA-01-FY2 F05	80	EI-367572	IC BA15218
29	ED-307572	D SILICON H 1SS131	81	EI-373980	IC BA15218N
30	ED-624903	D SILICON H 1S2473	82	EI-353421	IC BA6229
31	*ED-367202	D SILICON S5566B F12	83	EI-360316	IC BA6305
32	*ED-367693	D SILICON S5566G(LC-7)F12	84	*EI-368152	IC BA707
33	*ED-370990	D SILICON 1SR35-100AHS F10	85	EI-354095	IC BA718
34	ED-381585J	D ZENER H HZS11B1J F05	86	EI-380086J	IC BU2735AS
35	ED-376598	D ZENER H HZS36B3J F05	87	EI-373954	IC CXK1006L
36	ED-365699	D ZENER H HZS5.6B1J F05	88	EI-373946	IC LA7292
37	ED-346594	D ZENER H HZ3 B3	89	EI-378177	IC MB88525-192G LCXSYP3
38	ED-346586	D ZENER H HZ33-3L	90	EI-373966	IC MSM6965-3RS
39	ED-346525	D ZENER H HZ6A3L	91	EI-379020	IC M50455-073SP
40	ED-346526	D ZENER H HZ6B1L	92	EI-368809	IC M51496P
41	ED-351419	D ZENER H HZ7B3L	93	EI-380090J	IC NJM2352D
42	ED-346541	D ZENER H HZ9B2L	94	EI-373955	IC S8053ALR
43	ED-346543	D ZENER H HZ9C1L	95	EI-330986	IC TA78L009AP [EO-E,EO-V]
44	ED-346546	D ZENER H HZ9C3L [EO-E,EO-V]	96	EI-373023	IC TA8632N
46	EE-380256J	TV TUNER TEMD1-022A EM [EV]	97	EI-200573	IC TC4053BP
47	EE-373927	TV TUNER TEMS1-005A EA [EA]	98	EI-367271	IC UPC1490HA
48	EE-373932	TV TUNER TEMZ1-011A [ES]	99	EI-380084J	IC UPC2313CA
49	EE-385892J	TV TUNER TERE1-001A EO [EO-E,EO-V]	100	EI-337530	IC UPC574J
			101	EI-376112	IC UPD6122G
			102	EI-375472	IC UPD75208CW-105 LCXOPE3 [EO-V]
			103	EI-380580J	IC UPD75208CW-175 LLXOPE1 [EXCEPT EO-V]
			104	EI-347991	OSC CE CSA6.00MS 6MHZ
			105	EI-376113	OSC CE CSB455EB
			106	EI-388110J	OSC CE CST4.19MG 4.194MHZ

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
107	EI-368825	OSC X'TAL MX-38T 32.768KHZ	166	ML-500681	LEVER TENSION BAND PART
108	EI-309878	OSC X'TAL 4.433619MHZ	167	MZ-500717T	GEAR CAM CENTER
109	EM-373956	IND FL FV132 DOUBLE	168	MZ-368797T	GEAR CAM JOINT
110	*EO-368465	COIL LF LF4N [EO-V]	169	MZ-500707T1	GEAR CAM TENSION
111	EO-375471	COIL OSC 1 S033344	170	MZ-500715T	GEAR FL DRIVE
112	*EO-376837	RELAY POW VB-100TBU-5 2TR 100V	171	MZ-V1075A090A	GEAR TOGGLE (S) BLK VS-35EA
113	*ER-318400	R CB H S10 FS RDS 1/4W 680J	172	MZ-V1075A100A	GEAR TOGGLE (TU) BLK VS-35EA
114	*ER-378650J	R FUSE H S10 ERQ16NK 1/6W R47J [EO-V,EO-E]	173	MZ-500716T	GEAR WHEEL
115	ER-336756	R OMF H FS 1W R47J	174	MZ-367628J1	GEAR WORM PART
116	ER-376864	R OMF H S12 SPR1 1W 274J	175	MZ-368794T	GEAR(S)
117	ES-373099	SW LEAF MTS10110MPC1 [REC SAFTY SW][SW1]	176	MZ-368795T1	GEAR(T)
118	ES-381310J1	SW MODE SELECTOR D2ZQ-S2-2 [MODE SELECTOR]	177	VT-367622J2	GUIDE ROLLER PART
119	ES-380117J	SW SLIDE ESD-1111352 2-01-03N [PRESET]			
120	ES-380116J	SW SLIDE ESD-1112252 2-02-02N [IN PUT SELECT]			
121	ES-373973	SW SLIDE HSW0810-010 1-01-02S [EA,ES,EK-B] [AUTO-B/W]			
122	ES-373974	SW SLIDE HSW0811-020 2-02-03S [EV,EO-E,EO-V][P-B/W-S]			
123	ES-349474	SW TACT SKHHAM004A [TRAKING >]			
124	ET-361463	DETECTOR ON2170 Q,R [SENSOR PCB PH1]			
125	ET-356336	TR DTA114ES			
126	ET-360646	TR DTA143ES [EK-B,EO-E,EO-V]			
127	ET-368836	TR DTA143TA			
128	ET-354415	TR DTA144ES			
129	ET-373985	TR DTA144TS			
130	ET-353897	TR DTC114ES [EV,EO-E,EO-V]			
131	ET-354365	TR DTC114YS			
132	ET-354371	TR DTC124ES			
133	ET-354364	TR DTC143TS			
134	ET-354414	TR DTC144ES			
135	*ET-364093	TR 2SA1283 E,F			
136	ET-356224	TR 2SA1286 G,H,J F05			
137	ET-353899	TR 2SA1317 S,T,U			
138	*ET-380630J	TR 2SB1010 [EXCEPT EO-V]			
139	*ET-366365	TR 2SB1185 E,F			
140	ET-336845	TR 2SB641 Q,R,S,T [EV]			
141	*ET-356817	TR 2SB891 Q,R [EO-V]			
142	ET-321644	TR 2SC1213 C			
143	ET-375777	TR 2SC2926S P,Q			
144	ET-355689	TR 2SC3246 G,H,J F05 [EO-E,EO-V]			
145	*ET-376818	TR 2SC3247 H,J,K			
146	ET-368084	TR 2SC3315 D			
147	ET-360137	TR 2SC3330 U,V F05			
148	ET-372197	TR 2SC3377 R			
149	*ET-376663	TR 2SC3668			
150	*ET-366166	TR 2SD1292 Q,R			
151	*ET-366677	TR 2SD1761 E,F			
152	*ET-380685J	TR 2SD1761 E,F,G			
153	*ET-366581	TR 2SD1782 E,F			
154	*ET-373025	TR 2SD1944 J1,J2,K			
155	EV-380314J	VR ROTARY RK09K1130 L=** B203 [PICTURE]			
156	EX-330533	POSISTOR PTH61G27BD3R3N			
157	HE-361456	HEAD E HVFMD0005B [FULL ERASE HEAD]			
158	HR-387805J	HEAD COMBO HXMZA1031A [AUDIO/CONTROL]			
159	MB-373080	BELT IDLER			
160	MB-373096	BELT LOADING			
161	ML-373075	ARM LOADING BRAKE			
162	ML-367614	ARM MAIN BRAKE(S)PART			
163	ML-367616	ARM MAIN BRAKE(TU)PART			
164	ML-367617	ARM REVIEW BRAKE PART			
165	ML-373043	CLUTCH BLK			

## HEAD DRUM BLOCK

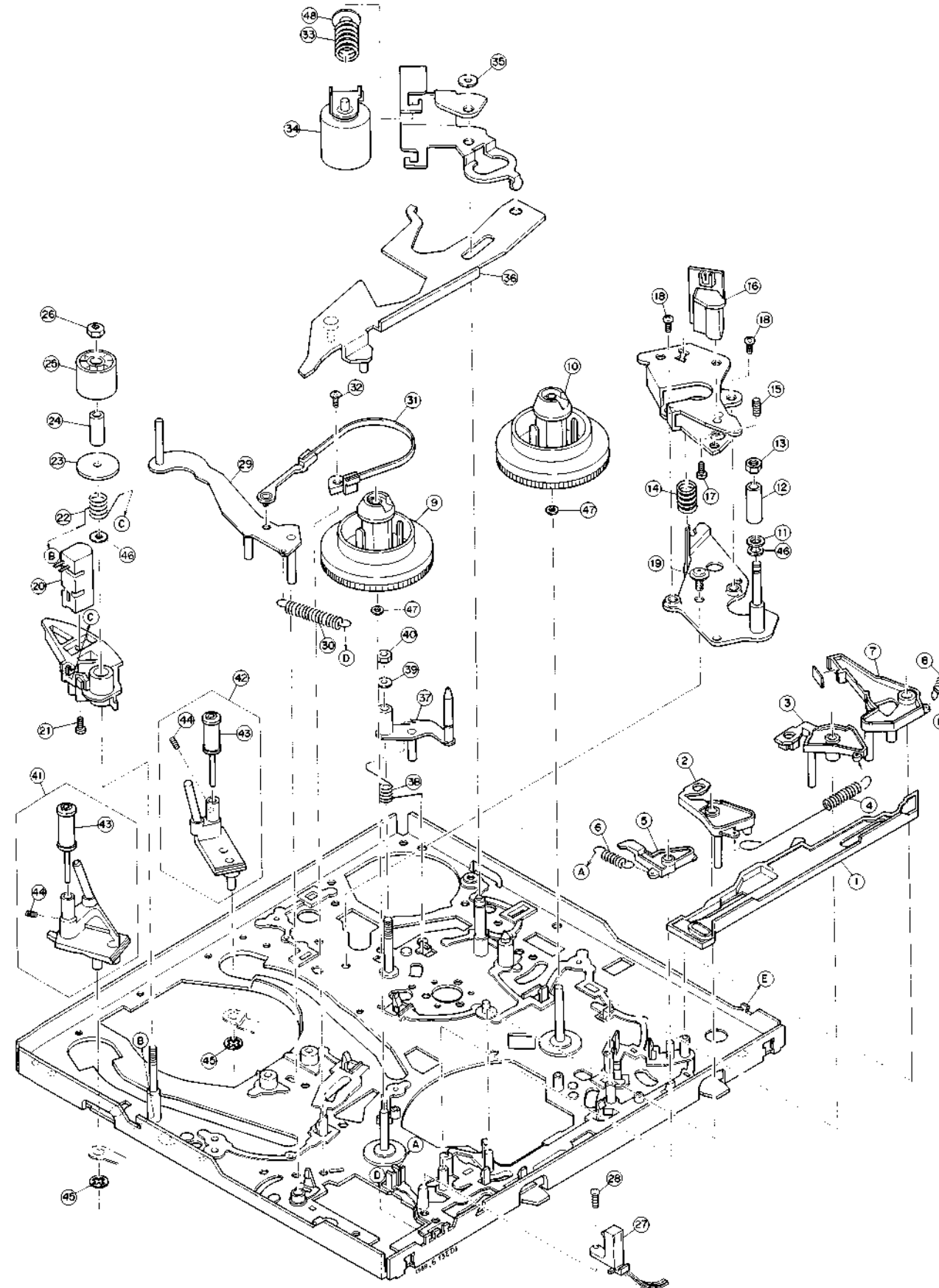


### 2. HEAD DRUM BLOCK

Ref. No.	Part No.	Description
1	BV-V1075A410C	LOWER DRUM BLK
2	BV-V1075A420G	UPPER DRUM BLK
3	ZS-321298	BID30X08STL CMT
4	VT-373884J1	PLATE EARTH
5	ZS-479474	PAN26X05STL CMT
6	ZS-563444	BID26X08STL CMT
7	BM-M3225A010A	MOTOR SM-250 [DRUM MOTOR]
8	ZS-467796	PAN26X12STL CMT
9	ZS-479474	PAN26X05STL CMT
10	ZS-413785	BID30X12STL CMT
11	ZG-382137J	SP PLATE EARTH

NOTE:  
Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

**MECHA BLOCK (1)**



**3. MECHA BLOCK (1)**

Ref. No.	Part No.	Description
1	MZ-373079	SLIDER BRAKE
2	ML-367614	ARM MAIN BRAKE(S)PART
3	ML-367616	ARM MAIN BRAKE(TU)PART
4	ZG-373548	SP PULL MAIN BRAKE
5	ML-373075	ARM LOADING BRAKE
6	ZG-373534	SP PULL LOAD BRAKE
7	ML-367617	ARM REVIEW BRAKE PART
8	ZG-373535	SP PULL REVW BRAKE
9	BR-367618	DISK(S)PART
10	BR-367619	DISK(T)PART
11	MS-373095	GUIDE TAPE LCX
12	MS-372186J1	GUIDE TAPE(6)
13	ZW-358045	N30STL CMT 3
14	ZG-500792	SP PUSH A/C
15	ZG-373900	6SET30X080SCM PKR CP
16	HR-387805J	HEAD COMBO HXMZA1031A [AUDIO/CONTROL]
17	ZS-373899	PAN20X2.5STL BDY PS1
18	ZS-321298	BID30X08STL CMT
19	ZS-373896	DT BID30X08STL CMT PW080
20	HE-361456	HEAD E HVFMD0005B [FULL ERASE HEAD]
21	ZS-464703	BID20X04STL CMT
22	ZG-374022	SP TORSION ARM FE
23	ZW-373088	FLANGE Z
24	ZW-373089	SPACER
25	MR-373087	ROLLER Z
26	ZW-350839	N30 NYLON
27	ES-373099	SW LEAF MTS10110MPC1 [REC SAFTY SW][SW1]
28	ZS-321298	BID30X08STL CMT
29	BL-367620-A	ARM TENSION PART
30	ZG-373539	SP PULL TENSION
31	ML-500881	LEVER TENSION BAND PART
32	ZS-373532	DT BID30X08STL CMT C080
33	ZG-382153J	SP PUSH P
34	BL-V1075A130A	PINCH ROLLER BLK VS-35EA
35	ZW-373898	SLIT W31X070X050PSL
36	BL-500879T1	PLATE P SLIDER PART
37	BL-368475	ARM REVIEW GUIDE PART
38	ZG-373530	SP TORSION REVIEW ARM
39	ZW-324417	PW31X060X050PSL
40	ZW-350839	N30 NYLON
41	BV-V1075A070A	S.LOADING LEADER BLK VS-35EA
42	BV-V1075A080A	T.U LOADING LEADER BLK VS-35EA
43	VT-367622J2	GUIDE ROLLER PART
44	ZS-374458	6SET20X030SCM PKR FP
45	ZW-332843	RETAINING RING GRIP 380STL ACP
46	ZW-287458	PW33X060X030BRS NI3
47	ZW-324417	PW31X060X050PSL
48	ZW-292770	PW41X100X050STL CMT

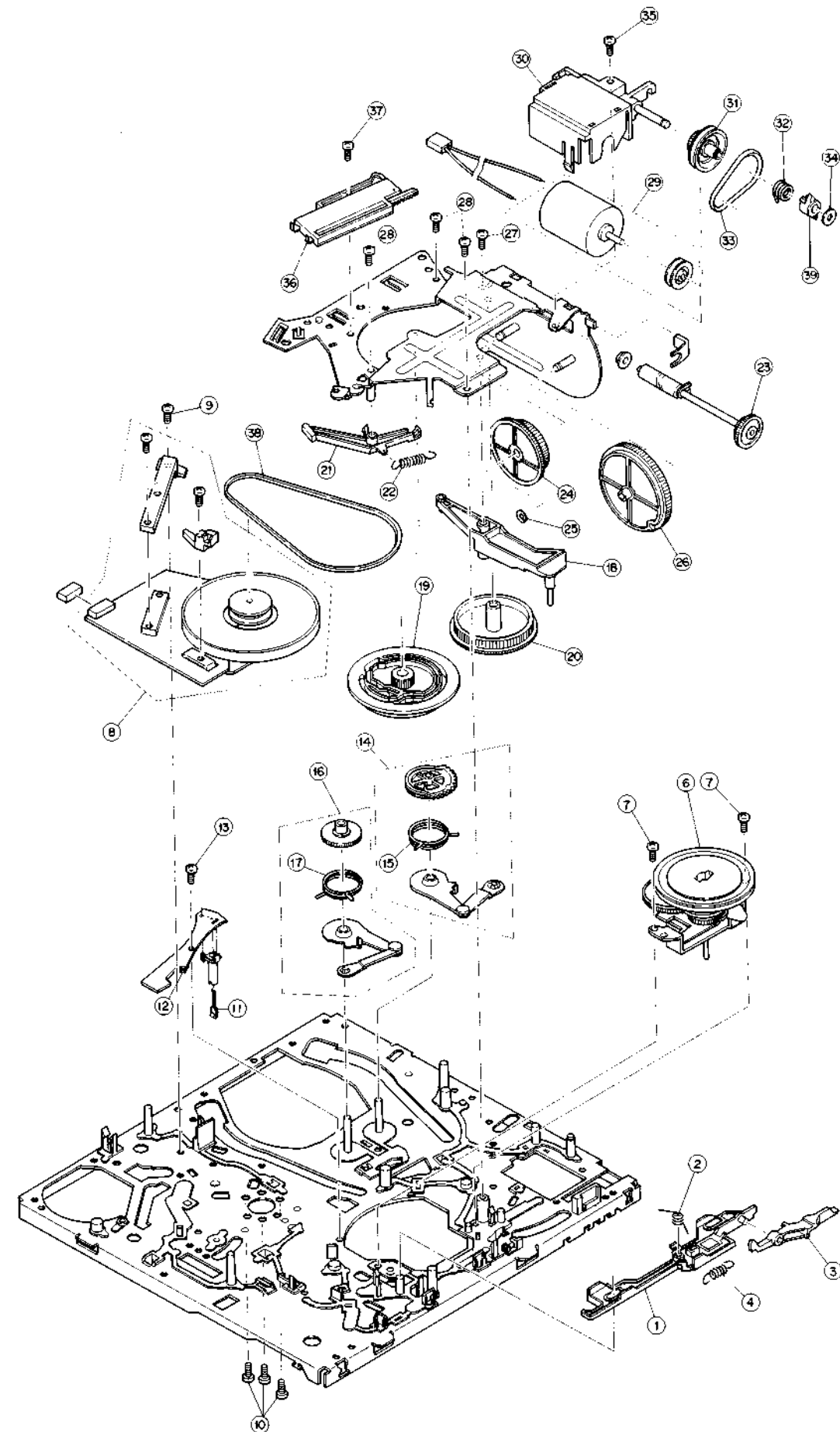
NOTE:  
Parts will not be supplied if they are not listed in the parts list,  
even if they appear on the assembling illustrations with reference  
No.

4. MECHA BLOCK (2)

MECHA BLOCK (2)

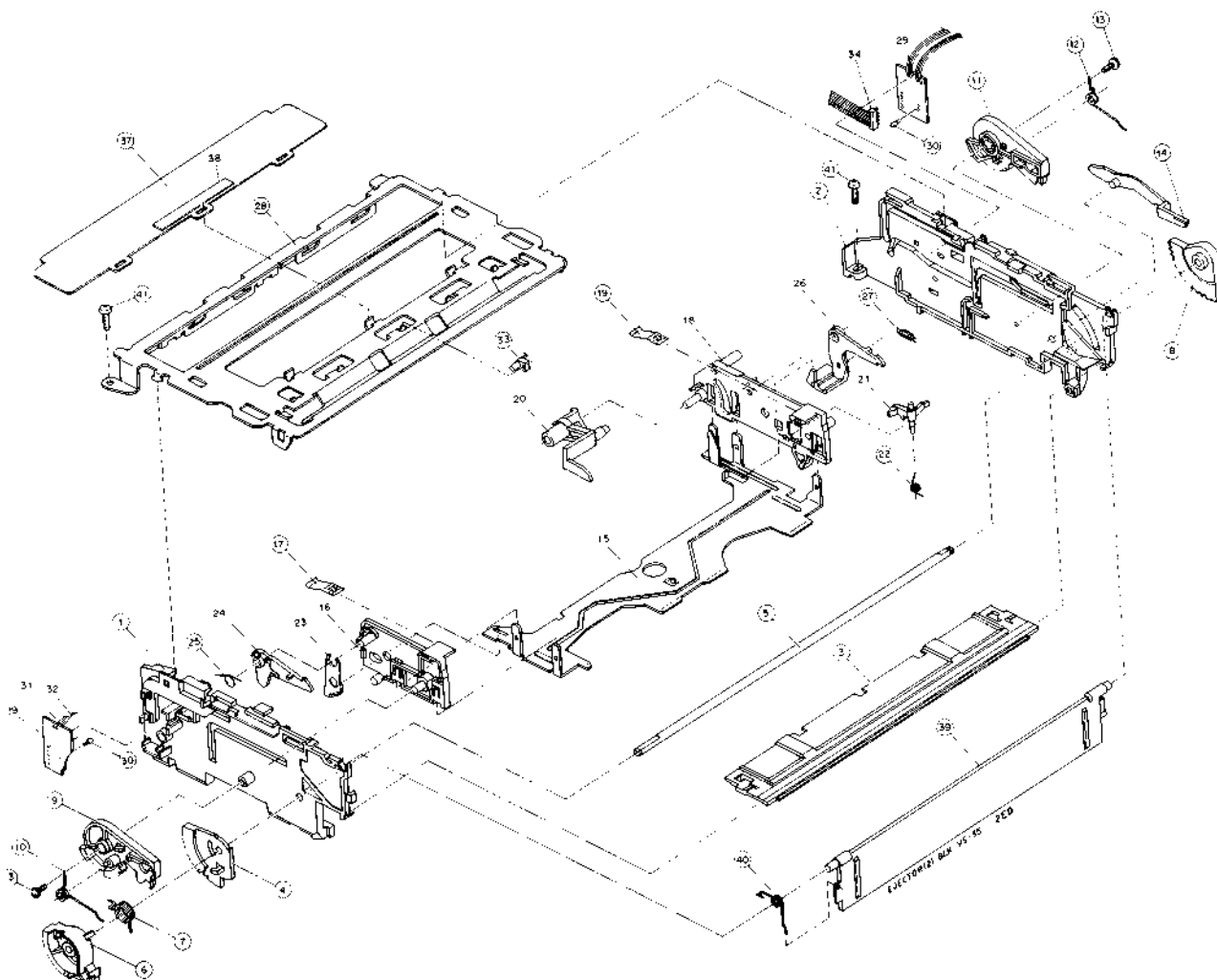
Ref. No.	Part No.	Description
1	ML-373038	SLIDER FR
2	ZG-373894J1	SP TORSION SLIDER
3	ML-373036	LEVER F/R HOOK
4	ZG-373536	SP PULL HOOK
6	ML-373043	CLUTCH BLK
7	ZS-373895	DT BID26X08STL CMT
8	BM-373098	MOTOR DVX-67A2R2 [CAPSTAN MOTOR]
9	ZS-373895	DT BID26X08STL CMT
10	ZS-419782	BID26X05STL CMT
11	ED-373101	D LED LN59AK INFRARED [SENSOR PCB D1]
12	ET-361463	DETECTOR ON2170 Q,R [SENSOR PCB PH1]
13	ZS-369900	PAN30X08STL CMT TW
14	MZ-V1075A090A	GEAR TOGGLE (S) BLK VS-35EA
15	ZG-373542	SP TORSION GEAR TOGGLE(S)
16	MZ-V1075A100A	GEAR TOGGLE (TU) BLK VS-35EA
17	ZG-373541	SP TORSION GEAR TOGGLE(TU)
18	ML-367625	LEVER CAM SLIDER PART
19	MZ-500717T	GEAR CAM CENTER
20	MZ-500707T1	GEAR CAM TENSION
21	BL-367627	ARM FW BRAKE PART
22	ZG-373546	SP PULL FW BRAKE
23	MZ-367628J1	GEAR WORM PART
24	MZ-500716T	GEAR WHEEL
25	ZW-373898	SLIT W31X070X050PSL
26	MZ-500715T	GEAR FL DRIVE
27	ZS-373895	DT BID26X08STL CMT
28	ZS-373887	PLX BID26X10STL CMT
29	BM-367631	MOTOR PART [LOADING MOTOR][M901]
30	SP-500887T-A	HOUSING MOTOR PART
31	MR-373045	PULLY BELT LOADING
32	ZG-373046J1	SP TORSION TRIGGER
33	MB-373096	BELT LOADING
34	ZW-373901	SLIT W22X060X050PSL
35	ZS-373897	PLX BID26X10STL CMT
36	ES-381310J1	SW MODE SELECTOR D2ZQ-S2-2 [MODE SELECTOR]
37	ZS-373895	DT BID26X08STL CMT
38	MB-373080	BELT IDLER
39	MZ-376267	RING TRIGGER(2)

NOTE:  
Parts will not be supplied if they are not listed in the parts list,  
even if they appear on the assembling illustrations with reference  
No.





# EJECTOR BLOCK



## 5. EJECTOR BLOCK

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	MZ-368790T1	HOUSING(S)	30	ET-361490	TR PHOTO PN268 R,S
2	MZ-368791T2	HOUSING(T)	39A	SE-388033J	MASK CASSETTE E11 [EA,ES]
3	SZ-375956T	GUID F			
4	MZ-368794T	GEAR(S)			
5	MS-368798T	SHAFT LOADING	39C	SE-388035J	MASK CASSETTE E12 [EV,EO-E,EO-B]
6	MZ-368797T	GEAR CAM JOINT	40	ZG-500767	SP TORSION MASK
7	ZG-375953T	SP TORSION JOINT	41	ZS-378341	PLX BID30X12STL CMT
8	MZ-368795T1	GEAR(T)	42	BV-V1075A240A	TW HOLDER CASSETTE BLK -35EA/TW
9	ML-368792T	ARM LOADING(S)	43	BV-V1075A205C	TW EJECTOR (2) BLK 9272/TW
10	ZG-375954T	SP TORSION LOADING(S)			
11	ML-368793T	ARM LOADING(T)			
12	ZG-375955T	SP TORSION LOADING(T)			
13	ZS-368524	PLX BID26X10STL CMT C072			
14	ML-500730T	ARM LID OPENER			
17	ZG-382450T	SP PLATE HOLDER(2)			
19	ZG-382450T	SP PLATE HOLDER(2)			
22	ZG-375959T	SP TORSION RELEASE			
25	ZG-375957T1	SP TORSION DAMPER			
27	ZG-375958T	SP PULL DAMPER			
28	MA-368799T	CHASSIS UPPER			

**NOTE:**

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

## 6. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1A	BA-V1084A605A	PC( # ) MAIN(PAL) BLK VS-26EA [EA]
1B	BA-V1084A605C	PC( # ) MAIN(PAL) BLK VS-26ES [ES]
1C	BA-V1084A605D	PC( # ) MAIN(PAL) BLK VS-26EV [EV-E, EV-Y1]
1D	BA-V1084A605E	PC( # ) MAIN(PAL) BLK (VS-26EO) [EO-E]
1E	BA-V1084A605L	PC( # ) MAIN(PAL) BLK VS-27EV [EV-E, EV-Y7]
1G	BA-V1084A605F	PC( # ) MAIN(PAL) BLK (VS-20EO(V)) [EO-V]
2A	BA-V1084A500A	PC( # ) POWER BLK VS-22EA [EA]
2C	BA-V1084A500E	PC( # ) POWER BLK VS-22ES [ES]
2D	BA-V1084A500C	PC( # ) POWER BLK VS-22EV(E) [EV-E]
2E	BA-V1084A500D	PC( # ) POWER BLK VS-22EV(Y1) [EV-Y1]
2F	BA-V1075D500H	PC( # ) POWER BLK VS-37EM [EV-E, EV-Y7]
2G	BA-V1084A500F	PC( # ) POWER BLK VS-22EO(E) [EO-E]
2H	BA-V1084A500G	PC( # ) POWER BLK VS-22EO(V) [EO-V]

PC ( # ) MAIN BLK CONSISTS OF FOLLOWING P.C BOARD.

- \* MAIN P.C BOARD
- \* CHROMA P.C BOARD
- \* AUDIO & PRE-AMP P.C BOARD
- \* OPERATION P.C BOARD
- \* PRE-SET P.C BOARD
- \* 21 PIN P.C BOARD (EO ONLY)

PC ( # ) POWER BLK CONSISTS OF FOLLOWING P.C BOARD.

- \* POWER SUPPLY P.C BOARD
- \* TR (1) P.C BOARD
- \* TR (2) P.C BOARD
- \* TR P.C BOARD (VS-27EV ONLY)
- \* SW POWER P.C BOARD (VS-27EV ONLY)
- \* DIODE P.C BOARD (VS-27EV ONLY)

## 7. MAIN P.C BOARD

Ref. No.	Part No.	Description
C13	EC-355728	C COMP V AWS 222J 50DC
C500A	EC-368823	C DBL LAYER EECSS5R5H 473Z5.5DC [EA,EO-E,EO-V]
C500B	EC-368118	C DBL LAYER EECSS5R5H 224 5.5DC [ES, EV]
D1	ED-307572	D SILICON H 1SS131
D2	ED-307572	D SILICON H 1SS131
D3	ED-307572	D SILICON H 1SS131
D4	ED-307572	D SILICON H 1SS131
D6	ED-346546	D ZENER H HZ9C3L [EO-E,EO-V]
D200	ED-307572	D SILICON H 1SS131
D201	ED-624903	D SILICON H 1S2473
D202	ED-307572	D SILICON H 1SS131
D204	ED-307572	D SILICON H 1SS131
D500	ED-307572	D SILICON H 1SS131
D501	ED-307572	D SILICON H 1SS131
D502	ED-307572	D SILICON H 1SS131
D503	ED-307572	D SILICON H 1SS131
D504	ED-307572	D SILICON H 1SS131
D506	ED-307572	D SILICON H 1SS131
D507	ED-307572	D SILICON H 1SS131
D508	ED-307572	D SILICON H 1SS131
D509	ED-307572	D SILICON H 1SS131
D510	ED-307572	D SILICON H 1SS131
D511	ED-307572	D SILICON H 1SS131
D512	ED-307572	D SILICON H 1SS131
D516	ED-346541	D ZENER H HZ9B2L
D528	ED-307572	D SILICON H 1SS131
D529	ED-365699	D ZENER H HZS5.6B1J F05
D530	ED-307572	D SILICON H 1SS131
FL1A	EH-373916	FILTER CE SAF36.9MZ70Z [EA]
FL1B	EH-376120	FILTER CE SAF38.9MW70Z [ES]
FL1C	EH-373914	FILTER CE SAF38.9MZ70Z [EV,EO-E]
FL1D	EH-376119	FILTER CE SAF38.9MZH71Z [EO-V]
FL2A	EH-373918	FILTER CE TPS5.5MB [EA, EV, EO-E]
FL2B	EH-373919	FILTER CE TPS6.0MB [ES]
FL2C	EH-368948	FILTER CE TPS5.5MW [EO-V]
FL3A	EH-373920	FILTER CE SFE5.5MB [EA, EV, EO-E]
FL3B	EH-373921	FILTER CE SFE6.0MB [ES]
FL4A	EH-379367	FILTER CE CDA5.5ME23A [EA, EV, EO-E, EO-V]
FL4B	EH-379368	FILTER CE CDA6.0ME23A [ES]
FL5	EH-368136	FILTER LC TPS 134-5052-04 [EO-V]
FL200	EH-373144	FILTER LC LP LF-69P-02 5P
FL201	EH-360339	FILTER LC AP AF-25P [EA, EV, EO-E, EO-V]
FL202	EH-368821	FILTER LC LP MYV-23R
FR500	ER-336756	R OMF H FS 1W R47J
IB500	EH-378540J	COMP R RGL5X 103J
IB501	EH-386636J	COMP R RGL6X 103J
IC1	EI-368809	IC M51496P
IC2	EI-330986	IC TA78L009AP [EO-E, EO-V]
IC3	EI-337530	IC UPC574J
IC200	EI-380085J	IC AN3231K
IC201	EI-200573	IC TC4053BP
IC202	EI-373966	IC MSM6965-3RS
IC500	EI-360316	IC BA6305

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
IC501	EI-373980	IC BA15218N	TR14	ET-360646	TR DTA143ES [EO-E,EO-V]
IC502	EI-354095	IC BA718	TR15	ET-355669	TR 2SC3246 G,H,J F05 [EO-E,EO-V]
IC503	EI-360086J	IC BU2735AS	TR16	ET-353899	TR 2SA1317 S,T,U
IC504	EI-353421	IC BA6229	TR17	ET-353899	TR 2SA1317 S,T,U
IC505	EI-373981J1	IC BA10393N	TR18	ET-353899	TR 2SA1317 S,T,U
IC506	EI-378177	IC MB88525-192G LCXSYP3	TR19A	ET-336845	TR 2SB641 Q,R,S,T [EV]
IC507	EI-373980	IC BA15218N	TR19B	ET-356224	TR 2SA1286 G,H,J F05 [EA,ES,EO-E,EO-V]
L1A	EO-368179	COIL FIX 1 EL0606SKI R68M [ES,EO-E]	TR200	ET-353899	TR 2SA1317 S,T,U
L1B	EO-368178	COIL FIX 1 EL0606SKI R47M [EO-V]	TR201	ET-360137	TR 2SC3330 U,V F05
L2	EO-345860	COIL FIX 1 EL0606SKI 2R7K	TR204	ET-353899	TR 2SA1317 S,T,U
L4A	EO-368852	COIL VARI 1 134-5055-04 [EA]	TR206	ET-360137	TR 2SC3330 U,V F05
L4B	EO-368810	COIL VARI 1 134-5054-04 [EXCEPT EA]	TR208	ET-360137	TR 2SC3330 U,V F05
L5A	EO-368855	COIL TUN 1 LLD 134-5040-04 [EA]	TR210	ET-356224	TR 2SA1286 G,H,J F05
L5B	EO-368812	COIL TUN 1 LLD 134-5038-04 [EA,EV,EO-E,EO-V]	TR211	ET-360137	TR 2SC3330 U,V F05
L6A	EO-345876	COIL FIX 1 EL0606SKI 470J [EA,EV,EO-E,EO-V]	TR212	ET-353899	TR 2SA1317 S,T,U
L6B	EO-345874	COIL FIX 1 EL0606SKI 330J [ES]	TR213	ET-360137	TR 2SC3330 U,V F05
L8	EO-345869	COIL FIX 1 EL0606SKI 150J	TR215	ET-353899	TR 2SA1317 S,T,U
L9A	EO-368857	COIL TUN 2 AFT 111-5043-14 [EA]	TR500	ET-354415	TR DTA144ES
L9B	EO-368814	COIL TUN 2 AFT 111-5041-14 [ES,EV,EO-E,EO-V]	TR501	ET-360137	TR 2SC3330 U,V F05
L10A	EO-376601	COIL FIX 1 LF-5.0S F05 120K [EA]	TR502	ET-373985	TR DTA144TS
L10B	EO-376599	COIL FIX 1 LF-5.0S F05 100K [ES,EV,EO-E,EO-V]	TR503	ET-354414	TR DTC144ES
L13A	EO-376606	COIL FIX 1 LF-5.0S F05 180K [EA,EV,EO-E,EO-V]	TR504	ET-354414	TR DTC144ES
L13B	EO-376603	COIL FIX 1 LF-5.0S F05 150K [ES]	TR505	ET-354414	TR DTC144ES
L14	EO-380093J1	COIL FIX 2 C-5294-01 101K	TR507	ET-373985	TR DTA144TS
L200	EO-376858	COIL FIX 1 LF-5.0S F05 560K	TR508	ET-354371	TR DTC124ES
L201	EO-376602	COIL FIX 1 LF-5.0S F05 121K	TR512	ET-373985	TR DTA144TS
L202	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	TR513	ET-360137	TR 2SC3330 U,V F05
L203	EO-376609	COIL FIX 1 LF-5.0S F05 270K	TR514	ET-373985	TR DTA144TS
L204	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	TR515	ET-353899	TR 2SA1317 S,T,U
L206	EO-376179	COIL FIX 1 ALF-7.9F F05 101K	TR516	ET-353899	TR 2SA1317 S,T,U
L207	EO-345887	COIL FIX 1 EL0606SKI 221J	TR517	ET-354365	TR DTC114YS
L208	EO-376612	COIL FIX 1 LF-5.0S F05 680K	TR518	ET-354371	TR DTC124ES
L209	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	TR520	ET-354414	TR DTC144ES
L212	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	TR521	ET-353899	TR 2SA1317 S,T,U
L213	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	VR1	EV-368135	R S-FIX H KVSF637A 0.01W 474
L303	EO-376610	COIL FIX 1 LF-5.0S F05 330K	VR2	EV-356324	R S-FIX H KVSF637A 0.10W 103
L500	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	VR3	EV-356324	R S-FIX H KVSF637A 0.10W 103
L550	EO-376179	COIL FIX 1 ALF-7.5F F05 101K	VR200	EV-358829	R S-FIX H RH0615C 0.10W 223
P200	EJ-373971	PIN J JJP0811-010 BLACK 2P [EA,ES,EV]	VR201	EV-358829	R S-FIX H RH0615C 0.10W 223
P201	EJ-373970	PIN J JJP0811-040 YELLOW 2P [EA,ES,EV]	VR202	EV-356324	R S-FIX H KVSF637A 0.10W 103
SW200A	ES-373973	SW SLIDE HSW0810-010 1-01-02S [EA,ES] [AUTO-B/W]	VR203	EV-356324	R S-FIX H KVSF637A 0.10W 103
SW200B	ES-373974	SW SLIDE HSW0811-020 2-02-03S [EV,EO-E,EO-V][P-B/W-S]	VR204	EV-358829	R S-FIX H RH0615C 0.10W 223
TR1	ET-375777	TR 2SC2926S P,Q	VR205	EV-358829	R S-FIX H RH0615C 0.10W 223
TR2	ET-360137	TR 2SC3330 U,V F05	VR206	EV-356579	R S-FIX H RH0615C 0.10W 102
TR3	ET-360137	TR 2SC3330 U,V F05	VR207	EV-356679	R S-FIX H RH0615C 0.10W 682
TR4	ET-360137	TR 2SC3330 U,V F05	VR208	EV-356583	R S-FIX H RH0615C 0.10W 332
TR5	ET-375777	TR 2SC2926S P,Q	VR210	EV-374014	R S-FIX EVTK-8C 0.20W 104
TR6	ET-360137	TR 2SC3330 U,V F05	VR501	EV-356582	R S-FIX H RH0615C 0.10W 473
TR7	ET-360137	TR 2SC3330 U,V F05	X500	EI-347991	OSC CE CSA6.00MS 6MHZ
TR8	ET-354414	TR DTC144ES	1A	EE-373927	TV TUNER TEMS1-005A EA [EA]
TR9	ET-353899	TR 2SA1317 S,T,U	1B	EE-373932	TV TUNER TEMZ1-011A [ES]
TR10	ET-321644	TR 2SC1213 C	1C	EE-380256J	TV TUNER TEMD1-022A EM [EV]
TR11	ET-353899	TR 2SA1317 S,T,U	1E	EE-385892J	TV TUNER TERE1-001A EO [EO-E,EO-V]
TR13	ET-356224	TR 2SA1286 G,H,J F05	2A	BV-373935	RF CONVERTER MDLK2S100A EA [EA]
			2B	BV-373936	RF CONVERTER MDLK3B063A EK,ES [ES]
			2C	BV-373939	RF CONVERTER MDLK2D103A EV [EV]
			2D	BV-373938	RF CONVERTER MDLK-3D063A EO [EO-E,EO-V]
			3A	SP-500947T	PANEL REAR JACK EA [EA]

Ref. No.	Part No.	Description
3B	SP-500928T	PANEL REAR JACK EK [ES]
3C	SP-380083T	PANEL REAR JACK EV(Y1) [EV]
4	ZS-362378	PLX BID30X10STL CMT

## 8. CHROMA P.C BOARD

Ref. No.	Part No.	Description
D400	ED-307572	D SILICON H 1SS131
D401	ED-307572	D SILICON H 1SS131
DL400	EH-371021	DL EFD-HR124A13J
FL400	EH-364045	FILTER LC FF-78P
IC400	EI-373023	IC TA8632N
IC401	EI-379020	IC M50455-073SP
L400	EO-376603	COIL FIX 1 LF-5.0S F05 150K
L401	EO-376610	COIL FIX 1 LF-5.0S F05 330K
L402	EO-376599	COIL FIX 1 LF-5.0S F05 100K
L403	EO-376606	COIL FIX 1 LF-5.0S F05 180K
L404	EO-376179	COIL FIX 1 ALF-7.5F F05 101K
L405	EO-376179	COIL FIX 1 ALF-7.5F F05 101K
L406	EO-376600	COIL FIX 1 LF-5.0S F05 101K
L407	EO-376601	COIL FIX 1 LF-5.0S F05 120K [EV,EO-E,EO-V]
L408	EO-345893	COIL FIX 1 EL0606SKI 471J
L409	EO-345889	COIL FIX 1 EL0606SKI 391J
L410	EO-376600	COIL FIX 1 LF-5.0S F05 101K
L411	EO-376179	COIL FIX 1 ALF-7.5F F05 101K
TR400	ET-360137	TR 2SC3330 U,V F05
TR401	ET-360137	TR 2SC3330 U,V F05
TR402	ET-353899	TR 2SA1317 S,T,U
TR403	ET-360137	TR 2SC3330 U,V F05
TR404	ET-368084	TR 2SC3315 D
TR405	ET-360137	TR 2SC3330 U,V F05
TR406	ET-360137	TR 2SC3330 U,V F05
TR407	ET-360137	TR 2SC3330 U,V F05
TR408	ET-353897	TR DTC114ES [EV,EO-E,EO-V]
TR409	ET-353899	TR 2SA1317 S,T,U
TR410	ET-360137	TR 2SC3330 U,V F05
VR400	EV-368340	R S-FIX H KVSF687A 0.30W 104
VR401	EV-381171J	R S-FIX V RH0614C 0.10W 332
X400	EI-309878	OSC X'TAL 4.433619MHZ

## 9. AUDIO & PRE-AMP P.C BOARD

Ref. No.	Part No.	Description
D700	ED-307572	D SILICON H 1SS131
D701	ED-307572	D SILICON H 1SS131
FL700	EO-375471	COIL OSC 1 S033344
IC700	EI-373946	IC LA7292
IC800	EI-380084J	IC UPC2313CA
L700	EO-382618J	COIL FIX 1 FL07H 272K
L701	EO-382619J	COIL FIX 1 EL0607SKI F05 472J
L802	EO-376610	COIL FIX 1 LF-5.0S F05 330K
L804	EO-376606	COIL FIX 1 LF-5.0S F05 180K
L805	EO-376179	COIL FIX 1 ALF-7.5F F05 101K
L806	EO-376612	COIL FIX 1 LF-5.0S F05 680K
L807	EO-345883	COIL FIX 1 EL0606SKI 151J
L808	EO-376179	COIL FIX 1 ALF-7.5F F05 101K
P800	EJ-373949	SOCKET 5597-08CPB 8P
TR700	ET-360137	TR 2SC3330 U,V F05
TR801	ET-360137	TR 2SC3330 U,V F05
TR802	ET-360137	TR 2SC3330 U,V F05
TR803	ET-356224	TR 2SA1286 G,H,J F05
VR700	EV-356577	R S-FIX H RH0615C 0.10W 103
VR701	EV-356582	R S-FIX H RH0615C 0.10W 473

## 10. OPERATION P.C BOARD

Ref. No.	Part No.	Description
D900	ED-307572	D SILICON H 1SS131
D901	ED-307572	D SILICON H 1SS131
D902	ED-307572	D SILICON H 1SS131
D903	ED-307572	D SILICON H 1SS131
D904	ED-307572	D SILICON H 1SS131
D905	ED-307572	D SILICON H 1SS131
D906	ED-307572	D SILICON H 1SS131
D907	ED-307572	D SILICON H 1SS131
D908	ED-307572	D SILICON H 1SS131 [EO-V]
D909	ED-307572	D SILICON H 1SS131 [EXCEPT ES]
D912	ED-307572	D SILICON H 1SS131
D913	ED-307572	D SILICON H 1SS131
D915	ED-307572	D SILICON H 1SS131
D916	ED-346543	D ZENER H HZ9C1L
D917	ED-383034J	D LED SLR-54PC3F L,M GREEN [QUICK START]
D918	ED-383034J	D LED SLR-54PC3F L,M GREEN [QUICK START]
D919	ED-351419	D ZENER H HZ7B3L
D920	ED-360409	D PHOTO PN323B
D921	ED-307572	D SILICON H 1SS131
FL900	EM-373956	IND FL FV132 DOUBLE
IB900	EH-378541J	COMP R RGL3X 473J
IB901	EH-383057J	COMP R RGL5X 473J
IC901A	EI-380580J	IC UPD75208CW-175 LLXOPE1 [EXCEPT EO-V]
IC901B	EI-375472	IC UPD75208CW-105 LCXOPE3 [EO-V]
IC902	EI-373955	IC S8053ALR
IC903	EI-373954	IC CXX1006L
IC904	EI-367271	IC UPC1490HA
L900	EO-376600	COIL FIX 1 LF-5.0S F05 101K
L901	EO-376616	COIL FIX 1 LF-5.0S F05 221K
SW900	ES-349474	SW TACT SKHHAM004A [TRAKING >]
SW901	ES-349474	SW TACT SKHHAM004A [TRAKING <]
SW902	ES-349474	SW TACT SKHHAM004A [QUICK TIMER STOP]
SW903	ES-349474	SW TACT SKHHAM004A [QUICK TIMER-M]
SW904	ES-349474	SW TACT SKHHAM004A [REC]
SW905	ES-349474	SW TACT SKHHAM004A [STILL]
SW906	ES-349474	SW TACT SKHHAM004A [REW]
SW907	ES-349474	SW TACT SKHHAM004A [CH UP]
SW908	ES-349474	SW TACT SKHHAM004A [TIMER]
SW909	ES-349474	SW TACT SKHHAM004A [STOP]
SW910	ES-349474	SW TACT SKHHAM004A [FF]
SW911	ES-349474	SW TACT SKHHAM004A [POWER]
SW912	ES-349474	SW TACT SKHHAM004A [QUICK TIMER-H]
SW913	ES-349474	SW TACT SKHHAM004A [CH DOWN]
SW914	ES-349474	SW TACT SKHHAM004A [PLAY]
SW915	ES-349474	SW TACT SKHHAM004A [SLOW]
SW916	ES-349474	SW TACT SKHHAM004A [EJECT]
SW918	ES-380116J	SW SLIDE ESD-1112252 2-02-02N [IN PUT SELECT]
SW919	ES-380116J	SW SLIDE ESD-1112252 2-02-02N [EDIT]
TR900	ET-354414	TR DTC144ES

Ref. No.	Part No.	Description
TR901	ET-354414	TR DTC144ES
TR902	ET-354414	TR DTC144ES [EXCEPT ES]
TR903	ET-354414	TR DTC144ES
TR904	ET-368836	TR DTA143TA
TR906	ET-354414	TR DTC144ES
TR907	ET-354364	TR DTC143TS
TR908	ET-354364	TR DTC143TS
TR909	ET-354364	TR DTC143TS
VR900	EV-380314J	VR ROTARY RK09K1130 L=** B203 [PICTURE]
X900	EI-388110J	OSC CE CST4.19MG 4.194MHZ
X901	EI-368825	OSC X'TAL MX-38T 32.768KHZ

### 11. PRE-SET P.C BOARD

Ref. No.	Part No.	Description
D950	ED-382358J	D LED SLR34PC 3F K,L,M GREEN [AFC/MEMO]
D951	ED-307572	D SILICON H 1SS131
D952	ED-307572	D SILICON H 1SS131
D953	ED-307572	D SILICON H 1SS131
D954	ED-307572	D SILICON H 1SS131
D955	ED-307572	D SILICON H 1SS131
SW951	ES-349474	SW TACT SKHHAM004A [FAST X]
SW952	ES-349474	SW TACT SKHHAM004A [FAST +]
SW953	ES-349474	SW TACT SKHHAM004A [BAND]
SW954	ES-349474	SW TACT SKHHAM004A [SLOW X]
SW955	ES-349474	SW TACT SKHHAM004A [SLOW +]
SW956	ES-349474	SW TACT SKHHAM004A [MEMO]
SW957	ES-380117J	SW SLIDE ESD-1111352 2-01-03N [PRESET]

### 12. 21 PIN P.C BOARD (EO ONLY)

Ref. No.	Part No.	Description
P6	EJ-372242	SOCKET HXC 1521-01-010 21P
1B	SP-501728T	PANEL REAR JACK EOH [EO-V,EO-E]
2	ZS-362378	PLX BID30X10STL CMT

### 13. POWER SUPPLY P.C BOARD

Ref. No.	Part No.	Description
C1	*EC-355371	C CE V DNS472ZV V 472Z 400AC
C2	EC-363491	C EC V CUT SME 222M 25.0DC
C3A	EC-365360	C EC V CUT SME 471M 25.0DC [EXCEPT ES]
C3B	EC-366613	C EC V CUT SME 102M 25.0DC [ES]
D1	*ED-370990	D SILICON 1SR35-100AHS F10
D2	*ED-370990	D SILICON 1SR35-100AHS F10
D3	*ED-370990	D SILICON 1SR35-100AHS F10
D4	*ED-370990	D SILICON 1SR35-100AHS F10
D5	*ED-370990	D SILICON 1SR35-100AHS F10 [EO-E,EO-V]
D6	*ED-370990	D SILICON 1SR35-100AHS F10 [EO-E,EO-V]

Ref. No.	Part No.	Description
D7	*ED-370990	D SILICON 1SR35-100AHS F10 [EO-E,EO-V]
D8	*ED-370990	D SILICON 1SR35-100AHS F10 [EO-E,EO-V]
D9	ED-380089J	D SILICON DFC15TC-FD1 200/1.5A
D10	ED-307572	D SILICON H 1SS131
D11	ED-624903	D SILICON H 1S2473
D12	ED-307572	D SILICON H 1SS131
D13	ED-307572	D SILICON H 1SS131
D14	ED-307572	D SILICON H 1SS131
D15	ED-307572	D SILICON H 1SS131
D16	ED-307572	D SILICON H 1SS131
D17	ED-307572	D SILICON H 1SS131
D18	ED-624903	D SILICON H 1S2473
D19	ED-346586	D ZENER H HZ33-3L
D20	ED-346584	D ZENER H HZ3 B3
D21	ED-371512	D SILICON ERA22-04Y F05 400/.5
D23	ED-307572	D SILICON H 1SS131
FL1	*EO-368465	COIL LF LF4N [EO-V]
FR1	*ER-378650J	R FUSE H S10 ERQ16NK 1/6W R47J [EO-V,EO-E]
FR2	*ER-378650J	R FUSE H S10 ERQ16NK 1/6W R47J
IC1	EI-380090J	IC NJM2352D
IC2	EI-367572	IC BA15218
L3	EO-380093J1	COIL FIX 2 C-5294-01 101K
L4	EO-382264T	COIL FIX 2 EF1950 560K
L5	EO-382264T	COIL FIX 2 EF1950 560K
L6A	EO-382722J	COIL FIX 1 RCH855 F05 560K [EA, EV-E, EV-Y1, ES]
L6B	EO-380093J1	COIL FIX 2 C-5294-01 101K [EO-E,EO-V]
L7	EO-382264T	COIL FIX 2 EF1950 560K
L8	EO-349560	COIL FIX 1 FL09H 122J
TR1	*ET-366365	TR 2SB1185 E,F
TR3	ET-372197	TR 2SC3377 R
TR4	ET-360137	TR 2SC3330 U,V F05
TR6	ET-360137	TR 2SC3330 U,V F05
TR7A	*ET-356224	TR 2SA1286 G,H,J F05 [EXCEPT EO-V]
TR7B	*ET-356817	TR 2SB891 Q,R [EO-V]
TR8	ET-356336	TR DTA114ES
TR9	ET-354364	TR DTC143TS
TR10	ET-354364	TR DTC143TS
TR11A	*ET-380630J	TR 2SB1010 [EXCEPT EO-V]
TR11B	*ET-356817	TR 2SB891 Q,R [EO-V]
TR12	*ET-366168	TR 2SD1292 Q,R
TR13	ET-353899	TR 2SA1317 S,T,U
TR15	ET-380630J	TR 2SB1010
VR1	EV-356579	R S-FIX H RH0615C 0.10W 102
T1A	*BT-380094J	TRANS POW V1084EK [EA]
T1B	*BT-380095J	TRANS POW V1084EV [EV-E, EV-Y1]
T1C	*BT-380097J	TRANS POW V1084ES [ES]
T1D	*BT-380096J1	TRANS POW V1084EO [EO-E,EO-V]
F1A	*EF-601842	FUSE SEMKO T 250V 630MA
F2A	*EF-601301	FUSE SEMKO T 250V 2.00A

### 14. TR (1) P.C BOARD

Ref. No.	Part No.	Description
TR2	*ET-366581	TR 2SD1762 E,F

### 15. TR (2) P.C BOARD

Ref. No.	Part No.	Description
TR5	*ET-366581	TR 2SD1762 E,F

## 16. POWER SUPPLY P.C BOARD(VS-27EVONLY)

Ref. No.	Part No.	Description
C2	EC-363491	C EC V CUT SME 222M 25.0DC
C3	EC-365397	C EC V CUT SME 332M 10.0DC
C4	EC-367048	C EC V CUT SME 101M 63.0DC
C5	EC-363489	C EC V CUT SME 221M 63.0DC
C8	EC-363491	C EC V CUT SME 222M 25.0DC
D3	*ED-367202	D SILICON S5566B F12
D4	*ED-367202	D SILICON S5566B F12
D5	ED-307572	D SILICON H 1SS131
D7	*ED-367693	D SILICON S5566G(LC-7)F12
D8	ED-367693	D SILICON S5566G(LC-7)F12
D9	ED-307572	D SILICON H 1SS131
D10	ED-307572	D SILICON H 1SS131
D11	ED-376598	D ZENER H HZS36B3J F05
D12	ED-346525	D ZENER H HZ6A3L
D13	*ED-380715J	D SILICON ERB83-004 40/1.7A
D14	ED-307572	D SILICON H 1SS131
FR1	*ER-318400	R CB H S10 FS RDS 1/4W 680J
IC1	*EI-367572	IC BA15218
TH1	EX-330533	POSISTOR PTH61G27BD3R3N
TR1	*ET-353899	TR 2SA1317 S,T,U
TR2	*ET-355669	TR 2SC3246 G,H,J F05
TR3	*ET-373025	TR 2SD1944 J1,J2,K
TR4	*ET-373025	TR 2SD1944 J1,J2,K
TR5	*ET-360137	TR 2SC3330 U,V F05
TR6	*ET-360137	TR 2SC3330 U,V F05
TR7	ET-360137	TR 2SC3330 U,V F05
TR9	*ET-376818	TR 2SC3247 H,J,K
TR10	*ET-380685J	TR 2SD1761 E,F,G
TR11	*ET-364093	TR 2SA1283 E,F
VR1	EV-356576	R S-FIX H RH0615C 0.10W 472
T1	*BT-373992	TRANS POW V1075EM
F2	*EF-601301	FUSE SEMKO T 250V 2.00A

## 17. TR P.C BOARD

Ref. No.	Part No.	Description
TR8	*ET-366677	TR 2SD1761 E,F

## 18. SW POWER P.C BOARD

.Y)

Ref. No.	Part No.	Description
C1	*EC-355371	C CE V DNS472ZV V 472Z 400AC
C25	*EC-378327	C EC V SM 2R2M 450DC
D15	*ED-371512	D SILICON ERA22-04Y F05 400/.5
D16	*ED-371512	D SILICON ERA22-04Y F05 400/.5
D18	ED-307572	D SILICON H 1SS131
D19	ED-346526	D ZENER H HZ6B1L
D20	ED-371512	D SILICON ERA22-04Y F05 400/.5
D21	*ED-378455	D SILICON DSA12TG 600/1.2A
D22	ED-346526	D ZENER H HZ6B1L
D23	ED-307572	D SILICON H 1SS131
IC2	*EI-376794J1	IC BA10393
IC3	*EI-368152	IC BA707
RL1	*EQ-376837	RELAY POW VB-100TBU-5 2TR 100V
R26	ER-376864	R OMF H S12 SPR1 1W 274J
TR13	*ET-376663	TR 2SC3868
TR14	*ET-376663	TR 2SC3868
TR15	ET-360137	TR 2SC3330 U,V F05
F1	*EF-258344	FUSE SEMKO T 250V 800MA

## 19. DIODE P.C BOARD

Ref. No.	Part No.	Description
D1	*ED-379298	D SILICON DBA20B 100/2.0A

## 20. FINAL ASSEMBLY BLOCK

Ref. No.	Part No.	Description
1A	BD-V1084D307A	PANEL FRONT BLK VS-26EA-B [EA]
1C	BD-V1084B307C	PANEL FRONT BLK VS-26ES-B [ES]
1D	BD-V1084D307D	PANEL FRONT BLK VS-26EV-B [EV-E, EV-Y1]
1E	BD-V1084B307E	PANEL FRONT BLK (VS-20EO-B) [EO-V]
1F	BD-V1084D307F	PANEL FRONT BLK VS-27EV-B [EV-E, EV-Y7]
1G	BD-V1084B307G	PANEL FRONT BLK (VS-26EO-B) [EO-E]
2	SZ-375320J1	LATCH DOOR
3	SP-388597J	DOOR FRONT LL2 B
4A	ZZ-380982J	LABEL PRESET(L) OEM EO
5	ZS-362378	PLX BID30X10STL CMT
6	SA-353927B	F00T(2)
7	ZS-364545	DT BID30X08STL CMT
8	ZS-362378	PLX BID30X10STL CMT
9	ZS-368547	PLX BID30X06STL CMT
10	SP-500772	COVER UPPER B
11	ZS-374023	DT BID26X08STL BNI
12A	*EW-380684J	AC CORD 200 0436 LCFL B115 A S [EA, EV-Y1]
12C	*EW-371933	AC CORD 200 KP419LTCE B100 A EV [EV-E, ES, EO-E, EO-V, EV-Y7]
13	TC-376182	PAD COVER BOTTOM

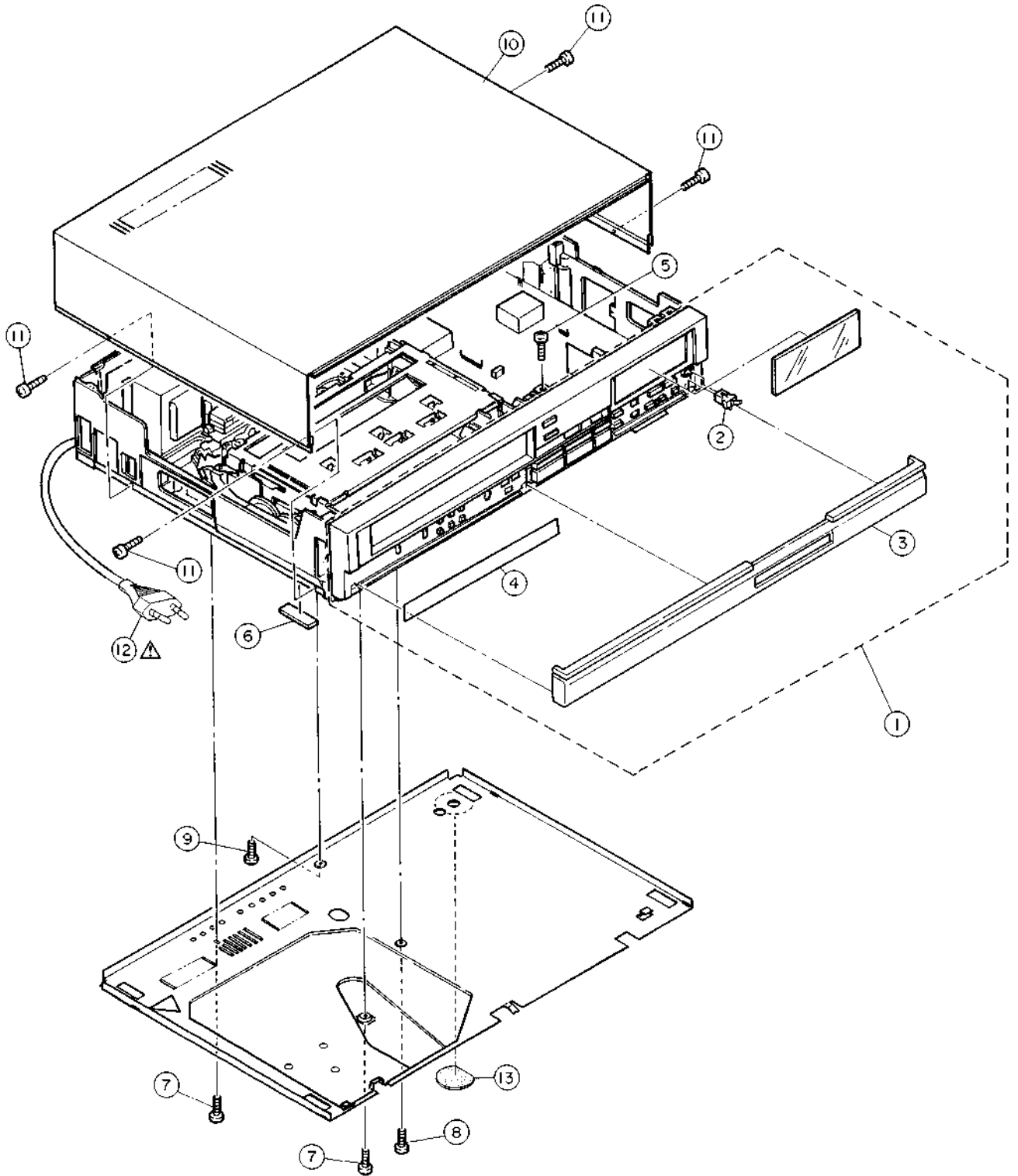
## 21. ACCESSORY

Ref. No.	Part No.	Description
1	EW-348414	CORD PAL
2A	AX-N4003B010A	LLX REMOCON BLK [EXCEPT ES]
2B	AX-N4003B010C	LLX REMOCON BLK [ES]
3	AX-359649	AC ADAPTOR S-6115 [EV-Y7]

## 22. REMOTE CONTROL UNIT RC-V22

Ref. No.	Part No.	Description
D1	ED-376111	D LED SE303AC INFRARED
D2	ED-344280	D SILICON H GMA-01-FY2 F05
D3	ED-344280	D SILICON H GMA-01-FY2 F05
D4	ED-344280	D SILICON H GMA-01-FY2 F05
IC1	EI-376112	IC UPD6122G
X1	EI-376113	OSC CE CSB455EB
1	ZG-375530	TERMINAL BATTERY(A)
2	ZG-375531	TERMINAL BATTERY(B)
3	ZG-375532	TERMINAL BATTERY(C)
4	SC-375525A	COVER BATTERY(B)
5	SC-375526A	COVER PROGRAM A

**FINAL ASSEMBLY BLOCK**



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AX-N4003B010C	2B	ED-307572	D1	ED-360409	22	EH-371021	59
BA-V1075D500H	2F	ED-307572	D2	ED-360409	D920	EH-371021	DL400
BA-V1084A500A	2A	ED-307572	D3	ED-365699	36	EH-373144	74
BA-V1084A500B	2B	ED-307572	D4	ED-365699	D529	EH-373144	FL200
BA-V1084A500C	2D	ED-307572	D200	ED-367202	31	EH-373914	65
BA-V1084A500D	2E	ED-307572	D202	ED-367202	D3	EH-373914	FL1C
BA-V1084A500E	2C	ED-307572	D204	ED-367202	D4	EH-373916	62
BA-V1084A500F	2G	ED-307572	D500	ED-367693	32	EH-373916	FL1A
BA-V1084A500G	2H	ED-307572	D501	ED-367693	D7	EH-373917	66
BA-V1084A600M	1F	ED-307572	D502	ED-367693	D8	EH-373917	FL1E
BA-V1084A605A	1A	ED-307572	D503	ED-370990	33	EH-373918	69
BA-V1084A605C	1B	ED-307572	D504	ED-370990	D1	EH-373918	FL2A
BA-V1084A605D	1C	ED-307572	D506	ED-370990	D2	EH-373919	71
BA-V1084A605E	1D	ED-307572	D507	ED-370990	D3	EH-373919	FL2B
BA-V1084A605F	1G	ED-307572	D508	ED-370990	D4	EH-373920	67
BA-V1084A605L	1E	ED-307572	D509	ED-370990	D5	EH-373920	FL3A
BD-V1084B307B	1B	ED-307572	D510	ED-370990	D6	EH-373921	68
BD-V1084B307C	1C	ED-307572	D511	ED-370990	D7	EH-373921	FL3B
BD-V1084B307E	1E	ED-307572	D512	ED-370990	D8	EH-376119	64
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BD-V1084D307D	1D	ED-307572	D400	ED-371512	D15	EH-376120	FL1B
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BL-368475	37	ED-307572	D900	ED-373101	11	EH-378541J	IB900
BL-500879T1	36	ED-307572	D901	ED-376111	19	EH-379367	60
BL-V1075A130A	1	ED-307572	D902	ED-376111	D1	EH-379367	FL4A
BL-V1075A130A	34	ED-307572	D903	ED-376598	35	EH-379368	61
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BR-367618	9	ED-307572	D912	ED-380715J	27	EI-309878	108
BR-367619	6	ED-307572	D913	ED-380715J	D13	EI-309878	X400
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BV-V1075A070A	41	ED-307572	D9	EE-373932	1B	EI-367572	IC1
BV-V1075A080A	14	ED-307572	D10	EE-380256J	46	EI-368152	84
BV-V1075A080A	42	ED-307572	D14	EE-380256J	1C	EI-368152	IC3
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EO-368179	L1A	ES-349474	SW912	ET-356336	125	EV-356324	VR203
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EO-368465	FL1	ES-349474	SW914	ET-356817	141	EV-356577	VR700
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MZ-368795T1	8	ZS-373895	37				
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MZ-500715T	26	ZS-413785	10				
MZ-500716T	173	ZS-419782	10				
MZ-500716T	24	ZS-464703	21				
MZ-500717T	167	ZS-467796	8				
MZ-500717T	19	ZS-479474	5				
MZ-V1075A090A	171	ZS-479474	9				
MZ-V1075A090A	14	ZS-563444	6				
MZ-V1075A100A	172	ZW-287458	46				
MZ-V1075A100A	16	ZW-292770	48				
SA-353927B	6	ZW-324417	39				
SC-375525A	4	ZW-324417	47				
SC-375526A	5	ZW-332843	45				
SE-388033J	39A	ZW-350839	26				
SE-388035J	39C	ZW-350839	40				
SE-388036J	39B	ZW-358045	13				
SP-380083T	3C	ZW-373088	23				
SP-382170T	1A	ZW-373089	24				
SP-388597J	3	ZW-373898	35				
SP-500772	10	ZW-373898	25				
SP-500887T-A	30	ZW-373901	34				
SP-500928T	3B	ZZ-380982J	4A				
SP-500947T	3A	ZZ-381392J	4B				
SP-501728T	1B						
SZ-375320J1	2						
SZ-375956T	3						
TC-376182	13						
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VT-367622J2	43						
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ZG-373541	17						
ZG-373542	15						
ZG-373546	22						
ZG-373548	4						
ZG-373894J1	2						
ZG-373900	15						
ZG-374022	22						
ZG-375530	1						
ZG-375531	2						
ZG-375532	3						
ZG-375953T	7						
ZG-375954T	10						
ZG-375955T	12						
ZG-375957T1	25						
ZG-375958T	27						

## ABBREVIATIONS (VIDEO)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A	Audio or Analogue	LM	Loading Motor
AC	Alternating Current	LM STP	Loading Motor STOP
ACC	Auto Color Control	LP	Long Play
A/C	Audio and Control	LPF	Low Pass Filter
ADJ	ADJust(ment)	ME-SECAM	Middle East SECAM
AFC	Auto Frequency Control	MI-COM	Micro Computer
AFT	Auto Fine Turning	MM	Mono-stayble Multi
AGC	Auto Gain Control	MOD	MODulator
AH(P)	Audio Head (Play Back)	MRS	Motor ReverSe
AH(R)	Audio Head (Record)	NG	Noise Gate
AL	ALl	NON-LIN	NON-LINear
AL	ALways	N.T.S.C.	National Television System Committee
ALC	Auto Level Control	O MUTE	Output MUTE
A-SW·P	Audio-SWitching · Pulse	OSC	OSCillator
A·MUTE	Audio MUTE	PAL	Phase Alternation Line
AUT/MAN	AUTO/MANual	PB	Play Back
ANT	ANTenna	P-COM	Phase-COMparator
APC	Automatic Phase Control	P DOWN	Power DOWN
ASSY	ASSEMBLY	PG	Pulse Generator
BAL	BALance	PL, PLG	PLunger (PLunGer)
B DOWN	Break DOWN	POS	POSition
BGP	Burst Gate Pulse	PRG	PRoGram
BLK	BLack or BLock	P & S	Power supply & System control
BM	Balanced Modulator	PU	Pick Up (head, pulse)
BPF	Band Pass Filter	PWR	POweR
BS	Band Select	Q	Quality factor
BU	Back Up	R	Right
B/W	Black and White	REC	RECORD
C	Chroma	REF	REFErence
CCIR	Comité Consultatif International des Radio Communications	REF-V	REFErence Vertical signal
CH (Ch.)	CHannel (Channel) or CHroma	REG	REGulator
CK	Color Killer	REV (REVW)	REVIEW (REVIEW)
CLK	CLOCK	REW	REWind
CLP	CLiP	RF	Radio Frequency
CM	Capstan Motor	R·S SW	Record-Safety Switch
CN	CoNnector	RST (RES)	ReSeT (RESet)
COMP	COMParator	RVS	ReVerSe
Comp	Comparison	S	Sensor, Shield
C or R	Cue or Review	SC	SimulCast
CR 1	Cue Review 1 (high)	S CLK	Serial CLOCK
CSW	Cassette SWITCH	SECAM	Séquentiel à Memoire
C SYNC	Composite SYNC	SET (SEPA)	SEPARator (SEPARator)
CTL	ConTroL	S & H	Sample and Hold
CUE	CUE	SLP	Super Long Play
CW	Carrier Wave	SP	Standard Play
DAC	Digital to Analog Converter	SPD	SPEEd
DC	Direct Current	SRP	Supply Reel Pulse
DEMOD	DEMODulator	SRV	SeRVo
DET	DETECT (DETECTOR)	SOW	Sync On Word
DL	Delay Line	STBY	STANDBY
DM	Drum Motor	SW	SWitch
DOC	Drop Out Compensator	SW'NG	SWitchiNG
D·P·E	Drum·Phase·Error	SWP	SWitching Pulse
D·PG	Drum·Pulse Generator	SYNC	SYNChronize
EE	Electronic to Electronic	T-AUDIO	Tuner AUDIO
EF	Emitter Follower	TA-MUTE	Tuner Audio MUTE
EMPHA	EMPHAsis	TPZ (TRAPE)	TraPeZoid (TRAPEzoid)
ENV	ENVELOpe	TRK	TRAcKing
EP	Extended Play	TRP	Take up Reel Pulse
EQ	EQUALizer	T/U	Take Up
FE	Full track Erase	TV	TeLeVIsion
FF	Flip-Flop or Fast Forward	UHF	Ultra High Frequency
FG	Frequency Generator	UNR	UNRegulated
Fig.	Figure	V	Vertical or Video
FM	Frequency Modulation	VCO	Voltage Controlled Oscillator
Fo	resonance Frequency	VD	Vertical Drive
FREQ	FREQUENCY	VF	Voltage for Fine tuning
FSI	Field Start Inhibit	VHF	Very High Frequency
GND	GrouND	VHS	Video Home System
H	Horizontal	VID	VIDEO
HP	Horizontal (sync) Pulse	VIDEO-J	VIDEO Judge
HPF	High Pass Filter	VIF	Video Intermediate Frequency
IC	Integrated Circuit	VJ	Video Judge
ID	Identification	VM	Voltage for Memory
IDL	IDLe (Voltage)	VOB	Video On Blank
INS	INSert	VOW	Video On Word
INV	INVerter	VP	Vertical (sync) Pulse
L	Left	VT	Voltage for Tuning
L·CTL	Lamp·ConTroL	WHT	WHITe
LED	Light Emitting Diode	2H	2 Hour (SP)
LIM	LIMitter	4H	4 Hour (LP)
		6H	6 Hour (SLP/EP)

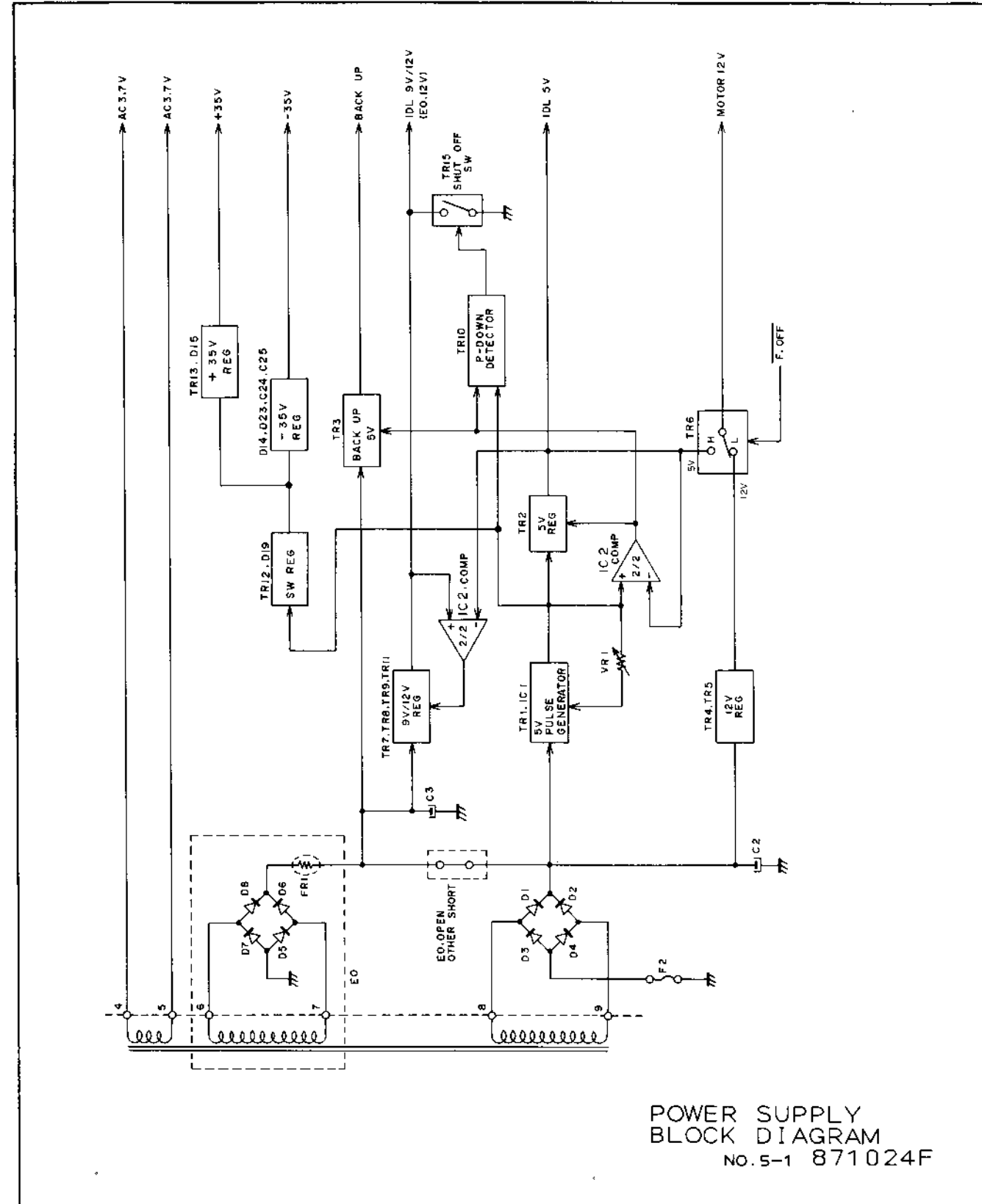
# AKAI

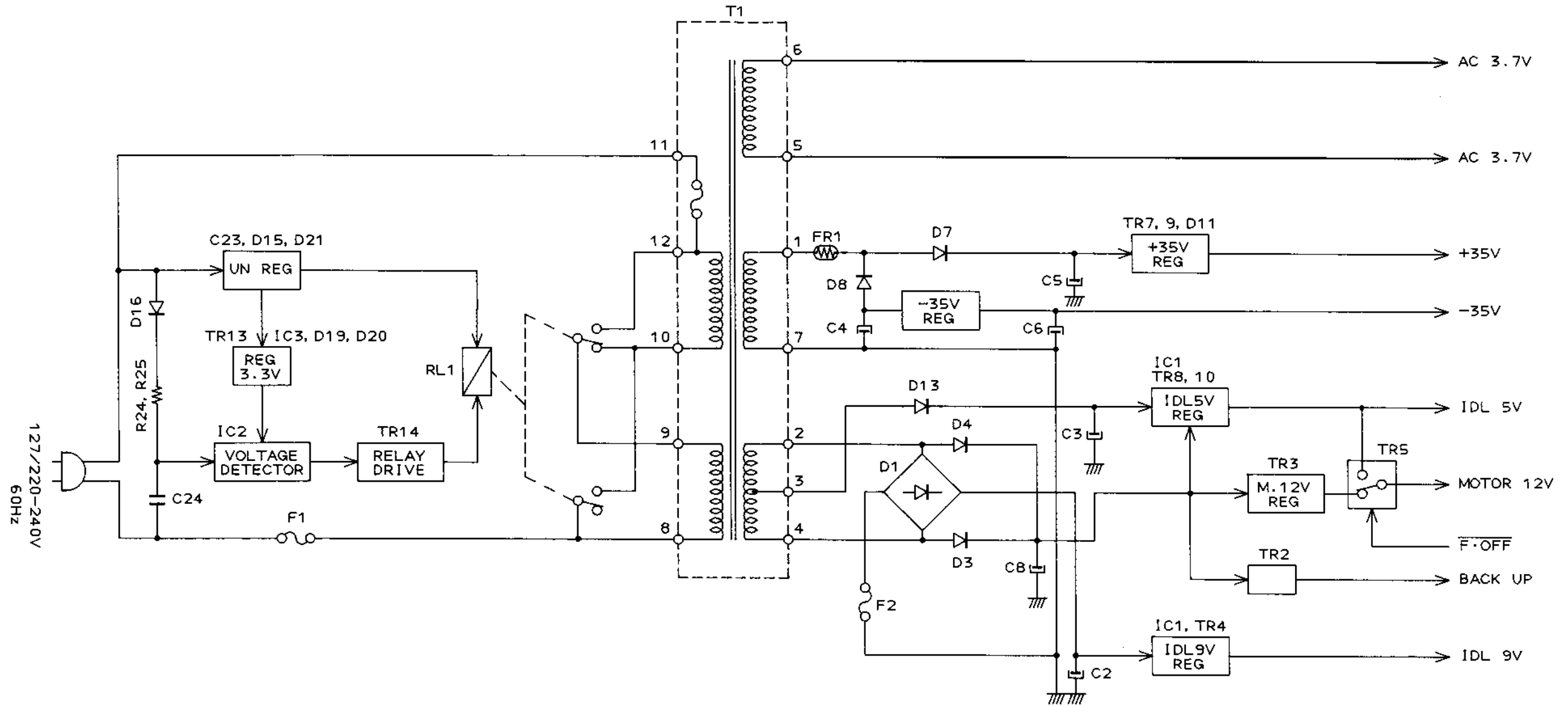
MODEL **VS-26**<sup>EA/ES/EV</sup>  
/EO/(E/V)  
MODEL **VS-20**<sup>EO</sup>, **27**<sup>EV</sup>

## SCHEMATIC DIAGRAMS AND PC BOARDS

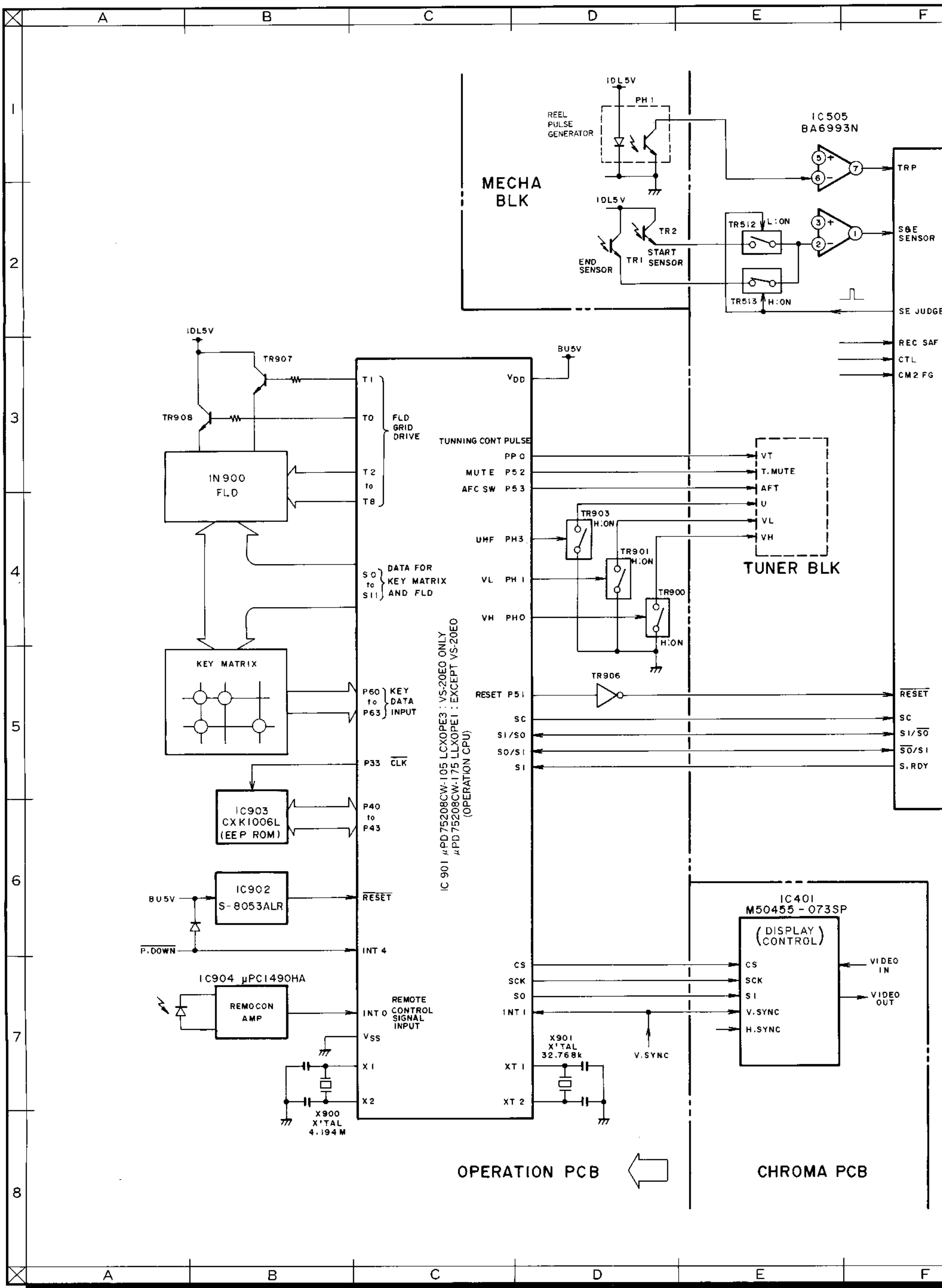
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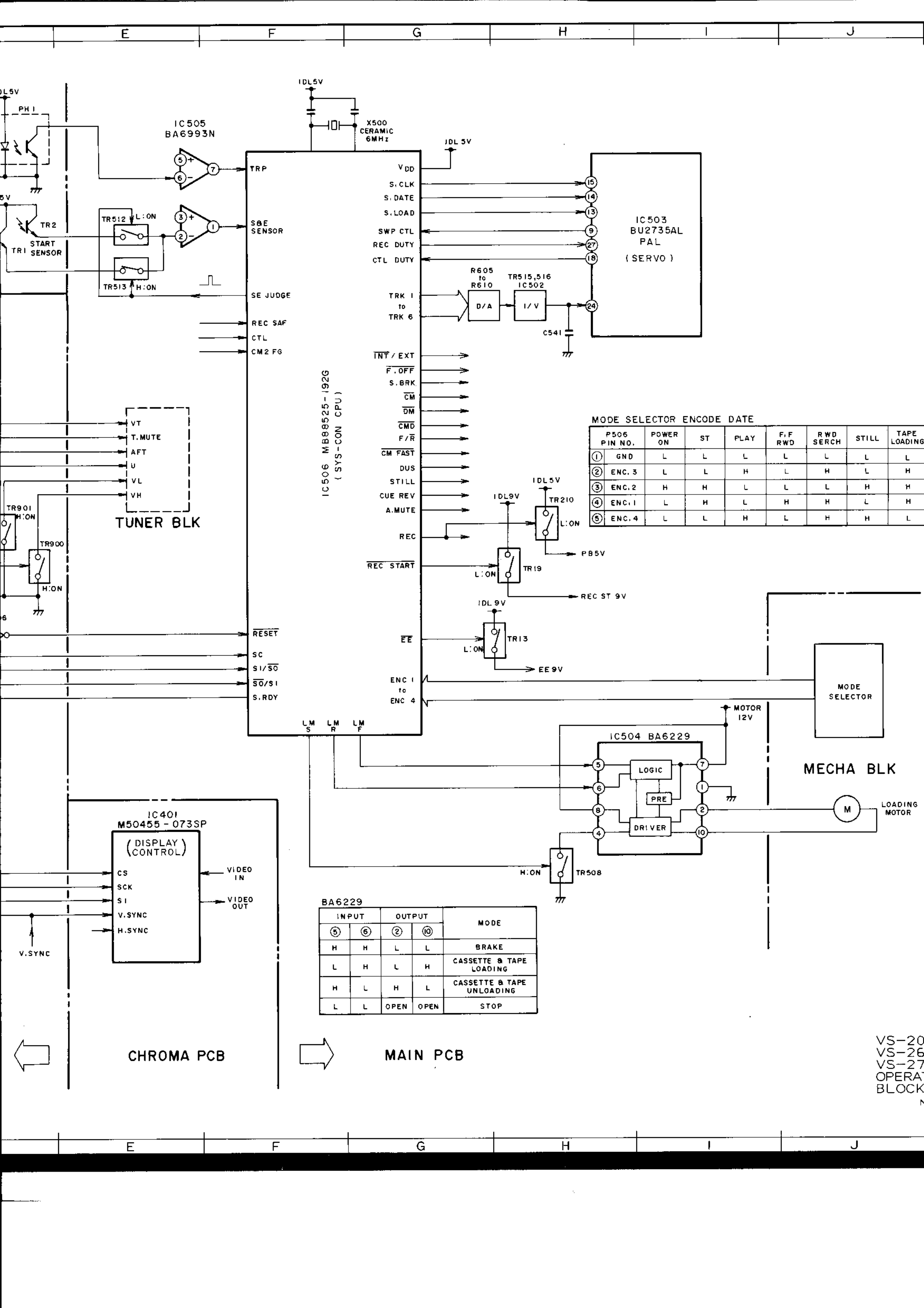


POWER SUPPLY  
BLOCK DIAGRAM  
No. 5-2 V108428M



1  
2  
3  
4  
5  
6  
7  
8

A B C D E F



IC505  
BA6993N

X500  
CERAMIC  
6MHz

IC503  
BU2735AL  
PAL  
(SERVO)

IC506 MB88525-192G  
(SYS-CON CPU)

MODE SELECTOR ENCODE DATE

P506 PIN NO.	POWER ON	ST	PLAY	F.F RWD	RWD SERCH	STILL	TAPE LOADING
①	GND	L	L	L	L	L	L
②	ENC. 3	L	L	H	L	H	L
③	ENC. 2	H	H	L	L	L	H
④	ENC. 1	L	H	L	H	H	L
⑤	ENC. 4	L	L	H	L	H	L

TUNER BLK

MECHA BLK

IC401  
M50455-073SP  
(DISPLAY CONTROL)

IC504 BA6229

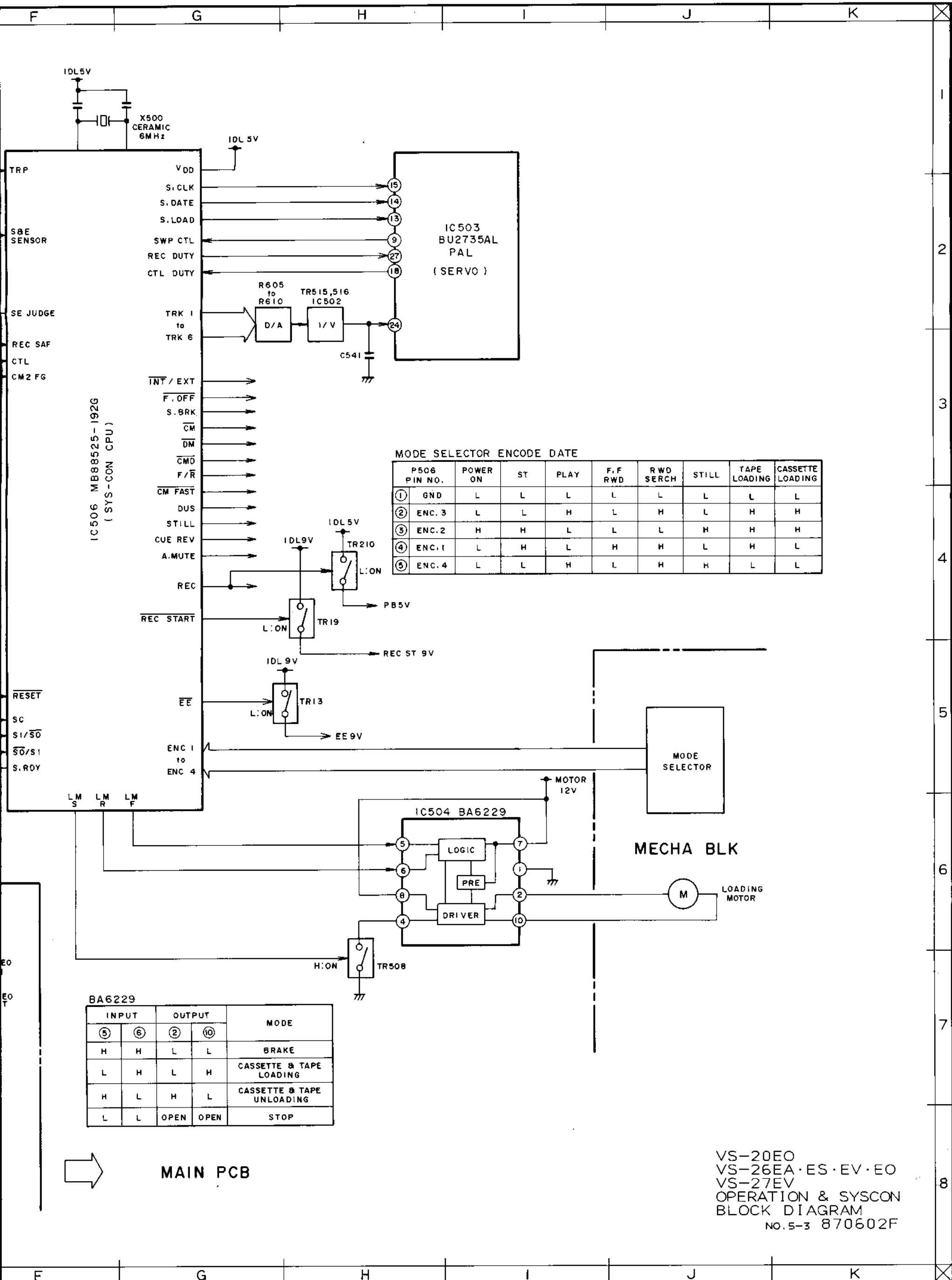
BA6229

INPUT		OUTPUT		MODE
⑤	⑥	②	⑩	
H	H	L	L	BRAKE
L	H	L	H	CASSETTE & TAPE LOADING
H	L	H	L	CASSETTE & TAPE UNLOADING
L	L	OPEN	OPEN	STOP

CHROMA PCB

MAIN PCB

VS-20  
VS-26  
VS-27  
OPERATOR  
BLOCK



MODE SELECTOR ENCODE DATE

P506 PIN NO.	POWER ON	ST	PLAY	F.F RWD	RWD SERCH	STILL	TAPE LOADING	CASSETTE LOADING
①	GND	L	L	L	L	L	L	L
②	ENC. 3	L	L	H	L	H	L	H
③	ENC. 2	H	H	L	L	L	H	H
④	ENC. 1	L	H	L	H	H	L	L
⑤	ENC. 4	L	L	H	L	H	L	L

BA6229

INPUT		OUTPUT		MODE
⑤	⑥	②	⑩	
H	H	L	L	BRAKE
L	H	L	H	CASSETTE & TAPE LOADING
H	L	H	L	CASSETTE & TAPE UNLOADING
L	L	OPEN	OPEN	STOP

MAIN PCB

VS-20EO  
 VS-26EA·ES·EV·EO  
 VS-27EV  
 OPERATION & SYSCON  
 BLOCK DIAGRAM  
 NO.5-3 870602F



A

B

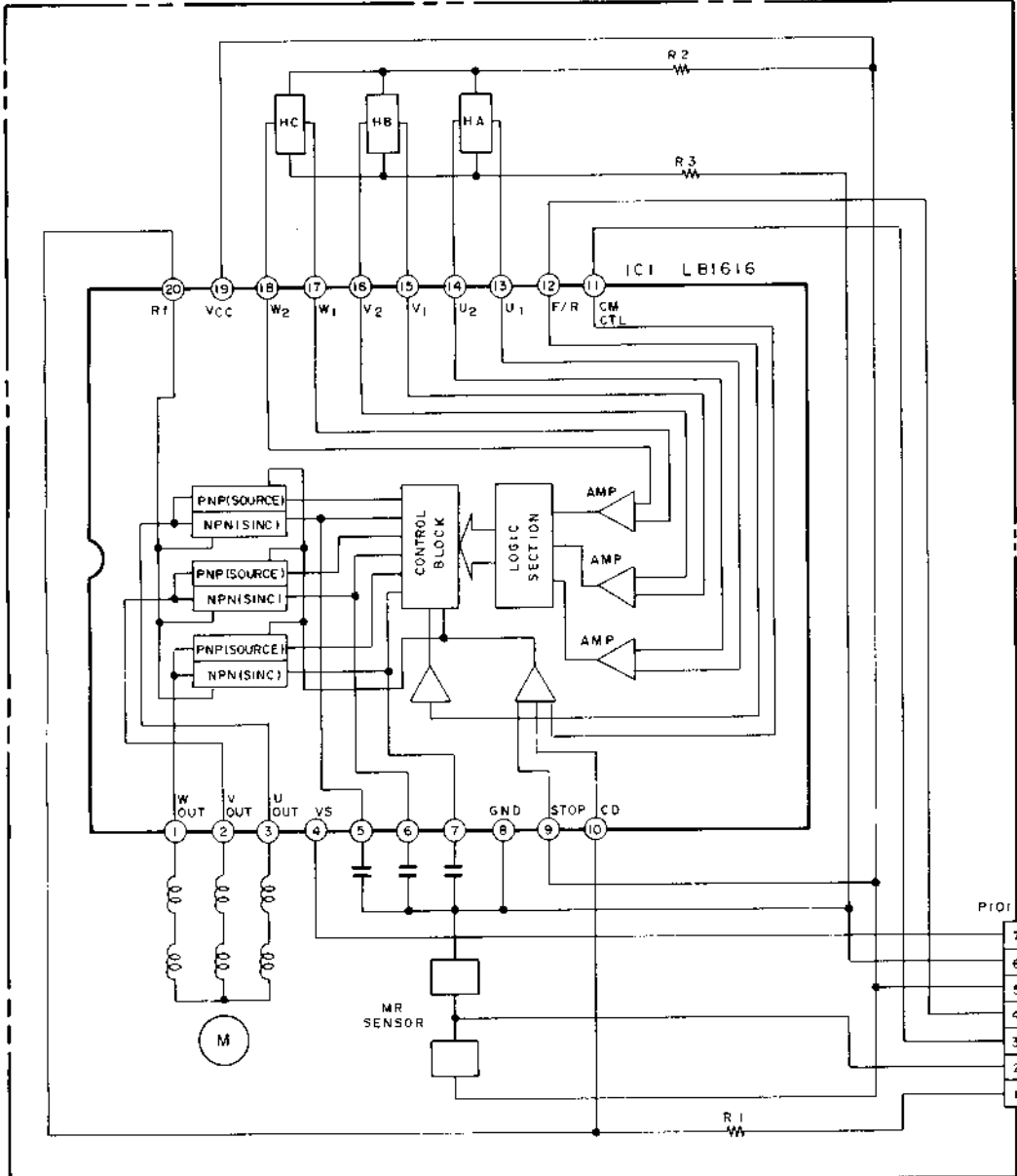
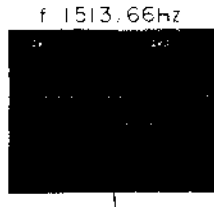
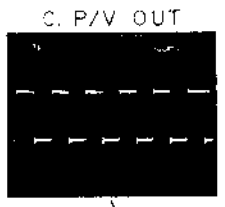
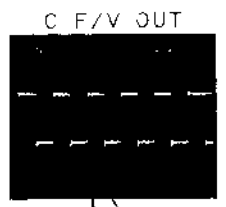
C

D

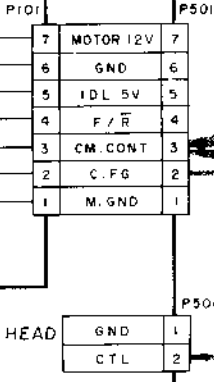
E

F

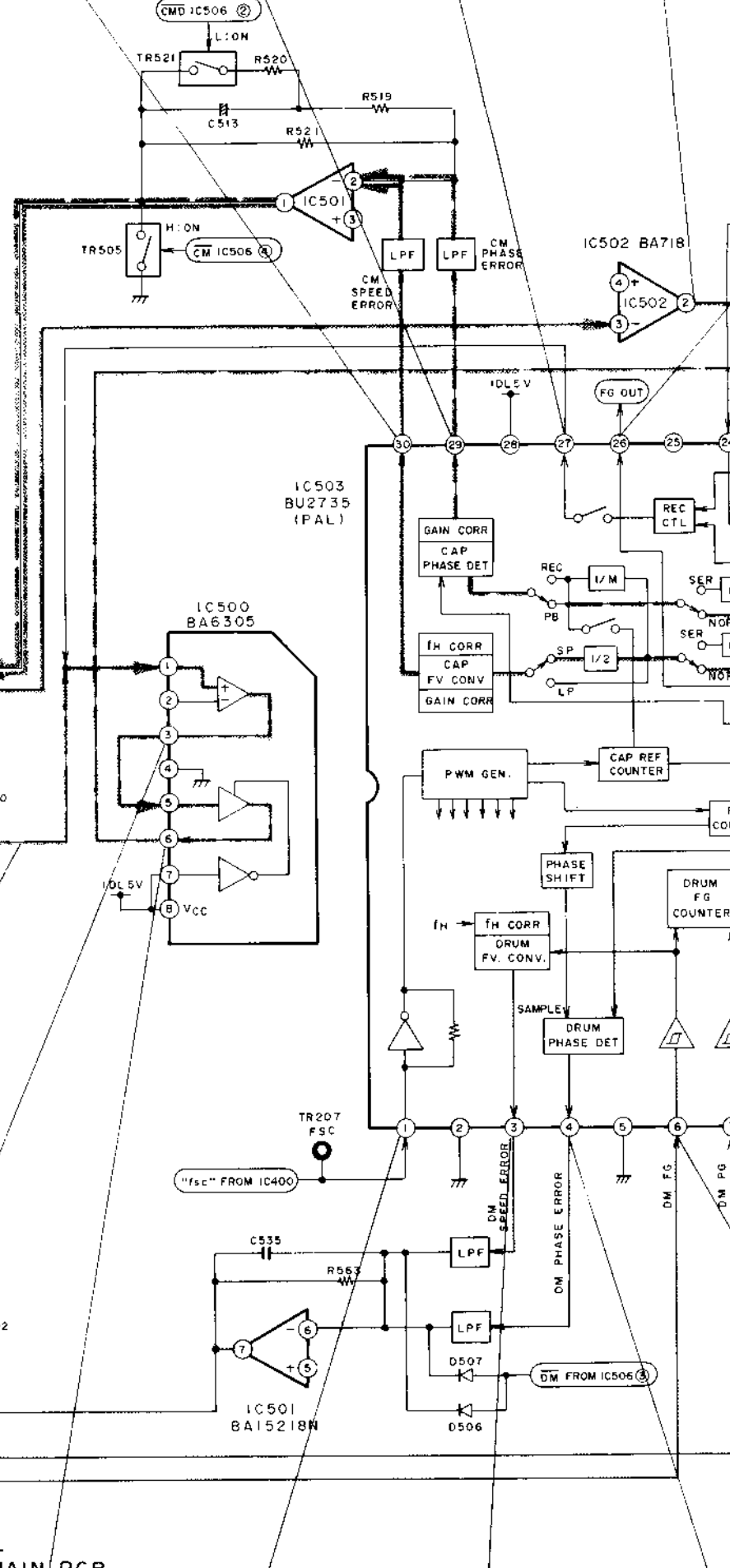
CAPSTAN FG  
f 1513.66Hz



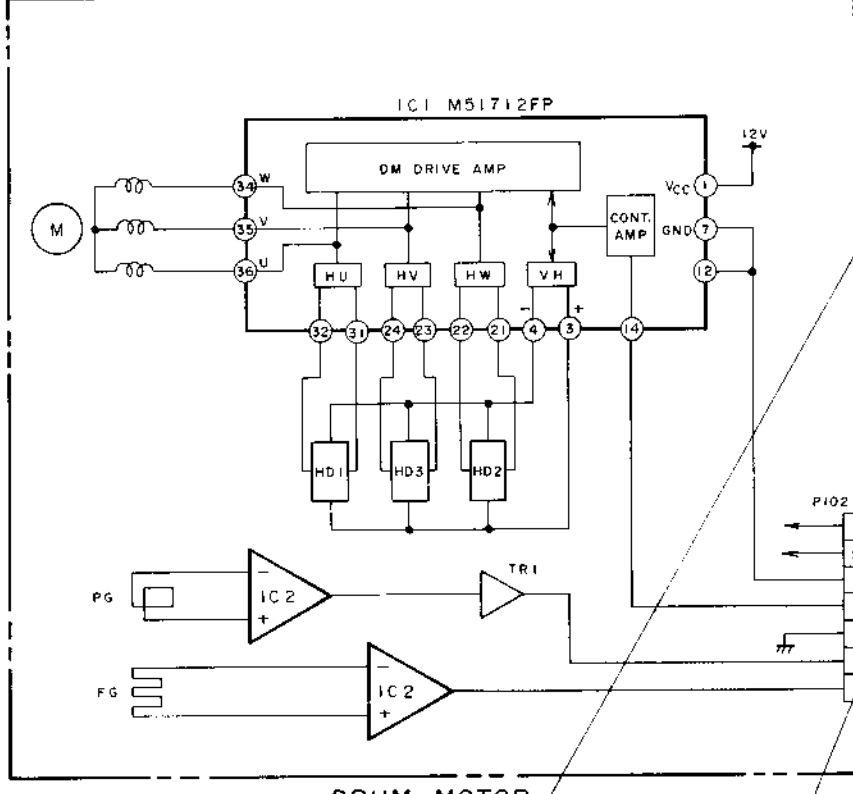
CAPSTAN MOTOR



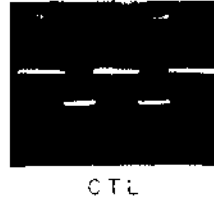
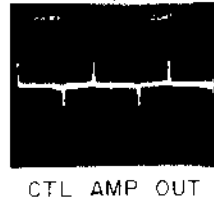
TO A/C HEAD PCB



MAIN PCB



DRUM MOTOR



REC CTL

CTL AMP OUT

CTL

fsc

DM F/V OUT

DM P/V

A

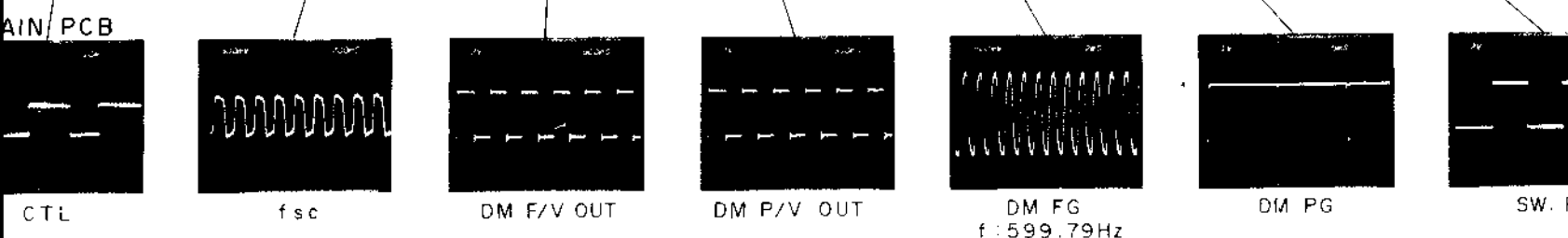
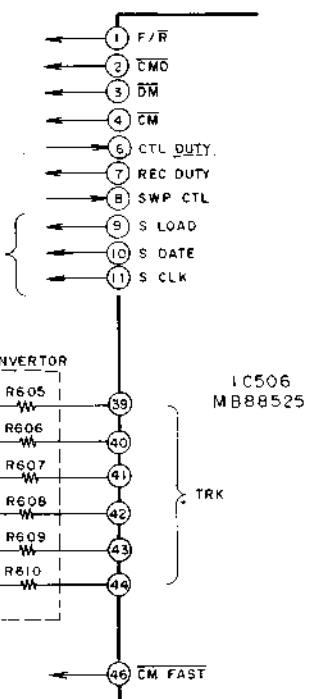
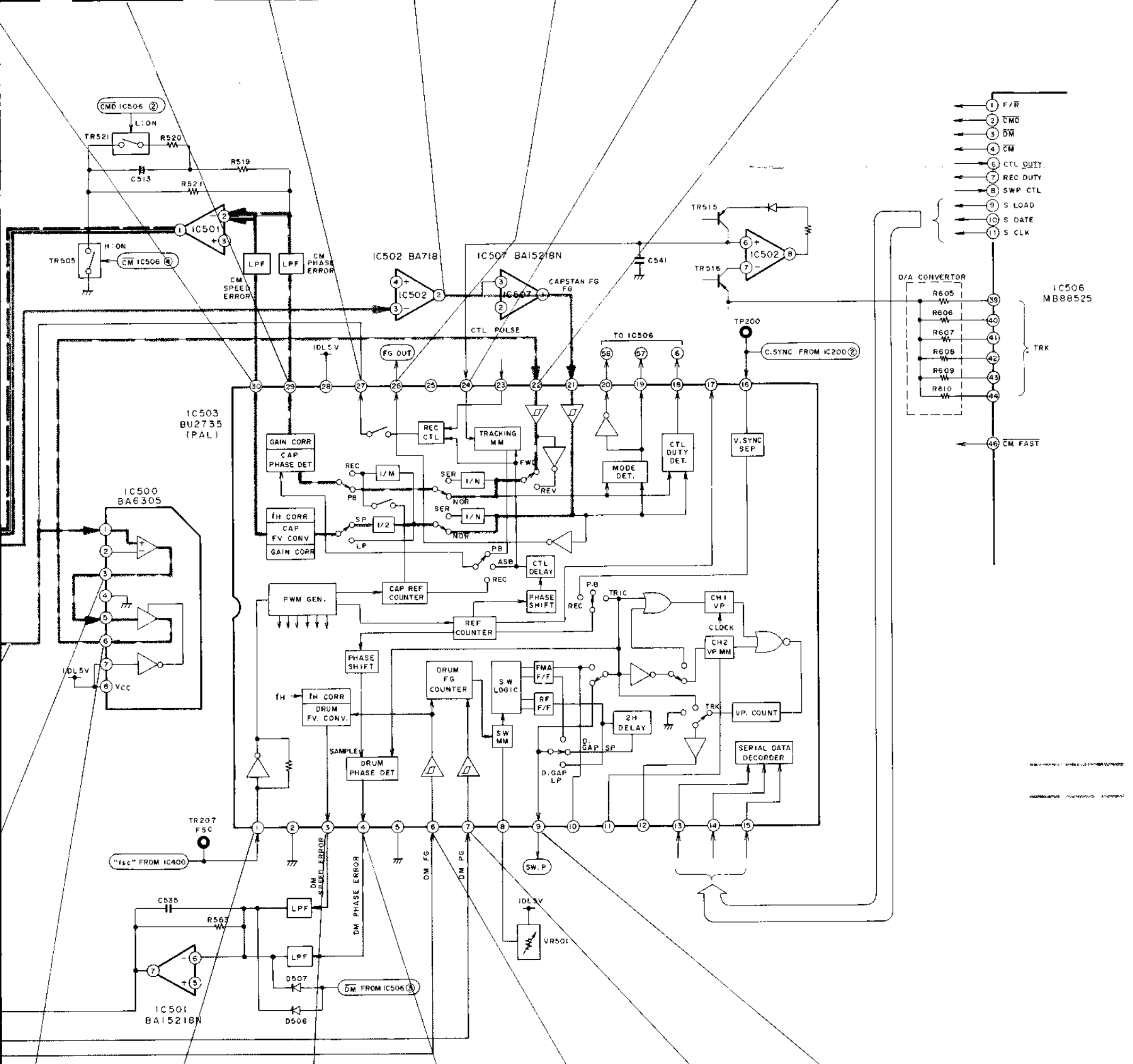
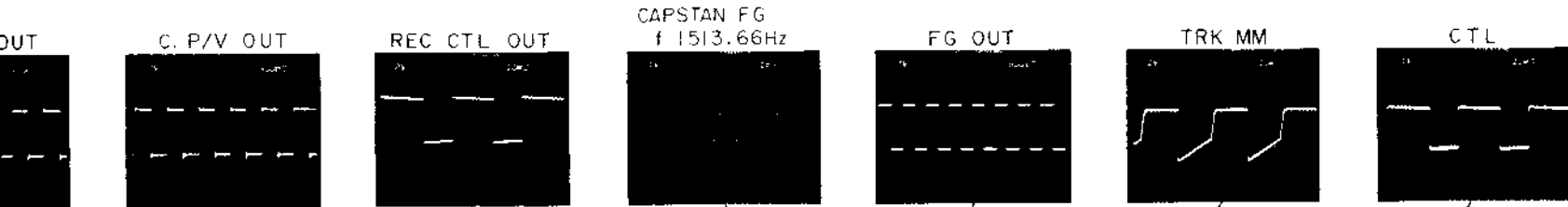
B

C

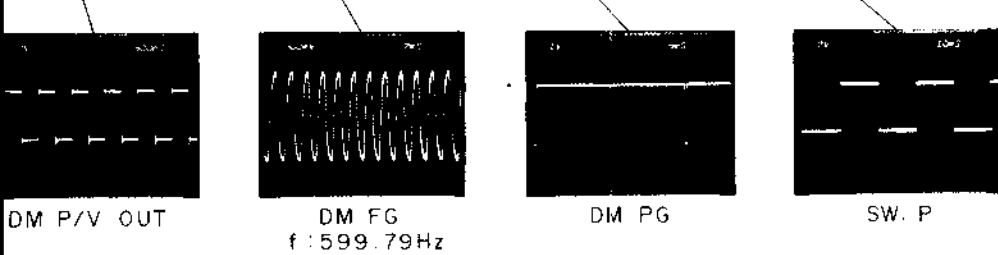
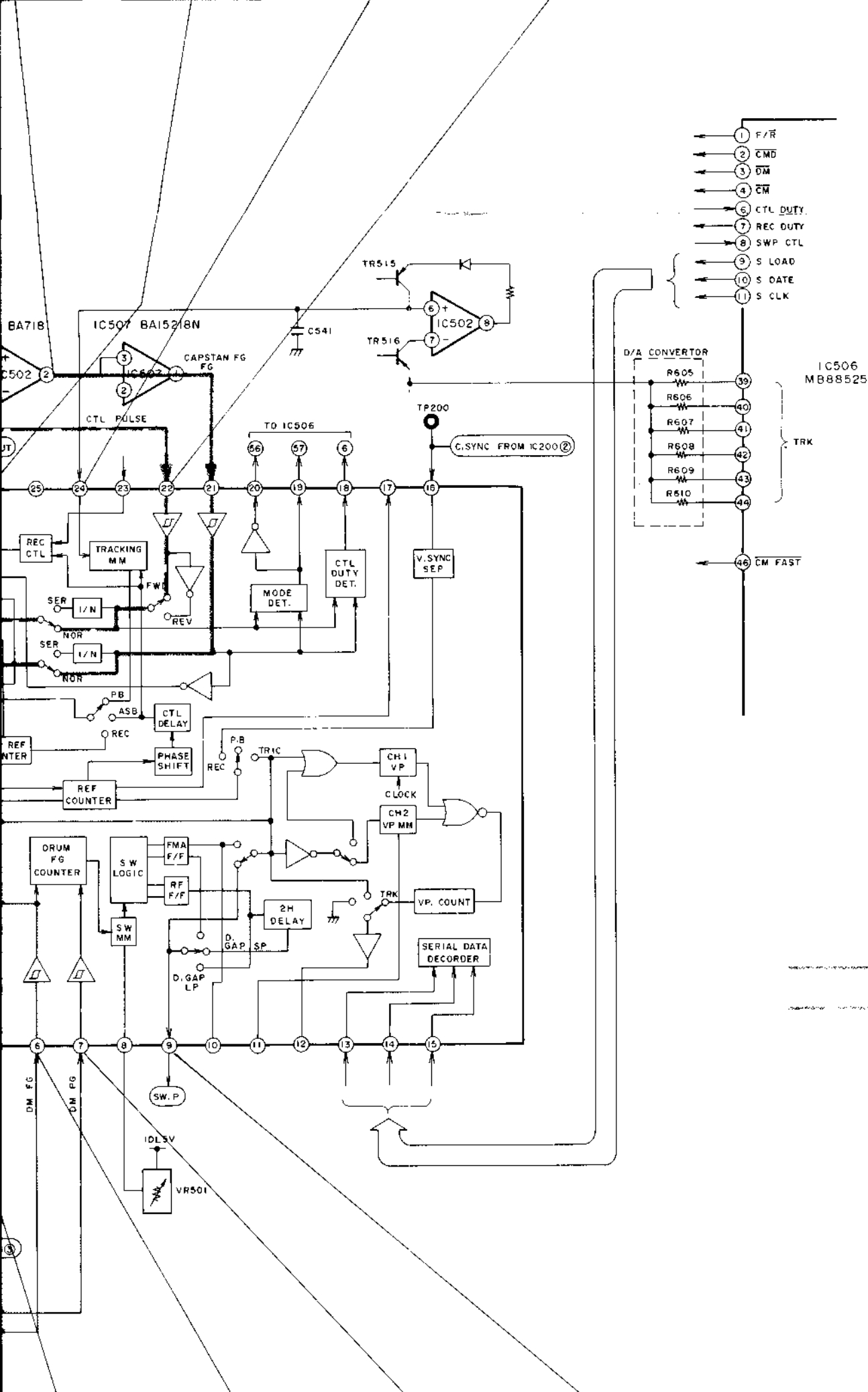
D

E

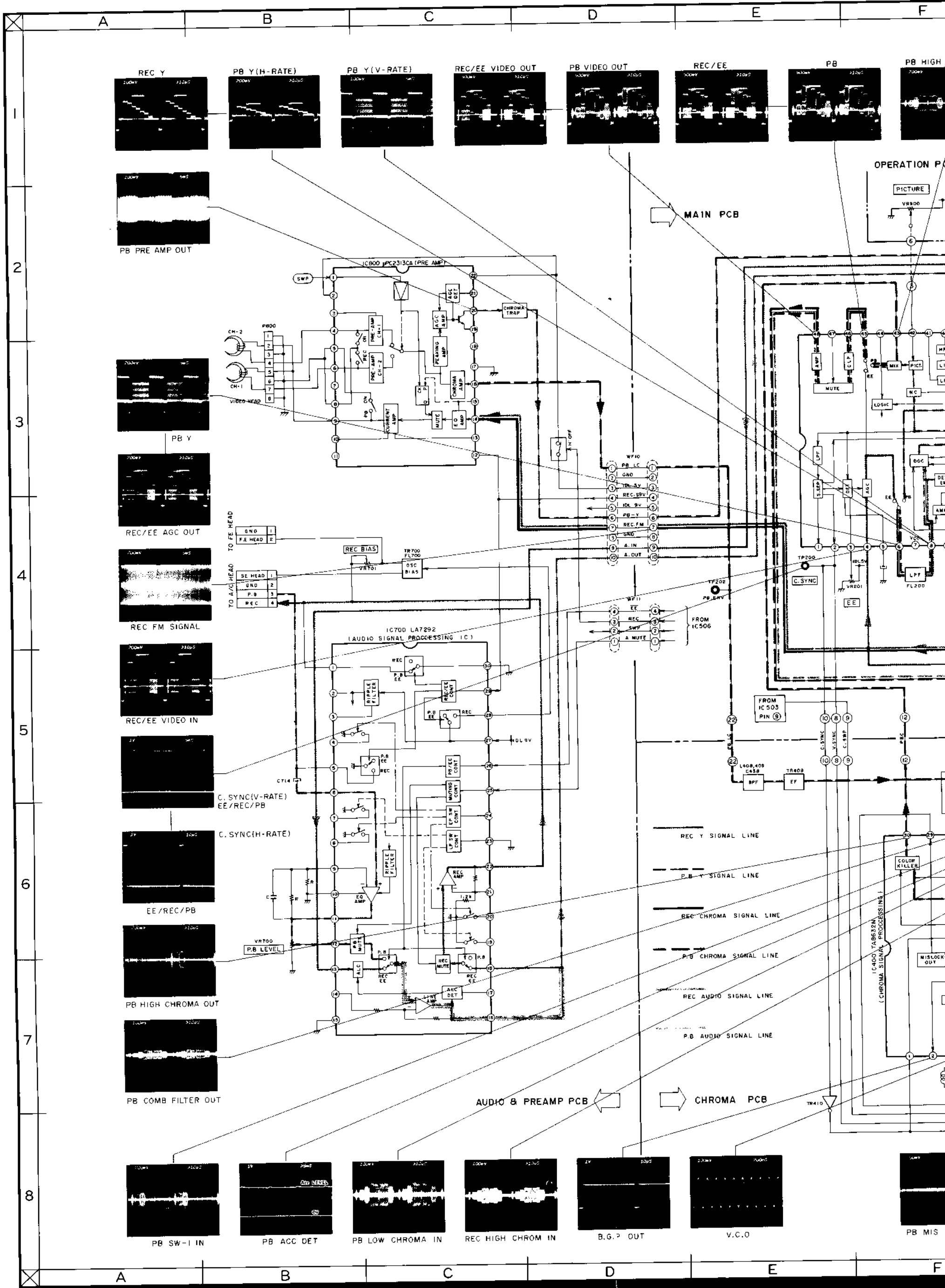
F



VS-20  
VS-26  
VS-27  
SERVO  
BLOCK  
NO



VS-20EO  
 VS-26EA·ES·EV·EO  
 VS-27EV  
 SERVO  
 BLOCK DIAGRAM  
 NO. 5-4 870703F

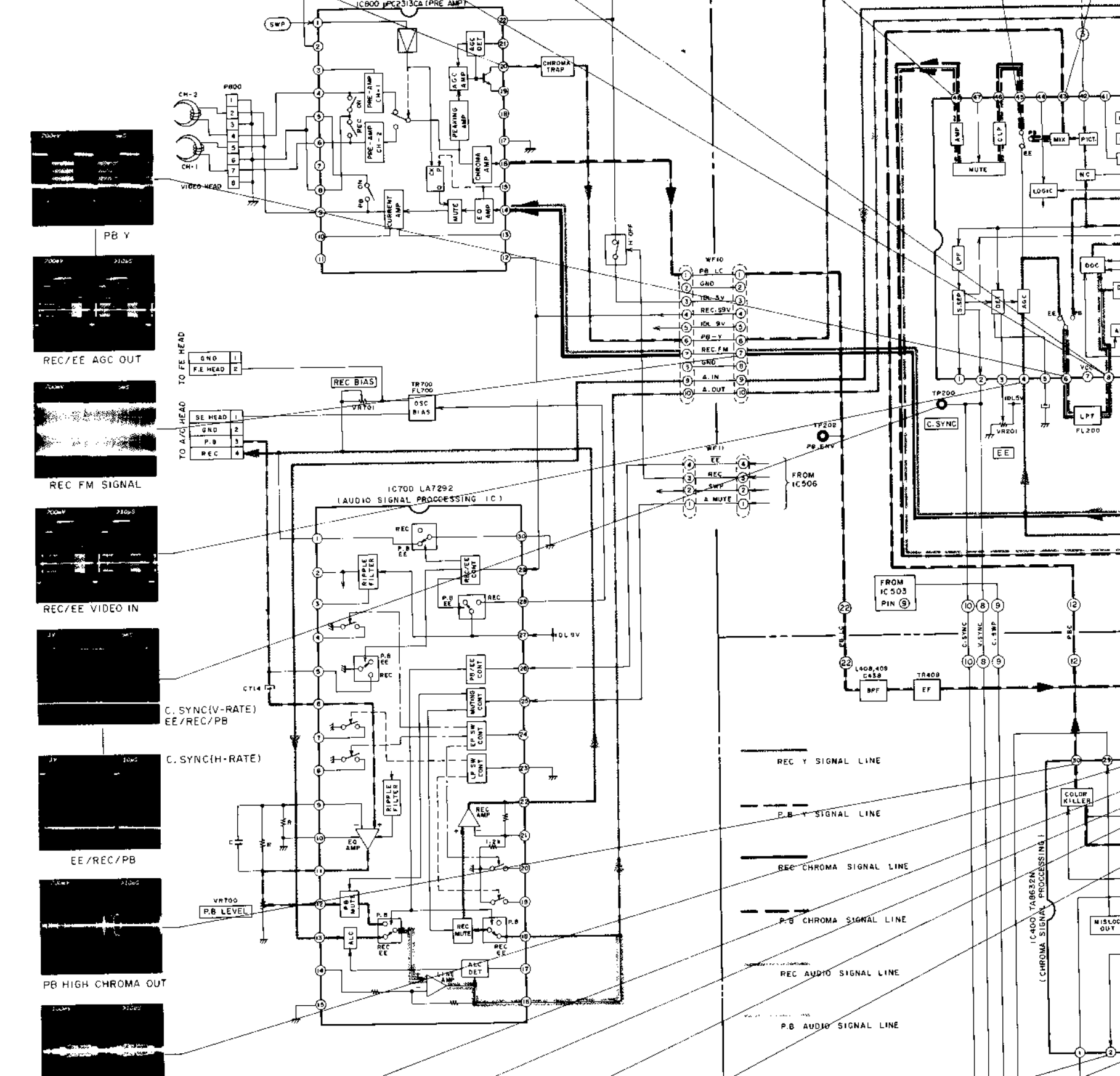


1  
2  
3  
4  
5  
6  
7  
8

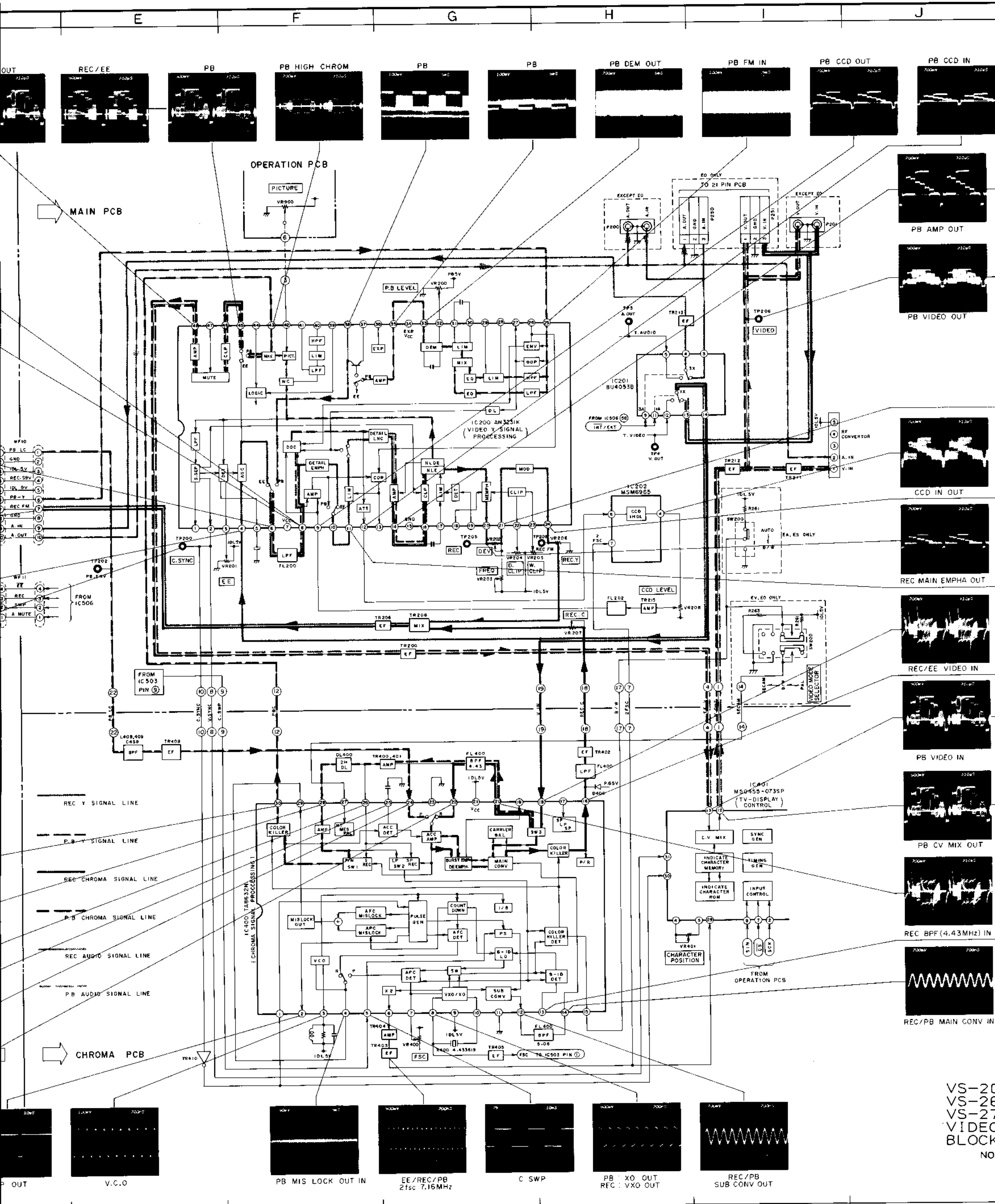
A B C D E F

REC Y  
PB Y(H-RATE)  
PB Y(V-RATE)  
REC/EE VIDEO OUT  
PB VIDEO OUT  
REC/EE  
PB  
PB HIGH

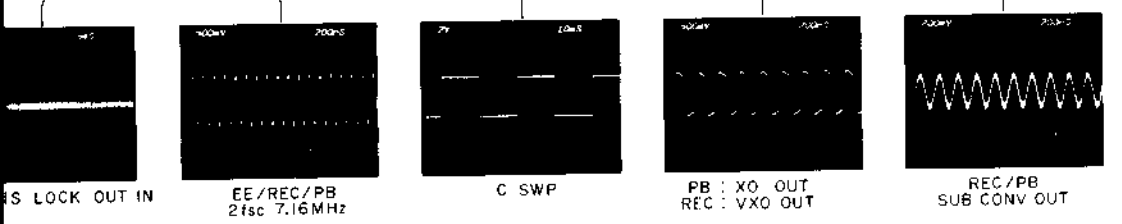
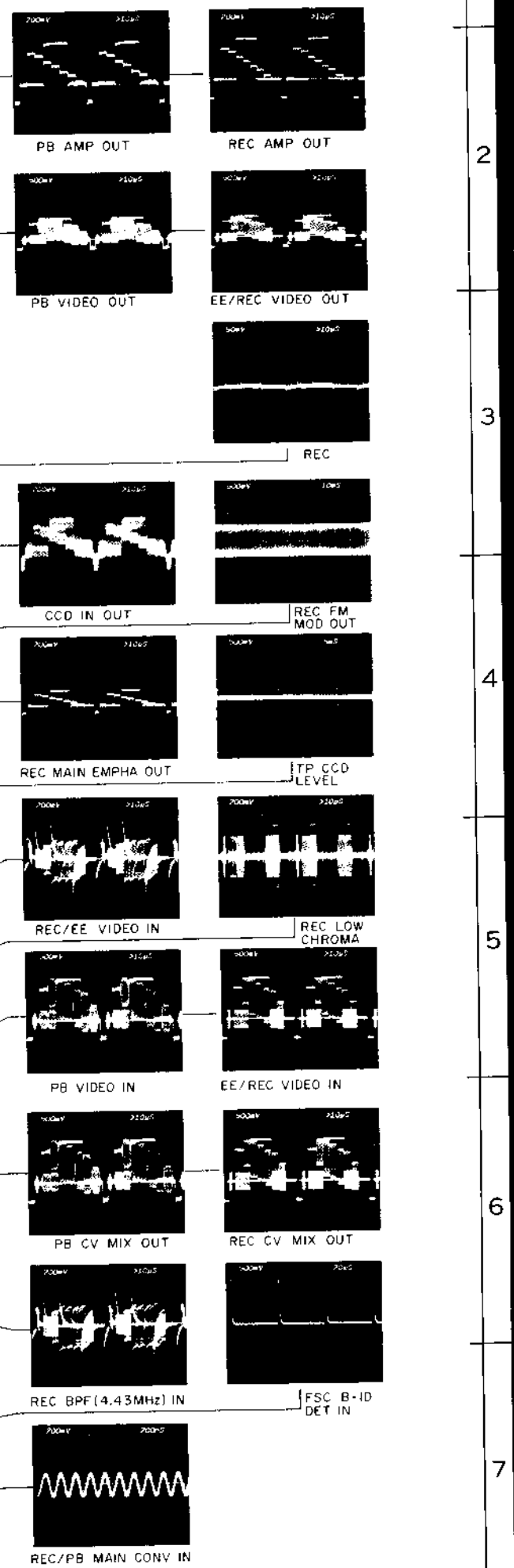
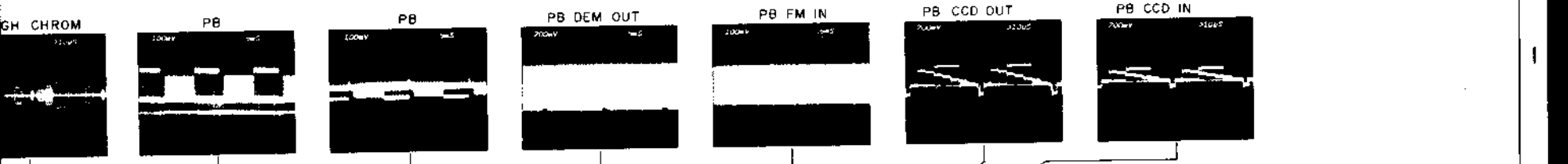
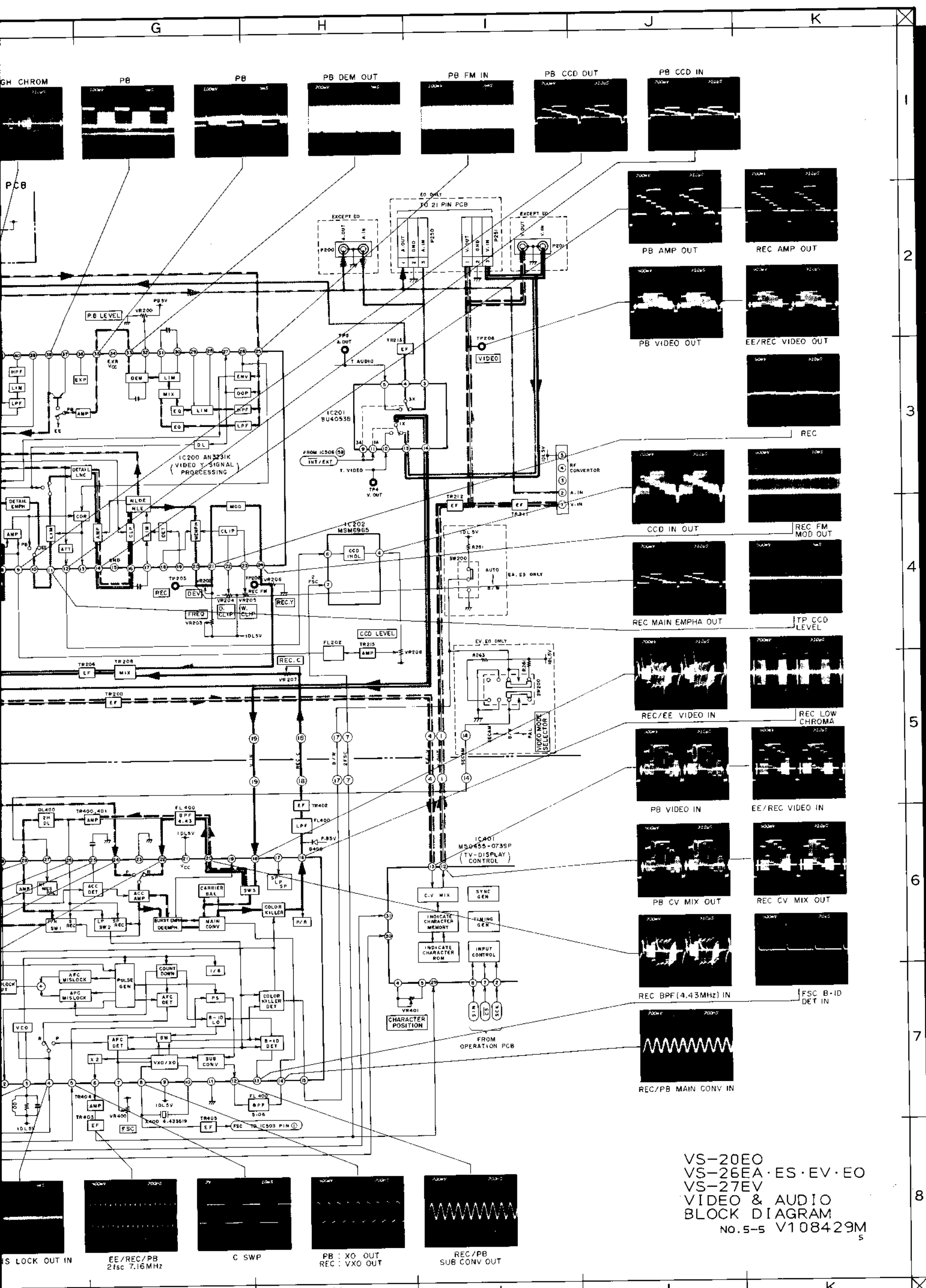
PB PRE AMP OUT  
MAIN PCB  
OPERATION PICTURE  
VTR00



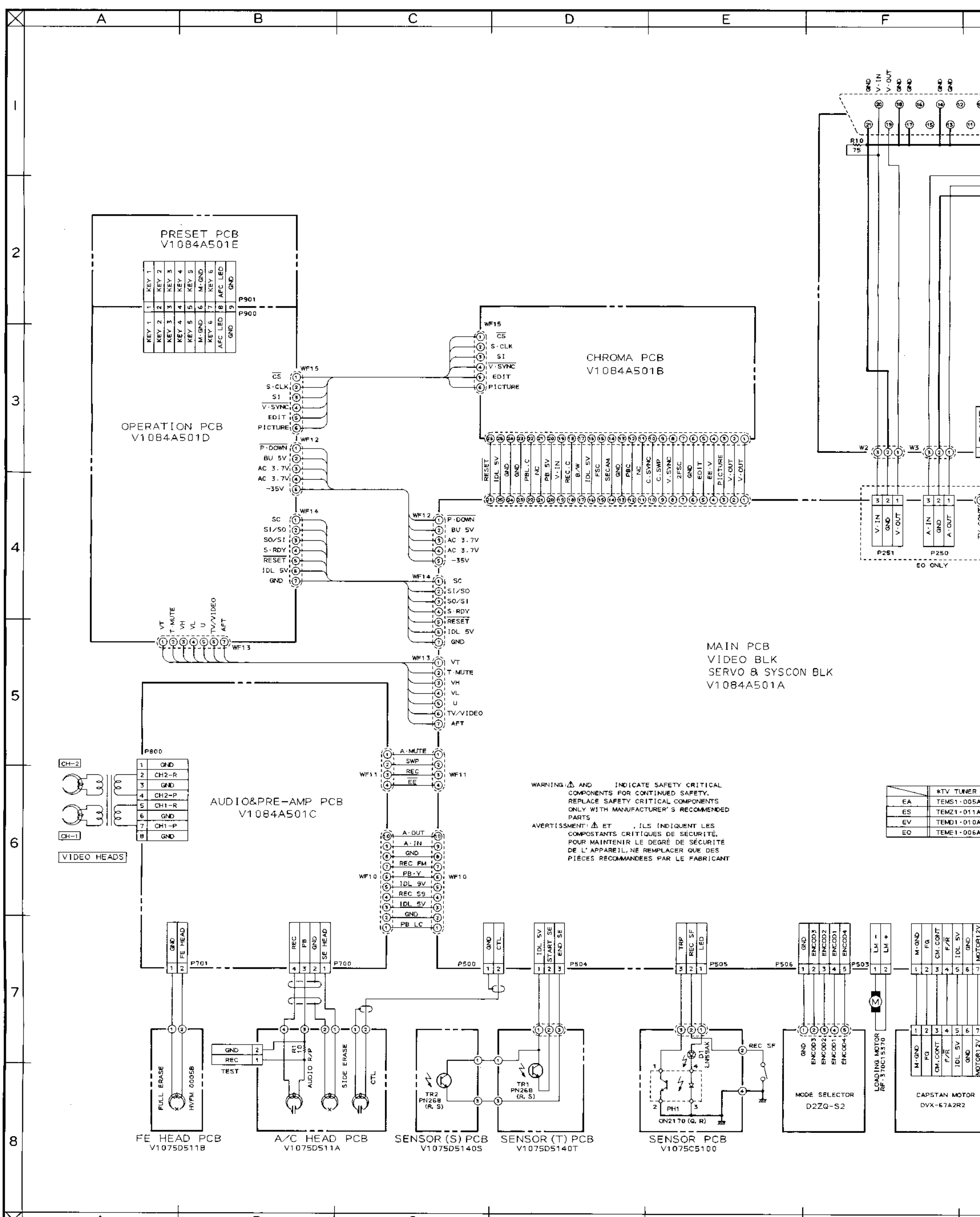
REC Y SIGNAL LINE  
P.B. Y SIGNAL LINE  
REC CHROMA SIGNAL LINE  
P.B. CHROMA SIGNAL LINE  
REC AUDIO SIGNAL LINE  
P.B. AUDIO SIGNAL LINE  
AUDIO & PREAMP PCB  
CHROMA PCB  
PB SW-1 IN  
PB ACC DET  
PB LOW CHROMA IN  
REC HIGH CHROM IN  
B.G.P OUT  
V.C.O  
PB MIS



VS-20  
VS-26  
VS-27  
VIDEO  
BLOCK  
NO



VS-20EO  
 VS-26EA·ES·EV·EO  
 VS-27EV  
 VIDEO & AUDIO  
 BLOCK DIAGRAM  
 NO. 5-5 V108429M

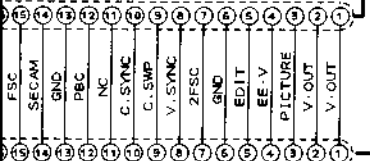


WARNING: ⚠ AND ⚡ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

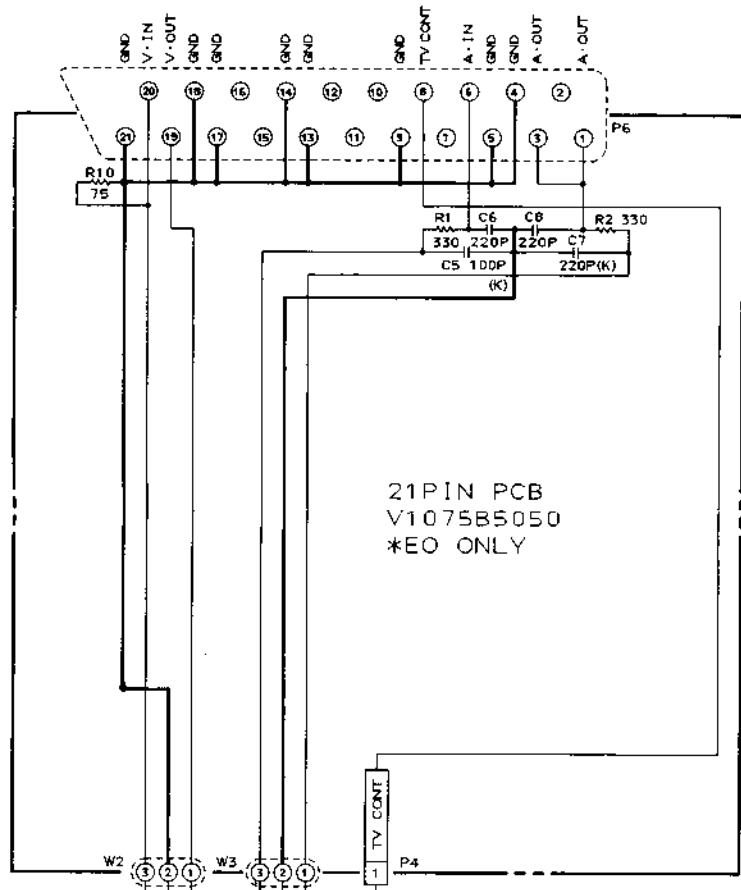
AVERTISSEMENT: ⚠ ET ⚡ ILS INDIQUENT LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

	*TV TUNER
EA	TEMS1-005A
ES	TEMZ1-011A
EV	TEMD1-010A
EO	TEME1-006A

CHROMA PCB  
V1084A501B

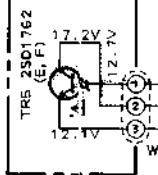


MAIN PCB  
VIDEO BLK  
SERVO & SYSCON BLK  
V1084A501A



21PIN PCB  
V1075B5050  
\*EO ONLY

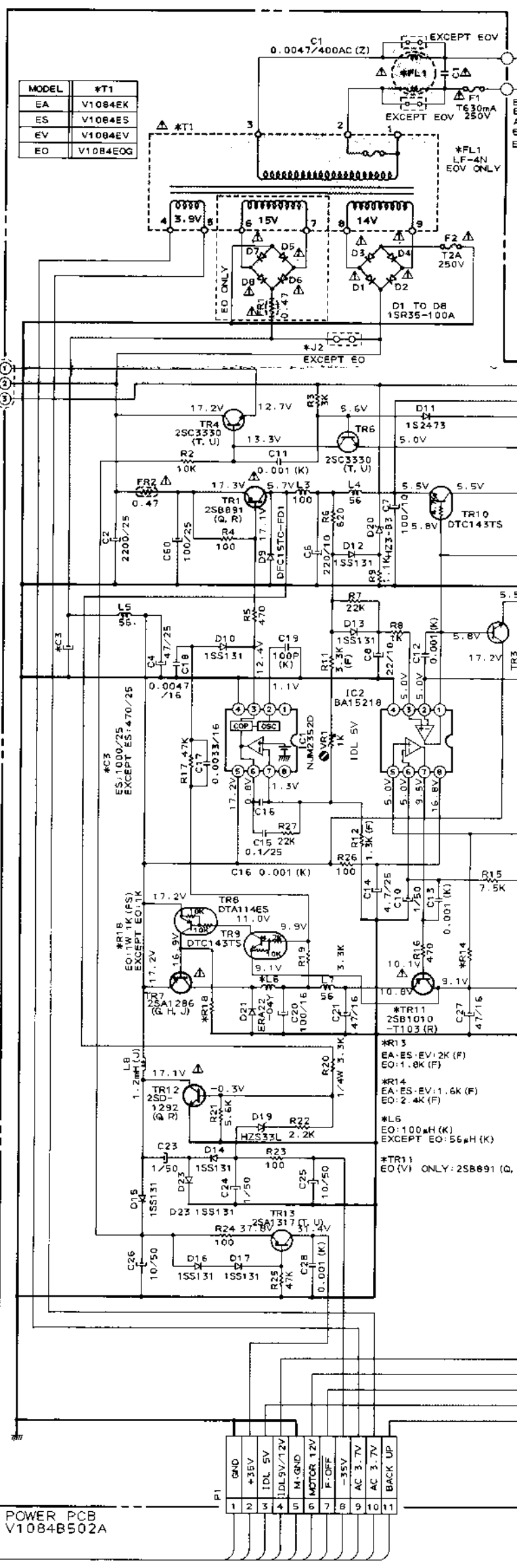
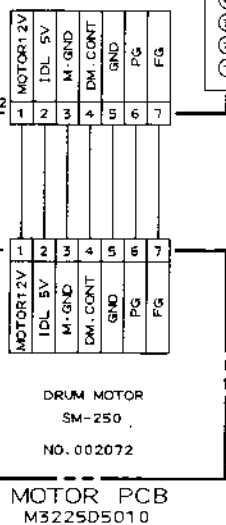
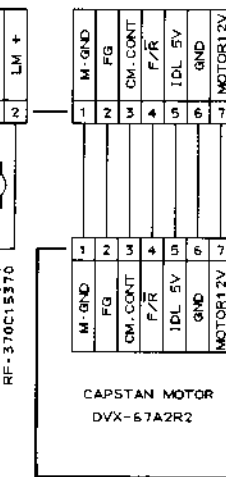
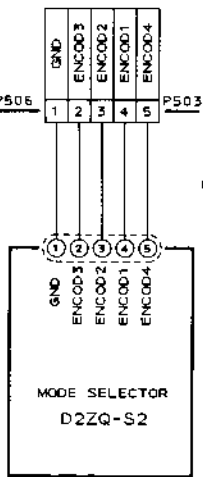
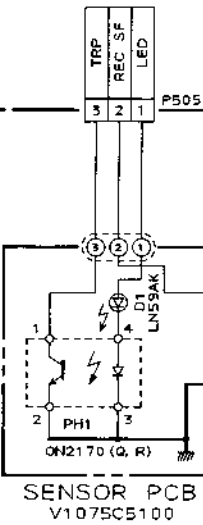
TR (2) PCB  
V1084B502C



\*EA-ES-EV  
IDL9V  
\*EO ONLY  
IDL12V

	*TV TUNER	*RF CONVERTER
EA	TEMS1-005A	MDLK2S100A
ES	TEMZ1-011A	MDLK3B053A
EV	TEMD1-010A	MDLK2D103A
EO	TEME1-006A	MDLK-3D053A

INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. LE SAFETY CRITICAL COMPONENTS WITH MANUFACTURER'S RECOMMENDED ET ET ILS INDIQUENT LES COMPOSANTS CRITIQUES DE SÉCURITÉ. MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL. NE REMPLACER QUE DES COMPOSANTS RECOMMANDÉES PAR LE FABRICANT



POWER PCB  
V1084B502A

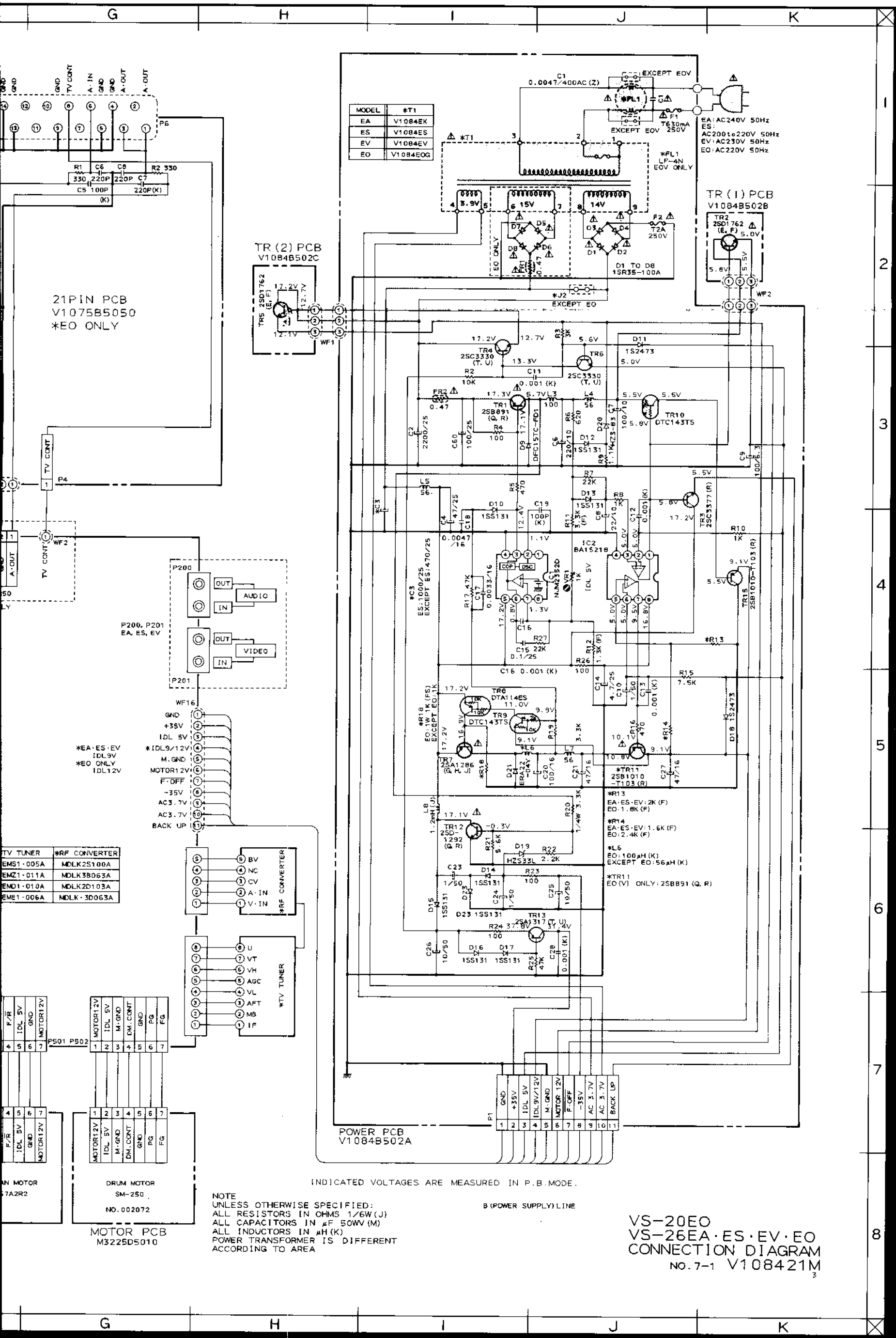
INDICATED VOLTAGES ARE MEASURED IN P.B. MODE.

NOTE  
UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN μF 50WV(M)  
ALL INDUCTORS IN μH(K)  
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

B (POWER SUPPLY) LINE

VS-20EO  
VS-26EA  
CONNECT I  
NO. 7-





MODEL	#T1
EA	V1084EK
ES	V1084ES
EV	V1084EV
EO	V1084EOQ

TR (1) PCB  
V1084B502B

TR (2) PCB  
V1084B502C

21PIN PCB  
V1075B5050  
\*EO ONLY

POWER PCB  
V1084B502A

MOTOR PCB  
M3225D5010

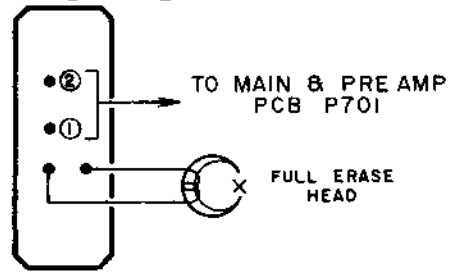
NOTE  
UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN  $\mu$ F 50W(M)  
ALL INDUCTORS IN  $\mu$ H(K)  
POWER TRANSFORMER IS DIFFERENT  
ACCORDING TO AREA

B (POWER SUPPLY) LINE

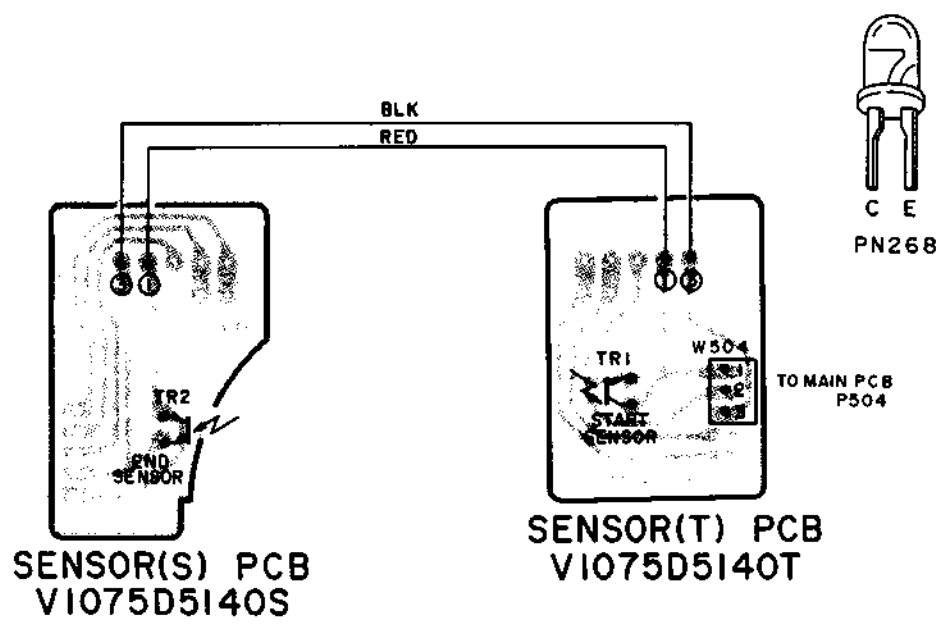
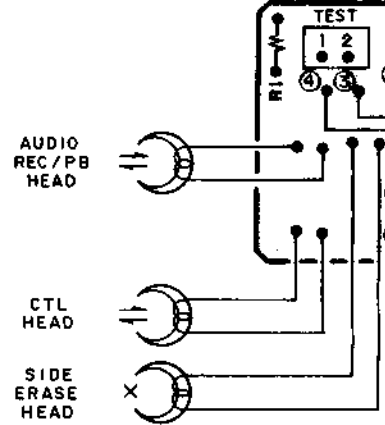
VS-20EO  
VS-26EA·ES·EV·EO  
CONNECTION DIAGRAM  
NO. 7-1 V108421M

INDICATED VOLTAGES ARE MEASURED IN P.B. MODE.

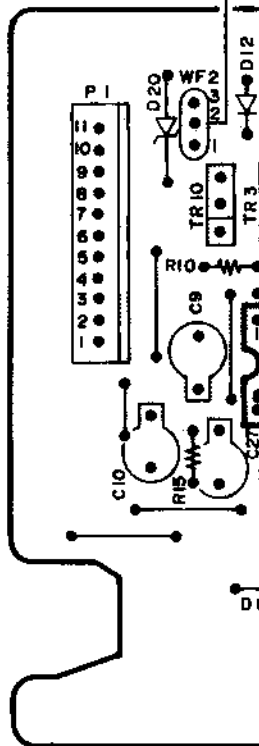
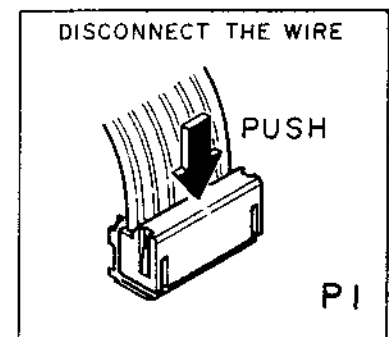
FULL ERASE HEAD PCB  
V1075D511B



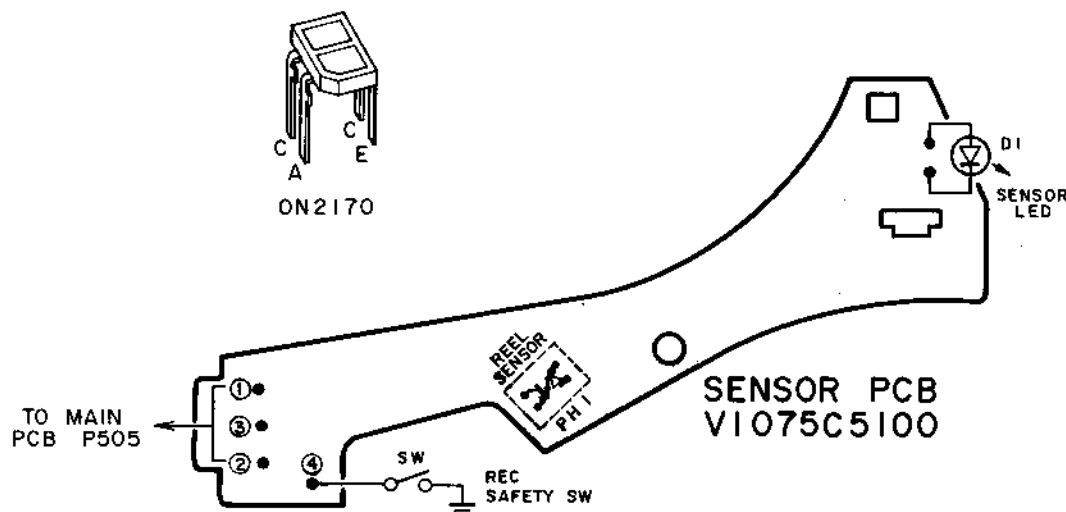
A/C HEAD  
V1075D



TR(1)  
V1084

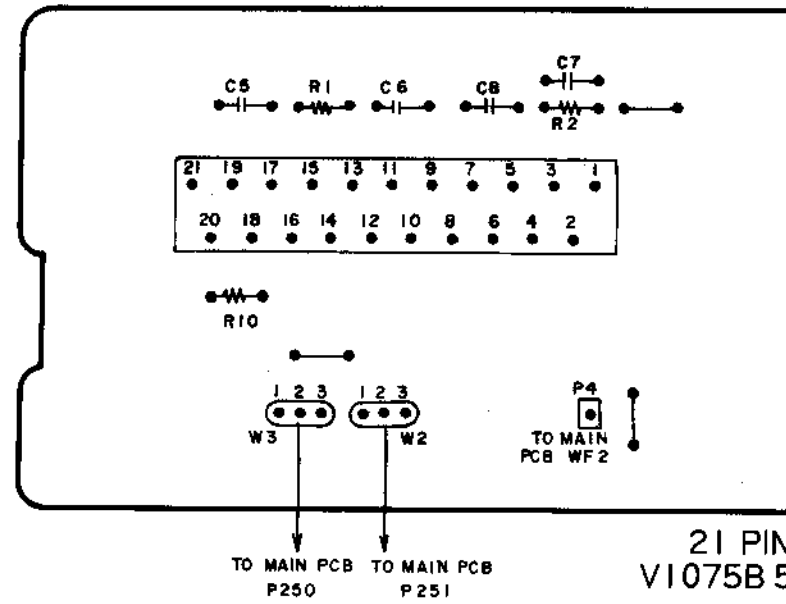
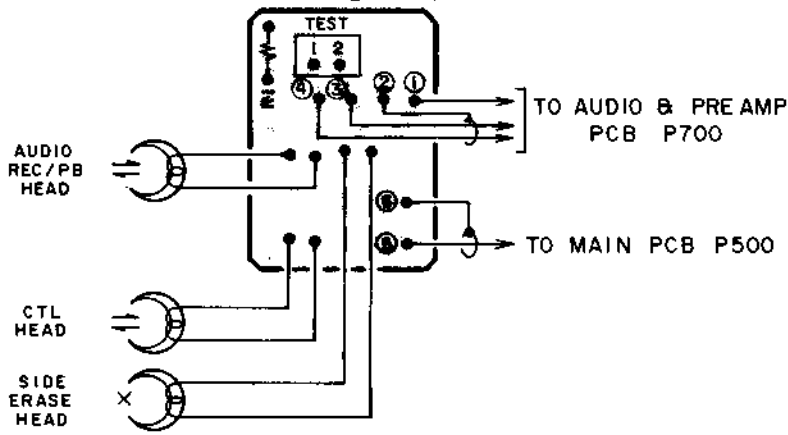


POWER PCB



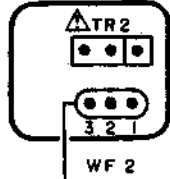
WARNING:  $\Delta$  INDICATES SAFETY CRITICAL PARTS. REPLACE SAFETY CRITICAL PARTS WITH RECOMMENDED PARTS.  
 AVERTISSEMENT:  $\Delta$  IL INDIQUE LES PARTIES CRITIQUEMENT SENSIBLES. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ, NE REMPLACER QUE DES PARTES RECOMMANDÉES.

**A/C HEAD PCB  
V1075D511A**

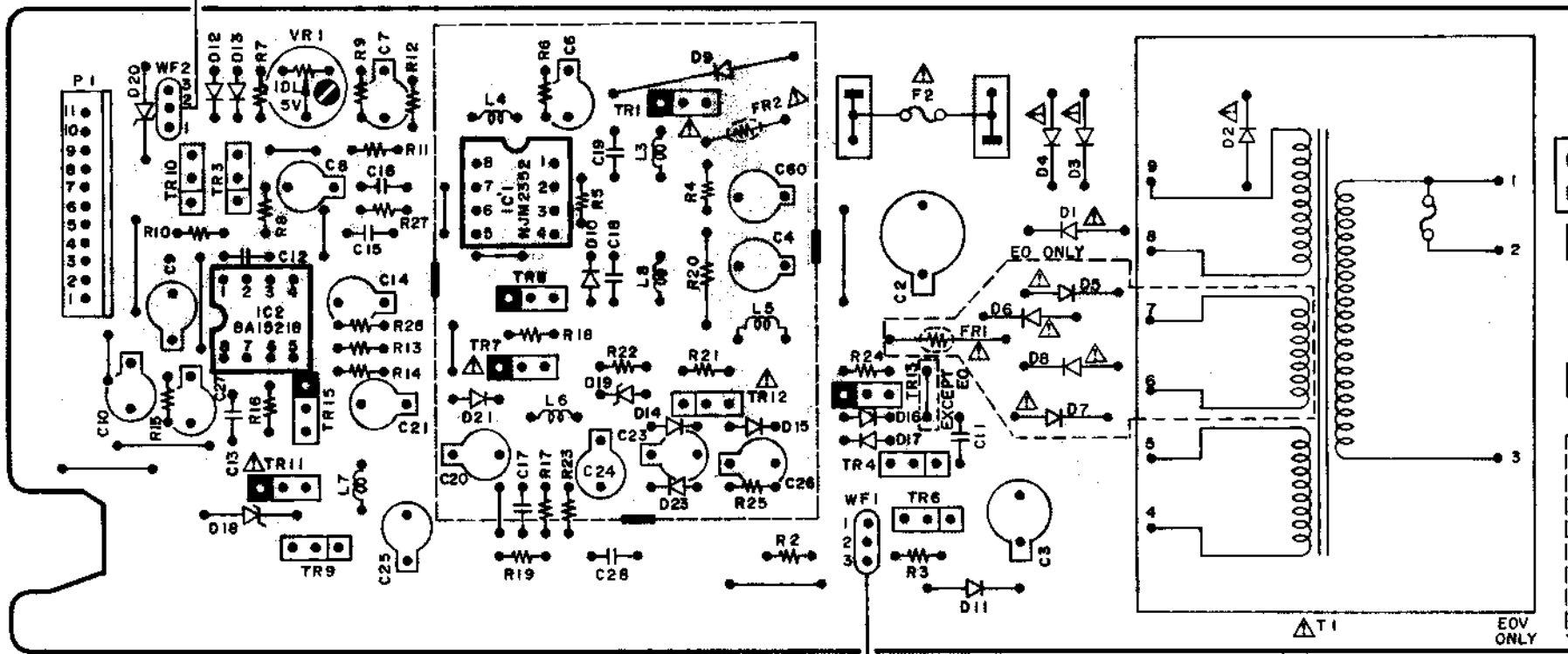
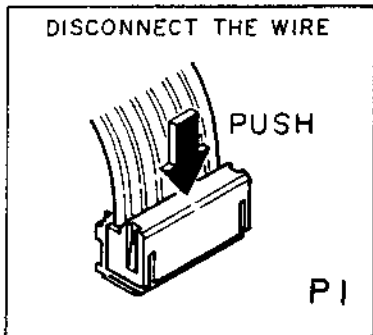
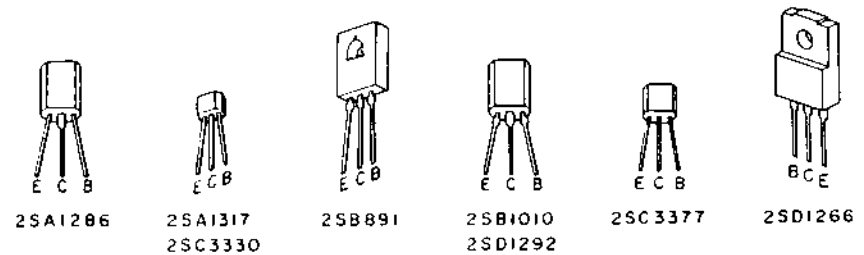


21 PIN  
V1075B5

**TR(1) PCB  
V1084B502B(J3)**



- TR 1 ---- 2SB891
- TR 2,5 --- 2SD1266
- TR 3 ---- 2SC3377
- TR 4,6 --- 2SA1286
- TR 7 ---- 2SA1286
- TR 8 ---- DTA114ES
- TR 9 ---- DTC143XS
- TR 10 ---- DTC143TS
- TR 11, 15 - 2SB1010
- TR 12 ---- 2SD1292
- TR 13 ---- 2SA1317



**POWER PCB V1084B502A(J3)**

WARNING:  $\triangle$  INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

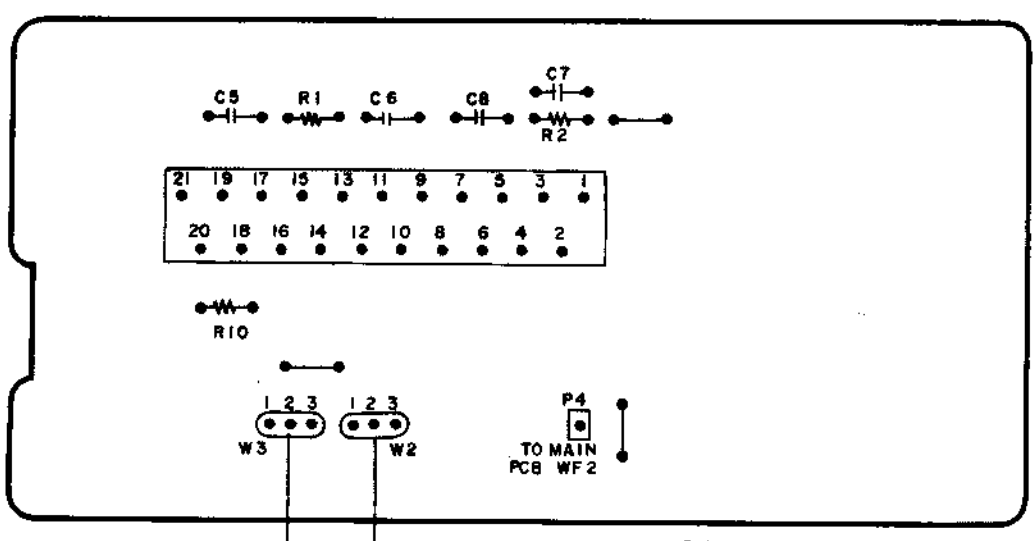
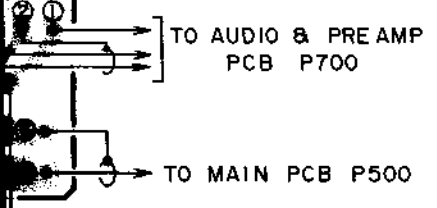
AVERTISSEMENT:  $\triangle$  IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

**TR(2) PCB  
V1084B502C(J3)**



$\triangle$  = PNP TRANSISTOR  
 $\square$  = NPN TRANSISTOR

D PCB  
511A

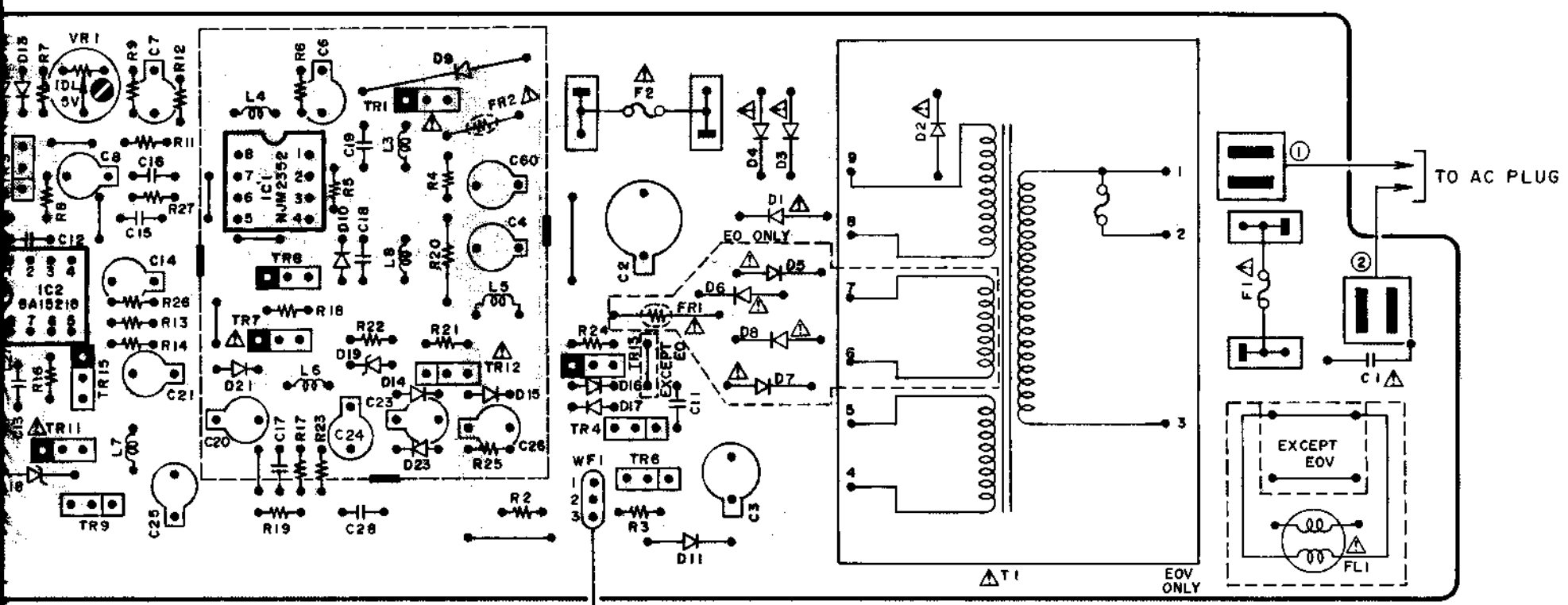
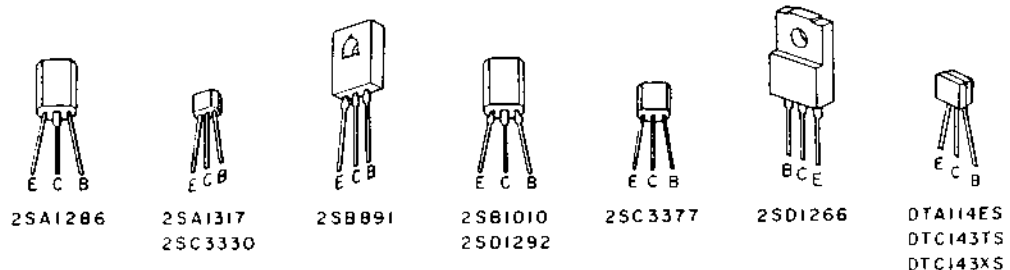


21 PIN PCB  
VI075B 5050(J2)

PCB  
B502B(J3)



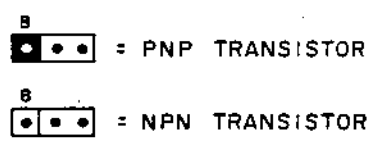
- TR 1 ---- 2SB891
- TR2,5 ---- 2SD1266
- TR 3 ---- 2SC3377
- TR4,6 ---- 2SC3330
- TR 7 ---- 2SA1286
- TR 8 ---- DTA114ES
- TR 9 ---- DTC143XS
- TR10 ---- DTC143TS
- TR11,15 - 2SB1010
- TR12 ---- 2SD1292
- TR13 ---- 2SA1317



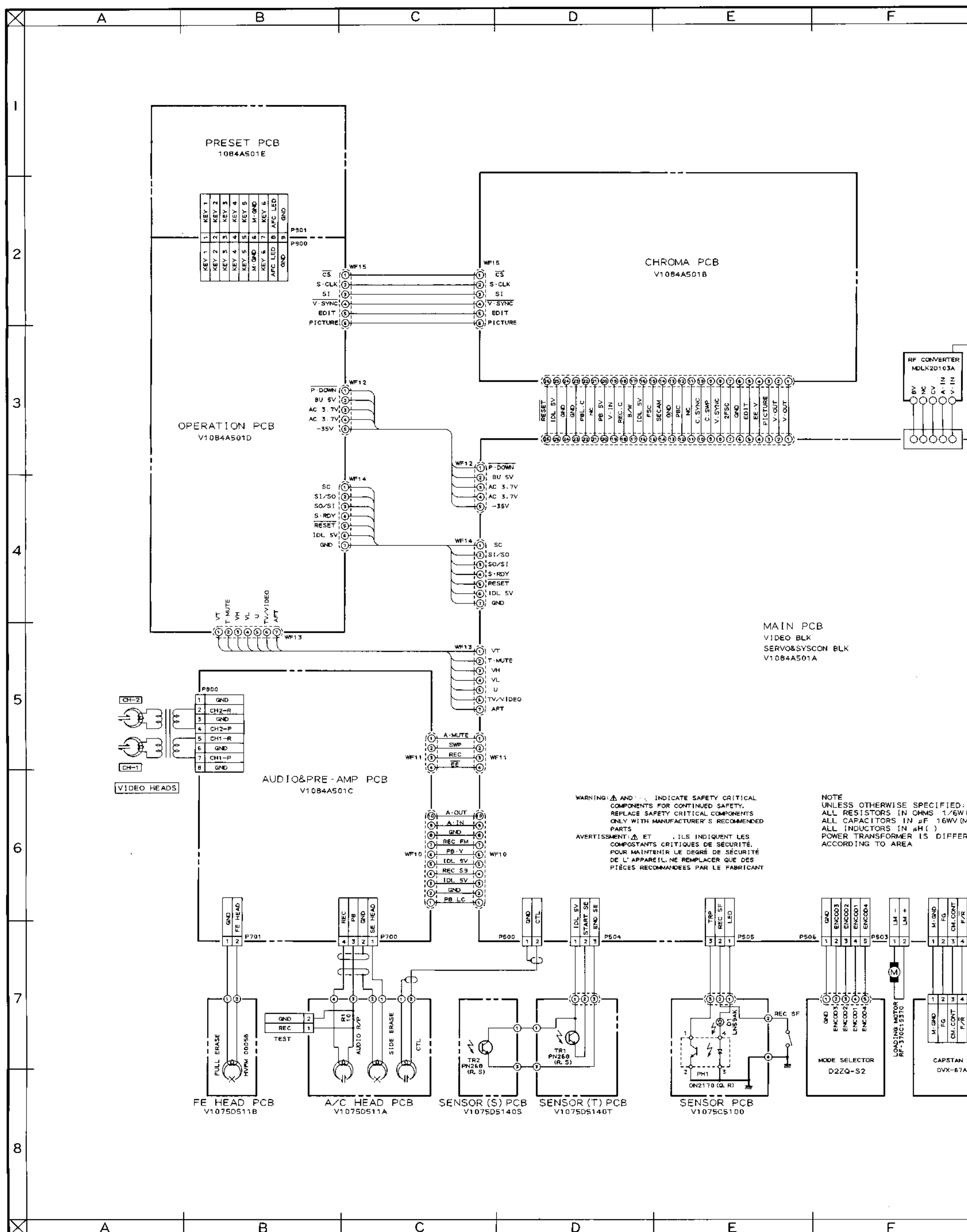
VI084B502A (J3)

CRITICAL COMPONENTS FOR CONTINUED SAFETY.  
USE ORIGINAL COMPONENTS ONLY WITH MANUFACTURER'S

COMPOSANTS CRITIQUES DE SÉCURITÉ.  
UTILISER SEULEMENT DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



TR(2) PCB  
VI084B502C(J3)



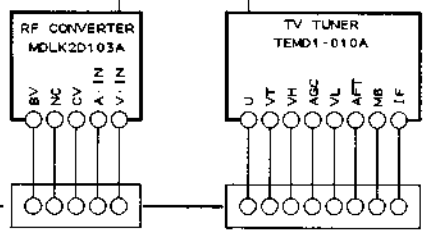
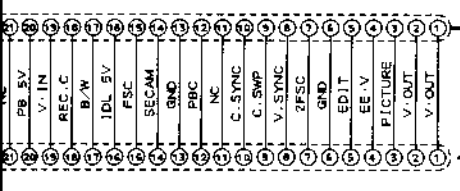
MAIN PCB  
VIDEO BLK  
SERVO&SYSCON BLK  
V1084A501A

WARNING: ⚠ AND ⚡ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

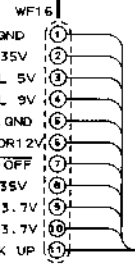
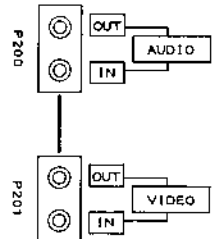
AVERTISSEMENT: ⚠ ET ⚡ ILS INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

NOTE  
UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN µF 16WV(M)  
ALL INDUCTORS IN µH( )  
POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

CHROMA PCB  
V1084A501B

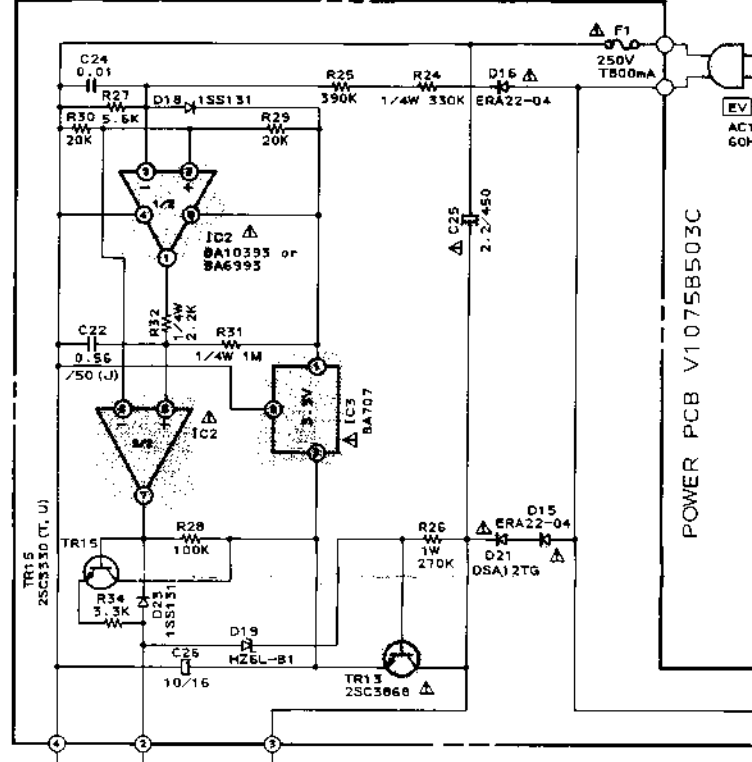
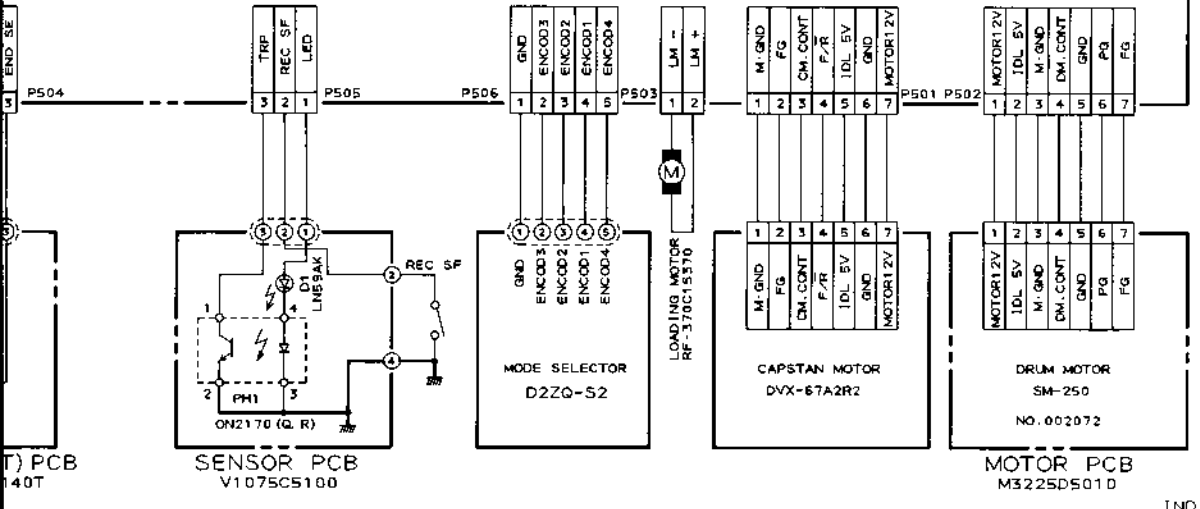


MAIN PCB  
VIDEO BLK  
SERVO&SYSCON BLK  
V1084A501A

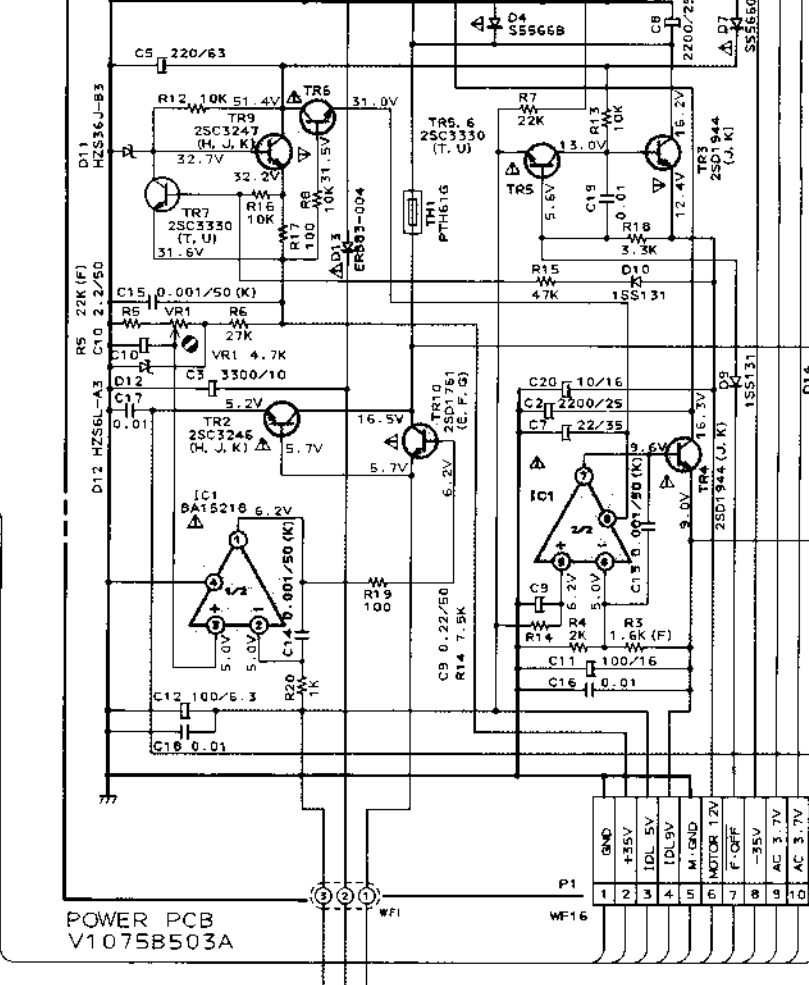
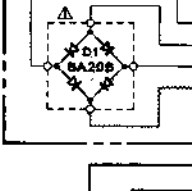


INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

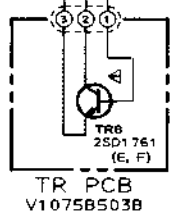
NOTE: UNLESS OTHERWISE SPECIFIED: ALL RESISTORS IN OHMS 1/5W (J) ALL CAPACITORS IN μF 15W (M) ALL INDUCTORS IN μH (I) POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA



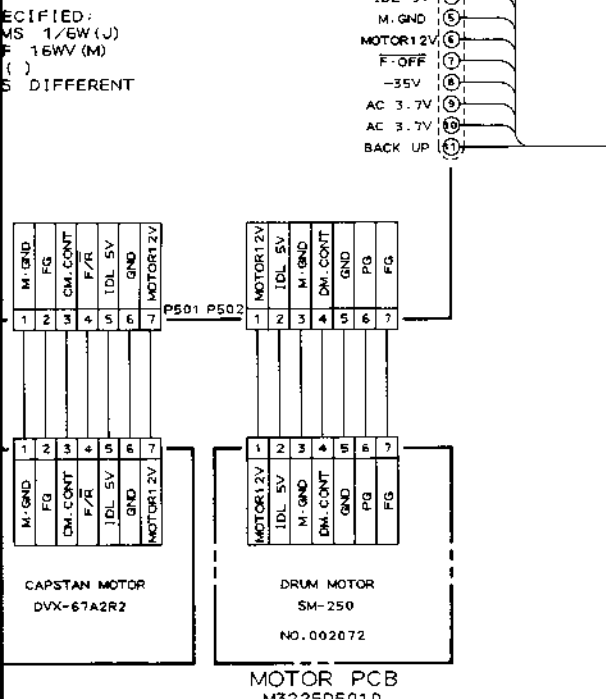
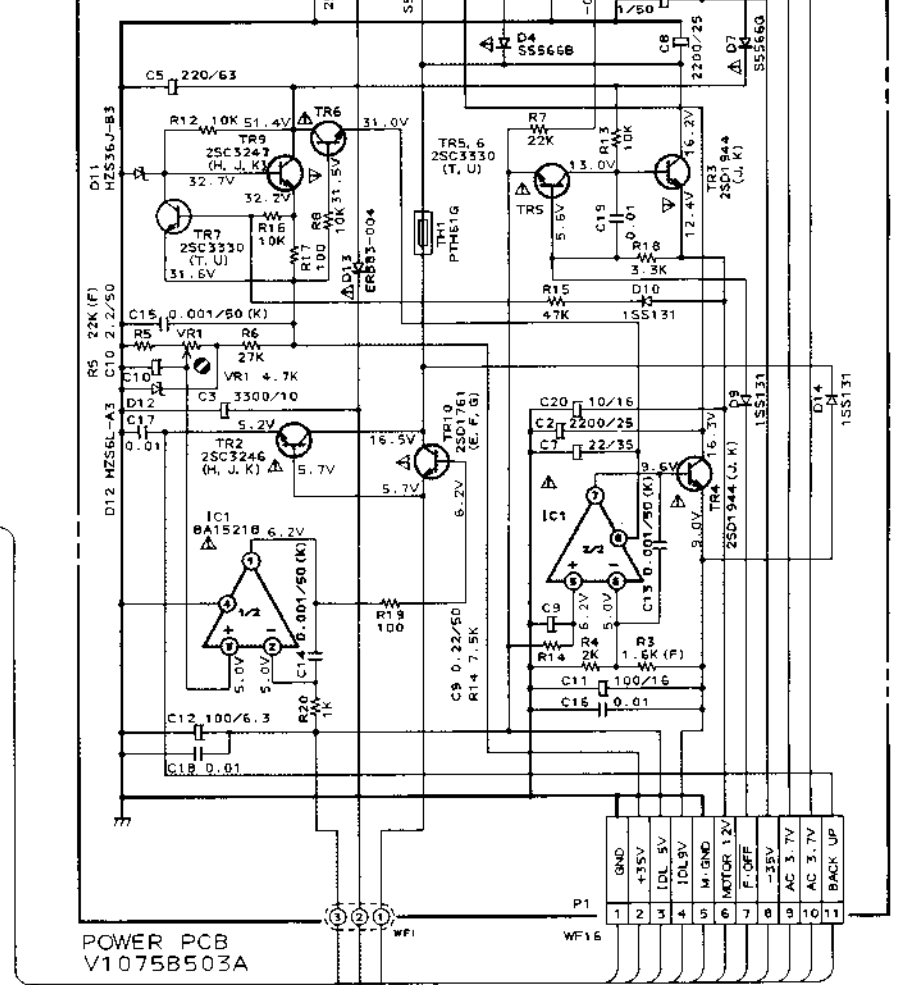
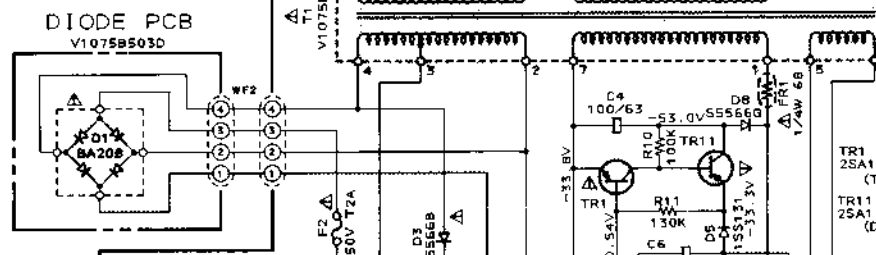
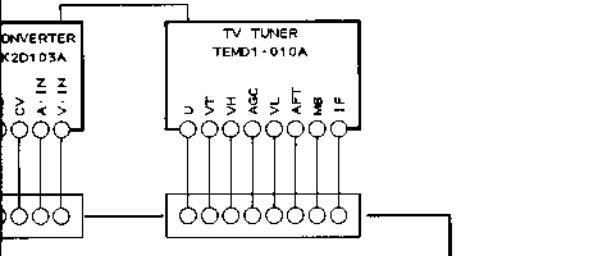
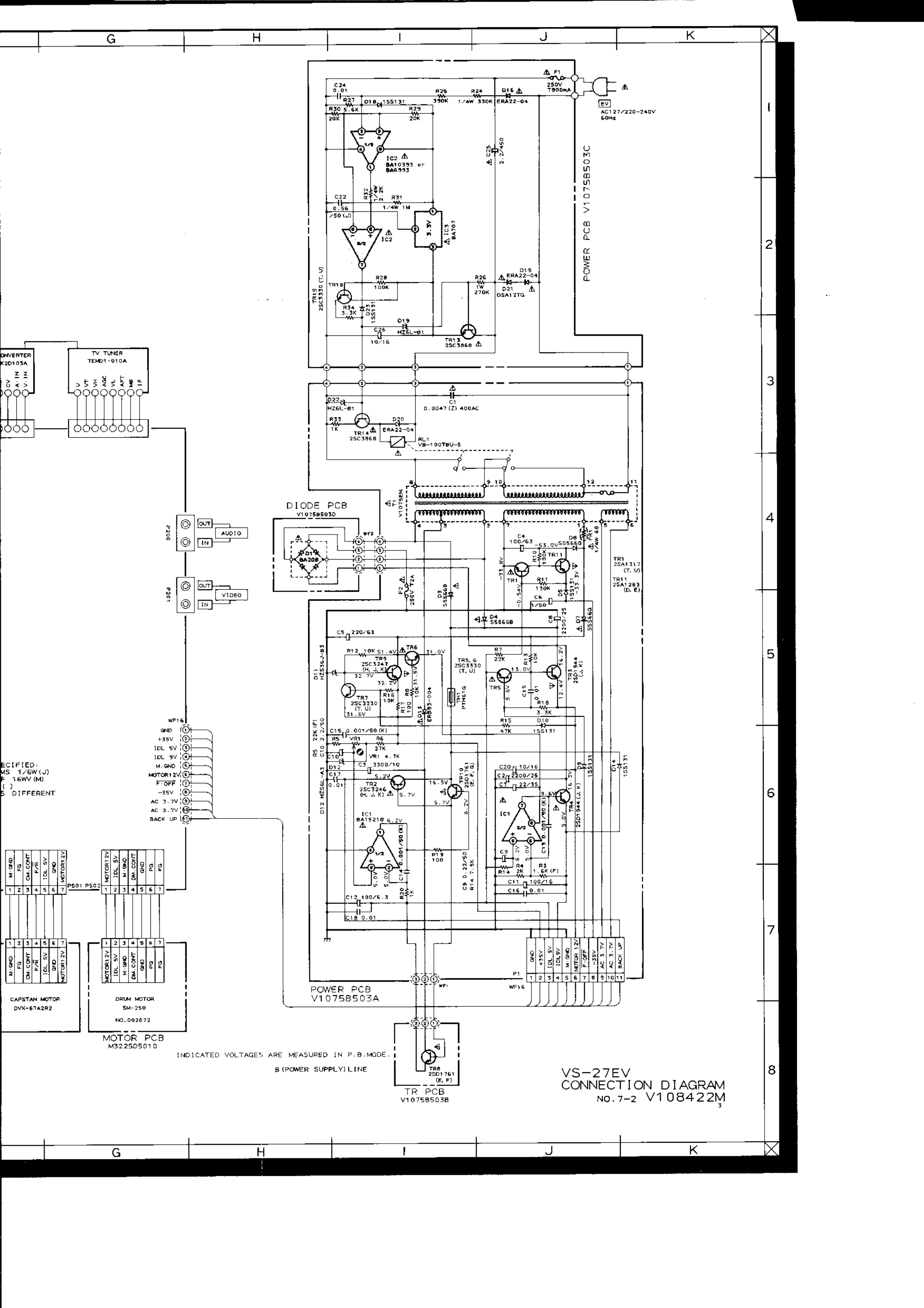
DIODE PCB  
V1075B503D



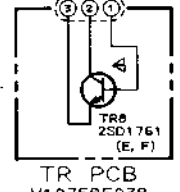
INDICATED VOLTAGES ARE MEASURED IN P.B. MODE.  
B (POWER SUPPLY) LINE



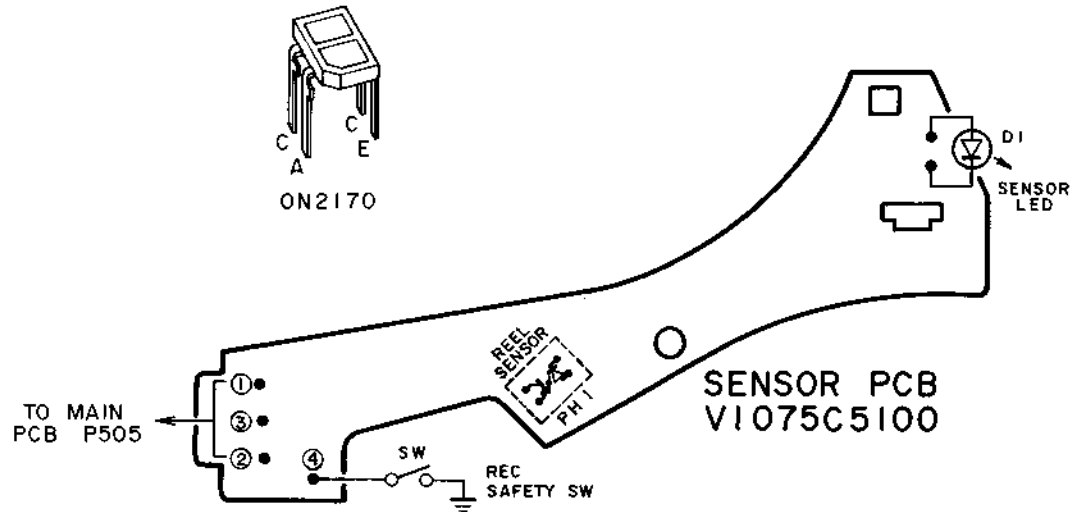
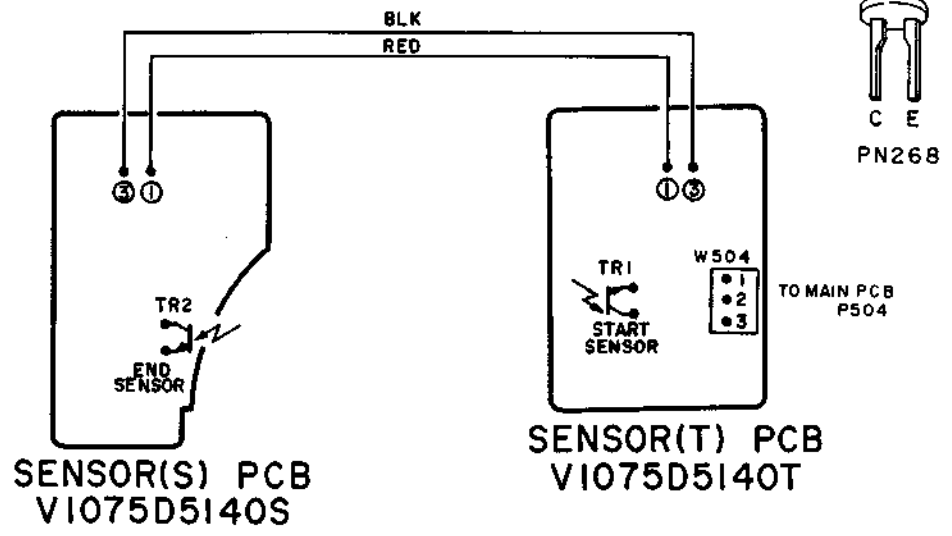
VS-27E  
CONNECT  
NO. 7



INDICATED VOLTAGES ARE MEASURED IN P.B. MODE.  
B (POWER SUPPLY) LINE

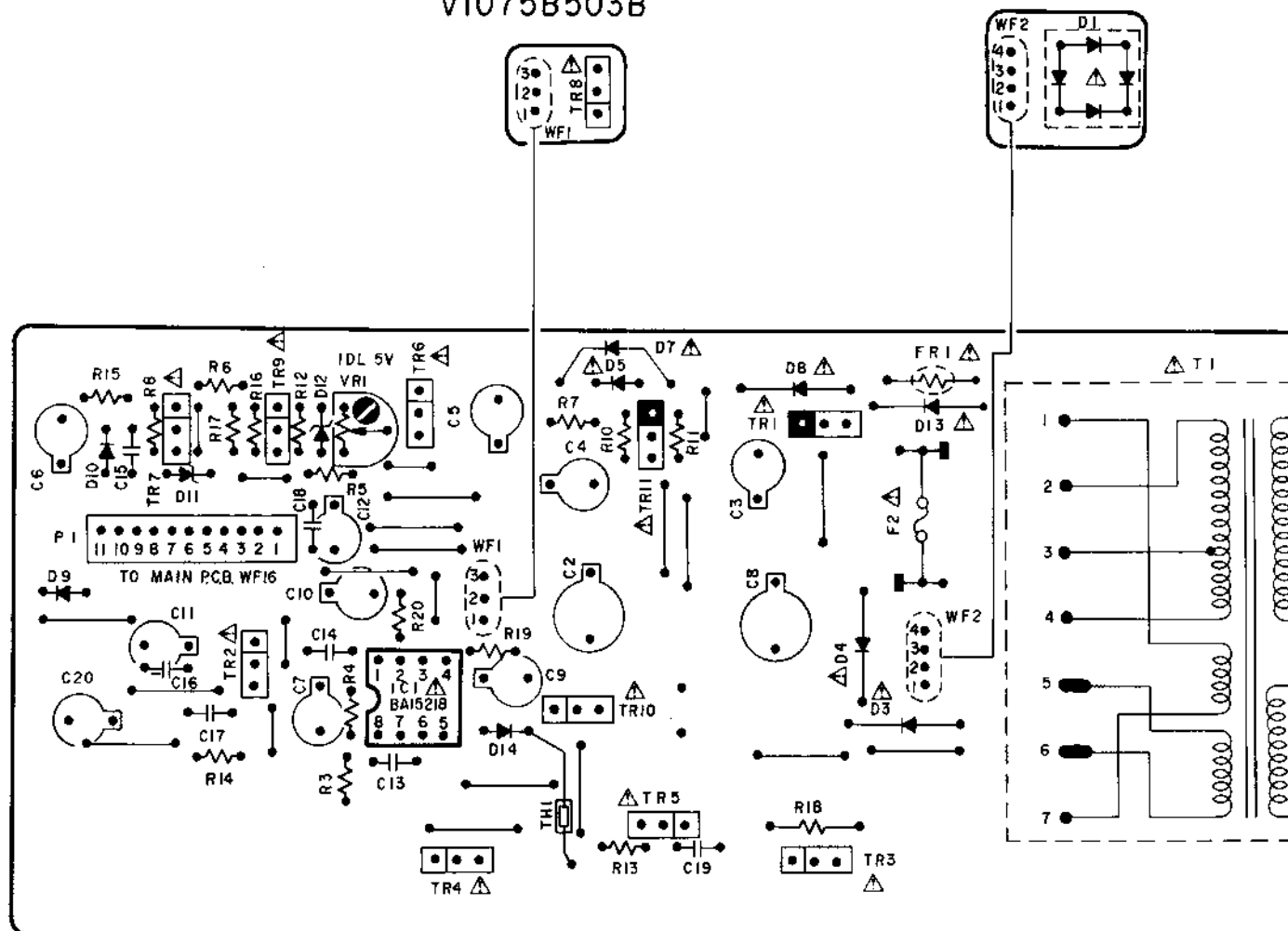


VS-27EV  
CONNECTION DIAGRAM  
NO. 7-2 V108422M  
3

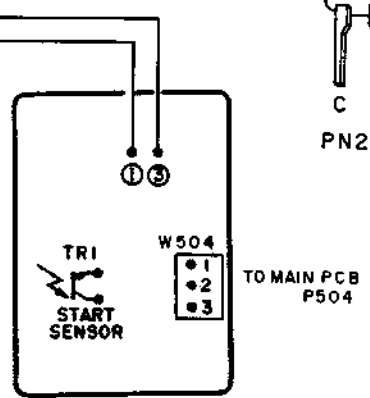
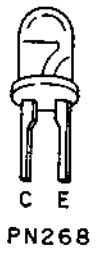


TR P.C.B.  
V1075B503B

DIODE P.C.B.  
V1075B503D

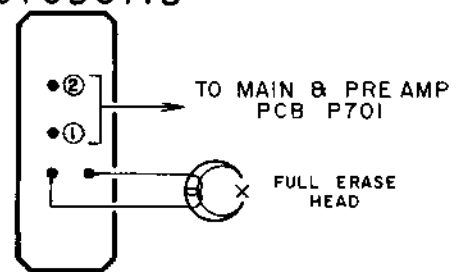




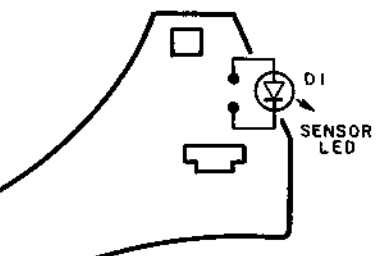
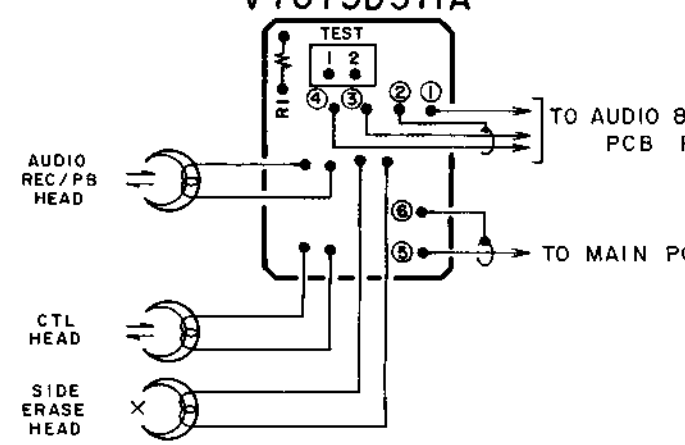


SENSOR(T) PCB  
V1075D5140T

FULL ERASE HEAD PCB  
V1075D511B



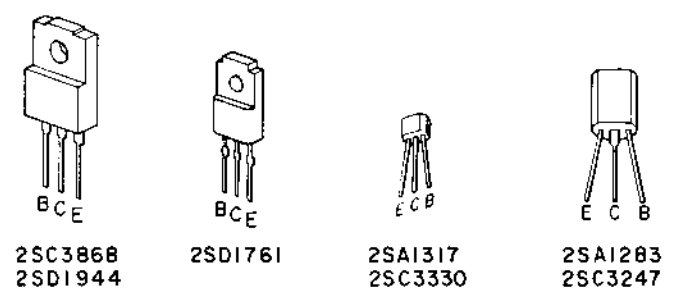
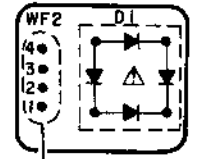
A/C HEAD PCB  
V1075D511A



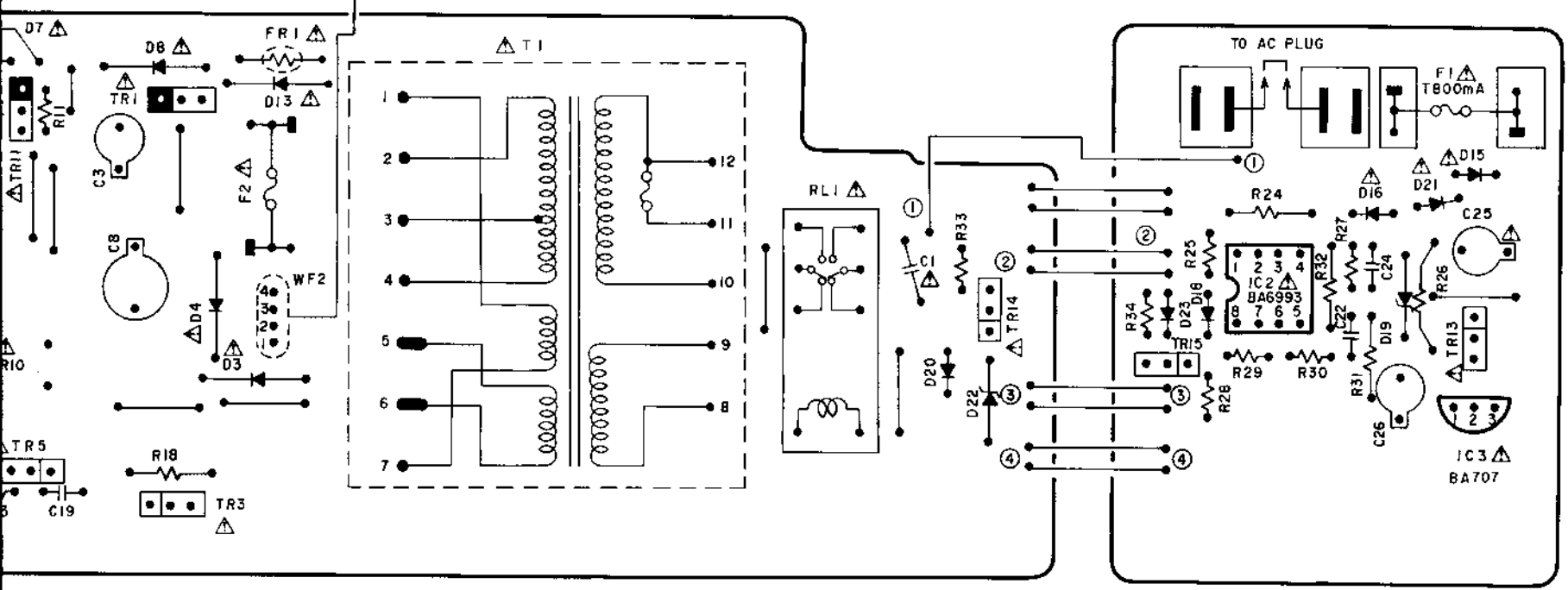
SENSOR PCB  
V1075C5100

WARNING:  $\Delta$  INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SA  
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTUR  
RECOMMENDED PARTS  
AVERTISSEMENT:  $\Delta$  IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.  
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,  
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICA

DIODE P.C.B.  
V1075B503D



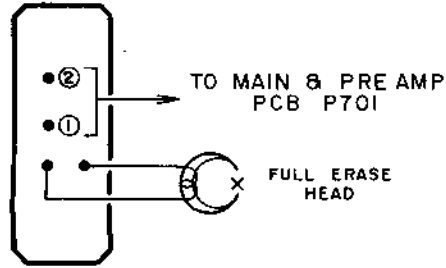
$\Delta$  = PNP TRANSISTOR  
 $\square$  = NPN TRANSISTOR



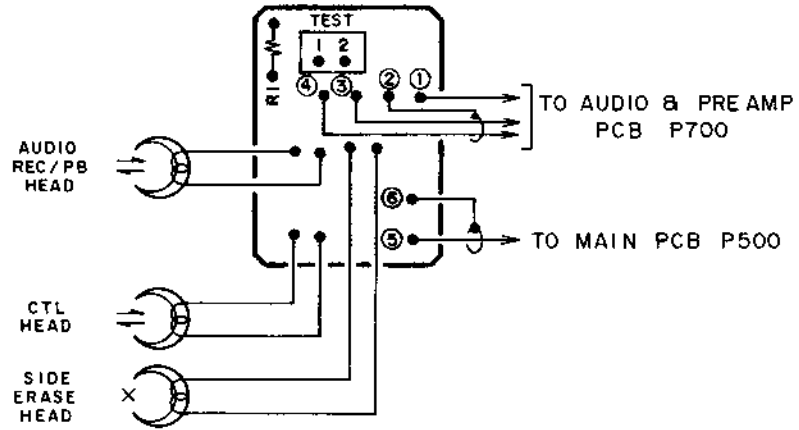
POWER SUPPLY PCB V1075B503A (-A)

SW POWER PCB V1075B503C(-A)

FULL ERASE HEAD PCB  
V1075D511B

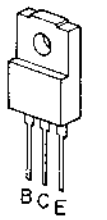


A/C HEAD PCB  
V1075D511A

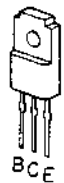


WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



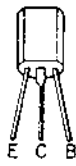
25C3868  
2SD1944



2SD1761

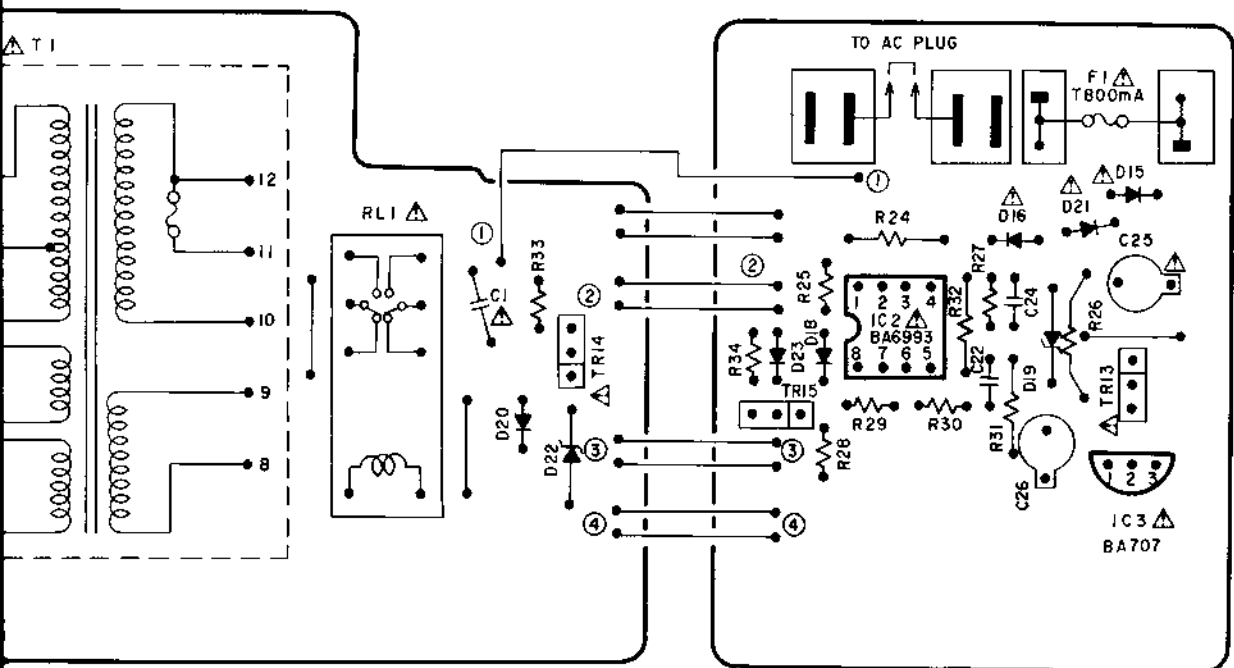


2SA1317  
2SC3330



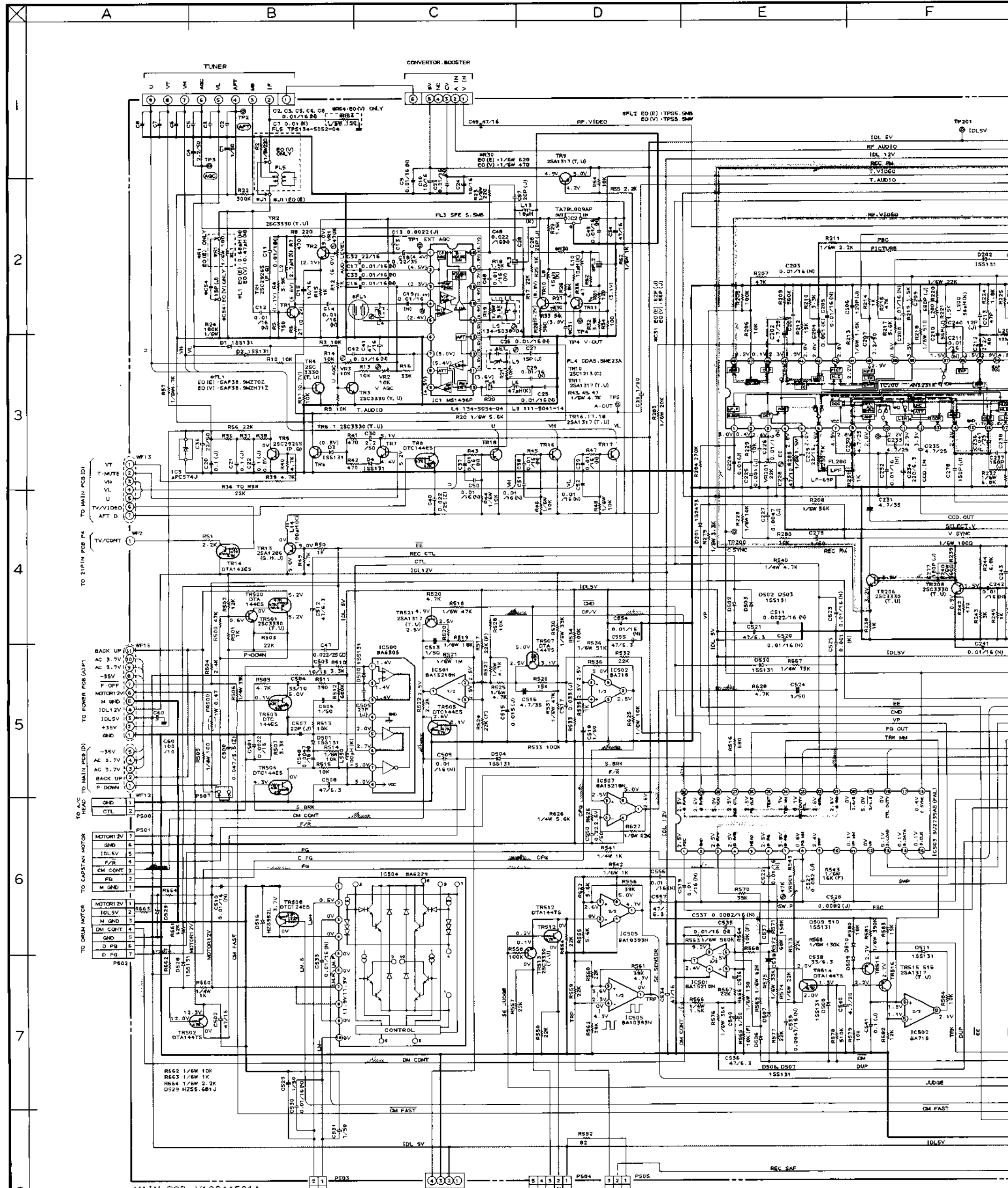
2SA1283  
2SC3247

⚠ = PNP TRANSISTOR  
= NPN TRANSISTOR



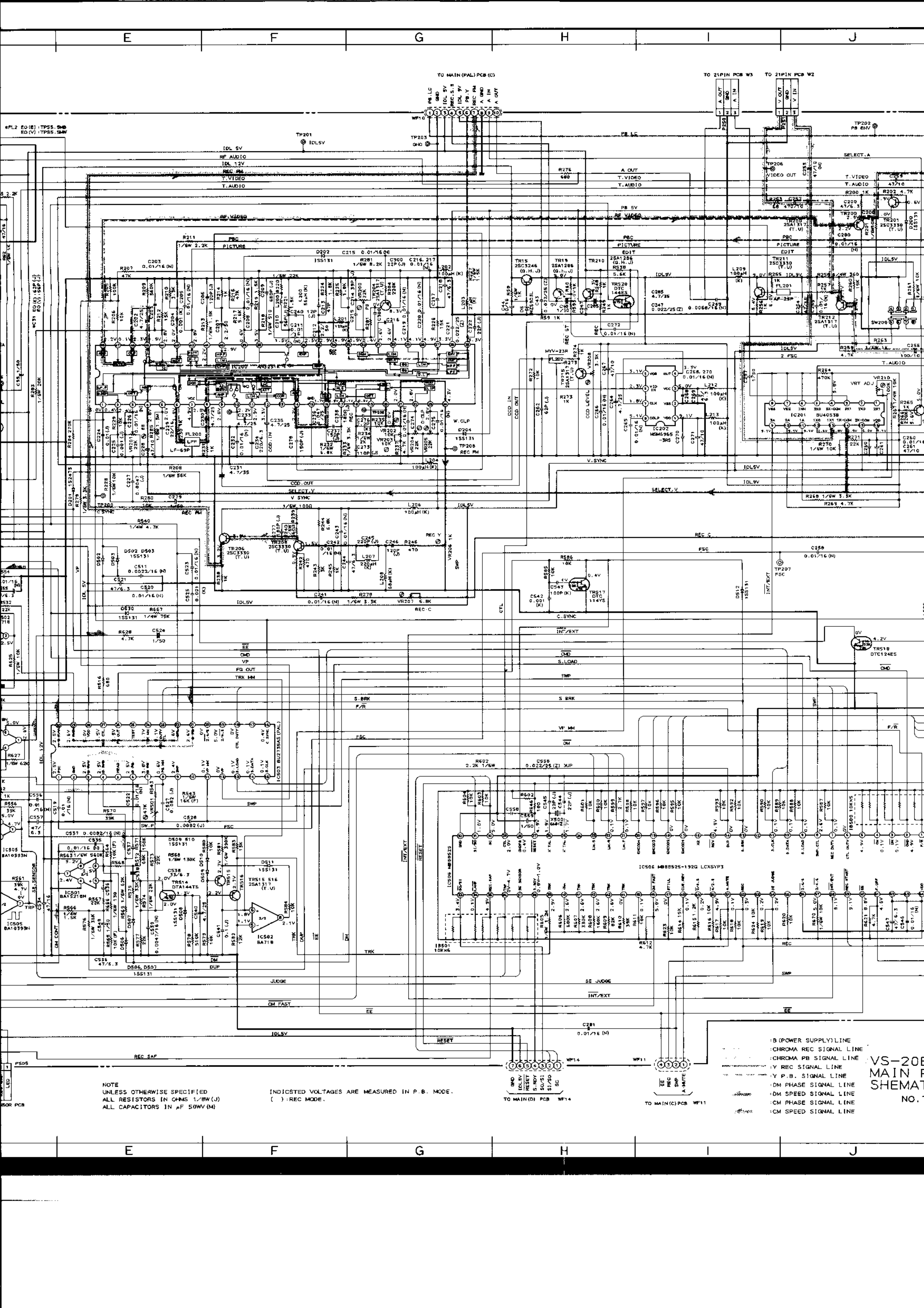
503A (-A)

SW POWER PCB V1075B503C(-A)



MAIN PCB V1084A501A

NOTE  
UNLESS OTHERWISE SPECIFIED  
INDICATED VOLTAGES ARE  
( ) - REC MODE.  
ALL CAPACITORS IN OHMS (J)  
ALL CAPACITORS IN uF 50WV (M)



\*PL2 EO (E) TP55, 56  
EO (V) TP55, 56W

2.2K

1/2W 1K

1/2W 20K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

1/2W 10K

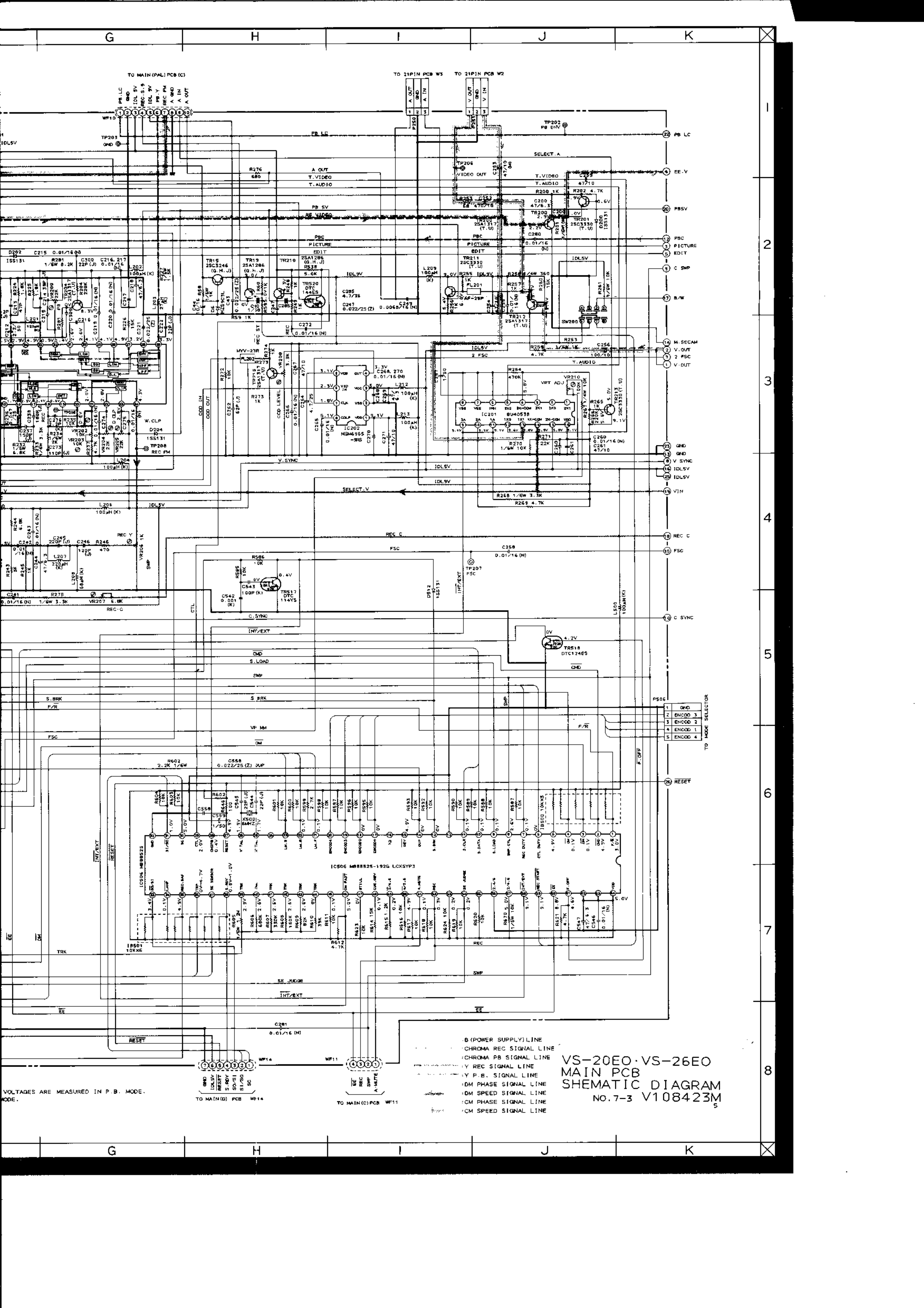
1/2W 10K

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/2W (J)  
ALL CAPACITORS IN  $\mu$ F 50WV (M)

INDICATED VOLTAGES ARE MEASURED IN P.B. MODE.  
( ) REC MODE.

- ⊃ (POWER SUPPLY) LINE
- ⊃ CHROMA REC SIGNAL LINE
- ⊃ CHROMA PB SIGNAL LINE
- ⊃ Y REC SIGNAL LINE
- ⊃ Y P.B. SIGNAL LINE
- ⊃ DM PHASE SIGNAL LINE
- ⊃ CM SPEED SIGNAL LINE
- ⊃ CM PHASE SIGNAL LINE
- ⊃ CM SPEED SIGNAL LINE

VS-200  
MAIN P  
SCHEMATIC  
NO. 1



G H I J K

G H I J K

1  
2  
3  
4  
5  
6  
7  
8

VS-20EO·VS-26EO  
MAIN PCB  
SCHEMATIC DIAGRAM  
NO.7-3 V108423M

- B (POWER SUPPLY) LINE
- CHROMA REC SIGNAL LINE
- CHROMA PB SIGNAL LINE
- Y REC SIGNAL LINE
- Y P.B. SIGNAL LINE
- DM PHASE SIGNAL LINE
- DM SPEED SIGNAL LINE
- CM PHASE SIGNAL LINE
- CM SPEED SIGNAL LINE

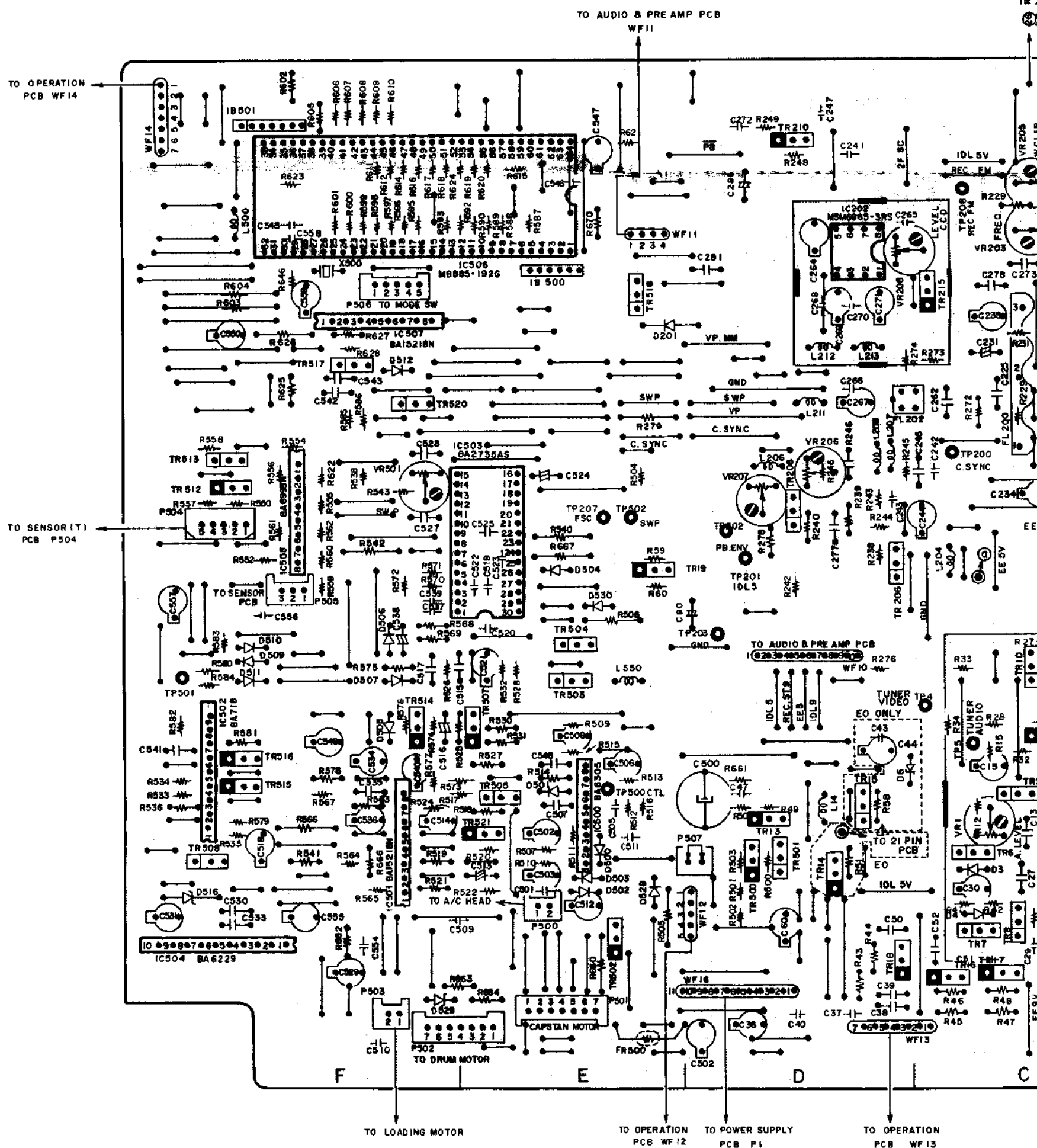
VOLTAGES ARE MEASURED IN P.B. MODE.

MODE.

TO MAIN (PAL) PCB (C)  
TO MAIN (N) PCB WF14  
TO MAIN (C) PCB WF11

1	GND
2	ENCOO 3
3	ENCOO 2
4	ENCOO 1
5	ENCOO 4

TO MODE SELECTOR

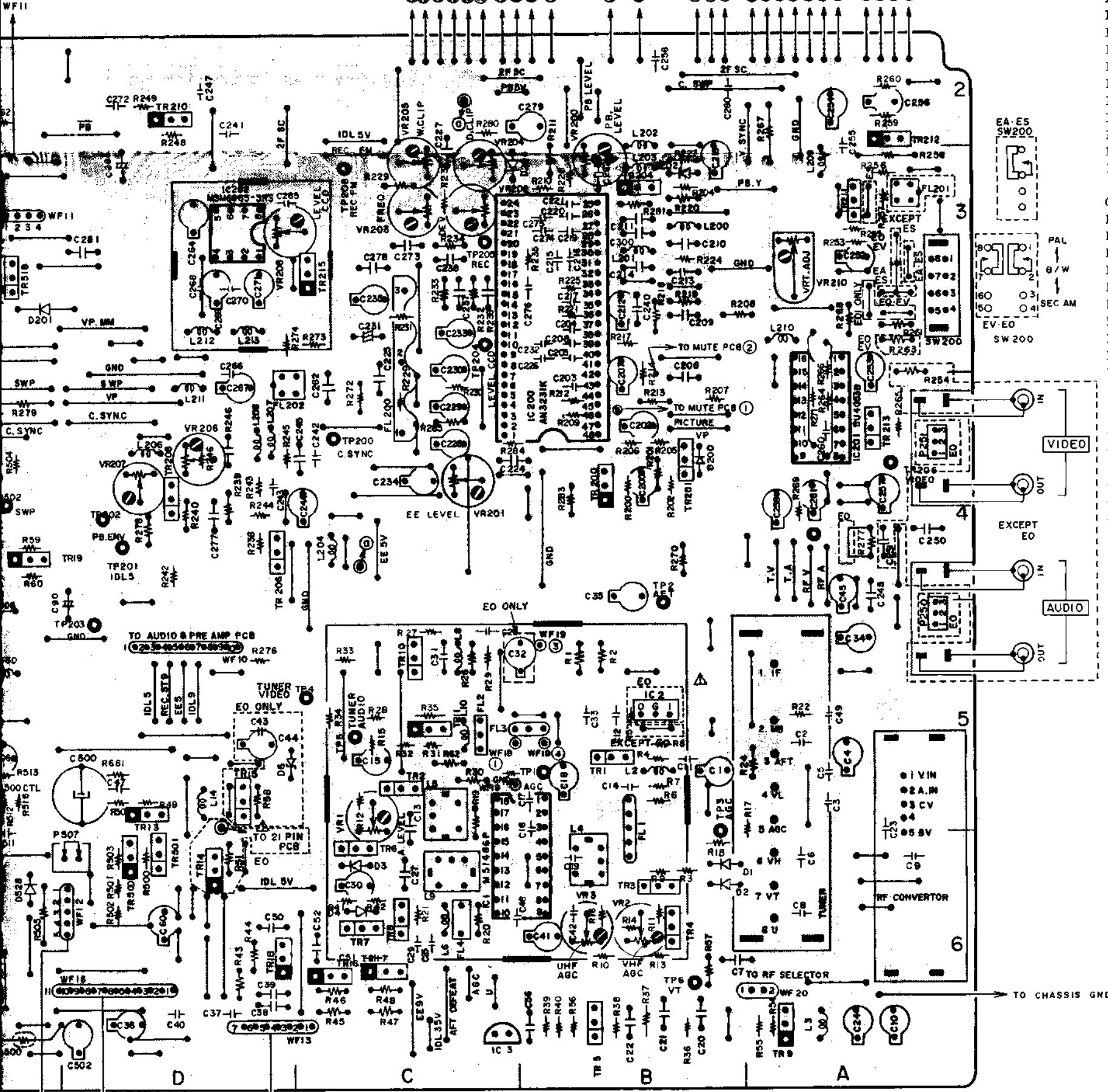


WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

TO CHROMA PCB

& PRE AMP PCB



MAIN PCB V1084A 501A (J2)

PRINCIPAL PARTS LOCATION

- ICS  
 IC1.....B,C6  
 IC2.....B5  
 IC3.....C6  
 IC200....B3,4  
 IC201....A4  
 IC202....D3  
 IC500....E5,6  
 IC501....F5,6  
 IC502....F5  
 IC503....E4  
 IC504....F6  
 IC505....F4  
 IC507....E,F3

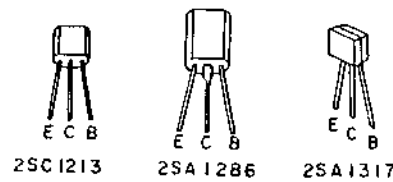
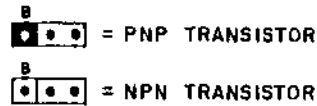
CONNECTORS

- P200....A4,5  
 P201....A4  
 P500....E6  
 P501....E6  
 P502....E,F6  
 P503....F6  
 P504....F4  
 P505....F4  
 P506....F3  
 P507....D6

WIRES

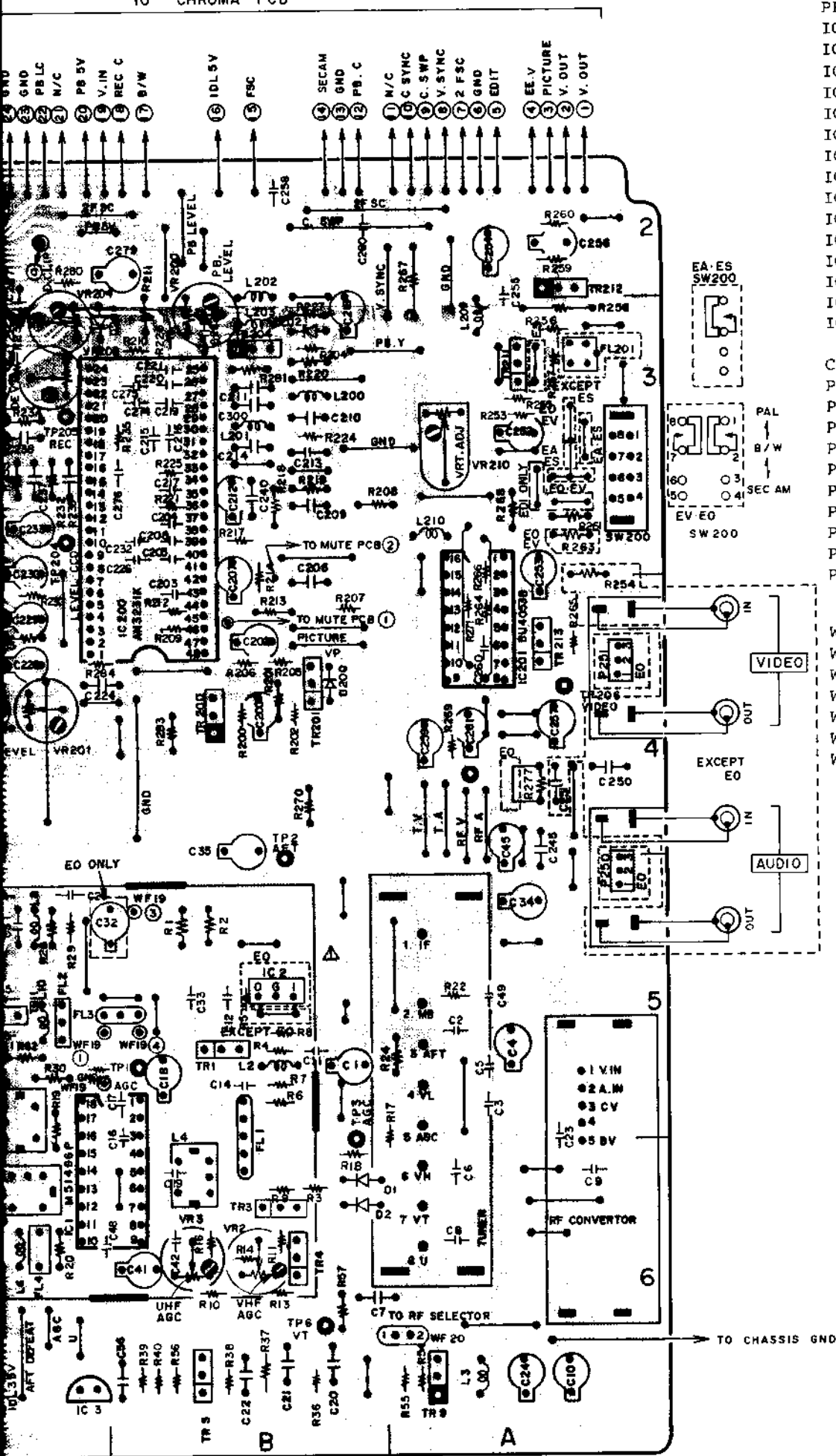
- WF10.....D5  
 WF11.....E3  
 WF12.....D6  
 WF13.....D,C6  
 WF14.....F2  
 WF16.....D6

- TR13, 19 210 ..... 2SA1286  
 TR9, 11, 200, 204, 212  
 215, 515, 516, 521 ..... 2SA1317  
 TR10 ..... 2SC1213  
 TR1, 5 ..... 2SC2926  
 TR2, 4, 6, 7, 201, 206,  
 208, 211, 213, 501, 513 ..... 2SC3330  
 TR500 ..... DTA144ES  
 TR502, 507, 512, 514 ..... DTA144TS  
 TR517 ..... DTC114YS  
 TR508, 518 ..... DTC124ES  
 TR8, 503, 504, 505, 520 ..... DTC144ES



- 2SC1213  
 2SA1286  
 2SA1317  
 2SC2926  
 2SC3330  
 DTA143ES  
 DTA144ES  
 DTA144TS  
 DTC114YS  
 DTC124ES  
 DTC144ES

TO CHROMA PCB



PRINCIPAL PARTS LOCATION

ICS

- IC1.....B,C6
- IC2.....B5
- IC3.....C6
- IC200....B3,4
- IC201.....A4
- IC202.....D3
- IC500....E5,6
- IC501....F5,6
- IC502....F5
- IC503....E4
- IC504....F6
- IC505....F4
- IC506....E,F3
- IC507....F3

CONNECTORS

- P200.....A4,5
- P201.....A4
- P500.....E6
- P501.....E6
- P502....E,F6
- P503.....F6
- P504.....F4
- P505.....F4
- P506.....F3
- P507.....D6

WIRES

- WF10.....D5
- WF11.....E3
- WF12.....D6
- WF13....D,C6
- WF14.....F2
- WF16.....D6

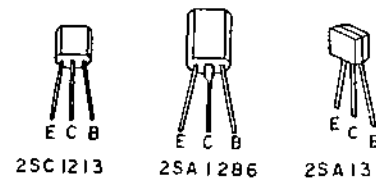
TRANSISTORS

- TR1.....B5
- TR2.....C5
- TR4.....B6
- TR5.....B6
- TR6.....C6
- TR7.....C6
- TR8.....C6
- TR9.....A6
- TR10....C5
- TR11....C5
- TR13....D5
- TR14....D5
- TR15....D5
- TR16....C6
- TR17....C6
- TR18....D6
- TR19....E4
- TR200...B4
- TR201...B4
- TR204...B3
- TR206...C4
- TR208...D4
- TR210...D2
- TR211...A3
- TR212...A2
- TR213...A4
- TR215...C3
- TR500...D6
- TR501...D6
- TR502...E6
- TR503...E5
- TR504...E5
- TR505...E5
- TR507...E5
- TR508...F6
- TR512...F4
- TR513...F4
- TR514...F5
- TR515...F5
- TR516...F5
- TR517...F3
- TR518...E3
- TR520...F4
- TR521...E6

MAIN PCB V1084A 501A (J2)

- TR13, 19 210 ..... 2SA1286
- TR9, 11, 200, 204, 212  
215, 515, 516, 521 ..... 2SA1317
- TR10 ..... 2SC1213
- TR1, 5 ..... 2SC2926
- TR2, 4, 6, 7, 201, 206,  
208, 211, 213, 501, 513 ..... 2SC3330
- TR500 ..... DTA144ES
- TR502, 507, 512, 514 ..... DTA144TS
- TR517 ..... DTC114YS
- TR508, 518 ..... DTC124ES
- TR8, 503, 604, 505, 520 ..... DTC144ES

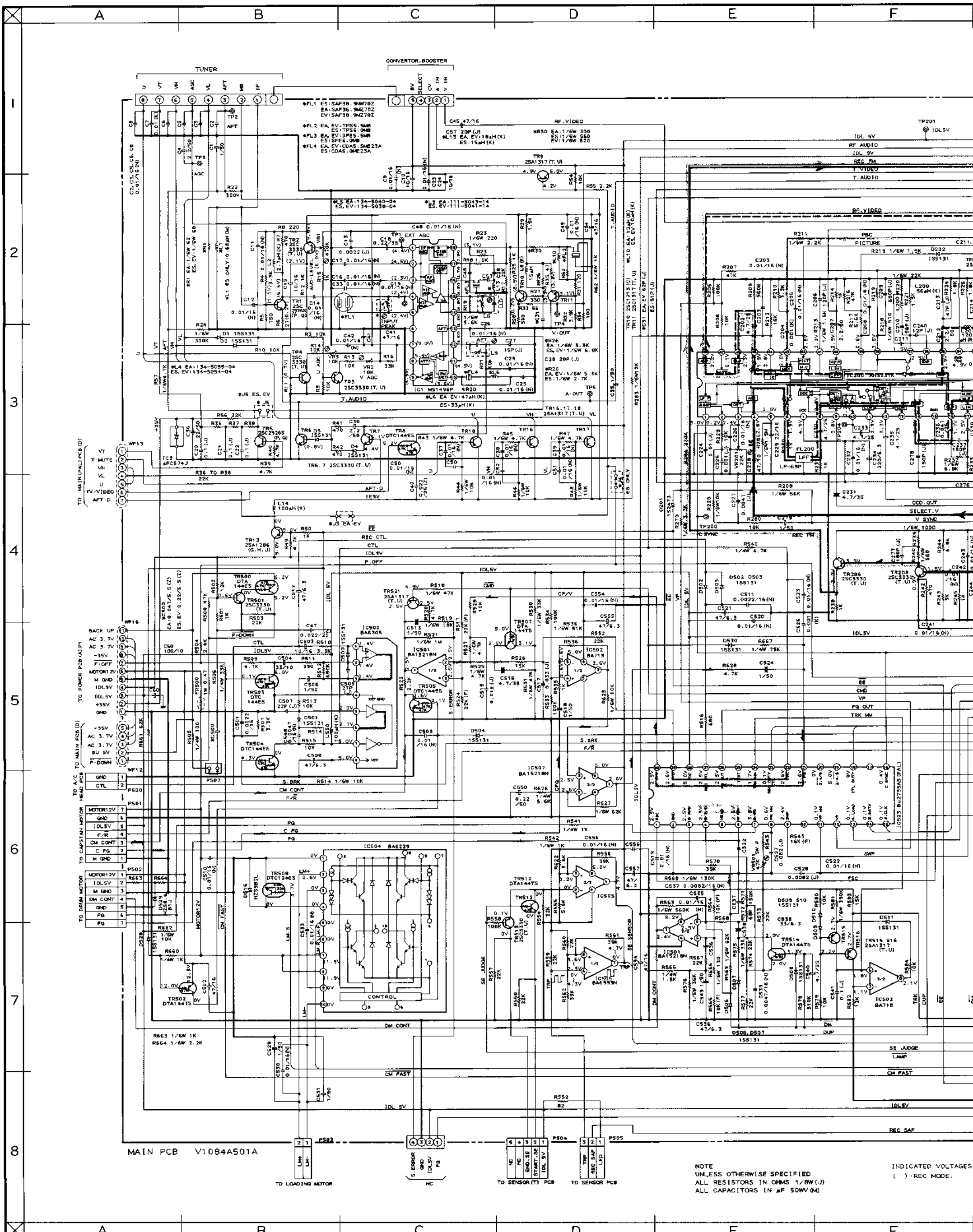
- = PNP TRANSISTOR
- = NPN TRANSISTOR



2SC1213      2SA1286      2SA1317

- 2SC2926
- 2SC3330
- DTA143ES
- DTA144ES
- DTA144TS
- DTC114YS
- DTC124ES
- DTC144ES



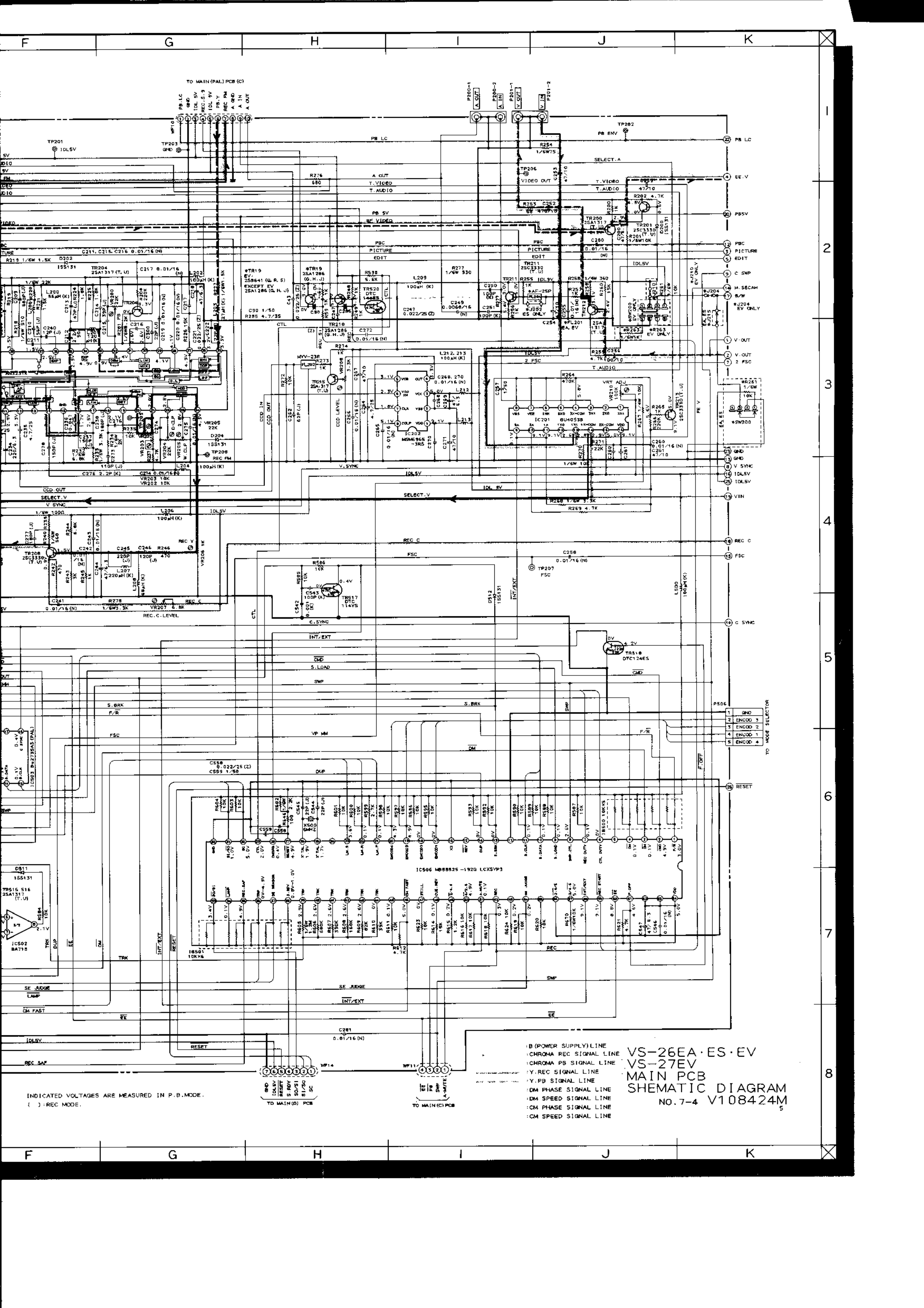


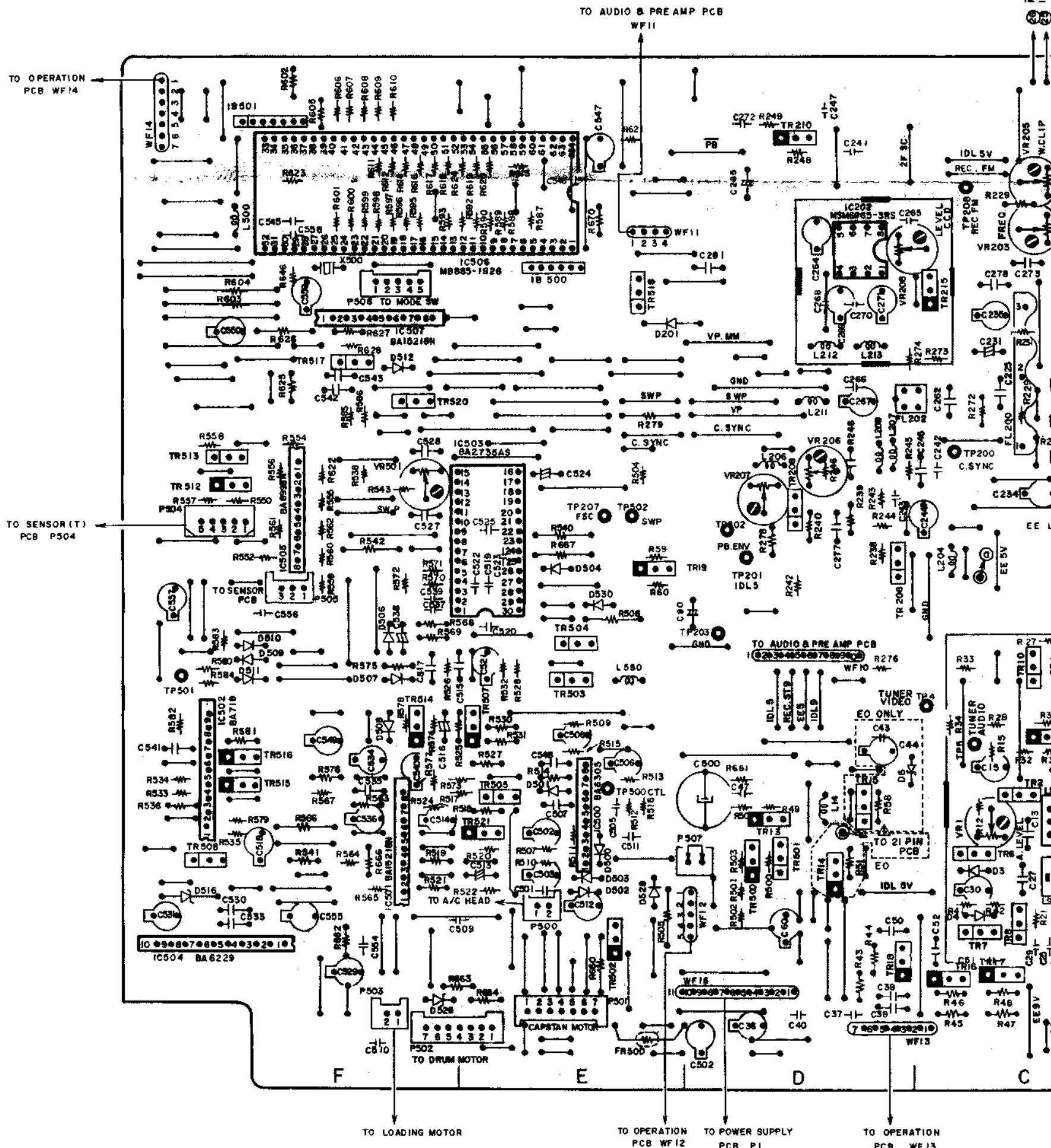
MAIN PCB V1084A501A

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/8W(J)  
ALL CAPACITORS IN μF 50WV(M)

INDICATED VOLTAGES ARE  
( ) REC MODE.





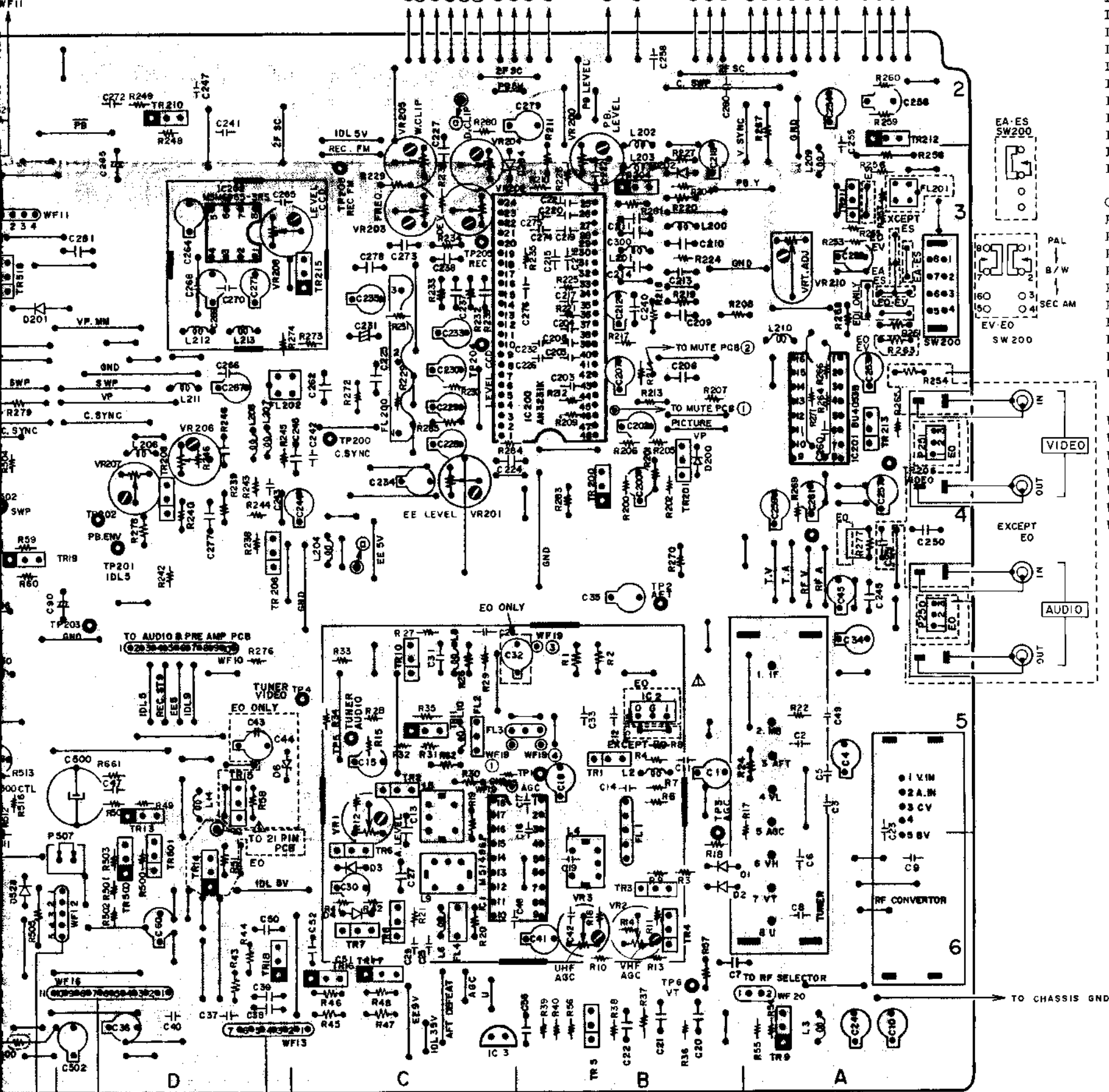


WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.



TO CHROMA PCB

& PRE AMP PCB



MAIN PCB V1084A 501A (J2)

- TR13, 19 210 . . . . . 2SA1286
- TR9, 11, 200, 204, 212
- 215, 515, 516, 521 . . . . . 2SA1317
- TR10 . . . . . 2SC1213
- TR1, 5 . . . . . 2SC2926
- TR2, 4, 6, 7, 201, 206,
- 208, 211, 213, 501, 513 . . . . . 2SC3330
- TR500 . . . . . DTA144ES
- TR502, 507, 512, 514 . . . . . DTA144TS
- TR517 . . . . . DTC114YS
- TR508, 518 . . . . . DTC124ES
- TR8, 503, 604, 505, 520 . . . . . DTC144ES

 = PNP TRANSISTOR  
 = NPN TRANSISTOR

PRINCIPAL PARTS LOCATION

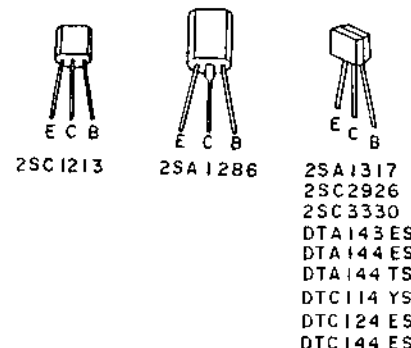
- ICS
- IC1.....B,C6
- IC2.....B5
- IC3.....C6
- IC200....B3,4
- IC201.....A4
- IC202.....D3
- IC500....E5,6
- IC501....F5,6
- IC502.....F5
- IC503.....E4
- IC504.....F6
- IC505.....F4
- IC506....E,F3
- IC507.....F3

CONNECTORS

- P200.....A4,5
- P201.....A4
- P500.....E6
- P501.....E6
- P502....E,F6
- P503.....F6
- P504.....F4
- P505.....F4
- P506.....F3
- P507.....D6

WIRES

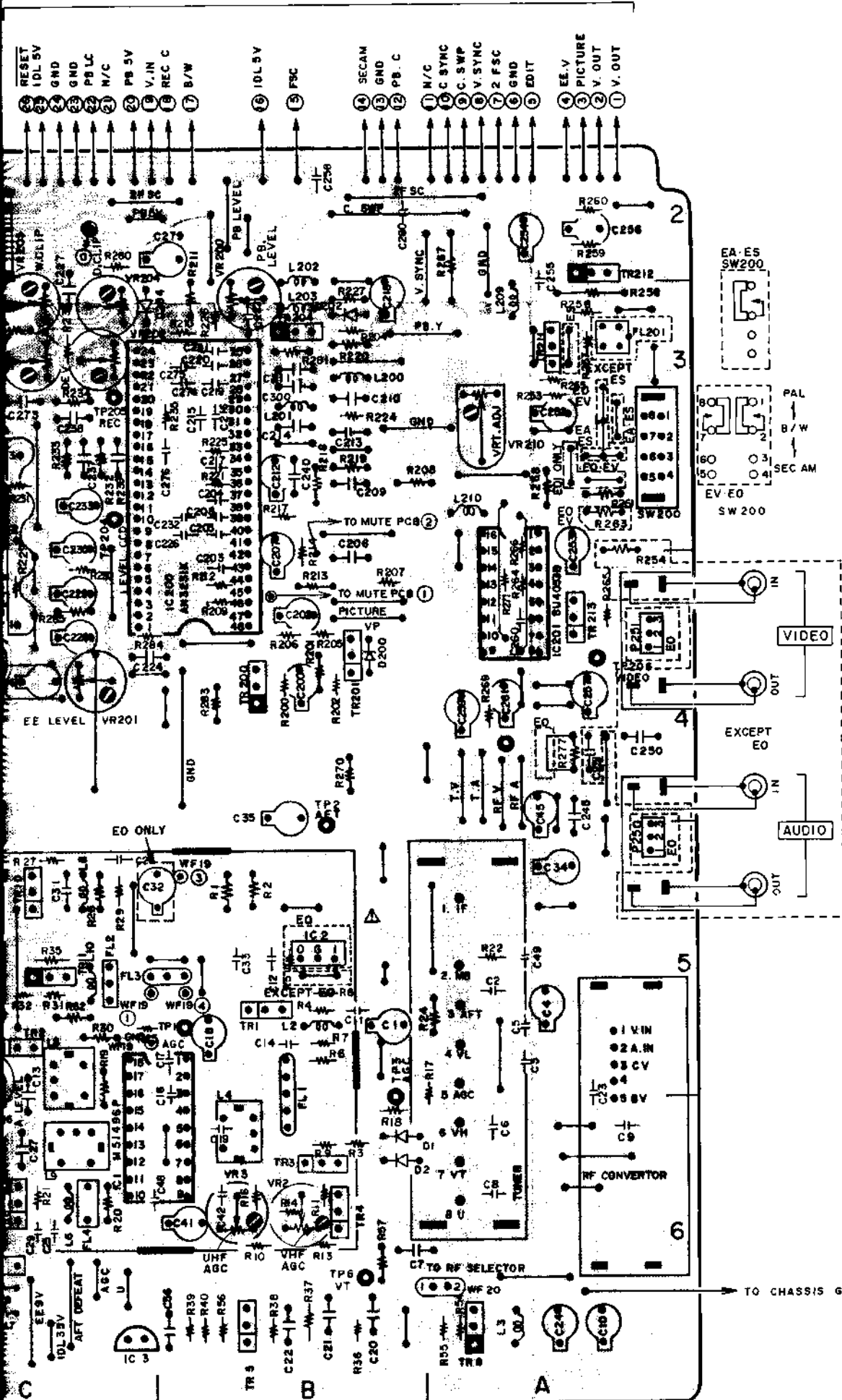
- WF10.....D5
- WF11.....E3
- WF12.....D6
- WF13.....D,C6
- WF14.....F2
- WF16.....D6



OPERATION PCB WF12 TO POWER SUPPLY PCB P1 TO OPERATION PCB WF13

TRA  
TR1  
TR2  
TR4  
TR5  
TR6  
TR7  
TR8  
TR9  
TR10  
TR11  
TR12  
TR13  
TR14  
TR15  
TR16  
TR17  
TR18  
TR19  
TR20  
TR21  
TR22  
TR23  
TR24  
TR25  
TR26  
TR27  
TR28  
TR29  
TR30  
TR31  
TR32  
TR33  
TR34  
TR35  
TR36  
TR37  
TR38  
TR39  
TR40  
TR41  
TR42  
TR43  
TR44  
TR45  
TR46  
TR47  
TR48  
TR49  
TR50

TO CHROMA PCB



PRINCIPAL PARTS LOCATION

ICs

- IC1.....B,C6
- IC2.....B5
- IC3.....C6
- IC200....B3,4
- IC201....A4
- IC202....D3
- IC500....E5,6
- IC501....F5,6
- IC502....F5
- IC503....E4
- IC504....F6
- IC505....F4
- IC506....E,F3
- IC507....F3

CONNECTORS

- P200.....A4,5
- P201.....A4
- P500.....E6
- P501.....E6
- P502.....E,F6
- P503.....F6
- P504.....F4
- P505.....F4
- P506.....F3
- P507.....D6

WIRES

- WF10.....D5
- WF11.....E3
- WF12.....D6
- WF13.....D,C6
- WF14.....F2
- WF16.....D6

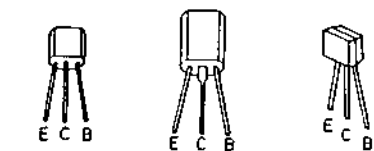
TRANSISTORS

- TR1.....B5
- TR2.....C5
- TR4.....B6
- TR5.....B6
- TR6.....C6
- TR7.....C6
- TR8.....C6
- TR9.....A6
- TR10....C5
- TR11....C5
- TR13....D5
- TR14....D6
- TR15....D5
- TR16....C6
- TR17....C6
- TR18....D6
- TR19....E4
- TR200....B4
- TR201....B4
- TR204....B3
- TR206....C4
- TR208....D4
- TR210....D2
- TR211....A3
- TR212....A2
- TR213....A4
- TR215....C3
- TR500....D6
- TR501....D6
- TR502....E6
- TR503....E5
- TR504....E5
- TR505....E5
- TR507....E5
- TR508....F6
- TR512....F4
- TR513....F4
- TR514....F5
- TR515....F5
- TR516....F5
- TR517....F3
- TR518....E3
- TR520....F4
- TR521....E6

MAIN PCB VIO84A 50IA (J2)

- TR13, 19 210 ..... 2SA1286
- TR9, 11, 200, 204, 212
- 215, 515, 516, 521 ..... 2SA1317
- TR10 ..... 2SC1213
- TR1, 5 ..... 2SC2926
- TR2, 4, 6, 7, 201, 206,
- 208, 211, 213, 501, 513 ..... 2SC3330
- TR500 ..... DTA144ES
- TR502, 507, 512, 514 ..... DTA144TS
- TR517 ..... DTC114YS
- TR508, 518 ..... DTC124ES
- TR8, 503, 504, 505, 520, ... DTC144ES

= PNP TRANSISTOR  
 = NPN TRANSISTOR



- 2SC1213
- 2SA1286
- 2SA1317
- 2SC2926
- 2SC3330
- DTA143ES
- DTA144ES
- DTA144TS
- DTC114YS
- DTC124ES
- DTC144ES

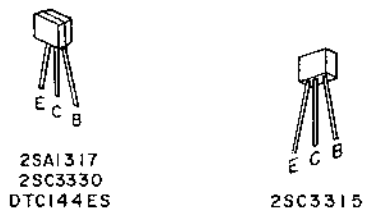






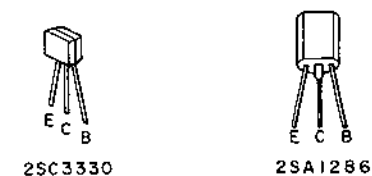


TR400, 401, 403, 405,  
406, 407, 410.....2SC3330  
TR402, 409.....2SA1317  
TR404.....2SC3315  
TR408.....DTC114ES



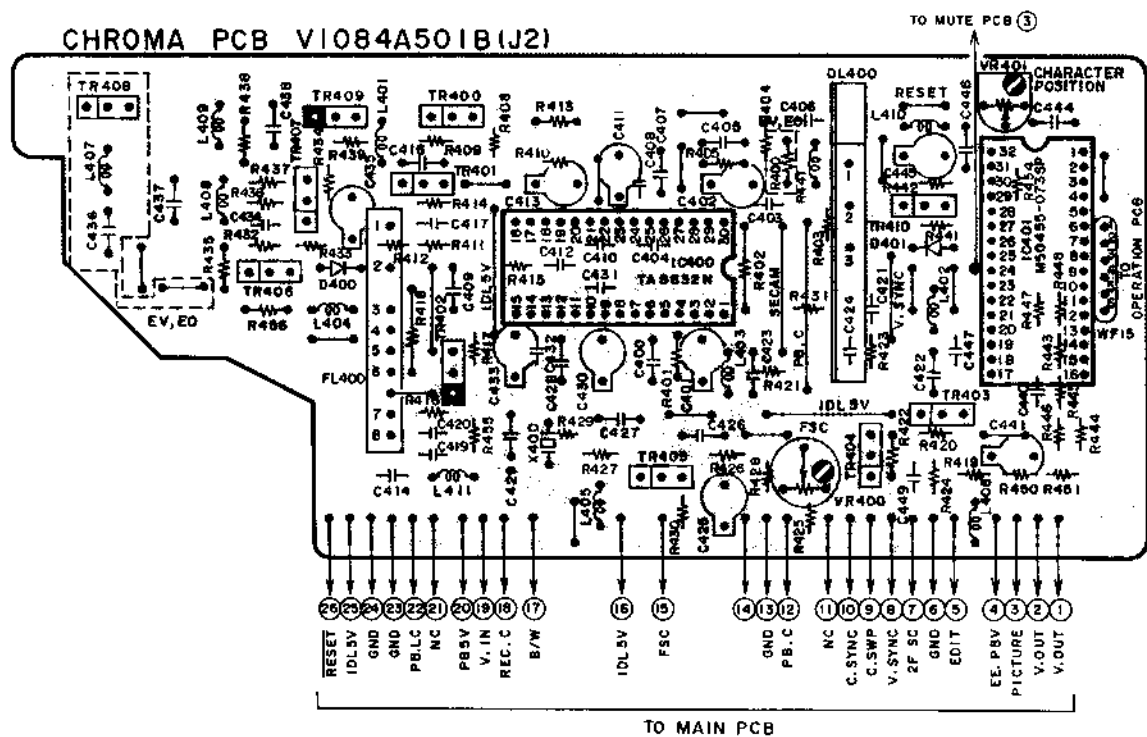
●●● = PNP TRANSISTOR  
●●● = NPN TRANSISTOR

TR700, 801, 802 ..... 2SC3330  
TR803 ..... 2SA1286

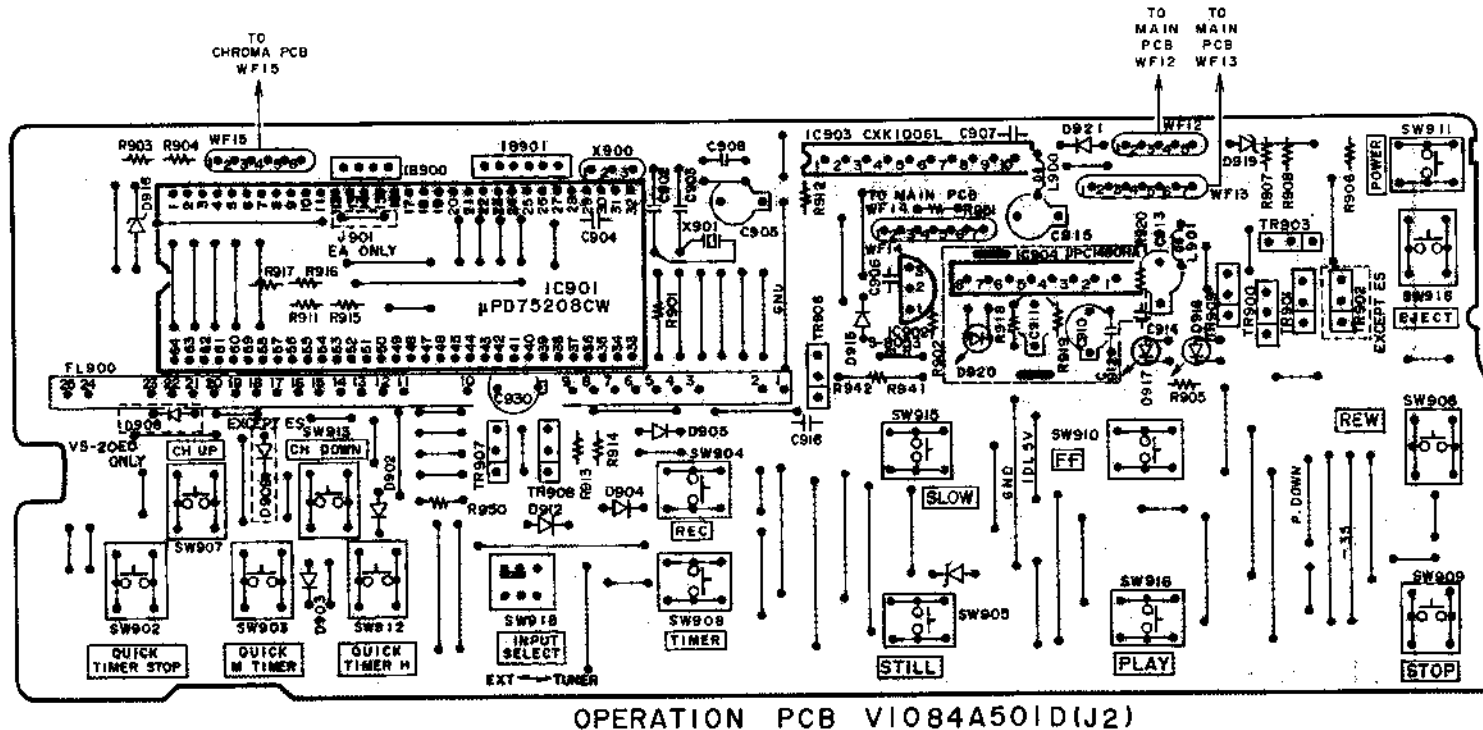
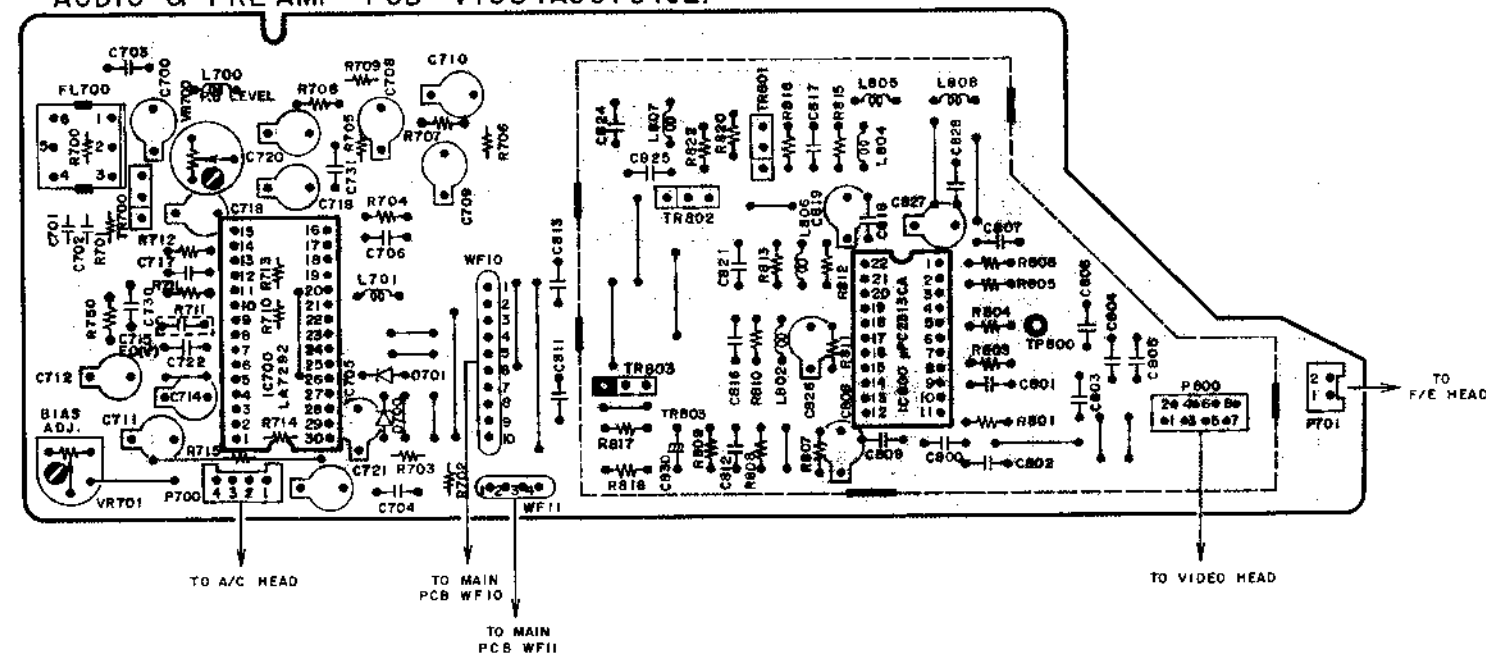


●●● = PNP TRANSISTOR  
●●● = NPN TRANSISTOR

CHROMA PCB V1084A501B(J2)

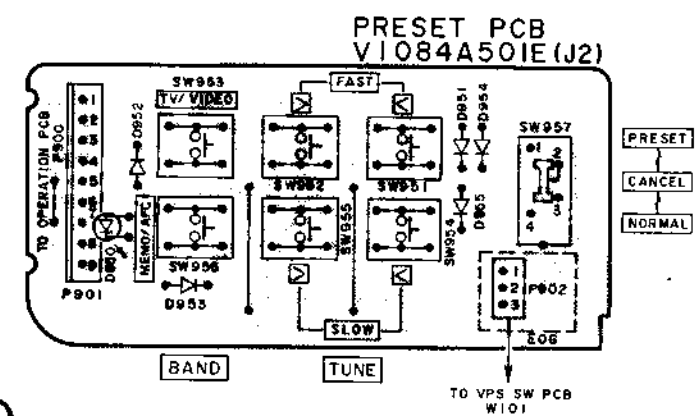


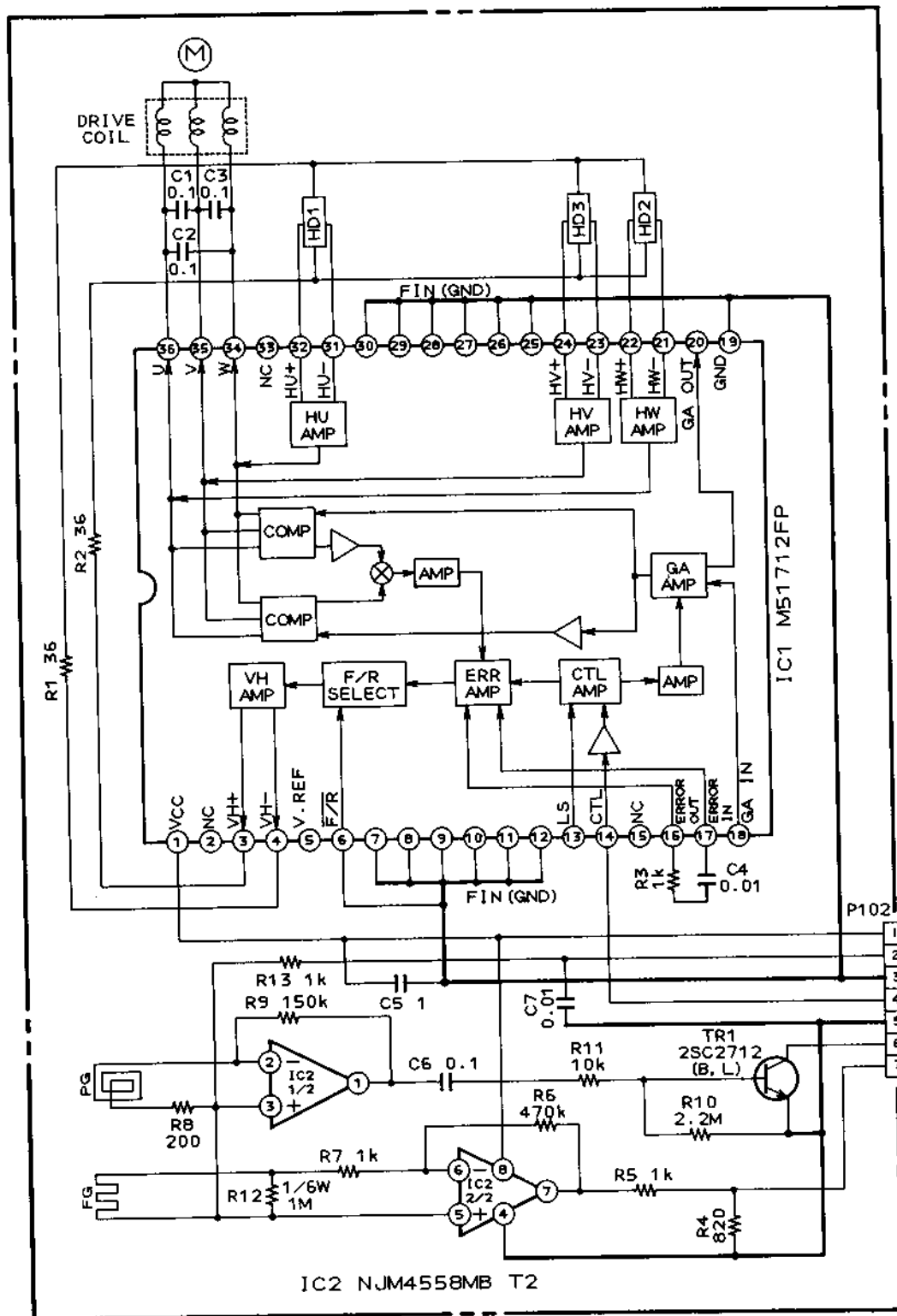
AUDIO & PRE AMP PCB V1084A501C(J2)



TR900, 901, 902, 903  
906 ..... DTC144ES  
TR904 ..... DTA143TA  
TR907, 908, 909 ..... DTC143TS

●●● = PNP TRANSISTOR  
●●● = NPN TRANSISTOR

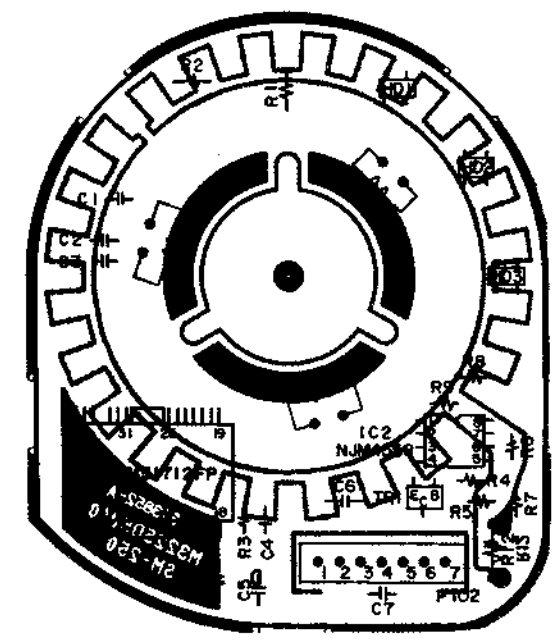




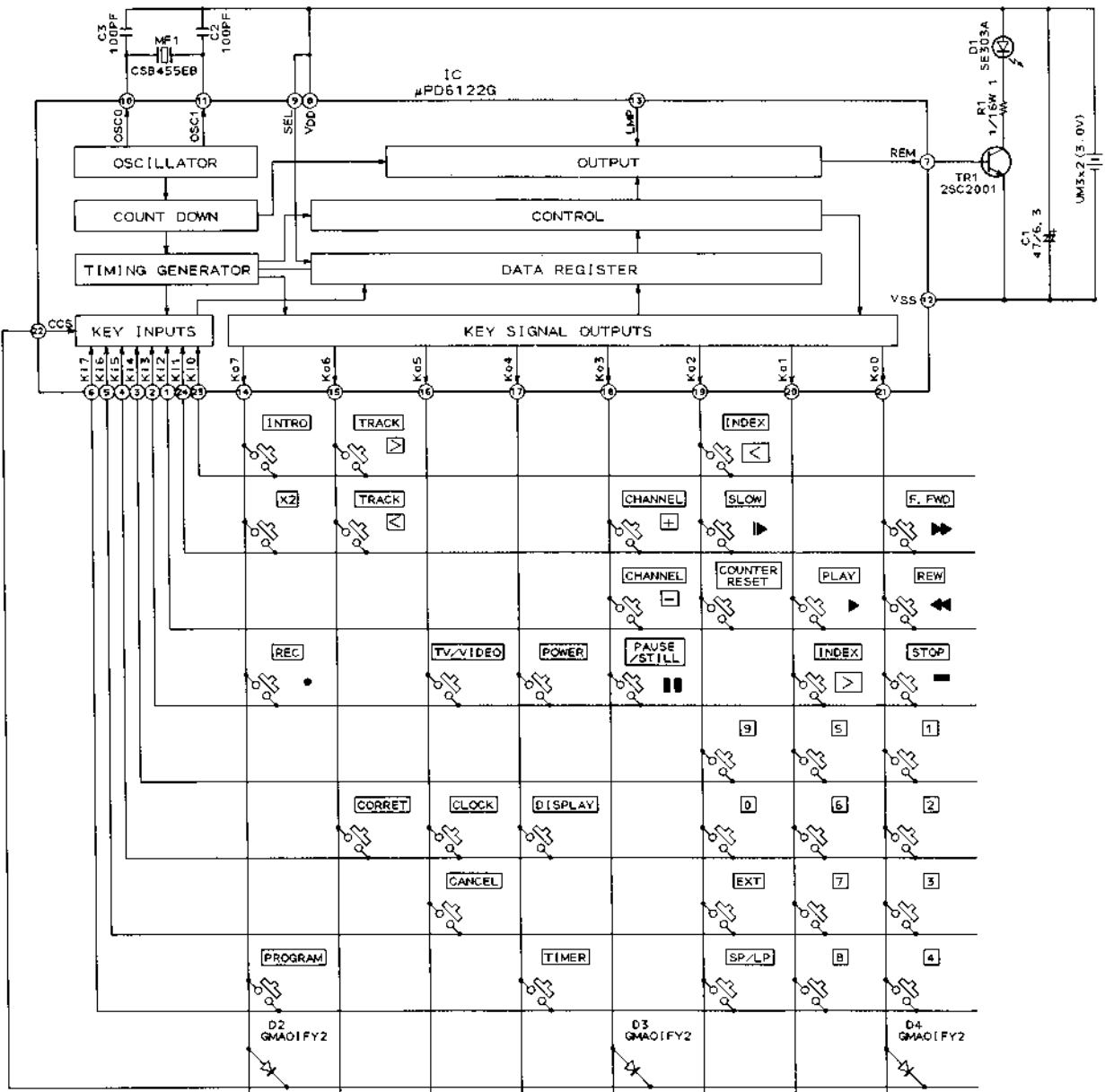
MOTOR PCB M3225D5010 (SM-250)

NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/8W (J)  
ALL CAPACITORS IN  $\mu$ F 50WV (J)

VS-20EO  
VS-26EA · ES · EV · EO  
VS-27EV  
MOTOR PCB (SM-250)  
SCHEMATIC DIAGRAM  
NO. 7-6 V108426M

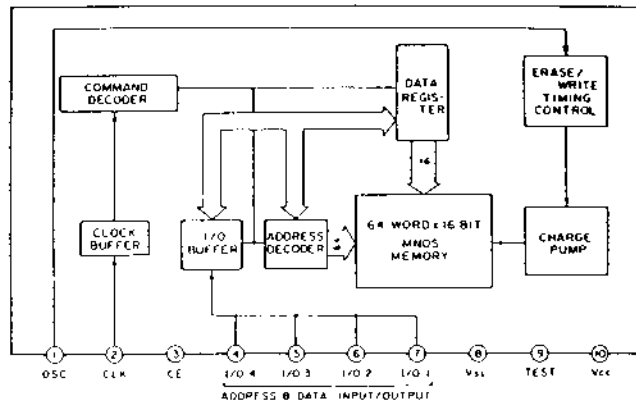


MOTOR PCB M3225D5010 (SM-250)

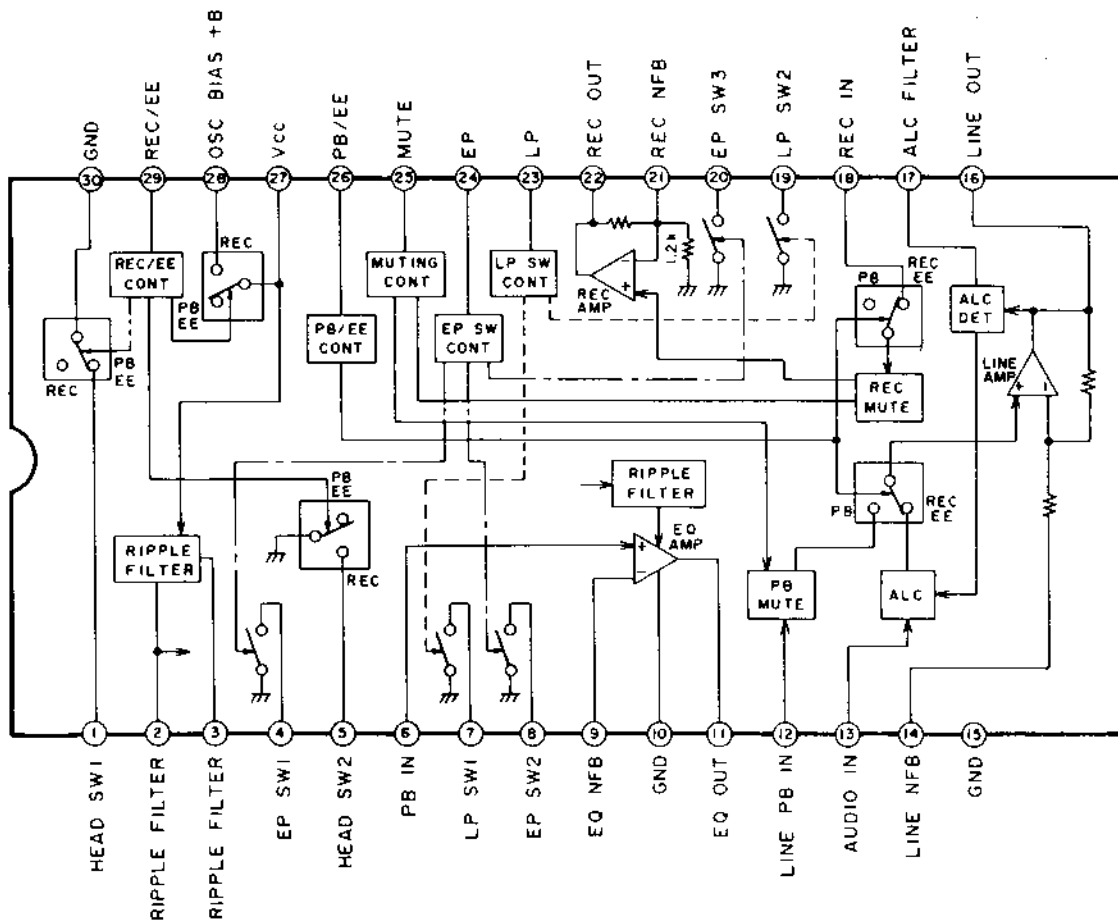


RC-V22A  
 REMOTE CONTROL UNIT  
 SCHEMATIC DIAGRAM  
 NO. 7-7 V108427M

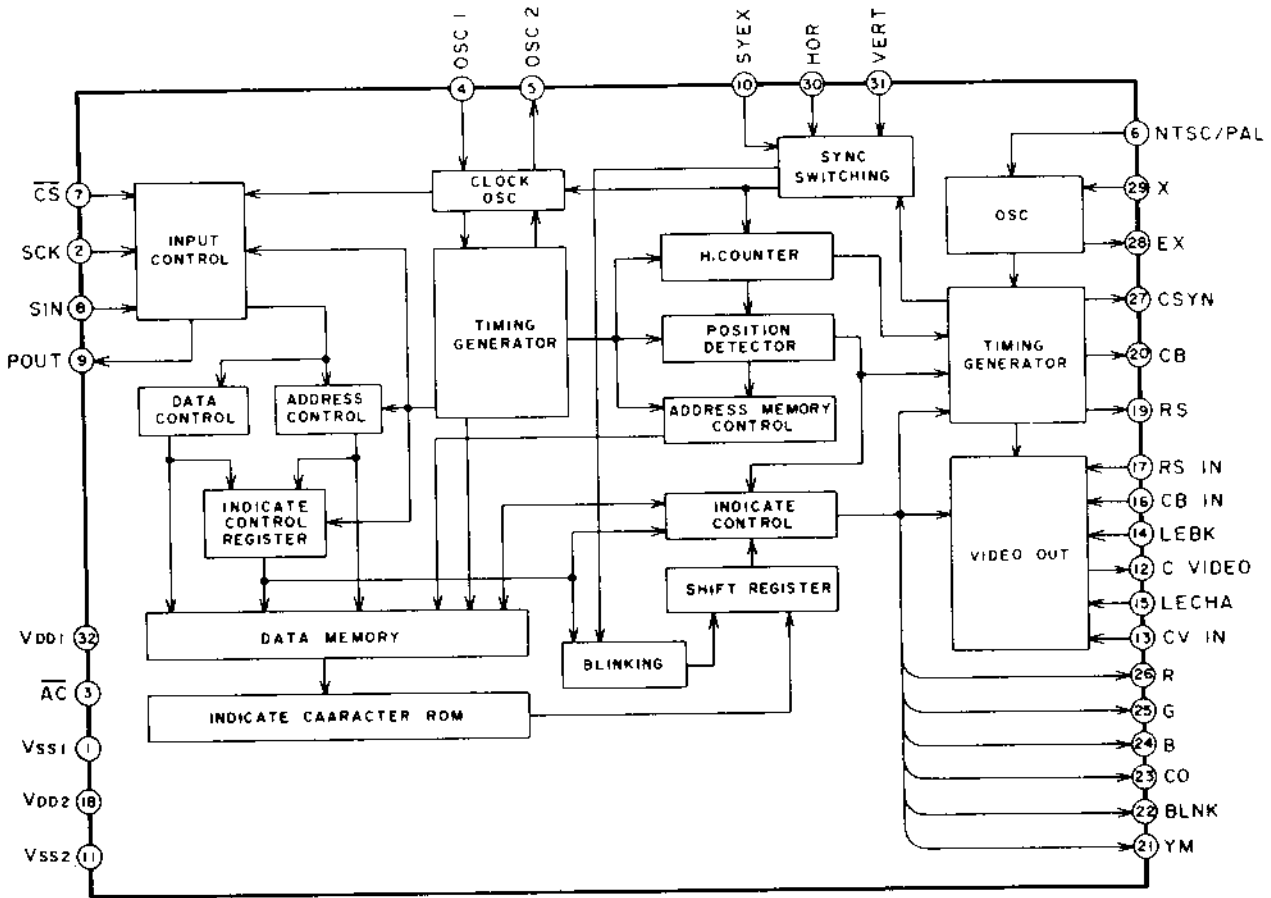
### CXK1006 (NON VOLATILE RAM)



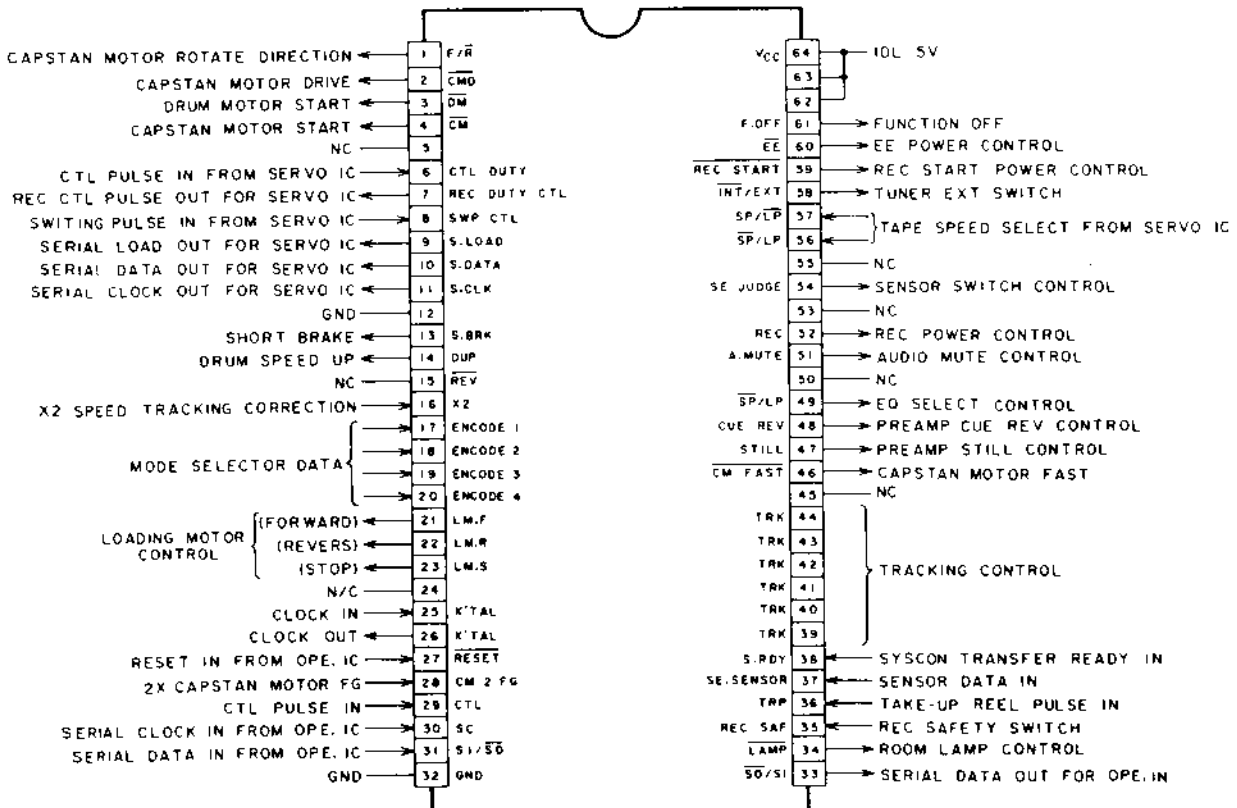
### LA7292 (AUDIO SIGNAL REC/P.B AMPLIFIER)



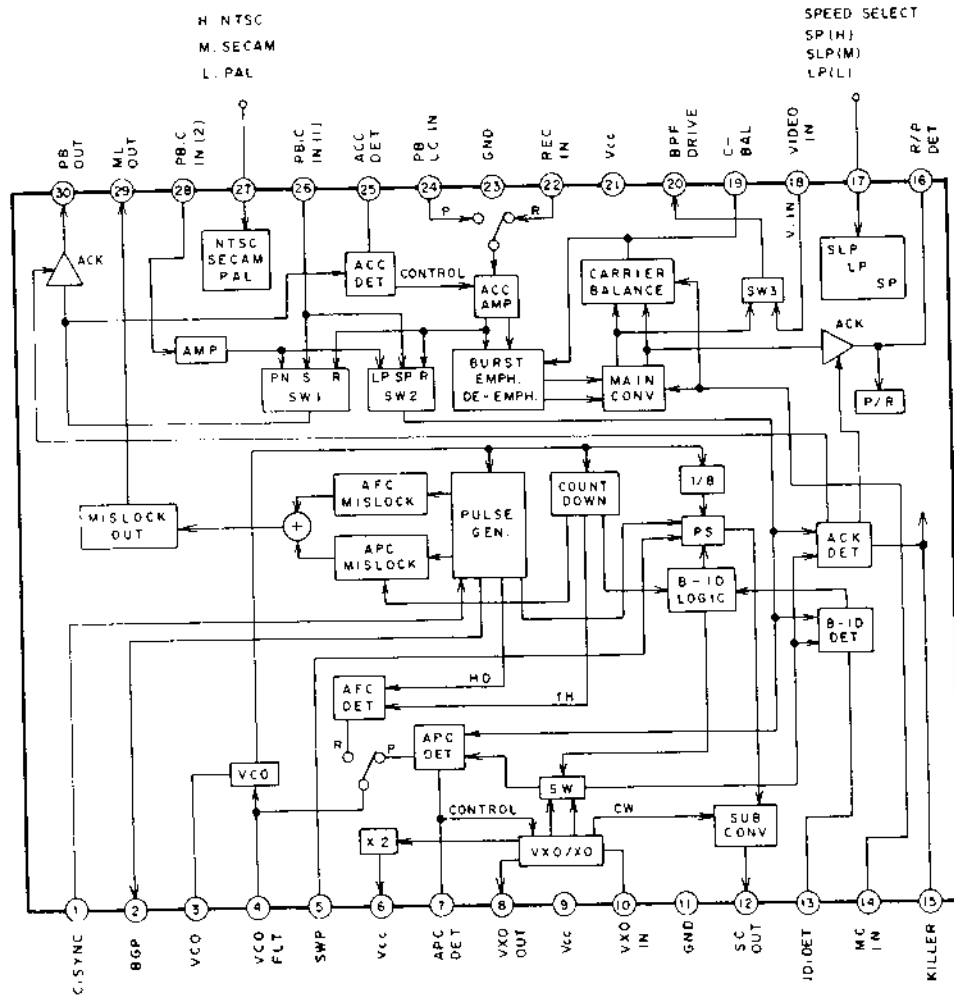
## MB50455 (CHARACTER GENERATOR)



## MB88525-192 G (SYSTEM CONTROL)



# TA8632 (VIDEO CHROMA SIGNAL PROCESSOR)



## μPD75208CW (OPERATION)

