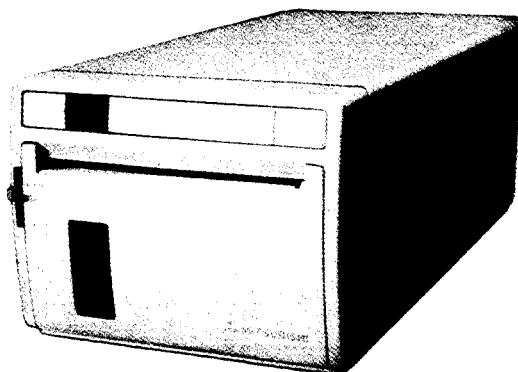


mitsubishi**Service
Manual**

VIDEO COPY PROCESSOR

**MODELS
P66B
P66E**

- ※ The HEAD LEVER on the FRONT PANEL should be located at "UP" position after servicing.
- ※ Use a white CLEANING PAPER (Parts No. ; 857P002010) or a HEAD CLEANING PEN (Parts. No. ; 859C425050) for cleaning of the THERMAL HEAD.
- Do not use a russet CLEANING PAPER (Parts No. ; 857P001030).
- Because it may damage the THERMAL HEAD.

Before servicing this chassis, it is important that the serviceman reads the " SAFETY PRECAUTIONS" and " PRODUCT SAFETY NOTICE" in this service manual.

Specifications

● Power supply	220~240V AC 50Hz
● Power consumption	110W
● Input terminal	BNC contact plug video signal 1 Vp-p (75 Ω)
● Output terminal	BNC contact plug video signal 1 Vp-p (75 Ω)
● Resolution	(Standard) (H) 640dots x (V) 600lines Side feed (H) 800dots x (V) 600lines
● Gradations	256 gradations
● Printing time	Approx. 5.8sec. (standard) PAL
● Operating conditions	Temperature 5°C-40°C (41°F - 104°F) Humidity 20 - 80 % RH (No dewing)
● Print size	100x75mm (Standard)
● External Dimensions	154 (W) x 125 (H) x 314 (D)mm 6" 4 ¹⁵ / ₁₆ " 12 ³ / ₈ "
● Weight	3.9kg (8.6lbs)

Features

- High speed printing
- Error display function
- Compact and light weight
- Wired remote control

Standard accessories

BNC/BNC connection cable(78-23/32") 1 piece

Wired remote controller	1 set
AC power cord	1 piece
Thermal paper K65HM	1 roll
Cleaning paper	1 sheet
Easy operation label	1 sheet

Optional accessory

Thermal paper K65HM

CONTENT

	PAGE
SAFETY PRECAUTIONS	1
PRODUCT SAFETY NOTICE	1
LEAD DRESSING	2
FEATURES AND FUNCTIONS	3
FRONT PANEL	3
REAR PANEL	3
DISASSEMBLY	4~7
REMOVAL OF CABINET	4
REMOVAL OF DOOR UNIT	4
REMOVAL OF THE FRONT ASSEMBLY	4, 5
REMOVAL OF VIDEO PCB	6
REMOVAL OF CPU PCB	6
REMOVAL OF POWER PCB ASSEMBLY	7
REMOVAL OF PRINTER ASSEMBLY	7
ASSEMBLY	8~11
REPLACEMENT OF FAN MOTOR	8
REPLACEMENT OF STEP MOTOR	8
REPLACEMENT OF PLATEN ROLLER	8, 9
REPLACEMENT OF PAPER HOLDER	9
REPLACEMENT OF THE HEAD ASSEMBLY	10, 11
CLEANING METHOD	12, 13
CLEANING OF THERMAL HEAD	12, 13
CLEANING OF PLATEN ROLLER	13
LOCATION AND CONTROL ON PCB	14
ADJUSTMENT	15~23
INITIAL SETTING	15
ADJUSTMENT OF SUPPLY VOLTAGE (VR971)	16
INITIALIZATION OF EEPROM	16
ADJUSTMENT OF MAIN VOLTAGE/HEAD VOLTAGE (VR971,VR951)	16,17
ADJUSTMENT OF PAPER DETECTION LEVEL (VR301)	18
ADJUSTMENT OF HEAD POSITION DETECTING LEVEL (VR302).....	18
ADJUSTMENT OF VERTICAL SYNCHRONIZATION SEPARATION (VR103)	18
ADJUSTMENT OF HORIZONTAL SYNCHRONOUS PULSE WIDTH (VR107)	19
ADJUSTMENT OF HORIZONTAL AFC (VR104)	19
ADJUSTMENT OF HORIZONTAL POSITION (VR106)	20
ADJUSTMENT OF CLOCK FREQUENCY 2 (L105)	20
ADJUSTMENT OF CLOCK FREQUENCY 1 (L104)	21
ADJUSTMENT OF MONITOR OUTPUT LEVEL (VR105)	22
SUB - CONTRAST/SUB - BRIGHT ADJUSTMENT (VR101, VR102)	23
PARTS LIST	24~26
BLOCK DIAGRAM	27,28
EXPLODED VIEW SCHEMATIC DIAGRAM INSTRUCTION BOOK	

SAFETY PRECAUTIONS

NOTICE. Observe all cautions and safety related notes located inside the receiver cabinet and on the receiver chassis.

LEAKAGE CURRENT CHECK

Before returning the receiver to the customer, it is recommended that leakage current be measured according to the following methods.

1. Cold Check

With the AC plug removed from the 220V/240V AC source, place a jumper across the two AC plug prongs. Turn the receiver AC switch on. Using an ohm-meter, connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (metal cabinet, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistance reading of 1 megohm. Any resistance below this value indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

2. Hot Check

The test sequence, with reference to the measuring circuit in Fig. A, is as follows:

- (1) With switch S1 open, the receiver is to be connected to the measuring circuit. Immediately after connection, the leakage current is measured using both positions of switch S2, and with the switching devices in the receiver in all of their operating positions.
- (2) Switch S1 is then to be closed, energizing the receiver, and immediately after closing the switch, the leakage current is to be measured using both positions of switch S2, and with the switching devices in the receiver in all of their operating positions.

Current measurements of items (1) and (2) are to be repeated after the receiver has reached thermal stabilization.

The leakage current shall not be more than 0.5 milliampere.

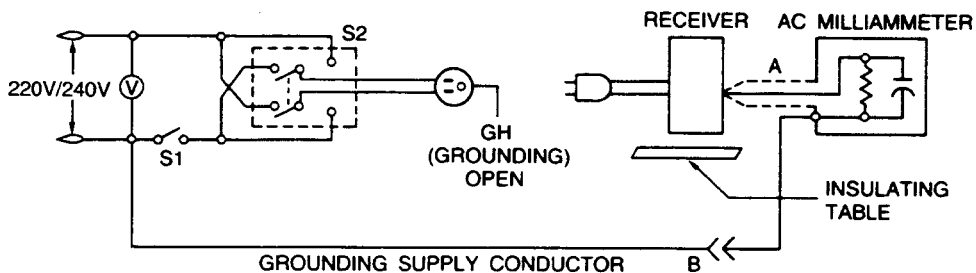


Fig. A

PRODUCT SAFETY NOTICE

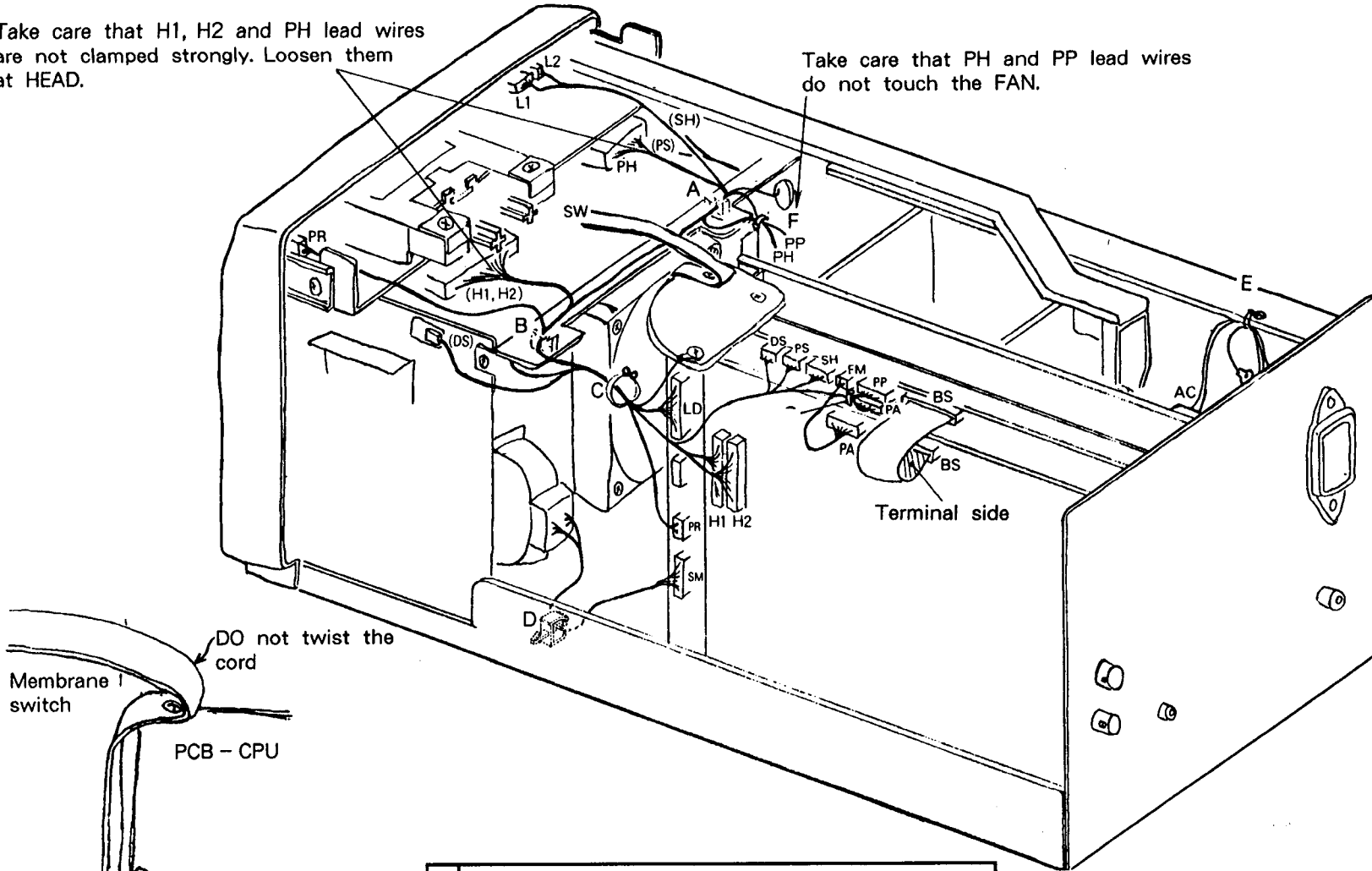
Many electrical and mechanical parts in the video copy processor have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this service manual. Electrical components having such features are identified by shading on the schematic diagram and the parts list of this service manual and by marking on the supplementary sheet for this chassis to be issued subsequently.

Therefore replacements for any safety parts should be identical in value and characteristics.

Take care that H1, H2 and PH lead wires are not clamped strongly. Loosen them at HEAD.

Take care that PH and PP lead wires do not touch the FAN.

LEAD DRESSING



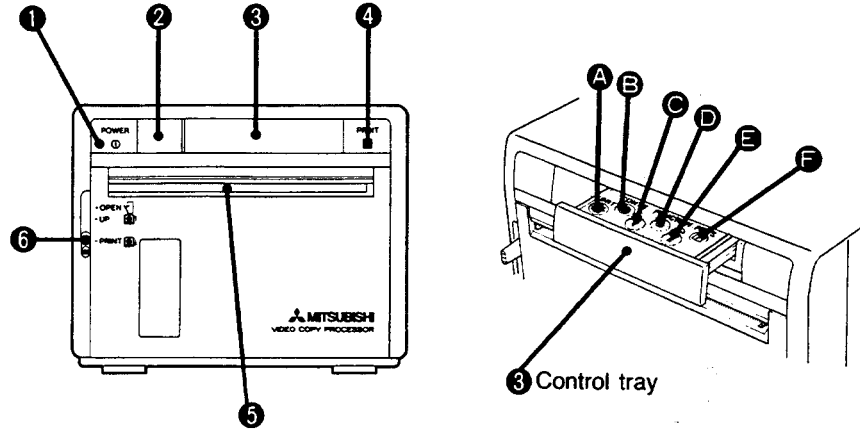
The black wire (connector side) should be as shown.

	LEAD TO BE CLAMPED
A	LD (L1, L2), PP, PH
B	LD (L1, L2), PP, H1, H2, PR, GND lead
C	LD (L1, L2), PP, H1, H2, DS, PS, SH, FM, PR, GND lead
D	SM
E	AC, Terminal lead
F	PP, PH
G	PA, PP

The lead wires to be clamped are listed in the table below.
Note : The inner wires are routed or clamped so that they do not come close to the heat generating or high-tension parts. After servicing route all wires in their original position.

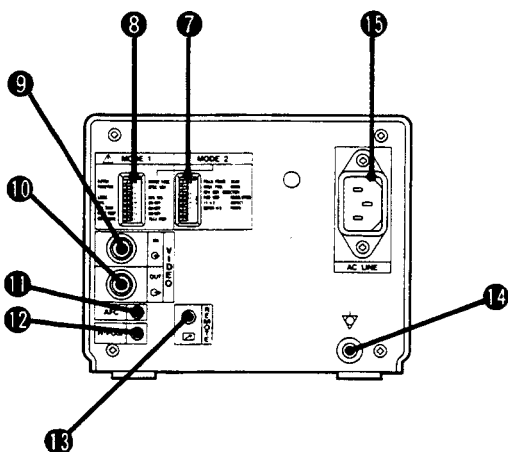
FEATURES AND FUNCTIONS

Front Panel



	Name	Function
①	POWER switch	Turns on or off the power.
②	Indicator	Displays standby, functions and error messages.
③	Control tray ①Brightness button ②Contrast button ③Function value change button ④Function button ⑤Function value change/Copy button ⑥Print-Sub button	Adjusts brightness. Adjusts contrast. Changes each function value. Selects functions. Changes each function value. / Press this button in standby state for additional copies of the previous print-out. Press this button to memorize and print.
④	Print button	Press this button to memorize and print the picture displayed at that instant.
⑤	Print exit/Cutter	Printed paper will come out through this slot.
⑥	Lever	Front panel open-close/Thermal head up-down.

Rear Panel



	Name	Function
⑦	MODE 2 switch	Selects a special function.
⑧	MODE 1 switch	
⑨	VIDEO IN connector (BNC type)	Video signal input
⑩	VIDEO OUT connector (BNC type)	Video signal output (Monitor output)
⑪	AFC control	Adjust AFC
⑫	Horizontal position control	Adjust the horizontal position of a picture.
⑬	Remote control terminal	Terminal to connect the remote controller
⑭	Potential equalization terminal	Makes the connected equipment potential equal.
⑮	Power terminal	Connect the power cord to this terminal.

DISASSEMBLY

Removal of CABINET

1. Remove four screws securing the CABINET. (Fig.1)
2. Slide the cabinet slightly backward and remove it.

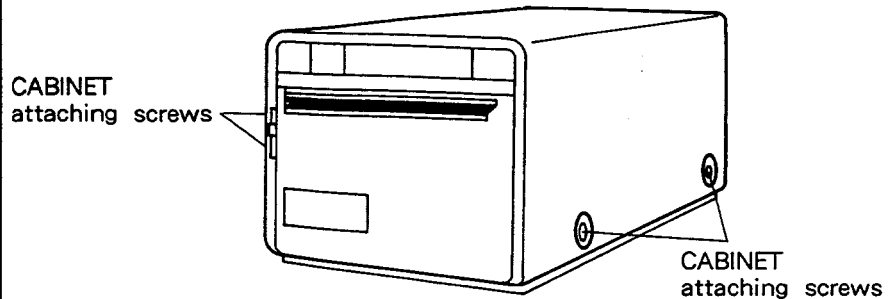


Fig. 1

Removal of DOOR UNIT

1. Set the knob to "OPEN" and open the DOOR.
2. Remove the CAPS.
3. Hold up the PAPER HOLDER slightly and remove the DOOR UNIT.
4. For re-assembling, reverse the procedure.

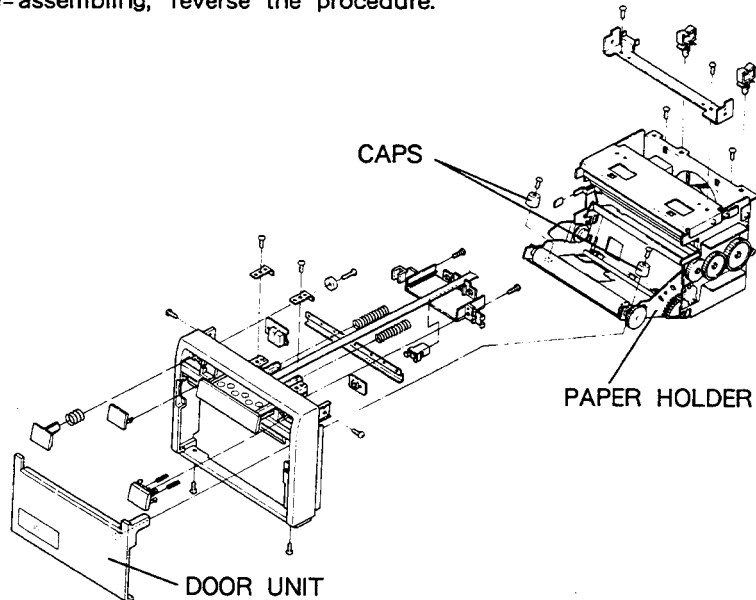


Fig. 2

Removal of the FRONT assembly

1. Remove the CABINET. (Fig. 1)
 2. Remove the DOOR UNIT.
 3. Disconnect the CONNECTORS **LD**, **PR**, **SW** connected to CPU PCB.
 4. Remove the MEMBRANE SWITCH attaching screw connected to the PCB HOLDER. (Fig. 3)
 5. Remove the earth wire connected to the PCB HOLDER. (Fig. 3)
 6. Remove 4 screws securing the FRONT assembly.(Fig. 4)
 7. Remove the KNOB. (Fig. 4)
 8. Remove the FRONT Assembly to your side.
- (Note)
Remove from the left side so that the right end of the PAPER SHAFT is not hit. (Fig. 2)

**Removal of the
FRONT assembly**

9. For re-assembling, reverse the procedure.

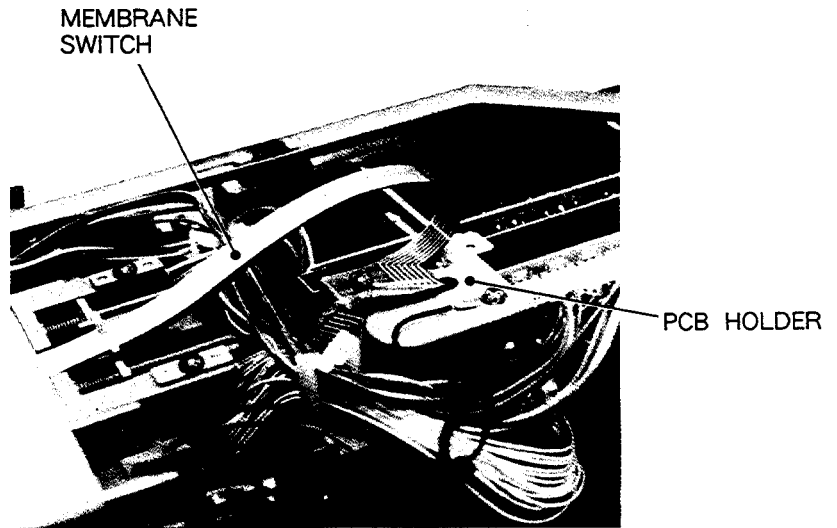
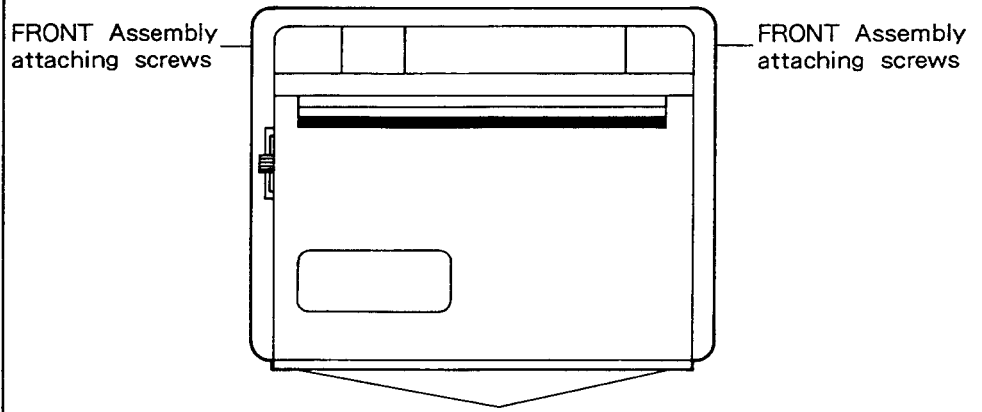


Fig. 3



FRONT Assembly attaching screws

Fig. 4 FRONT assembly

Removal of VIDEO PCB

1. Remove the CABINET. (Fig. 1)
2. Remove the PCB HOLDER. (Fig. 3)
3. Remove the REAR PANEL. (Fig. 5)
4. Remove the screw securing the PCB R BRACKET. (Fig. 5)
5. Disconnect all the connectors connected to VIDEO PCB.
6. Hold up the right side (rear panel side) of VIDEO PCB slightly, slide it to the front and remove it.
7. Remove the screws securing VIDEO PCB.
8. When re-assembling, reverse the procedure.

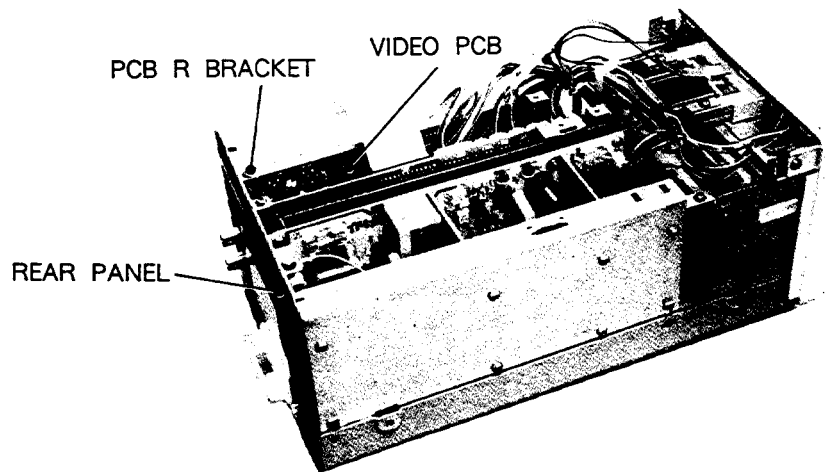


Fig. 5

Removal of CPU PCB

1. Remove the CABINET. (Fig. 1)
2. Remove the PCB HOLDER. (Fig. 3)
3. Remove the REAR PANEL. (Fig. 6)
4. Remove screws securing PCB R BRACKET. (Fig. 6)
5. Disconnect all the connectors connected to CPU PCB.
6. Hold up the right side (rear panel side) of CPU PCB slightly, slide it to the front and remove it.
7. Remove screws securing CPU PCB.
8. When re-assembling, reverse the procedure.

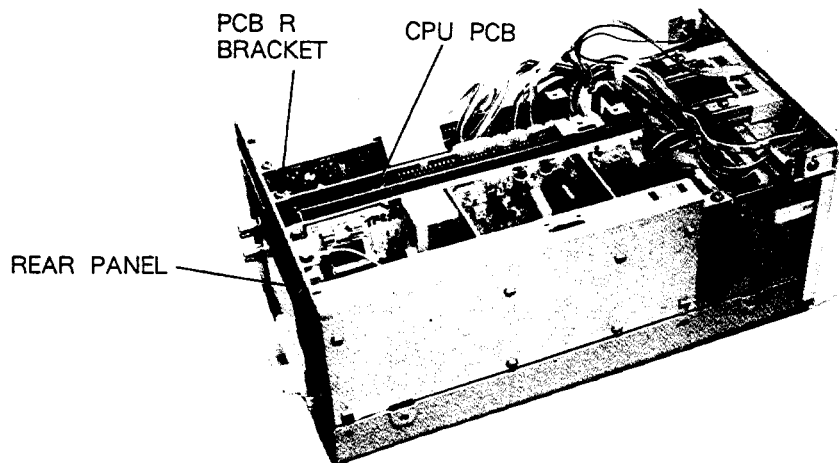


Fig. 6

Removal of POWER PCB assembly

1. Remove the CABINET. (Fig. 1)
2. Remove the PCB HOLDER. (Fig. 3)
3. Remove the screws securing the POWER SWITCH BRACKET. (Fig. 7)
4. Remove B-P SWITCH HOLDER and remove the POWER SWITCH BRACKET. (Fig. 7)
5. Remove screws securing POWER PCB assembly. (Fig. 7)
6. Remove one (top right) of the four screws securing the REAR PANEL. (Fig. 7)
7. Slide the POWER PCB assembly to the front, remove it from the set and disconnect all the connectors.
8. When re-assembling, reverse the procedure.

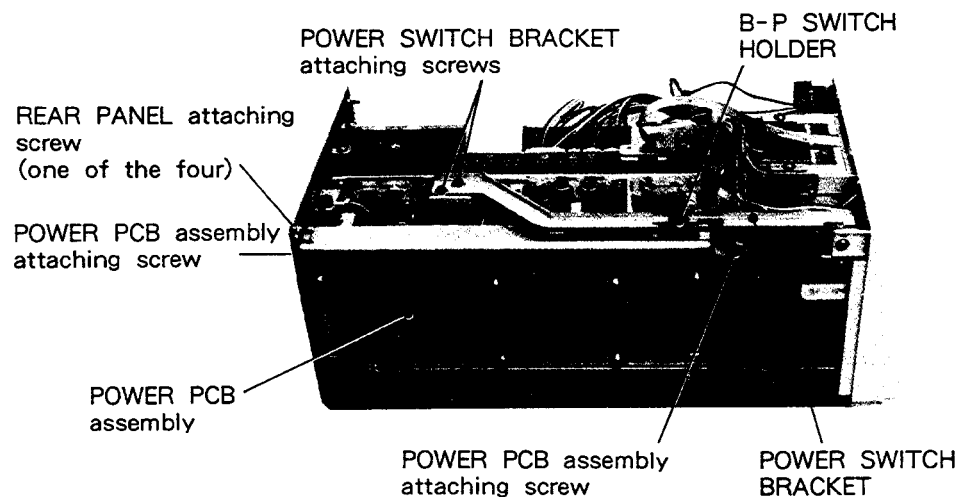


Fig. 7

Removal of PRINTER assembly

1. Remove the CABINET. (Fig. 1)
2. Remove the FRONT assembly
3. Remove the screws securing the POWER SWITCH BRACKET. (Fig. 7)
4. Remove the B-P SWITCH HOLDER and remove the POWER SWITCH BRACKET. (Fig. 7)
5. Remove the screws attaching POWER PCB assembly. (Fig. 7)
6. Disconnect all the connectors connected to the PRINTER UNIT.
7. Disconnect CONNECTORS **DS**, **FM**, **PS**, **SH**, **SM** connected to CPU PCB.
8. Remove the screws securing the PRINTER UNIT (Fig. 8)
9. Slide the PRINTER assembly to the front and remove it.
10. When reassembling, reverse the procedure.

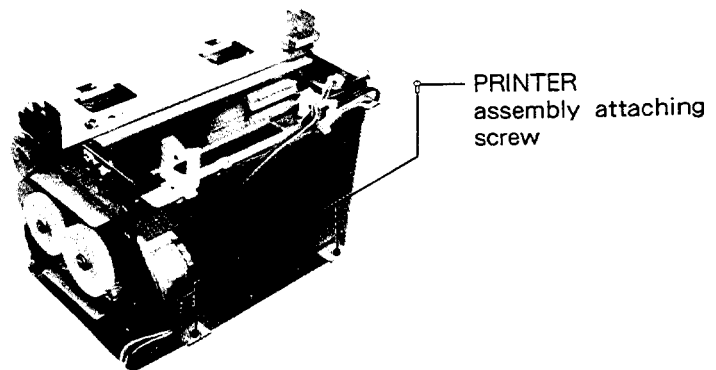


Fig. 8

ASSEMBLY

Replacement of FAN MOTOR

1. Remove the PRINTER UNIT.
2. Remove screws securing the FAN MOTOR. (Fig. 9)
3. When re-assembling, reverse the procedure.

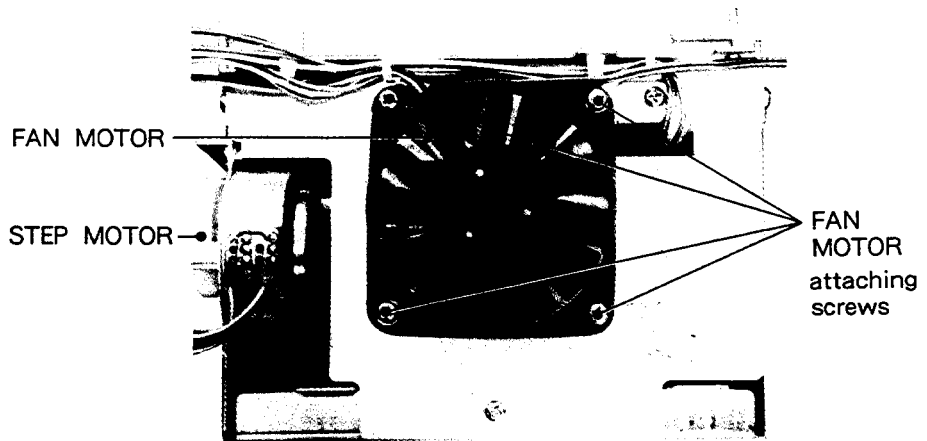


Fig. 9

Replacement of STEP MOTOR

1. Remove the PRINTER UNIT.
2. Remove the STEP MOTOR attaching screws. (Fig. 10)
3. When re-assembling, reverse the procedure.

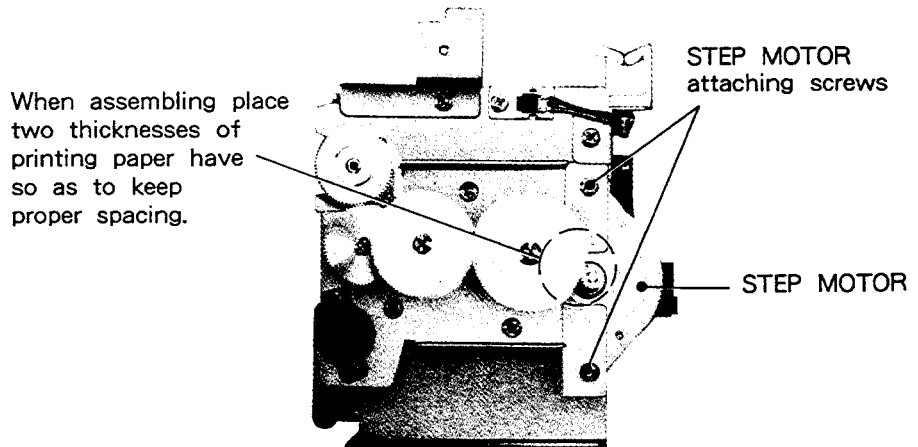


Fig. 10

Replacement of PLATEN ROLLER

1. Remove the DOOR assembly.
2. Remove an E-RING on the left side of the PLATEN ROLLER. (Fig. 11)
3. Remove BEARINGS. (Fig. 11)
4. Slide the PLATEN ROLLER to the right and remove it.
5. When re-assembling, reverse the procedure.
(Note)
Be careful of the direction of bearings.

**Replacement of
PLATEN ROLLER**

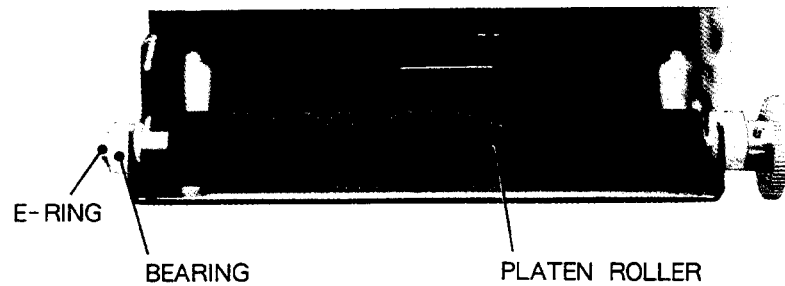


Fig. 11

**Replacement of
PAPER HOLDER**

1. Remove the PRINTER UNIT.
2. Remove E-RINGS (both sides) of the PAPER SHAFT. (Fig. 12)
3. Pull out the PAPER SHAFT to right side.
(Note)
Be careful not to lose the door spring which comes off in the above process. (Fig. 12)
4. Remove the PAPER HOLDER to your side.
5. When re-assembling, reverse the procedure.

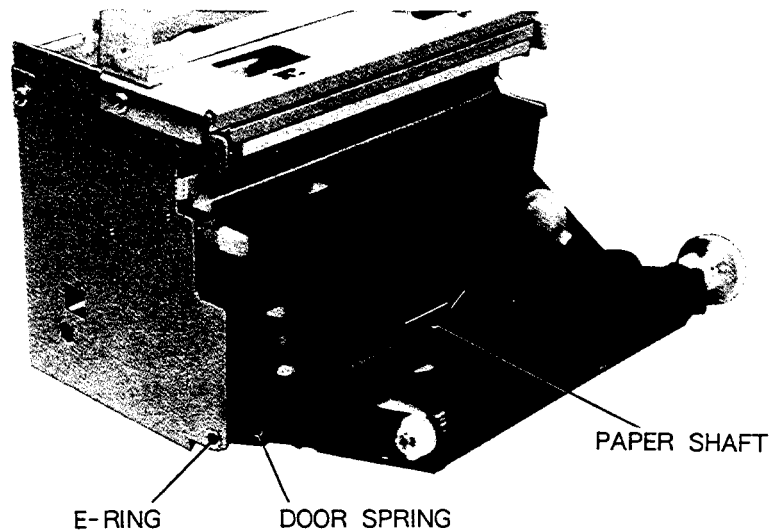


Fig. 12

Replacement of the HEAD assembly

1. Remove the CABINET. (Fig. 1)
2. Remove the FRONT assembly.
3. Remove the screws securing POWER SWITCH BRACKET. (Fig. 7)
4. Remove the B-P SWITCH HOLDER and remove the POWER SWITCH BRACKET. (Fig. 7)
5. Remove the screws securing the UPPER PLATE. (Fig. 13)
(Note)
The HEAD SPRING is held with the UPPER PLATE. Be careful that the HEAD SPRING does not jump up and get lost.
6. Disconnect all the connectors connected to the HEAD assembly.
7. Remove the screws securing the HEAT SINK. (Fig. 13)

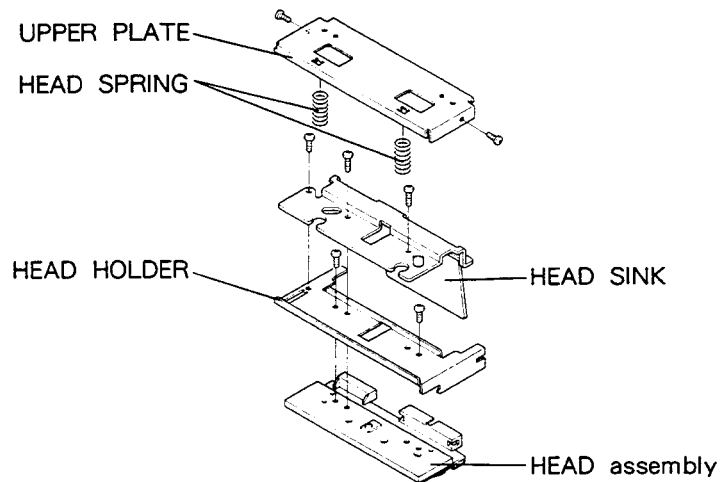


Fig. 13

8. Hold up the front part of the HEAD HOLDER, slide it to your side and remove it.
9. Remove screws securing the HEAD assembly.
(Note)
Be careful not to touch the HEAT GENERATING PART. (Fig. 14)
10. When re-assembling, reverse the procedure.
(Note)
When fixing the HEAD assembly and the HEAD HOLDER with screws, use the GAUGE BAR and TIGHTEN screws after confirming that the holes are aligned.

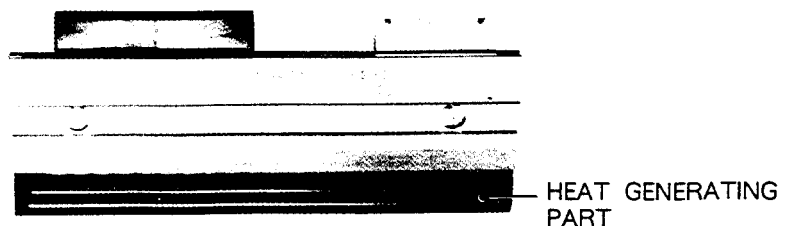


Fig. 14

**Replacement of the
HEAD assembly**

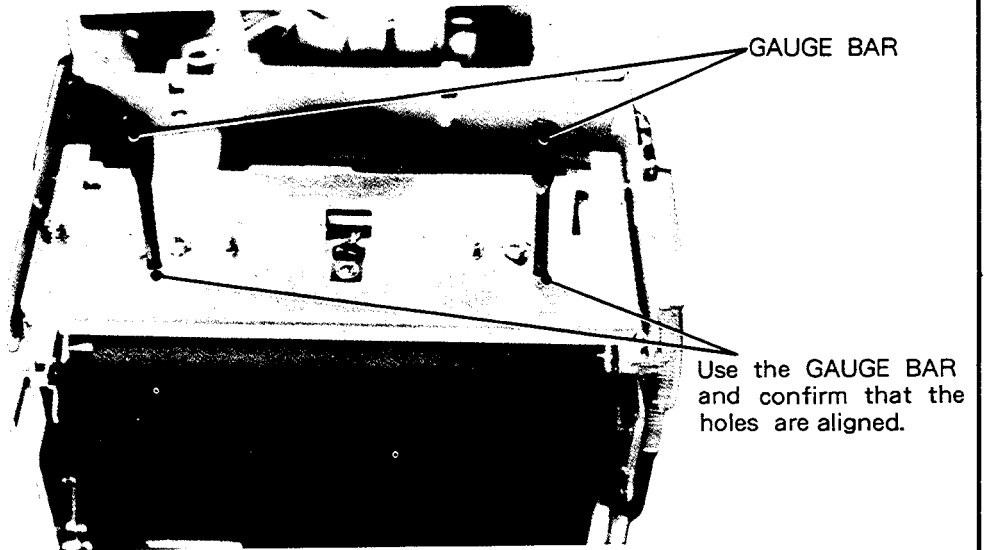


Fig. 15

CLEANING METHOD

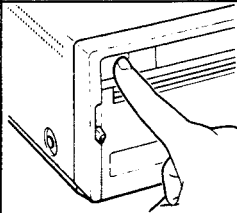
Cleaning of THERMAL HEAD

When thermal head is dirty with dust or other dirt, rain-drop patterns or white vertical lines may appear on the printed picture. In this case, use the attached cleaning sheet or a THERMAL HEAD CLEANER PEN TH-2000 (859C425050) (which can be purchased separately) in the following manner.

※ Do not use a russet CLEANING PAPER (parts No. ; 857P001030). Because it may damage the THERMAL HEAD.

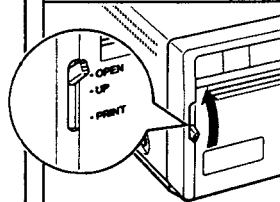
● How to use the CLEANING PAPER

1 Turn off the power.



■ Push the "POWER" switch to turn off the power.

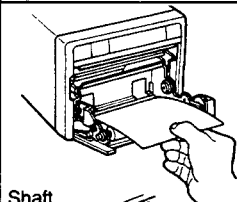
2 Open the door.



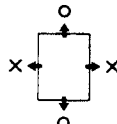
■ Flip up the left side lever to the "OPEN" position.

● The door opens.

3 Insert the cleaning paper.



■ Insert the cleaning paper into the set.

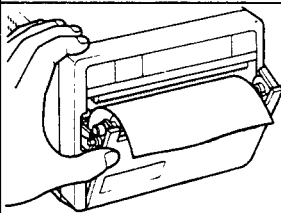


Shaft

■ Insert the cleaning paper end under the shaft in the set.

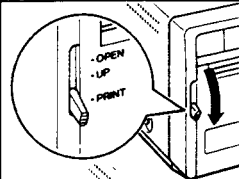
Cleaning paper

4 Close the door.



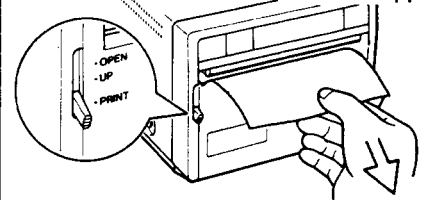
■ Close the door without taking out the cleaning paper.

5 Pull out the cleaning paper.

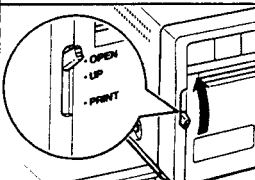


① Flip down the lever to the "PRINT" position.

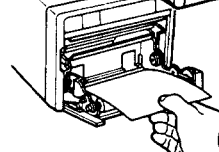
② Pull out the cleaning paper slowly until the red mark appears.



6 Take out the cleaning paper.



① Open the door.



② Take out the cleaning paper.

7 Verify the cleaning effect.

■ Repeat the steps ③-⑥ 1 or 2 times, and print 2-3 sheets to verify the cleaning effect.

CAUTION:

If the symptom of the stained head would not be corrected even after cleaning, your set needs repairing. Contact the your dealer.

Avoid pulling out the cleaning paper abruptly or exceeding the red mark. Uneven printing or other defects may result.

● How to use THERMAL HEAD CLEANER PEN

1. Draw out the pen from the body and pour appropriate amount of cleaning solvent to the pen body.
 - When the pen core becomes dirty, replace it with the spare core.
- (Note) Move the cleaner pen parallel to the heat generating part (brown part).
- Since the cleaning solvent is inflammable, close the cap after use and be particularly careful against fire.
 - Keep it in a cool, dark place with no direct exposure to the sun.

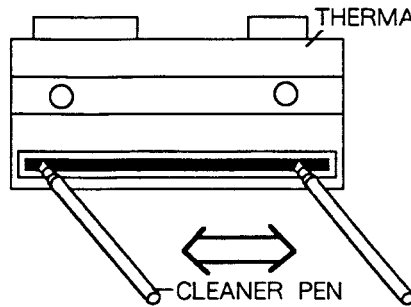


Fig 16

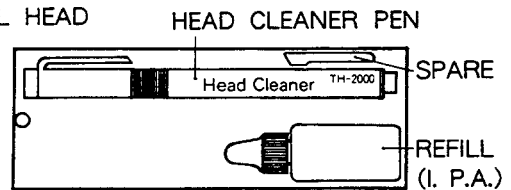


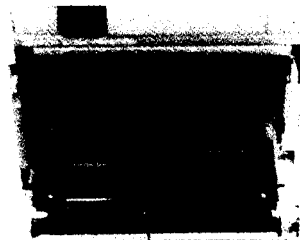
Fig 17 HEAD CLEANER PEN

(Separate purchase jig No. : 859C425050)

Cleaning of PLATEN ROLLER

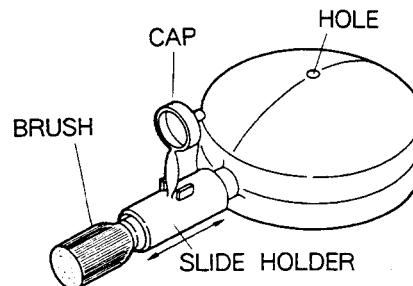
When the PLATEN ROLLER is very dirty print quality may be devastated. In such cases, clean the platen roller by the following procedure.

1. Open the DOOR or the SET so that the PLATEN ROLLER can be cleaned.
2. Check the PLATEN ROLLER. If dirt or dust is adhered, clean the ROLLER using the blower brush shown in Fig. 19.
3. When the PLATEN ROLLER is particularly dirty, use alcohol and clean it with a tooth brush while taking care not to damage the ROLLER.
4. When the cleaning is finished, check that normal printing is performed.



PLATEN ROLLER

Fig. 18

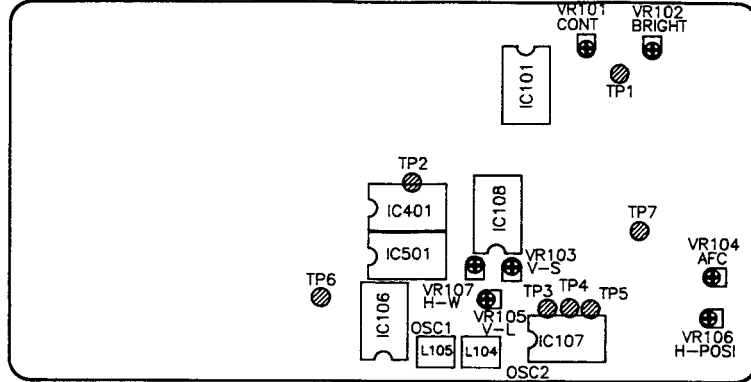


BLOWER BRUSH
(PARTS No. 859D048010)

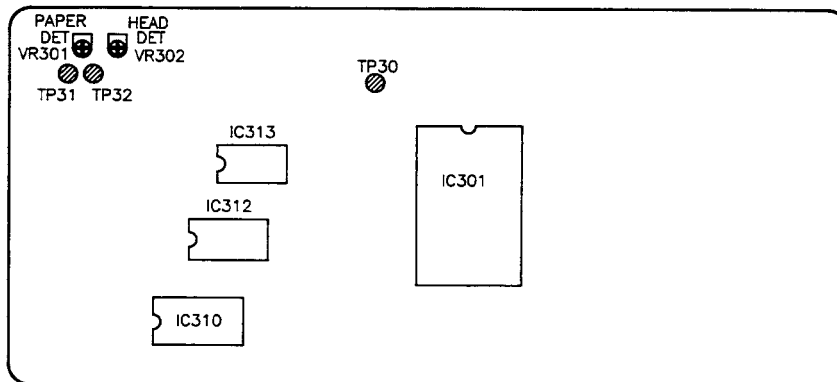
Fig. 19

LOCATION AND CONTROL ON PCB

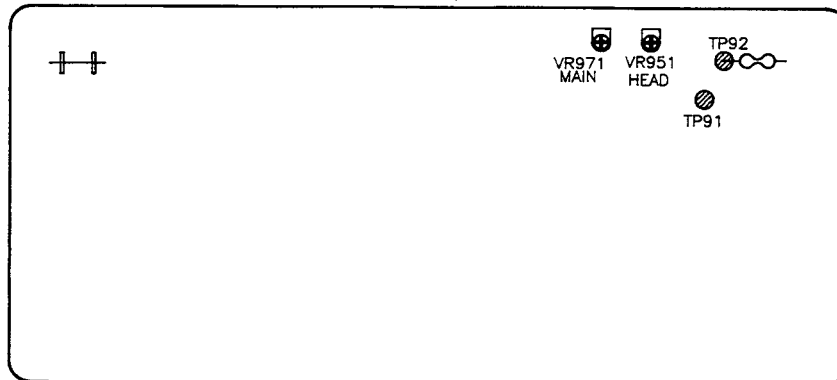
PCB-VIDEO (PARTS SIDE)



PCB-CPU (PARTS SIDE)



PCB-POWER (PARTS SIDE)

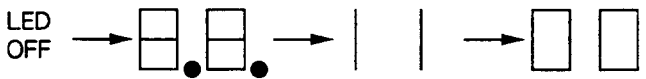



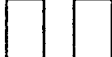
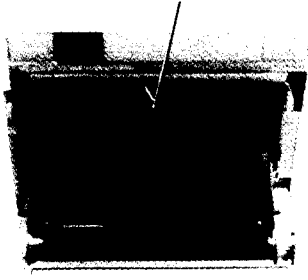


Adjustment

Initial setting

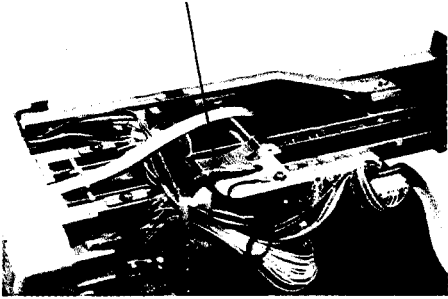


Make the following setting before adjustments.

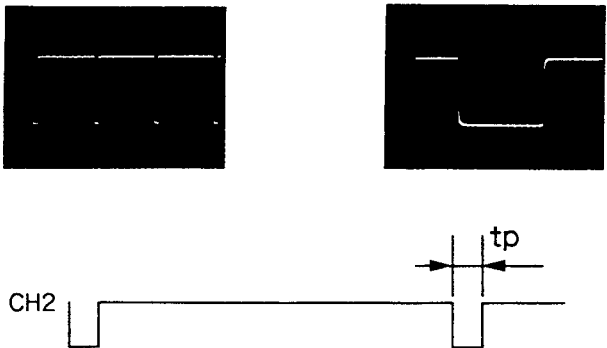
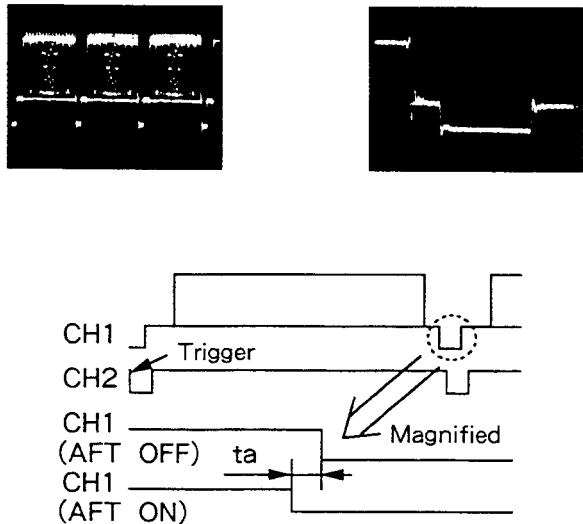
Setting point		Setting	Setting point		Setting	
S101 MODE1	#8	EXTRA MODE2/FUNC.	MODE2	POWER	OFF/ON	OFF
	#7	FUNCTION	NOR.	FRONT- PANEL	PAPER	K65HM
	#6	SPEC./NOR. RESOLUTION	NOR.	LEVER	OPEN/ UP/PRINT	UP
	#5	FINE/NOR. LINES	NOR.	REMOTE	INPUT TERMINAL	Remote
	#4	525/625	525	VIDEO IN	INPUT TERMINAL	Monoscope
	#3	AFC	OFF	VIDEO OUT	OUTPUT TERMINAL	Monitor
	#2	OFF/ON	OFF	AC IN	POWER INPUT	220V ± 5%
	#1	PAL-TRAP	OFF			50Hz
S301 MODE2	#8	OFF/ON	OFF			240V ± 5%
	#7	NTSC-TRAP	OFF			50Hz
	#6	OFF/ON	OFF			
	#5	IMPEDANCE	75 Ω			
	#4	75 Ω/HIGH				
	#3	SCAN	FRAME			
	#2	FIELD/FRAME	FRAME			
	#1	IMAGE	POS1.			
	NEGA./POS1.	POS1.				
	DIRECTION	NOR.				
	REV./NOR.	NOR.				
	_____	(OFF)				
	ASPECT	4:3				
	1:1/4:3	4:3				
	PAPER	H. D.				
	SUPER/H. D.	H. D.				
	_____	(OFF)				
	_____ (BUZZER)	ON				


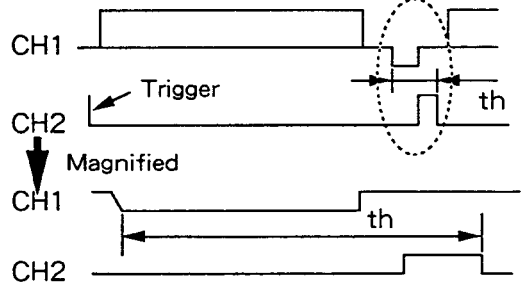

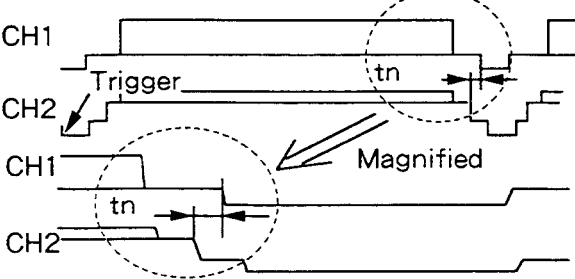
Adjustment item	Adjustment point	Adjustment method
Adjustment of Supply voltage	VR971, TP91 PCB-POWER	<ol style="list-style-type: none"> 1. Connect a voltmeter + to TP91 and - to the metallic board of chassis. Turn VR971 to 90 degree angle counter-clockwise . 2. Turn on POWER SW. 3. Adjust the voltage to 25V ± 0.5V with VR971.
Initialization of EEPROM		<p>* After exchange of IC309 (EEPROM) ,initial setting should be done according to the following.</p> <ol style="list-style-type: none"> 1. Turn off POWER SW. 2. Turn on POWER SW while pressing both BRIGHT button and PRT - S button . 3. Release BRIGHT button and PRT - S button after confirming that the LED display changes as follows. <div style="text-align: center;">  <p>LED OFF →   →  → </p> </div>
Adjustment of Main voltage/ Head voltage	VR971/VR951, TP91/TP92 PCB-POWER	<ol style="list-style-type: none"> 1. Calculate E1 and E2 with the equation in below from the resistance value indicated on the HEAD. $E2 = (24\sqrt{R/2075}) [v] \dots\dots \text{Refer to Conversion Table.}$ $E1 = (E2 + 2.5) [v]$ 2. Connect + of a voltmeter to TP91 emitter of Q952 and - to the chassis metal plate and adjust with VR971 so that the reading is $E1 \pm 0.05V$. 3. Connect + of a voltmeter to TP92 and - to the chassis metal plate. 4. Adjust with VR951 so that the reading of the voltmeter is $E2 \pm 0.05V$. 5. Remove the voltmeter. <div style="text-align: center;"> <p>THERMAL HEAD</p>  </div>

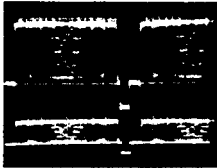
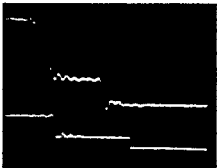
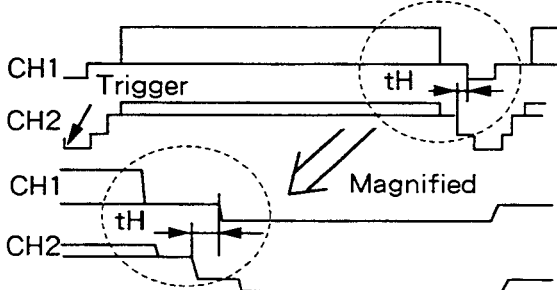
HEAD VOLTAGE TABLE, E2 as a function of R

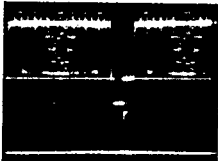
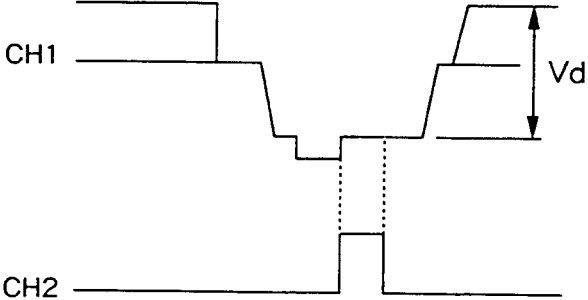
RESISTANCE (3 significant figures)	RESISTANCE (4th figure) Ω									
	0	1	2	3	4	5	6	7	8	9
R=1760			22.116 V	22.122 V	22.129 V	22.135 V	22.141 V	22.147 V	22.154 V	22.160 V
R=1770	22.166 V	22.172 V	22.179 V	22.185 V	22.191 V	22.197 V	22.204 V	22.210 V	22.216 V	22.222 V
R=1780	22.229 V	22.235 V	22.241 V	22.247 V	22.254 V	22.260 V	22.266 V	22.272 V	22.279 V	22.285 V
R=1790	22.291 V	22.297 V	22.303 V	22.310 V	22.316 V	22.322 V	22.328 V	22.335 V	22.341 V	22.347 V
R=1800	22.353 V	22.359 V	22.366 V	22.372 V	22.378 V	22.384 V	22.390 V	22.397 V	22.403 V	22.409 V
R=1810	22.415 V	22.421 V	22.428 V	22.434 V	22.440 V	22.446 V	22.452 V	22.458 V	22.465 V	22.471 V
R=1820	22.477 V	22.483 V	22.489 V	22.496 V	22.502 V	22.508 V	22.514 V	22.520 V	22.526 V	22.533 V
R=1830	22.539 V	22.545 V	22.551 V	22.557 V	22.563 V	22.569 V	22.576 V	22.582 V	22.588 V	22.594 V
R=1840	22.600 V	22.606 V	22.612 V	22.619 V	22.625 V	22.631 V	22.637 V	22.643 V	22.649 V	22.655 V
R=1850	22.662 V	22.668 V	22.674 V	22.680 V	22.686 V	22.692 V	22.698 V	22.704 V	22.710 V	22.717 V
R=1860	22.723 V	22.729 V	22.735 V	22.741 V	22.747 V	22.753 V	22.759 V	22.765 V	22.771 V	22.778 V
R=1870	22.784 V	22.790 V	22.796 V	22.802 V	22.808 V	22.814 V	22.820 V	22.826 V	22.832 V	22.838 V
R=1880	22.845 V	22.851 V	22.857 V	22.863 V	22.869 V	22.875 V	22.881 V	22.887 V	22.893 V	22.899 V
R=1890	22.905 V	22.911 V	22.917 V	22.923 V	22.929 V	22.935 V	22.942 V	22.948 V	22.954 V	22.960 V
R=1900	22.966 V	22.972 V	22.978 V	22.984 V	22.990 V	22.996 V	23.002 V	23.008 V	23.014 V	23.020 V
R=1910	23.026 V	23.032 V	23.038 V	23.044 V	23.050 V	23.056 V	23.062 V	23.068 V	23.074 V	23.080 V
R=1920	23.086 V	23.092 V	23.098 V	23.104 V	23.110 V	23.116 V	23.122 V	23.128 V	23.134 V	23.140 V
R=1930	23.146 V	23.152 V	23.158 V	23.164 V	23.170 V	23.176 V	23.182 V	23.188 V	23.194 V	23.200 V
R=1940	23.206 V	23.212 V	23.218 V	23.224 V	23.230 V	23.236 V	23.242 V	23.248 V	23.254 V	23.260 V
R=1950	23.266 V	23.272 V	23.278 V	23.284 V	23.290 V	23.296 V	23.302 V	23.308 V	23.314 V	23.320 V
R=1960	23.326 V	23.331 V	23.337 V	23.343 V	23.349 V	23.355 V	23.361 V	23.367 V	23.373 V	23.379 V
R=1970	23.385 V	23.391 V	23.397 V	23.403 V	23.409 V	23.415 V	23.421 V	23.426 V	23.432 V	23.438 V
R=1980	23.444 V	23.450 V	23.456 V	23.462 V	23.468 V	23.474 V	23.480 V	23.486 V	23.492 V	23.497 V
R=1990	23.503 V	23.509 V	23.515 V	23.521 V	23.527 V	23.533 V	23.539 V	23.545 V	23.551 V	23.556 V
R=2000	23.562 V	23.568 V	23.574 V	23.580 V	23.586 V	23.592 V	23.598 V	23.604 V	23.609 V	23.615 V
R=2010	23.621 V	23.627 V	23.633 V	23.639 V	23.645 V	23.651 V	23.656 V	23.662 V	23.668 V	23.674 V
R=2020	23.680 V	23.686 V	23.692 V	23.697 V	23.703 V	23.709 V	23.715 V	23.721 V	23.727 V	23.733 V
R=2030	23.738 V	23.744 V	23.750 V	23.756 V	23.762 V	23.768 V	23.773 V	23.779 V	23.785 V	23.791 V
R=2040	23.797 V	23.803 V	23.808 V	23.814 V	23.820 V	23.826 V	23.832 V	23.838 V	23.843 V	23.849 V
R=2050	23.855 V	23.861 V	23.867 V	23.872 V	23.878 V	23.884 V	23.890 V	23.896 V	23.902 V	23.907 V
R=2060	23.913 V	23.919 V	23.925 V	23.931 V	23.936 V	23.942 V	23.948 V	23.954 V	23.960 V	23.965 V
R=2070	23.971 V	23.977 V	23.983 V	23.988 V	23.994 V	24.000 V	24.006 V	24.012 V	24.017 V	24.023 V
R=2080	24.029 V	24.035 V	24.040 V	24.046 V	24.052 V	24.058 V	24.064 V	24.069 V	24.075 V	24.081 V
R=2090	24.087 V	24.092 V	24.098 V	24.104 V	24.110 V	24.115 V	24.121 V	24.127 V	24.133 V	24.138 V
R=2100	24.144 V	24.150 V	24.156 V	24.161 V	24.167 V	24.173 V	24.179 V	24.184 V	24.190 V	24.196 V
R=2110	24.202 V	24.207 V	24.213 V	24.219 V	24.225 V	24.230 V	24.236 V	24.242 V	24.247 V	24.253 V
R=2120	24.259 V	24.265 V	24.270 V	24.276 V	24.282 V	24.287 V	24.293 V	24.299 V	24.305 V	24.310 V
R=2130	24.316 V	24.322 V	24.327 V	24.333 V	24.339 V	24.345 V	24.350 V	24.356 V	24.362 V	24.367 V
R=2140	24.373 V	24.379 V	24.384 V	24.390 V	24.396 V	24.402 V	24.407 V	24.413 V	24.419 V	24.424 V
R=2150	24.430 V	24.436 V	24.441 V	24.447 V	24.453 V	24.458 V	24.464 V	24.470 V	24.475 V	24.481 V
R=2160	24.487 V	24.492 V	24.498 V	24.504 V	24.509 V	24.515 V	24.521 V	24.526 V	24.532 V	24.538 V
R=2170	24.543 V	24.549 V	24.555 V	24.560 V	24.566 V	24.572 V	24.577 V	24.583 V	24.588 V	24.594 V
R=2180	24.600 V	24.605 V	24.611 V	24.617 V	24.622 V	24.628 V	24.634 V	24.639 V	24.645 V	24.651 V
R=2190	24.656 V	24.662 V	24.667 V	24.673 V	24.679 V	24.684 V	24.690 V	24.696 V	24.701 V	24.707 V
R=2200	24.712 V	24.718 V	24.724 V	24.729 V	24.735 V	24.740 V	24.746 V	24.752 V	24.757 V	24.763 V
R=2210	24.768 V	24.774 V	24.780 V	24.785 V	24.791 V	24.796 V	24.802 V	24.808 V	24.813 V	24.819 V
R=2220	24.824 V	24.830 V	24.836 V	24.841 V	24.847 V	24.852 V	24.858 V	24.864 V	24.869 V	24.875 V
R=2230	24.880 V	24.886 V	24.891 V	24.897 V	24.903 V	24.908 V	24.914 V	24.919 V	24.925 V	24.930 V
R=2240	24.936 V	24.942 V	24.947 V	24.953 V	24.958 V	24.964 V	24.969 V	24.975 V	24.981 V	24.986 V
R=2250	24.992 V	24.997 V	25.003 V	25.008 V	25.014 V	25.019 V	25.025 V	25.030 V	25.036 V	25.042 V
R=2260	25.047 V	25.053 V	25.058 V	25.064 V	25.069 V	25.075 V	25.080 V	25.086 V	25.091 V	25.097 V
R=2270	25.102 V	25.108 V	25.113 V	25.119 V	25.125 V	25.130 V	25.136 V	25.141 V	25.147 V	25.152 V
R=2280	25.158 V	25.163 V	25.169 V	25.174 V	25.180 V	25.185 V	25.191 V	25.196 V	25.202 V	25.207 V
R=2290	25.213 V	25.218 V	25.224 V	25.229 V	25.235 V	25.240 V	25.246 V	25.251 V	25.257 V	25.262 V
R=2300	25.268 V	25.273 V	25.279 V	25.284 V	25.290 V	25.295 V	25.301 V	25.306 V	25.312 V	25.317 V
R=2310	25.323 V	25.328 V	25.334 V	25.339 V	25.345 V	25.350 V	25.356 V	25.361 V	25.366 V	25.372 V
R=2320	25.377 V	25.383 V	25.388 V	25.394 V	25.399 V	25.405 V	25.410 V	25.416 V	25.421 V	25.427 V
R=2330	25.432 V	25.437 V	25.443 V	25.448 V	25.454 V	25.459 V	25.465 V	25.470 V	25.476 V	25.481 V
R=2340	25.487 V	25.492 V	25.497 V	25.503 V	25.508 V	25.514 V	25.519 V	25.525 V	25.530 V	25.536 V
R=2350	25.541 V	25.546 V	25.552 V	25.557 V	25.563 V	25.568 V	25.574 V	25.579 V	25.584 V	25.590 V
R=2360	25.595 V	25.601 V	25.606 V	25.611 V	25.617 V	25.622 V	25.628 V	25.633 V	25.639 V	25.644 V
R=2370	25.649 V	25.655 V	25.660 V	25.666 V	25.671 V	25.676 V	25.682 V	25.687 V	25.693 V	25.698 V
R=2380	25.703 V	25.709 V	25.714 V	25.720 V	25.725 V	25.730 V	25.736 V	25.741 V		
R=2390										

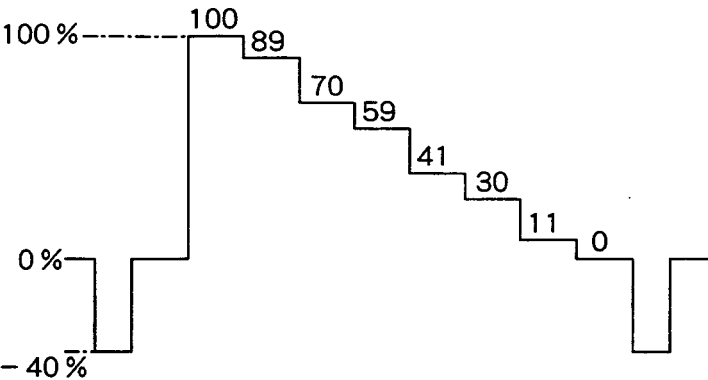
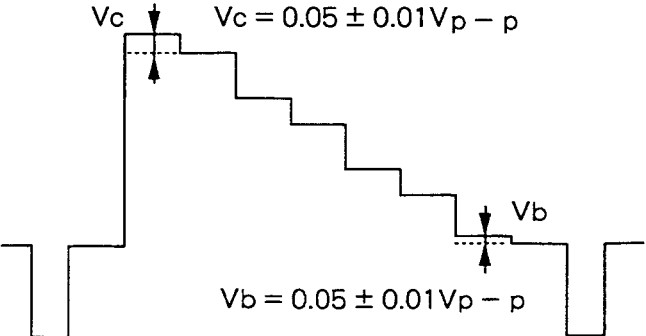
Adjustment item	Adjustment point	Adjustment method
Adjustment of Paper detection level	VR301, TP31 PCB-CPU	<ol style="list-style-type: none"> 1. Connect + of a voltmeter to TP31 and - to the chassis metal plate. 2. Adjust with VR301 so that the reading of the voltmeter is $4.0 \pm 0.1V$. (Note) Before adjusting VR301 and VR302, remove the screw that fastens to the flat-cable. 3. Confirm the reading of voltmeter is under 1.0V when the door open. <p style="text-align: center;">FLAT CABLE attaching screw</p> 
Adjustment of Head position detecting level	VR302, TP32 PCB-CPU	<ol style="list-style-type: none"> 1. Connect + a voltmeter to TP32 and - to the chassis metal plate. 2. Push up the lever to the Head-Up position. 3. Adjust with VR302 so that the reading of the voltmeter is $0.8 \pm 0.4V$. 4. Confirm the reading of voltmeter is over 4.5V when the lever at "PRINT" position. 5. Return the lever to "UP" position.
Adjustment of Vertical synchronization separation	VR103, TP1, TP3 PCB-VIDEO	<ol style="list-style-type: none"> 1. Connect CH1 of an oscilloscope to TP1 and CH2 to TP3. 2. Trigger in the falling edge of CH2 and adjust roughly with VR103 so that the rising edge of CH2 is in the position shown below. 3. Magnify the rising edge of CH2 with delay sweep and adjust with VR103 so that $tv = 18 \pm 1 \mu \text{sec}$. <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH1 : 20mV/DIV CH2 : 0.2V/DIV Horizontal axis 50 μ SEC/DIV</p> <p style="text-align: right;">DELAY Mode Horizontal axis 5 μ SEC/DIV</p>  

Adjustment item	Adjustment point	Adjustment method
Adjustment of Horizontal synchronous pulse width	VR107, TP5 PCB-VIDEO	<ol style="list-style-type: none"> Set #4 : AFC switch of S101 (MODE) to OFF. Connect CH2 of an oscilloscope to TP5. Trigger in the falling edge of CH2 and magnify the pulse width t_p with delay sweep. Adjust with VR107 so that the pulse width of the waveform below t_p is $t_p = 4.5 \pm 0.1 \mu\text{sec}$. <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH2 : 0.1V/DIV DELAY Mode Horizontal axis 20 μ SEC/DIV Horizontal axis 1 μ SEC/DIV</p> 
Adjustment of Horizontal AFC	VR104, TP1, TP5 PCB-VIDEO	<ol style="list-style-type: none"> Set #4 : AFC switch of S101 (MODE1) to OFF. Connect CH1 of an oscilloscope to TP1 and CH2 to TP5. Trigger in the falling edge of CH2. Set AFC to ON and adjust with VR104 so that the phase difference between the screen center of the oscilloscope and the falling edge of CH1, $t_a = 0 \pm 0.1 \mu\text{sec}$. Then, later, set #4 : AFC SW to OFF. <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH1 : 20mV/DIV DELAY Mode CH2 : 0.2V/DIV Horizontal axis Horizontal axis 20 μ SEC/DIV 1 μ SEC/DIV</p> 

Adjustment item	Adjustment point	Adjustment method
Adjustment of Horizontal position	VR106, TP1, TP4 PCB-VIDEO	<ol style="list-style-type: none"> Set AFC to OFF. Connect CH1 of an oscilloscope to TP1 and CH2 to TP4. Trigger in the falling edge of CH2 and magnify with delay sweep. Adjust with VR106 so that the phase difference between the rising edge of CH1 and the falling edge of CH2 in the Fig. below, $t_h = 7.0 \pm 0.1 \mu \text{ sec}$. <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH1 : 20mV/DIV CH2 : 0.2V/DIV Horizontal axis 10 $\mu \text{ SEC/DIV}$</p> <p style="text-align: right;">DELAY Mode Horizontal axis 1 $\mu \text{ SEC/DIV}$</p>  
Adjustment of Clock frequency 2	L105, TP7 PCB-VIDEO	<ol style="list-style-type: none"> Press BRIGHT button once and make the LED display $\square \square$. Connect CH1 of an oscilloscope to TP1 and CH2 to TP7. Trigger in the falling of CH2 and magnify the horizontally synchronous part of CH1. Turn SUB-BRIGHT VR102 clockwise to full. (Note) Be sure to re-adjust SUB-BRIGHT VR102. Turn L105 clockwise and adjust so that $t_n = 0.0 \pm 0.5 \mu \text{ sec}$. <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH1 : 20mV/DIV CH2 : 50mV/DIV Horizontal axis 10 $\mu \text{ SEC/DIV}$</p> <p style="text-align: right;">DELAY Mode Horizontal axis 0.5 $\mu \text{ SEC/DIV}$</p>  

Adjustment item	Adjustment point	Adjustment method									
Adjustment of Clock frequency 1	L104, TP7 PCB-VIDEO	<ol style="list-style-type: none"> 1. Set # 5: RESOLUTION switch of S3018 (MODE2) to "FINE" 2. Set LEVER to print position. 3. Press BRIGHT button once and make the LED display $\square\square$. 4. Connect CH1 of an oscilloscope to TP1 and CH2 to TP7. 5. Trigger in the falling of CH2 and magnify the horizontally synchronous part of CH1. 6. Turn SUB-BRIGHT VR102 clockwise to full. 7. Turn L104 and adjust so that $t_H = 0.0 \pm 0.5 \mu\text{sec}$. 8. Push up the LEVER to the Head-up position. <p>Probe 10 : 1 Setting of the oscilloscope</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Vertical axis</td> <td style="width: 33%;">CH1 : 20mV/DIV</td> <td style="width: 33%;">DELAY Mode</td> </tr> <tr> <td></td> <td>CH2 : 50mV/DIV</td> <td>Horizontal axis</td> </tr> <tr> <td>Horizontal axis</td> <td>10 $\mu\text{SEC/DIV}$</td> <td>.5 $\mu\text{SEC/DIV}$</td> </tr> </table> <div style="display: flex; justify-content: space-around; margin: 10px 0;">   </div> <div style="text-align: center;">  </div>	Vertical axis	CH1 : 20mV/DIV	DELAY Mode		CH2 : 50mV/DIV	Horizontal axis	Horizontal axis	10 $\mu\text{SEC/DIV}$.5 $\mu\text{SEC/DIV}$
Vertical axis	CH1 : 20mV/DIV	DELAY Mode									
	CH2 : 50mV/DIV	Horizontal axis									
Horizontal axis	10 $\mu\text{SEC/DIV}$.5 $\mu\text{SEC/DIV}$									

Adjustment item	Adjustment point	Adjustment method
Adjustment of Monitor output level	VR105, TP7 PCB-VIDEO	<ol style="list-style-type: none"> 1. Make this adjustment after disconnecting the monitor connected to the VIDEO OUT terminal and terminate with $75\Omega \pm 1\%$. 2. Press BRIGHT button and make the LED display $\square\square$. 3. Connect CH1 of an oscilloscope to TP7 and CH2 to TP4. 4. Trigger in the falling of CH2 and see the horizontally synchronous part of CH1. 5. Turn SUB-BRIGHT VR102 and SUB-CONTRAST VR101 clockwise to full. <p>(Note) If is necessary to perform readjustment of SUB-BRIGHT VR102 and SUB-CONTRAST VR101.</p> <ol style="list-style-type: none"> 6. Adjust with VR105 so that the voltage in the Fig. below $V_d = 0.714 \pm 0.01V_{p-p}$ <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH1 : 20mV/DIV CH2 : 0.2mV/DIV Horizontal axis 10 μ SEC/DIV</p>  

Adjustment item	Adjustment point	Adjustment method
Sub-Contrast/ Sub-Bright adjustment	VR101/VR102 TP7 PCB-VIDEO	<p>1. Input a monochromatic video signal shown in below to the Video Input terminal.</p> <p>100% = $0.714 \pm 0.01V_{p-p}$</p>  <p>2. Press BRIGHT button and make the LED display $\square\square$.</p> <p>3. Connect CH1 of an oscilloscope to TP7 and CH2 to TP4.</p> <p>4. Trigger in the rising of CH2.</p> <p>5. Adjust with VR102 (Vb adjustment) and VR101 (Vc adjustment) so that the voltages Vb and Vc shown in the Fig. below are the following values.</p> <p>Probe 10 : 1 Setting of the oscilloscope Vertical axis CH1 : 10mV/DIV CH2 : 0.2mV/DIV Horizontal axis 10 μ SEC/DIV</p> 

PARTS LIST

MODEL : P66B/P66E

In order to expedite delivery of replacement part orders.

- Specify :
1. Model number/Serial number
 2. Part number and Description
 3. Quantity

Unless full information is supplied, delay in execution of orders will result.

△ : Critical components ○ : New Parts

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 - 10	+ 40 - 20	+ 80 - 20	+ 100 - 0	+ 30 - 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[B] P66B

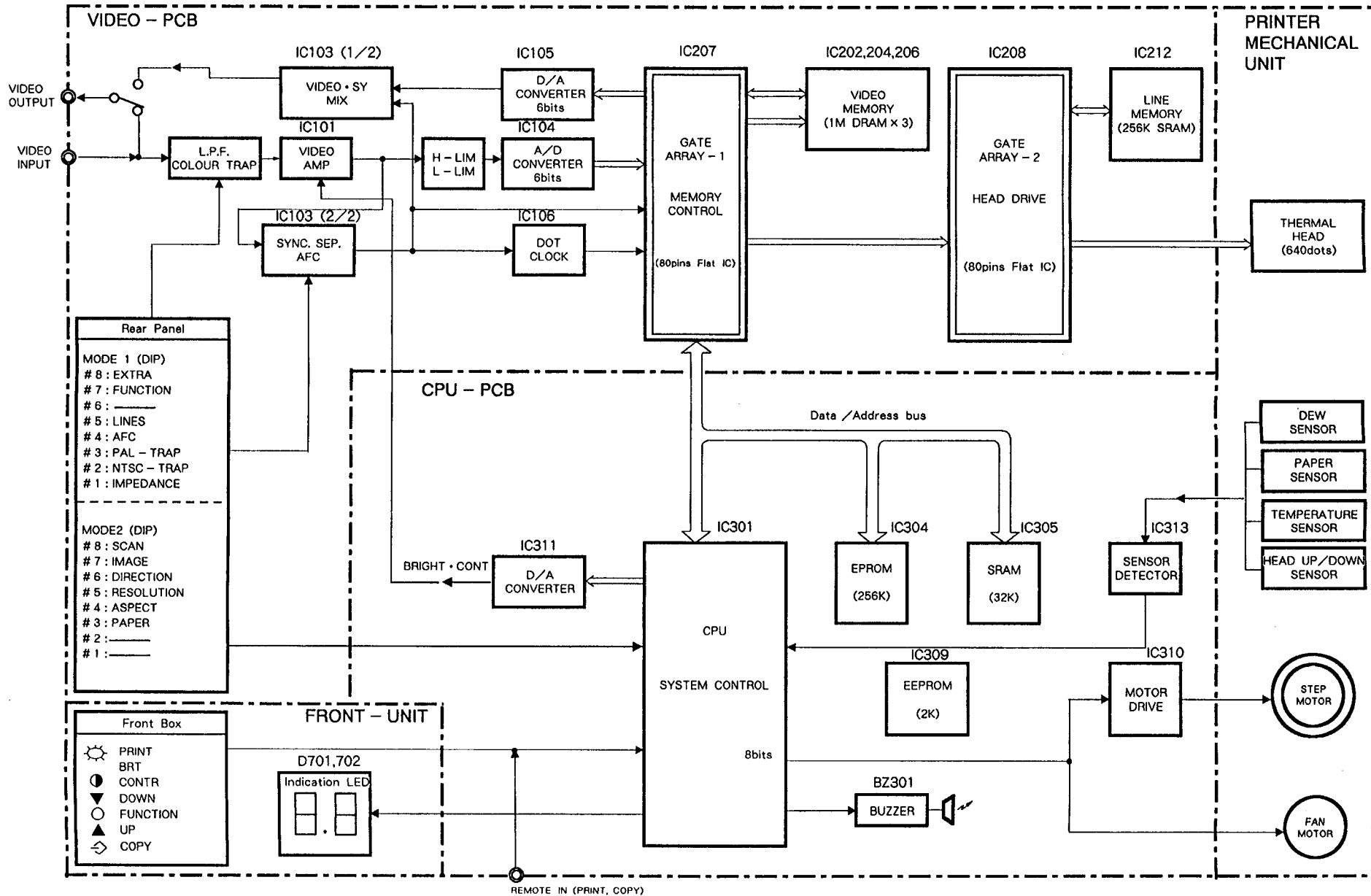
[E] P66E

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
INTEGRATED CIRCUITS							
IC101	272P499010	IC	HA11465A	Q 304	260P632010	TRANSISTOR	DTC124ES
IC102	272P229010	IC	μ PC812C	Q 306	260P416030	TRANSISTOR	2SC2274-F
IC103	272P151010	IC	NJM2217L	Q 307	260P559030	TRANSISTOR	2SC1740S
IC104	272P086010	IC	MB40576	Q 308	260P632010	TRANSISTOR	DTC124ES
IC105	272P087010	IC	MB40776	Q 309	260P632010	TRANSISTOR	DTC124ES
IC106	263P300020	IC	TC74HC00P	Q 310	260P255040	TRANSISTOR	2SA950-Y
IC107	266P091010	IC	SN74LS221N	Q 311	260P255040	TRANSISTOR	2SA950-Y
IC108	266P091010	IC	SN74LS221N	Q 312	260P632010	TRANSISTOR	DTC124ES
IC109	272P529010	IC	L78N09	Q 313	260P632010	TRANSISTOR	DTC124ES
IC202	263P133010	IC	MCM514256AZ10/M5	Q 314	260P632010	TRANSISTOR	DTC124ES
IC204	263P133010	IC	MCM514256AZ10/M5	Q 315	260P560050	TRANSISTOR	2SA933S-Q
IC206	263P133010	IC	MCM514256AZ10/M5	Q 316	260P560050	TRANSISTOR	2SA933S-Q
IC207	263P184010	IC	μ PD65042GF-432-3	△ Q 901	260P699010	TRANSISTOR	2SK1358
IC208	263P185010	IC	μ PD65050GF-126-3	Q 902	260P642010	TRANSISTOR	2SB883
IC209	263P186010	IC	TC74HC245AP	DIODES			
IC210	263P186010	IC	TC74HC245AP	D 101	264P045040	DIODE	1S2471
IC211	263P186010	IC	TC74HC245AP	D 102	264P045040	DIODE	1S2471
IC212	263P134010	IC	MCM60L256AP10/HM	D 302	264P045040	DIODE	1S2471
IC301	263P748010	IC	M50734SP	D 303	264P045040	DIODE	1S2471
IC302	266P130020	IC	PST520C	D 304	264P045040	DIODE	1S2471
IC303	266P882010	IC (TTL)	SN74LS373N	D 305	264P045040	DIODE	1S2471
IC304	263P182060	IC	HN27C256AG-12 [B]	D 306	264P045040	DIODE	1S2471
IC304	263P182050	IC	HN27C256AG-12 [E]	D 307	264P045040	DIODE	1S2471
IC305	263P622020	IC	HM6264ALSP10	D 308	264P045040	DIODE	1S2471
IC306	266P834030	IC	SN74LS10N	D 309	264P485030	DIODE	RD6. 8FB3
IC307	266P923040	IC	NJM78L05A	D 310	264P045040	DIODE	1S2471
IC308	266P130020	IC	PST520C	D 701	264P579020	LIGHT EMITTING DIODE	GL9E030
IC309	263P686010	IC	M6M80021P	D 702	264P579020	LIGHT EMITTING DIODE	GL9E030
IC310	272P175010	IC	M54567P	△ D 901	264P535010	DIODE	RBV-608
IC311	263P869010	IC	μ PD6326C	D 902	264P522010	DIODE	RU 1P
IC312	263P183010	IC	M54972P	D 903	264P578010	DIODE	RG 2A
IC313	266P727040	IC	μ PC339C/LM339N	D 904	264P521030	DIODE	EU 2
IC314	266P840020	IC	SN74LS00N	D 906	264P580020	DIODE	ESAC92M-02F60
IC901	272P564010	IC	M51977P	D 907	264P580020	DIODE	ESAC92M-02F60
IC904	272P500010	IC	HA17431P	D 908	264P580020	DIODE	ESAC92M-02F60
IC905	272P240010	IC	M5237L	D 909	264P470060	DIODE	EQA02-32A/RD33EB2
IC906	272P502010	IC	μ PC2412HF	D 910	264P489010	DIODE	RD16FB1
IC907	272P501010	IC	μ PC2405HF	D 911	264P484040	DIODE	RD5. 6FB3
TRANSISTORS				D 912	264P045040	DIODE	1S2471
	939P414010	WIRE REM TRANSISTOR	[B]	D 913	264P045040	DIODE	1S2471
Q 101	260P559030	TRANSISTOR	2SC1740S	D 914	264P045040	DIODE	1S2471
Q 102	260P559030	TRANSISTOR	2SC1740S	D 915	264P045040	DIODE	1S2471
Q 103	260P560050	TRANSISTOR	2SA933S-Q	FILTERS			
Q 104	260P560050	TRANSISTOR	2SA933S-Q	CF201	299P119010	CERAMIC RESONATOR	
Q 105	260P559030	TRANSISTOR	2SC1740S	CF301	299P110010	CERAMIC RESONATOR	
Q 106	260P559030	TRANSISTOR	2SC1740S	COILS			
Q 107	260P603010	TRANSISTOR	DTA124ES/UN4112	L 101	320P022020	TRAP COIL	4. 43MHz
Q 108	260P255040	TRANSISTOR	2SA950-Y	L 102	349P064020	TRAP COIL	
Q 109	260P632010	TRANSISTOR	DTC124ES	L 103	321C031040	RF COIL	10 μ H-K
Q 301	260P632010	TRANSISTOR	DTC124ES	L 104	349P179010	OSCILLATOR COIL	
Q 302	260P603010	TRANSISTOR	DTA124ES/UN4112	L 105	349P179010	OSCILLATOR COIL	
Q 303	260P632010	TRANSISTOR	DTC124ES				

[B] : P66B [E] : P66E

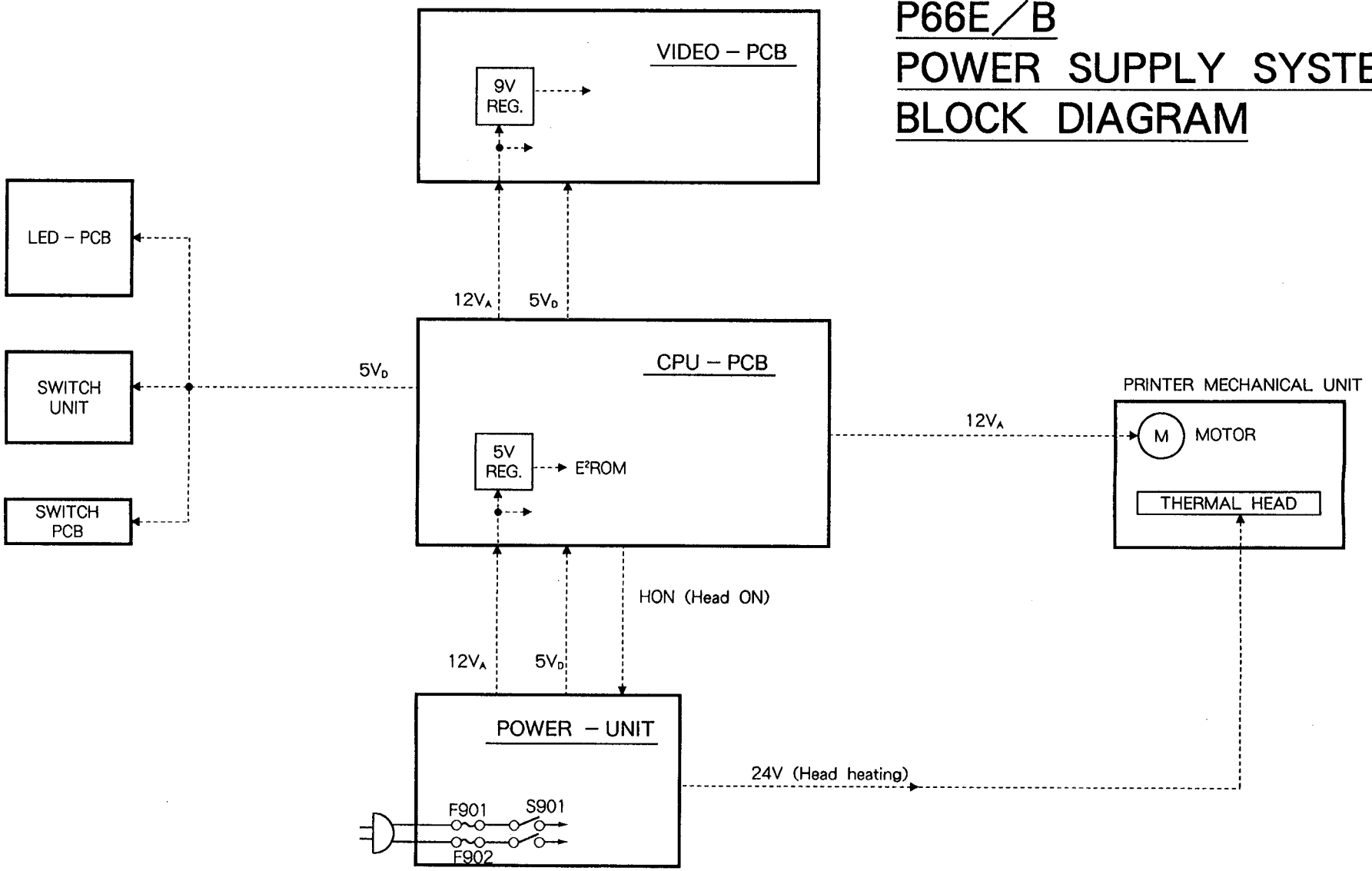
SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
L 201	325C120090	PEAKING COIL	4.7 μH-K				
L 325	411D009020	FERRITE CORE FILTER					
L 326	411D009020	FERRITE CORE FILTER					
L 327	411D009020	FERRITE CORE FILTER					
L 328	411D009020	FERRITE CORE FILTER					
△ L 901	351P047080	LINE FILTER					
L 902	351P082010	CHOKE COIL					
TRANSFORMERS							
△ T 901	350P501010	POWER					
VARIABLE RESISTORS							
UR951	127C190090	VR-SEMIFIXED	1/10W B20K-M				
VR101	127C180040	VR-SEMIFIXED	1/5W B1K Ω-M				
VR102	127C180050	VR-SEMIFIXED	1/5W B2K Ω-M				
VR103	127C091010	VR-SEMIFIXED	1/5W B50K Ω-M				
VR104	127C190080	VR-SEMIFIXED	1/5W B10K Ω-M				
VR105	127C080070	VR-SEMIFIXED	1/5W B5K Ω-M				
VR106	127C190070	VR-SEMIFIXED	1/5W B5K Ω-M				
VR107	127C090070	VR-SEMIFIXED	1/5W B5K Ω-M				
VR301	127C181020	VR-SEMIFIXED	1/5W B100K Ω-M				
VR302	127C181020	VR-SEMIFIXED	1/5W B100K Ω-M				
VR971	127C190070	VR-SEMIFIXED	1/5W B5K Ω-M				
RESISTORS							
R 313	103P544010	NETWORK	1/8W 22K Ω-JX4				
R 316	103P574010	NETWORK	1/8W 22K Ω-JX7				
R 317	103P544010	NETWORK	1/8W 22K Ω-JX4				
CAPACITORS AND TRIMMERS							
△ C 906	189P094050	AC CERAMIC	ACT4K E1000P				
△ C 907	189P094050	AC CERAMIC	ACT4K E1000P				
△ C 908	185D056040	ELECTROLYTIC-C	H400V330 μF-M				
SWITCHES							
	702C916010	CASE SWITCH					
	439C030030	MEMBRANE SWITCH					[B]
	439C030020	MEMBRANE SWITCH					[E]
S 701	432P101010	KEY BOARD SWITCH					
△ S 901	432C067010	PUSH SWITCH					
MISCELLANEOUS							
	451C121010	POWER JACK(3P)					[B]
	451D046010	AC POWER JACK(3P)					[E]
BZ301	286P006010	BUZZER					
△ F 901	283D047060	FUSE	3.15A-T				
△ F 902	283D047060	FUSE	3.15A-T				
IC304	449P013090	IC SOCKET					
J 301	451C066010	JACK					
K 101	287P036030	RELAY	G5A-237P-DC12V				
△ PC901	268P049010	PHOTO COUPLER					
△ PC902	268P049010	PHOTO COUPLER					
△ R 940	299P132010	PROTECTOR					
△ R 941	299P132010	PROTECTOR					
R 942	299P087060	PROTECTOR					
				PRINTED CIRCUIT BOARD ASSY'S			
				936C003006	CPU PCB ASSY		[B]
				936C003005	CPU PCB ASSY		[E]
				936B008001	POWER PCB ASSY		
				936C002004	VIDEO PCB ASSY		
				MECHANICAL PARTS			
				669D199020	SCREW	D=M4X0.7(10	[B]
				669D212020	SCREW	D=3 L=8 83A	
				669D212060	SCREW	D=3L=3 80AF	
				572D224010	SPRING KNOB		[B]
				570D582040	SPRING WIRE		[B]
				COSMETIC PARTS			
△				242C897010	AC POWER CORD		[B]
△				242C795090	AC POWER CORD		[E]
				702C941080	CABINET ASSY		[B]
				734D517020	BUTTON POWER		[B]
				734D516020	BUTTON SWITCH		[B]
				710A058020	CABINET		[E]
				761C273010	DOOR CATCH	25C781	
				734D518010	KNOB		
				771D051010	PAD		
				939C028010	PRINTER UNIT		
				591B708060	REAR PANEL		[B]
				702C921040	DOOR UNIT		
				701A478010	FRONT PANEL UNIT		
J 101	452D199010	CONNECTOR-BNC					
J 102	452D199010	CONNECTOR-BNC					
S 101	431C078010	DIP SWITCH					
S 301	431C078010	DIP SWITCH					
△ TH901	264P582010	TRIAC				TM861S-L	
				PACKING PARTS AND ACCESSORY			
				242D232010	CABLE	BNC 2.0M	
				803B673010	PACKING CUSHION		
				871C833080	INSTRUCTION BOOK		[B]
				871C833090	INSTRUCTION BOOK		[E]
				831D169010	PACKING BAG		
				831D183040	PACKING BAG		
				831D193040	PACKING BAG		[B]
				801C050020	PACKING CASE		[B]
				801C050030	PACKING CASE		[E]
				831D246030	PACKING SHEET		
				871C402070	SERVICE MANUAL		
				939P221060	REMOTE HAND UNIT		[E]

P66E/B BLOCK DIAGRAM

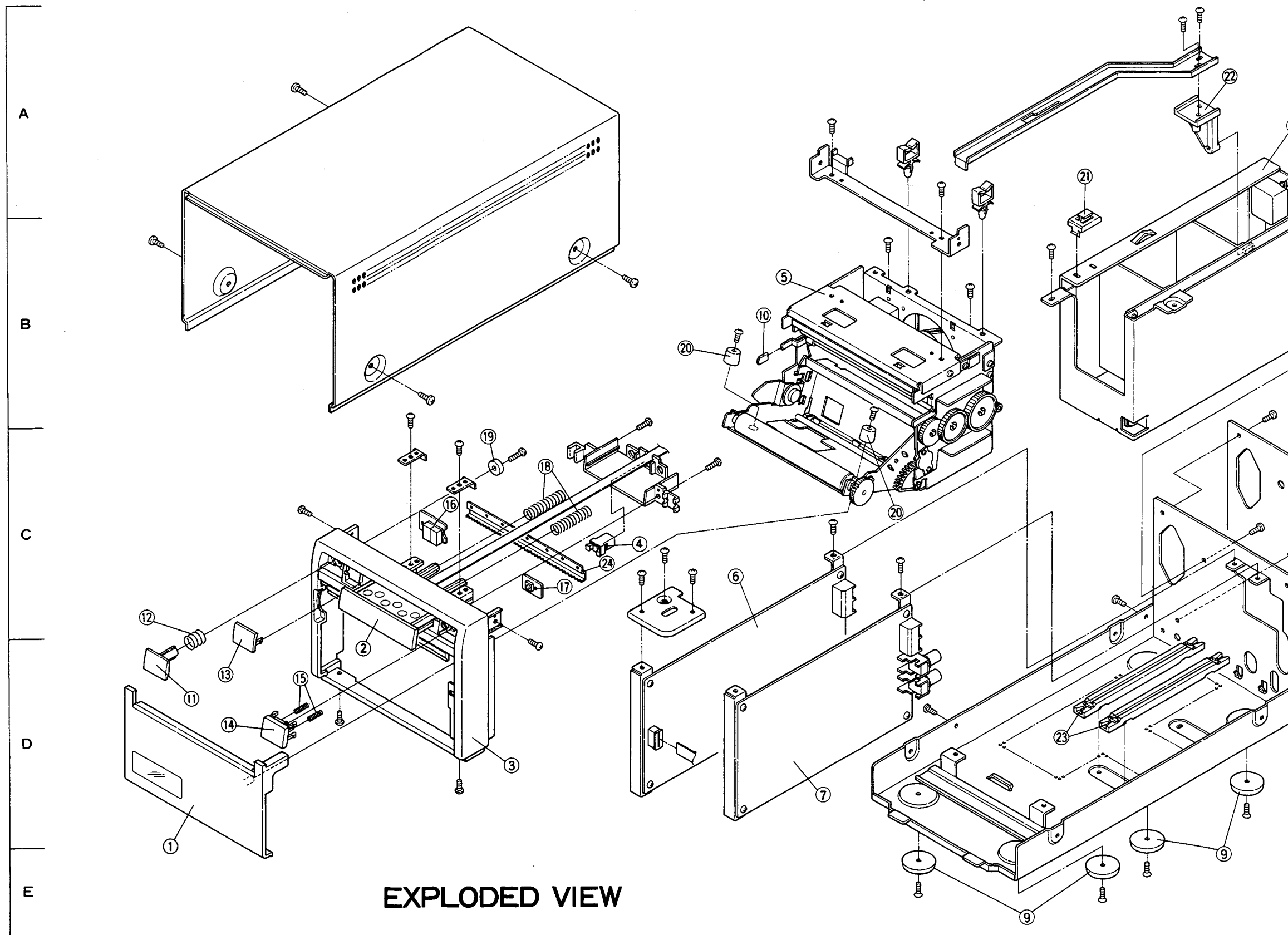


REMOTE IN (PRINT, COPY)

P66E/B POWER SUPPLY SYSTEM BLOCK DIAGRAM



1 2 3 4 5 6



EXPLODED VIEW

PARTS LIST

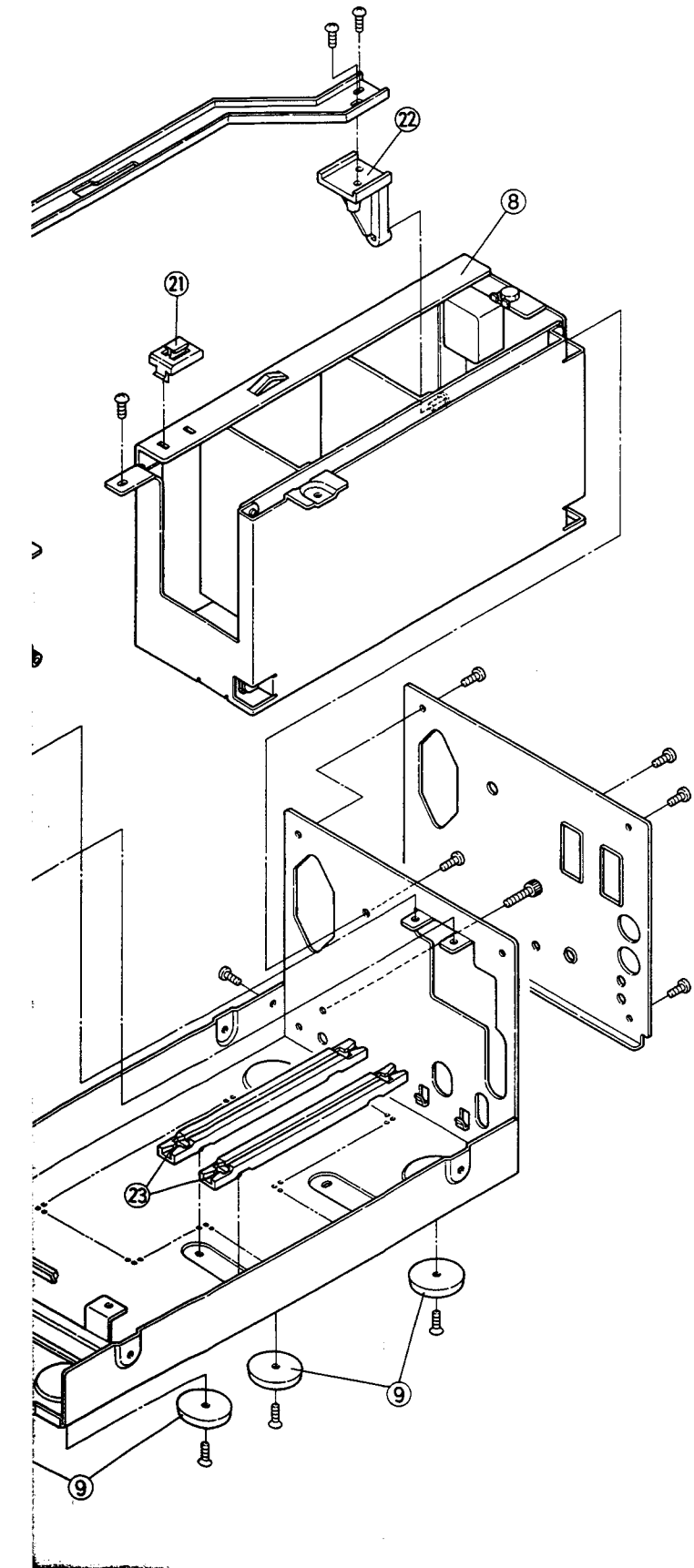
In order to expedite delivery of replacement parts.

- Specify : 1. Model number/Serial number
2. Parts number and Description
3. Quantity

Unless full information is supplied, delay in execution of orders will result.

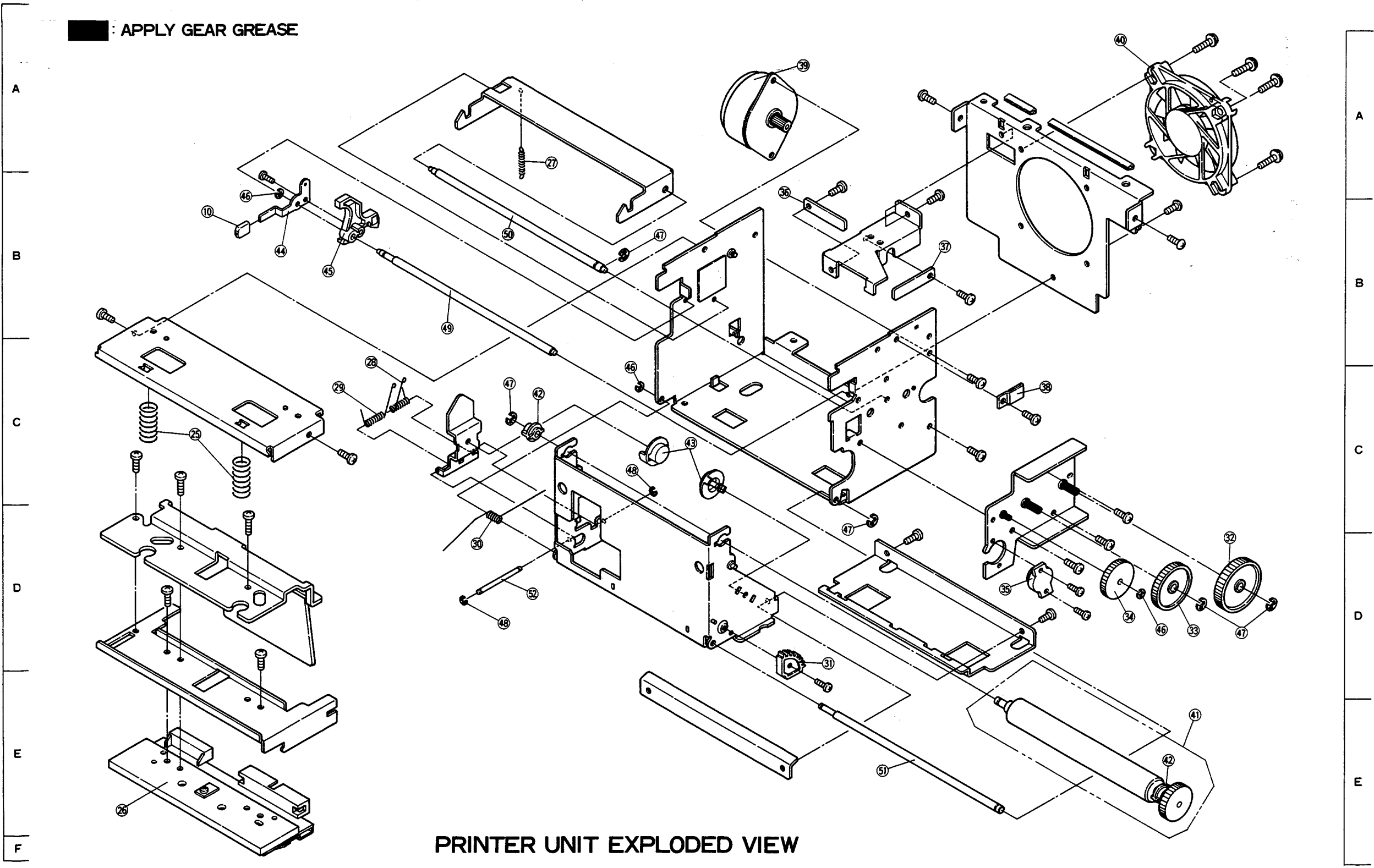
SYMBOL NO.	PARTS NAME	PARTS NO.	DESCRIPTION	ADDRESS
1	DOOR UNIT	702C921040		E-1
2	CASE SWITCH	702C916010		D-2
3	FRONT PANEL UNIT	701A478010		D-2
4	DOOR CATCH	761C273010		C-3
5	PRINTER UNIT	939C028010		B-4
6	CPU PCB ASSY	936C003005	(CP66E)	C-4
6	CPU PCB ASSY	936C003006	(CP66B)	C-4
7	VIDEO PCB ASSY	936C002004		D-4
8	POWER PCB ASSY	936C008001		A-6
9	PAD	771D051010		E-5
10	KNOB	734D518010	(LEVER)	B-4
11	POWER BUTTON	☆	734D517020	D-1
12	WIRE SPRING	☆	570D582040	D-1
13	SEGMENT INLAY	☆	702D223010	D-1
14	SWITCH BUTTON	☆	734D516020	D-1
15	KNOB SPRING	☆	572D224010	D-1
16	LED PCB ASSY	☆	936C005001	C-2
17	SW PCB ASSY	☆	936C004001	C-3
18	SPRING	☆	572D450010	C-3
19	BUTTON STOPPER	☆	641D834010	C-2
20	CAP	☆	761D647010	B-3
21	B-P-S HOLDER	☆	621D742010	A-5
22	POWER SWITCH LEVER	☆	621D741010	A-6
23	GUIDE-RAIL	☆	621D487010	D-5
24	CUTTER	☆	596D588010	C-2

☆ : Not a stocked item



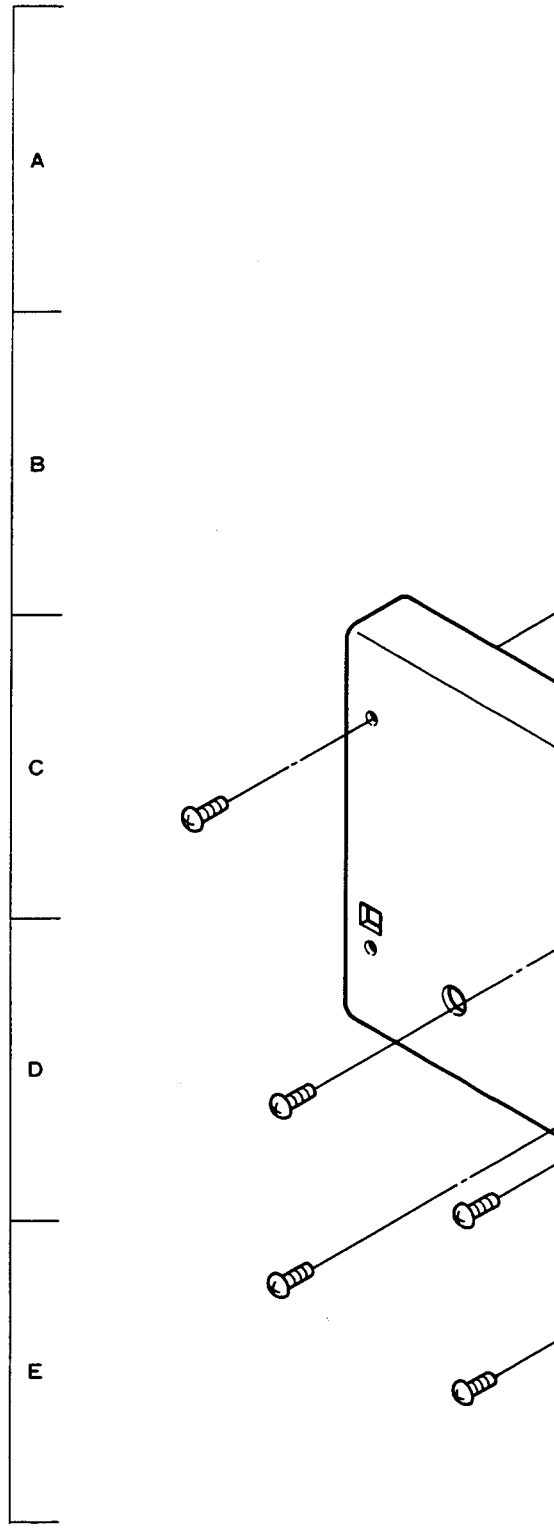
1 2 3 4 5 6 7 8

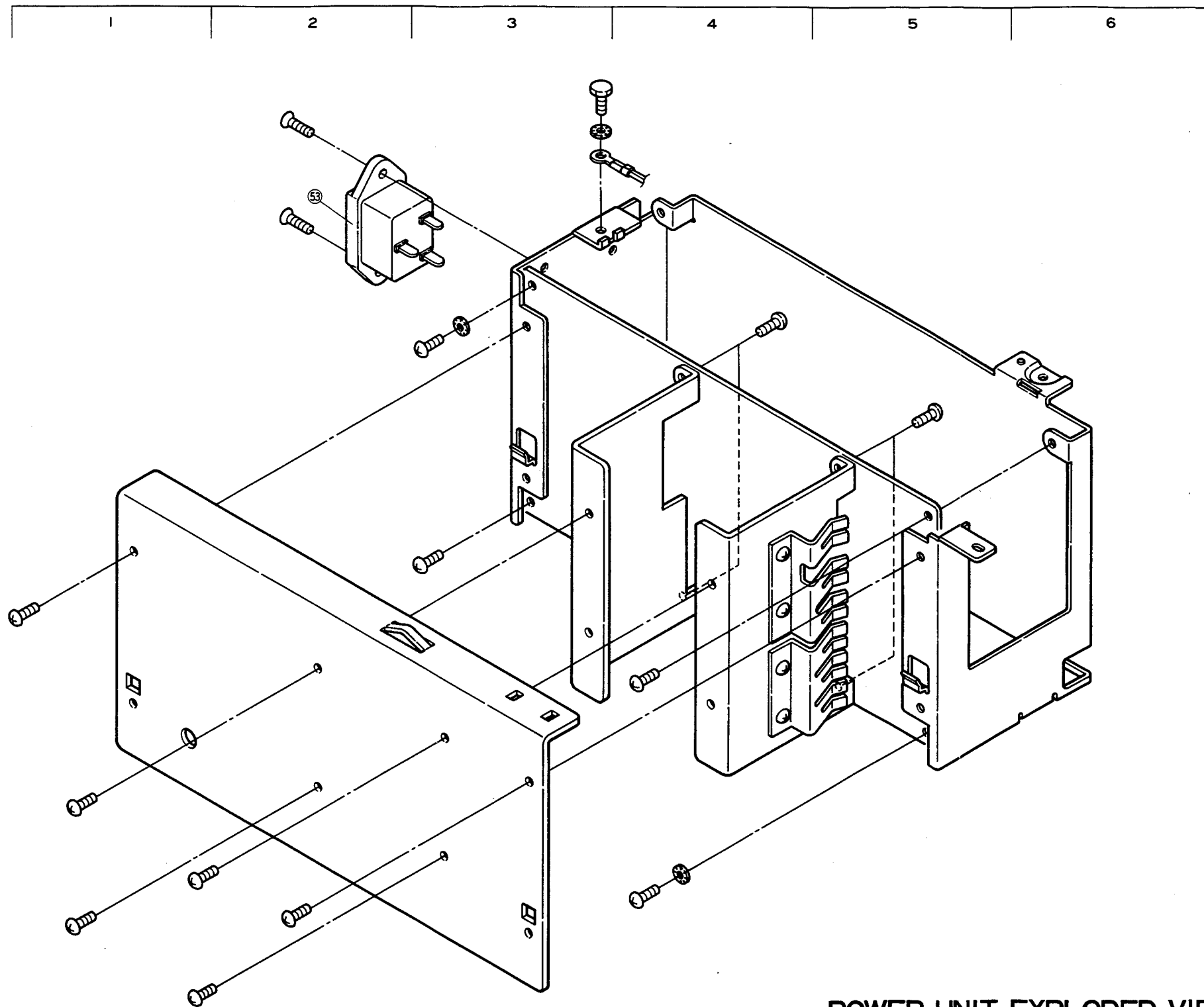
■ : APPLY GEAR GREASE



PRINTER UNIT EXPLODED VIEW

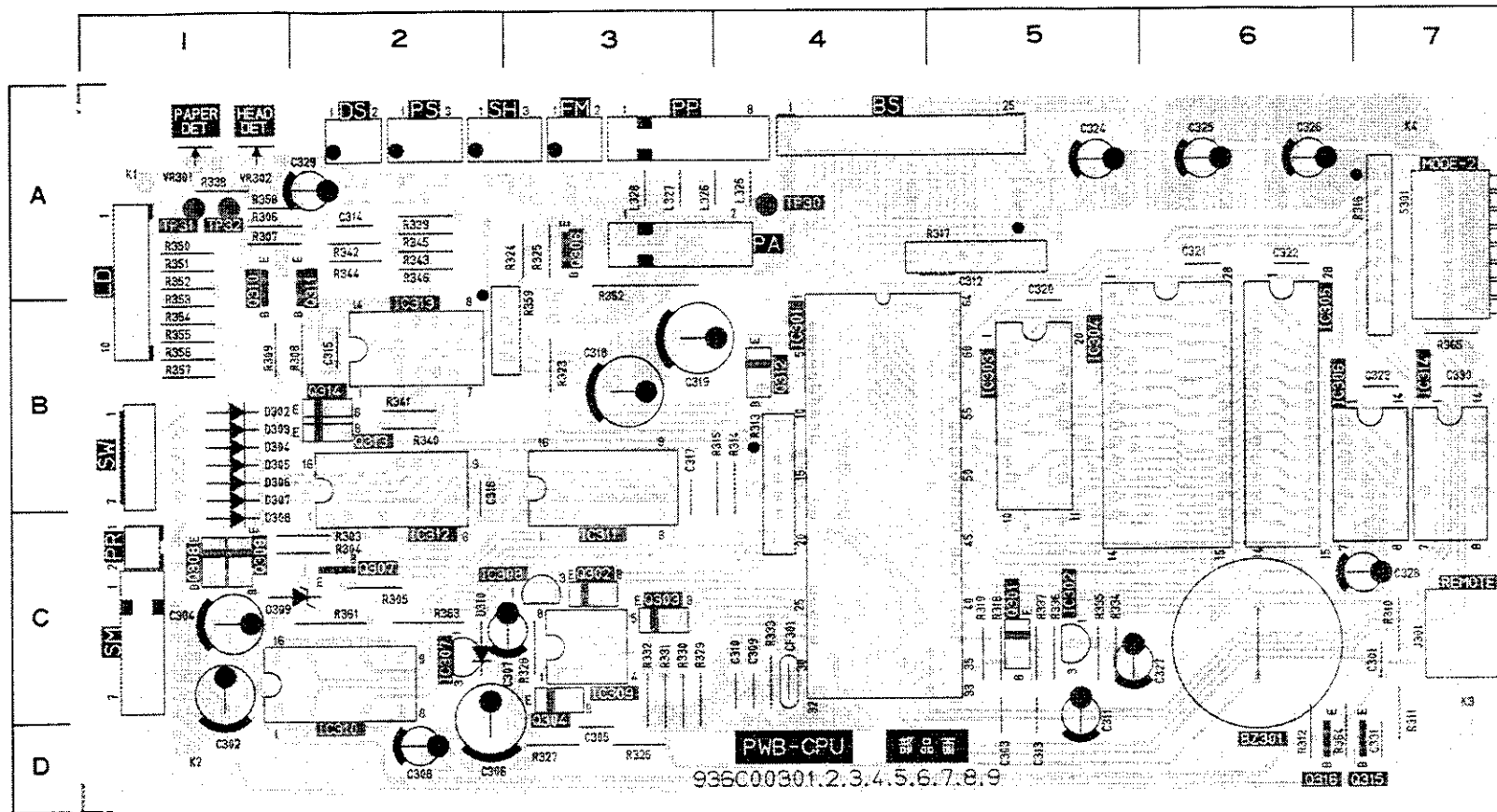
1





POWER UNIT EXPLODED VIEW

SYMBOL NO.	PARTS NAME	PARTS NO.	DESCRIPTION	ADDRESS
PRINT UNIT				
10	KNOB	734D518010		B-1
25	HEAD SPRING	572D478010		C-1
26	HEAD UNIT	460P102010		E-1
27	LOCK SPRING	572D488010		A-3
28	LEVER-SPRING	572D476010		C-2
29	LEVER-SPRING	572D476020		C-2
30	DOOR SPRING	572D477010		D-3
31	DAMPER GEAR	596D408010		D-5
32	M0 GEAR	621D746010		D-7
33	W-GEAR	621D747010		D-7
34	S-GEAR	621D748010		D-7
35	DAMPER	641C474010		D-6
36	PS SENSOR	936D012001		B-5
37	SH SENSOR	936D011001		B-6
38	H SENSOR	299P052050		C-6
39	STEP MOTOR	288P104010		A-5
40	FAN MOTOR	288P101020		A-7
41	PLATEN UNIT	956D001010		E-7
42	BEARING	621D743010		C-3
43	PAPER CORE	621D745010		C-4
44	CAM LEVER	596D447010		B-2
45	CAM	621C029010		B-2
46	E-RING	685C002040	(E - 2)	B-2
				D-7
47	E-RING	685C002060	(E - 3)	A-4
				D-5
48	E-RING	685C002030	(E - 1, 5)	C-4
				D-3
49	CAM SHAFT	☆	531D221010	B-3
50	LOCK-SHAFT	☆	531D219010	B-3
51	PAPER-SHAFT	☆	531D218010	E-5
52	LEVER SHAFT	☆	531D216010	D-3
POWER UNIT				
53	POWER JACK	451D046010	(3P)	A-2
☆: Not a stocked item				

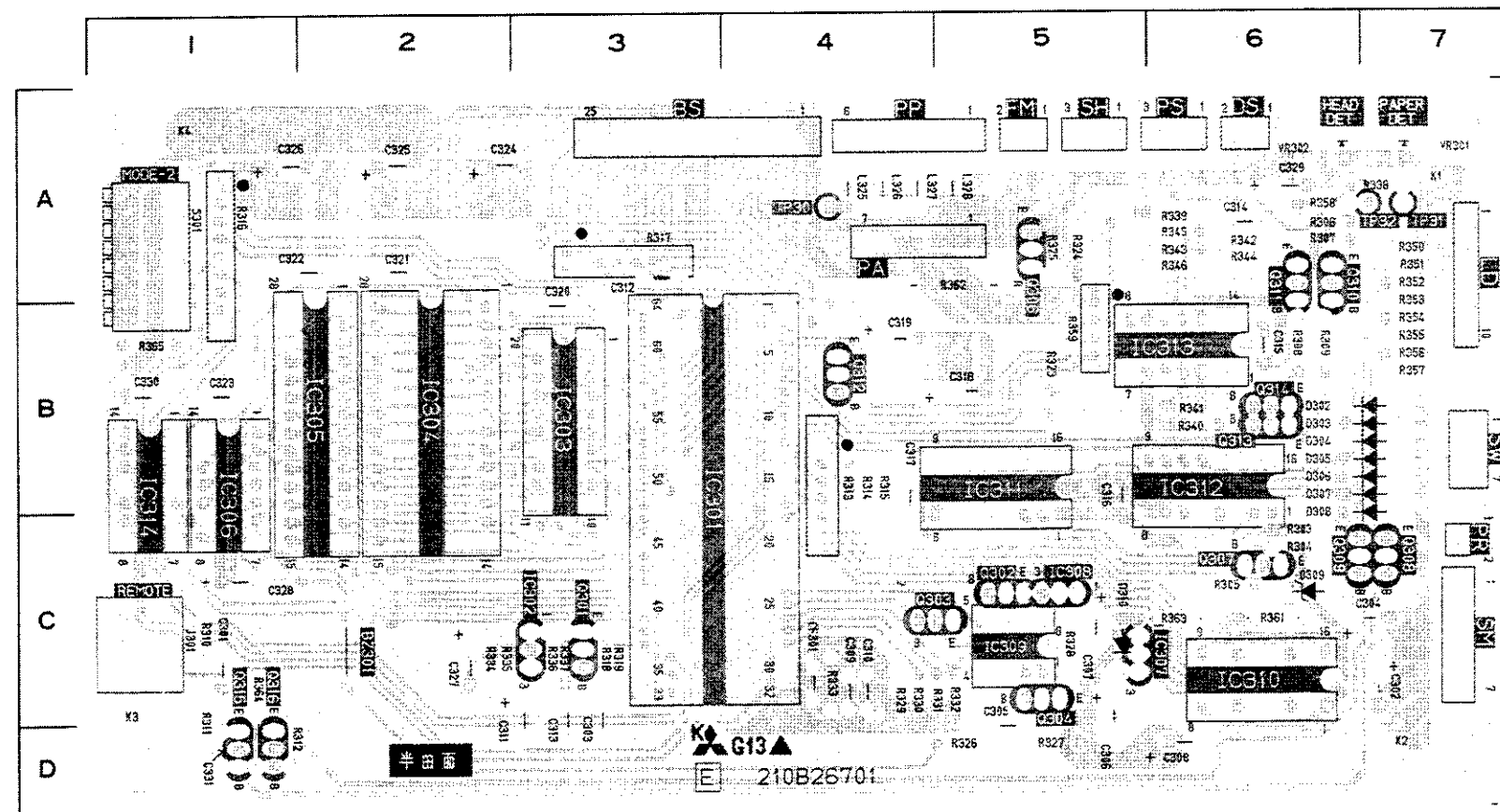


CPU-PCB (FOIL SIDE)

SYMBOL NO.	ADDRESS
D302	B- 1
D303	B- 1
D304	B- 1
D305	B- 1
D306	B- 1
D307	B- 1
D308	B- 1
D309	C- 2
D310	C- 2
IC301	B- 4
IC302	C- 5
IC303	B- 5
IC304	B- 5
IC305	B- 6
IC306	B- 6
IC307	C- 2
IC308	C- 3
IC309	C- 3
IC310	C- 2
IC311	C- C
IC312	C- 3
IC313	B- 2
IC314	B- 7

SYMBOL NO.	ADDRESS
L325	A- 4
L326	A- 3
L327	A- 3
L328	A- 3
Q301	C- 5
Q302	C- 3
Q303	C- 3
Q304	C- 4
Q306	A- 1
Q307	C- 2
Q308	C- 2
Q309	C- 2
Q310	A- 1
Q311	A- 2
Q312	B- 4
Q313	B- 2
Q314	B- 2
Q315	D- 7
Q316	D- 6

SYMBOL NO.	ADDRESS
TP30	A- 1
TP31	A- 1
TP32	A- 1
VR301	A- 1
VR302	A- 1

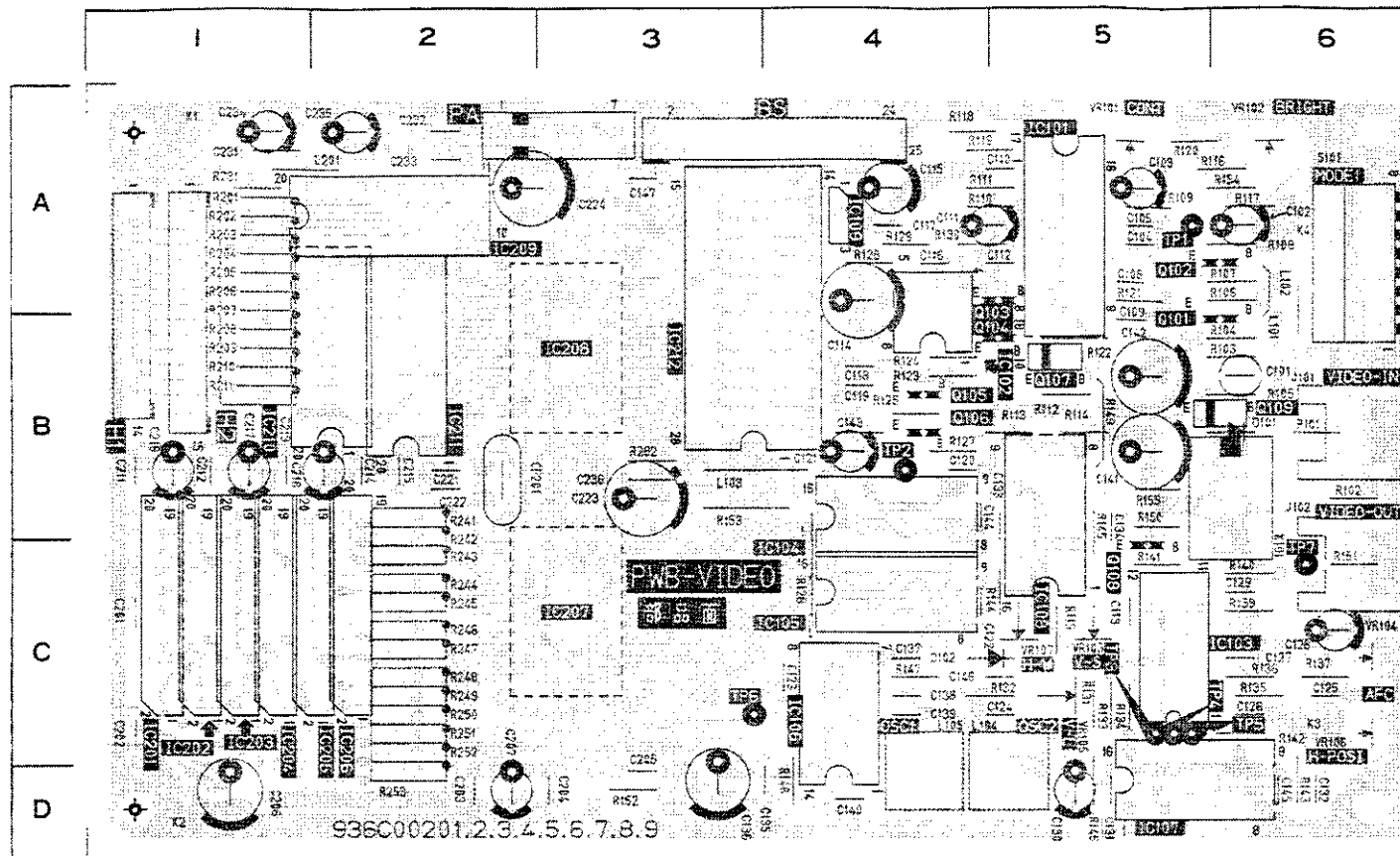


CPU-PCB (PARTS SIDE)

SYMBOL NO.	ADDRESS
D302	B- 6
D303	B- 6
D304	B- 6
D305	B- 6
D306	B- 6
D307	C- 6
D308	C- 6
D309	C- 6
D310	C- 5
IC301	C- 3
IC302	C- 3
IC303	B- 3
IC304	B- 2
IC305	B- 2
IC306	C- 1
IC307	C- 6
IC308	C- 5
IC309	C- 5
IC310	C- 6
IC311	C- 5
IC312	C- 6
IC313	B- 6
IC314	C- 1

SYMBOL NO.	ADDRESS
L325	A- 4
L326	A- 4
L327	A- 4
L328	A- 5
Q301	C- 3
Q302	C- 5
Q303	C- 5
Q304	D- 5
Q306	B- 5
Q307	C- 6
Q308	C- 7
Q309	C- 6
Q310	B- 6
Q311	B- 6
Q312	B- 4
Q313	B- 6
Q314	B- 6
Q315	C- 1
Q316	C- 1

SYMBOL NO.	ADDRESS
TP30	A- 4
TP31	A- 7
TP32	A- 7
VR301	A- 7
VR302	A- 6

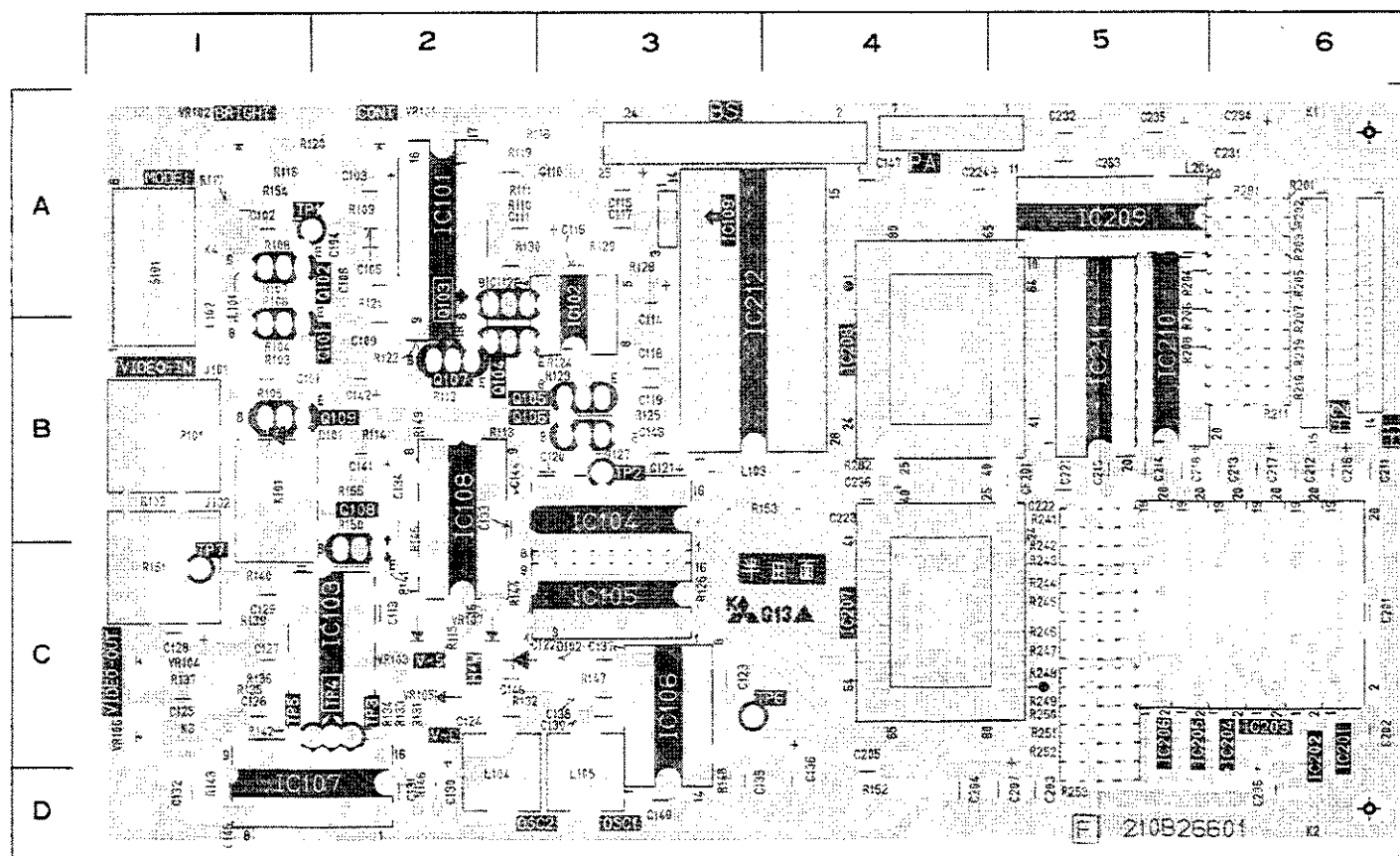


VIDEO-PCB (PARTS SIDE)

SYMBOL NO.	ADDRESS
D101	B- 6
D102	C- 4
IC101	A- 5
IC102	B- 4
IC103	C- 5
IC104	C- 4
IC105	C- 4
IC106	C- 4
IC107	D- 5
IC108	C- 5
IC109	A- 4
IC201	C- 1
IC202	C- 1
IC203	C- 1
IC204	C- 1
IC205	C- 2
IC206	C- 2
IC207	C- 3
IC208	B- 3
IC209	A- 2
IC210	B- 2
IC211	B- 2
IC212	B- 3

SYMBOL NO.	ADDRESS
L101	B- 6
L102	B- 6
L103	B- 3
L104	C- 5
L105	C- 4
L201	A- 1
Q101	B- 5
Q102	B- 5
Q103	B- 5
Q104	B- 5
Q105	B- 4
Q106	B- 4
Q107	B- 5
Q108	C- 5
Q109	B- 5

SYMBOL NO.	ADDRESS
TP1	A- 5
TP2	B- 4
TP3	C- 5
TP4	C- 5
TP5	C- 5
TP6	C- 3
TP7	C- 6
VR101	A- 5
VR102	A- 6
VR103	C- 5
VR104	C- 6
VR105	C- 5
VR106	C- 6
VR107	C- 5

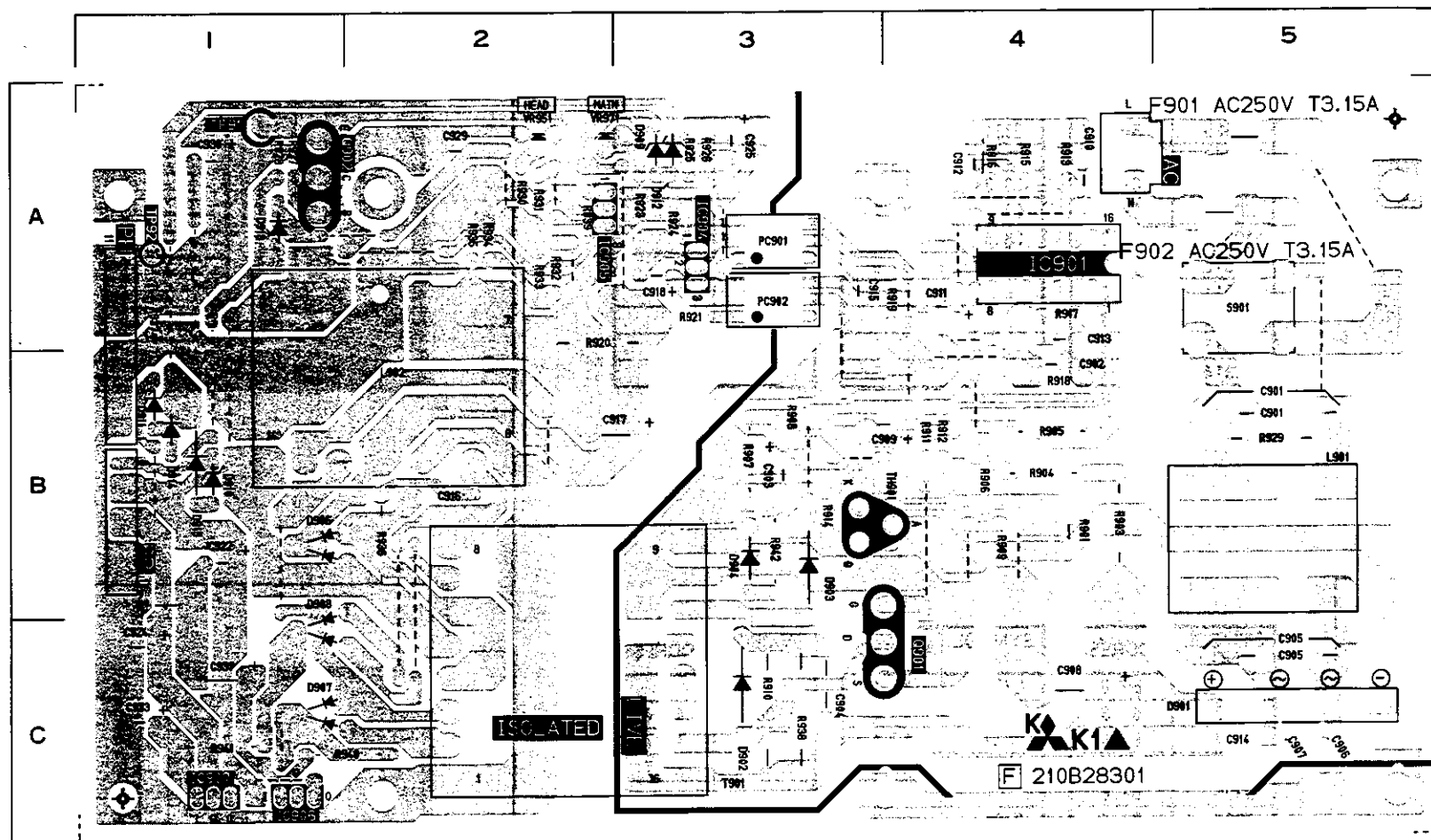


VIDEO-PCB (FOIL SIDE)

SYMBOL NO.	ADDRESS
D101	B- 2
D102	C- 3
IC101	A- 2
IC102	A- 3
IC103	C- 2
IC104	B- 3
IC105	C- 3
IC106	C- 3
IC107	D- 2
IC108	B- 2
IC109	A- 3
IC201	C- 6
IC202	C- 6
IC203	C- 6
IC204	C- 6
IC205	C- 5
IC206	C- 5
IC207	C- 4
IC208	B- 4
IC209	A- 5
IC210	B- 5
IC211	B- 5
IC212	B- 4

SYMBOL NO.	ADDRESS
L101	A- 1
L102	A- 1
L103	B- 4
L104	D- 2
L105	D- 3
L201	A- 5
Q101	B- 2
Q102	A- 2
Q103	A- 2
Q104	B- 2
Q105	B- 3
Q106	B- 3
Q107	B- 2
Q108	B- 2
Q109	B- 2

SYMBOL NO.	ADDRESS
TP1	A- 2
TP2	B- 3
TP3	C- 2
TP4	C- 2
TP5	C- 2
TP6	C- 3
TP7	C- 1
VR101	A- 2
VR102	A- 1
VR103	C- 2
VR104	C- 1
VR105	C- 2
VR106	C- 1
VR107	C- 2



PCB-POWER (FOIL SIDE)

SYMBOL NO.	ADDRESS
D 901	C - 5
D 902	C - 3
D 903	B - 3
D 904	B - 3
D 906	B - 1
D 907	C - 1
D 908	B - 1
D 909	A - 3
D 910	B - 1
D 911	B - 1
D 912	A - 3
D 913	A - 1
D 914	B - 1
D 915	B - 1
F 901	A - 5
F 902	A - 5
IC901	A - 4
IC904	A - 3
IC905	A - 2
IC906	C - 1
IC907	C - 1
L 901	C - 4
L 902	B - 2
Q 901	C - 4
Q 902	A - 1
T 901	C - 3
TP91	A - 1
TP92	A - 1
VR951	A - 2
VR971	A - 2

PCB-LED

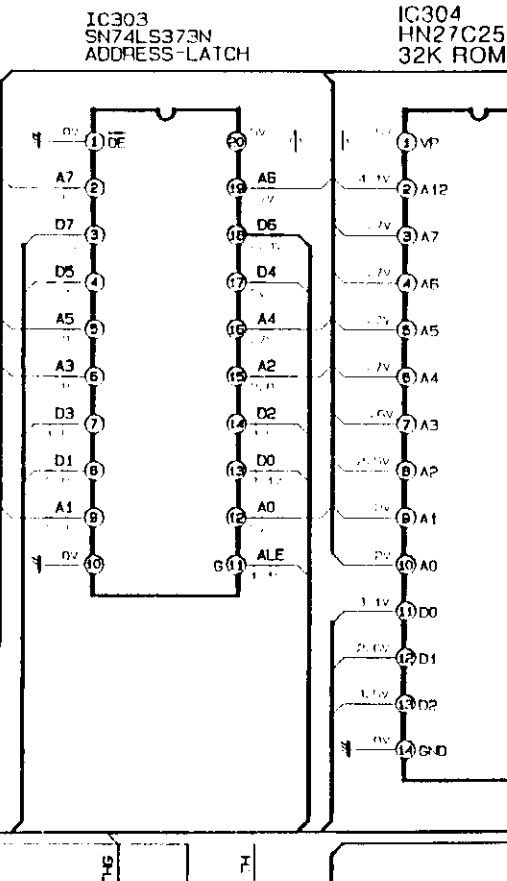
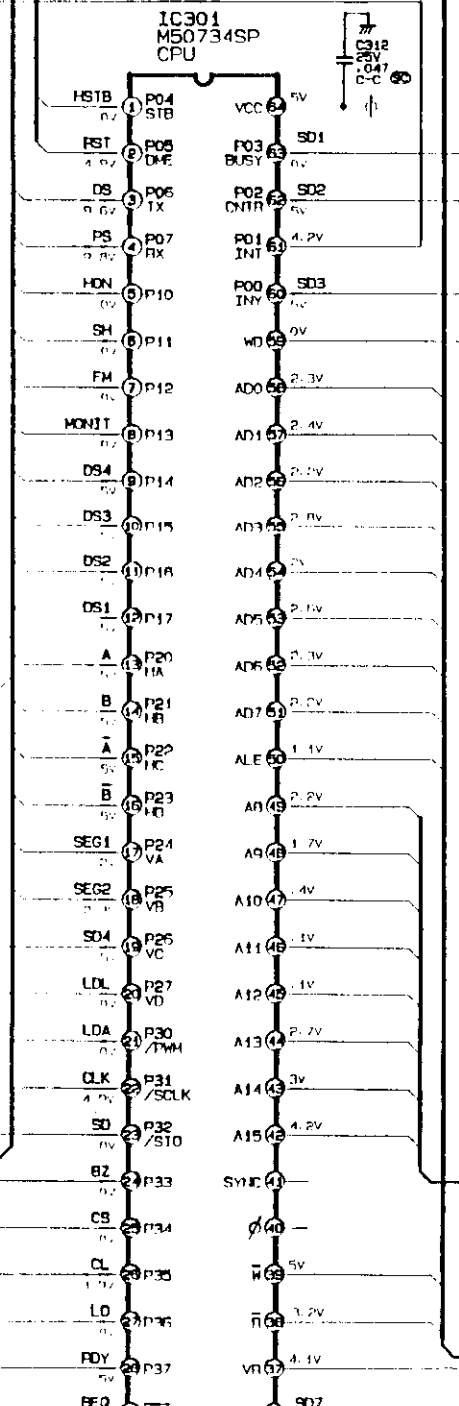
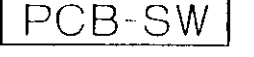
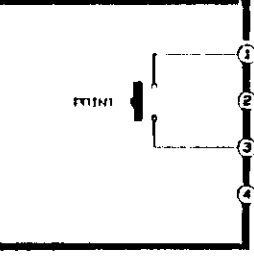
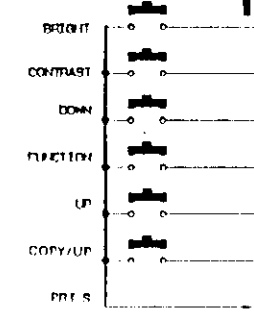
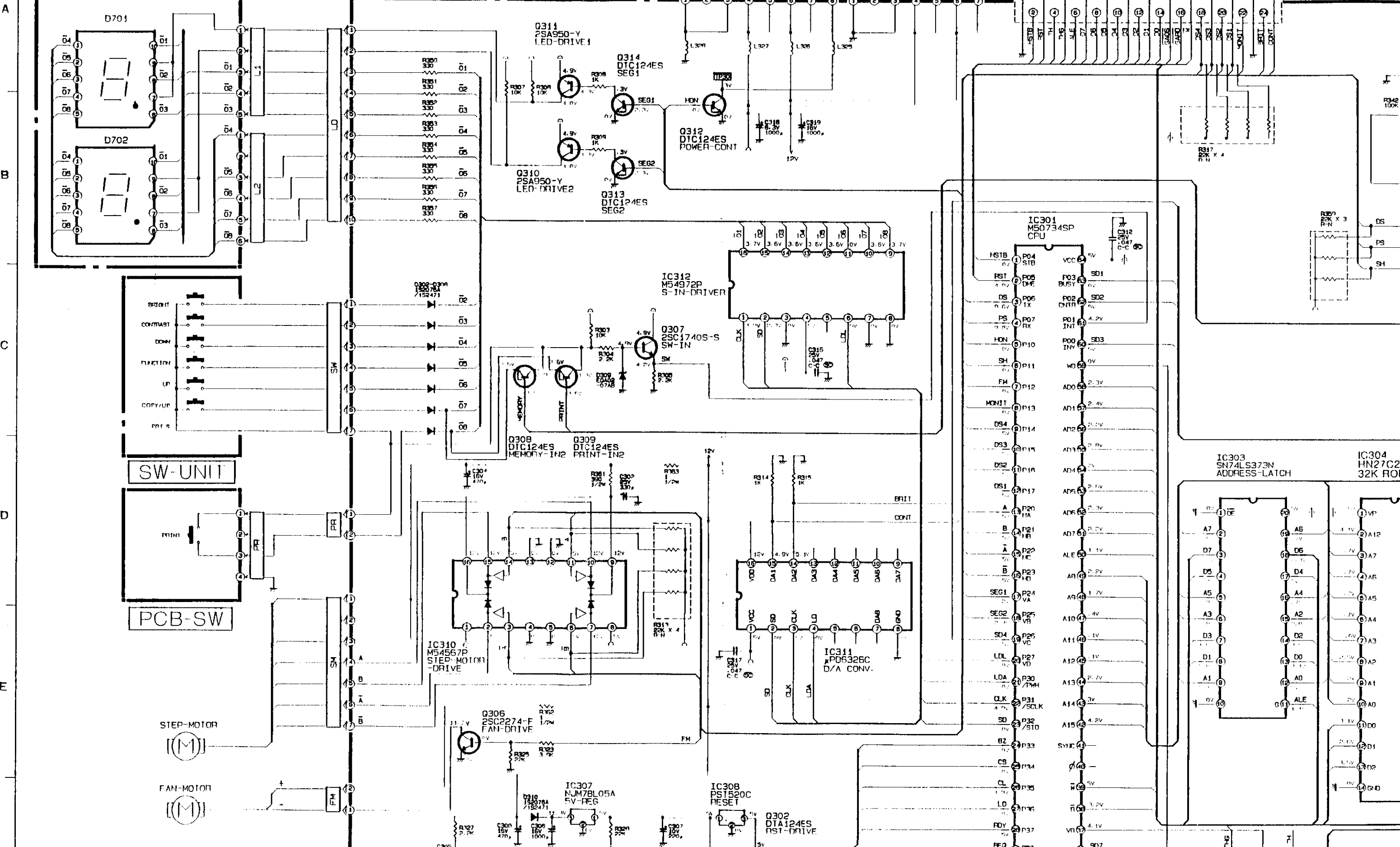
PCB-CPU

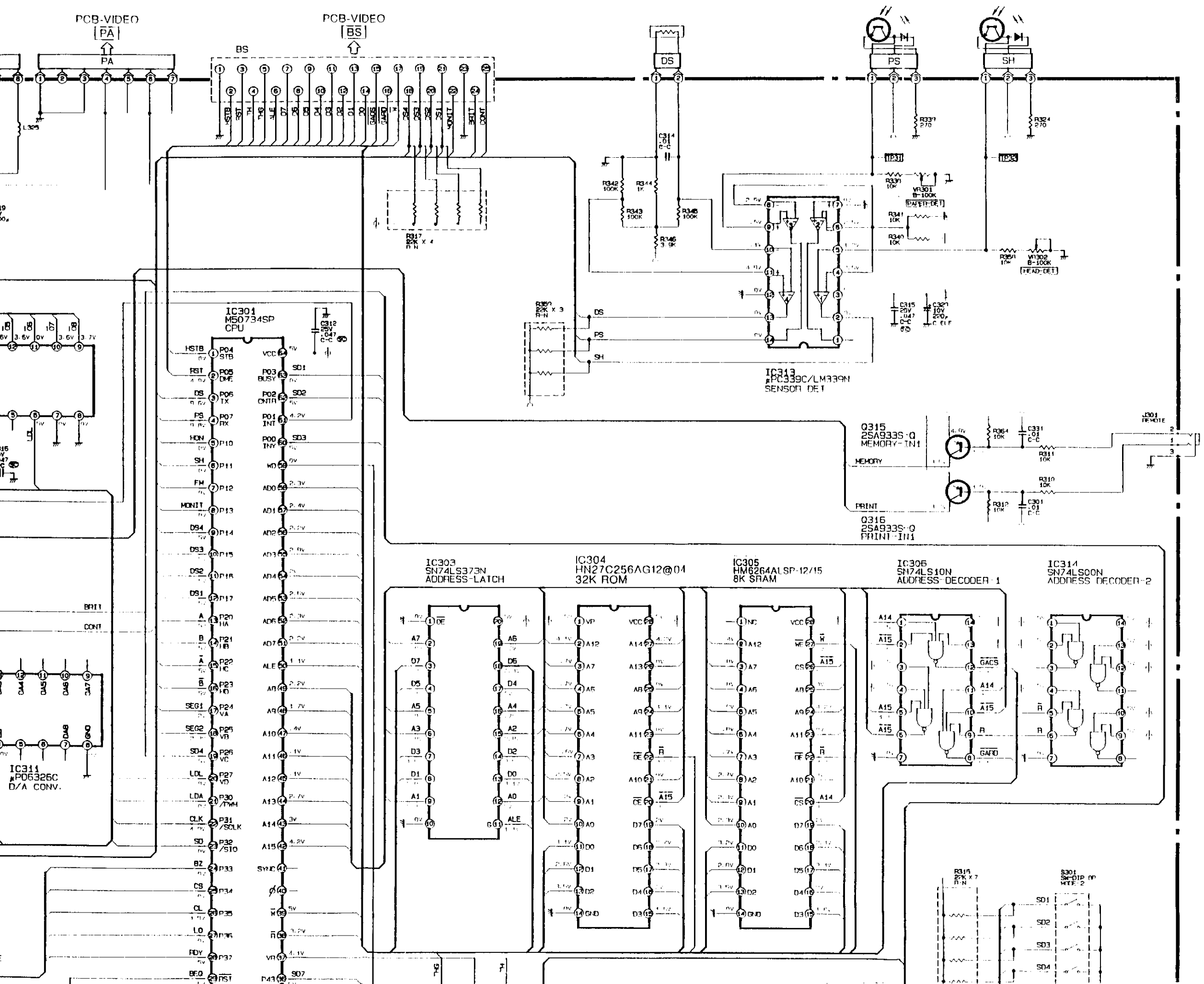
PCB-POWER

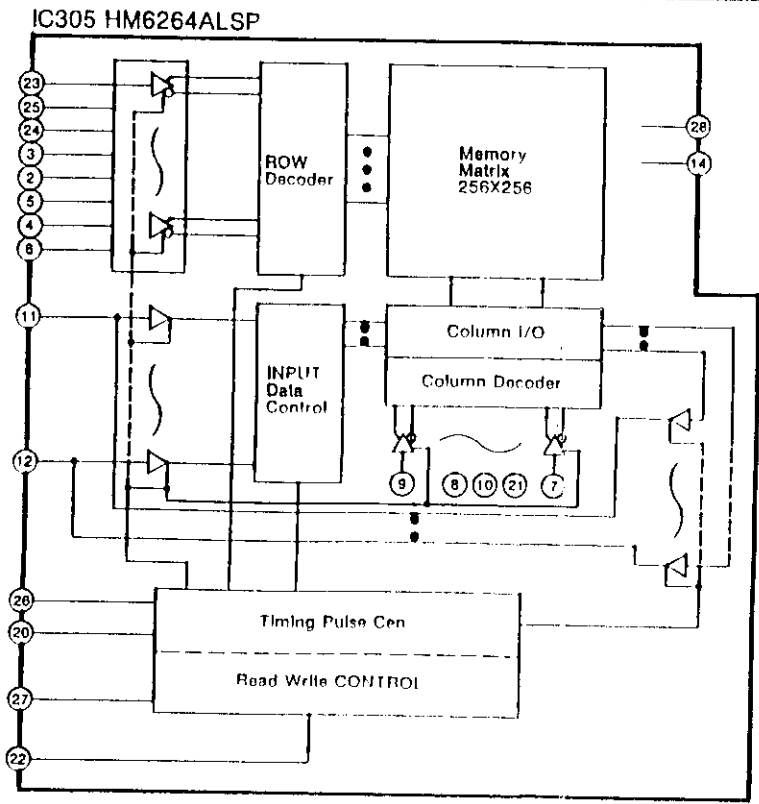
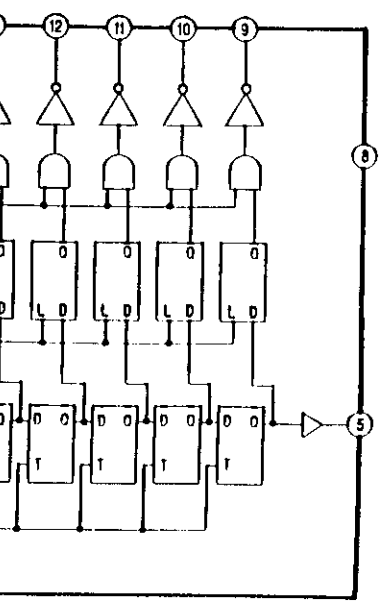
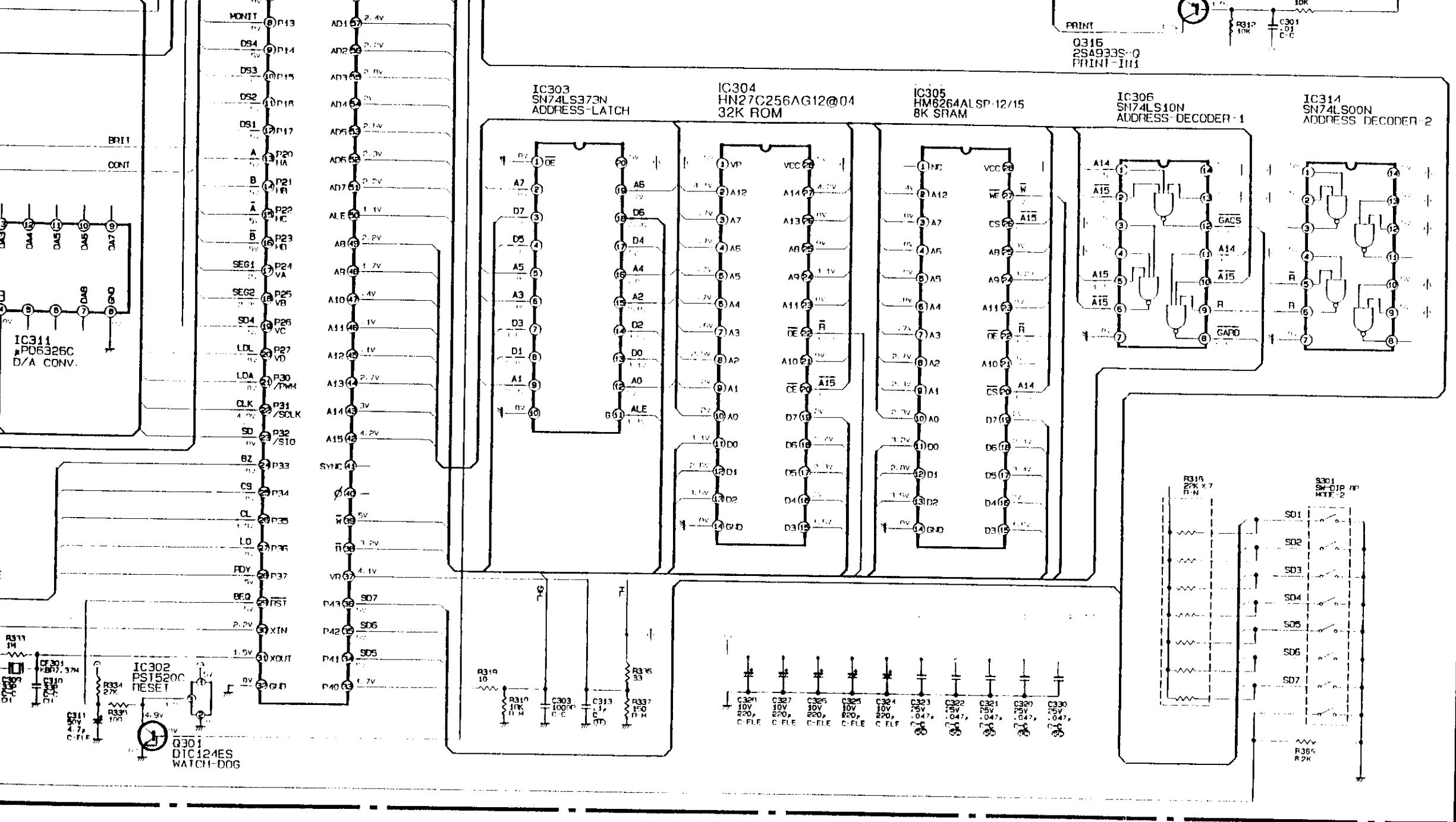
PCB-VIDEO

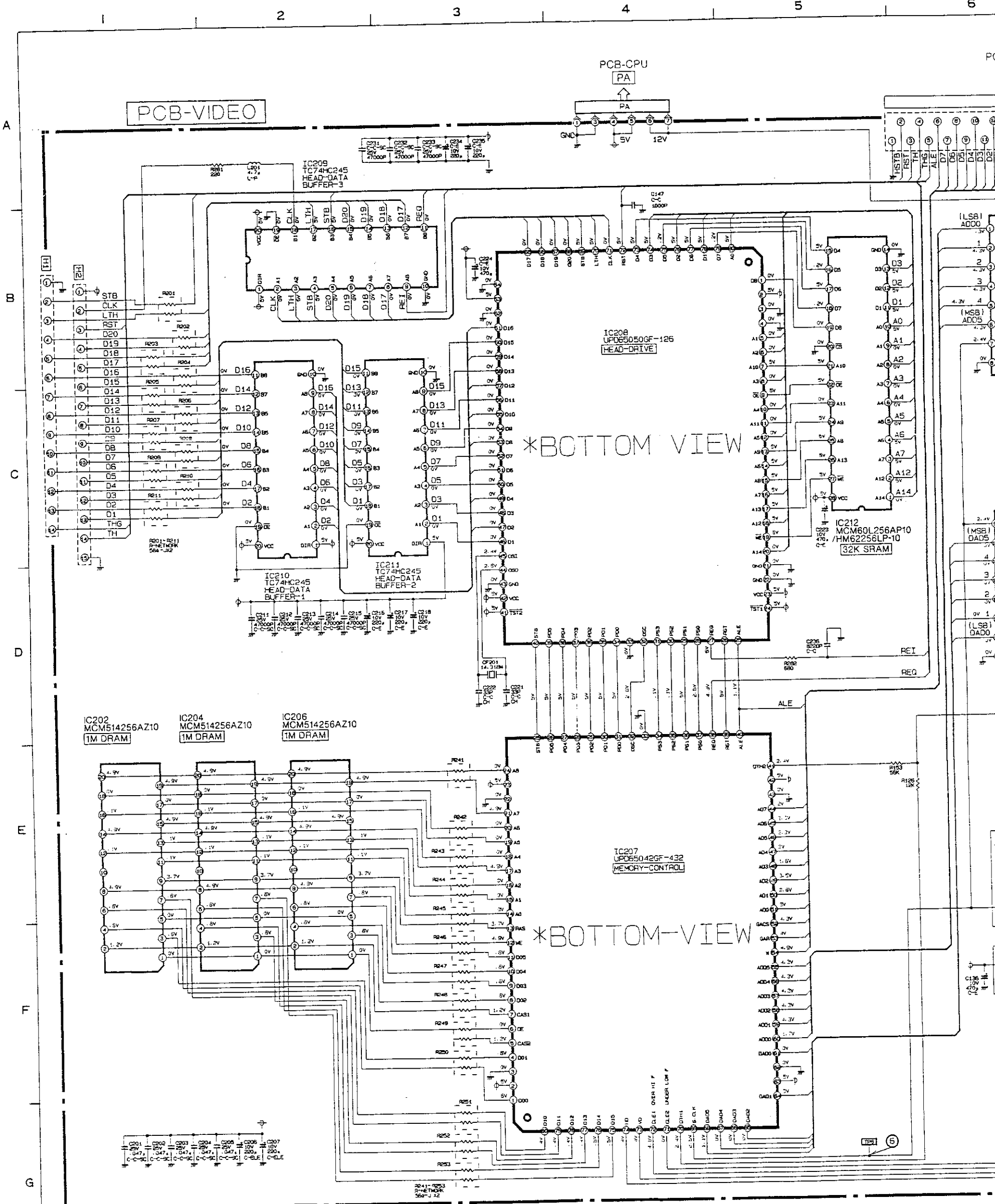
PCB-VIDEO

BS



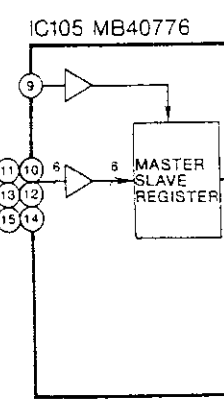
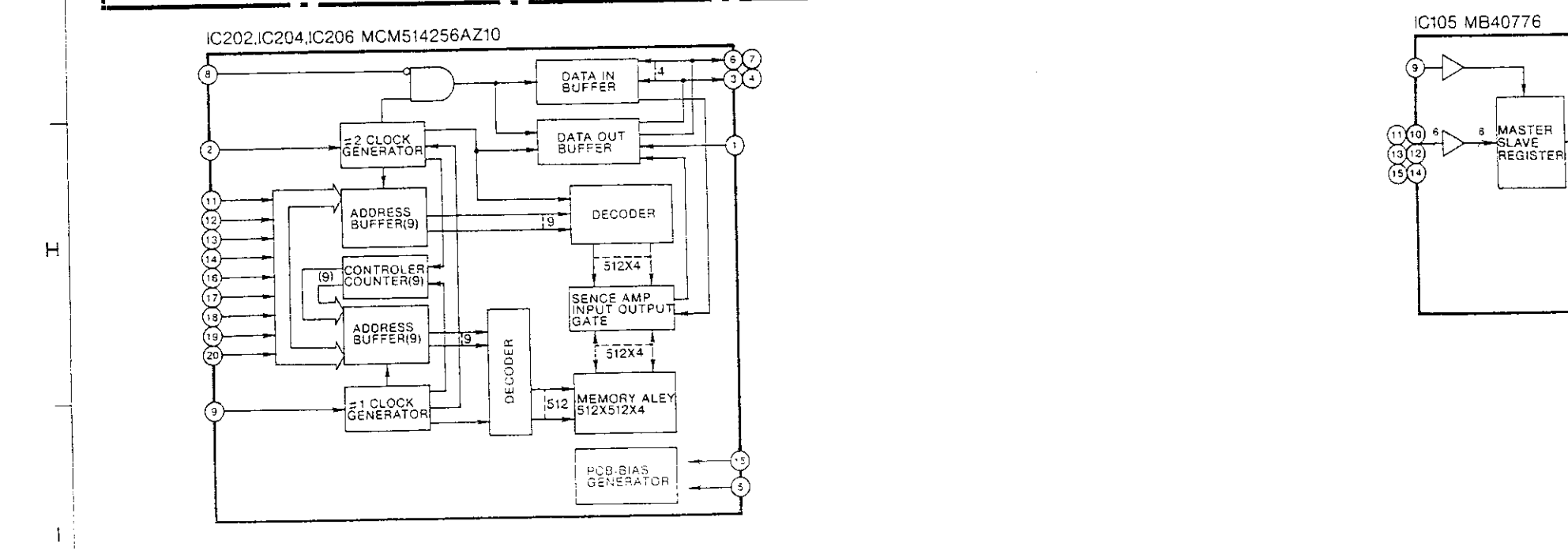


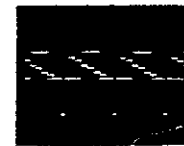
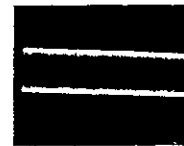
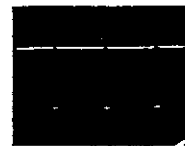
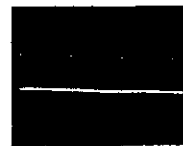
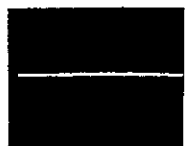
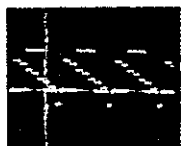
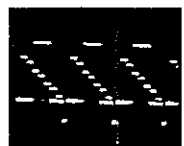




*BOTTOM VIEW

*BOTTOM-VIEW





① 1Vp-p(H)

② 1.7Vp-p(H)

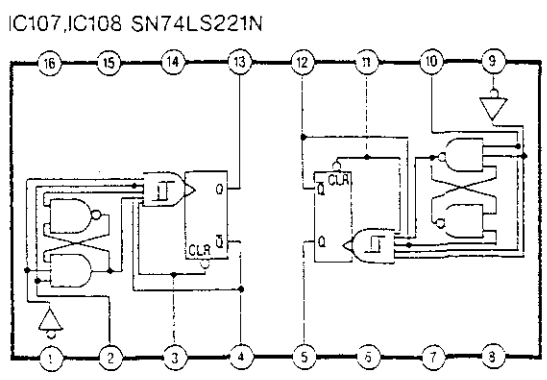
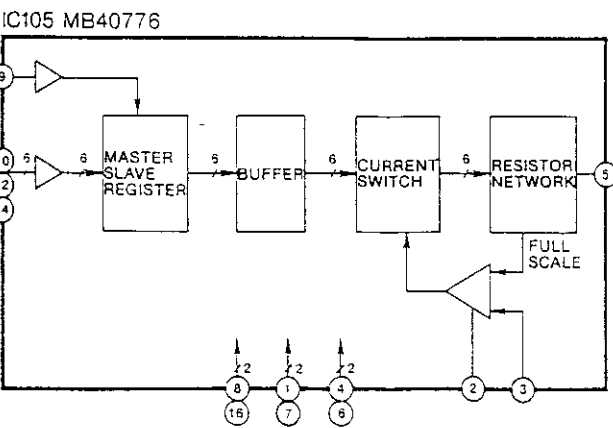
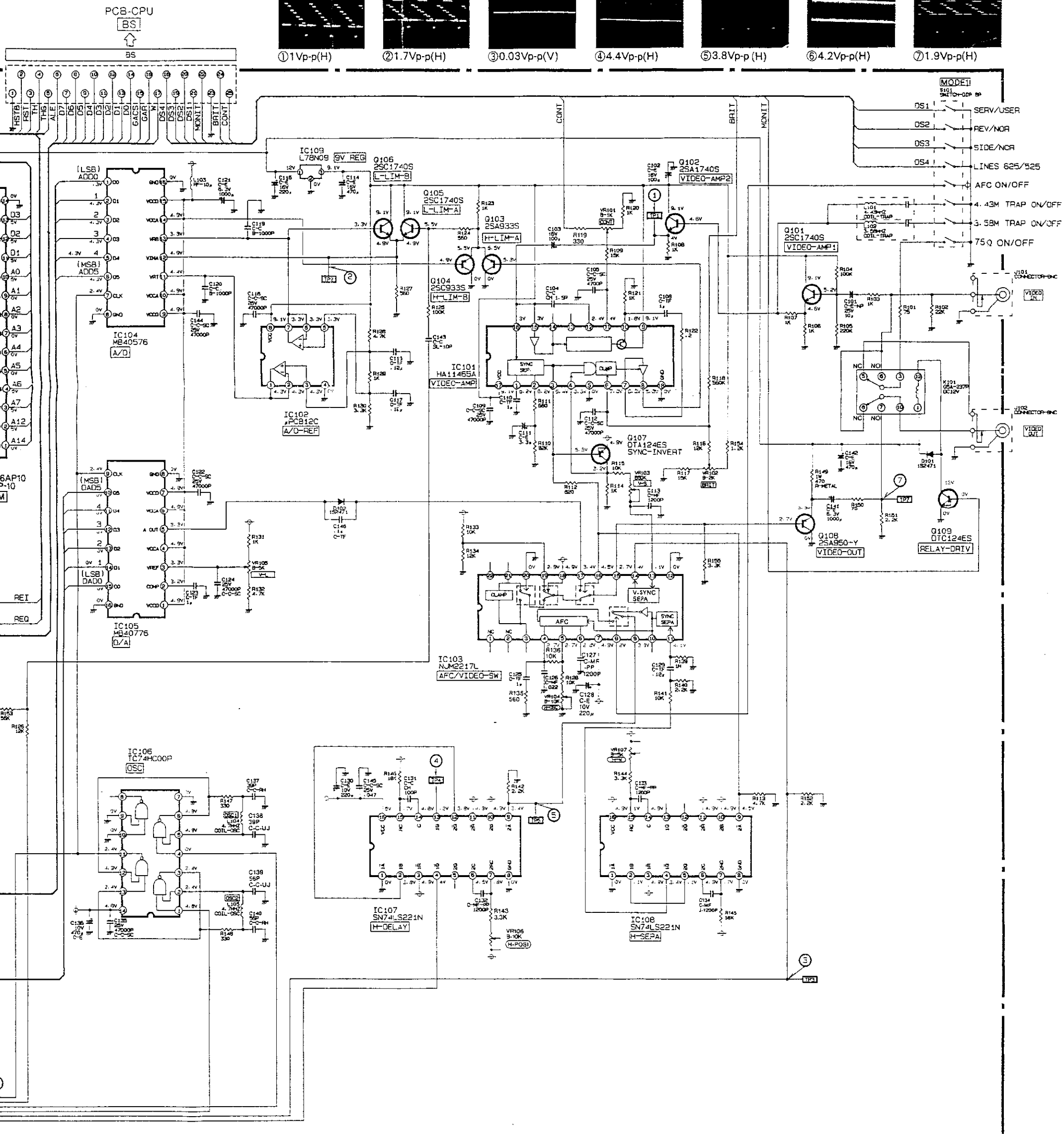
③ 0.03Vp-p(V)

④ 4.4Vp-p(H)

⑤ 3.8Vp-p(H)

⑥ 4.2Vp-p(H)

⑦ 1.9Vp-p(H)



PCB-POWER

A
B
C
D
E
F
G
H
I

2 3 4 5 6

