TAXAN

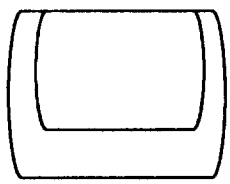
A General Guide to monitor display adjustment

The diagrams below show how to correct certain display problems using commonly available external monitor controls. Not all monitors have the full range of controls mentioned available externally, although they are all usually present in some form (often as factory pre-set controls on the internal circuit boards).

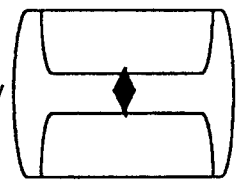
CAUTION - NEVER ADJUST A MONITORS CONTROLS WITH A METAL TOOL. ALWAYS USE A PLASTIC ADJUSTMENT TOOL.

Taxan monitors are usually provided with such a tool where external adjustments are likely to be required.

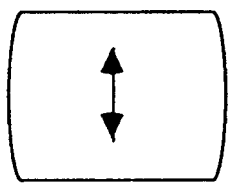
Vertical Position- adjust if image is not vertically centred on the screen



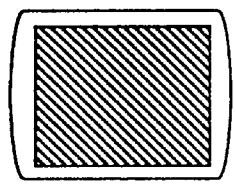
Vertical Hold - adjust if the image rolls vertically



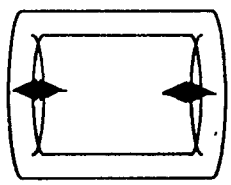
Vertical Size - adjust if the image does not fill the screen in the vertical direction.



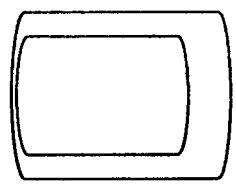
Horizontal Hold - adjust if the image is composed of moving diagonal lines.



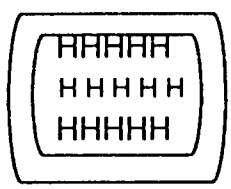
Side Pincushion - Adjust to straighten the sides of the image if they are curved inwards or outwards.



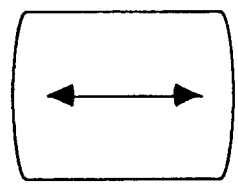
Horizontal Position - adjust to centre the image horizontally on the screen



Vertical Linearity - adjust if areas of the are wrongly proportioned.



Horizontal Size - adjust if the image does not fill the screen in the horizontal direction.



TAXAN

Section 1: Supervision 685

12 inch (diagonal) VGA Analogue Colour Monitor

CONTENTS

SPECIFICATIONS

1. PICTURE TUBE

Size :	12 inch
Gun :	In-Line
Deflection Angle:	90°
Neck Diameter :	29.1 mm
Phosphor :	R, G, B

2. SIGNAL

Input Signal : R, G, B ANALOG
H-Syn., V-Syn., TTL-Level
Signal Connector : 15 Pin "D" Type

2-1 VIDEO INPUT

Amplitude	: 0-0.7V
Signal Polarity	: Positive
Rise & Fall Time	: 8ns max.

2-2 VERTICAL

Amplitude (Level Low)	: 0-0.4V
Amplitude (Level High)	: 2.4-5.25V
Signal Polarity	: Posi. or Nega.
Vert. Frequency	: 60/70 Hz

2-3 HORIZONTAL

Amplitude (Level Low)	: 0-0.4V
Amplitude (Level High)	: 2.4-5.25V
Singal Polarity	: Posi or Nega
Horiz. Frequency	: 31.5 KHz

3. POWER SUPPLY

3-1 Power Rating	: AC 92-138V 49-61Hz, 0.9A/ AC180-265V 49-51Hz, 0.5A

4. DISPLAY AREA

4-1 Active Video Area	: 210mm x 155mm [8.15″ x 6.10″]/ 210mm x 155mm [8.27″ x 6.10″]
4-2 Display Character	25 Rows x 80 Columns

5. EXTERNAL CONTROL

PUSH-ON, Brightness, Contrast

6. ENVIRONMENT

6-1 Operating Temperature	5 to +40°C
6-2 Relative Humidity	: 10 to 80% (noncondensing)
6-3 Altitude	: 10,000ft

7. DIMENSIONS

Width	: 312mm(12.3 in)
Depth	: 353mm(13.9in)
Height	: 330.5mm(13.0 in);Within T/Swivel

8. WEIGHT

Net Weight	: 11.0 Kg (24.2 lbs.);Within T/S
Gross Weight:	13.4 Kg(29.5 lbs.);Within T/S

PREFACE

SAFETY PRECAUTIONS

SAFETY-RELATED COMPONENT WARNING!

There are special components used in Taxan Colour Monitors which are important for safety. These are marked ⚠ on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent X-RADIATION, shock, fire or other hazards. Do not modify the original design without obtaining written permission from Taxan (UK) Ltd or this will void the original parts and labour guarantee.

CAUTION: No modification of any circuit should be attempted.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

SAFETY CHECK

Care should be taken while servicing this color monitor because of the high voltage used in the deflection circuits. These voltages are exposed in such areas as the associated flyback and yoke circuits.

FIRE & SHOCK HAZARD

- An isolation transformer must be inserted between the color monitor and AC power line before servicing the chassis.
- In servicing, attention must be paid to the original lead dress especially in the high voltage circuit. If a short circuit is found, replace all parts which have been overheated as a result of the short circuit.
- All the protective devices must be reinstalled per original design.
- Soldering must be inspected for the cold solder joints, frayed leads, damaged insulation, solder splashes or the sharp points. Be sure to remove all foreign materials.

IMPLOSION PROTECTION

All used display tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage and scratching during installation. Use only same type display tubes.

X-RADIATION

The only potential source of X-Radiation is the picture tube. However, when the high voltage circuitry is operating properly there is no possibility of an X-Radiation problem. The basic precaution which must be exercised is to keep the high voltage at the factory-recommended level: the nominal high voltage is 24.5KV and must not exceed 30KV at zero beam current at rated voltage. The following steps describe how to measure the high voltage and how to prevent X-radiation.

Note: It is important to use an accurate high voltage meter calibrated periodically.

- To measure the high voltage, use a high impedance,high voltage meter, Connect (−) to chassis and (+) to the CRT anode button.
- Turn the brightness control fully clockwise.
- Measure the high Voltage. The high voltage meter should indicate at the factory-recommended level.
- If the upper meter indication exceeds the maximum level, immediate service is required to prevent the possibility of premature component failure.
- To prevent X-Radiation possibility, it is essential to use the specified picture tube.

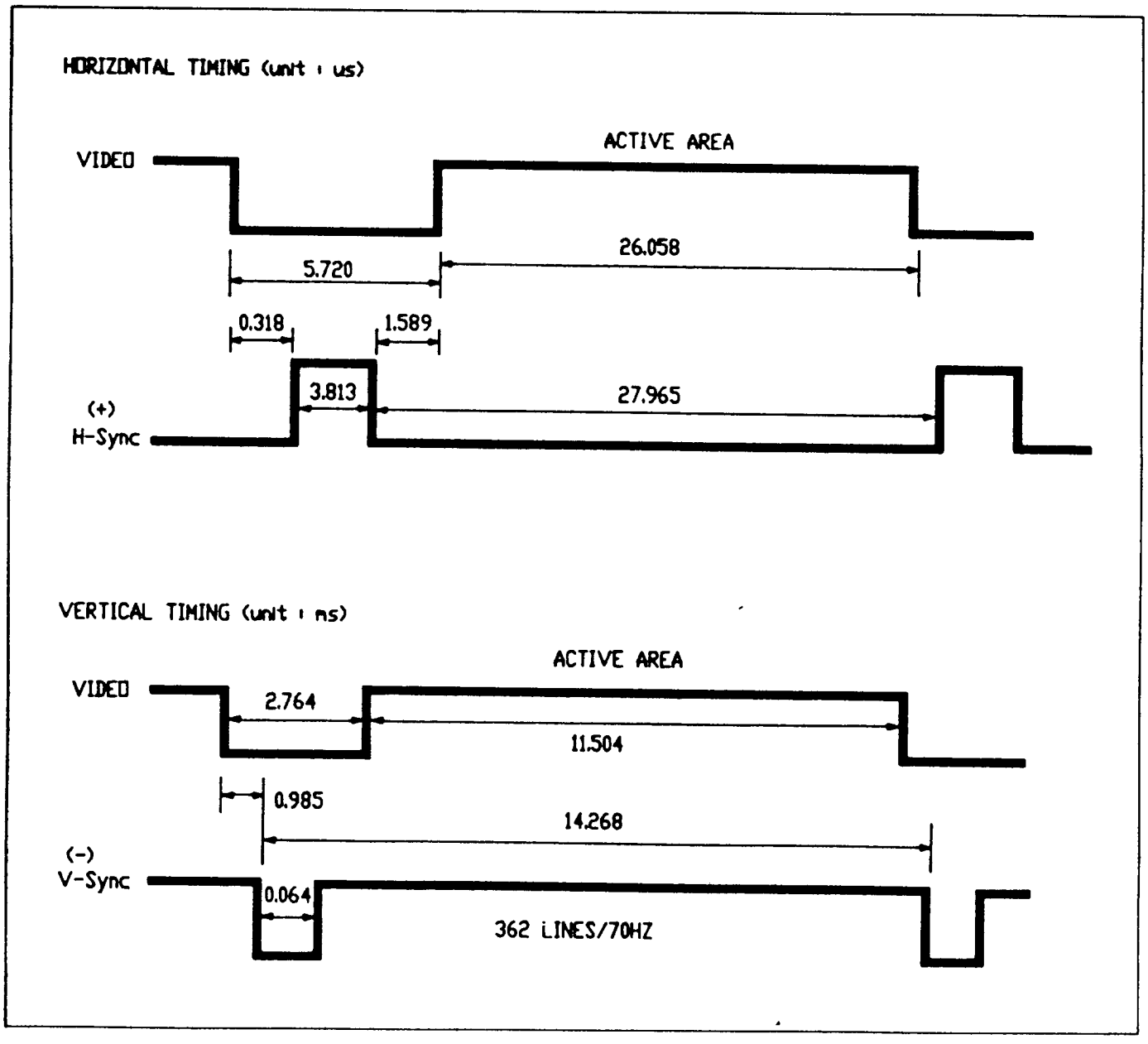
FEATURES

The Taxan Supervision 685 Colour Monitor has the following features:

- R.G.B Analog signal
- 28.5 MHz Bandwidth.
  The High-Resolution CPT (Color Picture Tube) displays 80-column lines without blurring the characters.
- Displays 2000 Characters in a 8 x 14/8 x 16 dot format.
- Has its own power control and indicator using the SMPS (Switching Mode Power Supply). The SMPS in your Color Monitor automatically switches to match the power (AC 92—138V; AC 180—265V for Europe/U.K./Australia models).
- Is compatible with IBM PS/2.

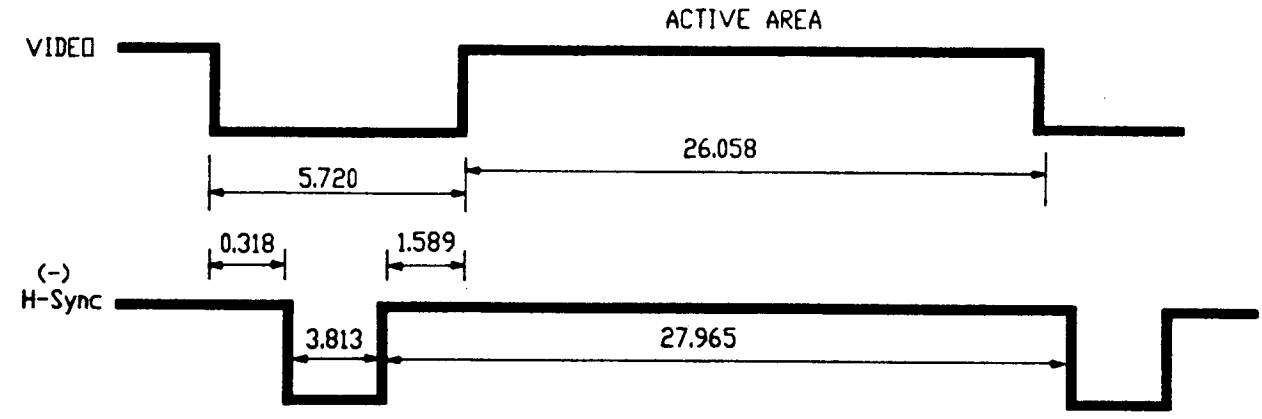
TIMING CHART

MODE 1

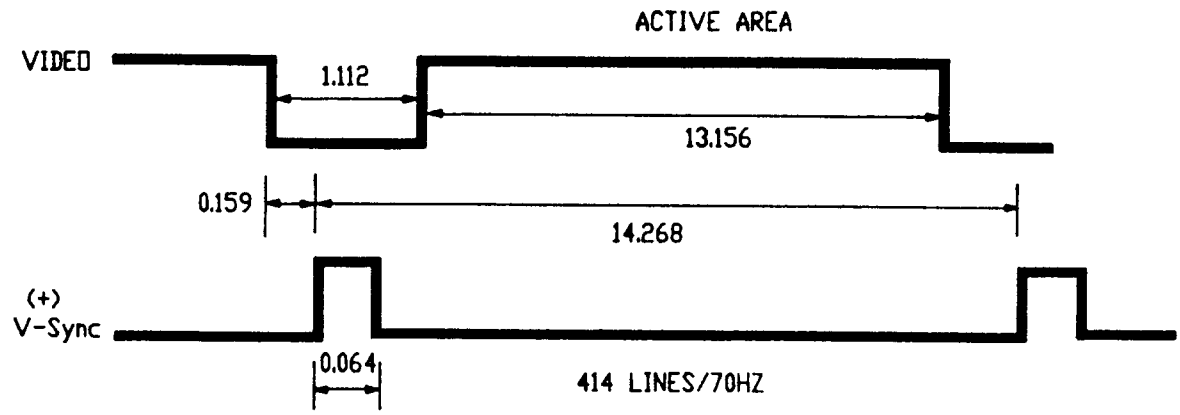


MODE 2

HORIZONTAL TIMING (unit : us)

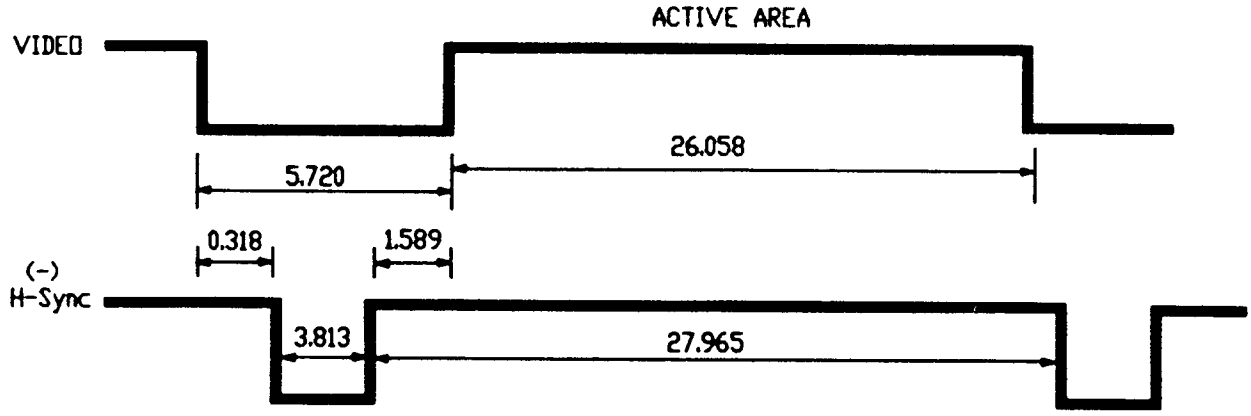


VERTICAL TIMING (unit : ms)

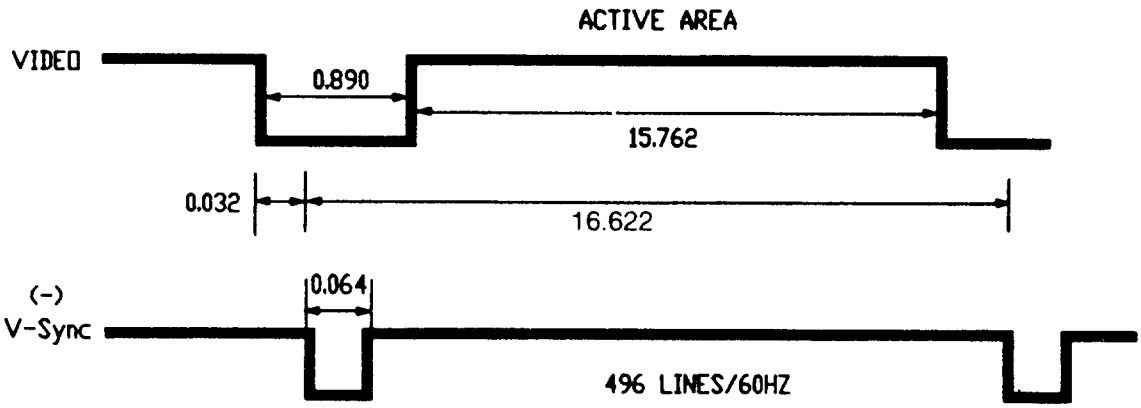


MODE 3

HORIZONTAL TIMING (unit : us)



VERTICAL TIMING (unit : ms)



CONTROLS LOCATION

The Taxan Supervision 685 Colour Monitor uses a 15 pin "D" type connector. The input signal is connected through the 15-pin connector.
The input signal is based on the TTL sync. and ANALOG Video. Figure 1 shows the monitor controls on the front and rear panels.

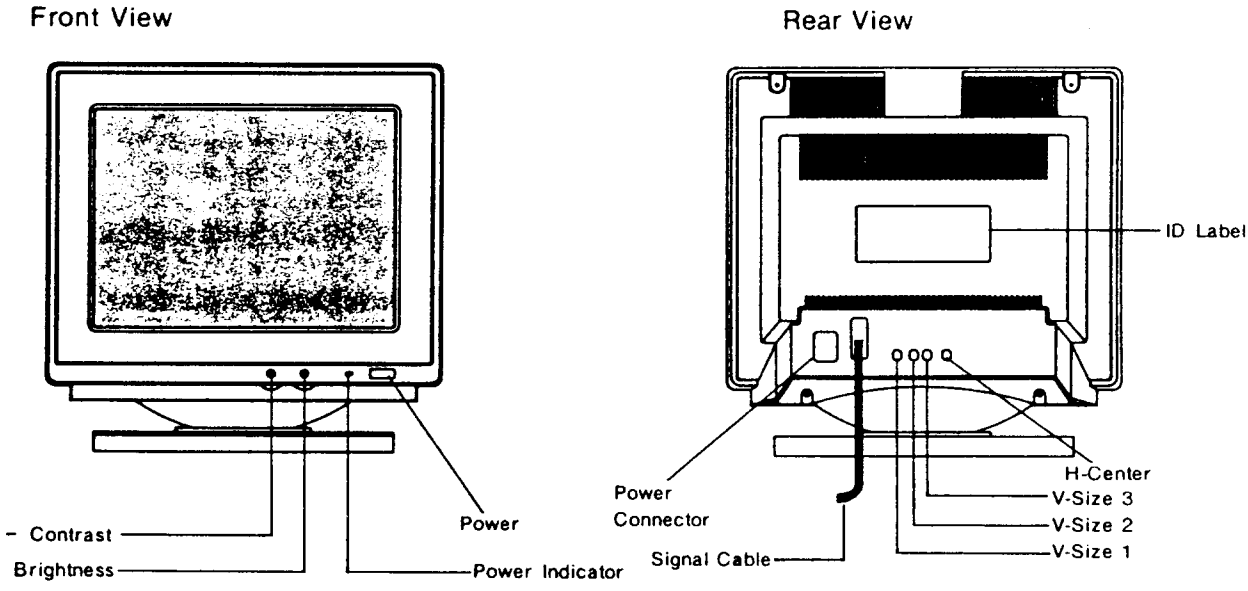


Figure 1, Monitor Controls

- **POWER (TURN-ON)**
  Turn on the monitor by turning the power Switch. The Power indicator lights when the power is ON. Always turn on the monitor before turning on the computer. To turn the power off, just turn upward the switch.

- **CONTRAST (VR706)**
  Turn this knob clockwise to increase contrast.

- **BRIGHTNESS (VR707)**
  Turn this knob clockwise to increase brightness.

- **H-CENTER (VR701)**
  Turn this potentiometer to adjust the Horizontal-center of the picture.

- **V-SIZE 1 (VR601)**
  Turn this potentiometer to adjust the vertical size of the picture at mode 1.

- **V-SIZE 2 (VR602)**
  Turn this potentiometer to adjust the Vertical size of the picture at mode 2.

- **V-SIZE 3 (VR603)**
  Turn this potentiometer to adjust the vertical size of the picture at mode 3.

CIRCUIT DESCRIPTION

POWER SUPPLY

The power supply is a SMPS (Switching Mode Power Supply) that consists of switching IC (IC901), SMPS transformer (T901), Switching transistor (Q901) and the associated components. The basic theory is the circuit of self oscillation. The primary winding of the SMPS transformer is applied the pulse by operating IC901. Therefore, rectified DC output voltage is obtained by the secondary winding of SMPS transformer T901.

HORIZONTAL AFC AND OSCILLATION LIMITTER

The AFC circuit consists of phase detection circuit of IC702 and the associated components. The oscillation limit circuit is necessary to prevent the pulse from excessive high voltage. This circuit is located in IC702 and controls the oscillator to maintain the control signal in its correct frequency and in phase with the horizontal sync signal.

X-RAY PROTECTION CIRCUIT

The X-RAY protection circuit consists of D702, R716, VR703, R710, R715 and the associated component that connected to PIN 6 of IC702. A voltage from the FBT PIN 10 is divided by R716 and VR703. Under normal operating conditions, the resultant voltage (TP2) maintains the specified value.

If a malfunction causes exeessive high voltage, the voltage of FBT PIN 10 is increasing and TP2 voltage is increasing. As a result, D702 is conducted when the cathode voltage of D702 is arrived as much as Zener voltage. A voltage increase at IC702 PIN 6 makes the X-RAY protection circuit conduct, and the horizontal oscillation operation no longer functional. The circuit latches as above, and it is necessary for the circuit to turn the power off for at least 30 seconds to function again.

VERTICAL OSCILLATION/DRIVE CIRCUIT

The time constant circuit that determines the vertical oscillation frequency consists of C603, R607.

Vertical size control function is performed by VR601, VR602, VR603 at mode 1, 2, 3 respectively.

HORIZONTAL DRIVE CIRCUIT

To obtain horizontal drive pulses from IC702 PIN 8, the horizontal oscillator must be working.

Horizontal drive pulses from IC702 PIN 8 are applied to horizontal drive trans T702 and drive transistor Q701.

The B^+ for T702 is supplied from the 12V line through D701, R717.

HORIZONTAL DEFLECTION OUTPUT

Horizontal drive pulses from IC702 PIN 8 are coupled through T702 to the base of horizontal output Q701. Transistor Q701 is biased on when the beam is at about mid-screen.

The charge stored in C719 and C728 causes current to flow through the horizontal yoke winding and Q701 to ground. When the beam reaches the right side of the screen, Q701 is turned off, and the current in the yoke is directed into C720 and C724. At the same time current flows into C720 and C724 from the regulated B^+ via the horizontal choke coil (L702) winding.

Due to resonance, the current then reverses and flows back through the horizontal yoke winding into C719 and C728.

POWER SUPPLY DESCRIPTIONS

This SMPS (Switching Mode Power Supply) using TDA4601 obtains rectified DC107V, 75V, 12V from AC120V, 60Hz (USA Version)/AC 220V, 50Hz (Europe version).

Power is supplied in the following procedure:

1) AC120V/AC220V supplied from the AC socket is rectified by BD901.
2) Rectified voltage is supplied to the T901. The primarily rectified voltage by BD901 is supplied to PIN 6 of T901 through PIN 5 of T901.
3) A pulse is generated at PIN 8 of the IC901.
4) This oscillation causes Q901 to switched, and at the secondary terminal of T901, a voltage (proportional to the turn ratio) is generated.

ADJUSTMENT

GENERAL INFORMATION

All adjustments are thoroughly checked and corrected when the monitor leaves the factory. Therefore the monitor should operate normally and produce proper color and pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the monitor is to operate. This monitor is shipped completely in carton. Carefully draw out the monitor from the carton and remove all packing materials. Check and adjust all the customer controls such as Brightness, and Contrast to obtain a normal picture.

B+ ADJUSTMENT

1. Connect TP1 and GND with DIGITAL MULTIMETER.
2. Display the Reverse Pattern.
3. Turn slowly VR901 and set the B+ Voltage to + 107V ±0.2V.

HORIZONTAL HOLD ADJUSTMENT

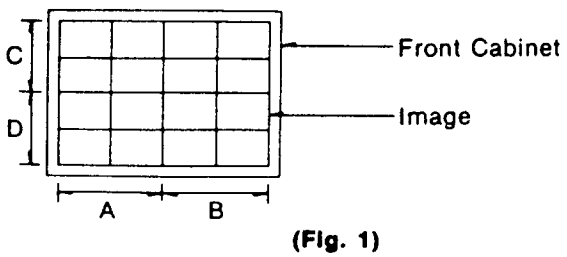
1. Display the Reverse Pattern on the monitor.
2. Disconnect H-Sync signal.
3. Turn the VR702 (H-Hold) for the screen to stand straight.

VERTICAL LINEARITY ADJUSTMENT

1. Display the Cross Hatch Pattern on the monitor.
2. Turn to the VR604, so that the vertical linearity should be best condition.
3. Then the non-linearity should be within +/– 5%.
4. When the Cross Hatch Pattern is displaed on the monitor, the difference of A – B should be within 2.5mm and the diference of C – D should be within 2mm. Refer to Fig. 1

VERTICAL SIZE ADJUSTMENT

1. VERTICAL SIZE ADJUSTMENT IN MODE 3.
   - Display the Cross Hatch Pattern on the monitor.
   - Adjust the VR603, and then the vertical size should be within 155 +/– 2mm.
   - It should be done by observing the Adjustment procedure.



(Fig. 1)

2. VERTICAL SIZE ADJUSTMENT IN MODE 1.
   - Display the Cross Hatch Pattern on the monitor.
   - Adjust the VR601, and then the vertical size should be within 155 +/– 2mm.
3. VERTICAL SIZE ADJUSTMENT IN MODE 2.
   - Display the Cross Hatch Pattern on the monitor.
   - Adjust the VR602, and then the vertical size should be within 155 +/– 2mm.

VERTICAL CENTER ADJUSTMENT

1. Display the Reverse Pattern on the monitor.
2. Adjust the VR605, and then set the geometric vertical center in the screen, and then the geometric vertical center should be within 2mm tolerance.

SIDE PINCUSHION ADJUSTMENT

1. Display the Reverse Pattern.
2. Adjust the VR606, and then the upper horizontal size and lower horizontal size should be same.
3. Adjust the VR607 so as to minimize the pincushion distortion.
4. Adjust alternately the VR606 and VR607 so as to be best condition in the screen.
5. Then the pincusion and/or the Barrel distortion should be within 1%.

HORIZONTAL WIDTH ADJUSTMENT

1. Display the Cross Hatch Pattern on the monitor.
2. Adjust the L701 for the Horizontal Width so as to be within 210 +/– 2mm.
3. Then the Bright control should be set at the center, and the Contrast control should be set at the MAX.

WHITE-BALANCE ADJUSTMENT

1. THE USED INSTRUMENT
   - WHITE-BALANCE METER
   - DEGAUSSING COIL (Degauss the monitor before adjustment).
   - PHOTOMETER.
2. PREPARING ADJUSTMENT (1)
   - Connect the signal cable with PC, and display the Color 0.0 Full Pattern on the monitor.
   - Minimize the screen control of FBT.
   - Set the Sub-Bright (VR705) and the Sub-Contrast (VR704) to mechanical center.
   - Set the Contrast VR to the MAX. and the Bright VR to the center.

- Set the G and the B drive to mechanical center.
- Minimize R,G,B Cut Off VR and turn clockwise R Cut Off VR (R338) as much as 1/3 (about 45°).

3. ADJUSTMENT (1)
   - Turn the screen control (G2) to clockwise slowly until the brightness of R raster is 3.5 FL +/− 1 FL.
   - Let the R Cut Off VR (R338) be the reference, and adjust the G and the B Cut Off VR (R358, R378) so as to get X = 0.282, Y = 0.304.
   - Adjust slowly counter-clockwise the Screen VR for Raster so as to disappear.

4. ADJUSTMENT (2)
   1) Set external Brightness VR to center and external Contrast VR to Maximum.
   2) Display full white pattern (color 15.0) on the screen.
   3) Turn the B drive VR (R372) so that X = 0.282 and the G drive VR (R352) so that Y = 0.304.
   4) Repeat 3) until X = 0.282 +/−0.02 ,Y = 0.304 +/− 0.022.
   5) Set external Brightness VR to min. and adjust external Contrast VR until brightness is 5 FL at full white pattern (color 15.0).
   6) Confirm X = 0.282 +/− 0.02, Y = 0.304 +/− 0.022 unless the color co-ordinate is not in spec, re-adjust G, B cut off VR (R358, R378) so that the pattern is white.
   7) Repeat the number 3), 4), 5), 6) so that the screen should be white.

BRIGHTNESS ADJUSTMENT

1. Maximize the Contrast VR.
2. Display the Cut-Off Level (Color 0.0)
3. Adjust the Sub-Bright VR (VR705) until the back raster disappears when the Bright VR is at center.
4. Confirm that whether back raster appears or not when the Bright VR is at MAX.

CONTRAST ADJUSTMENT

1. Set the external Bright VR at center and the external Contrast VR at Max.
2. Display White Pattern (Color 7.0), of which the size is 50 x 50, on the monitor.
3. At the center of the screen, adjust the Sub-Contrast VR (VR704), so that the brightness should be 25 +/− 2FL.

FOCUS ADJUSTMENT

1. Set the Bright VR and the Contrast VR to MAX.
2. Display the "H" character in full screen (Color 7.0)
3. Adjust Focus VR, so that the focus should be best condition at the row that is 20~20th from left and at the line that is 7~9th from upper.

CONFIRMMING SELF-TEST

1. Set the Bright VR at center and the Contrast at MAX.
2. Remove the signal connector from the PC.
3. Confirm that the brightness of Raster is more than 1FL.

FAIL SAFTY ADJUSTMENT

USED INSTRUMENT; DC VOLTMETER 8010 or as such.

PREPARING ADJUSTMENT

1. Display the reverse pattern on the monitor.
2. Confirm that B+ voltage of TP1 is 107VDC(+/− 0.2 VDC).

ADJUSTMENT

1. Minimize the Contrast and the Bright VR. so that the screen should be Cut-Off.
2. Adjust Hold Down VR (VR703), so that the voltage should be 10.5 +/− 0.05V.
3. Fasten the VR703 with glue or as such so as not to be changed after adjustment is done.

CONFIRMMING

1. Supply the cathode of D702 (TP2) with DC 12.0 +0.5/−0V, and then confrim that the monitor should be Hold Down.
   (CAUTION): ALL PROCEDURE MUST BE DONE AFTER THE MONITOR IS FULLY HEAT-RUN.

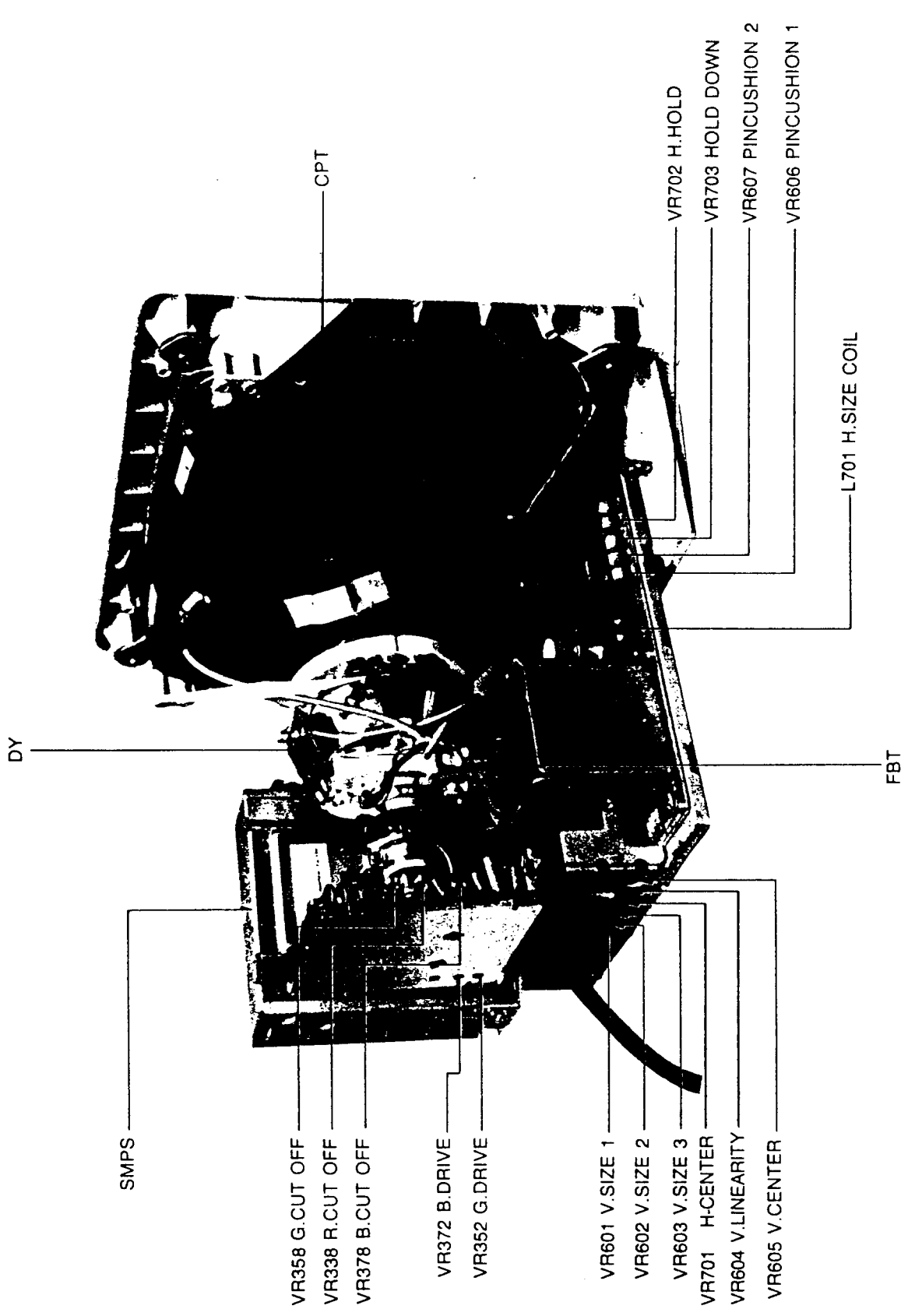
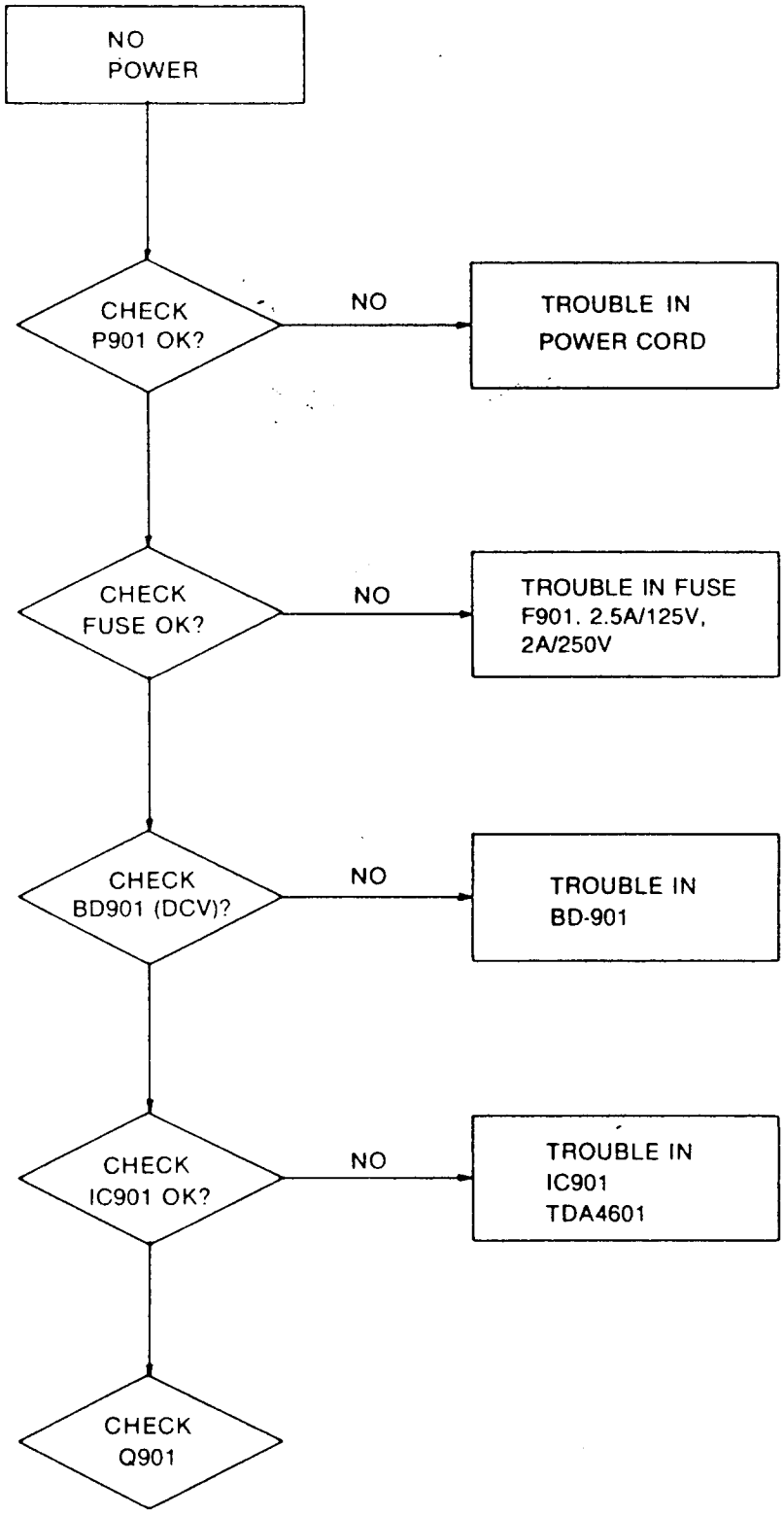


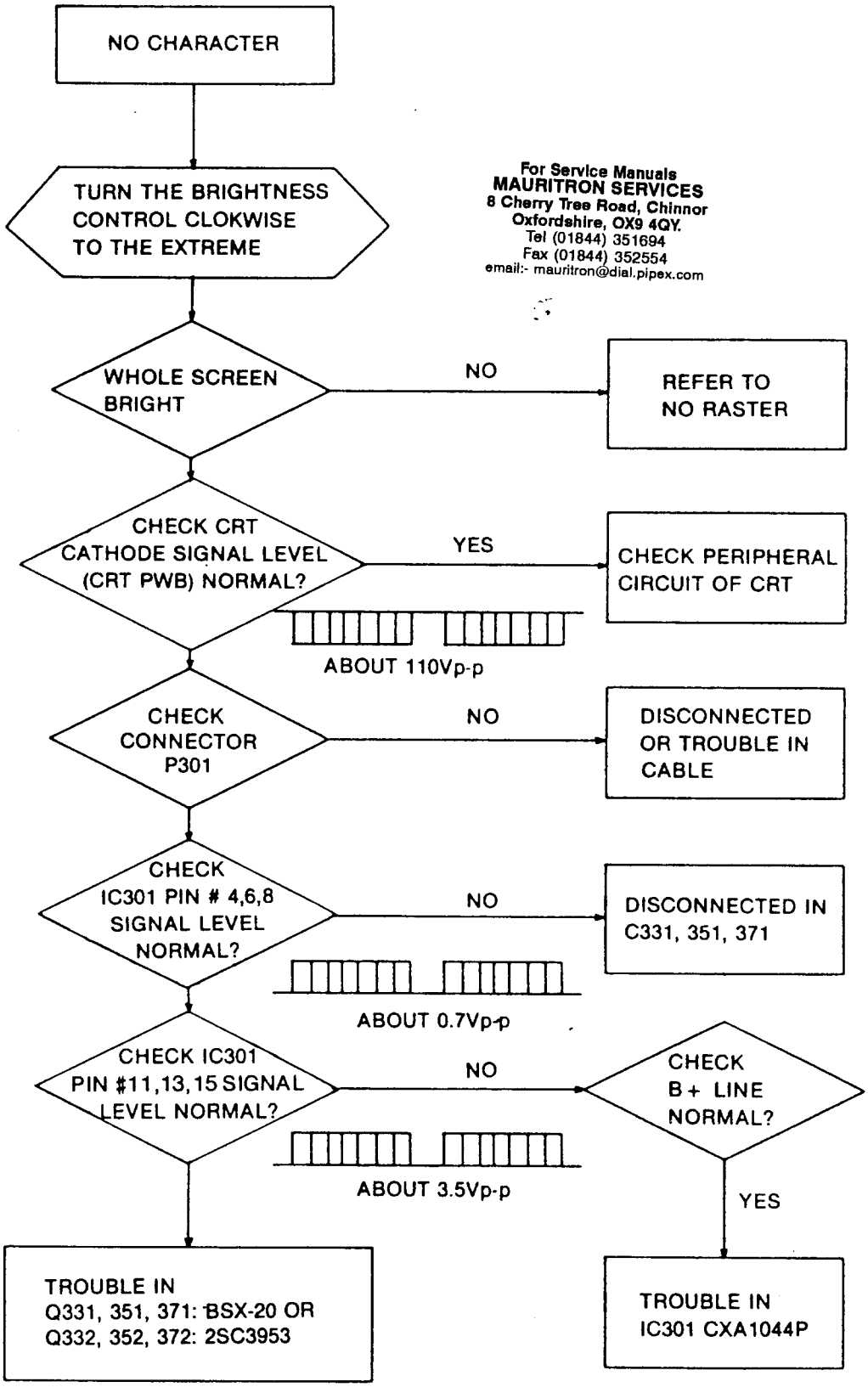
Figure 2, Chassis Important Parts

TROUBLE SHOOTING GUIDE

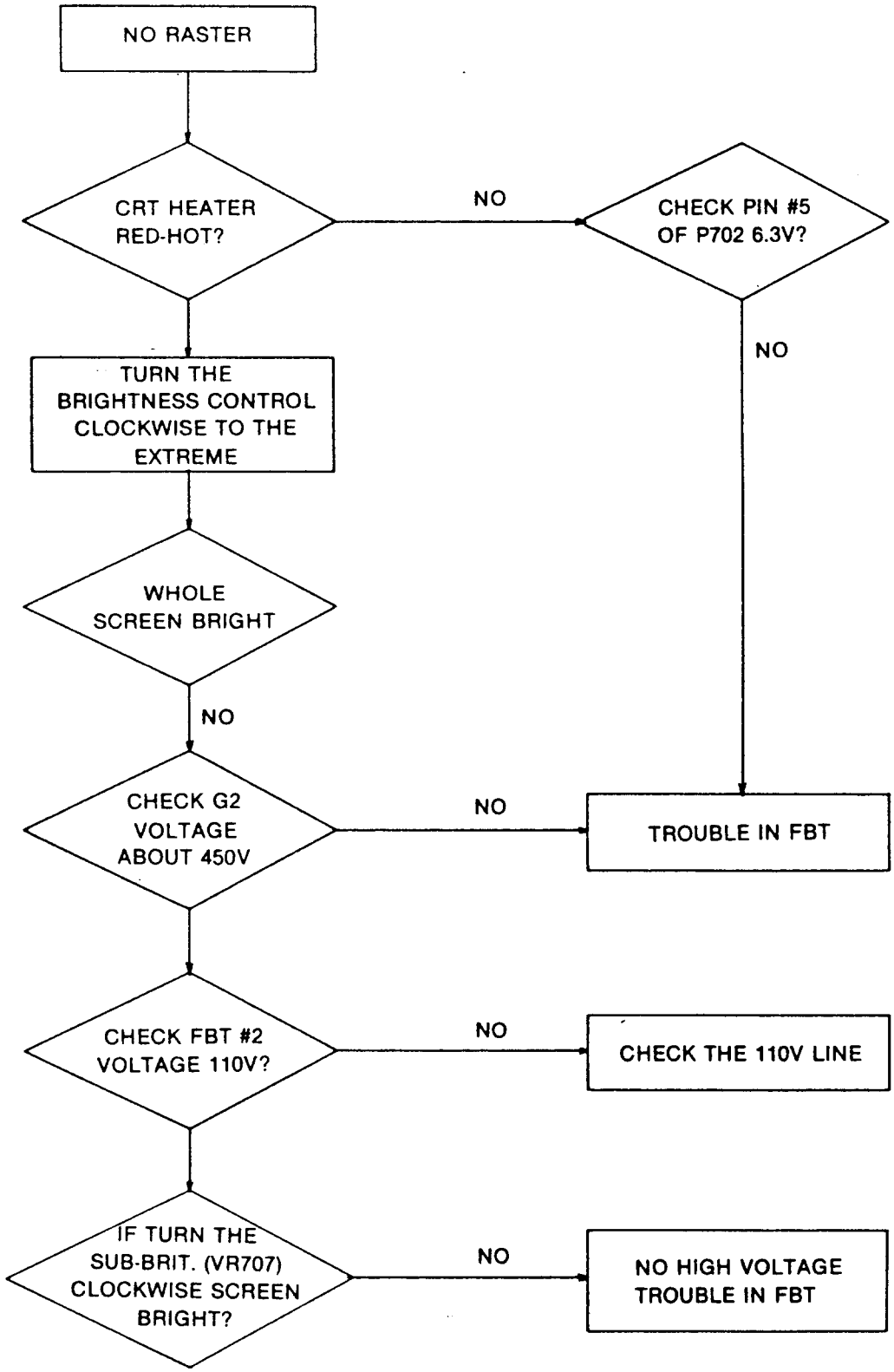
NO POWER



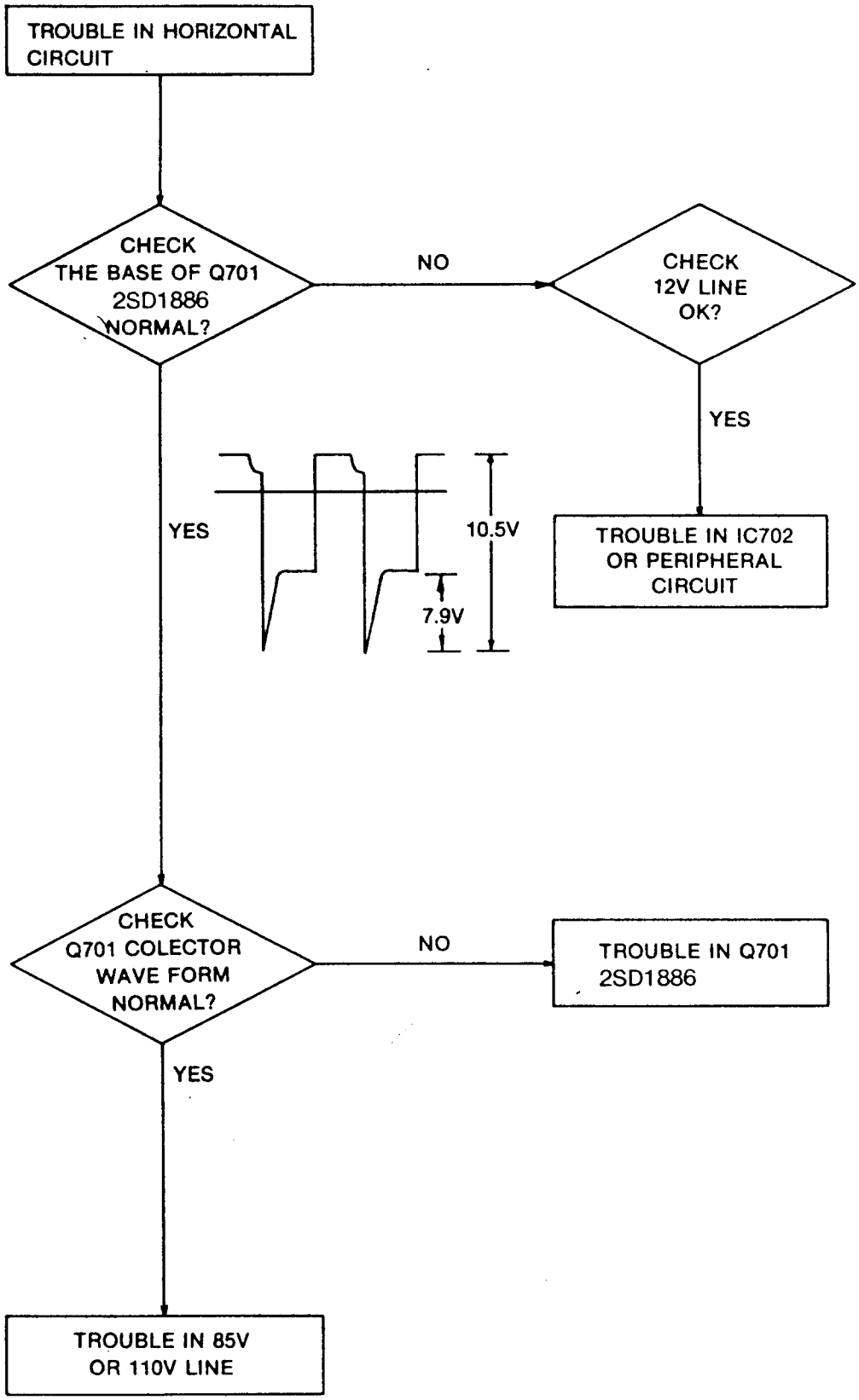
NO CHARACTER



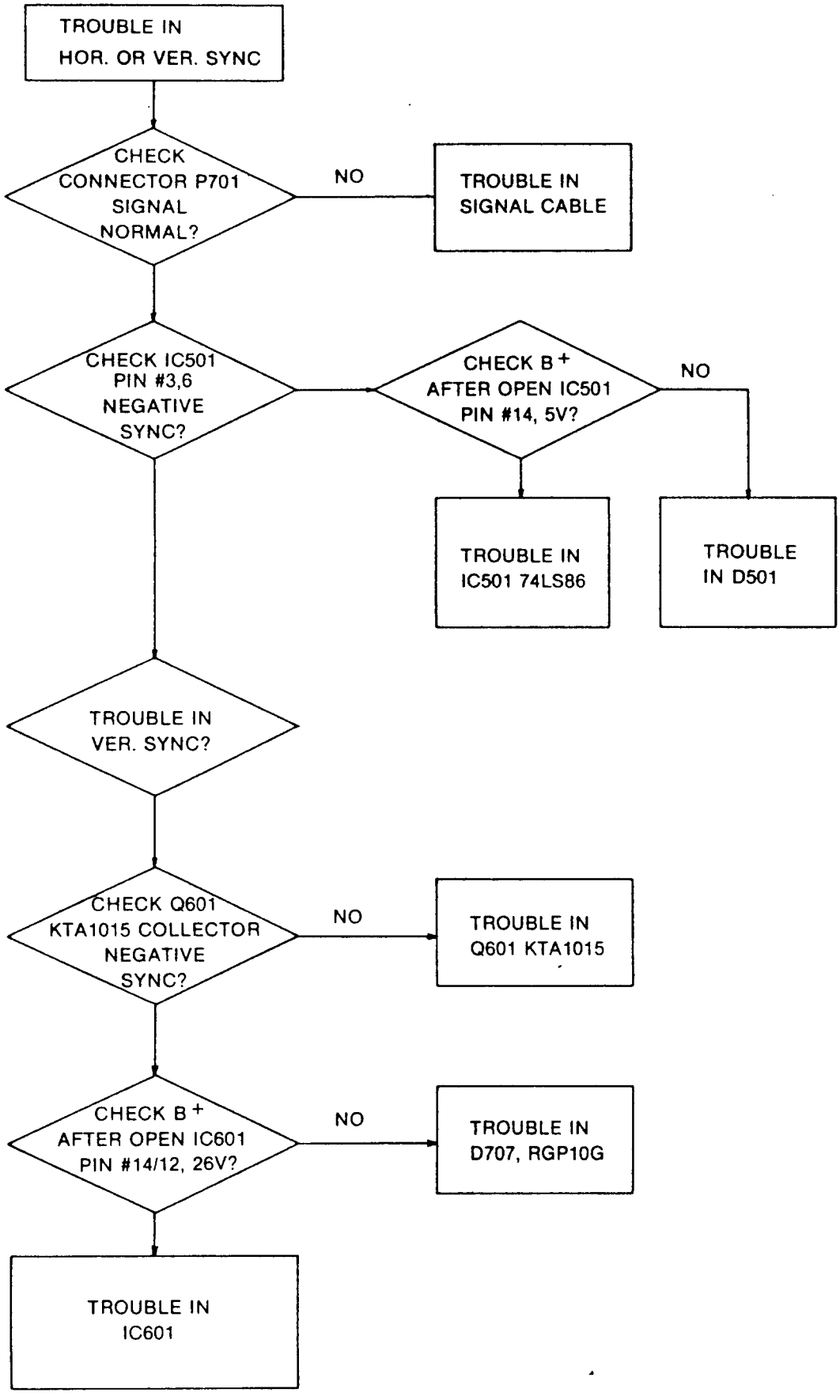
NO RASTER


NO RASTER
CRT HEATER RED-HOT?
NO
CHECK PIN #5 OF P702 6.3V?
NO
TURN THE BRIGHTNESS CONTROL CLOCKWISE TO THE EXTREME
WHOLE SCREEN BRIGHT
NO
CHECK G2 VOLTAGE ABOUT 450V
NO
TROUBLE IN FBT
CHECK FBT #2 VOLTAGE 110V?
NO
CHECK THE 110V LINE
IF TURN THE SUB-BRIT. (VR707) CLOCKWISE SCREEN BRIGHT?
NO
NO HIGH VOLTAGE TROUBLE IN FBT

TROUBLE IN HORIZONTAL CIRCUIT

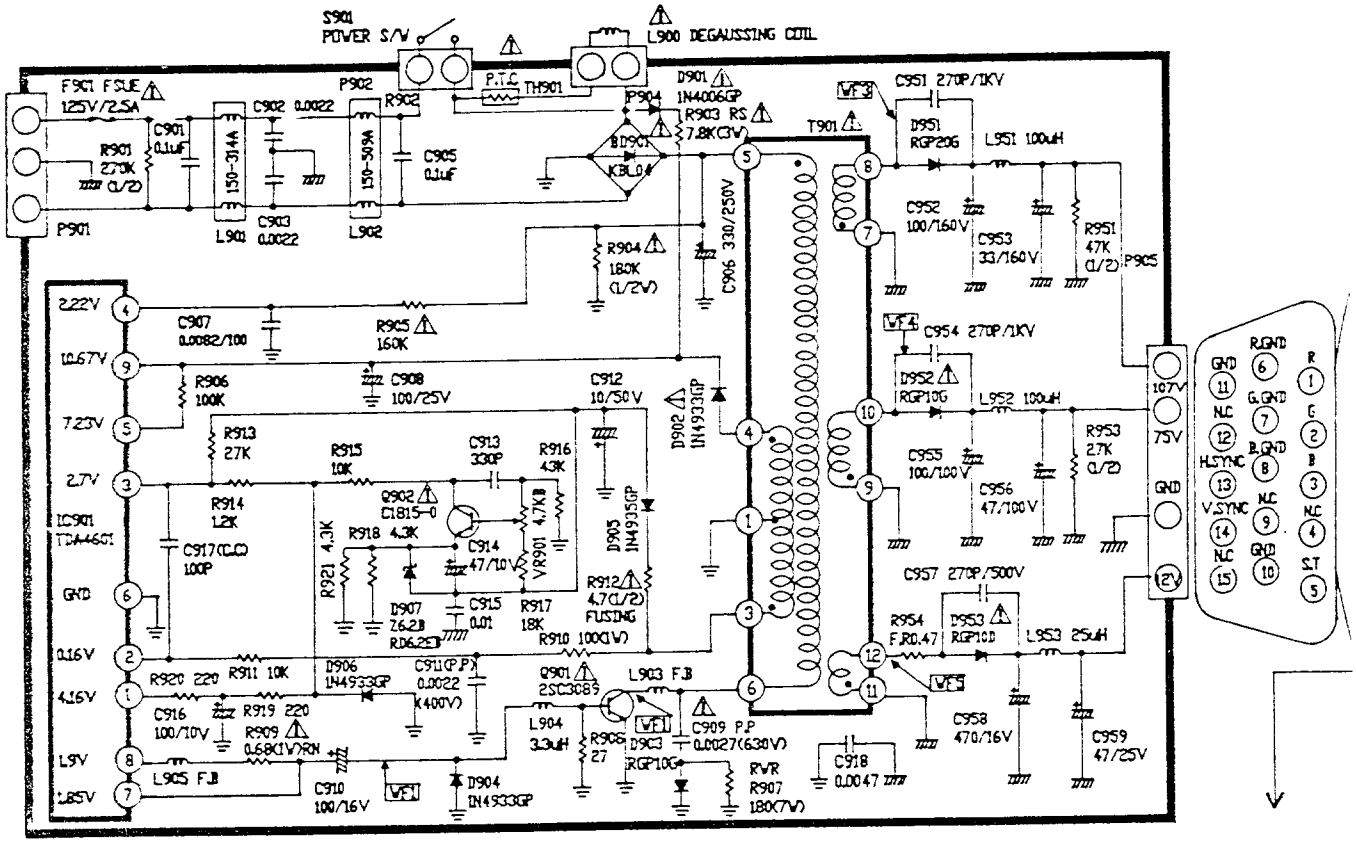


TROUBLE IN H,V SYNC



SCHEMATIC DIAGRAM (1/2)

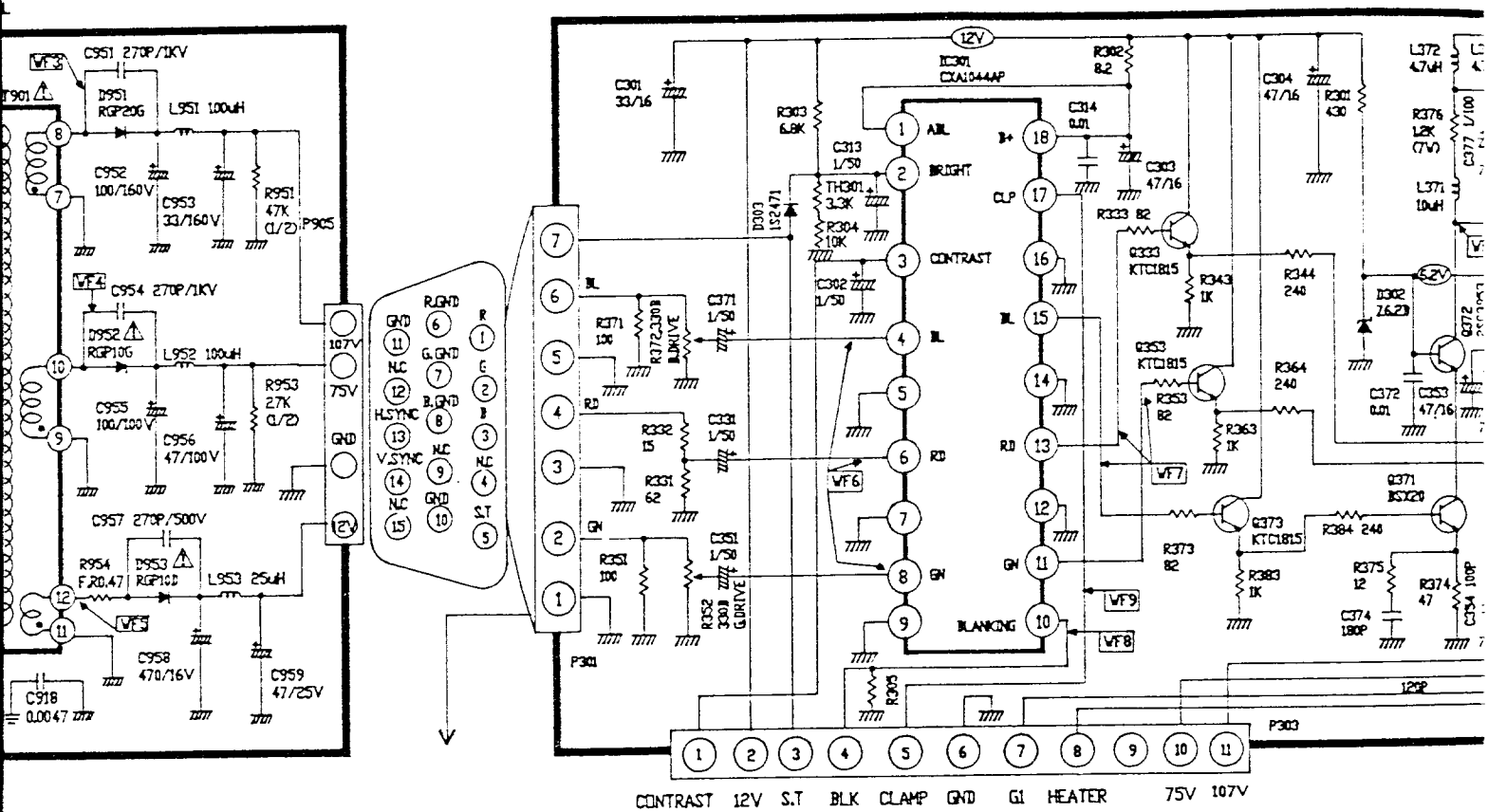
POWER & VIDEO BOARD(120V Version)



NOTES : UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/8W
   K = 1,000 M = 1,000,000
2. ALL CAPACITORS ARE SHOWN
   IN uF P=10^{-12}F

THE ⚠
FEATU
ELECT
ONLY
COMPO



IMPORTANT SAFETY NOTICE

THE ⚠ SYMBOL MARK ON THIS SCHEMATIC DIAGRAM INCORPORATES SPCECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERIVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE ⚠ SYMBOL MARK OF THE SCHEMATIC.

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SI DES PIÈCES DE
N' UTILISEZ QUE

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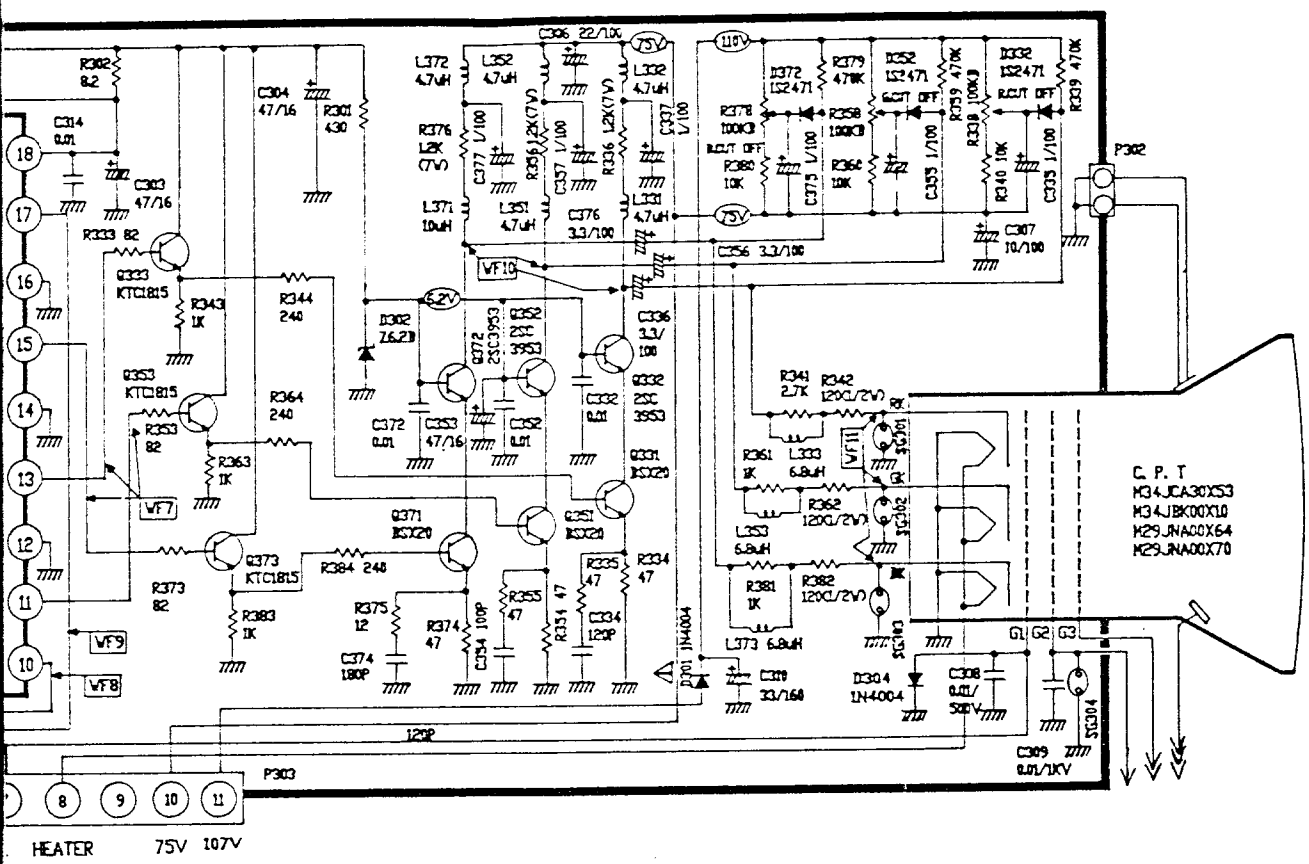

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LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND DIMPORTANTES CARACTÉRISTIQUES SPÉCIALES CONCUES POUR PROTÉGER DES RAYONS X. ET DES DANGERS DINCENDIE IT DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES PAS LE MANUFACTURIER.

P/N 484-260A

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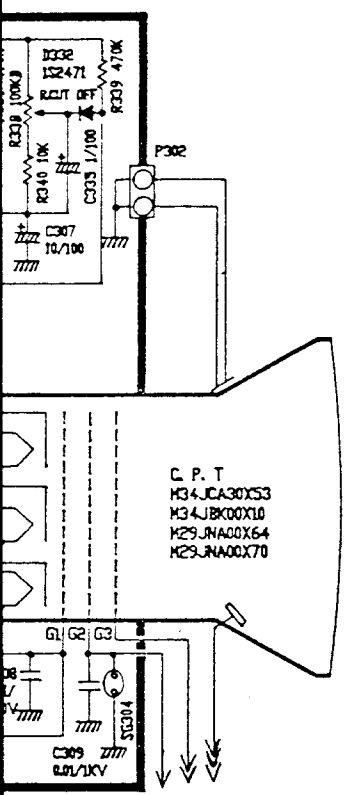

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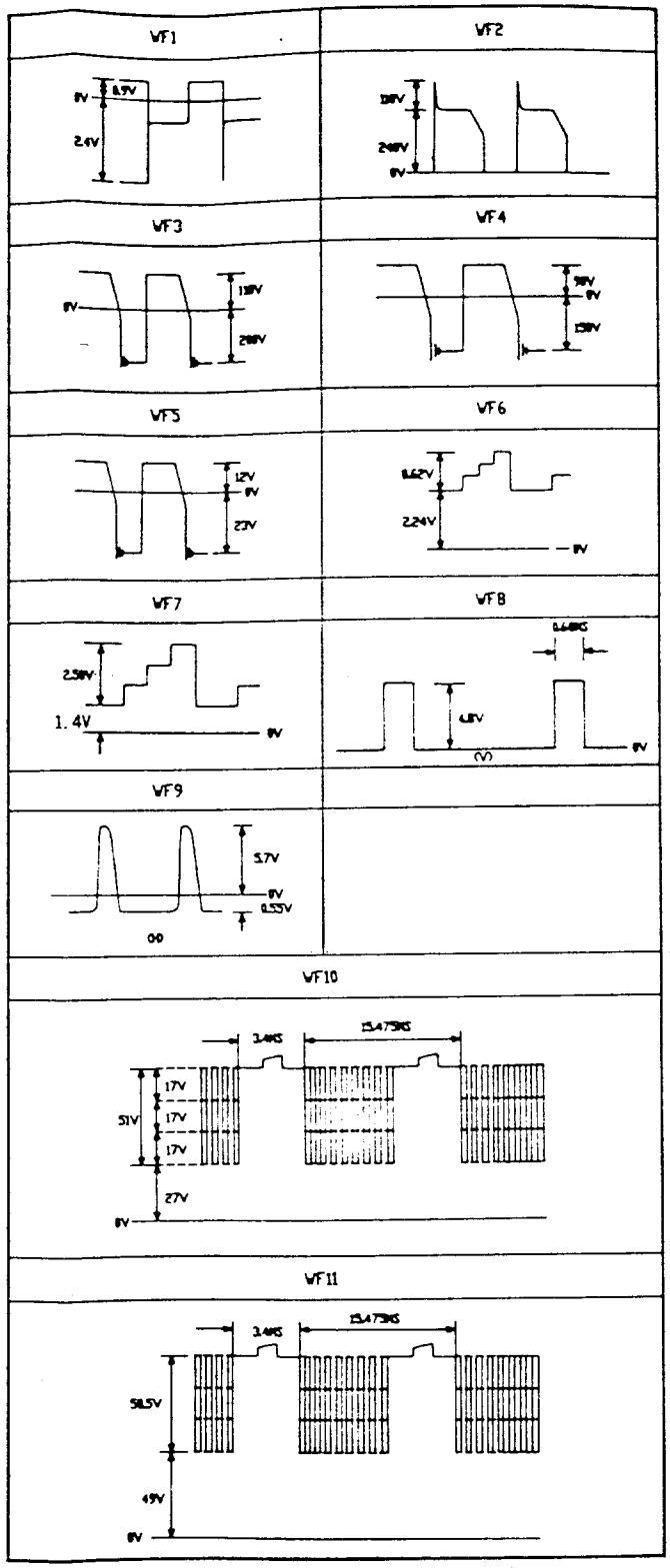

P/N 484-260A

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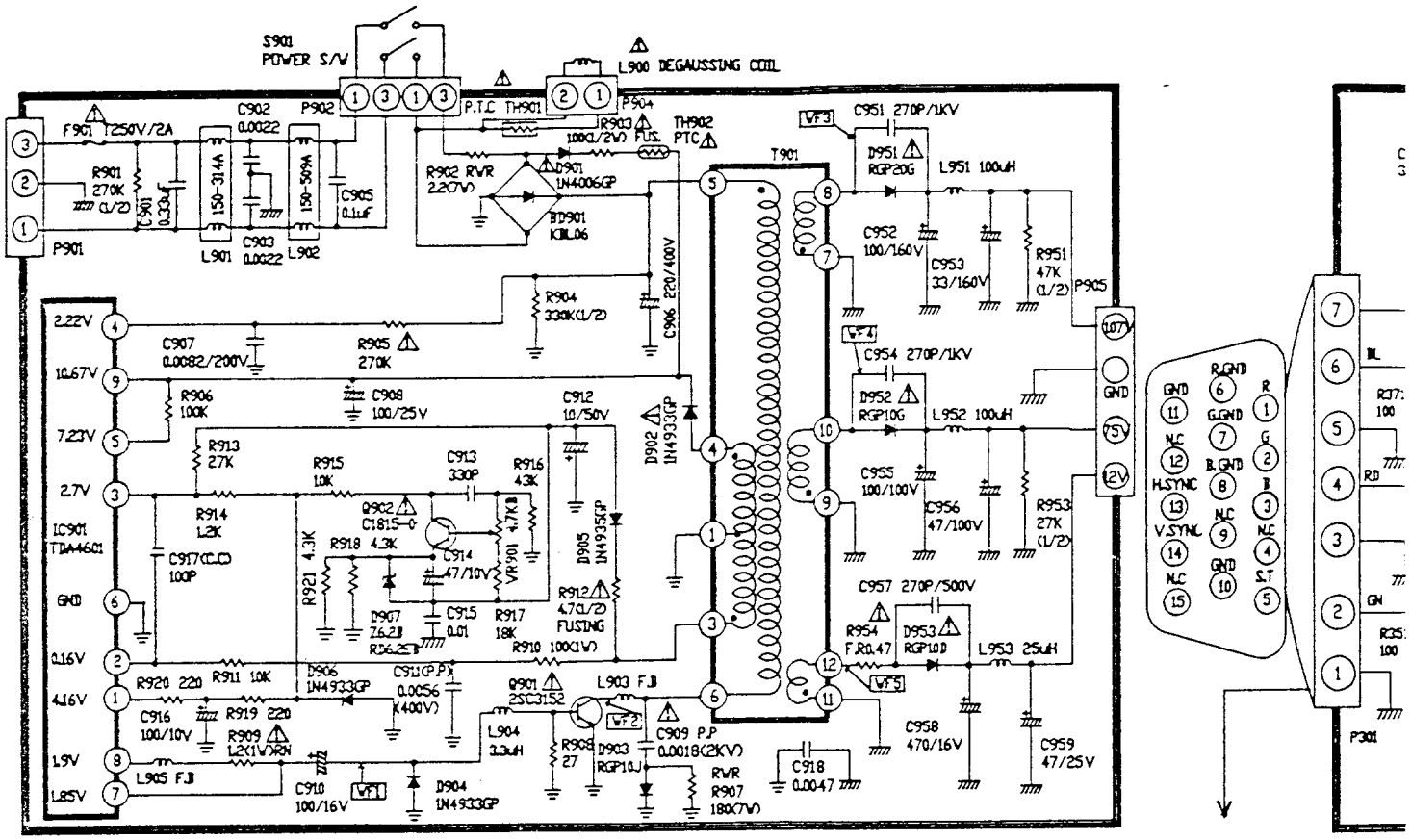
SCHEMATIC DIAGRAM(1/2)

POWER & VIDEO BOARD(220V Version)



NOTES : UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/8W
   K = 1,000 M = 1,000,000
2. ALL CAPACITORS ARE SHOWN
   IN uF P=10^{-12}F

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THE ⚠ SYMBOL MARI
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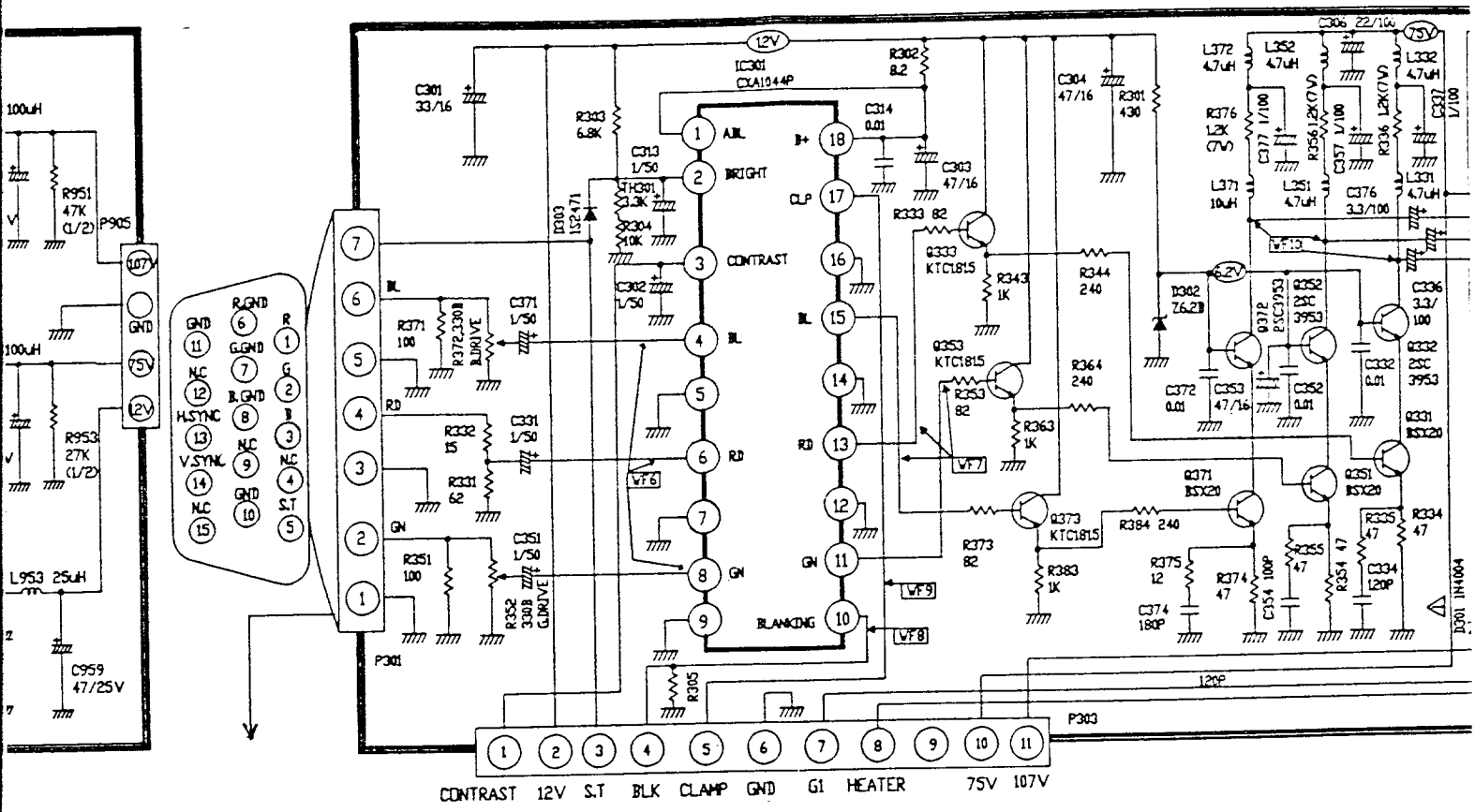
ELECTRICAL SHOCK H
ONLY MANUFACTURER'
COMPONENTS IN THE

A | B | C | D



IMPORTANT SAFETY NOTICE

THE ⚠ SYMBOL MARK ON THIS SCHEMATIC DIAGRAM INCORPORATES SPCECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERIVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE ⚠ SYMBOL MARK OF THE SCHEMATIC.

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LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME
CARACTÉRISTIQUES SPÉCIALES CONCUES P
DES DANGERS D'INCENDIE ET DE SECOUSSES
SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQ
N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES

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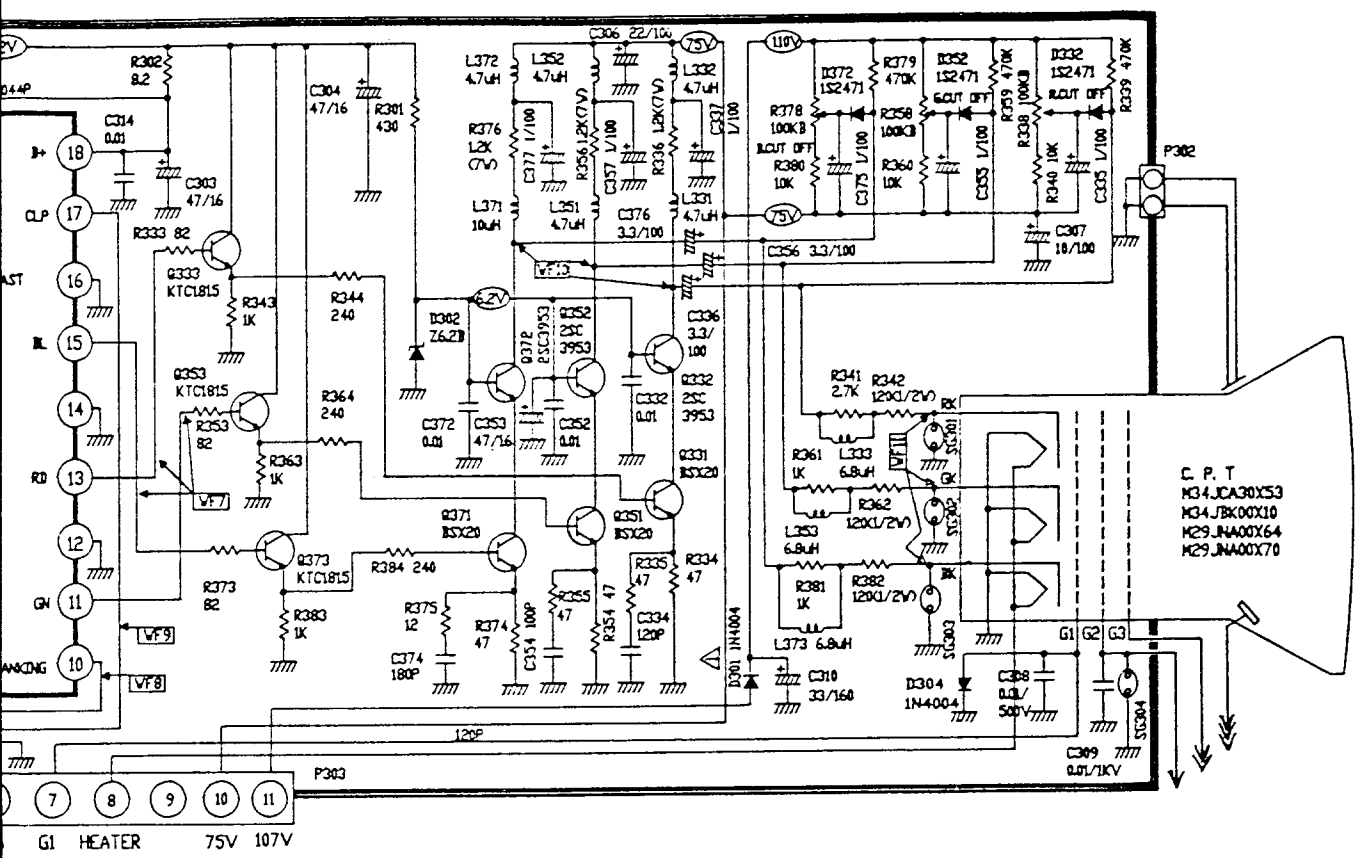

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LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND DIMPORTANTES CARACTÉRISTIQUES SPÉCIALES CONCUES POUR PROTÉGER DES RAYONS X. ET DES DANGERS DINCENDIE IT DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES PAS LE MANUFACTURIER.

P/N 484-260B

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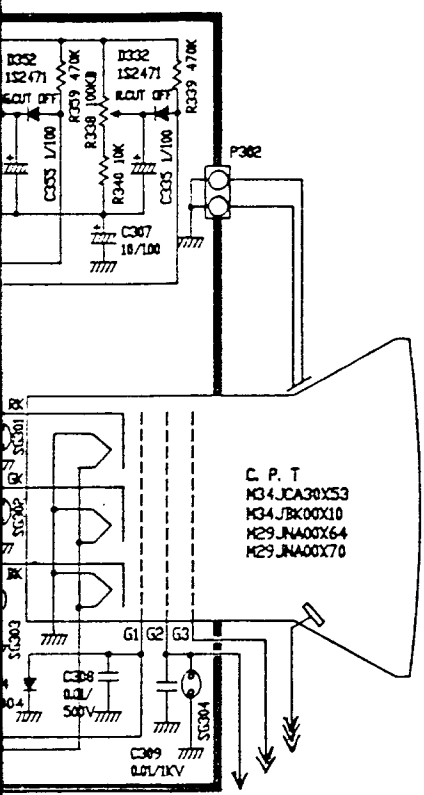

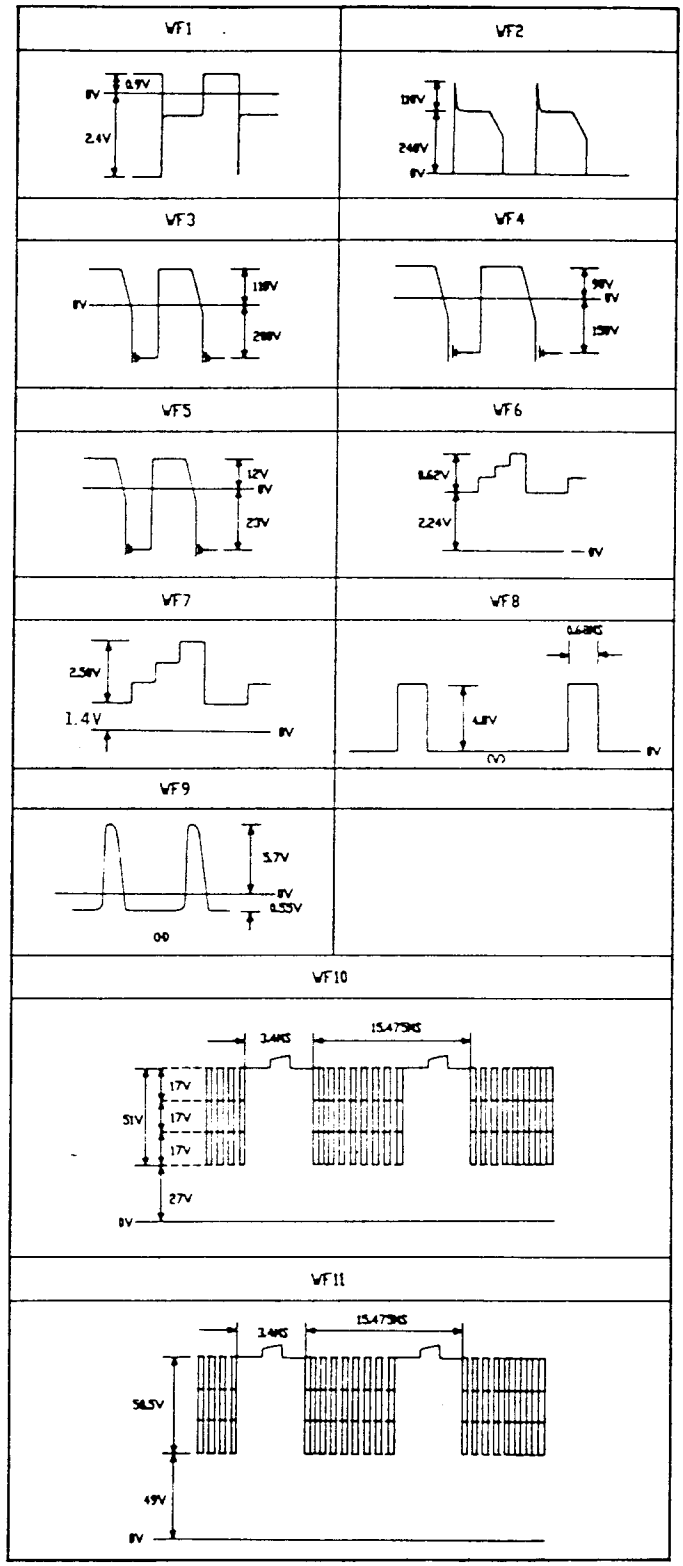

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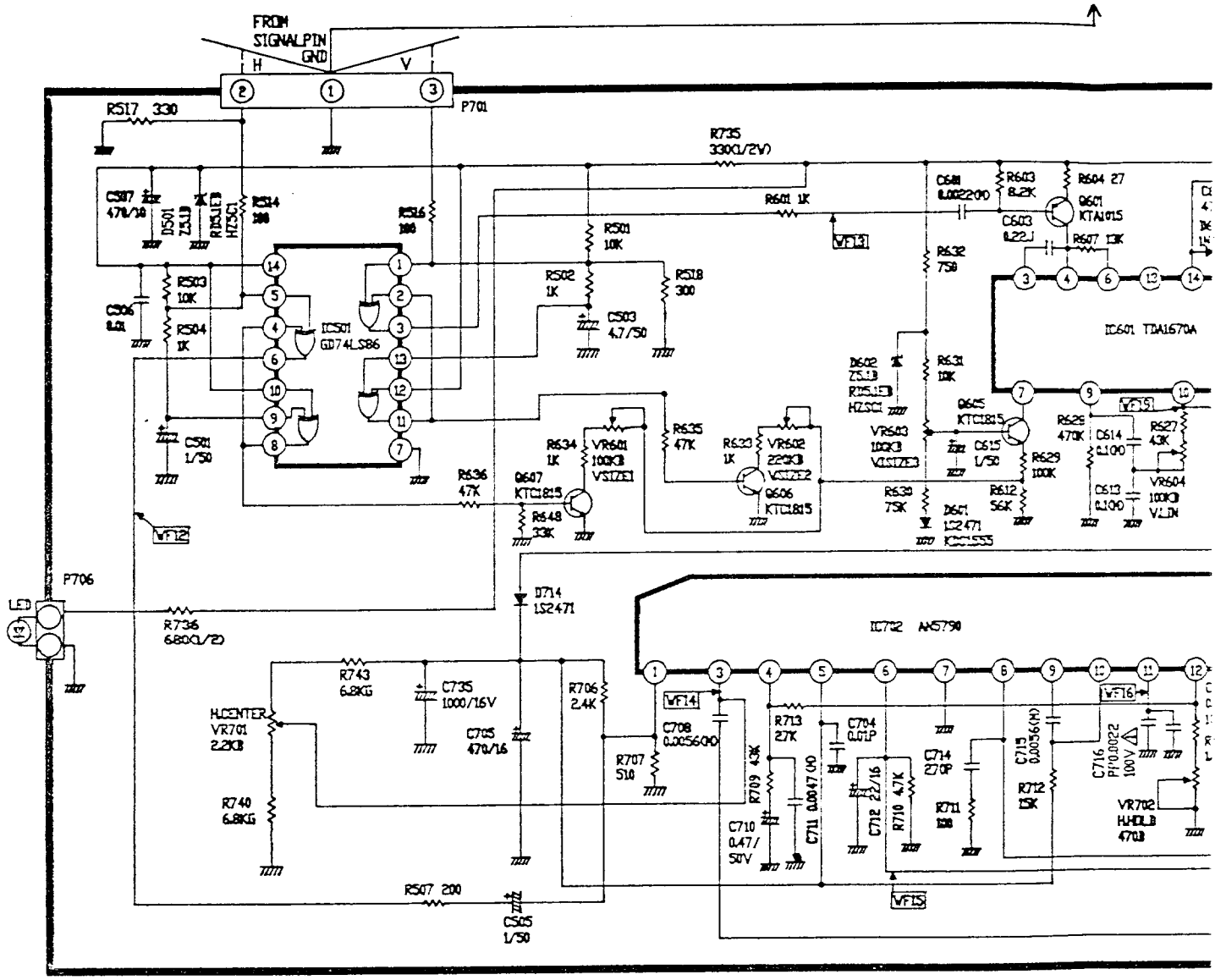
P/N 484-260B

SCHEMATIC DIAGRAM (2/2)

MAIN BOARD (120V/220V)



NOTES : UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/8W
   K = 1,000 M = 1,000,000
2. ALL CAPACITORS ARE SHOWN IN uF P=10^{-12}F

IMPORTANT SAFETY NOTICE

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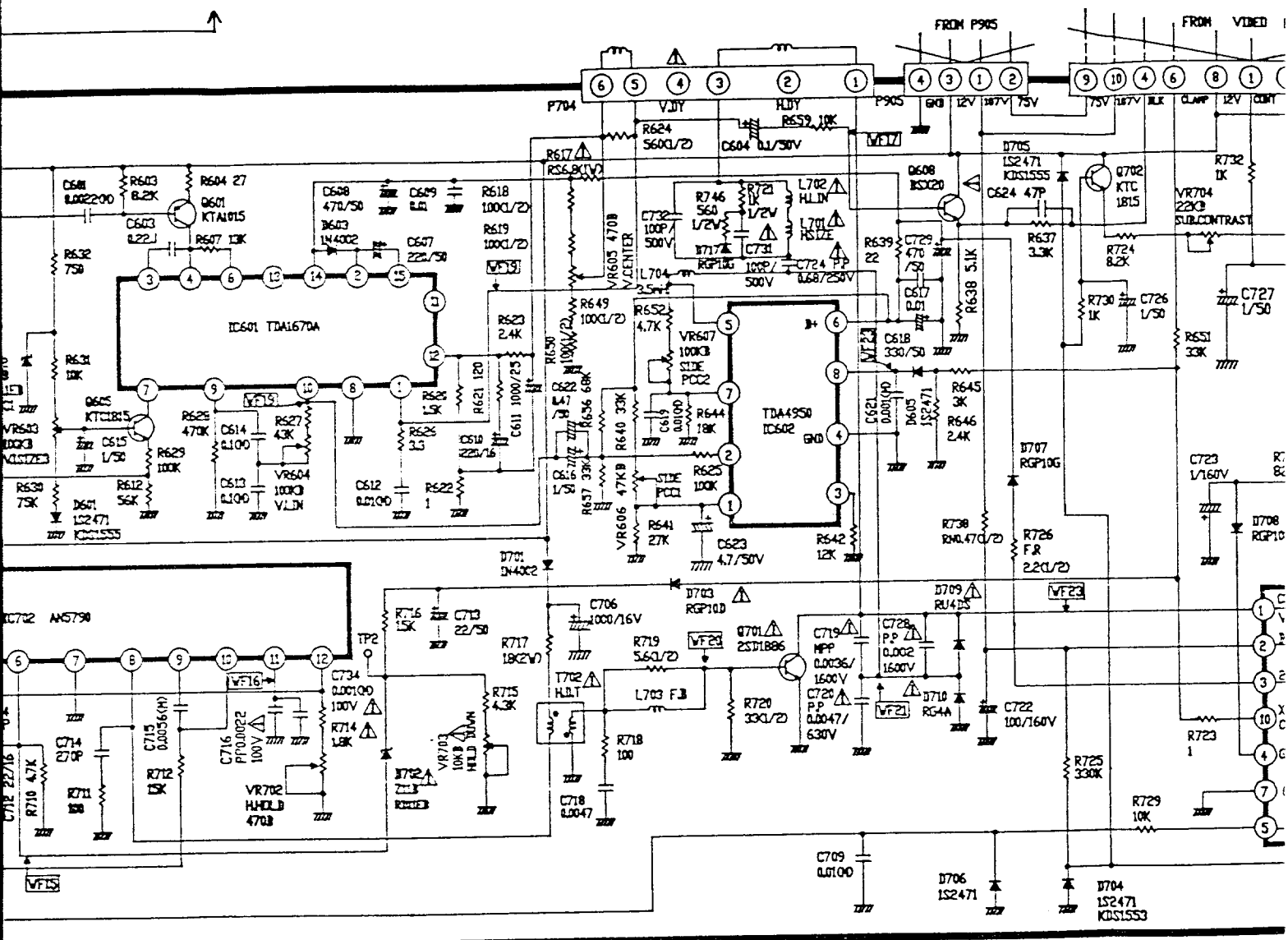
FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FIR
ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IT IS ESSENTI
ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CR
COMPONENTS IN THE ⚠ SYMBOL MARK OF THE SCHEMATIC.



IMPORTANT SAFETY NOTICE

MARK ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL ANT FOR PROTECTION FROM X-RADIATION, FIRE AND K HAZARDS. WHEN SERIVICING IT IS ESSENTIAL THAT ER'S SPECIFIED PARTS BE USED FOR THE CRITICAL HE ⚠ SYMBOL MARK OF THE SCHEMATIC.

LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND D'IMPORTANTES CARACTÉRISTIQUES SPÉCIALES CONÇUES POUR PROTÉGER DES RAYONS X. ET DES DANGERS D'INCENDIE ET DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES PAS LE MANUFACTURIER.

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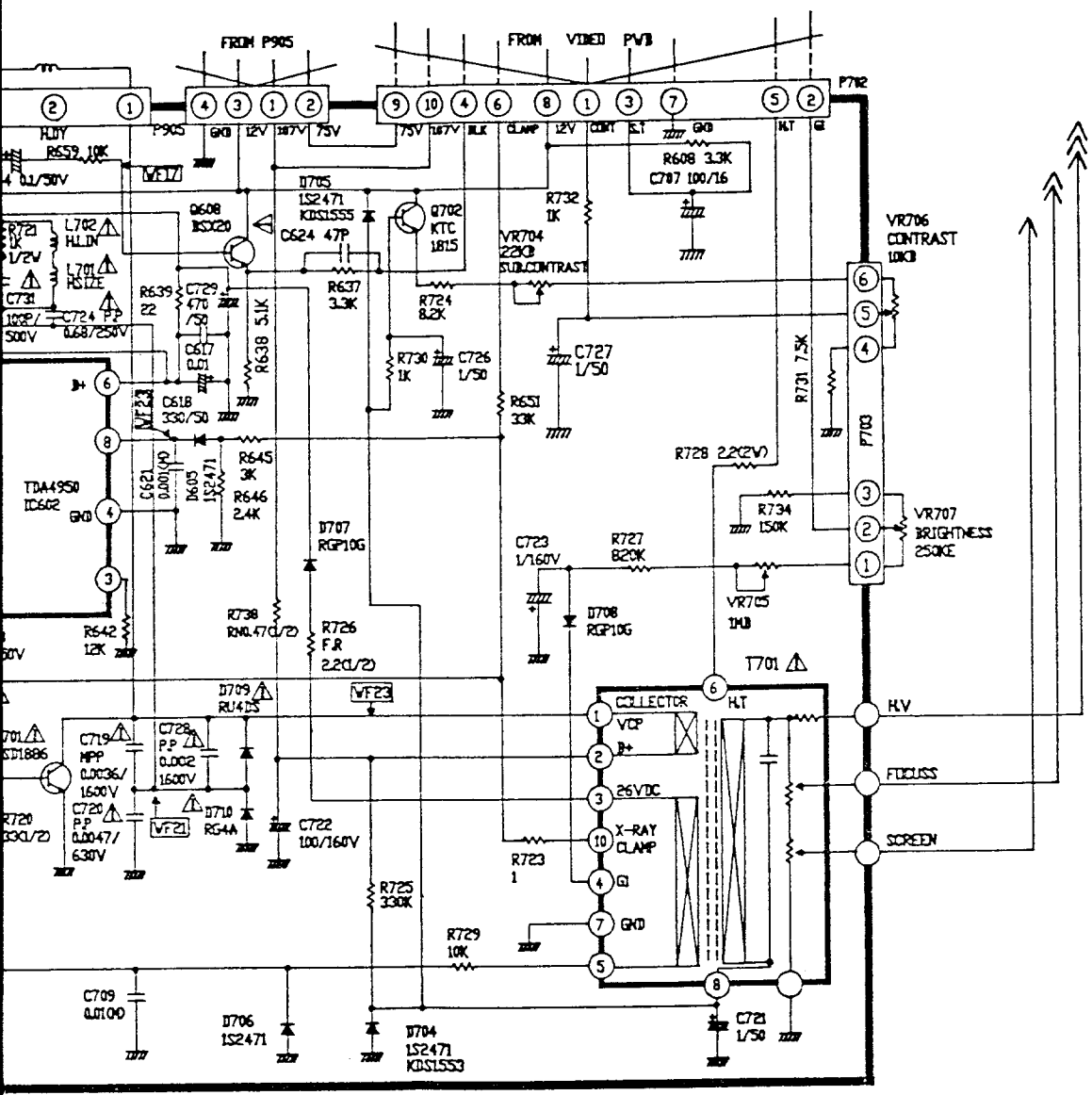

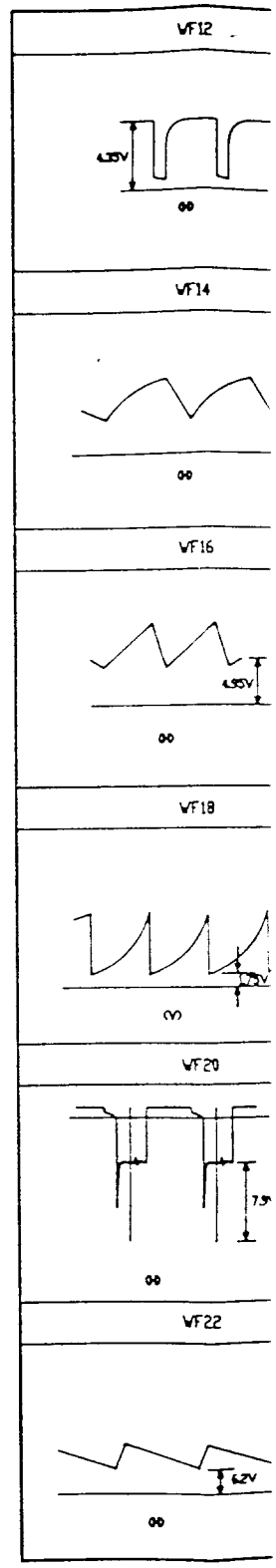

DE CE DIAGAMME SCHÉMATIQUE COMPREND DIMPORTANTES
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IT DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN
⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S
CES SPÉCIFÉES PAS LE MANUFACTURIER.

P/N 484-260A
P/N 484-260B

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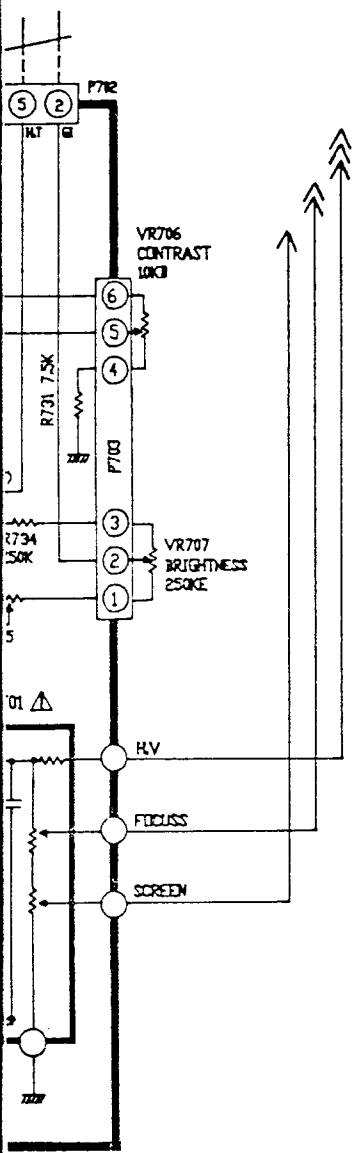
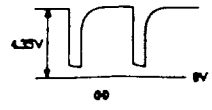
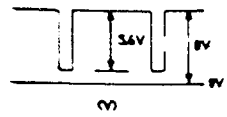
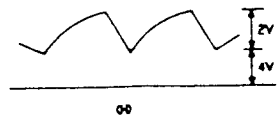
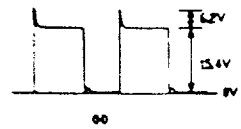
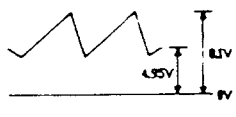
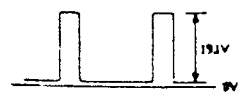
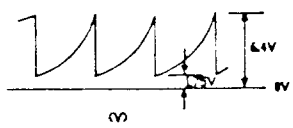
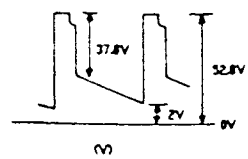
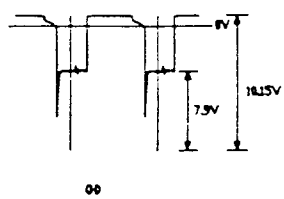
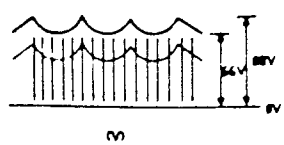
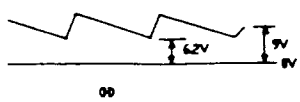
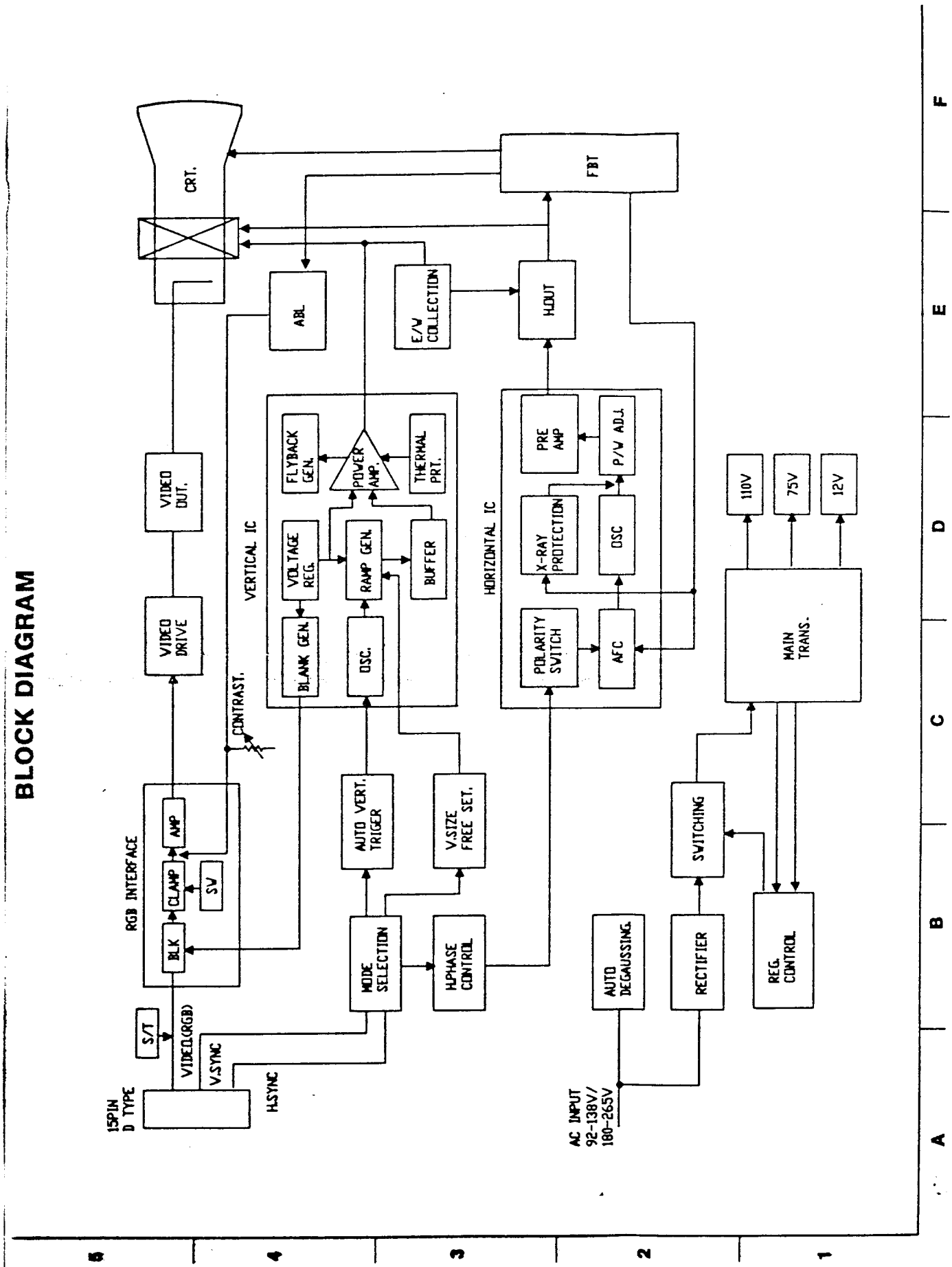


WF12	WF13
	
WF14	WF15
	
WF16	WF17
	
WF18	WF19
	
WF20	WF21
	
WF22	WF23
	

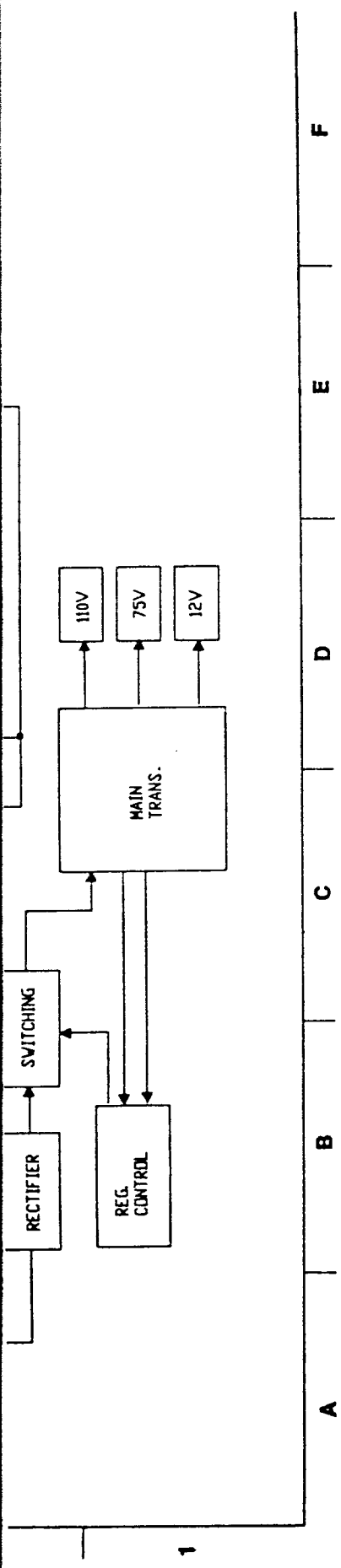
P/N 484-260A
P/N 484-260B

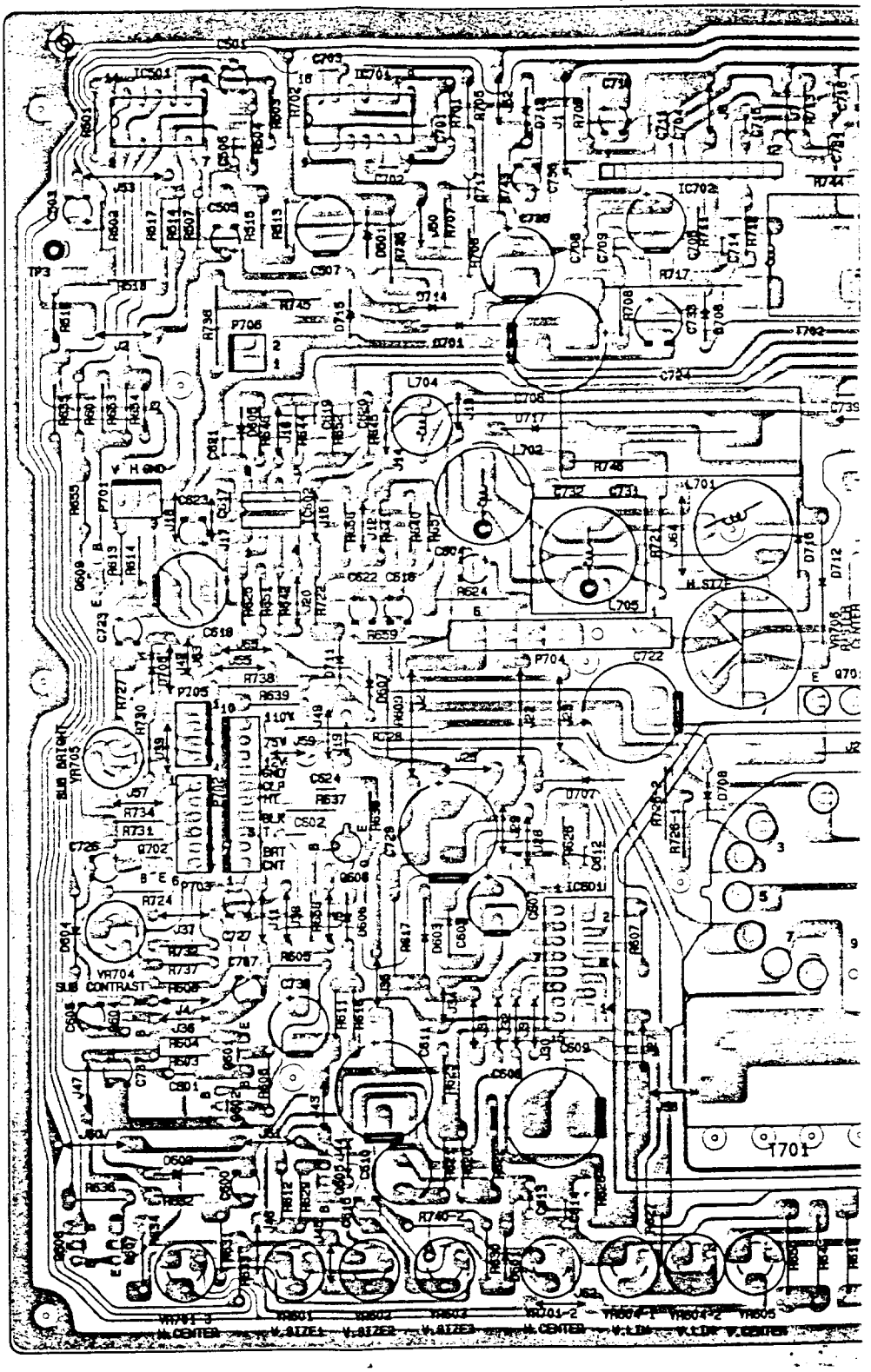
BLOCK DIAGRAM

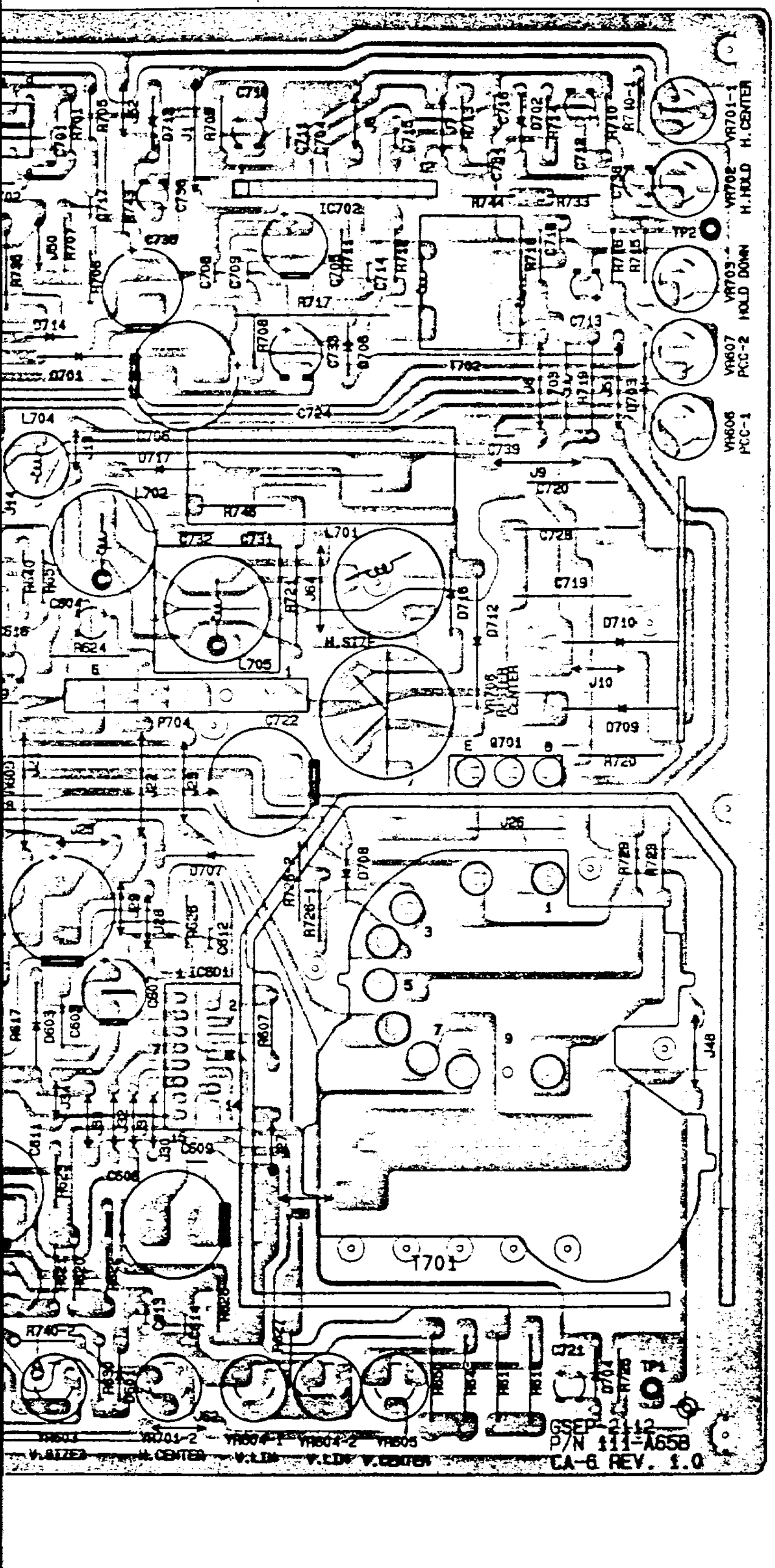


PRINTED CIRCUIT BOARD

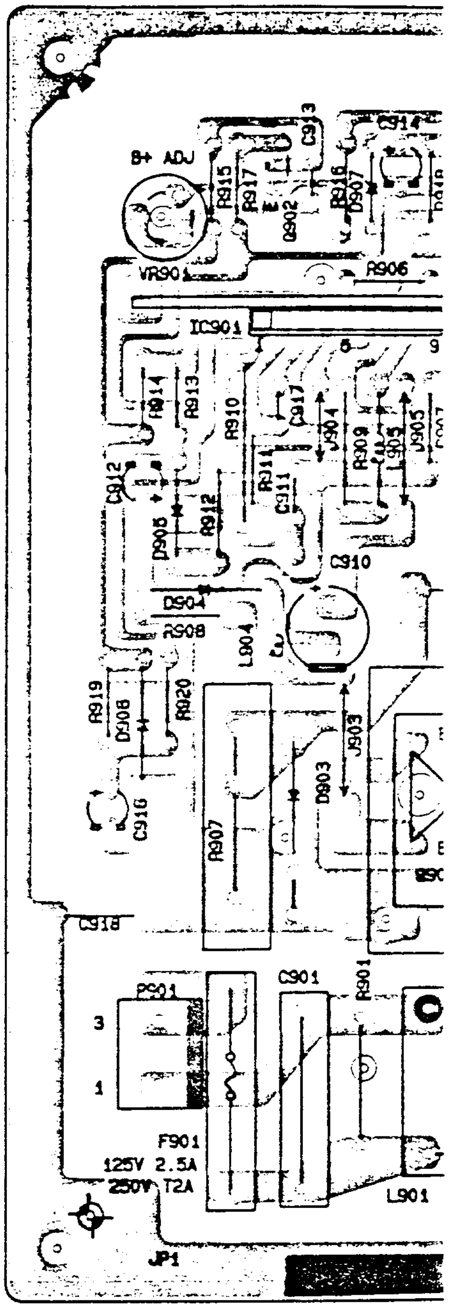
1. MAIN PCB



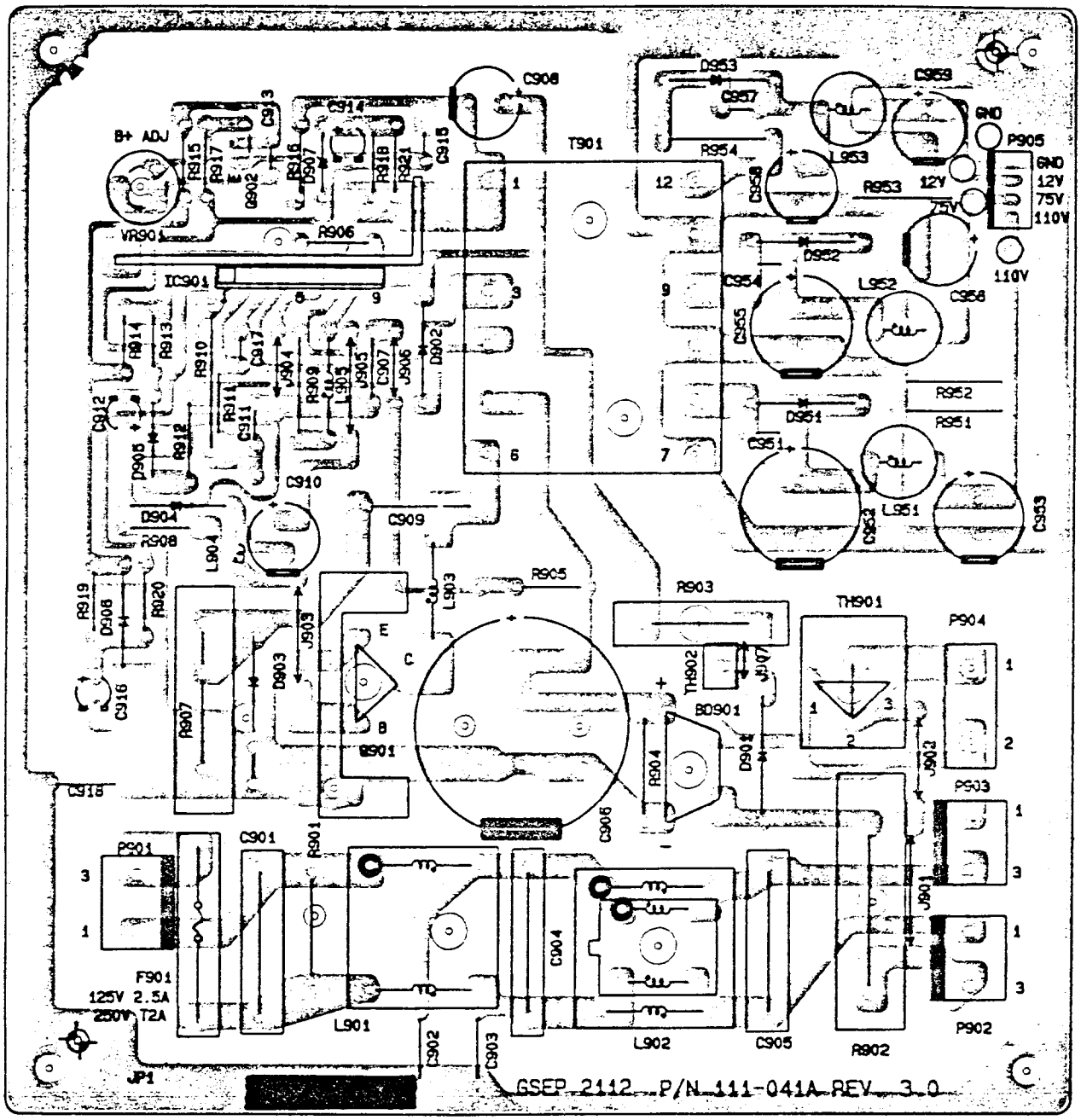



IC702
T701
VR701-1 H.CENTER
VR702 H.HOLD
VR703 HOLD DOWN
H.SIZE
TP1
TP2
CA-6 REV. 1.0

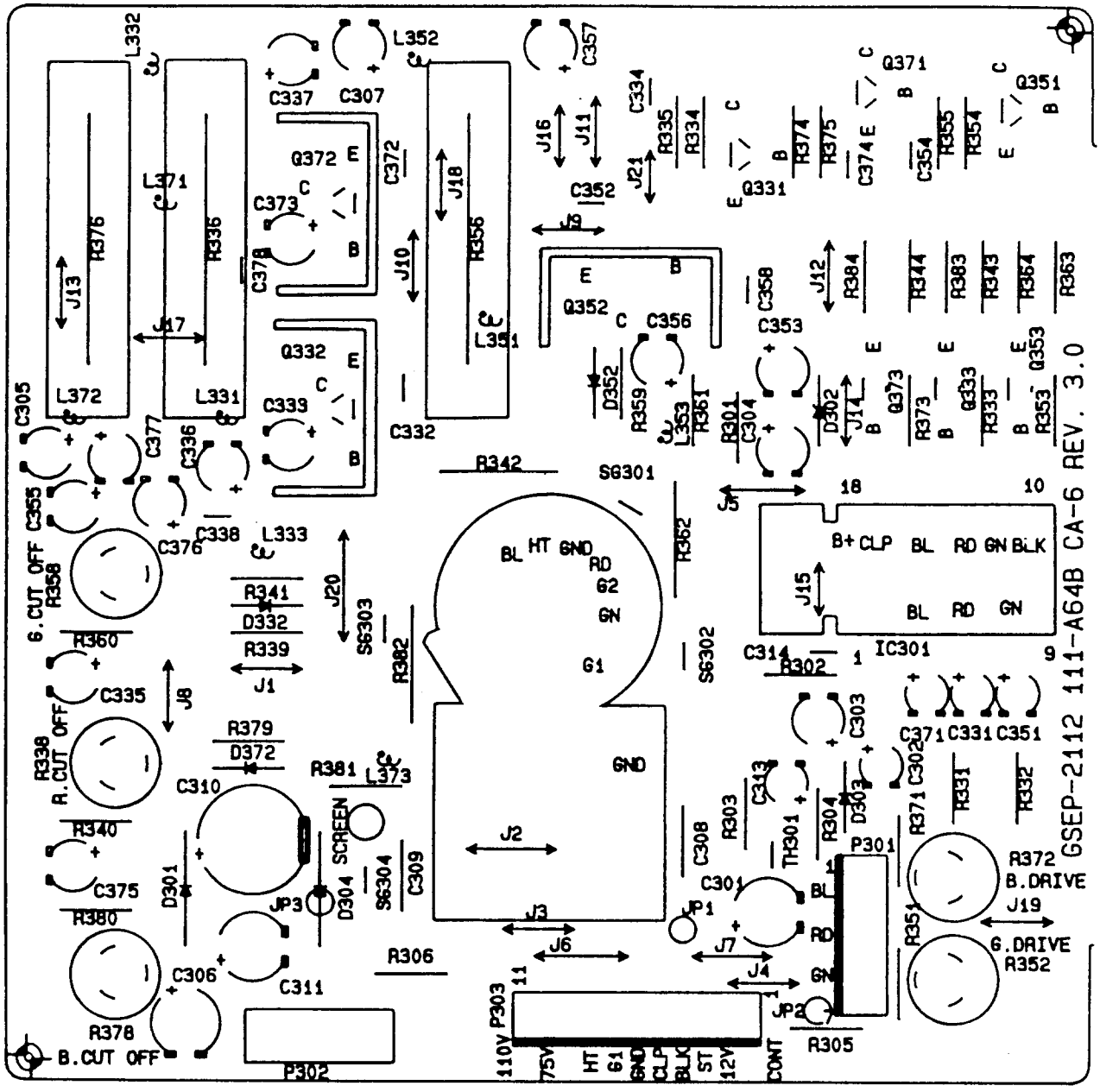
2. POWER PCB


B+ ADJ
VR901
IC901
F901
125V 2.5A
250V T2A
L901
JP1

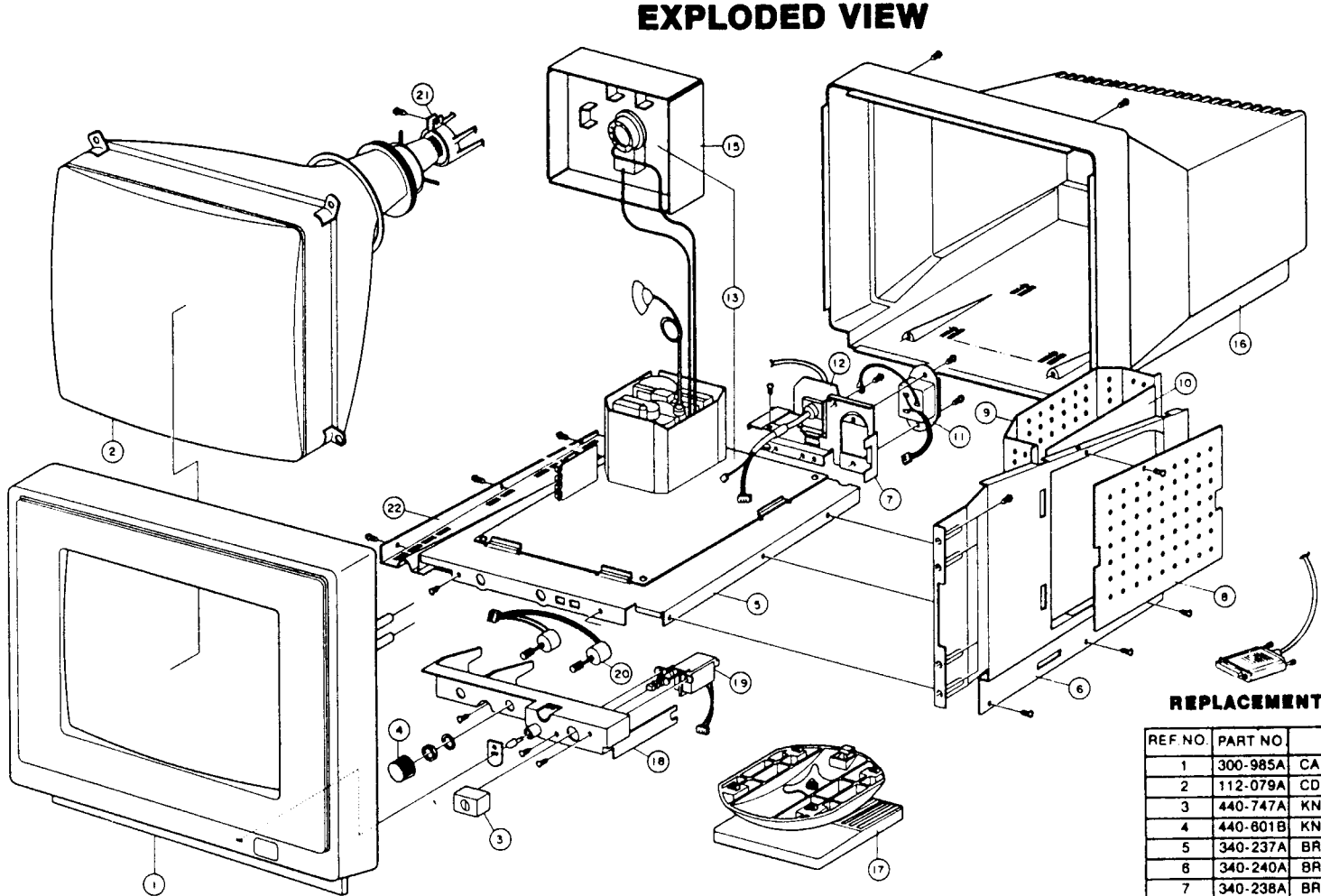
2. POWER PCB


B+ ADJ
VR901
IC901
T901
P905
GND
12V
75V
110V
P904
P903
P902
P901
F901
125V 2.5A
250V T2A
JP1
L901
L902
L903
L904
L951
L952
L953
TH901
TH902
BD901
GSEP 2112 P/N 111-041A REV 3.0

3. VIDEO PCB



EXPLODED VIEW



REPLACEMENT PARTS LIST(MECHANICAL PARTS)

REF.NO.	PART NO.	DESCRIPTION	QTY	REMARK
1	300-985A	CABINET ASSY	1	UL-94V.
2	112-079A	CDT	1	
3	440-747A	KNOB, POWER PUSH	1	UL-94V.
4	440-601B	KNOB, CONTROL	2	UL-94V.
5	340-237A	BRACKET, BASE	1	
6	340-240A	BRACKET, SIDE 14"	1	
7	340-238A	BRAKET, I/O	1	
8	407-883A	PLATE, SHIELD	1	
9	302-415A	CASE, SMPS	1	AL
10	110-G83A	CHASSIS ASSY, POWER	1	PWB ASSY
11	381-120A	SOCKET, POWER	1	
11	387-482B	CONNECTOR, SIGNAL	1	B/K
13	309-302A	CHASSIS ASSY MAIN-PCB	1	PWB ASSY
15	303-995D	COVER.CPT SHIELD CASE	1	
16	303-894A	COVER ASSY, BACK	1	UL-94V.
17	190-013A	T/S ASSY	1	UL-94HB
18	340-235A	BRACKET, VOLUME 14"	1	UL-94V.
19	140-075G	SWITCH, POWER	1	
20	180-128G	RESISTOR VAR.	1	
	180-128H	RESISTOR VAR.	1	
21	341-464A	HOLDER, CPT PCB	1	UL-94V.
22	340-241A	BRACKET, BOTTOM 14"	1	

TILT/SWIVEL STAND (OPTION)

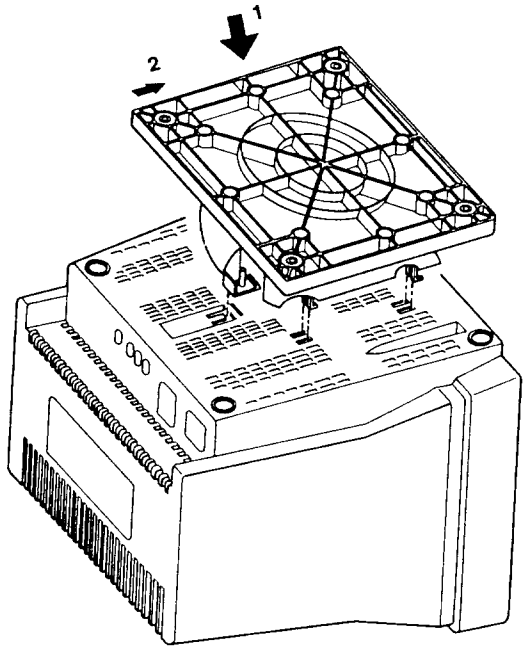
NOTE: Some monitors may not have a Tilt/Swivel Stand.

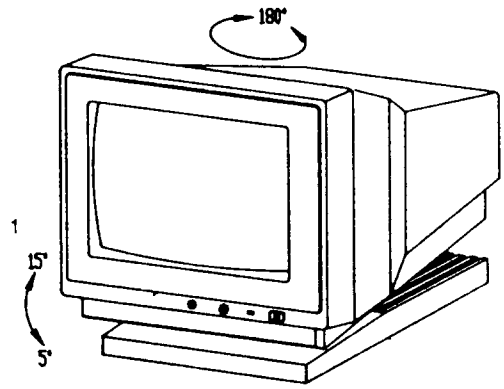
1. Turn off the equipment and all attached options.
2. Carefully set the monitor upside down.

Installation

1. Align the projections in the Tilt/Swivel Stand with slots in the bottom of the monitor and insert the projections into the slots.

2. Push the Tilt/Swivel Stand towards the front of the monitor until the hooks into the slots.





REPLACEMENT PARTS LIST

CAUTION: Before replacing any these components, read carefully the "SAFETY PRECAUTIONS", on page 3.
Do not degrade the safety of the receiver through improper servicing.

ABBREVIATIONS: Capacitors .... CC: Ceramic (TC), CE: Chemical, CK: Ceramic (Hi-K), MPP: Metalized Polypropylens, BP: Bipolor, CQ: Mylar PE: Polyester, PP: Polypropylene
Resistors .... RD: Carbon Film, RS: Metal Oxide Film, RN: Metal Film, VR: Variable, RF: Fusing,

(**S:** Recommend Service Parts, **R:** Replacement Service Parts)

REF. NO.	PART NO.	DESCRIPTION	REMARK
		RESISTORS	
R301	01157088	RD. 430 ohm 1/8W	R
R302	01157047	RD. 8.2 ohm 1/8W	R
R303	01160117	RD. 6.8K ohm 1/8W	R
R304	01157129	RD. 10K ohm 1/8W	R
R331	01157068	RD. 62 ohm 1/8W	R
R332	01157053	RD. 15 ohm 1/8W	R
R333	01157071	RD. 82 ohm 1/8W	R
R334	01157065	RD. 47 ohm 1/8W	R
R335	01157065	RD. 47 ohm 1/8W	R
R336	180-304B	RS. 1.2K ohm 7W	R
R338	180-376D	SEMIFIX H1022A 100KB	S
R339	01157161	RD. 470K ohm 1/8W	R
R340	01157121	RD. 10K ohm 1/8W	R
R341	01157107	RD. 2.7K ohm 1/8W	R
R342	01154067	RD. 56 ohm 1/2W	R
R343	01157097	RD. 1K ohm 1/8W	R
R344	01157082	RD. 240 ohm 1/8W	R
R351	01157073	RD. 100 ohm 1/8W	R
R352	180-021M	SEMIFIX SR-19R 330B	S
R353	01157071	RD. 82 ohm 1/8W	R
R354	01157065	RD. 47 ohm 1/8W	R
R355	01157065	RD. 47 ohm 1/8W	R
R356	180-304B	RS. 1.2K ohm 7W	R
R358	180-376D	SEMIFIX H1022A 100KB	S
R359	01157161	RD. 470K ohm 1/8W	R
R360	01157121	RD. 10K ohm 1/8W	R
R361	01157097	RD. 1K ohm 1/8W	R
R362	01154067	RD. 56 ohm 1/2W	R
R363	01157097	RD. 1K ohm 1/8W	R
R364	01157082	RD. 240 ohm 1/8W	R
R371	01157073	RD. 100 ohm 1/8W	R
R372	180-021M	SEMIFIX SR-19R 330B	S
R373	01157071	RD. 82 ohm 1/8W	R
R374	01157065	RD. 47 ohm 1/8W	R
R375	01157051	RD. 12 ohm 1/8W	R
R376	180-304B	RS. 1.2K ohm 7W	R
R378	180-376D	SEMIFIX H1022A 100KB	S
R379	01157161	RD. 470K ohm 1/8W	R
R380	01157121	RD. 10K ohm 1/8W	R
R381	01157097	R . 1K ohm 1/8W	R
R382	01154067	RD. 56 ohm 1/2W	R
R383	01157097	RD. 1K ohm 1/8W	R

REF. NO.	PART NO.	DESCRIPTION	REMARK
R384	01157082	RD. 240 ohm 1/8W	R
R502	01157097	RD. 1K ohm 1/8W	R
R504	01157097	RD. 1K ohm 1/8W	R
R507	01157080	RD. 200 ohm 1/8W	R
R514	01157073	RD. 100 ohm 1/8W	R
R516	01157073	RD. 100 ohm 1/8W	R
R517	01157101	RD. 1.5K ohm 1/8W	R
R518	01157097	RD. 1K ohm 1/8W	R
R601	01157097	RD. 1K ohm 1/8W	R
R603	01157119	RD. 8.2K ohm 1/8W	R
R604	01157059	RD. 27 ohm 1/8W	R
R607	01160124	RD. 13K ohm 1/8W	R
R608	01157109	RD. 3.3K ohm 1/8W	R
R612	01157139	RD. 56K ohm 1/8W	R
⚠R617	01154039	RN. 3.9 ohm 1/2W	R
R618	01154073	RD. 100 ohm 1/2W	R
R619	01154073	RD. 100 ohm 1/2W	R
R620	01157101	RD. 1.5K ohm 1/8W	R
R621	01157075	RD. 120 ohm 1/8W	R
R622	01154025	RD. 1 ohm 1/2W	R
R623	01157106	RD. 2.4K ohm 1/8W	R
R624	01154091	RD. 560 ohm 1/2W	R
R625	01157145	RD. 100K ohm 1/8W	R
R626	01157033	RD. 2.2 ohm 1/8W	R
R627	01157136	RD. 43K ohm 1/8W	R
R628	01157161	RD. 470K ohm 1/8W	R
R629	01157145	RD. 100K ohm 1/8W	R
R630	01157142	RD. 75K ohm 1/8W	R
R631	01157121	RD. 10K ohm 1/8W	R
R632	01157094	RD. 750 ohm 1/8W	R
R633	01157097	RD. 1K ohm 1/8W	R
R634	01157097	RD. 1K ohm 1/8W	R
R635	01157137	RD. 47K ohm 1/8W	R
R636	01157137	RD. 47K ohm 1/8W	R
R637	01157109	RD. 3.3K ohm 1/8W	R
R639	01157057	RD. 22 ohm 1/8W	R
R640	01157133	RD. 33K ohm 1/8W	R
R641	01157131	RD. 27K ohm 1/8W	R
R642	01157123	RD. 12K ohm 1/8W	R
R644	01157127	RD. 18K ohm 1/8W	R
R645	01157108	RD. 3K ohm 1/8W	R
R646	01157106	RD. 2.4K ohm 1/8W	R
R649	01154073	RD. 100 ohm 1/2W	R

REF. NO.	PART NO.	DESCRIPTION	REMARK
R650	01154073	RD, 100 ohm 1/2W	R
R651	01157133	RD, 33K ohm 1/8W	R
R652	01157113	RD, 4.7K ohm 1/8W	R
R656	01157141	RD, 68K ohm 1/8W	R
R657	01157133	RD, 33K ohm 1/8W	R
R659	01157121	RD, 10K ohm 1/8W	R
R705	01157084	RD, 300 ohm 1/8W	R
R706	01157106	RD, 2.4K ohm 1/8W	R
R707	01157090	RD, 510 ohm 1/8W	R
R708	01157097	RD, 1K ohm 1/8W	R
R709	01157121	RD, 10K ohm 1/8W	R
R710	01157113	RD, 4.7K ohm 1/8W	R
R711	01157073	RD, 100 ohm 1/8	R
R712	01157125	RD, 15K ohm 1/8W	R
R713	01157131	RD, 27K ohm 1/8W	R
⚠R714	01157103	RD, 1.8K ohm 1/8W	R
R715	01157117	RD, 6.8K ohm 1/8W	R
R716	01157125	RD, 15K ohm 1/8W	R
R717	01335055	RS, 18 ohm 2W	R
R718	01157073	RD, 100 ohm 1/8W	R
R719	01154043	RD, 5.6 ohm 1/2W	R
R720	01154061	RD, 33 ohm 1/2W	R
R721	01154097	RD, 1K ohm 1/2W	R
R723	01157025	RD, 1 ohm 1/8W	R
R724	01157119	RD, 8.2K ohm 1/8W	R
R725	01157157	RD, 330K ohm 1/8W	R
R726	180-286A	RF, FUSING 0.5W, 2.2 ohm	S
R727	01157167	RD, 820K ohm 1/8W	R
R728	01335033	RS, 2.2 ohm 2W	R
R729	01157121	RD, 10K ohm 1/8W	R
R730	01157097	RD, 1K ohm 1/8W	R
R731	01157113	RD, 4.7K ohm 1/8W	R
R732	01157097	RD, 1K ohm 1/8W	R
R734	01157149	RD, 150K ohm 1/8W	R
R735	01154080	RD, 200 ohm 1/2W	R
R736	01154089	RD, 680 ohm 1/2W	R
⚠R738	01520017	RN, 0.47 ohm 1/2W	R
R740	01157117	RD, 6.8K ohm 1/8W	R
R743	01157117	RD, 6.8K ohm 1/8W	R
R746	01154091	RD, 560 ohm 1/2W	R
R901	01154155	RD, 270K ohm 1/2W	R
⚠R902	180-329B	RES CEMENT RWR 2.2 ohm 7W	S
⚠R903	180-108Q	RS, METAL OXIDE 3W 7.8K	S
⚠R904	01154151	RD, 180K ohm 1/2W	R
⚠R905	01157150	RD, 160K ohm 1/8W	R
R906	01157145	RD, 100K ohm 1/8W	R
R907	180-329C	RES CEMENT RWR 180 ohm 7W	S
R908	01157059	RD, 27 ohm 1/8W	R
⚠R909	01520021	RN, 0.68 ohm 1/2W	R
R910	01332073	RS, 100 ohm 1W	R
R911	01157121	RD, 10K ohm 1/8W	R
⚠R912	180-286E	RF, FUSING 0.5W 4.7 ohm	S
R913	01157131	RD, 27K ohm 1/8W	R
R914	01157099	RD, 1.2K ohm 1/8W	R
R915	01157121	RD, 10K ohm 1/8W	R
R916	01157136	RD, 43K ohm 1/8W	R
R917	01157127	RD, 18K ohm 1/8W	R
R918	01157112	RD, 4.3K ohm 1/8W	R

REF. NO.	PART NO.	DESCRIPTION	REMARK
R919	01157081	RD, 220 ohm 1/8W	R
R920	01157081	RD, 220 ohm 1/8W	R
R921	01157112	RD, 4.3K ohm 1/8W	R
R951	01154137	RD, 47K ohm 1/2W	R
R953	01154131	RD, 27K ohm 1/2W	R
⚠R954	180-1407	RF, FUSING 1/2W 0.47 ohm	S
VR601	180-098C	SEMIFIX SR-29R 100KB	S
VR602	180-098J	SEMIFIX SR-29R 220K	S
VR603	180-098C	SEMIFIX SR-29R 100KB	S
VR604-1	180-376A	SEMIFIX H1021A 100KB	S
VR605	180-376C	SEMIFIX SR-29R 470 0.5W	S
VR606	180-051J	SEMIFIX SR-29D 47K	S
VR607	180-098C	SEMIFIX SR-29R 100KB	S
VR701	180-376G	SEMIFIX H1022A 2.2K	R
⚠VR702	180-098F	SEMIFIX SR-29R 470	S
⚠VR703	180-098B	SEMIFIX SR-29R 10KB	S
VR704	180-098H	SEMIFIX SR-29R 22KB	S
VR705	180-098R	SEMIFIX SR-29R 1MB	S
VR707	180-128H	VR, 250KE C-CLICK	S
VR901	180-283B	SEMIFIX EVM-4LG 4.7K	S
		CAPACITOR	
C301	08110316	CE, 33uF/16V	R
C302	08110507	CE, 1uF/50V	R
C303	08110317	CE, 47uF/16V	R
C304	08110317	CE, 47uF/16V	R
C306	02140615	CE, 22uF/100V	R
C307	181-196J	CE, 10uF/100V(105°C)	S
C308	02211072	CK, 0.01uF/500V	R
C309	02213172	CK, 0.01uF/1000V	R
C310	02140716	CE, 33uF/160V	R
C313	08110507	CE, 1uF/50V	R
C314	08200972	CK, 0.01uF/50V	R
C331	08110507	CE, 1uF/50V	R
C332	08200972	CK, 0.01uF/50V	R
C334	08300138	CC, 120pF/50V	R
C335	02140607	CE, 1uF/100V	R
C336	08110610	CE, 3.3uF/100V	R
C337	181-196G	CE, 1uF/100V(105°C)	S
C351	08110507	CE, 1uF/50V	R
C352	08200972	CK, 0.01uF/50V	R
C353	08110317	CE, 47uF/16V	R
C354	08300138	CK, 120pF/50V	R
C355	02140607	CE, 1uF/100V	R
C356	08110610	CE, 3.3uF/100V	R
C357	181-196G	CE, 1uF/100V(105°C)	S
G371	08110507	CE, 1uF/50V	R
C372	08200972	CK, 0.01uF/50V	R
C374	08300142	CC, 180pF/50V	R
C375	02140607	CE, 1uF/100V	R
C376	08110610	CE, 3.3uF/100V	R
C377	02140607	CE, 1uF/100V	R
C501	08110507	CE, 1uF/50V	R
C503	08110511	CE, 4.7uF/50V	R
C505	08110507	CE, 1uF/50V	R
C506	08200972	CK, 0.01uF/50V	R
C507	02140223	CE, 470uF/10V	R
C601	08700323	CQ, 222pF/100V	R
C603	02702439	CQ, 0.22uF/100V	R
C604	08110501	CE, 0.1uF/50V	R
C607	02140521	CE, 220uF/50V	R

REF. NO.	PART NO.	DESCRIPTION	REMARK
C608	02140523	CE, 470uF/50V	R
C609	08200972	CK, 0.01uF/50V	R
C610	02140321	CE, 220uF/16V	R
C611	02140425	CE, 1000uF/25V	R
C612	08700337	CQ, 0.1uF/100V	R
C613	181-143N	PP, 0.1uF/100V	S
C614	08700337	CQ, 0.1uF/100V	R
C615	08110507	CE, 1uF/50V	R
C616	08110507	CE, 1uF/50V	R
C617	08200972	CK, 0.01uF/50V	R
C618	02140522	CE, 330uF/50V	R
C619	08700331	CQ, 0.01uF/100V	R
C621	08700319	CQ, 1000pF/100V	R
C623	08110511	CE, 4.7uF/50V	R
C704	08200972	CK, 0.01uF/50V	R
C705	02140323	CE, 470uF/16V	R
C706	02140325	CE, 1000uF/16V	R
C708	08700328	CQ, 5600pF/100V	R
C709	08756531	CQ, 0.01uF/100V	R
C710	08110505	CE, 0.47uF/50V	R
C711	08700327	CQ, 4700pF/100V	R
C712	08110315	CE, 22uF/16V	R
C713	08110515	CE, 22uF/50V	R
C714	08200746	CK, 270pF/50V	R
C715	02706528	CQ, 0.0056uF/100V	R
⚠C716	181-143H	PP, 2200pF/100V	S
C718	08200768	CK, 4700pF/50V	R
⚠C719	181-083M	MPP, 0.0036uF/1600V	S
⚠C720	181-061J	PP, 0.0047uF/630V	S
C721	08110507	CE, 1uF/50V	R
C722	02140719	CE, 100uF/160V	R
C723	02140713	CE, 1uF/160V	R
C724	181-143Y	PP, 0.68uF/250V	S
C726	08110507	CE, 1uF/50V	R
C727	08110507	CE, 1uF/50V	R
⚠C728	181-083L	PP, 2000pF/1600V	S
C729	02140523	CE, 470uF/50V	R
⚠C731	08201036	CK, 100pF/500V	R
C732	08201036	CK, 100pF/500V	R
⚠C734	02701519	CQ, 1000pF/100V	R
C735	02140325	CE, 1000pF/16V	R
C901	181-354J	MPP, 0.1uF BL02E	S
C902	181-048J	CAP, 0.0022uF DE7100F VA1-KC	S
C903	181-048J	CAP, 0.0022uF DE7100F VA1-KC	S
C905	181-354J	MPP, 0.1uF BL02E	S
C906	181-216B	CE, 330uF/250V 40 x 30	S
C907	181-143C	CAP, 0.0082uF/200V	S
C908	181-196F	CE, 100uF/25V(105°C)	S
⚠C909	181-061P	PP, 0.0027uF/630V	S
C910	181-196C	CE, 100uF/16V(105°C)	S
C911	181-060K	PP, 0.0022uF/400V	S
C912	08110513	CE, 10uF/50V	R
C913	08300147	CC, 330pF/50V	R
C914	181-196A	CE, 47uF/10V(105°C)	S
C915	08200972	CK, 0.01uF/50V	R
C916	08110219	CE, 100uF/10V	R

REF. NO.	PART NO.	DESCRIPTION	REMARK
C917	08300720	CC, 22pF/50V	R
C918	181-093C	CAP, 0.0047uF/125VAC	S
C951	02211346	CK, 270pF/1000V	R
C952	02140719	CE, 100uF/160V	R
C953	02140716	CE, 33uF/160V	R
C954	02211346	CK, 270pF/1000V	R
C955	181-196Z	CE, 100uF/100V(105°C)	S
C956	02140617	CE, 47uF/100V	R
C957	02211046	CK, 270pF/500V	R
C958	181-196D	CE, 470uF/16V(105°C)	S
C959	08110417	CE, 47uF/25V	R
IC			
IC301	06300544	IC, CXA1044P	S
IC501	06300624	IC, GD74LS86	S
IC601	06300265	IC, TDA1670A	S
IC602	06300266	IC, TDA4950	S
IC702	06300157	AN5790N	S
⚠IC901	06300323	IC, TDA4601	S
SPARK GAP			
SG301	165-010A	SPARK GAP DSP301N	S
SG302	165-010A	SPARK GAP DSP301N	S
SG303	185-010A	SPARK GAP DSP301N	S
SG304	165-004A	SPARK GAP AG 20PT 152F-L3N	S
DIODE			
D301	06220071	1N4004TA	S
D302	06220230	ZENER DIODE Z6.2B	S
D303	06200167	1S2471TA	S
D332	06200167	1S2471TA	S
D352	06200167	1S2471TA	S
D372	06200167	1S2471TA	S
D501	06220227	ZENER DIODE Z5.1B(TA)	S
D601	06200167	1S2471TA	S
D602	06220227	ZENER DIODE Z5.1B(TA)	S
D603	06220069	1N4002TA	S
D605	06200167	1S2471TA	S
D701	06220069	1N4002TA	S
⚠D702	06220235	ZENER DIODE Z11BL(TA)	S
⚠D703	06200266	DIODE RGP10G	S
D704	06200167	1S2471TA	S
D705	06200167	1S2471TA	S
D706	06200167	1S2471TA	S
⚠D707	06200266	DIODE RGP10G	S
⚠D708	06200266	DIODE RGP10G	S
⚠D709	06200370	DIODE RU4DS	S
⚠D710	06200375	DIODE RG4A	S
D714	06200167	1S2471TA	S
D717	06200266	DIODE RGP 10G	S
⚠D901	06200290	DIODE 1N4006GP	S
⚠D902	06200291	DIODE 1N4933GP	S
D903	06200266	DIODE RGP10G	S
D904	06220291	DIODE 1N4933GP	S
D905	06200292	DIODE 1N4935GP	S
D906	06200291	DIODE 1N4933GP	S
D907	06220229	ZENER DIODE Z6.2B	S
⚠D951	06220222	DIODE RGP20G	S
⚠D952	06200266	DIODE RGP10G	S
⚠D953	06200072	DIODE RGP10D	S
⚠BD901	06200387	KBL04(SYMBOL)	S

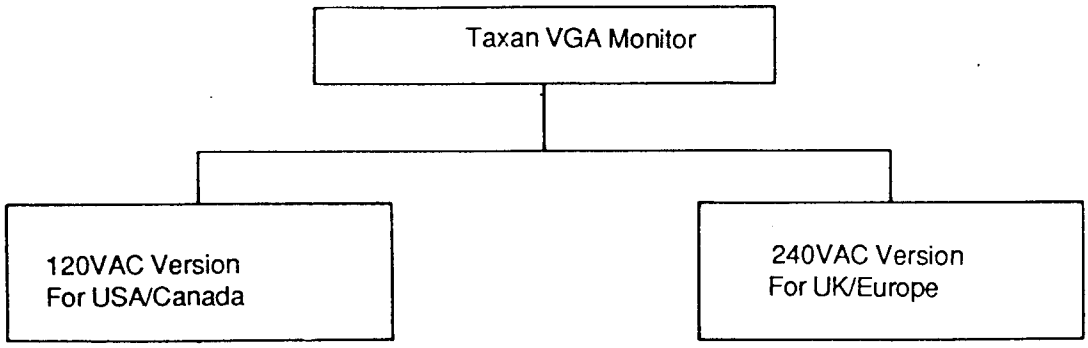
REF. NO.	PART NO.	DESCRIPTION	REMARK
		COIL & TRANS	
L331	04011033	PEAKING COIL, 4.7uH	R
L332	04011033	PEAKING COIL, 4.7uH	R
L333	04011037	PEAKING COIL, 6.8uH	R
L351	04011033	PEAKING COIL, 4.7uH	R
L352	04011033	PEAKING COIL, 4.7uH	R
L353	04011037	PEAKING COIL, 6.8uH	R
L371	04011041	PEAKING COIL, 10uH	R
L372	04011033	PEAKING COIL, 4.7uH	R
L373	04011037	PEAKING COIL, 6.8uH	R
⚠L701	150-308U	COIL, H. WIDTH	S
⚠L702	150-468F	COIL, H. LINEARITY	S
L703	125-022B	CORE, FERRITE SM-2CRHW	S
L704	150-235K	COIL, CHOCK 3.5mH	S
L901	150-314A	COIL, LINE FILTER 20mH	S
L902	150-509A	COIL, LINE FILTER 2x1.8mH	S
L903	125-022B	CORE, FERRITE SM-2CRHW	S
L904	04011029	PEAKING COIL 3.3uH	R
L905	125-022B	CORE, FERRITE SM-2CRHW	S
L951	150-235C	COIL, H. CHOKE 100uH 1A	S
L952	150-235C	COIL, H. CHOKE 100uH 1A	S
L953	150-235F	COIL, CHOKE 25uH 1A	S
⚠T701	154-156A	FBT, MSU1FFE12	S
	154-166A	FBT, QS-FDB	S
⚠T702	151-269A	H. DRIVE TRANS	S
⚠T901	151-091A	POWER TRANSFORMER	S
⚠L900	150-425H	COIL, DEGAUSSING	S
		TRANSISTOR	
Q331	06160018	BSX20	S
Q332	06120277	TR, 2SC3953(SANYO)	S
Q333	06120240	TR, KTC1815-O/Y(TA)	S
Q351	06160018	BSX20	S
Q352	06120277	TR, 2SC3953(SANYO)	S
Q353	06120240	TR, KTC1815-O/Y(TA)	S
Q371	06160018	BSX20	S
Q372	06120277	TR, 2SC3953(SANYO)	S
Q373	06120240	TR, KTC1815-O/Y(TA)	S
Q601	06120253	TR, KTA1015-O/Y(TA)	S
Q605	06120240	KTC1815-O/Y(TA)	S
Q606	06120240	KTC1815-O/Y(TA)	S
Q607	06120240	KTC1815-O/Y(TA)	S
Q608	06160028	BSX20	S
⚠Q701	06130086	TR, 2SD1886	S
Q702	06120240	KTC1815-Y(TA)	S
⚠Q901	06170026	TR, 2SC3089(SANKEN)	S
⚠Q902	06120168	KTC1815-O	S
		MISCELLANEOUS	
⚠TH901	163-016A	PTH451C106BG080N140	S
⚠F901	131-036D	FUSE PIGTAIL 2.5A/125V	S
	112-079A	CPT, M34JCA30X53(0.31mm)	S
	111-A64B	PWB, CPT	S
	111-A65B	PWB, MAIN	S
	111-041A	PWB, POWER	S
P301	366-039F	PIN, MOLEX 5045-07A	R
P302	366-043B	PIN, ASSY, PLUG(2P)	R
P303	366-921K	WAFER, IL-G11(2.5S)	R
P701	366-921B	WAFER, IL-G3(2.5S)	R
P702	387-484Y	CONNECTOR ASSY	R

REF. NO.	PART NO.	DESCRIPTION	REMARK
P703	366-921E	WAFER, IL-G6(2.5S)	R
P704	366-033A	PIN, FLAT WAFER 6P	R
P705	387-484X	CONNECTOR ASSY	R
P706	366-921A	WAFER, IL-G(2.5S)	R
P901,902	366-059A	PIN, MOLEX 5096-02C	R
P904	366-043B	PIN, ASSY, PLUG(2P)	R
P905	366-921C	WAFER IL-G4(2.5S)	R
P903,907	971-0016	WIRE, TIN HDC 0.60H	R
TP1, 2, 3	384-044B	LUG, SPLICE	R
S901	140-075G	SWITCH POWER SDL-1P	S
	387-275Y	RECEPTACLE, ASSEMBLY	S
	387-482R	SIGNAL CABLE	S

PRODUCT SAFETY NOTE:

Components marked(⚠)have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this service manual. Don't degarde the safety of the receiver through improper servicing.

CLASSIFICATION OF VGA MONITOR



COMPARISION OF PARTS LIST

If you try to repair your monitor, look on the ID label of the monitor.
You must insert the correct part in accordance with low version or high version monitor.
The replacement parts list are as follows;

POWER BOARD

REF. NO.	LOW VOLTAGE VERSION (120)		HIGH VOLTAGE VERSION (240)	
	PART NO.	DESCRIPTIONS	PART NO.	DESCRIPTIONS
F901	131-036D	FUSE 125V/2.5A	131-082A	FUSE, 250V/2A
TH901	163-035A	PTH451C106BG080N140	136-035B	PTH451C140BG200N270
L900	150-425H	COIL, DEGAUSSING	150-425K	COIL, DEGAUSSING.
T901	151-091A	POWER TRANSFORMER	151-091B	POWER TRANSFORMER
BD901	06200387	KBL-04, BRIDGE DIODE	06200324	KBL-06, BRIDGE DIODE
R903	180-108Q	RS, 7.8K ohm 3W	180-304U	RS, 18K ohm 3W
R904	01154151	RD, 180K ohm 1/2W	01154157	RD, 330K ohm 1/2W
R905	01157150	RD, 160K ohm 1/8W	01154155	RD, 270K ohm 1/2W
R909	01520021	RN, 0.68 ohm 1/2W	01520027	RN, 1.2 ohm 1/2W
R916	01157136	RD, 43K ohm 1/8W	01160133	RD, 33K ohm 1/8W
R917	01157127	RD, 18K ohm 1/8W	01160124	RD, 13K ohm 1/8W
C901	181-354J	CAP, MPP 0.1uF	181-192C	KNB 1530 0.33uF
C906	181-216B	CE, 330uF/250V	181-124R	CE, 220uF/400V
C909	181-061P	PP, 0.0027uF/630V	181-197A	PP, 0.0018uF/1KV
C911	181-060K	PP, 0.0022uF/400V	181-097D	PP, 0.0056uF/1KV
Q901	06170026	TR, 2SC3089	06120295	TR, 2SC3152
D903	06200266	DIODE, RGP10G	06220130	DIODE, RGP 10J
	387-275Y	AC INLET ASSY	387-275Z	AC INLET ASSY

TAXAN

Section 2: Supervision 785

14 inch (Diagonal) VGA Analogue Colour Monitor

CONTENTS

SPECIFICATIONS

1. PICTURE TUBE

Size :	14 inch
Gun :	In-Line
Deflection Angle:	90°
Neck Diameter :	29.1 mm
Phosphor :	R, G, B

2. SIGNAL

Input Signal : R, G, B ANALOG
H-Syn., V-Syn., TTL-Level
Signal Connector : 15 Pin "D" Type

2-1 VIDEO INPUT

Amplitude	: 0-0.7V
Signal Polarity	: Positive
Rise & Fall Time	: 8ns max.

2-2 VERTICAL

Amplitude (Level Low)	: 0-0.4V
Amplitude (Level High)	: 2.4-5.25V
Signal Polarity	: Posi. or Nega.
Vert. Frequency	: 60/70 Hz

2-3 HORIZONTAL

Amplitude (Level Low)	: 0-0.4V
Amplitude (Level High)	: 2.4-5.25V
Singal Polarity	: Posi or Nega
Horiz. Frequency	: 31.5 KHz

3. POWER SUPPLY

3-1 Power Rating	: AC 92-138V 49-61Hz, 0.9A/ AC180-265V 49-51Hz, 0.5A

4. DISPLAY AREA

4-1 Active Video Area	: 240mm × 180mm [9.45″ × 7.09″]/ 250mm × 180mm [9.84″ × 7.09″]
4-2 Display Character	25 Rows × 80 Columns

5. EXTERNAL CONTROL

PUSH-ON, Brightness, Contrast

6. ENVIRONMENT

6-1 Operating Temperature	- 5 to + 40°C
6-2 Relative Humidity	: 10 to 80% (noncondensing)
6-3 Altitude	: 10,000ft

7. DIMENSIONS

Width	: 356mm (14.0 in)
Depth	: 375mm (14.8 in)
Height	: 310mm (12.2 in) 354mm (13.9 in); Within T/Swivel

8. WEIGHT

Net Weight	: 11.0Kg (24.2 lbs.) 13.4Kg (29.5 lbs.); Within T/Swivel
Gross Weight:	15.0Kg (33.1 lbs.) 15.8Kg (34.7 lbs.); Within T/Swivel

PREFACE

SAFETY PRECAUTIONS

SAFETY-RELATED COMPONENT WARNING!

There are special components used in Taxan Colour Monitors which are important for safety. These are marked on the schematic diagram and on the replacement parts list. It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent X-RADIATION, shock, fire or other hazards. Do not modify the original design without obtaining written permission from Taxan (UK) Ltd or this will void the original parts and labour guarantee.

CAUTION: No modification of any circuit should be attempted.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

SAFETY CHECK

Care should be taken while servicing this color monitor because of the high voltage used in the deflection circuits. These voltages are exposed in such areas as the associated flyback and yoke circuits.

FIRE & SHOCK HAZARD

- An isolation transformer must be inserted between the color monitor and AC power line before servicing the chassis.
- In servicing, attention must be paid to the original lead dress especially in the high voltage circuit. If a short circuit is found, replace all parts which have been overheated as a result of the short circuit.
- All the protective devices must be reinstalled per original design.
- Soldering must be inspected for the cold solder joints, frayed leads, damaged insulation, solder splashes or the sharp points. Be sure to remove all foreign materials.

IMPLOSION PROTECTION

All used display tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage and scratching during installation. Use only same type display tubes.

X-RADIATION

The only potential source of X-Radiation is the picture tube. However, when the high voltage circuitry is operating properly there is no possibility of an X-Radiation problem. The basic precaution which must be exercised is to keep the high voltage at the factory-recommended level: the nominal high voltage is 24.5KV and must not exceed 30KV at zero beam current at rated voltage. The following steps describe how to measure the high voltage and how to prevent X-radiation.

Note: It is important to use an accurate high voltage meter calibrated periodically.

- To measure the high voltage, use a high impedance,high voltage meter, Connect (−) to chassis and (+) to the CRT anode button.
- Turn the brightness control fully clockwise.
- Measure the high Voltage. The high voltage meter should indicate at the factory-recommended level.
- If the upper meter indication exceeds the maximum level, immediate service is required to prevent the possibility of premature component failure.
- To prevent X-Radiation possibility, it is essential to use the specified picture tube.

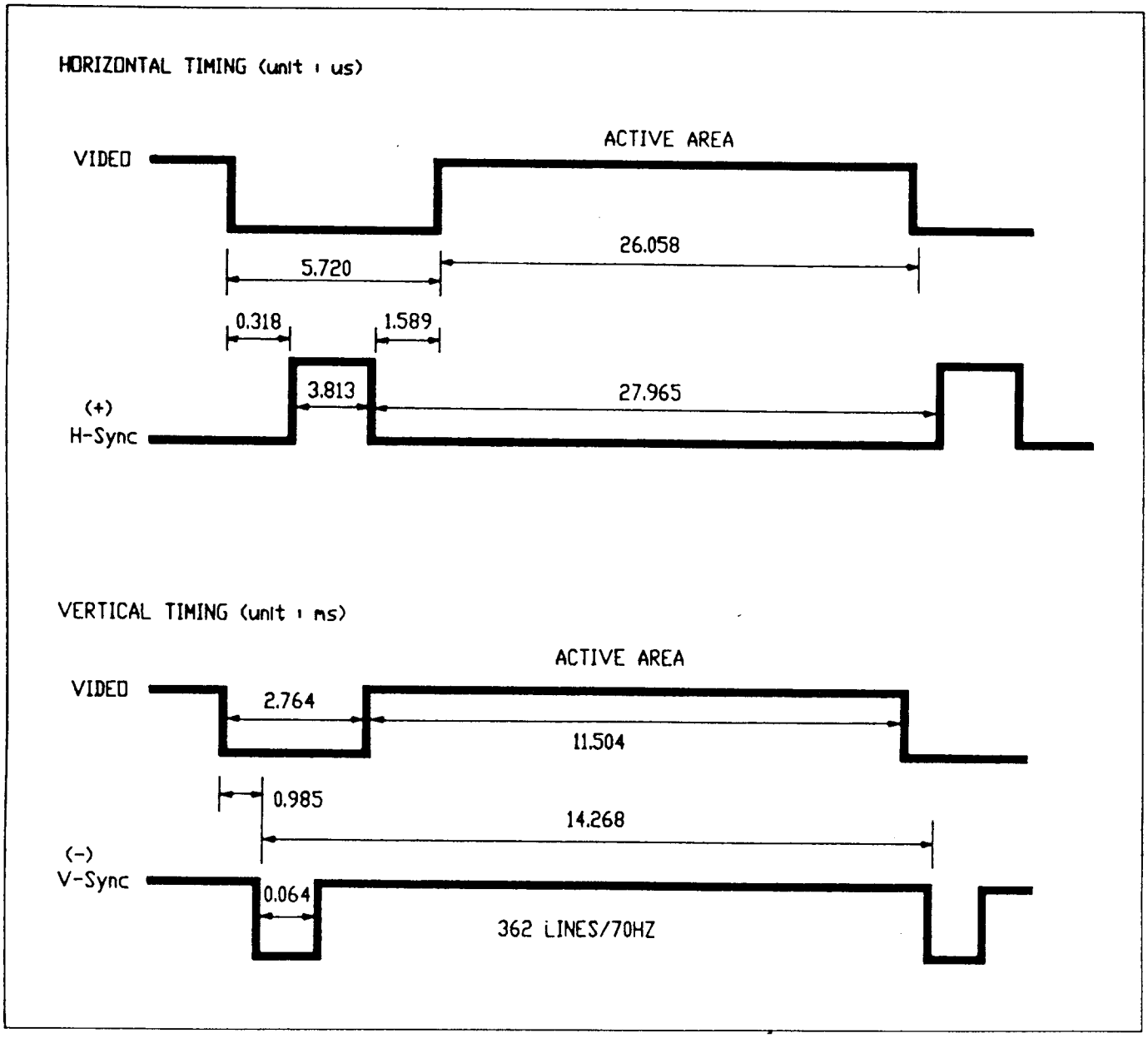
FEATURES

The Taxan Supervision 785 Colour Monitor has the following features:

- R.G.B Analog signal
- 28.5 MHz Bandwidth.
  The High-Resolution CPT (Color Picture Tube) displays 80-column lines without blurring the characters.
- Displays 2000 Characters in a 8 × 14/8 × 16 dot format.
- Has its own power control and indicator using the SMPS (Switching Mode Power Supply). The SMPS in your Color Monitor automatically switches to match the power (AC 92—138V; AC 180—265V for Europe/U.K./Australia models).
- Is compatible with IBM PS/2.

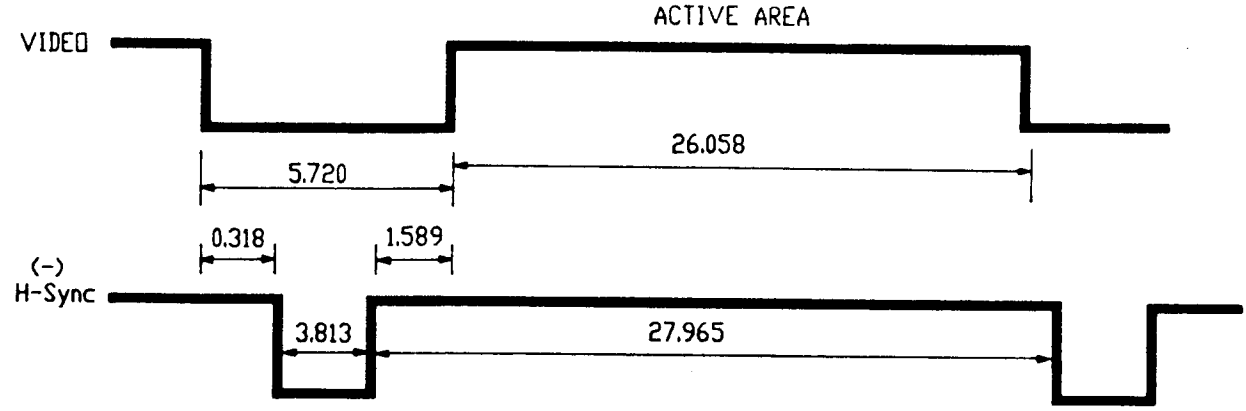
TIMING CHART

MODE 1

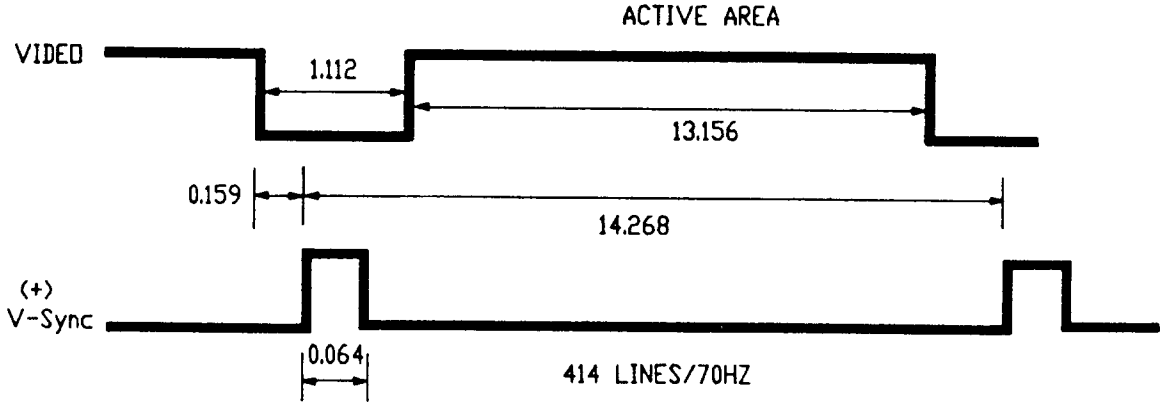


MODE 2

HORIZONTAL TIMING (unit : us)

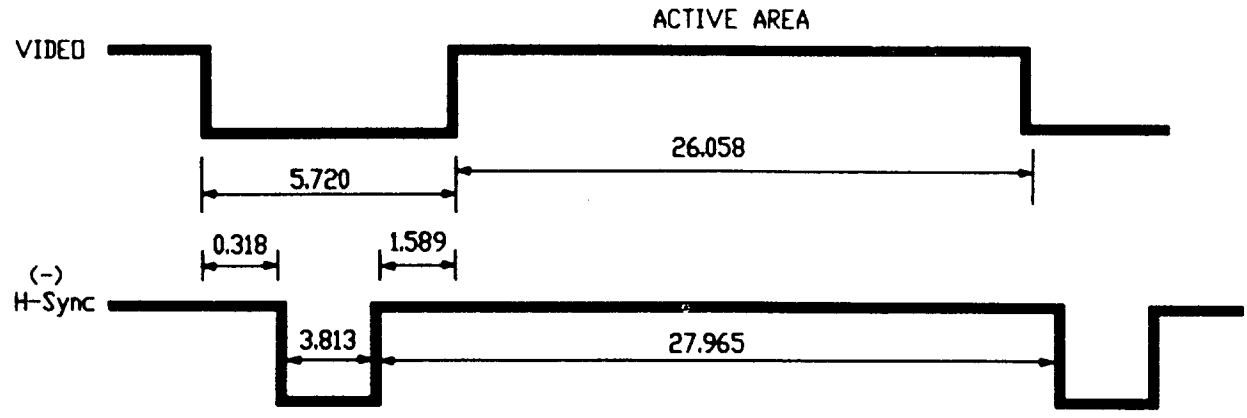


VERTICAL TIMING (unit : ms)

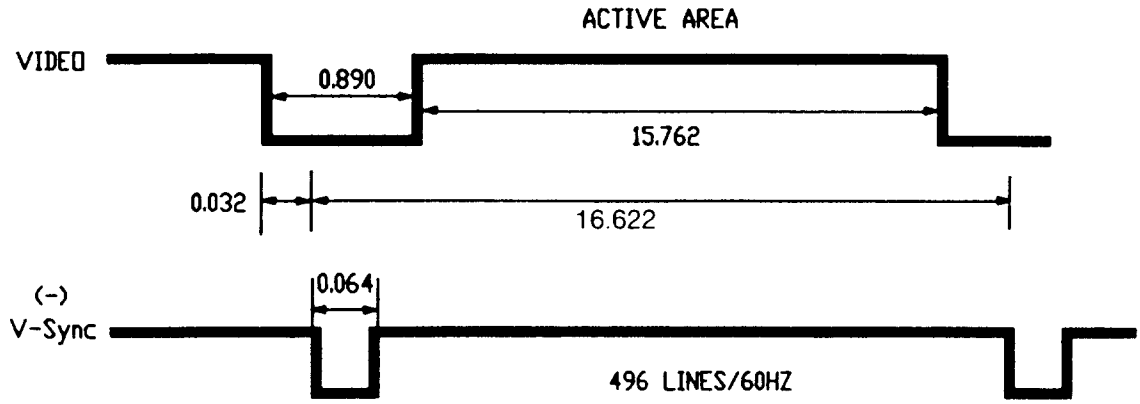


MODE 3

HORIZONTAL TIMING (unit : us)



VERTICAL TIMING (unit : ms)



CONTROLS LOCATION

The Taxan Supervision 785 Colour Monitor uses a 15 pin "D" type connector. The input signal is connected through the 15-pin connector.
The input signal is based on the TTL sync. and ANALOG Video. Figure 1 shows the monitor controls on the front and rear panels.

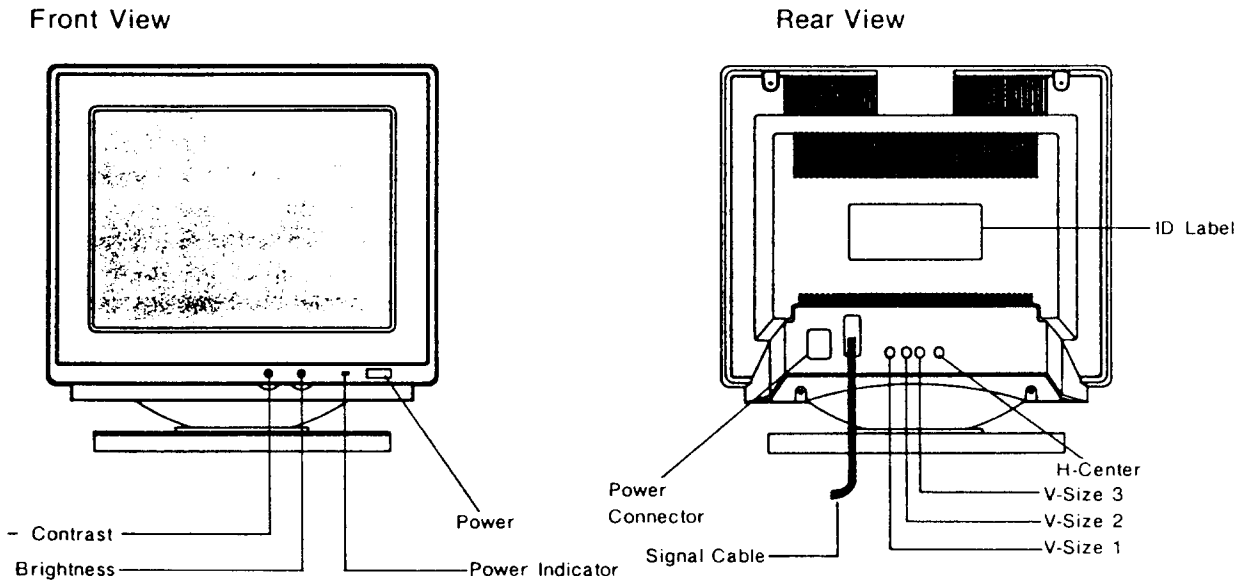


Figure 1, Monitor Controls

- **POWER (TURN-ON)**
  Turn on the monitor by turning the power Switch. The Power indicator lights when the power is ON. Always turn on the monitor before turning on the computer. To turn the power off, just turn upward the switch.

- **CONTRAST (VR706)**
  Turn this knob clockwise to increase contrast.

- **BRIGHTNESS (VR707)**
  Turn this knob clockwise to increase brightness.

- **H-CENTER (VR701)**
  Turn this potentiometer to adjust the Horizontal-center of the picture.

- **V-SIZE 1 (VR601)**
  Turn this potentiometer to adjust the vertical size of the picture at mode 1.

- **V-SIZE 2 (VR602)**
  Turn this potentiometer to adjust the Vertical size of the picture at mode 2.

- **V-SIZE 3 (VR603)**
  Turn this potentiometer to adjust the vertical size of the picture at mode 3.

CIRCUIT DESCRIPTION

POWER SUPPLY

The power supply is a SMPS (Switching Mode Power Supply) that consists of switching IC (IC901), SMPS transformer (T901), Switching transistor (Q901) and the associated components. The basic theory is the circuit of self oscillation. The primary winding of the SMPS transformer is applied the pulse by operating IC901. Therefore, rectified DC output voltage is obtained by the secondary winding of SMPS transformer T901.

HORIZONTAL AFC AND OSCILLATION LIMITTER

The AFC circuit consists of phase detection circuit of IC702 and the associated components. The oscillation limit circuit is necessary to prevent the pulse from excessive high voltage. This circuit is located in IC702 and controls the oscillator to maintain the control signal in its correct frequency and in phase with the horizontal sync signal.

X-RAY PROTECTION CIRCUIT

The X-RAY protection circuit consists of D702, R716, VR703, R710, R715 and the associated component that connected to PIN 6 of IC702. A voltage from the FBT PIN 10 is divided by R716 and VR703. Under normal operating conditions, the resultant voltage (TP2) maintains the specified value.

If a malfunction causes exeessive high voltage, the voltage of FBT PIN 10 is increasing and TP2 voltage is increasing. As a result, D702 is conducted when the cathode voltage of D702 is arrived as much as Zener voltage. A voltage increase at IC702 PIN 6 makes the X-RAY protection circuit conduct, and the horizontal oscillation operation no longer functional. The circuit latches as above, and it is necessary for the circuit to turn the power off for at least 30 seconds to function again.

VERTICAL OSCILLATION/DRIVE CIRCUIT

The time constant circuit that determines the vertical oscillation frequency consists of C603, R607.

Vertical size control function is performed by VR601, VR602, VR603 at mode 1, 2, 3 respectively.

HORIZONTAL DRIVE CIRCUIT

To obtain horizontal drive pulses from IC702 PIN 8, the horizontal oscillator must be working.

Horizontal drive pulses from IC702 PIN 8 are applied to horizontal drive trans T702 and drive transistor Q701.

The B^+ for T702 is supplied from the 12V line through D701, R717.

HORIZONTAL DEFLECTION OUTPUT

Horizontal drive pulses from IC702 PIN 8 are coupled through T702 to the base of horizontal output Q701. Transistor Q701 is biased on when the beam is at about mid-screen.

The charge stored in C719 and C728 causes current to flow through the horizontal yoke winding and Q701 to ground. When the beam reaches the right side of the screen, Q701 is turned off, and the current in the yoke is directed into C720 and C724. At the same time current flows into C720 and C724 from the regulated B^+ via the horizontal choke coil (L702) winding.

Due to resonance, the current then reverses and flows back through the horizontal yoke winding into C719 and C728.

POWER SUPPLY DESCRIPTIONS

This SMPS (Switching Mode Power Supply) using TDA4601 obtains rectified DC110V, 75V, 12V from AC120V, 60Hz (USA Version)/AC 220V, 50Hz (Europe version).

Power is supplied in the following procedure:

1) AC120V/AC220V supplied from the AC socket is rectified by BD901.
2) Rectified voltage is supplied to the T901. The primarily rectified voltage by BD901 is supplied to PIN 6 of T901 through PIN 5 of T901.
3) A pulse is generated at PIN 8 of the IC901.
4) This oscillation causes Q901 to switched, and at the secondary terminal of T901, a voltage (proportional to the turn ratio) is generated.

ADJUSTMENT

GENERAL INFORMATION

All adjustments are thoroughly checked and corrected when the monitor leaves the factory. Therefore the monitor should operate normally and produce proper color and pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the monitor is to operate. This monitor is shipped completely in carton. Carefully draw out the monitor from the carton and remove all packing materials. Check and adjust all the customer controls such as Brightness, and Contrast to obtain a normal picture.

B+ ADJUSTMENT

1. Connect TP1 and GND with DIGITAL MULTIMETER.
2. Display the Reverse Pattern.
3. Turn slowly VR901 and set the B+ Voltage to +110V ±0.2V.

HORIZONTAL HOLD ADJUSTMENT

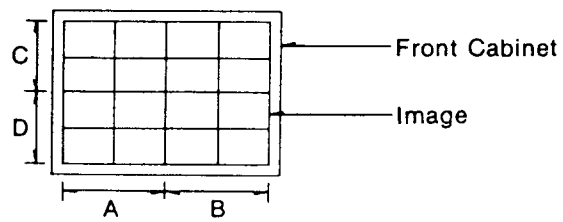
1. Display the Reverse Pattern on the monitor.
2. Disconnect H-Sync signal.
3. Turn the VR702 (H-Hold) for the screen to stand straight.

VERTICAL LINEARITY ADJUSTMENT

1. Display the Cross Hatch Pattern on the monitor.
2. Turn to the VR604, so that the vertical linearity should be best condition.
3. Then the non-linearity should be within +/− 5%.
4. When the Cross Hatch Pattern is displaed on the monitor, the difference of A − B should be within 2.5mm and the diference of C − D should be within 2mm. Refer to Fig. 1

VERTICAL SIZE ADJUSTMENT

1. VERTICAL SIZE ADJUSTMENT IN MODE 3.
   - Display the Cross Hatch Pattern on the monitor.
   - Adjust the VR603, and then the vertical size should be within 180 +/− 2mm.
   - It should be done by observing the Adjustment procedure.



(Fig. 1)

2. VERTICAL SIZE ADJUSTMENT IN MODE 1.
   - Display the Cross Hatch Pattern on the monitor.
   - Adjust the VR601, and then the vertical size should be within 180 +/− 2mm.
3. VERTICAL SIZE ADJUSTMENT IN MODE 2.
   - Display the Cross Hatch Pattern on the monitor.
   - Adjust the VR602, and then the vertical size should be within 180 +/− 2mm.

VERTICAL CENTER ADJUSTMENT

1. Display the Reverse Pattern on the monitor.
2. Adjust the VR605, and then set the geometric vertical center in the screen, and then the geometric vertical center should be within 2mm tolerance.

SIDE PINCUSHION ADJUSTMENT

1. Display the Reverse Pattern.
2. Adjust the VR606, and then the upper horizontal size and lower horizontal size should be same.
3. Adjust the VR607 so as to minimize the pincushion distortion.
4. Adjust alternately the VR606 and VR607 so as to be best condition in the screen.
5. Then the pincusion and/or the Barrel distortion should be within 1%.

HORIZONTAL WIDTH ADJUSTMENT

1. Display the Cross Hatch Pattern on the monitor.
2. Adjust the L701 for the Horizontal Width so as to be within 250 +/− 2mm.
3. Then the Bright control should be set at the center, and the Contrast control should be set at the MAX.

WHITE-BALANCE ADJUSTMENT

1. THE USED INSTRUMENT
   - WHITE-BALANCE METER
   - DEGAUSSING COIL (Degauss the monitor before adjustment).
   - PHOTOMETER.
2. PREPARING ADJUSTMENT (1)
   - Connect the signal cable with PC, and display the Color 0.0 Full Pattern on the monitor.
   - Minimize the screen control of FBT.
   - Set the Sub-Bright (VR705) and the Sub-Contrast (VR704) to mechanical center.
   - Set the Contrast VR to the MAX. and the Bright VR to the center.

- Set the G and the B drive to mechanical center.
- Minimize R,G,B Cut Off VR and turn clockwise R Cut Off VR (R338) as much as 1/3 (about 45°).

3. ADJUSTMENT (1)
   - Turn the screen control (G2) to clockwise slowly until the brightness of R raster is 3.5 FL +/− 1 FL.
   - Let the R Cut Off VR (R338) be the reference, and adjust the G and the B Cut Off VR (R358, R378) so as to get X = 0.282, Y = 0.304.
   - Adjust slowly counter-clockwise the Screen VR for Raster so as to disappear.

4. ADJUSTMENT (2)
   1) Set external Brightness VR to center and external Contrast VR to Maximum.
   2) Display full white pattern (color 15.0) on the screen.
   3) Turn the B drive VR (R372) so that X = 0.282 and the G drive VR (R352) so that Y = 0.304.
   4) Repeat 3) until X = 0.282 +/−0.02 ,Y = 0.304 +/− 0.022.
   5) Set external Brightness VR to min. and adjust external Contrast VR until brightness is 5 FL at full white pattern (color 15.0).
   6) Confirm X = 0.282 +/− 0.02, Y = 0.304 +/− 0.022 unless the color co-ordinate is not in spec, re-adjust G, B cut off VR (R358, R378) so that the pattern is white.
   7) Repeat the number 3), 4), 5), 6) so that the screen should be white.

BRIGHTNESS ADJUSTMENT

1. Maximize the Contrast VR.
2. Display the Cut-Off Level (Color 0.0)
3. Adjust the Sub-Bright VR (VR705) until the back raster disappears when the Bright VR is at center.
4. Confirm that whether back raster appears or not when the Bright VR is at MAX.

CONTRAST ADJUSTMENT

1. Set the external Bright VR at center and the external Contrast VR at Max.
2. Display White Pattern (Color 7.0), of which the size is 50 x 50, on the monitor.
3. At the center of the screen, adjust the Sub-Contrast VR (VR704), so that the brightness should be 25 +/− 2FL.

FOCUS ADJUSTMENT

1. Set the Bright VR and the Contrast VR to MAX.
2. Display the "H" character in full screen (Color 7.0)
3. Adjust Focus VR, so that the focus should be best condition at the row that is 20~20th from left and at the line that is 7~9th from upper.

CONFIRMMING SELF-TEST

1. Set the Bright VR at center and the Contrast at MAX.
2. Remove the signal connector from the PC.
3. Confirm that the brightness of Raster is more than 1FL.

FAIL SAFTY ADJUSTMENT

USED INSTRUMENT; DC VOLTMETER 8010 or as such.

PREPARING ADJUSTMENT

1. Display the reverse pattern on the monitor.
2. Confirm that B^+ voltage of TP1 is 110VDC (+/− 0.2 VDC).

ADJUSTMENT

1. Minimize the Contrast and the Bright VR. so that the screen should be Cut-Off.
2. Adjust Hold Down VR (VR703), so that the voltage should be 10.5 +/− 0.05V.
3. Fasten the VR703 with glue or as such so as not to be changed after adjustment is done.

CONFIRMMING

1. Supply the cathode of D702 (TP2) with DC 12.0 +0.5/−0V, and then confrim that the monitor should be Hold Down.
   (CAUTION): ALL PROCEDURE MUST BE DONE AFTER THE MONITOR IS FULLY HEAT-RUN.

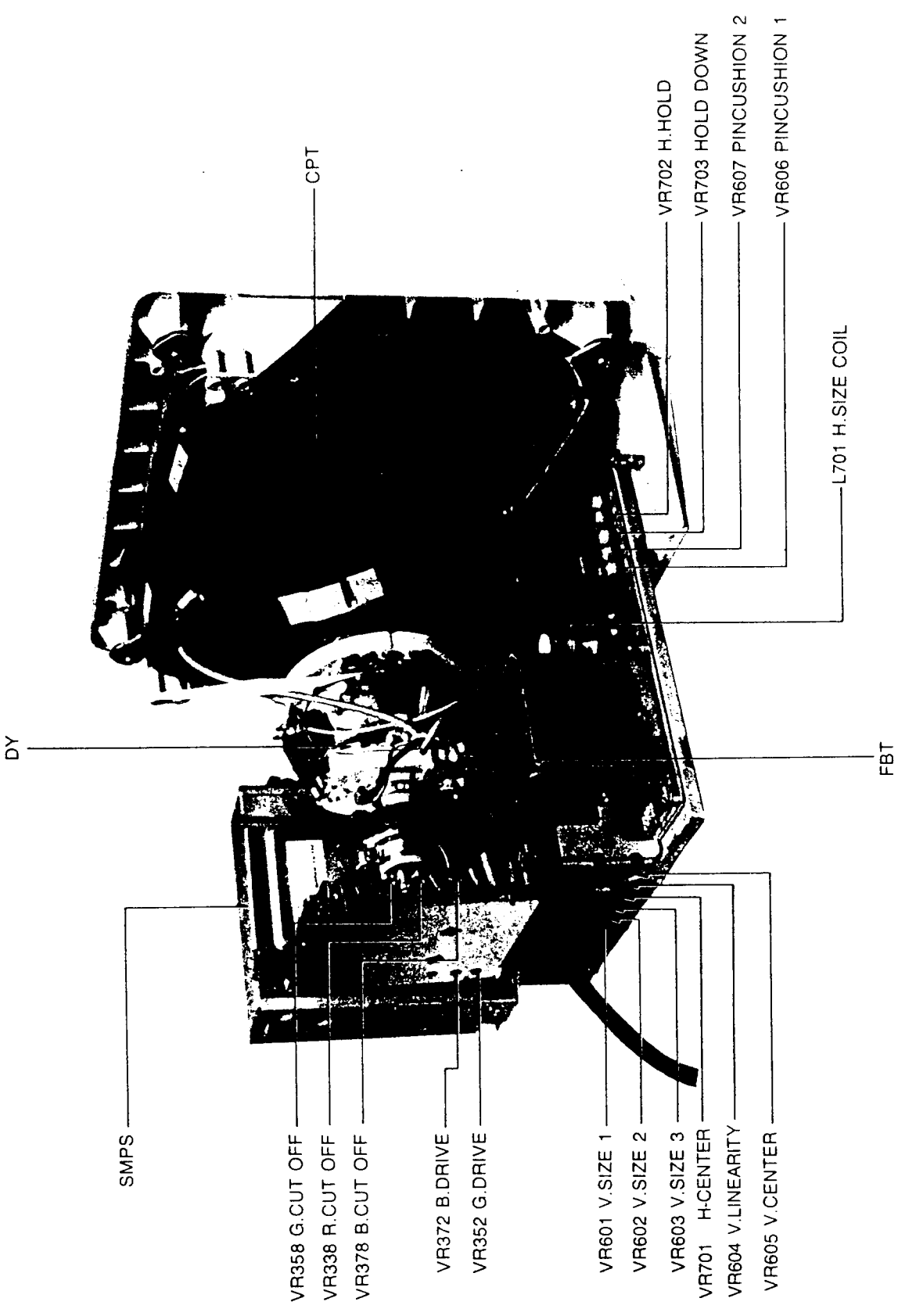
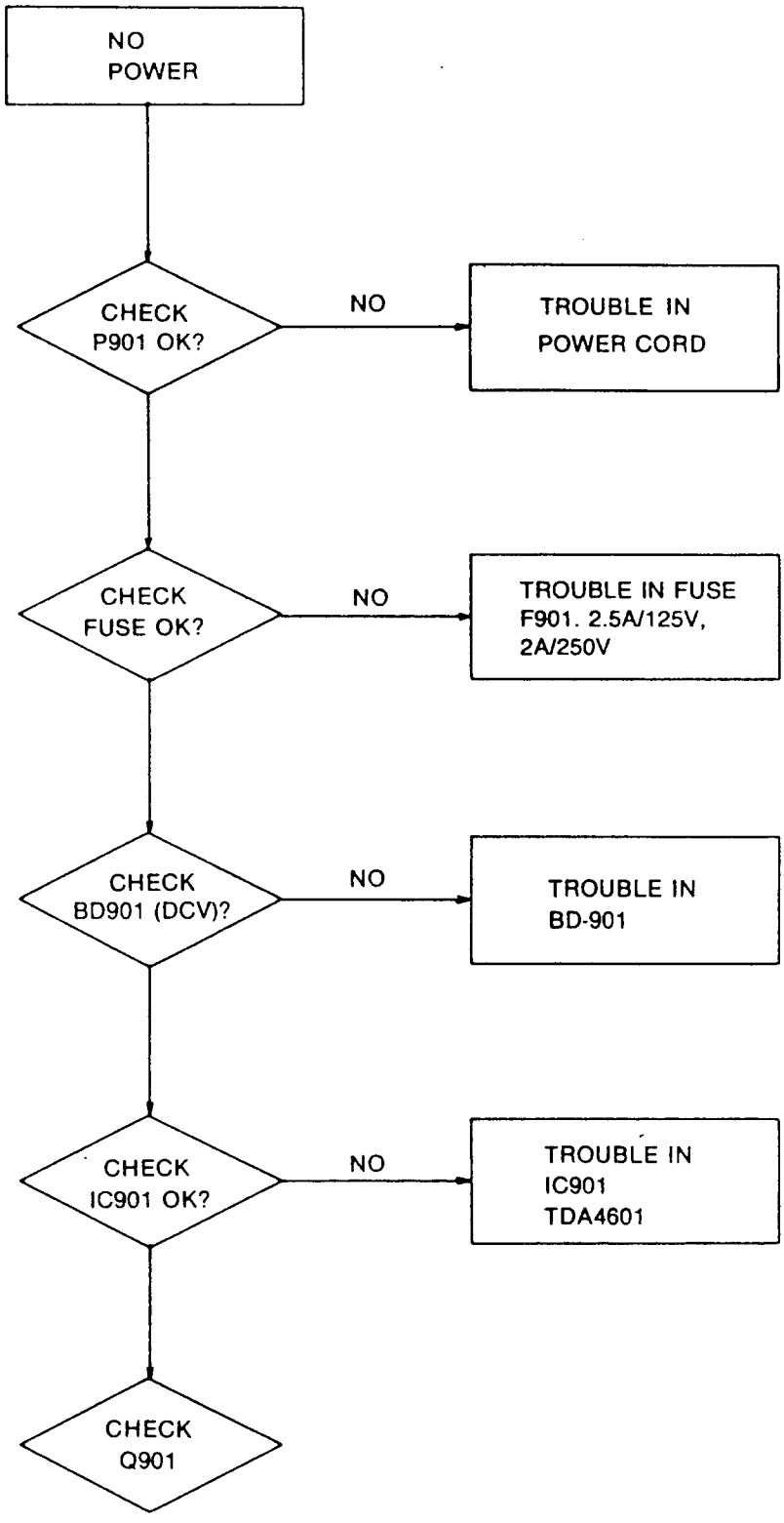


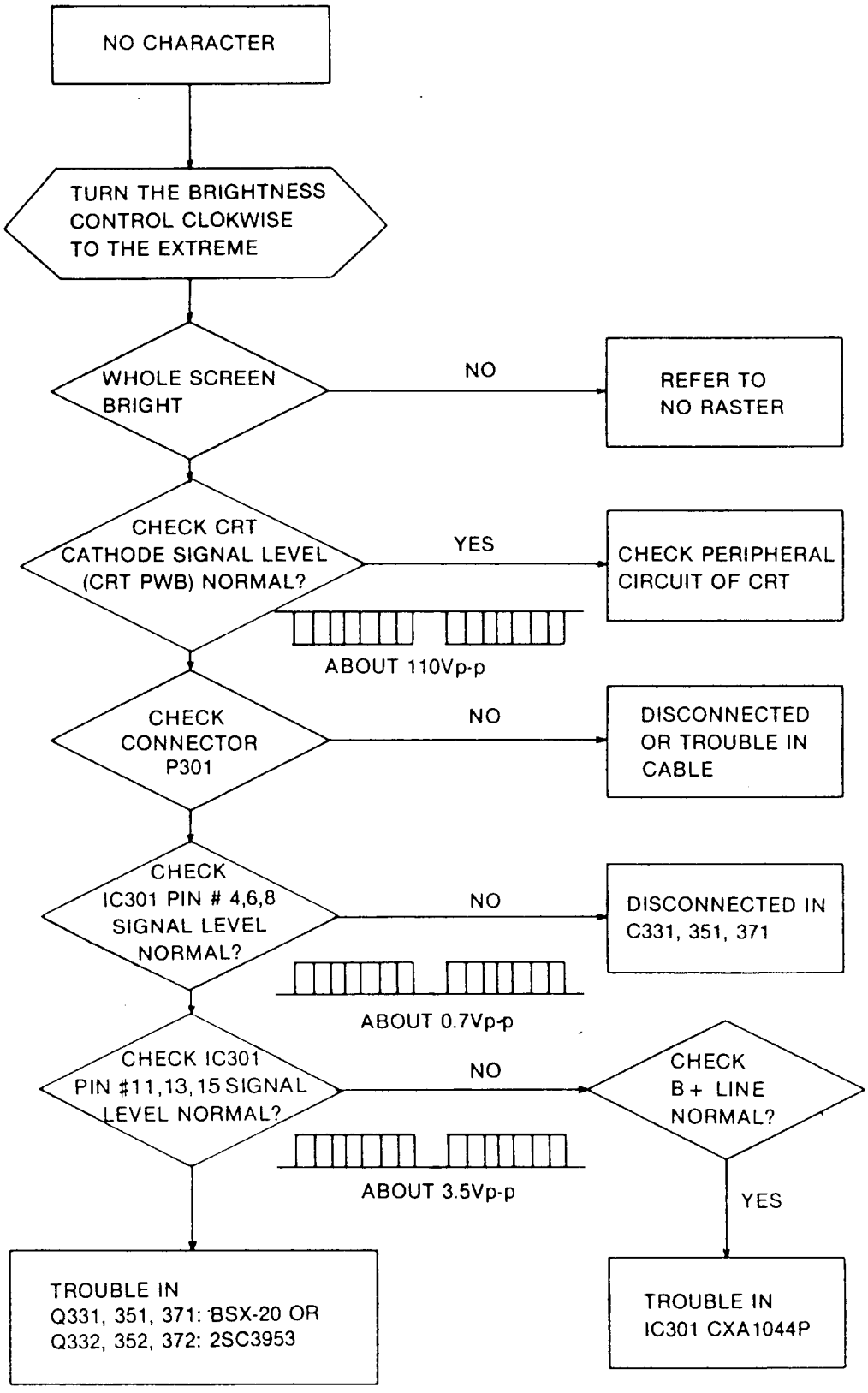
Figure 2, Chassis Important Parts

TROUBLE SHOOTING GUIDE

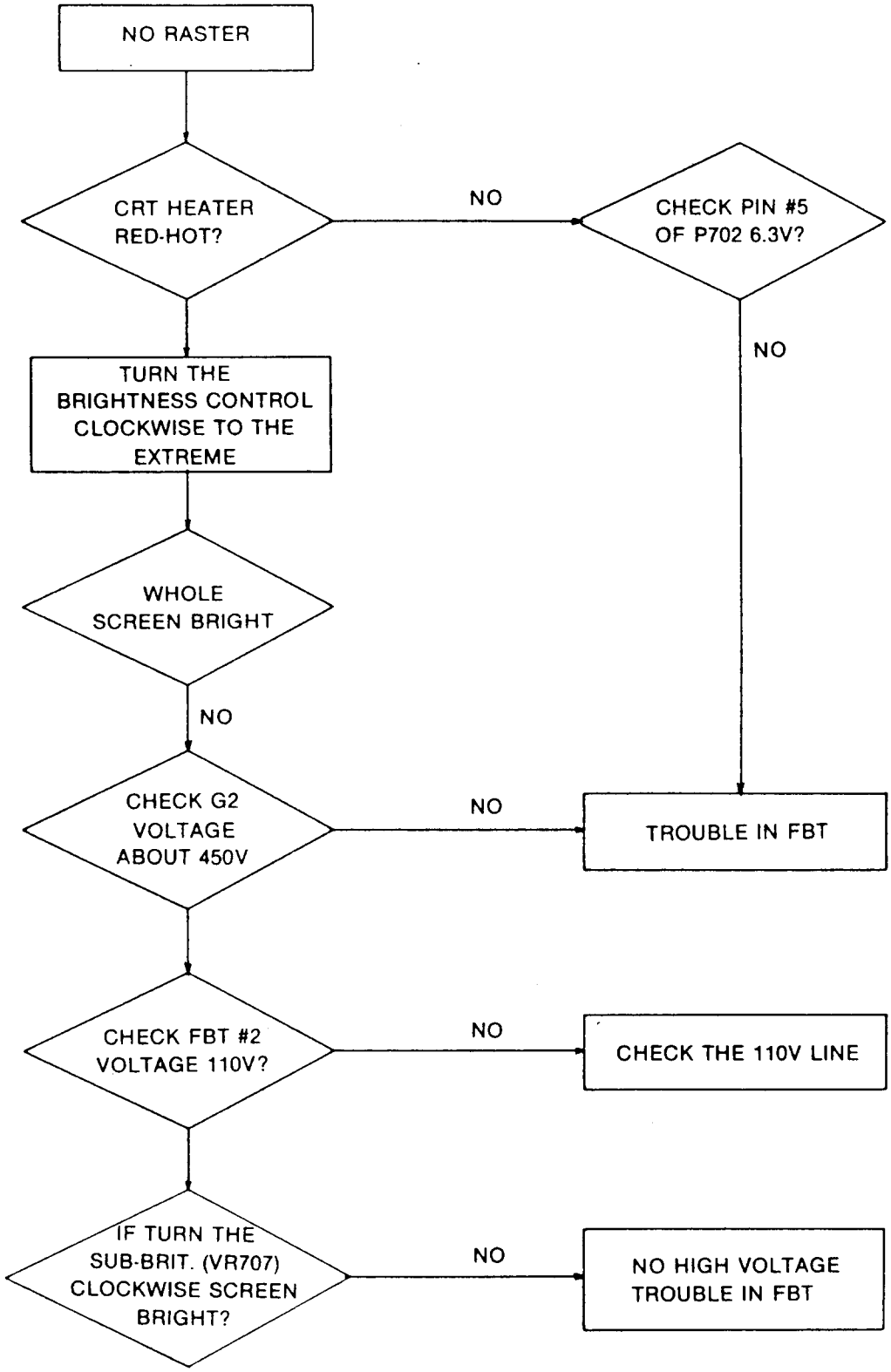
NO POWER



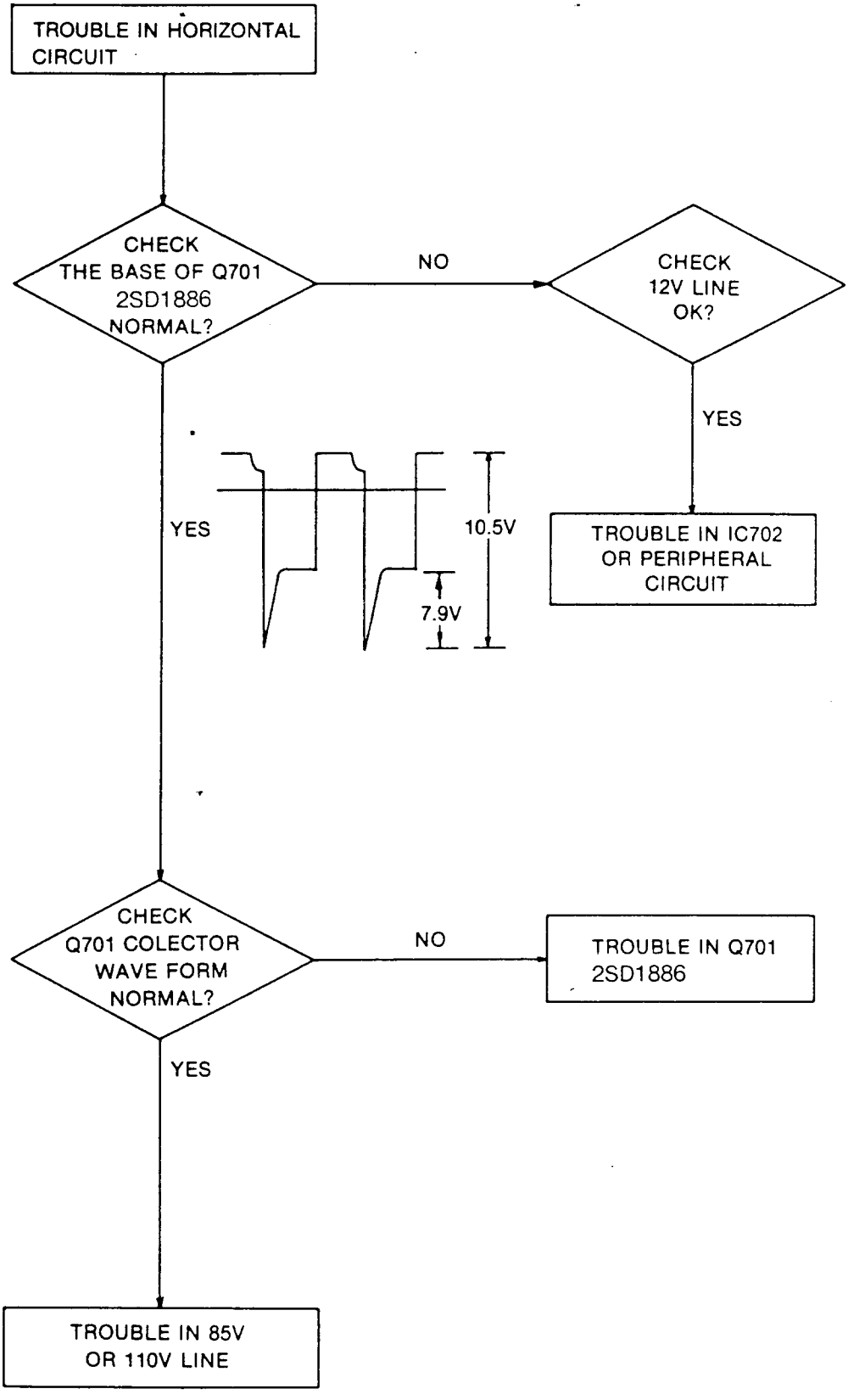
NO CHARACTER



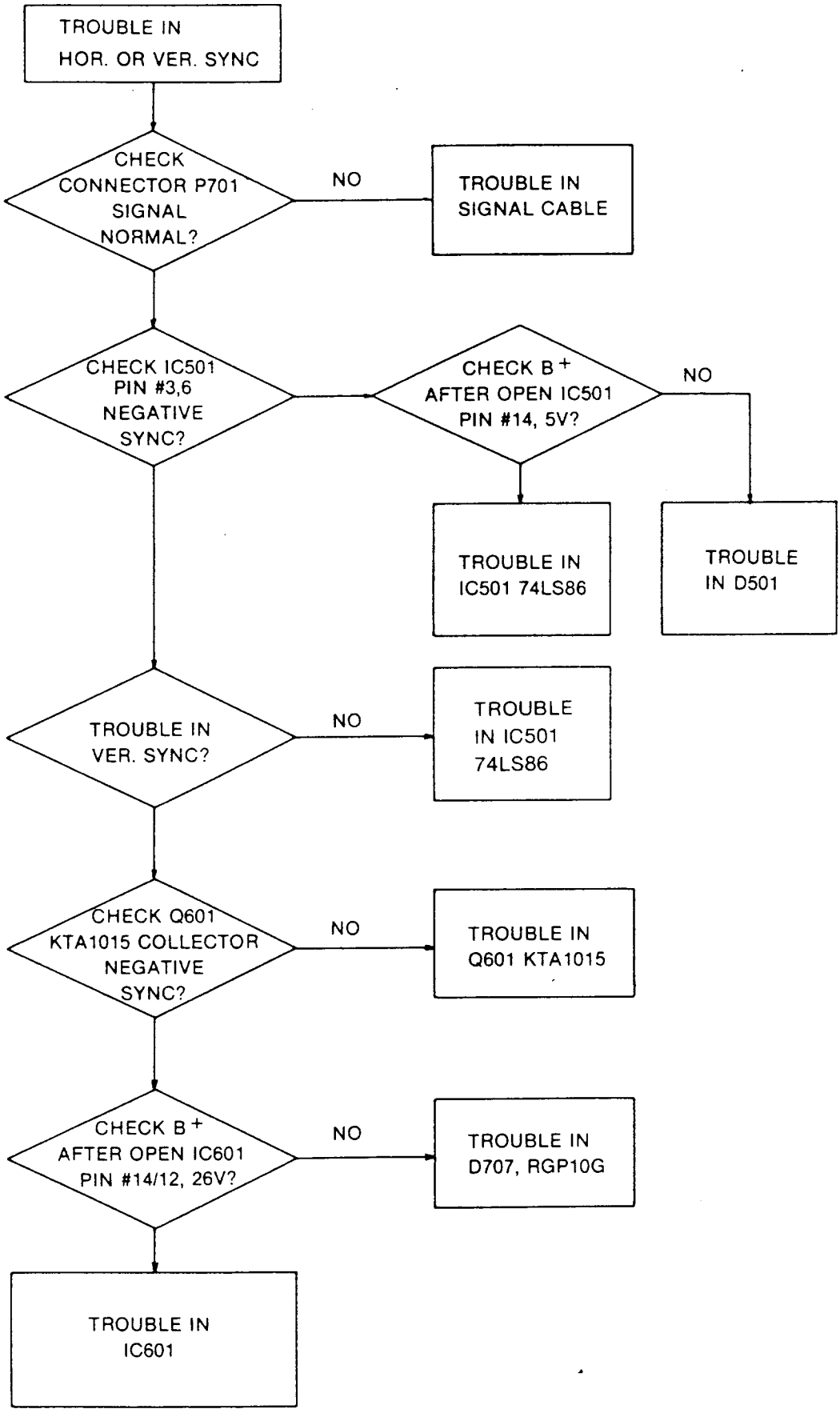
NO RASTER


NO RASTER
CRT HEATER RED-HOT?
NO
CHECK PIN #5 OF P702 6.3V?
NO
TURN THE BRIGHTNESS CONTROL CLOCKWISE TO THE EXTREME
WHOLE SCREEN BRIGHT
NO
CHECK G2 VOLTAGE ABOUT 450V
NO
TROUBLE IN FBT
CHECK FBT #2 VOLTAGE 110V?
NO
CHECK THE 110V LINE
IF TURN THE SUB-BRIT. (VR707) CLOCKWISE SCREEN BRIGHT?
NO
NO HIGH VOLTAGE TROUBLE IN FBT

TROUBLE IN HORIZONTAL CIRCUIT

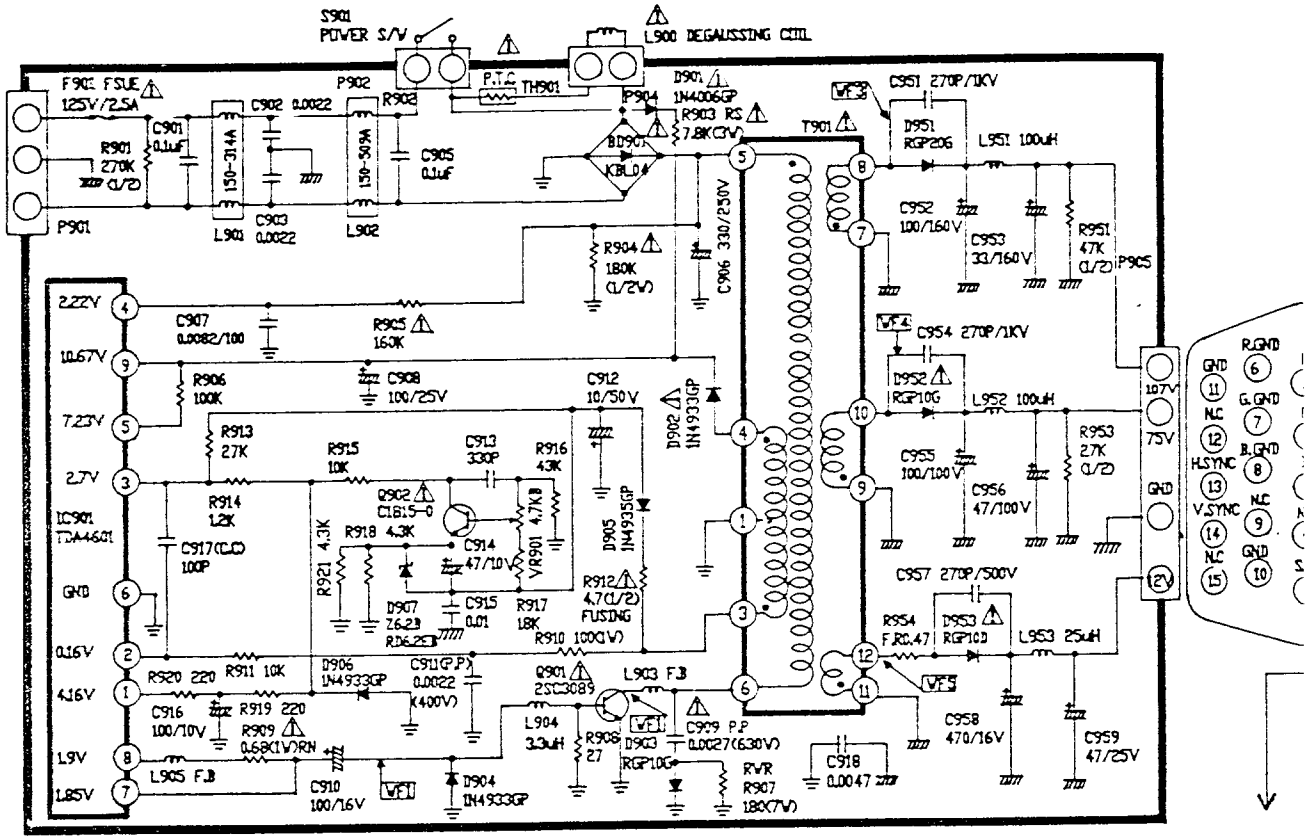


TROUBLE IN H,V SYNC



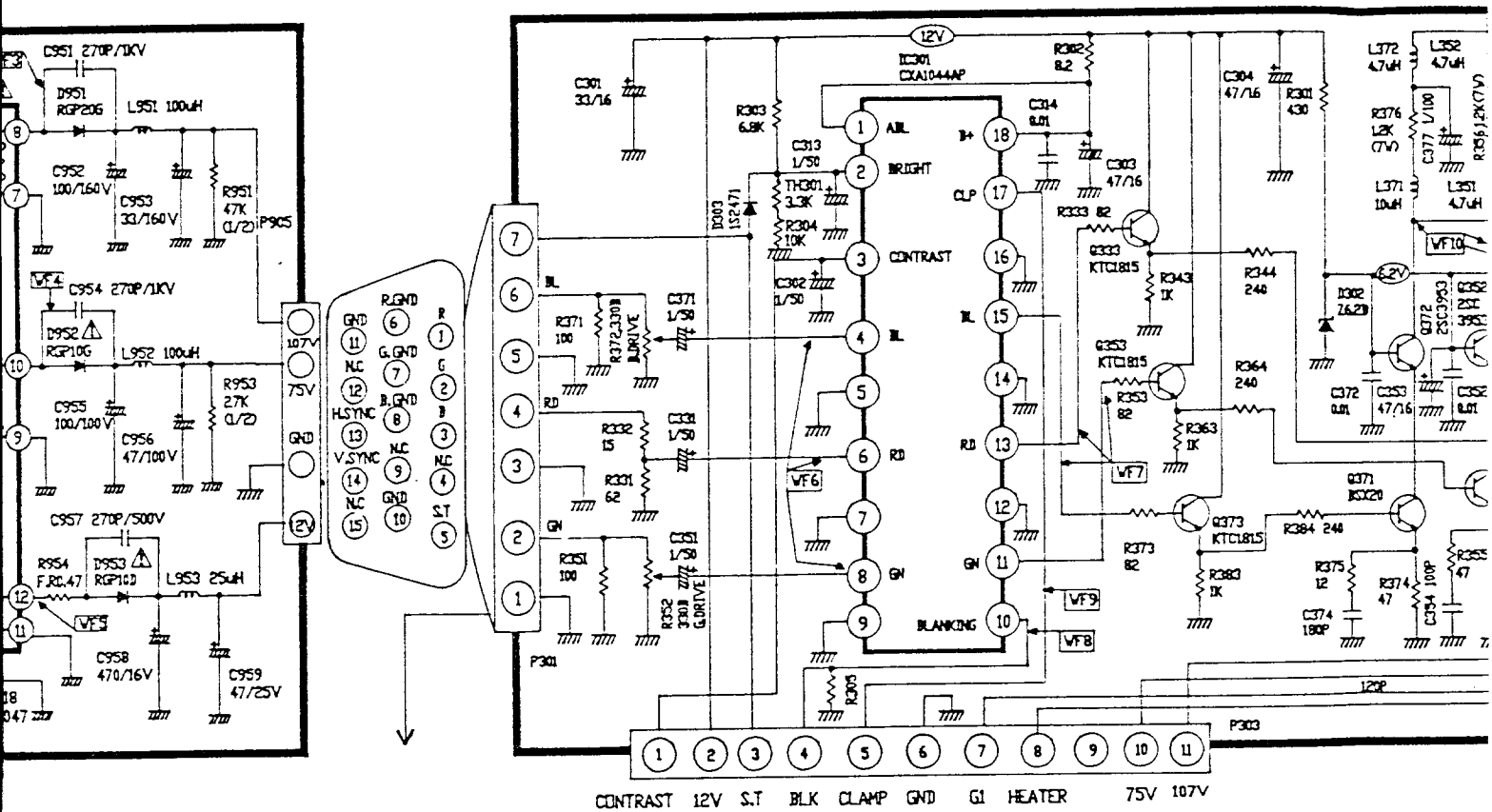
SCHEMATIC DIAGRAM (1/2)

POWER & VIDEO BOARD(120V Version)



NOTES : UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/8W
   K = 1,000 M = 1,000,000
2. ALL CAPACITORS ARE SHOWN
   IN uF P=10^{-12}F



IMPORTANT SAFETY NOTICE

THE ⚠ SYMBOL MARK ON THIS SCHEMATIC DIAGRAM INCORPORATES SPCECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERIVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE ⚠ SYMBOL MARK OF THE SCHEMATIC.

IMPOR

LA ⚠ SYMBOLE MARQUE
CARACTÉRISTIQUES SPÉ
DES DANGERS D'INCENDI
SI DES PIÈCES DE CET
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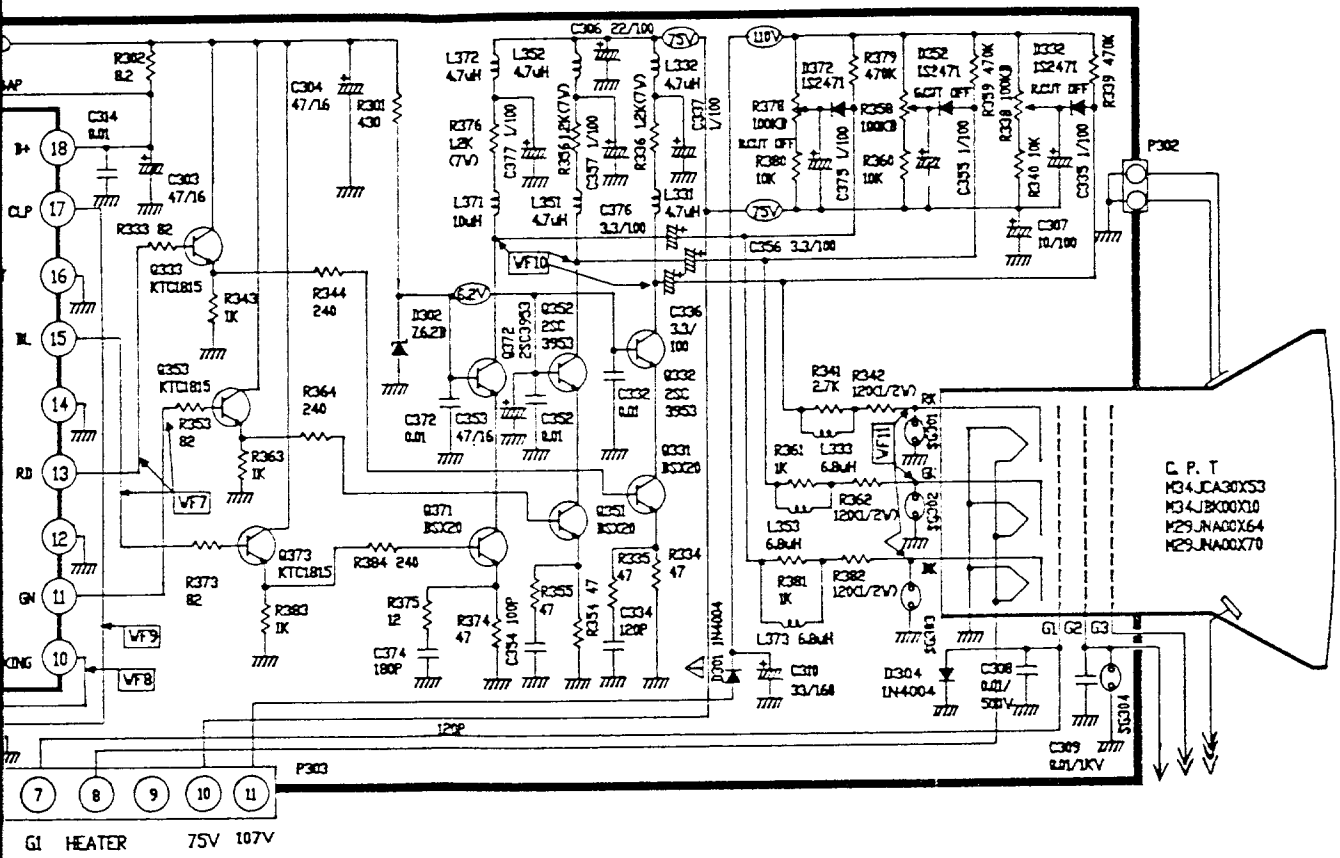
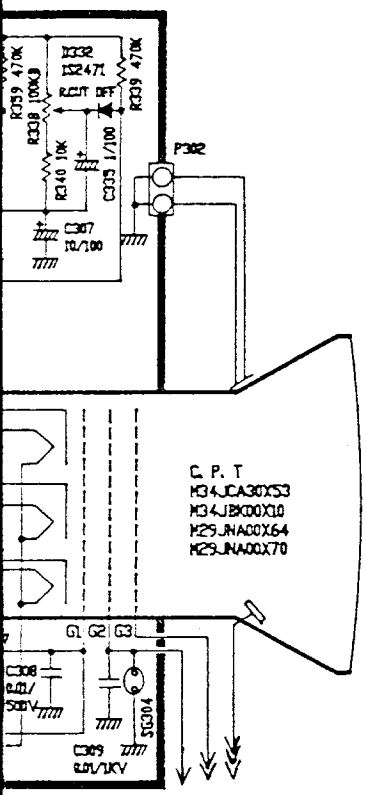


IMPORTANT AVIS SUR LA SÉCURITÉ

LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND DIMPORTANTES CARACTÉRISTIQUES SPÉCIALES CONCUES POUR PROTÉGER DES RAYONS X. ET DES DANGERS DINCENDIE IT DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES PAS LE MANUFACTURIER.

P/N 484-260A

For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- mauritron@dial.pipex.com



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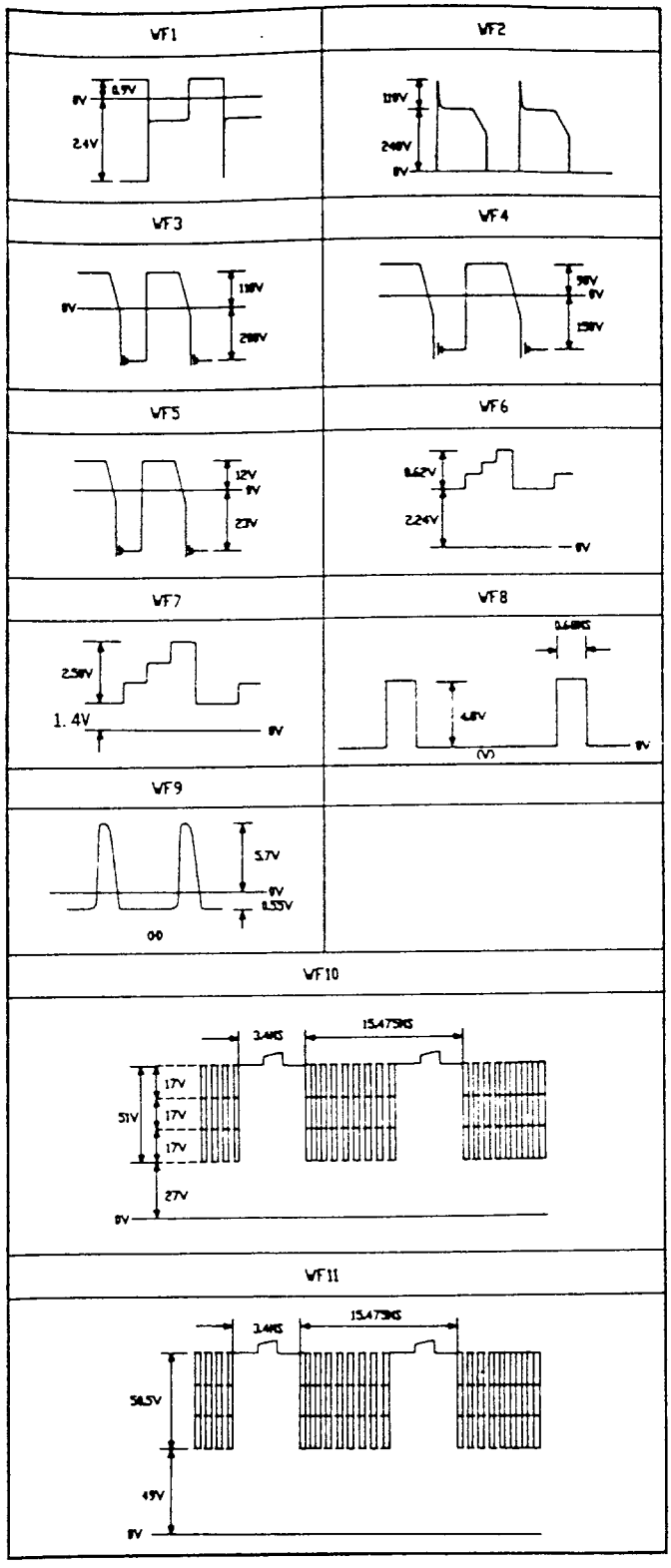
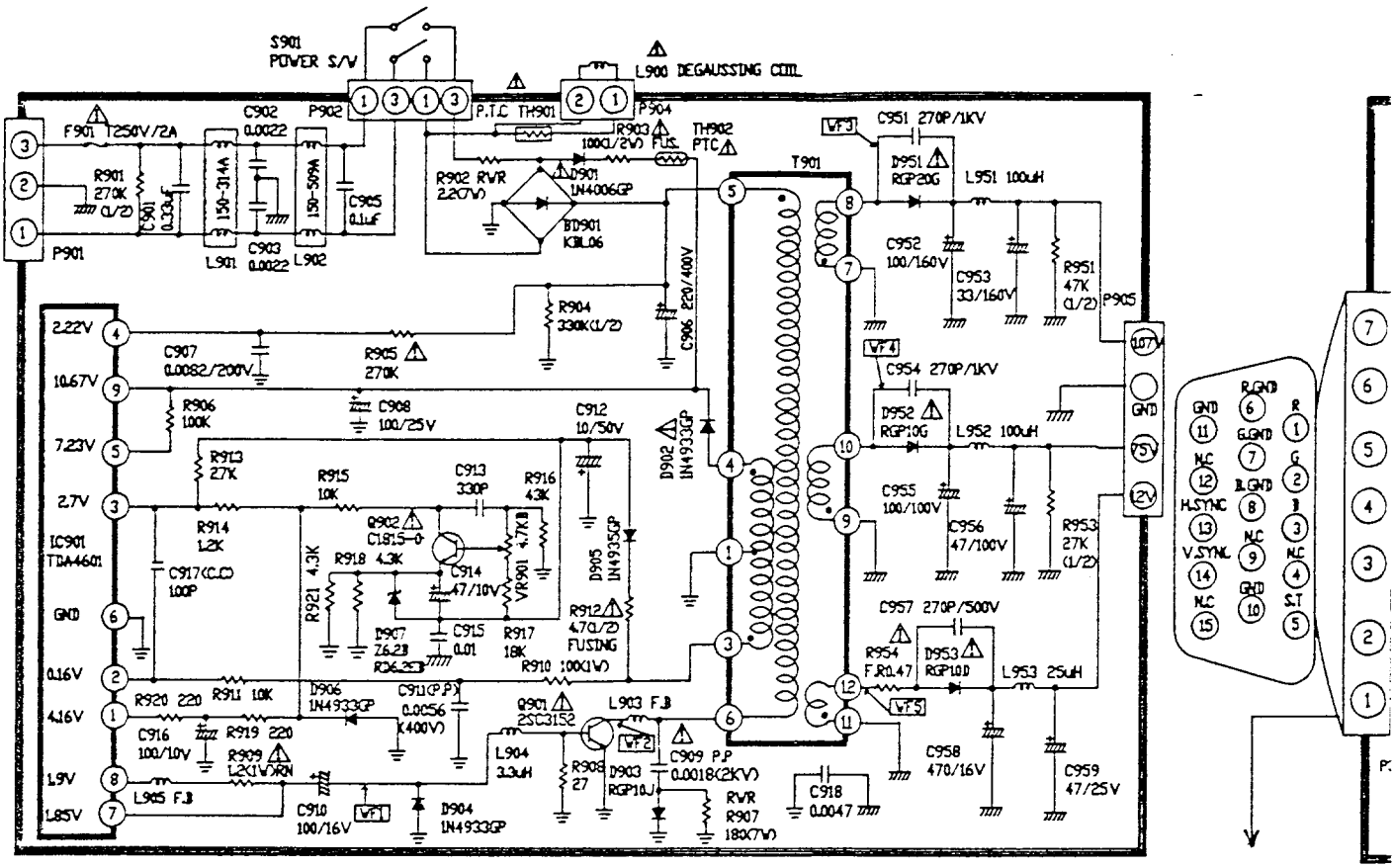


P/N 484-260A

SCHEMATIC DIAGRAM(1/2)

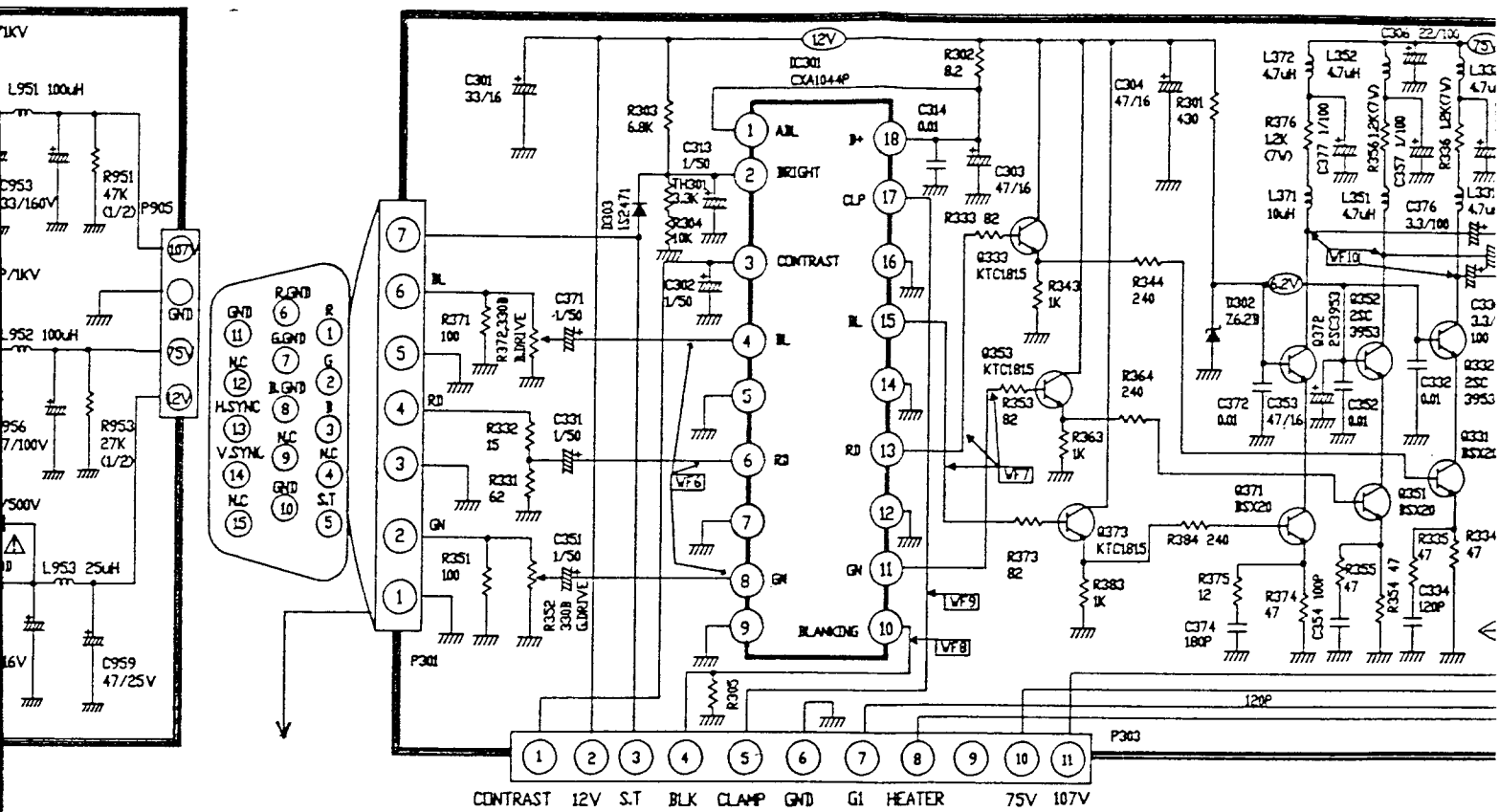
POWER & VIDEO BOARD(220V Version)



NOTES : UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/8W
   K = 1,000 M = 1,000,000
2. ALL CAPACITORS ARE SHOWN
   IN uF P=10^{-12}F

THE ⚠ SYMBOL
FEATURES IMPOR
ELECTRICAL SH
ONLY MANUFACTI
COMPONENTS IN



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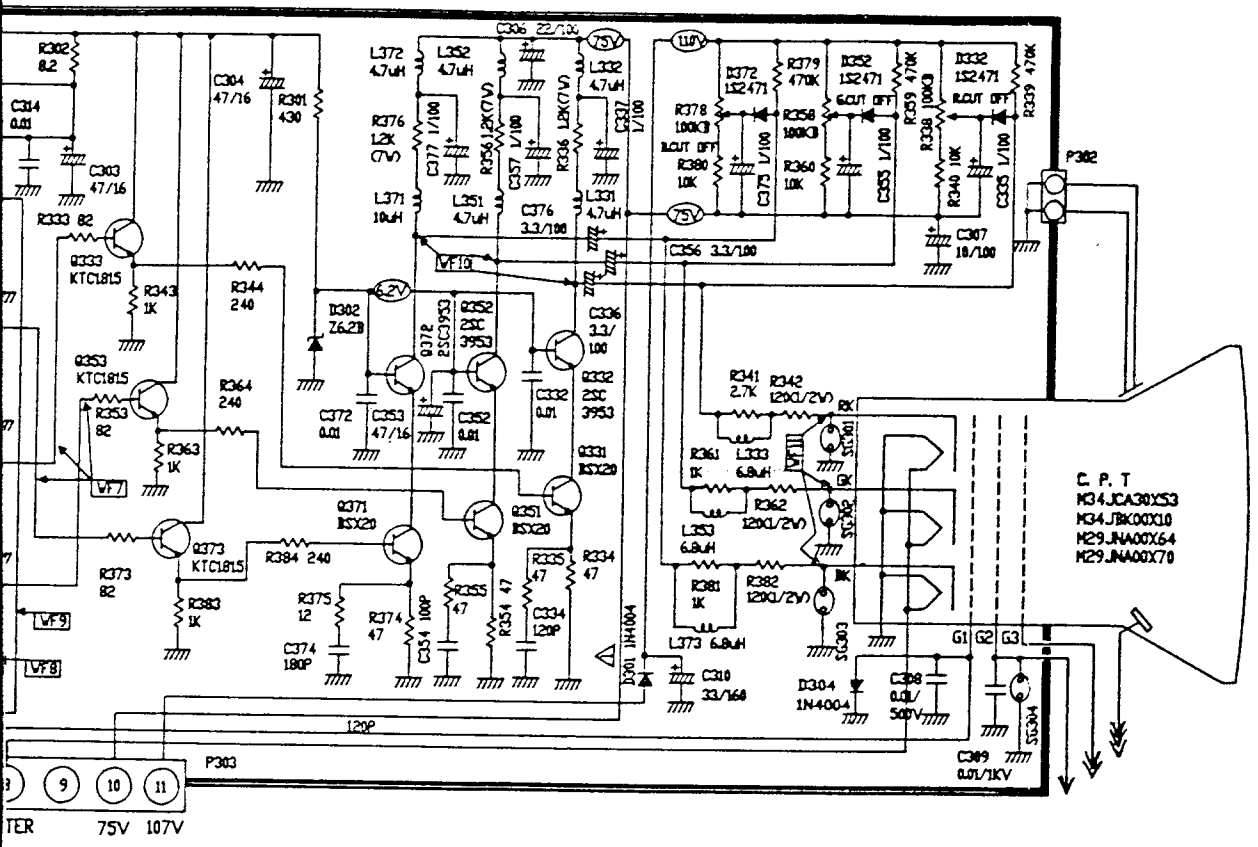
IMPORTANT AVIS SUR L

LA ⚠ SYMBOLE MARQUE DE CE DIAGAMM
CARACTÉRISTIQUES SPÉCIALES CONCUES
DES DANGERS D'INCENDIE ET DE SECOUS
SI DES PIÈCES DE CETTE ⚠ SYMBOLE MA
N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES

D E F

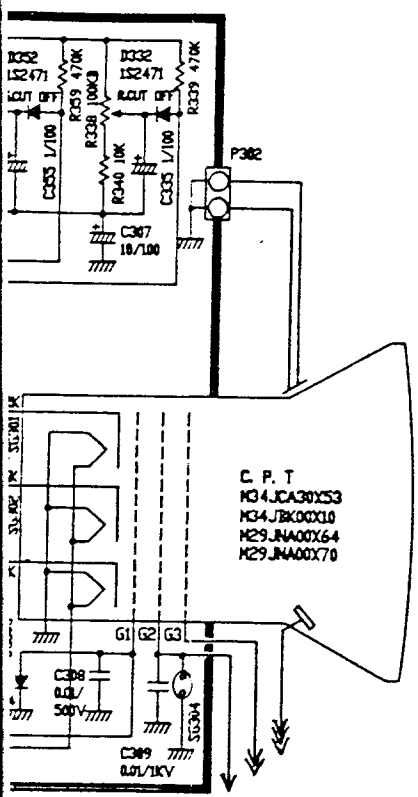


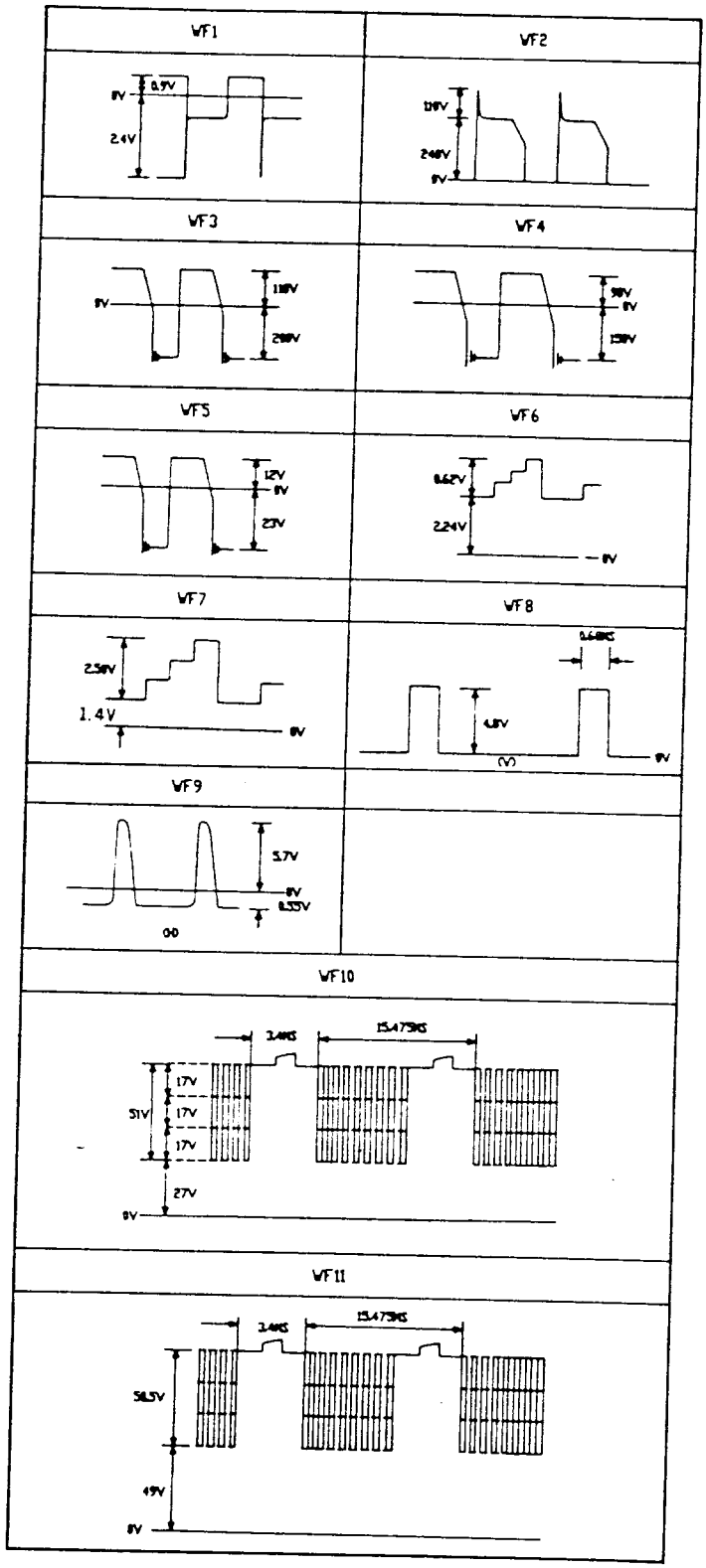
IMPORTANT AVIS SUR LA SÉCURITÉ

LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND D'IMPORTANTES CARACTÉRISTIQUES SPÉCIALES CONÇUES POUR PROTÉGER DES RAYONS X. ET DES DANGERS D'INCENDIE ET DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQUE DOIVENT ÊTRE REMPLACE'S N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES PAS LE MANUFACTURIER.

P/N 484-260B

F G H



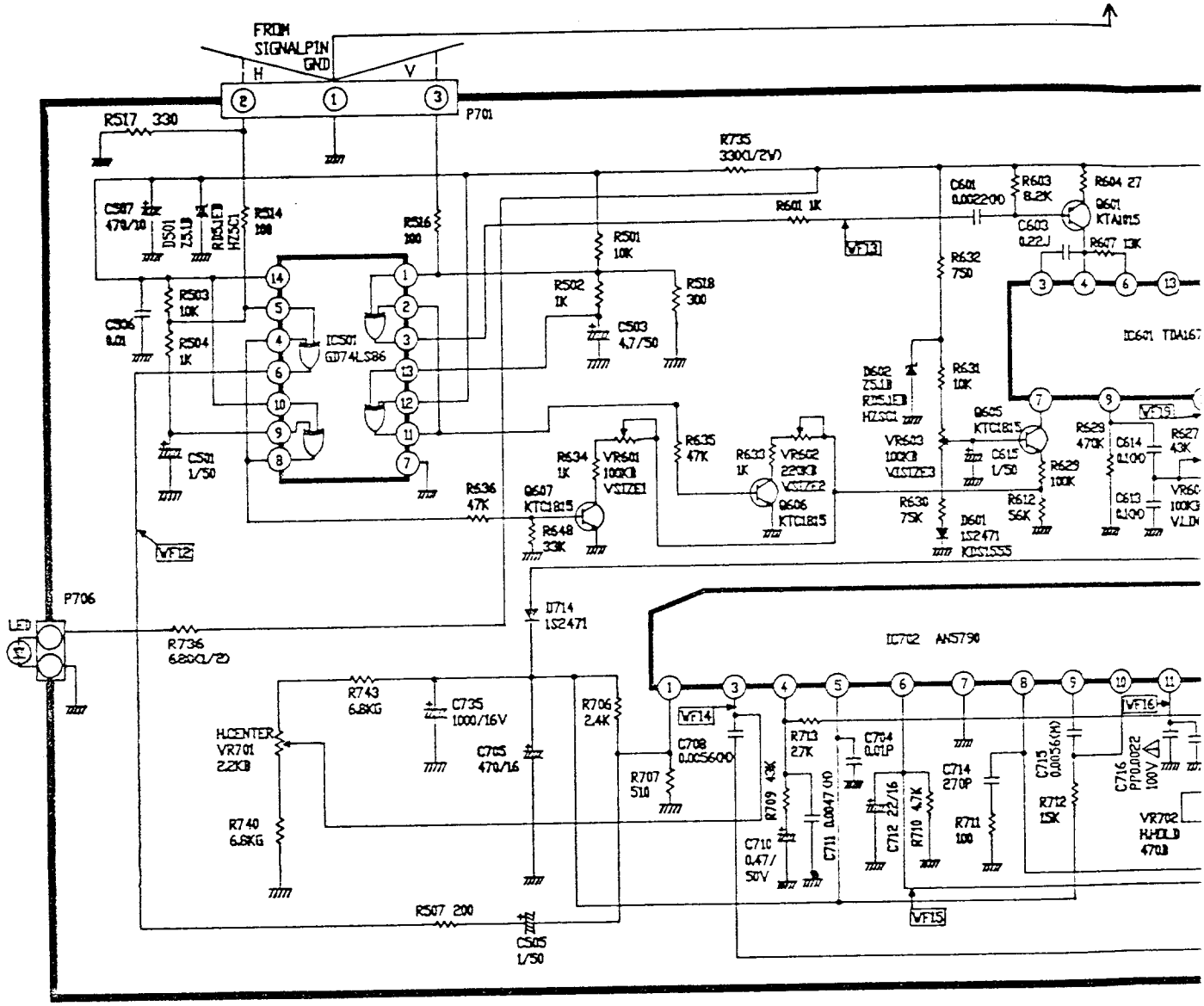


IMPORTANTES
INS X. ET
DE BESOIN
LACE'S

P/N 484-260B

SCHEMATIC DIAGRAM (2/2)

MAIN BOARD (120V/220V)

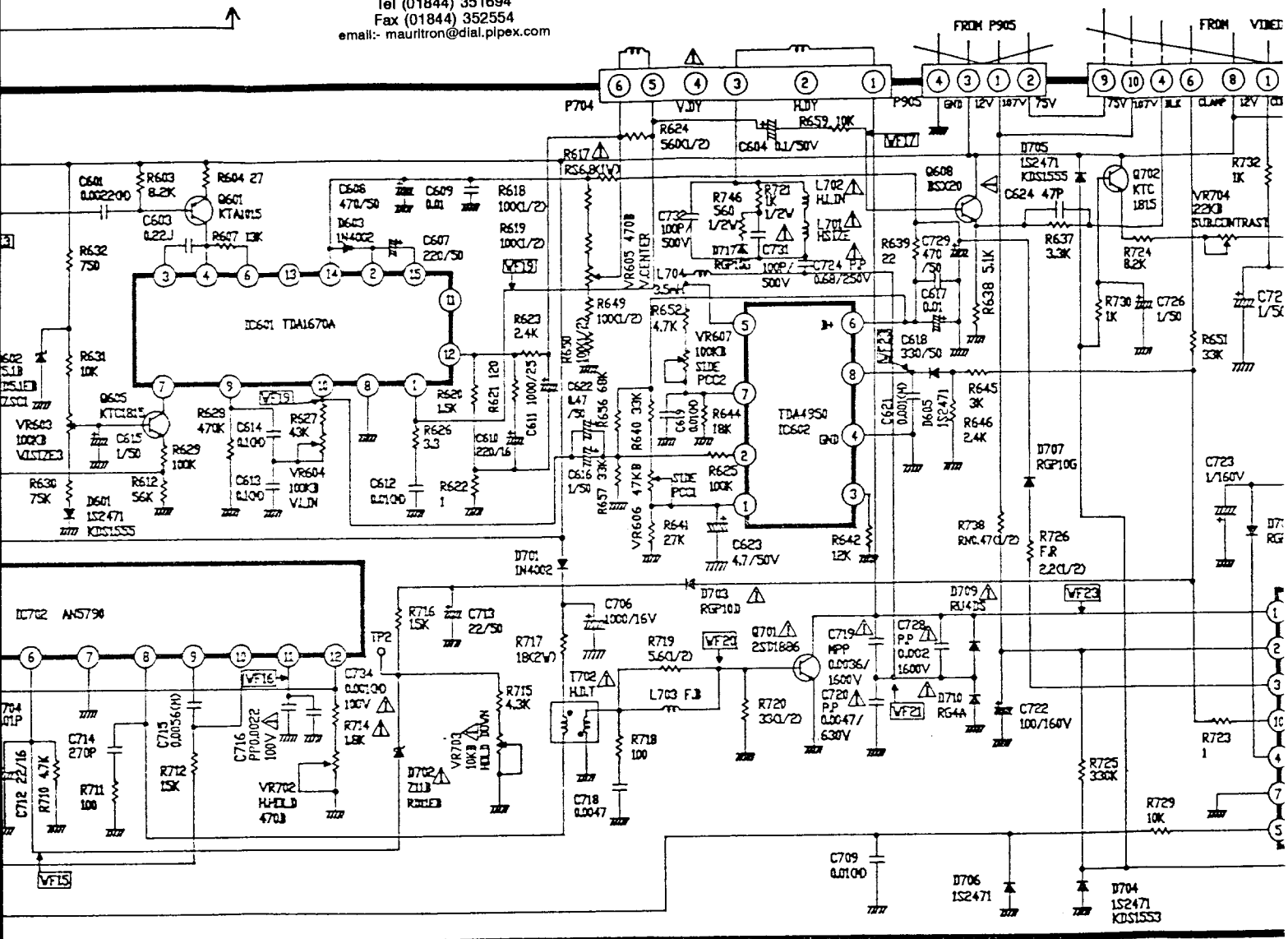


NOTES : UNLESS OTHERWISE SPECIFIED

1. ALL RESISTORS ARE 1/8W
   K = 1,000 M = 1,000,000
2. ALL CAPACITORS ARE SHOWN IN uF P=10^{-12}F

IMPORTANT SAFETY NOTICE

THE ⚠ SYMBOL MARK ON THIS SCHEMATIC DIAGRAM INDICATES FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, ELECTRICAL SHOCK HAZARDS. WHEN SERIVICING IT IS ESSENTIAL ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE COMPONENTS IN THE ⚠ SYMBOL MARK OF THE SCHEMATIC.

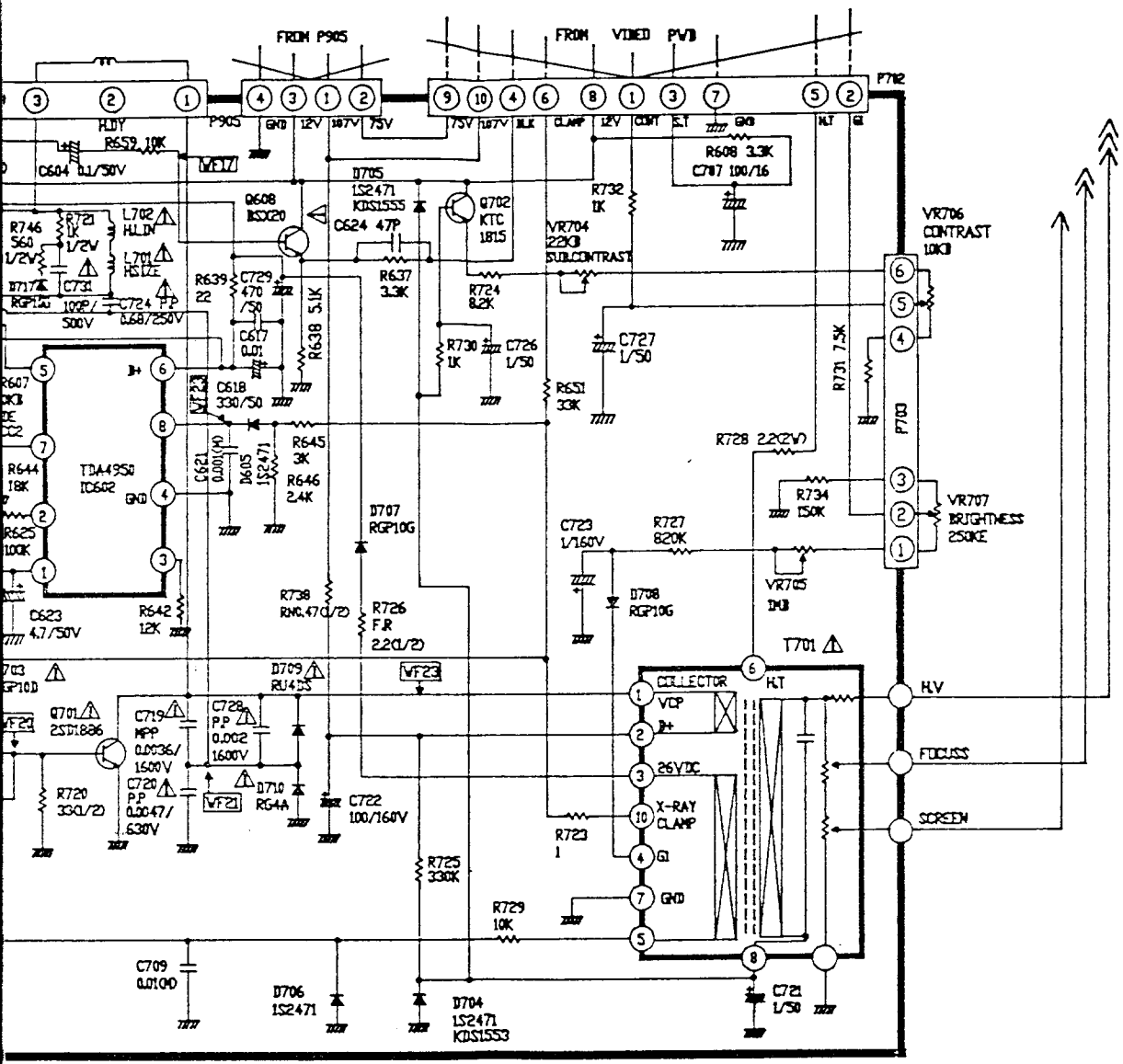


IMPORTANT SAFETY NOTICE

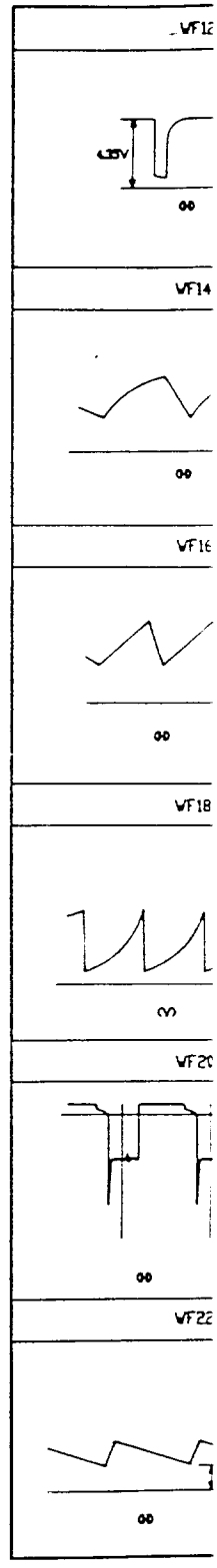
MARK ON THIS SCHEMATIC DIAGRAM INCORPORATES SPCECIAL
TANT FOR PROTECTION FROM X-RADIATION, FIRE AND
CK HAZARDS. WHEN SERIVICING IT IS ESSENTIAL THAT
URER'S SPECIFIED PARTS BE USED FOR THE CRITICAL
THE ⚠ SYMBOL MARK OF THE SCHEMATIC.

LA ⚠ SYMBOLE MARQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND DIMPORTANTES CARACTÉRISTIQUES SPÉCIALES CONCUES POUR PROTÉGER DES RAYONS X. ET DES DANGERS DINCENDIE IT DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN SI DES PIÈCES DE CETTE ⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S N' UTILISEZ QUE DES PIÈCES SPÉCIFÉES PAS LE MANUFACTURIER.

C | D | E | F

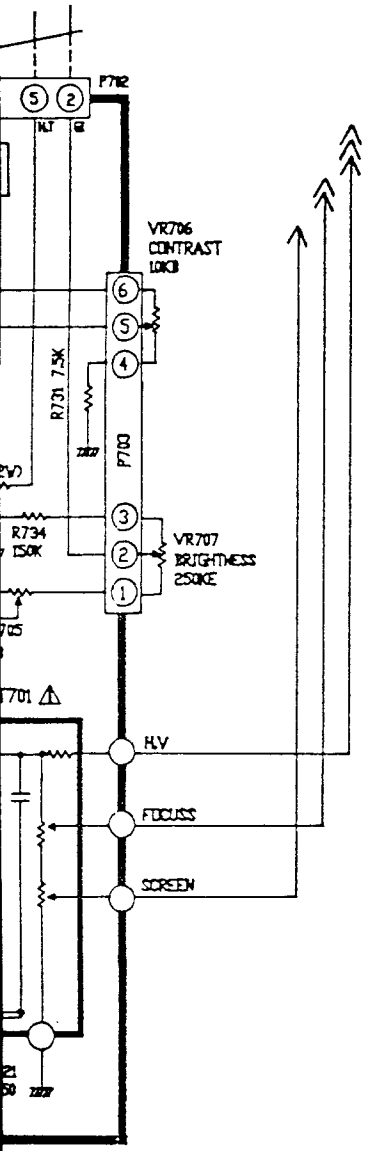


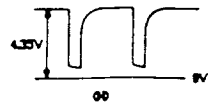
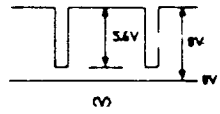
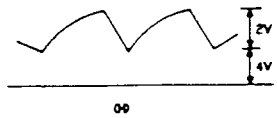
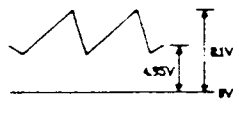
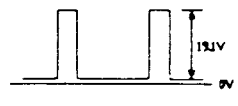
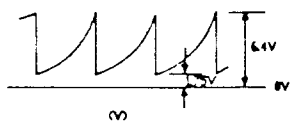
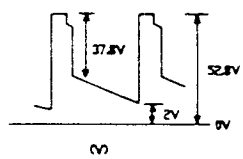
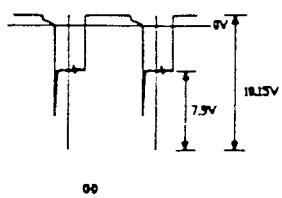
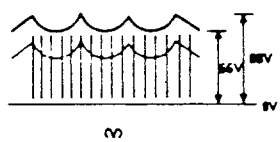
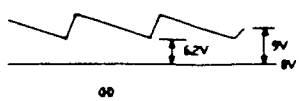
RQUE DE CE DIAGAMME SCHÉMATIQUE COMPREND DIMPORTANTES
SPÉCIALES CONCUES POUR PROTÉGER DES RAYONS X. ET
NDIE IT DE SECOUSSES ÉLECTRIQUES. EN CAS DE BESOIN
CETTE ⚠ SYMBOLE MARQUE DOIVÊNT ÊTRE REMPLACE'S
ES PIECES SPÉCIFÉES PAS LE MANUFACTURIER.



P/N 484-260A
P/N 484-260B

E F G H

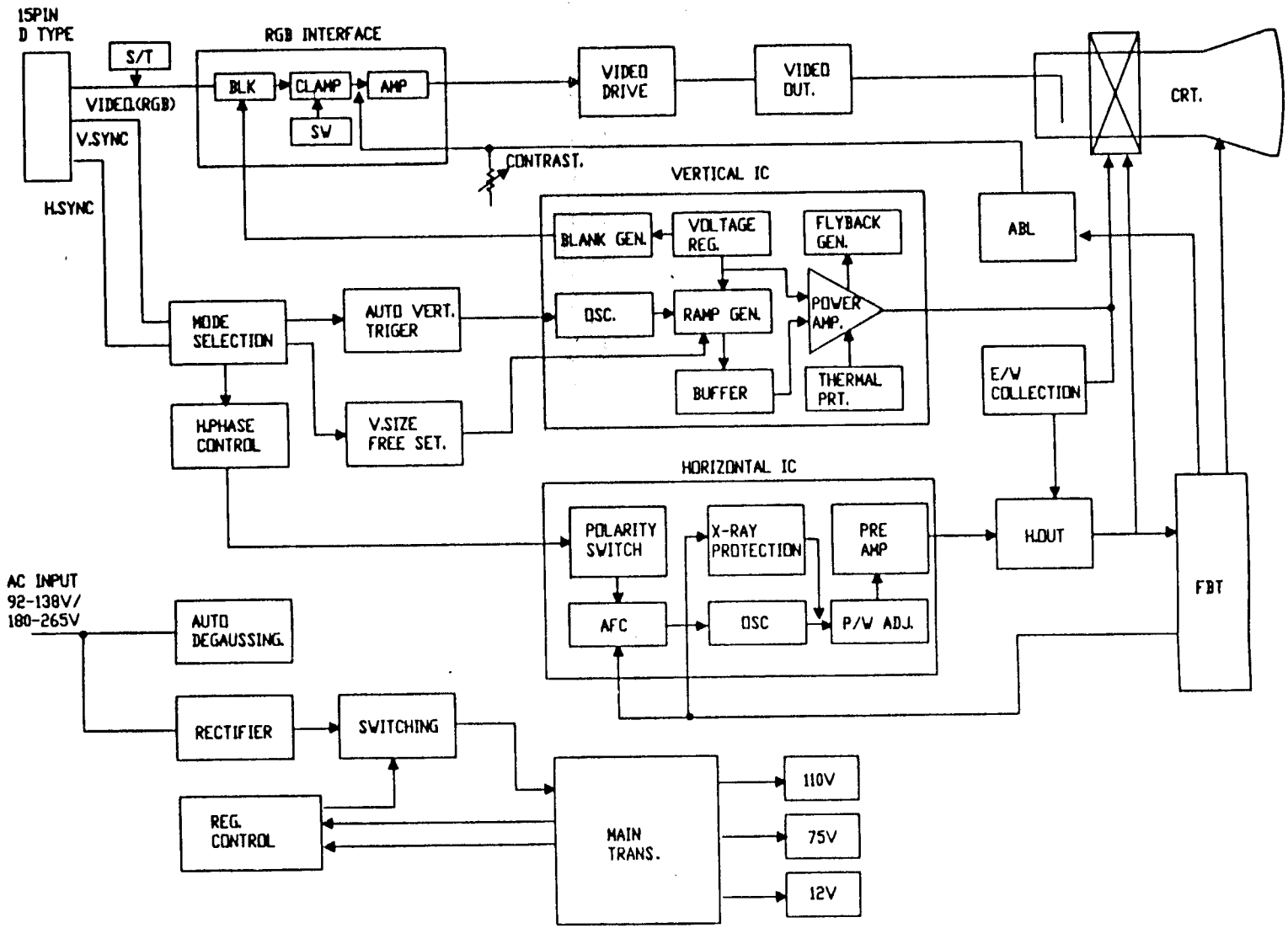


WF12	WF13
	
WF14	WF15
	
WF16	WF17
	
WF18	WF19
	
WF20	WF21
	
WF22	WF23
	

P/N 484-260A
P/N 484-260B

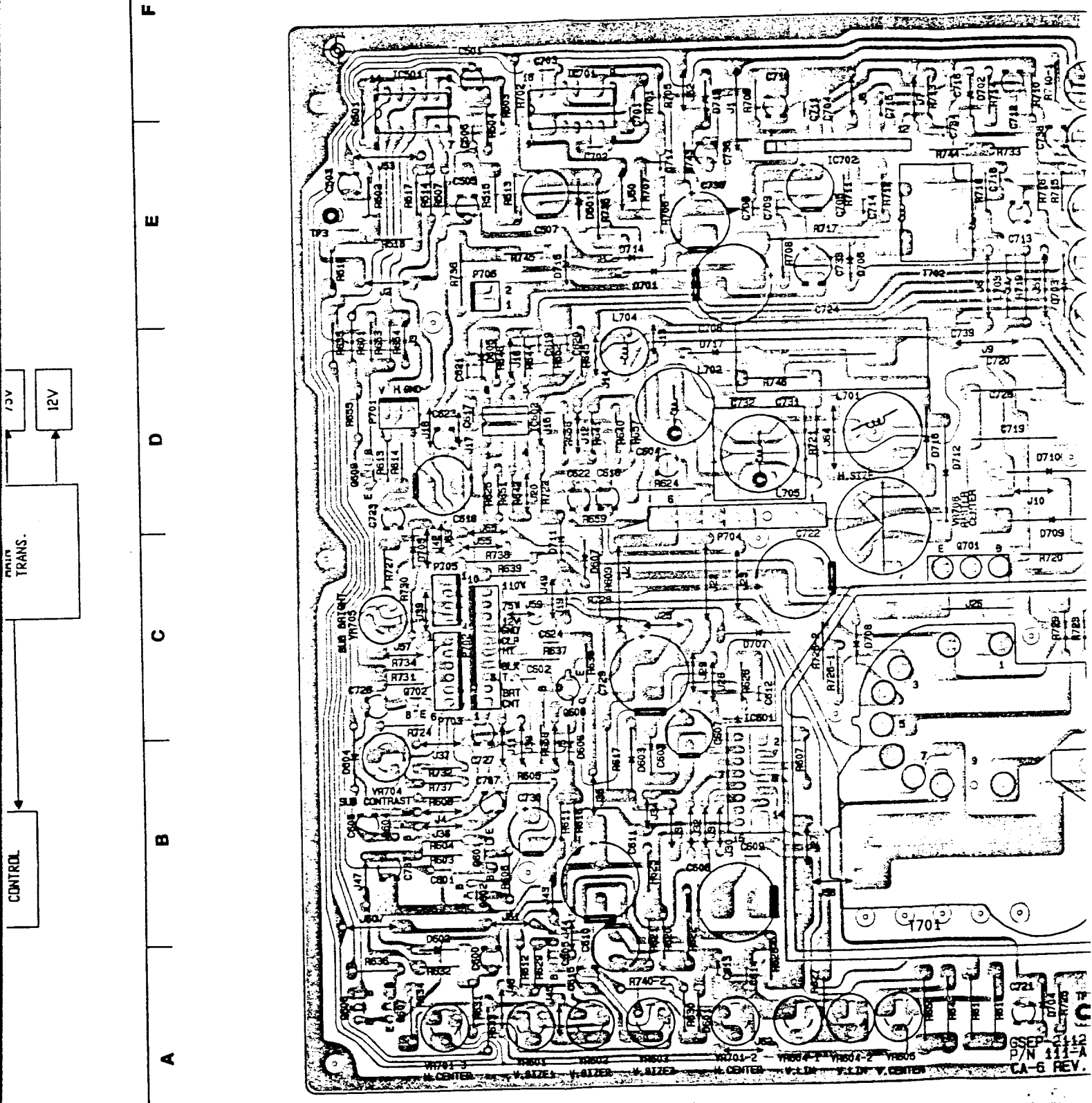
H I J

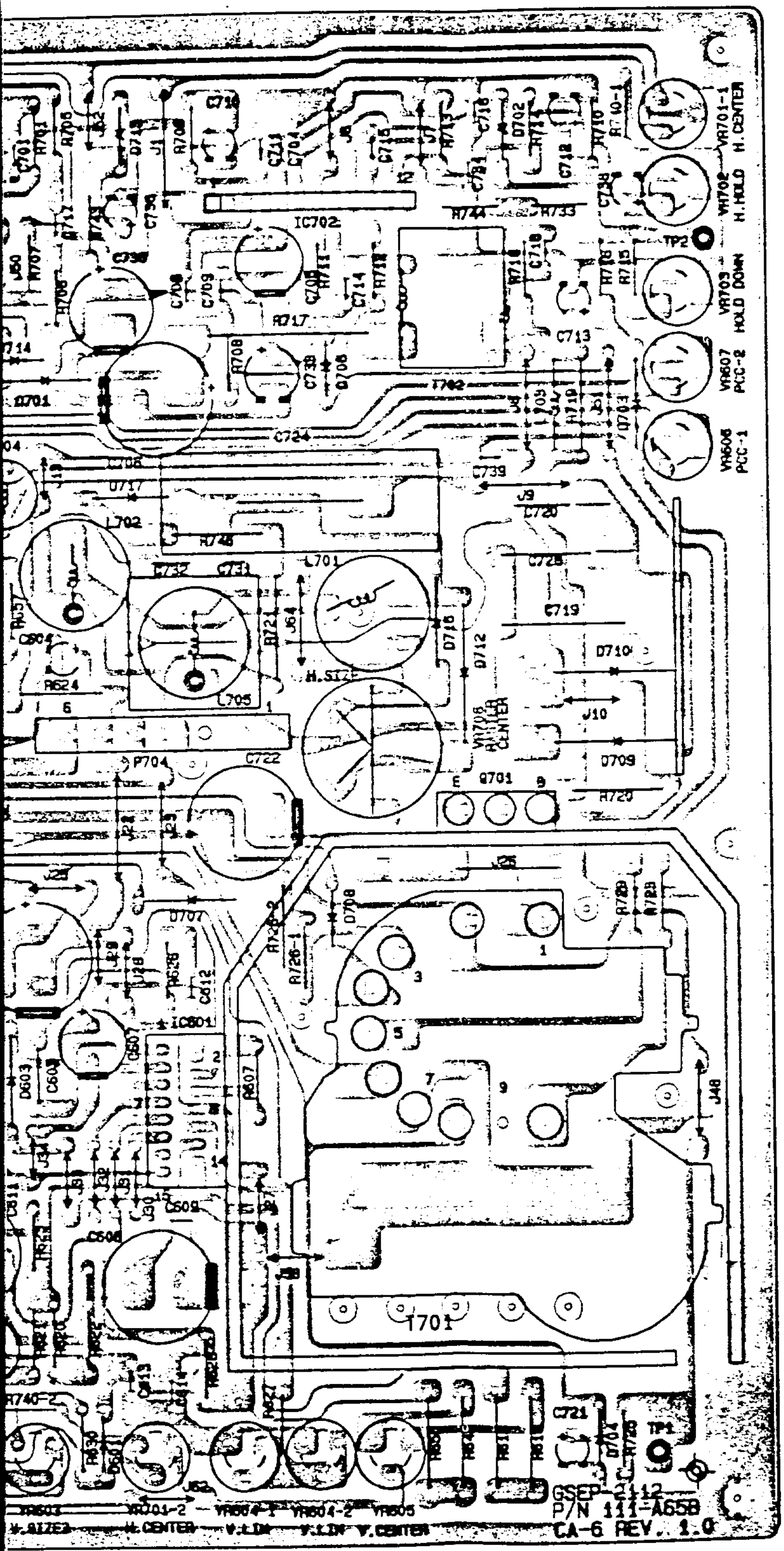
BLOCK DIAGRAM



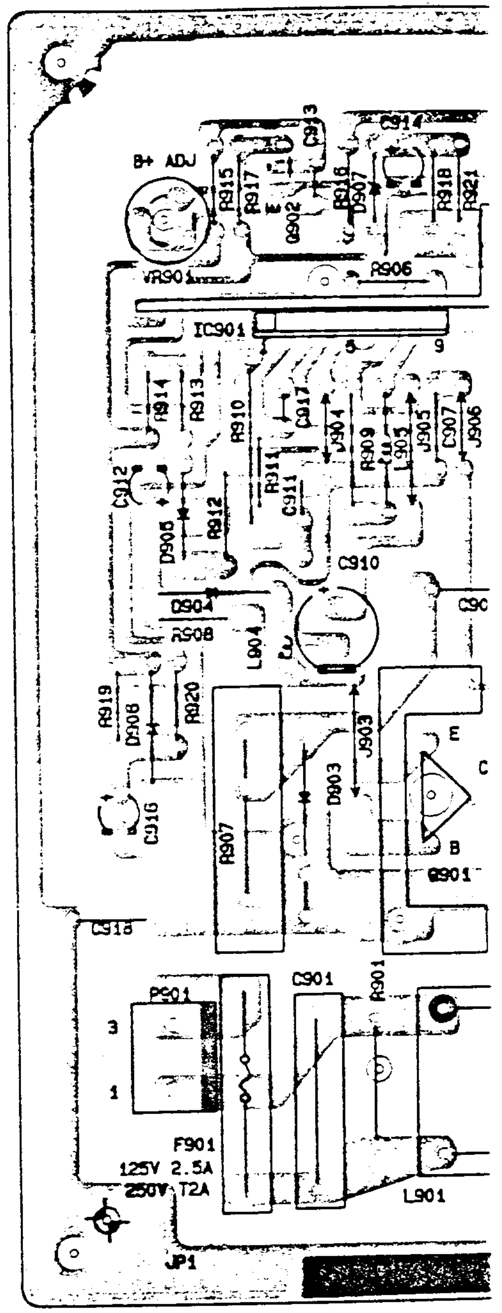
PRINTED CIRCUIT BOARD

1. MAIN PCB

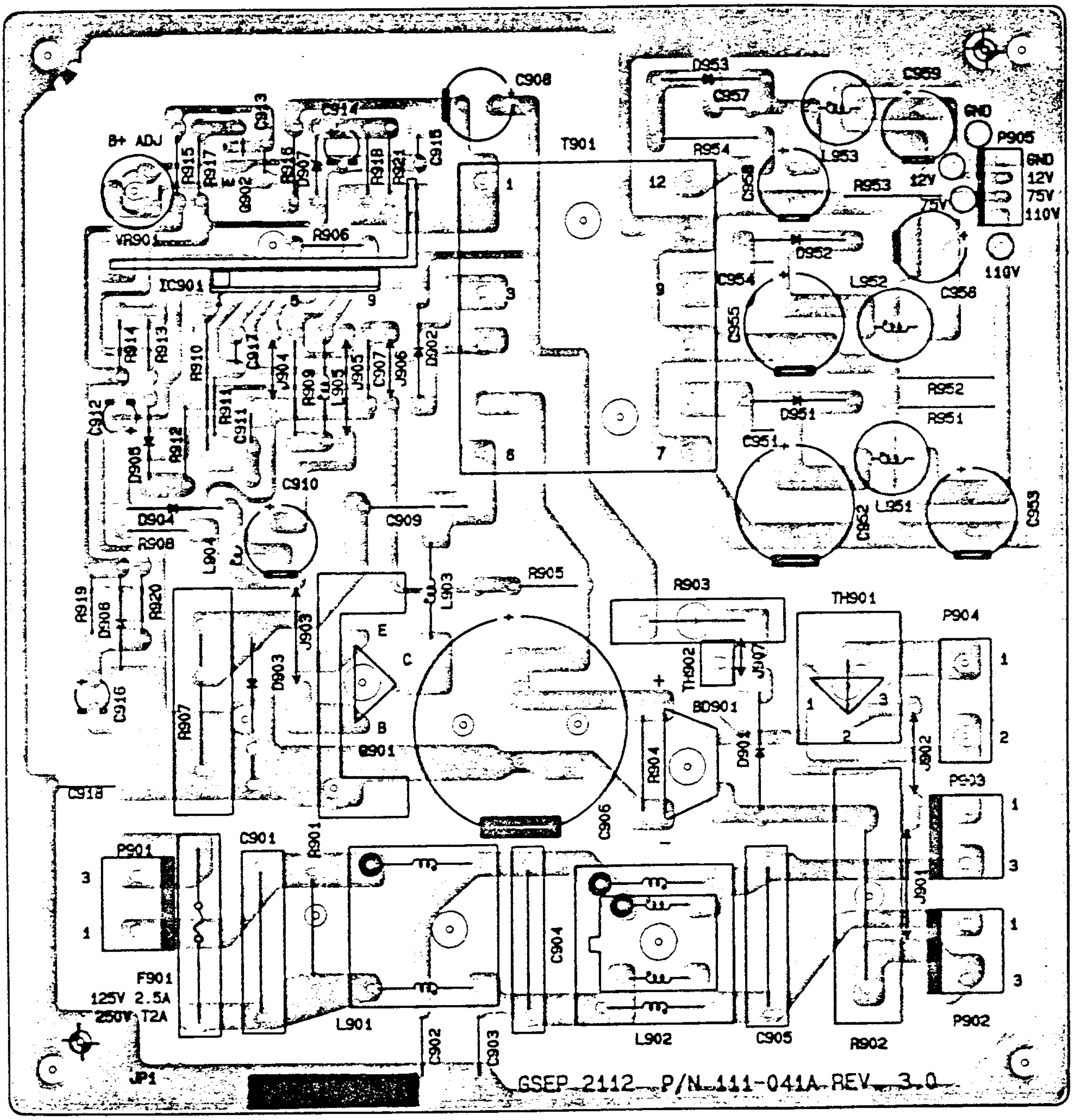



IC702
T701
H.SIZE
Q701
GSEP-2112
P/N 111-A65B
CA-6 REV. 1.0
VR701-1 H.CENTER
VR702 H.HOLD
VR703 HOLD DOWN
VR607 PCC-2
VR606 PCC-1
VR706 RASTER CENTER

2. POWER PCB

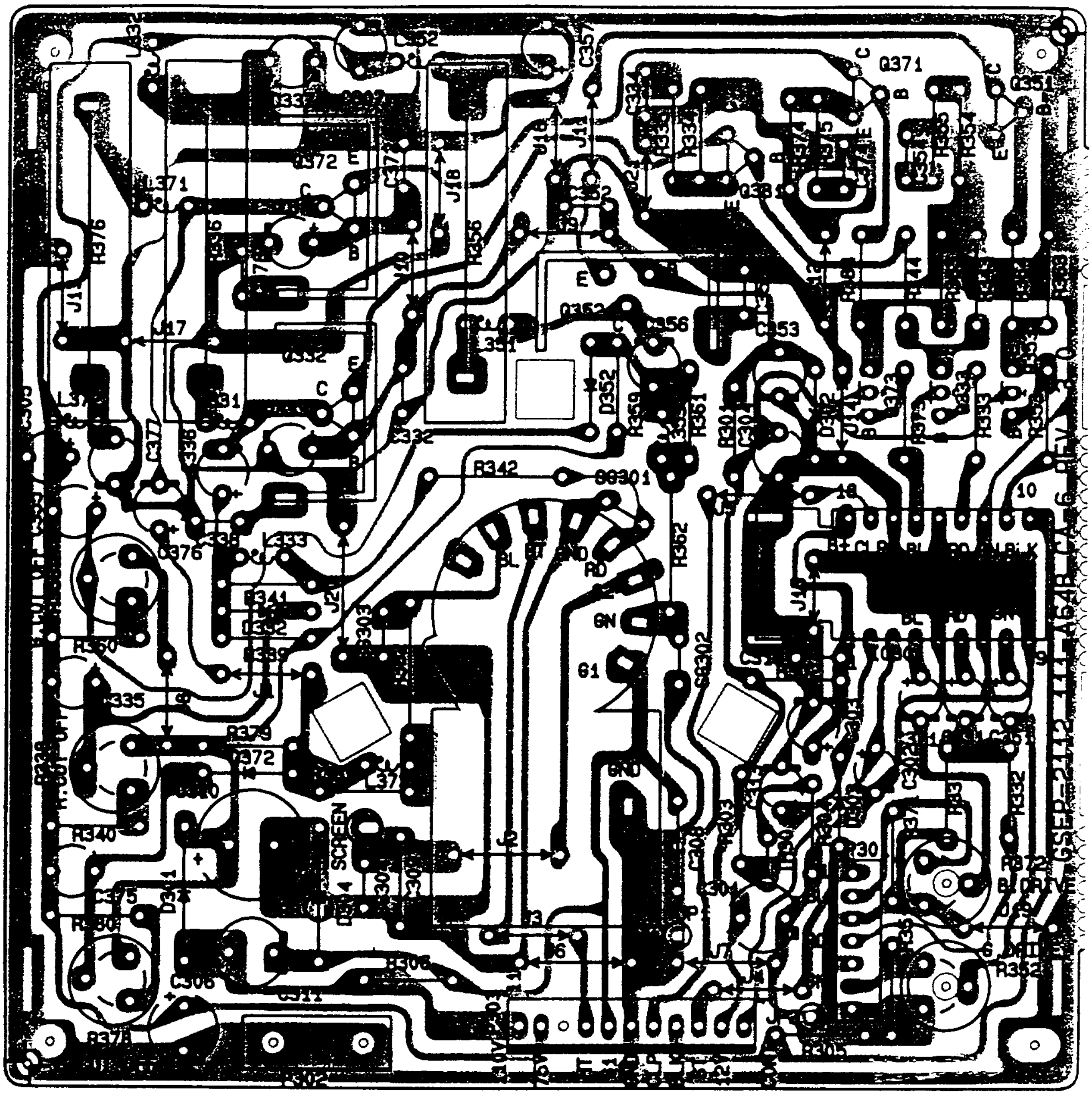

B+ ADJ
VR901
IC901
Q901
P901
F901
125V 2.5A
250V T2A
L901
C901
JP1

2. POWER PCB



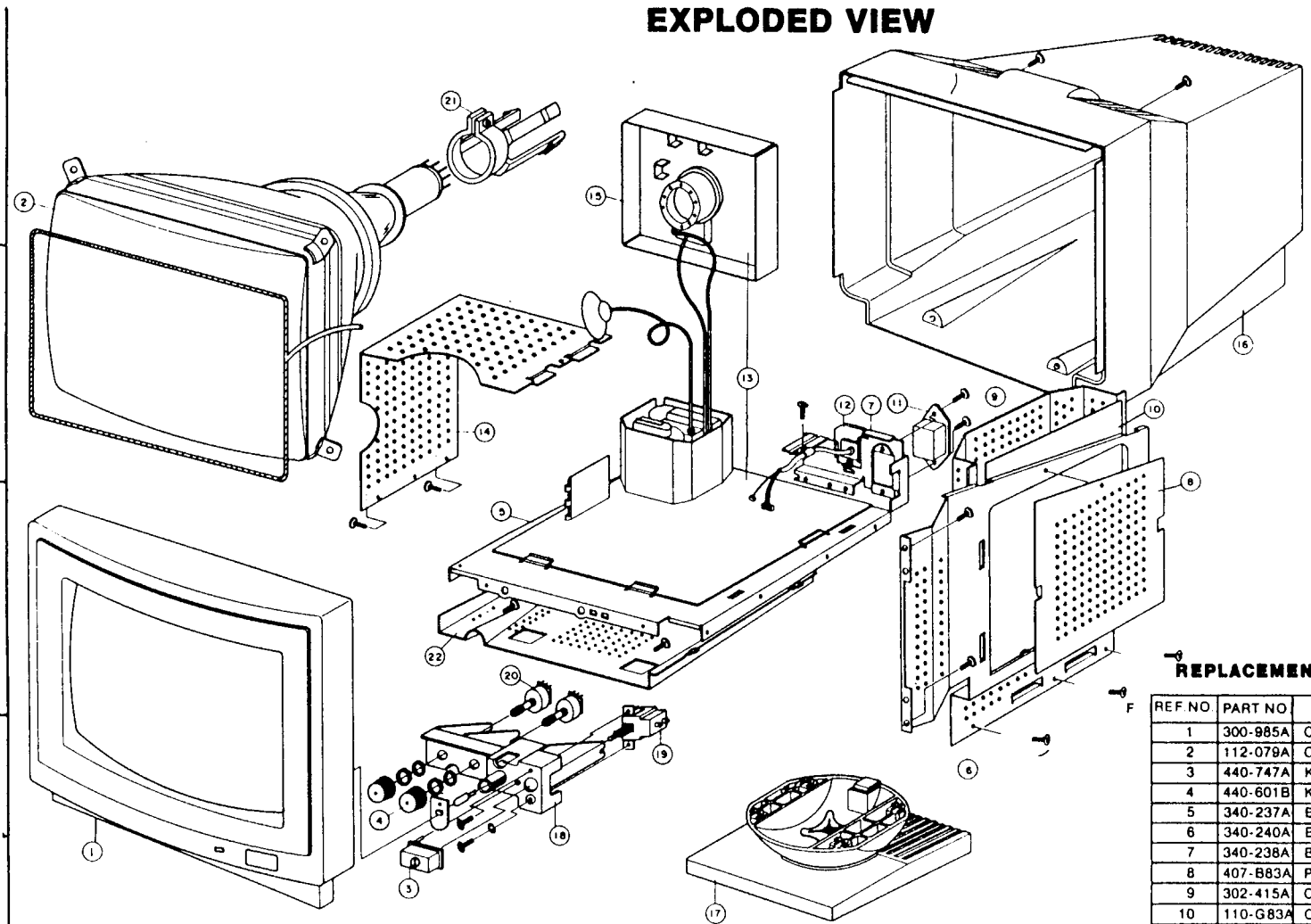
B+ ADJ
VR901
IC901
T901
C908
D953
C957
C959
GND
P905
GND
12V
75V
110V
R954
L953
R953
D952
C954
L952
C956
C955
R952
R951
D951
C951
L951
C952
C953
R906
R905
C909
C910
D904
R908
R903
TH901
P904
TH902
BD901
Q901
C906
R904
P903
P902
J901
R902
L901
L902
C901
C904
C905
P901
F901
125V 2.5A
250V T2A
JP1
C902
C903
GSEP 2112 P/N 111-041A REV 3.0

3. VIDEO PCB



Q371
Q351
Q381
Q372
Q352
Q332
C357
C353
C356
L352
L371
L333
L351
R376
R356
R342
R362
R341
R360
R379
R340
R306
R305
R352
R332
J17
J18
J2
SCREEN
BL
GND
RD
GN
G1
G302
D352
D372
C376
C375
C308
C306
C377
R378
R350
R372

EXPLODED VIEW



REPLACEMENT PARTS LIST(MECHANICAL PARTS)

REF.NO.	PART NO.	DESCRIPTION	QTY	REMARK
1	300-985A	CABINET ASSY	1	UL-94V₀
2	112-079A	CDT	1	
3	440-747A	KNOB, POWER PUSH	1	UL-94V₀
4	440-601B	KNOB, CONTROL	2	UL-94V₀
5	340-237A	BRACKET, BASE	1	
6	340-240A	BRACKET, SIDE 14"	1	
7	340-238A	BRAKET, I/O	1	
8	407-B83A	PLATE, SHIELD	1	
9	302-415A	CASE, SMPS	1	AL
10	110-G83A	CHASSIS ASSY, POWER	1	PWB ASSY
11	381-120A	SOCKET, POWER	1	
11	387-482B	CONNECTOR, SIGNAL	1	B/K
13	309-302A	CHASSIS ASSY MAIN PCB	1	PWB ASSY
14	303-B46B	COVER, SHIELD	1	
15	303-995D	COVER,CPT SHIELD CASE	1	
16	303-B94A	COVER ASSY, BACK	1	UL-94V₀
17	190-013A	T/S ASSY	1	UL-94HB
18	340-235A	BRACKET, VOLUME 14"	1	UL-94V₀
19	140-075G	SWITCH, POWER	1	
20	180-128G	RESISTOR VAR	1	
	180-128H	RESISTOR VAR	1	
21	341-464A	HOLDER, CPT PCB	1	UL-94V
22	340-241A	BRACKET, BOTTOM 14"	1	

TILT/SWIVEL STAND (OPTION)

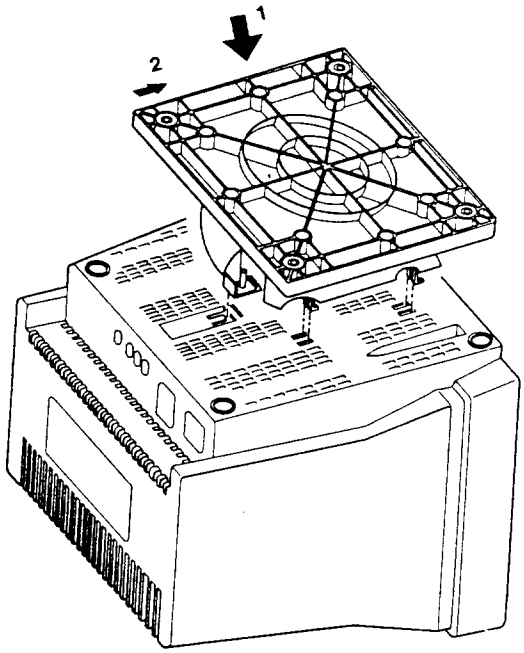
NOTE: Some monitors may not have a Tilt/Swivel Stand.

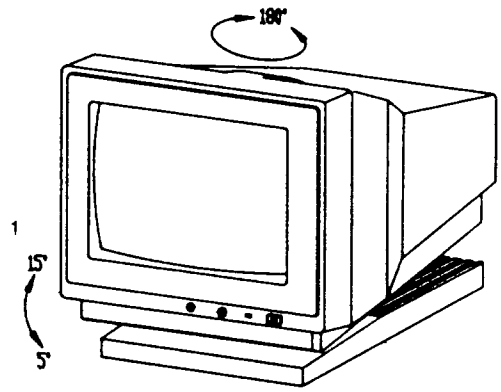
1. Turn off the equipment and all attached options.
2. Carefully set the monitor upside down.

Installation

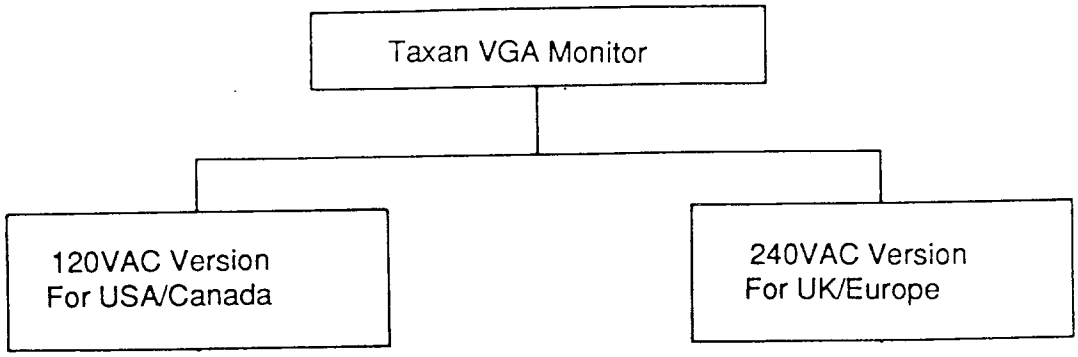
1. Align the projections in the Tilt/Swivel Stand with slots in the bottom of the monitor and insert the projections into the slots.

2. Push the Tilt/Swivel Stand towards the front of the monitor until the hooks into the slots.





CLASSIFICATION OF VGA MONITOR



COMPARISION OF PARTS LIST

If you try to repair your monitor, look on the ID label of the monitor.
You must insert the correct part in accordance with low version or high version monitor/MCH series or MCL series monitor. The replacement parts list are as follows;

POWER BOARD

REF. NO.	LOW VOLTAGE VERSION (120)		HIGH VOLTAGE VERSION (240)	
	PART NO.	DESCRIPTIONS	PART NO.	DESCRIPTIONS
F901	131-036D	FUSE 125V/2.5A	131-082A	FUSE, 250V/2A
TH901	163-035A	PTH451C106BG080N140	136-035B	PTH451C140BG200N270
L900	150-425H	COIL, DEGAUSSING	150-425K	COIL, DEGAUSSING.
T901	151-091A	POWER TRANSFORMER	151-091B	POWER TRANSFORMER
BD901	06200387	KBL-04, BRIDGE DIODE	06200324	KBL-06, BRIDGE DIODE
R903	180-108Q	RS, 7.8K ohm 3W	180-304U	RS, 18K ohm 3W
R904	01154151	RD, 180K ohm 1/2W	01154157	RD, 330K ohm 1/2W
R905	01157150	RD, 160K ohm 1/8W	01154155	RD, 270K ohm 1/2W
R909	01520021	RN, 0.68 ohm 1/2W	01520027	RN, 1.2 ohm 1/2W
R916	01160135	RD, 39K ohm 1/8W	01160133	RD, 33K ohm 1/8W
R917	01160126	RD, 16K ohm 1/8W	01160124	RD, 13K ohm 1/8W
C901	181-168B	CAP, MPP 0.1uF	181-192C	KNB 1530 0.33uF
C906	181-216B	CE, 330uF/250V	181-124R	CE, 220uF/400V
C909	181-061P	PP, 0.0027uF/630V	181-197A	PP, 0.0018uF/1KV
C911	181-060K	PP, 0.0022uF/400V	181-097D	PP, 0.0056uF/1KV
Q901	06170026	TR, 2SC3089	06120295	TR, 2SC3152
D903	06200266	DIODE, RGP10G	06220130	DIODE, RGP 10J
	387-275Y	AC INLET ASSY	387-275Z	AC INLET ASSY

• Non-mentioned parts are the same as **"LOW VERSION"** parts in **"HIGH VERSION"**.

VIDEO BOARD

LOW VERSION MCL SERIES, HIGH VERSION MCH SERIES, HIGH VERSION MCL SERIES are the same as LOW VERSION MCH SERIES on schematic diagram.

MAIN BOARD

REF. NO.	MCH SERIES		MCL SERIES	
	PART NO.	DESCRIPTIONS	PART NO.	DESCRIPTIONS
R624	01154091	RD, 560 ohm 1/2W	—	elimination
R721	01154101	RD, 1.5K ohm 1/2W	01154099	RD, 1.2k ohm 1/2W
R728	01335033	RS, 2.2 ohm 2W	01335035	RS, 2.7 ohm 2W
C728	181-083F	PP, 0.0015uF/1600V	181-083K	PP, 0.0022uF/1600V
L701	150-308U	COIL, H.WIDTH	150-308L	COIL, H.WIDTH

* Non-mentioned parts are the same as **"MCH SERIES"** parts in **"MCL SERIES".**