SPECIFICATIONS

1. PICTURE TUBE

Size : 17 inch (Flat Slot Mask)
Deflection Angle : 90°
Neck Diameter : 29.1mm
Stripe Pitch : 0.24mm
Face Treatment : W-ARAS(Anti-Reflection and Anti-Static Coating)
Internal : Anti-Glare

2. SIGNAL

2-1. Horizontal & Vertical Sync
1) Input Voltage Level : Low=0~1.2V, High=2.5~5.5V
2) Sync Polarity : Positive or Negative

2-2. Video Input Signal
1) Voltage Level : 0 ~ 0.7 Vp-p
a) Color 0, 0 : 0 Vp-p
b) Color 7, 0 : 0.467 Vp-p
c) Color 15, 0 : 0.7 Vp-p
2) Input Impedance : 75Ω
3) Video Color : R, G, B Analog
4) Signal Format : Refer to the Timing Chart

2-3. Signal Connector
15-pin Attached Connector

2-4. Scanning Frequency
Horizontal : 30 ~ 70 kHz
Vertical : 50 ~ 160 Hz

3. POWER SUPPLY

3-1. Power Range
AC 100~240V or AC200~240V(PFC) 50/60Hz, 2.0A

3-2. Power Consumption

MODE	H/V SYNC	POWER CONSUMPTION	LED COLOR
NORMAL (ON)	ON/ON	less than 105W	GREEN
STAND-BY	OFF/ON	less than 15W	AMBER
SUSPEND	ON/OFF	less than 15W	
OFF	OFF/OFF	less than 5W	AMBER

4. DISPLAY AREA

4-1. Active Video Area : 325.4 x 244.1mm(12.81" x 9.61")
4-2. Display Color : Full Colors
4-3. Display Resolution : 1280 x 1024 / 60Hz (Non-Interlace)
4-4. Video Bandwidth : 110MHz

5. ENVIRONMENT

5-1. Operating Temperature: 10°C ~ 35°C (Ambient)
5-2. Relative Humidity : 10% ~ 90% (Non-condensing)
5-3. Altitude : 5,000m

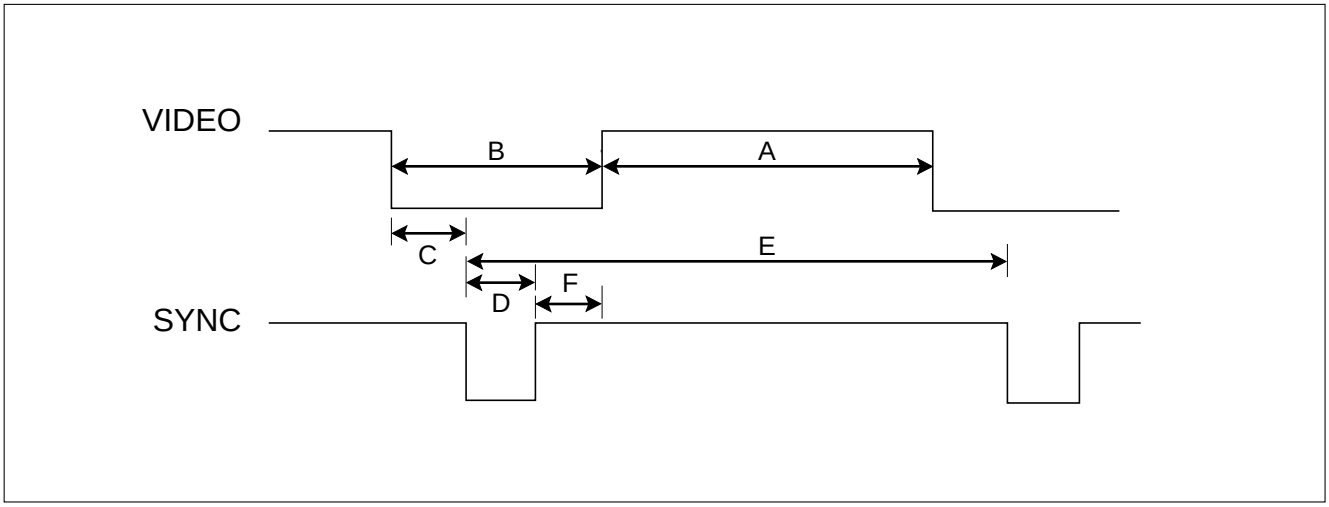
6. DIMENSIONS (with TILT/SWIVEL)

Width : 415.0mm (16.34 inch)
Depth : 439.0mm (17.28 inch)
Height : 435.0mm (17.13 inch)

7. WEIGHT (with TILT/SWIVEL)

Net Weight : 17.8kg (39.24 lbs.)
Gross Weight : 20.0kg (44.09 lbs.)

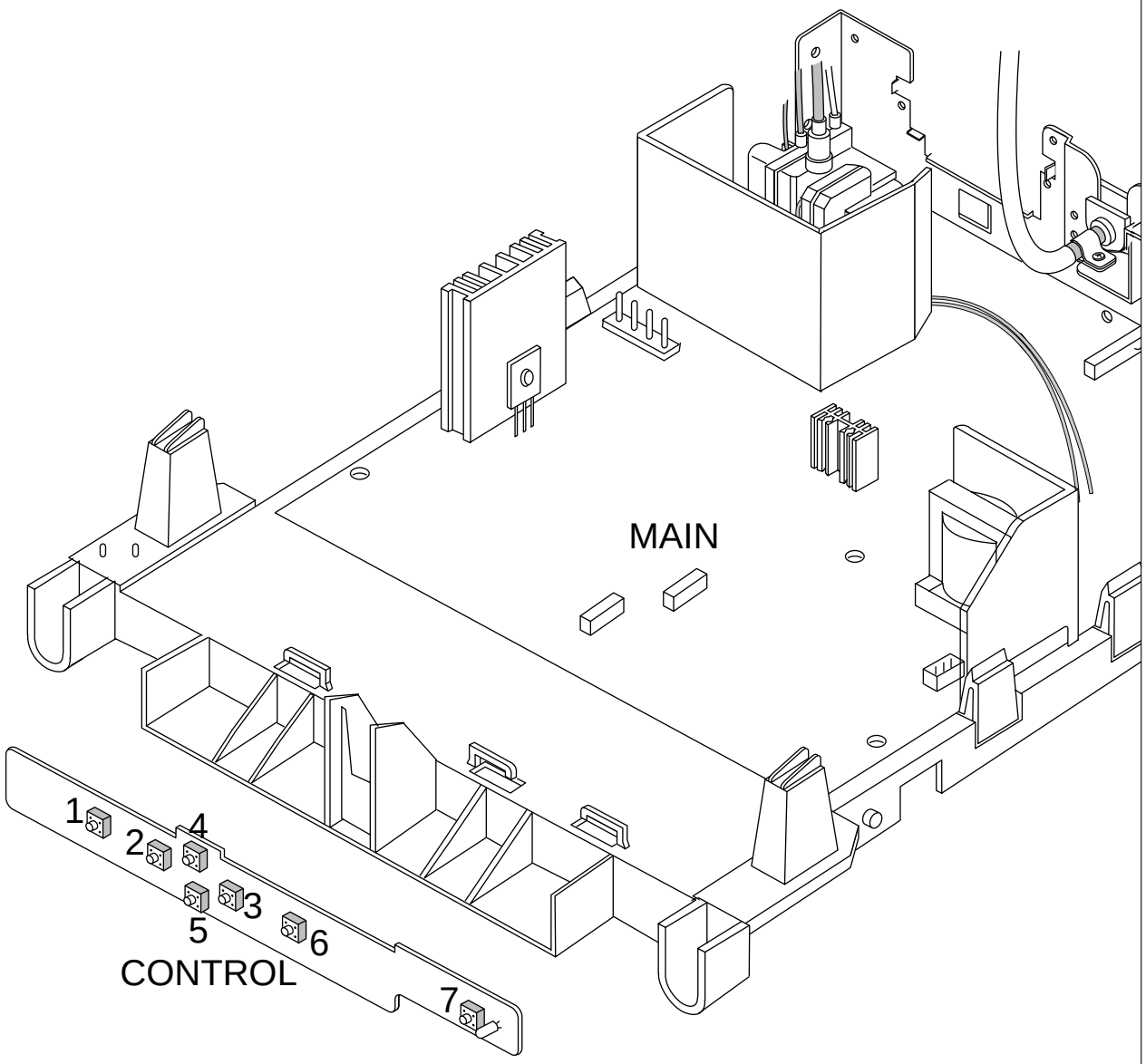
TIMING CHART



MODE			FACTORY PRESET MODE										
			MARK	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5	MODE 6	MODE 7	MODE 8	MODE 9	MODE 10
HORIZONTAL	Sync Polarity			—	+	+	+	—	—	+	—	+	+
	Frequency	kHz		37.50	46.88	53.68	68.677	31.47	31.47	37.88	43.27	60.02	63.98
	Total Period	µs	E	26.67	21.33	18.63	14.561	31.78	31.78	26.40	23.11	16.66	15.63
	Video Active Time	µs	A	20.32	16.16	14.22	10.836	25.42	25.42	20.00	17.78	13.00	11.85
	Blanking Time	µs	B	6.35	5.17	4.41	3.725	6.36	6.36	6.40	5.33	3.66	3.78
	Front Porch	µs	C	0.51	0.32	0.57	0.508	0.64	0.64	1.00	1.556	0.20	0.44
	Sync Duration	µs	D	2.03	1.62	1.14	1.016	3.81	3.81	3.20	1.556	1.22	1.04
	Back Porch	µs	F	3.81	3.23	2.70	2.201	1.91	1.91	2.20	2.22	2.24	2.30
VERTICAL	Sync Polarity			—	+	+	+	+	—	+	—	+	+
	Frequency	Hz		74.99	75.01	85.07	85.00	70.08	59.94	60.32	85.01	75.03	60.02
	Total Period	ms	E	13.335	13.331	11.755	11.764	14.269	16.684	16.579	11.763	13.328	16.661
	Video Active Time	ms	A	12.802	12.798	11.178	11.182	12.712	15.254	15.840	11.093	12.795	16.005
	Blanking Time	ms	B	0.533	0.533	0.577	0.582	1.557	1.430	0.739	0.670	0.533	0.656
	Front Porch	ms	C	0.026	0.021	0.018	0.014	0.414	0.318	0.026	0.023	0.017	0.015
	Sync Duration	ms	D	0.080	0.064	0.056	0.044	0063	0.063	0.106	0.069	0.050	0.047
	Back Porch	ms	F	0.427	0.448	0.503	0.524	1.080	1.049	0.607	0.578	0.466	0.594
Resolution				**640 x 480 75Hz**	**800 x 600 75Hz**	**800 x 600 85Hz**	**1024 x 768 85Hz**	**640 x 400 70Hz**	**640 x 480 60Hz**	**800 x 600 60Hz**	**640 x 480 85Hz**	**1024 x 768 75Hz**	**1280 x 1024 60Hz**
Recall				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

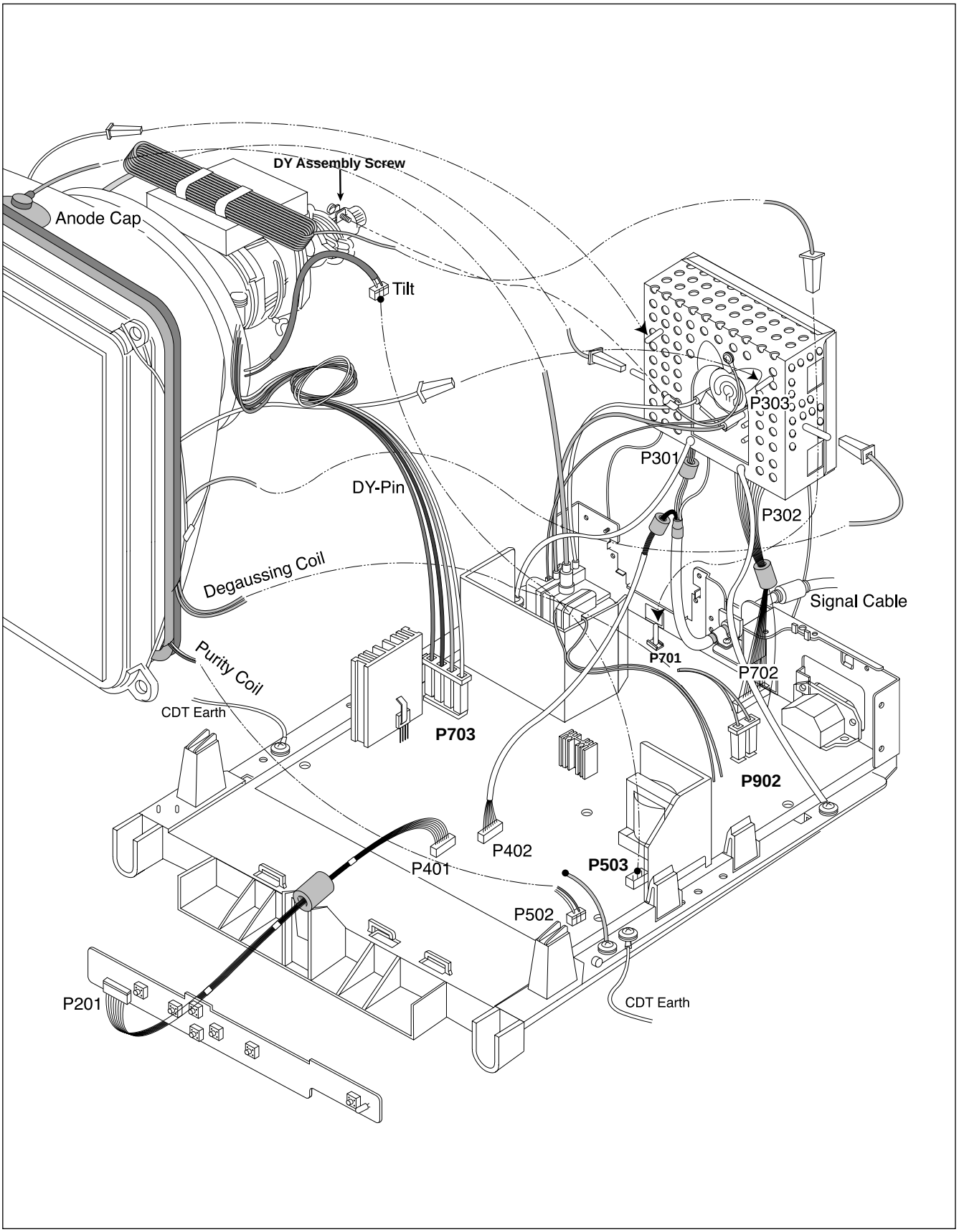
* Mode 1~Mode 4: Basic Mode (Mode 5~Mode 10: Default Mode)

CONTROL LOCATIONS



No.	Ref. No.	Control Function	No.	Ref. No.	Control Function
1	SW201	OSD BUTTON	5	SW205	OSD SELECT/ADJUSTMENT DOWN
2	SW202	OSD SELECT/ADJUSTMENT LEFT	6	SW204	SET BUTTON
3	SW206	OSD SELECT/ADJUSTMENT RIGHT	7	SW207	POWER BUTTON
4	SW203	OSD SELECT/ADJUSTMENT UP			

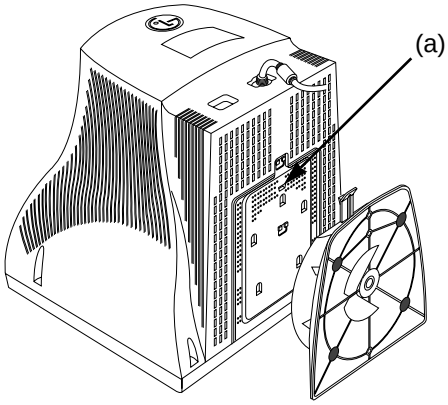
WIRING DIAGRAM



DISASSEMBLY

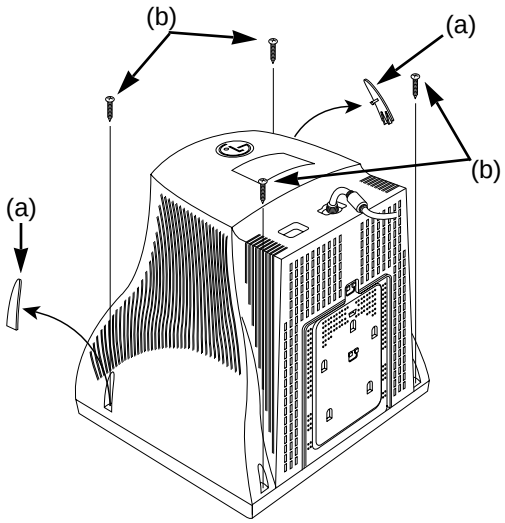
1. TILT/SWIVEL REMOVAL

1) Set the monitor face downward.
2) Pressing the latch (a), carefully remove the Tilt/Swivel by pulling it upward.



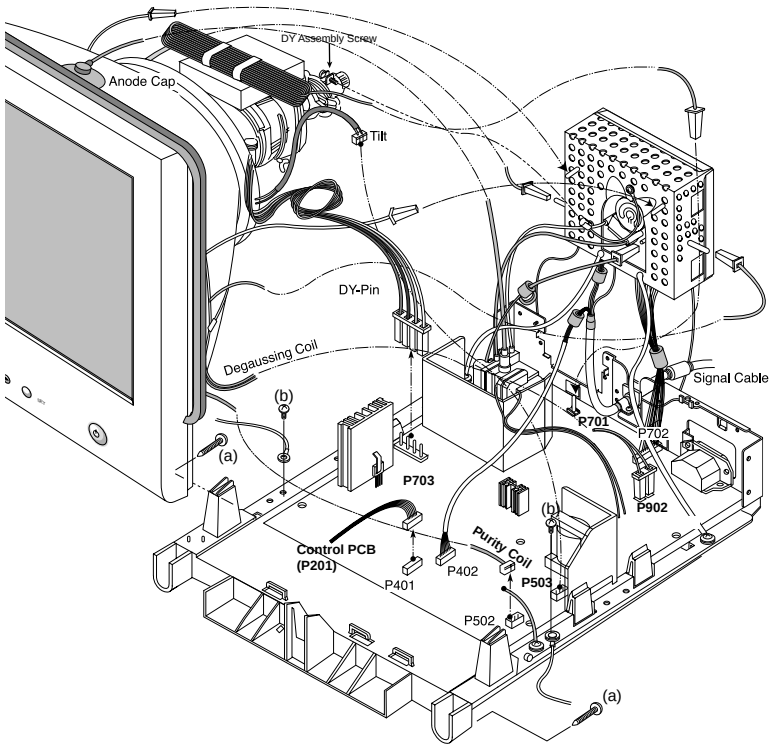
2. BACK COVER REMOVAL

1) Remove two screws cap (a).
2) Remove four screws (b) from the Back Cover.
3) Slide the Back Cover away from the Front Cabinet of the monitor.



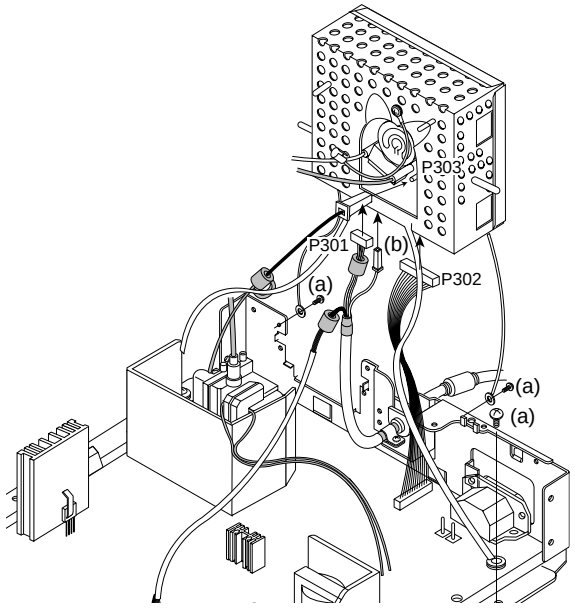
3. TOTAL CHASSIS ASSEMBLY REMOVAL

1) Disconnect P903,P902(Degaussing pin), P703(DY pin), P503(Tilt pin), P502(Purity pin), P401 and P701 from the Main PCB.
2) Disconnect Pin four from the Video PCB.
3) Carefully separate the CDT Board Assembly from the CDT neck.
4) Discharge the remaining static electricity by shorting between the Anode Cap and the CDT ground.
5) Disconnect the Anode Cap from the CDT.
6) Remove two screws (a).
7) Remove two screws (b).
8) Remove the Total Chassis Assembly from the Main Frame.



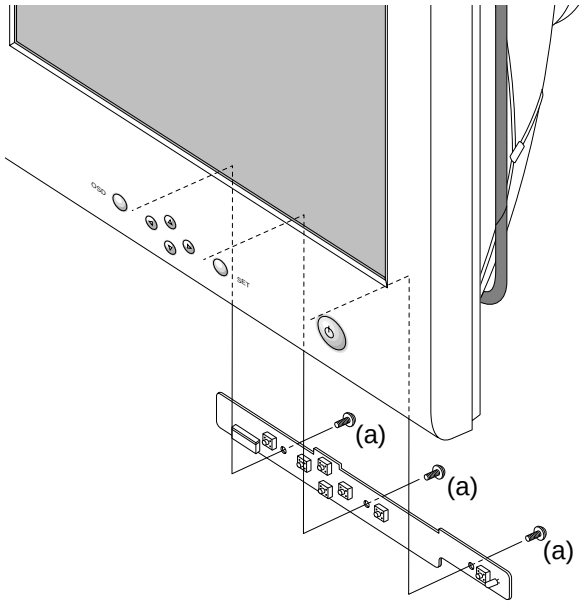
4. VIDEO PCB ASSEMBLY REMOVAL

1) Remove five screws (a).
2) Disconnect P301, P302, P303, and Pin (b).
3) Remove the Video PCB Assembly.



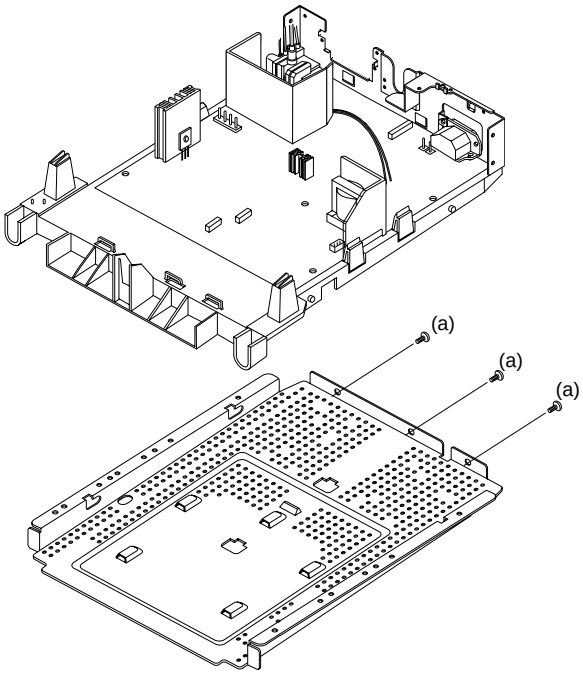
5. CONTROL PCB ASSEMBLY REMOVAL

1) Remove three screws (a).
2) Remove the Control PCB Assembly from the Front Cabinet.



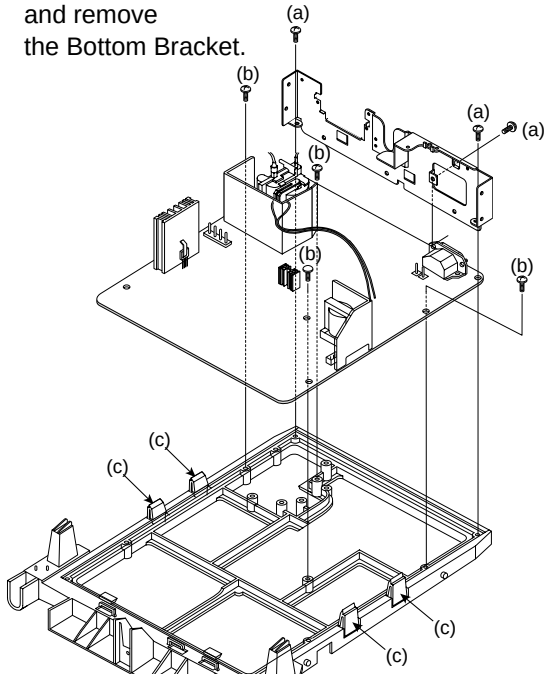
6. BOTTOM BRACKET REMOVAL

1) Remove three screws (a).
2) Remove the Bottom Bracket.

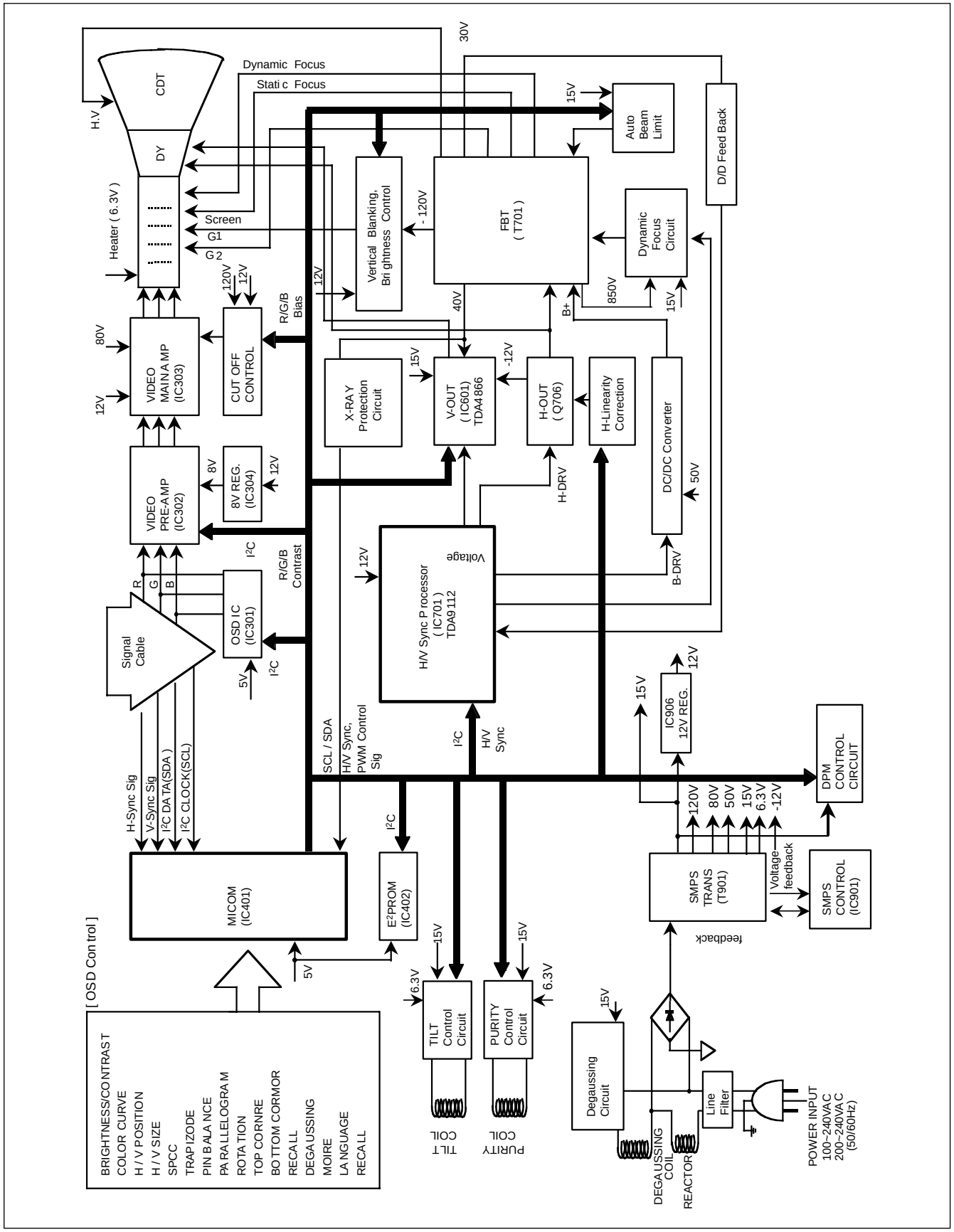


7. MAIN BRACKET REMOVAL

1) Remove three screws (a).
2) Remove the Rear Bracket.
3) Remove four screws (b).
4) Release four latches (c), and remove the Bottom Bracket.



BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. SMPS(Switching Mode Power Supply)

When you turn on the power switch, the operating procedure is as follows:

1) The AC line voltage is rectified by the bridge diodes D901 and C908
2) The control IC(IC901) starts switching and generates switching pulses in the primary turns of the SMPS transformer (T901)
3) The switching pulses of the primary turns are induced the secondary turns of the transformer by the turn ratio. These pulses are rectified by each diode (D971,D961, D951, D931, D941 ,D991)
4) Each rectified DC voltage (120V, 50V, 15V, 80V, 6.3V,-12V and 5V) is supplied to the main circuit.

2. Over Voltage Protection Circuit

When the input voltage of IC901 Vin(pin 4) is more than 22.5V(typical), all the secondary Voltages of the SMPS transformer (T901) down to low value.

3. Display Power Management Circuit

1) Stand-by and Suspend mode.
   When no input of horizontal or vertical sync, Q951 and Q952 are turned off.
   Then input power consumption is below 15 watts
2) OFF mode
   When no input of horizontal and vertical sync,
   Then input power consumption is below 5 watts

4. X-ray Protection Circuit

If the high voltage of the FBT reaches up to 29KV IN an abnormal case, Q807 operates and IC401 pin 41 came to low level, Then IC401 control IC701 to stop Horizontal drive pulse and stop Horizontal Deflection.

5. Microprocessor Control Circuit.

1) Horizontal and Vertical sync signals are supplied to the microprocessor (IC401).
2) Microprocessor(IC401) discriminates the operating mode from the sync polarity and resolution.
3) After microprocessor reads these adjusted mode data stored at EEPROM, it controls operating mode data through IIC
4) Users can control screen condition by the OSD, SET, UP, DOWN, RIGHT, LEFT, and Audio and Audio Mute buttons.

6. D/D Convert Circuit.

To obtain constant high voltage, this circuit supplies controlled DC voltage for FBT and Horizontal deflection circuit according to the horizontal sync frequency.

7. Horizontal and Vertical Sync Processor Circuit.

The horizontal and vertical sync processor IC (IC701) has a sync detector, a saw-tooth generator, and drive function. So output horizontal and vertical drive signal control screen distortions.

8. Horizontal linearity Circuit.

This circuit corrects the horizontal linearity for each horizontal sync frequency.

9. Horizontal drive and Output Circuit.

This circuit is a horizontal deflection amplifier for raster scan.

10. ABL Circuit.

This circuit limits the beam-current for the reliability of the CDT.

11. Vertical Output Circuit.

This circuit takes the vertical ramp wave from the TDA9112(IC701) and performs the vertical deflection by supplying the saw-tooth wave current to the vertical deflection yoke.

12. Blanking and Brightness Control Circuit.

Blanking circuit eliminates the retrace line by supplying a negative pulse wave to the G1 of the CDT.
Brightness control circuit is used for control of the screen brightness by changing the DC level of the G1.

13. Video Processor Circuit.

Video processor circuit consists of the video drive output block. The video drive IC(IC302) receives the video signal from PC. The gain of each channel is controlled by the voltage of contrast pin. The cut-off circuit compensate different voltage of each channel between the cathode and the G1 of the CDT.

14. OSD (On-Screen-Display) Circuit.

This circuit displays on the screen information of the monitor's status.

15. Dynamic Focus Output Circuit.

This circuit takes the horizontal and the vertical parabola waves from the TDA9112(IC701) and amplifies it to maintain constant focus on center and comers in the screen.

17. Image Rotation (Tilt) Circuit.

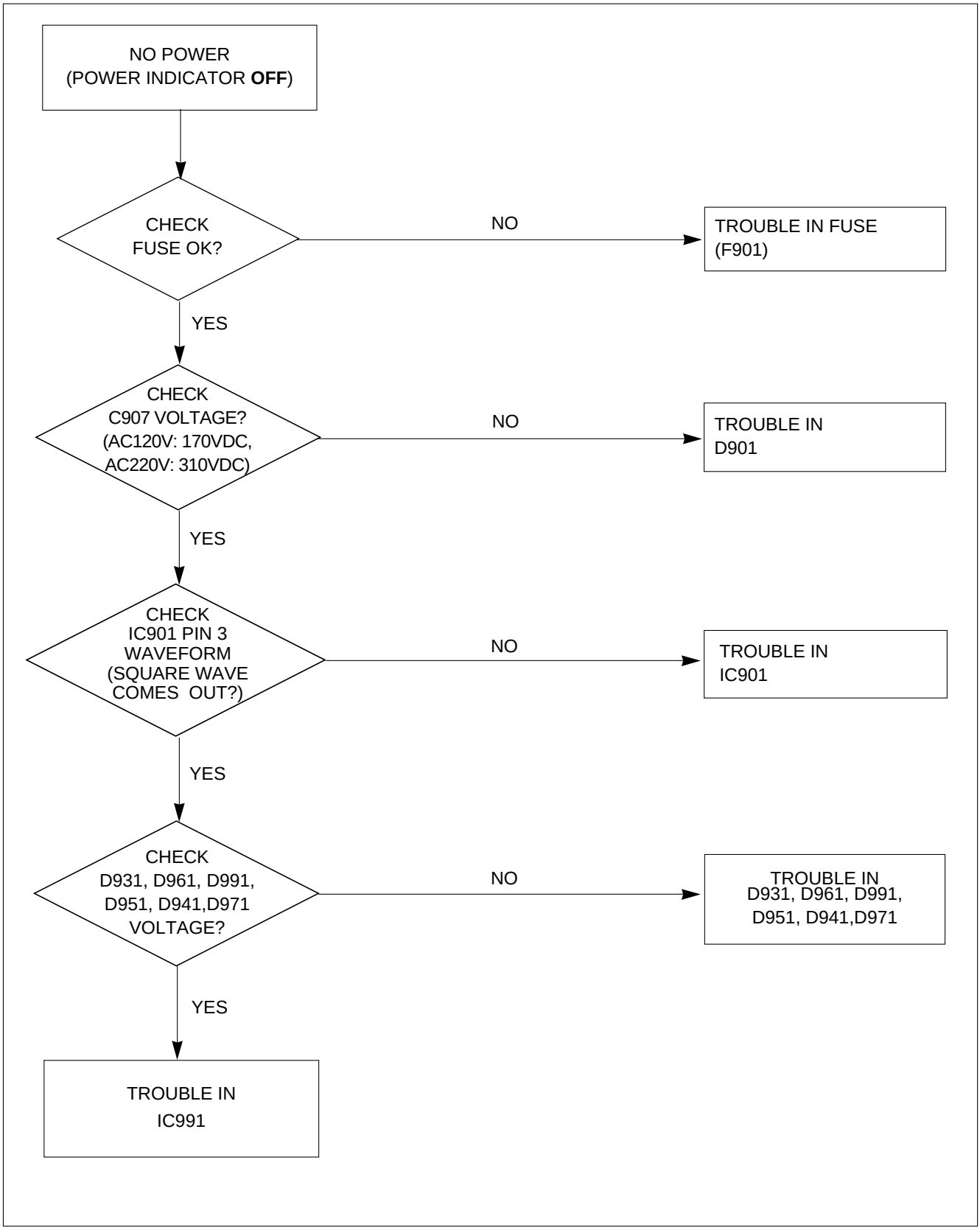
This circuit corrects the tilt of the screen by supplying the image rotation signal to the tilt coil which is attached near the deflection yoke of the CRT.

18. Earth Margnetic Correction(Purity) Circuit

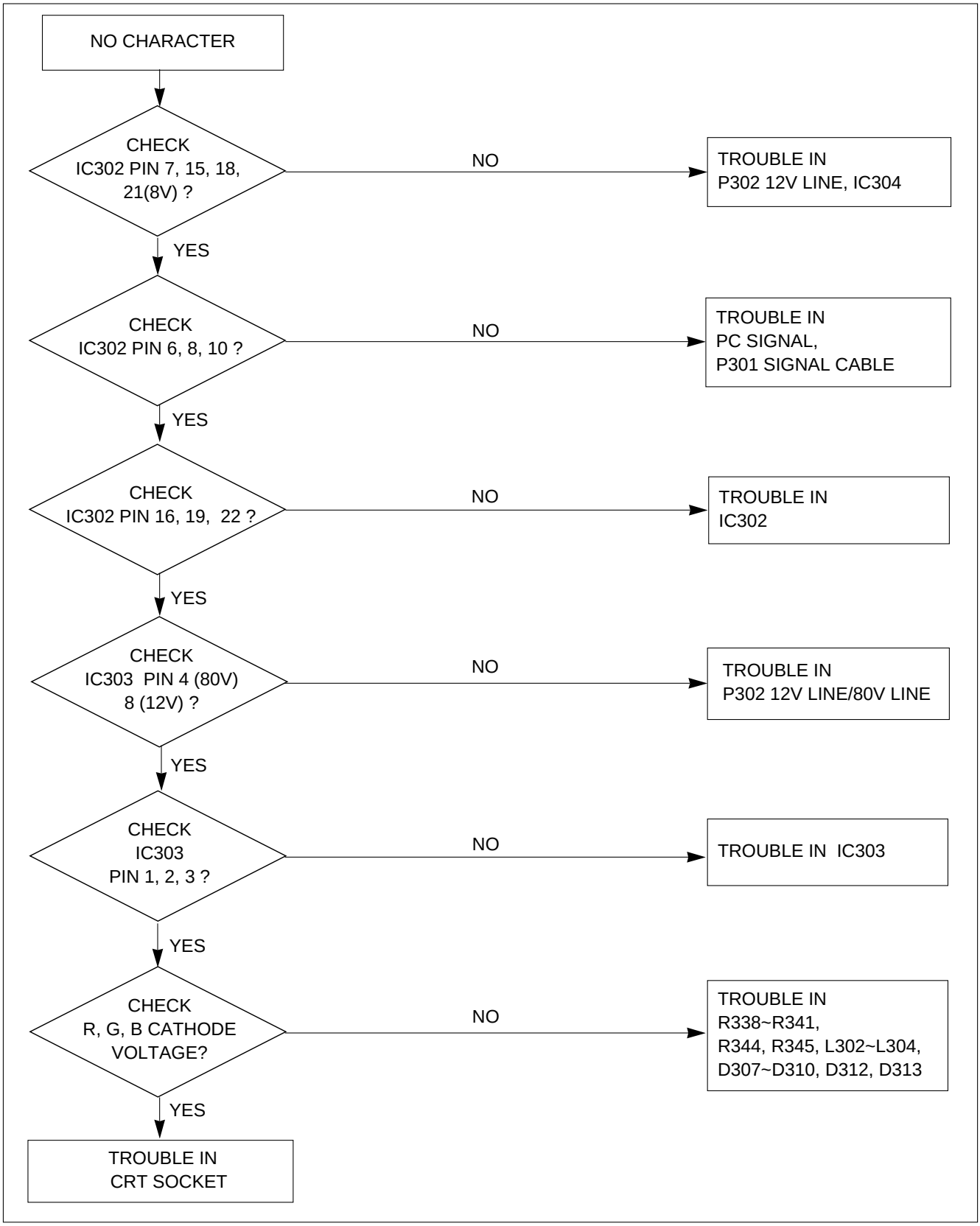
This circuit corrects the convergence of screen by suppling the convergence signal to the coil which is attached to the CRT near the deflection.

TROUBLESHOOTING GUIDE

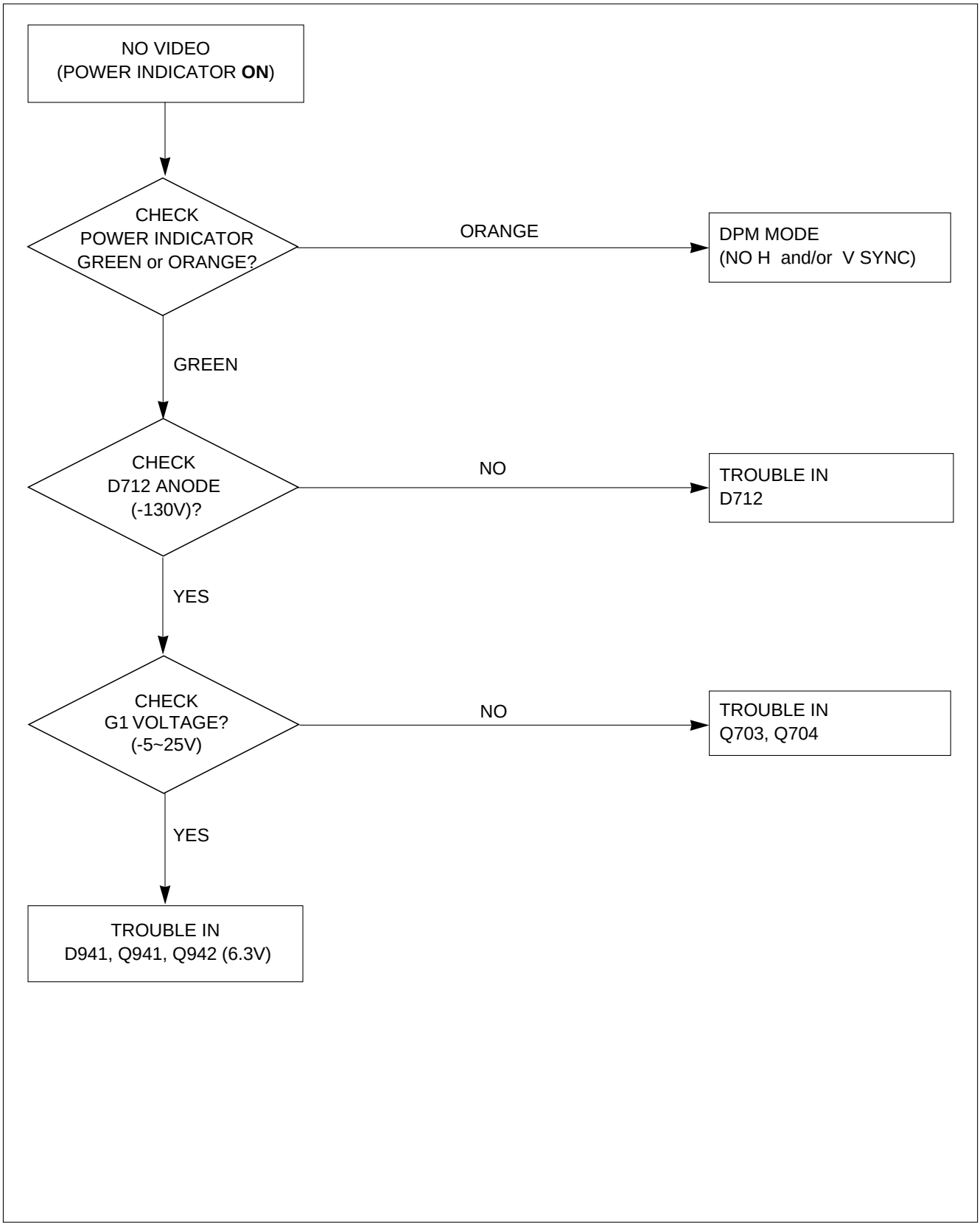
1. NO POWER



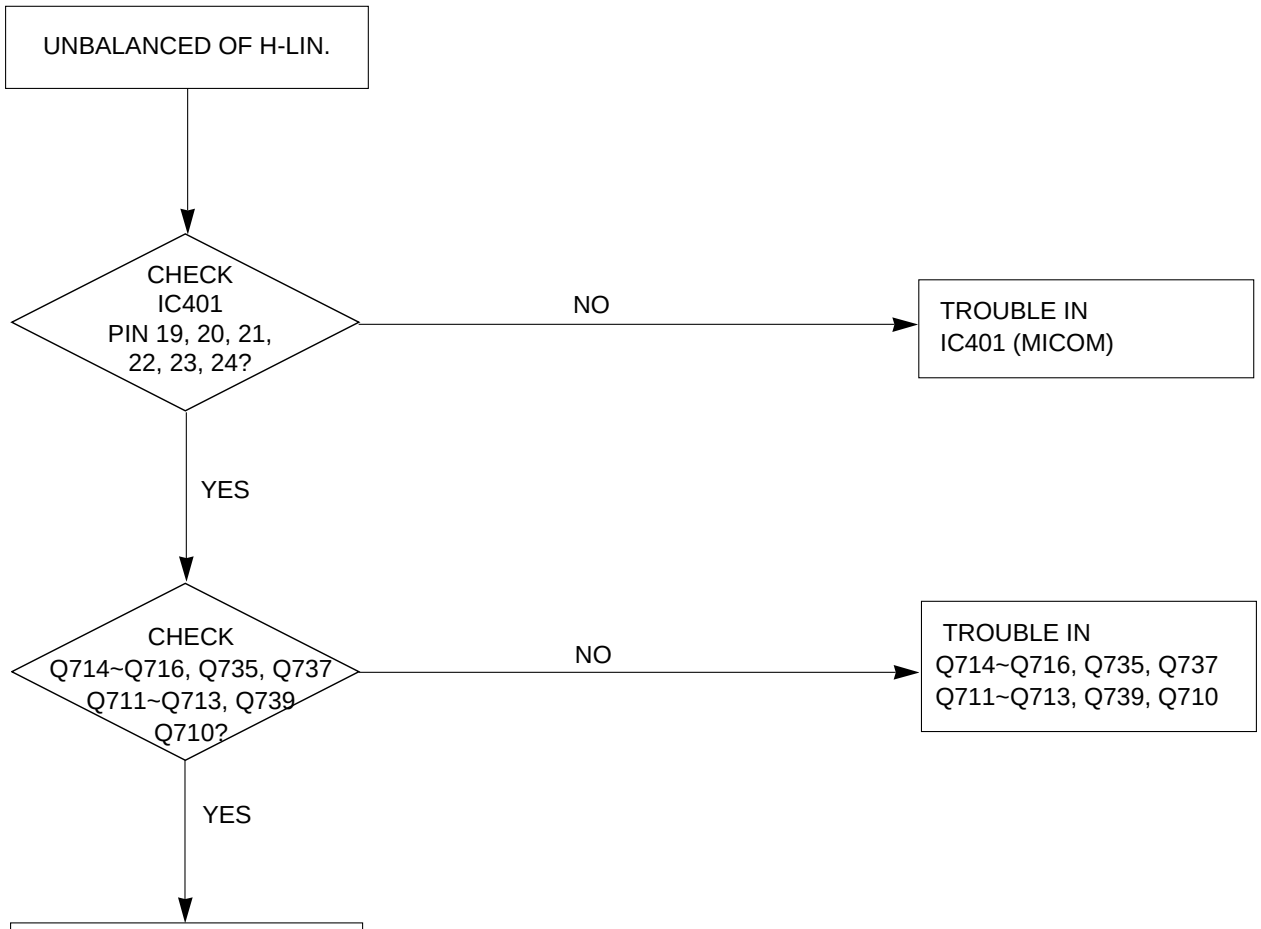
2. NO CHARACTER



3. NO RASTER


NO VIDEO
(POWER INDICATOR **ON**)
CHECK
POWER INDICATOR
GREEN or ORANGE?
ORANGE
DPM MODE
(NO H and/or V SYNC)
GREEN
CHECK
D712 ANODE
(-130V)?
NO
TROUBLE IN
D712
YES
CHECK
G1 VOLTAGE?
(-5~25V)
NO
TROUBLE IN
Q703, Q704
YES
TROUBLE IN
D941, Q941, Q942 (6.3V)

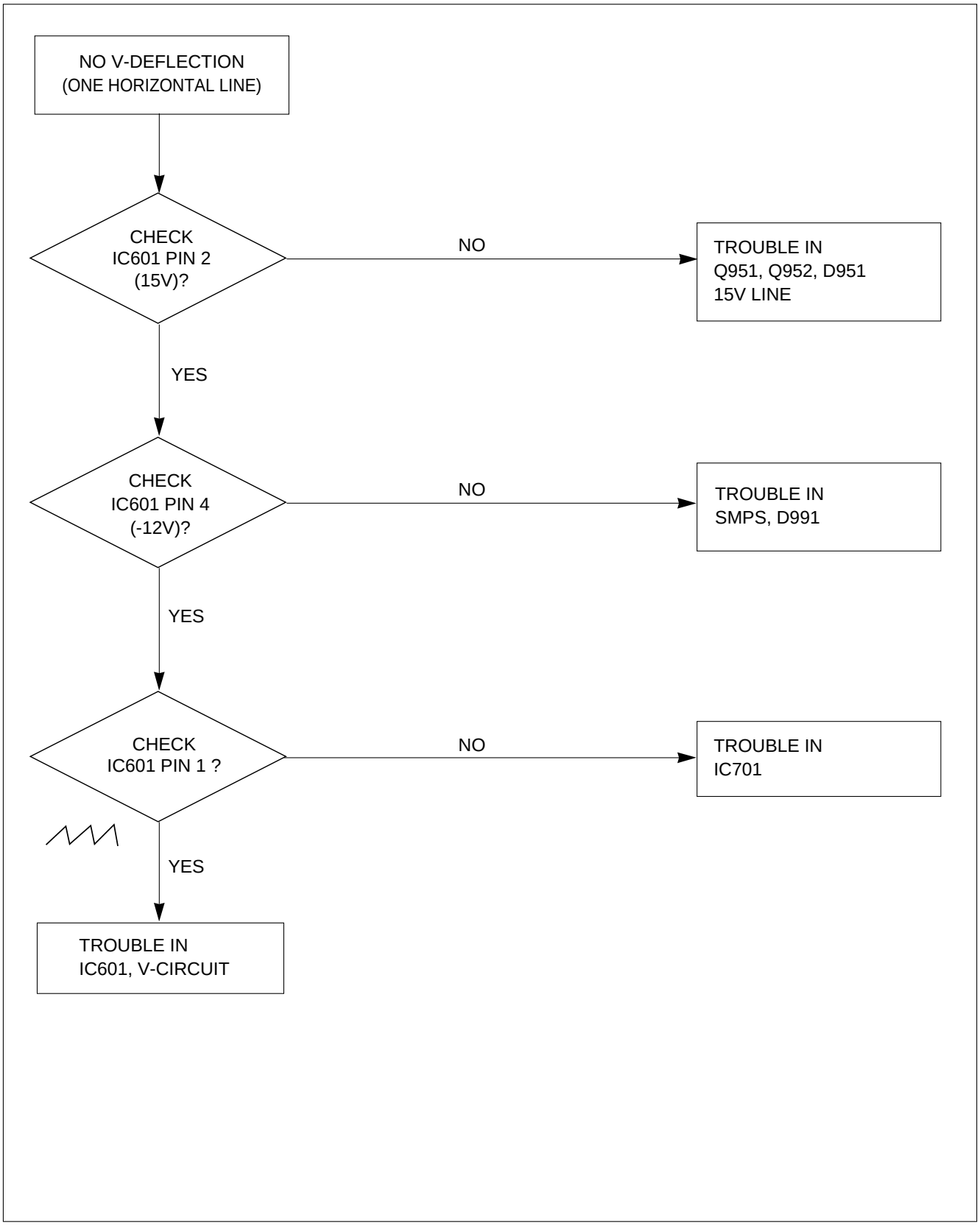
4. TROUBLE IN H-LINEARITY



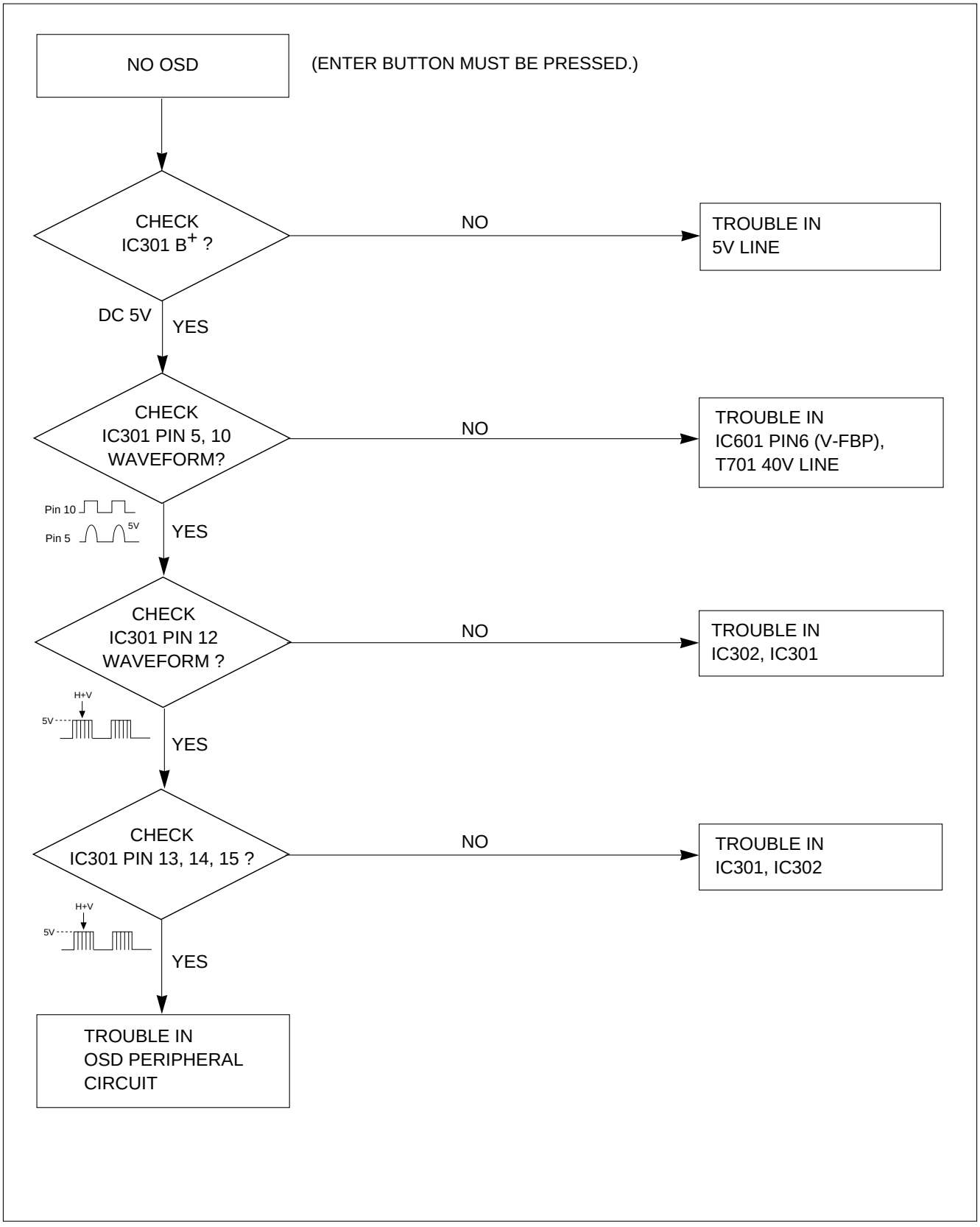
Cs SIGNAL TABLE

HORIZONTAL FREQUENCY(fH)	Cs0	Cs1	Cs2	Cs3	Cs4
66K ~ 39K	H	H	H	H	H
63K ~ 66K	H	H	L	H	H
57K ~ 63K	H	L	H	H	H
49K ~ 57K	H	L	L	H	H
46K ~ 49K	L	H	H	H	H
43K ~ 46K	L	L	H	H	H
36K ~ 43K	L	H	H	L	H
33K ~ 36K	L	H	H	L	L
30K ~ 33K	L	L	L	L	L

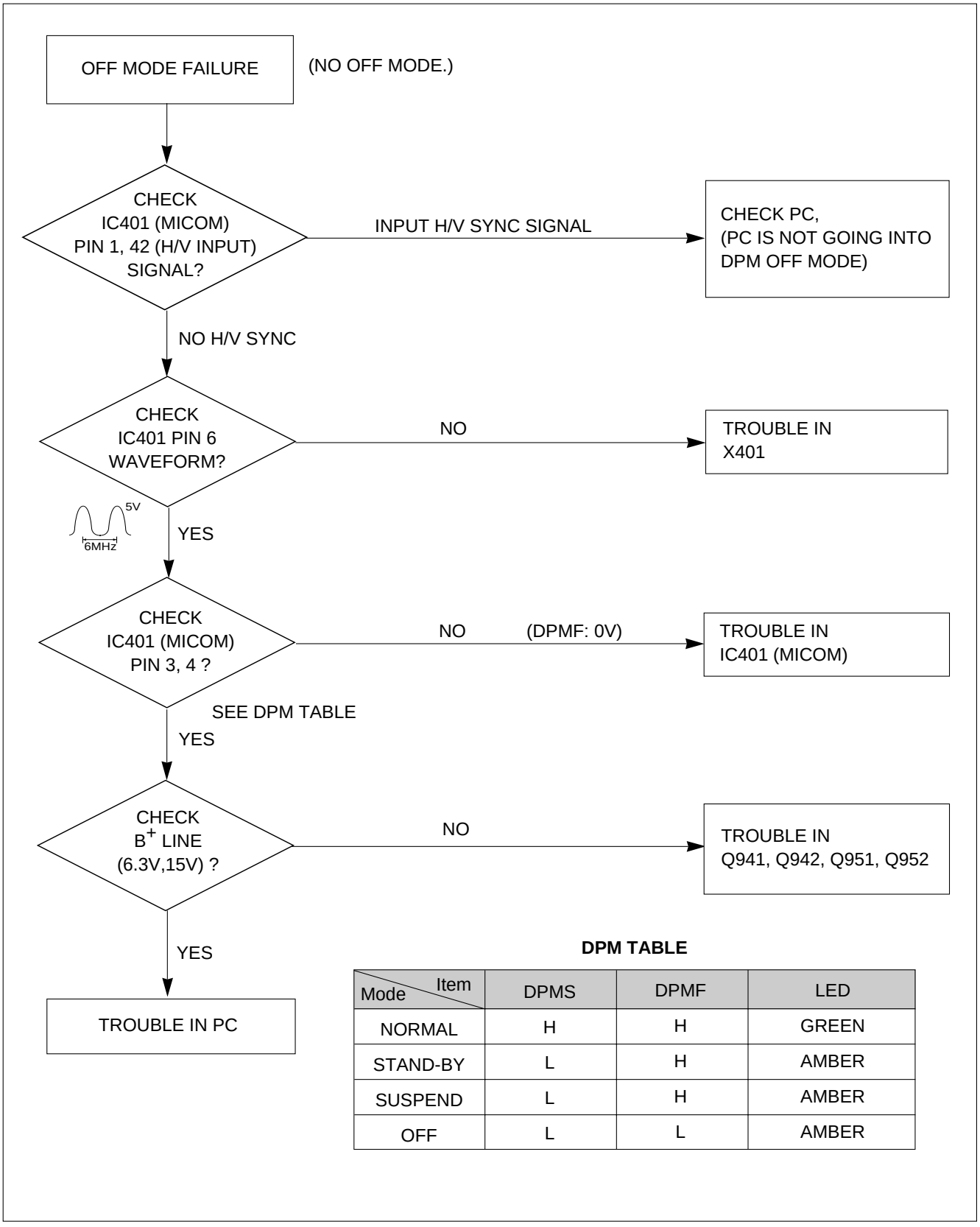
5. NO VERTICAL DEFLECTION



6. TROUBLE IN OSD



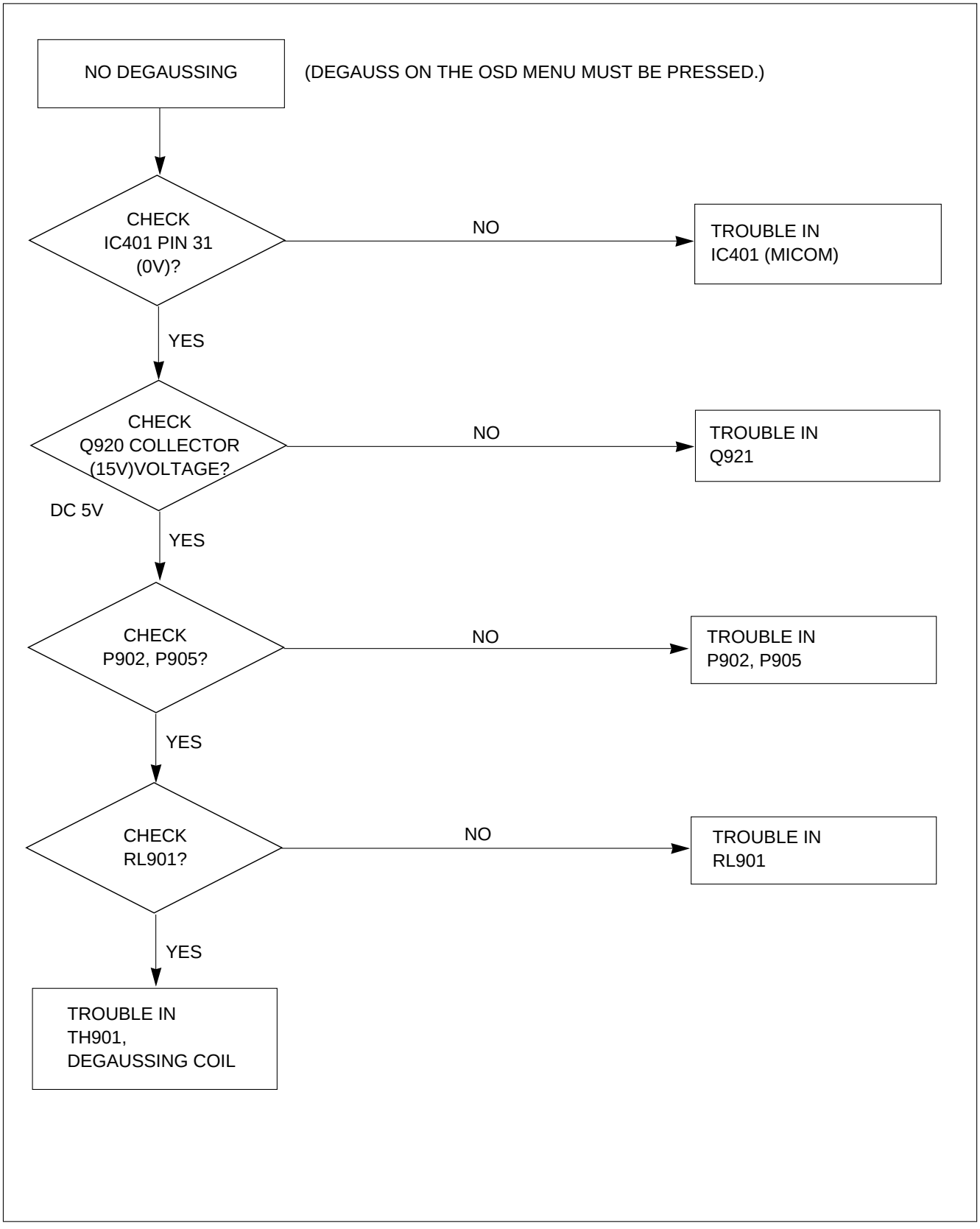
7. TROUBLE IN DPM



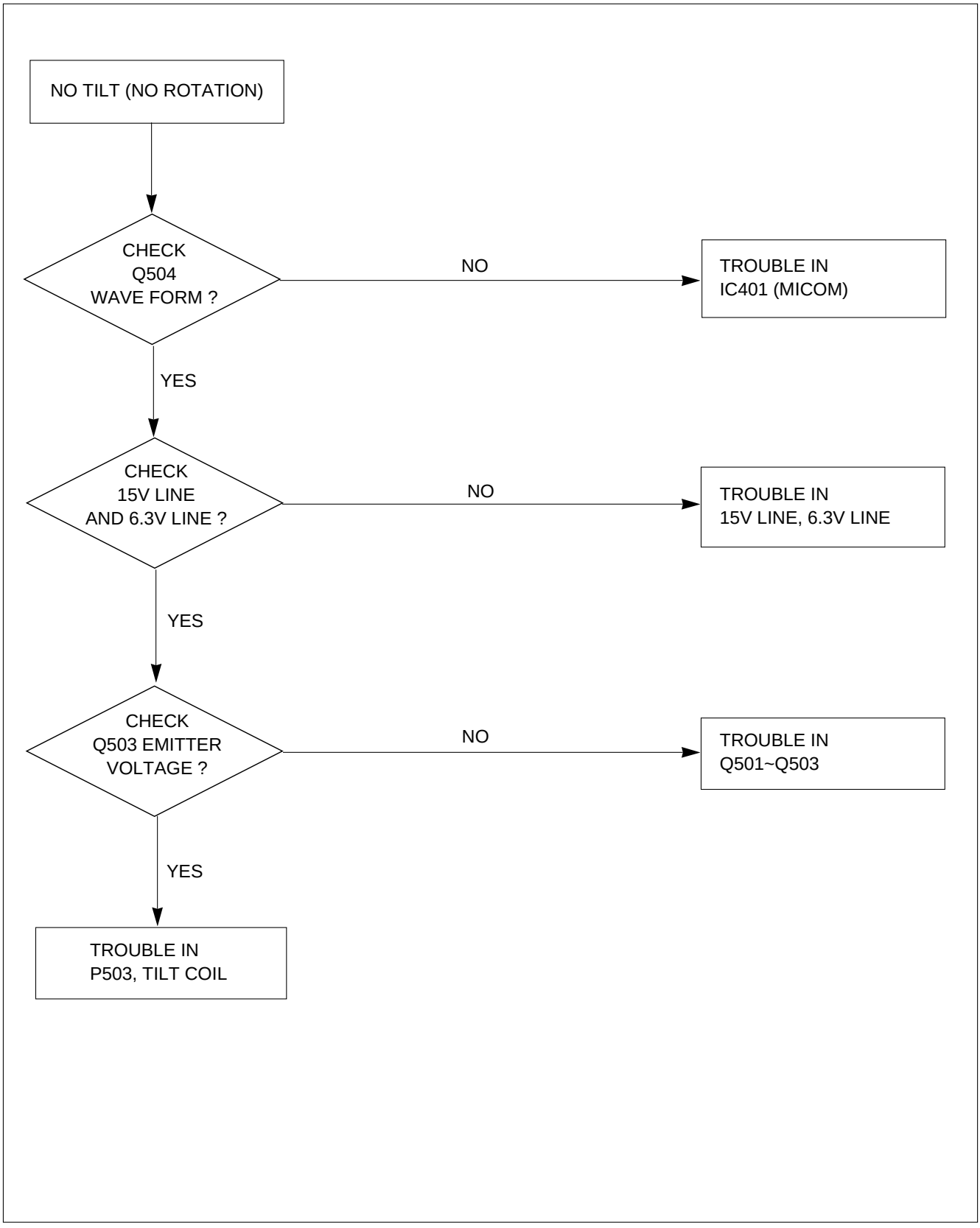
DPM TABLE

Mode \ Item	DPMS	DPMF	LED
NORMAL	H	H	GREEN
STAND-BY	L	H	AMBER
SUSPEND	L	H	AMBER
OFF	L	L	AMBER

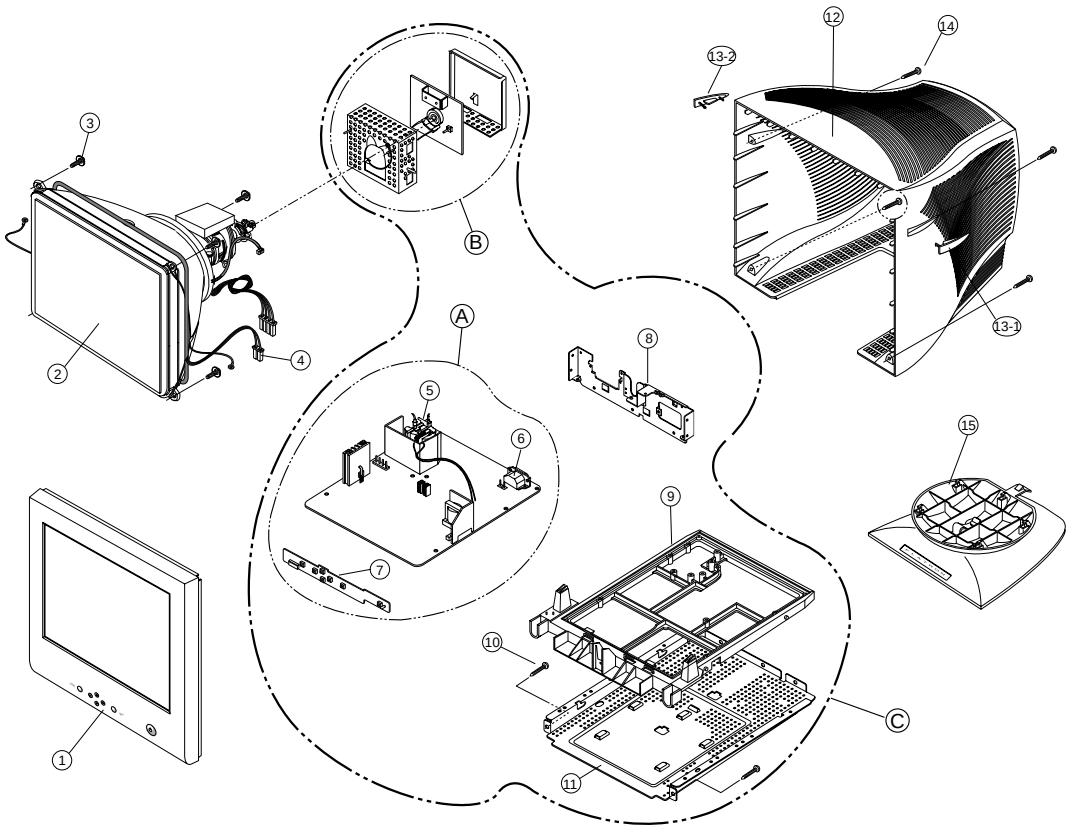
8. NO DEGAUSSING



9. NO TILT (NO ROTATION)

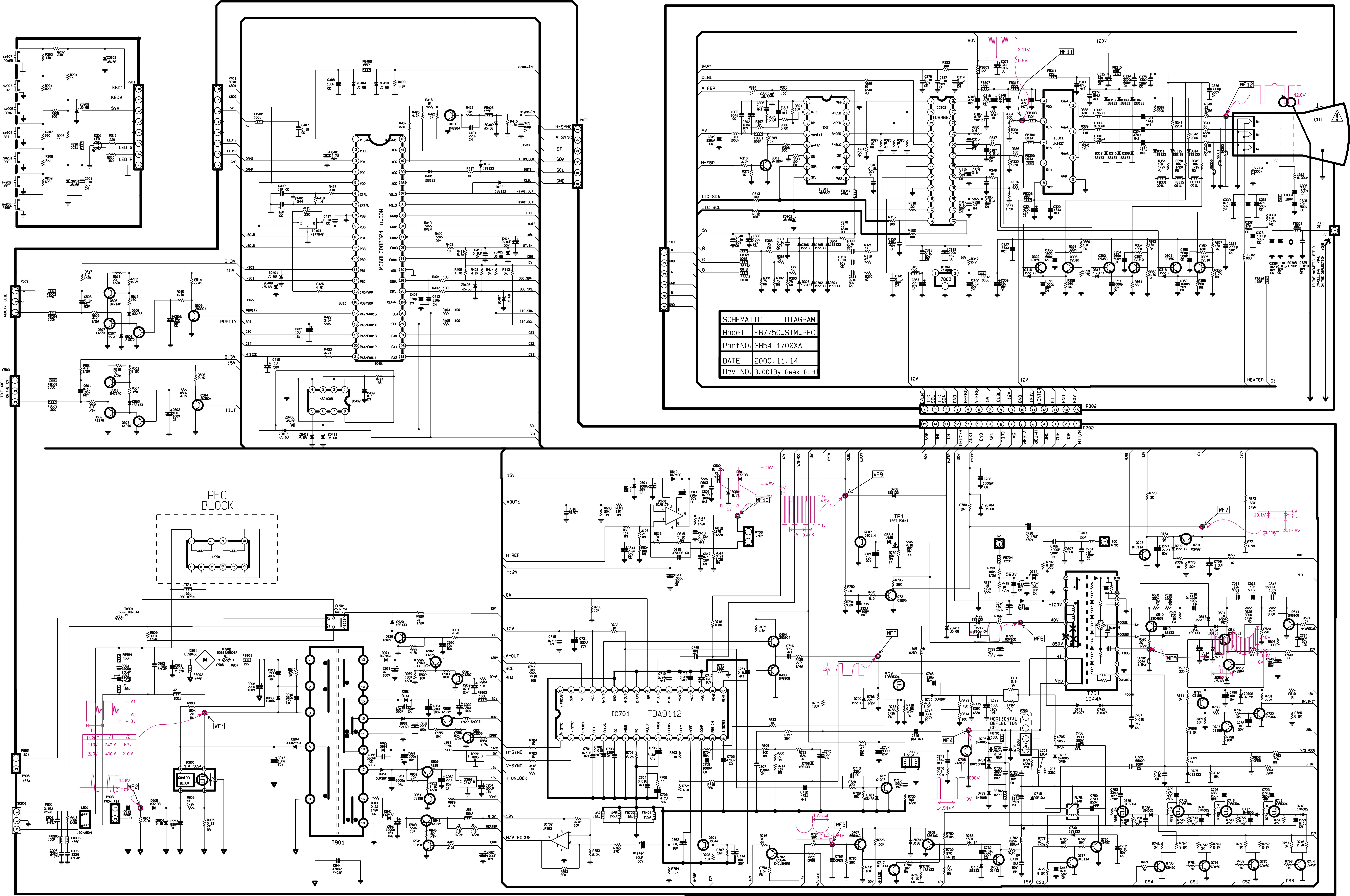


EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description
1	3091TKC035C	CABINET ASS'Y FB775B BRAND C032 775FT
2	2423GC3E41B	CDT SET, M41QBF423X31N6LD **(FOR NORTHERN HEMISPHERE)**
	2423GC3E41F	CDT SET, M41QBF423X31R6LD **(FOR EQUATORIAL)**
3	339-002D	SCREW ASS'Y, PHP+5x30BP+GW18
4	6140TC2007B	COIL, DEGAUSSING 1420MM 160HM 0.55MM
5	6174Z-1044A	FBT, FMMTC91-M1044A
6	6620TKB002A	SOCKET(CIRC), POWER, BCP-03A-3
7	6871TST192A	PWB(PCB), FB775C XKGC BRAND TCO95 TOTAL
8	4950TKK171A	METAL REAR
9	4810TKM037J	BRACKET, FB775C MAIN D-CORE
10	332-102G	SCREW, PTP+4x30 FZMY
11	4814TKK077A	SHIELD BOTTOM (FB795B)
12	3809TKC034C	BACK COVER ASS'Y, NB785C C016 PFC **(FB775C-EP⇒PFC VERSION; EUROPE ONLY)**
	3809TKC015M	BACK COVER ASS'Y, FB775B C016 TCO95 **(FB775C-EA⇒WORLD WIDE VERSION)**
13-1	3550TKK061A	COVER, FB795B SCREW(RIGHT)
13-2	3550TKK061B	COVER, FB795B SCREW (LEFT)
14	332-102P	SCREW, PTP+4x30(MSWR/FZMY-1)
15	3043TKK040J	TILT SWIVEL ASS'Y, FB775B B029 T032 HIPS
A	6871TMT185A	PWB(PCB) ASS'Y MAIN, FB775C XKGC TOTAL **(FB775C-EA⇒WORLD WIDE VERSION)**
	6871TMT185B	PWB(PCB) ASS'Y MAIN, FB775C PFC TOTAL **(FB775C-EP⇒PFC VERSION; EUROPE ONLY)**
B	6871TVT191A	PWB(PCB) ASS'Y VIDEO, FB775C XKGC BRAND TCO 95 TOTAL
C	3313T17047D	MAIN TOTAL ASS'Y, FB775C BRAND **(FB775C-EP⇒PFC VERSION; EUROPE ONLY)**
	3313T17047A	MAIN TOTAL ASS'Y, FB775C BRAND CA-87 **(FB775C-EA⇒WORLD WIDE VERSION)**


SCHEMATIC DIAGRAM
Model FB775C_STM_PFC
PartNO. 3854T170XXA
DATE 2000.11.14
Rev NO. 3.00(By Gwak G.H)
PFC BLOCK
IC701 TDA9112
T901
T701 1044A
HORIZONTAL DEFLECTION COIL
CRT
IC302 TDA4887
IC303 LM2437
IC301 NT6827
IC401
KS24C08
PURITY
TILT
P302
P702