

THOMSON MULTI MEDIA

Brandt **FERGUSON** **SABA** **TELEFUNKEN** **THOMSON**

TV



SERVICE MANUAL
DOCUMENTATION TECHNIQUE
TECHNISCHE DOKUMENTATION
DOCUMENTAZIONE TECNICA
DOCUMENTACION TECNICA

42WS90E3

Plasma



WARNING : *Before servicing this chassis please read the safety recommendations.*
ATTENTION : *Avant toute intervention sur ce châssis, lire les recommandations de sécurité.*
ACHTUNG : *Vor jedem Eingriff auf diesem Chassis, die Sicherheitsvorschriften lesen.*
ATTENZIONE : *Prima di intervenire sullo chassis, leggere le norme di sicurezza.*
IMPORTANTE : *Antes de cualquier intervención, leer las recomendaciones de seguridad.*

Code : 351 477 60 - 0401 / 00M - Wysius Print.



Do not disconnect modules when they are energized!
Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch Mode) qu'au travers d'un transformateur d'isolement.

Module nicht bei eingeschaltetem Gerät entfernen!
Servicearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare le piastre quando sono alimentate!
Per le riparazioni sulla sezione alimentatore, utilizzare un trasformatore isolatore.

No desconectar los módulos cuando están activados. Las reparaciones en la sección de alimentación de energía deben ser ejecutadas solamente con un transformador de separación.

Indicates critical safety components, and identical components should be used for replacement. Only then can the operational safety be guaranteed.

Le remplacement des éléments de sécurité (repérés avec le symbole) par des composants non homologués selon la Norme CEI 65 entraîne la non-conformité de l'appareil. Dans ce cas, la responsabilité du fabricant n'est plus engagée.

Wenn Sicherheitsteile (mit dem Symbol gekennzeichnet) nicht durch Original - Ersatzteile ersetzt werden, erlischt die Haftung des Herstellers.

La sostituzione dei componenti di sicurezza (evidenziati con il segno) con componenti non omologati secondo la norma CEI 65 comporta la non conformità dell'apparecchio. In tal caso è "esclusa la responsabilità" del costruttore.

La sustitución de elementos de seguridad (marcados con el símbolo) por componentes no homologados según la norma CEI 65, provoca la no conformidad del aparato. En ese caso, el fabricante cesa de ser responsable.

MEASUREMENT CONDITIONS - CONDITIONS DE MESURES - MESSBEDINGUNGEN CONDIZIONI DI MISURA - CONDICIONES DE MEDIDAS

RECEIVER :

On UHF, input level : 1 mV, bar test pattern :
- PAL, I standard, 100% white.

Via the scart socket, input level : 1 Vpp, bar test pattern :

Colour, contrast and brightness at mid-position, sound at minimum.
Programme selected : PR 01.

DC voltages measured between the point and earth using a digital voltmeter.

RICEVITORE :

In UHF, livello d'entrata 1 mV, monoscopio barre :
- PAL, norma G, bianco 100%.

Via SCART, livello d'entrata 1 Vpp, monoscopio barre :

Colore, Contrasto, Luminosità media, Suono minimo.
Programma selezionato PR 01.

Tensioni continue rilevate rispetto alla massa con un voltmetro digitale.

RECEPTEUR :

En UHF, niveau d'entrée 1 mV mire de barres
- SECAM, Norm L, Blanc 100%.

Par la prise Péritélévision, niveau d'entrée 1 Vcc, mire de barres .

Couleur, contraste, lumière à mi-course, son minimum.
Programme affecté PR 01.

Tensions continues relevées par rapport à la masse avec un voltmètre numérique.

EMPFÄNGER :

Bei UHF Eingangspegel 1 mV, Farbbalken :
- PAL, Norm G, Weiss 100%.

Über die Scartbuchse : Eingangspegel 1 Vss, Farbbalken :

Farbe, Kontrast, Helligkeit in der Mitte des Bereichs, Ton auf Minimum.
Zugeordnetes Programm PR 01.

Gleichspannungen mit einem digitalen Voltmeter zur Masse gemessen.

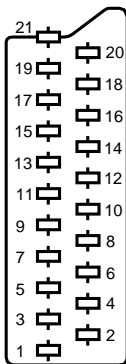
RECEPTOR :

En UHF, nivel de entrada 1 mV, mira de barras :
- PAL, norma G, blanco 100%.

Por la toma Peritelevision, nivel de entrada 1 Vpp mira de barra.

Color, Contraste, luz a mitad de carrera, Sonido mínimo.
Programa afectado PR 01.

Tensiones continuas marcadas en relación a la masa con un voltmetro digital.



NOTE : **(MAIN)** ... etc. identifies each pcb module.

NOTE : **(MAIN)** ... etc. repères des platines constituant l'appareil.

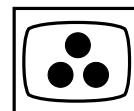
HINWEIS : **(MAIN)** ... usw. Kennzeichnung der Platinen, aus denen das Gerät zusammengesetzt ist.

NOTA : **(MAIN)** ... ecc. sigla delle piastre dell'apparecchio.

NOTA : **(MAIN)** ... etc. marcas de las placas que constituyen el aparato.

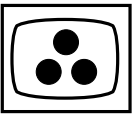
	ENGLISH	FRANÇAIS	DEUTSCH	ITALIANO	ESPAÑOL
1	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
2	AUDIO "R"	AUDIO "D"	AUDIO "R"	AUDIO "D"	AUDIO "D"
3	AUDIO "L"	AUDIO "G"	AUDIO "L"	AUDIO "S"	AUDIO "I"
4	AUDIO	AUDIO	AUDIO	AUDIO	AUDIO
5	"BLUE"	"BLEU"	"BLAU"	"BLU"	"AZUL"
6	AUDIO "L" MONO	AUDIO "G" MONO	AUDIO "L" MONO	AUDIO "S" MONO	AUDIO "I" MONO
7	"BLUE"	"BLEU"	"BLAU"	BLU	AZUL
8	SLOW SWITCH	COMMUT. LENTE	AV UMSCHALTUNG	"COMMUTAZIONE LENTA"	"CONMUTACION LENTA"
9	"GREEN"	"VERT"	"GRÜN"	"VERDE"	"VERDE"
10 NC					
11	"GREEN"	"VERT"	"GRÜN"	"VERDE"	"VERDE"
12 NC					
13	"RED"	"ROUGE"	"ROT"	"ROSSO"	"ROJA"
14 NC					
15	"RED"	"ROUGE"	"ROT"	"ROSSO"	"ROJA"
16	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	"COMMUTAZIONE RAPIDA"	"CONMUTACION RAPIDA"
17	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
18	FAST SWITCH	COMMUT. RAPIDE	AUSTASTUNG	"COMMUTAZIONE RAPIDA"	"CONMUTACION RAPIDA"
19	VIDEO	VIDEO	VIDEO	VIDEO	VIDEO
20	VIDEO OR "SYNC"	VIDEO SYNCHRO	VIDEO ODER SYNCHRO	VIDEO O SINCRIO	VIDEO O SINCRIO
21	PLUG SCREEN BOX	BLINDAGE PRISE	ABSCHIRMUNG DES STECKERS	INVOLUCRO METALLICO DELLA PRESA	BLINDAJE DEL ENCHUFE

: INPUT - ENTRÉE - EINGANG - ENTRATA - ENTRADA • : OUTPUT - SORTIE - AUSGANG - USCITA - SALIDA • : EARTH - MASSE - MASSE - MASSA - MASA



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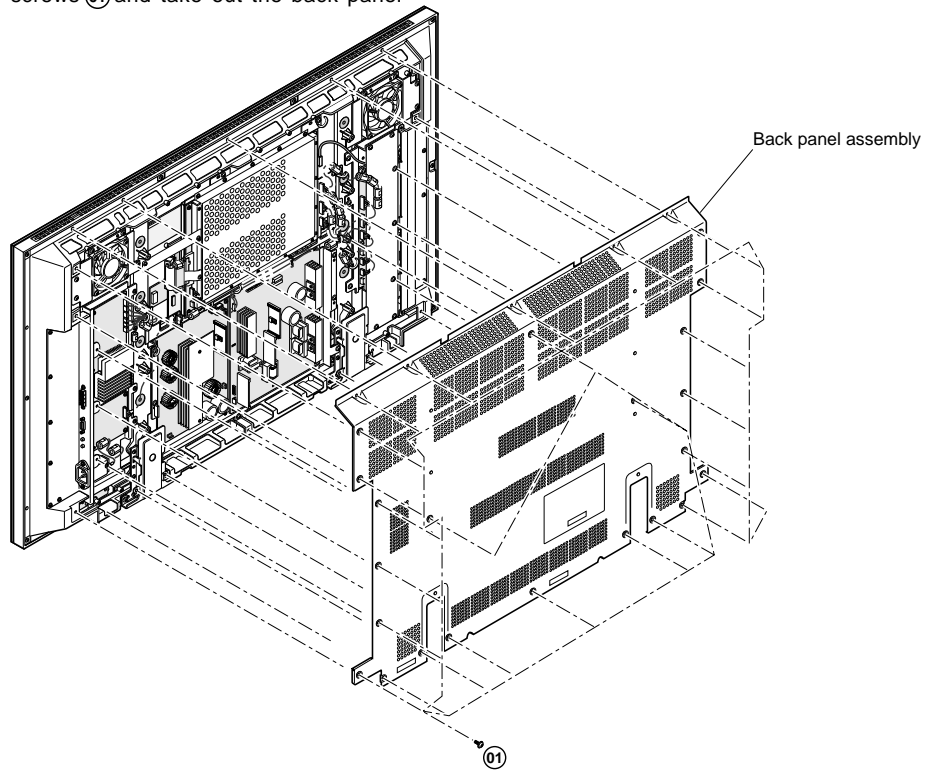
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DISASSEMBLY

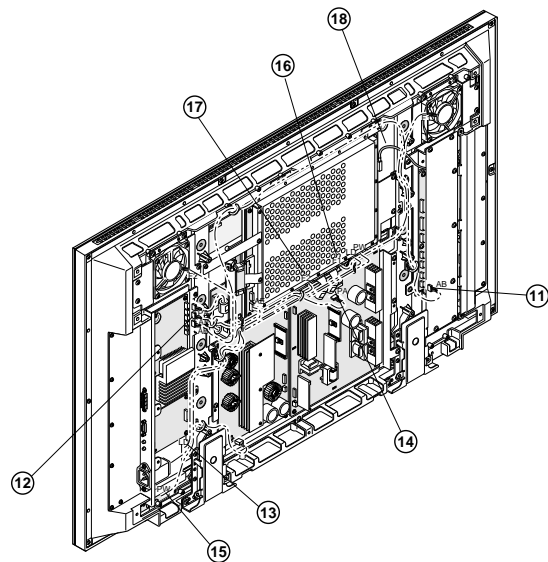
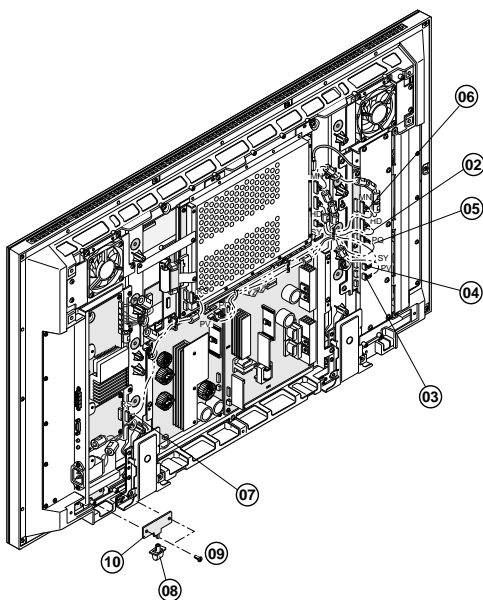
1. Removing the back panel assembly

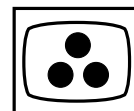
- Remove the 27 screws ① and take out the back panel assembly.



2. Removing the connectors

- Remove the connectors ②, ③, ④, ⑤, ⑥, ⑦,
- Remove the button ⑧ and the screw ⑨ pull the part ⑩,
- Remove the connectors ⑪, ⑫, ⑬, ⑭, ⑮,
- Remove the connectors ⑯ et ⑰,
- Remove the connector ⑱,

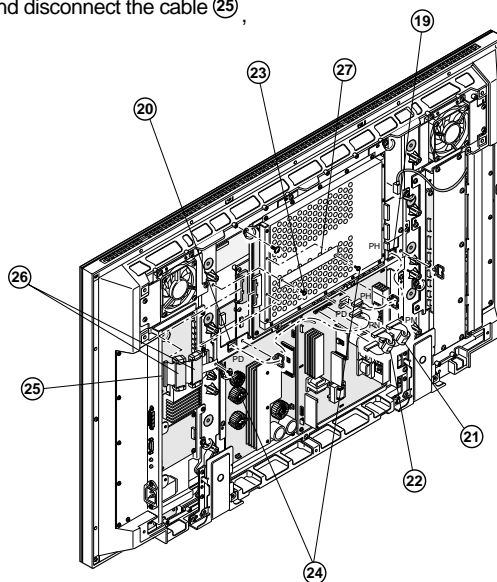




- Remove the connectors (19), (20), (21), (22),

- Remove the screws (23) and (24), and disconnect the cable (25),

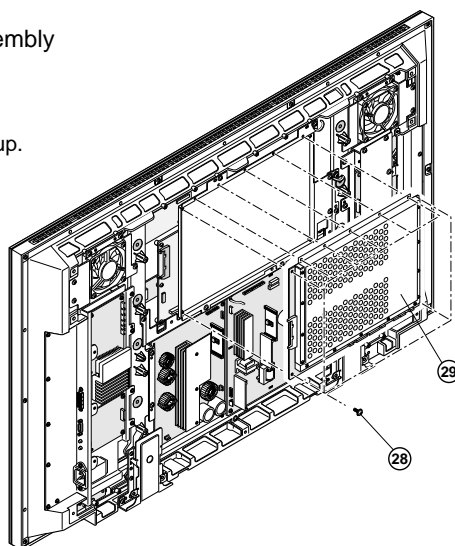
- Remove the parts (26) and the earth plate (pulse) (27).



3. Removing the main module assembly

- Remove the 8 screws (28),

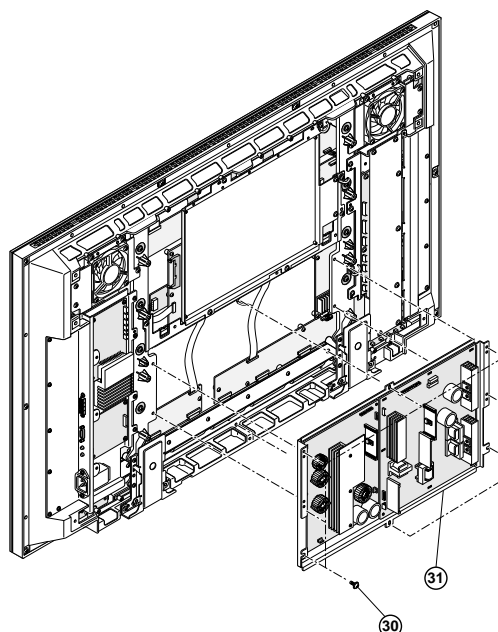
- Lift the main module assembly (29) up.

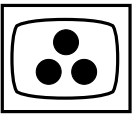


4. Removing the power unit

- Remove the 8 screws (30),

- Lift the power unit (31) up.





5. Removing the left terminal panel assembly

- Remove the 6 screws ③② and the 7 screws ③③ ,
- Remove the terminal panel (MMP-L) assembly.

5.1 Removing the audio amplifier module

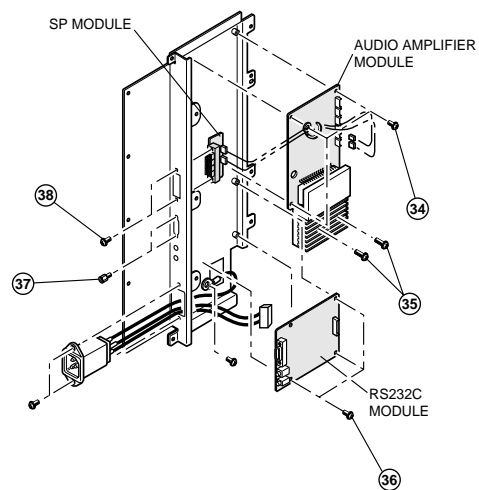
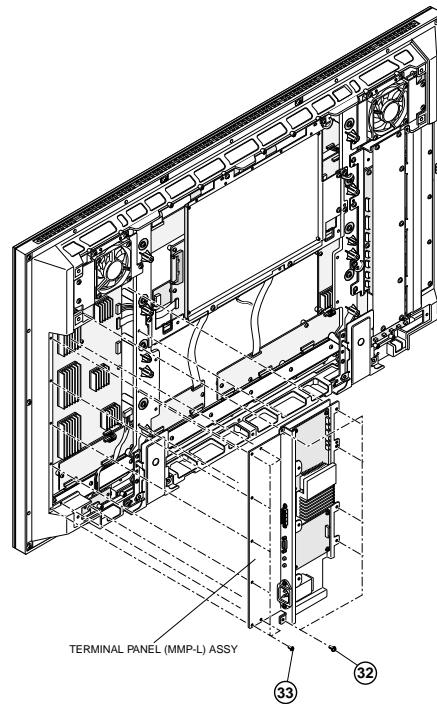
- Remove the 3 screws ③④ ,
- Remove the 2 screws ③⑤ ,
- Take out the audio amplifier module.

5.2 Removing the RS232C module

- Remove the 3 screws ③⑥ ,
- Remove the 2 screws ③⑦ ,
- Take out the RS232C module.

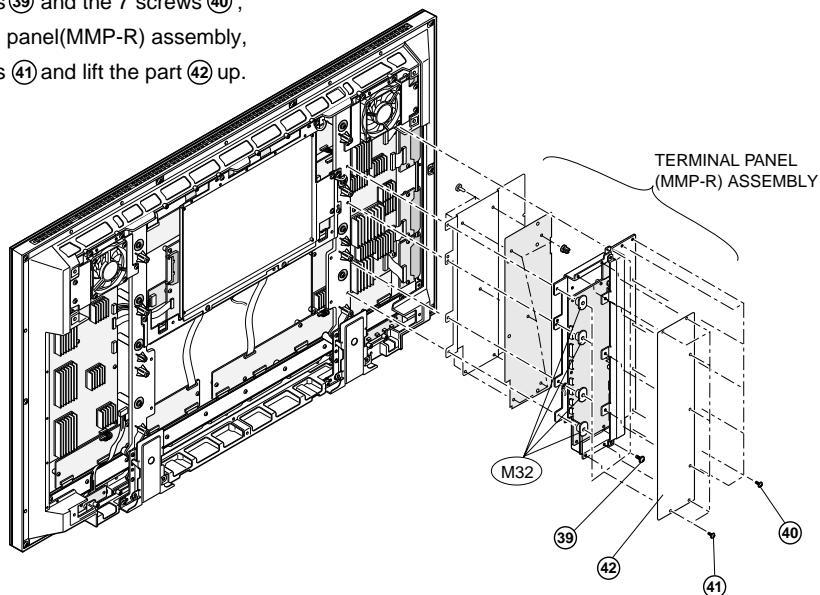
5.3 Removing the speaker sockets

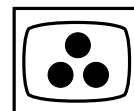
- Unscrew the 2 screws ③⑧ ,
- Remove the speaker sockets.



6. Removing the right terminal panel assembly

- Remove the 6 screws ③⑨ and the 7 screws ④① ,
- Take out the terminal panel(MMP-R) assembly,
- Remove the 7 screws ④② and lift the part ④③ up.



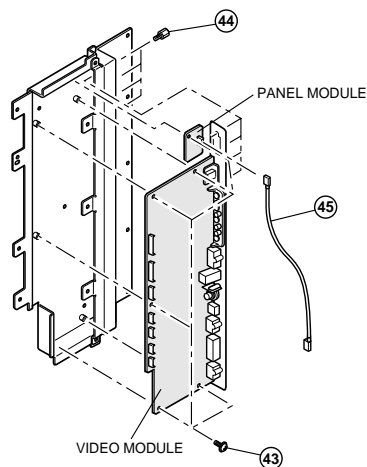


6.1 Removing the video module

- Unscrew the 5 screws (43) and the 2 screws (44),
- Take out the video module.

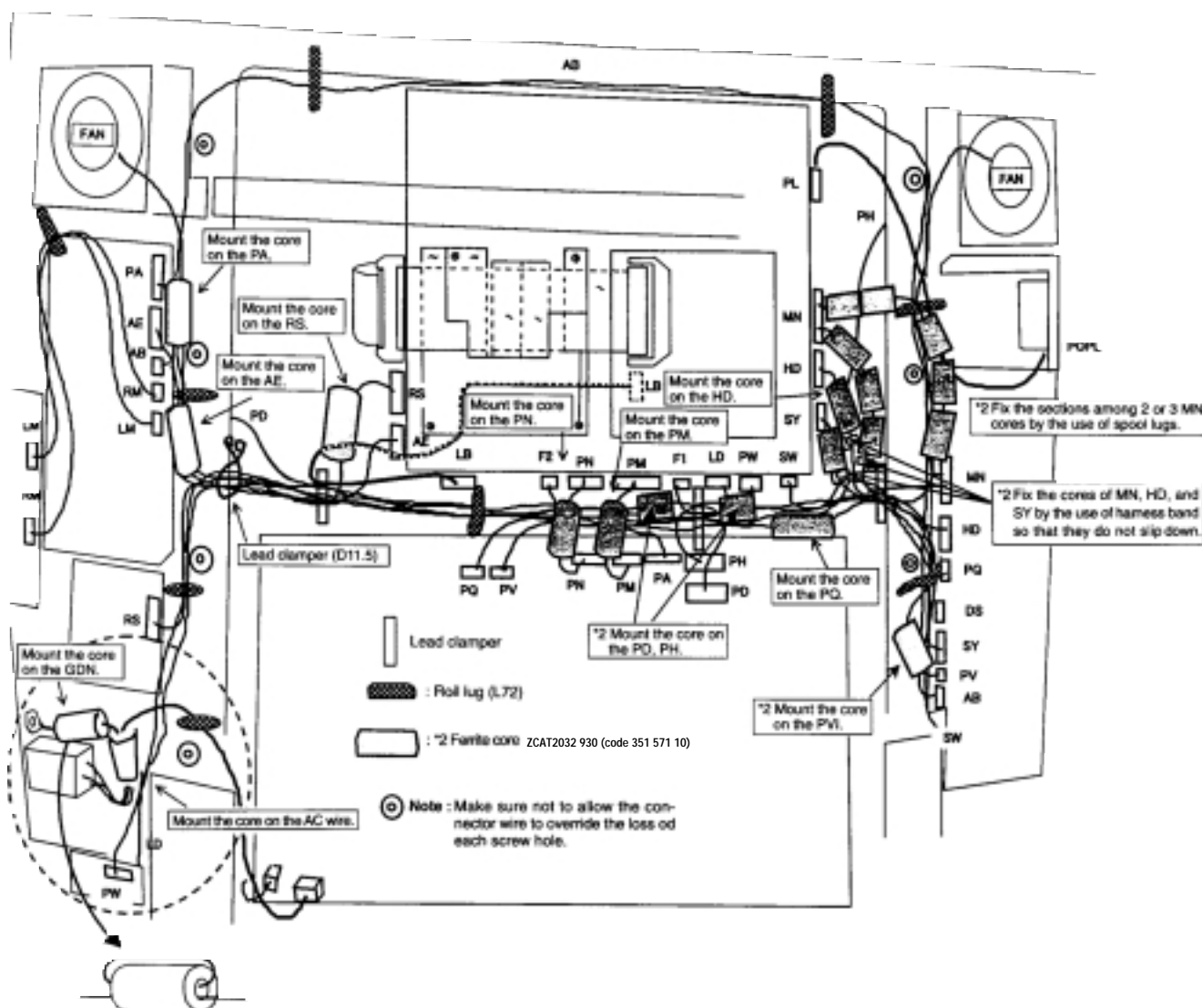
6.2 Removing the panel module

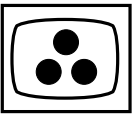
- Remove the 2 screws (44),
- Disconnect the wire (45),
- Take out the panel module.



WIRE LOCATION

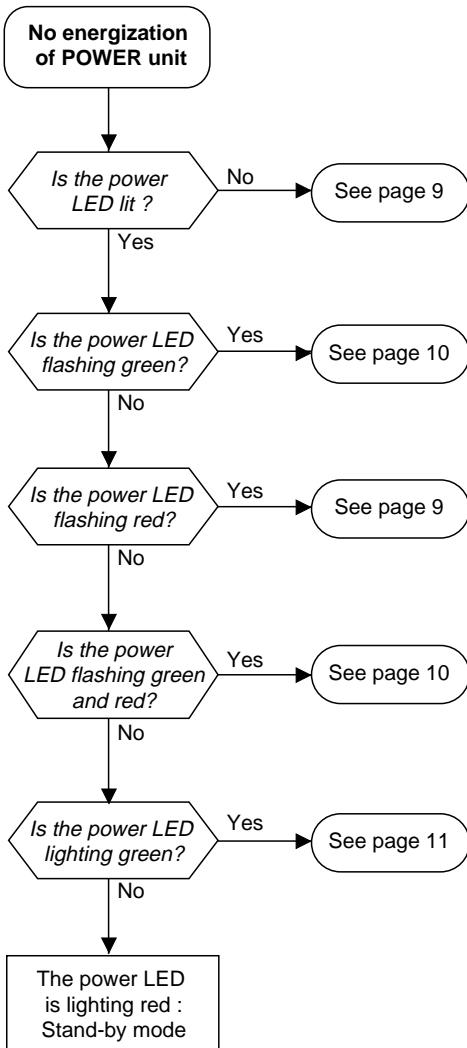
After replacement of the modules refer to the below diagram to mount ferrites and connect the modules again.

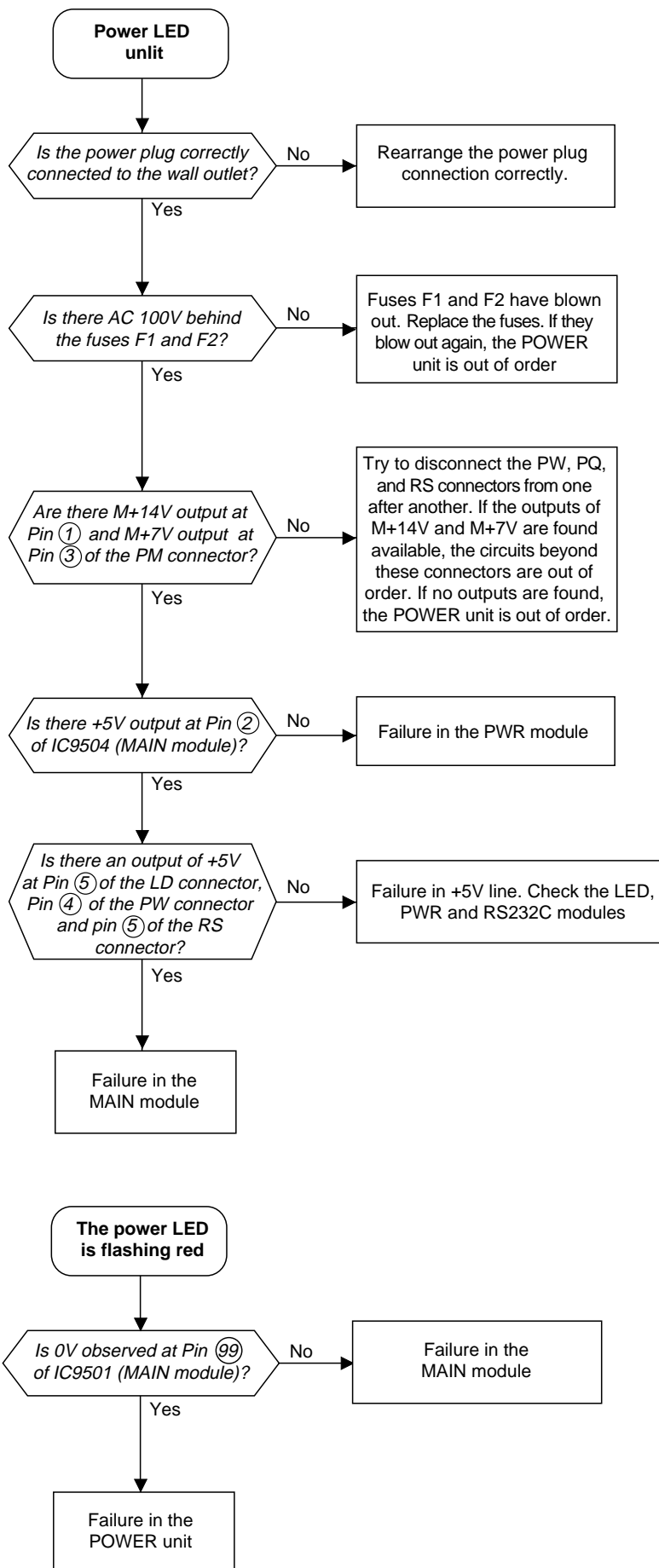
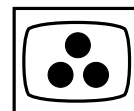


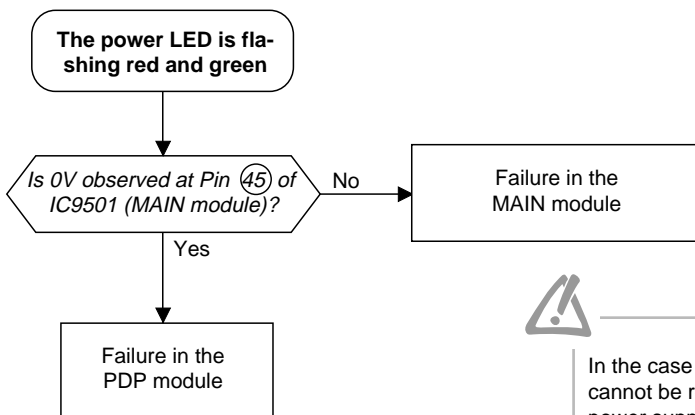
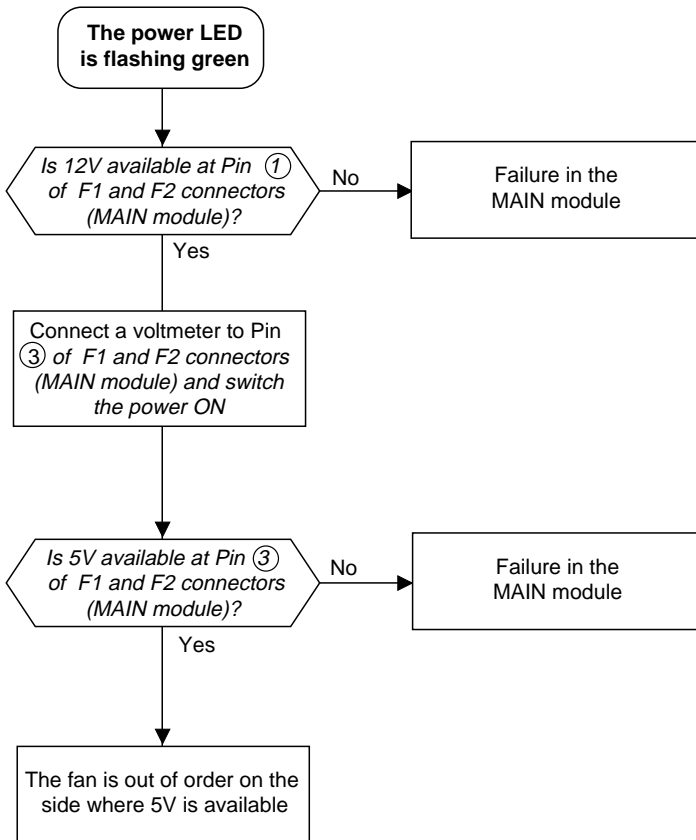
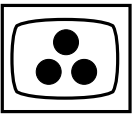


DIAGNOSTIC

The power LED located on the front of the display is a bicolour LED which indicates the operating status including the normal, standby and three error detections

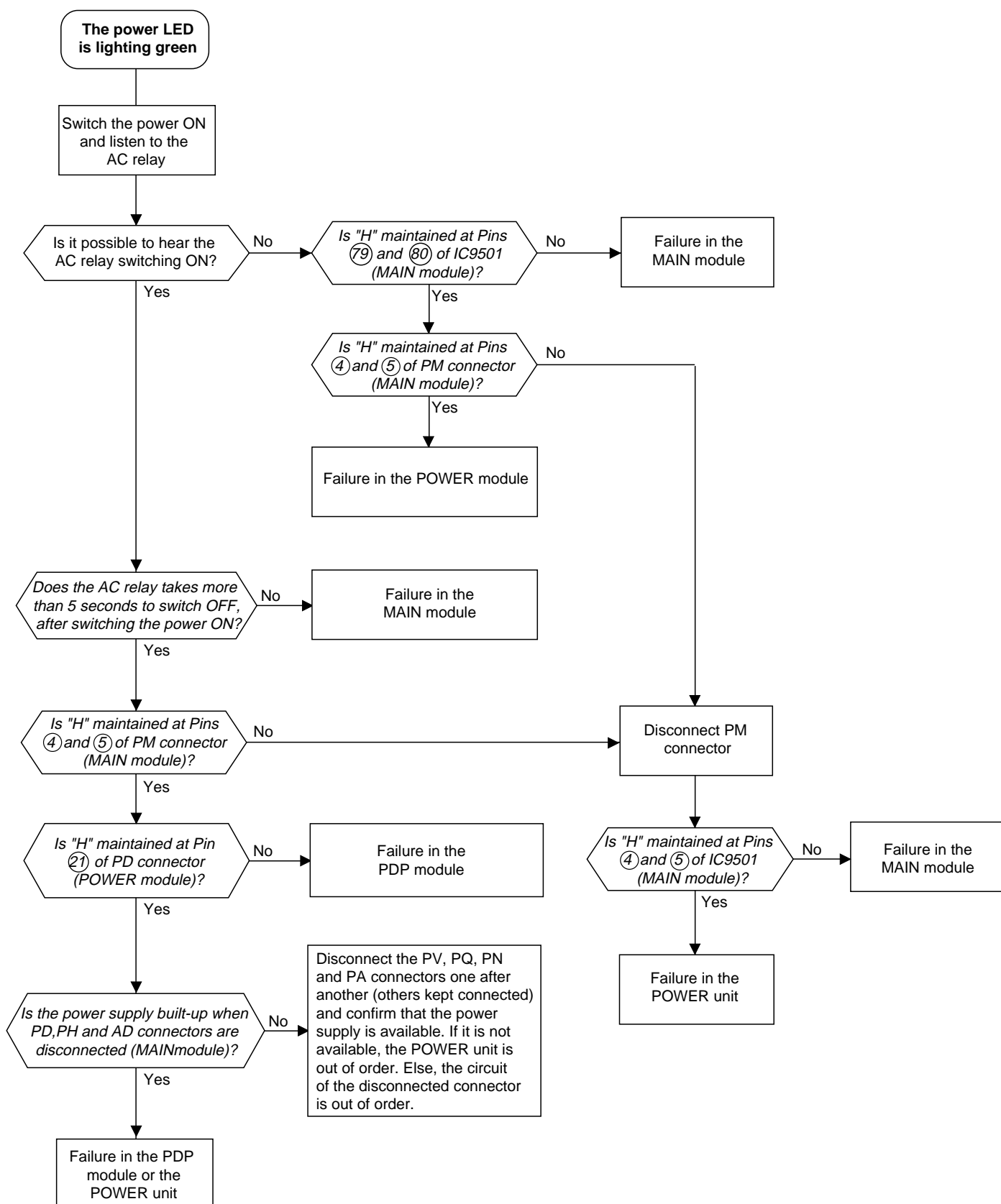
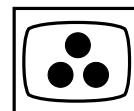


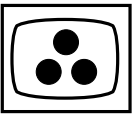




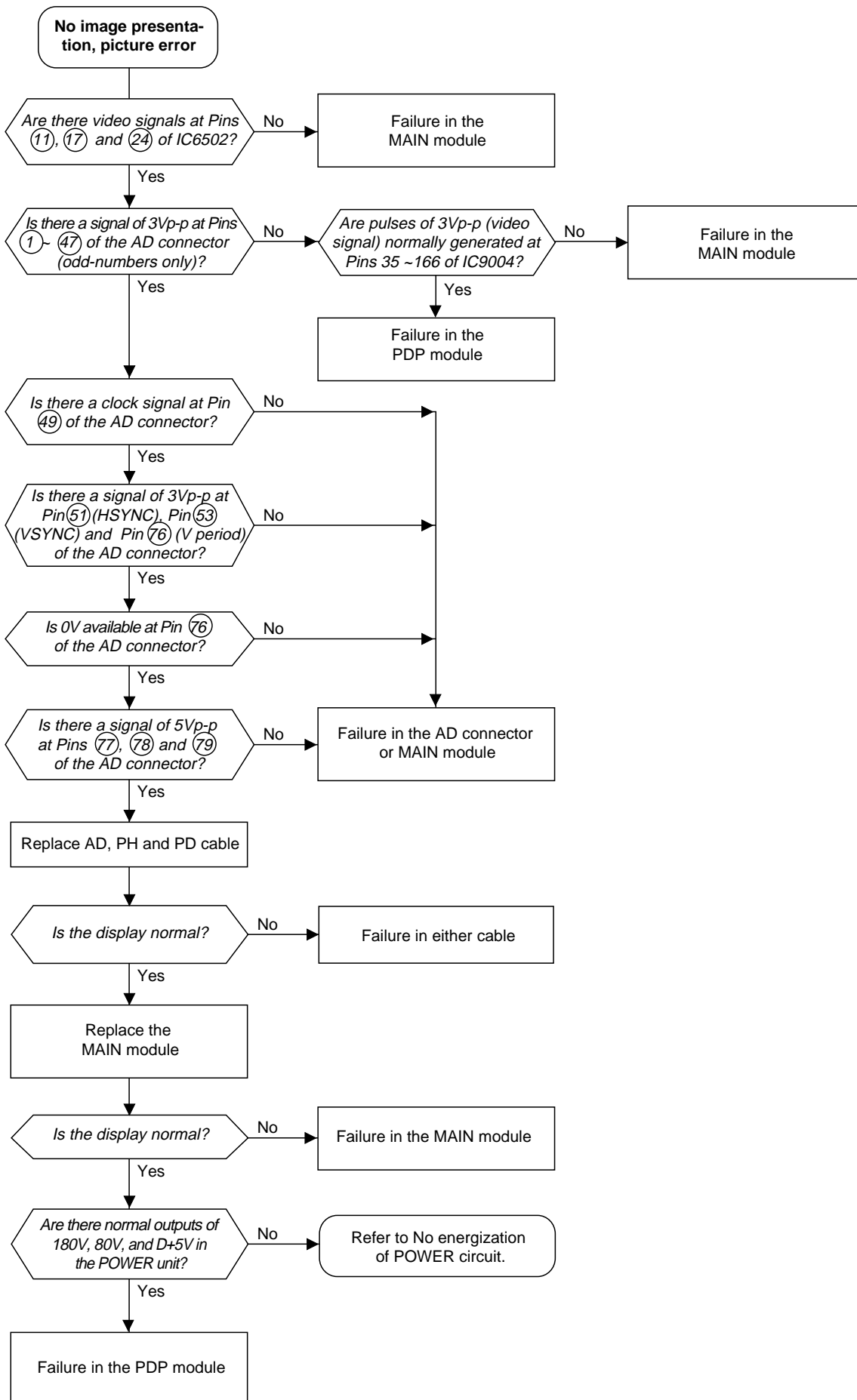
In the case of green and red flashing, the power supply cannot be reset with the OFF/ON operation at the mains power supply, remote control, and wall outlet.

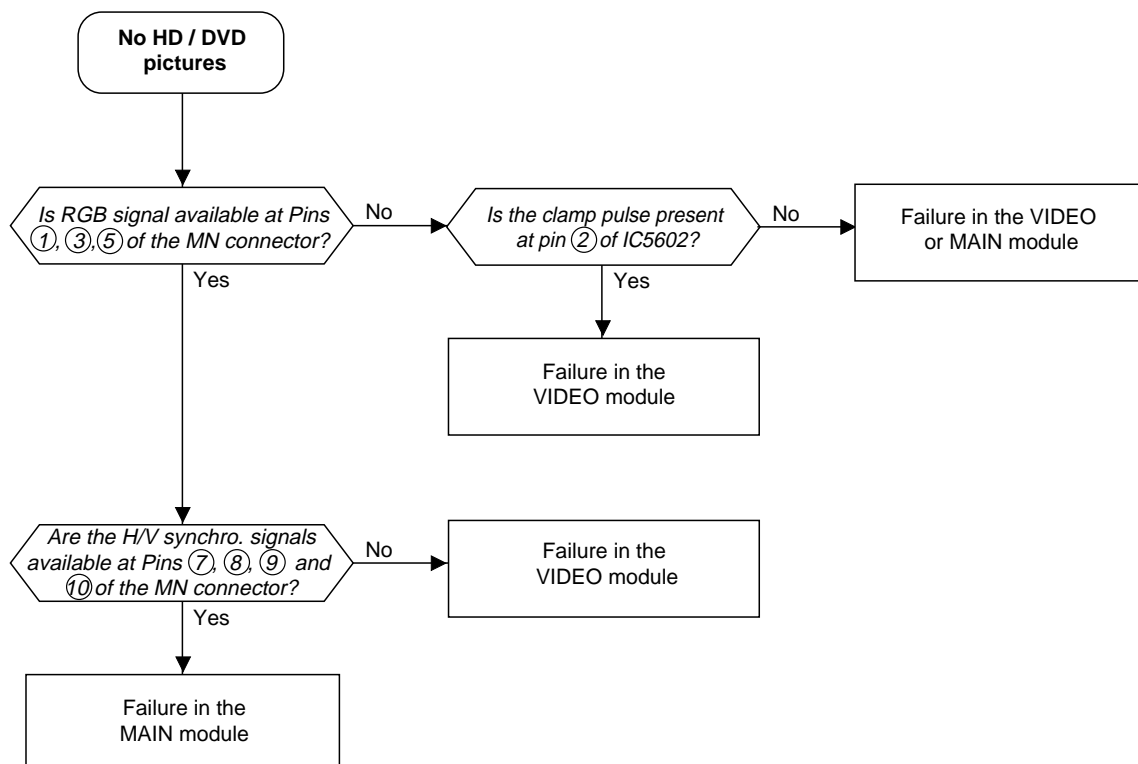
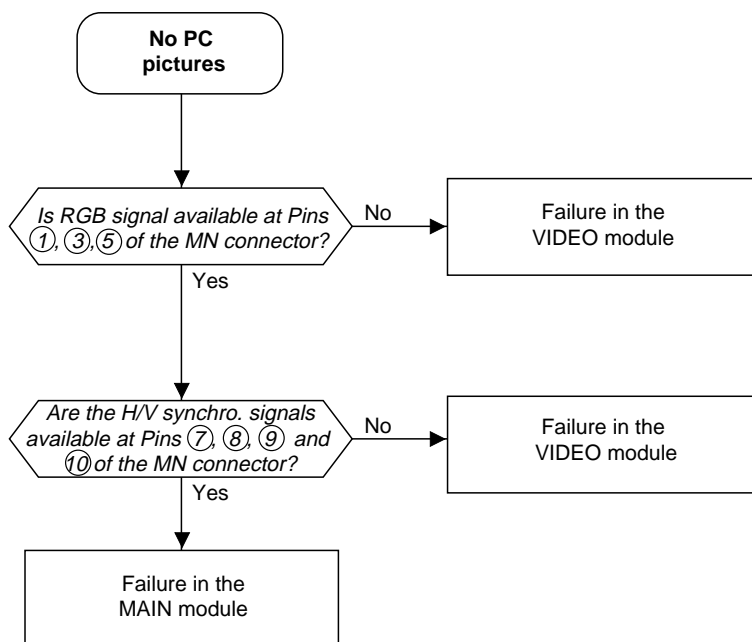
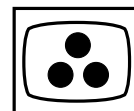
For the alarm reset, keep pressing the input changeover key of the main unit and move the mains power supply to the "ON" position at the main unit. While doing so, it is necessary to keep pressing the input changeover key of the main unit for more than two seconds. In the case of green and red flashing, the power supply cannot be reset with the OFF/ON operation at the mains power supply, remote control, and wall outlet.

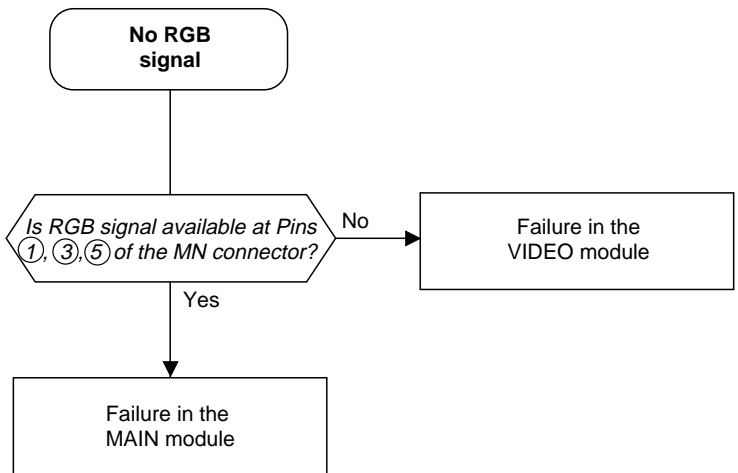
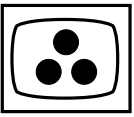


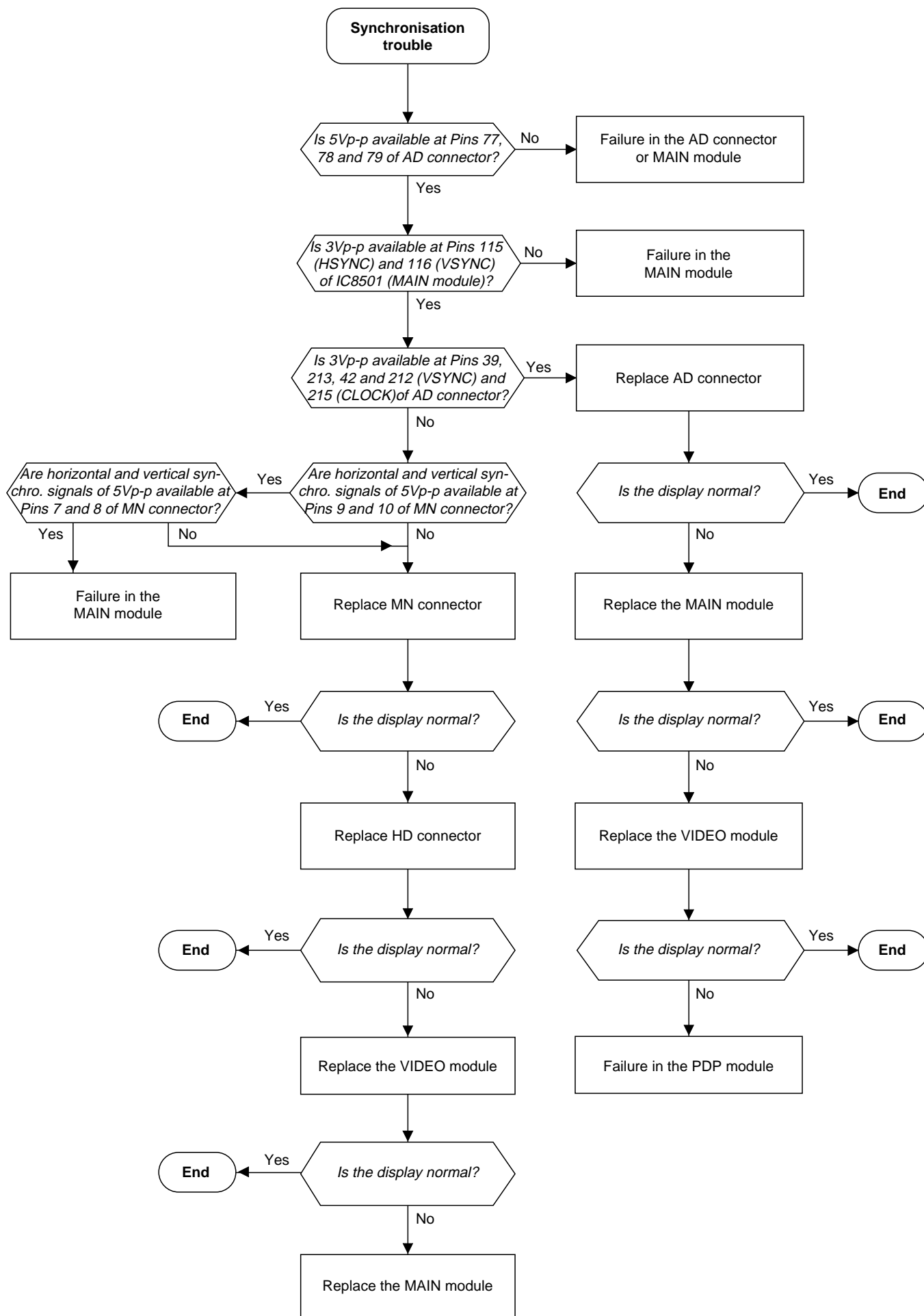
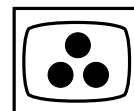


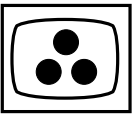
VIDEO TROUBLESHOOTING



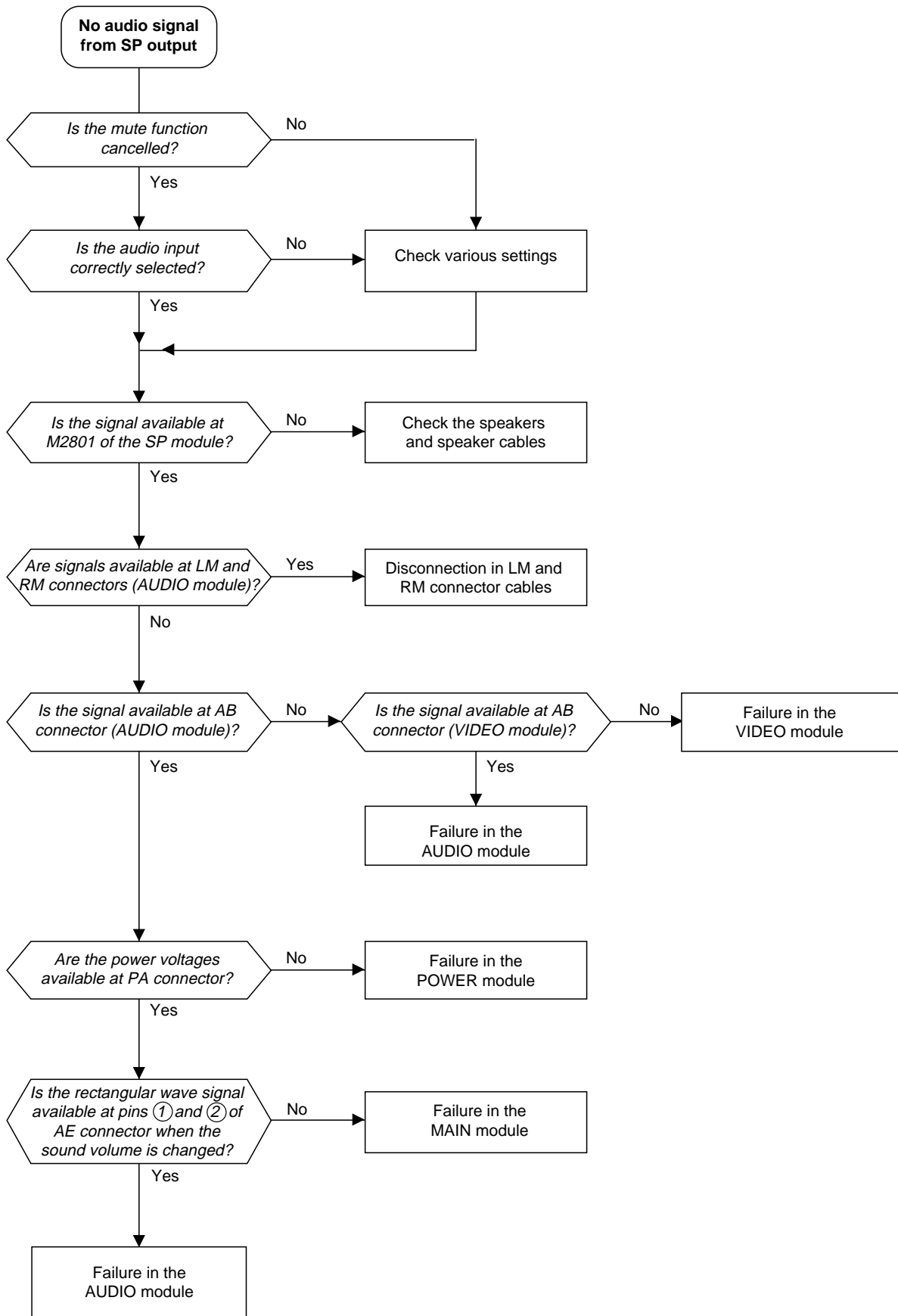


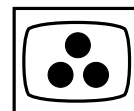






AUDIO TROUBLESHOOTING





ADJUSTMENTS

ADJUSTMENTS NECESSARY AFTER REPLACEMENT OF MODULES:

- After replacement of MAIN module, perform the adjustments of "video screen position" and "DVD/HD/DTV screen position".
- After replacement of POWER or PDP module , perform the adjustment of "+170V/+70V" and "+5V". When replacing PDP module, the "usage time" should be reset (as shown below)

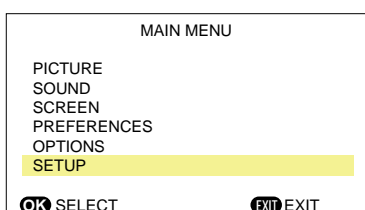
Replacing another module does not require further adjustment unless abnormal conditions are encountered.

OSD CONTROLS

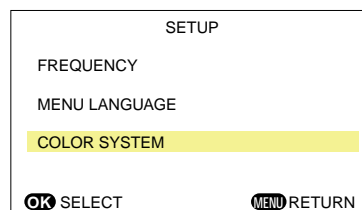
Before entering the service mode, it could be necessary to configure the plasma monitor in the On Screen menu.

ACCESSING COLOR STANDARD

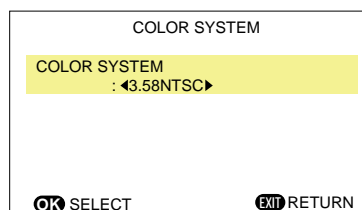
- Using the remote control, press "menu" button.
- The "main" menu appears on the screen.



- Press the \wedge / \vee buttons to select the "setup" line.
- The "setup" menu appears on the screen.



- Select the "color system" line.
- The "color system" menu appears on the screen.



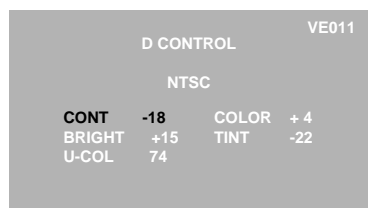
- Press the \langle / \rangle buttons to select the color standard.

SERVICE MODE

It is necessary to enter the Service Mode in order to carry out alignment of the set. Most adjustments must be made with the RCU.

1 ACCESSING SERVICE MODE

- Using the remote control, press successively the zoom "-" (Q-), exit, mute (M) and zoom "-" (Q-) buttons.
- The main service menu appears on the screen.



2 NAVIGATION INSIDE THE SERVICE MODE

- Press the "menu" button to select the menu.
 - Press the \wedge / \vee buttons to select the menu line.
 - Press the \langle / \rangle buttons to make adjustments.
- NB : the value of the adjustment is memorized automatically.

3 EXITING FROM SERVICE MODE

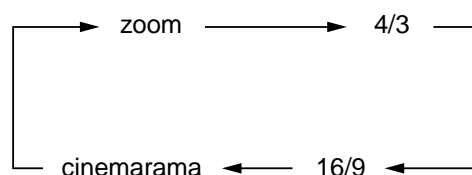
- To exit the service mode menu press successively, the zoom "-" (Q-), exit, mute (M) and zoom "-" (Q-) buttons on the remote control.

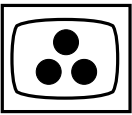
4 CLEARING THE USAGE TIME













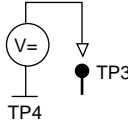
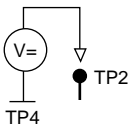
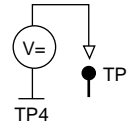
- Enter the service mode and select the "usage time" menu.
- Using the remote control, press successively the mute (M), \wedge , \vee , and zoom "-" (Q-) buttons.

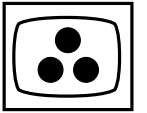
ZOOM SEQUENCE

It could be necessary to change the zoom mode in order to carry out some alignments of the set. Press the "format" button of the remote control. The mode switches as shown in the margin.



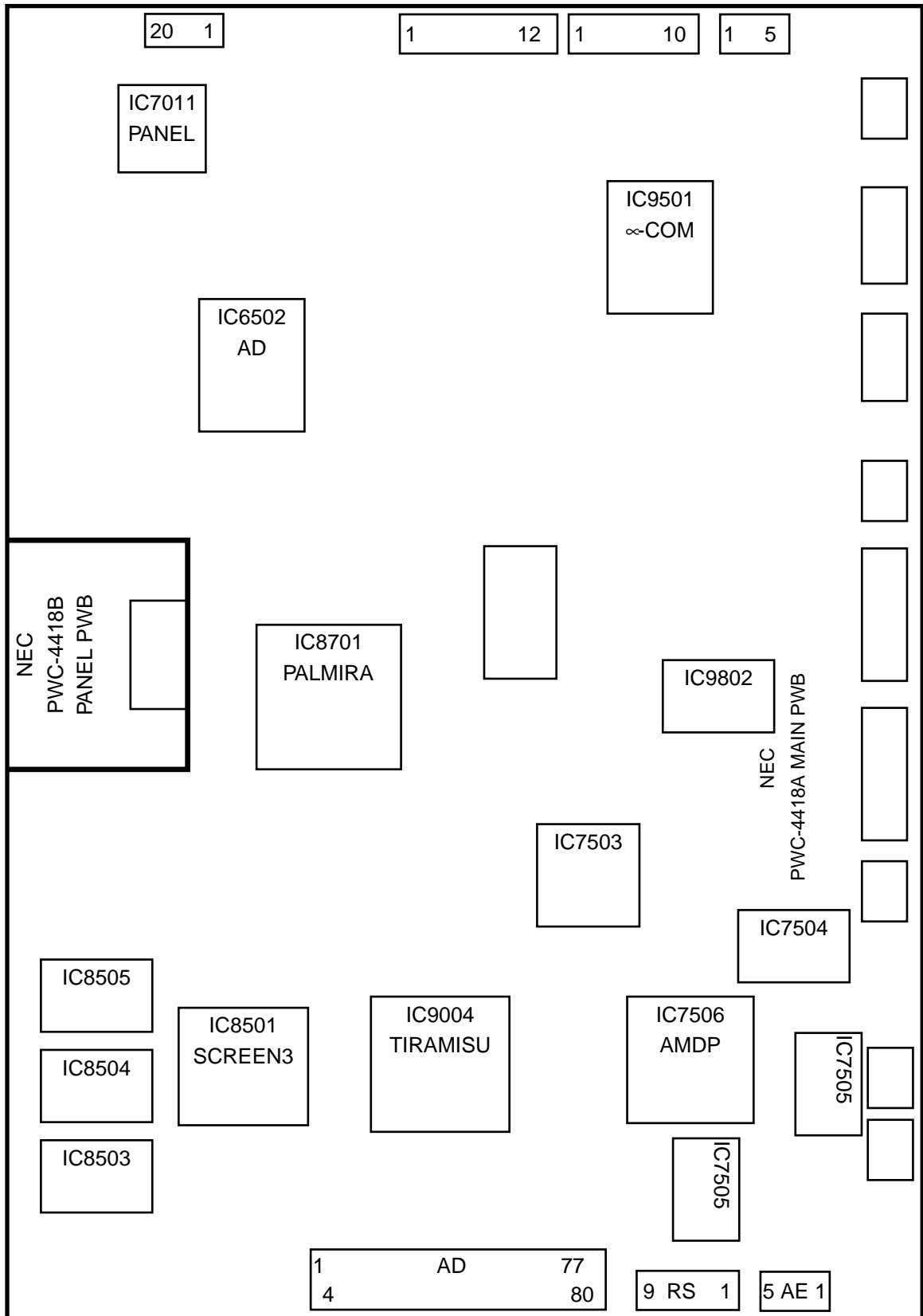


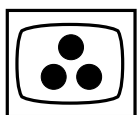
<p>MAIN</p> <p>Video screen position</p>	<p>SERVICE MODE</p> <p>"POSITION" menu</p>	<p>NTSC test pattern :</p>   Video input <p>Select VIDEO input with the Remote Control or keyboard</p> <p>Select "cinerama" with the "format" key of the Remote Control</p>	<p>If there is any displacement of the display range in the PDP module, select "MHPOS" and "MVPOS" lines, and adjust correctly.</p> <p>Select "H POS" line and adjust  </p> <p>Select "V POS" line and adjust  </p> <p>Check that "H PHA" = 0 and "H CLK" = 0</p> <p>Adjust separate for zoom; 4/3; 16/9 and PAL; SECAM.</p>	
<p>MAIN</p> <p>DVD/HD/DTV screen position</p>	<p>SERVICE MODE</p> <p>"POSITION" menu</p>	<p>DDTV test pattern :</p>   DVD/HD/DTV input <p>Select RGB2 input with the Remote Control or keyboard</p> <p>Select "cinerama" with the "format" key of the Remote Control</p>	<p>If there is any displacement of the display range in the PDP module, select "MHPOS" and "MVPOS" lines, and adjust correctly.</p> <p>Select "H POS" line and adjust  </p> <p>Select "V POS" line and adjust  </p> <p>Check that "H PHA" = 0 and "H CLK" = 0</p> <p>Adjust separate for zoom; 4/3; 16/9 and PAL; NTSC.</p>	
<p>POWER</p> <p>+170V +70V</p>	<p>RV4</p> <hr style="border-top: 1px dashed black;"/> <p>RV3</p>	<p>Apply colour bar test pattern to either Video, HD/DVD or VGA input</p> <p>Power switched ON</p>		<p>Adjust RV4 to obtain the specified PDP module voltage value +/-1V at TP3 (+170V). This value is the Vs value indicated on the label pasted on the back of PDP module</p> <hr style="border-top: 1px dashed black;"/>  <p>Adjust RV3 to obtain the specified PDP module voltage value +/-1V at TP2 (+70V). This value is the Vd value indicated on the label pasted on the back of PDP module</p>
<p>POWER</p> <p>+5V</p>	<p>RV6</p>	<p>Apply colour bar test pattern to either Video, HD/DVD or VGA input</p>		<p>Adjust "RV6" :</p> <p>V = 5.1 V +/- 0.1 V</p>



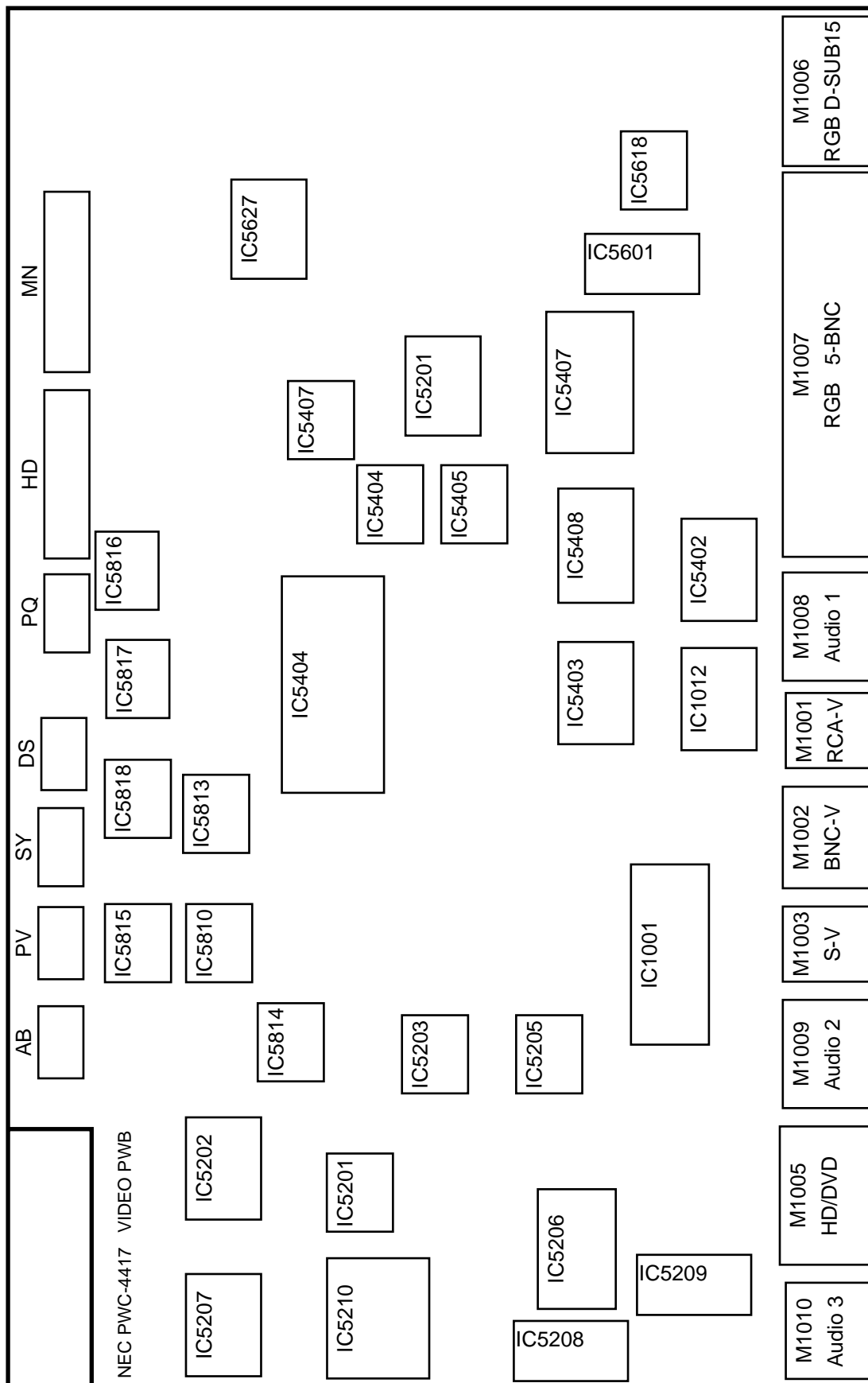
ADJUSTMENT LOCATION

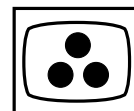
MAIN module



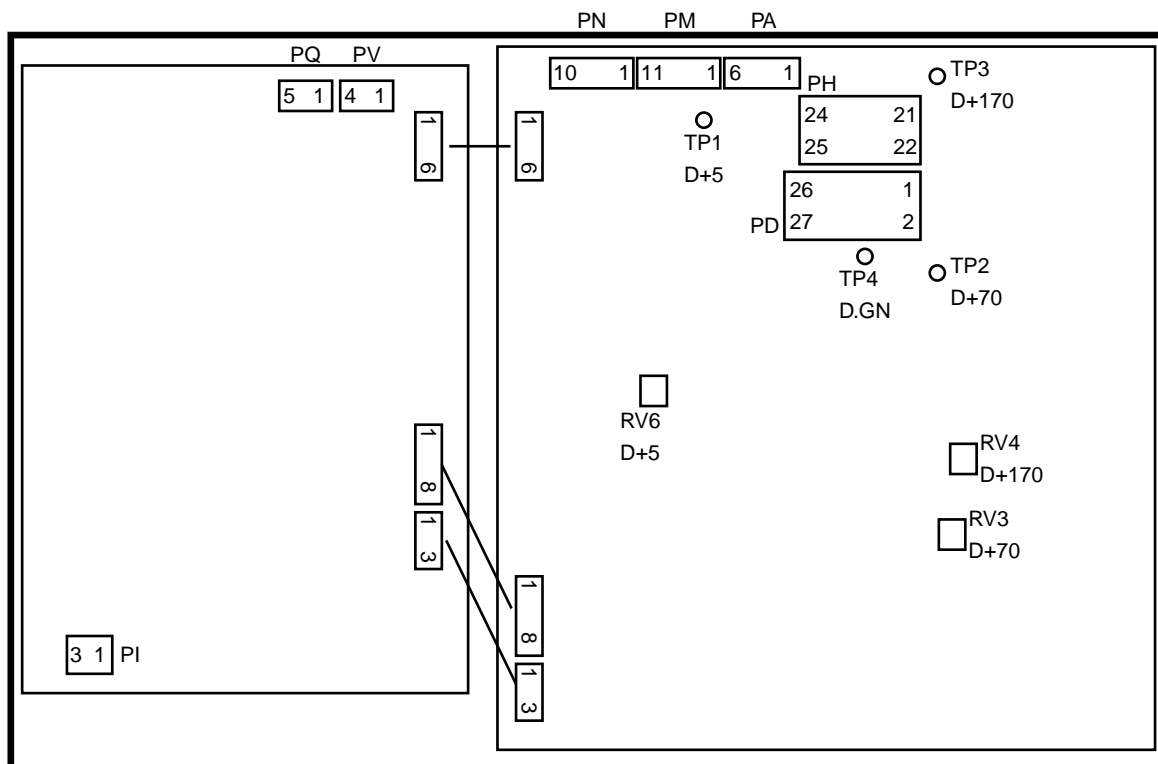


VIDEO module



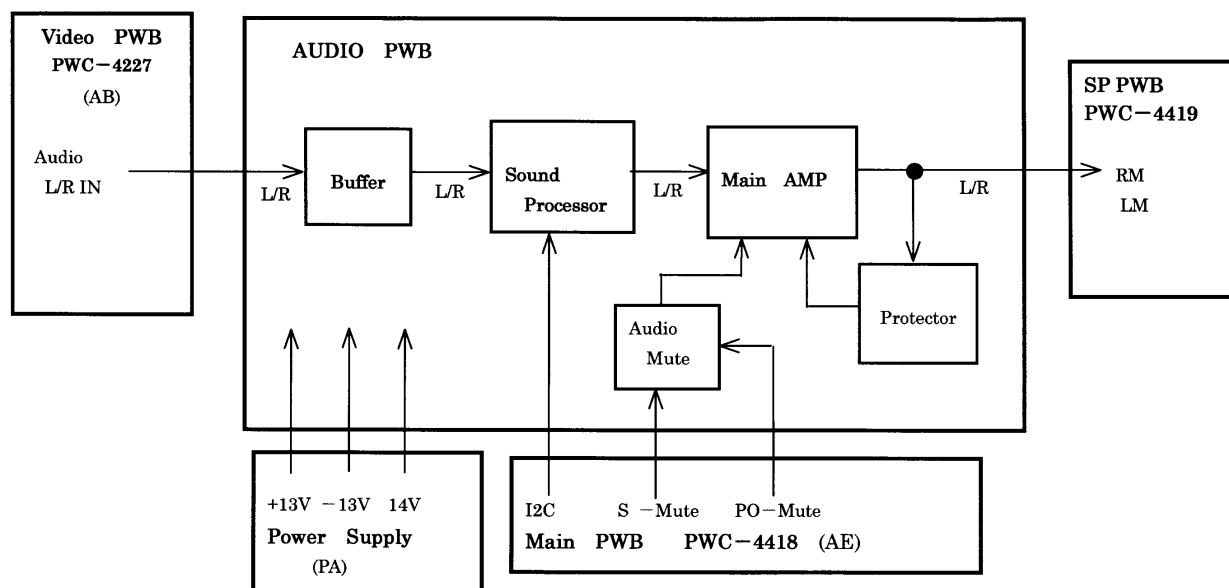


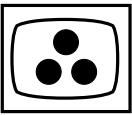
POWER module



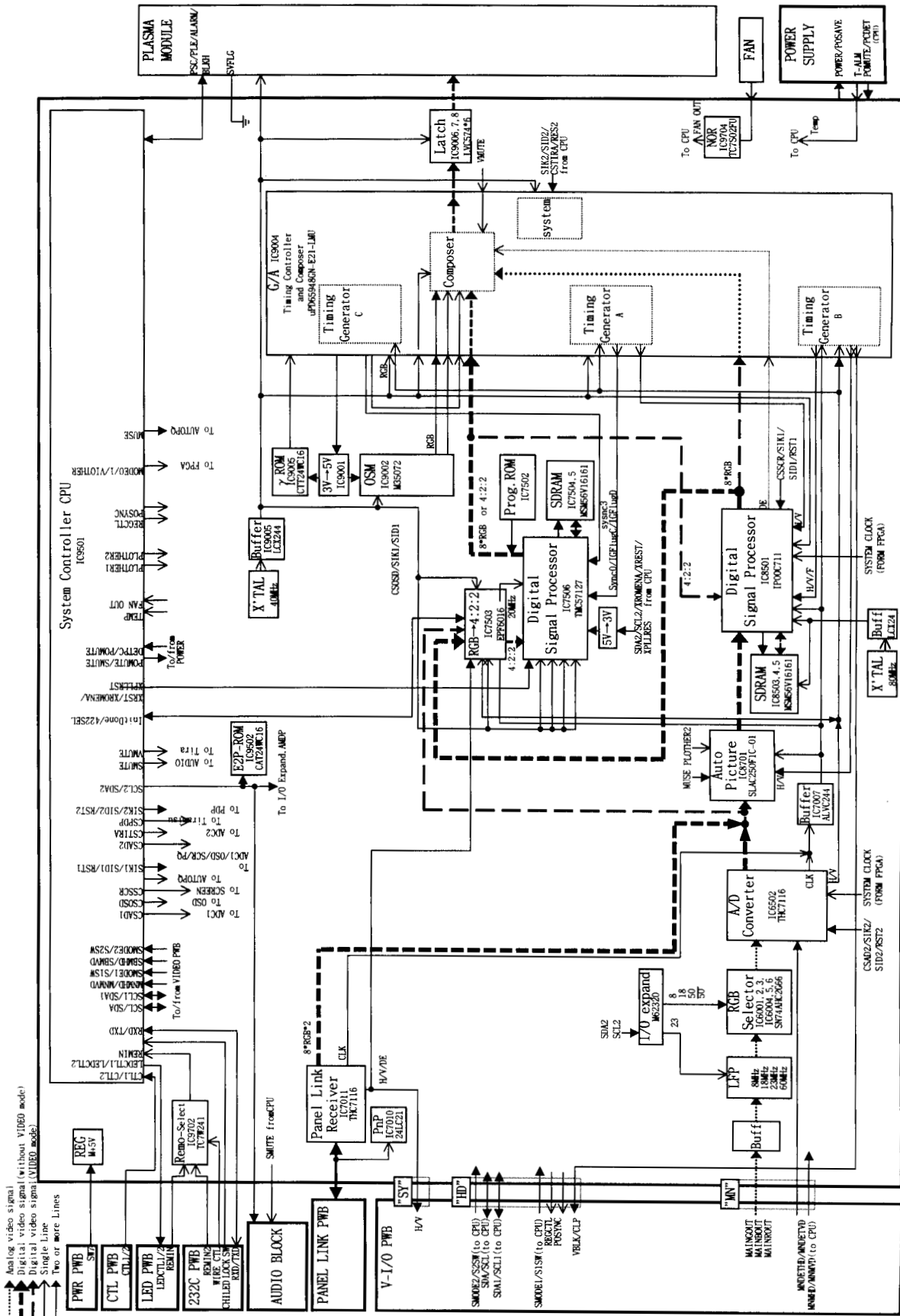
BLOCK DIAGRAMS

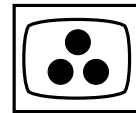
AUDIO module



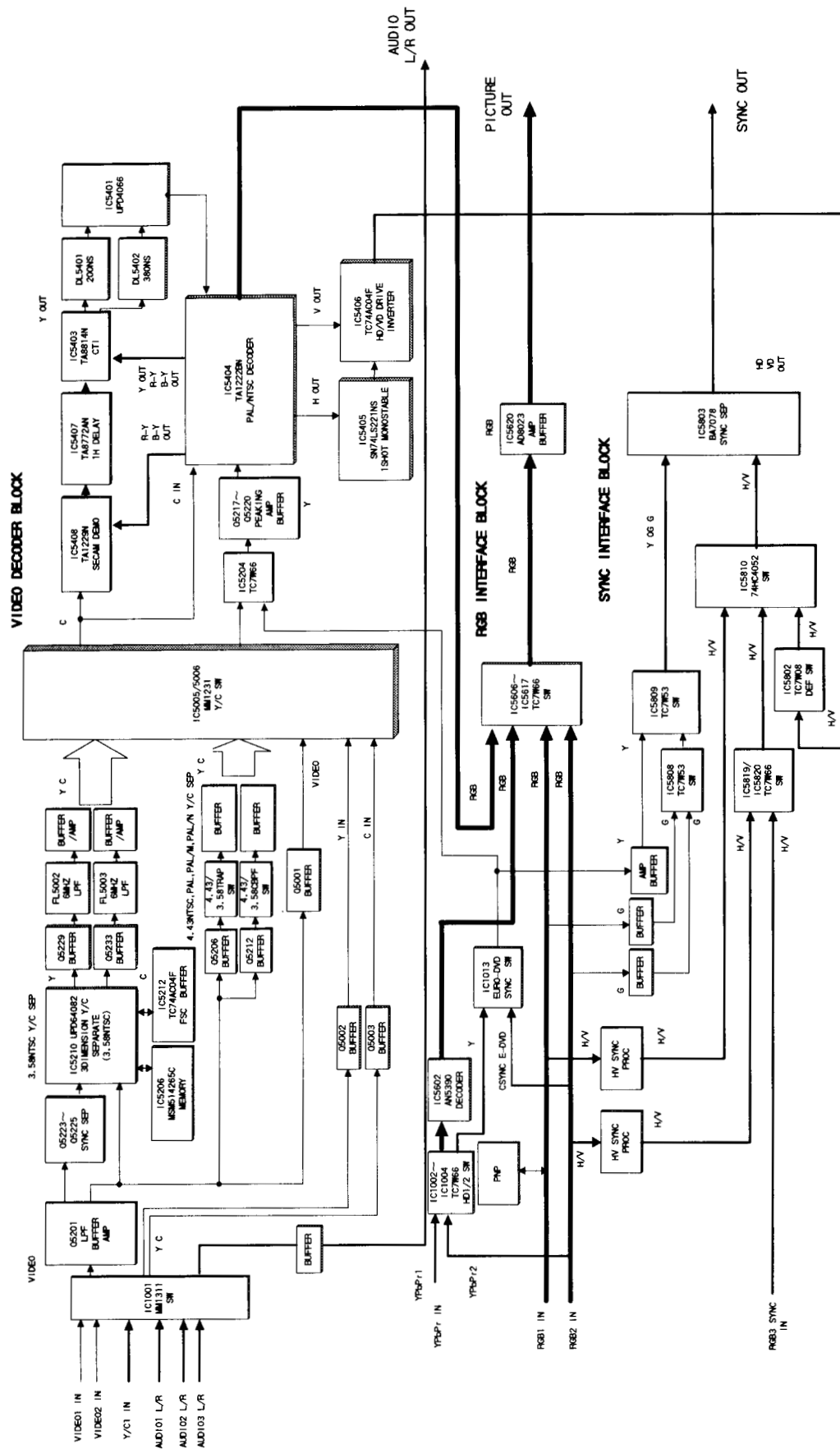


MAIN module





VIDEO module



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