

PVM-1440QM/1442QM/1444QM

SERVICE MANUAL

AEP Model

PVM-1440QM

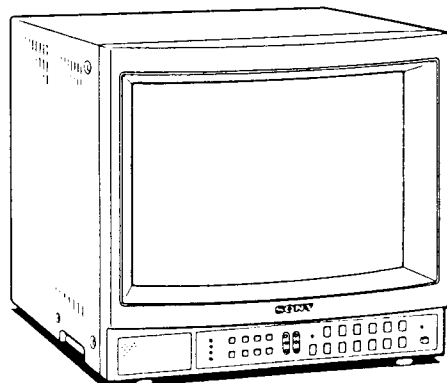
Chassis No. SCC-C57A-A

PVM-1442QM

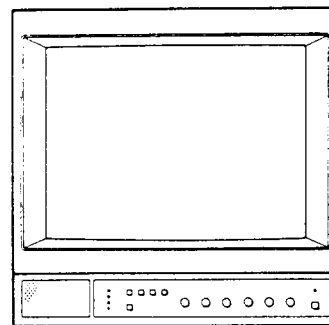
Chassis No. SCC-C56A-A

PVM-1444QM

Chassis No. SCC-C55A-A



(PVM-1440QM/1442QM)



(PVM-1444QM)

SPECIFICATIONS

Video signal

Frequency response

Line input: More than 7 MHz (-3 dB)
 Y/C input: More than 8 MHz (-3 dB)
 Component input (Y/R-Y/B-Y): More than 8 MHz (-3 dB)
 R.G.B. input (analog): More than 9 MHz (-3 dB)

Chrominance subcarrier attenuation

3.58 MHz: Less than -30 dB (comb filter)
 4.43 MHz: Less than -36 dB (trap filter)

Band pass

3.58 MHz: 2 MHz equiband
 4.43 MHz: 2 MHz equiband

Chrominance luminance time error

Composite: Less than ± 100 ns
 Y/C Video: Less than ± 50 ns
 Component: Less than ± 50 ns

Aperture correction

-4.5 to +6.5 dB (at 4.5 MHz)

Synchronization

AFC time constant: 1 msec

Line pull range

Horizontal: ± 500 Hz
 Vertical: 8 Hz

Picture performance

Normal scan: 7% overscan of CRT effective screen area
 Under scan: 3% underscan of CRT effective screen area

H. linearity error: Less than 4%

V. linearity error: Less than 5%

Convergence: Central area: 0.6 mm
 Peripheral area: 0.8 mm

Raster size stability

H: 1.0%, V: 1.5%

High voltage regulation

3%

Audio output

0.6 W (Max.)

CRT

PVM-1444QM/PVM-1442QM: EBU
 PVM-1440QM: P.22

Chromaticity coordinates (EBU only)

	X	Y
Red	0.640	0.330
Green	0.290	0.600
Blue	0.150	0.060

(tolerance ± 0.01)

Color temperature

6,500°K/9,300°K (+8MPCD), selectable

AC regulation range

220 - 240 V AC, 50/60 Hz

Power consumption

Approx. 75 Wh

Inputs

For all models

VIDEO IN: BNC connector

AUDIO IN: phono jack

VTR: 8-pin connector

Y/C-INPUT

VIDEO: 4-pin connector

AUDIO: phono jack

PVM-1444QM only

EXT SYNC: BNC connector

composite sync 1-4 Vp-p, negative, 75 ohms terminated, automatically released when cable is connected to the output connector.

ANALOG RGB/COMPONENT: BNC connector

R, G, B and Y channels: 0.7 Vp-p, ± 6 dB, non composite

R-Y and B-Y channels: 0.525 Vp-p, ± 6 dB

(Standard color bar signal of 75-percent chrominance)

When the composite signal is fed to the G or Y channels, the monitor can be activated in the internal sync mode.

75 ohms terminated, automatically released when a cable is connected to the output connector.

CTRL S: Minijack

PVM-1442QM only

EXT SYNC: BNC connector

composite sync 1-4 Vp-p, negative, 75 ohms terminated, automatically released when cable is connected to the output connector.

ANALOG RGB: BNC connector

0.7 Vp-p, ± 6 dB, non composite

75 ohms terminated, automatically released when cable is connected to the output connector.

DIGITAL RGB: 9-pin connector

CTRL S: Minijack

PVM-1440QM

ANALOG RGB signal through AV: 0.7 Vp-p, ± 6 dB, non composite, 75 ohms terminated

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- Continued on next page -

TRINITRON® COLOR VIDEO MONITOR
SONY®



Outputs

For all models

VIDEO OUT: BNC connector
 Loop-through
 AUDIO OUT: Phono jack
 Loop-through

PVM-1444QM only

EXT SYNC: BNC connector
 Loop-through
 ANALOG RGB/COMPONENT: BNC connector
 Loop-through
 CTRL S: Mini-jack
 Loop-through

PVM-1442QM only

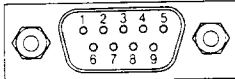
EXT SYNC: BNC connector
 Loop-through
 ANALOG RGB: BNC connector
 Loop-through
 CTRL S: Mini-jack
 Loop-through

General

Dimensions Approx. 346 × 340 × 412 mm (w/h/d)
 (13³/₄ × 13³/₄ × 16¹/₄ inches)
 Weight Approx. 16.5 kg (36 lb 6 oz)

Pin assignment

DIGITAL RGB connector (9-pin)



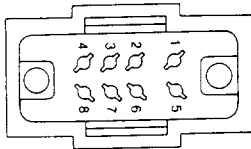
Pin No.	Signal	Signal level
1	GND (ground)	GND
2	GND for the signal	GND
3	Red input	Positive polarity (TTL level)
4	Green input	?
5	Blue input	?
6	Intensity	?
7	NC (no connection)	—
8	H-SYNC	Positive or negative polarity (TTL level)
9	V-SYNC	Same polarity as H-SYNC (TTL level)

Note

If the intensity function of Pin No. 6 is not used, set the internal switch on the Qd board to the B position, and connect the Pin No. 6 to the GND. With this setting, when the positive intensity signal synchronized to the characters on the screen is fed, the luminance of the characters will be increased.

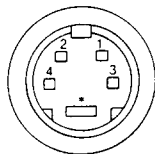
If the specific intensity function, such as that of an IBM microcomputer, is used, set the internal switch on the Qd board to the A position, and feed the intensity control signal to Pin No. 6.

VTR connector (8-pin)



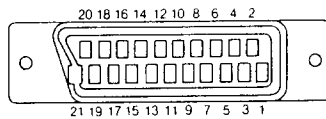
Pin No.	Signal	Description
1	Audio input	-5 dBs, high input impedance (more than 47 kilohms)
2	Video input	Composite 1 Vp-p, sync negative, 75 ohms
3	GND	GND
4	NC	—
5	GND	GND
6	GND	GND
7	GND	GND
8	GND	GND

Y/C (Y/C separate) INPUT connector (4-pin)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND
*	(Slot for internal switch)	Press the switch inside this slot. The signal from Y/C-INPUT connector has priority over the one from VTR (8-pin) connector.

AV (EURO-TV) connector (21-pin) -



Pin No.	Signal	Description
1	Audio output B (right)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm *
2	Audio input B (right)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms *
3	Audio output A (left)	Standard level: 0.5 Vrms Output impedance: Less than 1 k ohm *
4	GND for audio	GND
5	GND for blue input	GND
6	Audio input A (left)	Standard level: 0.5 Vrms Input impedance: More than 10 k ohms *
7	Blue input	0.7 V \pm 3 dB, 75 ohms
8	Function select (AV control)	High state (9.5 - 12 V): Peri mode Low state (0 - 2 V): TV mode Input impedance: More than 10 k ohms Input capacitance: Less than 2 nF

Pin No.	Signal	Description
9	GND for green input	GND
10	NC	
11	Green input	(Same as Pin 7)
12	NC	
13	GND for red input	GND
14	GND for blanking input	GND
15	Red input	(Same as Pin 7)
16	Blanking input	High state (1 - 3 V) Low state (0 - 0.4 V) Input impedance: 75 ohms
17	GND for video output	GND
18	GND for video input	GND
19	Video output **	1 V \pm 3 dB, 75 ohms Sync: 0.3 V (\pm 3 dB)
20	Video input	1 V \pm 3 dB, 75 ohms Sync: 0.3 V (\pm 3 dB)
21	Common GND (plug, shield)	GND

* at 20Hz - 20 kHz
** Outputs the video signal fed through the LINE A connector, when the AV input mode is selected.

Design and specifications subject to change without notice.

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WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SECTION 1 GENERAL

1-1. FEATURES

This chart shows the various features which your model has (indicated as "Yes").

Features	PVM-1444QM	PVM-1442QM	PVM-1440QM
Automatic white balance circuit	Yes	Yes	Yes
EBU phosphor	Yes	Yes	No
Black-tinted Trinitron tube	No	No	Yes
Super Fine Pitch Trinitron picture tube	Yes	Yes	No
Analog RGB/component input/output	Yes	No	No
Analog RGB input/output	No	Yes	No
Digital RGB input (9-pin)	No	Yes	No
Y/C input (4-pin DIN)	Yes	Yes	Yes
VTR input (8-pin)	Yes	Yes	Yes
Control S input/output	Yes	Yes	No
Automatic release of BNC-type input connector termination	Yes	Yes	Yes
Color systems available	PAL, SECAM, NTSC ³⁵⁸ NTSC ⁴⁴³		
Comb filter	Yes	Yes	Yes
Blue only mode	Yes	Yes	Yes
Underscan mode	Yes	Yes	No
Horizontal/vertical delay mode	Yes	Yes	No
External sync input/output	Yes	Yes	No
Color temperature selector	Yes	Yes	Yes
Light-touch picture adjustment buttons	Yes	Yes	No
AV (EURO-TV) connector (21-pin)	No	No	Yes
EIA standard 19-inch rack mounting	Yes	Yes	Yes

Automatic white balance circuit

The automatic white balance circuit compensates for the beam distortion, secular distortion of the cathode-ray tube, etc., and always reproduces the same white display on the screen. This allows an extended use of the monitor.

Super Fine Pitch Trinitron picture tube

(PVM-1444QM/1442QM only)

The Super Fine Pitch Trinitron picture tube (0.25 mm aperture grill) gives high resolution picture. Horizontal resolution is more than 600 TV lines at the center of the picture. When used as a character display, up to 2,000 characters (80 characters/line x 25 lines) can be displayed with great clarity.

Analog RGB/component connector (PVM-1444QM only)

Analog RGB and component signals of a video equipment can be input through this connector. The signals are selected by the COMPO/RGB selector on the rear panel.

Analog RGB connector (PVM-1442QM only)

Analog RGB signal of a video equipment can be input through this connector.

Digital RGB input connector (PVM-1442QM only)

Digital RGB signal from a microcomputer can be input through this connector.

Y/C input connector

The video signal split into the chrominance signal (C) and the luminance signal (Y) can be input through this connector, eliminating the interference between the two signals which tends to occur in a composite video signal and assuring the video quality.

VTR input connector

When connected to a VTR having the 8-pin TV connector, video and audio signals can be fed through this connector with a single cable.

Control S connector (except PVM-1440QM)

When this connector is connected to the "control S" output of other equipment, the remote controls of the aperture, brightness, chroma, phase, contrast and volume settings are possible.

Automatic release of BNC-type connector termination

The BNC-type input connector is terminated at 75 ohms inside when the BNC-type output connector is open. When a cable is connected to the BNC-type output connector, the 75-ohm termination is automatically released, and the signal input through the IN connector is output from the corresponding OUT connector.

Four color systems available

The monitor can display PAL, SECAM, NTSC³⁵⁸ and NTSC⁴⁴³* signals. The appropriate color system is selected automatically.

* A signal of NTSC⁴⁴³ is obtained by playing back NTSC-recorded video cassettes with a video tape recorder/player especially designed for use with this system.

Comb Filter

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

Blue only mode

In the blue only mode, an apparent monochrome display is obtained with all three cathodes driven with a blue signal. This facilitates color saturation and phase adjustments and observation of VTR noise.

Underscan mode (except PVM-1440QM)

The signal normally scanned outside of the screen can be monitored in the underscan mode.

Note

The bright scanning lines which may appear on the top edge of the screen when the monitor is in the underscan mode are caused by an internal test signal, rather than the input signal.

Horizontal/vertical delay mode (except PVM-1440QM)

The horizontal and vertical sync signals can be checked simultaneously in the H/V delay mode.

External sync input (except PVM-1440QM)

When the EXT SYNC (or ANALOG/DIGITAL (EXT SYNC)) button is depressed, the monitor can be operated on the sync signal supplied from an external sync generator.

Color temperature selector

Color temperature of either 9,300°K or 6,500°K is selectable with the COLOR TEMP selector. For precise adjustment, use the BIAS and GAIN adjustment controls (except PVM-1440QM).

Light-touch picture adjustment buttons (except PVM-1440QM)

The aperture, brightness, chroma, phase, contrast and volume buttons can be adjusted by touching the buttons lightly. The adjusted settings will be stored in memory even when the monitor is turned off.

AV (EURO-TV) connector (PVM-1440QM only)

Analog RGB signals can be input through the 21-pin AV (EURO-TV) connector. This allows connection of peripheral equipments such as decoders.

Superimposition (PVM-1440QM only)

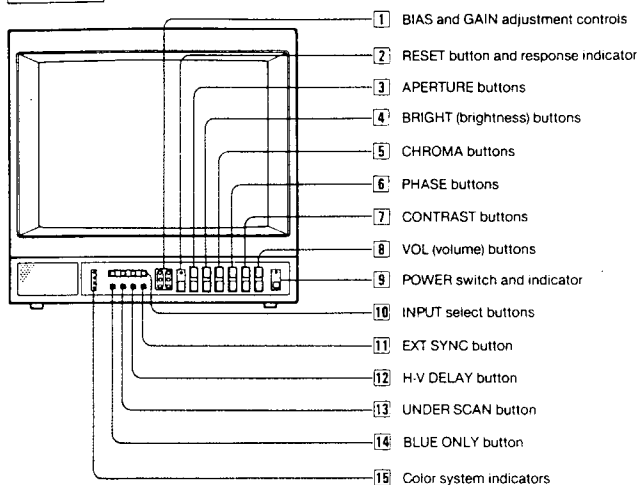
The data fed through the AV (EURO-TV) connector can be superimposed on the picture from the LINE A, LINE B or Y/C/VTR input.

EIA standard 19-inch rack mounting

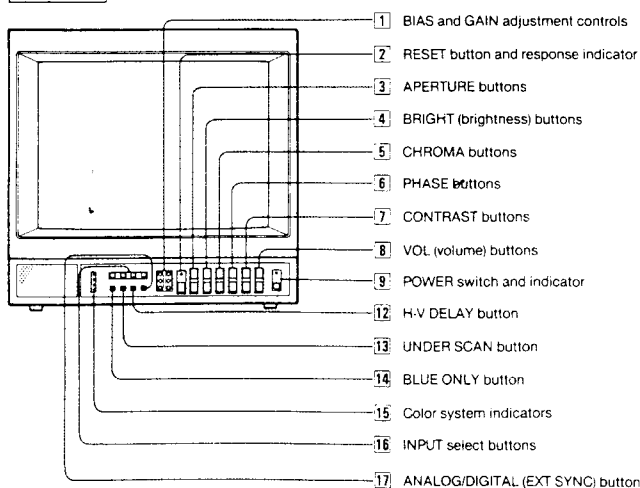
By using an optional MB-502A mounting bracket, the monitor can be mounted in an EIA standard 19-inch rack. An optional SLR-102 slide rail is also available. For details on mounting, see the appropriate instruction manual.

1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS

Front panel PVM-1444QM



Front panel PVM-1442QM



1 BIAS and GAIN adjustment controls

Used for white balance adjustment.
Gain and BIAS controls are provided for the R (red), G (green) and B (blue) screens.
BIAS: Adjust the white balance and brightness of the screen at the lowlight with these controls.
GAIN: Adjust the white balance and contrast of the screen at the highlight with these controls.

2 RESET button and response indicator

Press to return the PHASE, CHROMA, BRIGHT and APERTURE control settings to the factory set levels. The response indicator flashes when the above buttons or the RESET button is pressed.

3 APERTURE buttons

Press + for more sharpness or - for less.

4 BRIGHT (brightness) buttons

Press + for more brightness or - for less.

5 CHROMA buttons

Press + for more color intensity or - for less.

6 PHASE buttons

This button is effective only for the NTSC358 and NTSC443 color system.
Press GRN (green) to make the skin tones greenish or PUR (purple) to make them purplish.

Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures of analog RGB or digital RGB signals.

7 CONTRAST buttons

Press + to make the contrast, color intensity and brightness stronger or - to make them weaker.

8 VOL (volume) buttons

Press + for more volume or - for less.

9 POWER switch and indicator

Depress to turn the monitor on.
The indicator will light up in green.
Press the switch again to turn the monitor off.

10 INPUT select buttons

Press to select the program to be monitored.
A: for a signal fed through the LINE A connectors.
B: for a signal fed through the LINE B connectors.
Y/C/VTR: for a signal fed through the Y/C-INPUT connectors or VTR connector.
When both the Y/C-INPUT and VTR connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connector has priority over the one fed through the VTR connector.
ANALOG RGB/COMPONENT: for a signal fed through the ANALOG RGB/COMPONENT connectors.
For connection, refer to the explanation of ANALOG RGB/COMPONENT connectors

11 EXT SYNC (external sync) button

Normally keep this button released (INT). The monitor operates on the sync signal from the displayed composite video signal.
To operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel, depress the button (EXT).

12 H-V DELAY button

Depress to observe the horizontal and vertical sync signals at the same time.
The horizontal sync signal is displayed in the left quarter of the screen; the vertical signal is displayed near the center of the screen.

13 UNDER SCAN button

Depress for underscanning. The display size is reduced by approximately 3% so that four corners of the raster are visible.

14 BLUE ONLY button

Depress to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase" control adjustments and observation of VTR noise.

* "Phase" control adjustment is effective only for the NTSC signals

15 Color system indicators

The indicator of the color system being received lights up in red.

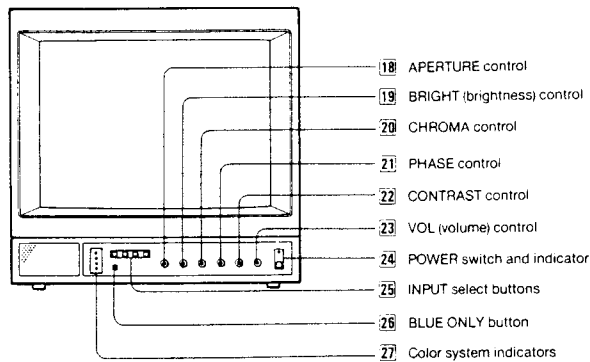
16 INPUT select buttons

Press to select the program to be monitored.
A: for a signal fed through the LINE A connectors.
B: for a signal fed through the LINE B connectors.
Y/C/VTR: for a signal fed through the Y/C-INPUT connectors or VTR connector.
When both the Y/C-INPUT and VTR connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connector has priority over the one fed through the VTR connector.
RGB: for a signal fed through the ANALOG RGB connectors or DIGITAL RGB connector.

17 ANALOG/DIGITAL (EXT SYNC) button

This button functions as ANALOG/DIGITAL selector and EXT SYNC selector.
As ANALOG/DIGITAL selector
Depress to monitor a signal fed through the ANALOG RGB connectors.
Release to monitor a signal fed through the DIGITAL RGB connector.
For EXT SYNC selector
Depress to operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel (EXT).
Release to operate the monitor on the sync signal from the displayed composite video signal (INT).

Front panel PVM-1440QM



18 APERTURE control

Turn toward + for more sharpness or toward - for less.

19 BRIGHT (brightness) control

Turn toward + for more brightness or toward - for less. Normally set this control at the center detent position.

20 CHROMA control

Turn toward + for more color intensity or toward - for less.

21 PHASE control

Turn toward GRN (green) to make the skin tones greenish or toward PUR (purple) to make them purplish.

Note

The APERTURE, CHROMA, PHASE control settings have no effect on the pictures input through the ANALOG RGB IN connector.

22 CONTRAST control

Turn toward + to make the contrast, color intensity and brightness stronger or toward - to make them weaker.

23 VOL (volume) control

Turn toward + for more volume or toward - for less.

24 POWER switch and indicator

Same as [3].

25 INPUT select buttons

Press to select the program to be monitored.

A: for a signal fed through the LINE A connectors.

B: for a signal fed through the LINE B connectors.

Y/CVTR: for a signal fed through the Y/C-INPUT

connectors or VTR connector.

When both the Y/C-INPUT and VTR connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connector has priority over the one fed through the VTR connector.

AV: for a signal fed through the AV (EURO-TV) connector.

To superimpose the data fed through the AV (EURO-TV) connector over the picture being displayed:

1 Press A, B or Y/CVTR to display the picture on which the data is to be superimposed.

Be sure the SUPERIMPOSE selector on the rear panel is set to ON.

2 Press AV.

The data is superimposed over the picture.

26 BLUE ONLY button

Same as [14].

27 Color system indicators

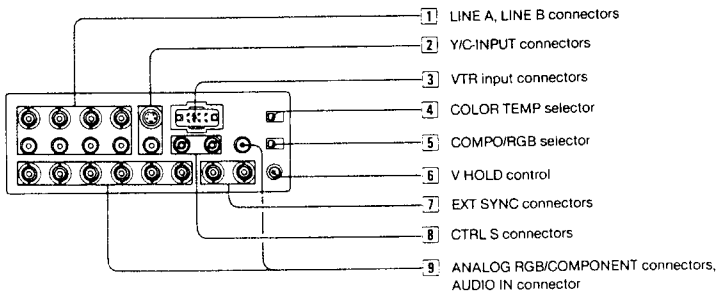
Same as [15].

Picture Adjustment Buttons

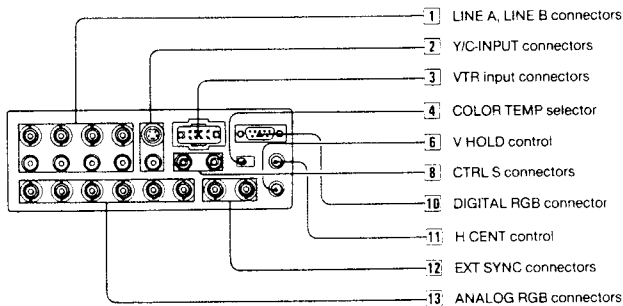
The picture adjustment buttons of each monitor operate in the following input mode (indicated as "Yes").

Model	Input mode	APERTURE	BRIGHT	CHROMA	PHASE	CONTRAST	VOL
PVM-1444QM	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
	Analog RGB	No	Yes	No	No	Yes	Yes
PVM-1442QM	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
	• Digital RGB • Analog RGB	No	Yes	No	No	Yes	No
PVM-1440QM	• LINE A, LINE B • Y/C • VTR	Yes	Yes	Yes	Yes (NTSC only)	Yes	Yes
	AV (RGB signal only)	No	Yes	No	No	Yes	No

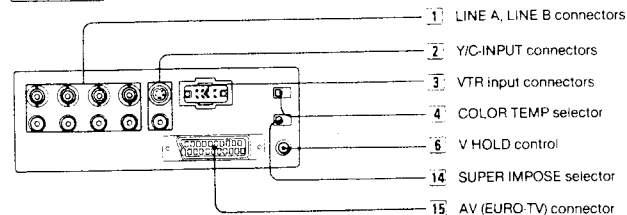
Rear panel PVM-1444QM



Rear panel PVM-1442QM



Rear panel PVM-1440QM



1 LINE A, LINE B connectors

Two groups (A and B) of line input connectors for the composite video and audio signals and their loop-through output connectors.
To monitor the input signal fed through these connectors, press the A or B input select button on the front panel.

VIDEO IN (BNC type): Connect to the video output of a video equipment, such as a VTR or a color video camera. For a loop-through connection, connect to the video output of another monitor.

VIDEO OUT (BNC type): Loop-through output of the VIDEO IN connector. Connect to the video input for a VTR or another monitor.
When the cable is connected to this connector, the 75-ohms termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN (phono jack): Connect to the audio output of a VTR or to a microphone via a suitable microphone amplifier. For a loop-through connection, connect to the audio output of another monitor.

AUDIO OUT (phono jack): Loop-through output of the AUDIO IN jack. Connect to the audio input of a VTR or another monitor.

2 Y/C-INPUT connectors (4-pin)

VIDEO: Connect to the Y/C separate output of a video camera or a VTR.
AUDIO: Connect to the audio output of a video camera or a VTR.

To monitor the input signal fed through these connectors, press the Y/C/VTR button on the front panel.

3 VTR input connectors (8-pin)

Line input for the video and audio signals. When connected to the 8-pin TV connector of a VTR, the video and audio playback signal from the VTR can be input through a single cable.
To monitor the input signal fed through this connector, press the Y/C/VTR button on the front panel, with the Y/C-INPUT connectors connected to no outputs.
When both VTR and Y/C-INPUT connectors are connected to video equipment, the input signal fed through the Y/C-INPUT connectors has priority over the one fed through the VTR connectors.

4 COLOR TEMP (temperature) selector

Select the color temperature position, 9300°K or 6500°K.

5 COMPO (component)/RGB selector

Set to COMPO to monitor component signal fed through the R/R-Y, G/Y, B/B-Y connectors.
Set to RGB to monitor analog R/G/B signal fed through the R/R-Y, G/Y, B/B-Y connectors.

6 V HOLD (vertical hold) control

Turn to stabilize the picture if it rolls vertically.

7 EXT SYNC (external sync) connectors (BNC type)

IN: Connect to the output of a sync generator.
To use the sync signal fed through this connector, depress the EXT SYNC button.
OUT: Loop-through output of the SYNC IN connector. Connect to the SYNC input of a video camera.
When the cable is connected to this monitor, the 75-ohms termination of the input is released, and the signal input to the IN connector is output from this connector.

8 CTRL S (control S) connectors (mini-jack)

For remote control of the APERTURE, BRIGHT, CHROMA, PHASE, CONTRAST and VOL control buttons.
IN: Connect to the "control S" output of other equipment.
OUT: Connect to the CTRL S IN connector of another monitor by using a connecting cord (mini-plug → mini-plug).

9 ANALOG RGB/COMPONENT connectors (BNC type)

R/R-Y IN, G/Y IN, B/B-Y IN:
To monitor the analog R/G/B signal, connect to the analog R/G/B signal outputs of a video camera having no sync signal.
Set the COMPO/RGB selector on the rear panel to RGB and press the ANALOG RGB/COMPONENT button on the front panel. When the EXT SYNC button is released, the monitor operates on the sync signal from the G channel.
To monitor the component signal, connect to the R-Y/Y-B-Y component signal outputs of a BETACAM video camera. Set the COMPO/RGB selector on the rear panel to COMPO and press the ANALOG RGB/COMPONENT button on the front panel. When the EXT SYNC button is released, the monitor operates on the sync signal from the Y channel.

R/R-Y OUT, G/Y OUT, B/B-Y OUT:

Loop-through outputs of the R/R-Y IN, G/Y IN, B/B-Y IN connectors.
For R/G/B signal, connect to the analog R/G/B signal inputs of a video camera.
For component signal, connect to the R-Y/Y-B-Y component signal inputs of a BETACAM video camera. When the cables are connected to these connectors, the 75-ohms termination of the input is automatically released, and the signal inputs to the R/R-Y IN, G/Y IN, B/B-Y IN connectors are output from these connectors.

AUDIO IN: Connect to the audio output of video equipment when the analog R/G/B or component signal is input.

10 DIGITAL RGB connector (9-pin)

Connect with a microcomputer having a digital (TTL level) RGB video output.

To monitor the input signal fed through this connector, press the RGB button and keep the ANALOG/DIGITAL (EXT SYNC) button released.

Note

For connection, be sure to use an optional SMF-520 connecting cable.

11 H CENT (horizontal centering) control

When a digital R/G/B signal is monitored, turn to center the picture if it is decentered.

12 EXT SYNC (external sync) connectors (BNC type)

IN: Connect to the output of a sync generator.

To monitor the sync signal fed through this connector, depress the ANALOG/DIGITAL (EXT SYNC) button.

OUT: Loop-through output of the SYNC IN connector.

Connect to the SYNC input of a video camera.

When the cable is connected to this connector, the 75-ohms termination of the input is released, and the signal input to the IN connector is output from this connector.

13 ANALOG RGB connectors (BNC type)

R/G/B IN: Connect to the analog R/G/B outputs of a video camera.

To monitor a signal fed through these connectors, press the RGB button and depress the ANALOG/DIGITAL (EXT SYNC) button.

R/G/B OUT: Loop-through outputs of the R/G/B IN connectors. Connect to the analog R/G/B inputs of a video camera.

When the cable is connected to these connectors, the 75-ohms termination of the input is released, and the signal input to the R/G/B IN connectors is output from these connectors.

14 SUPERIMPOSE selector

Normally set to ON.

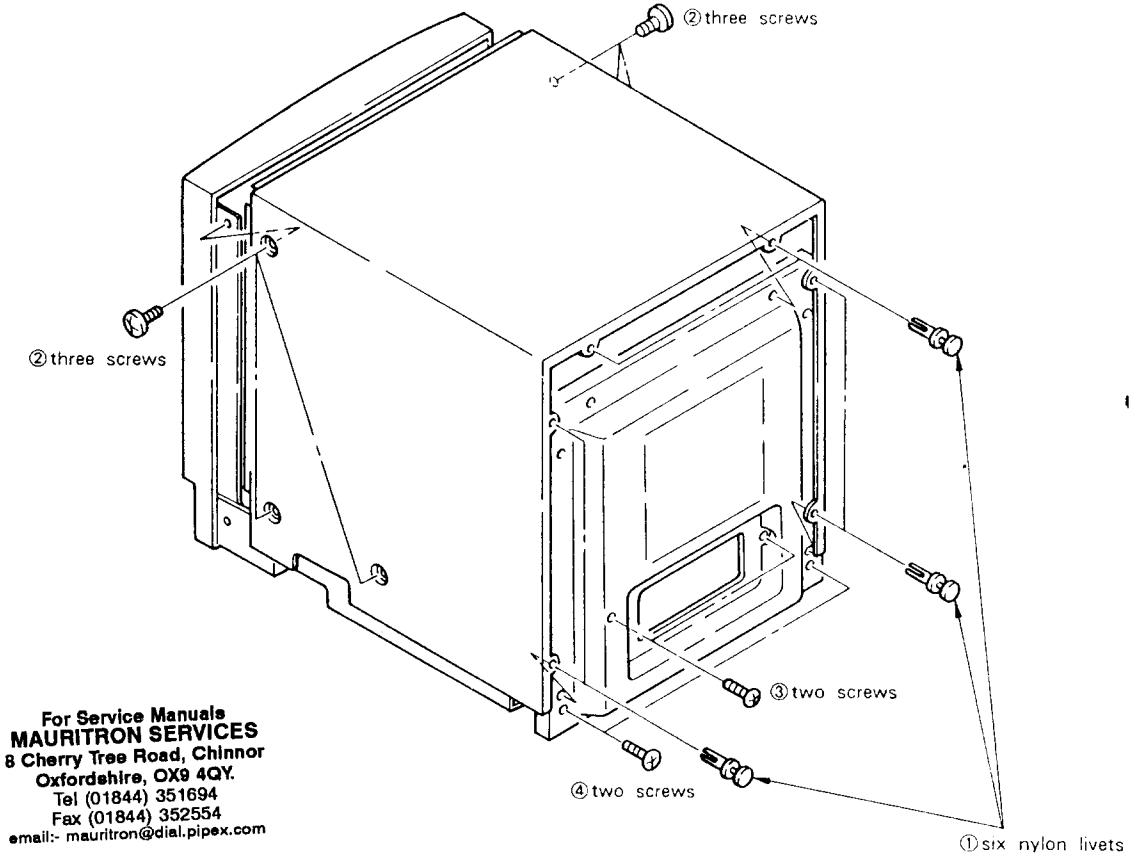
Set to OFF to display the analog RGB signal fed through the AV (EURO-TV) connector.

15 AV (EURO-TV) connector (21-pin)

Connect to the 21-pin multiconnector of decoders.

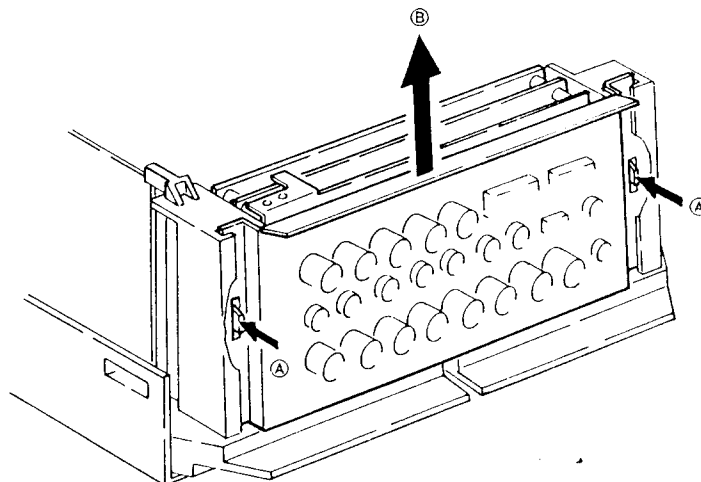
SECTION 2
DISASSEMBLY

2-1. REAR COVER AND TOP COVER REMOVAL



2-2. TERMINAL BOARD REMOVAL

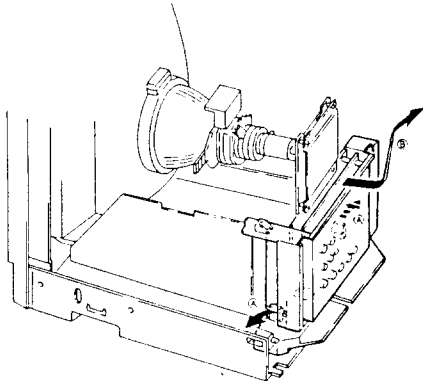
Note: When you remove terminal board, pull out A board a short distance.



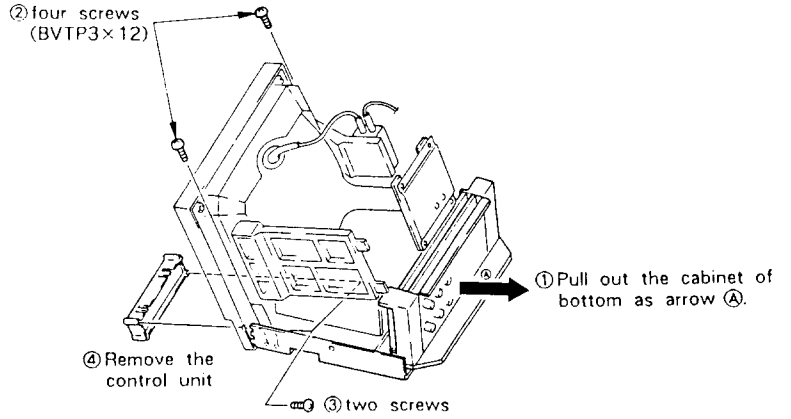
① Remove the terminal board as arrow Ⓑ while push the two claws as arrow Ⓐ.

2-3. BRACKET OF TERMINAL BOARD REMOVAL

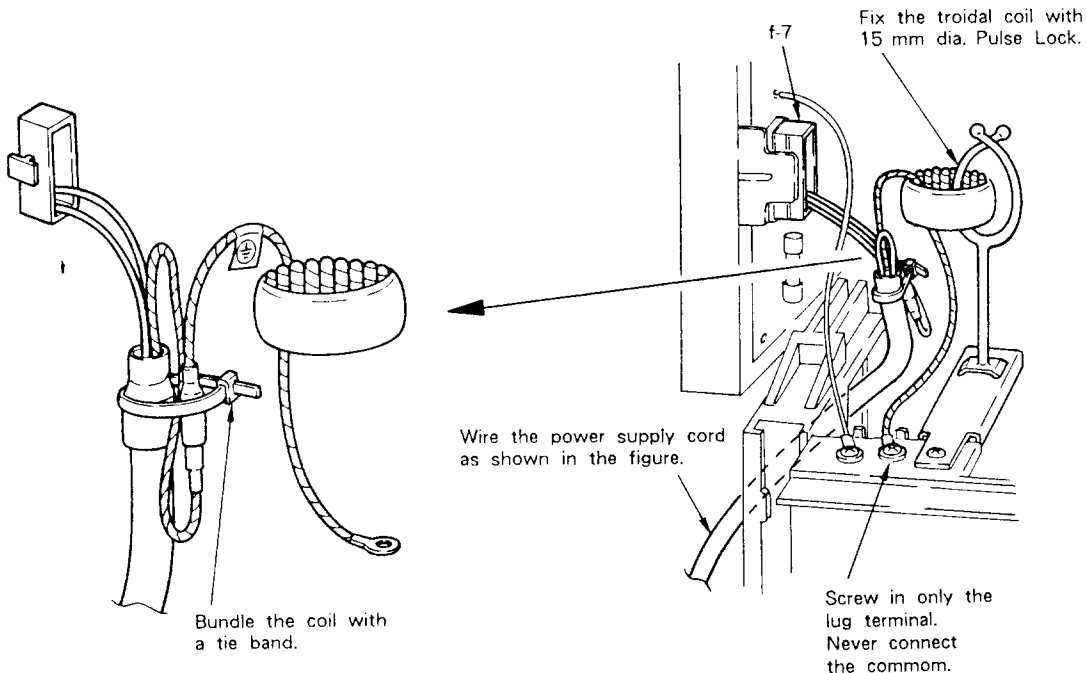
① Remove the bracket of terminal board as arrow ② while extend two claws as arrow ①.



2-4. CONTROL UNIT REMOVAL



2-5. NOTE ON WIRING THE TROIDAL COIL AND IT'S PERIPHERAL PART



2-6. PICTURE TUBE REMOVAL

NOTE : Caution for ANODE CAP installation.

When you replace PICTURE TUBE or FBT, remove RTV on ANODE CAP so that PICTURE TUBE and FBT can be separated. Please adhere picture tube and anode cap in accordance with the following procedure.

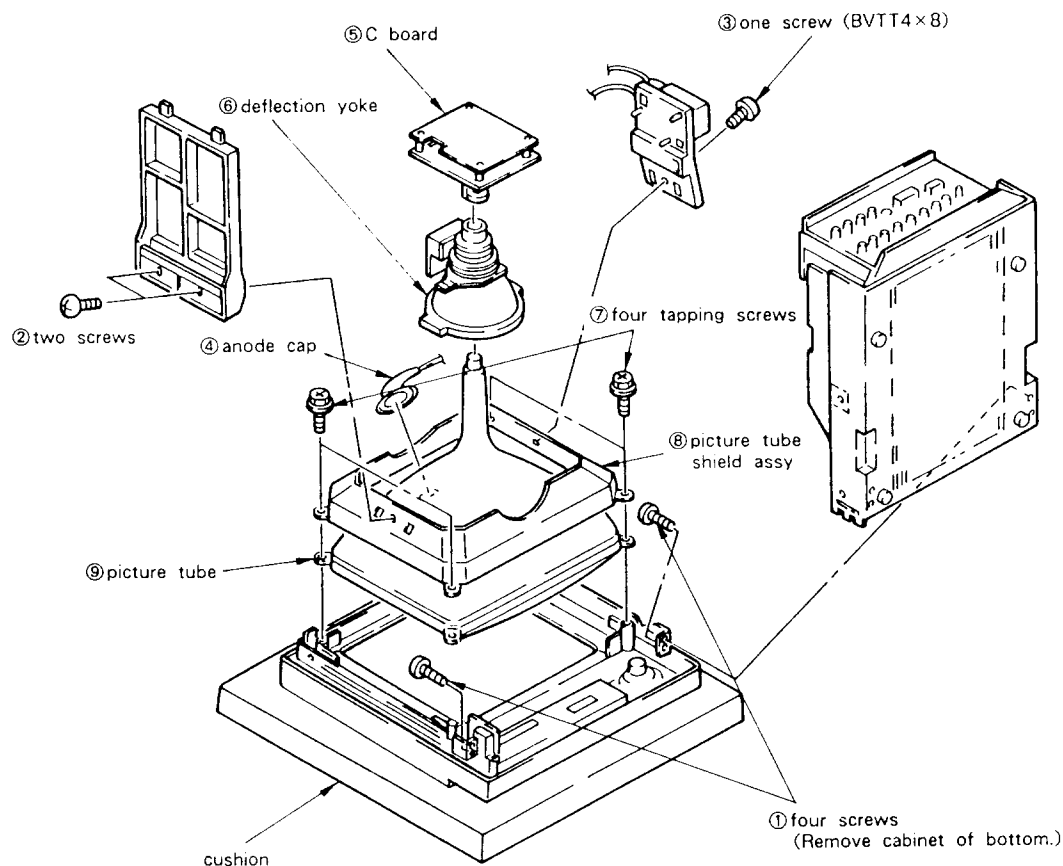
ADHERING PROCEDURE OF ANODE CAP.

1. Clean PICTURE TUBE ANODE CAP with ethanol to remove original RTV.
2. Dry clean face with air.

3. Use KE-490RTV (RTV silicone adhesive, SHIN-ETSU CHEMICAL).

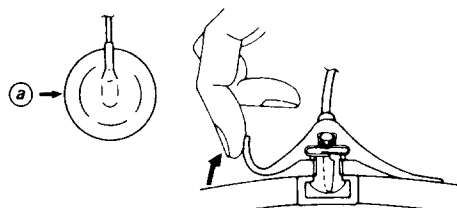
Part. No.	Description
7-322-065-19	Silicone (RTV) KE-490W

4. Install ANODE CAP.
5. Adequately apply RTV to the entire picture tube anode area, piece the anode cap onto the picture tube and push it down securely so that no air pockets remain beneath the cap.
6. Dry more than 12 hours at room temperature.

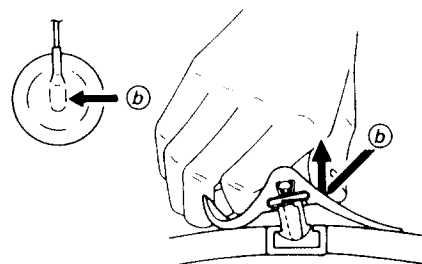


ANODE CAP REMOVAL

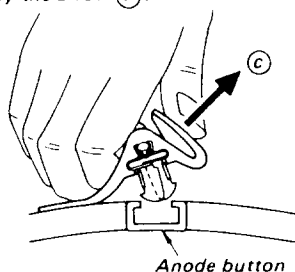
• Removing Procedures



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).



- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow (b).



- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

CONTRAST control 80%
 BRIGHTNESS control 50%

Perform the adjustments in order as follows :

- 3-1. Beam Landing
- 3-2. Convergence
- 3-3. Focus
- 3-4. White Balance

Note : Test Equipment Required.

1. Color Bar/Pattern Generator
2. Degausser
3. Color Analyzer (Minolta)
4. Luminance Level Meter
5. Oscilloscope

Precaution

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

3-1. BEAM LANDING

1. Receive an entirely white signal with the pattern generator.
 CONTRAST MAX.
 BRIGHTNESS set easy to observe
2. Adjust the focus and the horizontal convergence roughly.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig. 3-1.
4. Switch over the pattern generator to green.
5. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and blue and red are at the sides, evenly. (Fig. 3-2)
6. Move the deflection yoke forward, and adjust so that the entire screen becomes green. Repeat 5 to 7 as to red and blue.
7. When landing at the corners is not right, correct by using the magnet. (Fig. 3-3)
8. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

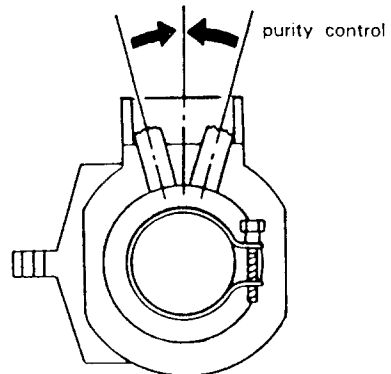


Fig. 3-1

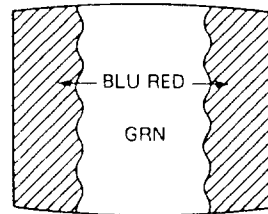


Fig. 3-2

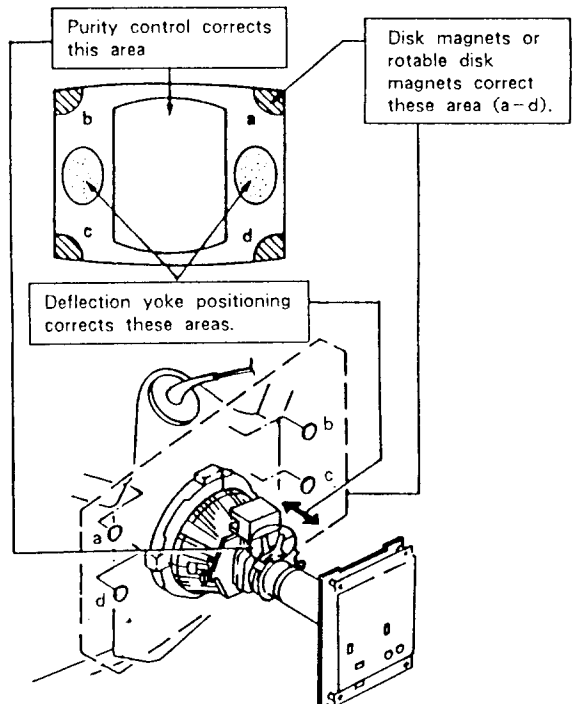
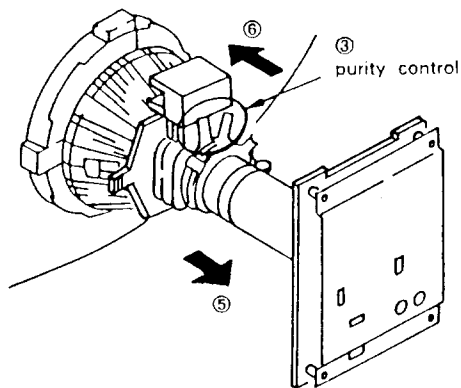


Fig. 3-3

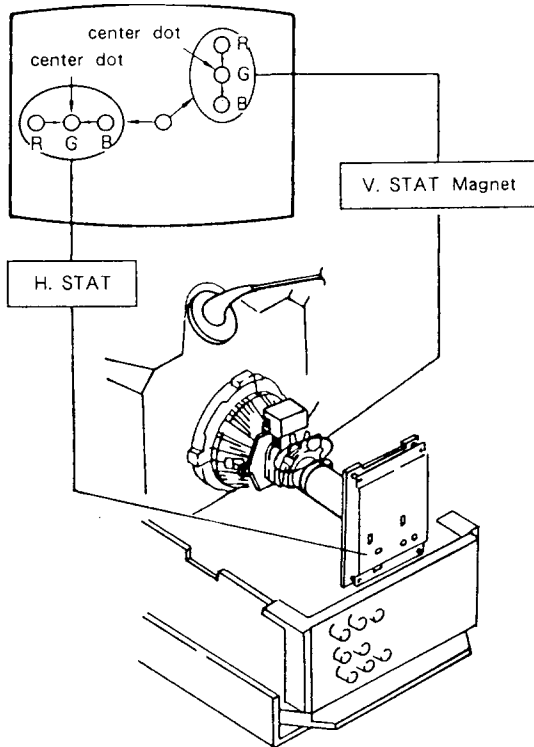
3-2. CONVERGENCE

(1) Horizontal and Vertical Static Convergence Adjustment on the Center of Screen.

- Before starting, perform V. SIZE, V. CENT, H. SIZE, H. CENT and Screen Distortion adjustment rightly.

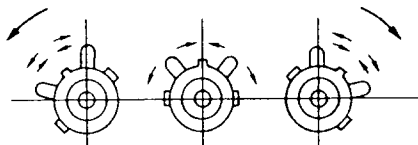
(Static Convergence Adjustment)

1. Receive a dot signal and Set CONTRAST to normal.
2. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
3. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)



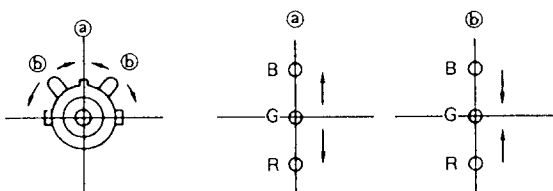
※ If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform adjustment using V. STAT at the same time while tracking.

(Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.)



- When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green and blue dots move as shown below.

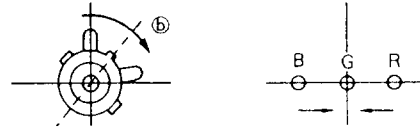
- ① When moving the V. STAT Magnet open or close.



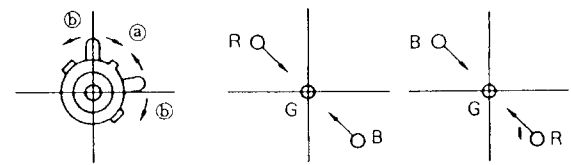
- ② When moving the V. STAT magnet counterclockwise.



- ③ When moving the V. STAT magnet clockwise.



- ④ When tilt the V. STAT magnet and open or close.

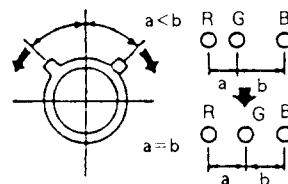


※ If the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.

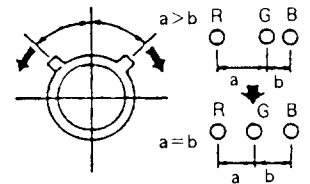
- HMC and VMC correction for BMC (6-Poles) magnet.

1. HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

HMC Correction (A)

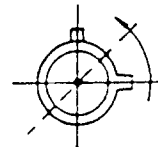


HMC Correction (B)

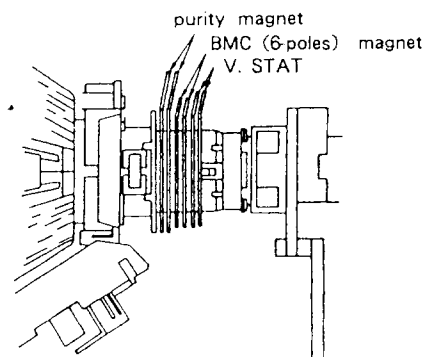
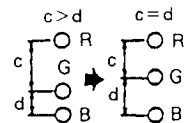
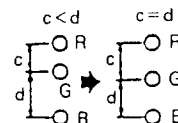
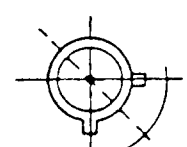


2. VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

VMC Correction (A)



VMC Correction (B)

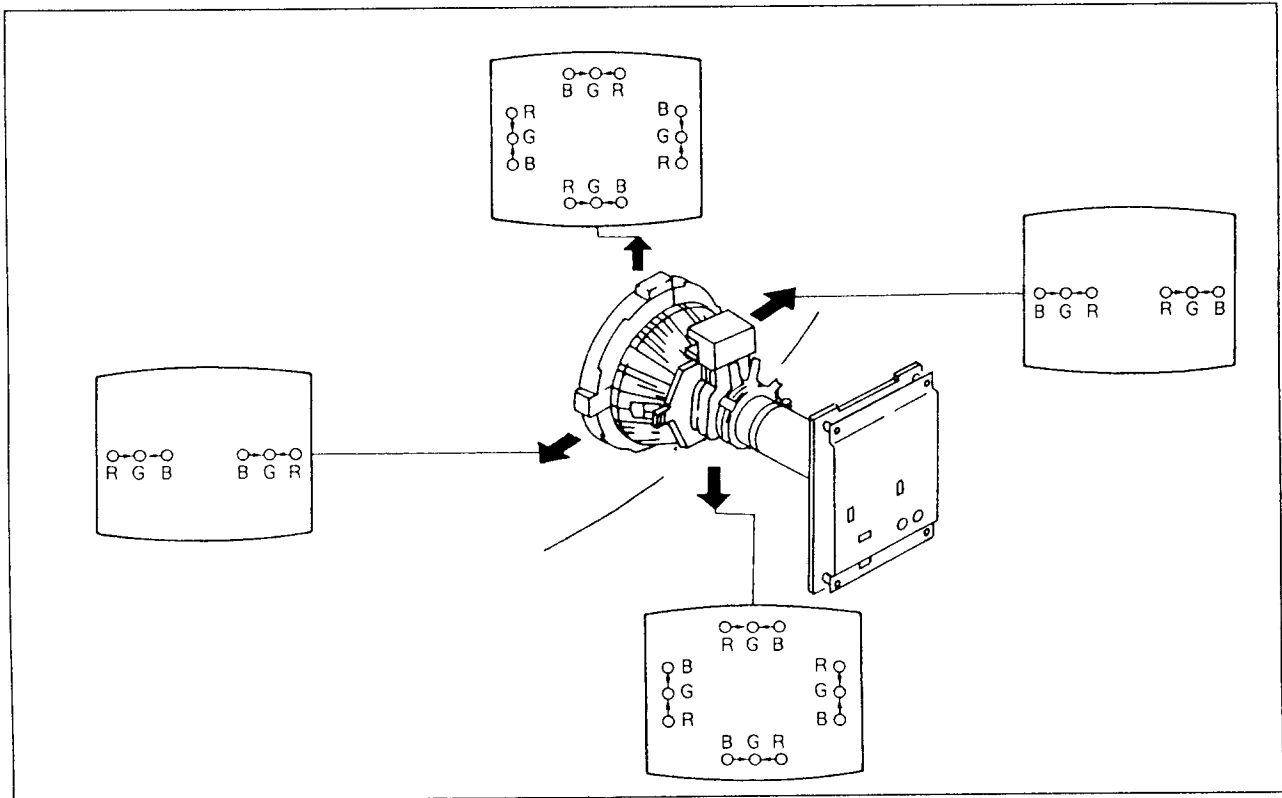


(2) Horizontal and Vertical Dynamic Convergence

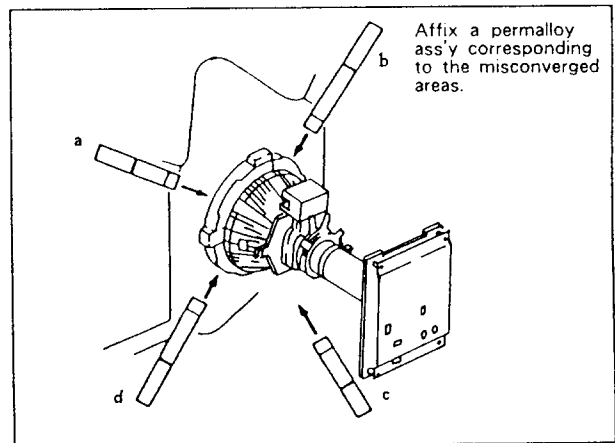
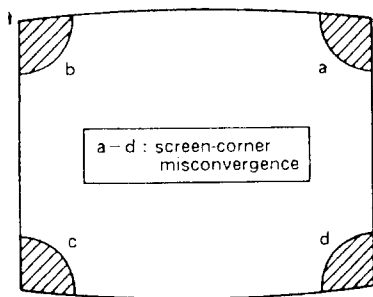
Adjustment the environs of the Screen

(Dynamic Convergence Adjustment)

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



(3) Screen-corner Convergence



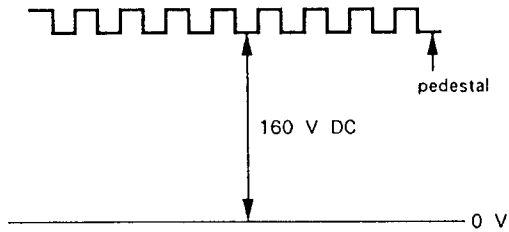
3-3. FOCUS

1. Receive the broadcast.
2. CONTRAST Normal
3. Adjust RV707 so that the focus on the center of screen becomes to the best.

3-4. WHITE BALANCE

(Screen (G2) Voltage)

1. Receive a dot signal with the pattern generator.
2. Switch over COLOR TEMP to 6500° K.
3. Using oscilloscope, adjust with RV1710 (SUB BRT) on V board so that the green cathode voltage against ground becomes 160 V DC.
4. Similarly, adjust with RV1704 (B BKG) and RV1705 (R BKG) on V board so that the blue and red cathode voltages become 160 V DC.

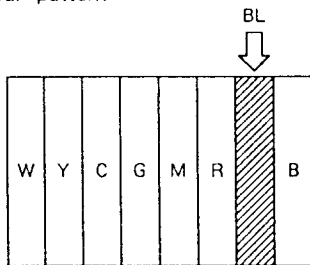


5. Observing the screen, adjust with RV709 (SCREEN) on C board so that the back-ground of the dot signal is bright dimly.

(White Balance)

1. Receive a color-bar pattern signal with the pattern generator, and to make black and white screen by chroma switch off.
2.
 - BRIGHTNESS 50%
 - CONTRAST Minimum
 - CHROMA 50%
 - DRIVE volume (V BOARD) mechanical center
 - BKG volume (V BOARD) mechanical center
3. Adjust RV1710 (SUB BRIGHT) so that the blue stripe portion on the color-bar pattern signal is bright dimly.

color-bar pattern



4. Receive an entirely white signal from the pattern generator.
5. CONTRAST 70%
6. Using the luminance level meter, adjust the luminance level of the pattern generator becomes 8 Nit. (The condition the screen is bright dimly.)

7. Adjust with the color analyzer the white balance.
8. Reset the luminance level of the pattern generator, and adjust the white balance. (High light condition.)

SECTION 4

SAFETY RELATED ADJUSTMENTS

CONFIRMATION WHEN REPLACING H.V.R (High Voltage Resistor)

The following adjustment should be confirm the output voltage when replacing HVR.

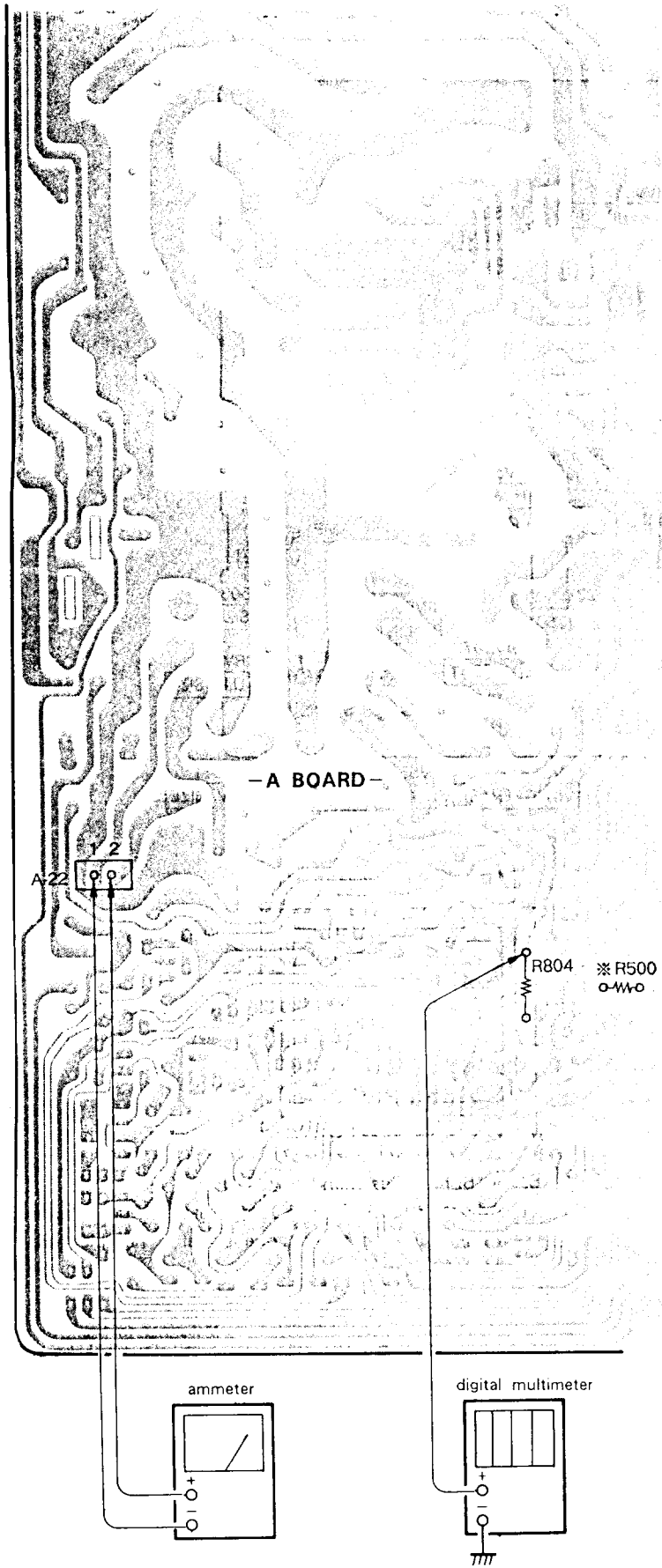
1. Receive an entire white signal.
2. • CONTRAST Maximum
• BRIGHTNESS Maximum
3. Connect a digital multimeter to the A-20 connector side lead of R804.
4. Confirm the voltage is 14.1 ± 1.0 V DC.

※R500, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components.

IC501, Q503, Q504, Q505, Q506, D509, D510, C505, C520, C524, C525, C526, C527, C528, C529, C530, C531, R500, R506, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R528, R804, NL501, HVR	}	on A board
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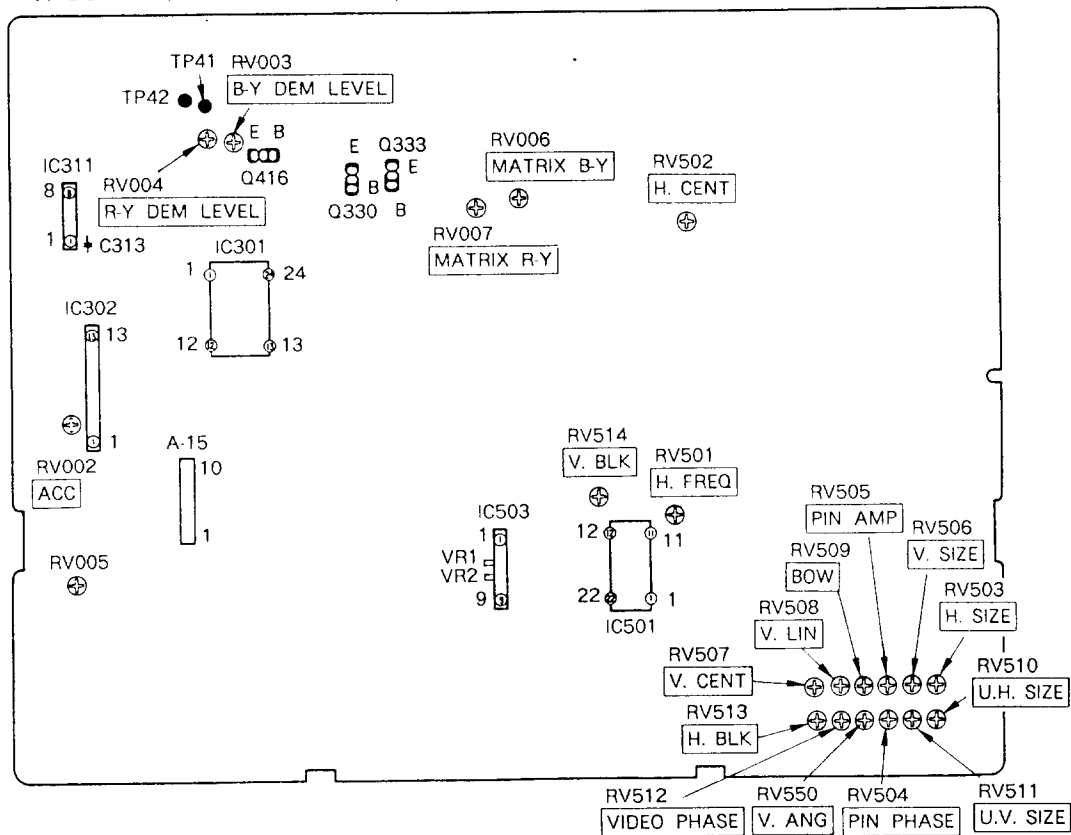
1. Receive an entire white signal.
2. • CONTRAST Maximum
• BRIGHTNESS Maximum
3. Connect a digital multimeter to the A-20 connector side lead of R804.
4. Confirm the voltage is 14.1 ± 1.0 V DC.
5. Receive a dot signal.
6. Disconnect A-22 connector (ABL JIG) on A board and connect an ammeter.
7. Adjust BRIGHTNESS and CONTRAST so that the current is 70 ± 30 μ A.
8. Apply an external DC voltage gradually to the A-20 connector side lead of R804, and when the voltage becomes 16.4 ± 0.1 V DC, confirm the HOLD-DOWN circuit operates immediately and raster disappears.
9. With the same procedure of item 8, when the voltage becomes 15.8 ± 0.1 V DC, confirm the HOLD-DOWN circuit doesn't operate.
10. Receive an entire white signal.
11. Adjust with BRIGHTNESS and CONTRAST volumes so that the current is 600 ± 40 μ A.
12. Apply DC voltage to the A-20 connector side lead of R804, and when the voltage becomes 15.8 ± 0.1 V DC, confirm the HOLD-DOWN circuit operates immediately and raster disappears.
13. With the same procedure of item 8, when the voltage becomes 15.2 ± 0.1 V DC, confirm the HOLD-DOWN circuit doesn't operate.
14. When step 4 to 13 is not satisfied, readjustment should be performed by altering the resistance value of R500 (※).



SECTION 5 CIRCUIT ADJUSTMENTS

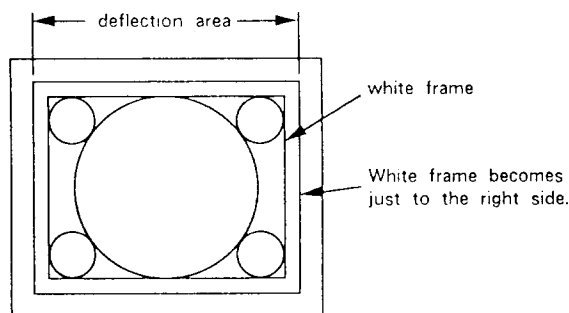
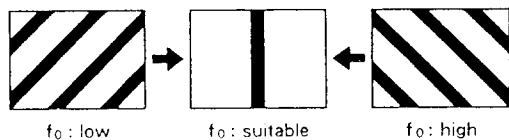
5-1. A BOARD ADJUSTMENTS

- A BOARD (COMPONENT SIDE) -



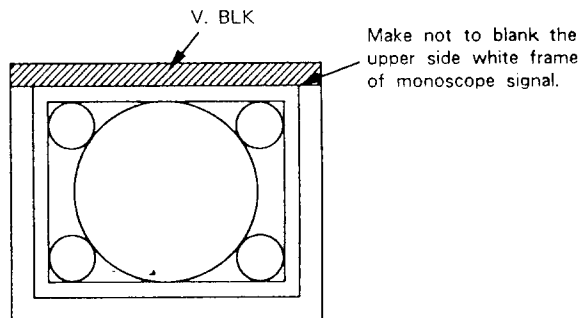
HORIZONTAL OSCILLATION FREQUENCY ADJUSTMENT (RV501)

1. Receive a monoscope signal.
2. Connect pin ① of IC501 to ground with 100 μ F / 16 V electrolytic capacitor.
3. Adjust RV501 so that the screen streaming stops.



6. V. BLK Adjustment (RV514)

- (1) Adjust RV514 (V. BLK) so that the upper side white frame of monoscope signal is not blanked.

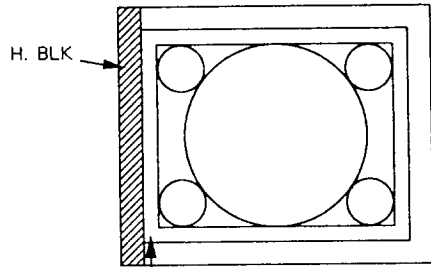


H-V BLK ADJUSTMENTS (RV510, RV512, RV513, RV514)

1. Receive a monoscope signal.
2. Set U/S (Under Scan) switch to Under mode.
3.
 - CONTRAST Minimum
 - BRIGHTNESS Maximum
4. Adjust RV510 (U. H. SIZE) so that the white frame of monoscope signal becomes visible.
5. Adjust RV512 (Video Phase) so that the white frame of monoscope signal becomes to the right side just on the screen.

7. H. BLK Adjustment (RV513)

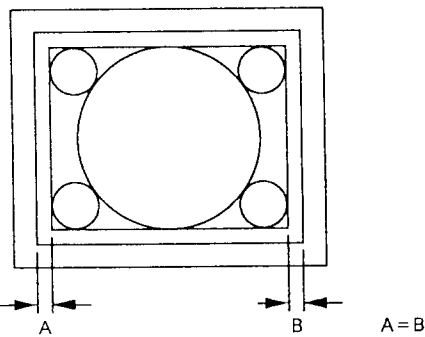
- (1) Adjust with RV513 (H. BLK) so that the vertical line of the white frame of monoscope signal is blanked as following figure.



Make to blank the vertical line of the white frame of monoscope signal.

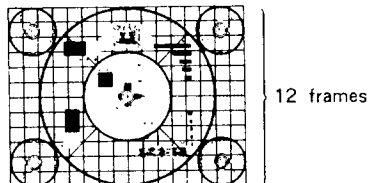
8. Screen Phase Adjustment (RV512)

- (1) Adjust RV512 (Video Phase) so as to equalize the width of the white frame of monoscope signal on both sides of screen right and left.

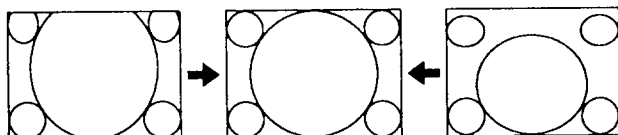


VERTICAL DEFLECTION PART ADJUSTMENTS (RV506, RV507, RV508, RV511)

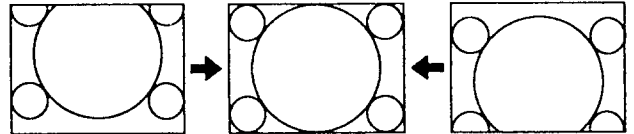
1. Receive a monoscope signal.
2. • CONTRAST 70%
• BRIGHTNESS 50%
3. Adjust RV506 (V. SIZE) so that the vertical size of monoscope signal becomes 12 frames.



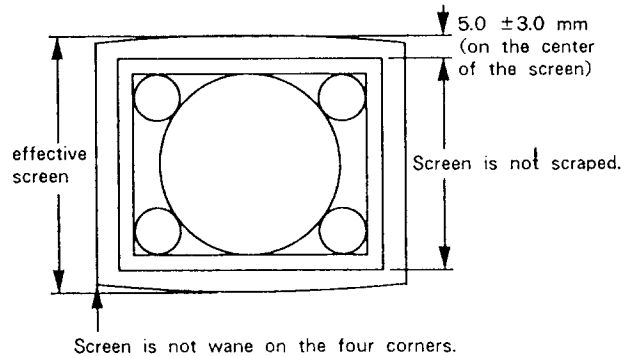
4. Adjust RV508 (V. LIN) the vertical linearity.



5. Adjust RV507 (V. CENT) the vertical position.

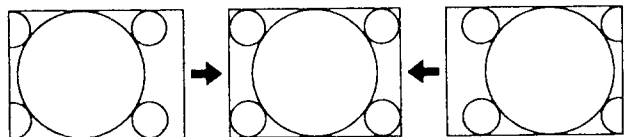


6. Adjust RV506 (V. SIZE) so that the vertical size of monoscope signal becomes 11.75 ± 0.2 frames.
7. Set U/S (Under Scan) switch to Under mode.
8. Adjust with RV511 (U.V. SIZE) as follows.

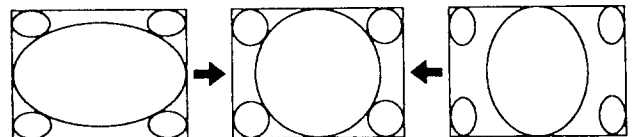


HORIZONTAL DEFLECTION PART ADJUSTMENTS (RV502, RV503, RV504, RV505, RV509, RV510, RV550)

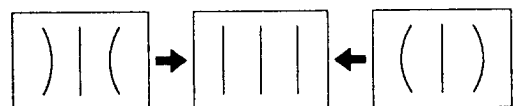
1. Receive a monoscope signal.
2. • CONTRAST 70%
• BRIGHTNESS 50%
3. H. CENT Adjustment (RV502)
(1) Adjust RV502 (H. CENT) the horizontal position.



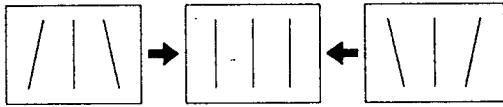
4. H. SIZE Adjustment (RV503)
(1) Adjust RV503 (H. SIZE) the horizontal size.



5. PIN AMP, PIN PHASE, V. ANG, BOW Adjustments (RV505, RV504, RV509, RV550)
• PIN AMP (RV505)



• PIN PHASE (RV504)



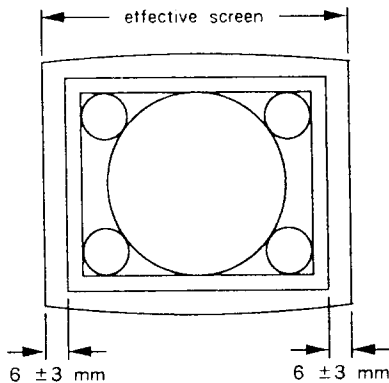
• V. ANG (RV550)



• BOW (RV509)

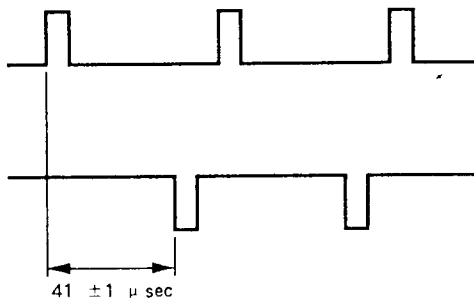


6. Adjust RV503 (H. SIZE) so that the horizontal size becomes 15.75 ± 0.2 frames.
7. Set U/S (Under Scan) switch to Under mode.
8. Adjust RV510 (U.H. SIZE) the Under H. SIZE as follows.



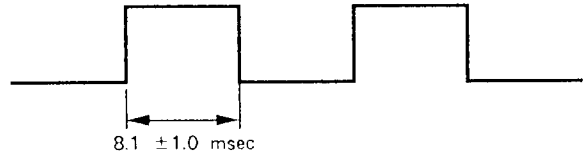
H-V DELAY ADJUSTMENT (VR1, VR2)

1. Receive a monoscope signal.
2. • CONTRAST 70%
• BRIGHTNESS 50%
3. Set H-V DELAY switch to DELAY mode.
4. H. DELAY Adjustment (VR1)
 - (1) Connect an oscilloscope to pin ② (SYNC SEP) and pin ③ (H. SYNC) of IC503.
 - (2) Adjust VR1 of IC503 to become $41 \pm 1 \mu\text{sec}$ as follows.



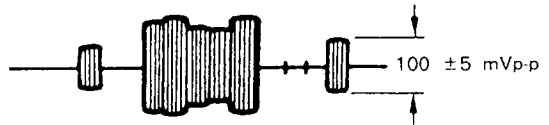
5. V. DELAY Adjustment (VR2)

- (1) Connect an oscilloscope to pin ⑥ of IC503.
- (2) Adjust VR2 of IC503 to become $8.1 \pm 1.0 \text{ msec}$ as follows.



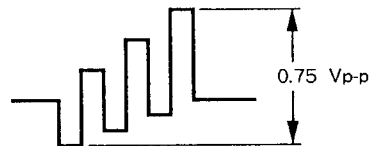
ACC ADJUSTMENT (RV002)

1. Receive a color-bar signal (EIA color-bar).
2. Connect an oscilloscope to the IC302 side lead of C313.
3. Adjust RV002 so that the burst signal level becomes $100 \pm 5 \text{ mVp-p}$.



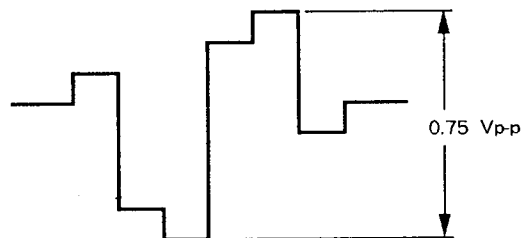
B-Y DEM LEVEL ADJUSTMENT (RV003)

1. Receive a color-bar signal (EIA 75% chroma color-bar).
2. Connect an oscilloscope to TP42 (B-Y).
3. Adjust RV003 so that the B-Y waveform becomes 0.75 Vp-p .



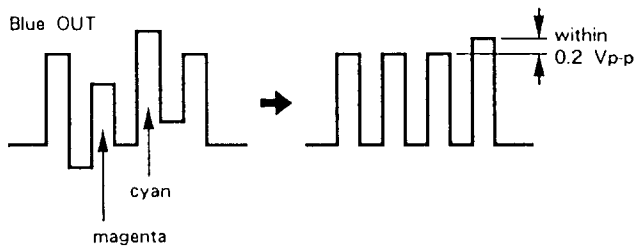
R-Y DEM LEVEL ADJUSTMENT (RV004)

1. Receive a color-bar signal (EIA 75% chroma color-bar).
2. Connect an oscilloscope to TP41 (R-Y).
3. Adjust RV004 so that the R-Y waveform becomes 0.75 Vp-p .

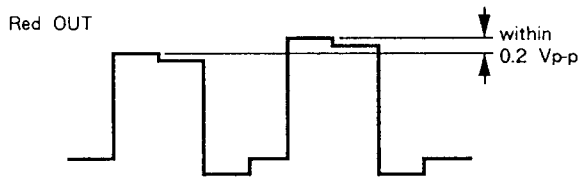


MATRIX ADJUSTMENT (RV006, RV007)

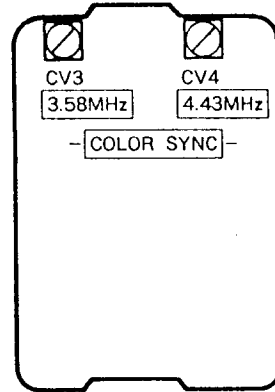
1. Receive a color-bar signal.
 (white peak : 75%)
 (black level : 0%)
 (chroma max. : 75%)
 (chroma min. : 0%)
2. CONTRAST 70%
3. Connect an oscilloscope to pin ⑤ (B OUT) of A-15.
4. Adjust RV006 (B-Y) so that the BLUE OUT waveform becomes flat as following figure.



5. When there is difference between cyan portion and magenta portion, adjust with RV006 while tracking with PHASE volume for user control.
6. Connect an oscilloscope to pin ③ (R-Y) of A-15.
7. Adjust RV007 (R-Y) so that the RED OUT waveform becomes flat as following figure.



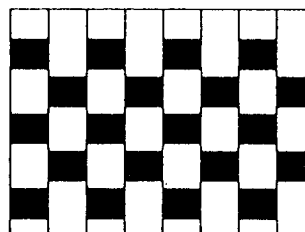
5-2. XA BOARD ADJUSTMENT



- XA BOARD (COMPONENT SIDE) -

COLOR SYNCHRONIZATION (CW) ADJUSTMENT (CV3, CV4)

1. Short-circuit pins ⑨ and ⑩ of IC301 on A board.
2. Connect pin ③ of IC311 on A board to +12 V line via 4.7 kΩ resistor.
3. Short-circuit base and emitter of Q416 on A board.
4. 3.58 MHz Adjustment (CV3)
 (1) Receive a color-bar signal (EIA color-bar).
 (2) Adjust CV3 the color synchronization.



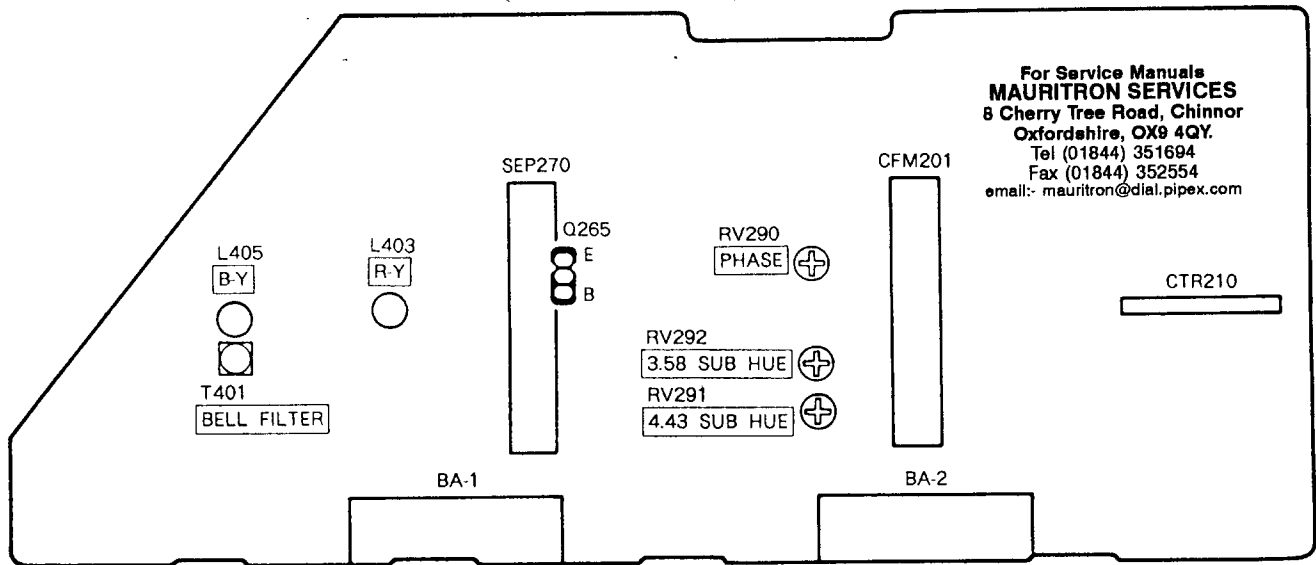
Adjust so that color stripes disappear and the hue change is stabilized extremery.

5. 4.43 MHz Adjustment (CV4)
 (1) Receive a color-bar signal (EBU color-bar).
 (2) Adjust CV4 the color synchronization.
6. Remove the short-circuit positions pins ⑨ and ⑩ of IC301 and base and emitter of Q416.

CAUTION : This adjustment (XA board adjustment) should be made earlier than all adjustments of color.

5-3. BA BOARD ADJUSTMENTS

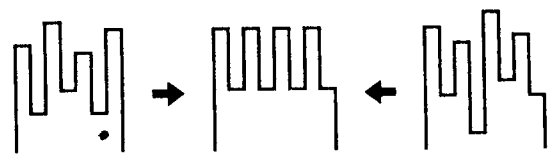
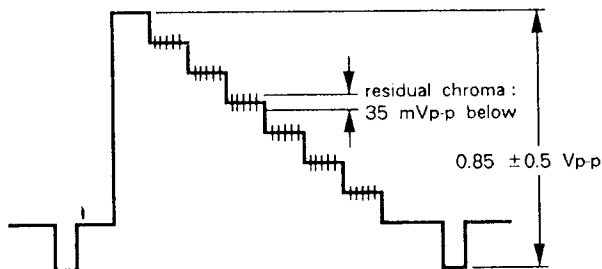
— BA BOARD (COMPONENT SIDE) —



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 email: mauritron@btinternet.com

NTSC 3.58 MHz ADJUSTMENT (RV292)

1. Receive NTSC 3.58 color-bar signal.
2. Connect an oscilloscope to pin ⑮ (COMPOSITE IN) of BA-2 connector.
3. Confirm the Y-OUT is 0.87 ± 0.5 V_{p-p}.
4. Confirm the residual chroma is 35 mV_{p-p} below. When it is above 35 mV_{p-p}, adjust with RV1 and T1 inside CFM201 while tracking.
2. Confirm the voltage on pin ④ of CTR210 is above 5.0 V DC, and on pin ⑤ of CTR210 is below 0.1 V DC.
3. Connect an oscilloscope to pin ⑤ of A-15 connector.
4. Adjust RV291 (4.43 SUB HUE) so that the BLUE OUT waveform level becomes flat as following figure.

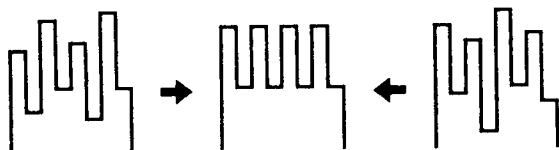


Note : CONTRAST.....Normal condition
 HUE.....Normal condition

PAL ADJUSTMENTS (RV290)

5. Connect an oscilloscope to pin ⑥ (B-OUT) of A-15 connector.
6. Adjust RV292 (3.58 SUB HUE) so that the BLUE OUT waveform level becomes flat as following figure.

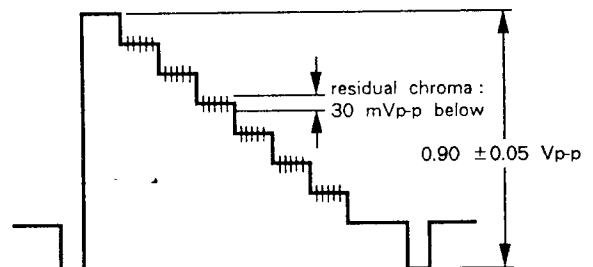
1. Receive NTSC 4.43 color-bar signal.
2. Confirm the voltage on pin ④ of CTR210 is above 5.0 V DC, and on pin ⑤ of CTR210 is below 1.0 V DC.
3. Connect an oscilloscope to pin ⑩ of BA-2 connector.
4. Confirm the Y-OUT is 0.90 ± 0.05 V_{p-p} and the residual chroma is below 30 mV_{p-p}.



Note : CONTRAST.....normal condition
 HUE.....Normal condition

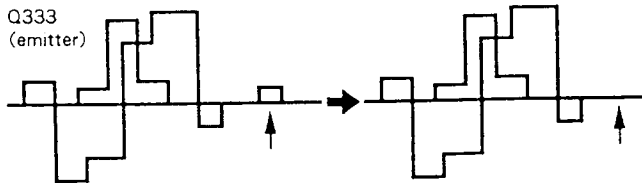
NTSC 4.43 MHz ADJUSTMENT (RV291)

1. Receive NTSC 4.43 color-bar signal.

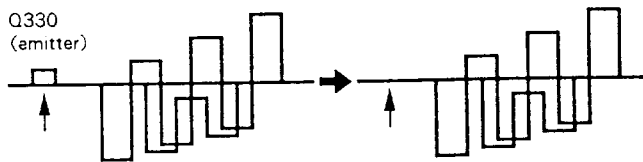


5. ANTI-PAL Adjustment (RV290)

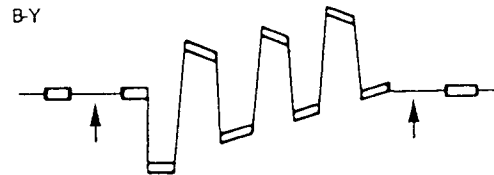
- (1) Receive the special PAL color-bar.
- (2) Connect an oscilloscope to emitter of Q333 on A board, and adjust RV290 (PHASE) so that R-Y anti-PAL portion becomes flat as following figure.



- (3) Connect an oscilloscope to emitter of Q330 on A board, and adjust RV2 inside SEP270 so that B-Y anti-PAL portion becomes flat as following figure.

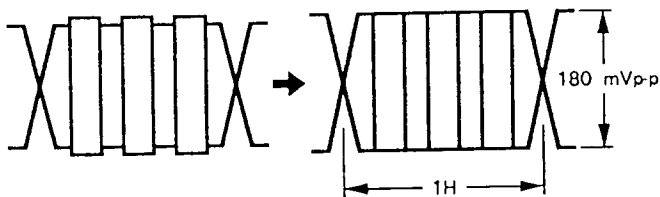


- (4) Adjust L405 (B-Y) so that the non-colored portion level becomes flat.



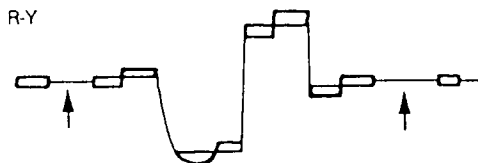
SECAM ADJUSTMENTS (T401, L403, L405)

1. Receive SECAM color-bar.
2. Bell Filter Adjustment (T401)
 - (1) Connect an oscilloscope to emitter of Q265.
 - (2) Adjust T401 (Bell Filter) so that the chroma waveform becomes smooth.

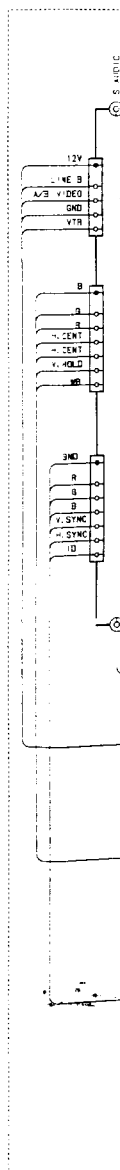


3. Color Balance Adjustment (L403)

- (1) Connect an oscilloscope to pin ⑦ (R-Y) of BA-1 connector.
- (2) Adjust L403 (R-Y) so that the non-colored portion level becomes flat.

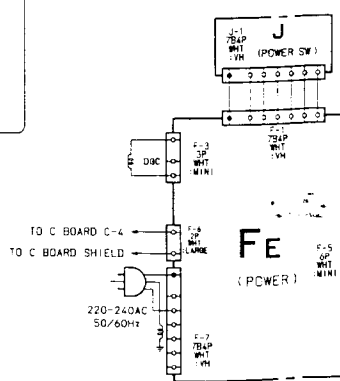
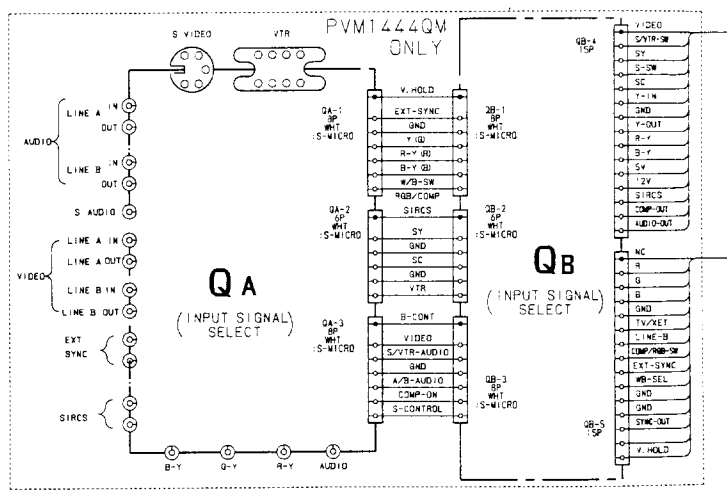
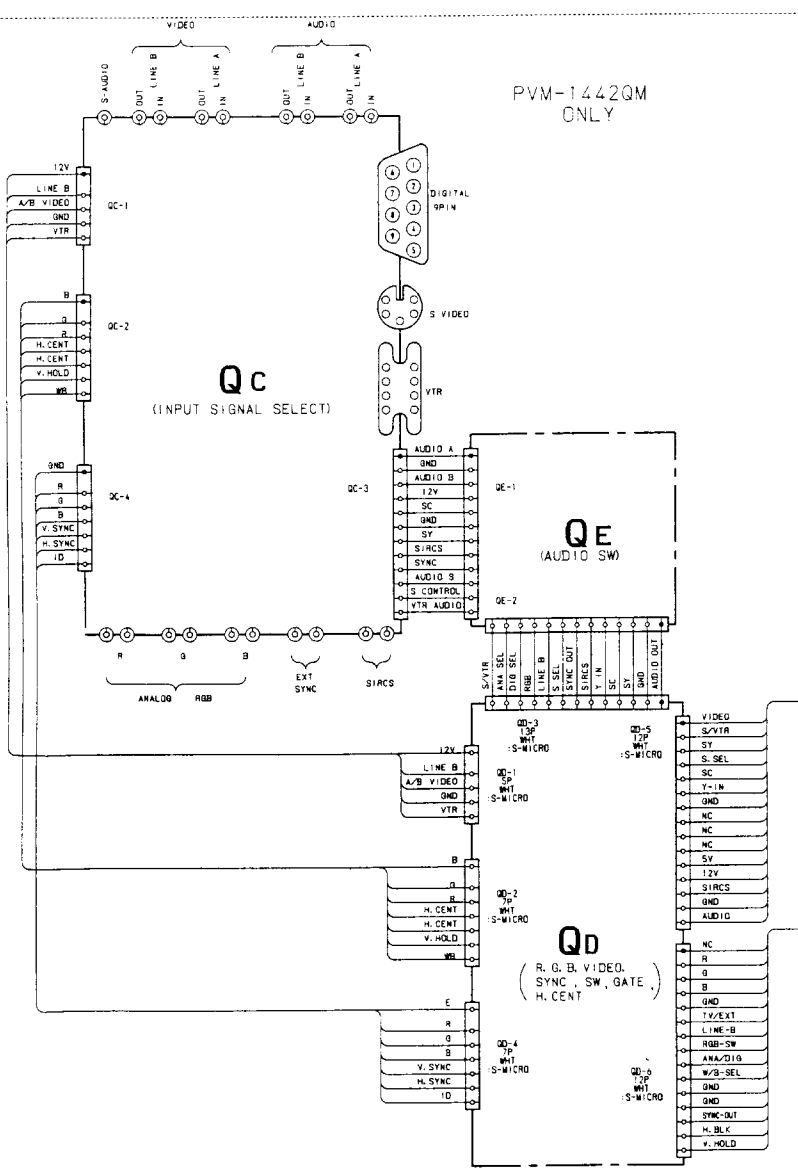
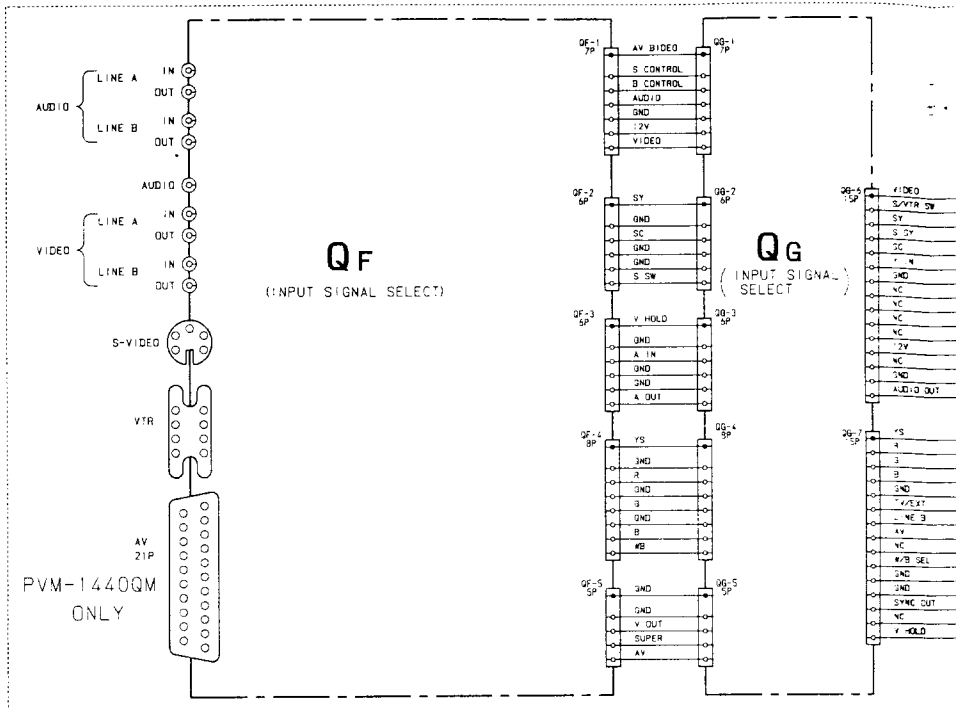


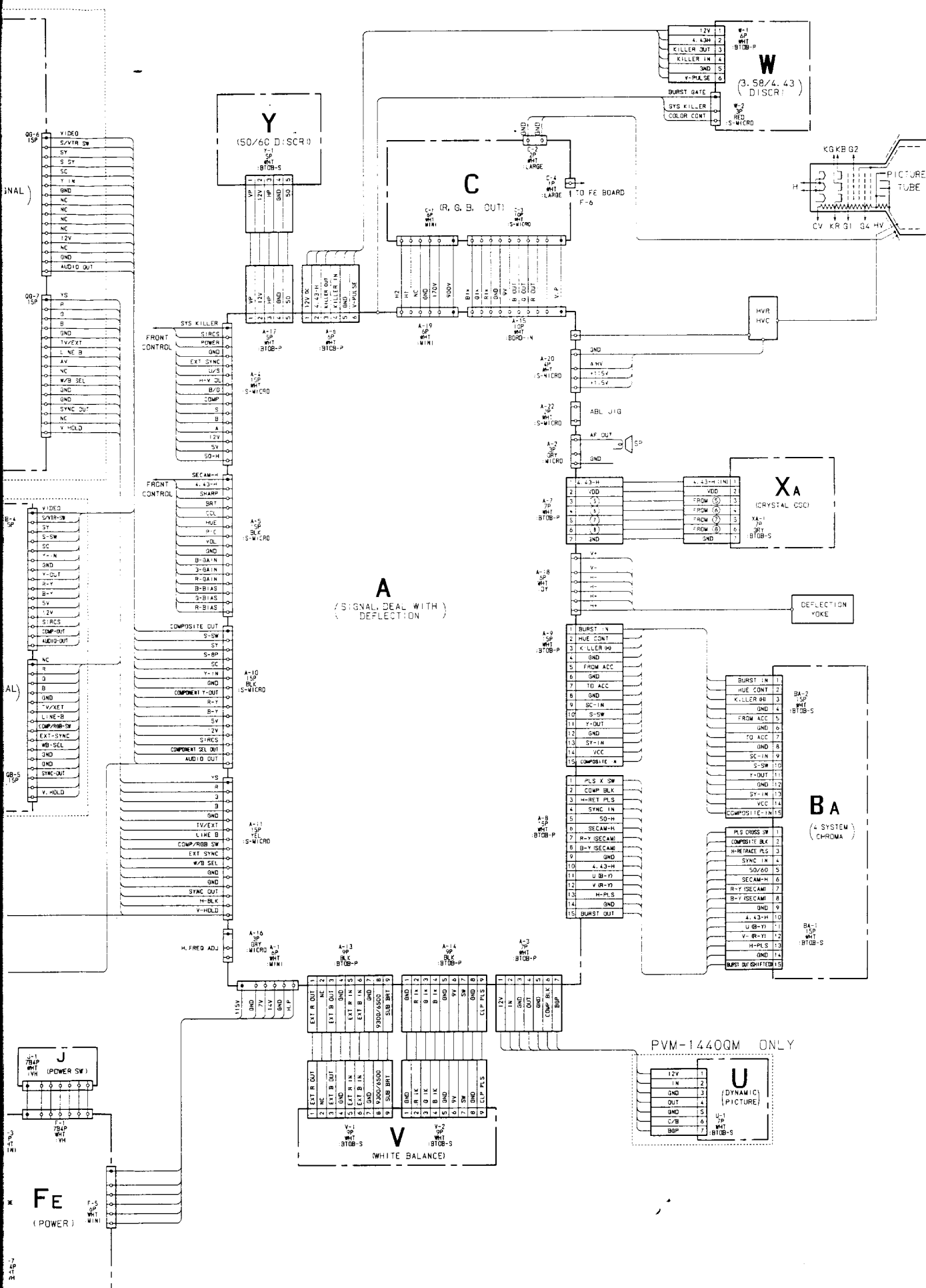
- (3) Connect an oscilloscope to pin ⑧ (B-Y) of BA-1 connector.



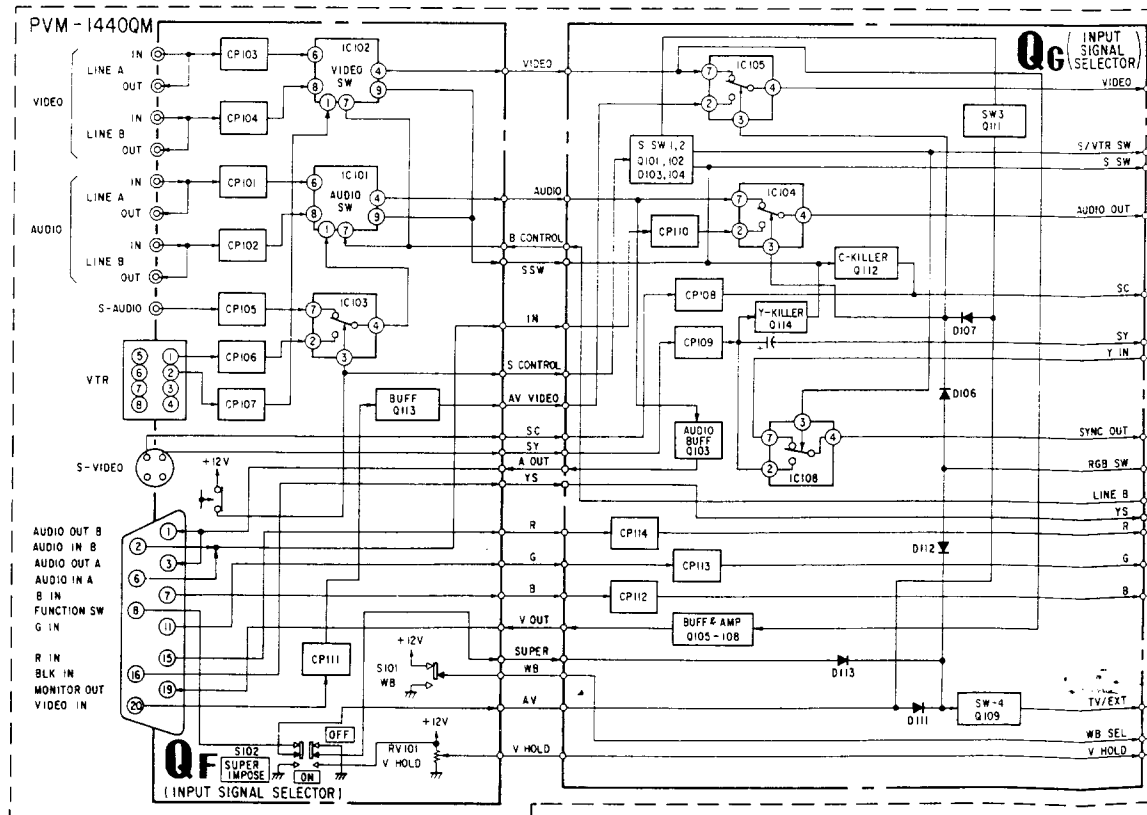
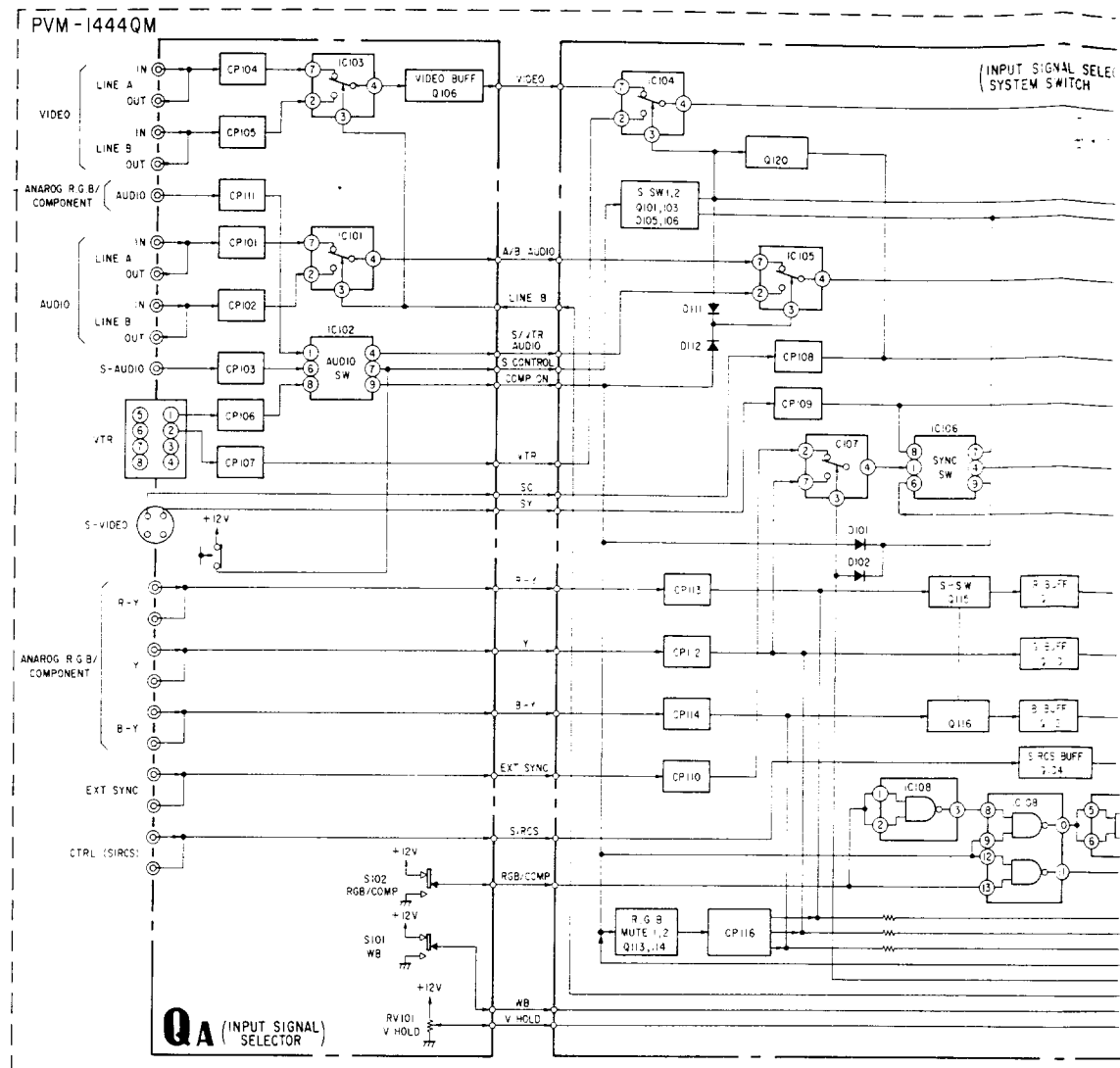
6-1. FRAME SCHEMATIC DIAGRAM

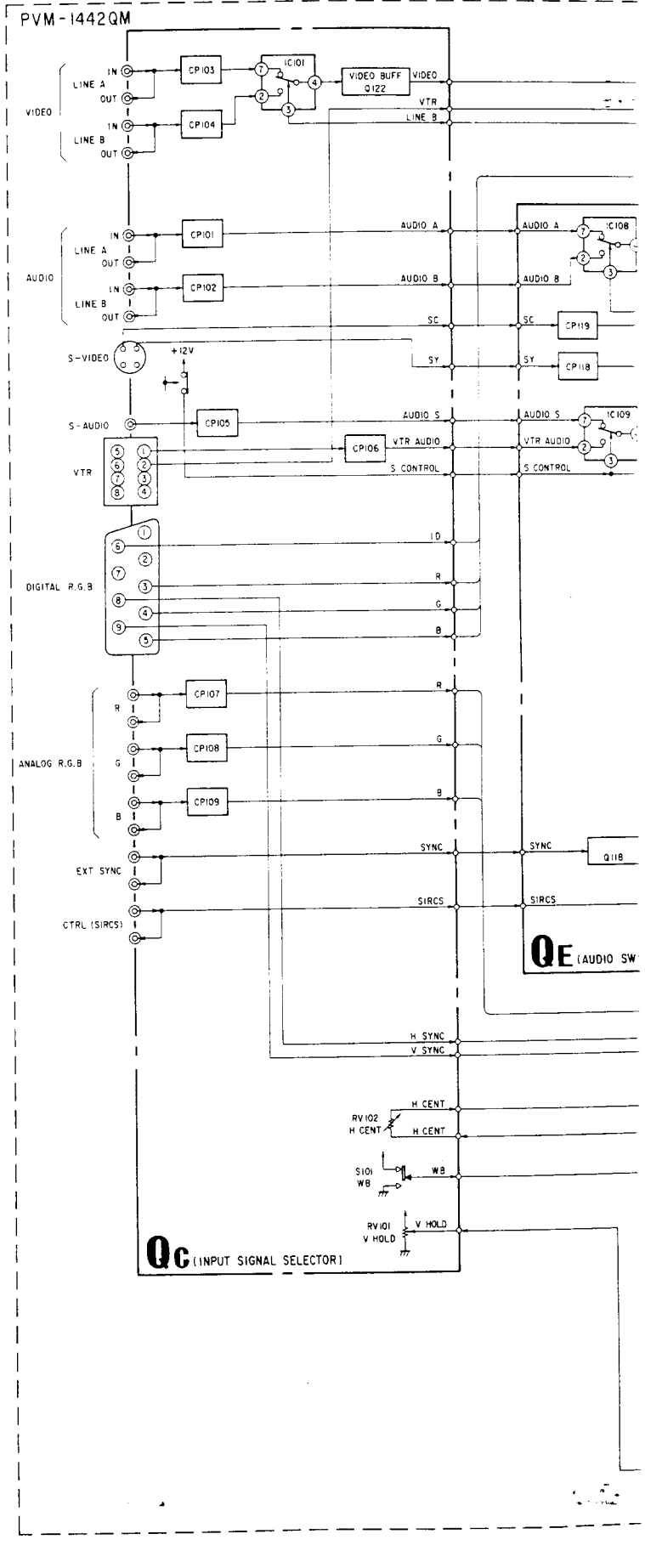
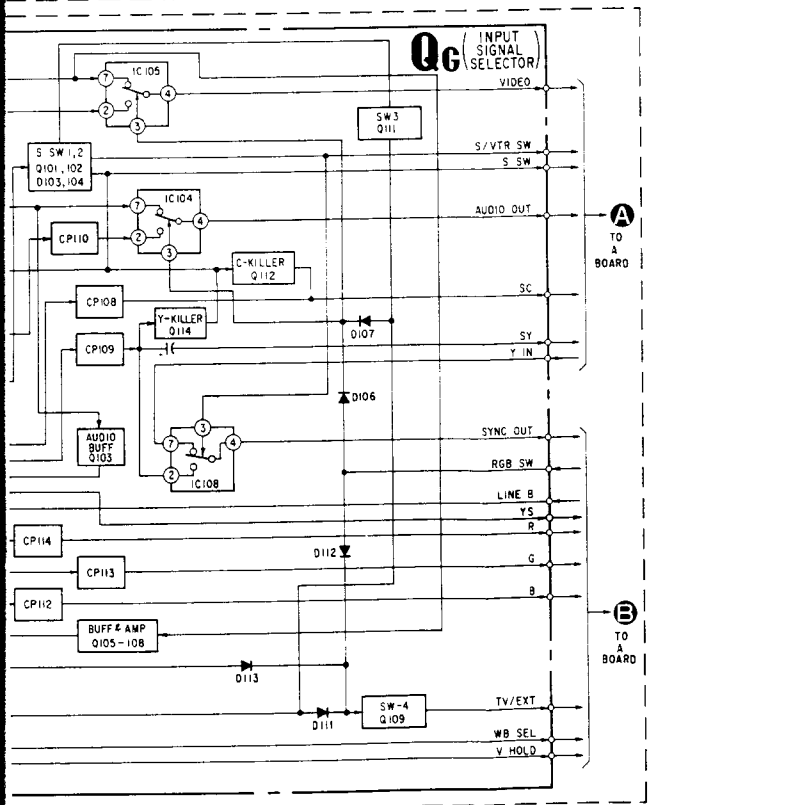
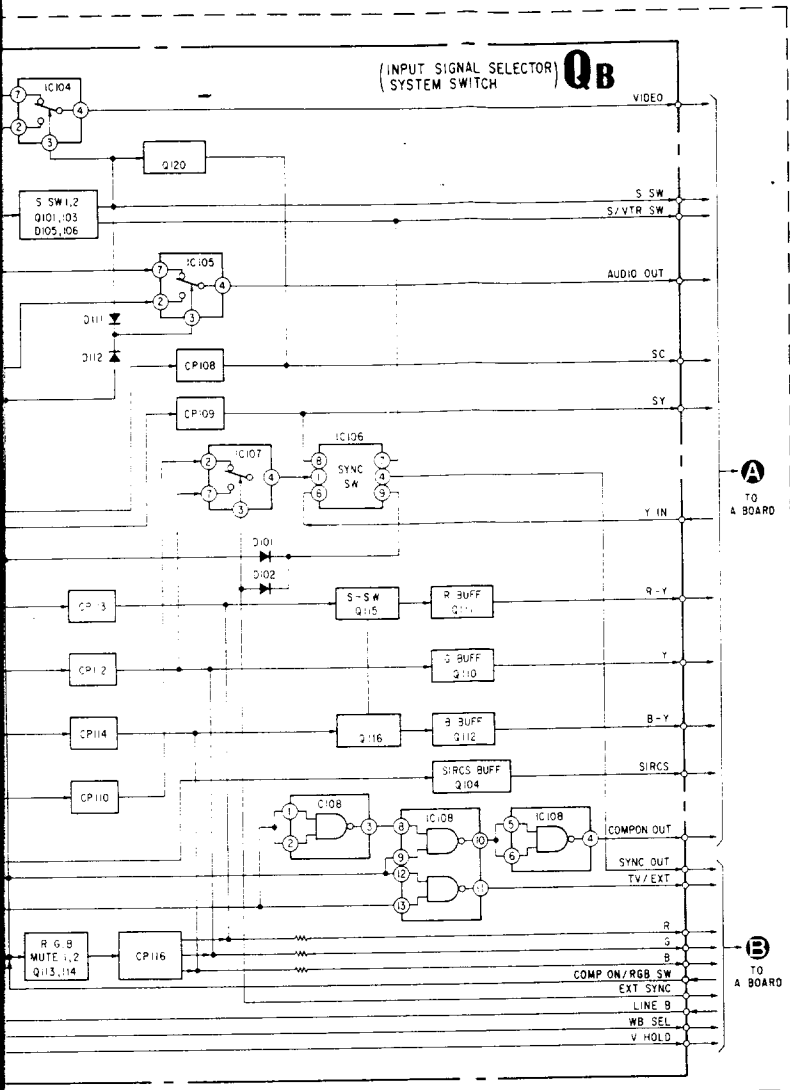
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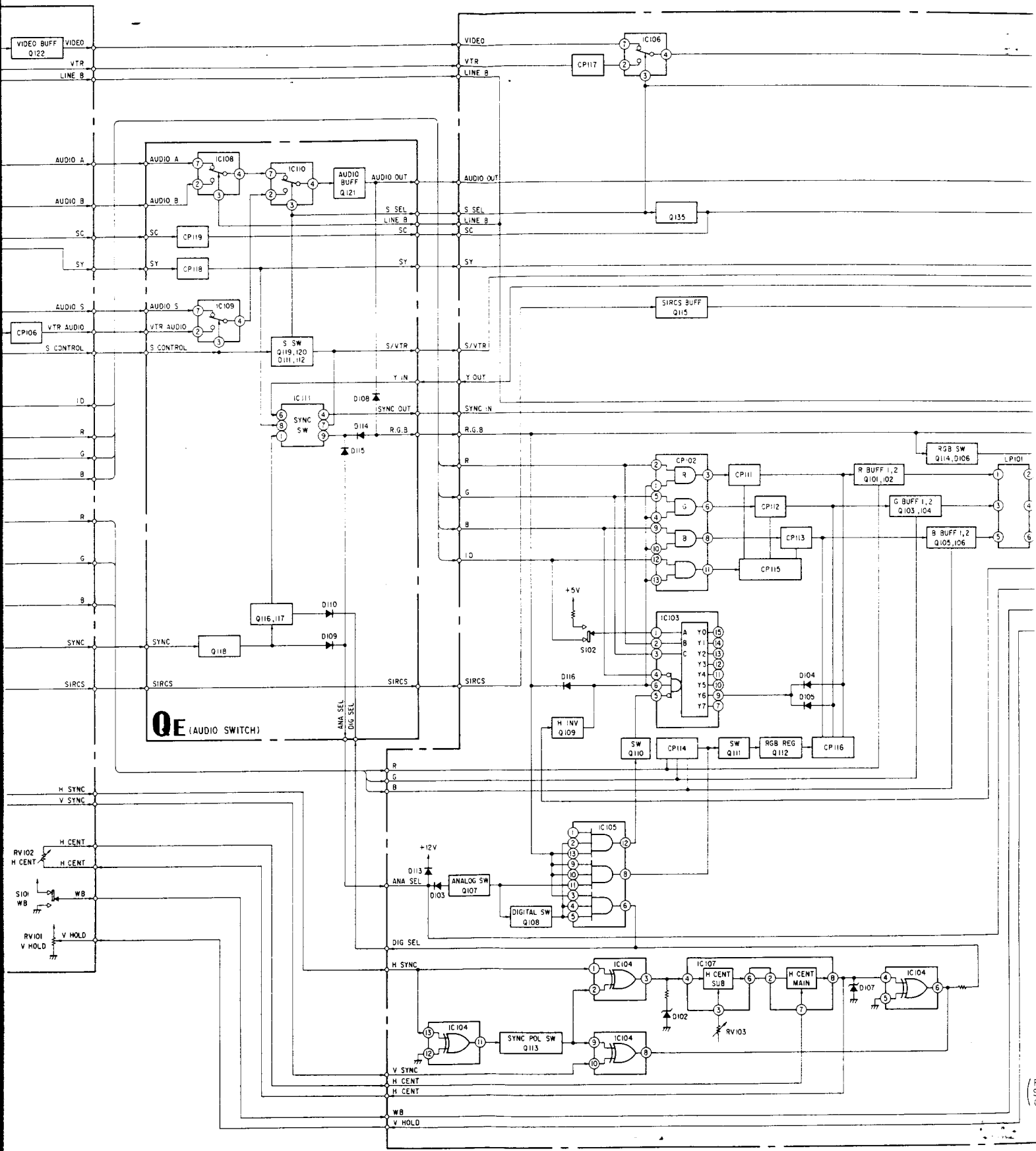


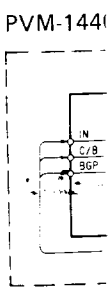
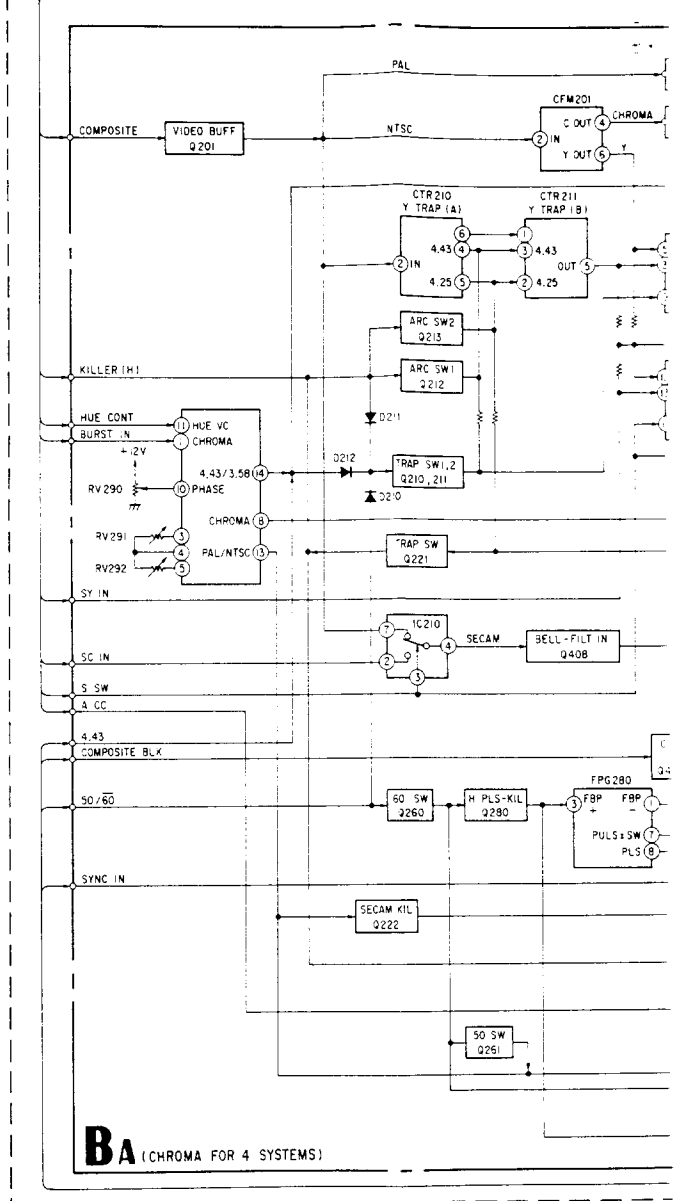
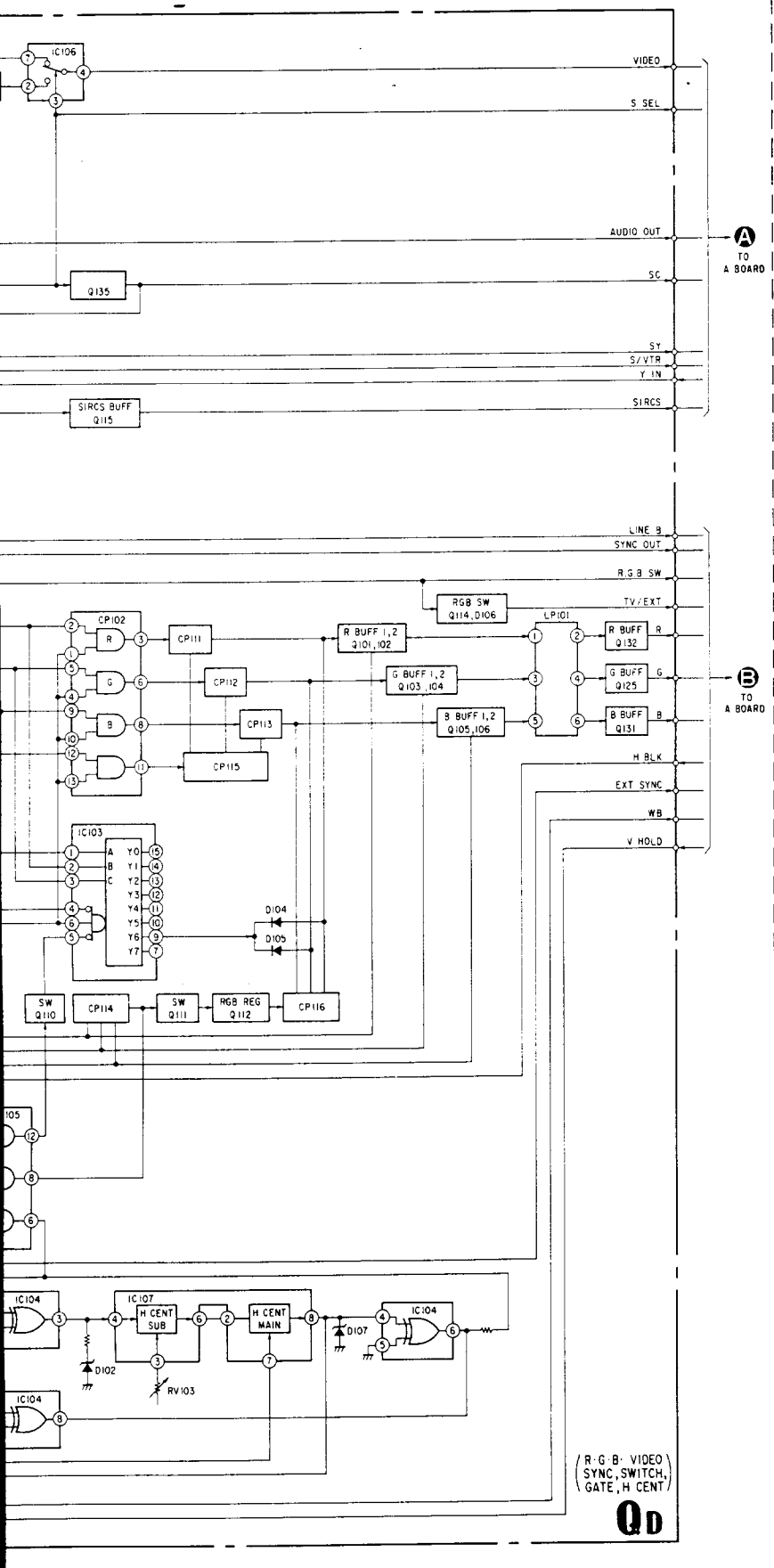


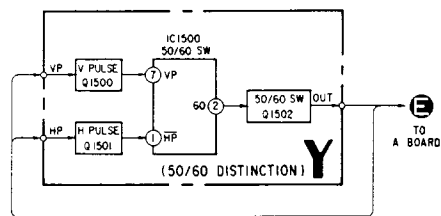
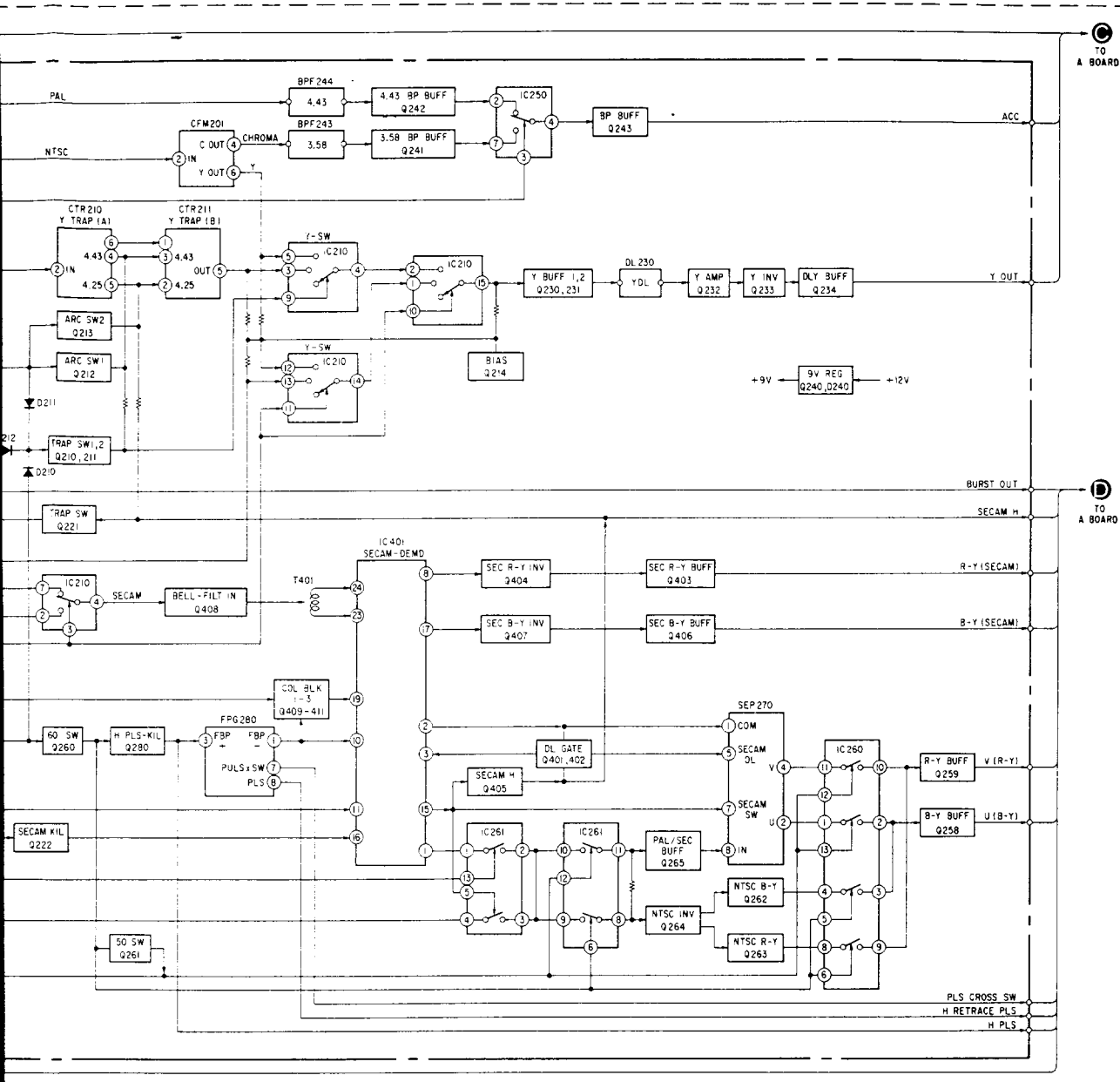
6-2. BLOCK DIAGRAMS



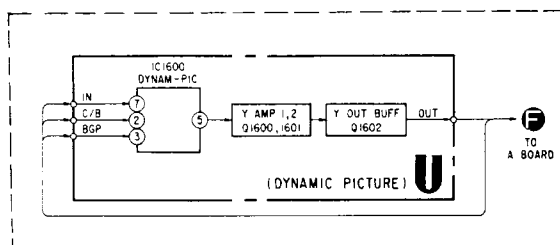




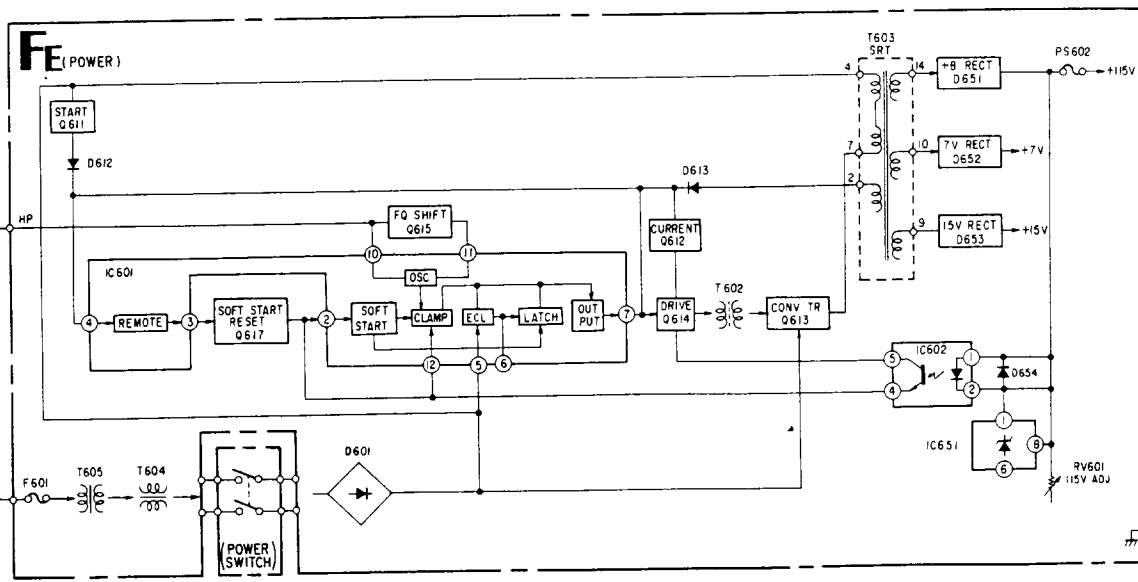
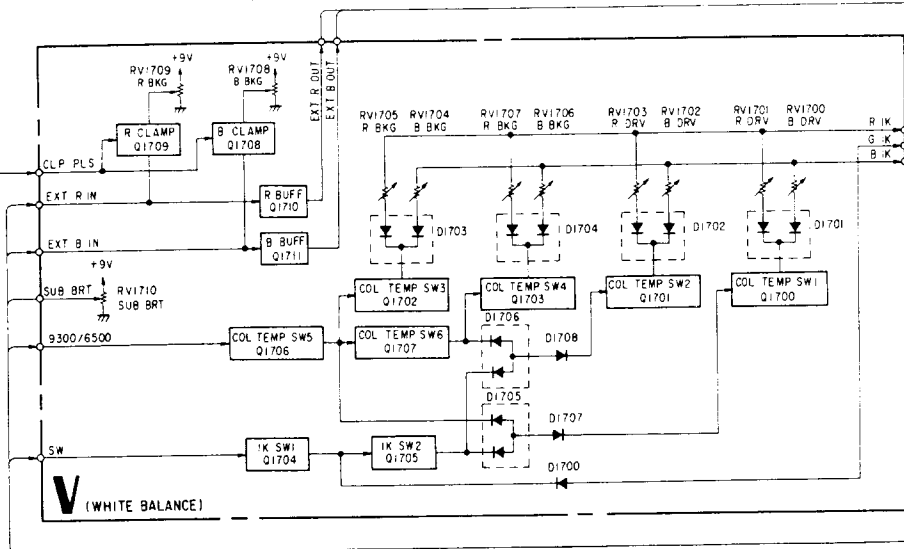
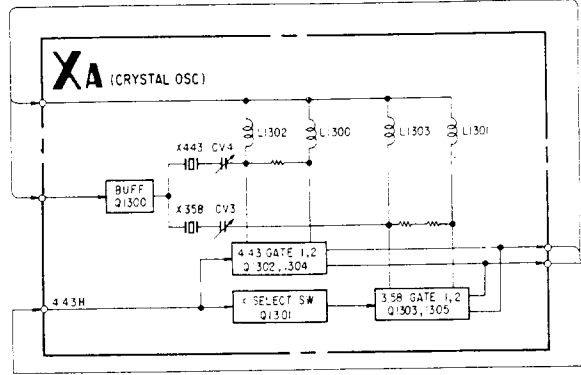
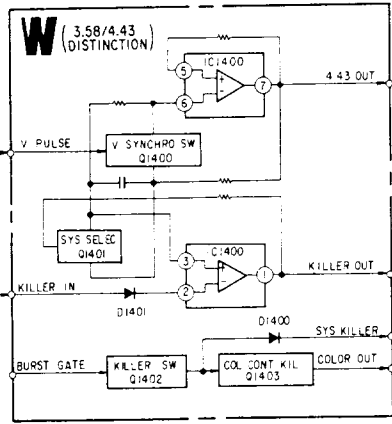




PVM-1440QM

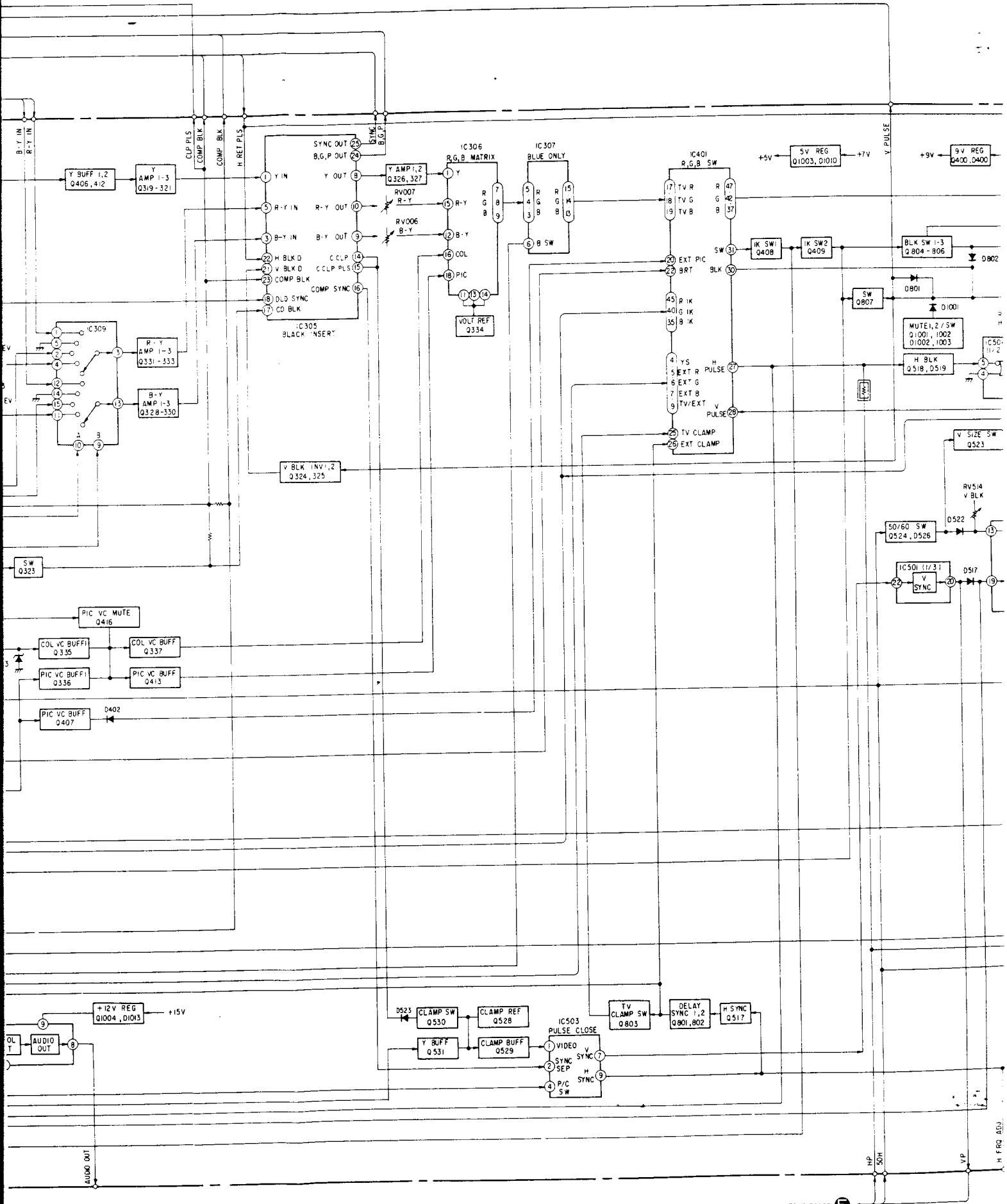


TO U BOARD (PVM-1440QM) **F**
 TO BA BOARD **D**
 TO BA BOARD **C**
 TO OB BOARD (PVM-1440QM)
 TO OD BOARD (PVM-1442QM)
 TO OC BOARD (PVM-1440QM) **A**

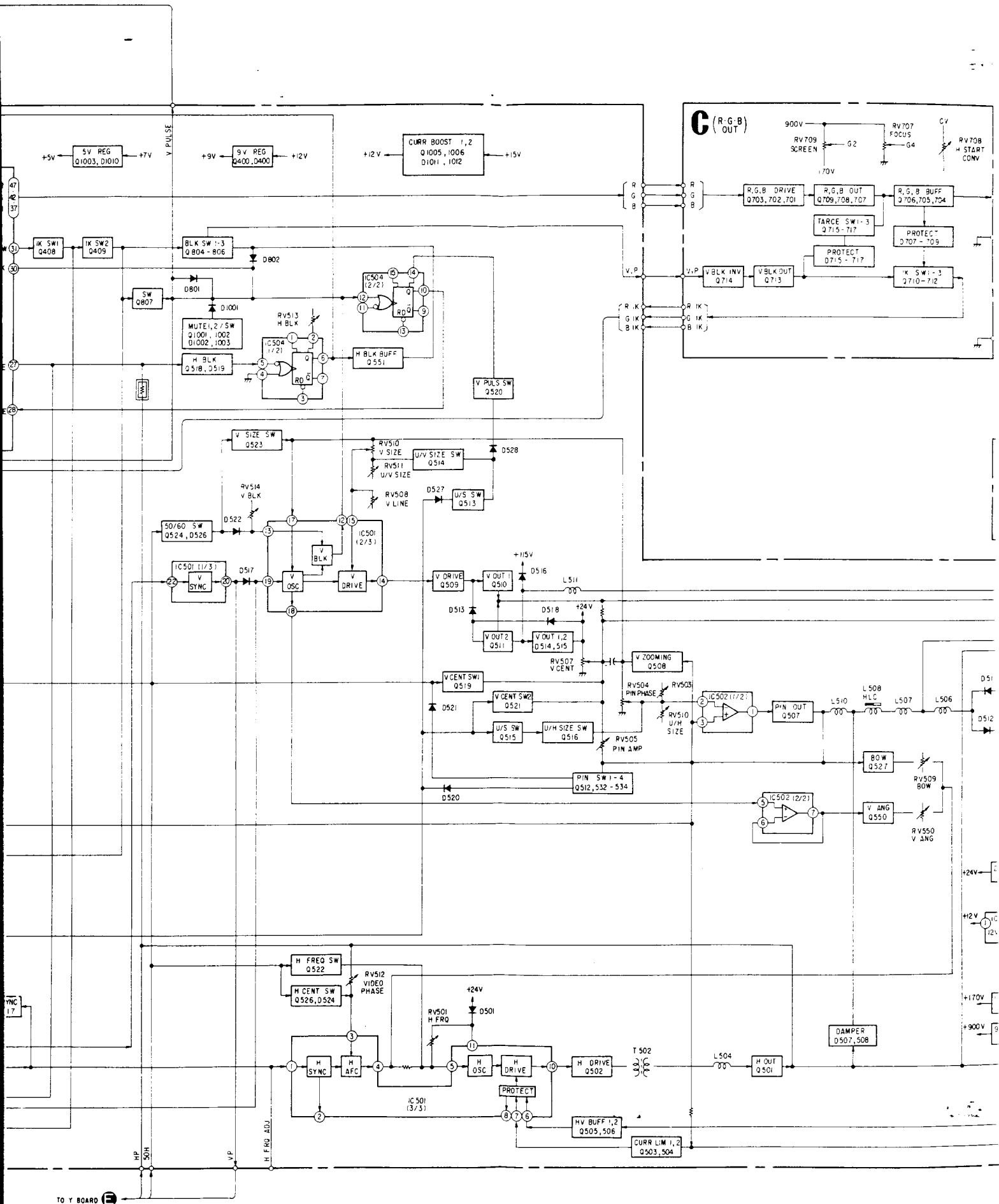


A-4
 SECAM H
 4.43 H
 SHARP
 BRT
 COL
 HUE
 VOL
 PIC
 GND
 B GAIN
 G GAIN
 R GAIN
 B BIAS
 G BIAS
 R BIAS
 TO CONTROL UNIT
 A-
 SYS KILLER
 SIRCS
 POWER
 GND
 EXT SYNC
 U/S
 H-V DL I
 B/O I
 COMP/RGB SW I
 S BP I
 LINE BI
 LINE AI
 +12V I
 +5V I
 50H I

TO OB BOARD (PVM-1440QM)
 TO OD BOARD (PVM-1442QM)
 TO OC BOARD (PVM-1440QM) **B**

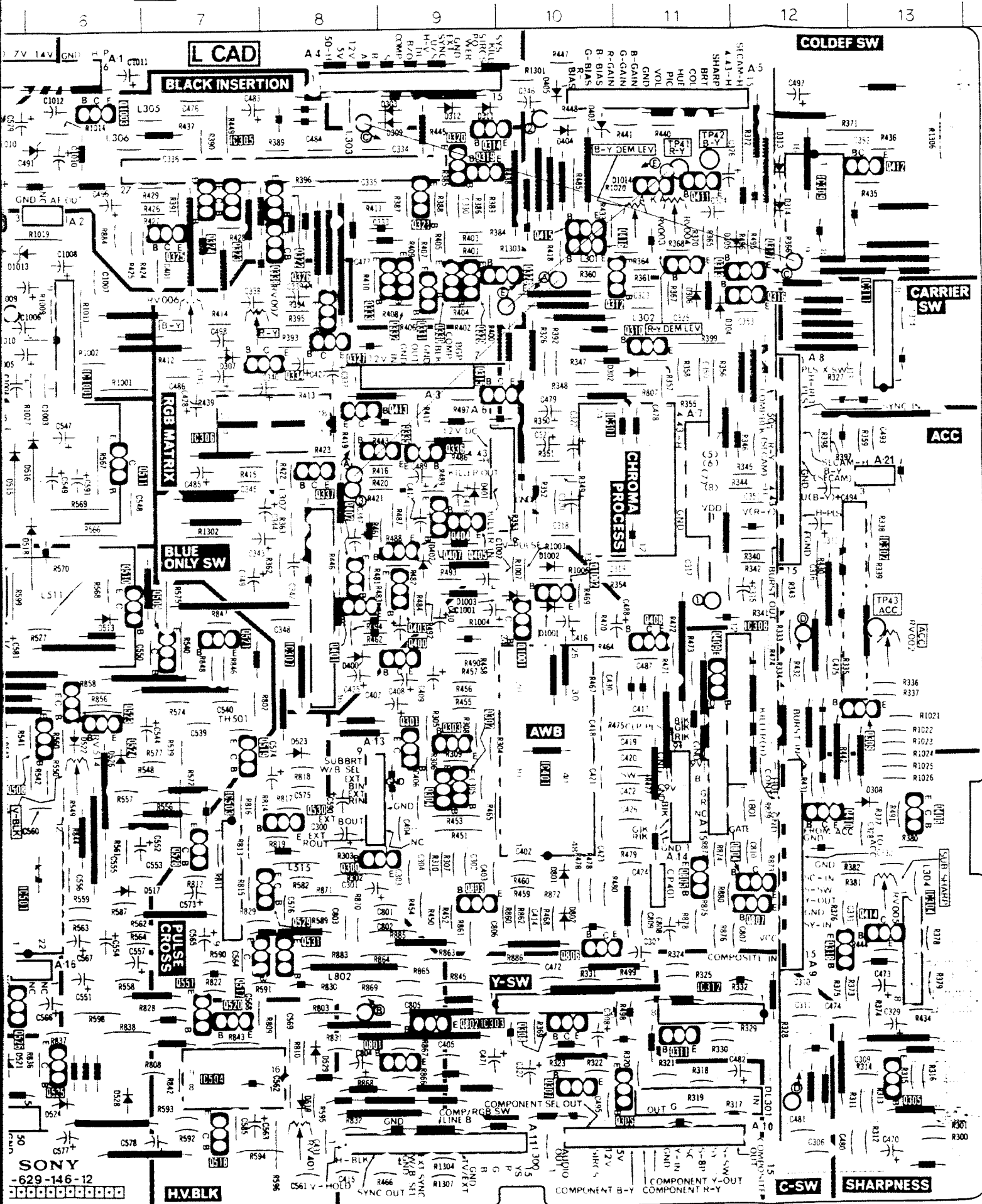


TO Y BOARD



A

[SIGNAL PROCESS, DEFLECTION SYSTEM]



U [DYNAMIC PICTURE]

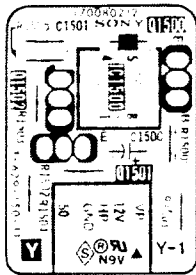
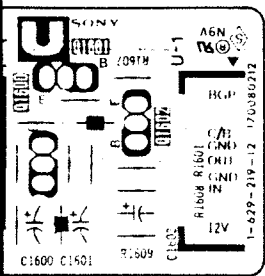
W [3.58/4.43 DISTINCTION]

XA [CRYSTAL OSC]

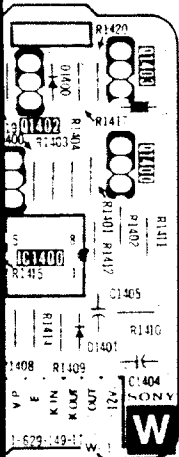
Y [50/60 DISTINCTION]

Board - (PVM-1440QM)

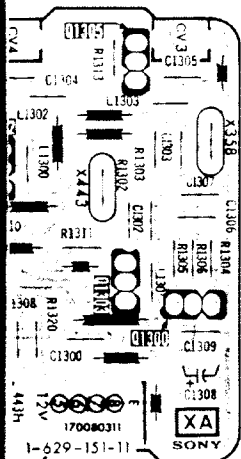
- Y Board -



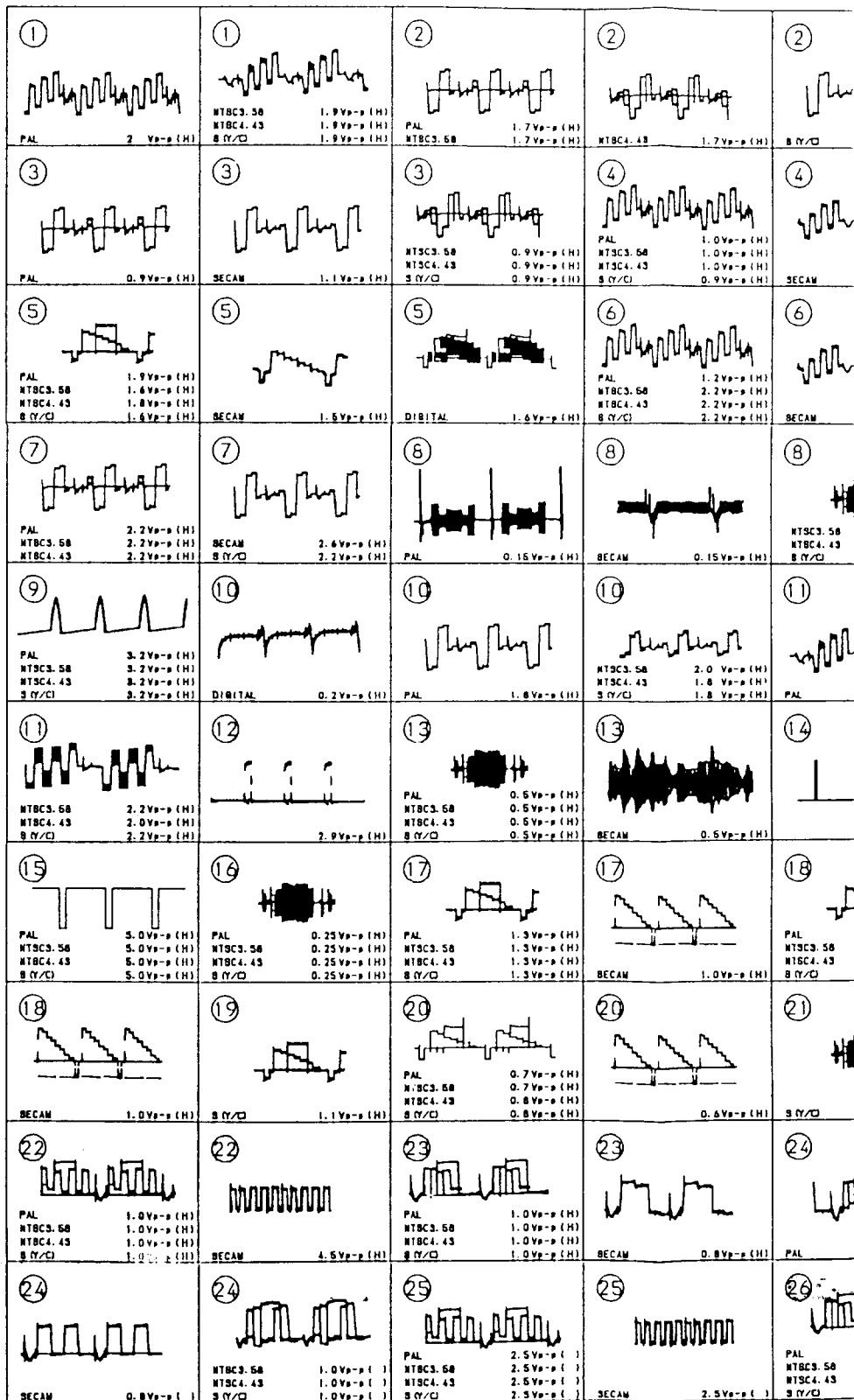
Board -



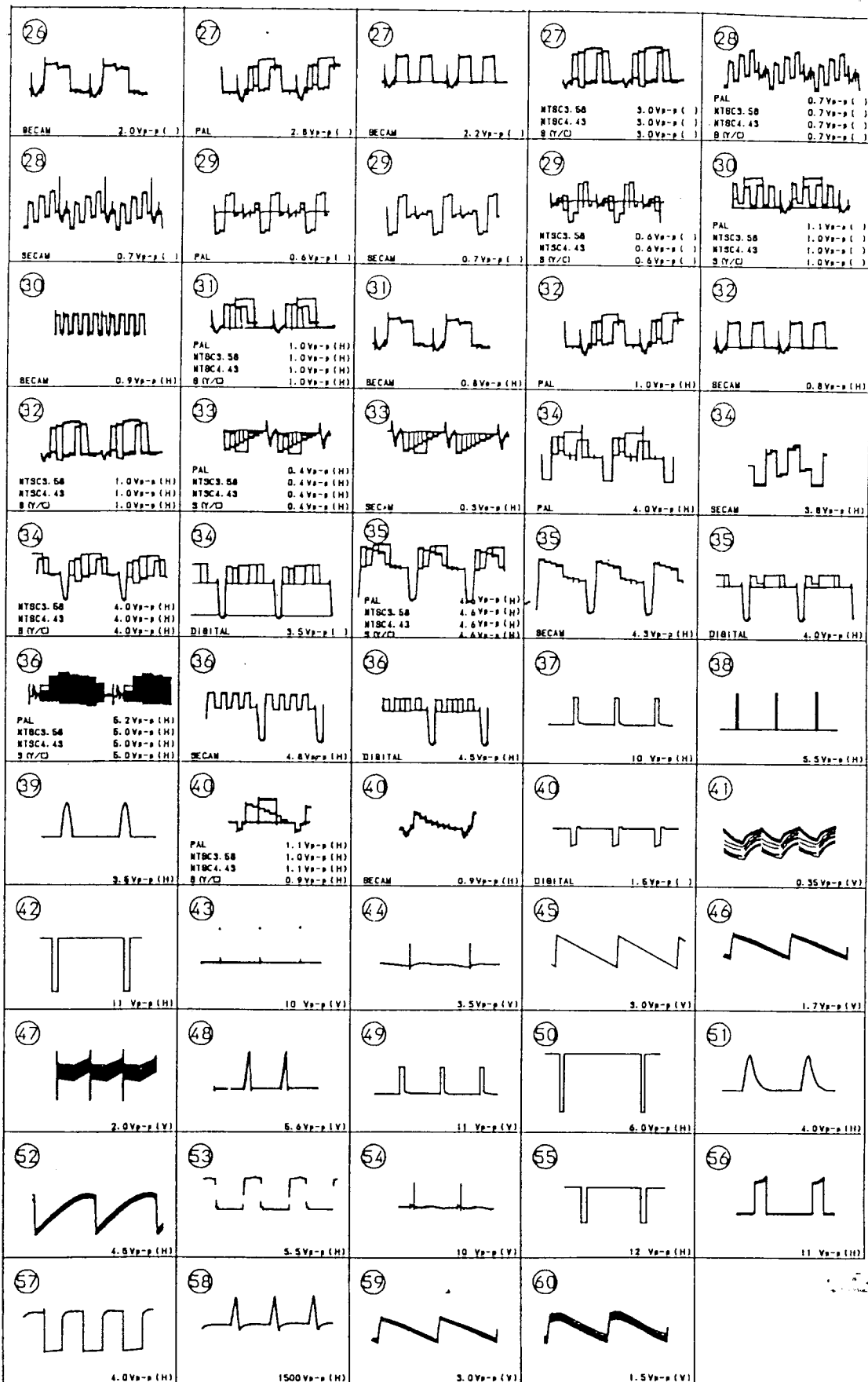
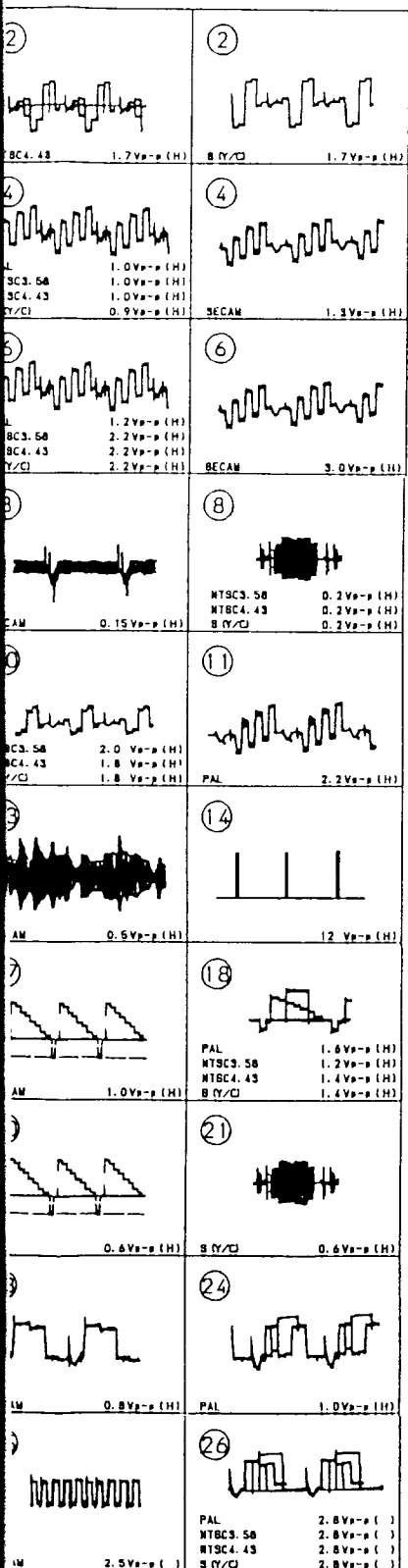
Board -

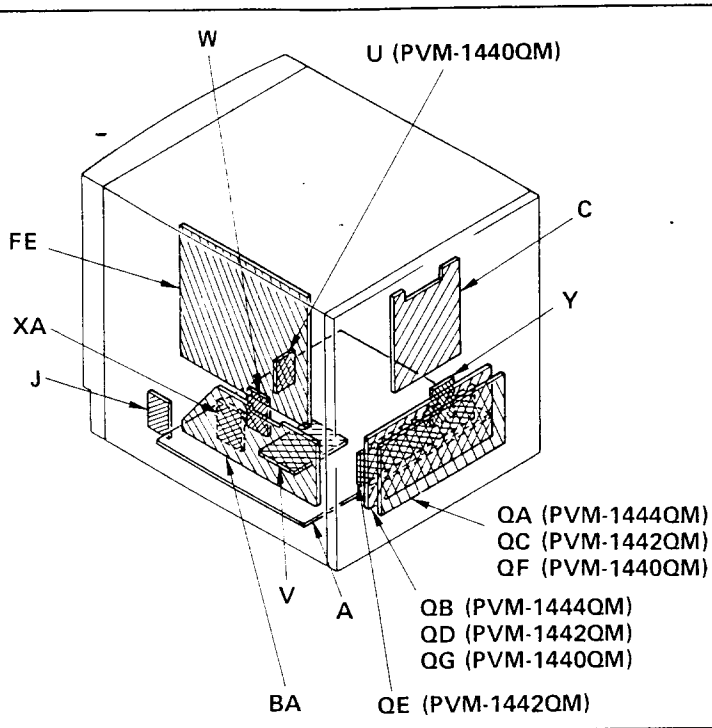


A BOARD WAVEFORM

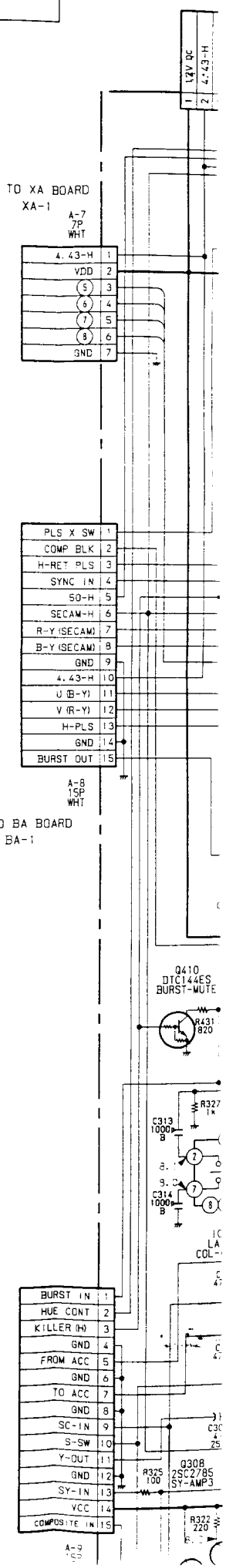


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The inner schematic diagrams (IC302, 304, 305, 307, 308, 503): See page 66-68



A BOARD

IC NO.	PIN NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
IC301	(1)	8.5	8.5	8.4	8.4	8.6	8
	(2)	8.4	8.2	8.4	8.4	8.4	2.2
	(3)	8.5	7.5	8.4	8.5	8.5	7.5
IC302	(1)	1.4	1.4	1.4	1.4	1.4	2.3
	(2)	0	0	0	0	3.8	0.4
IC303	(1)	0	2.8	2.8	2.8	2.4	2.4
	(2)	2.0	10.2	7.0	7.0	7.0	7.0
IC304	(1)	6.4	9.6	6.4	6.4	6.9	6.9
	(2)	6.9	10.2	6.9	6.9	6.9	6.9
	(3)	6.3	9.8	6.4	6.4	6.4	6.4
IC305	(1)	6.8	10.0	6.8	6.9	6.1	6.1
	(2)	7.9	9.5	7.4	6.1	6.1	6.1
	(3)	6.4	6.3	6.3	6.0	6.0	6.1
IC306	(1)	1.1	1.7	3.0	1.8	1.5	0
	(2)	5.1	10.5	2.1	2.1	9.1	0
	(3)	9.1	8.9	9.1	9.1	9.1	0
IC309	(1)	12.3	0.1	12.3	12.3	12.3	0
	(2)	7.1	10.5	9.1	9.1	9.1	0
	(3)	4.3	0	4.3	4.3	4.3	0
IC311	(1)	7.3	7.3	7.3	7.3	7.3	0.5
	(2)	0	0	0	0	4.9	0.5
	(3)	2.8	0.2	0.2	0.2	0.9	1.1
IC312	(1)	2.7	4.1	4.1	4.4	4.4	4.8
	(2)	5.3	5.3	5.3	5.3	5.3	0
	(3)	5.3	5.7	5.5	5.0	5.0	5.1
IC401	(1)	5.0	5.7	5.5	3.9	2.6	2.6
	(2)	4.3	1.5	1.5	0.8	0.6	0.6
	(3)	0.7	0.2	0.3	0	0	0
IC503	(1)	0.4	0.8	1.1	0.7	0.7	0.7
	(2)	0.5	0.2	0.3	0	0	0
	(3)	0.3	1.2	0.7	0.7	0.6	0.6

Note:
 All capacitors are in μF unless otherwise noted.
 pF: μF 50 WV or less are not indicated except for electrolytics.
 Indication of resistance, which does not have one for rating electrical power, is as follows.

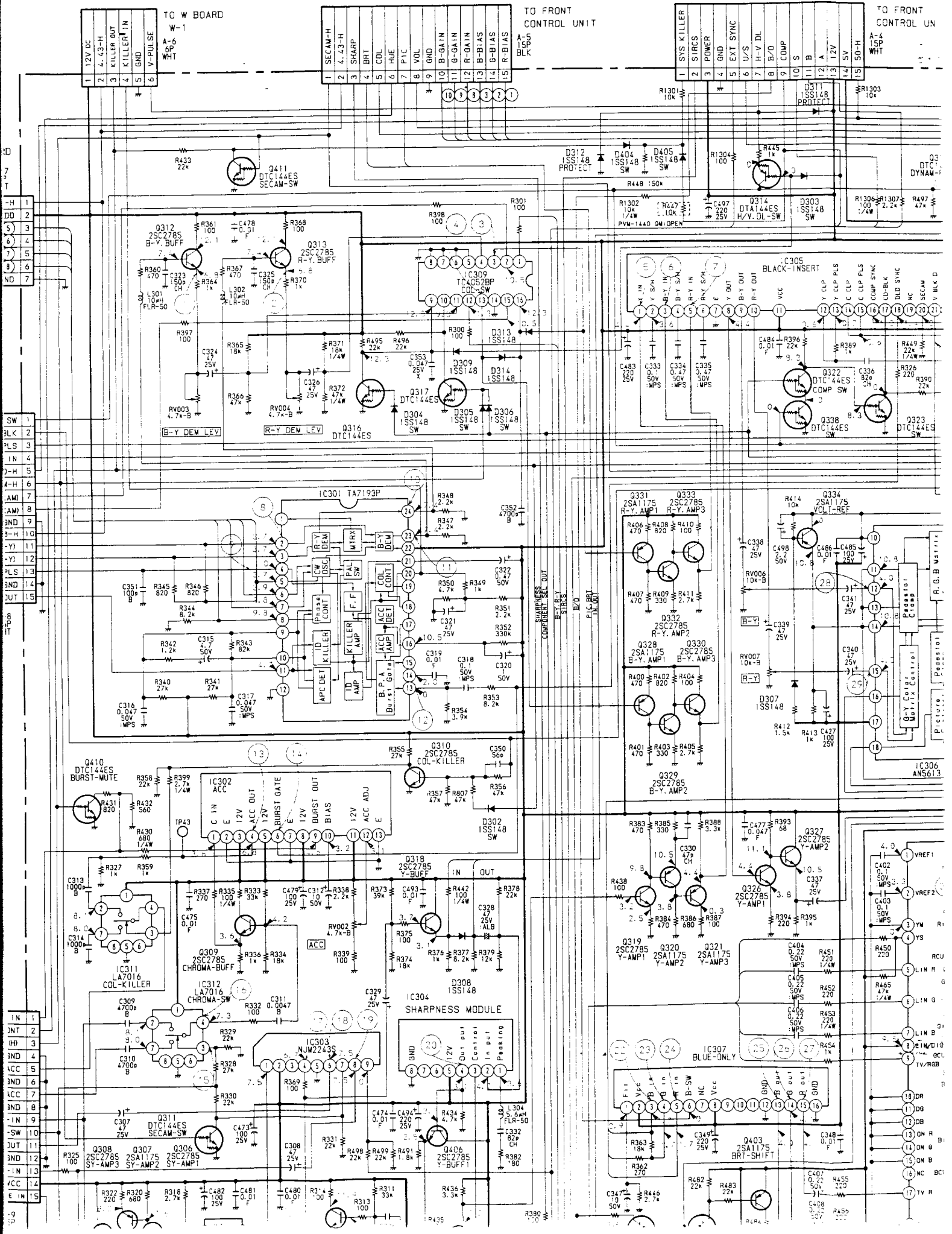
Pitch: 5 mm
 Rating electrical power 1/4W

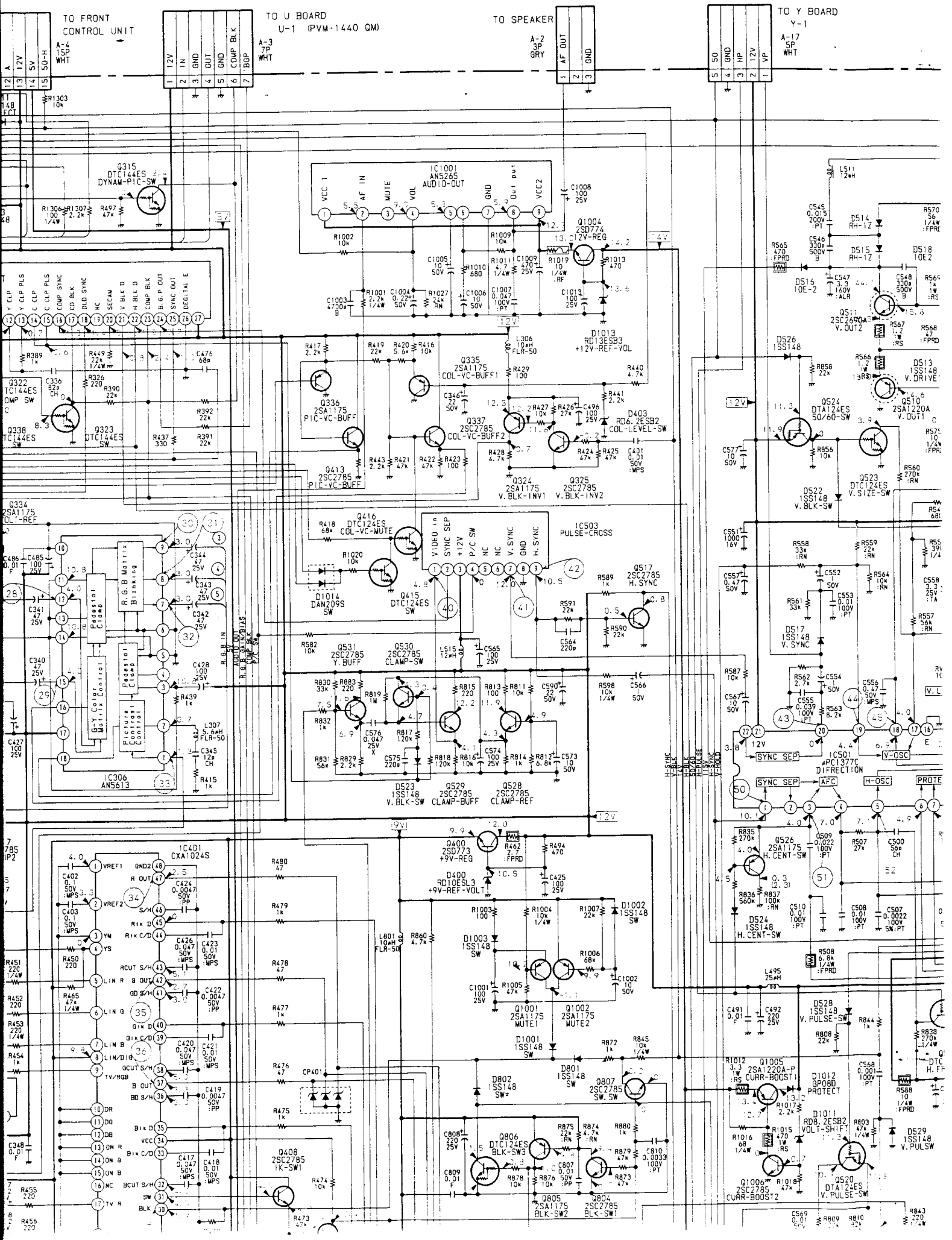
All resistors are in ohms.
 : nonflammable resistor.
 : fusible resistor.
 : internal component.
 : panel designation and adjustment for repair.
 All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
 When replacing the part in below table be sure to perform the related adjustment.

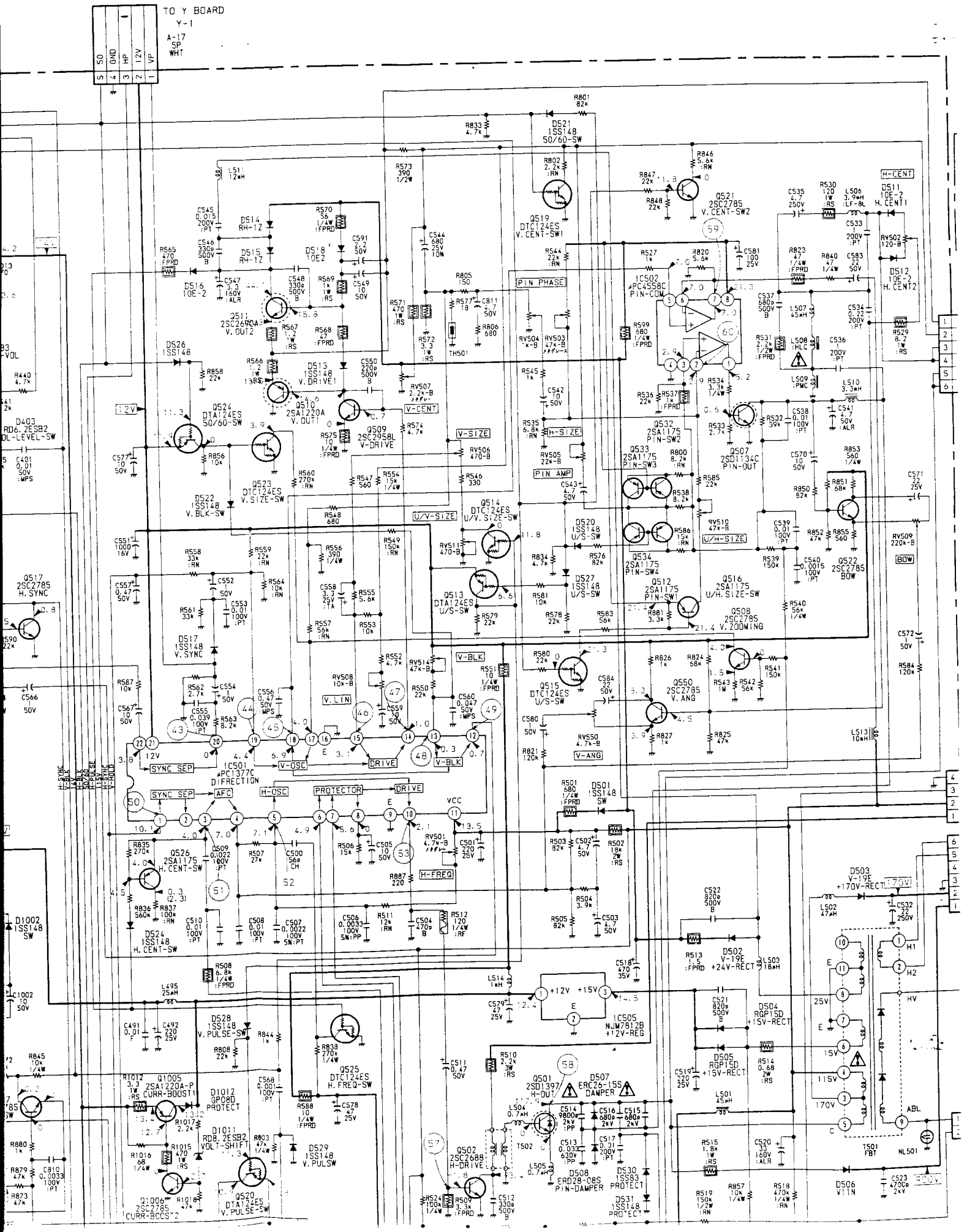
Part replaced	Adjustment (※)
IC501, Q503, Q504, Q505, Q506, D509, D510, C505, C520, C524, C525, C526, C527, C528, C529, C530, C531, R500, R506, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R528, R804, NL501, HVR	R500 (HOLD-DOWN)

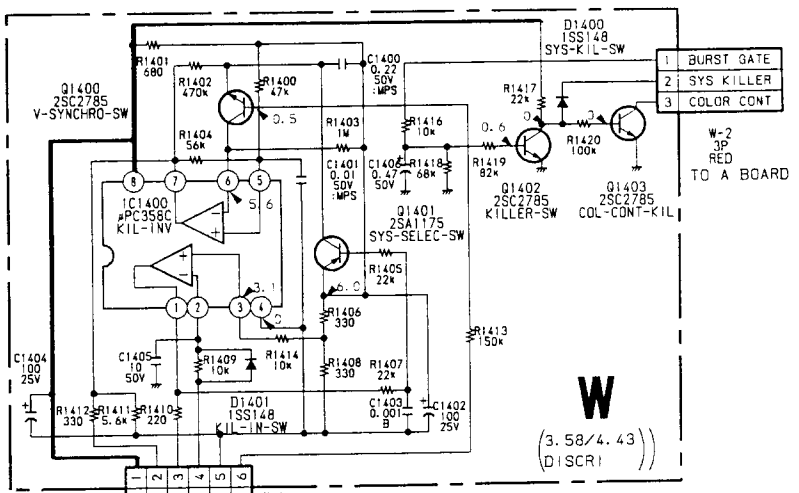
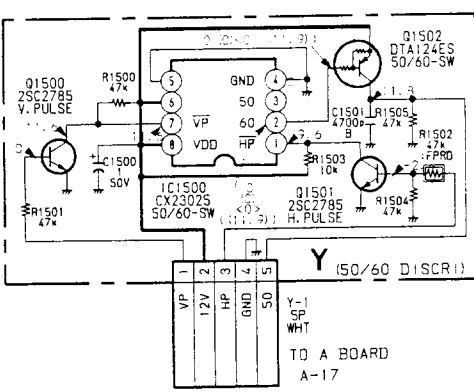
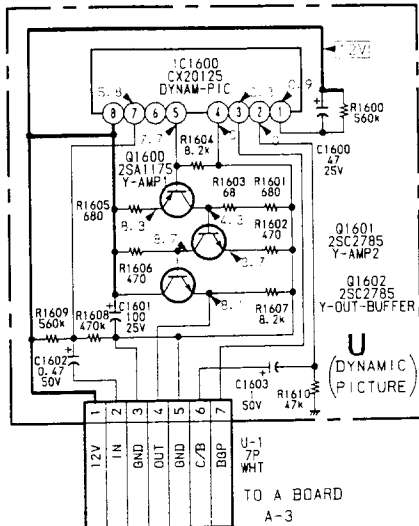
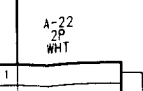
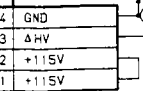
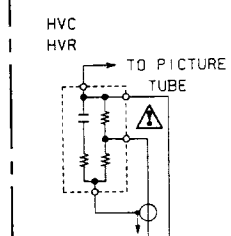
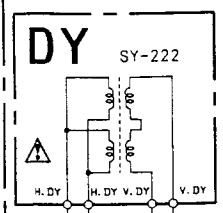
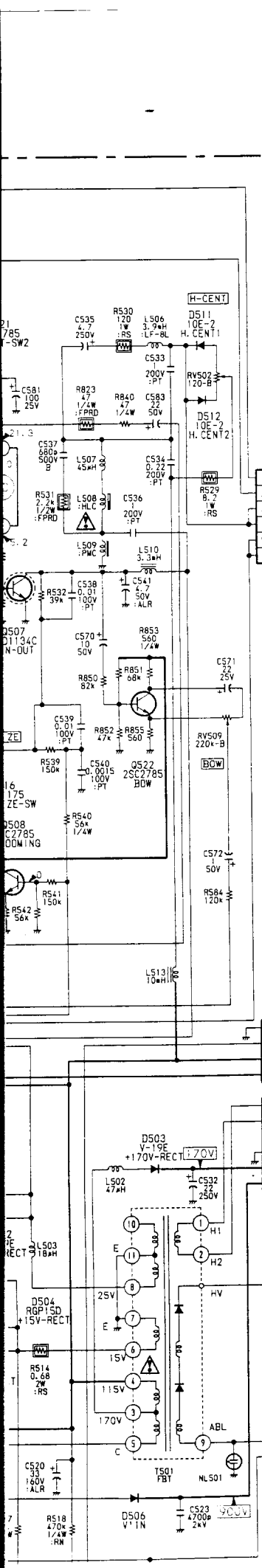
All voltages are in V.
 Voltage are dc with respect to ground unless otherwise noted.
 Readings are taken with a color-bar signal input.
 Readings are taken with a PAL color-bar signal input.
 Voltage variations may be noted due to normal production tolerance.
 ——— : B+ bus.
 - - - : B- bus.
 : signal path.
 No mark : with PAL color-bar signal received or common voltage.
 : with SECAM color-bar signal received.
 : with NTSC 3.58 color-bar signal received.
 : with NTSC 4.43 color-bar signal received.

Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
Q310	B	4.3	0	4.3	4.3	0
	C	0.2	0	0.2	0.2	0
	E	0	0	0	0	0
Q316	B	0	0.2	0.3	0	0
	C	0	11.7	0.3	0	0.3
	E	12.3	0.1	12.3	12.3	12.3
Q317	B	0	0.2	0.3	0	0
	C	0	0.2	0.3	0	0
	E	0	0.2	0.3	0	0
Q322	B	0	0.2	0.3	0	0
	C	0	0.2	0.3	0	0
	E	0	0.2	0.3	0	0
Q323	B	9.1	10.5	7.1	7.1	0
	C	2.5	10.2	2.5	2.5	0
	E	9.3	10.2	3.2	3.2	0
Q328	B	2.5	10.5	2.5	2.5	0
	C	2.4	10.2	2.5	2.5	0
	E	2.5	10.2	2.5	2.5	0
Q329	B	2.5	10.5	2.5	2.5	0
	C	2.4	10.2	2.5	2.5	0
	E	2.5	10.2	2.5	2.5	0
Q330	B	2.5	10.5	2.5	2.5	0
	C	2.4	10.2	2.5	2.5	0
	E	2.5	10.2	2.5	2.5	0
Q331	B	2.1	10.5	2.1	2.1	0
	C	2.1	10.2	2.1	2.1	0
	E	2.1	10.2	2.1	2.1	0
Q332	B	2.1	10.5	2.1	2.1	0
	C	2.1	10.2	2.1	2.1	0
	E	2.1	10.2	2.1	2.1	0
Q333	B	2.1	10.5	2.1	2.1	0
	C	2.1	10.2	2.1	2.1	0
	E	2.1	10.2	2.1	2.1	0





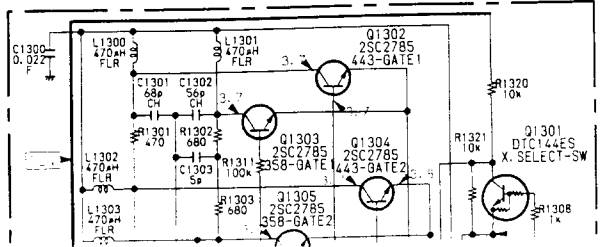




W BOARD

IC-NO	PIN-NO	PAL	SECAM	NTSC 3.58	NTSC 4.43
IC1400	(1)	0.6	11.0	11.0	0.6
	(2)	B.3	2.2	2.2	B.4
	(3)	B.2	3.8-7.1	4.5-7.3	B.3
	(7)	10.9			10.9




Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43
Q1400	B			
	C			
	E	6.0	6.0	6.1
Q1401	B	5.4	10.9	10.9
	C	6.0	4.5-7.3	4.5-7.3
	E			
Q1403	B	7.0	6.8	5.9
	C			
	E			






Note :

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5 mm
Rating electrical power 1/4W


- All resistors are in ohms.
-  : nonflammable resistor.
-  : fusible resistor.
- Δ : internal component.
-  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- When replacing the part in below table be sure to perform the related adjustment.

Part replaced	Adjustment (※)
IC501, Q503, Q504, Q505, Q506, D509, D510, C505, C520, C524, C525, C526, C527, C528, C529, C530, C531, R500, R506, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R528, R804, NL501, HVR	R500 (HOLD-DOWN)

- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a PAL color-bar signal input.
- Voltage variations may be noted due to normal production tolerance.
-  : B+ bus.
-  : B- bus.
-  : signal path.
- No mark : with PAL color-bar signal received or common voltage.
- () : with SECAM color-bar signal received.
- < > : with NTSC 3.58 color-bar signal received.
- << >> : with NTSC 4.43 color-bar signal received.
- [] : with S (Y/C) color-bar signal received.
- { } : with disital (9 pin in) color-bar signal received.
- ※ : measurement impossibility.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE WIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
IC301	8.4	8.4	8.4	8.4	8.4	8.4
IC302	8.4	8.4	8.4	8.4	8.4	8.4
IC303	8.4	8.4	8.4	8.4	8.4	8.4
IC304	8.4	8.4	8.4	8.4	8.4	8.4
IC305	8.4	8.4	8.4	8.4	8.4	8.4
IC306	8.4	8.4	8.4	8.4	8.4	8.4
IC309	8.4	8.4	8.4	8.4	8.4	8.4
IC311	8.4	8.4	8.4	8.4	8.4	8.4
IC312	8.4	8.4	8.4	8.4	8.4	8.4
IC401	8.4	8.4	8.4	8.4	8.4	8.4
IC503	8.4	8.4	8.4	8.4	8.4	8.4

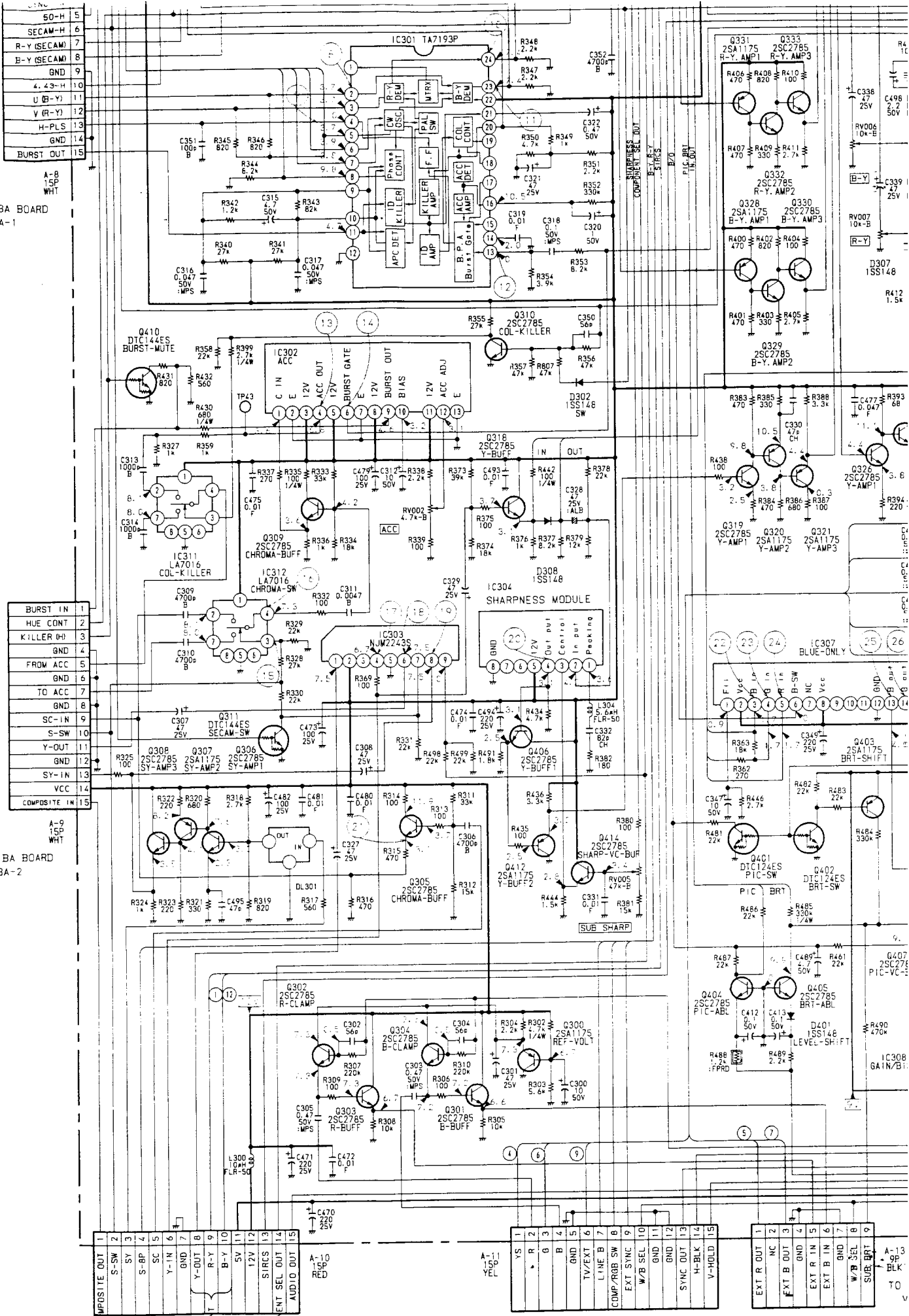
Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO	DIGITAL
Q310	4.3	0	4.3	4.3		
Q316	0	0.2	0.3	0	0	0
Q317	0	11.7	0.3	0	0.3	0
Q322	0	0.2	0.3	0	0	0
Q323	0	0.2	0.3	0	0	0
Q328	9.1	10.5	9.1	9.1		
Q329	2.5	1.2	2.5	2.5		
Q330	12.1	11.9	12.1	12.1		
Q331	9.1	10.5	9.1	9.1		
Q332	7.5	10.8	7.5	7.5		
Q333	12.1	11.9	12.1	12.1		
Q335	7.4	7.4	6.6	6.6		
Q336	9.5	9.5	9.5	9.5		
Q337	6.4	6.4	6.4	6.4		
Q401	7.9	7.9	7.9	7.9		
Q404	7.6	7.6	7.6	7.6		
Q405	4.0	4.0	4.0	4.0		
Q407	7.5	7.5	7.5	7.5		
Q411	0.5	0.5	0.5	0.5		
Q413	6.6	6.6	6.6	6.6		
Q415	7.9	7.9	7.9	7.9		
Q416	0.3	0.3	0.3	0.3		
Q507	12.3	12.3	12.3	12.3		
Q514	3.9	3.9	3.9	3.9		
Q532	3.9	3.9	3.9	3.9		
Q534	3.9	3.9	3.9	3.9		

50
SECAM
R-Y (SEC)
B-Y (SEC)
G
4.43
U (B-)
Y (R-)
H-P
G
BURST 0

TO BA BOARD
BA-1

BURST
HUE CO
KILLER ()
G
FROM A
G
TO A
G
SC-
S-
Y-0
G
SY-
V
COMPOSITE

TO BA BOARD
BA-2



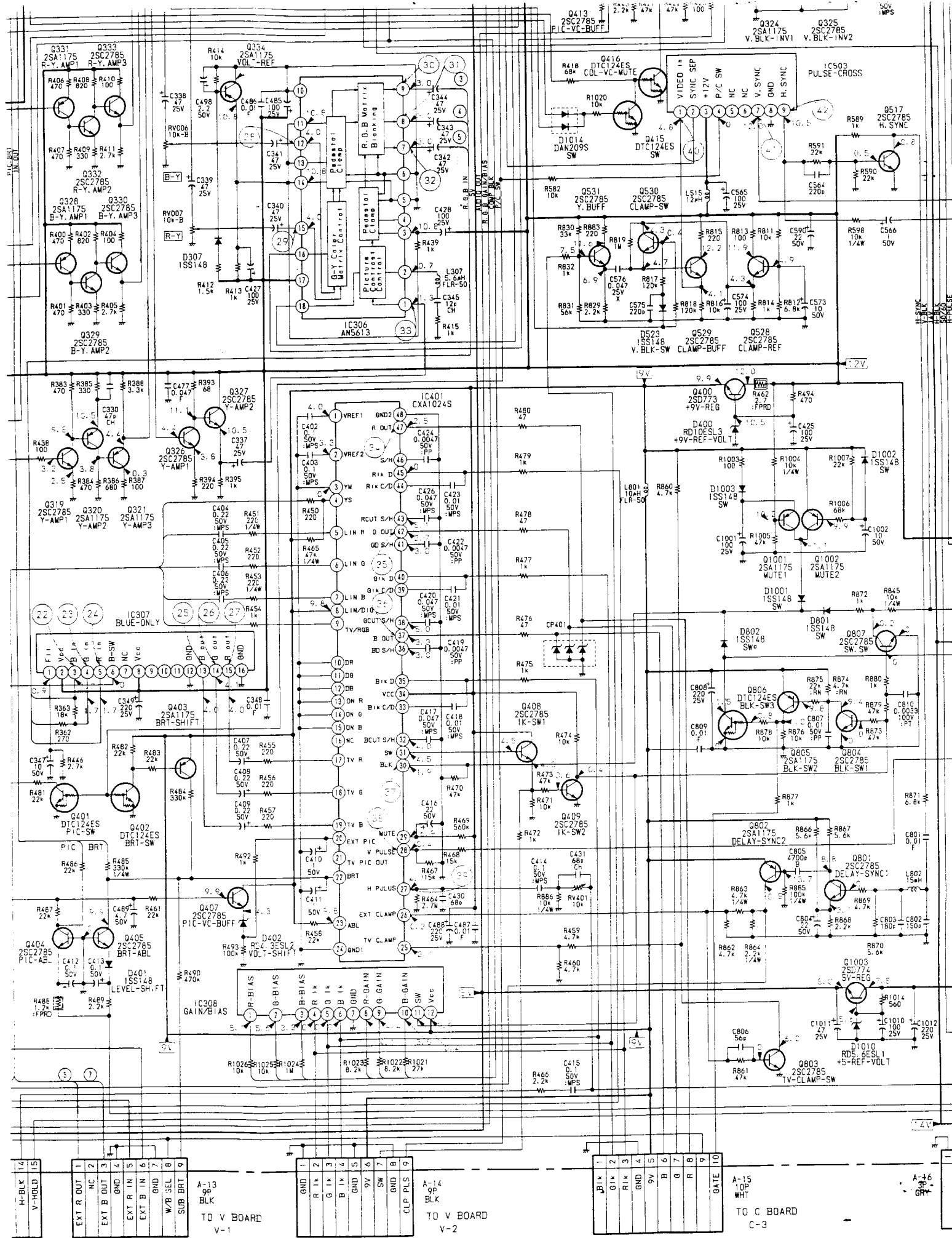
50-H	5
SECAM-H	6
R-Y (SECAM)	7
B-Y (SECAM)	8
GND	9
4.43-H	10
U (B-Y)	11
V (R-Y)	12
H-PLS	13
GND	14
BURST OUT	15

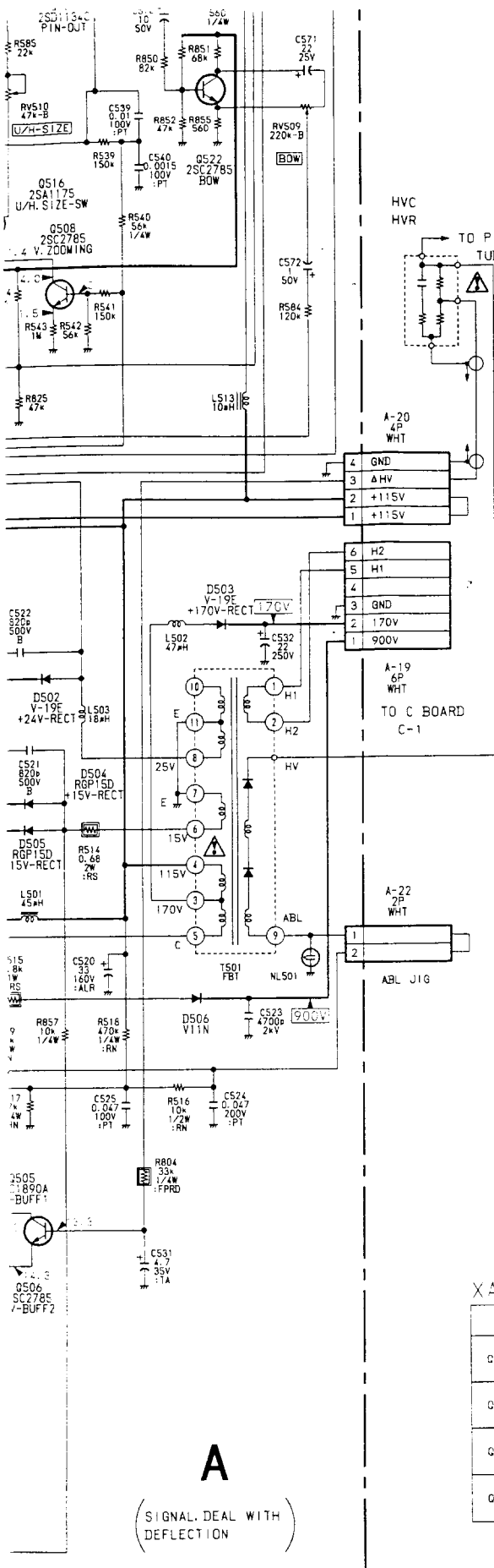
BURST IN	1
HUE CONT	2
KILLER (H)	3
GND	4
FROM ACC	5
GND	6
TO ACC	7
GND	8
SC-IN	9
S-SW	10
Y-OUT	11
GND	12
SY-IN	13
VCC	14
COMPOSITE IN	15

COMPOSITE OUT	1
S-SW	2
SY	3
S-BT	4
SC	5
Y-IN	6
GND	7
Y-OUT	8
R-Y	9
B-Y	10
5V	11
12V	12
12V	13
SIRCS	14
AUDIO OUT	15

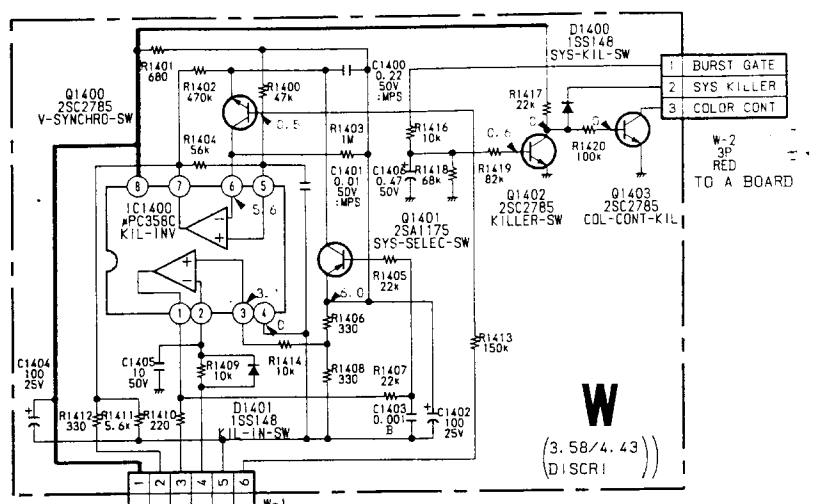
TO GG BOARD QG-6 (PVM-1440 QM)
 TO GD BOARD QD-5 (PVM-1442 QM)
 TO QB BOARD QB-4 (PVM-1444 QM)

TO GG BOARD QG-7 (PVM-1440 QM)
 TO GD BOARD QD-6 (PVM-1442 QM)
 TO QB BOARD QB-5 (PVM-1444 QM)





A
(SIGNAL, DEAL WITH) DEFLECTION



1

2

3

4

5

6

7

8

A

B

C

D

E

F

G

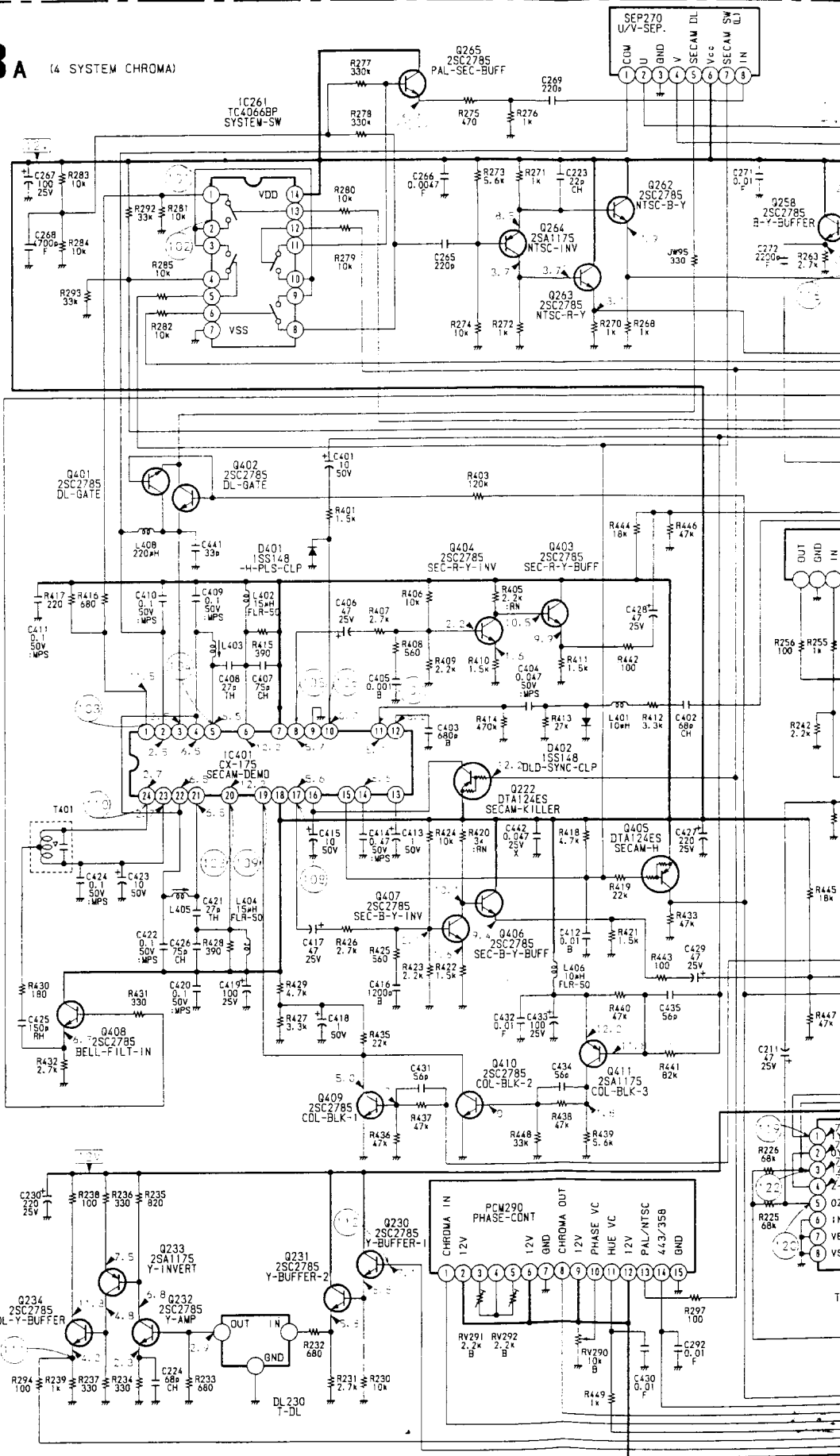
H

I

J

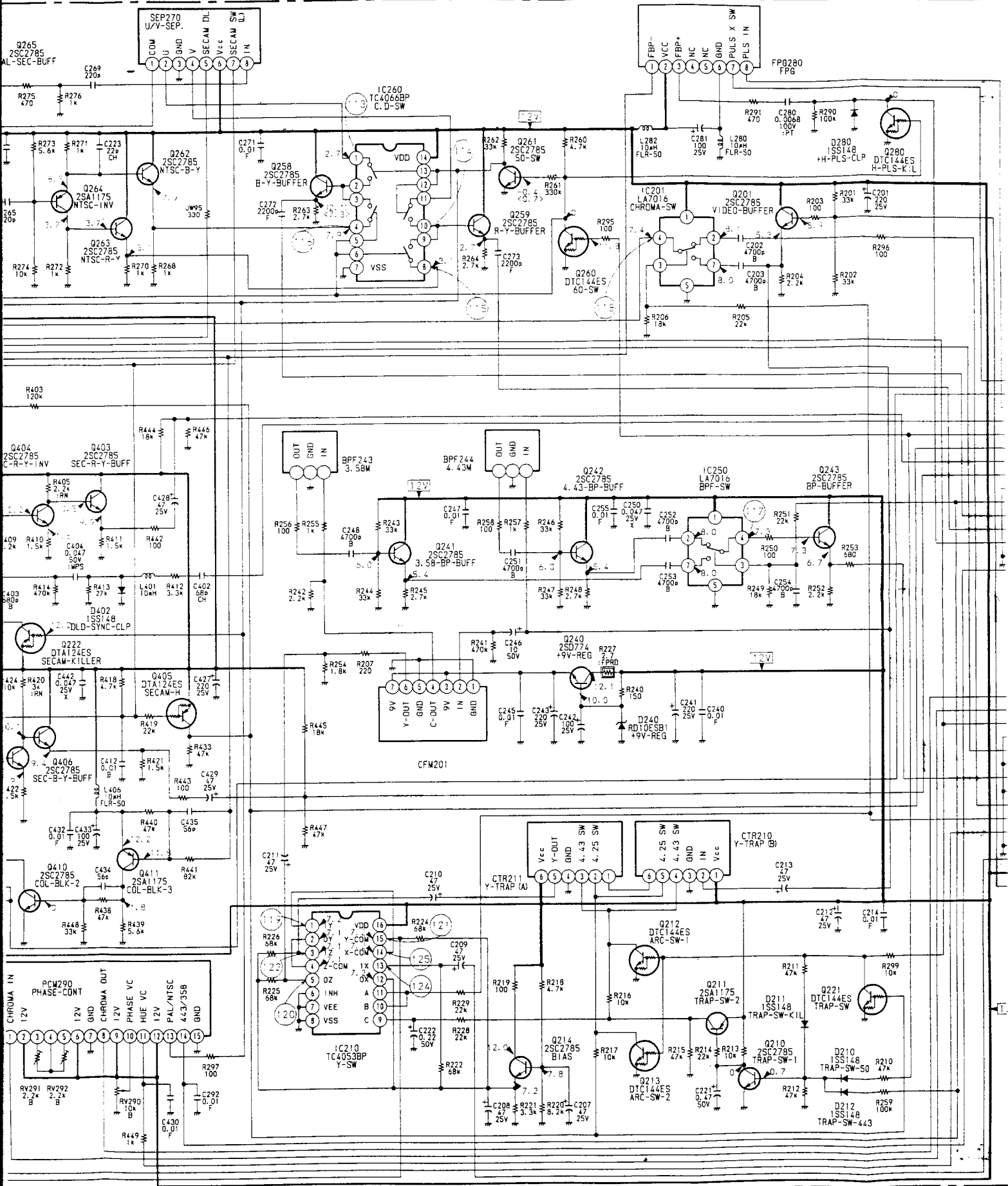
K

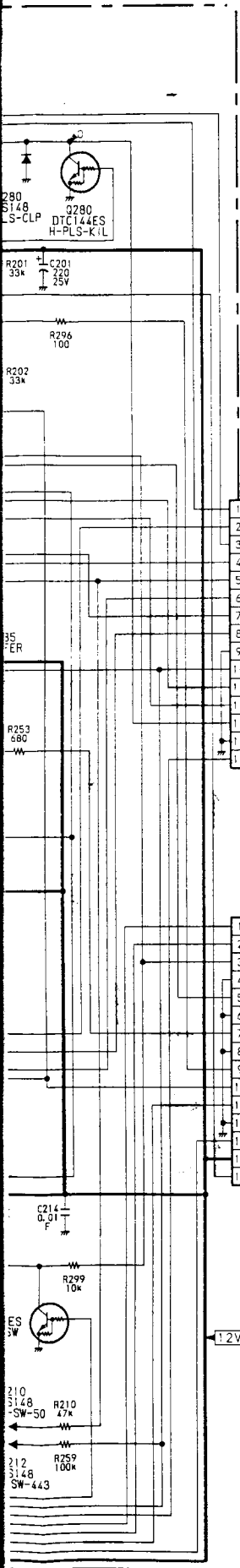
BA (4 SYSTEM CHROMA)



BA BOARD

IC	PART NO.	QTY	REMARKS
Q261	TC4066BP	1	
Q262	2SC2785	1	
Q263	2SC2785	1	
Q264	2SA1175	1	
Q265	2SC2785	1	
Q266	2SC2785	1	
Q267	2SC2785	1	
Q268	2SC2785	1	
Q269	2SC2785	1	
Q270	2SC2785	1	
Q271	2SC2785	1	
Q272	2SC2785	1	
Q273	2SC2785	1	
Q274	2SC2785	1	
Q275	2SC2785	1	
Q276	2SC2785	1	
Q277	2SC2785	1	
Q278	2SC2785	1	
Q279	2SC2785	1	
Q280	2SC2785	1	
Q281	2SC2785	1	
Q282	2SC2785	1	
Q283	2SC2785	1	
Q284	2SC2785	1	
Q285	2SC2785	1	
Q286	2SC2785	1	
Q287	2SC2785	1	
Q288	2SC2785	1	
Q289	2SC2785	1	
Q290	2SC2785	1	
Q291	2SC2785	1	
Q292	2SC2785	1	
Q293	2SC2785	1	
Q294	2SC2785	1	
Q295	2SC2785	1	
Q296	2SC2785	1	
Q297	2SC2785	1	
Q298	2SC2785	1	
Q299	2SC2785	1	
Q300	2SC2785	1	





BA-1
15P
WHT
:BTOB-S
TO A-8

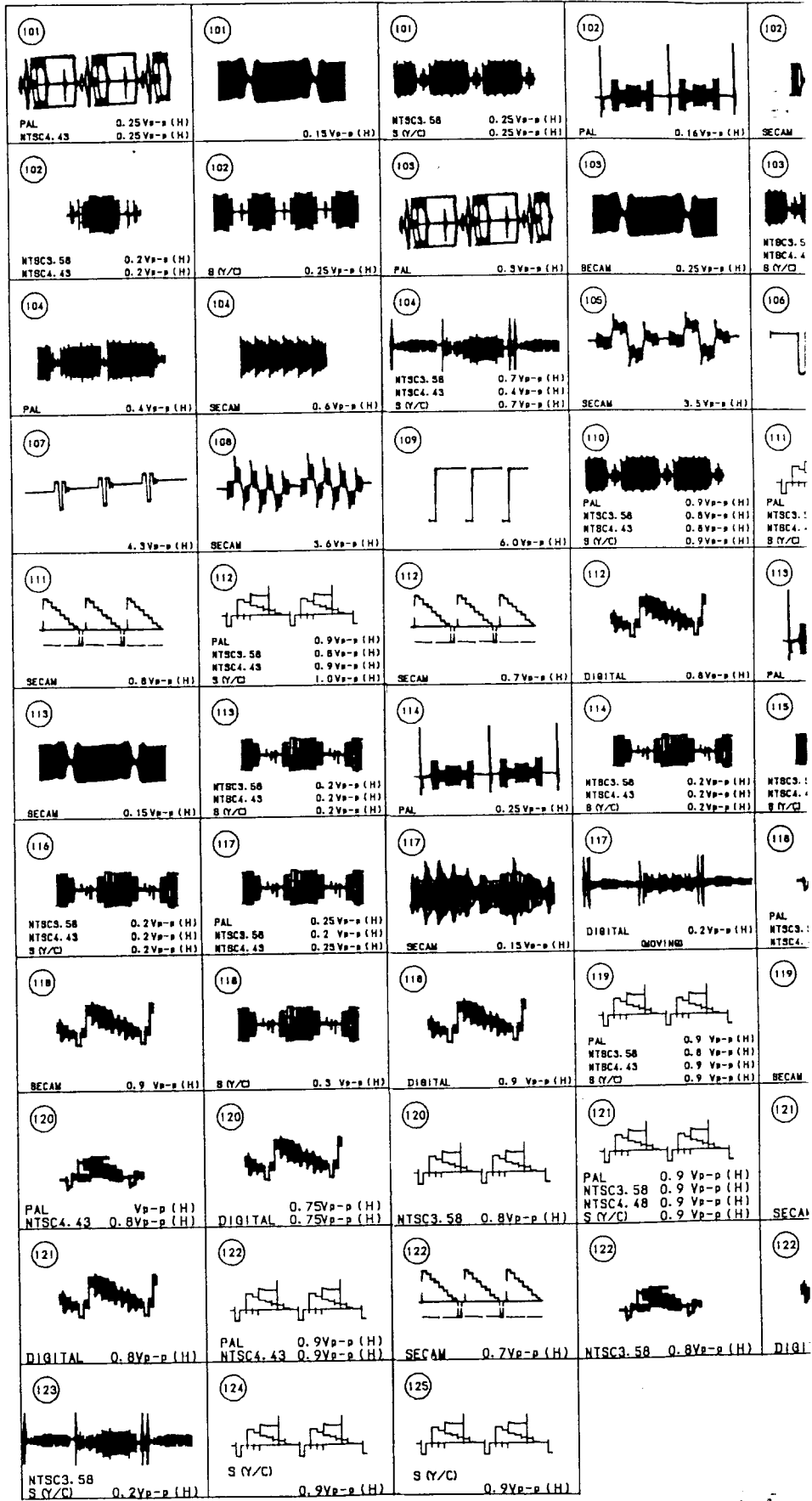
- 1 PLS CROSS SW
- 2 COMPOSITE BLK
- 3 H-RETRACE PLS
- 4 SYNC IN
- 5 50/60
- 6 SECAM-H
- 7 R-Y (SECAM)
- 8 B-Y (SECAM)
- 9 GND
- 10 4.43-H
- 11 U (B-Y)
- 12 V (R-Y)
- 13 H-PLS
- 14 GND
- 15 BURST OUT (SHIFTED)

BA-2
15P
WHT
:BTOB-S
TO A-9

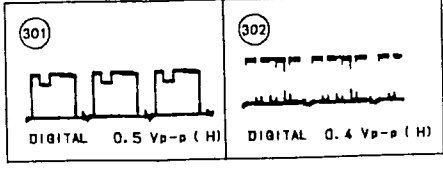
- 1 BURST IN
- 2 HUE CONT
- 3 KILLER (H)
- 4 GND
- 5 FROM ACC
- 6 GND
- 7 TO ACC
- 8 GND
- 9 SC-IN
- 10 S-SW
- 11 Y-OUT
- 12 GND
- 13 SY-IN
- 14 VCC
- 15 COMPOSITE IN

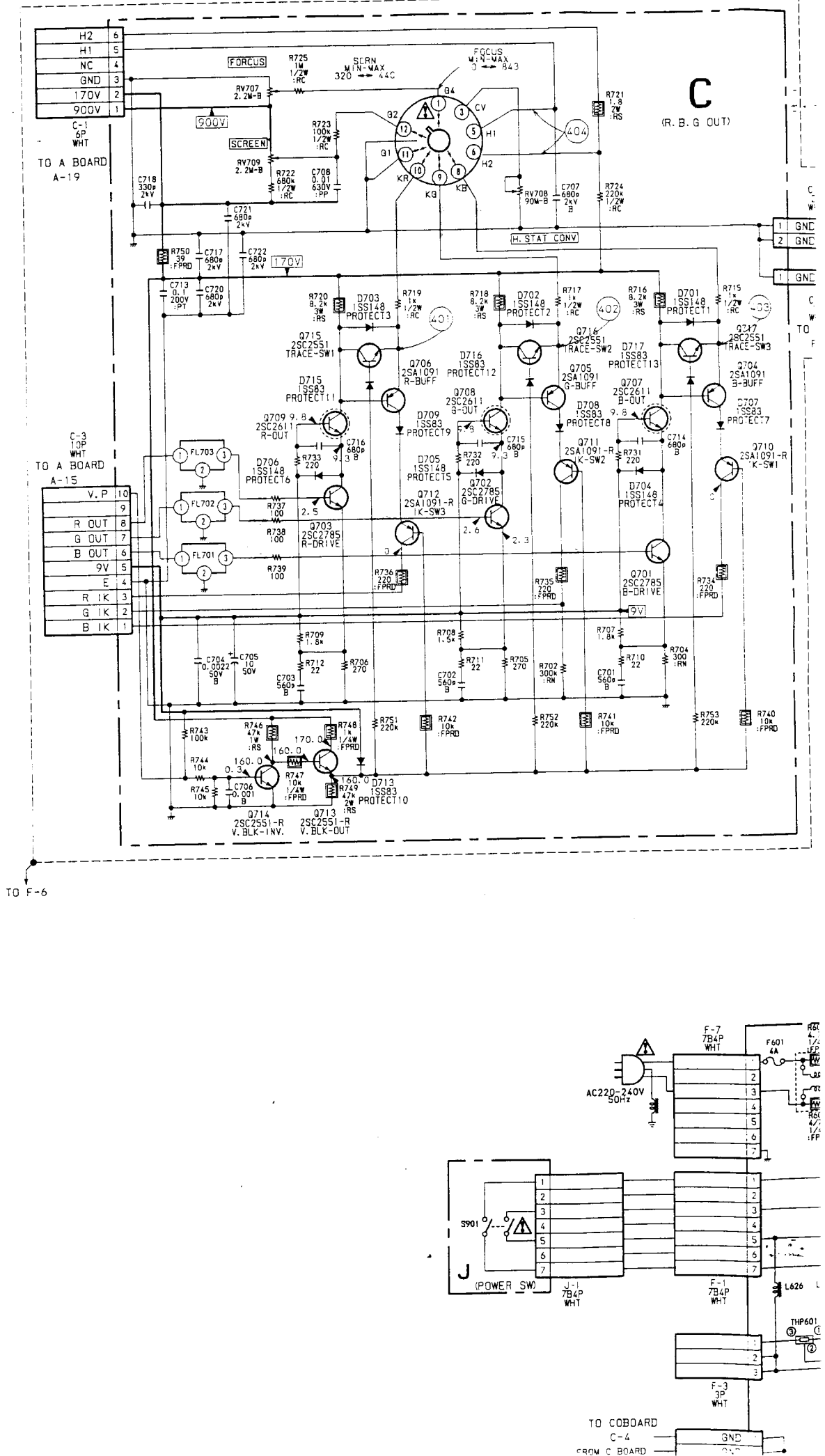
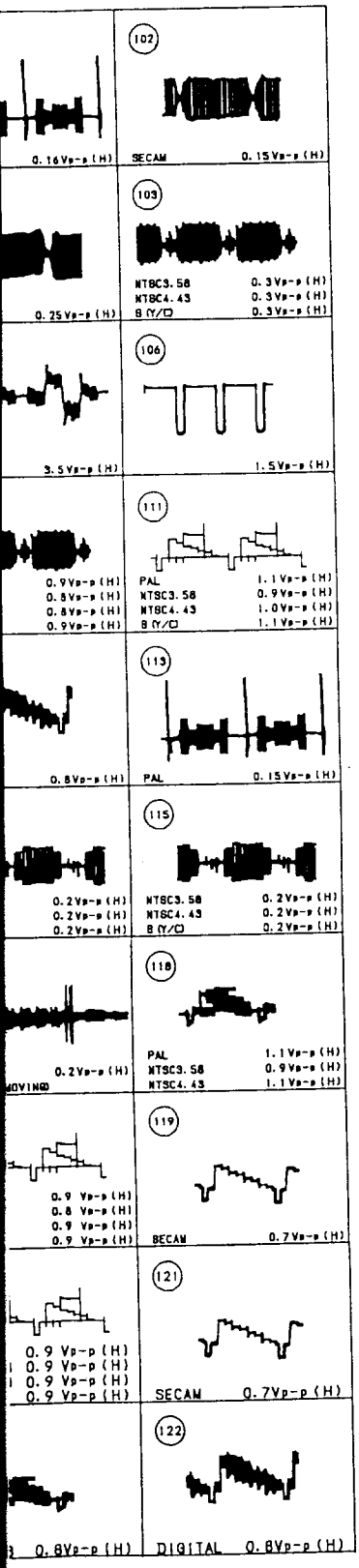
For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4GY.
Tel (01844) 351694
Fax (01844) 352554
email:- mauritron@dial.pipex.com

BA BOARD WAVEFORM

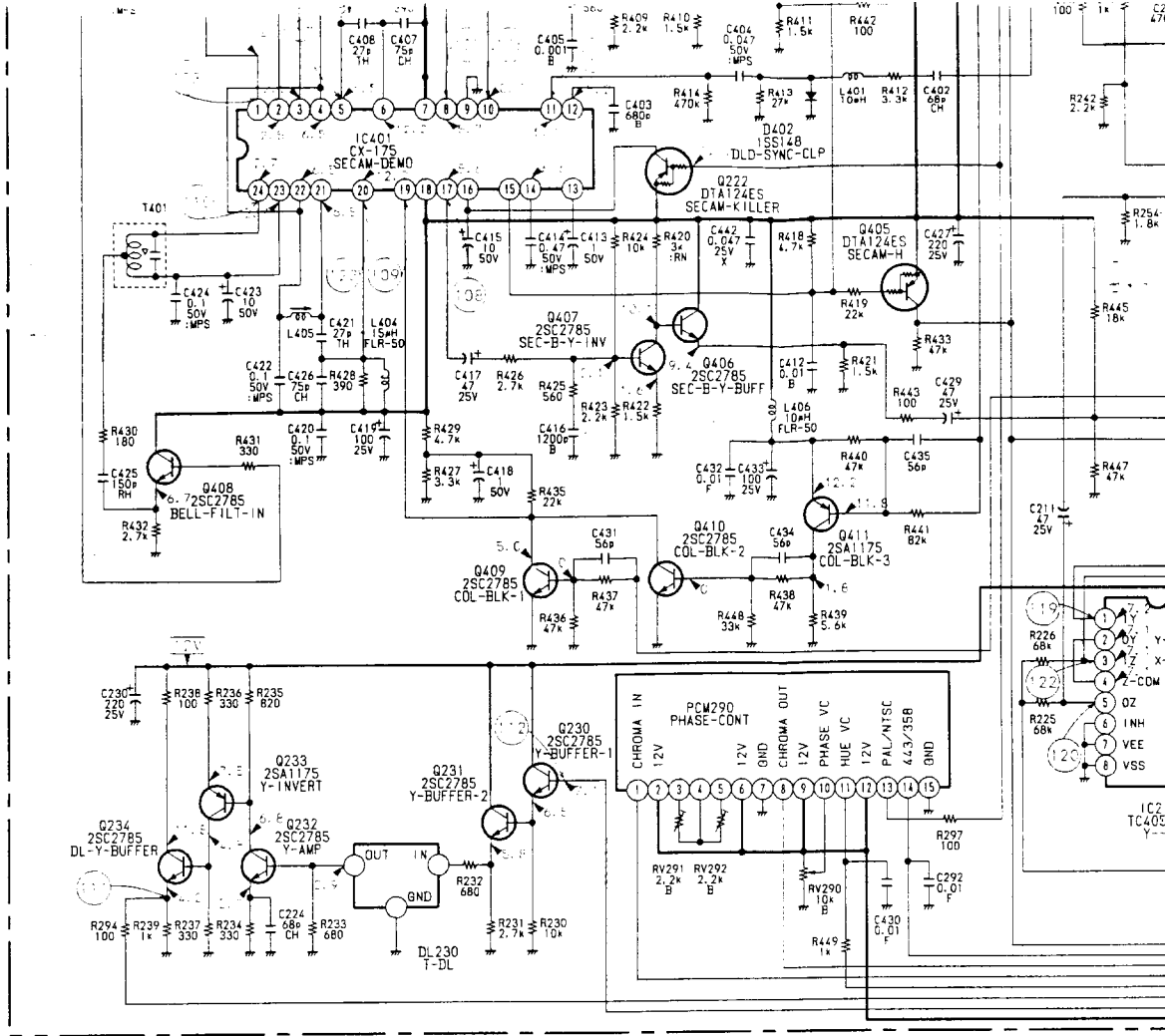


V BOARD WAVEFORM



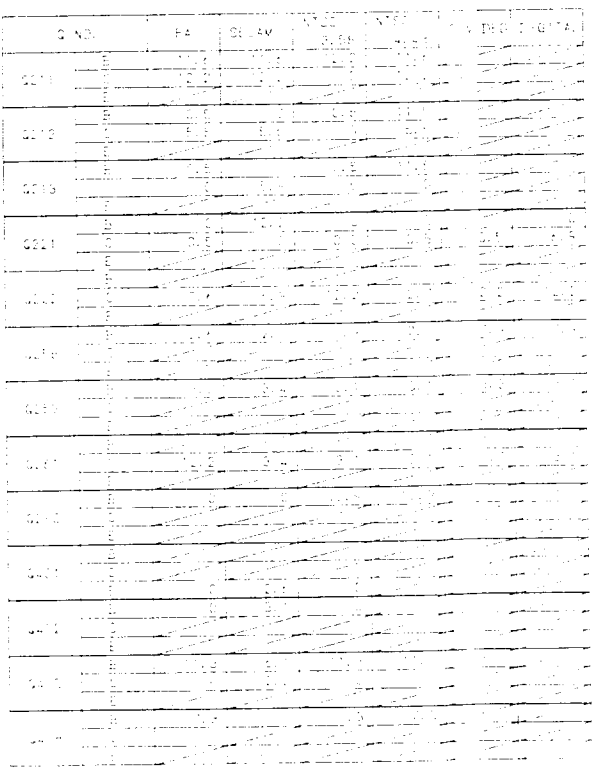


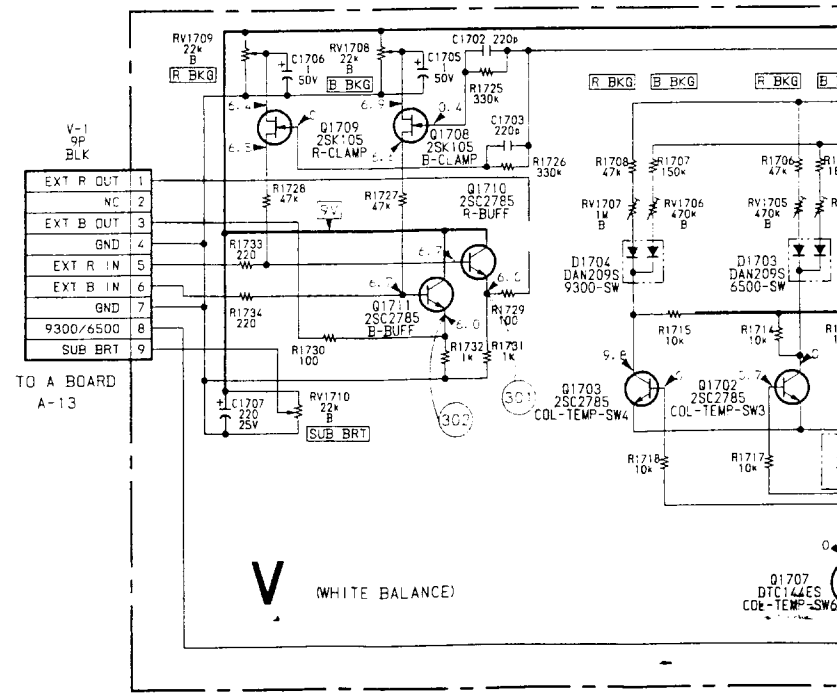
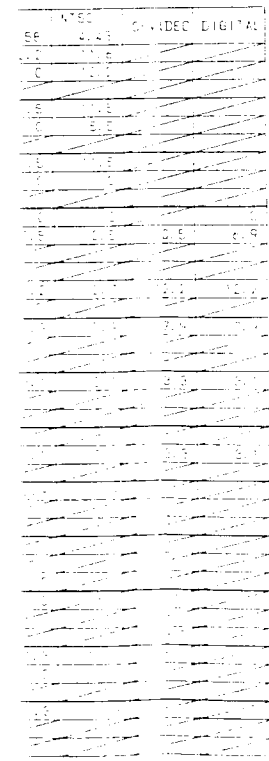
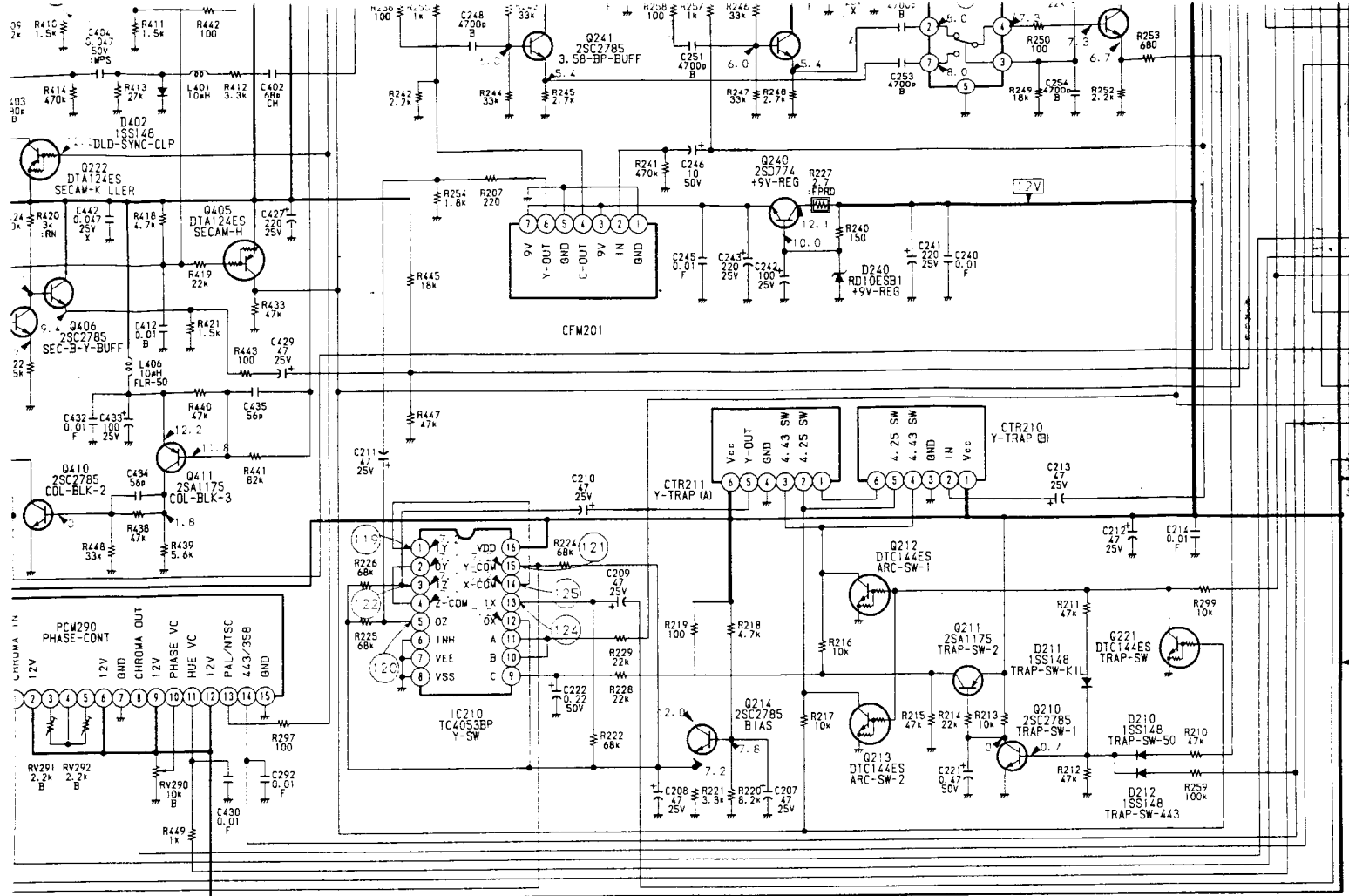
F
G
H
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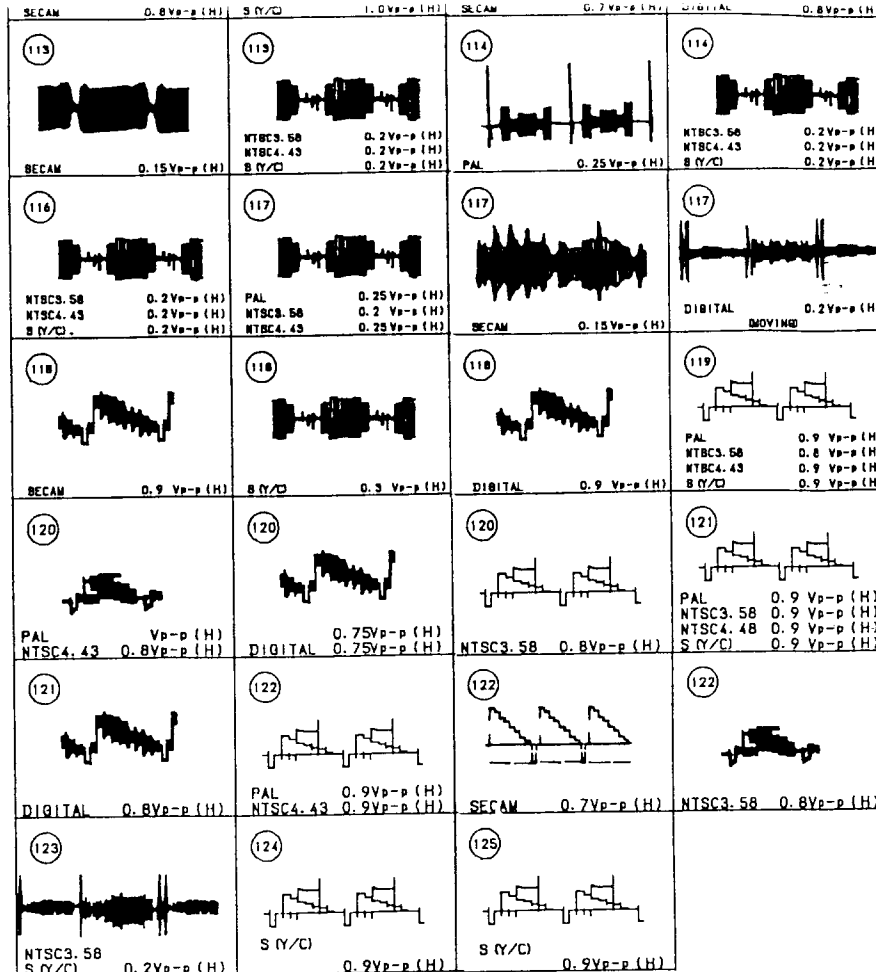
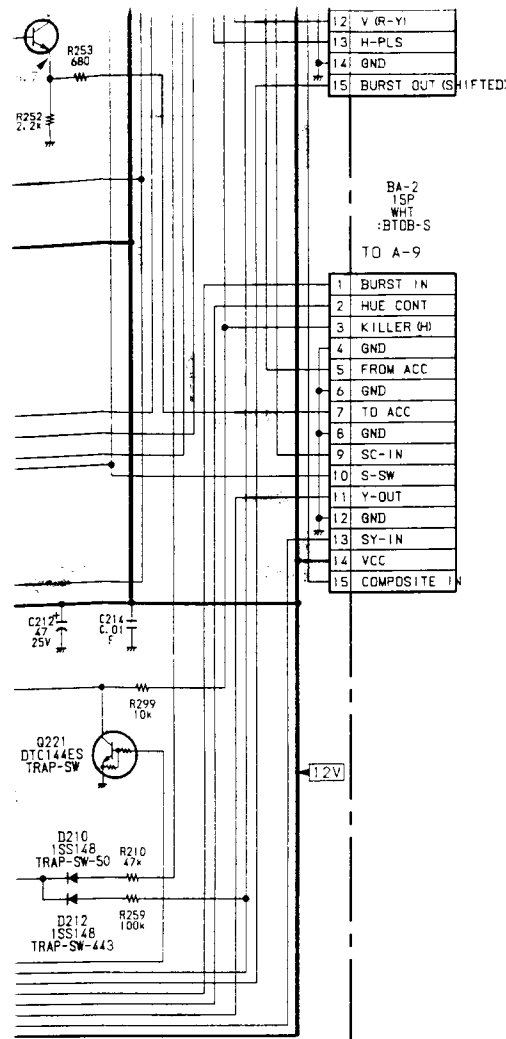


BA BOARD

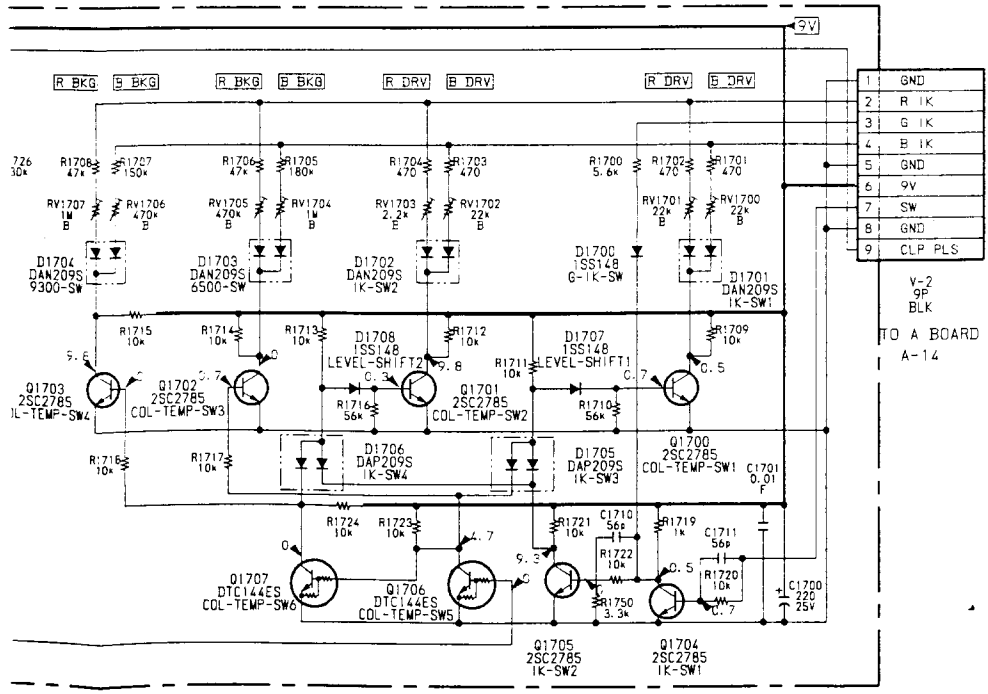
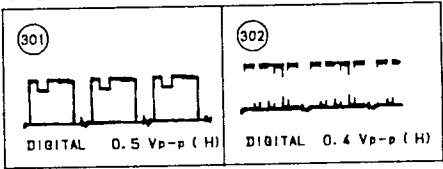
IC NO.	PIN NO.	PAL	SECAM	NTSC	NTSC	S-VIDEO	DATA
				3.58	4.43		
IC201	(1)	0	0	0	0	0	0
	(2)	12.2	12.2	0	0	0	0
IC210	(1)	0	0	0	0	0	0
	(2)	0	0	0	0	0	0
IC250	(1)	4.7	10.6	0	0	0	0
	(2)	2.6	2.7	7.9	0	0	0
IC260	(1)	0	0	0	0	0	0
	(2)	3.3	3.4	3.1	0	0	0
IC270	(1)	12.2	12.2	0	0	0	0
	(2)	10.8	10.8	10.8	0	0	0
IC280	(1)	7.3	10.8	7.3	0	0	0
	(2)	7.3	7.3	7.3	0	0	0
IC290	(1)	10.8	10.8	10.8	0	0	0
	(2)	10.8	10.8	10.8	0	0	0
IC300	(1)	12.2	12.2	0	0	0	0
	(2)	0	0	0	0	0	0
IC401	(1)	0	0	0	0	0	0
	(2)	12.2	12.2	0	0	0	0



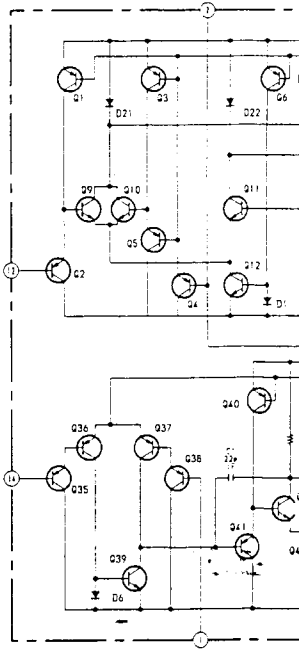


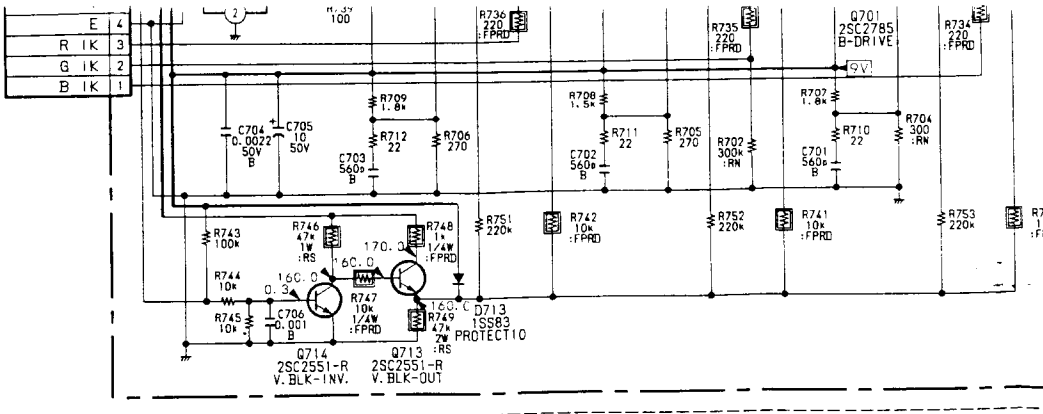
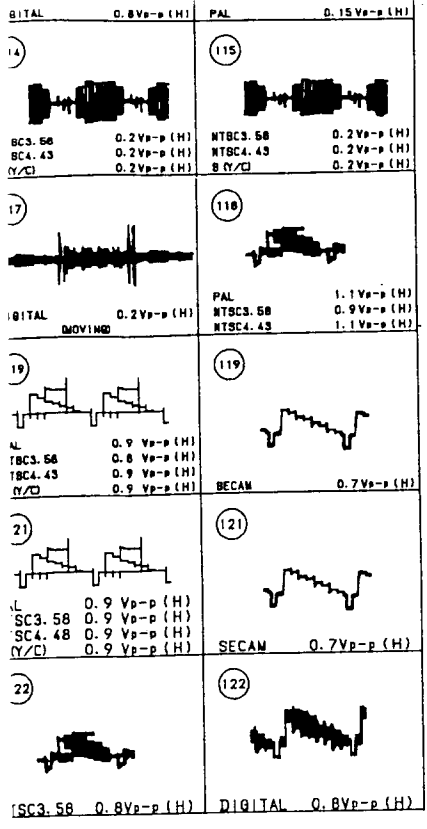


V BOARD WAVEFORM

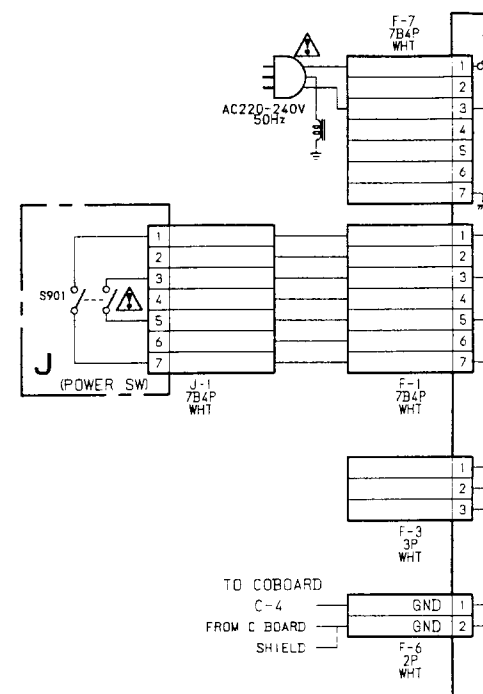


FE BOARD IC601 μPC13

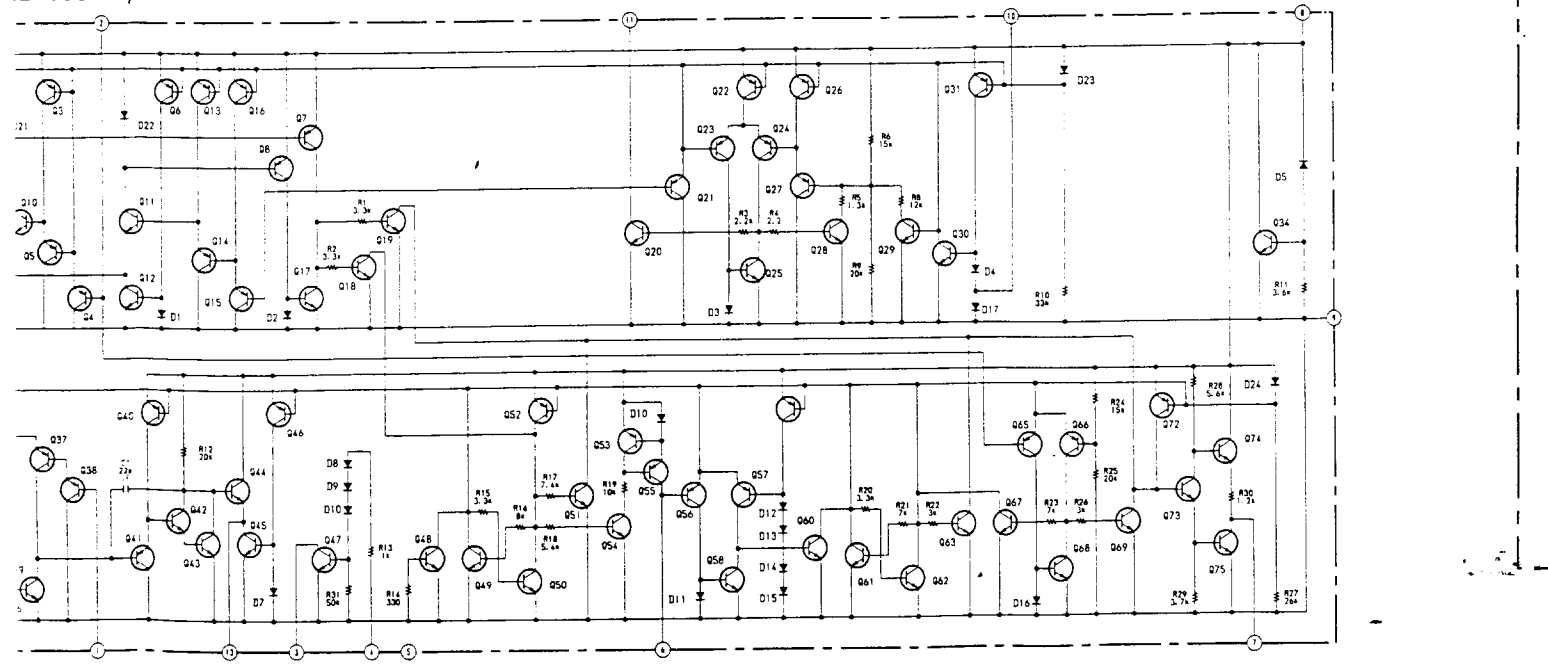


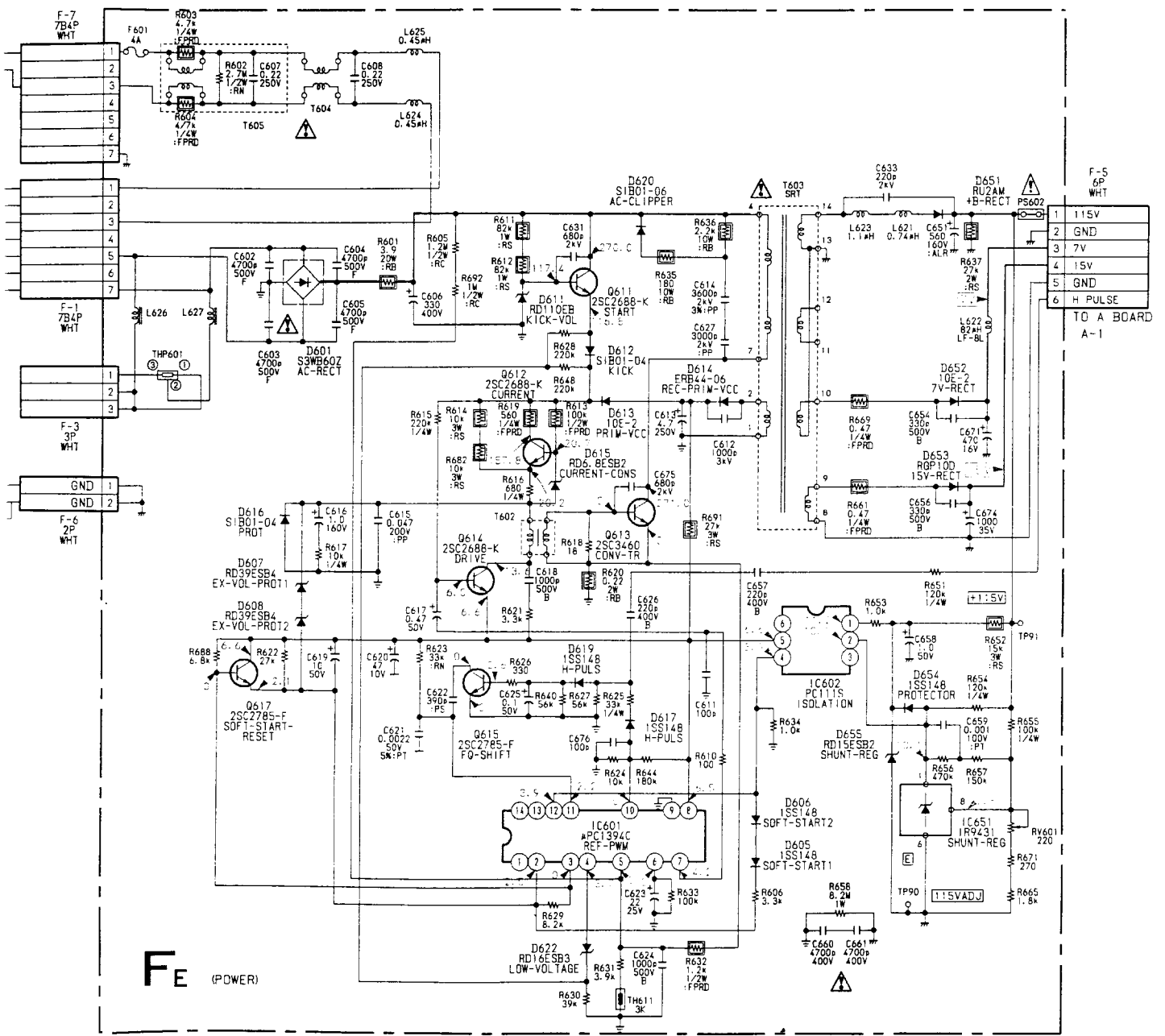
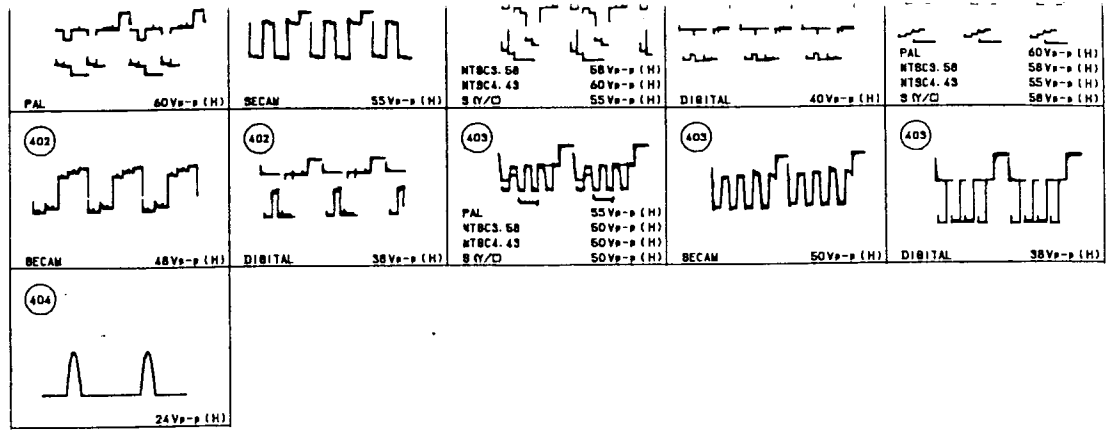
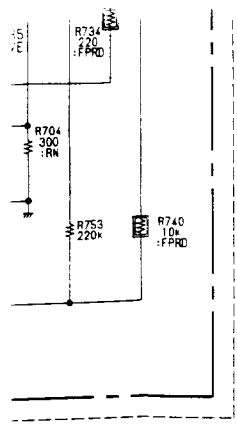


TO F-6



IC601 μPC1394C





1	115V
2	GND
3	7V
4	15V
5	GND
6	H PULSE

TO A BOARD A-1

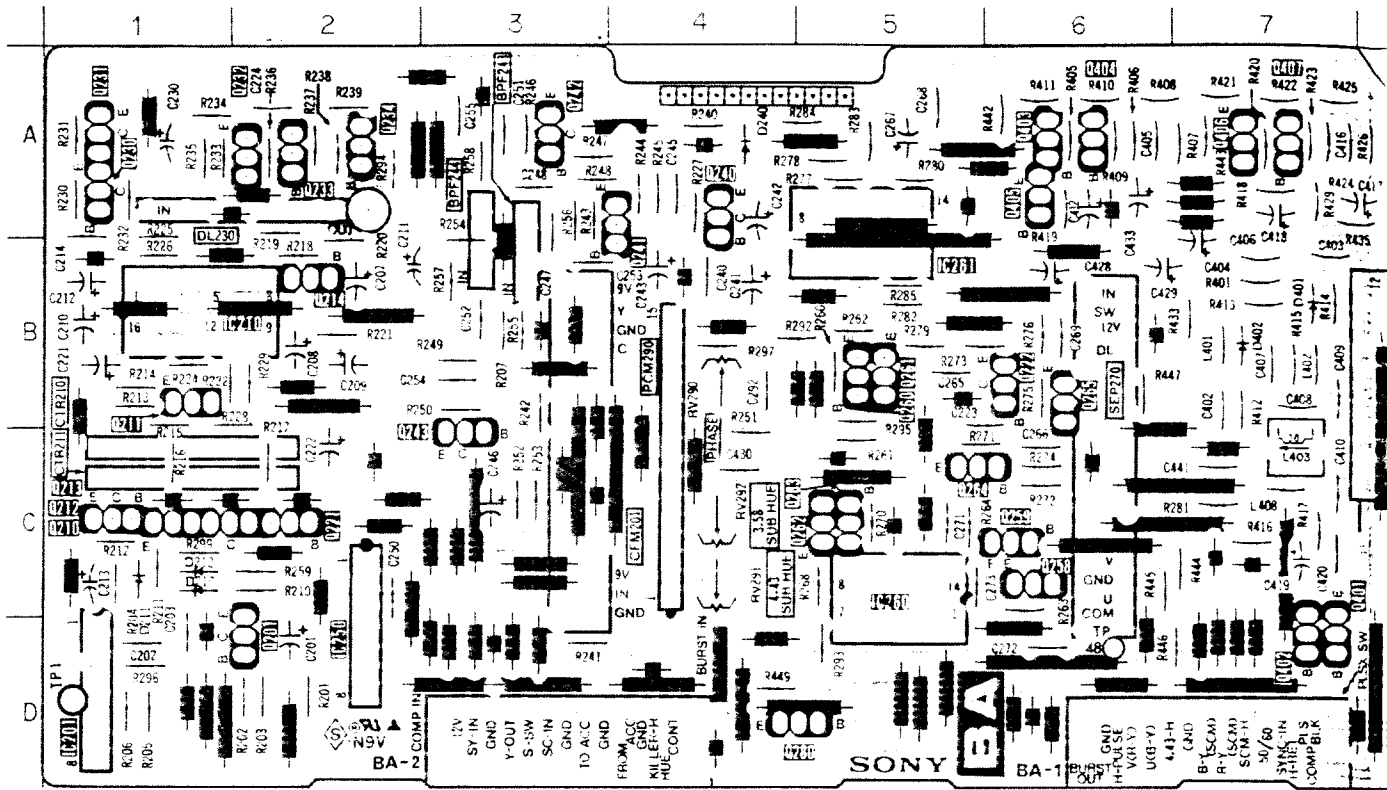
BA

[CHROMA FOR 4 SYSTEM]

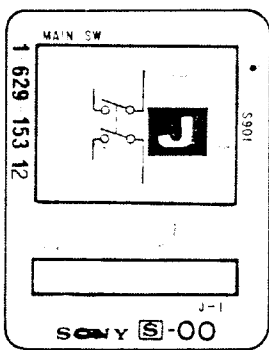
J

[POWER SW]

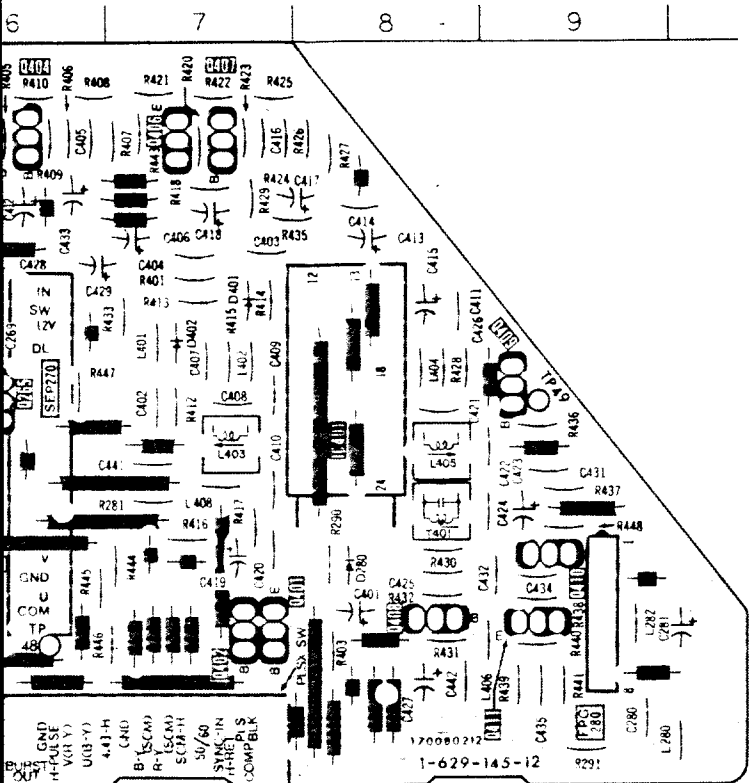
- BA Board -



- J Board -



J [POWER SW]



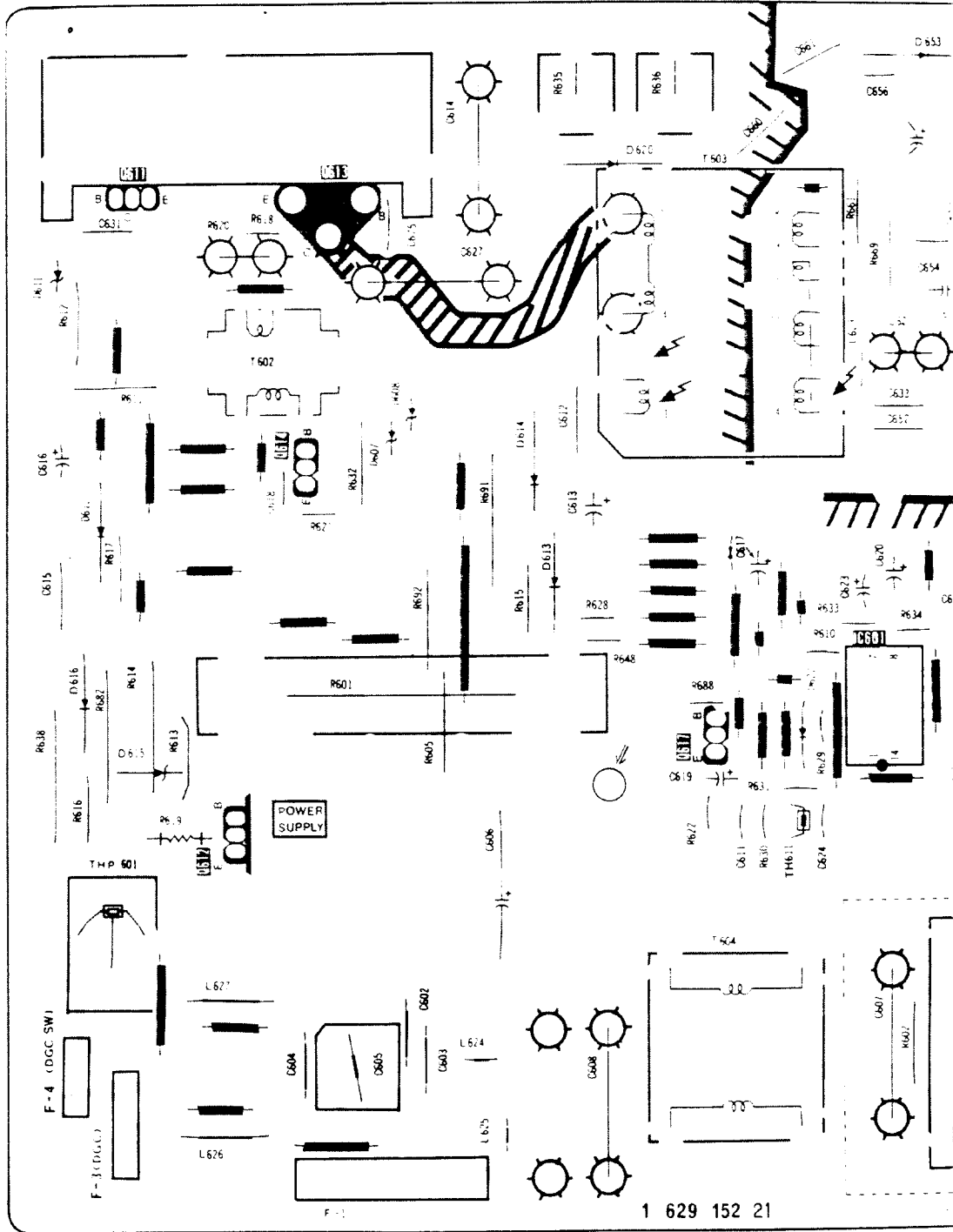
BA Board

IC		DIODE	
IC201	D-1	Q241	A-4
IC210	B-1	Q242	A-3
IC250	D-2	Q243	C-3
IC260	C-5	Q258	C-6
IC261	B-5	Q259	C-6
IC401	B-8	Q260	B-5
		Q261	B-5
		Q262	C-5
		Q263	C-5
		Q264	C-5
		Q265	B-6
		Q280	D-5
		Q401	D-7
		Q402	D-7
		Q403	A-6
		Q404	A-6
		Q405	A-6
		Q406	A-7
		Q407	A-7
		Q408	D-8
		Q409	B-9
		Q410	C-9
		Q411	D-9
TRANSISTOR		VARIABLE RESISTOR	
Q201	D-2	RV290	B-4
Q210	C-1	RV291	C-4
Q211	B-1	RV292	C-4
Q212	C-1		
Q213	C-1		
Q214	B-2		
Q221	C-2		
Q222	B-6		
Q230	A-1		
Q231	A-1		
Q232	A-2		
Q233	A-2		
Q234	A-2		

- FE Board -

CODE
C-1
C-1
C-1
A-4
C-8
B-7
B-7

TABLE
DIATOR
B-4
C-4
C-4

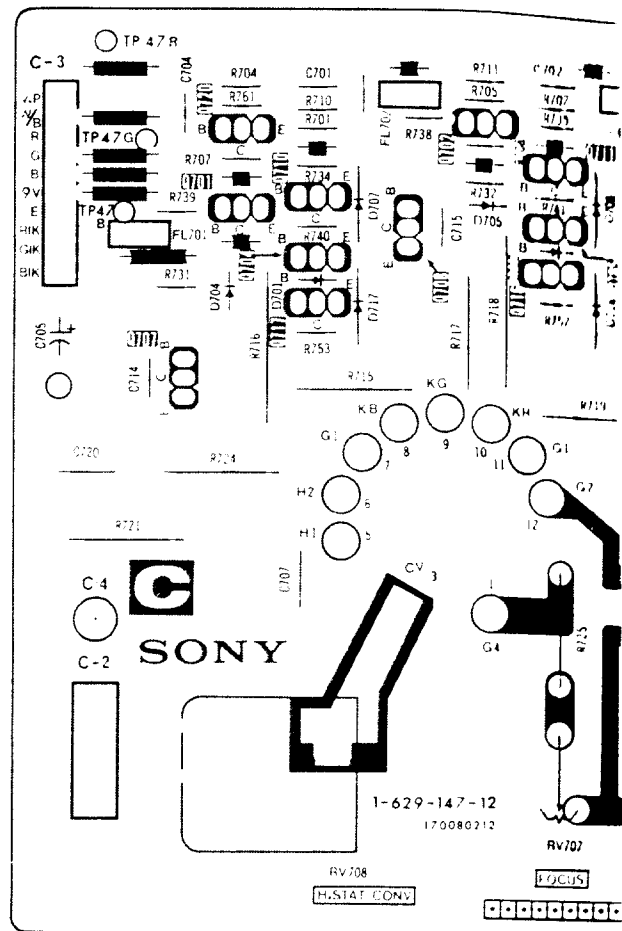
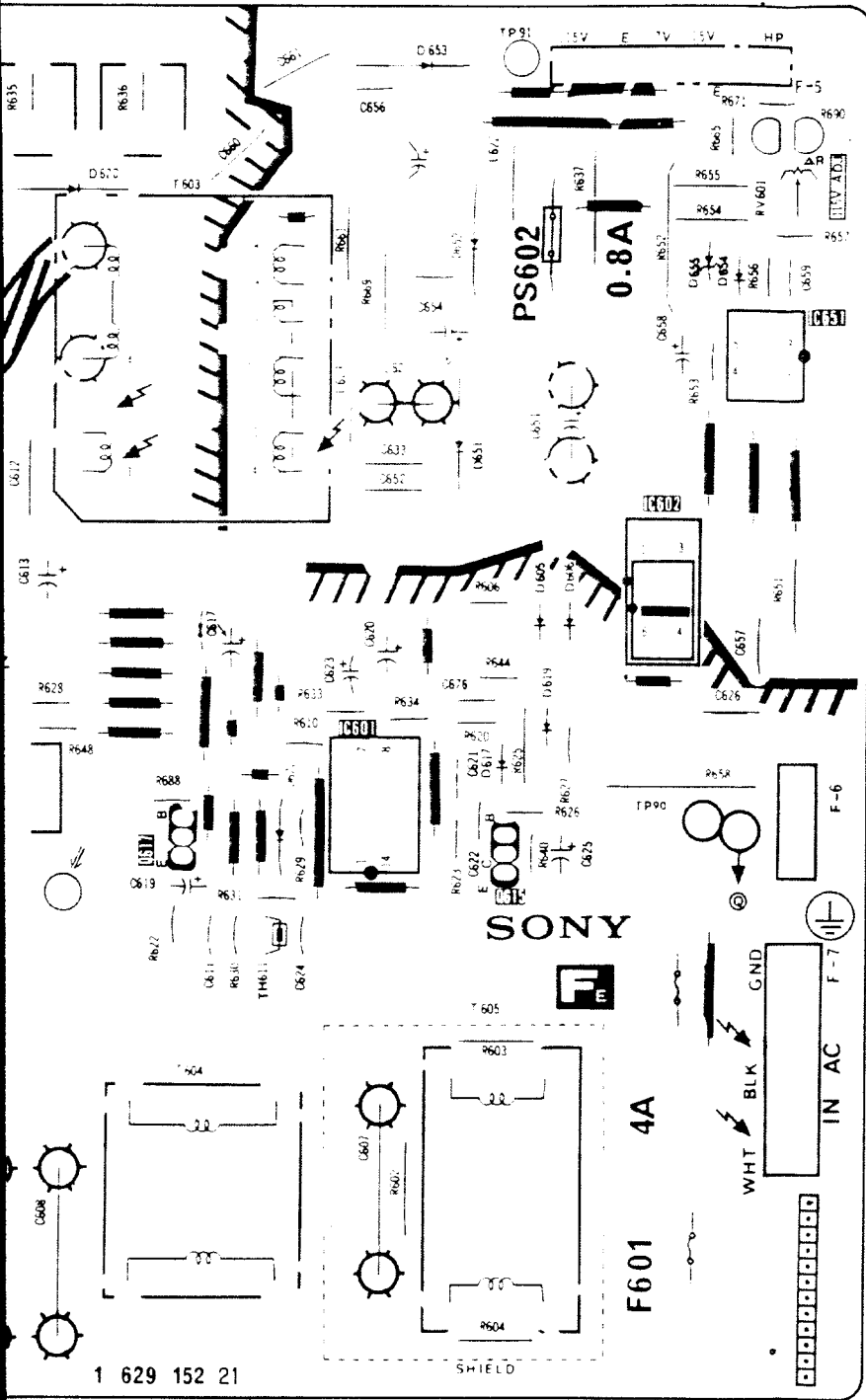


F **E** [POWER]

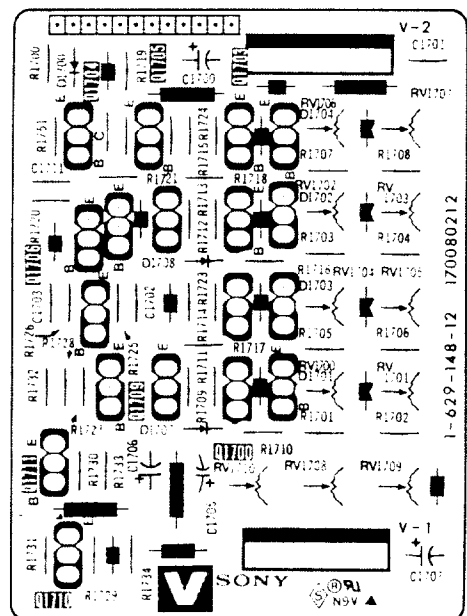
C [R-G-B OUT]

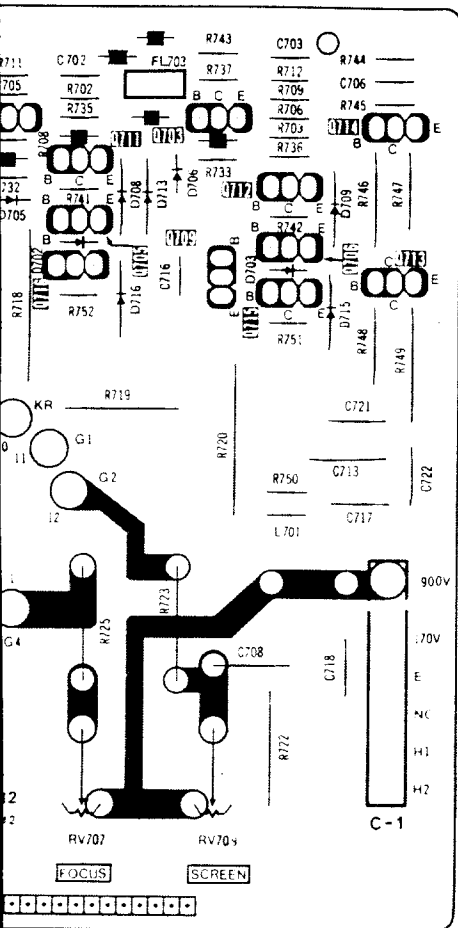
V [WHITE BALANCE]

- C Board -



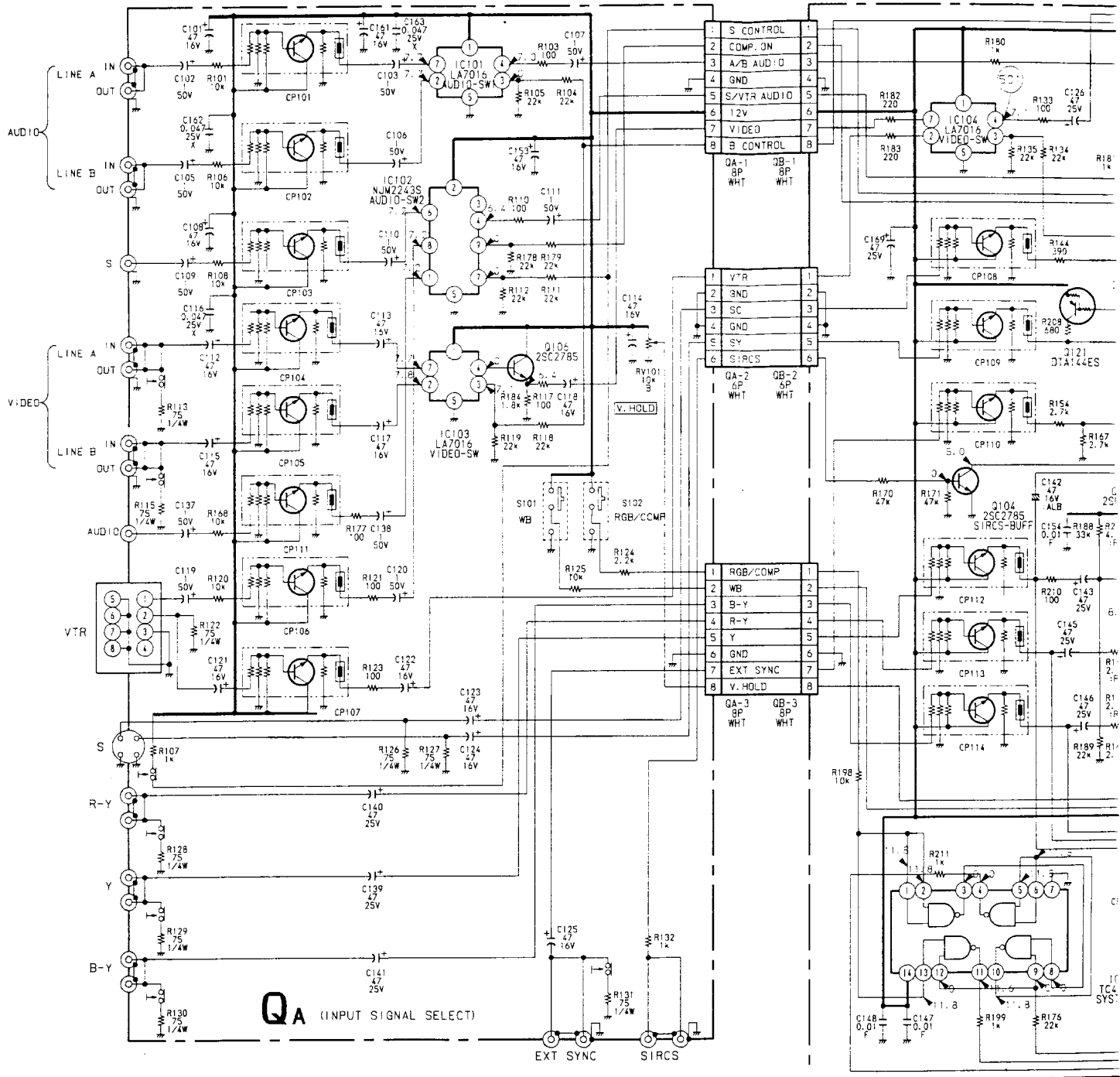
- V Board -





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 Oxfordshire, OX9 4QY.
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 Fax (01844) 352554
 email:- mauritron@dial.pipex.com

1 2 3 4 5 6 7 8
 (QA, QB Board: PVM-1444QM)



QB BOARD

IC-NO	PIN-NO	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO
IC104	(1)	7.8	7.8	7.8	7.8	7.7
	(3)	0.7	0.7	0.7	0.7	5.6
	(7)	7.7	7.7	7.7	7.7	7.8
IC105	(1)	7.8	7.8	7.8	7.8	7.7
	(7)	0.5	0.5	0.5	0.5	5.3
IC106	(1)	7.7	7.7	7.7	7.7	7.8
	(7)	0.4	0.4	0.4	0.4	3.3

Q NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-VIDEO
Q103	B	1.9	1.9	1.9	11.3
	C	1.3	1.3	1.3	10.9
	E	1.3	1.3	1.3	11.3
Q120	B	11.8	11.8	11.8	11.4
	C	11.8	11.8	11.8	11.4
	E	11.8	11.8	11.8	11.4

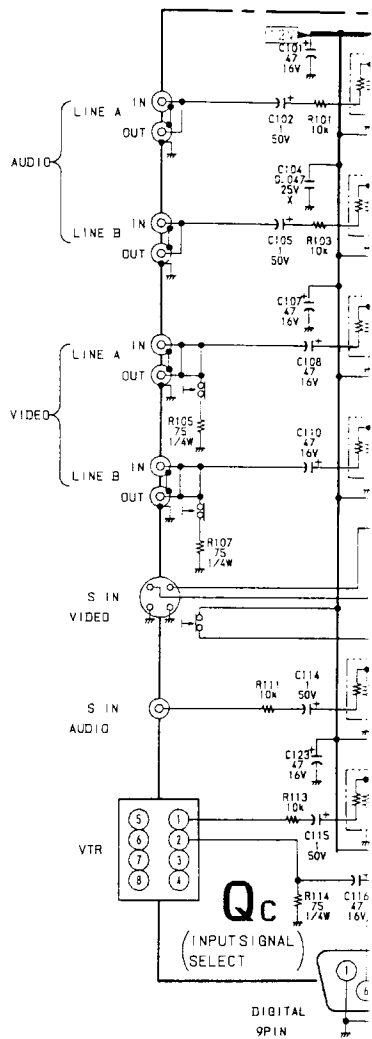
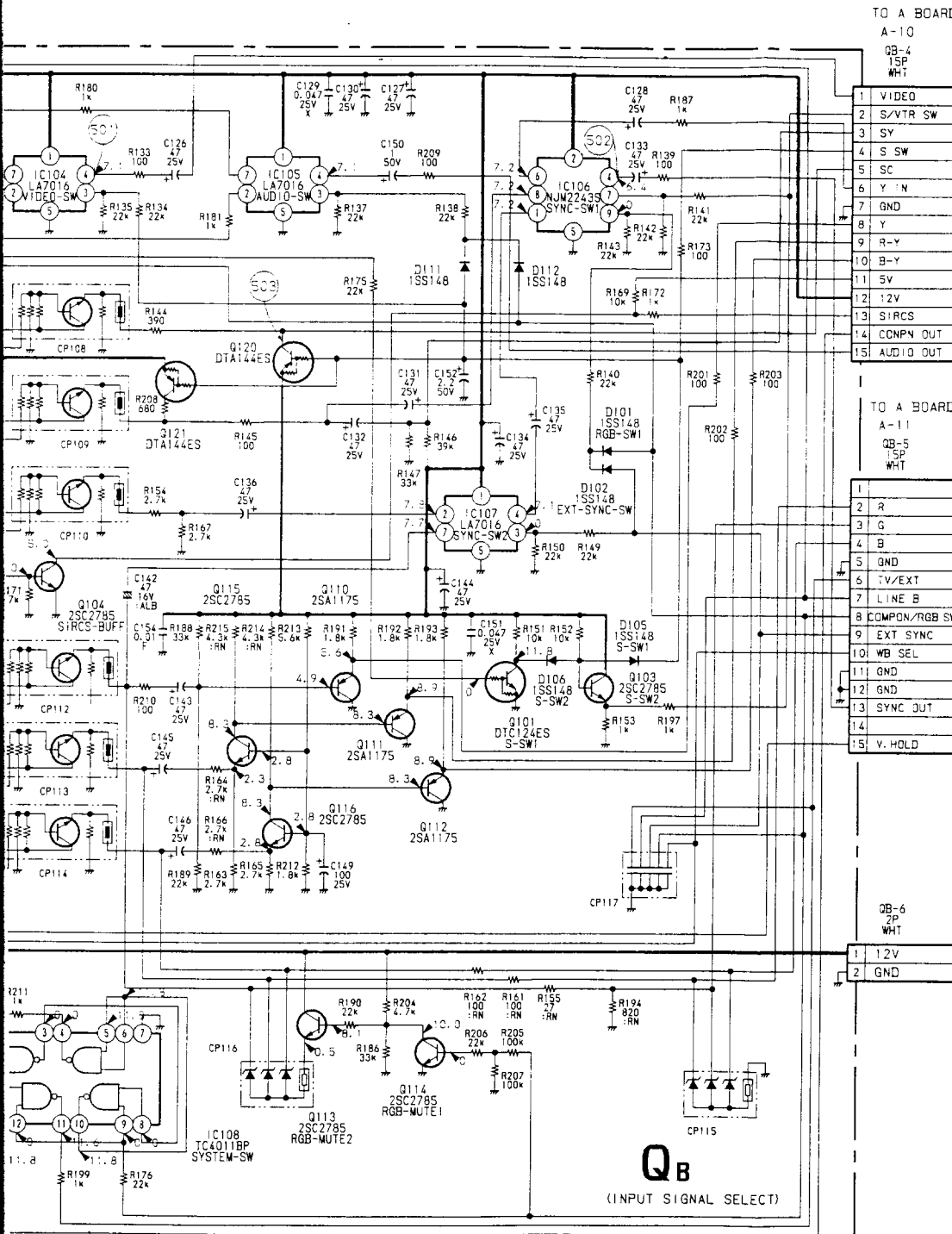
QB BOARD WA

501

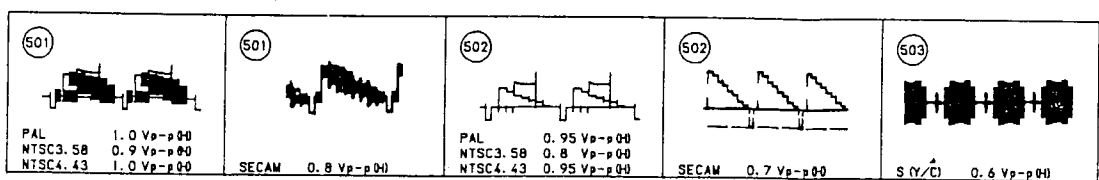
PAL 1.0 V₀-p-p
 NTSC 3.58 0.9 V₀-p-p
 NTSC 4.43 1.0 V₀-p-p

8 9 10 11 12 13 14 15

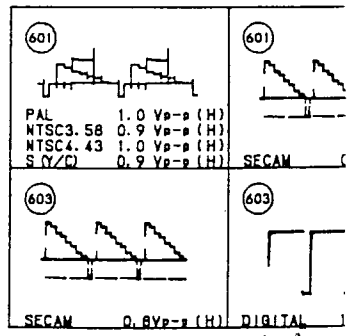
(QC, QD, QE Board: PVM-1442QM)



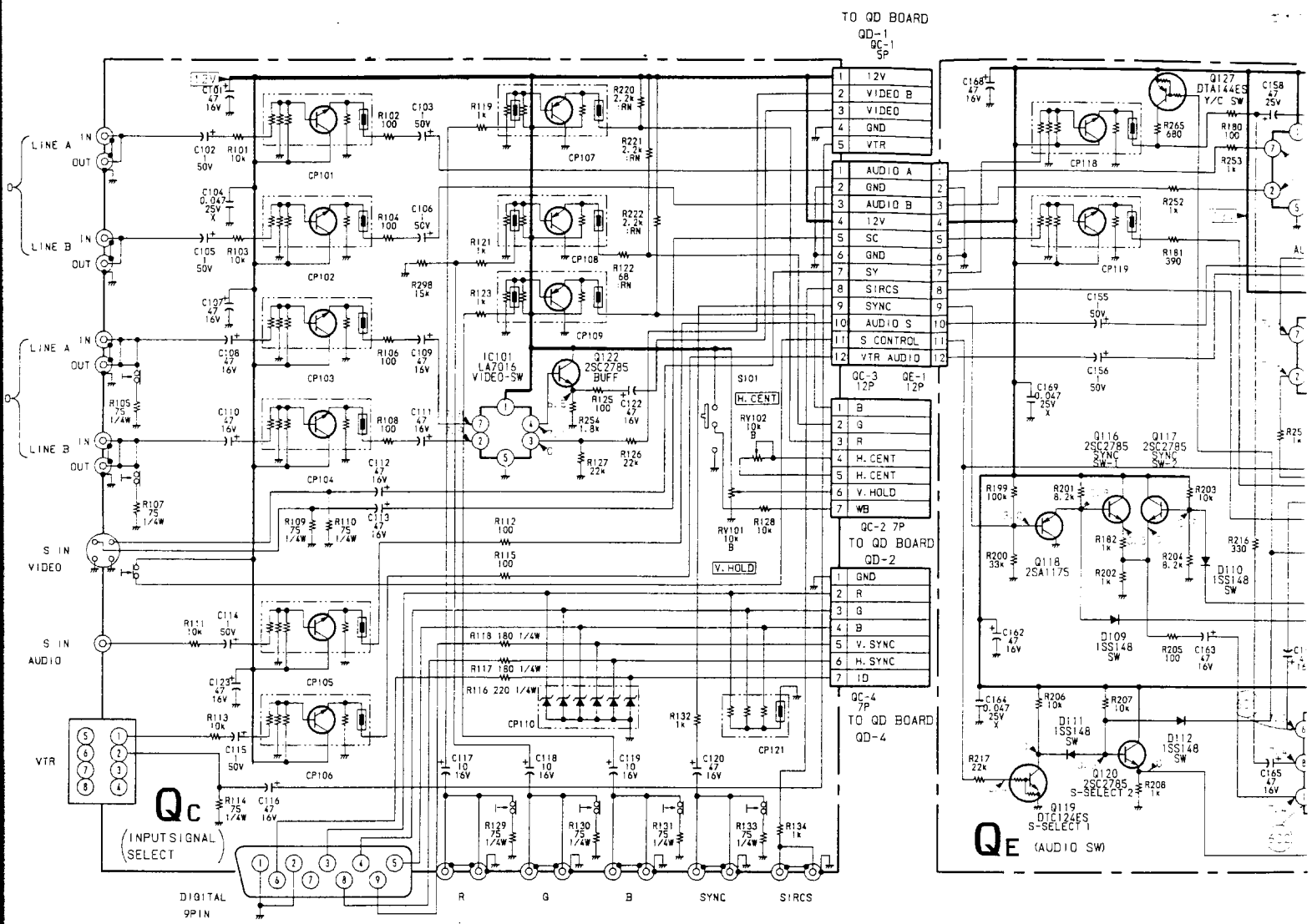
QB BOARD WAVEFORM



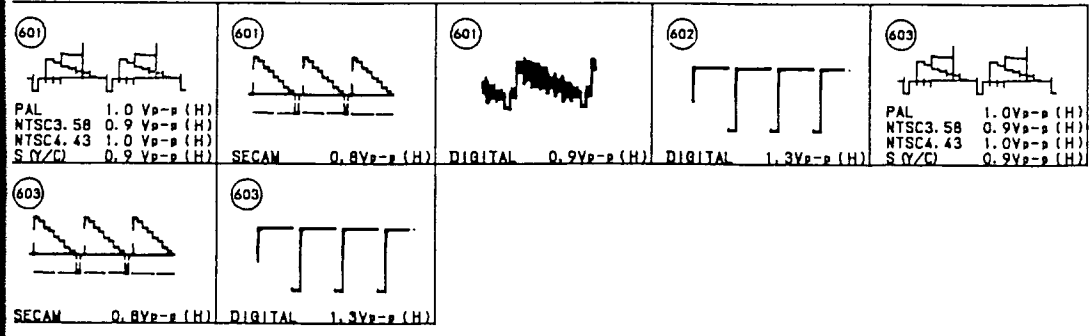
QE BOARD WAVEFORM



QD, QE Board: PVM-1442QM)



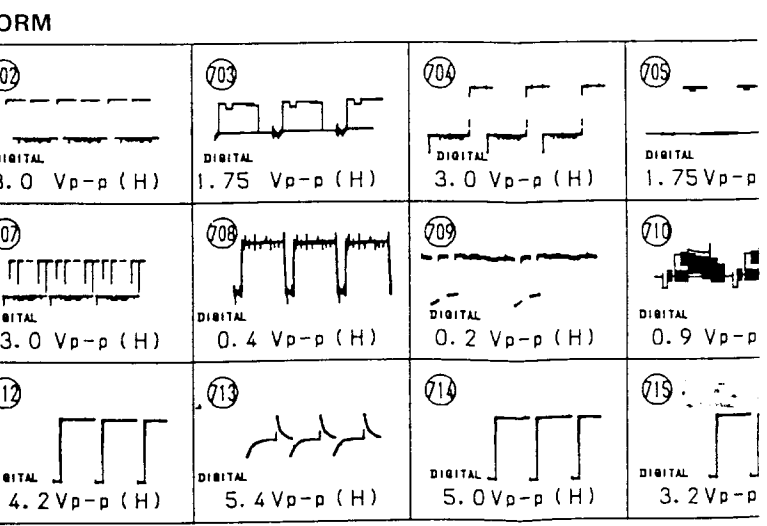
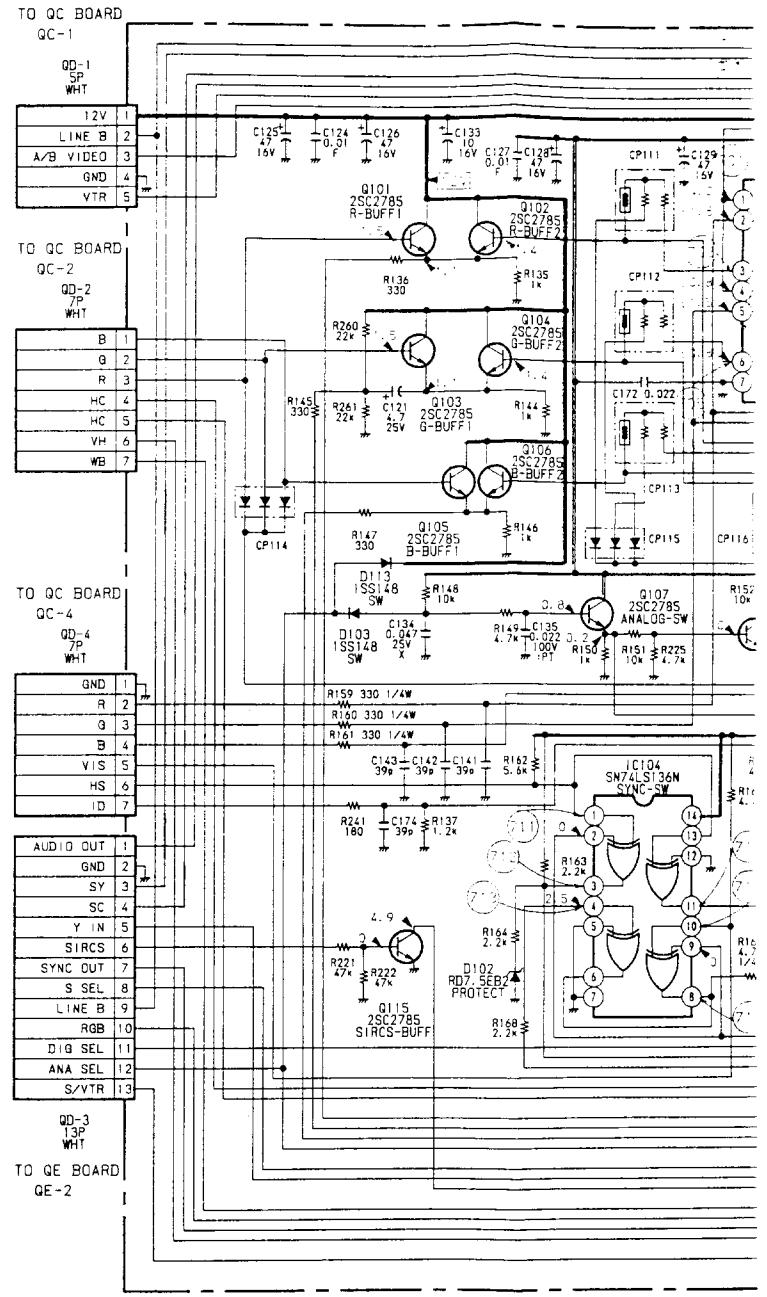
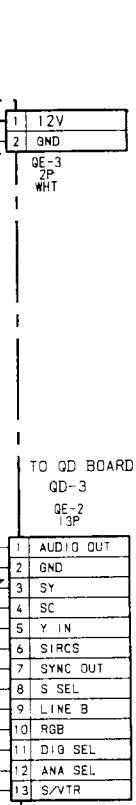
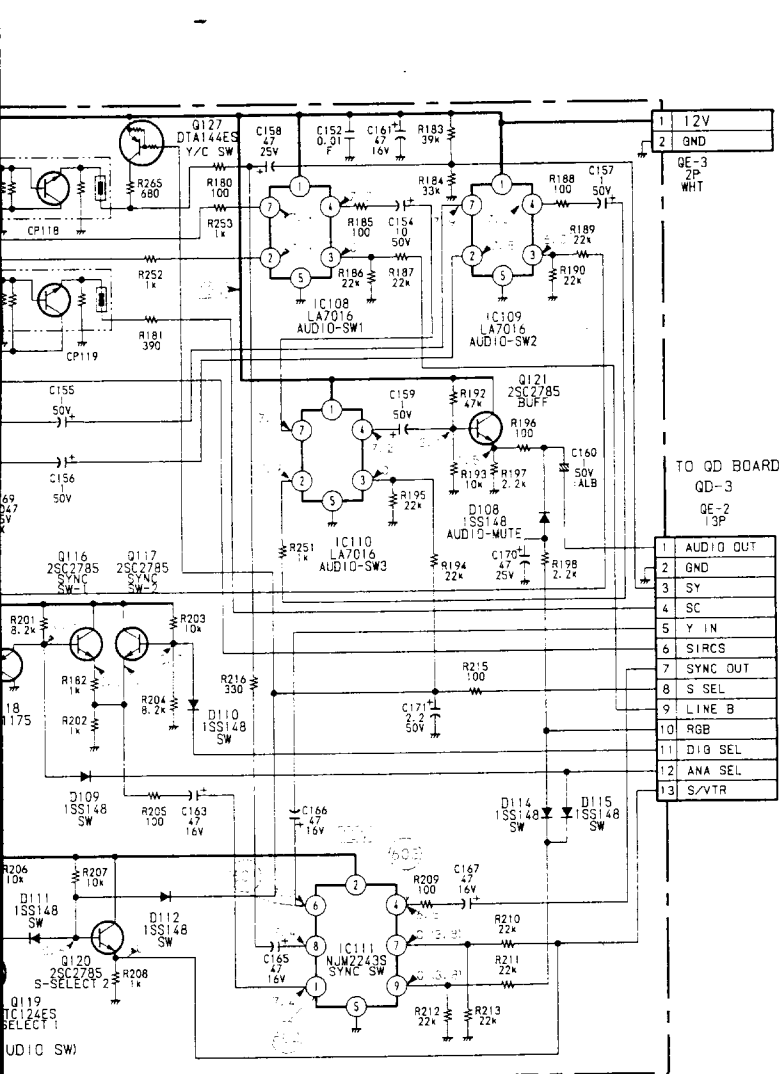
QE BOARD WAVEFORM



QD BOARD

IC NO.	PIN NO.	PAL	SECAM	NTSC
IC104	(1)	0	0	0
	(2)	0	0	0
	(3)	0	0	0
	(4)	0	0	0
	(5)	0	0	0
	(6)	0	0	0
IC105	(1)	0	0	0
	(2)	0	0	0
	(3)	0	0	0
	(4)	0	0	0
	(5)	0	0	0
	(6)	0	0	0
IC107	(1)	0	0	0
	(2)	0	0	0
	(3)	0	0	0
	(4)	0	0	0
	(5)	0	0	0
	(6)	0	0	0
IC NO.	PAL	SECAM	NTSC	
IC103	0	0	0	
IC106	0	0	0	
IC108	0	0	0	
IC109	0	0	0	
IC110	0	0	0	

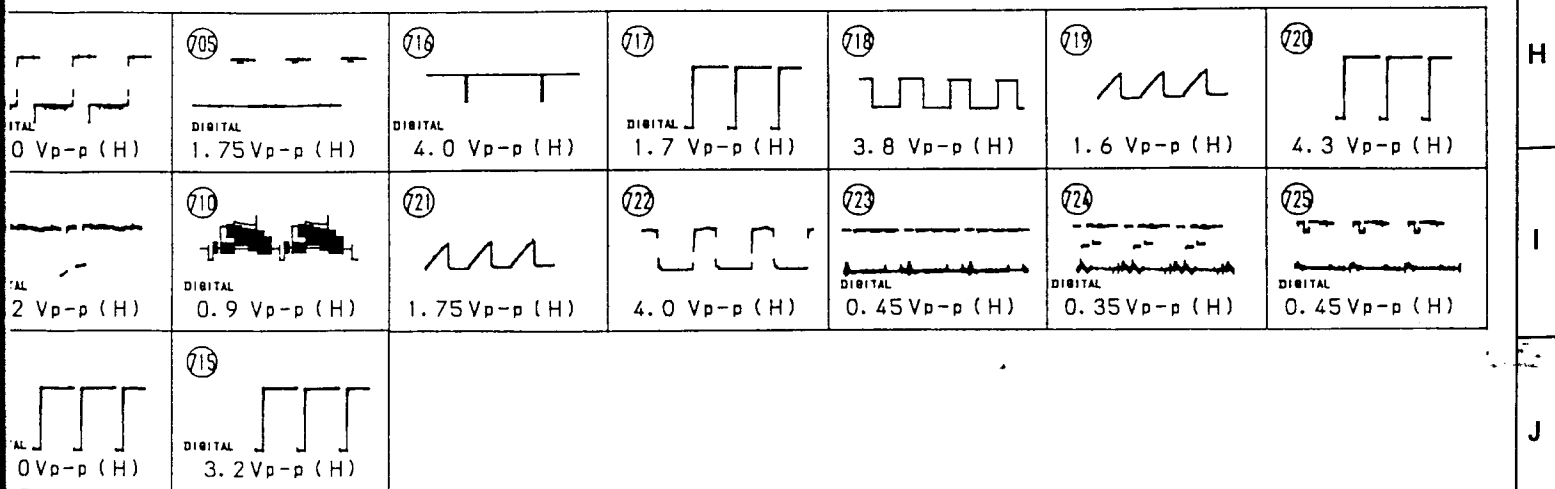
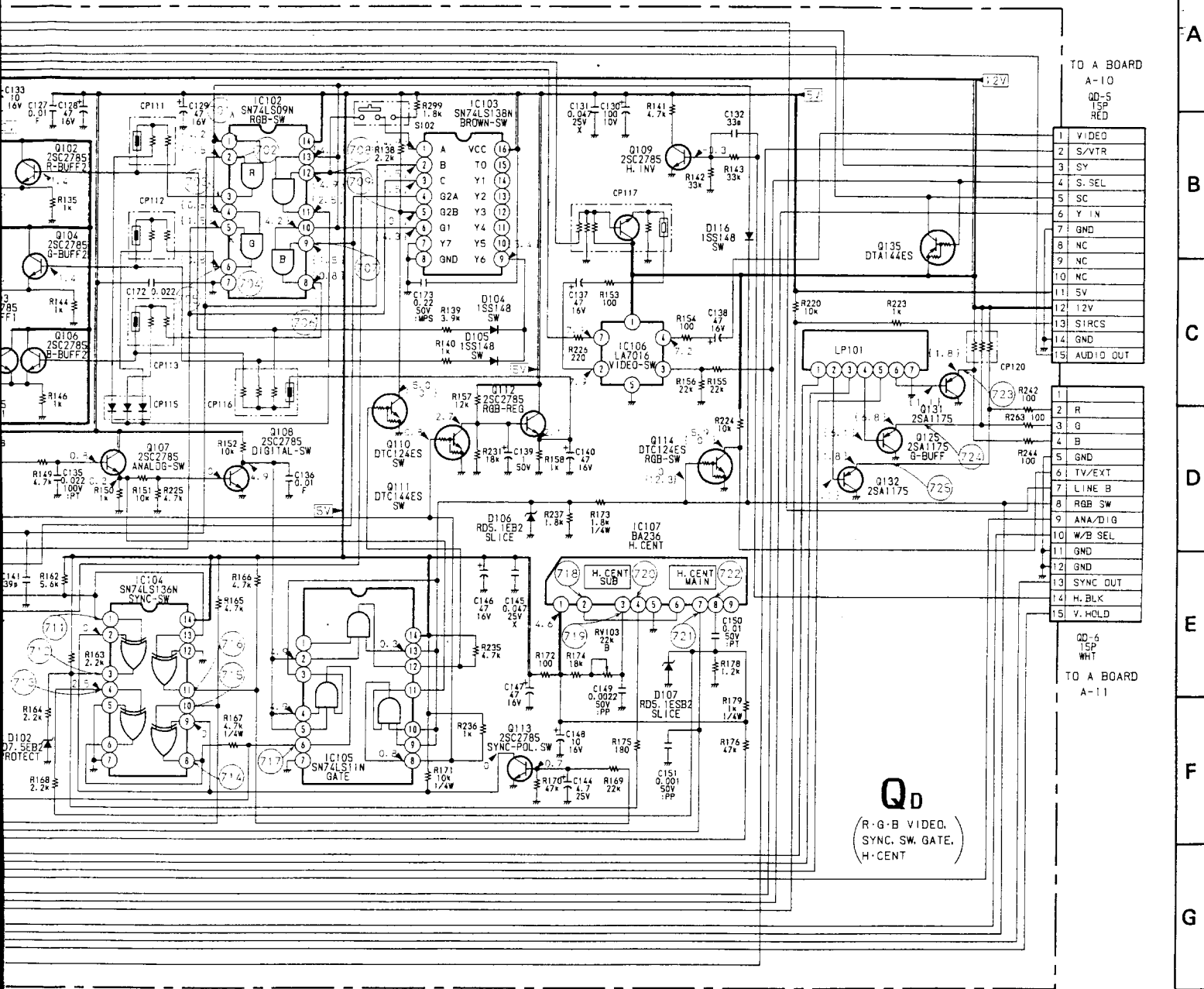
21 22 23 24 25 26 27 28

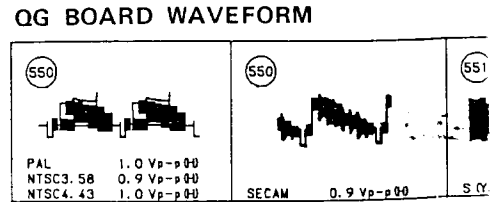
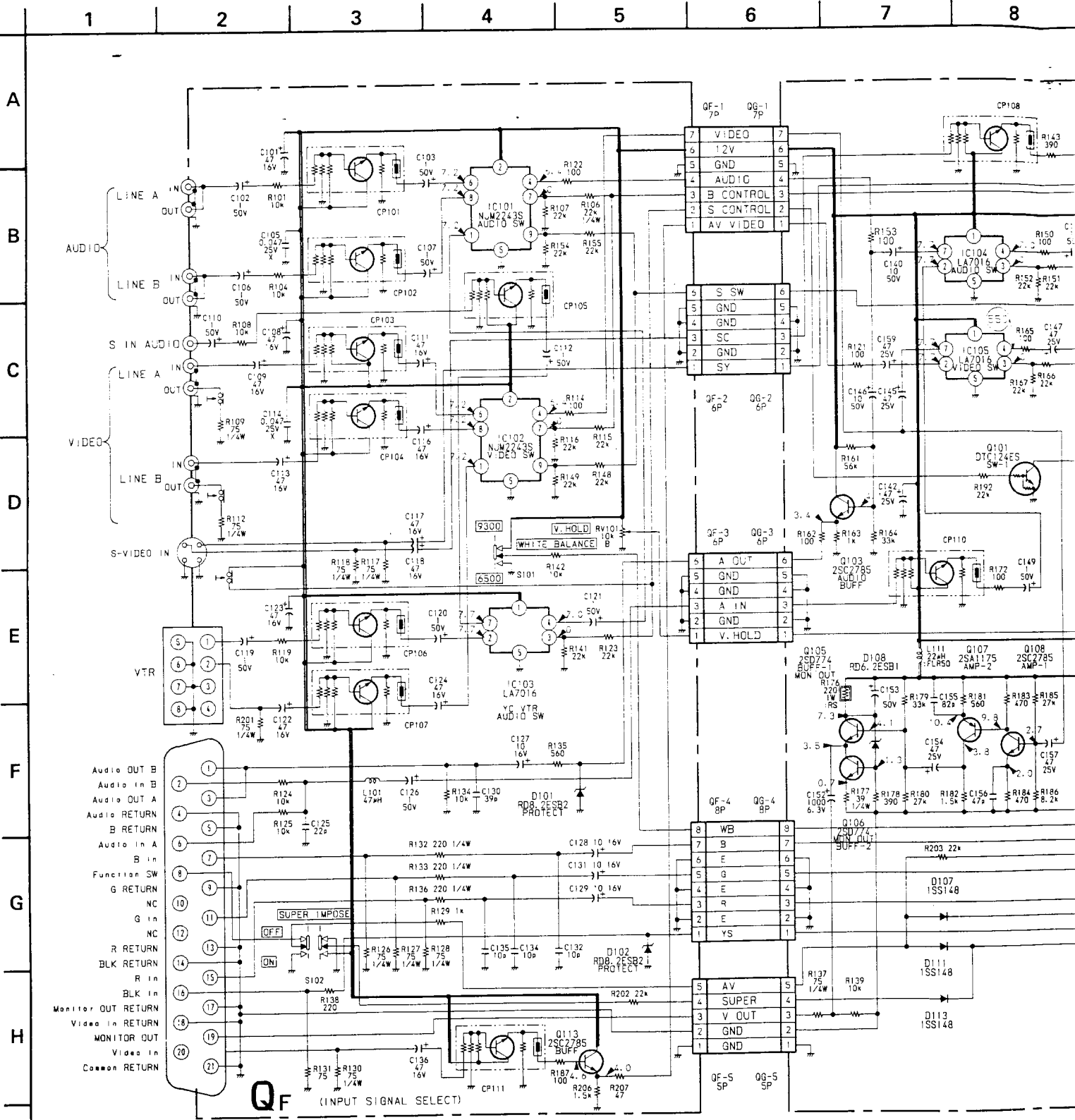


PIN/NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-V DEC
(1)	5.0	5.0	5.0	3.2	3.9
(2)	4.5	4.5	4.5	4.5	4.2
(3)	0	0	0	0	4.5
(4)	0.9	0.9	0.9	3.2	3.3
(5)	4.7	4.7	4.7	4.1	3.9
(6)	5.1	5.0	5.0	3.5	3.5
(7)	2.4	2.5	0.5	0.5	4.8
(8)	0	0	0.5	0.5	5.0
(9)	0.5	0.5	0.5	0.5	4.8
(10)	0	0	0	0	4.3
(11)	0	0	0	5.5	0
(12)	0	0	0	0	1.8
(13)	3.2	0.3	0.5	0.3	0.7
(14)	4.5	4.5	4.5	4.5	4.2
(15)	0	0	0	0	0.9
(16)	0	0	0	0	1.8

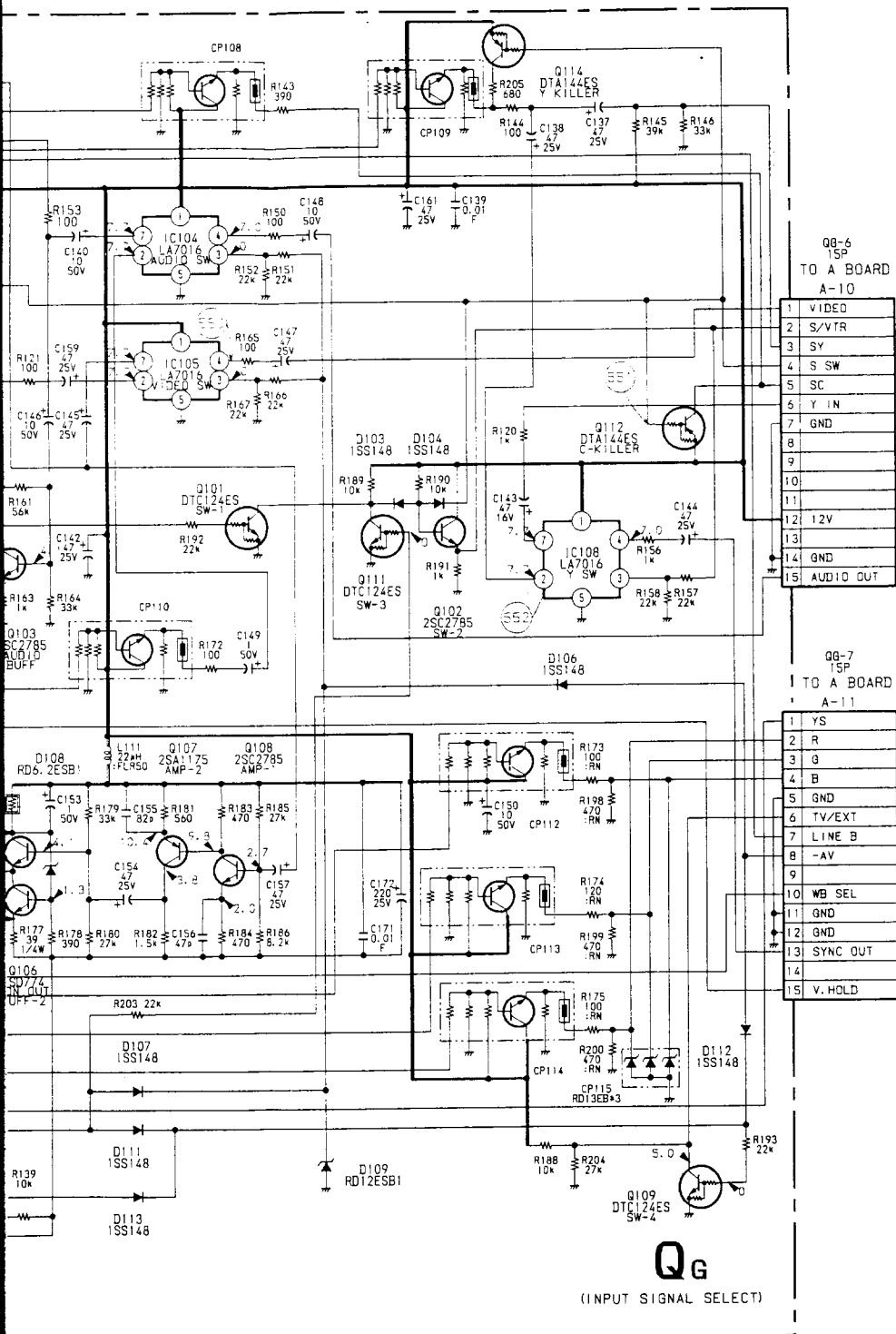
PIN/NO.	PAL	SECAM	NTSC 3.58	NTSC 4.43	S-V VIDEO	DIGITAL
B	7.5	1.5	1.5	1.5	1.9	1.8
G	3.9	6.4	3.9	3.9	3.1	3.1
R	1.4	1.4	1.4	1.4	1.8	1.8
S	3.2	3.0	3.0	3.0	3.9	3.9

28 29 30 31 32 33 34 35

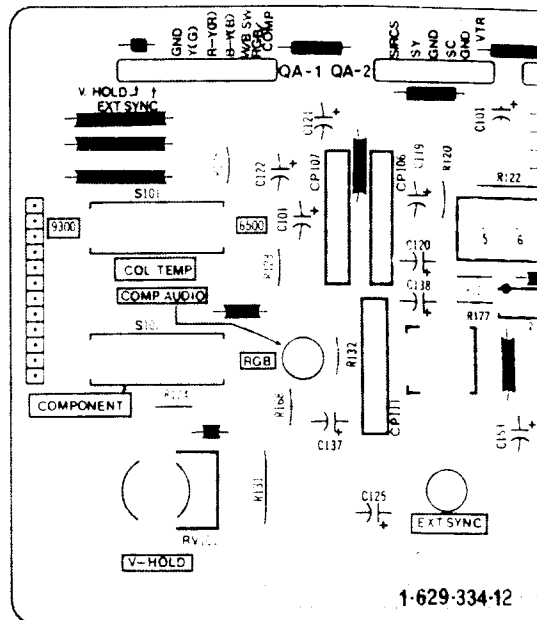




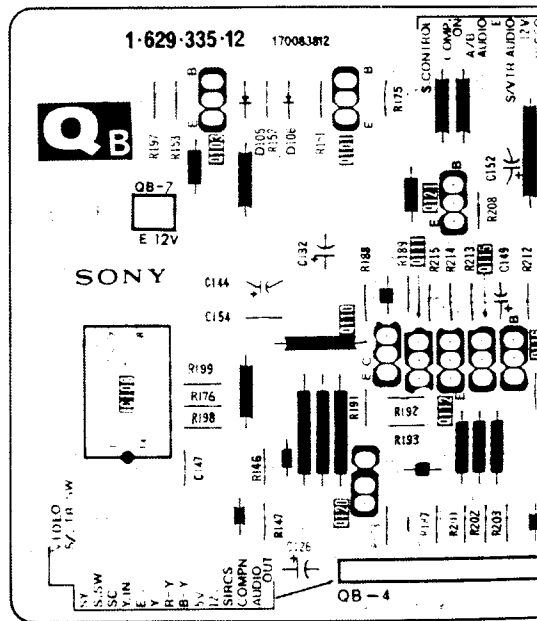
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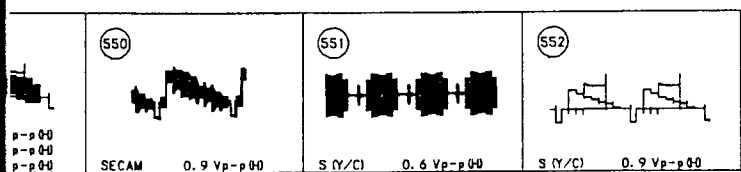
- QA Board - (PVM-1444QM)



- QB Board - (PVM-1444QM)



WAVEFORM



QA [INPUT SIGNAL SELECT]

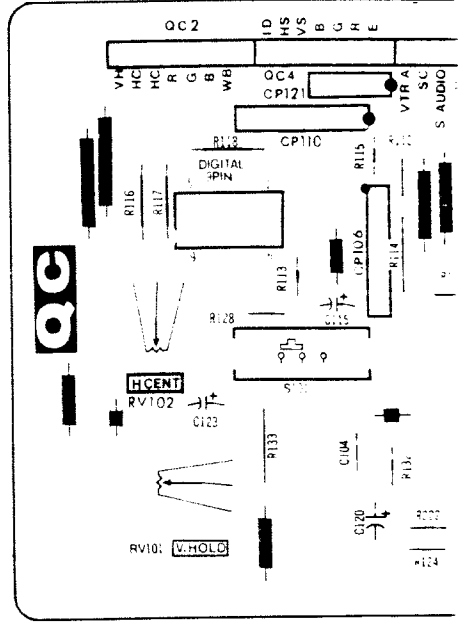
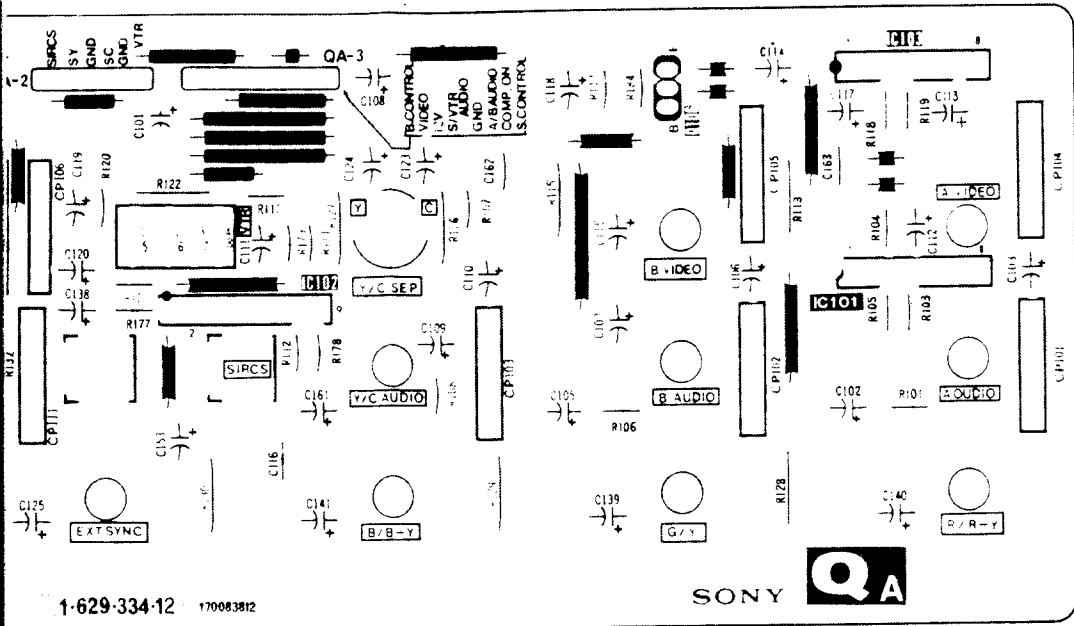
QB [INPUT SIGNAL SELECT, SYSTEM SW]

QD [R-G-B, VIDEO, SYNC SW] [GATE, H-POSITION]

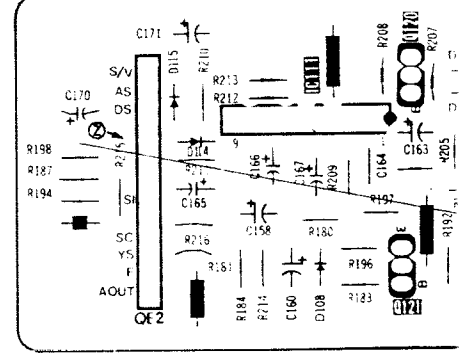
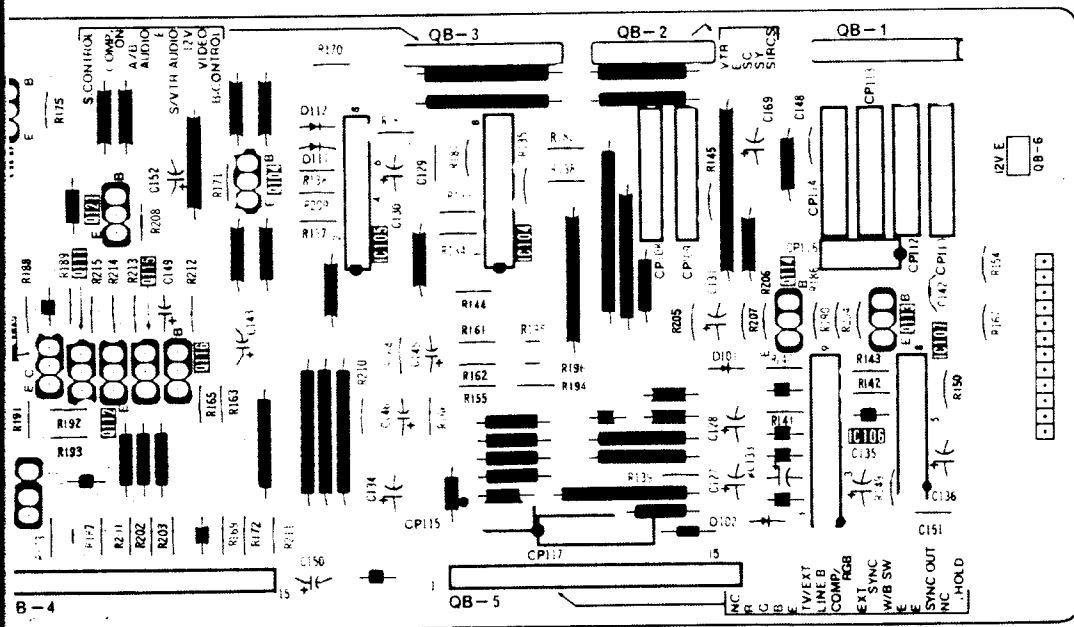
QE [AUDIO SW]

Q

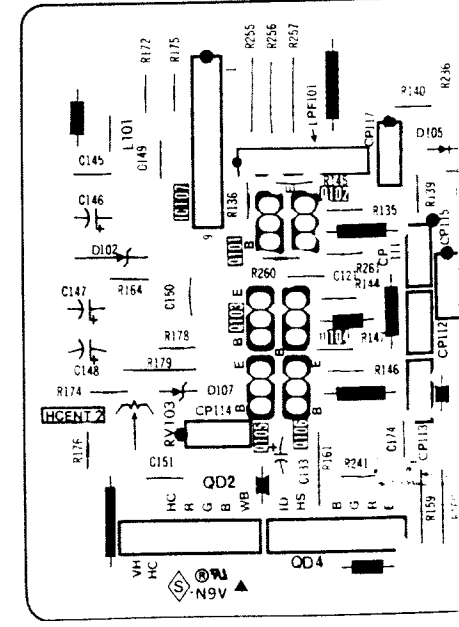
- QC Board - (PVM-1442QM)



- QE Board - (PVM-1442QM)

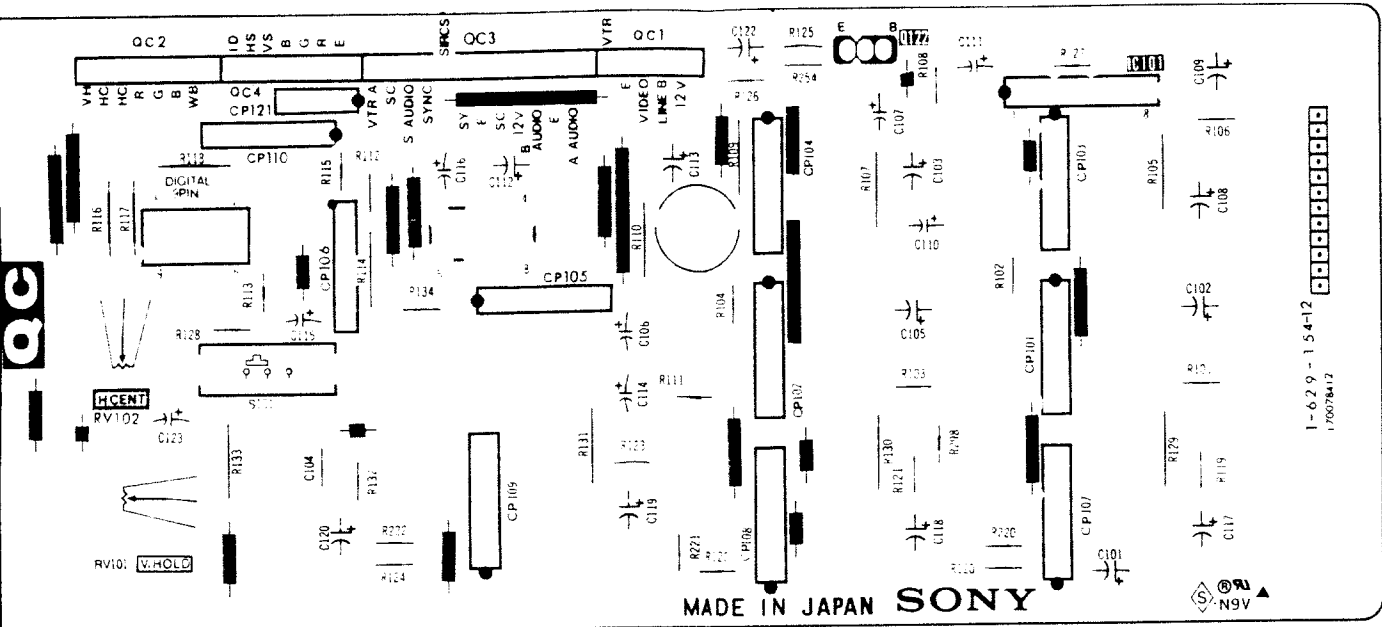


- QD Board - (PVM-1442QM)

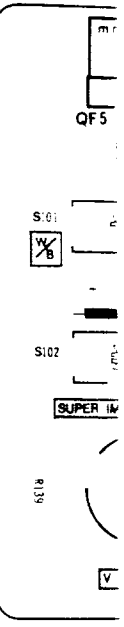


C SW] **QE** [AUDIO SW] **QC** [INPUT SIGNAL SELECT] **QF** [INPUT SIGNAL SELECT] **QG** [INPUT SIGNAL SELECT]

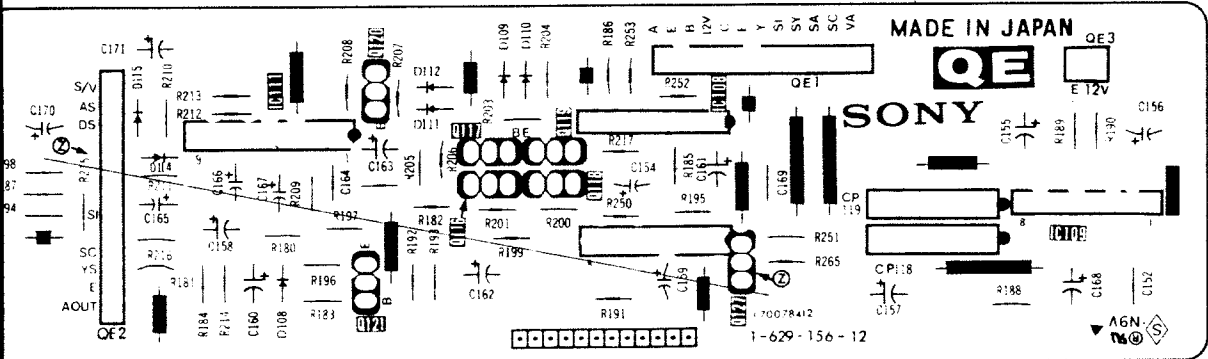
- QC Board - (PVM-1442QM)



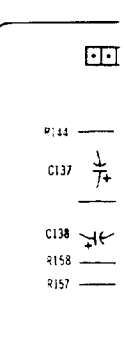
- QF Board



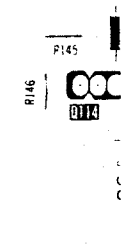
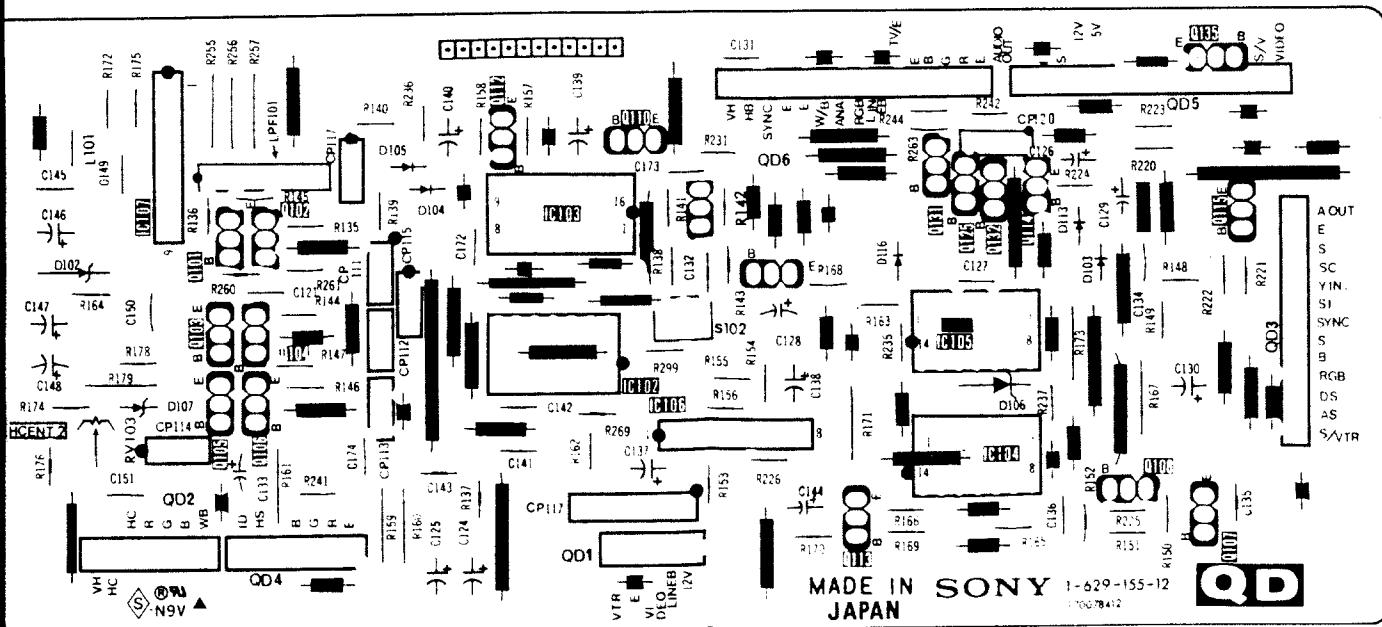
QE Board - (PVM-1442QM)



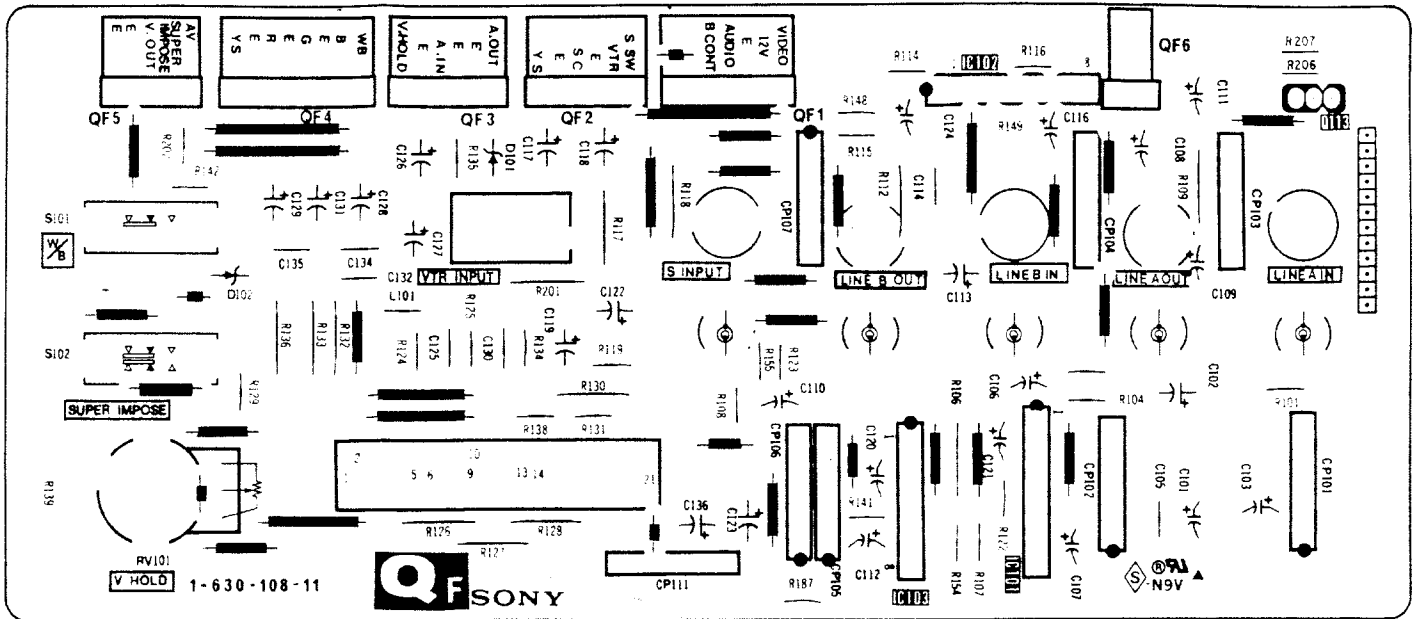
- QG Board



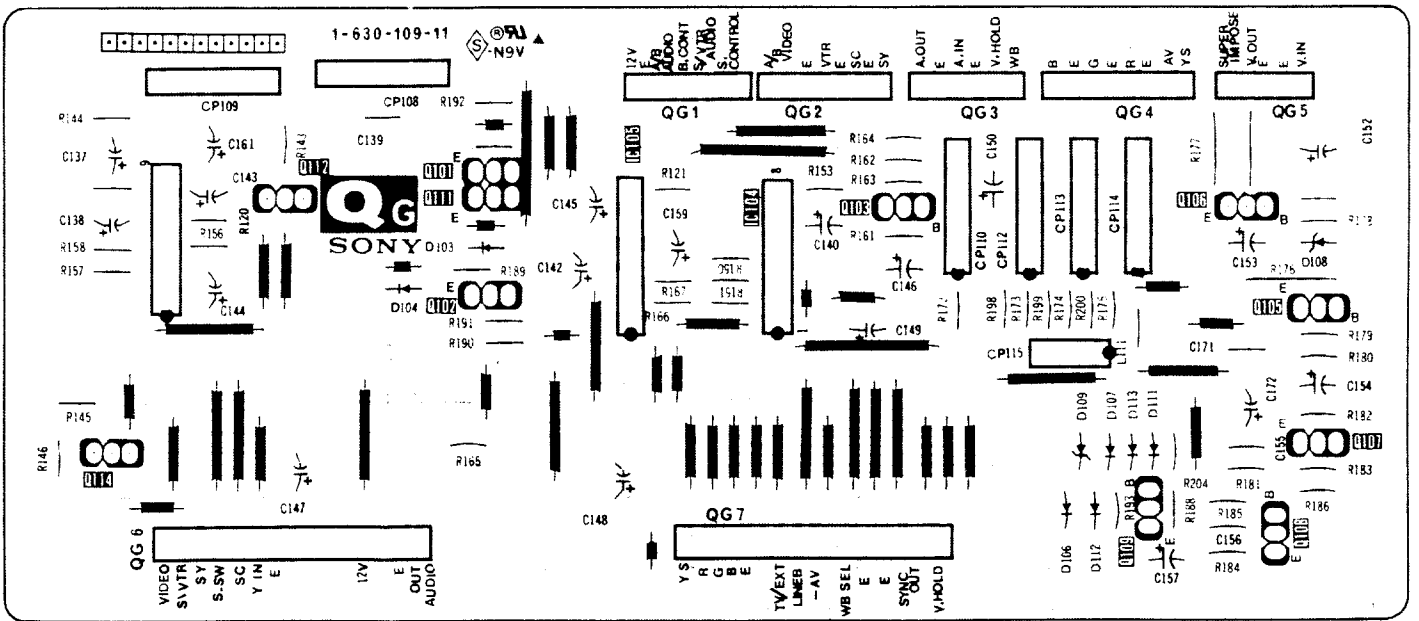
QD Board - (PVM-1442QM)



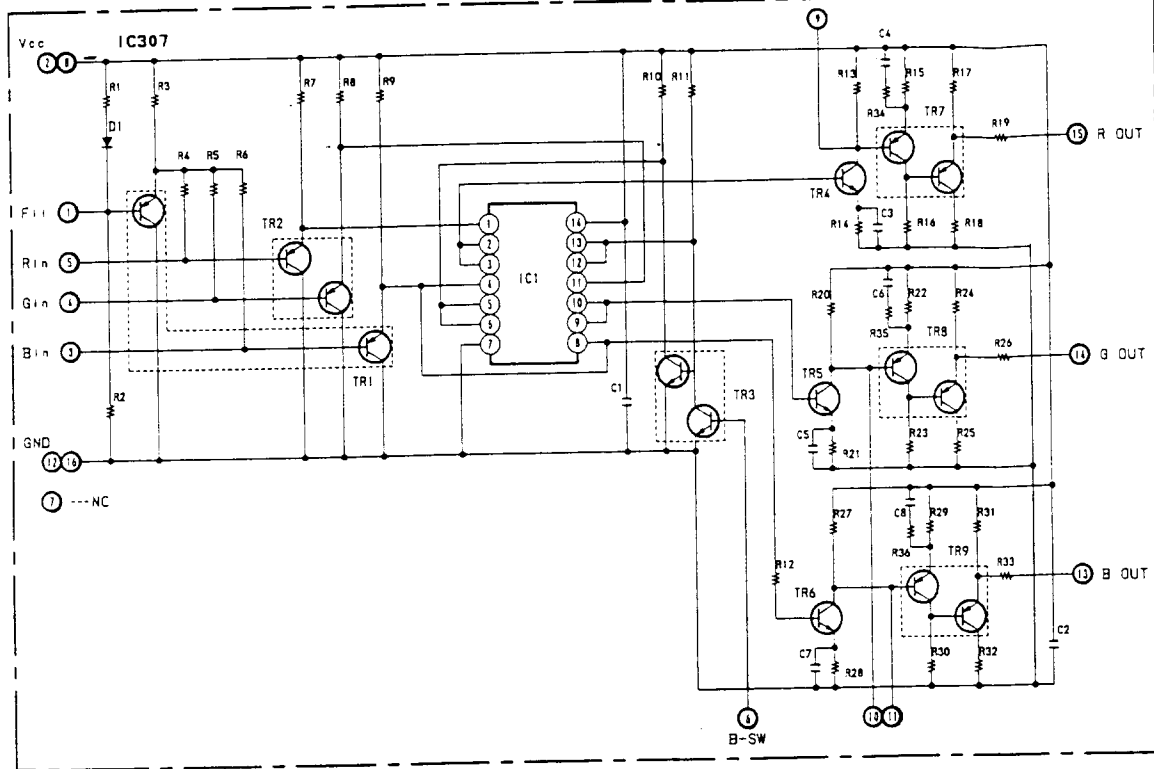
- QF Board - (PVM-1440QM)



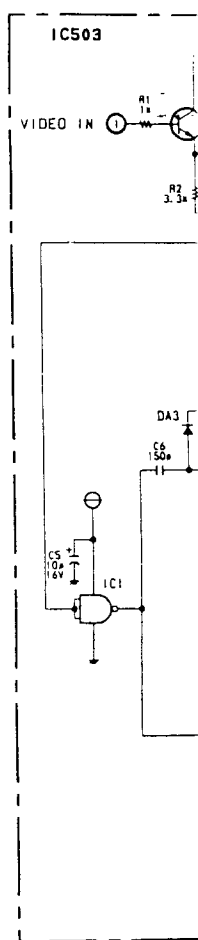
- QG Board - (PVM-1440QM)



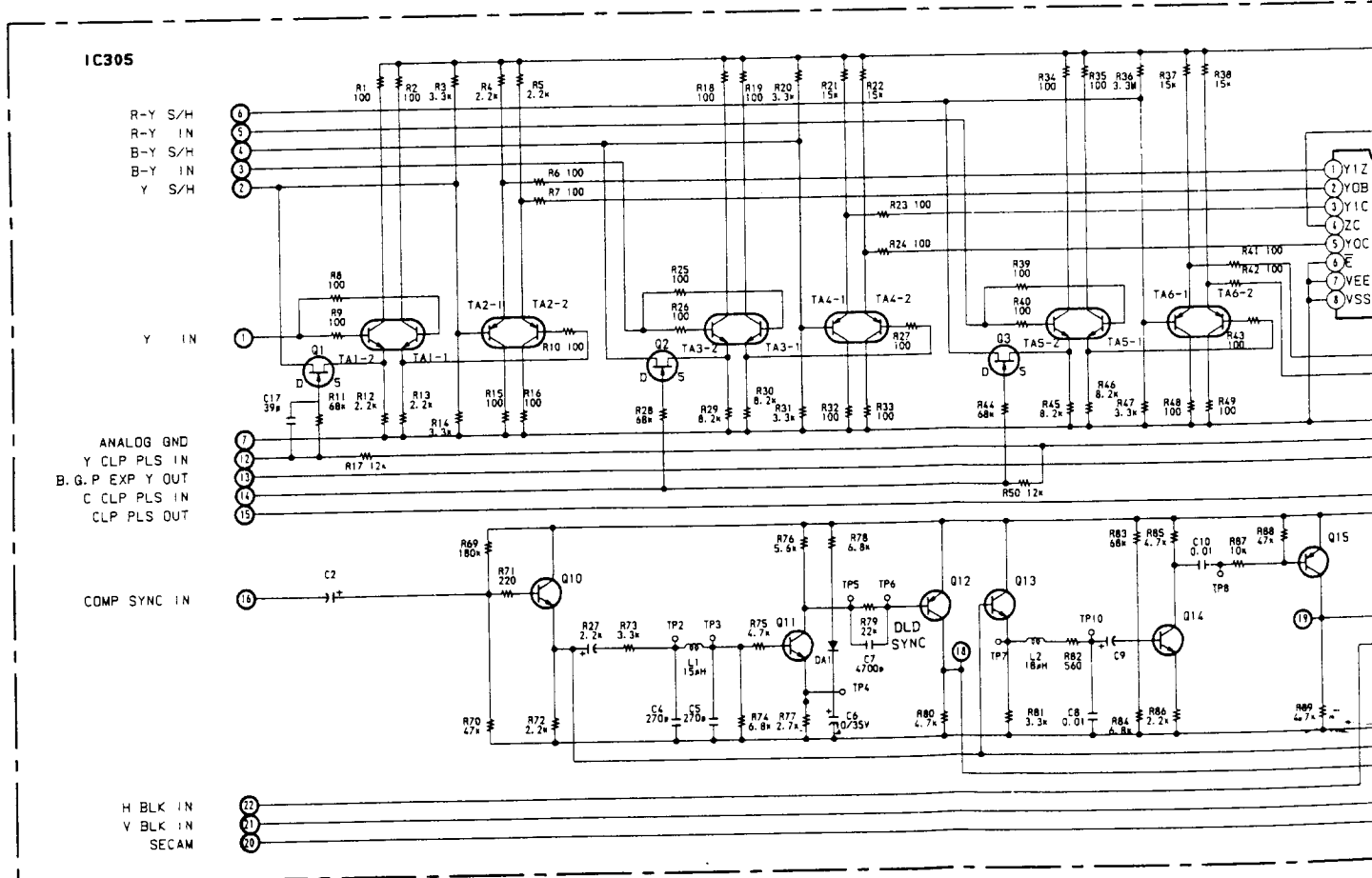
A BOARD IC307



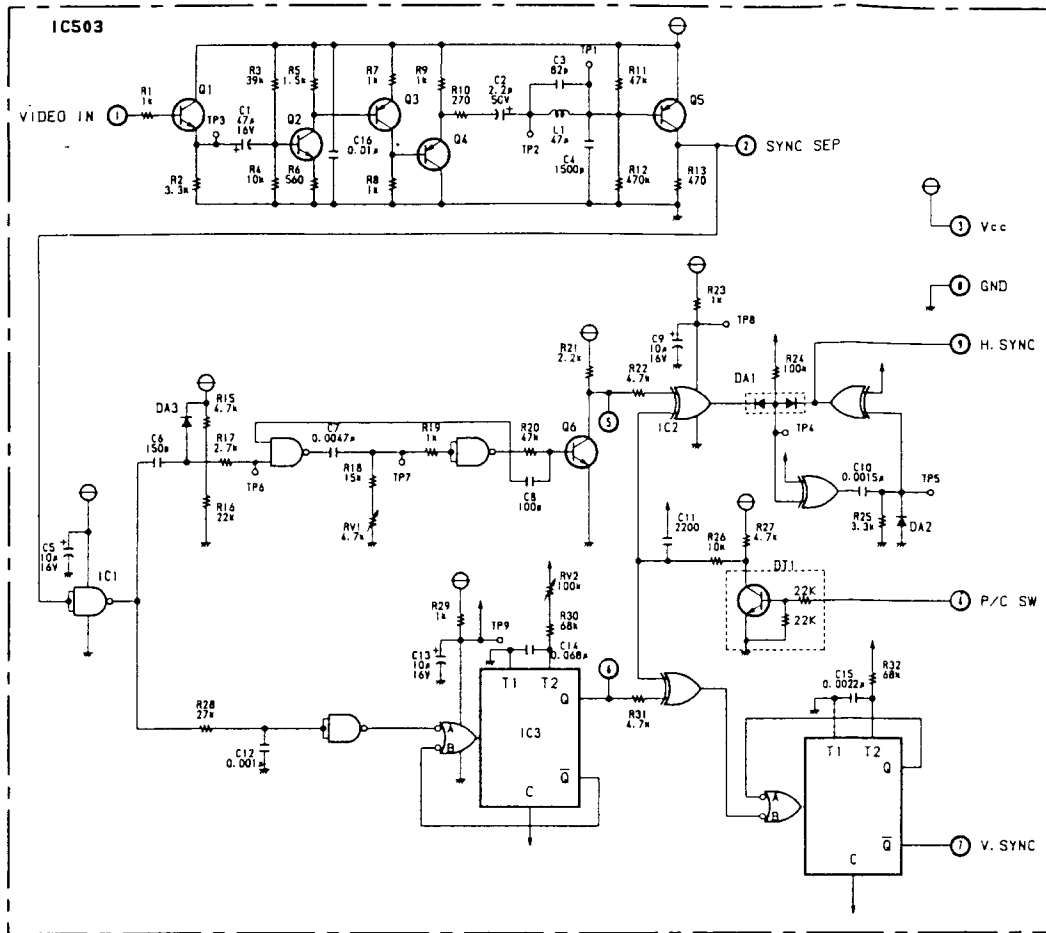
A BOARD IC503



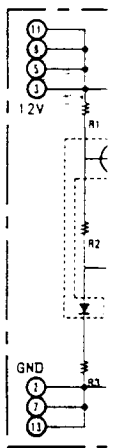
A BOARD IC 305



A BOARD IC503



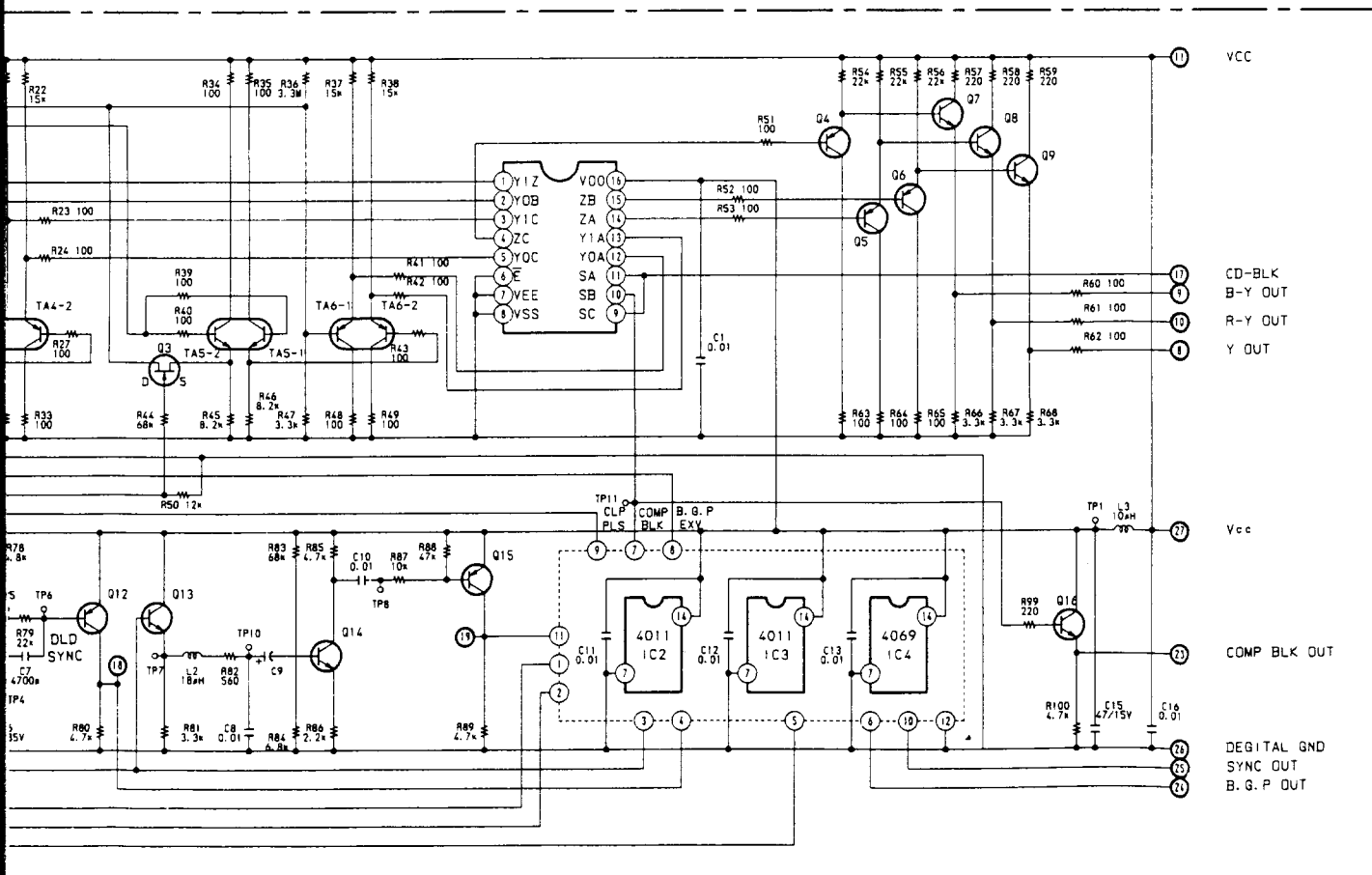
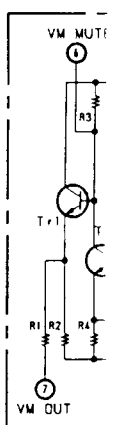
A BOARD



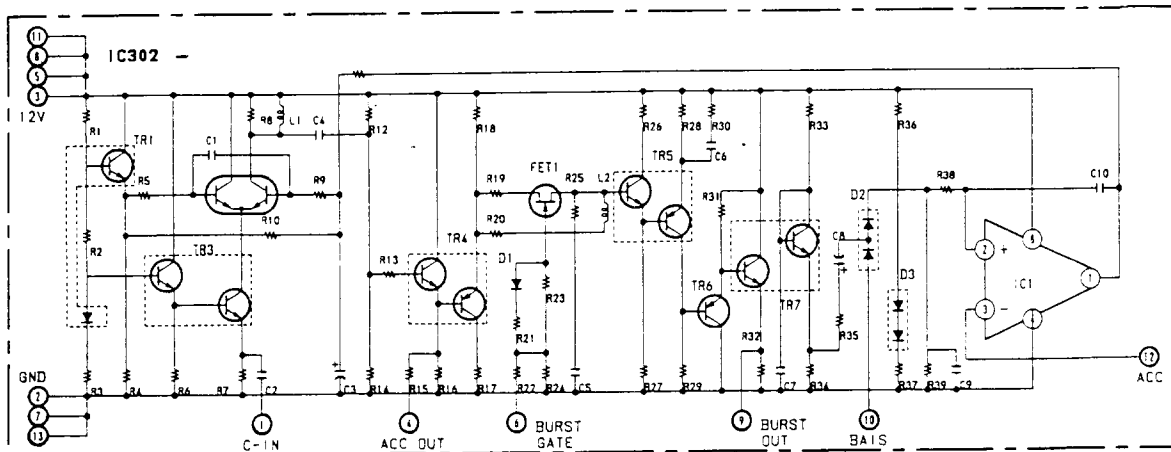
A BOARD



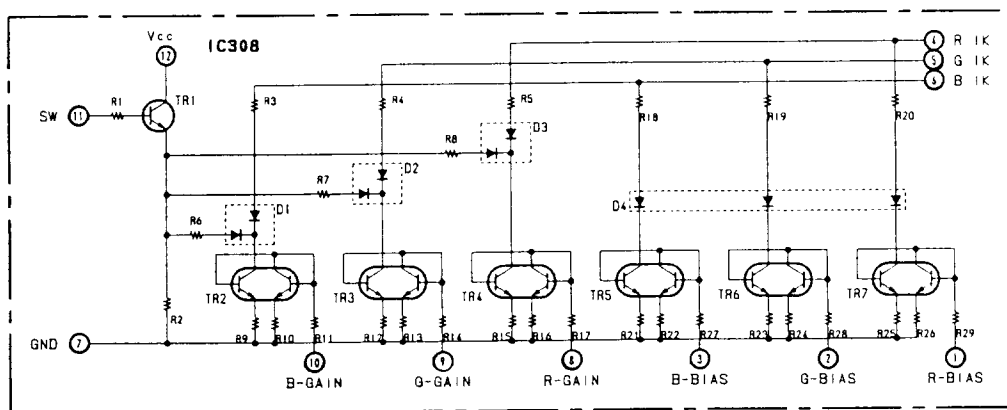
A BOARD



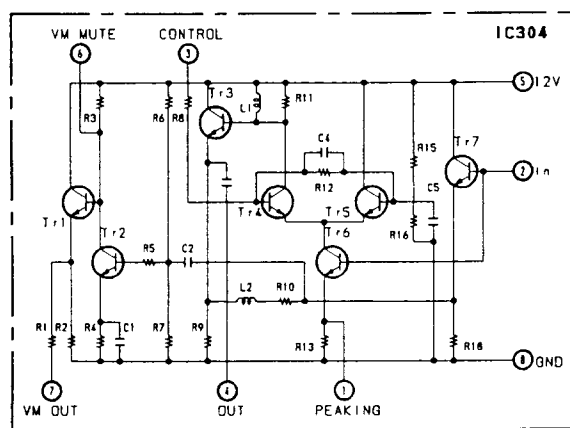
A BOARD IC302



A BOARD IC308



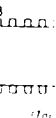
A BOARD IC304



AN5



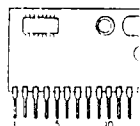
AN5



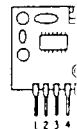
BA2



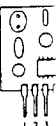
BX-



BX-



BX-



CX-

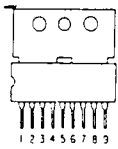


CX2

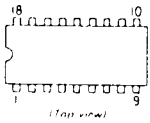
CX-
IR9
LA7
UPC
UPC

6-6. SEMICONDUCTORS

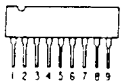
AN5265



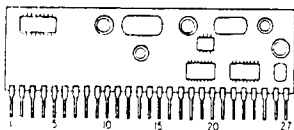
AN5613



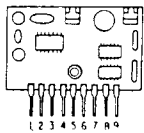
BA236



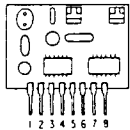
BX-7573



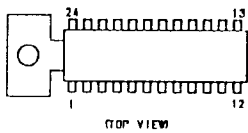
BX-7574



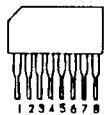
BX-7595



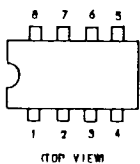
CX-175



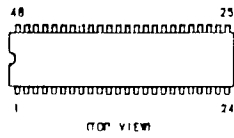
CX20125



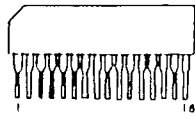
CX-23025
IR9431
LA7016
UPC358C
UPC4558C



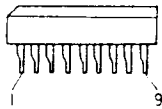
CXA1024S



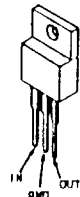
LA7061



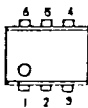
NJM2243S



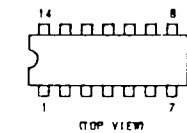
NJM7812B



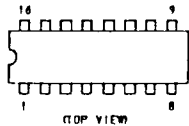
PC111S



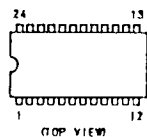
SN74LS09N
SN74LS11N
SN74LS136N
TC4011BP
TC4066BP
UPC1394C



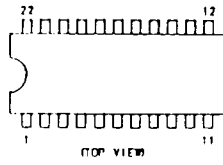
SN74LS138N
TC4052BP
TC4053BP
TC4538BP



TA7193P



UPC1377C



DTA124ES-TP
DTA144ES
DTC124ES-TP
DTC144ES-TP

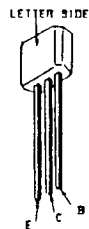


2SA1091-R
2SC1890A-ETZ

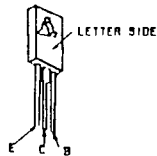
2SC2551-R



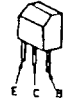
2SA1175TP-F
2SA1175TP-HFE
2SC2785TP-F
2SC2785TP-HFE



2SA1220A-P
2SA1220A-Q
2SC2611
2SC2688-K
2SC2690A-Q



2SC2958-L
2SD773-T-4
2SD774-T-3



2SD1134-C



2SD1397-CA



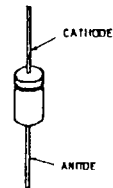
2SK105A-40



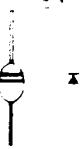
DAN209S-TP



ERB11-06
ERD28-08S
RD6.8EB2
RGP10D
RGP15D
1SS83



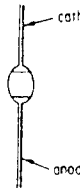
ERC26-15
VIIN



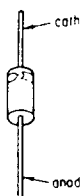
GP08D



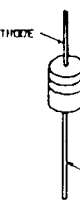
RD4.3ES



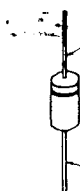
RD5.6EB7



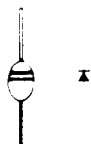
RD5.1ES-
RD5.6ES-
RD6.2ES-
RD6.8ES-
RD8.2ES-
RD10ES-T
RD10ES-T
RD13ES-T
RD15ES-T
RD16ES-T
RD39ES-T



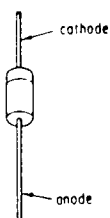
RD-6.8EB-
RD16EB3T
RD24EB27
10E2-TA2E



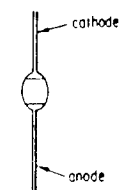
ERC26₁15S
V11N



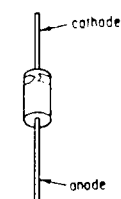
GP08D



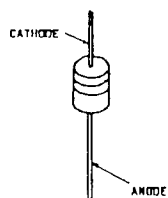
RD4.3ES-T1L2



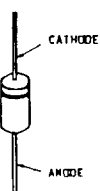
RD5.6EBZ75TN



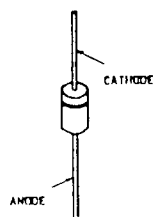
RD5.1ES-2V
RD5.6ES-T1L1
RD6.2ES-T1B2
RD6.8ES-T1B2
RD8.2ES-T1B2
RD10ES-T1B1
RD10ES-T1L3
RD13ES-T1B3
RD15ES-T1B2
RD16ES-T1B3
RD39ES-T1B4



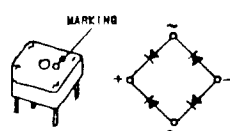
RD-6.8EB-2
RD16EB3TN
RD24EB27TN
10E2-TA2B



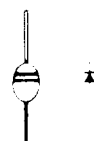
RD110EBTN
RH-1Z
RU2AM
S1B01-06
S1B01-04TP1



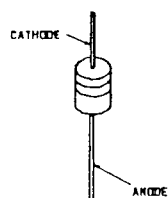
S3WB60Z



V19E



1SS148
1SS148-TP7



SECTION 7 EXPLODED VIEWS

NOTE:

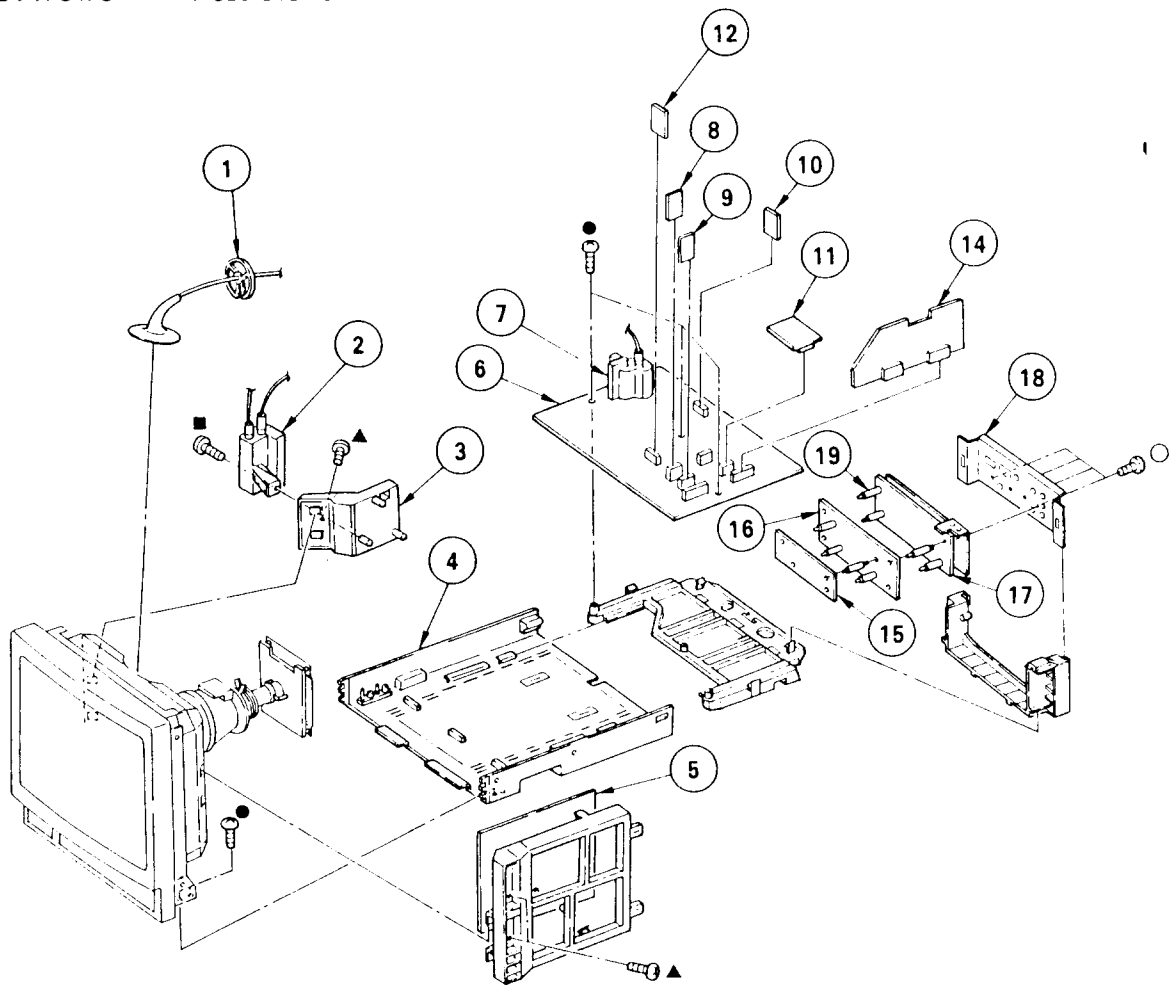
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

7-1. CHASSIS

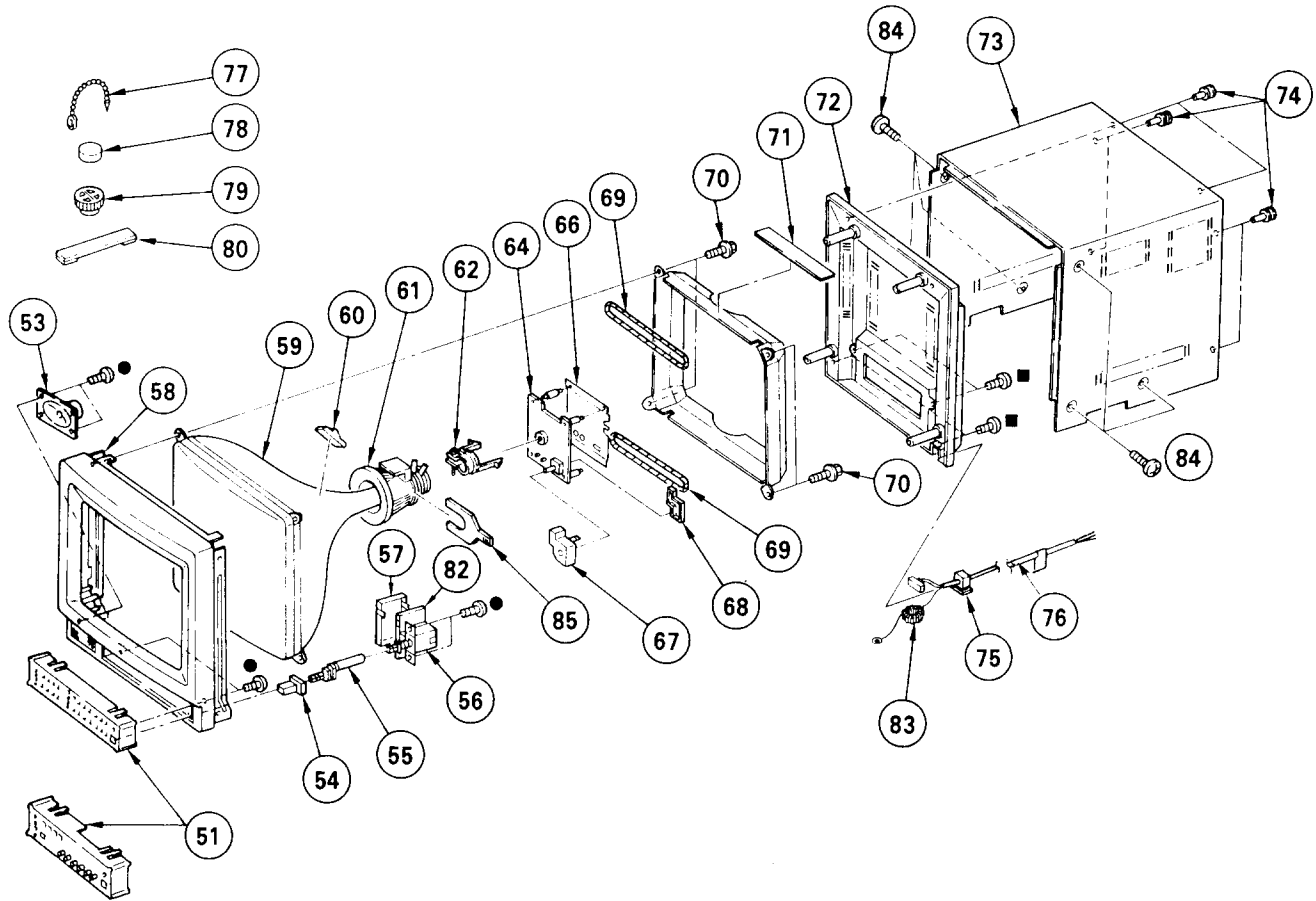
- : BVTP3 x 12 7-685-648-79
- : BVTP4 x 16 7-685-663-79
- ▲ : BVTT4 x 8 7-682-561-04
- : BVTP3 x 8 7-685-646-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	Δ *3-704-372-01	HOLDER, HV CABLE		14	*A-1135-564-A	BA BOARD, COMPLETE (PVM-1440QM ONLY)	
2	Δ 1-237-614-12	RESISTOR ASSY, HIGH-VOLTAGE			*A-1135-573-A	BA BOARD, COMPLETE (PVM-1442QM/ 1444QM ONLY)	
3	*4-391-842-01	BRACKET, HVR		15	*A-1270-249-A	QE BOARD, COMPLETE (PVM-1442QM ONLY)	
4	X-4391-805-1	CABINET ASSY, BOTTOM		16	*A-1270-267-A	QG BOARD, COMPLETE (PVM-1440QM ONLY)	
5	*A-1245-456-A	FE BOARD, COMPLETE			*A-1270-248-A	QD BOARD, COMPLETE (PVM-1442QM ONLY)	
6	*A-1296-520-A	A BOARD, COMPLETE			*A-1270-246-A	QB BOARD, COMPLETE (PVM-1444QM ONLY)	
7	Δ 1-439-395-12	TRANSFORMER ASSY, FLYBACK		17	*A-1270-266-A	QF BOARD, COMPLETE (PVM-1440QM ONLY)	
8	*1-629-149-11	W BOARD			*A-1270-247-A	QC BOARD, COMPLETE (PVM-1442QM ONLY)	
9	*1-629-151-11	XA BOARD			*A-1270-245-A	QA BOARD, COMPLETE (PVM-1444QM ONLY)	
10	*1-629-150-11	Y BOARD		18	4-391-843-32	PLATE, TERMINAL (PVM-1440QM ONLY)	
11	*1-629-148-11	V BOARD			4-391-843-12	PLATE, TERMINAL (PVM-1442QM ONLY)	
12	*1-629-219-11	U BOARD (PVM-1440QM ONLY)			4-391-843-02	PLATE, TERMINAL (PVM-1444QM ONLY)	
				19	*3-682-419-01	HOLDER, P.C.B	

7-2. PICTURE TUBE

- : BVTP3 x 12 7-685-648-79
- : BVTP4 x 16 7-685-663-79



The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	1-466-113-11	CONTROL UNIT (PVM-1440QM ONLY)		66	*4-391-835-01	PLATE (C), SHIELD (PVM-1442QM ONLY)	
	1-466-076-11	CONTROL UNIT (PVM-1442QM ONLY)		67	*4-374-912-01	COVER (MAIN), CV VOL	
	1-466-075-11	CONTROL UNIT (PVM-1444QM ONLY)		68	*4-374-913-01	COVER (REAR LID), CV.VOL	
53	1-544-063-11	SPEAKER		69	Δ 1-426-145-13	COIL, DEGAUSSING	
54	4-374-839-11	BUTTON (A)		70	4-307-249-00	SCREW (5), TAPPING	
55	4-391-824-01	JOINT		71	4-391-833-01	CLOTH, PROTECTION	
56	Δ 1-554-967-12	SWITCH, PUSH (AC POWER) (1 KEY)		72	4-391-839-01	COVER, REAR	
57	*4-391-820-01	COVER, AC SWITCH		73	X-4391-810-1	COVER ASSY, TOP	
58	X-4391-804-1	BEZEL ASSY (PVM-1442QM/44QM ONLY)		74	4-391-825-01	RIVET, NYLON	
	X-4391-804-2	BEZEL ASSY (PVM-1440QM ONLY)		75	Δ *4-364-745-01	BUSHING, AC CORD	
59	Δ 8-736-254-05	PICTURE TUBE (A34JHS10X)		76	Δ 1-574-389-12	CORD, POWER	
		(PVM-1440QM ONLY)		77	4-308-870-00	CLIP, LEAD WIRE	
	Δ 8-734-621-05	PICTURE TUBE (M34KBE21X)		78	1-452-032-00	MAGNET, DISK; 10MM ϕ	
		(PVM-1442QM/1444QM ONLY)		79	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
60	3-703-961-01	SPACER, DY		80	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
61	Δ 1-451-329-11	DEFLECTION YOKE (Y14FZA)		82	*1-629-153-11	J BOARD	
62	*4-382-050-01	BAND, C PC BOARD		83	1-543-604-11	CORE, RING	
64	*A-1330-986-A	C BOARD, COMPLETE		84	4-847-802-11	*SCREW (OS), CASE, CLAW	
				85	1-452-277-00	MAGNET BMC	

SECTION 8
ELECTRICAL PARTS LIST

BA

NOTE:

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

• All resistors are in ohms
• F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

• MF : μ F, PF : μ μ F

COILS

• MMH : mH, UH : μ H

• * : Selected to yield optimum performance.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1135-573-A	BA BOARD, COMPLETE (PVM-1442QM / ***** PVM-1444QM ONLY)			C269	1-102-978-00	CERAMIC 220PF 5%	50V
*A-1135-564-A	BA BOARD, COMPLETE (PVM-1440QM ONLY) *****			C271	1-101-004-00	CERAMIC 0.01MF	50V
				C272	1-101-002-00	CERAMIC 0.0022MF	50V
				C273	1-101-002-00	CERAMIC 0.0022MF	50V
				C280	1-108-624-11	MYLAR 0.0068MF 10%	100V
				C281	1-124-478-11	ELECT 100MF 20%	25V
		<CONNECTOR>		C292	1-101-004-00	CERAMIC 0.01MF	50V
BA1	*1-565-491-11	CONNECTOR, BOARD TO BOARD 15P		C401	1-123-875-11	ELECT 10MF 20%	50V
BA2	*1-565-491-11	CONNECTOR, BOARD TO BOARD 15P		C402	1-101-888-00	CERAMIC 68PF 5%	50V
				C403	1-102-116-00	CERAMIC 680PF 10%	50V
				C404	1-136-161-00	FILM 0.047MF 5%	50V
		<FILTER>		C405	1-102-074-00	CERAMIC 0.001MF 10%	50V
BPF243	1-236-363-11	FILTER, BAND PASS		C406	1-124-477-11	ELECT 47MF 20%	25V
BPF244	1-236-364-11	FILTER, BAND PASS		C407	1-101-890-00	CERAMIC 75PF 5%	50V
				C408	1-102-960-00	CERAMIC 27PF 5%	50V
				C409	1-136-165-00	FILM 0.1MF 5%	50V
		<CAPACITOR>		C410	1-136-165-00	FILM 0.1MF 5%	50V
C201	1-124-120-11	ELECT 220MF 20%	25V	C411	1-136-165-00	FILM 0.1MF 5%	50V
C202	1-102-125-00	CERAMIC 0.0047MF 10%	50V	C412	1-102-129-00	CERAMIC 0.01MF 10%	50V
C203	1-102-125-00	CERAMIC 0.0047MF 10%	50V	C413	1-124-499-11	ELECT 1MF 20%	50V
C207	1-124-477-11	ELECT 47MF 20%	25V	C414	1-136-173-00	FILM 0.47MF 5%	50V
C208	1-124-477-11	ELECT 47MF 20%	25V	C415	1-123-875-11	ELECT 10MF 20%	50V
C209	1-124-477-11	ELECT 47MF 20%	25V	C416	1-102-118-00	CERAMIC 0.0012MF 10%	50V
C210	1-124-477-11	ELECT 47MF 20%	25V	C417	1-124-477-11	ELECT 47MF 20%	25V
C211	1-124-477-11	ELECT 47MF 20%	25V	C418	1-124-499-11	ELECT 1MF 20%	50V
C212	1-124-477-11	ELECT 47MF 20%	25V	C419	1-124-478-11	ELECT 100MF 20%	25V
C213	1-124-477-11	ELECT 47MF 20%	25V	C420	1-136-165-00	FILM 0.1MF 5%	50V
C214	1-101-004-00	CERAMIC 0.01MF	50V	C421	1-102-960-00	CERAMIC 27PF 5%	50V
C221	1-124-902-00	ELECT 0.47MF 20%	50V	C422	1-136-165-00	FILM 0.1MF 5%	50V
C222	1-124-464-11	ELECT 0.22MF 20%	50V	C423	1-123-875-11	ELECT 10MF 20%	50V
C223	1-102-959-00	CERAMIC 22PF 5%	50V	C424	1-136-165-00	FILM 0.1MF 5%	50V
C224	1-101-888-00	CERAMIC 68PF 5%	50V	C425	1-101-361-00	CERAMIC 150PF 5%	50V
C230	1-124-120-11	ELECT 220MF 20%	25V	C426	1-101-890-00	CERAMIC 75PF 5%	50V
C240	1-101-004-00	CERAMIC 0.01MF	50V	C427	1-124-120-11	ELECT 220MF 20%	25V
C241	1-124-120-11	ELECT 220MF 20%	25V	C428	1-124-477-11	ELECT 47MF 20%	25V
C242	1-124-478-11	ELECT 100MF 20%	25V	C429	1-124-477-11	ELECT 47MF 20%	25V
C243	1-124-120-11	ELECT 220MF 20%	25V	C430	1-101-004-00	CERAMIC 0.01MF	50V
C245	1-101-004-00	CERAMIC 0.01MF	50V	C431	1-101-884-00	CERAMIC 56PF 5%	50V
C246	1-123-875-11	ELECT 10MF 20%	50V	C432	1-101-004-00	CERAMIC 0.01MF	50V
C247	1-101-004-00	CERAMIC 0.01MF	50V	C433	1-124-478-11	ELECT 100MF 20%	25V
C248	1-102-125-00	CERAMIC 0.0047MF 10%	50V	C434	1-101-884-00	CERAMIC 56PF 5%	50V
C250	1-161-021-11	CERAMIC 0.047MF 10%	25V	C435	1-101-884-00	CERAMIC 56PF 5%	50V
C251	1-102-125-00	CERAMIC 0.0047MF 10%	50V	C441	1-102-959-00	CERAMIC 22PF 5%	50V
C252	1-102-125-00	CERAMIC 0.0047MF 10%	50V	C442	1-161-021-11	CERAMIC 0.047MF 10%	25V
C253	1-102-125-00	CERAMIC 0.0047MF 10%	50V				
C254	1-102-125-00	CERAMIC 0.0047MF 10%	50V				
C255	1-101-004-00	CERAMIC 0.01MF	50V				
C265	1-102-978-00	CERAMIC 220PF 5%	50V				
C266	1-101-003-00	CERAMIC 0.0047MF	50V				
C267	1-124-478-11	ELECT 100MF 20%	25V				
C268	1-101-003-00	CERAMIC 0.0047MF	50V				
						<FILTER BLOCK>	
				CFM201	1-464-880-11	FILTER BLOCK, COM (CFB-2)	

BA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<MODULE>							
CTR210	1-236-366-11	MODULE, TRAP		Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CTR211	1-236-365-11	MODULE, TRAP		Q262	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PCM290	1-808-628-11	MODULE, PHASE PHM-1		Q263	8-729-119-78	TRANSISTOR 2SC2785-HFE	
SEP270	1-808-654-11	MODULE		Q264	8-729-119-76	TRANSISTOR 2SA1175-HFE	
				Q265	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<DIODE>							
D210	8-719-911-19	DIODE 1SS119		Q280	8-729-900-89	TRANSISTOR DTC144ES	
D211	8-719-911-19	DIODE 1SS119		Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D212	8-719-911-19	DIODE 1SS119		Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D240	8-719-110-16	DIODE RD10ES-B1		Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D280	8-719-911-19	DIODE 1SS119		Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D401	8-719-911-19	DIODE 1SS119		Q405	8-729-900-63	TRANSISTOR DTA124ES	
D402	8-719-911-19	DIODE 1SS119		Q406	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q407	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q408	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<DELAY LINE>							
DL230	1-415-632-11	DELAY LINE, Y		Q410	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q411	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<IC>				<RESISTOR>			
FPG280	8-749-920-73	IC BX7595		JW95	1-249-411-11	CARBON 330 5%	1/4W
IC201	8-759-800-81	IC LA7016		R201	1-249-435-11	CARBON 33K 5%	1/4W
IC210	8-759-240-53	IC TC4053BP		R202	1-249-435-11	CARBON 33K 5%	1/4W
IC250	8-759-800-81	IC LA7016		R203	1-249-405-11	CARBON 100 5%	1/4W
IC260	8-759-208-14	IC TC4066BPHB		R204	1-249-421-11	CARBON 2.2K 5%	1/4W
IC261	8-759-208-14	IC TC4066BPHB		R205	1-249-433-11	CARBON 22K 5%	1/4W
IC401	8-751-750-00	IC CX-175		R206	1-249-432-11	CARBON 18K 5%	1/4W
				R207	1-249-409-11	CARBON 220 5%	1/4W
<COIL>				R210	1-249-437-11	CARBON 47K 5%	1/4W
L280	1-410-509-11	INDUCTOR 10UH		R211	1-249-437-11	CARBON 47K 5%	1/4W
L282	1-410-470-11	INDUCTOR 10UH		R212	1-249-437-11	CARBON 47K 5%	1/4W
L401	1-410-087-31	INDUCTOR 10MMH		R213	1-249-429-11	CARBON 10K 5%	1/4W
L402	1-408-411-00	INDUCTOR 15UH		R214	1-249-433-11	CARBON 22K 5%	1/4W
L403	1-404-496-00	COIL		R215	1-249-437-11	CARBON 47K 5%	1/4W
L404	1-408-411-00	INDUCTOR 15UH		R216	1-249-429-11	CARBON 10K 5%	1/4W
L405	1-404-496-00	COIL		R217	1-249-429-11	CARBON 10K 5%	1/4W
L406	1-410-470-11	INDUCTOR 10UH		R218	1-249-425-11	CARBON 4.7K 5%	1/4W
L408	1-410-336-11	INDUCTOR 220UH		R219	1-249-405-11	CARBON 100 5%	1/4W
<TRANSISTOR>				R220	1-249-428-11	CARBON 8.2K 5%	1/4W
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R221	1-249-423-11	CARBON 3.3K 5%	1/4W
Q210	8-729-119-78	TRANSISTOR 2SC2785-HFE		R222	1-249-439-11	CARBON 68K 5%	1/4W
Q211	8-729-119-76	TRANSISTOR 2SA1175-HFE		R224	1-249-439-11	CARBON 68K 5%	1/4W
Q212	8-729-900-89	TRANSISTOR DTC144ES		R225	1-249-439-11	CARBON 68K 5%	1/4W
Q213	8-729-900-89	TRANSISTOR DTC144ES		R226	1-249-439-11	CARBON 68K 5%	1/4W
Q214	8-729-119-78	TRANSISTOR 2SC2785-HFE		R227	1-249-386-11	CARBON 2.7 5%	1/4W
Q221	8-729-900-89	TRANSISTOR DTC144ES		R228	1-249-433-11	CARBON 22K 5%	1/4W
Q222	8-729-900-63	TRANSISTOR DTA124ES		R229	1-249-433-11	CARBON 22K 5%	1/4W
Q230	8-729-119-78	TRANSISTOR 2SC2785-HFE		R230	1-249-429-11	CARBON 10K 5%	1/4W
Q231	8-729-119-78	TRANSISTOR 2SC2785-HFE		R231	1-249-422-11	CARBON 2.7K 5%	1/4W
Q232	8-729-119-78	TRANSISTOR 2SC2785-HFE		R232	1-249-415-11	CARBON 680 5%	1/4W
Q233	8-729-119-76	TRANSISTOR 2SA1175-HFE		R233	1-249-415-11	CARBON 680 5%	1/4W
Q234	8-729-119-78	TRANSISTOR 2SC2785-HFE		R234	1-249-411-11	CARBON 330 5%	1/4W
Q240	8-729-177-42	TRANSISTOR 2SD774-3		R235	1-249-416-11	CARBON 820 5%	1/4W
Q241	8-729-119-78	TRANSISTOR 2SC2785-HFE		R236	1-249-411-11	CARBON 330 5%	1/4W
Q242	8-729-119-78	TRANSISTOR 2SC2785-HFE		R237	1-249-411-11	CARBON 330 5%	1/4W
Q243	8-729-119-78	TRANSISTOR 2SC2785-HFE		R238	1-249-405-11	CARBON 100 5%	1/4W
Q258	8-729-119-78	TRANSISTOR 2SC2785-HFE		R239	1-249-417-11	CARBON 1K 5%	1/4W
Q259	8-729-119-78	TRANSISTOR 2SC2785-HFE		R240	1-249-407-11	CARBON 150 5%	1/4W
Q260	8-729-900-89	TRANSISTOR DTC144ES		R241	1-247-895-00	CARBON 470K 5%	1/4W
				R242	1-249-421-11	CARBON 2.2K 5%	1/4W
				R243	1-249-435-11	CARBON 33K 5%	1/4W
				R244	1-249-435-11	CARBON 33K 5%	1/4W
				R245	1-249-422-11	CARBON 2.7K 5%	1/4W

The components identified by shading and mark Δ are critical for safety.
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BA **FE**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R246	1-249-435-11	CARBON	33K 5% 1/4W	R422	1-249-419-11	CARBON	1.5K 5% 1/4W
R247	1-249-435-11	CARBON	33K 5% 1/4W	R423	1-249-421-11	CARBON	2.2K 5% 1/4W
R248	1-249-422-11	CARBON	2.7K 5% 1/4W	R424	1-249-429-11	CARBON	10K 5% 1/4W
R249	1-249-432-11	CARBON	18K 5% 1/4W	R425	1-249-414-11	CARBON	560 5% 1/4W
R250	1-249-405-11	CARBON	100 5% 1/4W	R426	1-249-422-11	CARBON	2.7K 5% 1/4W
R251	1-249-433-11	CARBON	22K 5% 1/4W	R427	1-249-423-11	CARBON	3.3K 5% 1/4W
R252	1-249-421-11	CARBON	2.2K 5% 1/4W	R428	1-249-412-11	CARBON	390 5% 1/4W
R253	1-249-415-11	CARBON	680 5% 1/4W	R429	1-249-425-11	CARBON	4.7K 5% 1/4W
R254	1-249-420-11	CARBON	1.8K 5% 1/4W	R430	1-249-408-11	CARBON	180 5% 1/4W
R255	1-249-417-11	CARBON	1K 5% 1/4W	R431	1-249-411-11	CARBON	330 5% 1/4W
R256	1-249-405-11	CARBON	100 5% 1/4W	R432	1-249-422-11	CARBON	2.7K 5% 1/4W
R257	1-249-417-11	CARBON	1K 5% 1/4W	R433	1-249-437-11	CARBON	47K 5% 1/4W
R258	1-249-405-11	CARBON	100 5% 1/4W	R435	1-249-433-11	CARBON	22K 5% 1/4W
R259	1-249-441-11	CARBON	100K 5% 1/4W	R436	1-249-437-11	CARBON	47K 5% 1/4W
R260	1-249-425-11	CARBON	4.7K 5% 1/4W	R437	1-249-437-11	CARBON	47K 5% 1/4W
R261	1-247-891-00	CARBON	330K 5% 1/4W	R438	1-249-437-11	CARBON	47K 5% 1/4W
R262	1-249-435-11	CARBON	33K 5% 1/4W	R439	1-249-426-11	CARBON	5.6K 5% 1/4W
R263	1-249-422-11	CARBON	2.7K 5% 1/4W	R440	1-249-437-11	CARBON	47K 5% 1/4W
R264	1-249-422-11	CARBON	2.7K 5% 1/4W	R441	1-249-440-11	CARBON	82K 5% 1/4W
R268	1-249-417-11	CARBON	1K 5% 1/4W	R442	1-249-405-11	CARBON	100 5% 1/4W
R270	1-249-417-11	CARBON	1K 5% 1/4W	R443	1-249-405-11	CARBON	100 5% 1/4W
R271	1-249-417-11	CARBON	1K 5% 1/4W	R444	1-249-432-11	CARBON	18K 5% 1/4W
R272	1-249-417-11	CARBON	1K 5% 1/4W	R445	1-249-432-11	CARBON	18K 5% 1/4W
R273	1-249-426-11	CARBON	5.6K 5% 1/4W	R446	1-249-437-11	CARBON	47K 5% 1/4W
R274	1-249-429-11	CARBON	10K 5% 1/4W	R447	1-249-437-11	CARBON	47K 5% 1/4W
R275	1-249-413-11	CARBON	470 5% 1/4W	R448	1-249-435-11	CARBON	33K 5% 1/4W
R276	1-249-417-11	CARBON	1K 5% 1/4W	R449	1-249-417-11	CARBON	1K 5% 1/4W
R277	1-247-891-00	CARBON	330K 5% 1/4W			<VARIABLE RESISTOR>	
R278	1-247-891-00	CARBON	330K 5% 1/4W	RV290	1-228-994-00	RES, ADJ, CARBON 10K	
R279	1-249-429-11	CARBON	10K 5% 1/4W	RV291	1-228-991-00	RES, ADJ, CARBON 2.2K	
R280	1-249-429-11	CARBON	10K 5% 1/4W	RV292	1-228-991-00	RES, ADJ, CARBON 2.2K	
R281	1-249-429-11	CARBON	10K 5% 1/4W			<TRANSFORMER>	
R282	1-249-429-11	CARBON	10K 5% 1/4W	T401	1-404-584-11	COIL	
R283	1-249-429-11	CARBON	10K 5% 1/4W			*****	
R284	1-249-429-11	CARBON	10K 5% 1/4W			*A-1245-456-A FE BOARD, COMPLETE	
R285	1-249-429-11	CARBON	10K 5% 1/4W			*****	
R290	1-249-441-11	CARBON	100K 5% 1/4W			*4-341-751-01 EYELET	
R291	1-249-413-11	CARBON	470 5% 1/4W			*4-341-752-01 EYELET	
R292	1-249-435-11	CARBON	33K 5% 1/4W			4-363-414-00 SPACER, MICA	
R293	1-249-435-11	CARBON	33K 5% 1/4W			<CAPACITOR>	
R294	1-249-405-11	CARBON	100 5% 1/4W	C602 Δ	1-161-830-51	CERAMIC	0.0047MF 500V
R295	1-249-405-11	CARBON	100 5% 1/4W	C603 Δ	1-161-830-51	CERAMIC	0.0047MF 500V
R296	1-249-405-11	CARBON	100 5% 1/4W	C604 Δ	1-161-830-51	CERAMIC	0.0047MF 500V
R297	1-249-405-11	CARBON	100 5% 1/4W	C605 Δ	1-161-830-51	CERAMIC	0.0047MF 500V
R299	1-249-429-11	CARBON	10K 5% 1/4W	C606	1-125-222-41	ELECT(BLOCK)	330MF 20% 400V
R401	1-249-419-11	CARBON	1.5K 5% 1/4W	C607 Δ	1-136-360-51	FILM	0.22MF 20% 250V
R403	1-247-881-00	CARBON	120K 5% 1/4W	C608 Δ	1-136-360-51	FILM	0.22MF 20% 250V
R405	1-215-429-00	METAL	2.2K 1% 1/6W	C611	1-102-973-00	CERAMIC	100PF 5% 50V
R406	1-249-429-11	CARBON	10K 5% 1/4W	C612	1-161-754-00	CERAMIC	0.001MF 10% 3KV
R407	1-249-422-11	CARBON	2.7K 5% 1/4W	C613	1-123-946-00	ELECT	4.7MF 20% 250V
R408	1-249-414-11	CARBON	560 5% 1/4W	C614	1-136-067-00	FILM	0.0036MF 3% 2KV
R409	1-249-421-11	CARBON	2.2K 5% 1/4W	C615	1-129-765-00	FILM	0.047MF 10% 200V
R410	1-249-419-11	CARBON	1.5K 5% 1/4W	C616	1-124-798-11	ELECT	1MF 20% 160V
R411	1-249-419-11	CARBON	1.5K 5% 1/4W	C617	1-124-902-00	ELECT	0.47MF 20% 50V
R412	1-249-423-11	CARBON	3.3K 5% 1/4W				
R413	1-249-434-11	CARBON	27K 5% 1/4W				
R414	1-247-895-00	CARBON	470K 5% 1/4W				
R415	1-249-412-11	CARBON	390 5% 1/4W				
R416	1-249-415-11	CARBON	680 5% 1/4W				
R417	1-249-409-11	CARBON	220 5% 1/4W				
R418	1-249-425-11	CARBON	4.7K 5% 1/4W				
R419	1-249-433-11	CARBON	22K 5% 1/4W				
R420	1-215-432-00	METAL	3K 1% 1/6W				
R421	1-249-419-11	CARBON	1.5K 5% 1/4W				

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

FE QA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R648	1-247-887-00	CARBON	220K 5% 1/4W	C122	1-124-589-11	ELECT	47MF 20% 16V
R651	1-247-881-00	CARBON	120K 5% 1/4W	C123	1-124-589-11	ELECT	47MF 20% 16V
R652	1-215-924-00	METAL OXIDE	15K 5% 3W	C124	1-124-589-11	ELECT	47MF 20% 16V
R653	1-249-417-11	CARBON	1K 5% 1/4W	C125	1-124-589-11	ELECT	47MF 20% 16V
R654	1-247-881-00	CARBON	120K 5% 1/4W	C137	1-126-160-11	ELECT	1MF 20% 50V
R655	1-249-469-11	CARBON	100K 5% 1/4W	C138	1-126-160-11	ELECT	1MF 20% 50V
R656	1-247-895-00	CARBON	470K 5% 1/4W	C139	1-124-589-11	ELECT	47MF 20% 16V
R657	1-247-883-00	CARBON	150K 5% 1/4W	C140	1-124-589-11	ELECT	47MF 20% 16V
R658 Δ	1-247-289-11	CARBON	8.2M 5% 1W	C141	1-124-589-11	ELECT	47MF 20% 16V
R661	1-249-443-11	CARBON	0.47 5% 1/4W	C153	1-124-589-11	ELECT	47MF 20% 16V
R665	1-249-420-11	CARBON	1.8K 5% 1/4W	C161	1-124-589-11	ELECT	47MF 20% 16V
R669	1-249-443-11	CARBON	0.47 5% 1/4W	C162	1-161-021-11	CERAMIC	0.047MF 10% 25V
R671	1-249-410-11	CARBON	270 5% 1/4W	C163	1-161-021-11	CERAMIC	0.047MF 10% 25V
R682	1-215-923-00	METAL OXIDE	10K 5% 3W				
R688	1-249-427-11	CARBON	6.8K 5% 1/4W			<IC>	
R691	1-216-489-11	METAL OXIDE	27K 5% 3W	IC101	8-759-800-81	IC LA7016	
R692	1-202-719-00	SOLID	1M 10% 1/2W	IC102	8-759-710-31	IC NJM2243S	
		<VARIABLE RESISTOR>		IC103	8-759-800-81	IC LA7016	
RV601	1-230-504-11	RES, ADJ, CARBON 220				<TRANSISTOR>	
		<TRANSFORMER>		Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
T602	1-437-079-00	TRANSFORMER, HORIZONTAL DRIVE				<RESISTOR>	
T603 Δ	1-448-895-11	SRT		R101	1-249-429-11	CARBON	10K 5% 1/4W
T604 Δ	1-421-776-11	LFT		R103	1-249-405-11	CARBON	100 5% 1/4W
T605 Δ	1-421-758-11	TRANSFORMER, LINE FILTER (LFT)		R104	1-249-433-11	CARBON	22K 5% 1/4W
		<THERMISTOR>		R105	1-249-433-11	CARBON	22K 5% 1/4W
TH611	1-800-200-00	THERMISTOR S-3K		R106	1-249-429-11	CARBON	10K 5% 1/4W
THP601 Δ	1-808-059-21	THERMISTOR, POSITIVE		R107	1-249-417-11	CARBON	1K 5% 1/4W
		*****		R108	1-249-429-11	CARBON	10K 5% 1/4W
*A-1270-245-A		QA BOARD, COMPLETE (PVM-1444QM ONLY)		R110	1-249-405-11	CARBON	100 5% 1/4W
		*****		R111	1-249-433-11	CARBON	22K 5% 1/4W
		1-537-191-11	TERMINAL BOARD, INPUT/OUTPUT	R112	1-249-433-11	CARBON	22K 5% 1/4W
		1-537-201-11	TERMINAL BOARD, INPUT OUTPUT	R113	1-247-104-00	CARBON	75 5% 1/4W
		*4-379-104-01	INSULATOR, SLIDE SW	R115	1-247-104-00	CARBON	75 5% 1/4W
		<CAPACITOR>		R117	1-249-405-11	CARBON	100 5% 1/4W
C101	1-124-589-11	ELECT	47MF 20% 16V	R118	1-249-433-11	CARBON	22K 5% 1/4W
C102	1-126-160-11	ELECT	1MF 20% 50V	R119	1-249-433-11	CARBON	22K 5% 1/4W
C103	1-126-160-11	ELECT	1MF 20% 50V	R120	1-249-429-11	CARBON	10K 5% 1/4W
C105	1-126-160-11	ELECT	1MF 20% 50V	R121	1-249-405-11	CARBON	100 5% 1/4W
C106	1-126-160-11	ELECT	1MF 20% 50V	R122	1-247-104-00	CARBON	75 5% 1/4W
C107	1-126-160-11	ELECT	1MF 20% 50V	R123	1-249-405-11	CARBON	100 5% 1/4W
C108	1-124-589-11	ELECT	47MF 20% 16V	R124	1-249-421-11	CARBON	2.2K 5% 1/4W
C109	1-126-160-11	ELECT	1MF 20% 50V	R125	1-249-429-11	CARBON	10K 5% 1/4W
C110	1-126-160-11	ELECT	1MF 20% 50V	R126	1-247-104-00	CARBON	75 5% 1/4W
C111	1-126-160-11	ELECT	1MF 20% 50V	R127	1-247-104-00	CARBON	75 5% 1/4W
C112	1-124-589-11	ELECT	47MF 20% 16V	R128	1-247-104-00	CARBON	75 5% 1/4W
C113	1-124-589-11	ELECT	47MF 20% 16V	R129	1-247-104-00	CARBON	75 5% 1/4W
C114	1-124-589-11	ELECT	47MF 20% 16V	R130	1-247-104-00	CARBON	75 5% 1/4W
C115	1-124-589-11	ELECT	47MF 20% 16V	R131	1-247-104-00	CARBON	75 5% 1/4W
C116	1-161-021-11	CERAMIC	0.047MF 10% 25V	R132	1-249-417-11	CARBON	1K 5% 1/4W
C117	1-124-589-11	ELECT	47MF 20% 16V	R168	1-249-429-11	CARBON	10K 5% 1/4W
C118	1-124-589-11	ELECT	47MF 20% 16V	R177	1-249-405-11	CARBON	100 5% 1/4W
C119	1-126-160-11	ELECT	1MF 20% 50V	R178	1-249-433-11	CARBON	22K 5% 1/4W
C120	1-126-160-11	ELECT	1MF 20% 50V	R179	1-249-433-11	CARBON	22K 5% 1/4W
C121	1-124-589-11	ELECT	47MF 20% 16V	R184	1-249-420-11	CARBON	1.8K 5% 1/4W
		<VARIABLE RESISTOR>					
		RV101	1-228-848-00	RES, VAR, CARBON 10K			

QA

QB

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<SWITCH>				<CONNECTOR>			
S101	1-570-145-11	SWITCH, SLIDE		Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE	
S102	1-570-145-11	SWITCH, SLIDE		Q120	8-729-900-65	TRANSISTOR DTA144ES	
*****				Q121	8-729-900-65	TRANSISTOR DTA144ES	
*A-1270-246-A	QB BOARD, COMPLETE (PVM-1444QM ONLY)			<RESISTOR>			
*****				R133	1-249-405-11	CARBON	100 5% 1/4W
<CAPACITOR>				R134	1-249-433-11	CARBON	22K 5% 1/4W
C126	1-124-477-11	ELECT	47MF 20% 25V	R135	1-249-433-11	CARBON	22K 5% 1/4W
C127	1-124-477-11	ELECT	47MF 20% 25V	R137	1-249-433-11	CARBON	22K 5% 1/4W
C128	1-124-477-11	ELECT	47MF 20% 25V	R138	1-249-433-11	CARBON	22K 5% 1/4W
C129	1-161-021-11	CERAMIC	0.047MF 10% 25V	R139	1-249-405-11	CARBON	100 5% 1/4W
C130	1-124-477-11	ELECT	47MF 20% 25V	R140	1-249-433-11	CARBON	22K 5% 1/4W
C131	1-124-477-11	ELECT	47MF 20% 25V	R141	1-249-433-11	CARBON	22K 5% 1/4W
C132	1-124-477-11	ELECT	47MF 20% 25V	R142	1-249-433-11	CARBON	22K 5% 1/4W
C133	1-124-477-11	ELECT	47MF 20% 25V	R143	1-249-433-11	CARBON	22K 5% 1/4W
C134	1-124-477-11	ELECT	47MF 20% 25V	R144	1-249-412-11	CARBON	390 5% 1/4W
C135	1-124-477-11	ELECT	47MF 20% 25V	R145	1-249-405-11	CARBON	100 5% 1/4W
C136	1-124-477-11	ELECT	47MF 20% 25V	R146	1-249-436-11	CARBON	39K 5% 1/4W
C142	1-124-631-11	ELECT	47MF 20% 16V	R147	1-249-435-11	CARBON	33K 5% 1/4W
C143	1-124-477-11	ELECT	47MF 20% 25V	R149	1-249-433-11	CARBON	22K 5% 1/4W
C144	1-124-477-11	ELECT	47MF 20% 25V	R150	1-249-433-11	CARBON	22K 5% 1/4W
C145	1-124-477-11	ELECT	47MF 20% 25V	R151	1-249-429-11	CARBON	10K 5% 1/4W
C146	1-124-477-11	ELECT	47MF 20% 25V	R152	1-249-429-11	CARBON	10K 5% 1/4W
C147	1-101-004-00	CERAMIC	0.01MF 50V	R153	1-249-417-11	CARBON	1K 5% 1/4W
C148	1-101-004-00	CERAMIC	0.01MF 50V	R154	1-249-422-11	CARBON	2.7K 5% 1/4W
C149	1-124-478-11	ELECT	100MF 20% 25V	R155	1-215-383-00	METAL	27 1% 1/6W
C150	1-124-499-11	ELECT	1MF 20% 50V	R161	1-215-397-00	METAL	100 1% 1/6W
C151	1-161-021-11	CERAMIC	0.047MF 10% 25V	R162	1-215-397-00	METAL	100 1% 1/6W
C152	1-124-925-11	ELECT	2.2MF 20% 50V	R163	1-249-422-11	CARBON	2.7K 5% 1/4W
C154	1-101-004-00	CERAMIC	0.01MF 50V	R164	1-215-431-00	METAL	2.7K 1% 1/6W
C169	1-124-477-11	ELECT	47MF 20% 25V	R165	1-249-422-11	CARBON	2.7K 5% 1/4W
<DIODE>				R166	1-215-431-00	METAL	2.7K 1% 1/6W
D101	8-719-911-19	DIODE 1SS119		R167	1-249-422-11	CARBON	2.7K 5% 1/4W
D102	8-719-911-19	DIODE 1SS119		R169	1-249-429-11	CARBON	10K 5% 1/4W
D105	8-719-911-19	DIODE 1SS119		R170	1-249-437-11	CARBON	47K 5% 1/4W
D106	8-719-911-19	DIODE 1SS119		R171	1-249-437-11	CARBON	47K 5% 1/4W
D111	8-719-911-19	DIODE 1SS119		R172	1-249-417-11	CARBON	1K 5% 1/4W
D112	8-719-911-19	DIODE 1SS119		R173	1-249-405-11	CARBON	100 5% 1/4W
<IC>				R175	1-249-433-11	CARBON	22K 5% 1/4W
IC104	8-759-800-81	IC LA7016		R176	1-249-433-11	CARBON	22K 5% 1/4W
IC105	8-759-800-81	IC LA7016		R180	1-249-417-11	CARBON	1K 5% 1/4W
IC106	8-759-710-31	IC NJM2243S		R181	1-249-417-11	CARBON	1K 5% 1/4W
IC107	8-759-800-81	IC LA7016		R182	1-249-409-11	CARBON	220 5% 1/4W
IC108	8-759-240-11	IC TC4011BP		R183	1-249-409-11	CARBON	220 5% 1/4W
<TRANSISTOR>				R186	1-249-435-11	CARBON	33K 5% 1/4W
Q101	8-729-900-36	TRANSISTOR DTC124ES		R187	1-249-417-11	CARBON	1K 5% 1/4W
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE		R188	1-249-435-11	CARBON	33K 5% 1/4W
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE		R189	1-249-433-11	CARBON	22K 5% 1/4W
Q110	8-729-119-76	TRANSISTOR 2SA1175-HFE		R190	1-249-433-11	CARBON	22K 5% 1/4W
Q111	8-729-119-76	TRANSISTOR 2SA1175-HFE		R191	1-249-420-11	CARBON	1.8K 5% 1/4W
Q112	8-729-119-76	TRANSISTOR 2SA1175-HFE		R192	1-249-420-11	CARBON	1.8K 5% 1/4W
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE		R193	1-249-420-11	CARBON	1.8K 5% 1/4W
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE		R194	1-215-419-00	METAL	820 1% 1/6W
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE		R197	1-249-417-11	CARBON	1K 5% 1/4W
				R198	1-249-429-11	CARBON	10K 5% 1/4W
				R199	1-249-417-11	CARBON	1K 5% 1/4W
				R201	1-249-405-11	CARBON	100 5% 1/4W
				R202	1-249-405-11	CARBON	100 5% 1/4W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R203	1-249-405-11	CARBON	100 5% 1/4W	R108	1-249-405-11	CARBON	100 5% 1/4W
R204	1-249-425-11	CARBON	4.7K 5% 1/4W	R109	1-247-104-00	CARBON	75 5% 1/4W
R205	1-249-441-11	CARBON	100K 5% 1/4W	R110	1-247-104-00	CARBON	75 5% 1/4W
R206	1-249-433-11	CARBON	22K 5% 1/4W	R111	1-249-429-11	CARBON	10K 5% 1/4W
R207	1-249-441-11	CARBON	100K 5% 1/4W	R112	1-249-405-11	CARBON	100 5% 1/4W
R208	1-249-415-11	CARBON	680 5% 1/4W	R113	1-249-429-11	CARBON	10K 5% 1/4W
R209	1-249-405-11	CARBON	100 5% 1/4W	R114	1-247-104-00	CARBON	75 5% 1/4W
R210	1-249-405-11	CARBON	100 5% 1/4W	R115	1-249-405-11	CARBON	100 5% 1/4W
R211	1-249-417-11	CARBON	1K 5% 1/4W	R116	1-247-704-11	CARBON	220 5% 1/4W
R212	1-249-420-11	CARBON	1.8K 5% 1/4W	R117	1-247-703-11	CARBON	180 5% 1/4W
R213	1-249-426-11	CARBON	5.6K 5% 1/4W	R118	1-247-703-11	CARBON	180 5% 1/4W
R214	1-215-436-00	METAL	4.3K 1% 1/6W	R119	1-249-417-11	CARBON	1K 5% 1/4W
R215	1-215-436-00	METAL	4.3K 1% 1/6W	R121	1-249-417-11	CARBON	1K 5% 1/4W

*A-1270-247-A QC BOARD, COMPLETE (PVM-1442QM ONLY)							

1-537-191-11 TERMINAL BOARD, INPUT/OUTPUT							
1-537-192-11 TERMINAL BOARD, INPUT/OUTPUT							
*4-379-104-01 INSULATOR, SLIDE SW							
<CAPACITOR>							
C101	1-124-589-11	ELECT	47MF 20% 16V	R122	1-215-393-00	METAL	68 1% 1/6W
C102	1-126-160-11	ELECT	1MF 20% 50V	R123	1-249-417-11	CARBON	1K 5% 1/4W
C103	1-126-160-11	ELECT	1MF 20% 50V	R125	1-249-405-11	CARBON	100 5% 1/4W
C104	1-161-021-11	CERAMIC	0.047MF 10% 25V	R126	1-249-433-11	CARBON	22K 5% 1/4W
C105	1-126-160-11	ELECT	1MF 20% 50V	R127	1-249-433-11	CARBON	22K 5% 1/4W
C106	1-126-160-11	ELECT	1MF 20% 50V	R128	1-249-429-11	CARBON	10K 5% 1/4W
C107	1-124-589-11	ELECT	47MF 20% 16V	R129	1-247-104-00	CARBON	75 5% 1/4W
C108	1-124-589-11	ELECT	47MF 20% 16V	R130	1-247-104-00	CARBON	75 5% 1/4W
C109	1-124-589-11	ELECT	47MF 20% 16V	R131	1-247-104-00	CARBON	75 5% 1/4W
C110	1-124-589-11	ELECT	47MF 20% 16V	R132	1-249-417-11	CARBON	1K 5% 1/4W
C111	1-124-589-11	ELECT	47MF 20% 16V	R133	1-247-104-00	CARBON	75 5% 1/4W
C112	1-124-589-11	ELECT	47MF 20% 16V	R134	1-249-417-11	CARBON	1K 5% 1/4W
C113	1-124-589-11	ELECT	47MF 20% 16V	R220	1-215-429-00	METAL	2.2K 1% 1/6W
C114	1-126-160-11	ELECT	1MF 20% 50V	R221	1-215-429-00	METAL	2.2K 1% 1/6W
C115	1-126-160-11	ELECT	1MF 20% 50V	R222	1-215-429-00	METAL	2.2K 1% 1/6W
C116	1-124-589-11	ELECT	47MF 20% 16V	R254	1-249-420-11	CARBON	1.8K 5% 1/4W
C117	1-126-157-11	ELECT	10MF 20% 16V	R298	1-249-431-11	CARBON	15K 5% 1/4W
C118	1-126-157-11	ELECT	10MF 20% 16V	<VARIABLE RESISTOR>			
C119	1-126-157-11	ELECT	10MF 20% 16V	RV101	1-228-848-00	RES, VAR, CARBON	10K
C120	1-124-589-11	ELECT	47ME 20% 16V	RV102	1-228-848-00	RES, VAR, CARBON	10K
C122	1-124-589-11	ELECT	47MF 20% 16V	<SWITCH>			
C123	1-124-589-11	ELECT	47MF 20% 16V	S101	1-570-145-11	SWITCH, SLIDE	

*A-1270-248-A QD BOARD, COMPLETE (PVM-1442QM ONLY)							

<CAPACITOR>							
C121	1-126-094-11	ELECT	4.7MF 20% 25V	C133	1-126-157-11	ELECT	10MF 20% 16V
C124	1-101-004-00	CERAMIC	0.01MF 50V	C134	1-161-021-11	CERAMIC	0.047MF 10% 25V
C125	1-124-477-11	ELECT	47MF 20% 16V	C135	1-106-375-12	MYLAR	0.022MF 10% 100V
C126	1-124-589-11	ELECT	47MF 20% 16V	C136	1-101-004-00	CERAMIC	0.01MF 50V
C127	1-101-004-00	CERAMIC	0.01MF 50V	C137	1-124-589-11	ELECT	47MF 20% 16V
C128	1-124-589-11	ELECT	47MF 20% 16V	C138	1-124-589-11	ELECT	47MF 20% 16V
C129	1-124-589-11	ELECT	47MF 20% 16V	C139	1-126-160-11	ELECT	1MF 20% 50V
C130	1-124-584-00	ELECT	100MF 20% 10V				
C131	1-161-021-11	CERAMIC	0.047MF 10% 25V				
C132	1-102-963-00	CERAMIC	33PF 5% 50V				
<RESISTOR>							
R101	1-249-429-11	CARBON	10K 5% 1/4W				
R102	1-249-405-11	CARBON	100 5% 1/4W				
R103	1-249-429-11	CARBON	10K 5% 1/4W				
R104	1-249-405-11	CARBON	100 5% 1/4W				
R105	1-247-104-00	CARBON	75 5% 1/4W				
R106	1-249-405-11	CARBON	100 5% 1/4W				
R107	1-247-104-00	CARBON	75 5% 1/4W				

QD

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C140	1-124-589-11	ELECT 47MF	20% 16V	R135	1-249-417-11	CARBON 1K	5% 1/4W
C141	1-102-965-00	CERAMIC 39PF	5% 50V	R136	1-249-411-11	CARBON 330	5% 1/4W
C142	1-102-965-00	CERAMIC 39PF	5% 50V	R137	1-249-418-11	CARBON 1.2K	5% 1/4W
C143	1-102-965-00	CERAMIC 39PF	5% 50V	R138	1-249-421-11	CARBON 2.2K	5% 1/4W
C144	1-126-094-11	ELECT 4.7MF	20% 25V	R139	1-249-424-11	CARBON 3.9K	5% 1/4W
C145	1-161-021-11	CERAMIC 0.047MF	10% 25V	R140	1-249-417-11	CARBON 1K	5% 1/4W
C146	1-124-589-11	ELECT 47MF	20% 16V	R141	1-249-425-11	CARBON 4.7K	5% 1/4W
C147	1-124-589-11	ELECT 47MF	20% 16V	R142	1-249-435-11	CARBON 33K	5% 1/4W
C148	1-126-157-11	ELECT 10MF	20% 16V	R143	1-249-435-11	CARBON 33K	5% 1/4W
C149	1-130-728-00	FILM 0.0022MF	10% 50V	R144	1-249-417-11	CARBON 1K	5% 1/4W
C150	1-130-483-00	MYLAR 0.01MF	5% 50V	R145	1-249-411-11	CARBON 330	5% 1/4W
C151	1-130-471-00	FILM 0.001MF	10% 50V	R146	1-249-417-11	CARBON 1K	5% 1/4W
C172	1-101-005-00	CERAMIC 0.022MF	5% 50V	R147	1-249-411-11	CARBON 330	5% 1/4W
C173	1-136-169-00	FILM 0.22MF	5% 50V	R148	1-249-429-11	CARBON 10K	5% 1/4W
C174	1-102-965-00	CERAMIC 39PF	5% 50V	R149	1-249-425-11	CARBON 4.7K	5% 1/4W
<DIODE>				R150	1-249-417-11	CARBON 1K	5% 1/4W
D102	8-719-110-03	DIODE RD7.5ES-B2		R151	1-249-429-11	CARBON 10K	5% 1/4W
D103	8-719-911-19	DIODE 1SS119		R152	1-249-429-11	CARBON 10K	5% 1/4W
D104	8-719-911-19	DIODE 1SS119		R153	1-249-405-11	CARBON 100	5% 1/4W
D105	8-719-911-19	DIODE 1SS119		R154	1-249-405-11	CARBON 100	5% 1/4W
D106	8-719-109-85	DIODE RD5.1ES-B2		R155	1-249-433-11	CARBON 22K	5% 1/4W
D107	8-719-109-85	DIODE RD5.1ES-B2		R156	1-249-433-11	CARBON 22K	5% 1/4W
D113	8-719-911-19	DIODE 1SS119		R157	1-249-430-11	CARBON 12K	5% 1/4W
D116	8-719-911-19	DIODE 1SS119		R158	1-249-417-11	CARBON 1K	5% 1/4W
<IC>				R159	1-247-706-11	CARBON 330	5% 1/4W
IC102	8-759-900-09	IC SN74LS09N		R160	1-247-706-11	CARBON 330	5% 1/4W
IC103	8-759-901-38	IC SN74LS138N		R161	1-247-706-11	CARBON 330	5% 1/4W
IC104	8-759-901-36	IC SN74LS136N		R162	1-249-426-11	CARBON 5.6K	5% 1/4W
IC105	8-759-900-11	IC SN74LS11N		R163	1-249-421-11	CARBON 2.2K	5% 1/4W
IC106	8-759-800-81	IC LA7016		R164	1-249-421-11	CARBON 2.2K	5% 1/4W
IC107	8-759-933-23	IC BA236		R165	1-249-425-11	CARBON 4.7K	5% 1/4W
<FILTER MODULE>				R166	1-249-425-11	CARBON 4.7K	5% 1/4W
LP101	1-235-988-11	FILTER MODULE, LOW PASS		R167	1-247-721-11	CARBON 4.7K	5% 1/4W
<TRANSISTOR>				R168	1-249-421-11	CARBON 2.2K	5% 1/4W
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE		R169	1-249-433-11	CARBON 22K	5% 1/4W
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE		R170	1-249-437-11	CARBON 47K	5% 1/4W
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE		R171	1-247-725-11	CARBON 10K	5% 1/4W
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE		R172	1-249-405-11	CARBON 100	5% 1/4W
Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE		R173	1-247-716-11	CARBON 1.8K	5% 1/4W
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE		R174	1-249-432-11	CARBON 18K	5% 1/4W
Q107	8-729-119-78	TRANSISTOR 2SC2785-HFE		R175	1-249-408-11	CARBON 180	5% 1/4W
Q108	8-729-119-78	TRANSISTOR 2SC2785-HFE		R176	1-249-437-11	CARBON 47K	5% 1/4W
Q109	8-729-119-78	TRANSISTOR 2SC2785-HFE		R177	1-249-418-11	CARBON 1.2K	5% 1/4W
Q110	8-729-900-36	TRANSISTOR DTC124ES		R178	1-247-713-11	CARBON 1K	5% 1/4W
Q111	8-729-900-89	TRANSISTOR DTC144ES		R179	1-249-429-11	CARBON 10K	5% 1/4W
Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE		R220	1-249-429-11	CARBON 10K	5% 1/4W
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE		R221	1-249-437-11	CARBON 47K	5% 1/4W
Q114	8-729-900-36	TRANSISTOR DTC124ES		R222	1-249-437-11	CARBON 47K	5% 1/4W
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE		R223	1-249-417-11	CARBON 1K	5% 1/4W
Q125	8-729-119-76	TRANSISTOR 2SA1175-HFE		R224	1-249-429-11	CARBON 10K	5% 1/4W
Q131	8-729-119-76	TRANSISTOR 2SA1175-HFE		R225	1-249-425-11	CARBON 4.7K	5% 1/4W
Q132	8-729-119-76	TRANSISTOR 2SA1175-HFE		R226	1-249-409-11	CARBON 220	5% 1/4W
Q135	8-729-900-65	TRANSISTOR DTA144ES		R231	1-249-432-11	CARBON 18K	5% 1/4W
<RESISTOR>				R235	1-249-425-11	CARBON 4.7K	5% 1/4W
				R236	1-249-417-11	CARBON 1K	5% 1/4W
				R237	1-249-420-11	CARBON 1.8K	5% 1/4W
				R241	1-249-408-11	CARBON 180	5% 1/4W
				R242	1-249-405-11	CARBON 100	5% 1/4W
				R244	1-249-405-11	CARBON 100	5% 1/4W
				R260	1-249-433-11	CARBON 22K	5% 1/4W
				R261	1-249-433-11	CARBON 22K	5% 1/4W
				R263	1-249-405-11	CARBON 100	5% 1/4W
				R299	1-249-420-11	CARBON 1.8K	5% 1/4W

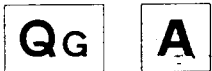
PVM-1440QM/1442QM/1444QM



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<VARIABLE RESISTOR>		QE2	*1-564-516-11	PLUG, CONNECTOR 13P	
RV103	1-228-995-00	RES, ADJ, CARBON 22K		QE3	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
		<SWITCH>				<RESISTOR>	
S102	1-553-977-41	SWITCH, SLIDE		R180	1-249-405-11	CARBON	100 5% 1/4W
*****				R181	1-249-412-11	CARBON	390 5% 1/4W
	*A-1270-249-A	QE BOARD, COMPLETE (PVM-1442QM ONLY)		R182	1-249-417-11	CARBON	1K 5% 1/4W
		*****		R183	1-249-436-11	CARBON	39K 5% 1/4W
		<CAPACITOR>		R184	1-249-435-11	CARBON	33K 5% 1/4W
C152	1-101-004-00	CERAMIC	0.01MF 50V	R185	1-249-405-11	CARBON	100 5% 1/4W
C154	1-123-875-11	ELECT	10MF 20% 50V	R186	1-249-433-11	CARBON	22K 5% 1/4W
C155	1-124-499-11	ELECT	1MF 20% 50V	R187	1-249-433-11	CARBON	22K 5% 1/4W
C156	1-124-499-11	ELECT	1MF 20% 50V	R188	1-249-405-11	CARBON	100 5% 1/4W
C157	1-126-160-11	ELECT	1MF 20% 50V	R189	1-249-433-11	CARBON	22K 5% 1/4W
C158	1-124-477-11	ELECT	47MF 20% 25V	R190	1-249-433-11	CARBON	22K 5% 1/4W
C159	1-126-160-11	ELECT	1MF 20% 50V	R192	1-249-437-11	CARBON	47K 5% 1/4W
C160	1-124-499-11	ELECT	1MF 20% 50V	R193	1-249-429-11	CARBON	10K 5% 1/4W
C161	1-124-477-11	ELECT	47MF 20% 16V	R194	1-249-433-11	CARBON	22K 5% 1/4W
C162	1-124-477-11	ELECT	47MF 20% 16V	R195	1-249-433-11	CARBON	22K 5% 1/4W
C163	1-124-477-11	ELECT	47MF 20% 16V	R196	1-249-405-11	CARBON	100 5% 1/4W
C164	1-161-021-11	CERAMIC	0.047MF 10% 25V	R197	1-249-421-11	CARBON	2.2K 5% 1/4W
C165	1-124-477-11	ELECT	47MF 20% 16V	R198	1-249-421-11	CARBON	2.2K 5% 1/4W
C166	1-124-477-11	ELECT	47MF 20% 16V	R199	1-249-441-11	CARBON	100K 5% 1/4W
C167	1-124-477-11	ELECT	47MF 20% 16V	R200	1-249-435-11	CARBON	33K 5% 1/4W
C168	1-124-589-11	ELECT	47MF 20% 16V	R201	1-249-428-11	CARBON	8.2K 5% 1/4W
C169	1-161-021-11	CERAMIC	0.047MF 10% 25V	R202	1-249-417-11	CARBON	1K 5% 1/4W
C170	1-124-477-11	ELECT	47MF 20% 25V	R203	1-249-429-11	CARBON	10K 5% 1/4W
C171	1-124-925-11	ELECT	2.2MF 20% 50V	R204	1-249-428-11	CARBON	8.2K 5% 1/4W
		<DIODE>		R205	1-249-405-11	CARBON	100 5% 1/4W
D108	8-719-911-19	DIODE 1SS119		R206	1-249-429-11	CARBON	10K 5% 1/4W
D109	8-719-911-19	DIODE 1SS119		R207	1-249-429-11	CARBON	10K 5% 1/4W
D110	8-719-911-19	DIODE 1SS119		R208	1-249-417-11	CARBON	1K 5% 1/4W
D111	8-719-911-19	DIODE 1SS119		R209	1-249-405-11	CARBON	100 5% 1/4W
D112	8-719-911-19	DIODE 1SS119		R210	1-249-433-11	CARBON	22K 5% 1/4W
D114	8-719-911-19	DIODE 1SS119		R211	1-249-433-11	CARBON	22K 5% 1/4W
D115	8-719-911-19	DIODE 1SS119		R212	1-249-433-11	CARBON	22K 5% 1/4W
		<IC>		R213	1-249-433-11	CARBON	22K 5% 1/4W
IC108	8-759-800-81	IC LA7016		R215	1-249-405-11	CARBON	100 5% 1/4W
IC109	8-759-800-81	IC LA7016		R216	1-249-411-11	CARBON	330 5% 1/4W
IC110	8-759-800-81	IC LA7016		R217	1-249-433-11	CARBON	22K 5% 1/4W
IC111	8-759-710-31	IC NJM2243S		R251	1-249-417-11	CARBON	1K 5% 1/4W
		<TRANSISTOR>		R252	1-249-417-11	CARBON	1K 5% 1/4W
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE		R253	1-249-417-11	CARBON	1K 5% 1/4W
Q117	8-729-119-78	TRANSISTOR 2SC2785-HFE		R265	1-249-415-11	CARBON	680 5% 1/4W
Q118	8-729-119-76	TRANSISTOR 2SA1175-HFE		*****			
Q119	8-729-900-36	TRANSISTOR DTC124ES			*A-1270-266-A	QF BOARD, COMPLETE (PVM-1440QM ONLY)	
Q120	8-729-119-78	TRANSISTOR 2SC2785-HFE				*****	
Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE			1-537-210-11	TERMINAL BOARD	
Q127	8-729-900-65	TRANSISTOR DTA144ES			1-537-211-11	TERMINAL BOARD	
		<CONNECTOR>			*4-379-104-01	INSULATOR, SLIDE SW	
QE1	*1-564-515-11	PLUG, CONNECTOR 12P				<CAPACITOR>	
				C101	1-124-589-11	ELECT	47MF 20% 16V
				C102	1-126-160-11	ELECT	1MF 20% 50V
				C103	1-126-160-11	ELECT	1MF 20% 50V
				C105	1-161-021-11	CERAMIC	0.047MF 10% 25V
				C106	1-126-160-11	ELECT	1MF 20% 50V
				C107	1-126-160-11	ELECT	1MF 20% 50V
				C108	1-124-589-11	ELECT	47MF 20% 16V
				C109	1-124-589-11	ELECT	47MF 20% 16V
				C110	1-126-160-11	ELECT	1MF 20% 50V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C111	1-124-589-11	ELECT 47MF	20% 16V	R123	1-249-433-11	CARBON 22K 5%	1/4W
C112	1-126-160-11	ELECT 1MF	20% 50V	R124	1-249-429-11	CARBON 10K 5%	1/4W
C113	1-124-589-11	ELECT 47MF	20% 16V	R125	1-249-429-11	CARBON 10K 5%	1/4W
C114	1-161-021-11	CERAMIC 0.047MF	10% 25V	R126	1-247-104-00	CARBON 75 5%	1/4W
C116	1-124-589-11	ELECT 47MF	20% 16V	R127	1-247-104-00	CARBON 75 5%	1/4W
C117	1-124-589-11	ELECT 47MF	20% 16V	R128	1-247-104-00	CARBON 75 5%	1/4W
C118	1-124-589-11	ELECT 47MF	20% 16V	R129	1-249-417-11	CARBON 1K 5%	1/4W
C119	1-126-160-11	ELECT 1MF	20% 50V	R130	1-247-104-00	CARBON 75 5%	1/4W
C120	1-126-160-11	ELECT 1MF	20% 50V	R131	1-247-804-11	CARBON 75 5%	1/4W
C121	1-126-160-11	ELECT 1MF	20% 50V	R132	1-247-704-11	CARBON 220 5%	1/4W
C122	1-124-589-11	ELECT 47MF	20% 16V	R133	1-247-704-11	CARBON 220 5%	1/4W
C123	1-124-589-11	ELECT 47MF	20% 16V	R134	1-249-429-11	CARBON 10K 5%	1/4W
C124	1-124-589-11	ELECT 47MF	20% 16V	R135	1-249-414-11	CARBON 560 5%	1/4W
C125	1-102-959-00	CERAMIC 22PF	5% 50V	R136	1-247-704-11	CARBON 220 5%	1/4W
C126	1-126-160-11	ELECT 1MF	20% 50V	R138	1-249-409-11	CARBON 220 5%	1/4W
C127	1-126-157-11	ELECT 10MF	20% 16V	R141	1-249-433-11	CARBON 22K 5%	1/4W
C128	1-126-157-11	ELECT 10MF	20% 16V	R142	1-249-429-11	CARBON 10K 5%	1/4W
C129	1-126-157-11	ELECT 10MF	20% 16V	R148	1-249-433-11	CARBON 22K 5%	1/4W
C130	1-102-965-00	CERAMIC 39PF	5% 50V	R149	1-249-433-11	CARBON 22K 5%	1/4W
C131	1-126-157-11	ELECT 10MF	20% 16V	R154	1-249-433-11	CARBON 22K 5%	1/4W
C132	1-102-947-00	CERAMIC 10PF	0.5PF 50V	R155	1-249-433-11	CARBON 22K 5%	1/4W
C134	1-102-947-00	CERAMIC 10PF	0.5PF 50V	R187	1-249-405-11	CARBON 100 5%	1/4W
C135	1-102-947-00	CERAMIC 10PF	0.5PF 50V	R201	1-247-104-00	CARBON 75 5%	1/4W
C136	1-124-589-11	ELECT 47MF	20% 16V	R202	1-249-433-11	CARBON 22K 5%	1/4W
<DIODE>				<VARIABLE RESISTOR>			
D101	8-719-110-08	DIODE RD8.2ES-B2		RV101	1-228-848-00	RES, VAR, CARBON 10K	
D102	8-719-110-08	DIODE RD8.2ES-B2		<SWITCH>			
<IC>				S101	1-570-145-11	SWITCH, SLIDE	
IC101	8-759-710-31	IC NJM2243S		S102	1-570-145-11	SWITCH, SLIDE	
IC102	8-759-710-31	IC NJM2243S		*****			
IC103	8-759-800-81	IC LA7016		*A-1270-267-A QG BOARD, COMPLETE (PVM-1440QM ONLY)			
<COIL>				*****			
LI01	1-410-478-11	INDUCTOR 47UH		<CAPACITOR>			
<TRANSISTOR>				C137	1-124-477-11	ELECT 47MF	20% 25V
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE		C138	1-124-477-11	ELECT 47MF	20% 25V
<CONNECTOR>				C139	1-101-004-00	CERAMIC 0.01MF	50V
QF6	*1-560-721-21	PLUG, CONNECTOR 2P		C140	1-123-875-11	ELECT 10MF	20% 50V
<RESISTOR>				C142	1-124-477-11	ELECT 47MF	20% 25V
R101	1-249-429-11	CARBON 10K 5%	1/4W	C143	1-124-477-11	ELECT 47MF	20% 16V
R104	1-249-429-11	CARBON 10K 5%	1/4W	C144	1-124-477-11	ELECT 47MF	20% 25V
R106	1-249-462-11	CARBON 22K 5%	1/4W	C145	1-124-477-11	ELECT 47MF	20% 25V
R107	1-249-433-11	CARBON 22K 5%	1/4W	C146	1-123-875-11	ELECT 10MF	20% 50V
R108	1-249-429-11	CARBON 10K 5%	1/4W	C147	1-124-477-11	ELECT 47MF	20% 25V
R109	1-247-104-00	CARBON 75 5%	1/4W	C148	1-123-875-11	ELECT 10MF	20% 50V
R112	1-247-104-00	CARBON 75 5%	1/4W	C149	1-124-499-11	ELECT 1MF	20% 50V
R114	1-249-405-11	CARBON 100 5%	1/4W	C150	1-123-875-11	ELECT 10MF	20% 50V
R115	1-249-433-11	CARBON 22K 5%	1/4W	C152	1-124-471-00	ELECT 1000MF	20% 6.3V
R116	1-249-433-11	CARBON 22K 5%	1/4W	C153	1-124-499-11	ELECT 1MF	20% 50V
R117	1-247-104-00	CARBON 75 5%	1/4W	C154	1-124-477-11	ELECT 47MF	20% 25V
R118	1-247-104-00	CARBON 75 5%	1/4W	C155	1-102-971-00	CERAMIC 82PF	5% 50V
R119	1-249-429-11	CARBON 10K 5%	1/4W	C156	1-101-880-00	CERAMIC 47PF	5% 50V
R122	1-249-405-11	CARBON 100 5%	1/4W	C157	1-124-477-11	ELECT 47MF	20% 25V
				C159	1-124-477-11	ELECT 47MF	20% 25V
				C161	1-124-477-11	ELECT 47MF	20% 25V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C171	1-101-004-00	CERAMIC	0.01MF	R173	1-215-397-00	METAL	100 1% 1/6W
C172	1-124-120-11	ELECT	220MF	20%	25V	R174	1-215-399-00 METAL 120 1% 1/6W
<DIODE>				R175	1-215-397-00	METAL	100 1% 1/6W
D103	8-719-911-19	DIODE	1SS119	R176	1-215-865-11	METAL OXIDE	220 5% 1W F
D104	8-719-911-19	DIODE	1SS119	R177	1-247-695-11	CARBON	39 5% 1/4W
D106	8-719-911-19	DIODE	1SS119	R178	1-249-412-11	CARBON	390 5% 1/4W
D107	8-719-911-19	DIODE	1SS119	R179	1-249-435-11	CARBON	33K 5% 1/4W
D108	8-719-109-92	DIODE	RD6.2ES-B1	R180	1-249-434-11	CARBON	27K 5% 1/4W
D109	8-719-110-30	DIODE	RD12ES-B1	R181	1-249-414-11	CARBON	560 5% 1/4W
D111	8-719-911-19	DIODE	1SS119	R182	1-249-419-11	CARBON	1.5K 5% 1/4W
D112	8-719-911-19	DIODE	1SS119	R183	1-249-413-11	CARBON	470 5% 1/4W
D113	8-719-911-19	DIODE	1SS119	R184	1-249-413-11	CARBON	470 5% 1/4W
<IC>				R185	1-249-434-11	CARBON	27K 5% 1/4W
IC104	8-759-800-81	IC	LA7016	R186	1-249-428-11	CARBON	8.2K 5% 1/4W
IC105	8-759-800-81	IC	LA7016	R188	1-249-429-11	CARBON	10K 5% 1/4W
IC108	8-759-800-81	IC	LA7016	R189	1-249-429-11	CARBON	10K 5% 1/4W
<COIL>				R190	1-249-429-11	CARBON	10K 5% 1/4W
L111	1-408-413-00	INDUCTOR	22UH	R191	1-249-417-11	CARBON	1K 5% 1/4W
<TRANSISTOR>				R192	1-249-433-11	CARBON	22K 5% 1/4W
Q101	8-729-900-36	TRANSISTOR	DTC124ES	R193	1-249-433-11	CARBON	22K 5% 1/4W
Q102	8-729-119-78	TRANSISTOR	2SC2785-HFE	R198	1-215-413-00	METAL	470 1% 1/6W
Q103	8-729-119-78	TRANSISTOR	2SC2785-HFE	R199	1-215-413-00	METAL	470 1% 1/6W
Q105	8-729-177-42	TRANSISTOR	2SD774-3	R200	1-215-413-00	METAL	470 1% 1/6W
Q106	8-729-177-42	TRANSISTOR	2SD774-3	R203	1-249-433-11	CARBON	22K 5% 1/4W
Q107	8-729-119-76	TRANSISTOR	2SA1175-HFE	R204	1-249-434-11	CARBON	27K 5% 1/4W
Q108	8-729-119-78	TRANSISTOR	2SC2785-HFE	R205	1-249-415-11	CARBON	680 5% 1/4W
Q109	8-729-900-36	TRANSISTOR	DTC124ES	*****			
Q111	8-729-900-36	TRANSISTOR	DTC124ES	*A-1296-520-A	A BOARD, COMPLETE		
Q112	8-729-900-65	TRANSISTOR	DTA144ES	*****			
Q114	8-729-900-65	TRANSISTOR	DTA144ES	*4-329-153-00	HEAT SINK, V OUT		
<RESISTOR>				*4-341-751-01	EYELET		
R120	1-249-417-11	CARBON	1K 5% 1/4W	*4-341-752-01	EYELET		
R121	1-249-405-11	CARBON	100 5% 1/4W	*4-363-404-00	HOLDER, IC		
R137	1-247-104-00	CARBON	75 5% 1/4W	4-363-414-00	SPACER, MICA		
R139	1-249-429-11	CARBON	10K 5% 1/4W	<CONNECTOR>			
R143	1-249-412-11	CARBON	390 5% 1/4W	A1	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
R144	1-249-405-11	CARBON	100 5% 1/4W	A2	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
R145	1-249-436-11	CARBON	39K 5% 1/4W	A3	*1-565-498-11	CONNECTOR, BOARD TO BOARD 7P	
R146	1-249-435-11	CARBON	33K 5% 1/4W	A4	*1-564-596-11	PLUG, CONNECTOR 15P	
R150	1-249-405-11	CARBON	100 5% 1/4W	A5	*1-564-596-11	PLUG, CONNECTOR 15P	
R151	1-249-433-11	CARBON	22K 5% 1/4W	A6	*1-565-497-11	CONNECTOR, BOARD TO BOARD 6P	
R152	1-249-433-11	CARBON	22K 5% 1/4W	A7	*1-565-498-11	CONNECTOR, BOARD TO BOARD 7P	
R153	1-249-405-11	CARBON	100 5% 1/4W	A8	*1-565-506-11	CONNECTOR, BOARD TO BOARD 15P	
R156	1-249-417-11	CARBON	1K 5% 1/4W	A9	*1-565-506-11	CONNECTOR, BOARD TO BOARD 15P	
R157	1-249-433-11	CARBON	22K 5% 1/4W	A10	*1-564-596-11	PLUG, CONNECTOR 15P	
R158	1-249-433-11	CARBON	22K 5% 1/4W	A11	*1-564-596-41	PLUG, CONNECTOR 15P	
R161	1-249-438-11	CARBON	56K 5% 1/4W	A13	*1-568-105-11	HOUSING, CONNECTOR 10P	
R162	1-249-405-11	CARBON	100 5% 1/4W	A14	*1-568-105-11	HOUSING, CONNECTOR 10P	
R163	1-249-417-11	CARBON	1K 5% 1/4W	A16	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P	
R164	1-249-435-11	CARBON	33K 5% 1/4W	A17	*1-565-496-11	CONNECTOR, BOARD TO BOARD 5P	
R165	1-249-405-11	CARBON	100 5% 1/4W	A18	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P	
R166	1-249-433-11	CARBON	22K 5% 1/4W	A19	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
R167	1-249-433-11	CARBON	22K 5% 1/4W	A20	*1-564-507-11	PLUG, CONNECTOR 4P	
R172	1-249-405-11	CARBON	100 5% 1/4W	A22	*1-564-505-11	PLUG, CONNECTOR 2P	
<CAPACITOR>				C300	1-123-875-11	ELECT	10MF 20% 50V
C301	1-124-477-11	ELECT	47MF 20% 25V	C302	1-101-884-00	CERAMIC	56PF 5% 50V
C302	1-101-884-00	CERAMIC	56PF 5% 50V	C303	1-136-173-00	FILM	0.47MF 5% 50V
C303	1-136-173-00	FILM	0.47MF 5% 50V				

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C304	1-101-884-00	CERAMIC	56PF 5% 50V	C415	1-136-165-00	FILM	0.1MF 5% 50V
C305	1-136-173-00	FILM	0.47MF 5% 50V	C416	1-126-233-11	ELECT	22MF 20% 50V
C306	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C417	1-136-161-00	FILM	0.047MF 5% 50V
C307	1-124-477-11	ELECT	47MF 20% 25V	C418	1-136-153-00	FILM	0.01MF 5% 50V
C308	1-124-477-11	ELECT	47MF 20% 25V	C419	1-130-479-00	MYLAR	0.0047MF 5% 50V
C309	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C420	1-136-161-00	FILM	0.047MF 5% 50V
C310	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C421	1-136-153-00	FILM	0.01MF 5% 50V
C311	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C422	1-130-479-00	MYLAR	0.0047MF 5% 50V
C312	1-123-875-11	ELECT	10MF 20% 50V	C423	1-136-153-00	FILM	0.01MF 5% 50V
C313	1-102-074-00	CERAMIC	0.001MF 10% 50V	C424	1-130-479-00	MYLAR	0.0047MF 5% 50V
C314	1-102-074-00	CERAMIC	0.001MF 10% 50V	C425	1-124-478-11	ELECT	100MF 20% 25V
C315	1-124-927-11	ELECT	4.7MF 20% 50V	C426	1-136-161-00	FILM	0.047MF 5% 50V
C316	1-136-161-00	FILM	0.047MF 5% 50V	C427	1-124-478-11	ELECT	100MF 20% 25V
C317	1-136-161-00	FILM	0.047MF 5% 50V	C428	1-124-478-11	ELECT	100MF 20% 25V
C318	1-136-165-00	FILM	0.1MF 5% 50V	C430	1-101-888-00	CERAMIC	68PF 5% 50V
C319	1-101-004-00	CERAMIC	0.01MF 50V	C431	1-101-888-00	CERAMIC	68PF 5% 50V
C320	1-124-499-11	ELECT	1MF 20% 50V	C470	1-124-120-11	ELECT	220MF 20% 25V
C321	1-124-477-11	ELECT	47MF 20% 25V	C471	1-124-120-11	ELECT	220MF 20% 25V
C322	1-124-902-00	ELECT	0.47MF 20% 50V	C472	1-101-004-00	CERAMIC	0.01MF 50V
C323	1-101-361-00	CERAMIC	150PF 5% 50V	C473	1-124-478-11	ELECT	100MF 20% 25V
C324	1-124-477-11	ELECT	47MF 20% 25V	C474	1-101-004-00	CERAMIC	0.01MF 50V
C325	1-101-361-00	CERAMIC	150PF 5% 50V	C475	1-101-004-00	CERAMIC	0.01MF 50V
C326	1-124-477-11	ELECT	47MF 20% 25V	C476	1-101-888-00	CERAMIC	68PF 5% 50V
C327	1-124-477-11	ELECT	47MF 20% 25V	C477	1-101-006-00	CERAMIC	0.047MF 50V
C328	1-124-009-11	ELECT	47MF 20% 25V	C478	1-101-004-00	CERAMIC	0.01MF 50V
C329	1-124-477-11	ELECT	47MF 20% 25V	C479	1-124-478-11	ELECT	100MF 20% 25V
C330	1-101-880-00	CERAMIC	47PF 5% 50V	C480	1-101-004-00	CERAMIC	0.01MF 50V
C331	1-101-004-00	CERAMIC	0.01MF 50V	C481	1-101-004-00	CERAMIC	0.01MF 50V
C332	1-102-971-00	CERAMIC	82PF 5% 50V	C482	1-124-478-11	ELECT	100MF 20% 25V
C333	1-136-165-00	FILM	0.1MF 5% 50V	C483	1-124-120-11	ELECT	220MF 20% 25V
C334	1-136-173-00	FILM	0.47MF 5% 50V	C484	1-101-004-00	CERAMIC	0.01MF 50V
C335	1-136-173-00	FILM	0.47MF 5% 50V	C485	1-124-478-11	ELECT	100MF 20% 25V
C336	1-102-971-00	CERAMIC	82PF 5% 50V	C486	1-101-004-00	CERAMIC	0.01MF 50V
C337	1-124-477-11	ELECT	47MF 20% 25V	C487	1-101-004-00	CERAMIC	0.01MF 50V
C338	1-124-477-11	ELECT	47MF 20% 25V	C488	1-124-120-11	ELECT	220MF 20% 25V
C339	1-124-477-11	ELECT	47MF 20% 25V	C489	1-124-927-11	ELECT	4.7MF 20% 50V
C340	1-124-477-11	ELECT	47MF 20% 25V	C491	1-101-004-00	CERAMIC	0.01MF 50V
C341	1-124-477-11	ELECT	47MF 20% 25V	C492	1-124-120-11	ELECT	220MF 20% 25V
C342	1-124-477-11	ELECT	47MF 20% 25V	C493	1-101-004-00	CERAMIC	0.01MF 50V
C343	1-124-477-11	ELECT	47MF 20% 25V	C494	1-124-120-11	ELECT	220MF 20% 25V
C344	1-124-477-11	ELECT	47MF 20% 25V	C495	1-101-880-00	CERAMIC	47PF 5% 50V
C345	1-102-949-00	CERAMIC	12PF 5% 50V	C496	1-124-478-11	ELECT	100MF 20% 25V
C346	1-126-233-11	ELECT	22MF 20% 50V	C497	1-124-120-11	ELECT	220MF 20% 25V
C347	1-123-875-11	ELECT	10MF 20% 50V	C498	1-124-925-11	ELECT	2.2MF 20% 50V
C348	1-101-004-00	CERAMIC	0.01MF 50V	C500	1-101-884-00	CERAMIC	56PF 5% 50V
C349	1-124-120-11	ELECT	220MF 20% 25V	C501	1-124-120-11	ELECT	220MF 20% 25V
C350	1-101-884-00	CERAMIC	56PF 5% 50V	C502	1-124-927-11	ELECT	4.7MF 20% 50V
C351	1-102-106-00	CERAMIC	100PF 10% 50V	C503	1-124-927-11	ELECT	4.7MF 20% 50V
C352	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C504	1-102-114-00	CERAMIC	470PF 10% 50V
C353	1-161-021-11	CERAMIC	0.047MF 10% 25V	C505	1-123-875-11	ELECT	10MF 20% 50V
C401	1-136-153-00	FILM	0.01MF 5% 50V	C506	1-136-298-00	FILM	0.0033MF 5% 100V
C402	1-136-165-00	FILM	0.1MF 5% 50V	C507	1-106-351-00	MYLAR	0.0022MF 5% 100V
C403	1-136-165-00	FILM	0.1MF 5% 50V	C508	1-108-626-11	MYLAR	0.01MF 10% 100V
C404	1-136-169-00	FILM	0.22MF 5% 50V	C509	1-106-375-12	MYLAR	0.022MF 10% 100V
C405	1-136-169-00	FILM	0.22MF 5% 50V	C510	1-108-626-11	MYLAR	0.01MF 10% 100V
C406	1-136-169-00	FILM	0.22MF 5% 50V	C511	1-124-902-00	ELECT	0.47MF 20% 50V
C407	1-124-464-11	ELECT	0.22MF 20% 50V	C512	1-102-030-00	CERAMIC	330PF 10% 500V
C408	1-124-464-11	ELECT	0.22MF 20% 50V	C513	1-129-720-00	FILM	0.033MF 5% 630V
C409	1-124-464-11	ELECT	0.22MF 20% 50V	C514	Δ 1-136-078-11	FILM	0.0098MF 3% 2KV
C410	1-124-499-11	ELECT	1MF 20% 50V	C515	Δ 1-162-116-51	CERAMIC	680PF 10% 2KV
C411	1-124-499-11	ELECT	1MF 20% 50V	C516	Δ 1-162-116-51	CERAMIC	680PF 10% 2KV
C412	1-124-463-00	ELECT	0.1MF 20% 50V	C517	1-108-692-11	MYLAR	0.01MF 10% 200V
C413	1-124-463-00	ELECT	0.1MF 20% 50V	C518	1-126-104-11	ELECT	470MF 20% 35V
C414	1-136-165-00	FILM	0.1MF 5% 50V				



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C519	1-124-120-11	ELECT	220MF 20%	C584	1-126-233-11	ELECT	22MF 20% 50V
C520	1-124-494-00	ELECT	33MF 160V	C585	1-102-110-00	CERAMIC	220PF 10% 50V
C521	1-102-212-00	CERAMIC	820PF 10%	C590	1-126-233-11	ELECT	22MF 20% 50V
C522	1-102-212-00	CERAMIC	820PF 10%	C591	1-124-925-11	ELECT	2.2MF 20% 50V
C523	1-162-114-00	CERAMIC	0.0047MF	C801	1-101-004-00	CERAMIC	0.01MF 50V
C524	1-108-700-11	MYLAR	0.047MF 10%	C802	1-101-361-00	CERAMIC	150PF 5% 50V
C525	1-108-634-11	MYLAR	0.047MF 10%	C803	1-102-976-00	CERAMIC	180PF 5% 50V
C526	1-124-477-11	ELECT	47MF 20%	C804	1-126-233-11	ELECT	22MF 20% 50V
C527	1-124-902-00	ELECT	0.47MF 20%	C805	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C528	1-124-902-00	ELECT	0.47MF 20%	C806	1-101-884-00	CERAMIC	56PF 5% 50V
C529	1-126-233-11	ELECT	22MF 20%	C807	1-130-736-11	FILM	0.01MF 5% 50V
C530	1-123-875-11	ELECT	10MF 20%	C808	1-124-120-11	ELECT	220MF 20% 25V
C531	1-131-351-00	TANTALUM	4.7MF 10%	C809	1-101-004-00	CERAMIC	0.01MF 50V
C532	1-123-948-00	ELECT	22MF 20%	C810	1-108-620-11	MYLAR	0.0033MF 10% 100V
C533	1-136-111-00	FILM	1MF 5%	C811	1-124-927-11	ELECT	4.7MF 20% 50V
C534	1-106-399-00	MYLAR	0.22MF 10%	C1001	1-124-478-11	ELECT	100MF 20% 25V
C535	1-123-946-00	ELECT	4.7MF 20%	C1002	1-123-875-11	ELECT	10MF 20% 50V
C536	1-136-111-00	FILM	1MF 5%	C1003	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C537	1-102-002-00	CERAMIC	680PF 10%	C1004	1-124-464-11	ELECT	0.22MF 20% 50V
C538	1-108-626-11	MYLAR	0.01MF 10%	C1005	1-123-875-11	ELECT	10MF 20% 50V
C539	1-108-626-11	MYLAR	0.01MF 10%	C1006	1-123-875-11	ELECT	10MF 20% 50V
C540	1-106-347-00	MYLAR	0.0015MF 10%	C1007	1-108-634-11	MYLAR	0.047MF 10% 100V
C541	1-124-045-00	ELECT	4.7MF 20%	C1008	1-124-478-11	ELECT	100MF 20% 25V
C542	1-123-875-11	ELECT	10MF 20%	C1009	1-124-480-11	ELECT	470MF 20% 25V
C543	1-124-927-11	ELECT	4.7MF 20%	C1010	1-124-478-11	ELECT	100MF 20% 25V
C544	1-124-190-00	ELECT	680MF 10%	C1011	1-124-477-11	ELECT	47MF 20% 25V
C545	1-106-371-00	MYLAR	0.015MF 10%	C1012	1-124-120-11	ELECT	220MF 20% 25V
C546	1-102-030-00	CERAMIC	330PF 10%	C1013	1-124-478-11	ELECT	100MF 20% 25V
C547	1-124-342-00	ELECT	3.3MF 20%				
C548	1-102-030-00	CERAMIC	330PF 10%			<DIODE>	
C549	1-123-875-11	ELECT	10MF 20%	D302	8-719-911-19	DIODE	1SS119
C550	1-102-244-00	CERAMIC	220PF 10%	D303	8-719-911-19	DIODE	1SS119
C551	1-124-360-00	ELECT	1000MF 20%	D304	8-719-911-19	DIODE	1SS119
C552	1-124-499-11	ELECT	1MF 20%	D305	8-719-911-19	DIODE	1SS119
C553	1-108-626-11	MYLAR	0.01MF 10%	D306	8-719-911-19	DIODE	1SS119
C554	1-124-499-11	ELECT	1MF 20%	D307	8-719-911-19	DIODE	1SS119
C555	1-108-633-11	MYLAR	0.039MF 10%	D308	8-719-911-19	DIODE	1SS119
C556	1-136-173-00	FILM	0.47MF 5%	D309	8-719-911-19	DIODE	1SS119
C557	1-124-902-00	ELECT	0.47MF 20%	D311	8-719-911-19	DIODE	1SS119
C558	1-131-356-00	TANTALUM	3.3MF 10%	D312	8-719-911-19	DIODE	1SS119
C559	1-123-875-11	ELECT	10MF 20%	D313	8-719-911-19	DIODE	1SS119
C560	1-136-161-00	FILM	0.047MF 5%	D314	8-719-911-19	DIODE	1SS119
C561	1-102-973-00	CERAMIC	100PF 5%	D400	8-719-121-40	DIODE	RD10ES-L3
C562	1-130-471-00	FILM	0.001MF 5%	D401	8-719-911-19	DIODE	1SS119
C563	1-123-875-11	ELECT	10MF 20%	D402	8-719-120-27	DIODE	RD4.3ES-L2
C564	1-102-978-00	CERAMIC	220PF 5%	D403	8-719-109-93	DIODE	RD6.2ES-B2
C565	1-124-478-11	ELECT	100MF 20%	D404	8-719-911-19	DIODE	1SS119
C566	1-124-499-11	ELECT	1MF 20%	D405	8-719-911-19	DIODE	1SS119
C567	1-123-875-11	ELECT	10MF 20%	D501	8-719-911-19	DIODE	1SS119
C568	1-108-614-11	MYLAR	0.001MF 10%	D502	8-719-971-20	DIODE	ERC38-06
C569	1-130-736-11	FILM	0.01MF 5%	D503	8-719-971-20	DIODE	ERC38-06
C570	1-123-875-11	ELECT	10MF 20%	D504	8-719-901-58	DIODE	RGP15J
C571	1-126-233-11	ELECT	22MF 20%	D505	8-719-901-58	DIODE	RGP15J
C572	1-124-499-11	ELECT	1MF 20%	D506	8-719-901-19	DIODE	V11N
C573	1-123-875-11	ELECT	10MF 20%	D507	8-719-945-80	DIODE	ERC06-15S
C574	1-124-478-11	ELECT	100MF 20%	D508	8-719-928-08	DIODE	ERD28-08S
C575	1-102-978-00	CERAMIC	220PF 5%	D509	8-719-100-35	DIODE	RD5.6E-B2
C576	1-161-021-11	CERAMIC	0.047MF 10%	D510	8-719-190-00	DIODE	RD24E-B27
C577	1-123-875-11	ELECT	10MF 20%	D511	8-719-200-02	DIODE	10E2
C578	1-124-477-11	ELECT	47MF 20%	D512	8-719-200-02	DIODE	10E2
C579	1-124-477-11	ELECT	47MF 20%	D513	8-719-911-19	DIODE	1SS119
C580	1-124-499-11	ELECT	1MF 20%	D514	8-719-300-76	DIODE	RH-1Z
C581	1-124-478-11	ELECT	100MF 20%				
C583	1-126-233-11	ELECT	22MF 20%				

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D515	8-719-300-76	DIODE RH-1Z		L503	1-410-666-31	INDUCTOR 18UH	
D516	8-719-200-02	DIODE 10E2		L504	1-407-365-00	COIL, CHOKE	
D517	8-719-911-19	DIODE 1SS119		L505	1-407-365-00	COIL, CHOKE	
D518	8-719-200-02	DIODE 10E2		L506	1-408-238-00	INDUCTOR 3.9MMH	
D519	8-719-911-19	DIODE 1SS119		L507	1-459-155-00	COIL (WITH CORE) 45UH	
D520	8-719-911-19	DIODE 1SS119		L508 Δ	1-459-496-12	COIL, FERRITE (HLC)	
D521	8-719-911-19	DIODE 1SS119		L509	1-459-106-00	COIL, DUST CORE	
D522	8-719-911-19	DIODE 1SS119		L510	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE	
D523	8-719-911-19	DIODE 1SS119		L511	1-459-059-00	COIL, DUST CORE	
D524	8-719-911-19	DIODE 1SS119		L512	1-408-247-00	INDUCTOR 33MMH	
D526	8-719-911-19	DIODE 1SS119		L513	1-459-104-00	COIL, DUST CORE	
D527	8-719-911-19	DIODE 1SS119		L514	1-410-686-11	INDUCTOR 1MMH	
D528	8-719-911-19	DIODE 1SS119		L515	1-410-510-11	INDUCTOR 12UH	
D529	8-719-911-19	DIODE 1SS119		L801	1-410-470-11	INDUCTOR 10UH	
D530	8-719-901-83	DIODE 1SS83		L802	1-410-089-21	INDUCTOR 15MMH	
D531	8-719-911-19	DIODE 1SS119		<NEON LAMP>			
D801	8-719-911-19	DIODE 1SS119		NL501	1-519-108-XX	LAMP, NEON	
D802	8-719-911-19	DIODE 1SS119		<TRANSISTOR>			
D1001	8-719-911-19	DIODE 1SS119		Q300	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D1002	8-719-911-19	DIODE 1SS119		Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1003	8-719-911-19	DIODE 1SS119		Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1010	8-719-120-64	DIODE RD5.6ES-L1		Q303	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1011	8-719-110-08	DIODE RD8.2ES-B2		Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1012	8-719-911-55	DIODE U05G		Q305	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1013	8-719-110-37	DIODE RD13ES-B3		Q306	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D1014	8-719-936-56	DIODE DAN209S		Q307	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<DELAY LINE>				Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE	
DL301	1-415-633-11	DELAY LINE, Y		Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<IC>				Q310	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC301	8-759-204-21	IC TA7193P		Q311	8-729-900-89	TRANSISTOR DTC144ES	
IC302	1-808-627-11	ACC BLOCK ACC-1		Q312	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC303	8-759-710-31	IC NJM2243S		Q313	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC304	1-235-534-11	CONTROL MODULE, PICTURE		Q314	8-729-900-65	TRANSISTOR DTA144ES	
IC305	8-749-920-72	IC BX-7573		Q315	8-729-900-89	TRANSISTOR DTC144ES	
IC306	8-759-420-08	IC AN5613		Q316	8-729-900-89	TRANSISTOR DTC144ES	
IC307	1-808-629-11	MODULE, BLUE ONLY BOM-1		Q317	8-729-900-89	TRANSISTOR DTC144ES	
IC308	1-808-626-11	MODULE, GAIN/BIAS GBM-1		Q318	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC309	8-759-240-52	IC TC4052BP		Q319	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC311	8-759-800-81	IC LA7016		Q320	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC312	8-759-800-81	IC LA7016		Q321	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC401	8-752-030-31	IC CXA1024S		Q322	8-729-900-89	TRANSISTOR DTC144ES	
IC501	8-759-100-60	IC UPC1377C		Q323	8-729-900-89	TRANSISTOR DTC144ES	
IC502	8-759-145-58	IC UPC4558C		Q324	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC503	8-749-920-74	IC BX7574		Q325	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC504	8-759-345-38	IC HD14538BP		Q326	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC505	8-759-700-06	IC NJM7812B		Q327	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC1001	8-759-420-04	IC AN5265		Q328	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC1001	8-759-420-04	IC AN5265		Q329	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<COIL>				Q330	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L300	1-410-470-11	INDUCTOR 10UH		Q331	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L301	1-410-470-11	INDUCTOR 10UH		Q332	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L302	1-410-470-11	INDUCTOR 10UH		Q333	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L303	1-410-471-11	INDUCTOR 12UH		Q334	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L304	1-408-406-00	INDUCTOR 5.6UH		Q335	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L306	1-410-470-11	INDUCTOR 10UH		Q336	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L307	1-408-406-00	INDUCTOR 5.6UH		Q337	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L495	1-421-013-00	COIL, (HORIZONTAL CHOKE) 25UH		Q338	8-729-900-89	TRANSISTOR DTC144ES	
L501	1-459-155-00	COIL (WITH CORE) 45UH		Q400	8-729-177-33	TRANSISTOR 2SD773-4	
L502	1-410-671-31	INDUCTOR 47UH		Q401	8-729-900-36	TRANSISTOR DTC124ES	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R361	1-249-405-11	CARBON	100 5% 1/4W	R425	1-249-437-11	CARBON	47K 5% 1/4W
R362	1-249-410-11	CARBON	270 5% 1/4W	R426	1-249-434-11	CARBON	27K 5% 1/4W
R363	1-249-432-11	CARBON	18K 5% 1/4W	R427	1-249-429-11	CARBON	10K 5% 1/4W
R364	1-249-417-11	CARBON	1K 5% 1/4W	R428	1-249-425-11	CARBON	4.7K 5% 1/4W
R365	1-249-432-11	CARBON	18K 5% 1/4W	R429	1-249-405-11	CARBON	100 5% 1/4W
R366	1-249-437-11	CARBON	47K 5% 1/4W	R430	1-247-711-11	CARBON	680 5% 1/4W
R367	1-249-413-11	CARBON	470 5% 1/4W	R431	1-249-416-11	CARBON	820 5% 1/4W
R368	1-249-405-11	CARBON	100 5% 1/4W	R432	1-249-414-11	CARBON	560 5% 1/4W
R369	1-249-405-11	CARBON	100 5% 1/4W	R433	1-249-433-11	CARBON	22K 5% 1/4W
R370	1-249-417-11	CARBON	1K 5% 1/4W	R434	1-249-425-11	CARBON	4.7K 5% 1/4W
R371	1-249-432-11	CARBON	18K 5% 1/4W	R435	1-249-405-11	CARBON	100 5% 1/4W
R372	1-249-465-11	CARBON	47K 5% 1/4W	R436	1-249-423-11	CARBON	3.3K 5% 1/4W
R373	1-249-436-11	CARBON	39K 5% 1/4W	R437	1-249-411-11	CARBON	330 5% 1/4W
R374	1-249-432-11	CARBON	18K 5% 1/4W	R438	1-249-405-11	CARBON	100 5% 1/4W
R375	1-249-405-11	CARBON	100 5% 1/4W	R439	1-249-417-11	CARBON	1K 5% 1/4W
R376	1-249-417-11	CARBON	1K 5% 1/4W	R440	1-249-425-11	CARBON	4.7K 5% 1/4W
R377	1-249-428-11	CARBON	8.2K 5% 1/4W	R441	1-249-421-11	CARBON	2.2K 5% 1/4W
R378	1-249-433-11	CARBON	22K 5% 1/4W	R442	1-247-700-11	CARBON	100 5% 1/4W
R379	1-249-430-11	CARBON	12K 5% 1/4W	R443	1-249-421-11	CARBON	2.2K 5% 1/4W
R380	1-249-405-11	CARBON	100 5% 1/4W	R444	1-249-419-11	CARBON	1.5K 5% 1/4W
R381	1-249-431-11	CARBON	15K 5% 1/4W	R445	1-249-417-11	CARBON	1K 5% 1/4W
R382	1-249-408-11	CARBON	180 5% 1/4W	R446	1-249-422-11	CARBON	2.7K 5% 1/4W
R383	1-249-413-11	CARBON	470 5% 1/4W	R447	1-249-429-11	CARBON	10K 5% 1/4W
R384	1-249-413-11	CARBON	470 5% 1/4W	R448	1-247-883-00	CARBON	150K 5% 1/4W
R385	1-249-411-11	CARBON	330 5% 1/4W	R449	1-249-462-11	CARBON	22K 5% 1/4W
R386	1-249-415-11	CARBON	680 5% 1/4W	R450	1-249-409-11	CARBON	220 5% 1/4W
R387	1-249-405-11	CARBON	100 5% 1/4W	R451	1-247-704-11	CARBON	220 5% 1/4W
R388	1-249-423-11	CARBON	3.3K 5% 1/4W	R452	1-249-409-11	CARBON	220 5% 1/4W
R389	1-249-417-11	CARBON	1K 5% 1/4W	R453	1-247-704-11	CARBON	220 5% 1/4W
R390	1-249-433-11	CARBON	22K 5% 1/4W	R454	1-249-417-11	CARBON	1K 5% 1/4W
R391	1-249-433-11	CARBON	22K 5% 1/4W	R455	1-249-409-11	CARBON	220 5% 1/4W
R392	1-249-433-11	CARBON	22K 5% 1/4W	R456	1-249-409-11	CARBON	220 5% 1/4W
R393	1-249-403-11	CARBON	68 5% 1/4W	R457	1-249-409-11	CARBON	220 5% 1/4W
R394	1-249-409-11	CARBON	220 5% 1/4W	R458	1-249-433-11	CARBON	22K 5% 1/4W
R395	1-249-417-11	CARBON	1K 5% 1/4W	R459	1-249-425-11	CARBON	4.7K 5% 1/4W
R396	1-249-433-11	CARBON	22K 5% 1/4W	R460	1-249-425-11	CARBON	4.7K 5% 1/4W
R397	1-249-405-11	CARBON	100 5% 1/4W	R461	1-249-433-11	CARBON	22K 5% 1/4W
R398	1-249-405-11	CARBON	100 5% 1/4W	R462	1-249-386-11	CARBON	2.7 5% 1/4W
R399	1-247-718-11	CARBON	2.7K 5% 1/4W	R464	1-259-881-11	CARBON	2.7M 5% 1/4W
R400	1-249-413-11	CARBON	470 5% 1/4W	R465	1-249-465-11	CARBON	47K 5% 1/4W
R401	1-249-413-11	CARBON	470 5% 1/4W	R466	1-249-421-11	CARBON	2.2K 5% 1/4W
R402	1-249-416-11	CARBON	820 5% 1/4W	R467	1-249-431-11	CARBON	15K 5% 1/4W
R403	1-249-411-11	CARBON	330 5% 1/4W	R468	1-249-431-11	CARBON	15K 5% 1/4W
R404	1-249-405-11	CARBON	100 5% 1/4W	R469	1-247-897-11	CARBON	560K 5% 1/4W
R405	1-249-422-11	CARBON	2.7K 5% 1/4W	R470	1-249-437-11	CARBON	47K 5% 1/4W
R406	1-249-413-11	CARBON	470 5% 1/4W	R471	1-249-429-11	CARBON	10K 5% 1/4W
R407	1-249-413-11	CARBON	470 5% 1/4W	R472	1-249-417-11	CARBON	1K 5% 1/4W
R408	1-249-416-11	CARBON	820 5% 1/4W				
R409	1-249-411-11	CARBON	330 5% 1/4W				
R410	1-249-405-11	CARBON	100 5% 1/4W				
R411	1-249-422-11	CARBON	2.7K 5% 1/4W				
R412	1-249-419-11	CARBON	1.5K 5% 1/4W				
R413	1-249-417-11	CARBON	1K 5% 1/4W				
R414	1-249-429-11	CARBON	10K 5% 1/4W				
R415	1-249-417-11	CARBON	1K 5% 1/4W				
R416	1-249-429-11	CARBON	10K 5% 1/4W				
R417	1-249-421-11	CARBON	2.2K 5% 1/4W				
R418	1-249-439-11	CARBON	68K 5% 1/4W				
R419	1-249-433-11	CARBON	22K 5% 1/4W				
R420	1-249-426-11	CARBON	5.6K 5% 1/4W				
R421	1-249-437-11	CARBON	47K 5% 1/4W				
R422	1-249-437-11	CARBON	47K 5% 1/4W				
R423	1-249-405-11	CARBON	100 5% 1/4W				
R424	1-249-437-11	CARBON	47K 5% 1/4W				

* : Selected to yield optimum performance.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R473	1-249-437-11	CARBON	47K 5% 1/4W	R521	1-215-445-00	METAL	10K 1% 1/6W
R474	1-249-429-11	CARBON	10K 5% 1/4W	R522	1-247-887-00	CARBON	220K 5% 1/4W
R475	1-249-417-11	CARBON	1K 5% 1/4W	R523	1-215-439-00	METAL	5.6K 1% 1/6W
R476	1-249-401-11	CARBON	47 5% 1/4W	R524	1-249-469-11	CARBON	100K 5% 1/4W
R477	1-249-417-11	CARBON	1K 5% 1/4W	R525	1-215-445-00	METAL	10K 1% 1/6W
R478	1-249-401-11	CARBON	47 5% 1/4W	R526	1-215-442-00	METAL	7.5K 1% 1/6W
R479	1-249-417-11	CARBON	1K 5% 1/4W	R527	1-249-417-11	CARBON	1K 5% 1/4W
R480	1-249-401-11	CARBON	47 5% 1/4W	R528	1-215-877-11	METAL OXIDE	22K 5% 1W F
R481	1-249-433-11	CARBON	22K 5% 1/4W	R529	1-216-360-11	METAL OXIDE	8.2 5% 1W F
R482	1-249-433-11	CARBON	22K 5% 1/4W	R530	1-216-427-00	METAL OXIDE	120 5% 1W F
R483	1-249-433-11	CARBON	22K 5% 1/4W	R531	1-247-756-11	CARBON	2.2K 5% 1/2W F
R484	1-247-891-00	CARBON	330K 5% 1/4W	R532	1-249-436-11	CARBON	39K 5% 1/4W
R485	1-247-891-00	CARBON	330K 5% 1/4W	R533	1-249-422-11	CARBON	2.7K 5% 1/4W
R486	1-249-433-11	CARBON	22K 5% 1/4W	R534	1-247-719-11	CARBON	3.3K 5% 1/4W
R487	1-249-433-11	CARBON	22K 5% 1/4W	R535	1-215-441-00	METAL	6.8K 1% 1/6W
R488	1-249-418-11	CARBON	1.2K 5% 1/4W F	R536	1-249-433-11	CARBON	22K 5% 1/4W
R489	1-249-421-11	CARBON	2.2K 5% 1/4W	R537	1-249-417-11	CARBON	1K 5% 1/4W F
R490	1-247-895-00	CARBON	470K 5% 1/4W	R538	1-249-428-11	CARBON	8.2K 5% 1/4W
R491	1-249-420-11	CARBON	1.8K 5% 1/4W	R539	1-247-883-00	CARBON	150K 5% 1/4W
R492	1-249-417-11	CARBON	1K 5% 1/4W	R540	1-249-466-11	CARBON	56K 5% 1/4W
R493	1-249-441-11	CARBON	100K 5% 1/4W	R541	1-247-883-00	CARBON	150K 5% 1/4W
R494	1-249-413-11	CARBON	470 5% 1/4W	R542	1-249-438-11	CARBON	56K 5% 1/4W
R495	1-249-433-11	CARBON	22K 5% 1/4W	R543	1-247-903-00	CARBON	1M 5% 1/4W
R496	1-249-433-11	CARBON	22K 5% 1/4W	R544	1-215-453-00	METAL	22K 1% 1/6W
R497	1-249-437-11	CARBON	47K 5% 1/4W	R545	1-249-417-11	CARBON	1K 5% 1/4W
R498	1-249-433-11	CARBON	22K 5% 1/4W	R546	1-249-411-11	CARBON	330 5% 1/4W
R499	1-249-433-11	CARBON	22K 5% 1/4W	R547	1-249-414-11	CARBON	560 5% 1/4W
*R500	1-215-451-00	METAL	18K 1% 1/6W	R548	1-249-415-11	CARBON	680 5% 1/4W
*R500	1-215-452-00	METAL	20K 1% 1/6W	R549	1-215-473-00	METAL	150K 1% 1/6W
*R500	1-215-453-00	METAL	22K 1% 1/6W	R550	1-249-433-11	CARBON	22K 5% 1/4W
*R500	1-215-454-00	METAL	24K 1% 1/6W	R551	1-247-688-11	CARBON	10 5% 1/4W F
*R500	1-215-455-00	METAL	27K 1% 1/6W	R552	1-249-425-11	CARBON	4.7K 5% 1/4W
*R500	1-215-456-00	METAL	30K 1% 1/6W	R553	1-249-429-11	CARBON	10K 5% 1/4W
*R500	1-215-457-00	METAL	33K 1% 1/6W	R554	1-249-460-11	CARBON	15K 5% 1/4W
*R500	1-215-458-00	METAL	36K 1% 1/6W	R555	1-249-426-11	CARBON	5.6K 5% 1/4W
*R500	1-215-459-00	METAL	39K 1% 1/6W	R556	1-247-707-11	CARBON	390 5% 1/4W
*R500	1-215-460-00	METAL	43K 1% 1/6W	R557	1-215-463-00	METAL	56K 1% 1/6W
*R500	1-215-461-00	METAL	47K 1% 1/6W	R558	1-215-457-00	METAL	33K 1% 1/6W
*R500	1-215-462-00	METAL	51K 1% 1/6W	R559	1-215-453-00	METAL	22K 1% 1/6W
*R500	1-215-463-00	METAL	56K 1% 1/6W	R560	1-215-479-00	METAL	270K 1% 1/6W
*R500	1-215-464-00	METAL	62K 1% 1/6W	R561	1-249-435-11	CARBON	33K 5% 1/4W
*R500	1-215-465-00	METAL	68K 1% 1/6W	R562	1-249-422-11	CARBON	2.7K 5% 1/4W
*R500	1-215-466-00	METAL	75K 1% 1/6W	R563	1-249-428-11	CARBON	8.2K 5% 1/4W
*R500	1-215-467-00	METAL	82K 1% 1/6W	R564	1-215-445-00	METAL	10K 1% 1/6W
R501	1-247-711-11	CARBON	680 5% 1/4W F	R565	1-249-413-11	CARBON	470 5% 1/4W F
R502	1-216-464-11	METAL OXIDE	18K 5% 2W F	R566	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R503	1-249-440-11	CARBON	82K 5% 1/4W	R567	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R504	1-249-424-11	CARBON	3.9K 5% 1/4W	R568	1-249-401-11	CARBON	47 5% 1/4W F
R505	1-249-440-11	CARBON	82K 5% 1/4W	R569	1-215-869-11	METAL OXIDE	1K 5% 1W F
R506	1-249-431-11	CARBON	15K 5% 1/4W	R570	1-247-697-11	CARBON	56 5% 1/4W F
R507	1-249-434-11	CARBON	27K 5% 1/4W	R571	1-215-867-00	METAL OXIDE	470 5% 1W F
R508	1-247-723-11	CARBON	6.8K 5% 1/4W F	R572	1-216-355-11	METAL OXIDE	3.3 5% 1W F
R509	1-249-423-11	CARBON	3.3K 5% 1/4W F	R573	1-247-746-11	CARBON	390 5% 1/2W
R510	1-215-919-11	METAL OXIDE	2.2K 5% 3W F	R574	1-249-425-11	CARBON	4.7K 5% 1/4W
R511	1-215-447-00	METAL	12K 1% 1/6W	R575	1-247-688-11	CARBON	10 5% 1/4W F
R512	1-212-883-00	FUSIBLE	120 5% 1/4W F	R576	1-249-440-11	CARBON	82K 5% 1/4W
R513	1-249-383-11	CARBON	1.5 5% 1/4W F	R577	1-249-396-11	CARBON	18 5% 1/4W
R514	1-216-367-11	METAL OXIDE	0.68 5% 2W F	R578	1-249-433-11	CARBON	22K 5% 1/4W
R515	1-216-434-11	METAL OXIDE	1.8K 5% 1W F	R579	1-249-433-11	CARBON	22K 5% 1/4W
R516	1-214-888-00	METAL	10K 1% 1/2W	R580	1-249-433-11	CARBON	22K 5% 1/4W
R517	1-214-763-00	METAL	27K 1% 1/4W	R581	1-249-429-11	CARBON	10K 5% 1/4W
R518	1-214-956-00	METAL	470K 1% 1/4W	R582	1-249-429-11	CARBON	10K 5% 1/4W
R519	1-214-917-00	METAL	150K 1% 1/2W	R583	1-249-438-11	CARBON	56K 5% 1/4W
R520	1-215-467-00	METAL	82K 1% 1/6W				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R584	1-247-881-00	CARBON	120K 5% 1/4W	R851	1-249-439-11	CARBON	68K 5% 1/4W
R585	1-249-433-11	CARBON	22K 5% 1/4W	R852	1-249-437-11	CARBON	47K 5% 1/4W
R586	1-215-449-00	METAL	15K 1% 1/6W	R853	1-247-710-11	CARBON	560 5% 1/4W
R587	1-249-429-11	CARBON	10K 5% 1/4W	R855	1-249-414-11	CARBON	560 5% 1/4W
R588	1-247-688-11	CARBON	10 5% 1/4W	R856	1-249-429-11	CARBON	10K 5% 1/4W
			F	R857	1-247-725-11	CARBON	10K 5% 1/4W
R589	1-249-417-11	CARBON	1K 5% 1/4W	R858	1-249-433-11	CARBON	22K 5% 1/4W
R590	1-249-433-11	CARBON	22K 5% 1/4W	R860	1-249-425-11	CARBON	4.7K 5% 1/4W
R591	1-249-433-11	CARBON	22K 5% 1/4W	R861	1-249-437-11	CARBON	47K 5% 1/4W
R592	1-249-417-11	CARBON	1K 5% 1/4W	R862	1-249-425-11	CARBON	4.7K 5% 1/4W
R593	1-249-425-11	CARBON	4.7K 5% 1/4W	R863	1-247-721-11	CARBON	4.7K 5% 1/4W
R594	1-247-719-11	CARBON	3.3K 5% 1/4W	R864	1-247-717-11	CARBON	2.2K 5% 1/4W
R595	1-249-417-11	CARBON	1K 5% 1/4W	R866	1-249-426-11	CARBON	5.6K 5% 1/4W
R596	1-247-721-11	CARBON	4.7K 5% 1/4W	R867	1-249-426-11	CARBON	5.6K 5% 1/4W
R597	1-215-437-00	METAL	4.7K 1% 1/6W	R868	1-249-421-11	CARBON	2.2K 5% 1/4W
R598	1-247-725-11	CARBON	10K 5% 1/4W	R869	1-249-425-11	CARBON	4.7K 5% 1/4W
R599	1-247-711-11	CARBON	680 5% 1/4W	R870	1-249-426-11	CARBON	5.6K 5% 1/4W
R800	1-215-443-00	METAL	8.2K 1% 1/6W	R871	1-249-427-11	CARBON	6.8K 5% 1/4W
R801	1-249-440-11	CARBON	82K 5% 1/4W	R872	1-249-417-11	CARBON	1K 5% 1/4W
R802	1-215-429-00	METAL	2.2K 1% 1/6W	R873	1-249-437-11	CARBON	47K 5% 1/4W
R803	1-249-465-11	CARBON	47K 5% 1/4W	R874	1-215-437-00	METAL	4.7K 1% 1/6W
R804	1-247-726-11	CARBON	33K 5% 1/4W	R875	1-215-453-00	METAL	22K 1% 1/6W
R805	1-249-407-11	CARBON	150 5% 1/4W	R876	1-249-429-11	CARBON	10K 5% 1/4W
R806	1-249-415-11	CARBON	680 5% 1/4W	R877	1-249-417-11	CARBON	1K 5% 1/4W
R807	1-249-437-11	CARBON	47K 5% 1/4W	R878	1-249-429-11	CARBON	10K 5% 1/4W
R808	1-249-433-11	CARBON	22K 5% 1/4W	R879	1-249-437-11	CARBON	47K 5% 1/4W
R809	1-215-471-00	METAL	120K 1% 1/6W	R880	1-249-417-11	CARBON	1K 5% 1/4W
R810	1-215-467-00	METAL	82K 1% 1/6W	R881	1-249-423-11	CARBON	3.3K 5% 1/4W
R811	1-249-429-11	CARBON	10K 5% 1/4W	R883	1-249-409-11	CARBON	220 5% 1/4W
R812	1-249-427-11	CARBON	6.8K 5% 1/4W	R884	1-249-417-11	CARBON	1K 5% 1/4W
R813	1-249-405-11	CARBON	100 5% 1/4W	R885	1-249-469-11	CARBON	100K 5% 1/4W
R814	1-249-417-11	CARBON	1K 5% 1/4W	R886	1-247-725-11	CARBON	10K 5% 1/4W
R815	1-249-409-11	CARBON	220 5% 1/4W	R887	1-247-704-11	CARBON	220 5% 1/4W
R816	1-249-429-11	CARBON	10K 5% 1/4W	R1001	1-247-717-11	CARBON	2.2K 5% 1/4W
R817	1-247-881-00	CARBON	120K 5% 1/4W	R1002	1-249-429-11	CARBON	10K 5% 1/4W
R818	1-247-881-00	CARBON	120K 5% 1/4W	R1003	1-249-405-11	CARBON	100 5% 1/4W
R819	1-247-903-00	CARBON	1M 5% 1/4W	R1004	1-247-725-11	CARBON	10K 5% 1/4W
R820	1-249-426-11	CARBON	5.6K 5% 1/4W	R1005	1-249-437-11	CARBON	47K 5% 1/4W
R821	1-247-881-00	CARBON	120K 5% 1/4W	R1006	1-249-439-11	CARBON	68K 5% 1/4W
R822	1-249-417-11	CARBON	1K 5% 1/4W	R1007	1-249-433-11	CARBON	22K 5% 1/4W
R823	1-247-696-11	CARBON	47 5% 1/4W	R1009	1-249-429-11	CARBON	10K 5% 1/4W
R824	1-249-439-11	CARBON	68K 5% 1/4W	R1010	1-249-415-11	CARBON	680 5% 1/4W
R825	1-249-437-11	CARBON	47K 5% 1/4W	R1011	1-249-455-11	CARBON	4.7 5% 1/4W
R826	1-249-417-11	CARBON	1K 5% 1/4W	R1012	1-216-355-11	METAL OXIDE	3.3 5% 1W
R827	1-249-417-11	CARBON	1K 5% 1/4W	R1013	1-249-413-11	CARBON	470 5% 1/4W
R828	1-249-417-11	CARBON	1K 5% 1/4W	R1014	1-249-414-11	CARBON	560 5% 1/4W
R829	1-249-421-11	CARBON	2.2K 5% 1/4W	R1015	1-215-867-00	METAL OXIDE	470 5% 1W
R830	1-249-435-11	CARBON	33K 5% 1/4W	R1016	1-247-698-11	CARBON	68 5% 1/4W
R831	1-249-438-11	CARBON	56K 5% 1/4W	R1017	1-249-421-11	CARBON	2.2K 5% 1/4W
R832	1-249-417-11	CARBON	1K 5% 1/4W	R1018	1-249-437-11	CARBON	47K 5% 1/4W
R833	1-249-425-11	CARBON	4.7K 5% 1/4W	R1019	1-212-857-00	FUSIBLE	10 5% 1/4W
R834	1-249-425-11	CARBON	4.7K 5% 1/4W	R1020	1-249-429-11	CARBON	10K 5% 1/4W
R835	1-247-889-00	CARBON	270K 5% 1/4W	R1021	1-249-434-11	CARBON	27K 5% 1/4W
R836	1-247-897-11	CARBON	560K 5% 1/4W	R1022	1-249-428-11	CARBON	8.2K 5% 1/4W
R837	1-215-469-00	METAL	100K 1% 1/6W	R1023	1-249-428-11	CARBON	8.2K 5% 1/4W
R838	1-246-531-00	CARBON	270K 5% 1/4W	R1024	1-247-903-00	CARBON	1M 5% 1/4W
R840	1-247-696-11	CARBON	47 5% 1/4W	R1025	1-249-429-11	CARBON	10K 5% 1/4W
R842	1-249-409-11	CARBON	220 5% 1/4W	R1026	1-249-429-11	CARBON	10K 5% 1/4W
R843	1-247-704-11	CARBON	220 5% 1/4W	R1027	1-215-454-00	METAL	24K 1% 1/6W
R844	1-249-417-11	CARBON	1K 5% 1/4W	R1301	1-249-429-11	CARBON	10K 5% 1/4W
R845	1-247-725-11	CARBON	10K 5% 1/4W	R1302	1-247-725-11	CARBON	10K 5% 1/4W
R846	1-215-439-00	METAL	5.6K 1% 1/6W	R1303	1-249-429-11	CARBON	10K 5% 1/4W
R847	1-249-433-11	CARBON	22K 5% 1/4W	R1304	1-249-405-11	CARBON	100 5% 1/4W
R848	1-249-433-11	CARBON	22K 5% 1/4W				
R850	1-249-440-11	CARBON	82K 5% 1/4W				

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1306	1-247-700-11	CARBON 100 5% 1/4W		C717	1-162-116-00	CERAMIC 680PF 10% 2KV	
R1307	1-249-421-11	CARBON 2.2K 5% 1/4W		C718	1-162-115-00	CERAMIC 330PF 10% 2KV	
				C720	1-162-116-00	CERAMIC 680PF 10% 2KV	
		<VARIABLE RESISTOR>		C721	1-162-116-00	CERAMIC 680PF 10% 2KV	
RV002	1-228-993-00	RES, ADJ, CARBON 4.7K		C722	1-162-116-00	CERAMIC 680PF 10% 2KV	
RV003	1-228-993-00	RES, ADJ, CARBON 4.7K				<DIODE>	
RV004	1-228-993-00	RES, ADJ, CARBON 4.7K		D701	8-719-911-19	DIODE 1SS119	
RV005	1-228-996-00	RES, ADJ, CARBON 47K		D702	8-719-911-19	DIODE 1SS119	
RV006	1-228-994-00	RES, ADJ, CARBON 10K		D703	8-719-911-19	DIODE 1SS119	
RV007	1-228-994-00	RES, ADJ, CARBON 10K		D704	8-719-911-19	DIODE 1SS119	
RV401	1-228-994-00	RES, ADJ, CARBON 10K		D705	8-719-911-19	DIODE 1SS119	
RV501	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K		D706	8-719-911-19	DIODE 1SS119	
RV502	1-223-102-00	RES, ADJ, WIREWOUND 120		D707	8-719-901-83	DIODE 1SS83	
RV503	1-228-996-00	RES, ADJ, METAL GLAZE 47K		D708	8-719-901-83	DIODE 1SS83	
RV504	1-228-990-00	RES, ADJ, CARBON 1K		D709	8-719-901-83	DIODE 1SS83	
				D713	8-719-901-83	DIODE 1SS83	
RV505	1-228-995-00	RES, ADJ, CARBON 22K		D715	8-719-901-83	DIODE 1SS83	
RV506	1-228-989-00	RES, ADJ, CARBON 470		D716	8-719-901-83	DIODE 1SS83	
RV507	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K		D717	8-719-901-83	DIODE 1SS83	
RV508	1-228-994-00	RES, ADJ, CARBON 10K				<FILTER>	
RV509	1-228-998-00	RES, ADJ, CARBON 220K		FL701	1-236-058-11	ENCAPSULATED COMPONENT	
				FL702	1-236-058-11	ENCAPSULATED COMPONENT	
RV510	1-228-996-00	RES, ADJ, CARBON 47K		FL703	1-236-058-11	ENCAPSULATED COMPONENT	
RV511	1-228-989-00	RES, ADJ, CARBON 470				<TRANSISTOR>	
RV512	1-228-995-00	RES, ADJ, CARBON 22K		Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
RV513	1-228-993-00	RES, ADJ, METAL GLAZE 4.7K		Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
RV514	1-228-996-00	RES, ADJ, CARBON 47K		Q703	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q704	8-729-200-17	TRANSISTOR 2SA1091	
RV550	1-228-993-00	RES, ADJ, CARBON 4.7K		Q705	8-729-200-17	TRANSISTOR 2SA1091	
		<TRANSFORMER>		Q706	8-729-200-17	TRANSISTOR 2SA1091	
T501	Δ 1-439-395-12	TRANSFORMER ASSY, FLYBACK		Q707	8-729-326-11	TRANSISTOR 2SC2611	
T502	1-437-131-00	TRANSFORMER, DRIVE		Q708	8-729-326-11	TRANSISTOR 2SC2611	
		<THERMISTOR>		Q709	8-729-326-11	TRANSISTOR 2SC2611	
TH501	1-806-110-00	THERMISTOR		Q710	8-729-200-17	TRANSISTOR 2SA1091	
		*****		Q711	8-729-200-17	TRANSISTOR 2SA1091	
		*A-1330-986-A C BOARD, COMPLETE		Q712	8-729-200-17	TRANSISTOR 2SA1091	
		*****		Q713	8-729-255-12	TRANSISTOR 2SC2551	
		Δ 1-526-819-11 SOCKET, PICTURE TUBE		Q714	8-729-255-12	TRANSISTOR 2SC2551	
		*4-374-912-01 COVER (MAIN), CV VOL		Q715	8-729-255-12	TRANSISTOR 2SC2551	
		*4-374-913-01 COVER (REAR LID), CV VOL		Q716	8-729-255-12	TRANSISTOR 2SC2551	
		<CONNECTOR>		Q717	8-729-255-12	TRANSISTOR 2SC2551	
C1	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P				<RESISTOR>	
C2	*1-506-371-00	PIN, CONNECTOR 2P		R702	1-215-480-00	METAL 300K 1% 1/6W	
C3	*1-564-513-11	PLUG, CONNECTOR 10P		R704	1-215-408-00	METAL 300 1% 1/6W	
		<CAPACITOR>		R705	1-249-410-11	CARBON 270 5% 1/4W	
C701	1-102-115-00	CERAMIC 560PF 10% 50V		R706	1-249-410-11	CARBON 270 5% 1/4W	
C702	1-102-115-00	CERAMIC 560PF 10% 50V		R707	1-249-420-11	CARBON 1.8K 5% 1/4W	
C703	1-102-115-00	CERAMIC 560PF 10% 50V		R708	1-249-419-11	CARBON 1.5K 5% 1/4W	
C704	1-102-121-00	CERAMIC 0.0022MF 10% 50V		R709	1-249-420-11	CARBON 1.8K 5% 1/4W	
C705	1-123-875-11	ELECT 10MF 20% 50V		R710	1-249-397-11	CARBON 22 5% 1/4W	
C706	1-102-074-00	CERAMIC 0.001MF 10% 50V		R711	1-249-397-11	CARBON 22 5% 1/4W	
C707	1-162-116-00	CERAMIC 680PF 10% 2KV		R712	1-249-397-11	CARBON 22 5% 1/4W	
C708	1-130-338-11	FILM 0.01MF 10% 630V		R715	1-202-818-00	SOLID 1K 10% 1/2W	
C713	1-108-704-11	MYLAR 0.1MF 10% 200V		R716	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
C714	1-102-116-00	CERAMIC 680PF 10% 50V		R717	1-202-818-00	SOLID 1K 10% 1/2W	
C715	1-102-116-00	CERAMIC 680PF 10% 50V		R718	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
C716	1-102-116-00	CERAMIC 680PF 10% 50V					



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R719	1-202-818-00	SOLID					
R720	1-216-486-00	METAL OXIDE					
R721	1-216-372-11	METAL OXIDE					
R722	1-202-848-00	SOLID					
R723	1-202-838-00	SOLID					
R724	1-202-842-11	SOLID					
R725	1-202-719-00	SOLID					
R731	1-249-409-11	CARBON					
R732	1-249-409-11	CARBON					
R733	1-249-409-11	CARBON					
R734	1-249-409-11	CARBON					
R735	1-249-409-11	CARBON					
R736	1-249-409-11	CARBON					
R737	1-249-405-11	CARBON					
R738	1-249-405-11	CARBON					
R739	1-249-405-11	CARBON					
R740	1-249-429-11	CARBON					
R741	1-249-429-11	CARBON					
R742	1-249-429-11	CARBON					
R743	1-249-441-11	CARBON					
R744	1-249-429-11	CARBON					
R745	1-249-429-11	CARBON					
R746	1-215-902-11	METAL OXIDE					
R747	1-247-725-11	CARBON					
R748	1-247-713-11	CARBON					
R749	1-215-902-11	METAL OXIDE					
R750	1-249-400-11	CARBON					
R751	1-247-887-00	CARBON					
R752	1-247-887-00	CARBON					
R753	1-247-887-00	CARBON					
<VARIABLE RESISTOR>							
RV707	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M					
RV708	1-230-798-11	RES, ADJ, METAL GLAZE 90M					
RV709	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M					

*I-629-148-11	V BOARD						

<CAPACITOR>							
C1700	1-124-120-11	ELECT					
C1701	1-101-004-00	CERAMIC					
C1702	1-102-978-00	CERAMIC					
C1703	1-102-978-00	CERAMIC					
C1705	1-124-499-11	ELECT					
C1706	1-124-499-11	ELECT					
C1707	1-124-120-11	ELECT					
C1710	1-101-884-00	CERAMIC					
C1711	1-101-884-00	CERAMIC					
<DIODE>							
D1700	8-719-911-19	DIODE 1SS119					
D1701	8-719-936-56	DIODE DAN209S					
D1702	8-719-936-56	DIODE DAN209S					
D1703	8-719-936-56	DIODE DAN209S					
D1704	8-719-936-56	DIODE DAN209S					
D1705	8-719-933-28	DIODE DAP209S					
D1706	8-719-933-28	DIODE DAP209S					
D1707	8-719-911-19	DIODE 1SS119					
D1708	8-719-911-19	DIODE 1SS119					
<TRANSISTOR>							
Q1700	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1701	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1702	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1703	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1705	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1706	8-729-900-89	TRANSISTOR DTC144ES					
Q1707	8-729-900-89	TRANSISTOR DTC144ES					
Q1708	8-729-115-30	TRANSISTOR 2SK105A-40					
Q1709	8-729-115-30	TRANSISTOR 2SK105A-40					
Q1710	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1711	8-729-119-78	TRANSISTOR 2SC2785-HFE					
<RESISTOR>							
R1700	1-249-426-11	CARBON					
R1701	1-249-413-11	CARBON					
R1702	1-249-413-11	CARBON					
R1703	1-249-413-11	CARBON					
R1704	1-249-413-11	CARBON					
R1705	1-247-885-00	CARBON					
R1706	1-249-437-11	CARBON					
R1707	1-247-883-00	CARBON					
R1708	1-249-437-11	CARBON					
R1709	1-249-429-11	CARBON					
R1710	1-249-438-11	CARBON					
R1711	1-249-429-11	CARBON					
R1712	1-249-429-11	CARBON					
R1713	1-249-429-11	CARBON					
R1714	1-249-429-11	CARBON					
R1715	1-249-429-11	CARBON					
R1716	1-249-438-11	CARBON					
R1717	1-249-429-11	CARBON					
R1718	1-249-429-11	CARBON					
R1719	1-249-417-11	CARBON					
R1720	1-249-429-11	CARBON					
R1721	1-249-429-11	CARBON					
R1722	1-249-429-11	CARBON					
R1723	1-249-429-11	CARBON					
R1724	1-249-429-11	CARBON					
R1725	1-247-891-00	CARBON					
R1726	1-247-891-00	CARBON					
R1727	1-249-437-11	CARBON					
R1728	1-249-437-11	CARBON					
R1729	1-249-405-11	CARBON					
R1730	1-249-405-11	CARBON					
R1731	1-249-417-11	CARBON					
R1732	1-249-417-11	CARBON					
R1733	1-249-409-11	CARBON					
R1734	1-249-409-11	CARBON					
R1750	1-249-423-11	CARBON					
<VARIABLE RESISTOR>							
RV1700	1-228-995-00	RES, ADJ, CARBON 22K					
RV1701	1-228-995-00	RES, ADJ, CARBON 22K					
RV1702	1-228-995-00	RES, ADJ, CARBON 22K					
RV1703	1-228-995-00	RES, ADJ, CARBON 22K					
RV1704	1-237-524-21	RES, ADJ, CARBON 1M					
RV1705	1-228-999-00	RES, ADJ, CARBON 470K					
RV1706	1-228-999-00	RES, ADJ, CARBON 470K					

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

V W Y J XA

REF. NO.	PART NO.	DESCRIPTION	REMARK
RV1707	1-237-524-21	RES. ADJ, CARBON 1M	
RV1708	1-228-995-00	RES. ADJ, CARBON 22K	
RV1709	1-228-995-00	RES. ADJ, CARBON 22K	
RV1710	1-228-995-00	RES. ADJ, CARBON 22K	

<CONNECTOR>

V1	*1-563-720-11	SOCKET, CONNECTOR (PC BOARD)9P
V2	*1-563-720-11	SOCKET, CONNECTOR (PC BOARD)9P

*1-629-149-11 W BOARD

<CAPACITOR>

C1400	1-136-169-00	FILM	0.22MF	5%	50V
C1401	1-136-153-00	FILM	0.01MF	5%	50V
C1402	1-124-478-11	ELECT	100MF	20%	25V
C1403	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1404	1-124-478-11	ELECT	100MF	20%	25V
C1405	1-123-875-11	ELECT	10MF	20%	50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V

<DIODE>

D1400	8-719-911-19	DIODE 1SS119
D1401	8-719-911-19	DIODE 1SS119

<IC>

IC1400	8-759-135-80	IC UPC358C
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<TRANSISTOR>

Q1400	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1401	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1402	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R1400	1-249-437-11	CARBON	47K	5%	1/4W
R1401	1-249-415-11	CARBON	680	5%	1/4W
R1402	1-247-895-00	CARBON	470K	5%	1/4W
R1403	1-247-903-00	CARBON	1M	5%	1/4W
R1404	1-249-438-11	CARBON	56K	5%	1/4W
R1405	1-249-433-11	CARBON	22K	5%	1/4W
R1406	1-249-411-11	CARBON	330	5%	1/4W
R1407	1-249-433-11	CARBON	22K	5%	1/4W
R1408	1-249-411-11	CARBON	330	5%	1/4W
R1409	1-249-429-11	CARBON	10K	5%	1/4W
R1410	1-249-409-11	CARBON	220	5%	1/4W
R1411	1-249-426-11	CARBON	5.6K	5%	1/4W
R1412	1-249-411-11	CARBON	330	5%	1/4W
R1413	1-247-883-00	CARBON	150K	5%	1/4W
R1414	1-249-429-11	CARBON	10K	5%	1/4W
R1416	1-249-429-11	CARBON	10K	5%	1/4W
R1417	1-249-433-11	CARBON	22K	5%	1/4W
R1418	1-249-439-11	CARBON	68K	5%	1/4W
R1419	1-249-440-11	CARBON	82K	5%	1/4W
R1420	1-249-441-11	CARBON	100K	5%	1/4W

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
W1	*1-565-482-11	CONNECTOR, BOARD TO BOARD 6P	
W2	*1-564-506-11	PLUG, CONNECTOR 3P	

*1-629-150-11 Y BOARD

<CAPACITOR>

C1500	1-124-499-11	ELECT	1MF	20%	50V
C1501	1-102-125-00	CERAMIC	0.0047MF	10%	50V

<IC>

IC1500	8-759-909-70	IC CX23025
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<TRANSISTOR>

Q1500	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q1502	8-729-900-63	TRANSISTOR DTA124ES

<RESISTOR>

R1500	1-249-437-11	CARBON	47K	5%	1/4W
R1501	1-249-437-11	CARBON	47K	5%	1/4W
R1502	1-249-437-11	CARBON	47K	5%	1/4W F
R1503	1-249-429-11	CARBON	10K	5%	1/4W
R1504	1-249-437-11	CARBON	47K	5%	1/4W
R1505	1-249-437-11	CARBON	47K	5%	1/4W

<CONNECTOR>

Y1	*1-565-481-11	CONNECTOR, BOARD TO BOARD 5P
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*1-629-153-11 J BOARD

<CONNECTOR>

J1	*1-568-106-11	PIN, CONNECTOR 7P
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*1-629-151-11 XA BOARD

<CAPACITOR>

C1300	1-101-005-00	CERAMIC	0.022MF		50V
C1301	1-101-888-00	CERAMIC	68PF	5%	50V
C1302	1-101-884-00	CERAMIC	56PF	5%	50V
C1303	1-102-942-00	CERAMIC	5PF	1PF	50V
C1304	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C1305	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C1306	1-102-951-00	CERAMIC	15PF	5%	50V
C1307	1-102-951-00	CERAMIC	15PF	5%	50V
C1308	1-124-478-11	ELECT	100MF	20%	25V
C1309	1-102-125-00	CERAMIC	0.0047MF	10%	50V

PVM-1440QM/1442QM/1444QM

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRIMMER>			
CV3	1-141-337-11	CAP, VAR, TRIMMER	
CV4	1-141-337-11	CAP, VAR, TRIMMER	
<COIL>			
L1300	1-408-429-00	INDUCTOR	470UH
L1301	1-408-429-00	INDUCTOR	470UH
L1302	1-408-429-00	INDUCTOR	470UH
L1303	1-408-429-00	INDUCTOR	470UH
<TRANSISTOR>			
Q1300	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1301	8-729-900-89	TRANSISTOR	DTC144ES
Q1302	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1303	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1304	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1305	8-729-119-78	TRANSISTOR	2SC2785-HFE
<RESISTOR>			
R1301	1-249-413-11	CARBON	470 5% 1/4W
R1302	1-249-415-11	CARBON	680 5% 1/4W
R1303	1-249-415-11	CARBON	680 5% 1/4W
R1304	1-249-427-11	CARBON	6.8K 5% 1/4W
R1305	1-249-413-11	CARBON	470 5% 1/4W
R1306	1-249-413-11	CARBON	470 5% 1/4W
R1308	1-249-417-11	CARBON	1K 5% 1/4W
R1310	1-249-441-11	CARBON	100K 5% 1/4W
R1311	1-249-441-11	CARBON	100K 5% 1/4W
R1312	1-249-441-11	CARBON	100K 5% 1/4W
R1313	1-249-441-11	CARBON	100K 5% 1/4W
R1320	1-249-429-11	CARBON	10K 5% 1/4W
R1321	1-249-429-11	CARBON	10K 5% 1/4W
R1322	1-249-429-11	CARBON	10K 5% 1/4W
R1323	1-249-429-11	CARBON	10K 5% 1/4W
<CRYSTAL>			
X358	1-567-505-11	OSCILLATOR, CRYSTAL	
X443	1-567-504-11	OSCILLATOR, CRYSTAL	
<CONNECTOR>			
XA1	*1-565-483-11	CONNECTOR, BOARD TO BOARD 7P	

	*1-629-219-11	U BOARD (PVM-1440QM ONLY)	

<CAPACITOR>			
C1600	1-124-477-11	ELECT	47MF 20% 25V
C1601	1-124-478-11	ELECT	100MF 20% 25V
C1602	1-124-902-00	ELECT	0.47MF 20% 50V
C1603	1-124-499-11	ELECT	1MF 20% 50V
<IC>			
IC1600	8-759-913-11	IC	CX20125
<TRANSISTOR>			
Q1600	8-729-119-76	TRANSISTOR	2SA1175-HFE

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1601	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1602	8-729-119-78	TRANSISTOR	2SC2785-HFE
<RESISTOR>			
R1600	1-247-897-11	CARBON	560K 5% 1/4W
R1601	1-249-415-11	CARBON	680 5% 1/4W
R1602	1-249-413-11	CARBON	470 5% 1/4W
R1603	1-249-403-11	CARBON	68 5% 1/4W
R1604	1-249-428-11	CARBON	8.2K 5% 1/4W
R1605	1-249-415-11	CARBON	680 5% 1/4W
R1606	1-249-413-11	CARBON	470 5% 1/4W
R1607	1-249-428-11	CARBON	8.2K 5% 1/4W
R1608	1-247-895-00	CARBON	470K 5% 1/4W
R1609	1-247-897-11	CARBON	560K 5% 1/4W
R1610	1-249-437-11	CARBON	47K 5% 1/4W
<CONNECTOR>			
U1	*1-565-483-11	CONNECTOR, BOARD TO BOARD 7P	

MISCELLANEOUS			

	1-544-063-11	SPEAKER	
	Δ 1-237-614-12	RESISTOR ASSY, HIGH-VOLTAGE	
	Δ 1-426-145-13	COIL, DEGAUSSING	
S901	Δ 1-554-967-12	SWITCH, PUSH (AC POWER) (1 KEY)	
	Δ 1-451-329-11	DEFLECTION YOKE (Y14FZA)	
	1-452-032-00	MAGNET, DISK; 10MM ϕ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
	1-452-277-00	MAGNET, BMC	
	1-466-076-11	CONTROL UNIT (PVM-1442QM ONLY)	
	1-466-075-11	CONTROL UNIT (PVM-1444QM ONLY)	
	1-466-113-11	CONTROL UNIT (PVM-1440QM ONLY)	
	1-543-604-11	CORE, RING	
	Δ 1-574-389-12	CORD, POWER (WITH CONNECTOR)	
V901	Δ 8-734-621-05	PICTURE TUBE (M34KBE21X) (PVM-1442QM/1444QM ONLY)	
V901	Δ 8-736-254-05	PICTURE TUBE (A34JHS10X) (PVM-1440QM ONLY)	

ACCESSORIES AND PACKING MATERIALS			

PART NO.	DESCRIPTION	REMARK	
3-786-761-11	MANUAL, INSTRUCTION		
*4-312-246-00	BAG, PROTECTION		
*4-391-866-01	CUSHION (UPPER) (ASSY)		
*4-391-867-01	CUSHION (LOWER) (ASSY)		
*4-391-897-01	INDIVIDUAL CARTON (PVM-1444QM ONLY)		
*4-391-899-01	INDIVIDUAL CARTON (PVM-1440QM ONLY)		
*4-393-301-01	INDIVIDUAL CARTON (PVM-1442QM ONLY)		

9-964-215-01

Sony Corporation
Display Products Group

English
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PVM-1440QM/1442QM/1444QM

SONY[®] SERVICE MANUAL

SUPPLEMENT-1

File this Supplement with the Service Manual.

AEP Model

PVM-1440QM

Serial No. 2,002,901 and later

Chassis No. SCC-C57A-A

PVM-1442QM

Serial No. 2,003,251 and later

Chassis No. SCC-C56A-A

PVM-1444QM

Serial No. 2,001,601 and later

Chassis No. SCC-C55A-A

INTRODUCTION

A and W boards modification

 : Indicate modification portion



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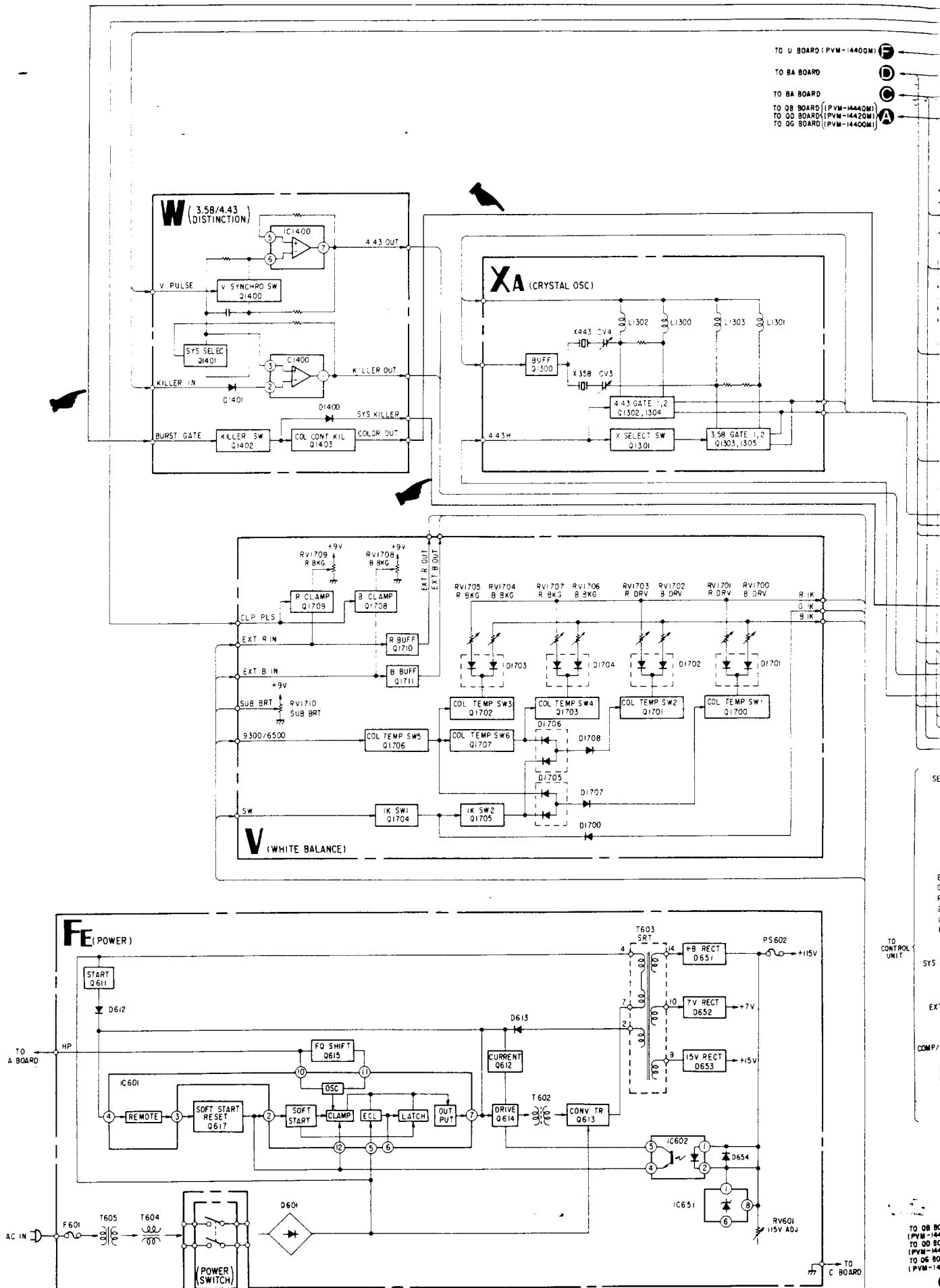
6. DIAGRAMS

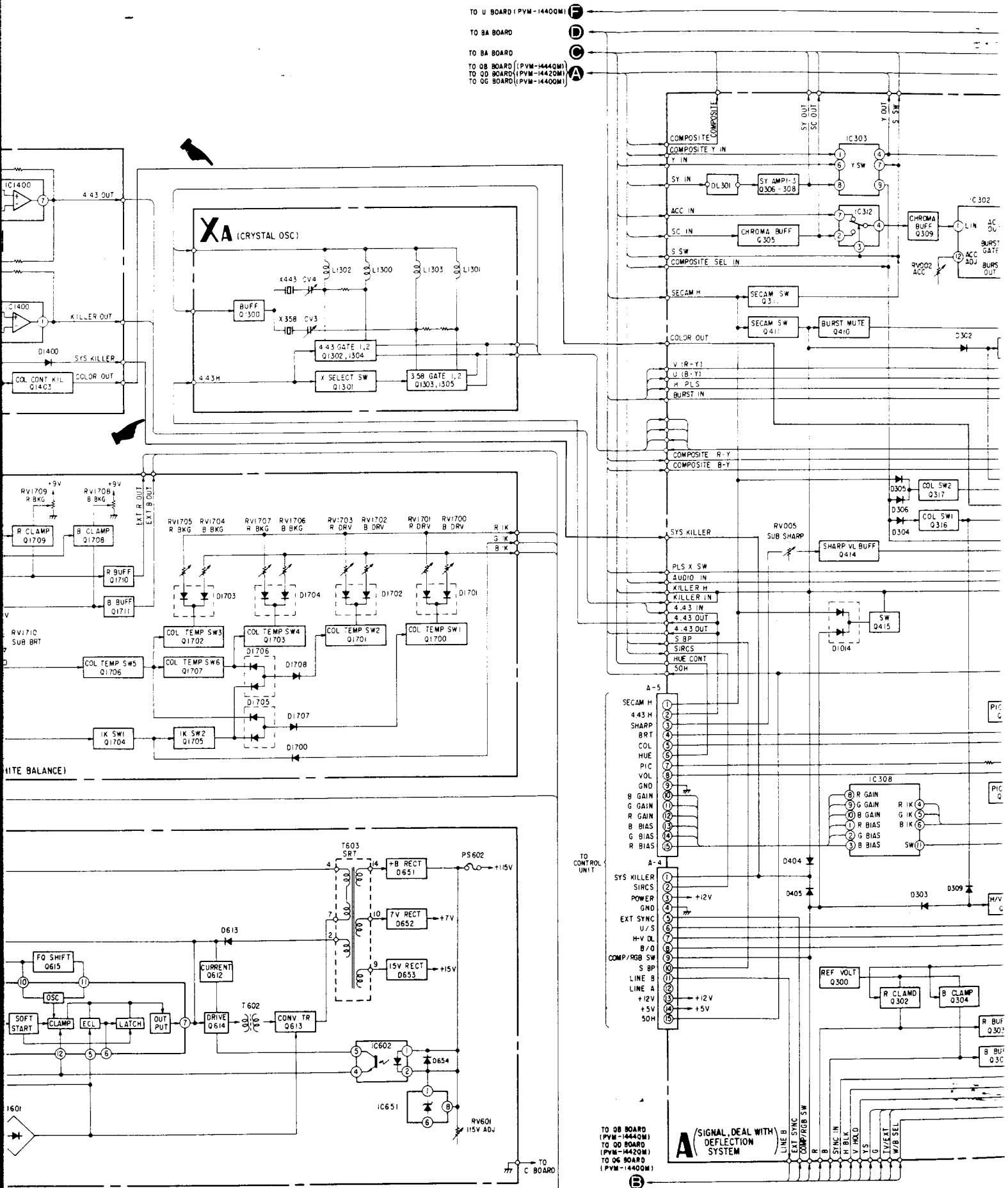
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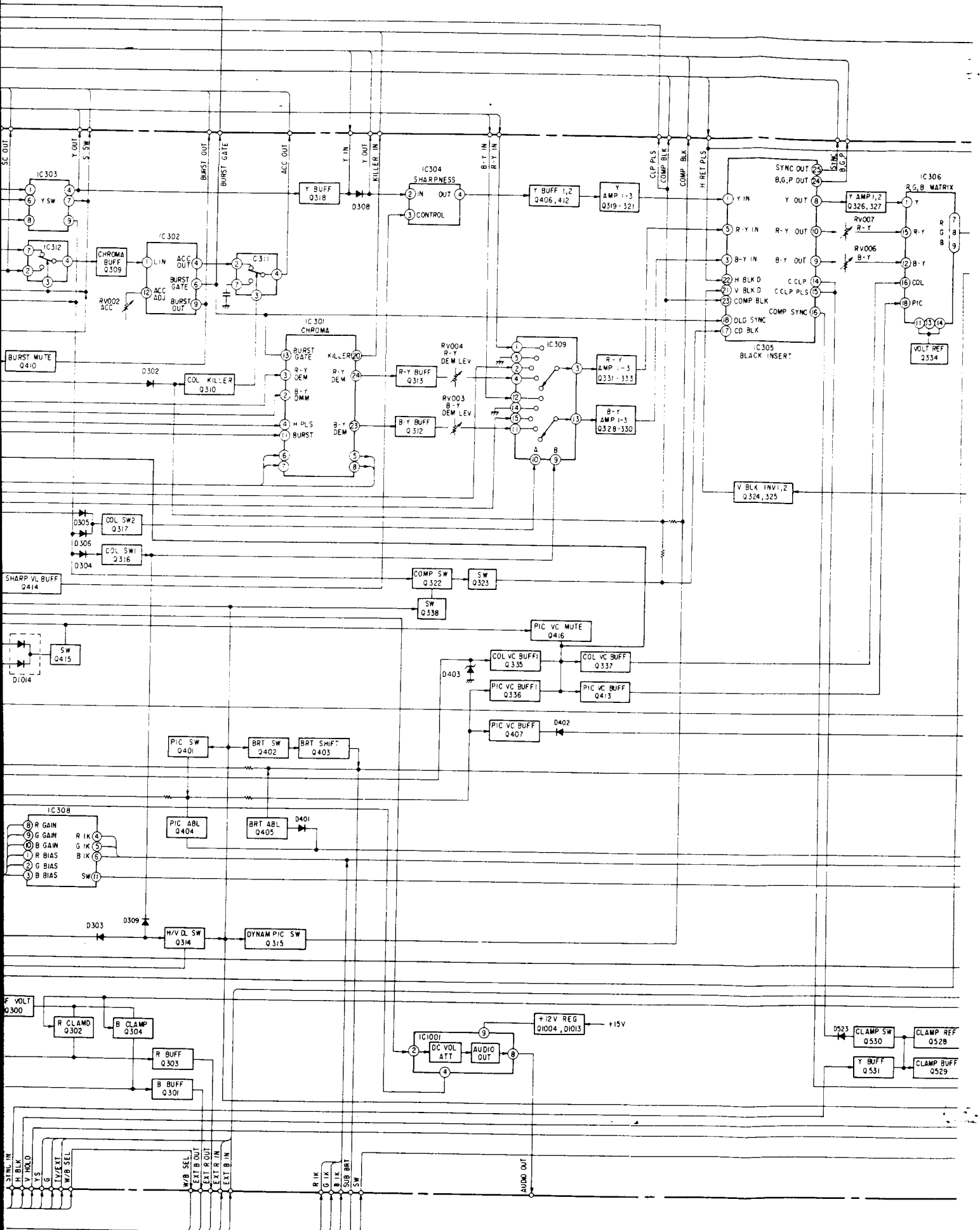
7. EXPLODED VIEWS

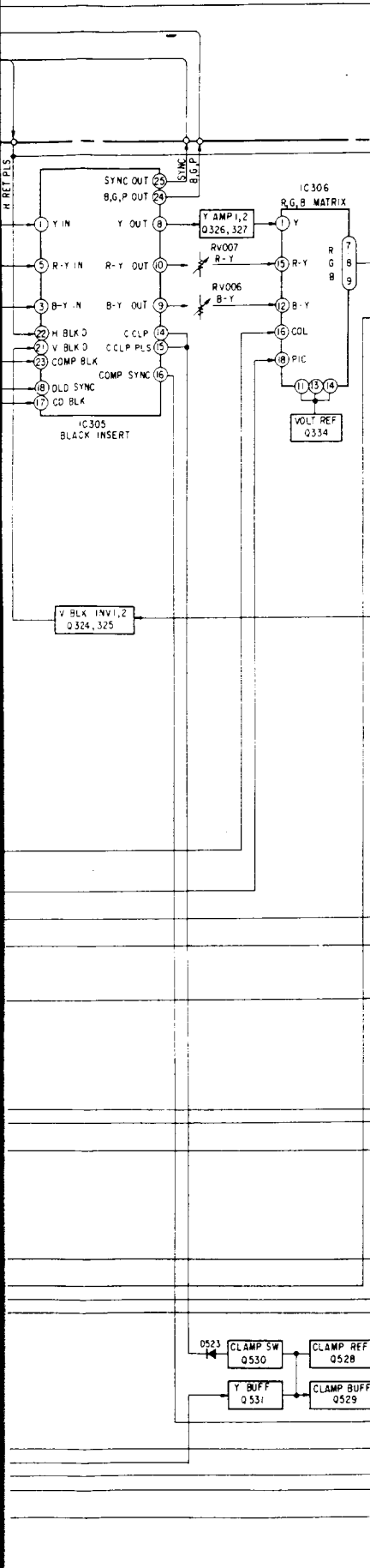
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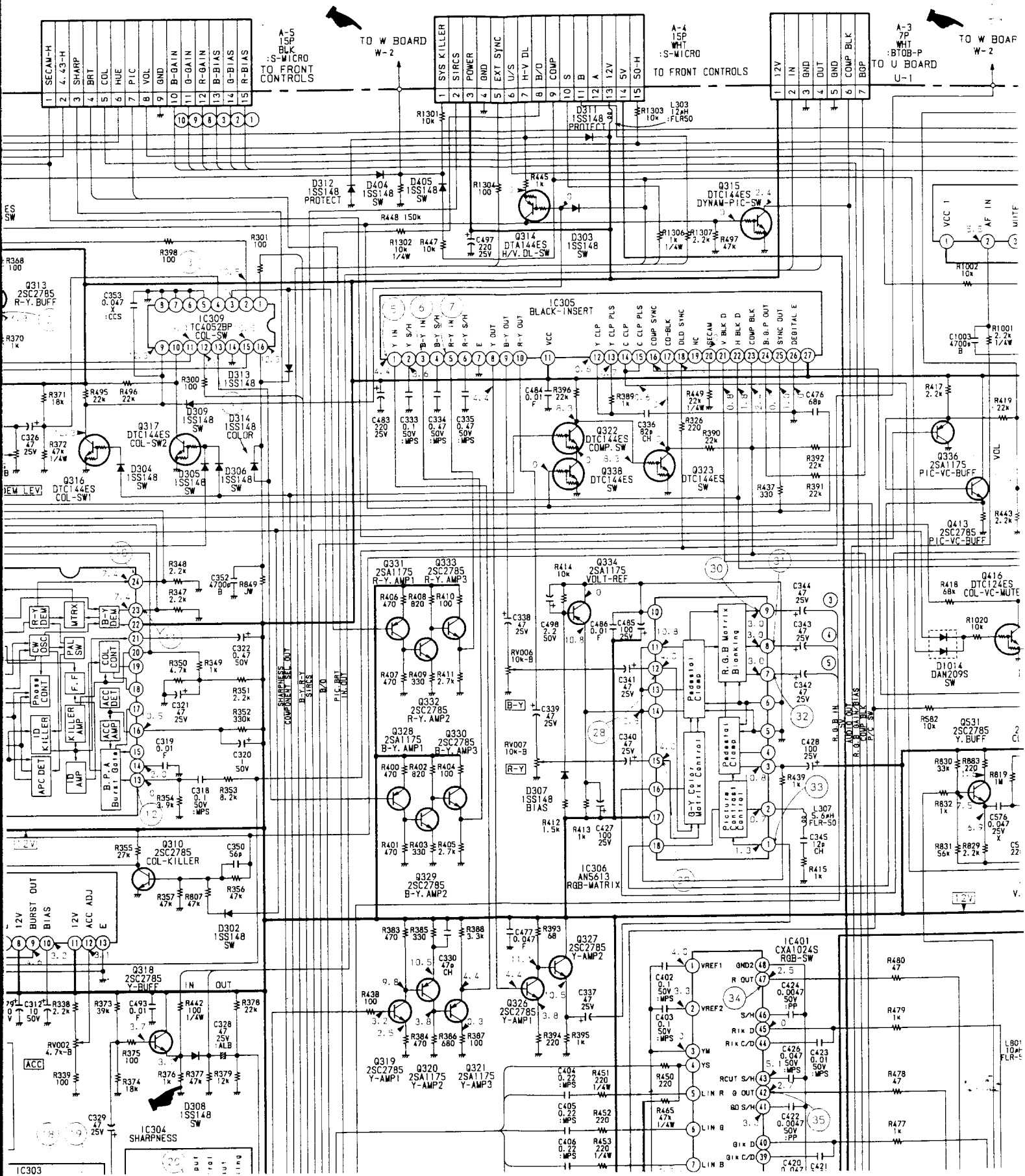
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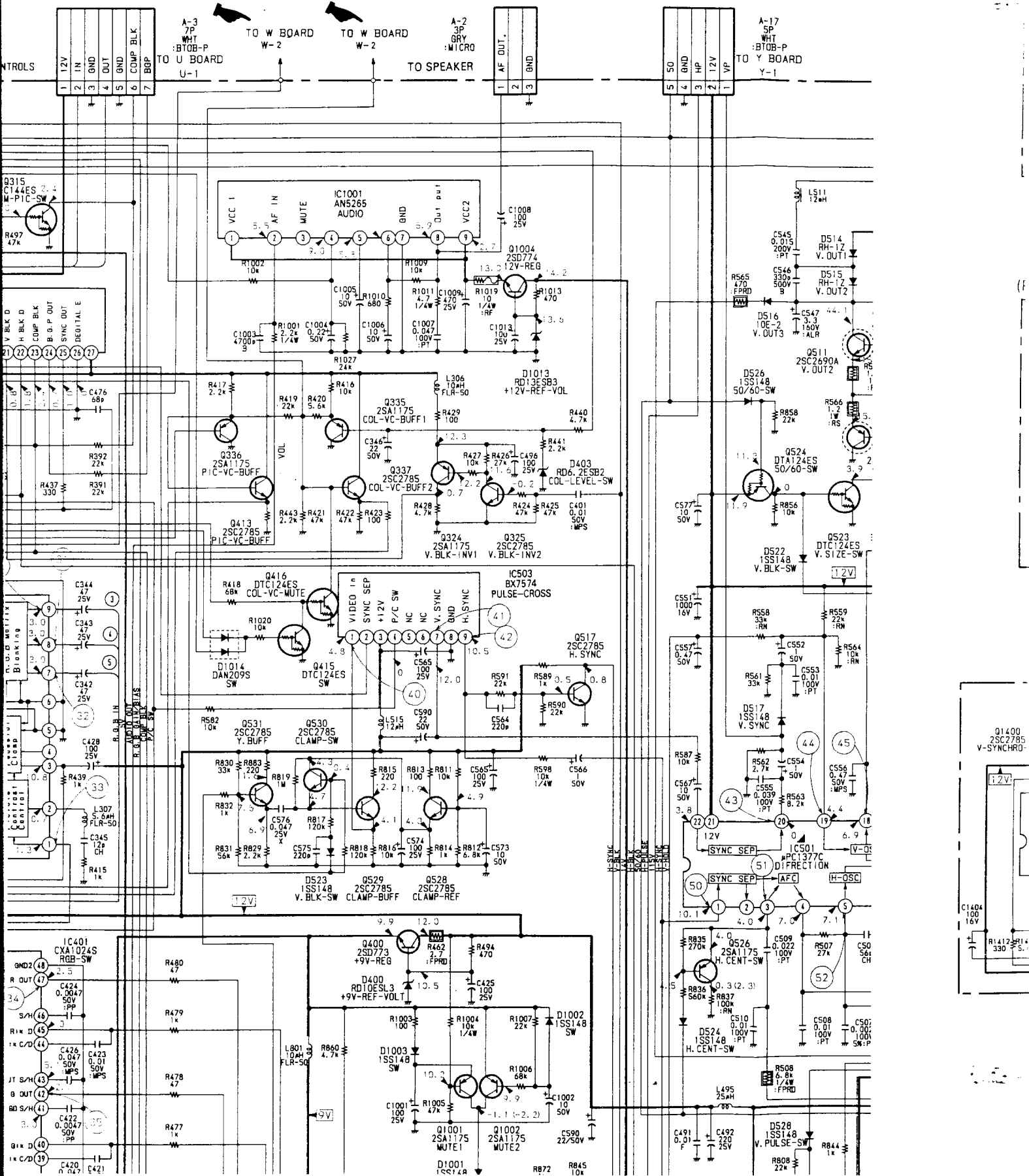






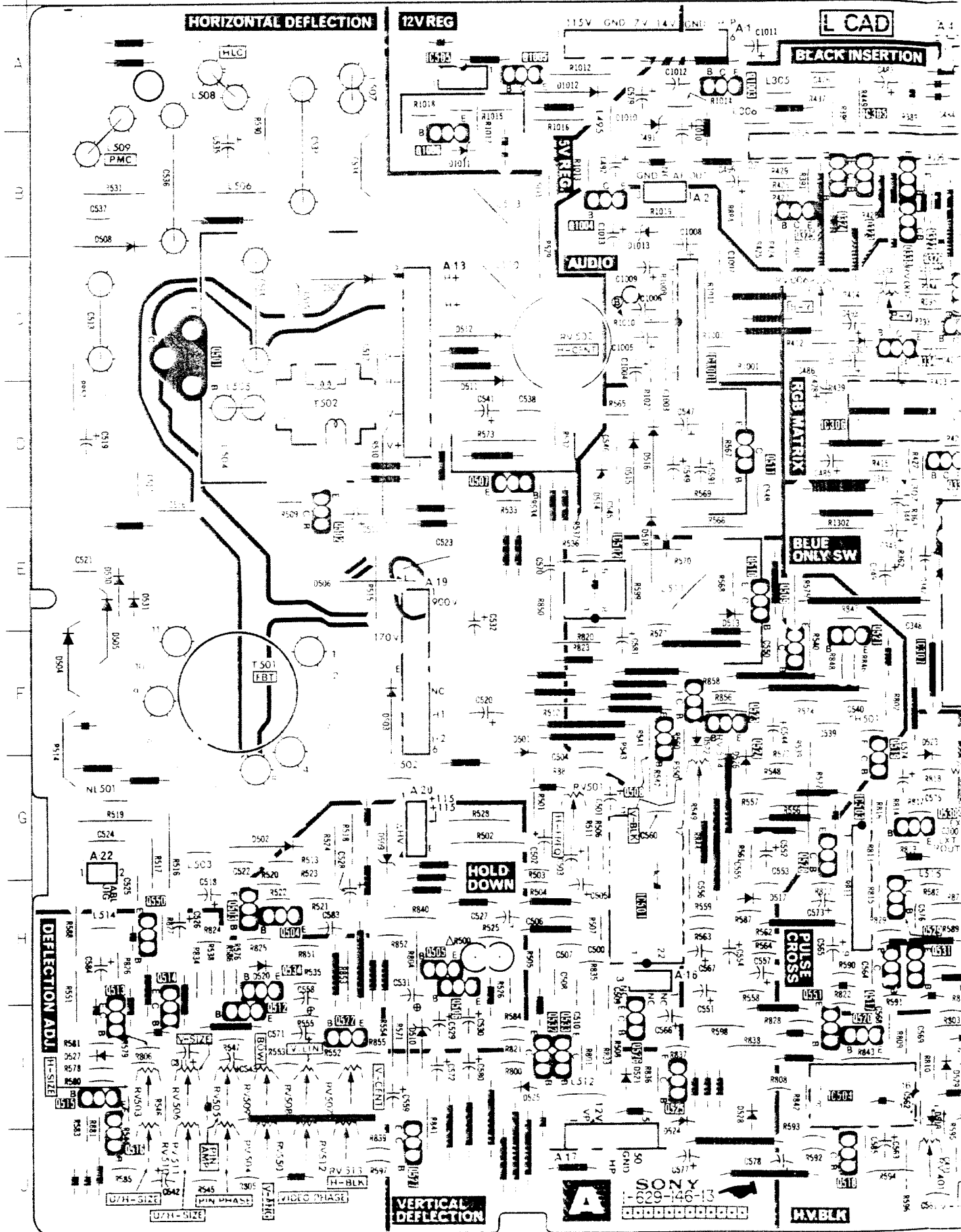




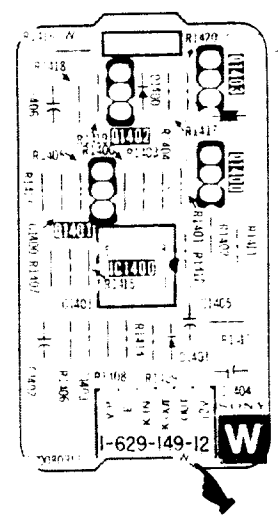
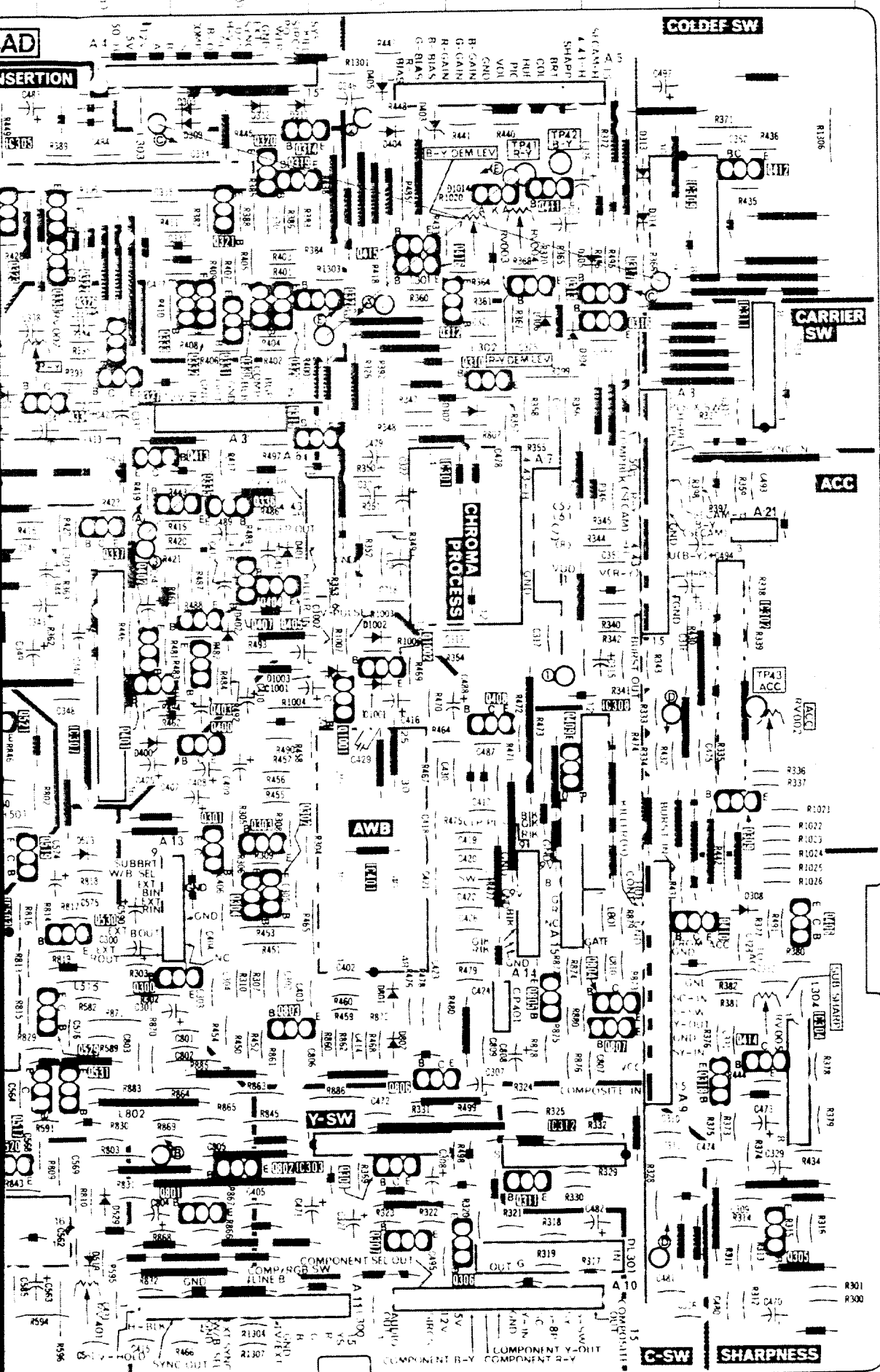


A

(SIGNAL PROCESS, DEFLECTION SYSTEM)



- W Board -



7-1. CHASSIS

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	△3-704-372-01	HOLDER, HV CABLE		14	*A-1135-564-A	BA BOARD, COMPLETE (PVM-1440QM ONLY)	
2	△.1-237-614-12	RESISTOR ASSY, HIGH-VOLTAGE			*A-1135-573-A	BA BOARD, COMPLETE (PVM-1442QM/ 1444QM ONLY)	
3	*4-391-842-01	BRACKET, HVR		15	*A-1270-249-A	QE BOARD, COMPLETE (PVM-1442QM ONLY)	
4	X-4391-805-1	CABINET ASSY, BOTTOM		16	*A-1270-267-A	QG BOARD, COMPLETE (PVM-1440QM ONLY)	
5	*A-1245-456-A	FE BOARD, COMPLETE			*A-1270-248-A	QD BOARD, COMPLETE (PVM-1442QM ONLY)	
6	*A-1291-616-A	A BOARD, COMPLETE			*A-1270-246-A	QB BOARD, COMPLETE (PVM-1444QM ONLY)	
7	△.1-439-395-12	TRANSFORMER ASSY, FLYBACK		17	*A-1270-266-A	QF BOARD, COMPLETE (PVM-1440QM ONLY)	
8	*1-629-149-12	W BOARD			*A-1270-247-A	QC BOARD, COMPLETE (PVM-1442QM ONLY)	
9	*1-629-151-11	XA BOARD			*A-1270-245-A	QA BOARD, COMPLETE (PVM-1444QM ONLY)	
10	*1-629-150-11	Y BOARD		18	4-391-843-32	PLATE, TERMINAL (PVM-1440QM ONLY)	
11	*1-629-148-11	V BOARD			4-391-843-12	PLATE, TERMINAL (PVM-1442QM ONLY)	
12	*1-629-219-11	U BOARD (PVM-1440QM ONLY)		19	4-391-843-02	PLATE, TERMINAL (PVM-1444QM ONLY)	
					*3-682-419-01	HOLDER, P.C.B	

7-2. PICTURE TUBE

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	1-466-113-11	CONTROL UNIT (PVM-1440QM ONLY)		66	*4-391-835-01	PLATE (C), SHIELD (PVM-1442QM ONLY)	
	1-466-076-11	CONTROL UNIT (PVM-1442QM ONLY)		67	*4-374-912-01	COVER (MAIN), CV VOL	
	1-466-198-11	CONTROL UNIT (PVM-1444QM ONLY)		68	*4-374-913-01	COVER (REAR LID), CV VOL	
53	1-544-063-11	SPEAKER		69	△.1-426-145-13	COIL, DEGAUSSING	
54	4-374-839-11	BUTTON (A)		70	4-307-249-00	SCREW (5), TAPPING	
55	4-391-824-01	JOINT		71	4-391-833-01	CLOTH, PROTECTION	
56	△.1-554-967-12	SWITCH, PUSH (AC POWER)(1 KEY)		72	4-391-839-01	COVER, REAR	
57	*4-391-820-01	COVER, AC SWITCH		73	X-4391-810-1	COVER ASSY, TOP	
58	X-4391-804-1	BEZEL ASSY (PVM-1442QM/44QM ONLY)		74	4-391-825-01	RIVET, NYLON	
	X-4391-804-2	BEZEL ASSY (PVM-1440QM ONLY)		75	△.4-364-745-01	BUSHING, AC CORD	
59	△.8-736-254-05	PICTURE TUBE (A34JHS10X) (PVM-1440QM ONLY)		76	△.1-574-389-12	CORD, POWER	
	△.8-734-621-05	PICTURE TUBE (M34RBE31X) (PVM-1442QM/1444QM ONLY)		77	4-308-870-00	CLIP, LEAD WIRE	
60	3-703-961-01	SPACER, DY		78	1-452-032-00	MAGNET, DISK; 10MM φ	
61	△.1-451-329-11	DEFLECTION YOKE (Y14FZA)		79	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
62	*4-382-050-01	BAND, C PC BOARD		80	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
64	*A-1330-986-A	C BOARD, COMPLETE		82	*1-629-153-11	J BOARD	
				83	1-543-604-11	CORE, RING	
				84	4-847-802-11	SCREW (OS), CASE, CLAW	
				85	1-452-277-00	MAGNET BMC	

SECTION 8
ELECTRICAL PARTS LIST

- A BOARD - Page 83

Ref.No.	Part No.	Description	Remark
	*A-1291-616-A	A BOARD, COMPLETE *****	
	*4-329-153-00	HEAT SINK, V OUT	
	*4-341-751-01	EYELET	
	*4-341-752-01	EYELET	
	*4-363-404-00	HOLDER, IC	
	4-363-414-00	SPACER, MICA	

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Ref.No.	Part No.	Description	Remark
R1416	1-249-429-11	CARBON	10K 5% 1/4W
R1417	1-249-433-11	CARBON	22K 5% 1/4W
R1418	1-249-439-11	CARBON	68K 5% 1/4W
R1419	1-249-440-11	CARBON	82K 5% 1/4W
R1420	1-249-441-11	CARBON	100K 5% 1/4W
R1421	1-247-881-00	CARBON	120K 5% 1/4W

CONNECTOR

W1	*1-565-482-11	CONNECTOR, BOARD TO BOARD 6P
W2	*1-564-508-31	PLUG, CONNECTOR 5P

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Ref.No.	Part No.	Description	Remark
R361	1-249-405-11	CARBON	100 5% 1/4W
R362	1-249-410-11	CARBON	270 5% 1/4W
R363	1-249-432-11	CARBON	18K 5% 1/4W
R364	1-249-417-11	CARBON	1K 5% 1/4W
R365	1-249-432-11	CARBON	18K 5% 1/4W
R366	1-249-437-11	CARBON	47K 5% 1/4W
R367	1-249-413-11	CARBON	470 5% 1/4W
R368	1-249-405-11	CARBON	100 5% 1/4W
R369	1-249-405-11	CARBON	100 5% 1/4W
R370	1-249-417-11	CARBON	1K 5% 1/4W
R371	1-249-432-11	CARBON	18K 5% 1/4W
R372	1-249-465-11	CARBON	47K 5% 1/4W
R373	1-249-436-11	CARBON	39K 5% 1/4W
R374	1-249-432-11	CARBON	18K 5% 1/4W
R375	1-249-405-11	CARBON	100 5% 1/4W
R376	1-249-417-11	CARBON	1K 5% 1/4W
R377	1-249-437-11	CARBON	47K 5% 1/4W
R378	1-249-433-11	CARBON	22K 5% 1/4W
R379	1-249-430-11	CARBON	12K 5% 1/4W
R380	1-249-405-11	CARBON	100 5% 1/4W

- XA BOARD - Page 93

	*1-629-151-11	XA BOARD *****
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CAPACITOR

C1300	1-101-005-00	CERAMIC	0.022MF		50V
C1301	1-101-888-00	CERAMIC	68PF	5%	50V
C1302	1-101-884-00	CERAMIC	56PF	5%	50V
C1303	1-102-942-00	CERAMIC	5PF	1PF	50V
C1304	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C1305	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C1306	1-102-951-00	CERAMIC	15PF	5%	50V
C1307	1-102-951-00	CERAMIC	15PF	5%	50V
C1308	1-126-101-11	ELECT	100MF	20%	16V
C1309	1-102-125-00	CERAMIC	0.0047MF	10%	50V

- W BOARD - Page 93

	*1-629-149-12	W BOARD *****
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CAPACITOR

C1400	1-136-169-00	FILM	0.22MF	5%	50V
C1401	1-136-153-00	FILM	0.01MF	5%	50V
C1402	1-126-101-11	ELECT	100MF	20%	16V
C1403	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1404	1-126-101-11	ELECT	100MF	20%	16V
C1405	1-123-875-11	ELECT	10MF	20%	50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V