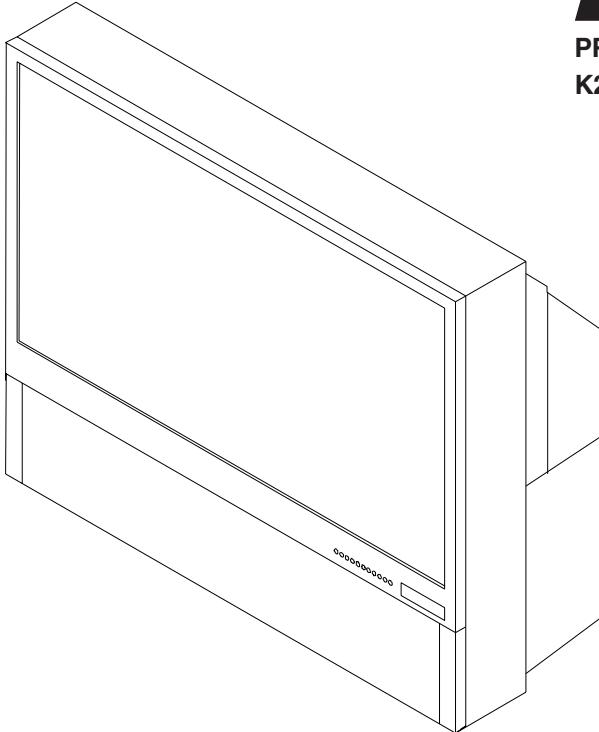




2003

Service Manual

PROJECTION TELEVISION
K20 CHASSIS



**WT-42313
WT-42413**

CAUTION:

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

SPECIFICATIONS

- | | | | |
|-----------------------------|---------------------------------------|-------------------------|--|
| • Power | : AC 120V, 60Hz
240W | • Speaker | : Two 5" round, full range (8Ω 5W) |
| • Frequency Range | : VHF 54 ~ 470MHz
UHF 470 ~ 806MHz | • Input Level | : VIDEO IN JACK (RCA Type)
1.0Vp-p 75Ω unbalanced
: AUDIO IN JACK (RCA Type)
-4.7dBm 43kΩ unbalanced |
| • Antenna Input | : VHF/UHF 75Ω unbalanced | | : S-VIDEO IN JACK (Y/C separate)
Y=1.0 Vp-p C=0.286Vp-p(BURST)
75Ω unbalanced |
| • CRT Size | : [7 inches] | | : COMP / Y, Cr, Cb (RCA Type)
Y=1.0 Vp-p. Cr, Cb=700mVp-p |
| • High Voltage | : 32.0kV (at 0A) | | : ATV / Y(G), Pr(R), Pb(B), H, V
Y 1.0Vp-p with sync 75Ω (RCA Type)
Pr, Pb: 700mV 75Ω |
| • Cabinet Demensions | : 39"(W)x34"(H)x25"(D) | | H, V: 3.0Vp-p 75Ω |
| • Weight | : 105 lbs | • Digital Inputs | MonitorLink™/DVI |
| | | • Output Level | : VIDEO OUT JACK (RCA Type)
1.0Vp-p 75Ω unbalanced
: AUDIO OUT JACK (RCA Type)
-4.7dBm 4.7kΩ unbalanced |
- Weight and dimensions shown are approximate.
• Design specifications are subject to change without notice.

MITSUBISHI DIGITAL ELECTRONICS AMERICA, INC.

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PCB-SIGNAL 4	See VK20 Service Manual
PCB TERMINAL 2	See VK20 Service Manual
PCB DOUBLER 1	See VK20 Service Manual
PCB DOUBLER 2	See VK20 Service Manual
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INTRODUCTION

This service manual provides service instructions for PTV Models WT-42313 and WT-42413 using the VK20 chassis. Service personnel should read this manual thoroughly before servicing this chassis.

This service manual includes:

1. Assembly and disassembly instructions for the front and rear cabinet components.
2. Servicing of the Lenticular Screen and Fresnel Lens.
3. Servicing printed circuit boards (PCBs).
4. CRT replacement procedure.
5. Electrical adjustments.
6. Chip parts replacement procedures.
7. Circuit path diagrams.

The parts list section of this service manual includes:

1. Cabinet and screen parts.
2. Electrical parts.

Schematic and block diagrams of the above listed models are included in this service manual for better understanding of the circuitry. PCB drawings are also included for easy location of parts and test points.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in television receivers have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have special safety characteristics are identified in this service manual.

Electrical components having such features are identified by shading  on the schematic diagram and by **bold type** in the parts list of this service manual. **The replacement for any safety part should be identical in value and characteristics.**

SAFETY PRECAUTIONS

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

WARNING:

1. Operation of this receiver outside the cabinet or with the cover removed presents a shock hazard from the receiver's power supplies. Work on the receiver should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment.
2. Do not install, remove or handle the picture tubes in any manner unless shatterproof goggles are worn. People not so equipped should be kept away while the picture tube is being handled. Keep the picture tube away from the body while handling.
3. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage area. Where a short-circuit has occurred, replace those components that indicate evidence of overheating.

X-Radiation warning

The surface of the cathode ray tubes (CRTs) may generate X-Radiation, so take proper precautions when servicing. It is recommended that a lead apron be used for shielding while handling the CRT. Use this method if possible.

When replacing the CRTs, use only the designated replacement part since it is a critical component with regard to X-Radiation. High voltage must be set as prescribed under the section titled Electrical Adjustments.

Leakage current check

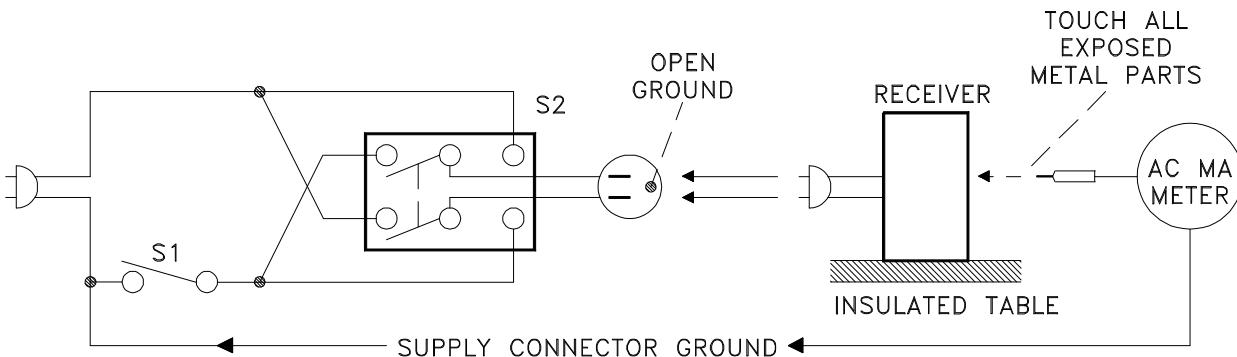
Before returning the receiver to the customer, it is recommended that leakage current be measured according to the following methods.

1. Cold Check

With the alternating current (AC) plug removed from the AC source, place a jumper across the two AC plug prongs. Connect one lead of an ohm meter to the AC plug and touch the other lead to each exposed metal part (i.e. antennas, handle bracket, metal cabinet, screw heads, metal overlay, control shafts, etc.), particularly any exposed metal part that has a return path to the chassis. The resistance of the exposed metal parts having a return path to the chassis **should be a minimum of 1Mega Ohm**. Any resistance below this value indicates an abnormal condition and requires corrective action.

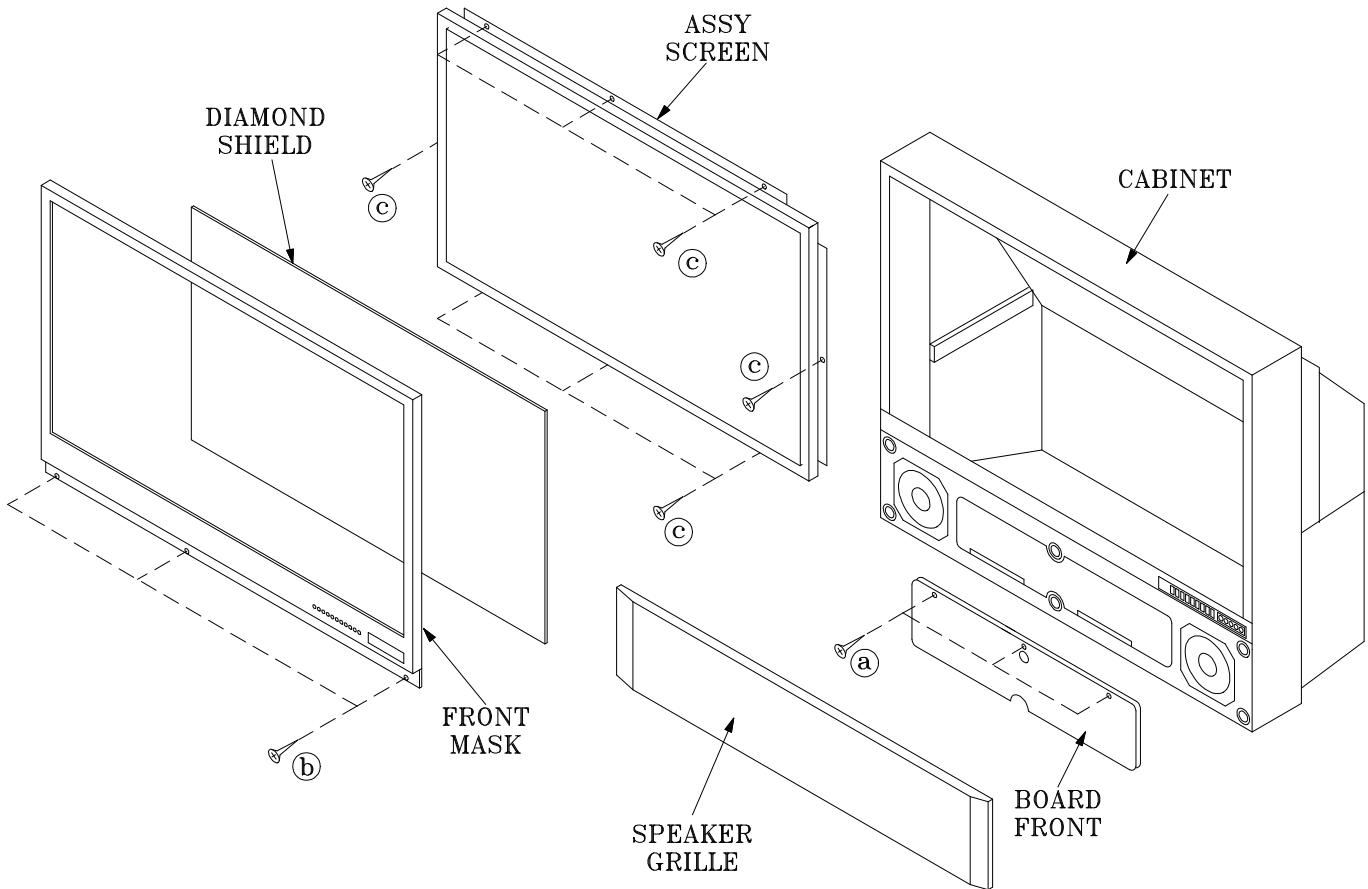
2. Hot Check ...Use the circuit shown below to perform the hot check test.

1. Keep switch S1 open and connect the receiver to the measuring circuit. Immediately after connection, and with the switching devices of the receiver in their operating positions, measure the leakage current for both positions of switch S2.
2. Close switch S1, energizing the receiver. Immediately after closing switch S1, and with the switching devices of the receiver in their operating positions, measure the leakage current for both positions of switch S2. Repeat the current measurements of items 1 and 2 after the receiver has reached thermal stabilization. **The leakage current must not exceed 0.5 milliampere (mA).**



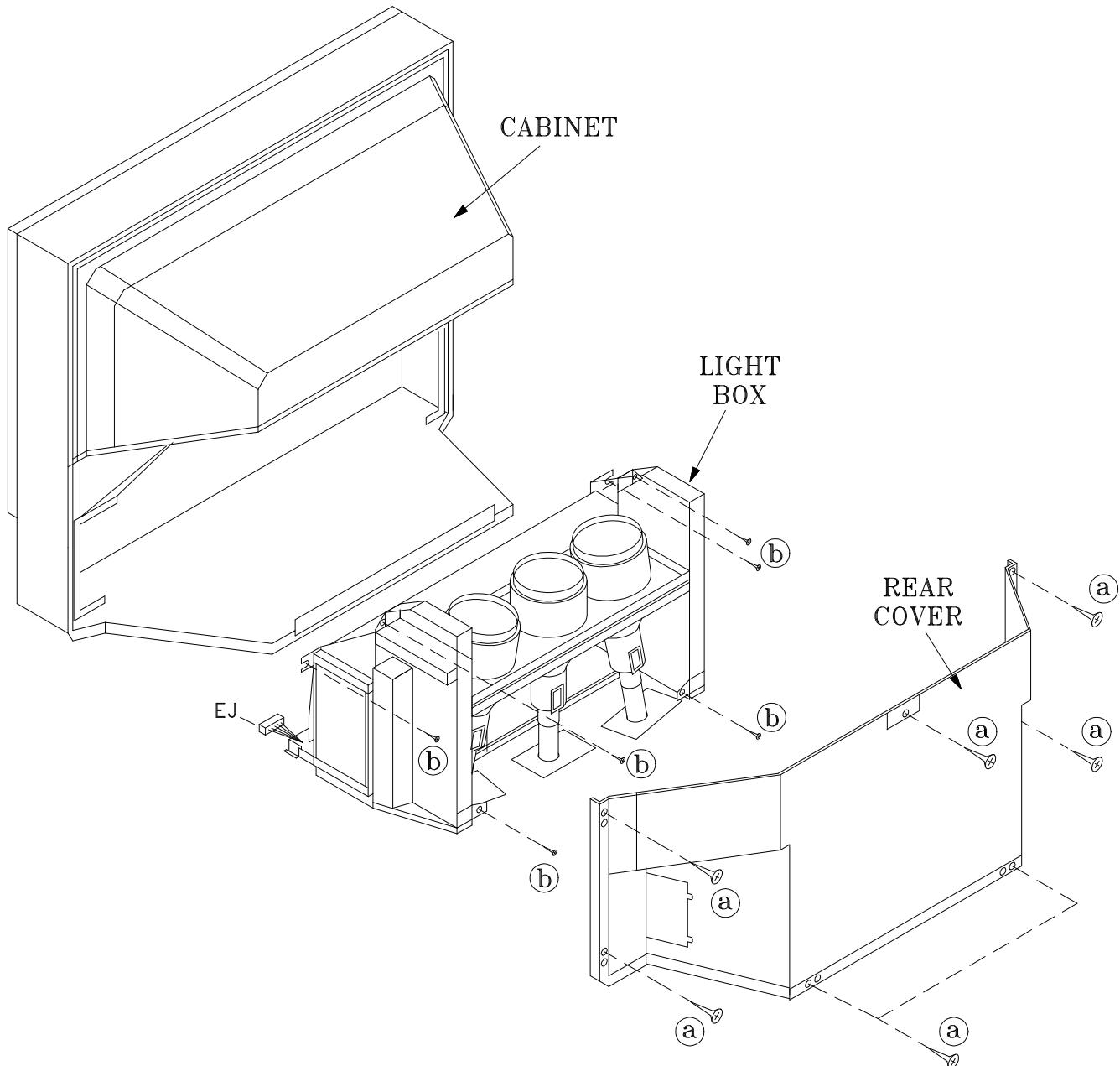
CABINET DISASSEMBLY (FRONT VIEW)

*Refer to PARTS LIST for Part Numbers



Front Cabinet Disassembly

1. Remove the Speaker Grille by pulling forward.
2. Remove the Board-Front by removing 3 screws "a".
3. Remove 3 screws "b" and then remove the Front Mask and Diamond Shield.
4. Remove 8 screws "c" and then the Assembly Screen.

CABINET DISASSEMBLY (REAR VIEW)***Rear Cabinet Disassembly***

1. Remove the Back Board by removing screws 7 "a".
2. Remove 6 screws "b" securing the Light Box Assembly.
3. Disconnect connector EJ.
4. Slide the Light Box Assembly out of the cabinet.

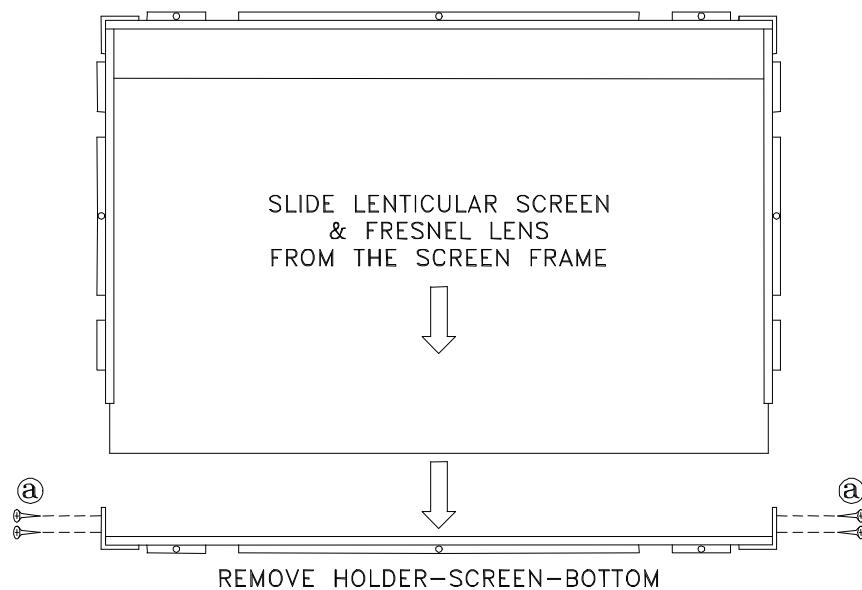
SERVICING THE LENTICULAR SCREEN AND FRESNEL LENS

CAUTION: **Wear gloves** when handling the Lenticular Screen and Fresnel Lens.
 This prevents cuts and finger prints. **Do not place Fresnel Lens in the sun.**
 This may cause fire and heat related injuries.

1. Lenticular Screen and Fresnel Lens Removal

1. Remove the screen assembly as shown in the Cabinet Front Disassembly procedure.
2. Remove screws "a" from the bottom Corner Brackets.
3. Remove the Holder-Screen-Bottom.
4. Slide the Lenticular Screen and Fresnel Lens from the Assembly Screen as shown below..

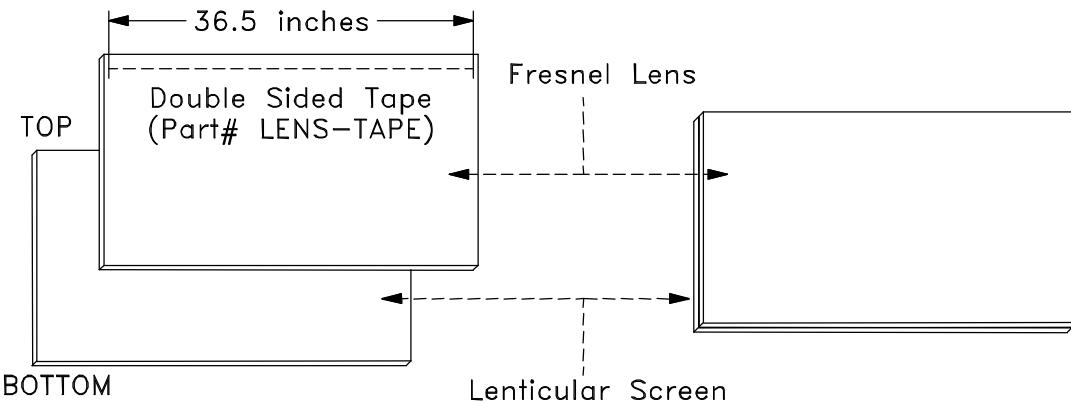
Note: When separating the Lenticular Screen from the Fresnel Lens, use caution while prying the Screen and Lens apart. Use a slot type screw drive, and remove the pressure sensitive double sided tape.



2. Installation of the Lenticular Screen and Fresnel Lens

Note: Store the Lenticular Screen and Fresnel Lens in a cool dry place. High humidity may deform the Lenticular Screen and Fresnel Lens.

1. Apply 36.5 inches of double sided tape (Part # LENS-TAPE) along the top front edge of the Fresnel Lens.
2. Place the Fresnel Lens on top of the Lenticular Screen and apply pressure at the top edge to bond them together as shown below.
3. Reverse the disassembly procedure to install the screens in the screen frame.



SERVICING PCBs

Accessing The Main Chassis

In the VK20 chassis, the Main Chassis is located in front of the CRTs. Use the following procedure to access the Main Chassis.

- 1) Remove the Light Box Assembly, refer to the Cabinet Rear Disassembly.
- 2) The shelf in the front of the Light Box Assembly is removable, refer to Figure 1.
- 3) Release the shelf lock. Apply pressure to the shelf lip on the right side (downward and towards the front). Refer to Figure 2
- 4) Hold both sides of the shelf, pull forward and then upward to remove the shelf.

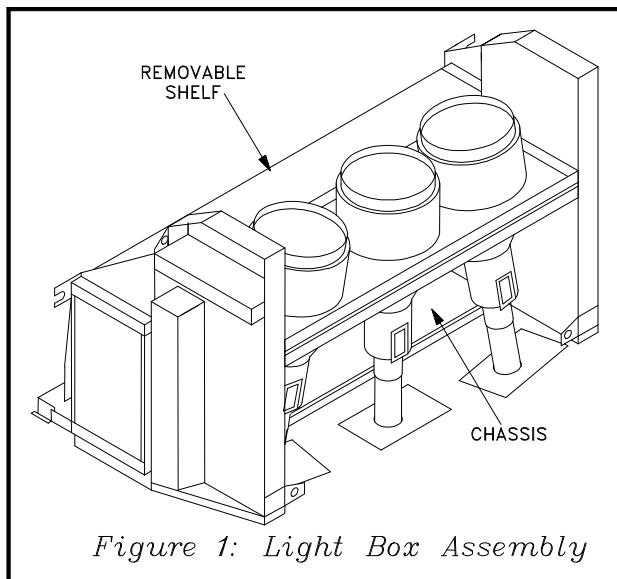


Figure 1: Light Box Assembly

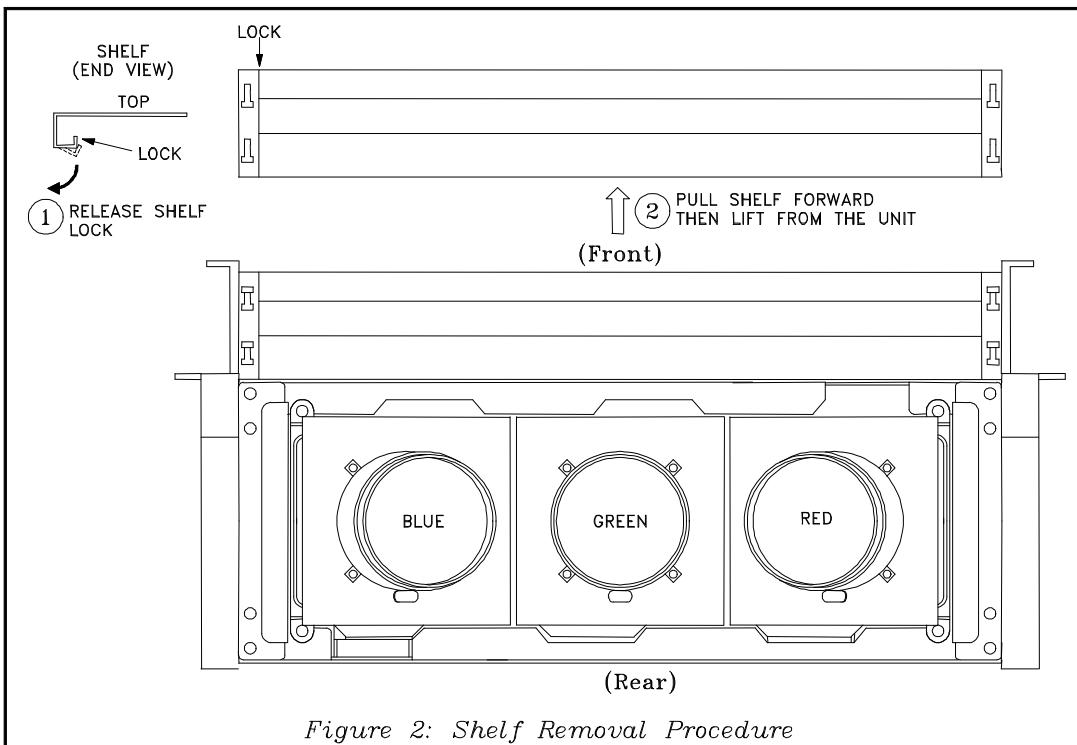
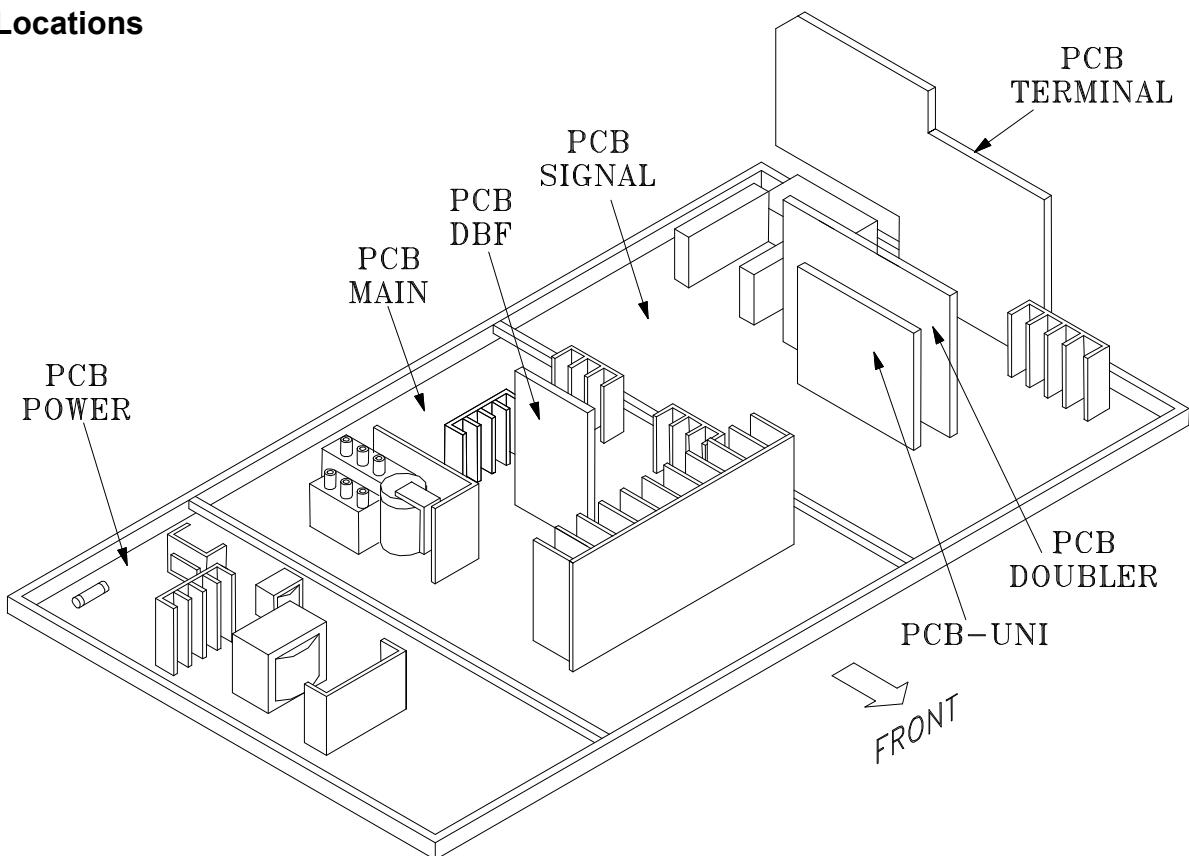
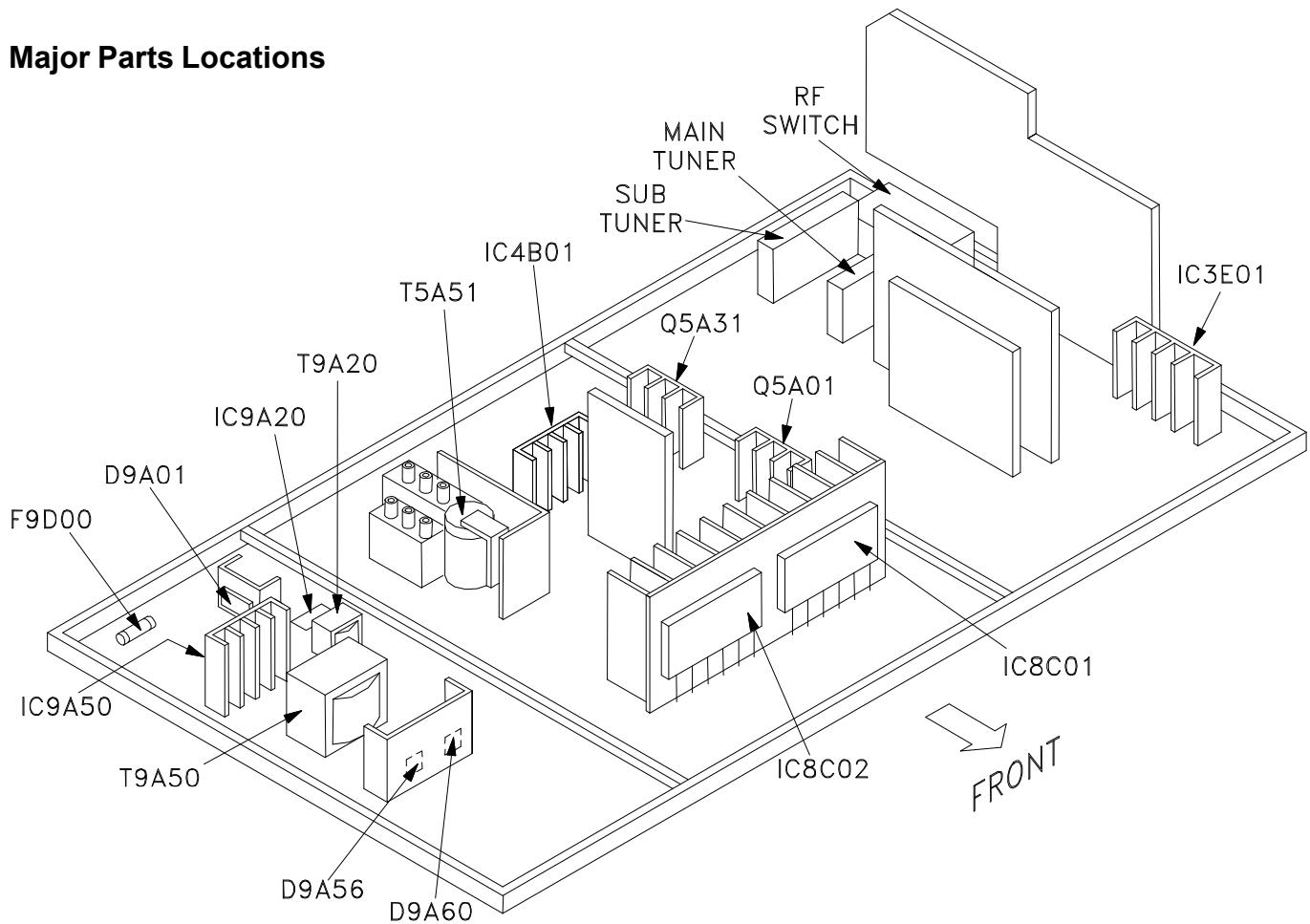


Figure 2: Shelf Removal Procedure

PCB Locations

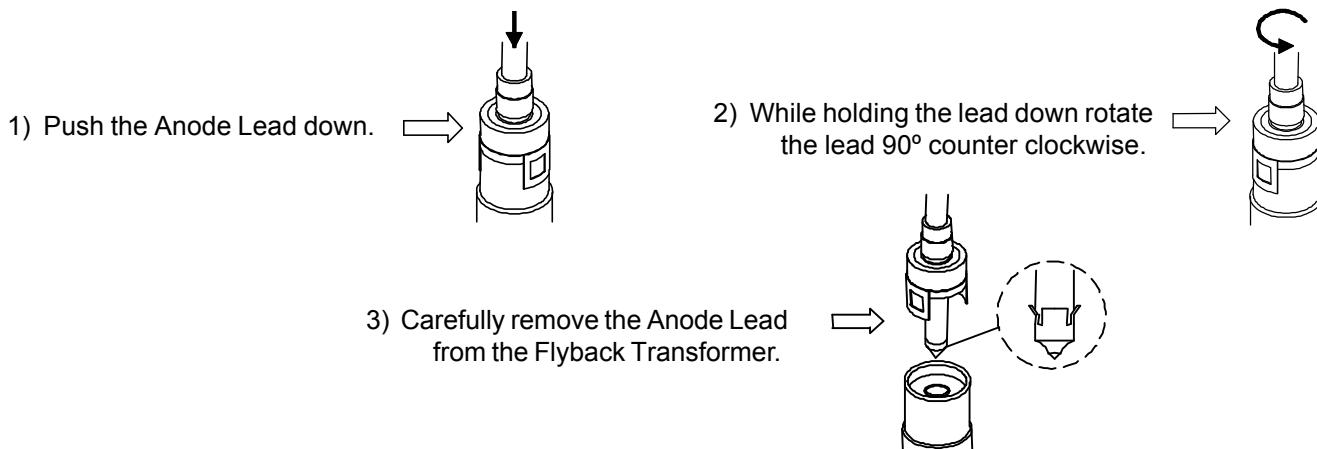


Major Parts Locations



ANODE LEAD REMOVAL

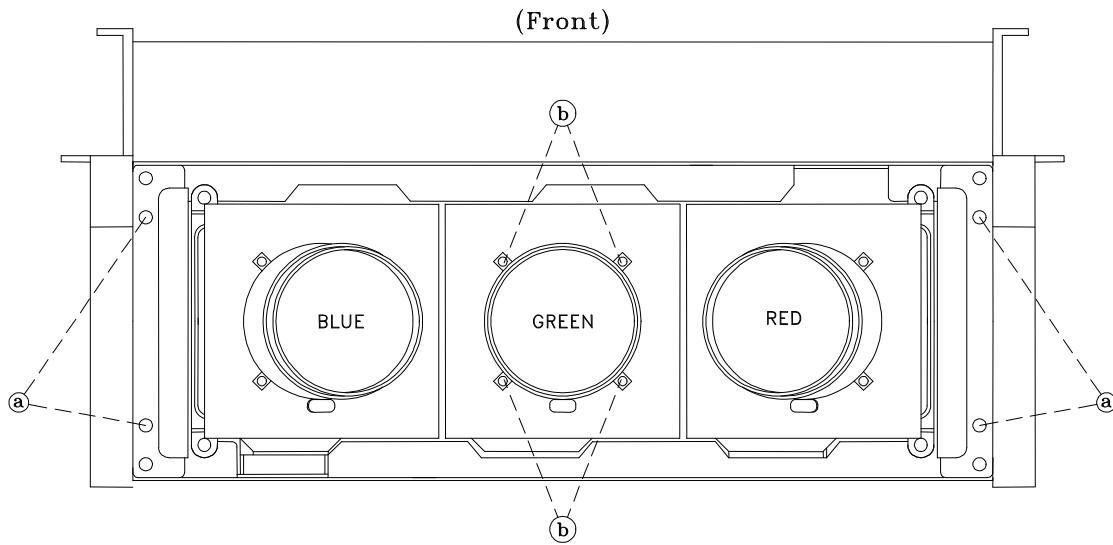
CAUTION: To prevent damage, the following procedure must be used when removing an Anode Lead from the Flyback Transformer.

**CRT REPLACEMENT****1. Removal of the CRT**

Caution! High voltage should be completely discharged prior to CRT removal.

Since the CRTs receive high voltage from the Flyback transformer, discharge the CRTs by shorting the open end of the respective high voltage cable to chassis ground.

1. Refer to Cabinet Disassembly and remove the Light Box Assembly.
 2. Remove the three Anode Lead Wires from the Flyback transformer and discharge the CRTs. (Use the above procedure)
 3. Unplug the three PCB-CRTs.
 4. Remove 4 screws "a" retaining the Optical Unit. [Figure 1]
 5. Remove 4 screws "b" retaining the Lens of the respective CRT
 6. Lift the Optical Unit from the Light Box and set it lens down on a flat surface.
 7. Remove 4 screws "c" retaining the CRT. [Figure 2]
- Note:** **DO NOT loosen the spring loaded screws.** Doing so will break the seal between the C-Element and the # 6 Lens, causing leakage of the CRT Coolant.
8. Remove the Deflection Yoke from the neck of the CRT. [Figure 3]



LIGHT BOX (Top View)

Figure 1

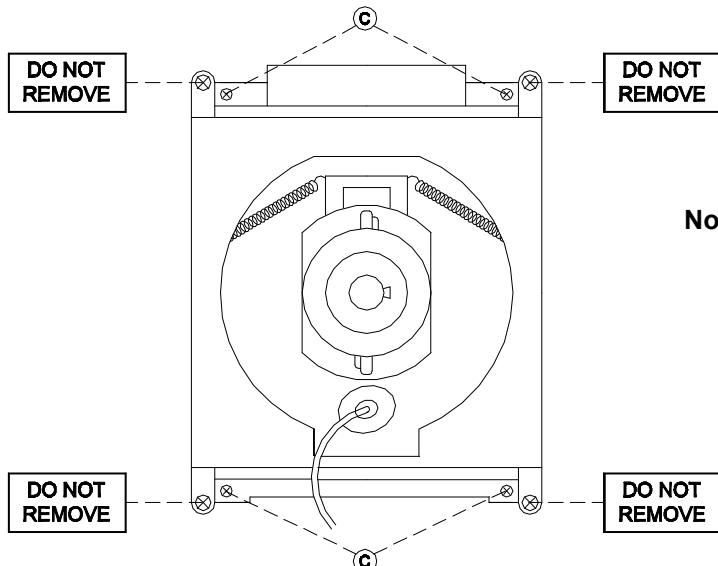


Figure 2

Note: The 4 spring-loaded screws shown in Fig 2 and labeled as "DO NOT REMOVE", should not be loosened under any circumstance. Doing so will break the seal between the CRT and the CRT-Spacer, causing leakage of the CRT Coolant.

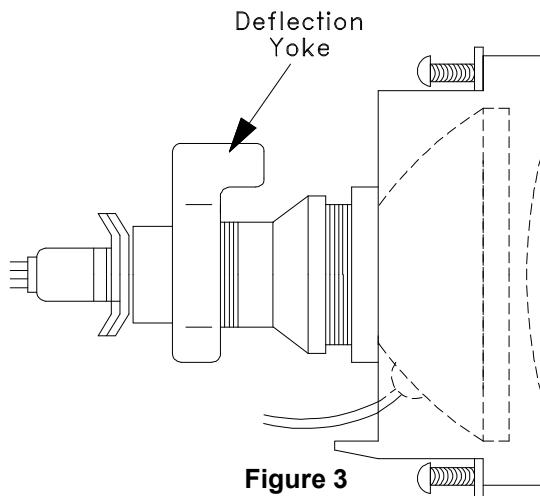


Figure 3

2. Installation of the CRT

Note: The replacement CRT is supplied as an assembly comprised of the CRT and the Inner Lens with the space between them filled with ethylene glycol. Care should be taken during handling and installation to prevent shock from disrupting the seal or alignment between the CRT and Inner Lens. [Figure 4]

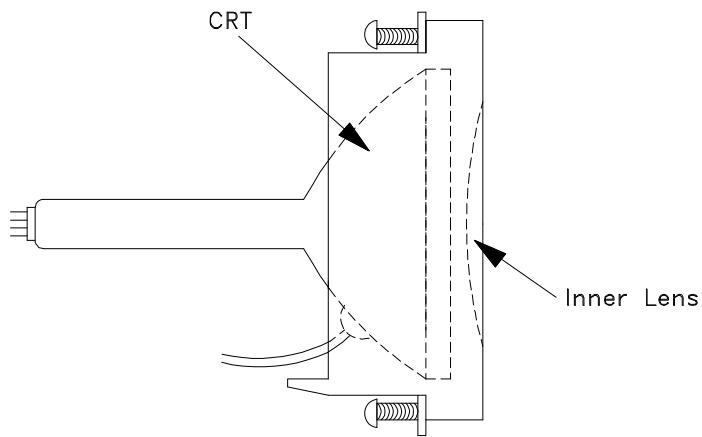
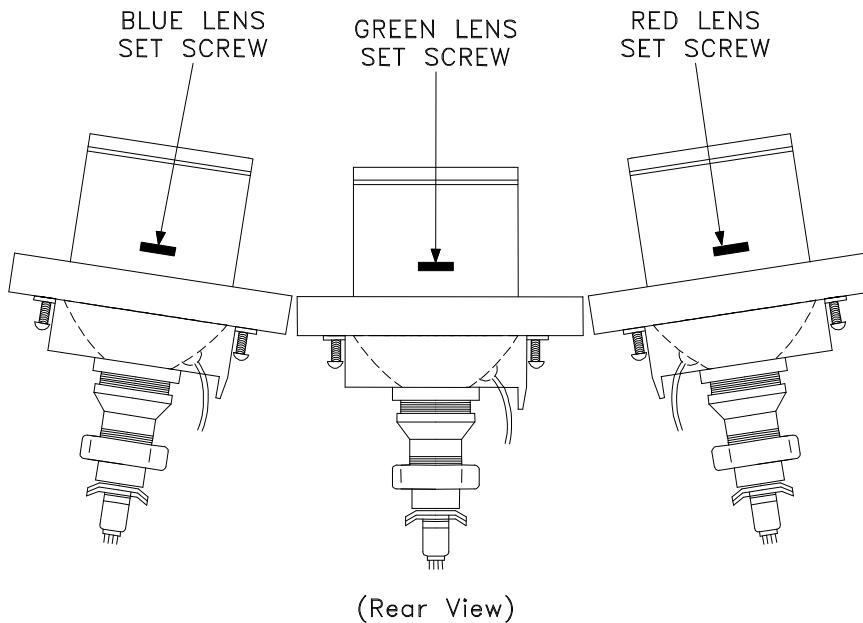


Figure 4

1. Carefully position the replacement CRT and fasten in place using 4 screws "c". [Figure 2]
2. Install the Deflection Yoke on the CRT neck. [Figure 3]
3. Install the Lens that was removed in step 5 of Removal of the CRT.
 - a) Position the Lens so that the Lens Adjustment Set Screw faces the rear of the TV [Figure 5].
 - b) Install the Lens mounting screws "b". [Figure 1]
4. Insert the Optical Unit into the Light Box Assembly and secure it with 4 screws "a" [Figure 1]..
5. Plug in the PCB-CRTs.
6. Insert the Anode Lead Wires into the Flyback Transformer.
7. Re-clamp the Lead Wire in its original position.



(Rear View)

Figure 5

Adjustment procedures after replacing the CRT(s)

- CRT Cut Off / White Balance Adjustment
- Static Convergence Adjustment
- Dynamic Convergence Adjustment

ELECTRICAL ADJUSTMENTS

Note: Perform only the adjustments required.
Do not attempt an alignment if proper equipment is not available.

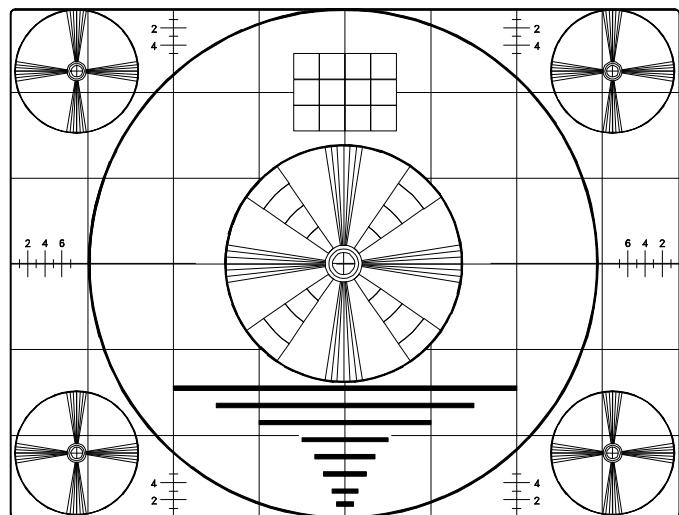
1. Test Equipment

- Oscilloscope (Unless otherwise specified, use 10:1 probes)
- Signal Generator (both SD and HD capable)
- Frequency Counter
- Direct Current Voltmeter
- Direct Current Power Supply
- Multiplex Audio Signal Generator
- Direct Current Ampere Meter

2. Test Signal

A. Monoscope Signal

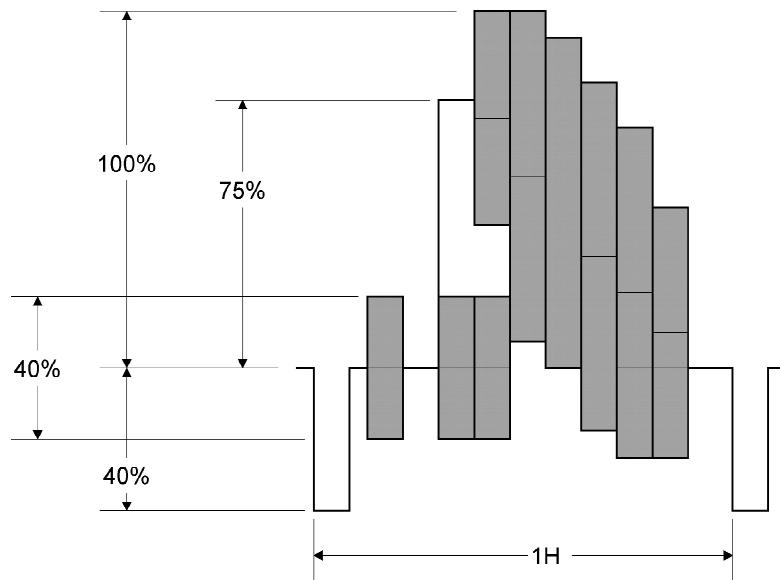
Note: If you do not have a monoscope signal source, connect the unit to a VCR and play a Monoscope *alignment tape.
(* Part Number: 859C568060)



Monoscope Signal

B. Color Bar Signal

Use the color bar signal shown below, unless otherwise specified in this manual.



Split-Field Color Bars (100% window)

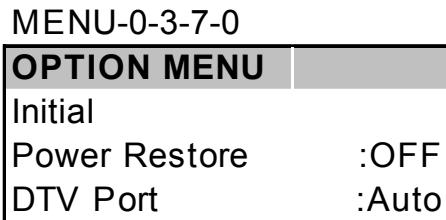
3. Initial Setup

A. Option Menu Setup

Follow the steps below for the initial set-up:

1. Select the "MENU" display by pressing the "MENU" button once.
2. Press the number buttons "0", "3", "7", "0" in sequence to select the "OPTION MENU" display.
3. Press the "ADJUST" button to select "INITIAL."
4. Press "ENTER."

NOTE: At this time channel 3 is automatically selected.



B. Default Settings

MAIN MENU DEFAULT SETTINGS

SETUP		TV Rating	TV-PG	Cyan	Max
Memorize channels	ANT-A - Air	FV- Fantasy Violence	Allow	Blue	Max
Language (idioma)	English	D-Sexual Dialog	Allow	AUDIO/VIDEO Menu	
Front Button Lock	Off	L-Adult Language	Allow	A/V Memory Reset	Ant-A
INPUT ASSIGNMENT Menu		S-Sexual Situations	Allow	TV Speakers (Internal)	On
Antenna A	On	V-Violence	Allow	Audio Output (TV Vol)	Variable
Antenna B	On	Movie Rating	PG	AUDIO SETTINGS	
DTV	YPrPb	Programs Not Rated	Allow	TV Bass	50%
Component	Component	V-CHIP LOCK By Time Menu		TV Treble	50%
Input-1	Input-1	V-Chip Start Time	12:00AM	TV Balance	50%
Input-2	Input-2	V-Chip Stop Time	12:00AM	TV Surround	Off
Input-3	Input-3	Lock by Time	Off	TV Listen To	Stereo
MonLink	MonLink	Lock Time	N/A	TV Level Sound	Off
CLOCK Menu		Unlock Time	N/A	VIDEO SETTINGS	
Clock Setting	Manual	ADVANCED FEATURES Menu		TV Contrast	Max
Time Zone	NA	Video Mute	On	TV Brightness	50%
Daylight Savings Time	NA	Black Enhancement	On	TV Sharpness	50%
Clock Time	12:00pm	TIMER Menu		TV Color	50%
Set Day	Sunday	Timer	Off	TV Tint	50%
CAPTIONS Menu		Set Time	12:00PM	TV Color Temp	High
Closed Captions	On if Mute	Set Day	Everyday	TV Video Noise	Standard
CC Background	Gray	Device	Ant-A	TV Film Mode (Auto)	On
CHANNEL EDIT Menu		Channel	3	TV VSM Sharpness	On
Antenna	ANT-A	COLOR BALANCE Menu		TV Volume	30%
Channel	3	Auto Color Correction	Off	PIP Source	Ant-A Ch 3
Memory	Deleted	PerfectColor™		PIP Position	Lower Right
Name	N/A	Magenta	Max	POP Position	Right Half
SQV	N/A	Red	Max	Format	Stretch
V-CHIP-LOCK Menu		Yellow	Max	PIP/POP Format	Side by Side
V-Chip	Off	Green	Max		

Items in the table below are set to following after Initialization.

AV Memory Initial Settings

A/V Memory	Ant-A Ant-B	DTV	NTSC 1/2/3	COMP	MonLink
TV Contrast	Max	Max	Max	Max	Max
TV Brightness	Center	Center	Center	Center	Center
TV Sharpness	Center	Center	Center	Center	Center
TV Color	Center	Center	Center	Center	Center
TV Tint	Center	Center	Center	Center	Center
TV Color Temp.	High	High	High	High	High
Video Noise	Standard	Standard	Standard	Standard	Standard
TV Image Type	Video	Video	Video	Video	Video
TV SVM Sharpness	On	On	On	On	On
TV Bass	Center	Center	Center	Center	Center
TV Treble	Center	Center	Center	Center	Center
TV Balance	Center	Center	Center	Center	Center
TV Surround	Off	Off	Off	Off	Off
TV Listen To	Stereo	Stereo	Stereo	Stereo	NA
TV Level Sound	Off	Off	Off	Off	Off

4. LED Indicator Diagnostics

The "Power ON LED" provides an indication of the sets operation, and the possible cause of a malfunction.

A. Initial Control Circuitry Check

Immediately after the TV is connected to an AC power source:

- The LED flashes three times ... indicating the Microprocessor has initialized and is functioning properly.
- If the LED does not flash ... the Microprocessor is NOT functioning.

B. Error Code Operational Check

Note: The TV must be in "Shut Down" and not have been switched Off, to perform the Error Code Operational Check. When the TV is switched Off, the code automatically resets to "12" No Error.

Pressing the front panel "INPUT" and "MENU" buttons at the same time, and holding for 5 seconds, activates the Error Code Mode. The LED flashes denoting a two digit Error Code, or indicating no problem has occurred since the last Initialization.

Note: The front panel buttons must be used, NOT those on the Remote Control.

- The number of flashes indicates the value of the MSD (tens digit) of the Error Code.
- The flashing then pauses for approximately 1/2 second.
- The LED then flashes indicating the value of the LSD (ones digit) of the Error Code.
- The Error Code is repeated a total of 5 times.

Example: If the Error Code is "23", the LED will flash two times, pause, and then flash three times.

C. Error Codes

The Error Code designations indicating a malfunction, or no malfunction, are listed below:

Error Code	Description
12	No error has occurred.
21	X-Ray Protect circuit.
22	Short Protect circuit.
23	Deflection Loss

5. Circuit Adjustment Mode

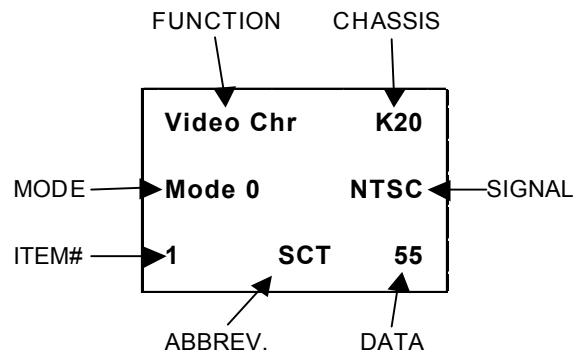
Except for the following, all adjustment items must be performed using the remote hand unit.

- Lens Focus
- Electrostatic Focus

A. Activating the Circuit Adjustment Mode

1. Press the "MENU" button on a remote hand unit.
2. Press the number buttons "0", "3", "5", "7" in sequence.
The screen will change to the Adjustment Mode.

Note: Repeat steps 1 and 2 if the circuit adjustment mode display does not appear on screen

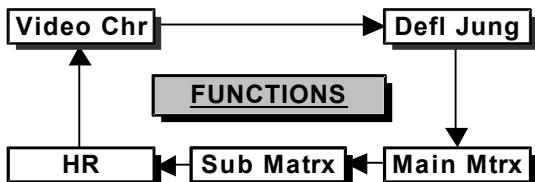


B. Selection of adjustment Functions and Adjustment Items

To select an adjustment item in the circuit adjustment mode, first select the adjustment function that includes the specific adjustment item to be selected. Then, select the adjustment item.

Refer to the following pages for the listing of adjustment functions and adjustment items.

1. Press the "AUDIO" button on a remote hand unit to select an adjustment function. Each time the button is pressed, the Function changes in the following sequence:

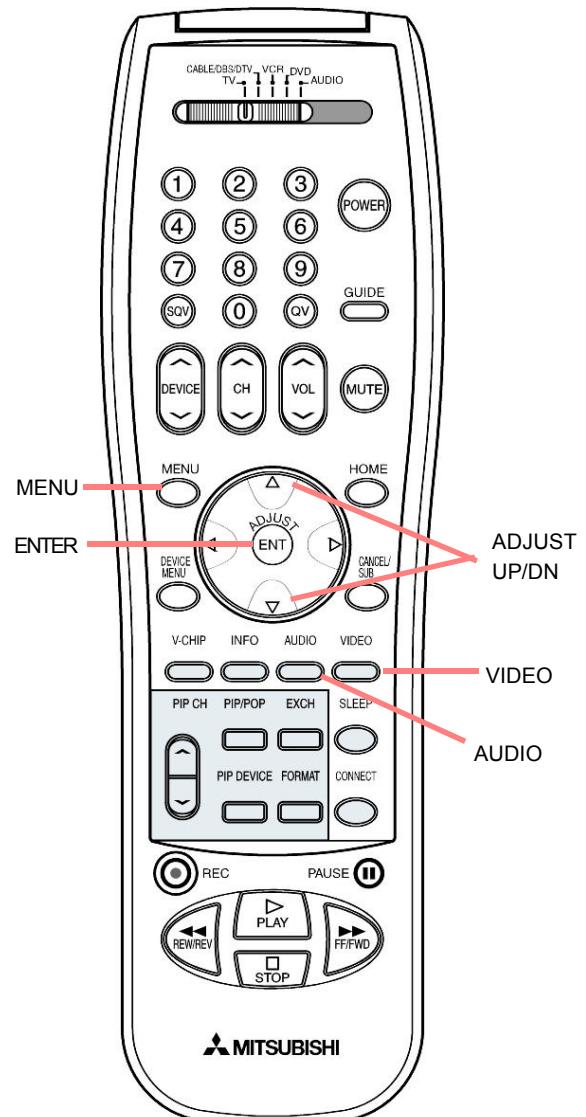


2. Press the "VIDEO" button to select a specific Adjustment Item. The Item number increases each time the "VIDEO" button is pressed.

C. Changing Data

After selecting an adjustment item, use the "ADJUST UP/DOWN" button to change data.

- Press "ADJUST DOWN" to decrease the data value.
- Press "ADJUST UP" to increase the data value.



D. Saving Adjustment Data

Press "ENTER" to save adjustment data in memory. The character display turns red for approximately one second in this step.

Note: If the circuit adjustment mode is terminated without pressing "ENTER", changes in adjustment data are not saved.

E. Terminating the Circuit Adjustment Mode

Press the "MENU" button on the remote hand unit twice to terminate the adjustment mode.

Note: The circuit adjustment mode can also be terminated by turning power OFF.

F. Toggle Between Reception Modes

Pressing "3" when in the Adjustment Mode Video/Chroma Function toggles between 480i, 480p, and 1080i. However data changes are not automatically saved. **Press "ENTER" to save data before pressing "3".**

G. Service Mode Reset

To reset items in the service mode to their factory values:

1. Press MENU-0-3-5-7 to enter the Service Mode.
2. Press the "INPUT" or "DEVICE" button, on the front panel or the remote, and hold for 2 seconds

6. Convergence Adjustment Mode

The Convergence mode is used to perform raster geometry correction, and convergence adjustments as specified in Adjustment Procedures 15 through 18.

A. Convergence Mode Activation

1. Press MENU-0-3-5-9
2. When the Convergence Mode is activated, the display at the right appears on a Green Crosshatch.

SD	Coarse	BLUE
1	HSTA	-50

Coarse Conv. Display

B. Selecting the HD or SD Mode

1. **Select the Signal Source** before entering the Convergence Mode, either an NTSC or HD source.
2. **Enter the Convergence Mode** (MENU-0-3-5-9)
 - If the signal source is NTSC, the SD mode is activated.
 - If the signal source is HD 1080i, the HD mode is activated.
3. **Activating the HD mode when no HD signal is available.**
 - Activate the Factory Option Menu (MENU-0-3-7-0)
 - Use the "Adjust" keys to select "DTV Port" and press "Enter" to change the setting to "1080i". Sequence = "Auto"-480i"-480-p"-1080i". **Ignore any loss of sync while changing modes.**
 - Exit the Option Menu (Press "MENU" twice).
 - Select the DTV Inputs as the signal source (INPUT button).
 - Activate the Convergence Mode ... the Convergence mode will be in the HD mode and the internal crosshatch is displayed.
4. **After adjusting Convergence, be sure to set the DTV Port back to AUTO.**
 - Select an analog input as the signal source (INPUT button).
 - Activate the Option Menu (MENU-0-3-7-0).
 - Use the "Adjust" keys to select "DTV Port" and press "Enter" to change the setting from "1080i" to "AUTO".
 - Exit the Option Menu (Press MENU twice).

C. Convergence Mode Functions

In the Convergence Mode there are three main Functions (Categories).

- Pressing "6" activates CONV MISC
- Pressing "5" activates COARSE CONV
- Pressing "4" activates FINE CONV

D. CONV MISC (Press 6)

This mode is used to preset data values controlling the Convergence Generator, and to perform the HV Regulation adjustment.

1. Use the VIDEO button to select an item.
2. Use the ADJUST buttons to change data.

Note: When Item "1 HVOL" is selected the screen goes black except for the data display.
This occurs since a black screen is required when making the HV Regulation adjustment.

E. COARSE CONV (Press 5)

There are four Sub Functions in the Coarse mode, COARSE GREEN, COARSE RED, COARSE BLUE and DF.

- COARSE GREEN used to make Coarse Raster Geometry Adjustments.
 - COARSE RED ... used to make Coarse Red Convergence Adjustments.
 - COARSE BLUE ... used to make Coarse Blue Convergence Adjustments.
 - DF ... used to preset data values controlling the Dynamic Beam Focus circuit drive signal.
1. Use AUDIO button to select a Sub Function
 2. Use the VIDEO button to select an Adjustment Item.
 3. Use the ADJUST buttons to change data.

F. FINE CONV (Press 4)**Sub Functions**

This mode is used to perform Fine Raster Correction, and Fine Red and Blue Convergence Adjustments.

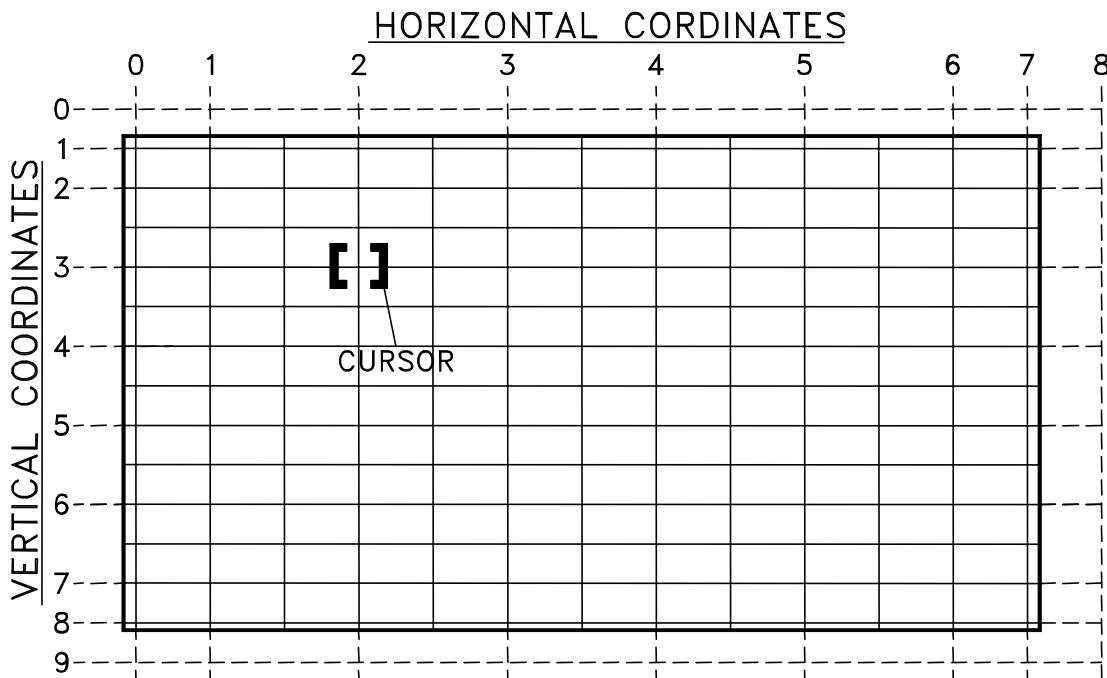
There are three Sub Adjustment Functions, selected with the AUDIO button:

- FINE GREEN a Green Crosshatch is displayed, for Fine Raster Corrections.
- FINE RED a White Crosshatch is displayed, for Fine Red Convergence Adjustments.
- FINE BLUE a White Crosshatch is displayed, for Fine Blue Convergence Adjustments.

Cursor

In the Fine mode a Cursor is added to the Crosshatch. The ENTER button toggles the Cursor between two modes:

- MOVE (blinking Cursor) use the ADJUST buttons to select any of 64 points on the Crosshatch.
- ADJUST (Non blinking Cursor) the ADJUST buttons adjust the active color at the current Cursor position, horizontally or vertically.



Cursor Coordinates

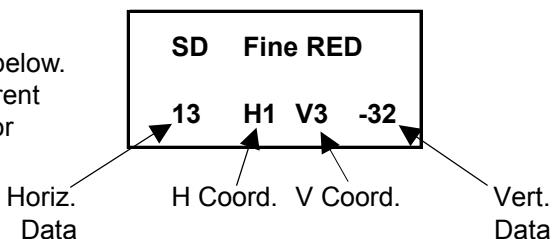
Specific intersections in the Crosshatch are assigned vertical and horizontal coordinates.

These are shown in the preceeding diagram. The Cursor can only be moved to those positions that have coordinates assigned. If the Cursor is at coordinates outside the screen area, the Cursor will not be visible. Use the ADJUST buttons to move the Cursor to an intersection on the screen.

Display

The on-screen display changes in the Fine mode, as shown below.

The display shows the vertical and horizontal data for the current Cursor Position, and the horizontal and vertical coordinates for that position.

**F. Saving Data and Exiting the Convergence Mode**

Press MENU twice to exit the Convergence mode, data is automatically saved.

Note: If power is interrupted prior to properly exiting the Convergence Mode, changes in adjustment data will not be saved.

ADJUSTMENT ITEMS LIST

Video Chroma Function			Data				Menu-0-3-5-7
Item#	Abbrev.	Description	Range	480i	480p	1080i	Adjustment
1	SCT	Picture Gain control	0~63	31	31	31	Sub Contrast
2	SBRT	Sub Brightness	0~63	31	31	31	Black Level
3	SCON	Sub Contrast	0~15	0	0	0	Preset
4	RDRH	R Drive (H temp)	0~63	31	31	31	White Balance
5	GDRH	G Drive (H temp)	0~63	41	41	41	Preset
6	BDRH	B Drive (H temp)	0~63	31	31	31	White Balance
7	CTRH	R Cutoff (H temp)	0~63	31	31	31	"
8	CTGH	G Cutoff (H temp)	0~63	46	46	46	Preset
9	CTBH	B Cutoff (H temp)	0~63	31	31	31	White Balance
10	RDRL	R Drive (L temp)	0~63	31	31	31	"
11	GDRL	G Drive (L temp)	0~63	41	41	41	Preset
12	BDRL	B Drive (L temp)	0~63	31	31	31	White Balance
13	CTRL	R Cutoff (L temp)	0~63	31	31	31	"
14	CTGL	G Cutoff (L temp)	0~63	55	55	55	Preset
15	CTBL	B Cutoff (L temp)	0~63	31	31	31	White Balance
16	GMMA	RGB Gamma Correction	0~3	1	1	1	Preset
17	GAML	Gamma Differential Corr. Switch	0~1	0	0	0	"
18	BRT	Brightness	0~63	31	31	31	"
19	COL	Color	0~63	35	31	31	White Balance
20	TINT	Tint	0~63	28	31	31	Preset
21	SHRP	Sharpness	0~63	31	33	31	"
22	CBOF	Cb DC Offset	0~63	31	31	31	"
23	CROF	Cr DC Offset	0~63	31	31	31	"
31	VMLE	VM Output Level	0~3	2	2	1	"
40	AGIW	White output aging mode switch	0~1	0	0	0	"
55	ABLT	Threshold Adjust for ABL input	0~15	7	7	7	"

Deflection Jungle			Menu-0-3-5-7		
Item#	Abbrev.	Description	Range	HD	Others
1	HWID	Width	0~63	13	17
2	HKEY	Horiz. Keystone	0~63	9	3
7	VHGT	Height	0~63	18	36
8	VLIN	Vert. Linearity	0~15	8	6
9	VSCN	Vert. S Corr.	0~15	0	0
18	VPOS	Vert. Position	0~63	31	31
36	PINA	Horiz. PC Corr.	0~63	31	31

MAIN MATRIX **MENU-0-3-5-7**

Item#	Abbrev.	Description	Data	
			Range	Initial
1	TNTM	Main Tint Control	0~63	30
2	COLM	Main Color Control	0~63	29
3	YDRM	Main Y Gain	0~63	12

SUB MATRIX **MENU-0-3-5-7**

Item#	Abbrev.	Description	Data	
			Range	Initial
1	TNTS	Sub Tint Control	0~63	28
2	COLS	Sub Color Control	0~63	19
3	YDRS	Sub Y Gain	0~63	9
4	VPDS	U signal DC Control	0~15	7
5	UPDS	V signal DC Control	0~15	7

HR **MENU-0-3-5-7**

Item#	Abbrev.	Description	Initial
1	HR	NTSC Disp.Pos.	29
2	HRHD	HD Disp. Position	15

CONVERGENCE MODE ITEMS

CONV MISC. **MENU-0-3-5-9-6**

Item#	Abbrev.	Description	Data		
			Range	SD	HD
1	HVOL	HV Adjust	0~352	150	150
2	VCNT	V-saw amplitude	0~127	29	29
3	VSTR	V-saw start timee	0~127	0	10
4	VOFS	V-saw offset	0~127	10	8
5	STLN	Start line	0~127	38	26
6	FPHS	Fine phase	0~352	310	296
7	CPHS	Coarse phase	0~31	15	15
8	HOFS	H-saw offset	0~127	22	22
9	DPHS	DF coarse horiz phase	0~31	1	1
10	DOFS	DF offset	0~127	40	30
11	TPHS	Test Pattern phase	0~352	45	38
12	TPVD	Test Pattern Vert. Position	0~127	22	39
13	ODEV	Odd/Even detection	0~352	200	125
14	HRTC	H-saw retrace	0~3	1	1
15	DRTC	DF retrace	0~3	1	1
16	DAC	External DAC selection	0~1	1	1
17	EPWP	EEPROM write protection	0~1	0	0

COARSE CONV GREEN (MENU-0-3-5-9-5)

#	Abbrev.	Description	SD	HD
1	HSTA	Horiz. Position	0	0
2	VSTA	Vert. Position	39	39
3	SKEW	Skew (Y axis)	0	0
4	TILT	Tilt (X axis)	0	0
5	HWID	Width	50	50
6	HLIN	Horiz. Linearity	0	0
7	SPCC	Side PC Corr.	20	0
8	HKEY	Horiz. Keystone	0	-20
9	TBPC	Top/Bottom PC	-180	-140
10	VKEY	Vert. Keystone	0	0
11	VWID	Height	11	20
12	VLIN	Vert. Linearity	-50	-50

COARSE CONV RED (MENU-0-3-5-9-5)

#	Abbrev.	Description	SD	HD
1	HSTA	Horiz. Position	50	50
2	VSTA	Vert. Position	0	0
3	SKEW	Skew (Y axis)	0	0
4	TILT	Tilt (X axis)	0	0
5	HLIN	Horiz. Linearity	-300	-250
6	HWID	Width	-20	0
7	VKEY	Vert. Keystone	-155	-190
8	VWID	Height	0	0
9	VLIN	Vert. Linearity	0	0
10	TBPC	Top/Bottom PC	70	100
11	SDBW	Side Bow	30	30

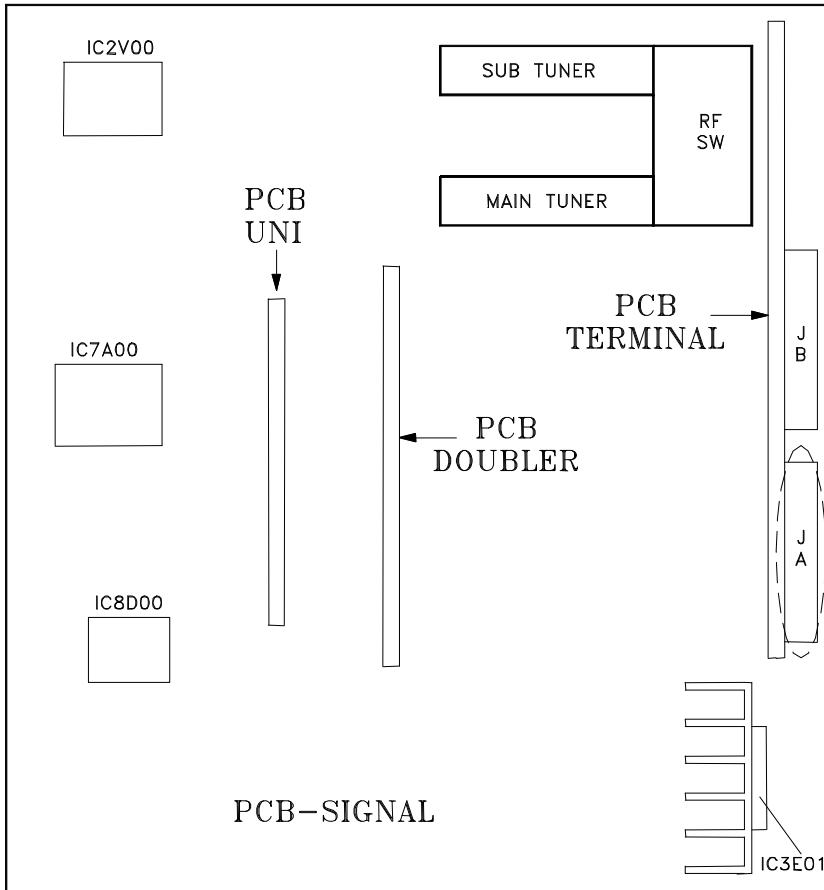
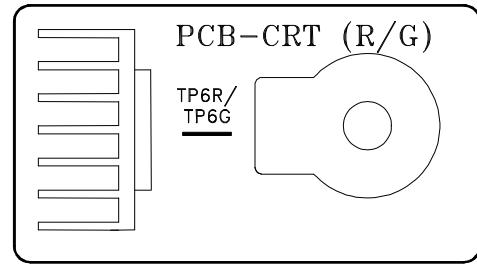
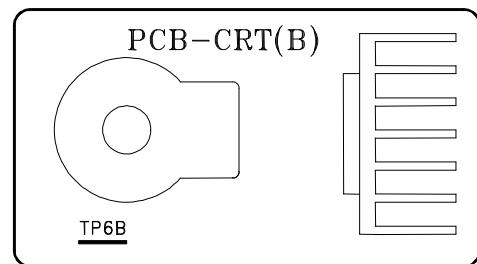
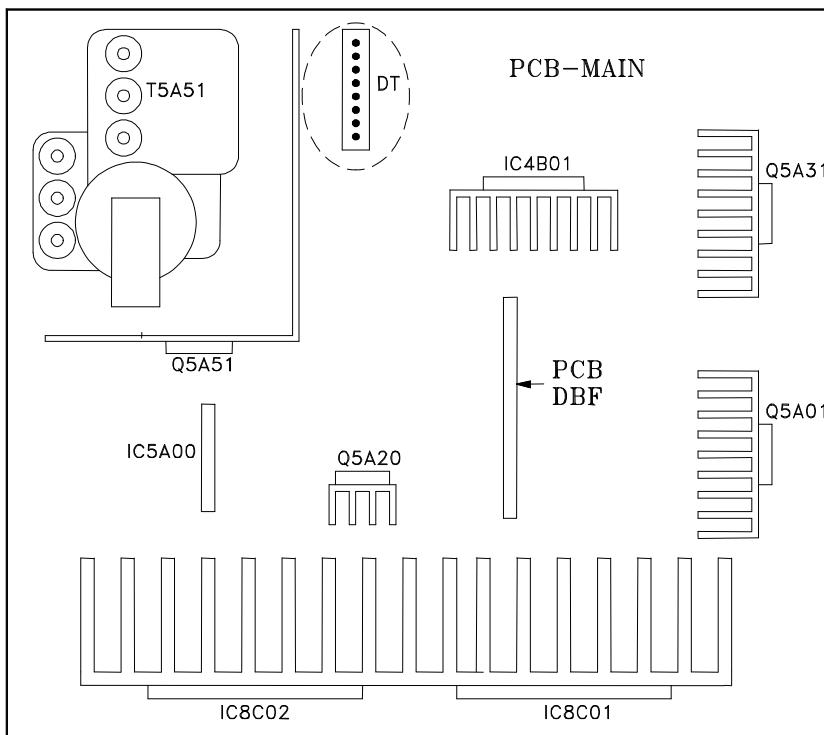
COARSE CONV BLUE (MENU-0-3-5-9-5)

#	Abbrev.	Description	SD	HD
1	HSTA	Horiz. Position	-50	-50
2	VSTA	Vert. Position	0	0
3	SKEW	Skew (Y axis)	0	0
4	TILT	Tilt (X axis)	0	0
5	HLIN	Horiz. Linearity	300	250
6	HWID	Width	0	0
7	VKEY	Vert. Keystone	150	150
8	VWID	Height	0	0
9	VLIN	Vert. Linearity	0	0
10	TBPC	Top/Bottom PC	-30	0
11	SDBW	Side Bow	-30	0

DF (MENU-0-3-5-9-5)

Item	Abbr.	Description	SD Data	HD Data
0	DFH	Dynamic Focus (Horizontal)	-255	-300
1	DFV	Dynamic Focus (Vertical)	-125	170

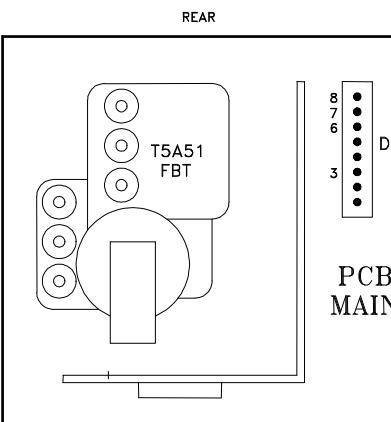
Adjustment Test Point Location

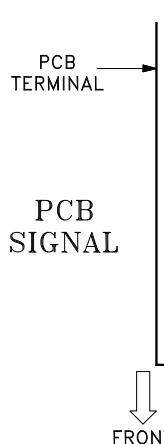
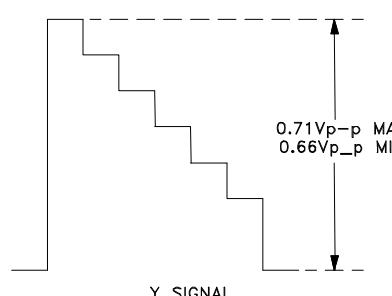


Test Points

- DT pin 3 - HV Adjust
- DT pin 6 - Ground
- DT pin 7 - 12 Volts
- DT pin 8 - ACL
- JA pin 14 - Main Picture (Y)
- JA pin 18 - Main Color (Cr)
- JA pin 4 - Sub Picture (Y)
- JA pin 8 - Sub Picture (Cr)
- TP6(R, G or B) - CRT Cathode

MODEL: WT-42313 / WT-42413

[HV Circuit] 1. HV Regulation		Purpose: To set the CRT Anode voltage. Symptom: Dark Picture										
Measuring Instrument DC Voltmeter Test Point DT connector pins 3 & 6 Ext. Trigger ----- Measuring Range ----- Input Signal Video Signal Monoscope Input Terminal Video Input		Note: This adjustment must be rechecked following Adjustment 9 CRT Cutoff.										
		<ol style="list-style-type: none"> 1. Supply a video monoscope signal. 2. Set Contrast to maximum, and Brightness to mid position. 3. Connect a DC volt meter between pins 3 and 6 of the DT connector. (Positive lead to pin 3) 4. Activate the Conv-Misc Mode. 5. Select Item "1 HVOL" (screen goes black). 6. Adjust Item "1 HVOL" for $15.4V \pm 0.05V$ on the meter. 7. Save data and exit the Conv-Misc mode. 8. Confirm that the voltage does not change more than 0.15V. 										
		Note: This adjustment must be performed if E2RESET or Convergence E2RESET are activated.										
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">CONVERGENCE MODE</td> </tr> <tr> <td>ActivateMENU-0-3-5-9</td> </tr> <tr> <td>Misc"6"</td> </tr> <tr> <td>Coarse"5"</td> </tr> <tr> <td>Fine"4"</td> </tr> <tr> <td>Color (R,G or B).....AUDIO</td> </tr> <tr> <td>Item No.....VIDEO</td> </tr> <tr> <td>Adjust/Move.....ADJUST</td> </tr> <tr> <td>Cursor Toggle.....ENTER</td> </tr> <tr> <td>Save & Exit.....MENU (twice)</td> </tr> </table>	CONVERGENCE MODE	ActivateMENU-0-3-5-9	Misc"6"	Coarse"5"	Fine"4"	Color (R,G or B).....AUDIO	Item No.....VIDEO	Adjust/Move.....ADJUST	Cursor Toggle.....ENTER	Save & Exit.....MENU (twice)
CONVERGENCE MODE												
ActivateMENU-0-3-5-9												
Misc"6"												
Coarse"5"												
Fine"4"												
Color (R,G or B).....AUDIO												
Item No.....VIDEO												
Adjust/Move.....ADJUST												
Cursor Toggle.....ENTER												
Save & Exit.....MENU (twice)												

[Video Circuit] 2. Main/Sub Y Level		Purpose To set picture luminance Symptom: Excess or insufficient brightness.							
Measuring Instrument Oscilloscope Test Point JA Connector pin 14 JA Connector pin 4 Ext. Trigger ----- Measuring Range ----- Color Bars Input Signal Input Terminal Video Input		<ol style="list-style-type: none"> 1. Supply a color bar signal to a Video Input (not an RF input). 2. Select the color bar signal for both the main and sub pictures. 3. Connect the oscilloscope to connector JA pin 14 (Main-Y). 4. Activate the Adjustment Mode 5. Select Item "3 YDRM" in the Main Matrix function. 6. Adjust the data so the Main-Y signal is between 0.71 Vp-p max. and 0.66 Vp-p min. at JA pin 14. (If it cannot be adjusted within this range, set to the lower value) 7. Move the oscilloscope to connector JA pin 4 (Sub-Y). Activate PIP if the waveform is unstable. 8. Select Item "3 YDRS" in the Sub Matrix function. 9. Adjust the data to equal the MAIN-Y Gain (+0.0V -0.1V). 							
									
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">CIRCUIT ADJUST MODE</td> </tr> <tr> <td>Activate MENU-0-3-5-7</td> </tr> <tr> <td>FunctionAUDIO</td> </tr> <tr> <td>Item No.VIDEO</td> </tr> <tr> <td>Adjust DataADJUST</td> </tr> <tr> <td>Save DataENTER</td> </tr> <tr> <td>ExitMENU (twice)</td> </tr> </table>	CIRCUIT ADJUST MODE	Activate MENU-0-3-5-7	FunctionAUDIO	Item No.VIDEO	Adjust DataADJUST	Save DataENTER	ExitMENU (twice)
CIRCUIT ADJUST MODE									
Activate MENU-0-3-5-7									
FunctionAUDIO									
Item No.VIDEO									
Adjust DataADJUST									
Save DataENTER									
ExitMENU (twice)									

MODEL: WT-42313 / WT-42413

[Video Circuit]

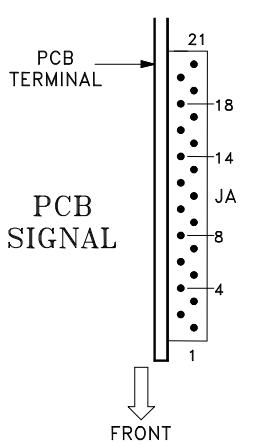
3. Main/Sub Color Level

Measuring Instrument	Oscilloscope
Test Point	JA pin 18 JA pin 8
Ext. Trigger	-----
Measuring Range	-----
Input Signal	Color Bars
Input Terminal	Video

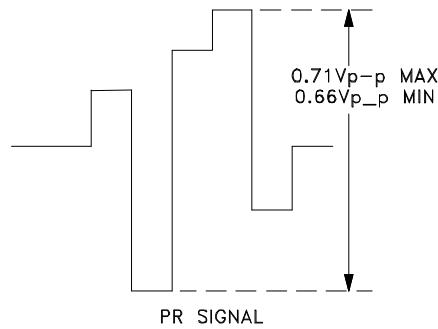
Purpose: To match the sub picture color to that of the main picture.

Symptom: Main and sub pictures colors differ.

- Supply an NTSC signal to an External Video Input.
- Select the NTSC signal as the source for both the main and sub pictures.
- Connect an oscilloscope to connector JA pin 18 (Main PR).
- Activate the Adjustment mode.
- Select Item "2 COLM" in the Main Matrix Function.
- Adjust data so the PR signal is 0.71 Vp-p max. - 0.66 Vp-p min (If it cannot be adjusted within this range, set to the lower value)
- Connect an oscilloscope to connector JA pin 8 (Sub PR). If the waveform is unstable, activate PIP.
- Select item "2 COLS" in the Sub Matrix Function.
- Adjust so Sub PR = Main PR.



CIRCUIT ADJUST MODE
 Activate MENU-0-3-5-7
 FunctionAUDIO
 Item No.VIDEO
 Adjust DataADJUST
 Save DataENTER
 ExitMENU (twice)



[CRT Circuit]

4. CRT Cutoff

Purpose To set the cutoff point for all three CRTs.

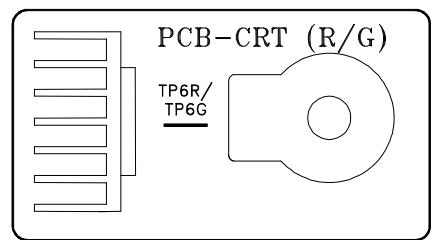
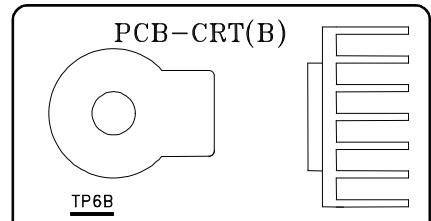
Symptom: Monochrome has a color tint, or incorrect brightness.

Measuring Instrument	Oscilloscope
Test Point	TP6R, TP6G, TP6B
Ext. Trigger	-----
Measuring Range	50V/Div. 2msec/Div.
Input Signal	None
Input Terminal	Video Input

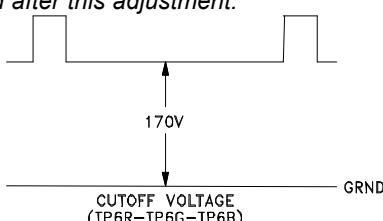
Note: Use the Expand mode (full screen)

- Select an External Input with no signal.
- Enter the Adjustment Mode, Video Chroma Function.
- Press "1", automatically blanks the screen and sets COL to 0.
- Note:** If the screen goes blue, turn off Video Mute.
- Set the data to the values given in the table below.
- Connect the oscilloscope to TP6R.
- Adjust the Red Screen VR so the black level is 170V, as shown below, or 176V ±1VDC using an DC Voltmeter.
- Repeat Steps 4 and 5 to set the Blue and Green Screen VRs, using TP6G and TP6B.

Note: White Balance must be performed after this adjustment.



Item	Abbr	Data
1	SCT	31
2	SBRT	31
3	SCON	0
4	RDRH	31
5	GDRH	41
6	BDRH	31
7	CTRH	31
8	CTGH	46
9	CTBH	31



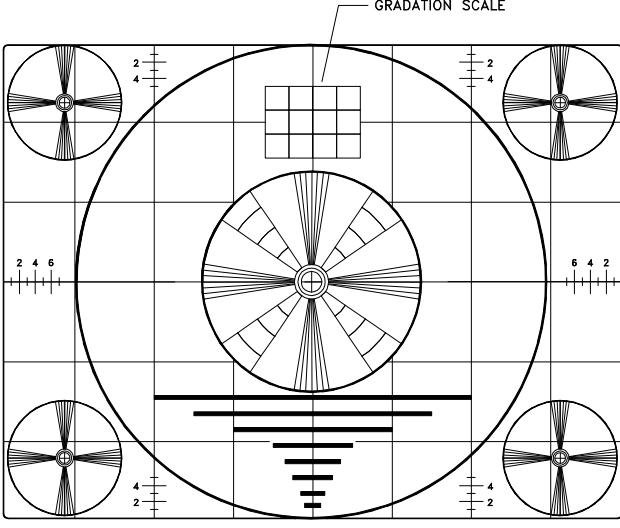
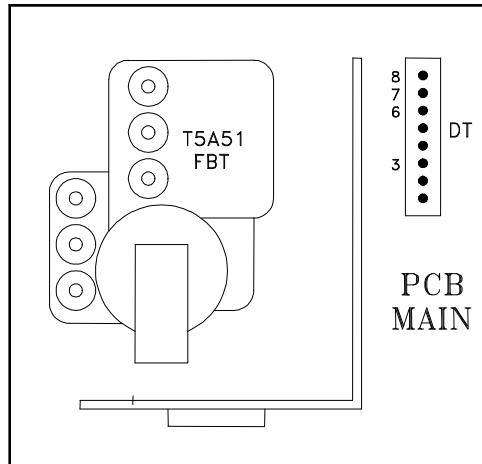
CIRCUIT ADJUST MODE
 Activate MENU-0-3-5-7
 FunctionAUDIO
 Item No.VIDEO
 Adjust DataADJUST
 Save DataENTER
 ExitMENU (twice)

MODEL: WT-42313 / WT-42413

[CRT Circuit] 5. White Balance (NTSC)		<p>Purpose: To set the CRTs white level in the NTSC mode.</p> <p>Symptom: Monochrome has a color tint.</p>									
Measuring Instrument	DC Voltmeter	<p>Note: Use the "FORMAT" button to activate the Expand mode (full screen).</p> <ol style="list-style-type: none"> Supply a full White Raster Signal Activate the Service Mode, Video Chroma Function. Set the data for Item "19 COL" to 0. Adjust Items "4 RDRH" and "6 BDRH" for optimum white at the center of the screen. Reduce the input luminance level to 25%. Adjust Items "7 CTRH" and "9 CTBH" for optimum white. Insert a Milliammeter in series with each CRT Cathode. The maximum allowable current for each CRT is given in the table below. Set the white raster to 100% and adjust Items "10 RDRL" and "12 BDRL" for optimum white at the center of the screen. Reduce the luminance level to 25%. Adjust Item "13 CTRL" and "15 CTBL" for optimum white. Set the data for Item "19 COL" back to 31. 									
Test Point	-----										
Ext. Trigger	-----										
Measuring Range	-----										
Input Signal	NTSC White Raster										
Input Terminal	RF or Video										
CIRCUIT ADJUST MODE Activate MENU-0-3-5-7 FunctionAUDIO Item No.VIDEO Adjust DataADJUST Save DataENTER ExitMENU (twice)		Maximum CRT Current <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>CRT</th><th>CURRENT</th></tr> </thead> <tbody> <tr> <td>RED</td><td>580 uA</td></tr> <tr> <td>GREEN</td><td>580 uA</td></tr> <tr> <td>BLUE</td><td>580 uA</td></tr> </tbody> </table>		CRT	CURRENT	RED	580 uA	GREEN	580 uA	BLUE	580 uA
CRT	CURRENT										
RED	580 uA										
GREEN	580 uA										
BLUE	580 uA										

[CRT Circuit] 6. White Balance (HD)		<p>Purpose To set the CRTs white level in the HD mode.</p> <p>Symptom: Monochrome pictures have a color tint.</p>	
Measuring Instrument	-----	<ol style="list-style-type: none"> Supply an HD Full White Raster signal to the DTV Inputs. Select the DTV Inputs (Input button) Activate the Adjustment mode, Video Chroma Function. Set Item "19 COL" to 0. Adjust Items "4 RDRH" and "6 BDRH" for optimum white at the center of the screen. Reduce the input signal luminance to 25%. Adjust Items "7 CTRH" and "9 CTBH" for optimum white. Set the white raster to 100% and adjust Items "10 RDRL" and "12 BDRL" for optimum white at the center of the screen. Reduce the luminance level to 25%. Adjust Item "13 CTRL" and "15 CTBL" for optimum white. Set the data for Item "19 COL" back to 31. 	
Test Point	-----		
Ext. Trigger	-----		
Measuring Range	-----		
Input Signal	HD White Raster		
Input Terminal	DTV Inputs		
CIRCUIT ADJUST MODE Activate MENU-0-3-5-7 FunctionAUDIO Item No.VIDEO Adjust DataADJUST Save DataENTER ExitMENU (twice)		NOTE: After completing HD White Balance, set the corresponding adjustment items in 480p to the same data values	

MODEL: WT-42313 / WT-42413

<p>[Video Circuit]</p> <p>7. Black Level</p>	<p>Purpose: To set the black level of the picture.</p> <p>Symptom: Excess or insufficient brightness.</p>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Measuring Instrument</td> <td style="width: 85%;">-----</td> </tr> <tr> <td>Test Point</td> <td>-----</td> </tr> <tr> <td>Ext. Trigger</td> <td>-----</td> </tr> <tr> <td>Measuring Range</td> <td>-----</td> </tr> <tr> <td>Input Signal</td> <td>Monoscope</td> </tr> <tr> <td>Input Terminal</td> <td>Video Input</td> </tr> </table>		Measuring Instrument	-----	Test Point	-----	Ext. Trigger	-----	Measuring Range	-----	Input Signal	Monoscope	Input Terminal	Video Input
Measuring Instrument	-----												
Test Point	-----												
Ext. Trigger	-----												
Measuring Range	-----												
Input Signal	Monoscope												
Input Terminal	Video Input												
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>CIRCUIT ADJUST MODE</p> <p>Activate MENU-0-3-5-7 FunctionAUDIO Item No.VIDEO Adjust DataADJUST Save DataENTER ExitMENU (twice)</p> </div> <table border="1" style="margin-bottom: 10px; text-align: center;"> <tr> <td>40%</td> <td>30%</td> <td>20%</td> <td>10%</td> </tr> <tr> <td>50%</td> <td>0%</td> <td>0%</td> <td>0%</td> </tr> <tr> <td>60%</td> <td>70%</td> <td>80%</td> <td>90%</td> </tr> </table> 		40%	30%	20%	10%	50%	0%	0%	0%	60%	70%	80%	90%
40%	30%	20%	10%										
50%	0%	0%	0%										
60%	70%	80%	90%										
<p>[Video Circuit]</p> <p>8. Sub Contrast</p>													
<p>Purpose To set overall beam current to its' optimum level.</p> <p>Symptom: Excess or insufficient contrast.</p>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Measuring Instrument</td> <td style="width: 85%;">DC ma meter</td> </tr> <tr> <td>Test Point</td> <td>DT connector pins 7 & 8</td> </tr> <tr> <td>Ext. Trigger</td> <td>-----</td> </tr> <tr> <td>Measuring Range</td> <td>-----</td> </tr> <tr> <td>Input Signal</td> <td>Grayscale</td> </tr> <tr> <td>Input Terminal</td> <td>RF Input</td> </tr> </table>		Measuring Instrument	DC ma meter	Test Point	DT connector pins 7 & 8	Ext. Trigger	-----	Measuring Range	-----	Input Signal	Grayscale	Input Terminal	RF Input
Measuring Instrument	DC ma meter												
Test Point	DT connector pins 7 & 8												
Ext. Trigger	-----												
Measuring Range	-----												
Input Signal	Grayscale												
Input Terminal	RF Input												
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>CIRCUIT ADJUST MODE</p> <p>Activate MENU-0-3-5-7 FunctionAUDIO Item No.VIDEO Adjust DataADJUST Save DataENTER ExitMENU (twice)</p> </div> 													

MODEL: WT-42313 / WT-42413

[Focus Circuit] 9. Dynamic Focus Preset		Purpose: To improve edge focus. Symptom: Poor focus at the edges of the screen.
Measuring Instrument ----		1. Supply a Monoscope signal to a Video Input 2. Activate the Convergence Mode. 3. Select the DF Function under the Conv. Coarse Mode. 4. Set Items "0 DFH" and "1 DFV" to the data values given in the DF Table. 5. Press "6" to activate CONV-MISC 6. Set "0 FPHS" and "1 DPHS" to data values given in the CONV-MISC Table. 5. Exit the Conv. Mode.
Test Point ----		
Ext. Trigger ----- Measuring Range ----		
Input Signal Monoscope		
Input Terminal Video Input		

CONVERGENCE MODE

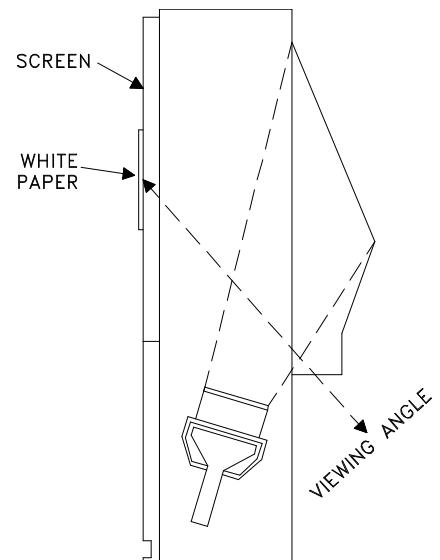
- ActivateMENU-0-3-5-9
- Misc."6"
- Coarse....."5"
- Fine"4"
- Color (R,G or B).....AUDIO
- Item No.....VIDEO
- Adjust/Move.....ADJUST
- Cursor Toggle.....ENTER
- Save & Exit....MENU (twice)

DF (MENU-0-3-5-9-5)

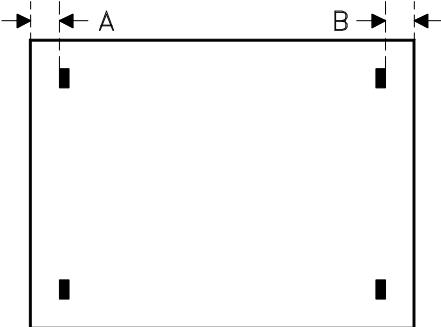
Item	Abbr.	SD Data	HD Data
0	DFH	-255	-300
1	DFV	-125	-70

CONV MISC (MENU-0-3-5-9-6)

Item	Abbr.	SD Data	HD Data
9	DPHS	1	1
10	DOFS	40	30

[Video Circuit] 10. Lens Focus		Purpose To set the Lens position for optimum focus. Symptom: Poor focus
Measuring Instrument ----		Note: This adjustment must be done before Electrostatic Focus. Perform this adjustment for RED, GREEN, and BLUE monochrome pictures.
Test Point -----		
Ext. Trigger ----- Measuring Range ----		
Input Signal Monoscope & Crosshatch		
Input Terminal Video Input		Note: Attach a white paper to the screen center. During adjustment, observe the picture on the screen from inside for easier adjustment.
		1. Supply a VIDEO signal (Monoscope). 2. Cover the Red and Blue Lens (producing a green raster). 3. Adjust the Green Lens for best focus at the center of the Monoscope pattern. 4. Supply a crosshatch signal 5. Confirm that the width at the top and bottom of the center vertical line are the same. If not, check mechanical centering adjustment.. 6. Repeat Steps 2 and 5 for the Red and Blue monochrome pictures.
		

MODEL: WT-42313 / WT-42413

[CRT Circuit] 11. Electrostatic Focus		Purpose: To set electrostatic focus to the optimum point. Symptom: Poor focus.								
Measuring Instrument	Note: This adjustment must be performed after the Sub Contrast adjustment.									
Test Point										
Ext. Trigger										
Measuring Range										
Input Signal	Monoscope & Crosshatch									
Input Terminal	Video Input									
Raster Color Selection <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th>Color Raster</th><th>Activation Code</th></tr> <tr> <td>Red</td><td>MENU-0-3-5-9-1</td></tr> <tr> <td>Green</td><td>MENU-0-3-5-9-2</td></tr> <tr> <td>Blue</td><td>MENU-0-3-5-9-3</td></tr> </table>			Color Raster	Activation Code	Red	MENU-0-3-5-9-1	Green	MENU-0-3-5-9-2	Blue	MENU-0-3-5-9-3
Color Raster	Activation Code									
Red	MENU-0-3-5-9-1									
Green	MENU-0-3-5-9-2									
Blue	MENU-0-3-5-9-3									
[On Screen Display] 12.Character Position		Purpose To position the character display horizontally. Symptom: Incorrect display position								
Measuring Instrument	1. Supply a Monoscope signal to the Video or RF Input. 2. Select the Monoscope as the source for the main picture (Input button). 3. Activate the Service Mode, HR Function. 4. Use the Adjust Right/Left buttons to center the display horizontally. (A = B) 5. Save data and exit the Service Mode..									
Test Point										
Ext. Trigger										
Measuring Range										
Input Signal	Video Signal (HD/NTSC)									
Input Terminal	ANT-A/DTV									
										

MODEL: WT-42313 / WT-42413

[Conv/Defl] 13. Geometry Preset		Purpose: To preset data controlling raster geometry Symptom: Raster distortion.
Measuring Instrument	----	
Test Point	-----	
Ext. Trigger	-----	
Measuring Range	----	
Input Signal	NTSC & HD	
Input Terminal	Video & DTV Inputs	

DEFL JUNGLE
(MENU-0-3-5-7)

#	Abbrev.	HD	NTSC
1	HWID	13	17
2	HKEY	25	3
3	EWPT	31	31
7	VHGT	22	38
8	VLIN	3	6
9	VSCN	0	0
18	VPOS	31	31

COARSE CONV GREEN
(MENU-0-3-5-9-5)

#	Abbrev.	SD	HD
1	HSTA	0	0
2	VSTA	39	39
3	SKEW	0	0
4	TILT	0	0
5	HWID	50	50
6	HLIN	0	0
7	SPCC	20	0
8	HKEY	0	-2
9	TBPC	-180	-140
10	VKEY	0	0
11	VWID	30	40
12	VLIN	-50	-50

COARSE CONV RED
(MENU-0-3-5-9-5)

#	Abbrev.	SD	HD
1	HSTA	50	50
2	VSTA	0	0
3	SKEW	0	0
4	TILT	0	0
5	HLIN	-300	-250
6	HWID	-20	0
7	VKEY	-155	-190
8	VWID	0	0
9	VLIN	0	0
10	TBPC	70	100
11	SDBW	30	30

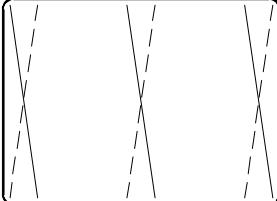
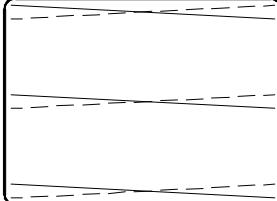
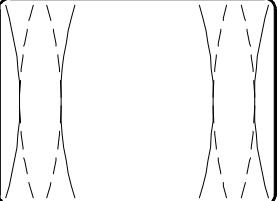
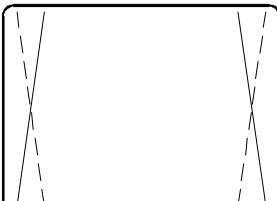
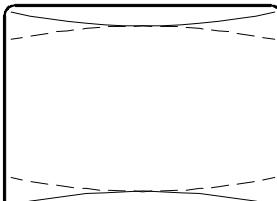
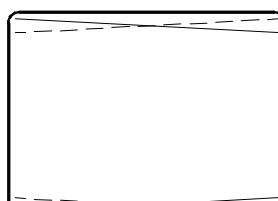
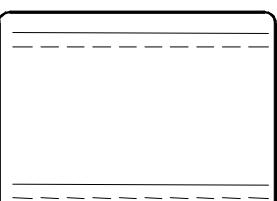
COARSE CONV BLUE
(MENU-0-3-5-9-5)

#	Abbrev.	SD	HD
1	HSTA	-50	-50
2	VSTA	0	0
3	SKEW	0	0
4	TILT	0	0
5	HLIN	300	250
6	HWID	0	0
7	VKEY	180	175
8	VWID	0	0
9	VLIN	0	0
10	TBPC	-30	0
11	SDBW	-30	-30

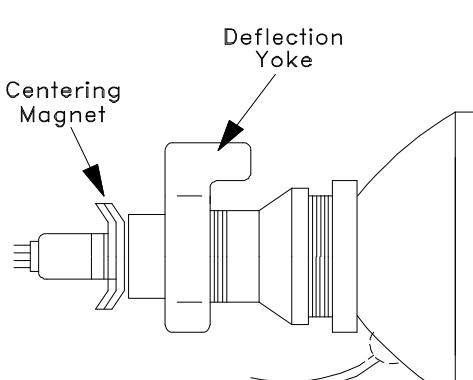
MODEL: WT-42313 / WT-42413

[Deflection Circuit] 14: Deflection Geometry Height & Width Adjustment		Purpose: To set the height, width and linearity of the raster. Symptom: Incorrect height, width and/or linearity.
Measuring Instrument ----		Preliminary: 1. <u>DO NOT</u> change the initial values for "#8 VLIN" in the Defl. Jungle Function. 2. <u>DO NOT</u> exceed the following VHGT adjustment ranges: NTSC ... from -4 to +10 HD ... from -10 TO +5
Test Point ----		NTSC Mode
Ext. Trigger ----		1. Supply an NTSC Monoscope signal to a Video Input. 2. Select the Monoscope as the signal source. 3. Activate the Adjustment Mode, JNGL Function. 4. Select and adjust each of the following items. • "7 VHGT" ... so the vertical marker sum = 4 • "1 HWD" ... so the horizontal marker sum = 7 5. Save data and Exit the Service Mode.
Measuring Range ----		HD Mode
Input Signal Monoscope (NTSC & HD)		1. Supply an HD Monoscope signal to the DTV HD Inputs. 2. Select the DTV Inputs as the signal source (Input button) 3. Activate the Service Mode, Defl. Jungle Function. 4. Select and adjust each of the following items. • "7 VHGT" ... so the vertical marker sum = 2 • "1 HWD" ... so the horizontal marker sum = 5 5. Save data and Exit the Service Mode.
Input Terminal Video & DTV Inputs		
CIRCUIT ADJUST MODE Activate MENU-0-3-5-7 FunctionAUDIO Item No.VIDEO Adjust DataADJUST Save DataENTER ExitMENU (twice)		

MODEL: WT-42313 / WT-42413

[Convergence Circuit] 15. Convergence Geometry Adjustment		Purpose: To set the Convergence circuit geometry adjustments. Symptom: Raster distortion at the top, bottom or sides of the picture.	
Measuring Instrument	----		
Test Point	----		
Ext. Trigger	----		
Measuring Range	----		
Input Signal	NTSC -- None HD -- HD sync		
Input Terminal	Video & DTV Inputs		
		Note: Deflection Circuit Geometry must be performed before this adjustment.	
		NTSC mode 1. Select a Video Input with no signal. 2. Activate the Convergence Mode, Coarse Green. 3. Adjust the Coarse Green Items shown below for straight crosshatch lines. 4. Select the Fine Green Mode, a Cursor is displayed on the crosshatch. 5. Use the Cursor to adjust for straight crosshatch lines. 6. Exit the Convergence Mode.	
		HD mode 1. Supply horizontal and vertical HD sync to the DTV Inputs and select the DTV Inputs as the source. Note: If an HD signal is not available, use the Conv. HD with No Signal Procedure 2. Enter the Convergence Mode, Coarse Green. 3. Repeat NTSC Steps 3 through 6 in the HD mode.	
<u>CONVERGENCE MODE</u> ActivateMENU-0-3-5-9 Misc."6" Coarse....."5" Fine"4" Color (R,G or B).....AUDIO Item No.....VIDEO Adjust/Move.....ADJUST Cursor Toggle.....ENTER Save & Exit.....MENU (twice)		<u>CONV. HD WITH NO SIGNAL</u> 1. MENU-0-3-7-0 2. Set DTV Port to 1080i 3. MENU (Twice) 4. INPUT select DTV inputs 5. MENU-0-3-5-9 After Adjusting, set the DTV Port to AUTO	
COARSE GREEN ADJUSTMENTS			
3 SKEW	4 TILT	6 HLIN	7 SPCC
			
8 HKEY	9 TBPC	10 VKEY	12 VLIN
			

MODEL: WT-42313 / WT-42413

[Convergence Circuit] 16. Centering and Static Convergence		Purpose: To converge red, green and blue at the center of the screen Symptom: Color edging over the entire picture.								
Measuring Instrument	----									
Test Point	----									
Ext. Trigger	----									
Measuring Range	----									
Input Signal	NTSC -- Monoscope HD -- Monoscope									
Input Terminal	Video & DTV Inputs									
CONVERGENCE MODE ActivateMENU-0-3-5-9 Misc."6" Coarse....."5" Fine"4" Color (R,G or B).....AUDIO Item No.....VIDEO Adjust/Move.....ADJUST Cursor Toggle.....ENTER Save & Exit.....MENU (twice)		Preliminary Degauss the shield cover and bracket unit of the CRT assembly and chassis. DO NOT degauss the CPM Assemblies.								
HD mode <ol style="list-style-type: none"> Supply an HD Monoscope signal to the DTV Inputs. Select the DTV Inputs as the signal source (Input button). Enter the Convergence Coarse mode. Set the data for the "HSTA" and "VSTA" items to: <table style="margin-left: 40px; border: none;"> <tr> <td style="padding-right: 20px;"><u>GREEN</u></td> <td style="padding-right: 20px;"><u>RED</u></td> <td><u>BLUE</u></td> </tr> <tr> <td>HSTA = 0</td> <td>HSTA = 50</td> <td>HSTA = -50</td> </tr> <tr> <td>VSTA = 0</td> <td>VSTA = 0</td> <td>VSTA = 0</td> </tr> </table> In the Coarse Green mode: <ul style="list-style-type: none"> Center the Green Raster using the Green Centering Magnet. Rotate the Green Deflection Yoke to correct any tilt. In the Coarse Red mode, use the Red Centering Magnet to converge red on the green at the center of screen. Correct any red tilt with the Red Deflection Yoke. In the Coarse Blue mode, repeat Step 6 using the Blue Centering magnet and the Blue Deflection Yoke. Exit the Convergence mode. SD mode <ol style="list-style-type: none"> Supply an NTSC Monoscope signal to a Video Input. Select the Monoscope as the signal source (Input button). Enter the Convergence Coarse Green mode. If needed, center the green raster using "1 HSTA" and "2 VSTA" adjustments. In the Coarse Red mode, use "1 HSTA" and "2 VSTA" adjustments to converge the red on the green at the center of the screen. In the Coarse Blue mode, repeat step 5 to converge the blue of the green. Exit the Convergence Mode 		<u>GREEN</u>	<u>RED</u>	<u>BLUE</u>	HSTA = 0	HSTA = 50	HSTA = -50	VSTA = 0	VSTA = 0	VSTA = 0
<u>GREEN</u>	<u>RED</u>	<u>BLUE</u>								
HSTA = 0	HSTA = 50	HSTA = -50								
VSTA = 0	VSTA = 0	VSTA = 0								
										

MODEL: WT-42313 / WT-42413

[Convergence Circuit] 17. Coarse Convergence		Purpose: To converge red and blue on green at the edges of the screen. Symptom: Color edging at the top, bottom and sides of the screen.	
Measuring Instrument ----- Test Point ----- Ext. Trigger ----- Measuring Range ----- Input Signal NTSC -- None HD -- HD sync Input Terminal Video & HD Inputs		SD mode 1. Select an External Input with no signal. 2. Activate the Convergence Mode, Coarse Red. 3. Adjust the Items shown below to converge the red on the green. 4. Select Coarse Blue mode. 5. Adjust the Items shown below to converge the blue on the green. Note: If center convergence shifts, use red and blue Items "1 HSTA" and "2 VSTA" to correct the shift. 6. Exit the Convergence Mode.	
CONVERGENCE MODE ActivateMENU-0-3-5-9 Misc."6" Coarse....."5" Fine"4" Color (R,G or B).....AUDIO Item No.....VIDEO Adjust/Move.....ADJUST Cursor Toggle.....ENTER Save & Exit.....MENU (twice)		HD mode 1. Supply horizontal and vertical HD sync to the DTV Inputs and select the DTV Inputs as the source. Note: If an HD signal is not available, use the Conv. HD with No Signal Procedure. 2. Repeat SD Steps 2 through 5 in the HD mode. 3. Exit the Convergence mode.	
CONV. HD WITH NO SIGNAL 1. MENU-0-3-7-0 2. Set DTV Port to 1080i 3. MENU (Twice) 4. INPUT select DTV inputs 5. MENU-0-3-5-9 After Adjusting, set the DTV Port to AUTO			
COARSE CONVERGENCE RED & BLUE ADJUSTMENTS			
1 HSTA*	2 VSTA*	3 SKEW	4 TILT
5 HLIN	6 HWID	7 VKEY	8 VVID
9 VLIN	10 TBPC	11 HSBW	
* Data should not exceed ±100			

MODEL: WT-42313 / WT-42413

[Convergence Circuit] 18. Fine Convergence		Purpose: To converge red, green and blue at the edges of the screen Symptom: Color edging at the edges of the picture.
Measuring Instrument	----	SD Fine Adjustment 1. Select an External Input, no signal. 2. Activate the Convergence Mode, Fine Red. 3. Use the Cursor to converge red on the green. 4. Select the Fine Blue mode. 5. Use the Cursor to converge blue on the green. 6. Exit the Convergence mode. HD Fine Adjustment 1. Supply an HD signal (sync only) to the DTV inputs and select DTV with the "Audio" button. <i>Note: If an HD signal is not available, use the Conv. HD with No Signal Procedure.</i> 2. Repeat SD Fine Adjustment Steps 2 through 6, in the HD mode.
Test Point	----	
Ext. Trigger	-----	
Measuring Range	----	
Input Signal	NTSC -- None HD -- HD sync	
Input Terminal	Video & DTV Inputs	
CONVERGENCE MODE ActivateMENU-0-3-5-9 Misc."6" Coarse....."5" Fine"4" Color (R,G or B).....AUDIO Item No.....VIDEO Adjust/Move.....ADJUST Cursor Toggle.....ENTER Save & Exit.....MENU (twice)		CONV. HD WITH NO SIGNAL 1. MENU-0-3-7-0 2. Set DTV Port to 1080i 3. MENU (Twice) 4. INPUT select DTV inputs 5. MENU-0-3-5-9 After Adjusting, set the DTV Port to AUTO

CHIP PARTS REPLACEMENT

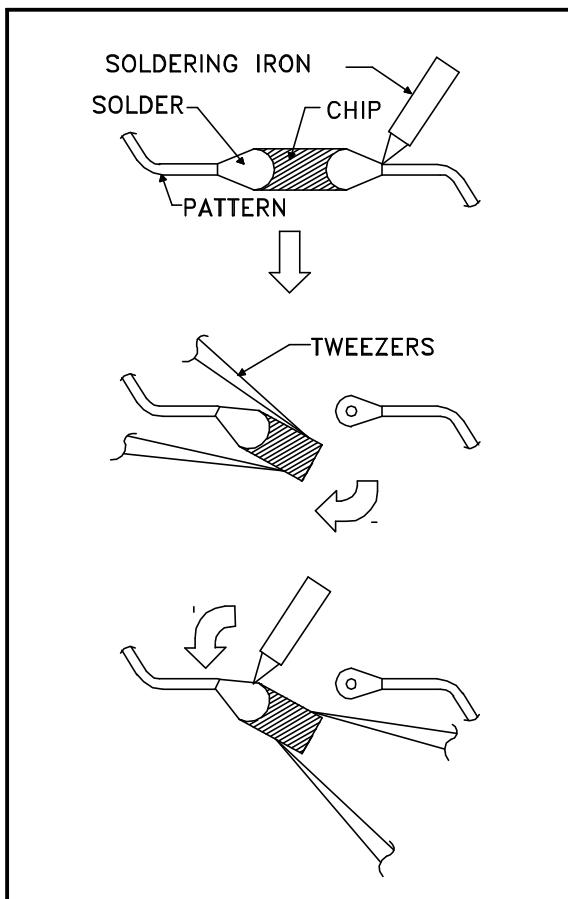
Some resistors, shorting jumpers (0 Ohm resistors), ceramic capacitors, transistors and diodes are chip parts. The following precautions should be taken when replacing these parts.

Cautions:

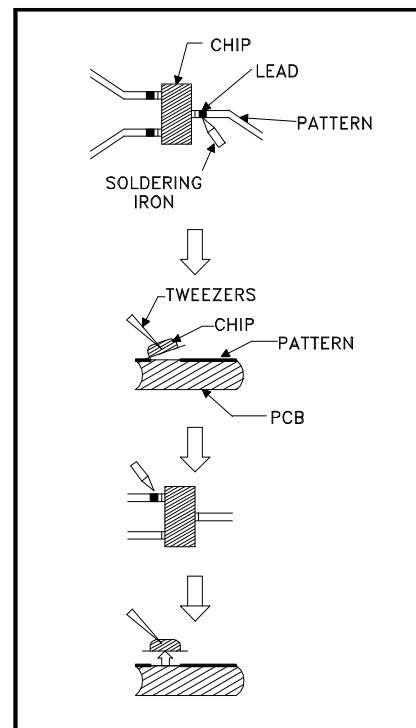
1. Use a fine tipped, well insulated soldering iron (approximately 30 watts), and tweezers.
2. Melt the solder and remove the chip parts carefully so as not to tear the copper foil from the printed circuit board.
3. Discard removed chips; do not reuse them.
4. Do not apply heat for more than 3 (three) seconds to new chip parts.
5. Avoid using a rubbing stroke when soldering.
6. Take care not to scratch, or damage the chip parts when soldering.
7. Supplementary cementing is not required.

Chip Parts Removal (Resistors, Capacitors, etc.)

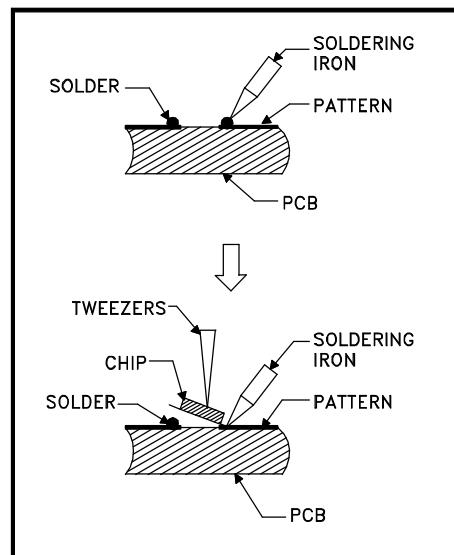
1. Grasp the part with tweezers. Melt the solder at both sides alternately, and remove one side of the part with a twisting motion.
2. Melt the solder at the other side and remove the part.


Chip Parts Removal (Transistors)

1. Melt the solder of one lead and lift the side of that lead upward.
2. Simultaneously melt the solder of the other two leads and lift the part from the PCB.


Replacement

1. Presolder the contact points on the circuit pattern.
2. Press the part downward with tweezers and apply the soldering iron as shown.



REPLACEMENT PARTS

Parts Ordering

To expedite delivery of replacement parts orders, specify the following:

1. Model Number/Serial Number
2. Part Number and description
3. Quantity

Note: Unless complete information is supplied, delay in processing of orders will result.

Critical and Warranty Parts Designation

Critical Electrical Components are indicated by **Bold Type** in the Parts List, and in the schematic diagrams by shading. 

Warranty Return Parts are indicated in the Parts List with an (*).

Parts Tolerance Codes

Refer to the following chart for tolerance characteristics of electrical components.

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

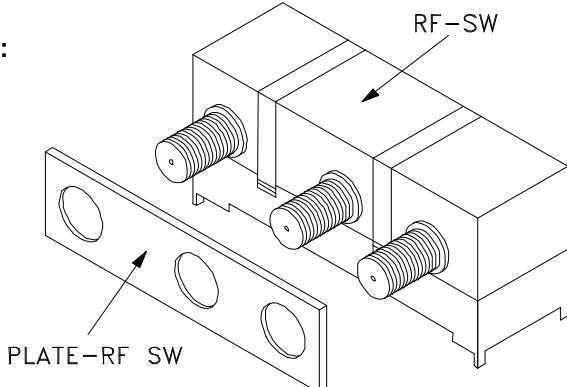
MARK	M	N	V	X	Z	P	Q
Tolerance %	± 20	± 30	± 10	$+40$ -20	$+80$ -20	$+100$ -0	$+30$ -10

MARK	M	N	V	X	Z
Tolerance (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

Replacement Part Notes

When Replacing the RF-Switch (RF-SW) or the PCB-SIGNAL:

1. Remove the PLATE-RF SW from the original component, shown in the diagram at the right.
2. Install the PLATE-RF SW on the new RF-SW.



When Replacing the EEPROM

The EEPROMs (IC7C01, IC2K02 and IC8D0) store the adjustment data. After replacing the EEPROM, readjust the data to the values given in the "Adjustment Items List" tables. If good performance is not obtained with these values, perform the Adjustment Procedure(s) given in the Description and Adjustment columns.

QUICK REFERENCE FOR COMMON REPLACEMENT PARTS**CRT ASSEMBLIES**

PART NO.	DESCRIPTION
251C219010	ASSY-CRT-RED
251C219020	ASSY-CRT-GREEN
252C219030	ASSY-CRT-BLUE

REMOTE CONTROL

290P116010	REMOTE CONTROL	WT-42313
290P117010	REMOTE CONTROL	WT-42413

HIGH VOLTAGE / DEFLECTION COMPONENTS

Q5A31	261P122010	HORIZ-OUT 2SC5778
Q5A51	261P082010	HV-OUT 2SK2771-O1R
T5A51	334P281010	TRANS-FLYBACK
	129P059050	VR-FOCUS

330P288010	DEFL-YOKE
453B036040	CAP-ANODE - 14.5"
453B036050	CAP-ANODE - 22"
453B036060	CAP-ANODE - 12"

MISCELLANEOUS

MODEL	MIRROR	LENTICULAR SCREEN	FRESNEL LENS	DIAMOND SHIELD
WT-42313	494D006010	491P136020	491P137020	760D628070
WT-42413	494D006010	491P136020	491P137020	760D639050

MODEL: WT-42313 / WT-42413

[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]
TUBES			
	251C219010	ASSY-CRT-RED	
	251C219020	ASSY-CRT-GREEN	
	251C229030	ASSY-CRT-BLUE	
INTEGRATED CIRCUITS			
IC2C00	275P539020	IC-C-MOS - SP232ECN	
IC2C01	275P443010	IC-C-MOS - TC7SET08F	
IC2D00	270P974010	IC-C-MOS - SII907B	
IC2D01	275P981010	IC-C-MOS - 24LCS22AT/SN	
IC2D02	261P135010	FET-HEX - IRF7313	
IC2D03	270P677010	IC - BA033FP	
IC2K00	270P623010	IC - CXA2069Q	
IC2K02	275P533010	IC-C-MOS - M24C64WM6T	
IC2L00	270P658030	IC - CXA2019AQ/T4	
IC2L01	272P379020	IC - LM1881MX (NSC)	
IC2LA0	270P658030	IC - CXA2019AQ/T4	
IC2LA1	272P379020	IC - LM1881MX (NSC)	
IC2M00	275P496010	IC-C-MOS - UPD64082GF-3BA	
IC2M01	275P531010	IC-C-MOS - MSM54V16258B	
IC2MD1	272P379020	IC - LM1881MX (NSC)	
IC2N00	271P022010	IC - CXA2171AQ	
IC2N01	275P443010	IC-C-MOS - TC7SET08F	
IC2P00	275P718010	IC-C-MOS - TC74HC4053FT	
IC2P01	275P718010	IC-C-MOS - TC74HC4053FT	
IC2S00	270P870010	IC - CXA2151Q	
IC2S01	271P004010	IC - CM1208-08MS	
IC2V00	270P937010	IC - CXA2180Q	
IC2Y01	275P735010	IC-C-MOS - TDA8601TD	
IC2Y50	270P472060	IC - NJM7805FA	
IC3A01	275P731010	IC-C-MOS - MSP3445G	
IC3E01	270P750010	IC - LA4663	
IC3K00	270P838010	IC-C-MOS - NJM2520M	
IC3K01	270P838010	IC-C-MOS - NJM2520M	
IC4B01	270P261020	IC - TDA8177	
IC5A00	267P163010	HIC - MSPAD401	
IC5A01	270P914010	IC - NJM2119D	
IC5A02	266P727040	IC - UPC339C/LM339N	
IC5A03	270P704010	IC - LM4040BIZ-10.0	
IC5A05	270P816010	IC - NJM431L	
IC6B01	270P667010	IC - TDA6120Q	
IC6G01	270P667010	IC - TDA6120Q	
IC6K00	270P818020	IC - CXA3506R	
IC6K04	274P088010	IC-C-MOS - MC74HC14AF	
IC6L00	275P848010	IC-C-MOS - S1L60283F30C100	
IC6L21	274P901010	IC-C-MOS - TC74HCT7007AF	
IC6L22	270P898030	IC - SI-3025LSA-TL	
IC6L23	270P677010	IC - BA033FP	
IC6L24	275P236020	IC-C-MOS - TC74LVX244FT	
IC6L26	270P506010	IC - M51957BFP	
IC6M00	270P942010	IC - CXD2309AQ	
IC6R01	270P667010	IC - TDA6120Q	
IC7A00	275P729030	IC-M306V2ME -209FP	
IC7C01	275P533010	IC-C-MOS - M24C64WM6T	
IC7C10	270P706020	IC - MAX823REUK	
IC7D00	275P434010	IC-C-MOS - TC74HC4066AFT	
IC7D01	275P560010	IC-C-MOS - ADS931E	
IC7D02	275P560010	IC-C-MOS - ADS931E	
IC7D03	275P560010	IC-C-MOS - ADS931E	

Ref #	Part #	Part Name & Description	[#]
TRANSISTORS			
CHIP Type Transistors (Listed by Part No.)			
<u>Part No.</u>	<u>Description</u>		
260P817010	2SA1037K-Q		
260P817050	2SA1037K-R,S/2SB709AI-R,S		
260P817080	2SA1037K-R,S		
260P818010	2SC2412K-Q		
260P818030	2SC2412K-S		
260P818050	2SC2412K-R,S/2SD601AI-R,S		
260P835030	2SC2413K-Q		
261P801010	2SA1252-5,6		
Conventional Transistors (By Ref #)			
<u>Ref #</u>	<u>Part #</u>	<u>Part Name & Description</u>	[#]
Q4B01	260C004020	TR - 2SC1740S-R,S/2SC3311A-R,S	
Q5A01	261P126010	TR - 2SD2052	
Q5A02	260P561020	TR - 2SA1371-E	
Q5A03	260P386010	TR - 2SC2230-GR	
Q5A04	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S	

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Ref #	Part #	Part Name & Description	[#]	Ref #	Part #	Part Name & Description	[#]
Q5A05	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D5A33	264P669030	DIODE - S3L20U	
Q5A06	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D5A34	264P460060	DIODE - EQA02-05C/RD5.1EB1	
Q5A07	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D5A35	264P045080	DIODE - 1S2076A/1S2471OM	
Q5A08	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D5A36	264P045080	DIODE - 1S2076A/1S2471OM	
Q5A09	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D5A37	264P521010	DIODE - EU 1Z	
Q5A10	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D5A51	262P039010	DIODE - BYW96E/20	
Q5A20	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D5A52	264P899010	DIODE - BYV26E	
Q5A31	261P122010	TR - 2SC5778		D5A53	264P466040	DIODE - EQA02-15AB/RD16EB1	
Q5A32	261P127010	TR - 2SK2774-01		D5A54	264P622010	DIODE - AL01Z	
Q5A33	260C004020	TR - 2SC1740S-R,S/2SC3311A-R,S		D5A55	264P622010	DIODE - AL01Z	
Q5A34	260P561020	TR - 2SA1371-E		D5A56	264P045080	DIODE - 1S2076A/1S2471OM	
Q5A35	260P386010	TR - 2SC2230-GR		D5A57	264P521010	DIODE - EU 1Z	
Q5A36	260P630010	TR - 2SD2012		D5A58	264P045080	DIODE - 1S2076A/1S2471OM	
Q5A37	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D5A60	264P465060	DIODE - EQA02-12B/RD13EB2	
Q5A38	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D5A61	264P465030	DIODE - RD12EB3	
Q5A39	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D5A80	264D056020	DIODE - S5500D/EM1Z/ERB12-02RK	
Q5A40	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D5H01	264P045080	DIODE - 1S2076A/1S2471OM	
Q5A51	261P082010	TR - 2SK2771-01R		D5H02	264P045080	DIODE - 1S2076A/1S2471OM	
Q5A57	260C416030	TR - 2SC2274-F/2SC2274K-F		D5K01	264P528030	DIODE - RP 1H	
Q5A59	260C255040	TR - 2SA950-Y		D5K02	264P543010	DIODE - EG01	
Q5H01	260C001040	TR - 2SC2603-G/2SC1740S-E		D5K03	264P543010	DIODE - EG01	
Q5H03	260C001040	TR - 2SC2603-G/2SC1740S-E		D5K10	264P528030	DIODE - RP 1H	
Q5H04	260C001040	TR - 2SC2603-G/2SC1740S-E		D5K11	264P528030	DIODE - RP 1H	
Q5H05	260C001040	TR - 2SC2603-G/2SC1740S-E		D6B00	262P063010	DIODE - 1SS244	
Q5H06	260C001060	TR - 2SA1115-F/2SA933S-S		D6B03	264P462020	DIODE - EQA02-07CD/RD7.5EB1,B2	
Q5H09	260C001030	TR - 2SC2603-F,G/2SC1740S-S,E		D6B07	262P063010	DIODE - 1SS244	
Q5H10	260C001060	TR - 2SA1115-F/2SA933S-S		D6B08	262P063010	DIODE - 1SS244	
Q5H11	260P644040	TR - 2SA1535-R		D6B10	264P501050	DIODE - HZ3BLL	
Q5H12	260P647040	TR - 2SC3944-R		D6G00	262P063010	DIODE - 1SS244	
Q5K00	260P664030	TR - 2SC4636		D6G07	262P063010	DIODE - 1SS244	
Q5K01	260P664030	TR - 2SC4636		D6G08	262P063010	DIODE - 1SS244	
Q5K02	260C004020	TR - 2SC1740S-R,S/2SC3311A-R,S		D6R00	262P063010	DIODE - 1SS244	
Q5K03	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D6R07	262P063010	DIODE - 1SS244	
Q6B01	260C001010	TR - 2SC2603-E,F/2SC1740S-R,S		D6R08	262P063010	DIODE - 1SS244	
Q6B02	260C001050	TR - 2SA1115-E,F/2SA933S-R,S		D7H00	264P828010	D-CHIP - DAN202U/MA142WK	
Q6G01	260C001010	TR - 2SC2603-E,F/2SC1740S-R,S		D7L21	264P212020	D-LED - LN31GPH	
Q6R01	260C001010	TR - 2SC2603-E,F/2SC1740S-R,S		D8C03	264P486060	DIODE - RD9.1FB3	
Q9A50	260C416030	TR - 2SC2274-F/2SC2274K-F		D8C04	264P486060	DIODE - RD9.1FB3	
Q9A51	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D9A01	262P031010	DIODE - D6SB80	
Q9A54	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D9A20	264P825040	DIODE - ERA15-08	
Q9A55	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D9A21	264P825040	DIODE - ERA15-08	
Q9B01	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D9A24	264P045080	DIODE - 1S2076A/1S2471OM	
Q9B02	260C004050	TR - 2SA933S-R,S/2SA1309A-R,S		D9A28	264P045080	DIODE - 1S2076A/1S2471OM	
Q9B03	260C004010	TR - 2SC1740S-R,S/2SC3311A-R,S		D9A29	264P461050	DIODE - EQA02-06B/RD5.6EB3	
DIODES							
D2D28	262P805050	D-CHIP - UDZS5.1B		D9A30	264P724010	DIODE - STF14	
D2W01	264P828010	D-CHIP - DAN202U/MA142WK		D9A31	264P463030	DIODE - RD8.2EB	
D2W02	264P828010	D-CHIP - DAN202U/MA142WK		D9A50	264P045080	DIODE - 1S2076A/1S2471OM	
D2W03	264P828010	D-CHIP - DAN202U/MA142WK		D9A53	264P622010	DIODE - AL01Z	
D2W04	264P828010	D-CHIP - DAN202U/MA142WK		D9A54	264P622010	DIODE - AL01Z	
D4B01	264D056020	DIODE - S5500D/EM1Z/ERB12-02RK		D9A55	264P622010	DIODE - AL01Z	
D4B04	264P045080	DIODE - 1S2076A/1S2471OM		D9A56	264P566010	DIODE - FMP-G12S	
D5A01	264P045080	DIODE - 1S2076A/1S2471OM		D9A57	264P899010	DIODE - BYV26E	
D5A02	264D056020	DIODE - S5500D/EM1Z/ERB12-02RK		D9A58	264P588010	DIODE - FML-G16S	
D5A03	264P045080	DIODE - 1S2076A/1S2471OM		D9A60	264P566010	DIODE - FMP-G12S	
D5A12	264P045080	DIODE - 1S2076A/1S2471OM		D9A61	264P669030	DIODE - S3L20U	
D5A13	264P045080	DIODE - 1S2076A/1S2471OM		D9A66	264P045080	DIODE - 1S2076A/1S2471OM	
D5A14	264P045080	DIODE - 1S2076A/1S2471OM		D9A67	264P461050	DIODE - EQA02-06B/RD5.6EB3	
				D9A68	264P469070	DIODE - EQA02-28A/RD27EB4	
				D9A69	264P527020	DIODE - AK04	
				D9B01	264P045080	DIODE - 1S2076A/1S2471OM	

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Ref #	Part #	Part Name & Description	[#]
D9B02	264P045080	DIODE - 1S2076A/1S2471OM	
D9B03	264P045080	DIODE - 1S2076A/1S2471OM	
D9B04	264P880010	DIODE - RK46	
D9B05	264P880010	DIODE - RK46	
D9B07	264P485060	DIODE - RD7.5FB2	
COILS			
L1A30	321C114010	COIL-RF - 2200MH-J	
L1A31	325C461030	COIL-PEAKING - 10MH-K	
L1B30	321C114010	COIL-RF - 2200MH-J	
L1B31	325C461030	COIL-PEAKING - 10MH-K	
L2C01	325C146090	COIL-CHIP - 33MH-J	
L2D07	409P777080	EMI-F-CHIP - BLM21P221S	
L2D08	409P777080	EMI-F-CHIP - BLM21P221S	
L2D09	409P777080	EMI-F-CHIP - BLM21P221S	
L2D13	409P777080	EMI-F-CHIP - BLM21P221S	
L2D17	409P777080	EMI-F-CHIP - BLM21P221S	
L2D18	409P777080	EMI-F-CHIP - BLM21P221S	
L2D19	409P777080	EMI-F-CHIP - BLM21P221S	
L2D23	409P777080	EMI-F-CHIP - BLM21P221S	
L2D24	409P777080	EMI-F-CHIP - BLM21P221S	
L2D26	409P777080	EMI-F-CHIP - BLM21P221S	
L2D27	409P777080	EMI-F-CHIP - BLM21P221S	
L2D31	409P777080	EMI-F-CHIP - BLM21P221S	
L2D32	409P777080	EMI-F-CHIP - BLM21P221S	
L2D37	409P777080	EMI-F-CHIP - BLM21P221S	
L2D38	409P777080	EMI-F-CHIP - BLM21P221S	
L2D70	409P777080	EMI-F-CHIP - BLM21P221S	
L2D71	325C241030	COIL-CHIP - 10MH-K	
L2K00	325C461030	COIL-PEAKING - 10MH-K	
L2K01	325C462080	COIL-PEAKING - 180MH-J	
L2K02	325C462080	COIL-PEAKING - 180MH-J	
L2K05	409P777080	EMI-F-CHIP - BLM21P221S	
L2L00	409P777080	EMI-F-CHIP - BLM21P221S	
L2L01	325C461030	COIL-PEAKING - 10MH-K	
L2L02	325C461030	COIL-PEAKING - 10MH-K	
L2L04	325C242050	COIL-CHIP - 100MH-K LOW-R	
L2L05	325C461030	COIL-PEAKING - 10MH-K	
L2L06	325C461030	COIL-PEAKING - 10MH-K	
L2M00	409P777080	EMI-F-CHIP - BLM21P221S	
L2M01	409P777080	EMI-F-CHIP - BLM21P221S	
L2M32	409P777080	EMI-F-CHIP - BLM21P221S	
L2M50	325C146050	COIL-CHIP - 15MH-J	
L2M93	409P777080	EMI-F-CHIP - BLM21P221S	
L2MA0	325C461050	COIL-PEAKING - 15MH-K	
L2MA1	325C461030	COIL-PEAKING - 10MH-K	
L2MD1	325C461030	COIL-PEAKING - 10MH-K	
L2N00	325C461090	COIL-PEAKING - 33MH-K	
L2NA1	325C461030	COIL-PEAKING - 10MH-K	
L2NA2	325C461080	COIL-PEAKING - 27MH-K	
L2NC0	325C461030	COIL-PEAKING - 10MH-K	
L2NC1	325C461030	COIL-PEAKING - 10MH-K	
L2P00	325C242050	COIL-CHIP - 100MH-K LOW-R	
L2P01	325C461030	COIL-PEAKING - 10MH-K	
L2S00	325C461090	COIL-PEAKING - 33MH-K	
L2V19	325C461010	COIL-PEAKING - 6.8MH-K	
L2V29	325C461030	COIL-PEAKING - 10MH-K	
L2V55	325C461030	COIL-PEAKING - 10MH-K	
L2V61	325C461010	COIL-PEAKING - 6.8MH-K	

Ref #	Part #	Part Name & Description	[#]
L2W02	409P923060	EMI-F-CHIP - BLM21B272S	
L2W03	409P923060	EMI-F-CHIP - BLM21B272S	
L2W04	409P923060	EMI-F-CHIP - BLM21B272S	
L2W50	325C145090	COIL-CHIP - 4.7MH-J	
L2W51	325C146030	COIL-CHIP - 10MH-J	
L2W60	325C145090	COIL-CHIP - 4.7MH-J	
L2W61	325C146030	COIL-CHIP - 10MH-J	
L2W70	325C145090	COIL-CHIP - 4.7MH-J	
L2W71	325C146030	COIL-CHIP - 10MH-J	
L3A10	409P923060	EMI-F-CHIP - BLM21B272S	
L3A49	409P923060	EMI-F-CHIP - BLM21B272S	
L3K00	325C461030	COIL-PEAKING - 10MH-K	
L4B01	321C130010	COIL-RF - 2MH	
L4B02	321C130090	COIL-RF - 10MH-K	
L5A22	333P059020	COIL-HORIZ-LIN	
L5A31	411P001010	FERRITE-LEAD	
L5A34	321C130010	COIL-RF - 2MH	
L5A41	321C141010	COIL-RF - 6.8MH-M	
L5A51	321C151040	COIL-RF - 12MH-K	
L5A54	411D009020	FERRITE-CORE	
L6B50	411P001010	FERRITE-LEAD	
L6G50	411P001010	FERRITE-LEAD	
L6K00	325C241030	COIL-CHIP - 10MH-K	
L6K01	325C241030	COIL-CHIP - 10MH-K	
L6K02	325C241030	COIL-CHIP - 10MH-K	
L6K03	409P777080	EMI-F-CHIP - BLM21P221S	
L6K04	409P777080	EMI-F-CHIP - BLM21P221S	
L6K05	409P777080	EMI-F-CHIP - BLM21P221S	
L6K06	409P777080	EMI-F-CHIP - BLM21P221S	
L6K07	409P777080	EMI-F-CHIP - BLM21P221S	
L6K08	409P777080	EMI-F-CHIP - BLM21P221S	
L6K09	409P777080	EMI-F-CHIP - BLM21P221S	
L6L20	409P777080	EMI-F-CHIP - BLM21P221S	
L6L21	409P777080	EMI-F-CHIP - BLM21P221S	
L6L22	409P777080	EMI-F-CHIP - BLM21P221S	
L6L23	409P777080	EMI-F-CHIP - BLM21P221S	
L6M00	409P777080	EMI-F-CHIP - BLM21P221S	
L6M01	325C242010	COIL-CHIP - 47MH-K LOW-R	
L6M03	325C241030	COIL-CHIP - 10MH-K	
L6R04	321C141010	COIL-RF - 6.8MH-M	
L6R50	411P001010	FERRITE-LEAD	
L7A16	409P777050	EMI-F-CHIP - BLM21B201S	
L7A62	409P777050	EMI-F-CHIP - BLM21B201S	
L7A99	409P777050	EMI-F-CHIP - BLM21B201S	
L7C21	409P777050	EMI-F-CHIP - BLM21B201S	
L7C22	409P777050	EMI-F-CHIP - BLM21B201S	
L7C23	409P777050	EMI-F-CHIP - BLM21B201S	
L7C24	409P777050	EMI-F-CHIP - BLM21B201S	
L7D00	409P777020	EMI-F-CHIP - BLM21A05	
L7D01	409P777020	EMI-F-CHIP - BLM21A05	
L7D03	409P777080	EMI-F-CHIP - BLM21P221S	
L7D04	409P777080	EMI-F-CHIP - BLM21P221S	
L7D11	325C241030	COIL-CHIP - 10MH-K	
L7D12	409P777020	EMI-F-CHIP - BLM21A05	
L7D13	325C241030	COIL-CHIP - 10MH-K	
L7D14	409P777020	EMI-F-CHIP - BLM21A05	
L7D15	325C241030	COIL-CHIP - 10MH-K	
L7E00	409P777020	EMI-F-CHIP - BLM21A05	
L7E01	409P777020	EMI-F-CHIP - BLM21A05	
L7E11	325C241030	COIL-CHIP - 10MH-K	

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Ref #	Part #	Part Name & Description	[#]	Ref #	Part #	Part Name & Description	[#]
L7E12	409P777020	EMI-F-CHIP - BLM21A05		L8G01	409P777080	EMI-F-CHIP - BLM21P221S	
L7E13	325C241030	COIL-CHIP - 10MH-K		L9A20	321C141070	COIL-RF - 22MH-K	
L7E14	409P777020	EMI-F-CHIP - BLM21A05		L9A50	411D009020	FERRITE-CORE	
L7E15	325C241030	COIL-CHIP - 10MH-K		L9A52	411D009020	FERRITE-CORE	
L7G00	325C242050	COIL-CHIP - 100MH-K LOW-R		L9A53	321C141010	COIL-RF - 6.8MH-M	
L7G10	325C242050	COIL-CHIP - 100MH-K LOW-R		L9A54	411D009020	FERRITE-CORE	
L7G11	325C241030	COIL-CHIP - 10MH-K		L9A55	321C142030	COIL-RF - 68MH-K	
L7H00	409P777080	EMI-F-CHIP - BLM21P221S		L9A56	411D009020	FERRITE-CORE	
L7H02	409P777080	EMI-F-CHIP - BLM21P221S		L9A57	321C141070	COIL-RF - 22MH-K	
L7H03	409P777080	EMI-F-CHIP - BLM21P221S		L9A62	321C141010	COIL-RF - 6.8MH-M	
L7H04	409P777080	EMI-F-CHIP - BLM21P221S		L9A65	321C141010	COIL-RF - 6.8MH-M	
L7H05	409P777080	EMI-F-CHIP - BLM21P221S		L9B01	351P226010	COIL-CHOKE - D1512C4-V 150UH	
L7H06	409P777080	EMI-F-CHIP - BLM21P221S		L9B02	321C141070	COIL-RF - 22MH-K	
L7H07	409P777080	EMI-F-CHIP - BLM21P221S		L9B03	321C141070	COIL-RF - 22MH-K	
L7H08	325C241030	COIL-CHIP - 10MH-K		L9B04	351P226010	COIL-CHOKE - D1512C4-V 150UH	
L7H09	409P777080	EMI-F-CHIP - BLM21P221S		L9B05	321C141030	COIL-RF - 10MH-K	
L7H10	325C241030	COIL-CHIP - 10MH-K		L9C01	321C142030	COIL-RF - 68MH-K	
L7H11	409P777080	EMI-F-CHIP - BLM21P221S		L9C02	321C142030	COIL-RF - 68MH-K	
L7H12	409P777080	EMI-F-CHIP - BLM21P221S		L9C59	325C460010	COIL-PEAKING - 1MH-K	
L7H13	409P777080	EMI-F-CHIP - BLM21P221S		L9D00	351P222010	LINE FILTER - ELF24V050A	
L7H14	409P777080	EMI-F-CHIP - BLM21P221S		L9D01	351P222010	LINE FILTER - ELF24V050A	
L7H15	409P777080	EMI-F-CHIP - BLM21P221S		L9D02	351P223010	FILTER-LINE - SLF15N0601	
L7H16	409P777080	EMI-F-CHIP - BLM21P221S		LC2C02	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HA0	409P777080	EMI-F-CHIP - BLM21P221S		LC2C03	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HA1	409P777080	EMI-F-CHIP - BLM21P221S		LC2K00	409P777020	EMI-F-CHIP - BLM21A05	
L7HA2	409P777080	EMI-F-CHIP - BLM21P221S		LC2K01	409P777020	EMI-F-CHIP - BLM21A05	
L7HA3	409P777080	EMI-F-CHIP - BLM21P221S		LC2K02	409P777020	EMI-F-CHIP - BLM21A05	
L7HA4	409P777080	EMI-F-CHIP - BLM21P221S		LC2K03	409P777020	EMI-F-CHIP - BLM21A05	
L7HA5	409P777080	EMI-F-CHIP - BLM21P221S		LC3K00	409P777020	EMI-F-CHIP - BLM21A05	
L7HA6	409P777080	EMI-F-CHIP - BLM21P221S		LC3K01	409P777020	EMI-F-CHIP - BLM21A05	
L7HA7	409P777080	EMI-F-CHIP - BLM21P221S		LC6K00	409P875090	EMI-F-CHIP - ELKE103FA	
L7HA8	409P777080	EMI-F-CHIP - BLM21P221S		LC6K01	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HA9	409P777080	EMI-F-CHIP - BLM21P221S		LC6K02	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HB0	409P777080	EMI-F-CHIP - BLM21P221S		LC6K03	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HB1	409P777080	EMI-F-CHIP - BLM21P221S		LC6K04	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HB2	409P777080	EMI-F-CHIP - BLM21P221S		LC6K05	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HB3	409P777080	EMI-F-CHIP - BLM21P221S		LC6M00	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HB4	409P777080	EMI-F-CHIP - BLM21P221S		LC6M01	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD0	409P777080	EMI-F-CHIP - BLM21P221S		LC6M02	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD1	409P777080	EMI-F-CHIP - BLM21P221S		LC6M03	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD2	409P777080	EMI-F-CHIP - BLM21P221S		LC6M04	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD3	409P777080	EMI-F-CHIP - BLM21P221S		LC6M05	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD4	409P777080	EMI-F-CHIP - BLM21P221S		LC6M06	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD5	409P777080	EMI-F-CHIP - BLM21P221S		LC6M07	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD6	409P777080	EMI-F-CHIP - BLM21P221S		LC6M09	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L7HD7	409P777080	EMI-F-CHIP - BLM21P221S		LC7D02	409P875090	EMI-F-CHIP - ELKE103FA	
L7K01	325C121030	COIL-PEAKING - 10MH-K		LC7D05	409P875090	EMI-F-CHIP - ELKE103FA	
L8C01	321C141070	COIL-RF - 22MH-K		LC7D10	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8C02	321C141070	COIL-RF - 22MH-K		LC7D11	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8C03	321C141070	COIL-RF - 22MH-K		LC7D12	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8C04	321C141070	COIL-RF - 22MH-K		LC7D13	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D01	409P777080	EMI-F-CHIP - BLM21P221S		LC7D14	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D02	409P777080	EMI-F-CHIP - BLM21P221S		LC7E10	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D03	409P777080	EMI-F-CHIP - BLM21P221S		LC7E11	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D04	409P777080	EMI-F-CHIP - BLM21P221S		LC7E12	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D05	409P777080	EMI-F-CHIP - BLM21P221S		LC7E13	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D06	409P777080	EMI-F-CHIP - BLM21P221S		LC7E14	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D07	409P777080	EMI-F-CHIP - BLM21P221S		LC7G01	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8D09	325C241030	COIL-CHIP - 10MH-K		LC7G02	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
L8G00	409P777080	EMI-F-CHIP - BLM21P221S		LC7G03	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	

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[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]
LC7G04	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G05	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G06	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G07	409P875090	EMI-F-CHIP - ELKE103FA	
LC7G08	409P875090	EMI-F-CHIP - ELKE103FA	
LC7G09	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G10	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G11	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G12	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC7G13	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LF7D00	409P901010	LP-FILTER - 14MHZ SMD	
LF7D01	409P901010	LP-FILTER - 14MHZ SMD	
LF7D02	409P901010	LP-FILTER - 14MHZ SMD	
LF7E00	409P901010	LP-FILTER - 14MHZ SMD	
LF7E01	409P901010	LP-FILTER - 14MHZ SMD	
LF7E02	409P901010	LP-FILTER - 14MHZ SMD	
LF7G00	409P901010	LP-FILTER - 14MHZ SMD	
LF7G01	409P901010	LP-FILTER - 14MHZ SMD	
LF7G02	409P901010	LP-FILTER - 14MHZ SMD	

TRANSFORMERS

T5A31	349P216010	TRANS-HORIZ
T5A32	336P040010	TRANS-HORIZ-DRIVE
T5A51	334P281010	TRANS-FLYBACK
T9A20	350P796010	TRANS-PWR - ETS19AB1M3AG
T9A50	350P795010	TRANS-POWER

VARIABLE RESISTORS

129P059050	VR-FOCUS
RV9D00	265P100020

RESISTORS

Chip Type Resistors (R-M-CHIP) Listed by Value

Part No.	Value	Part No.	Value
103P509050	1.16W 0OHM	103P493030	1/16W 2.2K-F
103P793030	1/16W 22-F	103P502090	1/16W 2.2K-J
103P500050	1/16W 22-J	103P503000	1/16W 2.7K-J
103P400060	1/8W 27-J	103P493060	1/16W 3K-F
103P500070	1/16W 33-J	103P493070	1/16W 3.3K-F
103P500090	1/16W 47-J	103P503010	1/16W 3.3K-J
103P501000	1/16W 56-J	103P493090	1/16W 3.9K-F
103P794060	1/16W 75-F	103P503020	1/16W 3.9K-J
103P501020	1/16W 82-J	103P494010	1/16W 4.7K-F
103P401030	1/8W 100-J	103P503030	1/16W 4.7K-J
103P501040	1/16W 120-J	103P494020	1/16W 5.1K-F
103P401050	1/8W 150-J	103P503040	1/16W 5.6K-J
103P490060	1/16W 160-F	103P494050	1/16W 6.8K-F
103P501060	1/16W 180-J	103P503050	1/16W 6.8K-J
103P490080	1/16W 200-F	103P503060	1/16W 8.2K-J
103P501070	1/16W 220-J	103P494090	1/16W 10K-F
103P491000	1/16W 240-F	103P503070	1/16W 10K-J
103P401080	1/8W 270-J	103P503080	1/16W 12K-J
103P491030	1/16W 330-F	103P495020	1/16W 13K-F
103P501090	1/16W 330-J	103P503090	1/16W 15K-J
103P491050	1/16W 390-F	103P504000	1/16W 18K-J
103P502000	1/16W 390-J	103P504010	1/16W 22K-J
103P502010	1/16W 470-J	103P504030	1/16W 33K-J
103P491080	1/16W 510-F	103P504050	1/16W 47K-J

Ref #	Part #	Part Name & Description	[#]
Part No. Value Part No. Value			
103P502020	1/16W 560-J	103P504060	1/16W 56K-J
103P492000	1/16W 620-F	103P496080	1/16W 62K-F
103P492010	1/16W 680-F	103P496090	1/16W 68K-F
103P502030	1/16W 680-J	103P504070	1/16W 68K-J
103P492030	1/16W 820-F	103P509090	1/16W 75K-J
103P502040	1/16W 820-J	103P504080	1/16W 82K-J
103P402050	1/8W 1K-J	103P504090	1/16W 100K-J
103P492060	1/16W 1.1K-F	103P505000	1/16W 120K-J
103P502060	1/16W 1.2K-J	103P498050	1/16W 330K-F
103P492080	1/16W 1.3K-F	103P505050	1/16W 330K-J
103P492090	1/16W 1.5K-F	103P505090	1/16W 680K-J
103P402070	1/8W 1.5K-J	103P506000	1/16W 820K-J
103P502080	1/16W 1.8K-J	103P506070	1/16W 3.3M-J
103P493020	1/16W 2K-F		
Conventional Resistors (By Ref #)			
Ref #	Part #	Part Name & Description	[#]
R3E09	109D151010	R-CARBON - 1/4W 2.2-J	
R3E11	109D151010	R-CARBON - 1/4W 2.2-J	
R3E12	109D151010	R-CARBON - 1/4W 2.2-J	
R3E14	109D151010	R-CARBON - 1/4W 2.2-J	
R4B01	103P465040	R-METAL - 1/4W 16K-F	
R4B02	103P465040	R-METAL - 1/4W 16K-F	
R4B03	103P713090	R-CARBON - 1/4W 15K-J	
R4B05	103P714030	R-CARBON - 1/4W 33K-J	
R4B10	103C188040	R-METAL - 2W 2.2-J	
R4B12	103C188040	R-METAL - 2W 2.2-J	
R4B13	103P466000	R-METAL - 1/4W 2.4K-F	
R4B14	103P466000	R-METAL - 1/4W 2.4K-F	
R4B16	109P095010	R-METAL-LIN - 1/4W 5.1K-J	
R4B17	103P711090	R-CARBON - 1/4W 330-J	
R4B18	103P338020	R-CARBON-25 - 1/4W 1.5-J	
R4B20	103P711090	R-CARBON - 1/4W 330-J	
R4B23	103P411070	R-CARBON - 1/4W 220-J	
R4B24	103P712050	R-CARBON - 1/4W 1K-J	
R4B25	103P712050	R-CARBON - 1/4W 1K-J	
R4B26	103P713030	R-CARBON - 1/4W 4.7K-J	
R4B27	103P465040	R-METAL - 1/4W 16K-F	
R5A00	103P711030	R-CARBON - 1/4W 100-J	
R5A01	103P713010	R-CARBON - 1/4W 3.3K-J	
R5A02	103P711030	R-CARBON - 1/4W 100-J	
R5A03	103P713010	R-CARBON - 1/4W 3.3K-J	
R5A04	103P462040	R-METAL - 1/4W 910-F	
R5A05	103P713010	R-CARBON - 1/4W 3.3K-J	
R5A06	103P712050	R-CARBON - 1/4W 1K-J	
R5A07	103P714080	R-CARBON - 1/4W 82K-J	
R5A08	103P714020	R-CARBON - 1/4W 27K-J	
R5A09	103P714040	R-CARBON - 1/4W 39K-J	
R5A10	103P714040	R-CARBON - 1/4W 39K-J	
R5A11	103P713070	R-CARBON - 1/4W 10K-J	
R5A12	103P712050	R-CARBON - 1/4W 1K-J	
R5A13	103P464020	R-METAL - 1/4W 2.4K-F	
R5A14	103P464030	R-METAL - 1/4W 5.6K-F	
R5A15	103P713030	R-CARBON - 1/4W 4.7K-J	
R5A16	103P714010	R-CARBON - 1/4W 22K-J	
R5A17	103P712050	R-CARBON - 1/4W 1K-J	
R5A18	103P712050	R-CARBON - 1/4W 1K-J	
R5A19	103P712010	R-CARBON - 1/4W 470-J	
R5A20	103P714050	R-CARBON - 1/4W 47K-J	

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[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]	Ref #	Part #	Part Name & Description	[#]
R5A21	103P713030	R-CARBON - 1/4W 4.7K-J		R5A80	109P175010	R-WIRE - 2W 0.12-J	
R5A22	103P714010	R-CARBON - 1/4W 22K-J		R5A81	103P711030	R-CARBON - 1/4W 100-J	
R5A23	103P713070	R-CARBON - 1/4W 10K-J		R5A82	103P370090	R-FUSE - 1/4W 47-J	
R5A24	103P714070	R-CARBON - 1/4W 68K-J		R5A83	103P464070	R-METAL - 1/4W 8.2K-F	
R5A25	103P464030	R-METAL - 1/4W 5.6K-F		R5A84	103P464070	R-METAL - 1/4W 8.2K-F	
R5A26	103P464030	R-METAL - 1/4W 5.6K-F		R5A85	103P710070	R-CARBON - 1/4W 33-J	
R5A27	103P713070	R-CARBON - 1/4W 10K-J		R5A86	103P142060	R-CARBON - 1/2W 1.2K-J	
R5A28	103P715010	R-CARBON - 1/4W 150K-J		R5A87	103P711030	R-CARBON - 1/4W 100-J	
R5A29	103P714040	R-CARBON - 1/4W 39K-J		R5A88	103P464000	R-METAL - 1/4W 4.3K-F	
R5A30	103P714040	R-CARBON - 1/4W 39K-J		R5A89	103P463050	R-METAL - 1/4W 2.7K-F	
R5A31	103P712080	R-CARBON - 1/4W 1.8K-J		R5A90	103P711060	R-CARBON - 1/4W 180-J	
R5A32	103P713070	R-CARBON - 1/4W 10K-J		R5A91	103P467030	R-METAL - 1/4W 100K-F	
R5A33	103P463060	R-METAL - 1/4W 3K-F		R5A92	103P465070	R-METAL - 1/4W 22K-F	
R5A34	103P711000	R-CARBON - 1/4W 56-J		R5A93	103P140090	R-CARBON - 1/2W 47-J	
R5A35	103P142010	R-CARBON - 1/2W 470-J		R5A94	103C390070	R-METAL-P - 3W 33-J	
R5A36	103C393000	R-METAL-P - 3W 2.7K-J		R5A95	103P714030	R-CARBON - 1/4W 33K-J	
R5A37	103C393000	R-METAL-P - 3W 2.7K-J		R5A96	103P466080	R-METAL - 1/4W 62K-F	
R5A38	103C197060	R-METAL - 3W 0.47-J		R5A97	103P142040	R-CARBON - 1/2W 820-J	
R5A39	103P140090	R-CARBON - 1/2W 47-J		R5A98	103C198010	R-METAL - 3W 1.2-J	
R5A40	103P714090	R-CARBON - 1/4W 100K-J		R5A99	103P714090	R-CARBON - 1/4W 100K-J	
R5A41	103P715020	R-CARBON - 1/4W 180K-J		R5B01	103P714030	R-CARBON - 1/4W 33K-J	
R5A42	103P713070	R-CARBON - 1/4W 10K-J		R5B02	103P714090	R-CARBON - 1/4W 100K-J	
R5A43	103P714010	R-CARBON - 1/4W 22K-J		R5B03	103P712060	R-CARBON - 1/4W 1.2K-J	
R5A44	103P712090	R-CARBON - 1/4W 2.2K-J		R5B04	103P711030	R-CARBON - 1/4W 100-J	
R5A45	103P143050	R-CARBON - 1/2W 6.8K-J		R5H01	103P712050	R-CARBON - 1/4W 1K-J	
R5A46	103C391050	R-METAL-P - 3W 150-J		R5H02	103P758000	R-FUSE - 1/4W 1-J	
R5A47	103P714080	R-CARBON - 1/4W 82K-J		R5H03	103P714030	R-CARBON - 1/4W 33K-J	
R5A48	103P714050	R-CARBON - 1/4W 47K-J		R5H04	103P463060	R-METAL - 1/4W 3K-F	
R5A49	103P711030	R-CARBON - 1/4W 100-J		R5H07	103P461060	R-METAL - 1/4W 430-F	
R5A50	103P714050	R-CARBON - 1/4W 47K-J		R5H08	103P711030	R-CARBON - 1/4W 100-J	
R5A51	103P712050	R-CARBON - 1/4W 1K-J		R5H09	103P711010	R-CARBON - 1/4W 68-J	
R5A52	103P713010	R-CARBON - 1/4W 3.3K-J		R5H10	103P710090	R-CARBON - 1/4W 47-J	
R5A53	103P713070	R-CARBON - 1/4W 10K-J		R5H11	103P712020	R-CARBON - 1/4W 560-J	
R5A54	103P714010	R-CARBON - 1/4W 22K-J		R5H12	103P712020	R-CARBON - 1/4W 560-J	
R5A55	103P143050	R-CARBON - 1/2W 6.8K-J		R5H13	103P712020	R-CARBON - 1/4W 560-J	
R5A56	103P715060	R-CARBON - 1/4W 390K-J		R5H14	103P710090	R-CARBON - 1/4W 47-J	
R5A57	103P711030	R-CARBON - 1/4W 100-J		R5H15	103P710090	R-CARBON - 1/4W 47-J	
R5A58	103P464080	R-METAL - 1/4W 9.1K-F		R5H16	103P710020	R-CARBON - 1/4W 12-J	
R5A59	103P461070	R-METAL - 1/4W 470-F		R5H17	103P710020	R-CARBON - 1/4W 12-J	
R5A60	103P464000	R-METAL - 1/4W 4.3K-F		R5H47	103C172010	R-METAL - 1W 470-J	
R5A61	103P465010	R-METAL - 1/4W 12K-F		R5H48	103P712060	R-CARBON - 1/4W 1.2K-J	
R5A62	103P711070	R-CARBON - 1/4W 220-J		R5H49	103P714070	R-CARBON - 1/4W 68K-J	
R5A63	103P466080	R-METAL - 1/4W 62K-F		R5H50	103P714090	R-CARBON - 1/4W 100K-J	
R5A64	103P712010	R-CARBON - 1/4W 470-J		R5H51	103P712060	R-CARBON - 1/4W 1.2K-J	
R5A65	103P141030	R-CARBON - 1/2W 100-J		R5H55	103P140070	R-CARBON - 1/2W 33-J	
R5A66	103P466010	R-METAL - 1/4W 33K-F		R5H56	103P140070	R-CARBON - 1/2W 33-J	
R5A67	103P465080	R-METAL - 1/4W 24K-F		R5H58	103P148000	R-CARBON - 1/2W 1-J	
R5A68	103P463050	R-METAL - 1/4W 2.7K-F		R5H59	103C191050	R-METAL - 3W 150-J	
R5A69	103P462010	R-METAL - 1/4W 680-F		R5H60	103C178080	R-METAL - 1W 4.7-J	
R5A70	103P463040	R-METAL - 1/4W 2.4K-F		R5H67	103P148000	R-CARBON - 1/2W 1-J	
R5A71	103P713070	R-CARBON - 1/4W 10K-J		R5K01	109P174030	R-CARBON - 1/2W 10K-J	
R5A72	103P463050	R-METAL - 1/4W 2.7K-F		R5K02	103P412050	R-CARBON - 1/4W 1K-J	
R5A73	103P714050	R-CARBON - 1/4W 47K-J		R5K03	103P145000	R-CARBON - 1/2W 120K-J	
R5A74	103P713070	R-CARBON - 1/4W 10K-J		R5K04	103P144090	R-CARBON - 1/2W 100K-J	
R5A75	103P713070	R-CARBON - 1/4W 10K-J		R5K05	103P145000	R-CARBON - 1/2W 120K-J	
R5A76	103P713070	R-CARBON - 1/4W 10K-J		R5K06	103P144090	R-CARBON - 1/2W 100K-J	
R5A77	103P711090	R-CARBON - 1/4W 330-J		R5K07	103P145000	R-CARBON - 1/2W 120K-J	
R5A78	103P714010	R-CARBON - 1/4W 22K-J		R5K08	103P144090	R-CARBON - 1/2W 100K-J	
R5A79	103P713030	R-CARBON - 1/4W 4.7K-J		R5K09	103P762020	R-FUSE - 1/2W 560-J	

MODEL: WT-42313 / WT-42413

[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]
R5K10	103P711010	R-CARBON - 1/4W 68-J	
R5K11	103P711090	R-CARBON - 1/4W 330-J	
R5K12	103P760060	R-FUSE - 1/2W 27-J	
R5K20	103P463060	R-METAL - 1/4W 3K-F	
R5K21	103P465000	R-METAL - 1/4W 2.4K-F	
R5K22	103P145030	R-CARBON - 1/2W 220K-J	
R5K23	103P145030	R-CARBON - 1/2W 220K-J	
R5K24	103P145030	R-CARBON - 1/2W 220K-J	
R5K25	103P713040	R-CARBON - 1/4W 5.6K-J	
R5K31	103P711030	R-CARBON - 1/4W 100-J	
R5K32	103P466020	R-METAL - 1/4W 2.4K-F	
R5K33	103P465060	R-METAL - 1/4W 20K-F	
R5K34	103P760060	R-FUSE - 1/2W 27-J	
R5K46	103P712010	R-CARBON - 1/4W 470-J	
R5K50	103P762050	R-FUSE - 1/2W 1K-J	
R6B01	103P711030	R-CARBON - 1/4W 100-J	
R6B02	103P713090	R-CARBON - 1/4W 15K-J	
R6B03	103P463050	R-METAL - 1/4W 2.7K-F	
R6B04	103P462080	R-METAL - 1/4W 1.3K-F	
R6B05	103P711070	R-CARBON - 1/4W 220-J	
R6B06	103P462030	R-METAL - 1/4W 820-F	
R6B07	103P711030	R-CARBON - 1/4W 100-J	
R6B08	103P719050	R-CARBON - 1/4W 00HM (MAX 3A)	
R6B09	103P711030	R-CARBON - 1/4W 100-J	
R6B10	103P713030	R-CARBON - 1/4W 4.7K-J	
R6B11	103C194020	R-METAL - 3W 27K-J	
R6B12	103P461050	R-METAL - 1/4W 390-F	
R6B13	103P331030	R-CARBON - 1/4W 100-J	
R6B16	103P411000	R-CARBON - 1/4W 56-J	
R6B17	109P174010	R-CARBON - 1/2W 220-J	
R6B20	109P174020	R-CARBON - 1/2W 2.2K-J	
R6B21	103P467030	R-METAL - 1/4W 100K-F	
R6B22	103P467030	R-METAL - 1/4W 100K-F	
R6B23	103P711030	R-CARBON - 1/4W 100-J	
R6B24	103P713030	R-CARBON - 1/4W 4.7K-J	
R6B25	103P711030	R-CARBON - 1/4W 100-J	
R6B26	103P413050	R-CARBON - 1/4W 6.8K-J	
R6B27	103P711030	R-CARBON - 1/4W 100-J	
R6B31	103P142060	R-CARBON - 1/2W 1.2K-J	
R6G01	103P711030	R-CARBON - 1/4W 100-J	
R6G02	103P713090	R-CARBON - 1/4W 15K-J	
R6G03	103P463050	R-METAL - 1/4W 2.7K-F	
R6G04	103P462080	R-METAL - 1/4W 1.3K-F	
R6G05	103P410050	R-CARBON - 1/4W 22-J	
R6G06	103P462030	R-METAL - 1/4W 820-F	
R6G07	103P711030	R-CARBON - 1/4W 100-J	
R6G08	103P719050	R-CARBON - 1/4W 00HM (MAX 3A)	
R6G09	103P711030	R-CARBON - 1/4W 100-J	
R6G10	103P713030	R-CARBON - 1/4W 4.7K-J	
R6G11	103C194020	R-METAL - 3W 27K-J	
R6G13	103P331030	R-CARBON - 1/4W 100-J	
R6G16	103P411000	R-CARBON - 1/4W 56-J	
R6G17	109P174010	R-CARBON - 1/2W 220-J	
R6G20	109P174020	R-CARBON - 1/2W 2.2K-J	
R6G21	103P467030	R-METAL - 1/4W 100K-F	
R6G22	103P467030	R-METAL - 1/4W 100K-F	
R6G23	103P711030	R-CARBON - 1/4W 100-J	
R6G31	103P142060	R-CARBON - 1/2W 1.2K-J	
R6R01	103P711030	R-CARBON - 1/4W 100-J	

Ref #	Part #	Part Name & Description	[#]
R6R02	103P713090	R-CARBON - 1/4W 15K-J	
R6R03	103P463050	R-METAL - 1/4W 2.7K-F	
R6R04	103P462080	R-METAL - 1/4W 1.3K-F	
R6R05	103P711070	R-CARBON - 1/4W 220-J	
R6R06	103P462030	R-METAL - 1/4W 820-F	
R6R07	103P711030	R-CARBON - 1/4W 100-J	
R6R08	103P719050	R-CARBON - 1/4W 00HM (MAX 3A)	
R6R09	103P711030	R-CARBON - 1/4W 100-J	
R6R10	103P713030	R-CARBON - 1/4W 4.7K-J	
R6R11	103C194020	R-METAL - 3W 27K-J	
R6R13	103P331030	R-CARBON - 1/4W 100-J	
R6R16	103P411000	R-CARBON - 1/4W 56-J	
R6R17	109P174010	R-CARBON - 1/2W 220-J	
R6R20	109P174020	R-CARBON - 1/2W 2.2K-J	
R6R21	103P467030	R-METAL - 1/4W 100K-F	
R6R22	103P467030	R-METAL - 1/4W 100K-F	
R6R23	103P711030	R-CARBON - 1/4W 100-J	
R6R31	103P142060	R-CARBON - 1/2W 1.2K-J	
R7K01	103P712050	R-CARBON - 1/4W 1K-J	
R7K02	103P713010	R-CARBON - 1/4W 3.3K-J	
R7L26	103P462090	R-METAL - 1/4W 1.5K-F	
R7L27	103P463030	R-METAL - 1/4W 2.2K-F	
R7L28	103P463070	R-METAL - 1/4W 3.3K-F	
R7L29	103P464030	R-METAL - 1/4W 5.6K-F	
R7L30	103P465010	R-METAL - 1/4W 12K-F	
R7L31	103P466010	R-METAL - 1/4W 33K-F	
R7L32	103P466070	R-METAL - 1/4W 56K-F	
R8C02	103P463070	R-METAL - 1/4W 3.3K-F	
R8C03	103P711090	R-CARBON - 1/4W 330-J	
R8C05	103C288070	R-METAL-CP - 2W 3.9-J	
R8C06	103C288070	R-METAL-CP - 2W 3.9-J	
R8C07	103C391050	R-METAL-P - 3W 150-J	
R8C10	103P463070	R-METAL - 1/4W 3.3K-F	
R8C11	103P711090	R-CARBON - 1/4W 330-J	
R8C13	103C288070	R-METAL-CP - 2W 3.9-J	
R8C14	103C288070	R-METAL-CP - 2W 3.9-J	
R8C15	103C391050	R-METAL-P - 3W 150-J	
R8C18	103P463070	R-METAL - 1/4W 3.3K-F	
R8C19	103P711090	R-CARBON - 1/4W 330-J	
R8C21	103C288070	R-METAL-CP - 2W 3.9-J	
R8C22	103C288070	R-METAL-CP - 2W 3.9-J	
R8C23	103C391050	R-METAL-P - 3W 150-J	
R8C26	103P463070	R-METAL - 1/4W 3.3K-F	
R8C27	103P711090	R-CARBON - 1/4W 330-J	
R8C29	103C288070	R-METAL-CP - 2W 3.9-J	
R8C30	103C288070	R-METAL-CP - 2W 3.9-J	
R8C31	103C391050	R-METAL-P - 3W 150-J	
R8C34	103P463070	R-METAL - 1/4W 3.3K-F	
R8C35	103P711090	R-CARBON - 1/4W 330-J	
R8C37	103C288070	R-METAL-CP - 2W 3.9-J	
R8C38	103C288070	R-METAL-CP - 2W 3.9-J	
R8C39	103C391050	R-METAL-P - 3W 150-J	
R8C42	103P463070	R-METAL - 1/4W 3.3K-F	
R8C43	103P711090	R-CARBON - 1/4W 330-J	
R8C45	103C288070	R-METAL-CP - 2W 3.9-J	
R8C46	103C288070	R-METAL-CP - 2W 3.9-J	
R8C47	103C391050	R-METAL-P - 3W 150-J	
R8C60	103C191090	R-METAL - 3W 330-J	
R8C61	103C191090	R-METAL - 3W 330-J	

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[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]
R8C62	103P713010	R-CARBON - 1/4W 3.3K-J	
R8C63	103P713010	R-CARBON - 1/4W 3.3K-J	
R8C64	103P713010	R-CARBON - 1/4W 3.3K-J	
R8C65	103P713010	R-CARBON - 1/4W 3.3K-J	
R8C66	103P713010	R-CARBON - 1/4W 3.3K-J	
R8C67	103P713010	R-CARBON - 1/4W 3.3K-J	
R9A02	102P084000	R-CEMENT-WIRE - 15W 2.2-K	
R9A03	109P173010	R-CARBON - 1/2W 1M-J	
R9A05	109P173010	R-CARBON - 1/2W 1M-J	
R9A06	109P173010	R-CARBON - 1/2W 1M-J	
R9A09	103P145050	R-CARBON - 1/2W 330K-J	
R9A10	103P714020	R-CARBON - 1/4W 27K-J	
R9A11	103P145050	R-CARBON - 1/2W 330K-J	
R9A12	103P713070	R-CARBON - 1/4W 10K-J	
R9A13	103P713000	R-CARBON - 1/4W 2.7K-J	
R9A20	103C181020	R-METAL - 2W 82-J	
R9A21	103P712050	R-CARBON - 1/4W 1K-J	
R9A23	103P710090	R-CARBON - 1/4W 47-J	
R9A24	103P142070	R-CARBON - 1/2W 1.5K-J	
R9A29	103P713070	R-CARBON - 1/4W 10K-J	
R9A51	103P715050	R-CARBON - 1/4W 330K-J	
R9A52	103P710090	R-CARBON - 1/4W 47-J	
R9A53	103P712030	R-CARBON - 1/4W 680-J	
R9A54	109P175020	R-WIRE - 2W 0.15-J	
R9A55	109P175010	R-WIRE - 2W 0.12-J	
R9A57	103P712090	R-CARBON - 1/4W 2.2K-J	
R9A58	103P145030	R-CARBON - 1/2W 220K-J	
R9A59	103P710070	R-CARBON - 1/4W 33-J	
R9A61	103P713040	R-CARBON - 1/4W 5.6K-J	
R9A62	103P713070	R-CARBON - 1/4W 10K-J	
R9A63	103P713020	R-CARBON - 1/4W 3.9K-J	
R9A66	103P712070	R-CARBON - 1/4W 1.5K-J	
R9A67	103P710050	R-CARBON - 1/4W 22-J	
R9A68	103C180050	R-METAL - 2W 22-J	
R9A69	103C180050	R-METAL - 2W 22-J	
R9A70	109D151090	R-CARBON - 1/4W 33-J	
R9A71	103P145030	R-CARBON - 1/2W 220K-J	
R9A73	103P412050	R-CARBON - 1/4W 1K-J	
R9A74	103P144040	R-CARBON - 1/2W 39K-J	
R9A80	103C193060	R-METAL - 3W 8.2K-J	
R9A81	103P142090	R-CARBON - 1/2W 2.2K-J	
R9A82	103P465050	R-METAL - 1/4W 18K-F	
R9A83	103P464010	R-METAL - 1/4W 4.7K-F	
R9A84	103P713070	R-CARBON - 1/4W 10K-J	
R9B01	103P711030	R-CARBON - 1/4W 100-J	
R9B02	103P714010	R-CARBON - 1/4W 22K-J	
R9B03	103P714050	R-CARBON - 1/4W 47K-J	
R9B04	103P714050	R-CARBON - 1/4W 47K-J	
R9B05	103P714090	R-CARBON - 1/4W 100K-J	
R9B06	103P714090	R-CARBON - 1/4W 100K-J	
R9B07	103P714010	R-CARBON - 1/4W 22K-J	
R9B08	109D151030	R-CARBON - 1/4W 4.7-J	
R9B09	109D151030	R-CARBON - 1/4W 4.7-J	
R9B10	103D464030	R-METAL - 1/4W 68-F	
R9B11	103P461070	R-METAL - 1/4W 470-F	
R9C31	103C197080	R-METAL - 3W 0.68-J	
R9C32	103C197080	R-METAL - 3W 0.68-J	
R9D00	109P173020	R-CARBON - 1/2W 4.7M-J	

Ref #	Part #	Part Name & Description	[#]
CAPACITORS			
CHIP Type Capacitors (Listed by Value)			
CHIP Type Capacitors (Listed by Value)			
Part No.	Value	Part No.	Value
154P350050	CH50V 3P-C	141P141030	B50V 2200P-K
154P341010	CH50V 10P-C	141P141070	B50V 4700P-K
154P341050	CH50V 15P-J	141P141090	B50V 6800P-K
154P341090	CH50V 22P-J	141P142000	B50V 8200P-K
154P342030	CH50V 33P-J	141P142010	B50V 0.01M-K
154P342070	CH50V 47P-J	141P142030	B50V 0.015M-K
154P340080	CH50V 47P-J	141P142090	B25V 0.047M-K
154P342090	CH50V 56P-J	141P139010	B25V 0.068M-K
154P343010	CH50V 68P-J	141P143010	B25V 0.068M-K
154P353000	SL50V 56P-J	141P143020	B16V 0.082M-K
154P343030	CH50V 82P-J	141P143030	B16V 0.1M-K
154P343050	CH50V 100P-J	141P143080	F50V 0.01M-Z
154P343070	CH50V 120P-J	141P144020	F25V 0.1M-Z
154P353080	SL50V 120P-J	141P138080	B25V 0.33M-K
154P343090	CH50V 150P-J	141P135010	F25V 0.33M-Z
154P354000	SL50V 150P-J	141P146080	B10V 0.47M-K
154P344030	CH50V 220P-J	141P139090	B16V 0.47M-K
141P140010	B50V 220P-K	141P134070	B16V 1M-K
154P344050	CH50V 270P-J	141P144060	F16V 1M-Z
154P344070	CH50V 330P-J	181P526020	50V 2.2M-M
154P355000	SL50V 390P-J	181P522030	16V 10M-M 105C
154P345010	CH50V 470P-J	181P520010	6.3V 22M-M 105C
154P355020	SL50V 470P-J	181P500030	6.3V 47M-M
141P140050	B50V 470P-K	181P520030	6.3V 47M-M
154P345030	CH25V 560P-J	181P502060	16V 47M-M
141P140090	B50V 1000P-K	181P520040	6.3V 100M-M
154P345090	CH25V 1000P-J	181P528010	4V 220M-M 105C
141P141010	B50V 1500P-K	189P209010	6.3V 220M-M
Conventional Capacitors (By Ref #)			
Ref #	Part #	Part Name & Description	[#]
C1A13	181P352040	C-ELEC - 16V 100M-M	
C1A21	181P210040	C-ELEC - 6.3V 100M-M	
C1A24	181P210040	C-ELEC - 6.3V 100M-M	
C1A26	172P262010	C-M-POLY - 50V 0.047M-J	
C1B13	181P352040	C-ELEC - 16V 100M-M	
C1B21	181P210040	C-ELEC - 6.3V 100M-M	
C1B24	181P210040	C-ELEC - 6.3V 100M-M	
C1B26	172P262010	C-M-POLY - 50V 0.047M-J	
C2D73	181P352040	C-ELEC - 16V 100M-M	
C2K00	181P352050	C-ELEC - 16V 220M-M	
C2K06	181P355050	C-ELEC - 50V 10M-M	
C2K08	181P355050	C-ELEC - 50V 10M-M	
C2K09	181P355050	C-ELEC - 50V 10M-M	
C2K11	181P355050	C-ELEC - 50V 10M-M	
C2K12	181P355050	C-ELEC - 50V 10M-M	
C2K14	181P355050	C-ELEC - 50V 10M-M	
C2K15	181P355050	C-ELEC - 50V 10M-M	
C2K16	181P355050	C-ELEC - 50V 10M-M	
C2K17	181P355050	C-ELEC - 50V 10M-M	
C2K18	181P181000	C-ELEC - 10V 330M-M 105C	
C2K27	181P355050	C-ELEC - 50V 10M-M	
C2L01	181P352030	C-ELEC - 16V 47M-M	
C2L06	181P355040	C-ELEC - 50V 4.7M-M	

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[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]
C2L12	181P355040	C-ELEC - 50V 4.7M-M	
C2L14	181P351070	C-ELEC - 10V 470M-M	
C2L16	181P210040	C-ELEC - 6.3V 100M-M	
C2L22	181P352030	C-ELEC - 16V 47M-M	
C2L24	181P352030	C-ELEC - 16V 47M-M	
C2LA0	181P351050	C-ELEC - 10V 220M-M	
C2LA6	181P355040	C-ELEC - 50V 4.7M-M	
C2LB1	181P355040	C-ELEC - 50V 4.7M-M	
C2LB3	181P351070	C-ELEC - 10V 470M-M	
C2LB9	181P210040	C-ELEC - 6.3V 100M-M	
C2LC2	181P352030	C-ELEC - 16V 47M-M	
C2LC4	181P352030	C-ELEC - 16V 47M-M	
C2M03	181P352040	C-ELEC - 16V 100M-M	
C2M08	181P352030	C-ELEC - 16V 47M-M	
C2M88	181P355010	C-ELEC - 50V 1M-M	
C2M89	181P219010	C-ELEC - 16V 10M-M	
C2M93	181P350050	C-ELEC - 6.3V 470M-M	
C2M97	181P219010	C-ELEC - 16V 10M-M	
C2MA4	181P352030	C-ELEC - 16V 47M-M	
C2MA6	181P352030	C-ELEC - 16V 47M-M	
C2MC4	181P352030	C-ELEC - 16V 47M-M	
C2MD6	181P210040	C-ELEC - 6.3V 100M-M	
C2N00	181P355000	C-ELEC - 50V 0.47M-M	
C2N01	181P355000	C-ELEC - 50V 0.47M-M	
C2N02	181P355000	C-ELEC - 50V 0.47M-M	
C2N05	181P355000	C-ELEC - 50V 0.47M-M	
C2N06	181P355000	C-ELEC - 50V 0.47M-M	
C2N07	181P355000	C-ELEC - 50V 0.47M-M	
C2N17	181P355000	C-ELEC - 50V 0.47M-M	
C2N18	181P355000	C-ELEC - 50V 0.47M-M	
C2N19	181P355000	C-ELEC - 50V 0.47M-M	
C2N22	181P351050	C-ELEC - 10V 220M-M	
C2N28	181P350060	C-ELEC - 3V 1000M-M	
C2N29	181P350060	C-ELEC - 3V 1000M-M	
C2N33	181P355050	C-ELEC - 50V 10M-M	
C2NA6	181P355050	C-ELEC - 50V 10M-M	
C2NC5	181P355050	C-ELEC - 50V 10M-M	
C2P01	181P355050	C-ELEC - 50V 10M-M	
C2P02	181P351050	C-ELEC - 10V 220M-M	
C2P04	181P351050	C-ELEC - 10V 220M-M	
C2P08	181P352030	C-ELEC - 16V 47M-M	
C2P12	181P355050	C-ELEC - 50V 10M-M	
C2S00	181P355000	C-ELEC - 50V 0.47M-M	
C2S01	181P355000	C-ELEC - 50V 0.47M-M	
C2S02	181P355000	C-ELEC - 50V 0.47M-M	
C2S05	181P355000	C-ELEC - 50V 0.47M-M	
C2S06	181P355000	C-ELEC - 50V 0.47M-M	
C2S07	181P355000	C-ELEC - 50V 0.47M-M	
C2S10	181P350060	C-ELEC - 3V 1000M-M	
C2S18	181P355000	C-ELEC - 50V 0.47M-M	
C2S19	181P355000	C-ELEC - 50V 0.47M-M	
C2S20	181P355000	C-ELEC - 50V 0.47M-M	
C2S22	181P350060	C-ELEC - 3V 1000M-M	
C2S29	181P350060	C-ELEC - 3V 1000M-M	
C2V04	181P359060	C-ELEC - CE50V 0.1M-M	
C2V05	181P359060	C-ELEC - CE50V 0.1M-M	
C2V06	181P359060	C-ELEC - CE50V 0.1M-M	
C2V08	181P359060	C-ELEC - CE50V 0.1M-M	
C2V09	181P359060	C-ELEC - CE50V 0.1M-M	
C2V10	181P359060	C-ELEC - CE50V 0.1M-M	

Ref #	Part #	Part Name & Description	[#]
C2V14	181P352040	C-ELEC - 16V 100M-M	
C2V17	181P355040	C-ELEC - 50V 4.7M-M	
C2V19	181P352040	C-ELEC - 16V 100M-M	
C2V29	181P351070	C-ELEC - 10V 470M-M	
C2V30	181P352030	C-ELEC - 16V 47M-M	
C2V32	181P355000	C-ELEC - 50V 0.47M-M	
C2V48	172P166030	C-TF - 50V 0.1M-J	
C2V49	172P166030	C-TF - 50V 0.1M-J	
C2V55	181P351070	C-ELEC - 10V 470M-M	
C2V57	181P355060	C-ELEC - 50V 22M-M	
C2V61	181P352040	C-ELEC - 16V 100M-M	
C2W02	181P552070	C-ELEC - 16V 1000U	
C2W05	181P352030	C-ELEC - 16V 47M-M	
C2W09	181P352030	C-ELEC - 16V 47M-M	
C2W14	181P352030	C-ELEC - 16V 47M-M	
C2W52	181P352030	C-ELEC - 16V 47M-M	
C2W62	181P352030	C-ELEC - 16V 47M-M	
C2W72	181P352030	C-ELEC - 16V 47M-M	
C2Y09	181P352030	C-ELEC - 16V 47M-M	
C2Y50	181P352040	C-ELEC - 16V 100M-M	
C2Y51	181P352040	C-ELEC - 16V 100M-M	
C3A14	181P355050	C-ELEC - 50V 10M-M	
C3A20	181P355050	C-ELEC - 50V 10M-M	
C3A21	181P355050	C-ELEC - 50V 10M-M	
C3A28	181P355050	C-ELEC - 50V 10M-M	
C3A29	181P355050	C-ELEC - 50V 10M-M	
C3A32	181P355050	C-ELEC - 50V 10M-M	
C3A33	181P355050	C-ELEC - 50V 10M-M	
C3A34	181P355030	C-ELEC - 50V 3.3M-M	
C3A46	181P355050	C-ELEC - 50V 10M-M	
C3A49	181P355050	C-ELEC - 50V 10M-M	
C3E01	181P354050	C-ELEC - 35V 47M-M	
C3E02	181P355010	C-ELEC - 50V 1M-M	
C3E03	172P331010	C-POLY - 50V 6800P-J	
C3E04	181P355010	C-ELEC - 50V 1M-M	
C3E05	172P331010	C-POLY - 50V 6800P-J	
C3E06	181P355050	C-ELEC - 50V 10M-M	
C3E07	181P552080	C-ELEC - 25V 2200M-M	
C3E09	172P262050	C-M-POLY - 50V 0.1M-J	
C3E11	172P262050	C-M-POLY - 50V 0.1M-J	
C3E12	172P262050	C-M-POLY - 50V 0.1M-J	
C3E14	172P262050	C-M-POLY - 50V 0.1M-J	
C3K00	181P122070	C-ELEC-NP - 25V 10M-M	
C3K01	181P355050	C-ELEC - 50V 10M-M	
C3K04	181P122070	C-ELEC-NP - 25V 10M-M	
C3K05	181P355050	C-ELEC - 50V 10M-M	
C3K10	181P355010	C-ELEC - 50V 1M-M	
C3K11	181P355010	C-ELEC - 50V 1M-M	
C3K12	181P355010	C-ELEC - 50V 1M-M	
C3K13	181P355010	C-ELEC - 50V 1M-M	
C3K14	181P355010	C-ELEC - 50V 1M-M	
C3K15	181P355010	C-ELEC - 50V 1M-M	
C3K16	181P355010	C-ELEC - 50V 1M-M	
C3K17	181P355010	C-ELEC - 50V 1M-M	
C3K18	181P355010	C-ELEC - 50V 1M-M	
C3K19	181P355010	C-ELEC - 50V 1M-M	
C3K20	181P355010	C-ELEC - 50V 1M-M	
C3K21	181P355010	C-ELEC - 50V 1M-M	
C3K22	181P355010	C-ELEC - 50V 1M-M	
C3K23	181P355010	C-ELEC - 50V 1M-M	

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[#] Model Legend: (1) WT-42313, (2) WT-42413

Ref #	Part #	Part Name & Description	[#]	Ref #	Part #	Part Name & Description	[#]
C3K25	181P352030	C-ELEC - 16V 47M-M		C5A72	181P355010	C-ELEC - 50V 1M-M	
C4B01	172P261030	C-M-POLY - 50V 0.01M-J		C5A73	172P264010	C-M-POLY - 50V 2.2M-J	
C4B02	181P186050	C-ELEC - 35V 1000M-M 105C		C5A80	181P355050	C-ELEC - 50V 10M-M	
C4B03	172P383030	C-M-POLY - 100V 0.47M-K		C5H01	181P184040	C-ELEC - 35V 330M-M 105C	
C4B04	181P354060	C-ELEC - 35V 100M-M		C5H02	142P023080	C-CER - BF50V 0.01M-Z	
C4B05	142P021070	C-CER - 50V 4700P-J		C5H03	142P023080	C-CER - BF50V 0.01M-Z	
C4B06	172P330090	C-POLY - 50V 4700P-J		C5H04	155P238090	C-CER - CH50V 270P-J	
C4B07	172P383030	C-M-POLY - 100V 0.47M-K		C5H16	172P186030	C-PLA-PP - 200V 0.01M-K	
C4B08	172P263070	C-M-POLY - 50V 1.0M-J		C5H17	172P261030	C-M-POLY - 50V 0.01M-J	
C4B09	181P355060	C-ELEC - 50V 22M-M		C5H19	181P183010	C-ELEC - 25V 100M-M	
C4B10	181P354050	C-ELEC - 35V 47M-M		C5H20	181P352040	C-ELEC - 16V 100M-M	
C4B11	181P183050	C-ELEC - 25V 2200M-M 105C		C5H21	181P780060	C-ELEC - 160V 10M-M	
C5A01	181P354050	C-ELEC - 35V 47M-M		C5H24	181P781000	C-ELEC - 160V 100M-M 105C	
C5A02	181P355050	C-ELEC - 50V 10M-M		C5K00	189P203010	C-M-PLA-PP - 1500VHP 0.015M-J	
C5A03	142P020090	C-CER - B50V 1000P-K		C5K01	189P203010	C-M-PLA-PP - 1500VHP 0.015M-J	
C5A04	172P263010	C-M-POLY - 50V 0.33M-J		C5K02	189D125040	C-ELEC - 450V 4.7M-M 105C	
C5A05	172P262010	C-M-POLY - 50V 0.047M-J		C5K03	142P020050	C-CER - B50V 470P-K	
C5A10	181P191000	C-ELEC - 160V 22M-M/Q		C5K05	181P354050	C-ELEC - 35V 47M-M	
C5A12	181P554080	C-ELEC - 35V 470M-M		C5K12	181P352040	C-ELEC - 16V 100M-M	
C5A15	181P354060	C-ELEC - 35V 100M-M		C5K14	181P354050	C-ELEC - 35V 47M-M	
C5A16	142P023080	C-CER - BF50V 0.01M-Z		C5K15	181P781000	C-ELEC - 160V 100M-M 105C	
C5A17	142P020090	C-CER - B50V 1000P-K		C5K16	172P331010	C-POLY - 50V 6800P-J	
C5A21	172P262050	C-M-POLY - 50V 0.1M-J		C6B01	154P400040	C-CER - B1KV 680P-K	
C5A22	181P355050	C-ELEC - 50V 10M-M		C6B02	181P195050	C-ELEC - 350V 10M-M/Q	
C5A23	181P355050	C-ELEC - 50V 10M-M		C6B03	155P232030	C-CER - CH50V 33P-J	
C5A31	172P581050	C-M-PLA-PP - 1800VHP 3900P-J-OR-H		C6B04	142P023080	C-CER - BF50V 0.01M-Z	
C5A32	172P581050	C-M-PLA-PP - 1800VHP 3900P-J-OR-H		C6B05	181P352030	C-ELEC - 16V 47M-M	
C5A33	181P781000	C-ELEC - 160V 100M-M 105C		C6B06	172P263030	C-M-POLY - 50V 0.47M-J	
C5A34	154P262050	C-CER - R2KV 560P-K		C6B08	142P020030	C-CER - B50V 330P-K	
C5A35	142P012010	C-CER - B500V 4700P-K		C6B09	142P023080	C-CER - BF50V 0.01M-Z	
C5A36	172P524010	C-M-POLY - 250V 2.2M-J		C6B10	142P012050	C-CER - B500V 0.01M-K	
C5A37	172P436010	C-M-PLA-PP - 250V 0.33M-J		C6B11	154P264000	C-CER - R3.15KV 150P-K	
C5A38	172P436010	C-M-PLA-PP - 250V 0.33M-J		C6B12	155P239040	C-CER - CH50V 100P-J	
C5A39	142P011030	C-CER - B500V 1000P-K		C6B13	155P231090	C-CER - CH50V 22P-J	
C5A40	142P011000	C-CER - B500V 560P-K		C6B14	154P405000	C-CER - B3KV 1000P-K	
C5A41	181P552070	C-ELEC - 16V 1000U		C6B50	154P405000	C-CER - B3KV 1000P-K	
C5A42	181P352030	C-ELEC - 16V 47M-M		C6B51	154P400040	C-CER - B1KV 680P-K	
C5A43	181P190050	C-ELEC - 160V 1M-M/Q		C6G01	154P400040	C-CER - B1KV 680P-K	
C5A44	142P024060	C-CER - BF50V 0.1M-Z		C6G02	181P195050	C-ELEC - 350V 10M-M/Q	
C5A45	181P183040	C-ELEC - 25V 470M-M 105C		C6G03	155P232030	C-CER - CH50V 33P-J	
C5A50	142P024060	C-CER - BF50V 0.1M-Z		C6G04	142P023080	C-CER - BF50V 0.01M-Z	
C5A51	154P260010	C-CER - R1KV 220P-K		C6G05	181P352030	C-ELEC - 16V 47M-M	
C5A52	172P580090	C-M-PLA-PP - 1800V 2200P-J		C6G06	172P263030	C-M-POLY - 50V 0.47M-J	
C5A55	172P088060	C-PLA-PP - 630V 6800P-J		C6G09	142P023080	C-CER - BF50V 0.01M-Z	
C5A56	181P355080	C-ELEC - 50V 47M-M		C6G10	142P012050	C-CER - B500V 0.01M-K	
C5A57	172P262070	C-M-POLY - 50V 0.15M-J		C6G11	154P264000	C-CER - R3.15KV 150P-K	
C5A58	142P024060	C-CER - BF50V 0.1M-Z		C6G12	155P239040	C-CER - CH50V 100P-J	
C5A59	142P023080	C-CER - BF50V 0.01M-Z		C6G13	155P231090	C-CER - CH50V 22P-J	
C5A60	172P262050	C-M-POLY - 50V 0.1M-J		C6G14	154P405000	C-CER - B3KV 1000P-K	
C5A61	181P355040	C-ELEC - 50V 4.7M-M		C6G50	154P405000	C-CER - B3KV 1000P-K	
C5A62	142P023080	C-CER - BF50V 0.01M-Z		C6G51	154P400040	C-CER - B1KV 680P-K	
C5A63	142P023080	C-CER - BF50V 0.01M-Z		C6R01	154P400040	C-CER - B1KV 680P-K	
C5A64	181P352040	C-ELEC - 16V 100M-M		C6R02	181P195050	C-ELEC - 350V 10M-M/Q	
C5A65	181P355050	C-ELEC - 50V 10M-M		C6R03	155P232030	C-CER - CH50V 33P-J	
C5A66	142P024060	C-CER - BF50V 0.1M-Z		C6R04	142P023080	C-CER - BF50V 0.01M-Z	
C5A67	142P023080	C-CER - BF50V 0.01M-Z		C6R05	181P352030	C-ELEC - 16V 47M-M	
C5A68	181P123070	C-ELEC-NP - 50V 0.47M-M		C6R06	172P263030	C-M-POLY - 50V 0.47M-J	
C5A69	142P024060	C-CER - BF50V 0.1M-Z		C6R09	142P023080	C-CER - BF50V 0.01M-Z	
C5A70	172P264010	C-M-POLY - 50V 2.2M-J		C6R10	142P012050	C-CER - B500V 0.01M-K	
C5A71	172P262060	C-M-POLY - 50V 0.12M-J		C6R11	154P264000	C-CER - R3.15KV 150P-K	

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Ref #	Part #	Part Name & Description	[#]
C6R12	155P239040	C-CER - CH50V 100P-J	
C6R13	155P232050	C-CER - CH50V 39P-J	
C6R14	154P405000	C-CER - B3KV 1000P-K	
C6R50	154P405000	C-CER - B3KV 1000P-K	
C7A00	154P355020	C-CER-CHIP - SL50V 470P-J	
C7A03	181P355010	C-ELEC - 50V 1M-M	
C7A16	181P352030	C-ELEC - 16V 47M-M	
C7A62	181P352030	C-ELEC - 16V 47M-M	
C7A99	181P352030	C-ELEC - 16V 47M-M	
C7C30	181P354040	C-ELEC - 50V 10M-M	
C7K01	181P352030	C-ELEC - 16V 47M-M	
C7V02	181P352030	C-ELEC - 16V 47M-M	
C7V13	181P352030	C-ELEC - 16V 47M-M	
C8C03	181P358000	C-ELEC - 35V 1000M-M	
C8C04	142P024060	C-CER - BF50V 0.1M-Z	
C8C05	181P358000	C-ELEC - 35V 1000M-M	
C8C06	142P024060	C-CER - BF50V 0.1M-Z	
C8C09	155P233090	C-CER - CH50V 150P-J	
C8C11	155P233090	C-CER - CH50V 150P-J	
C8C14	155P233090	C-CER - CH50V 150P-J	
C8C18	181P358000	C-ELEC - 35V 1000M-M	
C8C19	142P024060	C-CER - BF50V 0.1M-Z	
C8C20	181P358000	C-ELEC - 35V 1000M-M	
C8C21	142P024060	C-CER - BF50V 0.1M-Z	
C8C23	155P233090	C-CER - CH50V 150P-J	
C8C26	155P233090	C-CER - CH50V 150P-J	
C8C29	155P233090	C-CER - CH50V 150P-J	
C8C43	142P020080	C-CER - B50V 820P-K	
C8C44	142P020080	C-CER - B50V 820P-K	
C8C45	142P020080	C-CER - B50V 820P-K	
C8C46	142P020080	C-CER - B50V 820P-K	
C8C47	142P020080	C-CER - B50V 820P-K	
C8C48	142P020080	C-CER - B50V 820P-K	
C8C49	155P231050	C-CER - CH50V 15P-J	
C8C50	155P231050	C-CER - CH50V 15P-J	
C8D16	181P352030	C-ELEC - 16V 47M-M	
C8D19	181P352030	C-ELEC - 16V 47M-M	
C8D20	181P352030	C-ELEC - 16V 47M-M	
C8D21	181P352030	C-ELEC - 16V 47M-M	
C8D22	181P352030	C-ELEC - 16V 47M-M	
C8D29	181P355010	C-ELEC - 50V 1M-M	
C8D30	181P352030	C-ELEC - 16V 47M-M	
C8D31	181P352030	C-ELEC - 16V 47M-M	
C8D33	181P352030	C-ELEC - 16V 47M-M	
C8D39	181P352030	C-ELEC - 16V 47M-M	
C8D40	181P352030	C-ELEC - 16V 47M-M	
C8E01	181P352030	C-ELEC - 16V 47M-M	
C8E03	181P352030	C-ELEC - 16V 47M-M	
C8E05	181P352030	C-ELEC - 16V 47M-M	
C8E07	181P352030	C-ELEC - 16V 47M-M	
C8E09	181P352030	C-ELEC - 16V 47M-M	
C8E12	181P352030	C-ELEC - 16V 47M-M	
C8E14	181P352030	C-ELEC - 16V 47M-M	
C8E16	181P352030	C-ELEC - 16V 47M-M	
C8G00	181P352030	C-ELEC - 16V 47M-M	
C8G03	181P352020	C-ELEC - 16V 33M-M	
C8G05	181P352030	C-ELEC - 16V 47M-M	
C8G06	181P352030	C-ELEC - 16V 47M-M	
C9A05	189P185070	C-CER - AC250V E1000P-M	
C9A06	189P185070	C-CER - AC250V E1000P-M	

Ref #	Part #	Part Name & Description	[#]
C9A07	189P153040	C-M-POLY - 250VAC 0.1M-M	
C9A08	189P185090	C-CER - AC250V E2200P-M	
C9A09	189P185090	C-CER - AC250V E2200P-M	
C9A10	189P185090	C-CER - AC250V E2200P-M	
C9A11	189P185090	C-CER - AC250V E2200P-M	
C9A13	189P152070	C-M-POLY - 250VAC 0.01M-M	
C9A14	189P152070	C-M-POLY - 250VAC 0.01M-M	
C9A15	172P262050	C-M-POLY - 50V 0.1M-J	
C9A22	181P785060	C-ELEC - 350V 22M-M 105C	
C9A27	154P270050	C-CER - SL1KV 22P-J	
C9A28	172P262050	C-M-POLY - 50V 0.1M-J	
C9A29	142P010090	C-CER - B500V 470P-K	
C9A33	181P735020	C-ELEC - 25V 1000M-M 105C	
C9A34	181P352040	C-ELEC - 16V 100M-M	
C9A35	142P024060	C-CER - BF50V 0.1M-Z	
C9A39	181P355000	C-ELEC - 50V 0.47M-M	
C9A50	142P020050	C-CER - B50V 470P-K	
C9A51	181P554060	C-ELEC - 35V 220M-M	
C9A52	154P400070	C-CER - B1KV 2200P-K	
C9A53	185D122050	C-ELEC - H200V 1000M-M 105C	
C9A54	154P260080	C-CER - R1KV 3300P-K	
C9A55	172P339070	C-POLY - 50V 560P-J	
C9A56	181P355080	C-ELEC - 50V 47M-M	
C9A57	142P010090	C-CER - B500V 470P-K	
C9A58	185D163020	C-ELEC - H50V 4700M-M 105C	
C9A59	185D122050	C-ELEC - H200V 1000M-M 105C	
C9A60	154P400030	C-CER - B1KV 470P-K	
C9A61	142P010090	C-CER - B500V 470P-K	
C9A62	189D183010	C-ELEC - 400V 100M-KC	
C9A63	185D063030	C-ELEC - H180V 820M-M 105C	
C9A64	181P780070	C-ELEC - 160V 22M-M 105C	
C9A65	181P194000	C-ELEC - 250V 10M-M/Q	
C9A66	142P012050	C-CER - B500V 0.01M-K	
C9A68	142P010090	C-CER - B500V 470P-K	
C9A69	181P736070	C-ELEC - 35V 330M-M	
C9A70	181P736070	C-ELEC - 35V 330M-M	
C9A71	181P736070	C-ELEC - 35V 330M-M	
C9A72	181P736070	C-ELEC - 35V 330M-M	
C9A73	181P736070	C-ELEC - 35V 330M-M	
C9A74	142P010090	C-CER - B500V 470P-K	
C9A81	172P181030	C-PLA-PP - 200V 0.01M-J	
C9A82	142P024060	C-CER - BF50V 0.1M-Z	
C9A83	181P355050	C-ELEC - 50V 10M-M	
C9B01	142P023080	C-CER - BF50V 0.01M-Z	
C9B02	142P023080	C-CER - BF50V 0.01M-Z	
C9B03	181P736070	C-ELEC - 35V 330M-M	
C9B04	142P020090	C-CER - B50V 1000P-K	
C9B05	181P735020	C-ELEC - 25V 1000M-M 105C	
C9B06	181P746060	C-ELEC - 35V 330M-M	
C9B07	142P020090	C-CER - B50V 1000P-K	
C9B08	181P735020	C-ELEC - 25V 1000M-M 105C	
C9B10	181P352080	C-ELEC - 16V 1000M-M	
C9B11	181P352080	C-ELEC - 16V 1000M-M	
C9C01	181P352030	C-ELEC - 16V 47M-M	
C9C05	181P352030	C-ELEC - 16V 47M-M	
C9C11	181P352030	C-ELEC - 16V 47M-M	
C9C15	181P352030	C-ELEC - 16V 47M-M	
C9C21	181P352030	C-ELEC - 16V 47M-M	
C9C22	181P352030	C-ELEC - 16V 47M-M	
C9C30	181P351080	C-ELEC - 10V 1000M-M	

MODEL: WT-42313 / WT-42413

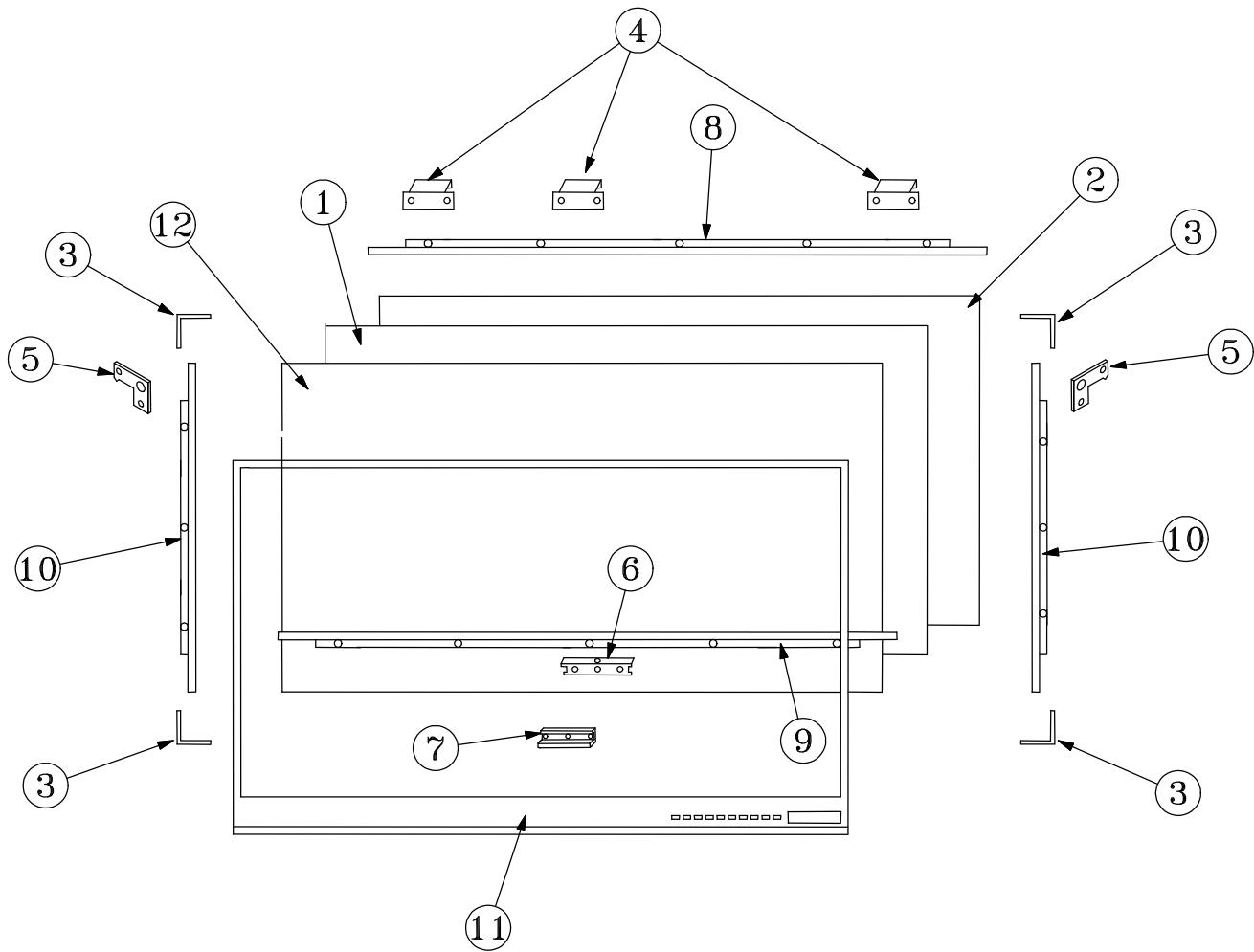
[#] Model Legend: (1) WT-42313, (2) WT-42413

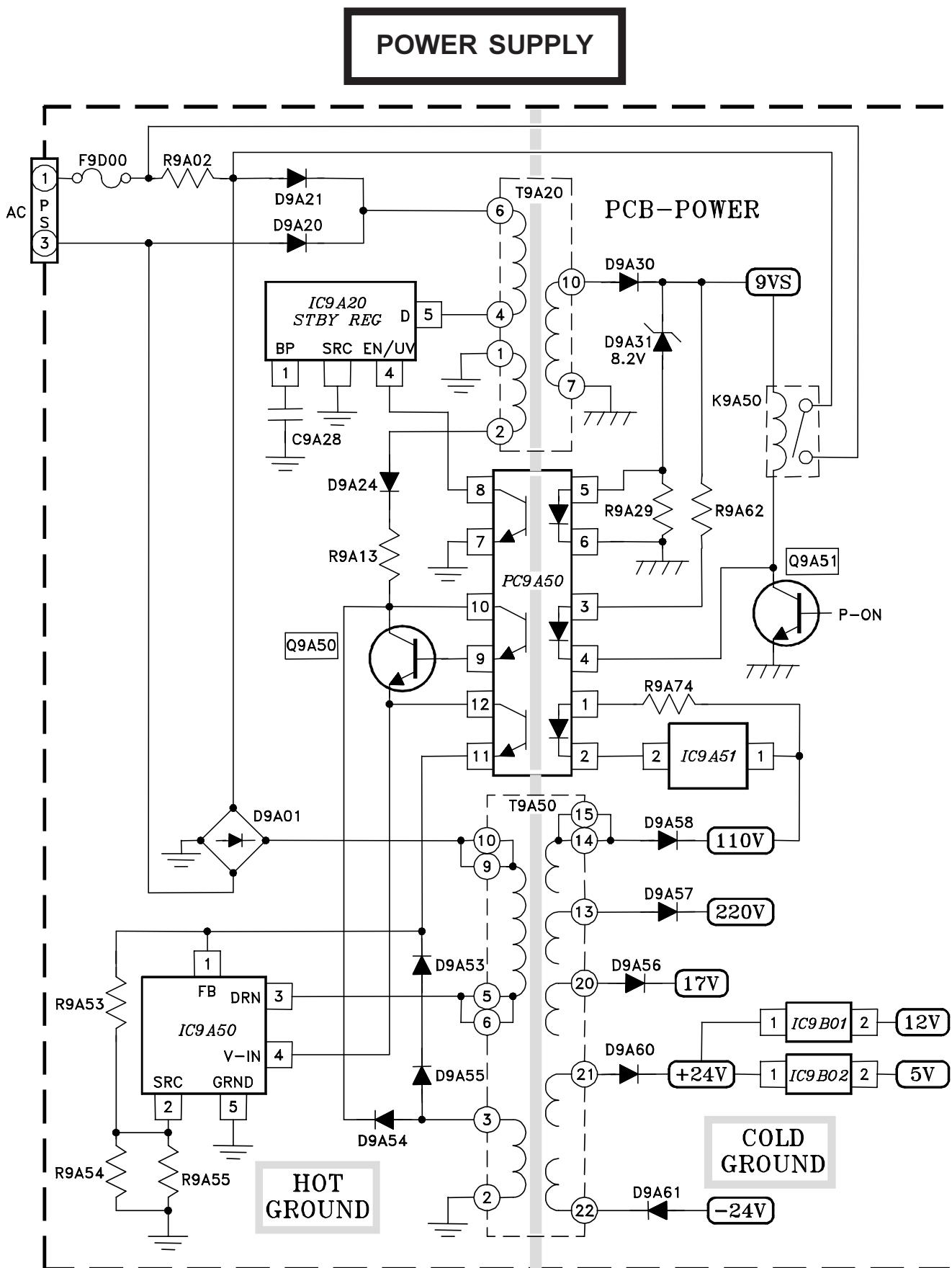
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C9C31	181P351080	C-ELEC - 10V 1000M-M		PJ2J05	440C408010	PIN-JACK-BOARD-3P			
C9C32	181P352030	C-ELEC - 16V 47M-M		PJ2J11	440C412010	PIN-JACK-BOARD-3P			
C9C35	181P212060	C-ELEC - 16V 47M-M		TU1A01	295P516010	TUNER-TV - 115-V-F045AP			
C9C41	181P352030	C-ELEC - 16V 47M-M		TU1B01	295P516020	TUNER-TV - 115-V-F025AP			
C9C42	181P210040	C-ELEC - 6.3V 100M-M		X2L00	285P426010	QTZ-CRYST - 3.579545MHZ			
C9C51	181P350080	C-ELEC - 6.3V 3300M-M		X2LA0	285P426010	QTZ-CRYST - 3.579545MHZ			
C9D00	189P153040	C-M-POLY - 250VAC 0.1M-M		X2M30	285P426040	QTZ-CRYST - 20.000MHZ			
C9D01	189P153040	C-M-POLY - 250VAC 0.1M-M		X2N00	285P426020	QTZ-CRYST - 4.000000MHZ			
CF2L00	299P128010	CERAMIC-OSC - CSB500F2		X2S00	285P426020	QTZ-CRYST - 4.000000MHZ			
CF2LA0	299P128010	CERAMIC-OSC - CSB500F2		X3A01	285P413010	QTZ-CRYST - 18.432MHZ			
CF2V01	299P259010	OSC-CERAMIC - CSALA2M69G4ZF01-B0 2.69MHZ		X7A13	285P426030	QTZ-CRYST - 10.000MHZ			
CF7A01	299P261010	OSC-CERAMIC - CSTLS27M0X51-A0		X7H00	285P335050	QTZ-CRYST - 80.000MHZ			
SWITCHES									
S7L21	432P109010	SW-KEY BOARD - KSHS611BT		Z7K01	939P617010	UNIT-PREAMP - GP1U283Q			
S7L22	432P109010	SW-KEY BOARD - KSHS611BT		PRINTED CIRCUIT BOARDS					
S7L23	432P109010	SW-KEY BOARD - KSHS611BT		930B909001	ASSY-PWB-MAIN				
S7L24	432P109010	SW-KEY BOARD - KSHS611BT		930B910001	ASSY-PWB-POWER				b
S7L25	432P109010	SW-KEY BOARD - KSHS611BT		930B911001	ASSY-PWB-SIGNAL				a
S7L26	432P109010	SW-KEY BOARD - KSHS611BT		930B911002	ASSY-PWB-SIGNAL				
S7L27	432P109010	SW-KEY BOARD - KSHS611BT		930B912001	ASSY-PWB-TERMINAL				
S7L28	432P109010	SW-KEY BOARD - KSHS611BT		934C005003	ASSY-PWB-CRT				
S7L29	432P109010	SW-KEY BOARD - KSHS611BT		934C006003	ASSY-PWB-SVM				
MISCELLANEOUS									
LENS-TAPE	DF TAPE - ADHESIVE			935C996001	ASSY-PWB-DOUBLER				
246C351050	CORD-AC - POWER			935D660003	ASSY-PWB-PREAMP				
292C955010	CLIP-RADIATOR			935D661001	ASSY-PWB-UNI				
305P702030	2RF-SW			935D662003	ASSY-PWB-CONTROL				
330P288010	YOKE-DEFL - VK20 R/G/B			935D663003	ASSY-PWB-DBF				
411D044020	CORE-FERRITE - R19.5 L32			COSMETIC PARTS					
411D062010	CORE-FERRITE - R15 L18			705C011010	DOOR - CONTROL				
411D063020	CORE-FERRITE - CAT3035			750A433010	COVER-BACK				a
449C141030	SOCKET-CRT			750A435020	GRILLE-SPEAKER				
453B036040	CAP-ANODE - 14.5"			750A436010	PANEL - TERMINAL-BOARD				
453B036050	CAP-ANODE - 22"			750A482010	COVER-BACK - TERMINAL				
453B036060	CAP-ANODE - 12"			760B271010	INLAY-TERMINAL				
480P053010	SPEAKER - 5"			761A208010	GRILLE-SPEAKER				b
490P220030	LENS-BARREL - ALL COLORS			ACCESSORIES					
494D006010	MIRROR - 42"			290P116010	REMOTE CONTROL - V22				a
AG6B01	224D019090	AIR GAP - 1.5+-0.5KV		290P117010	REMOTE CONTROL - V22+/V23				b
AG6G01	224D019090	AIR GAP - 1.5+-0.5KV		I/QR WT42313	GUIDE-QR				a
AG6R01	224D019090	AIR GAP - 1.5+-0.5KV		I/QR WT42413	GUIDE-QR				b
F5A00	283P043060	FUSE - LF251 3A		853B399010	CARD-REGISTRATION				
F9A02	283P044020	FUSE - LF251 10A		I/B WT42313	GUIDE - OWNERS				a
F9A03	283P043090	FUSE - LF251 5A		I/B WT42413	GUIDE - OWNERS				b
F9A04	283P044020	FUSE - LF251 10A							
F9A05	283P043090	FUSE - LF251 5A							
F9B01	283P043060	FUSE - LF251 3A							
F9D00	283D131040	FUSE - S10A 125A							
J2C01	452C383010	CONNECTOR-DSUB							
J2D01	452C385010	CONNECTOR-DVI							
K9A50	287P100010	RELAY-PWR - DG9D1-0(M)-II-0.25W							
PC9A21	268P058020	PHOTO-COUPLER - ON3131-R/ON3161-R							
PC9A50	268P106010	PHOTO-COUPLER - CNZ3133							
PJ2J00	440C407010	PIN-JACK-BOARD-6P							
PJ2J01	440C410020	PIN-JACK-BOARD-5P							
PJ2J02	440C410010	PIN-JACK-BOARD-5P							
PJ2J03	440C410010	PIN-JACK-BOARD-5P							

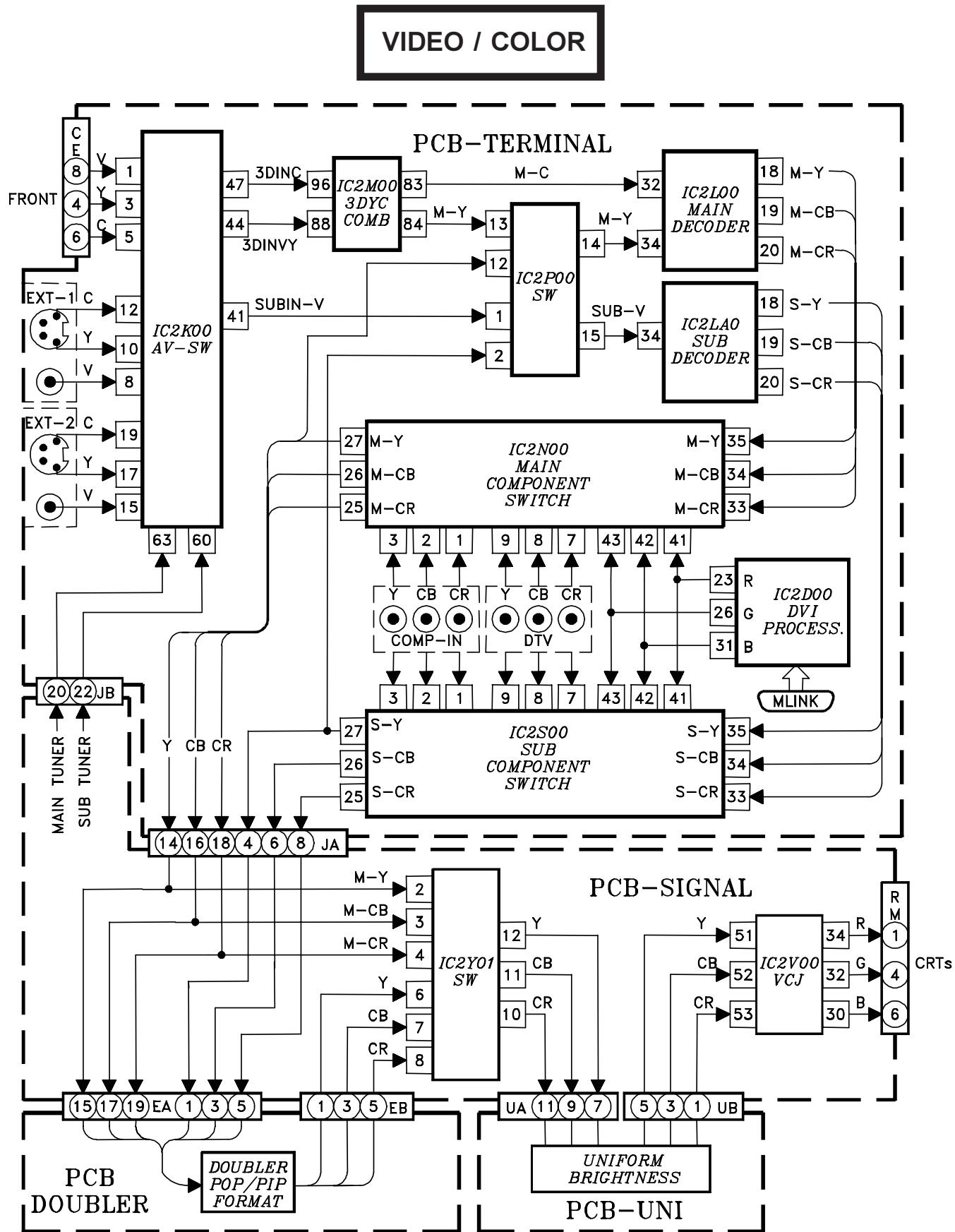
MODELS: WS-42311 / WT-42413

[#] Model Legend: (a) WT-42313, (b) WT-42413

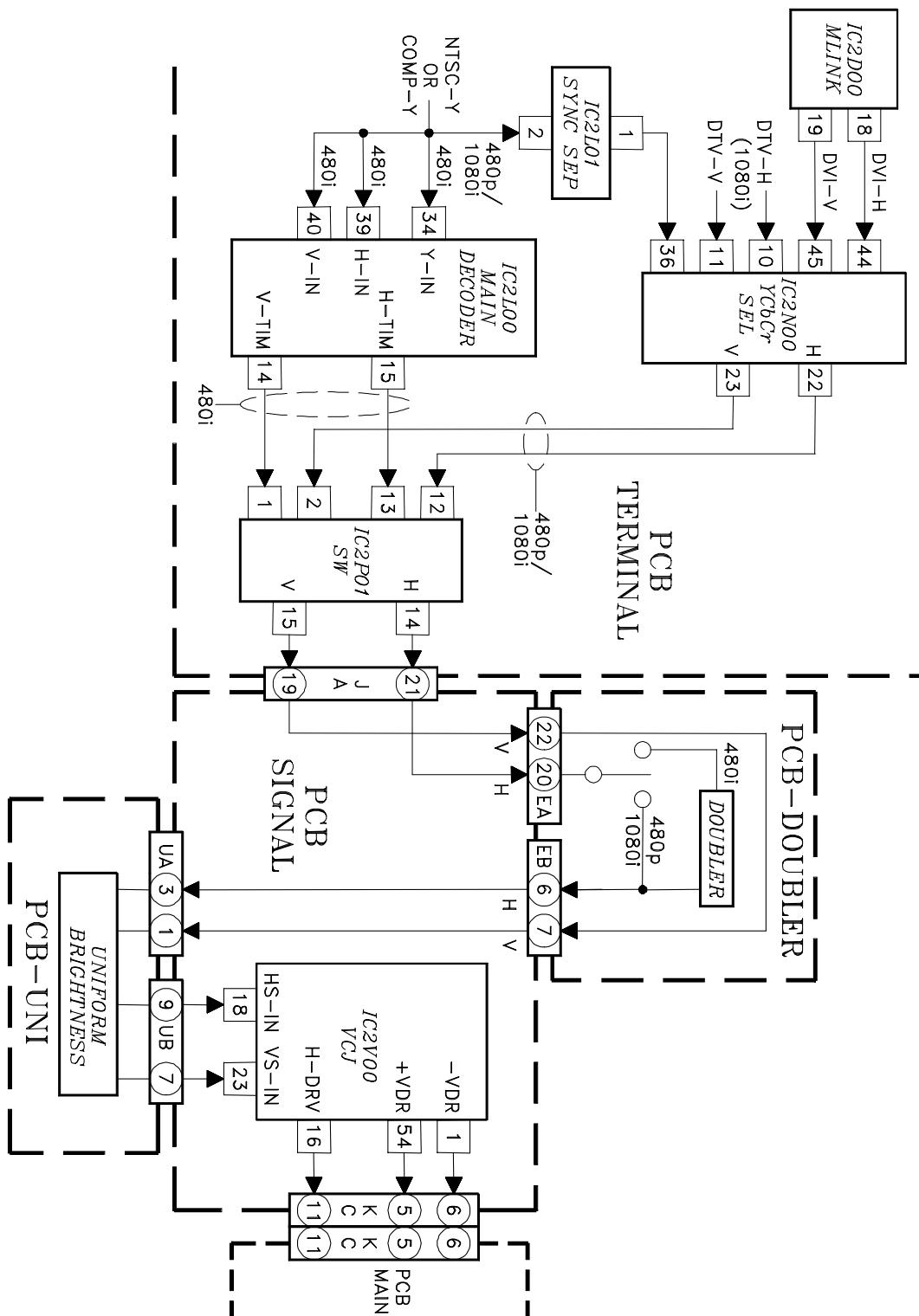
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SCREEN ASSEMBLY PARTS							
(1)	491P136020	SCREEN-LENTICULAR					
(2)	491P137020	LENS-FRESNEL					
(3)	596C569010	SCREEN - BRACKET-CORNER					
(4)	598D298010	SCREEN - BRACKET-MASK					
(5)	598D300010	SCREEN - BRACKET-SIDE					
(6)	598D548010	SCREEN - BRACKET-BTM					
(7)	598D549010	BRACKET-SHIELD					
(8)	641B942010	SCREEN - HOLDER-TOP					
(9)	641B942020	SCREEN - HOLDER-T					
(10)	641B943010	SCREEN - HOLDER-SIDES					
(11)	750A434020	FRAME-FRONT - WT-42413	b				
(11)	750A434030	FRAME-FRONT - WT-42313	a				
(12)	760D628070	DIAMOND SHIELD					

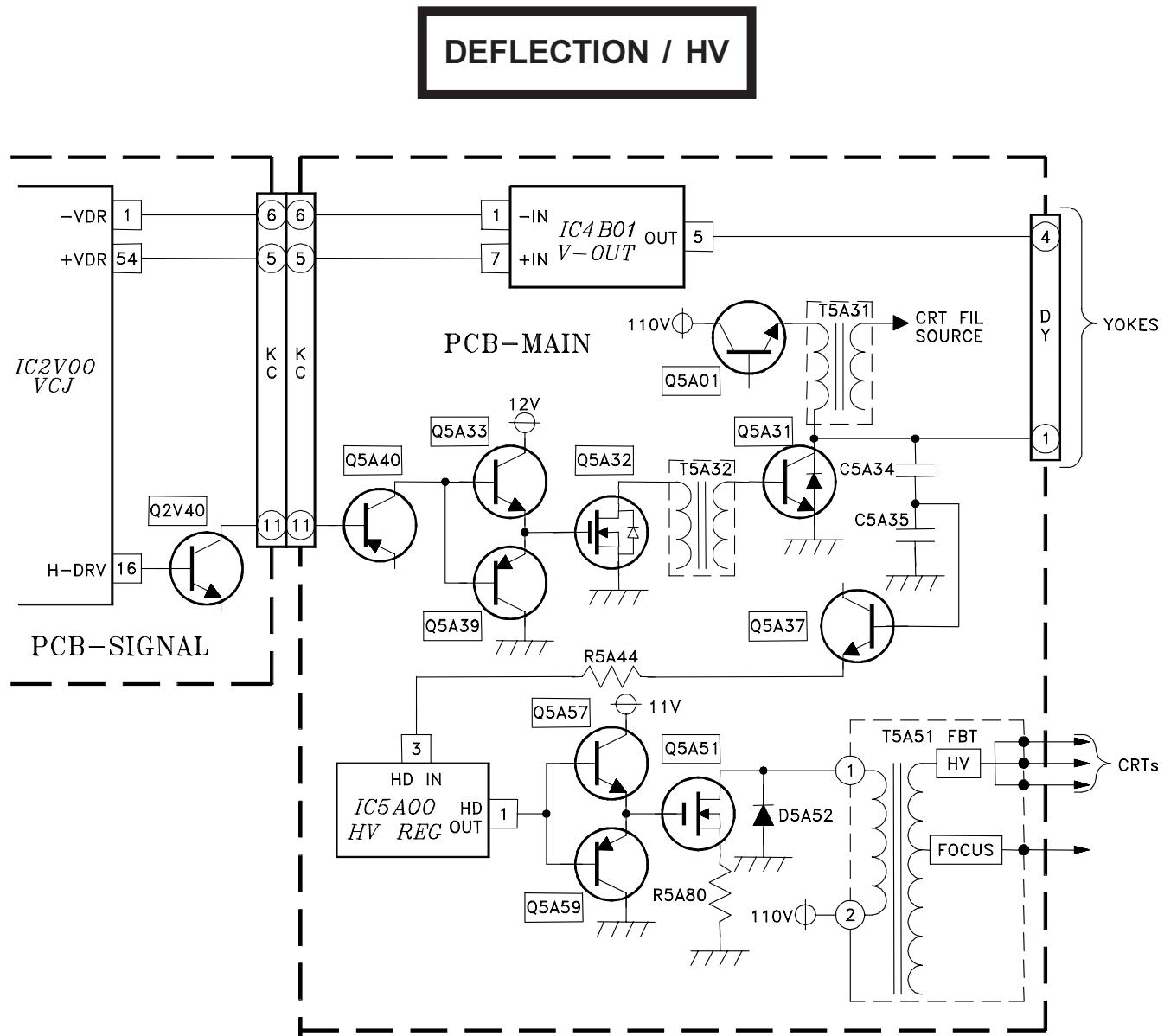




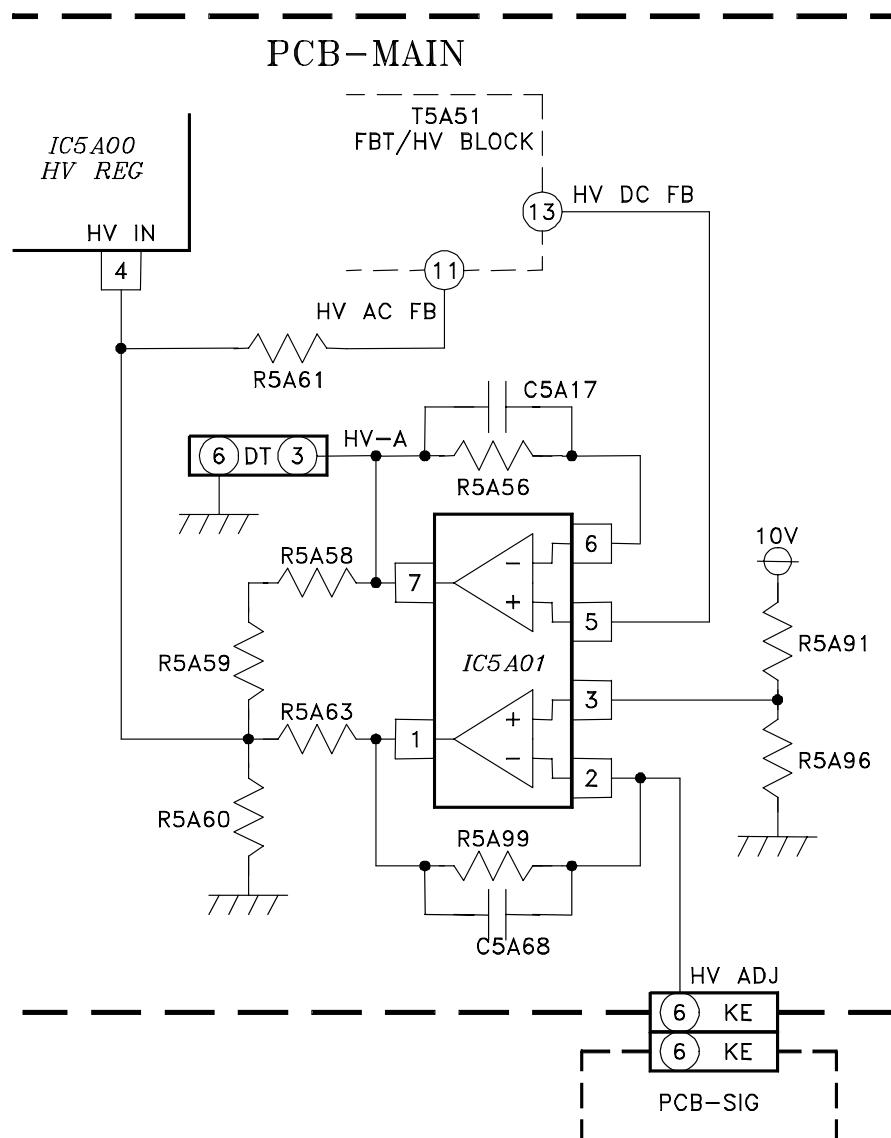


SYNC SIGNAL PATH

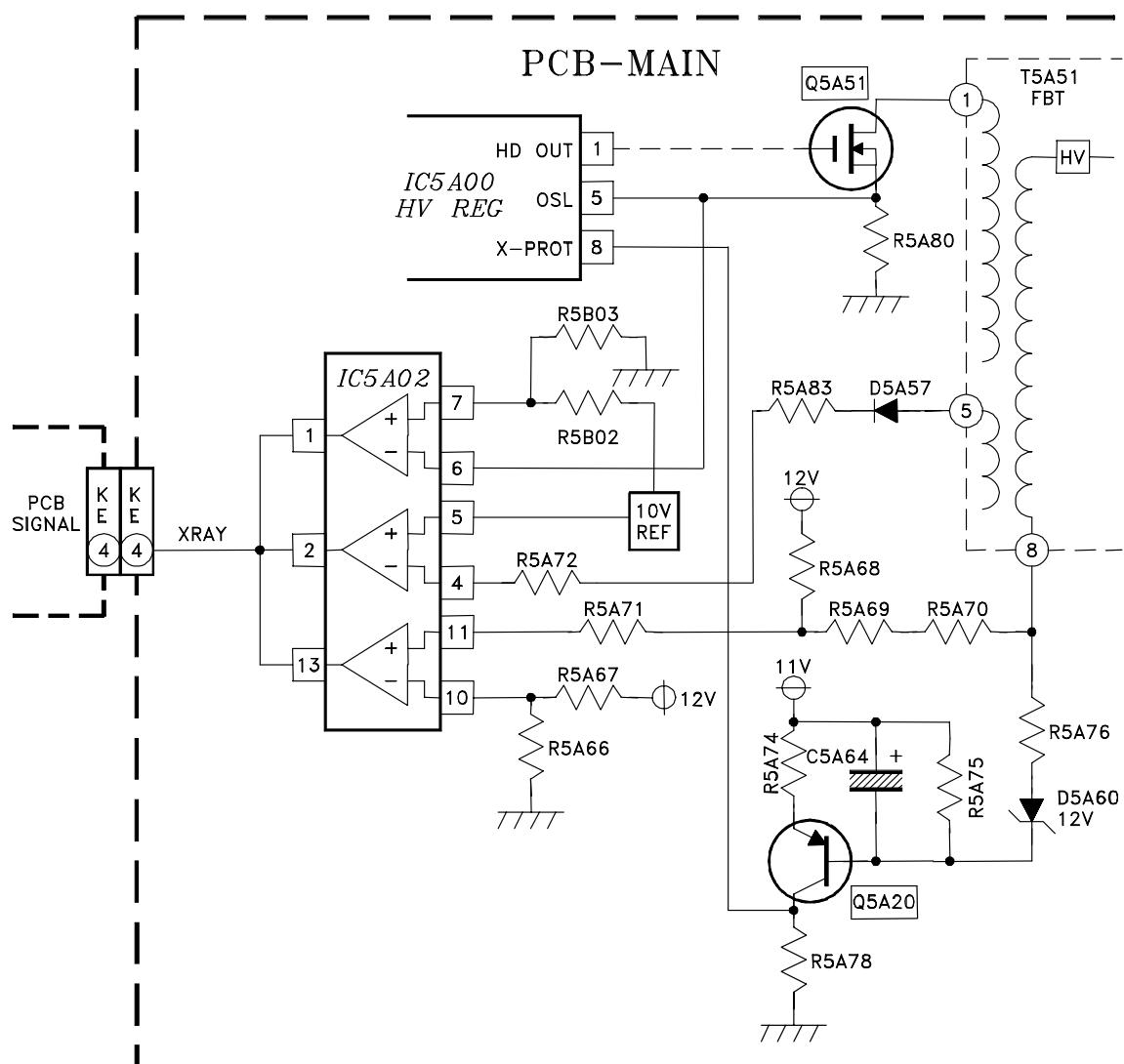




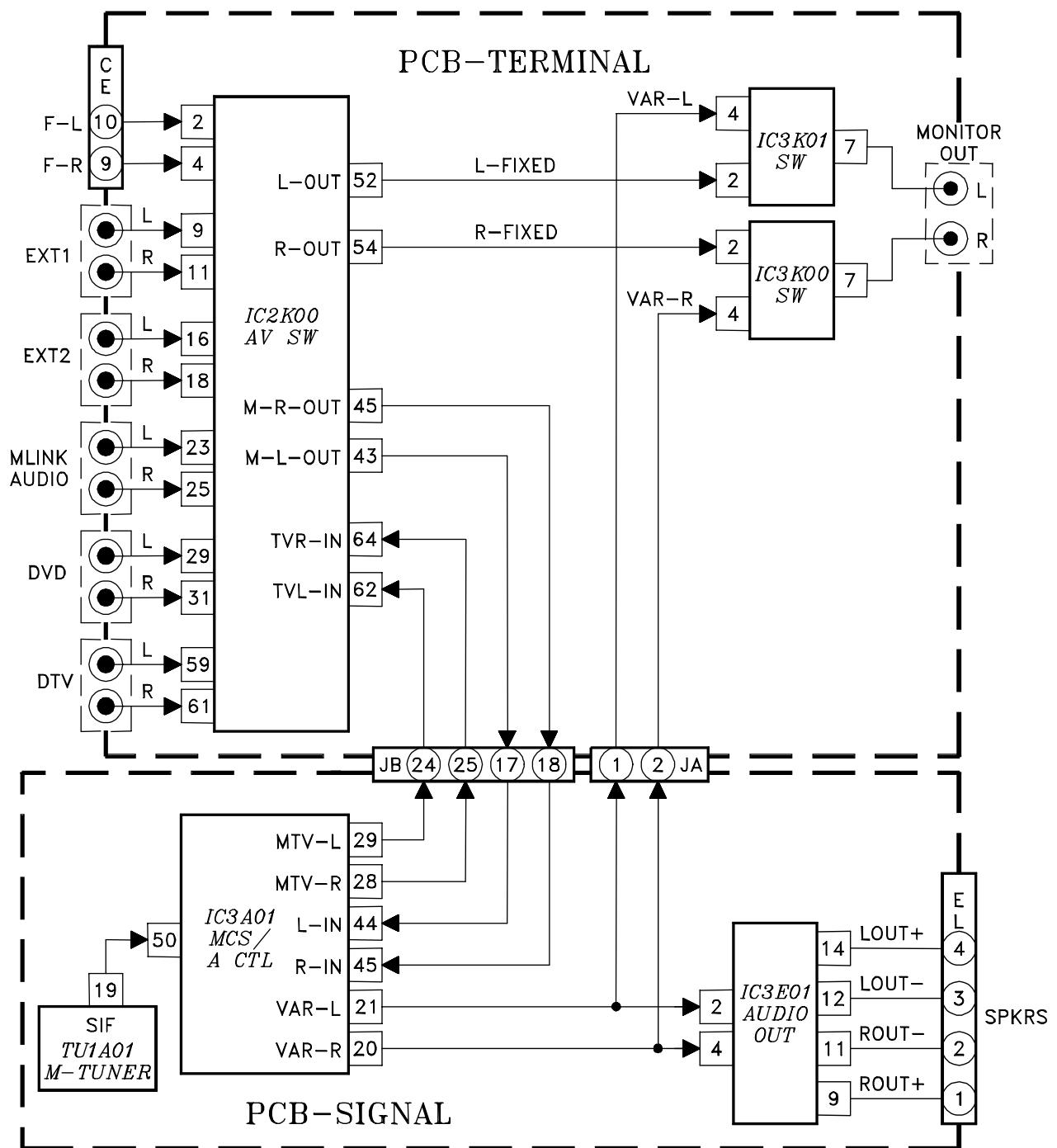
HV REGULATION



X-RAY PROTECT



SOUND SIGNAL PATH



CONVERGENCE

