Option Menu
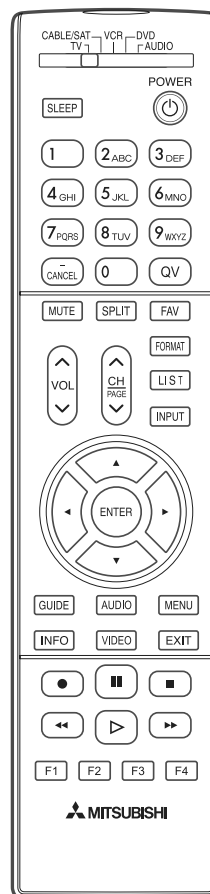
OPTION MENU

1. Press the <MENU> button on the remote control.
2. Press the buttons<2-4-7-0>.
   (The screen will display the Option Menu.)

Initialize	
Power Restore:	**Off**
Production Mode:	**Off**
G-LINK	**Off**
Wired IR	**On**
Digital Signal Strength:	**N/A**
Netcommand Software	**V40 xxx.xx**
xxx xxx xxx xxx	
xxx xxx xxx xxx	
xxx xxx xxx	
xxx xxx xxx	
Total hours of use:	**XXXXX**

REMOTE CONTROL

CABLE/SAT — VCR — DVD
TV — AUDIO

POWER

SLEEP

1 2 ABC 3 DEF
4 GHI 5 JKL 6 MNO
7 PQRS 8 TUV 9 WXYZ
CANCEL 0 QV

MUTE SPLIT FAV

FORMAT

VOL CH PAGE LIST

INPUT

ENTER

GUIDE AUDIO MENU
INFO VIDEO EXIT

● ‖ ■
◄◄ ▷ ►►

F1 F2 F3 F4

◆ MITSUBISHI

DIGITAL SIGNAL STRENGTH

1. Tune to a Digital Channel.
2. From the Option Menu scroll down and highlight Digital Signal Strength.
3. Press <ENTER>.

Example of Digital Signal Strength Display

Signal Quality Index (0-100)

SNR Recommended Levels:
  VSB = 15 to 35
  64 QAM = 22 to 34
  256 QAM = 27 to 37

Signal Noise Ratio

	Tuner 0	Tuner 1	OOB Tuner
Frequency (MHz):	597	0	0
Signal Level:	8	0	0
Modulation:	256 QAM	Unknown	Unknown
Carrier Lock:	Locked	Unknown	Unknown
SQI	100	0	0
SNR	34.3	0	0
Correctable errors:	0	0	0
UnCorrectabel errors:	0	0	0

Reset / Initialization

SERVICE TIP:

Many customer generated symptoms, intermittent symptoms or no symptom found can be resolved by using the various Reset and Initialization options. Before visiting the customer's home ask the customer 1st to try the **System Reset** button on the control panel and if this does not resolve the issue, then they can perform an **A/V Reset** by pressing the **Guide + Format** buttons on the front panel at the same time. Then, if necessary, perform a user level **Initialization** by pressing **MENU-123-ENTER** with the remote. The customer should be made aware when settings and/or options will be reset. For more information, see the chart below.

> **NOTE:** During Initialization, the set will reboot. Wait until the Power LED stops flashing before unplugging or powering ON the TV.

Reset / Initialization Guide

Reset Name	When to use	How to use	Resulting Action
Remote Control TV Layer Reset	Returns the remote control TV layer to normal operation.	1) Set the slide switch to **TV** position. 2) Press and hold the **POWER** button until it flashes twice then release the button. 3) Enter the code **0 0 9 3 5**.	Once the valid code has been entered and confirmed, the remote contrrol has been reset.
Remote Control TV Volume/Mute functions	Returns the volume and mute functions of the remote control to TV volume and mute for TV, Cable/Sat, VCR and DVD layers after the Audio Lock for AV Receiver feature has been used.	1) (1) Set the slide switch to **TV** position. 2) (2) Press and hold the **POWER** button until it flashes twice then release the button. 3) (3) Enter the code **9 9 3 VOL UP**.	The remote will now operate the TV's volume and mute when the slide switch is in the TV, CABLE/SAT, VCR or DVD positions.
A/V Memory Reset, by individual input	When the audio and or video settings for a single input seems to be incorrect.	**MENU --> Audio/Video--> AV Reset**	All Audio and Video settings for the individual input are reset except for the *Listen To, Language, Balance* and *Closed Caption* settings.
A/V Reset, all inputs	To reset audio and video adjustments for all inputs to the original factory settings.	While viewing the TV, press the front panel buttons **GUIDE + FORMAT** at the same time.	All Audio and Video settings are reset to the factory default settings. No other menu options are changed.
System Reset	To reset the TV when it does not turn on or off, does not respond to the remote control, front panel buttons or has other unusual symptoms.	Press the **SYSTEM RESET** button on the front panel with a pointed object such as a pencil or paperclip.	TV Micro Re-boots. Note: The changes made during the current TV-On period may be lost. All other previous user settings are not lost.
Initialize User Level	To reset all customer settings except V-Chip	Press **MENU - 123 - ENTER**	All customer menu options and A/V settings except V-Chip are reset to factory default.
Initialize - Service Level	To reset all customer settings	**MENU - 2470**. Highlight **INITIALIZE** and press **ENTER**	All customer menu options and A/V settings are reset to factory default.
V-Chip Password Bypass	If V-Chip password is not known	Press **QV + 9** at the same time.	Password will be bypassed. If in the V-Chip menu, enter a new password.
Unlock Front Panel	To unlock the front panel if it has been locked in the V-Chip Menu.	Press and hold the front panel **MENU** button for 8 seconds.	Front Panel becomes operational. Other V-Chip settings not changed. Note: Cannot be performed while in the Low Power mode and the set is Off.

Reset / Initialization (Continued)

When INITIALIZATION is selected, all Customer Menu and Audio/Video settings are returned to the factory default values listed in the following charts.

INITIAL SETTINGS

Audio/Video		
Settings		
Video		
Picture Mode	Brilliant	
Brilliant Contrast	100%	
Brilliant Brightness	50%	
Color	50%	
Tint	50%	
Sharpness	50%	
Brilliant Color Temp	High	
Video noise (High-Medium-Low-Off)	Medium	
SharpEdge	On	
Deep Field Imager	On	
Audio		
Bass	50%	
Treble	50%	
Balance	50%	
Sound mode	Normal	
Listen To (Analog Only)	Stereo	
Language (Digital Only)	English	
Level Sound	Off	
Global		
Video Mute	On	
Audio Only Screen Saver	On	
Film Mode	Auto	
Smooth 120Hz	Off	
Blue Glow	On if TV On	
Test picture	--	
Format		
Ant-1,2 (480I)	Stretch	
Ant-1,2 (HD Digital)	Standard	
Input-1,2,3,4	Stretch	
HDMI-1,2, 3, 4 (Video or PC)	Standard	
USB Photo	Standard	

Setup Menu		
Language (Idioma)	English	
Scan		
Ant1 Air	--	
Ant1 Cable	--	
Ant2 Air	--	
Ant2 Cable	--	
Start		
Edit		
Channel in Memory	All Added	
Name	--	
FAV1	unchecked	
FAV2	unchecked	
FAV3	unchecked	
FAV4	unchecked	
FAV5	unchecked	
FAV6	unchecked	
Lock	Unlock	
Timer Clock		
Settings	Manual	
Time	12:00pm	
Date	1/1/2008	
Time Zone	Eastern	
Daylight Savings	Applies	
Timer	Gray out	
Timer	Off	
Day	Daily	
Time	12:00pm	
Input	ANT-1	
Channel	2	
Energy		
Energy Mode	Fast Power On	
3D Mode	Gray out	
TV Volume	30%	

Reset / Initialization (Continued)

INITIAL SETTINGS (Continued)

Inputs Menu	
Name	
Ant-1	On
Ant-2	On
Input-1	Gray out
Input-2	Gray out
Input-3	Gray out
Input-4	Gray out
HDMI-1	Gray out
HDMI-2	Gray out
HDMI-3	Gray out
HDMI-4	Gray out
Order	Ant-1, Ant-2
Learn	-- (Gray out for antenna)
AVR	--
Learn	--
Power On	--
Volume Up	--
Volume Dn	--
Mute	--
Power Off	--
Input 1	--
Input 2	--
Input 3	--
Input 4	--
Input 5	--
HDMI Control	
NetCommand HDMI Control	Off

Captions Menu	
Closed Captions	
Analog Captions	On if Mute
Analog Background	Gray
Digital Captions	On if Mute
Digital Settings	
Font	Default
Font Size	Large
Font Color	White
Font Opacity	Translucent
Background Color	Black
Background Opacity	Translucent

Lock Menu	
Parent	
Lock	Off
TV Rating	TV-PG, TV-14,TV-MA locked and all categories for each locked PG, PG-13, R, NC-17, X locked
Movie Rating	12:00pm
Start Time	12:00pm
Stop Time	Gray out until available
Other	Off
Other ratings	TBD
Rating Group	TBD
Rating	
Time	Off
Lock by Time	12:00pm
Lock Time	12:00pm
Unlock Time	
Control Panel	Off
Lock Front Panel Buttons	

Reset / Initialization (Continued)

A/V MEMORY

Each of the external inputs has it's own Audio/Video Memory. A change in an A/V setting at a specific input is stored in memory for that specific input.

A/V RESET

1. Press the front panel <GUIDE> and <FORMAT> buttons at the same time to initialize the A/V Memory for all inputs.
2. The AV Reset in the user's menu initializes only the selected input's A/V Memory.

INITIAL AUDIO/VIDEO SETTINGS BY INPUT

A/V Memory	Ant	INPUT	HDMI (Video)	HDMI (PC)	HDMI (PC 3D)	USB (JPEG)
Picture mode	Brilliant	Brilliant	Brilliant	Bright	Bright	Brilliant
Brilliant Contrast	MAX	MAX	MAX	MAX	MAX	MAX
Brilliant Brightness	Center	Center	Center	Center	Center	Center
Color	Center	Center	Center	Center	Center	Center
Tint	Center	Center	Center	Center	Center	Center
Sharpness	Center	Center	Center	Center	Center	Center
Color Temp.	High	High	High	High	High	High
Perfect Color	Center	Center	Center	Center	Center	Center
Perfect Tint	Center	Center	Center	Center	Center	Center
Deep Field Imager	On	On	On	n/a	n/a	On
Video Noise	Medium	Medium	Medium	Medium	Medium	Medium
Film Mode	Auto	Auto	Auto	n/a	n/a	n/a
SharpEdge	On	On	On	On	Off	On
Bass	Center	Center	Center	Center	Center	n/a
Treble	Center	Center	Center	Center	Center	n/a
Balance	Center	Center	Center	Center	Center	n/a
Sound mode	Normal	Normal	Normal	Normal	Normal	n/a
Listen To	Stereo	n/a	n/a	n/a	n/a	n/a
Level Sound	Off	Off	Off	Off	Off	n/a
Language (Digital only)	English	n/a	n/a	n/a	n/a	n/a
Vertical Position	n/a	n/a	n/a	Center	Center	n/a
Horizontal Position	n/a	n/a	n/a	Center	Center	n/a

LED Indicator Diagnostics

FRONT PANEL LED INDICATIONS

The front panel LEDs provide an indication of the set's operation, and the possible cause of a malfunction. There are two front panel LEDs, "Power" and "Status." The LED display shows the current status or indicates a possible malfunction. If an abnormal condition is indicated, proceed to the Error Code Operational Check for more specific information.

STATUS   POWER
●   ●

NORMAL LED INDICATIONS

Power LED	Status LED	Condition
Off	Off	Off (Standby)
Fast Blinking Green	Off	Initialization (40 - 60 seconds after set plugged in or System Reset)
Green	Off	Power On
Slow Blinking Green	Off	Power On Timer is set

ABNORMAL LED INDICATIONS

Power LED	Status LED	Condition
Off	Yellow	Temperature high – room hot. Laser unit temperature is abnormally high. Optical fiber temperature is abnormally high.
Off	Blinking Yellow	Cover-back (top/bottom) is open. Laser unit is not assembled completely.

Off	Red	Laser unit failure
		Laser abnormal brightness
		Linear motor failure
		Communication in laser unit failure
		Chassis side failure
		  Communication with laser micro fail
		  Communication with engine fail
		   No Lamp-EN, No ASIC-ready
		  DVI cable disconnection
		Circuit failure (short)

Off	Blinking Red	Fan Stop (DMD Fan, Fan in laser unit)

ERROR CODE OPERATIONAL CHECK

When an abnormal condition is indicated by the Status LED, perform the Error Code Operational Check.
To activate, press the front panel <INPUT> and <MENU> buttons at the same time and hold for 5 seconds.
The "POWER LED" will then flash denoting a two digit code.

- 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.

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.

Note: Use the front panel buttons, not the remote control.

Note: If there is no response, the front panel may be locked by a V-Chip setting. To unlock, press and hold <MENU> for 5 seconds.

LED Indicator Diagnostics (Continued)

Error Codes

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

Error Code	Lock Out?	Description	Possible Cause
12		No serious error since last main power on or last micro initialization, or no errors in the error code history list.	
13		Cover-4 (Light Source Assembly) is open.	Contact MDEA Tech Support 1-800-552-8324
14		If this is detected immediately after AC is applied, Standby Power supply short is detected.	PWB-MAIN
14		If this is detected after POW-ON from standby, Power supply (SPA3.3V) short is detected.	PWB-MAIN
16		LAMP-EN doesn't output from engine to TV micro	Optical Engine
17		Engine I2C bus communication error is detected	Optical Engine, PWB-MAIN
18		ASIC-ready from engine is not detected.	Optical Engine, PWB-MAIN
19	Yes	Fiber Optic Cable disconnected Or SENSOR-RGB Data is out of limits.**	Check lead-connector LN-SN connection. Check SENSOR-RGB board. Check fiber optic connection at Light Source Replace Engine/Optic Cable Replace Light Source Assembly
23		Cover-1 (bottom rear cover) is open.	Contact MDEA Tech Support 1-800-552-8324
25		Excessive temperature within Light Source	Air circulation
26		Laser FAN1 or 2 stop	Light Source Assembly
29		Internal communication error Laser micro	Light Source Assembly
37		DMD-FAN stops.	DMD Fan, Engine
38	Yes	Laser unit temperature is abnormally high.	Air Circulation, Light Source Assembly
39		Abnormal low ambient temperature within Light source	Temperature too low, Light Source Assembly
44		DVI cable is disconnected.	DVI Cable or connection
45		Diffuser motor stops.	Engine
46	Yes	Fiber temperature is abnormally high.	Check optical fiber condition Replace Engine/Optic Cable
48		P-ON short	PWB-MAIN
49	Yes	Laser abnormal brightness	Light Source Assembly
56		FPGA communication error with laser micro	Light Source Assembly
57		Communication error between TV micro and Laser micro	PWB-MAIN or Light Source Assembly
58		Power supply short in Laser unit	Light Source Assembly
67		Linear motor 1 or 2 abnormal	Check Connector SC, Screen Assembly call MDEA 1-800-888-6773
68		Cover-3 (top rear cover) is open.	Contact MDEA Tech Support 1-800-552-8324

Lock Out: Receiver is locked and cannot be powered on even after AC-reset.

After correcting the cause, re-boot the TV and Un-Lock the set by pressing <MENU> and <Ch Down> for 5 seconds until Red Status LED goes out.

** Error Code 19: To reset the SENSOR-RGB Data, first perform the Un-Lock procedure. Then with the set Off (Standby) press <MENU> and <Ch Up> for 5 seconds until the STATUS LED turns green for 3 seconds. After operation is restored, perform the MEMORIZE SENSOR-RGB procedure detailed in the Data Transfer section.

LED Indicator Diagnostics (Continued)

ERROR CODE LOG
The Error Code Log - may be helpful to retrieve the code for an error the occurred in the past.
To access the Error Code Log: Press <MENU> <3-5-6-4>

Error Code Definitions
- Page - Current page number
- Current Time - total hours of operational use.
- Lamp Time - usage hours when the error occurred.
- Code - the specific Error Code that occurred.
- Status - Two types:
    OCCURRENCE - when the error occurred.
    RECOVERY - when normal operation resumed.

NOTE: The Error Code Log is intended as a reference tool and is not meant to be used as a final determination of a defective part.

```
***** PAGE (002/002) *****

CURRENT TIME: 01455 HOURS

LAMP TIME       CODE  STATUS
00413 HRS        57   OCCURRENCE
00413 HRS        57   RECOVERY        Press Up to Previous Page
00716 HRS        32   OCCURRENCE
00716 HRS        32   RECOVERY        Press Right to Top Page
00905 HRS        61   OCCURRENCE
00905 HRS        61   RECOVERY        Press CANCEL to Initialize
                                      Press MENU to Exit
```

Service Adjustments

There are 2 types of Service Adjustments required in this model, Electrical and Mechanical:

Electrical Adjustments

- Horizontal and Vertical Centering
- TSP Alignment
- 16 Point Keystone Alignment
- 4:3 Geometry
- Letterbox Geometry

Mechanical Adjustments

- ASP Mirror Alignment

Measuring Equipment and Jigs

- Remote Control.   No other Test Equipment is required.

Test Signals

- Internally generated Test Signals are used. No additional external signals are required.

NOTE: Except when specified, the receiver should be fully assembled for all Service Adjustments.

SERVICE MODE

The Service Mode is used for:

- Test Signal activation - Used for both Electrical and Mechanical Adjustments.
- Horizontal and vertical position adjustment
- Keystone, 4:3 and letterbox geometry adjustments.
- Data transfer (restore and backup).
- Memorize RGB Sensor.

1. Activating the Service Mode

1. Press the "MENU" button on the remote control. The "Customer Menu" will appear.
2. Press <2-4-5-7>. The Service Menu below will appear. If not, press "EXIT" and repeat steps 1 and 2.

```
ISF

TVM
     1.HVPOS          13
                    65530
```
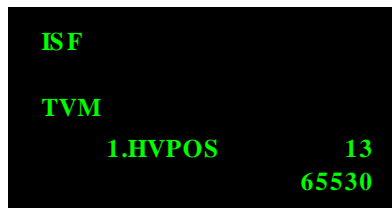
2. Test Pattern Activation

When in the Service Mode, press PLAY <▷> to activate the internal test patterns (no indication will be given), then use FAST FORWARD <►►> or REWIND <◄◄> to select the desired Test Pattern.

Service Adjustments (Continued)

3. Adjustment Function Selection

Use the "AUDIO" button to select a specific Adjustment Function.
NOTE: There are 2 Service Functions on these models: "TVM" and the "ASIC" function. Service adjustments are performed in the (default) TVM mode.

4. Horizontal and Vertical Position Adjustment

1. Enter the Service Mode (Step 1) .
2. Select the Geometry Test Pattern shown below (Step 2).
3. Select the TVM Function if necessary (Step 3).
4. Use the "VIDEO" button to select the specific adjustment, "1.HVPOS".

Geometry Test Pattern
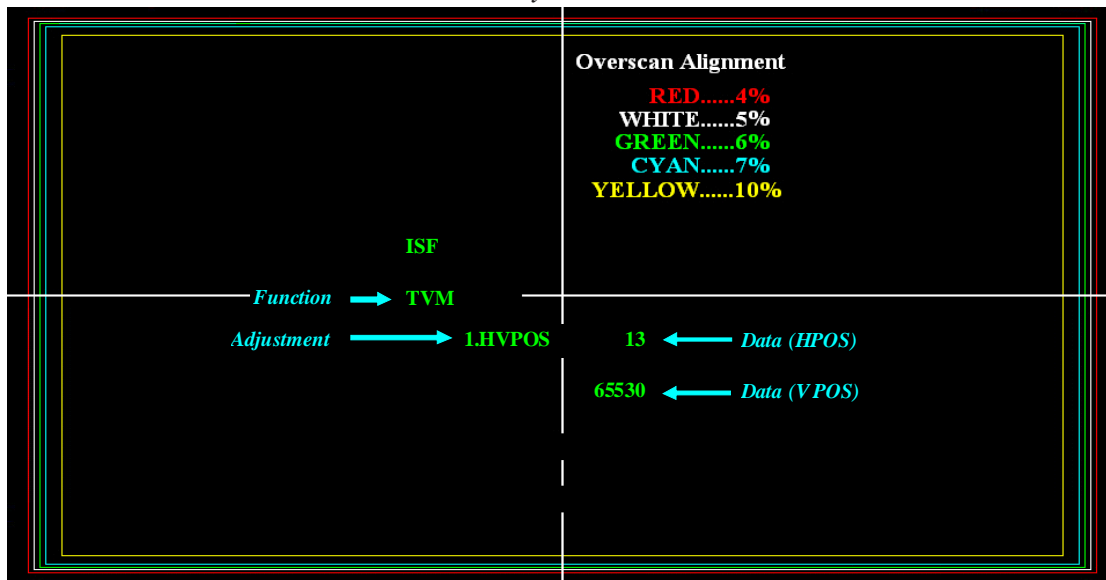
5. After selecting the HVPOS adjustment item, use the DIRECTION <▼▲◄►> buttons to center the display.
   - If a UP/DOWN <▼▲> button is pressed, the vertical position and VPOS adjustment data changes.
   - If a RIGHT/LEFT <◄►> button is pressed, the horizontal position and HPOS adjustment data changes.
6. Press <ENTER> to save the adjustment data in memory.
   The display characters go 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.

5. TSP Alignment

1. Enter the Service Mode (Step 1) .
2. Select the TSP Test Pattern shown in the following graphic by pressing PLAY <▷> two times, then use FAST FORWARD <► ►> or REWIND <◄◄ ◄> to select the TSP Test Pattern.
3. Select the TVM Function if necessary (Step 3).
4. Use the "VIDEO" button to select the specific adjustment, "2.TSP".

Service Adjustments (Continued)

5. Use the DIRECTION <▼▲> buttons to straighten the horizonal lines, see below.
6. Press <ENTER> to save the adjustment data in memory.
   The display characters go red for approximately one second in this step.

TSP Test Pattern

Before Adjustment
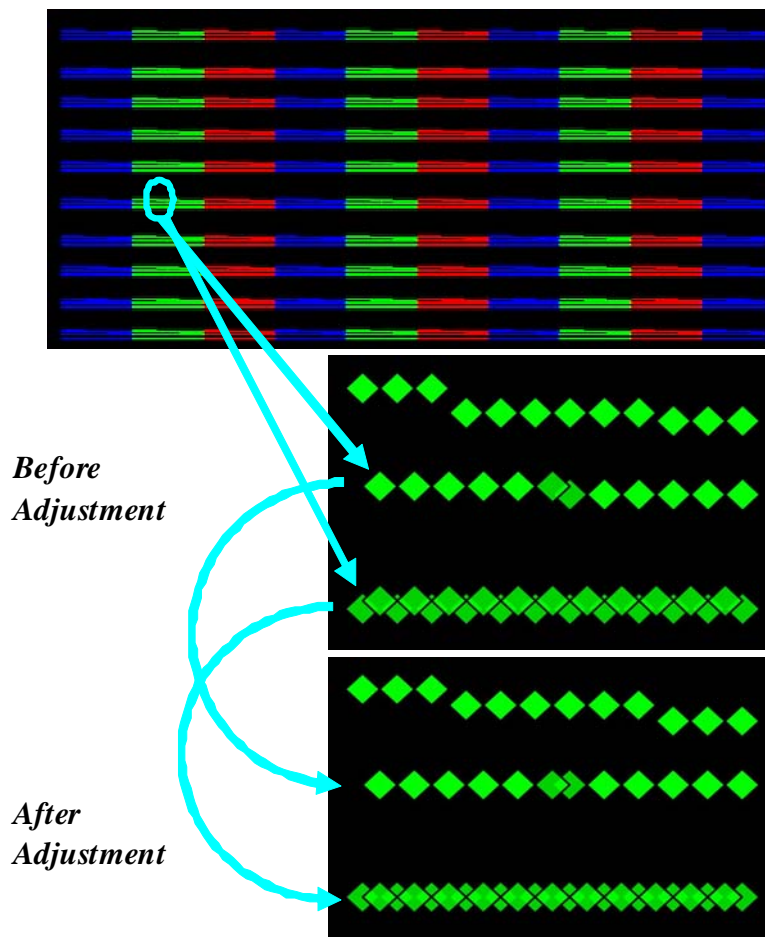
After Adjustment

6. Manual Keystone Geometry Alignment

**Note:** If the upper left or right corner geometry is skewed in or out, perform the ASP Mirror Adjustment first.
Note: If only minor edge geometry correction is required, proceed to Phase 3, Keystone Geometry Touchup.

1. Activate the Service Mode <MENU><2-4-5-7>. From the Service Menu, press the <0> button. The Data Selection Menu will appear.
2. Use the <▼▲> buttons to select "MANUAL KEYSTONE GEOMETRY ALIGNMENT" and press <ENTER>. The Manual Keystone Geometry Alignment Pattern will appear. See next page.
3. Perform a reset - Press <1> then <ENTER>. This will null all correction data. Then re-enter the Manual Keystone Geometry Alignment mode by repeating step 2.

Note: To restore the original factory correction data, select "RESTORE KEYSTONE GEOMETRY FROM BACKUP" and press <ENTER>.

RESTORE ALIGNMENT AND WHITE BALANCE SETTINGS FROM BACKUP
RESTORE KEYSTONE GEOMETRY FROM BACKUP
MANUAL KEYSTONE GEOMETRY ALIGNMENT
MEMORIZE SENSOR-RGB

Service Adjustments (Continued)

Cursor +

Adjustment Points
(16 Total)

Align Cursor + Flush With Bezel Edge
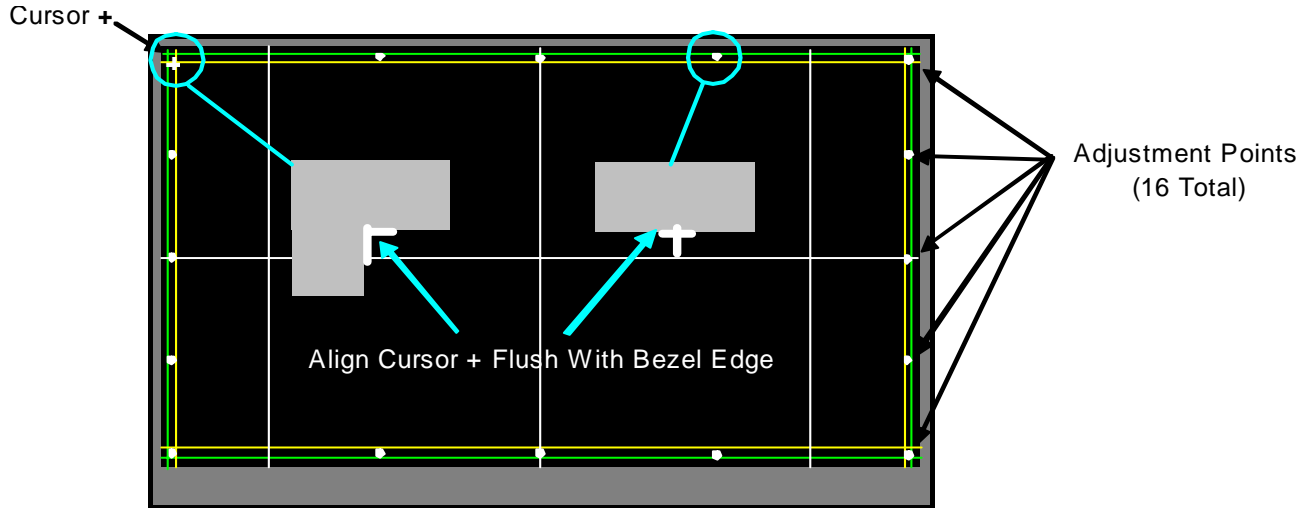
Phase 1 - Cursor Position
1. 16 Adjustment Points are indicated by white dots around the edge of the raster. The adjustment position is indicated by a **+** cursor.
2. Starting from the upper left corner, use the <◀▼▲▶> buttons to align the **+** at each point in a straight line, flush with the bezel as a reference. See example above.
   Note: Only the cursor will move. The Geometry Pattern will not change.
3. After adjusting each point, use the <▶▶> button to shift the cursor to the next point clockwise and repeat until all 16 points have been adjusted.
4. After all 16 points are adjusted and the cursor is returned to the original starting point, press <ENTER>. Correction will be automatically calculated and saved and the Manual Keystone Geometry Alignment will be terminated.
5. Press <ENTER> to re-activate the Manual Keystone Geometry Alignment. The keystone geometry pattern will appear with the corrections applied.

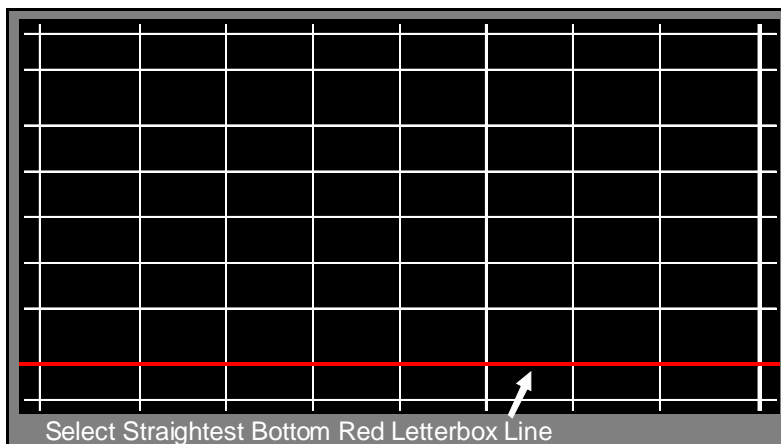**Phase 2 - 4:3 and Letterbox Alignment**
1. With the Manual Keystone Geometry Alignment activated, press <VIDEO> to enter the 4:3 Alignment Mode. The pattern will be displayed starting with the Left Blue 4:3 Line. Press <VIDEO> again for the Right Blue Line.
2. In the 4:3 Alignment Mode, continuing to press <▶▶> will cause the geometry pattern to be displayed with 11 different preset amounts of correction. Continue pressing <◀◀> or <▶▶> to cycle through the 11 patterns until you find the one with the straightest 4:3 Mode Line. It may help to count the patterns as you cycle through them. When you find the pattern with the straightest Left Blue 4:3 Line, press <VIDEO>. The pattern with the Right Blue 4:3 Line will be displayed. Repeat the procedure. Press <VIDEO> again and the Top Letterbox Alignment Mode will then be activated as indicated by the Top Red Letterbox Line displayed in the pattern.

Select Straightest Left Blue 4:3 Line

Select Straightest Right Blue 4:3 Line

Select Straightest Top Red Letterbox Line
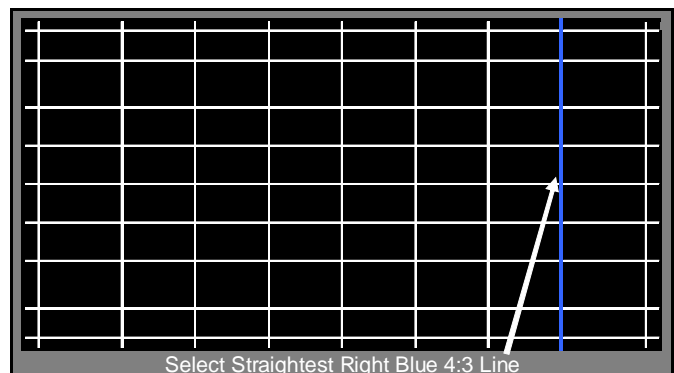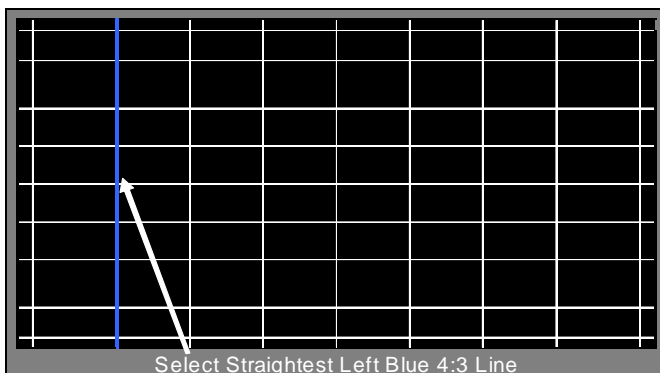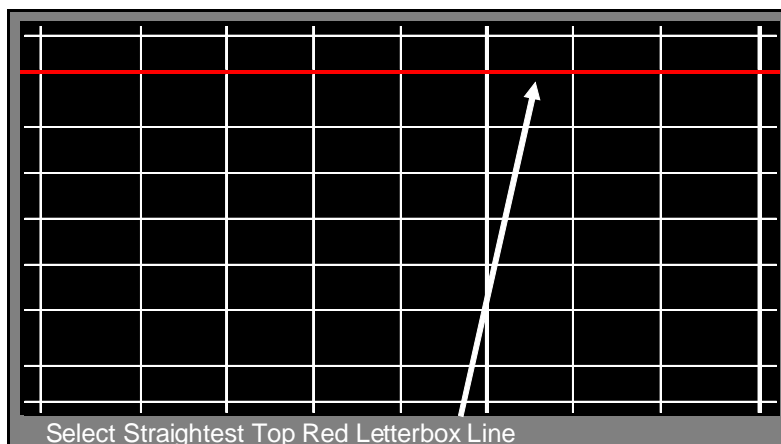
3. In the Top Letterbox Alignment Mode, continuing to press <▶▶> will cause the geometry pattern to be displayed with 15 different preset amounts of correction to the Top Red Letterbox Line. Continue pressing <◀◀> or <▶▶> to cycle through the 15 patterns until you find the one with the straightest Top Red Letterbox Line. Again, count the patterns as you cycle through them. When you find the pattern with the straightest line, press <VIDEO>. The Bottom Letterbox Alignment Mode will then be activated as indicated by the Bottom Red Letterbox Line displayed in the pattern.

Select Straightest Bottom Red Letterbox Line

4. In the Bottom Letterbox Alignment Mode, continuing to press <▶▶> will cause the geometry pattern to be displayed with 10 different preset amounts of correction to the Bottom Red Letterbox Line. Continue pressing <◀◀> or <▶▶> to cycle through the 10 patterns until you find the one with the straightest Bottom Red Letterbox Line. Again, count the patterns as you cycle through them. When you find the pattern with the straightest line, press <ENTER> to exit and save the 4:3 and letterbox data.
5. Select the Geometry Test Pattern (See HVPOS). If Keystone Geometry is acceptable, press <EXIT> to quit. To touch-up the raster geometry, proceed.

Phase 3 - Keystone Geometry Touch-up
1. Enter the Manual Keystone Geometry Alignment mode (Steps 1~2, page 30).
2. Use the <◀◀> or <▶▶> button to shift the cursor to the point needing correction.
3. Use the <◀▼▲▶> buttons to indicate the direction and amount of correction necessary at the particular point. Note: Only the cursor will move. The Geometry Pattern will not change.
4. Press the <INFO> button to apply the correction. The Geometry Pattern will now show the correction.
5. Repeat steps 2, 3 and 4 as needed.
6. Press <ENTER> to save your changes. The Manual Keystone Geometry Adjustment will be terminated.
7. Press <EXIT> to exit the alignment mode.

Service Adjustments (Continued)

7. Data Transfer

After entering the Service Mode <MENU><2-4-5-7> and selecting the Data Transfer Menu <0>, three other data selections are listed on screen.

<MENU> <2-4-5-7><0>

> RESTORE ALIGNMENT AND WHITE BALANCE SETTINGS FROM BACKUP
> RESTORE KEYSTONE GEOMETRY FROM BACKUP
> MANUAL KEYSTONE GEOMETRY ALIGNMENT
> MEMORIZE SENSOR-RGB

- RESTORE ALIGNMENT AND WHITE BALANCE SETTINGS… restores HVPOS and White Balance data from the Optical Engine to the PWB-MAIN.
- RESTORE KEYSTONE GEOMETRY FROM BACKUP… restores Keystone Geometry data from the Optical Engine to the PWB-MAIN.
  Procedure:
  a.   Enter the Service Mode <MENU><2-4-5-7> Select the Data Transfer Menu <0>
  b.   Use the <▼▲> buttons to select the data item and press <ENTER>.
  c.   Press <EXIT> to quit.

- MEMORIZE SENSOR - RGB… memorizes RGB Sensor data.
  Procudure:
  1. Reset SENSOR-RGB Data
    a. Plug in the TV and allow it to boot-up, but do not turn it On (Standby condition).
    b. On the front panel, press and hold the <MENU> and <CHANNEL ▲> buttons at the same time for about 5 seconds until the STATUS LED lights green for 3 seconds.
  2. Memorize SENSOR-RGB
    a. Turn the TV on and allow it to warm up for 5 minutes.
    b. Select a normal video source.
    c. Press the <MENU> button on the remote control. The Customer Menu will appear.
    d. Press the <2-4-5-7> buttons. The Service Menu will appear.
    e. Press the <0> button. The Data Selection Menu will appear.
    f. Use the <▼▲> buttons to select "MEMORIZE SENSOR-RGB" and press <ENTER>. A green square will appear in the on screen display indicating the memorization process was sucessful. If a red square appears, repeat the Reset SENSOR-RGB Data and Memorize SENSOR-RGB Data procedures.
    g Press <EXIT> to quit.

There is one additional Data Transfer option, COPY SETTINGS TO BACKUP - it backs up all data on PWB-MAIN onto the Optical Engine. **WARNING, use only after replacing the Optical Engine.** To perform this option, from the Data Transfer Menu press the <1> button. The data settings will be copied to backup. You will automatically exit the Data Transfer Menu.

> *After PWB-MAIN Replacement…*
> a) RESTORE ALIGNMENT AND WHITE BALANCE SETTINGS
> b) RESTORE KEYSTONE GEOMETRY FROM BACKUP
> *After Light Source Assembly Replacement…*
> a) MEMORIZE SENSOR - RGB
> *After Optical Engine Replacement…*
> a) COPY SETTINGS TO BACKUP
> b) MEMORIZE SENSOR - RGB
> *After PWB-SENSOR-RGB Replacement…*
> a) MEMORIZE SENSOR - RGB

8. ASP Mirror Adjustment

Note: After ASP Mirror Adjustment, perform the Manual Keystone Geometry Alignment procedure.

1. Activate the Service Mode <MENU><2-4-5-7>. From the Service Menu, press PLAY <▷> to activate the internal test patterns (no indication will be given), then use <◄◄◄> or <►►►> to select the Geometry Test Pattern. Refer to page 31
2. Press the <0> button. The Data Selection Menu will appear.
3. Use the <▼▲> buttons to select "MANUAL KEYSTONE GEOMETRY ALIGNMENT" and press <ENTER>. The Manual Keystone Geometry Alignment Pattern will appear. Refer to pages 31-32.
4. Perform a reset - Press <1> then <ENTER>. This will null all correction data, exit the Manual Keystone Geometry Alignment and return to the Geometry Test Pattern. Use the Geometry Test Pattern for the remainder of the ASP Mirror Adjustment procedure.
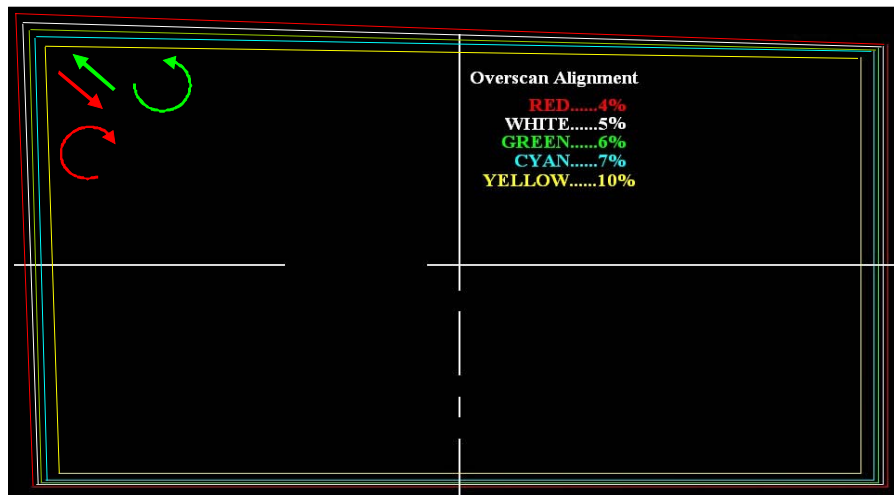5. Remove two screws (a) to remove the ASP Mirror Adjustment Cover.

6. Loosen the left and right Adjuster Locking Screws using a 2mm (5/64") L shaped allen wrench.
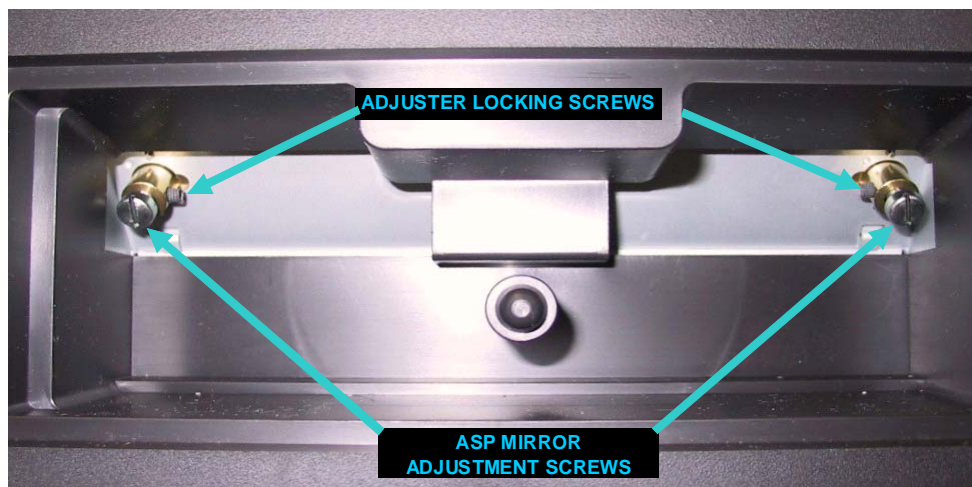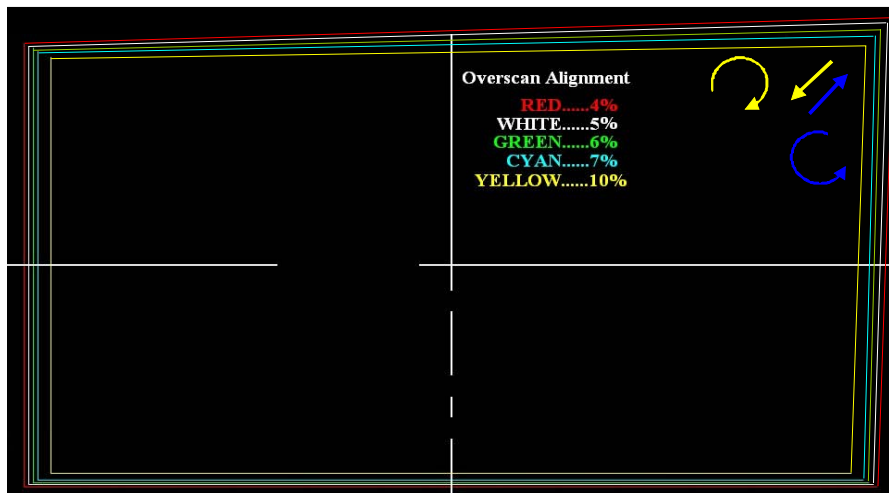
Service Adjustments (Continued)
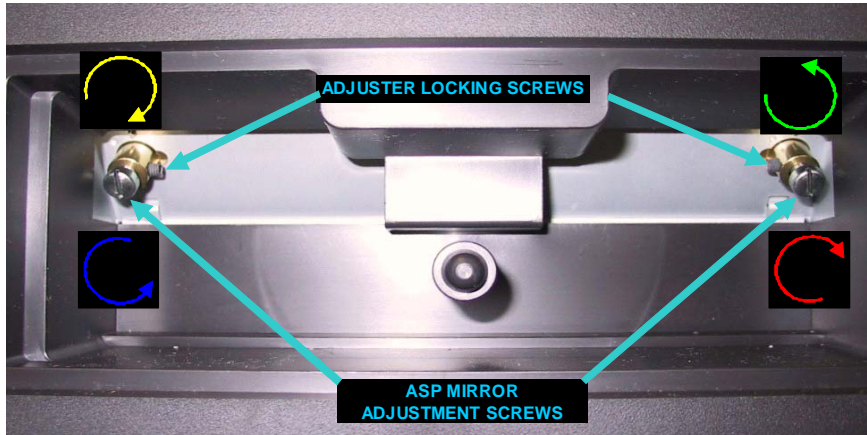
7. Adjust the Right Adjuster (facing the rear) in the direction indicated to adjust the top left (facing the front).

8. Adjust the Left Adjuster (facing the rear) in the direction indicated to adjust the top right (facing the front).

9. When raster geometry is as square as possible, tighten the Adjuster Locking Screws and replace the ASP Mirror Adjustment Cover. NOTE: To prevent thread damage, avoid over tightening the Locking Screws.
10. Perform the Manual Keystone Geometry Adjustment procedure, page 32.