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# LCD HIGH-DEFINITION TELEVISION

## MODELS

**WD-62530**

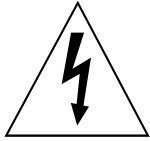
**WD-52531**

**WD-62531**

## OWNER'S GUIDE

- For questions:
  - Call Consumer Relations at 800-332-2119.
  - E-mail us at [MDEAservice@mdea.com](mailto:MDEAservice@mdea.com).
  - Visit our website at [www.mitsubishi-tv.com](http://www.mitsubishi-tv.com).
- For information on **Demo Mode** and **System Reset**, please see the back cover.
- To order replacement or additional remote controls, lamp cartridges, or Owner's Guides, call 800-553-7278.
- Guidelines for setting up and using your new widescreen TV start on page 13.



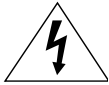


## CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

## FCC Declaration of Conformity

Product: LCD High-Definition Receiver  
Models: WD-62530, WD-52531, WD-62531  
Responsible Party: Mitsubishi Digital Electronics America, Inc.  
9351 Jeronimo Road  
Irvine, CA 92618-1904  
Telephone: 800-332-2119

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Mitsubishi could cause harmful interference and would void the user's authority to operate this equipment.

**WARNING:** This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

## Our Thanks...

*Thank you for choosing Mitsubishi as your premier Home Entertainment provider.*

*This Owner's Guide describes the features and functions of your Mitsubishi widescreen, high definition TV. We urge you to examine this Owner's Guide to become familiar with the innovative features and operations this unique television offers.*

*The very core of our corporate philosophy is to provide our customers with the very best. Our development team at Mitsubishi has worked to provide you with a television that defines "state-of-the-art," with the capability to meet your needs now and in the future.*

*Whether this is your first Mitsubishi electronic product, or an addition to your Mitsubishi collection, we believe you and your family will continue to enjoy your Mitsubishi home theater for many years.*

*Thank you,*

***Mitsubishi Digital Electronics America, Inc.***

### For Your Records

Record the model number, serial number, and purchase date of your TV. The model and serial numbers are on the back of the TV. Refer to this page when requesting assistance with this TV.

#### MODEL NUMBER (check one):

- WD-62530
- WD-52531
- WD-62531

SERIAL NUMBER \_\_\_\_\_

PURCHASE DATE \_\_\_\_\_

#### *Retailer Information*

RETAILER NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

\_\_\_\_\_

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**WARNING:** This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**TV WEIGHT:** This TV is heavy! Exercise extreme care when lifting or moving it. Lift or move the TV with a minimum of two adults. To prevent damage to the TV, avoid jarring or moving it while it is turned on. Always power off your TV before moving it.

## Installation Notes

### Stand Requirement

CAUTION: Use these Mitsubishi TV models only with the Mitsubishi stand models shown here. Other stands can result in instability and possibly cause injury.

TV Model	Stand Model
WD-62530	MB-62LS
WD-52531	MB-52B
WD-62531	MB-62B

**Custom cabinet installation must allow for proper air circulation around the television.**

**NOTE TO CATV SYSTEM INSTALLER:** THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER'S ATTENTION TO ARTICLE 820-40 OF THE NEC THAT PROVIDES GUIDELINES FOR THE PROPER GROUNDING AND, IN PARTICULAR, SPECIFIES THAT THE CABLE GROUND SHALL BE CONNECTED TO THE GROUNDING SYSTEM OF THE BUILDING, AS CLOSE TO THE POINT OF CABLE ENTRY AS PRACTICAL.

## Operating Notes

### Demo Mode

This TV has a demo mode for use in retail stores. Demo mode causes the TV to display a series of screens outlining the TV's features.

If Demo Mode is turned on when you first use the TV:

1. Press **MENU**.
2. When the Main menu appears with **Setup** highlighted, press **ENTER**.
3. When the Setup menu opens, press **▶** to highlight the on-screen **Demo Mode Off** button.
4. Press **ENTER**.

### Standby Fan

When the TV is off, you may hear a low-power standby fan. This is normal operation. The fan cools advanced circuitry in this TV that must continue to operate even when the TV is turned off.

## Temporary Residual Images

Prolonged display of stationary images on your TV may cause faint residual "ghost" images to be visible when viewing other programs. **THIS EFFECT IS TEMPORARY.** The residual images will disappear within days or weeks. Most TV and DVD programming is of generally uniform brightness and will not produce this effect.

To prevent the appearance of residual images:

- Avoid display of stationary images for extended periods on this or any other LCD projection TV. Examples of such images include:
  - Stationary images that may be part of video games and web pages
  - Bright, stationary icons overlaid on moving video
  - Side bars displayed with narrow-format video (see "Narrow" definition on page 35)
  - Top and bottom bars displayed with letterbox video (see "Expand" definition on page 35)
- Mix regular TV and video programming with uses that display stationary images.

## Replacing the Lamp Cartridge

See Appendix C for details on replacing the lamp cartridge.

### To Order a Replacement Lamp Cartridge Under Warranty

Call (800) 553-7278. Please have model number, serial number, and TV purchase date available.

**IMPORTANT:** All lamps replaced under warranty must be returned to Mitsubishi where they will be inspected for defect verification.

### To Order a Replacement Lamp Cartridge After Warranty

Call (800) 553-7278. Order lamp cartridge part number **915P043010**.

## **General Cleaning**

Normally, light dusting with a dry, non-scratching duster will keep your TV clean. If cleaning beyond this is needed, please use the following guidelines:

First, turn off the TV and unplug the power cord from the power outlet.

### ***Top and Sides of the TV***

- Gently wipe down your TV with a soft, non-abrasive cloth such as cotton flannel or a clean cloth diaper, lightly moistened with water. Dry with a second dry, soft, non-abrasive cloth.
- For oily dirt, add a few drops of mild liquid detergent, such as dish washing detergent, to the water used to moisten the cloth. Rinse with a second cloth moistened only with water. Dry with a third dry, soft, non-abrasive cloth.

### **Screen**

- Follow the instructions for the top and sides, wiping gently in an up and down motion.
- Clean the entire screen evenly, not just sections of the screen.
- Do not allow liquid to drip down the grooves of the screen, as some liquid may enter the TV through the gap between the screen and screen frame.
- You may purchase Mitsubishi Screen Cleaner, part number CLEANER-VSS, by calling (800) 553-7278.

### **General Cleaning Warnings**

- DO NOT allow liquid to enter the TV through the ventilation slots or any crevice.
- DO NOT use any strong or abrasive cleaners, as these can scratch the surfaces.
- DO NOT use any cleaners containing ammonia, bleach, alcohol, benzene, or thinners, as these can dull the surfaces.
- DO NOT spray liquids or cleaners directly on the TV's surfaces.
- DO NOT scrub or rub the TV harshly. Wipe it gently.

## **TV Software**

### ***Unauthorized Software***

Do not attempt to update the software of this TV with software or cards that are not provided by or authorized by Mitsubishi Digital Electronics America, Inc. Non-authorized software may damage the TV and will not be covered by the warranty.

#### ***IMPORTANT***

**DO NOT use any kind of abrasive cleaner on the surface of the TV screen.**



## Important Safeguards

Please read the following safeguards for your TV and retain for future reference. Always follow all warnings and instructions marked on the television.

### 1. Read, Retain and Follow All Instructions

Read all safety and operating instructions before operating the TV. Retain the safety and operating instructions for future reference. Follow all operating and use instructions.

### 2. Heed Warnings

Adhere to all warnings on the appliance and in the operating instructions.

### 3. Cleaning

Unplug the TV from the wall outlet before cleaning. Do not use liquid, abrasive or aerosol cleaners. Cleaners can permanently damage the cabinet and screen. Use a lightly dampened cloth for cleaning.

### 4. Attachments and Equipment

Never add any attachments and/or equipment without approval of the manufacturer as such additions may result in the risk of fire, electric shock or other personal injury.

### 5. Water and Moisture

Do not use the TV where contact with or immersion in water is possible. Do not use near bath tubs, wash bowls, kitchen sinks, laundry tubs, swimming pools, etc.

### 6. Accessories



Do not place the TV on an unstable cart, stand, tripod, or table. The TV may fall, causing serious injury to a child or adult and serious damage to the TV. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the TV. Any mounting of the TV should follow the manufacturer's instructions, and should use mounting accessories recommended by the manufacturer.

An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

### 7. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the TV and to protect it from overheating. Do not block these openings or allow them to be obstructed by placing the TV on a bed, sofa, rug, or other similar surface. Nor should it be placed over a radiator or heat register. If the TV is to be placed in a rack or bookcase, ensure that there is adequate ventilation and that the manufacturer's instructions have been adhered to.

### 8. Power Source

This TV should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.

### 9. Grounding or Polarization

This TV is equipped with a polarized alternating current line plug having one blade wider than the other. This plug will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

### 10. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the TV.

### 11. Lightning

For added protection for this TV during a lightning storm, or when it is left unattended and unused for long period of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the TV due to lightning and power-line surges.

## Important Safeguards, continued

### 12. Power Lines

An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

### 13. Overloading

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

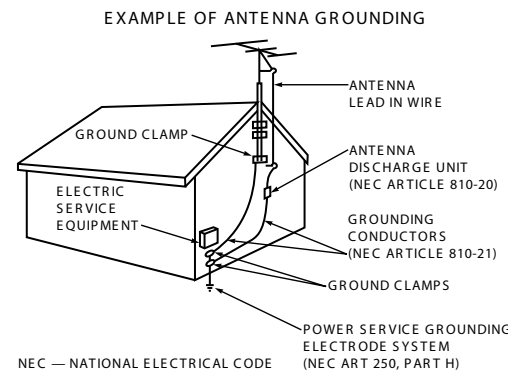
### 14. Object and Liquid Entry

Never push objects of any kind into this TV through openings as they may touch dangerous voltage points or short-out parts that could result in fire or electric shock. Never spill liquid of any kind on or into the TV.

### 15. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the TV, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges.

Article 810 of the National Electric Code, ANSI/NFPA No. 70-2002, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



### 16. Servicing

Do not attempt to service this TV yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

### 17. Damage Requiring Service

Unplug the TV from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- (a) When the power-supply cord or plug is damaged.
- (b) If liquid has been spilled, or objects have fallen into the TV.
- (c) If the TV has been exposed to rain or water.
- (d) If the TV does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV to its normal operation.
- (e) If the TV has been dropped or the cabinet has been damaged.
- (f) When the TV exhibits a distinct change in performance - this indicates a need for service.

### 18. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

### 19. Safety Check

Upon completion of any service or repair to the TV, ask the service technician to perform safety checks to determine that the TV is in safe operating condition.

### 20. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.



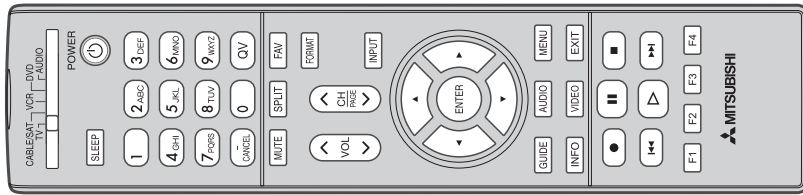


## Television Overview

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## Package Contents

Please take a moment to review the following list of items to ensure that you have received everything.



1. Remote Control
2. Two AA Batteries



3. Product registration card (not pictured)
4. Owner's Guide (not pictured)
5. Quick Reference Guide (not pictured)

## Special Features of Your TV

Your new high-definition widescreen television has many special features that make it the perfect center of your home entertainment system, including:

### 16:9 Widescreen Picture Format

Enjoy a full theatrical experience in the comfort of your home. View pictures as film directors intended them. Digital TV broadcasts, DVDs and newer video game consoles support this widescreen format.

### Integrated HDTV Tuner

Your widescreen Mitsubishi HDTV has an internal HDTV tuner able to receive both over-the-air HDTV broadcasts (received via an antenna) and non-scrambled digital cable broadcasts, including non-scrambled HDTV cable programming.

### High-Definition Video Inputs

#### ◆ Two Component Video Inputs

This television has two component video inputs, also called Y/Pb/Pr inputs. These inputs receive standard analog video formats of 480i (standard analog TV), 480p (progressive-scan signals), and 720p and 1080i high-definition signals. This provides a high level of flexibility when connecting DVD players/recorders, cable boxes, and satellite receivers.

#### ◆ Two HDMI Inputs (One for the WD-62530 model)

This television also has two HDMI™ inputs that accept digital 480i, 480p, 720p, and 1080i video signals plus PCM digital stereo signals. Used with an adapter, these inputs also accept compatible DVI signals. HDMI inputs provide additional high-performance, high-definition connections for maximum flexibility in your choice of home theater products. The HDMI inputs are HDCP copy-protection compatible.

### LCD Light Engine

Mitsubishi's exclusive LCD Light engine features superior corner focus and SmartShutter™ dynamic aperture system.

### SmartShutter™

SmartShutter™ technology displays deep blacks and improved dark scene detail. It does this by reducing light output during dark scenes without adversely affecting other picture characteristics.

### ClearThought® Easy Connect Auto Input Sensing

ClearThought automatically recognizes the devices you connected to TV inputs. The first time you connect each device you will be prompted to identify it by selecting from a pre-set list of device names.

Only the names of input devices currently connected will appear in the Input Selection Menu. This makes it easy for you to know which input devices are available for you to use.

### Plush720p™

Upconverts lower-quality video signals to deliver maximum image clarity from every source.

## Guidelines for Setting Up and Using Your New Widescreen TV

### Getting Started

1. Read the section entitled “**Important Information About Your TV**” starting on page 5.
2. Choose a location for your TV.
  - Allow at least four inches of space on all sides of the TV help prevent overheating.
  - Avoid locations where light may reflect off the screen.
  - See the stand requirements under “**Important Information About Your TV.**”
3. Install the batteries in the remote control. See **Chapter 3, “TV Operation,”** for information on use and care of the remote control.
4. Plug your TV into a power outlet. The **POWER** indicator on the front of the TV will start blinking rapidly. After the **POWER** indicator stops blinking, press the **POWER** key to power on the TV.
5. When the Welcome screen appears the first time you power on the TV, select a language for TV menus. You can later change the language through the **Setup menu.**
6. Some TVs are shipped from the factory with demo mode active for use in retail stores. If demo mode is active when you first turn on the TV:
  - a. Press **MENU**.
  - b. When the Main menu appears with **Setup** highlighted, press **ENTER**.
  - c. When the Setup menu opens, press **▶** to highlight the on-screen **Demo Mode Off** button.
  - d. Press **ENTER**.
7. Connect your other A/V devices to the TV and assign device names to the TV inputs when prompted. See **Chapter 2, “TV Connections,”** for connection diagrams. You can reassign device names later if needed. See “**Input Name Menu**” in **chapter 4, “TV Menu Settings.”**
8. **Memorize channels** if you plan to watch over-the-air channels or programming over direct cable. Channel memorization may take up to 15 minutes to complete. See “**Setup Menu**” in **Chapter 4, “TV Menu Settings,”**
9. You can now start watching TV or you can perform additional setup and customization through the TV menus.

### Additional TV Setup

Review **Chapter 4, “TV Menu Settings,”** to customize TV operation. Press the **MENU** key to enter the menu system. Some examples of settings you may wish to change include:

- **Energy Mode.** For faster power-on, keep the Energy Mode set to **Fast Power On**. For lower power consumption while the TV is off, use the **Low Power** setting. See “**Setup Menu.**”
- **Input Name.** Change the device names that appear in the Input Selection menu. See “**Input Name Menu.**”
- **Icon Order.** Rearrange the device icons in the Input Selection menu to put frequently used icons near the front. See “**Icon Order Menu.**”
- **FAV.** Create lists of your favorite channels so you can find them quickly. See “**Channel Menu.**”
- **Clock.** If you wish to schedule future recordings or use the Timer feature to have the TV come on automatically, you must first set the TV clock to the correct time. See “**Setup Menu.**”
- **Parental Lock.** You can restrict TV viewing by program rating or by time of day. You can also disable the front-panel buttons—useful if you have small children. See “**Parental Lock Menu.**”
- **Video Settings.** Change the video adjustments to get the best picture for your viewing conditions. See “**Audio/Video Menu.**”

You may wish to change the Picture Mode from the default **Brilliant** to either **Bright** or **Natural**,

### TV Operation

Review **Chapter 3, “TV Operation,”** for TV features including:

- **Input Selection (viewing source).** Select a connected program source to watch, such as a VCR, DVD player, or antenna. Press **INPUT** on the remote control to select from icons for the TV inputs. See “**Input Selection Menu.**”
- **Channel Listings.** Press **GUIDE** to view ChannelView™ channel listings. See “**ChannelView™ Channel Listings.**”
- **Picture Formats.** Press **FORMAT** to cycle through the available picture sizes and shapes to find the one best suited to the program you’re watching. See “**TV Signals and Picture Formats.**”

## Guidelines for Setting Up and Using Your New Widescreen TV, continued

### TV Care

**15** Caring for your TV:

- **Lamp Cartridge.** Eventually, you will need to install a new lamp cartridge. When the lamp cartridge needs to be replaced, **replace it yourself and save the cost of a service call.** See **Appendix C** for instructions.
- **General Cleaning.** To keep your TV looking its best, see the cleaning recommendations under **“Important Information About Your TV.”**

### Assistance

**16** If you need assistance with this TV:

- For troubleshooting, service, and product support, see **Appendix D.**
- For warranty information, see the TV warranty in the back of this guide.

### TV Tips

#### Turning the TV On or Off

To turn the TV on or off, point the remote control at the front of the TV and press the **POWER** button. Alternatively, press the **POWER** button on the front panel of the TV.

#### If You Turn Off the TV by Mistake

1. Press **POWER** again within about 30 seconds, while the lamp is still hot, to have the TV come back on immediately.
2. If the **LAMP** indicator starts blinking (about 30 seconds after you shut off power), **wait about one minute for the LAMP indicator to stop blinking and press POWER to turn the TV on again.**

#### Controlling Sound Volume

Press **VOL**  $\wedge/\vee$  to adjust the sound level.

### Changing Channels

To change channels:

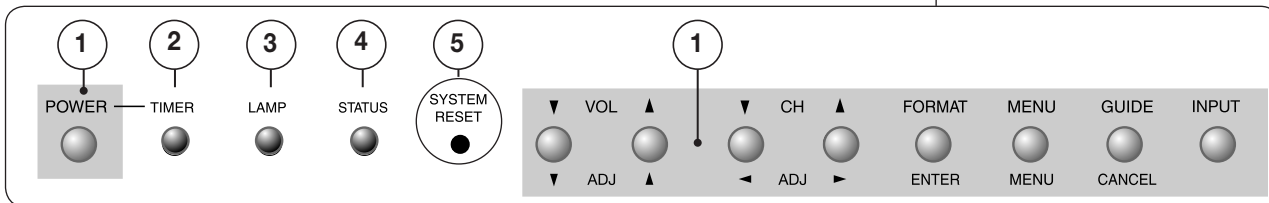
- Enter the channel number using the number keys on the remote control and press **ENTER**. For a two-part digital channel, press **-/CANCEL** to enter a dash (separator) according to the broadcaster’s channel information.
- Press **CH**  $\wedge/\vee$  to change channels one channel at a time.
- Press and hold **CH**  $\wedge/\vee$  to move quickly through channels.
- Press **QV** (QuickView) to switch back to the previously tuned channel.
- Use the **FAV** (Favorites) feature to set up lists of favorite channels and tune to them with the **FAV** key. See “Cannel Menu” in Chapter 4.

**NOTE:** Memorize channels to make finding channels easier. See “Setup Menu” in Chapter 4, “TV Menu Settings.”

## TV Front and Side Panels

### Front Control Panel

The shaded buttons shown in the illustration below indicate duplicate keys on the remote control. The upper labels show control functions when no TV menus are displayed; the lower labels indicate functions when TV menus are displayed or when a special function has been activated. See “Remote Control Overview” for further details on the functions of these buttons.



**1.** Shaded buttons are duplicates of keys on the remote control **2.** Power/Timer indicator—lit during normal operation; flashing when auto-on TV Timer is set **3.** Lamp indicator shows lamp condition (usually off during normal TV operation) **4.** Status indicator (off during normal TV operation) **5.** System Reset (see the next page)

### Front Panel Indicators

○ Off   ● Steady On   ◐ Slow Blinking   ◎ Fast Blinking

### POWER/TIMER Indicator

LED Color	TV Condition	Additional Information
None ○	TV is powered off.	Normal operation.
Green ●	TV is powered on.	Normal operation.
Green ◎	1. TV just plugged into AC outlet.	Wait until blinking stops before turning on (approximately 1 minute). Normal operation.
	2. AC just restored after power failure.	
	3. TV Rebooting after System Reset was used.	
	4. TV Rebooting after power fluctuation or receiving abnormal digital signals from digital channel, or digital device.	
	5. You have begun the procedure to update software from an authorized flash memory device.	
Green ◐	TV powered off and auto-on timer is set.	Normal operation. TV can be turned on at any time.



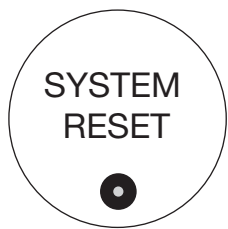
## LAMP Indicator

LED Color	TV Condition	Additional Information
None ○	Normal TV on or standby condition.	Normal operation.
Green ◎	TV just powered off and lamp is cooling.	Starts to blink 30 seconds after turning off TV. TV can be turned on before blinking starts or after blinking stops, but not while the indicator is blinking. Normal operation.
Yellow ◐	1. Lamp access door is open or not secure.	TV will not operate until lamp access door is secure. See Appendix D for installation information.
	2. No lamp installed.	TV will not operate without a lamp. See Appendix C for installation information.
Red ●	Lamp no longer illuminates and has reached the end of the lamp life.	Replace the lamp cartridge. The TV will not operate when the lamp no longer illuminates. See Appendix C for installation information.

## STATUS Indicator

LED Color	TV Condition	Additional Information
None ○	Normal TV on or standby condition.	Normal operation.
Yellow ●	Room temperature is too high.	TV will not operate when the ambient room temperature is too high. Turn off the TV and wait until the room temperature drops.
Red ● ◐	TV may require service.	Turn off the TV and unplug the set from the AC power source. Wait one minute and then plug the set back in.  If the LED is still on, contact your dealer or a Mitsubishi Authorized Service Center. See <a href="http://www.mitsubishi-tv.com">www.mitsubishi-tv.com</a> or call 1-800-332-2119 to receive Authorized Service Center information.

## System Reset Button



If the TV does not respond to the remote control, front panel controls, or will not power on/off, press the **SYSTEM RESET** button on the front panel with a pointed object, such as the point of a pencil or end tip of a paperclip. The green LED will flash quickly for about one minute.

When the green LED stops flashing, you may turn on the TV. The changes you made most recently, before using **SYSTEM RESET**, may be lost. Changes you made previously, however, are not lost.

## A/V Reset

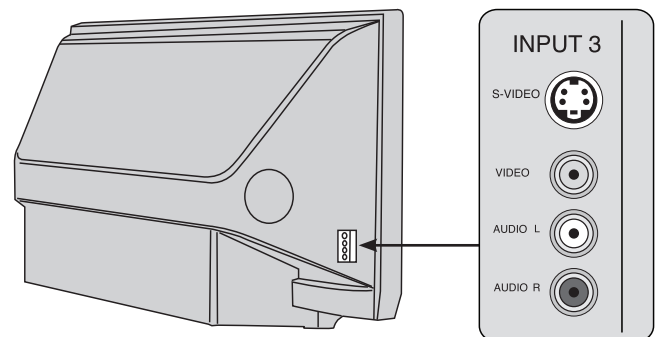
If you wish to reset the A/V (Audio/Video) settings back to the factory defaults:

- To reset all settings at once, press **GUIDE** and **FORMAT** on the front panel at the same time.
- To reset the defaults for individual devices, use the **A/V Memory Reset** selection on the Audio/Video menu.

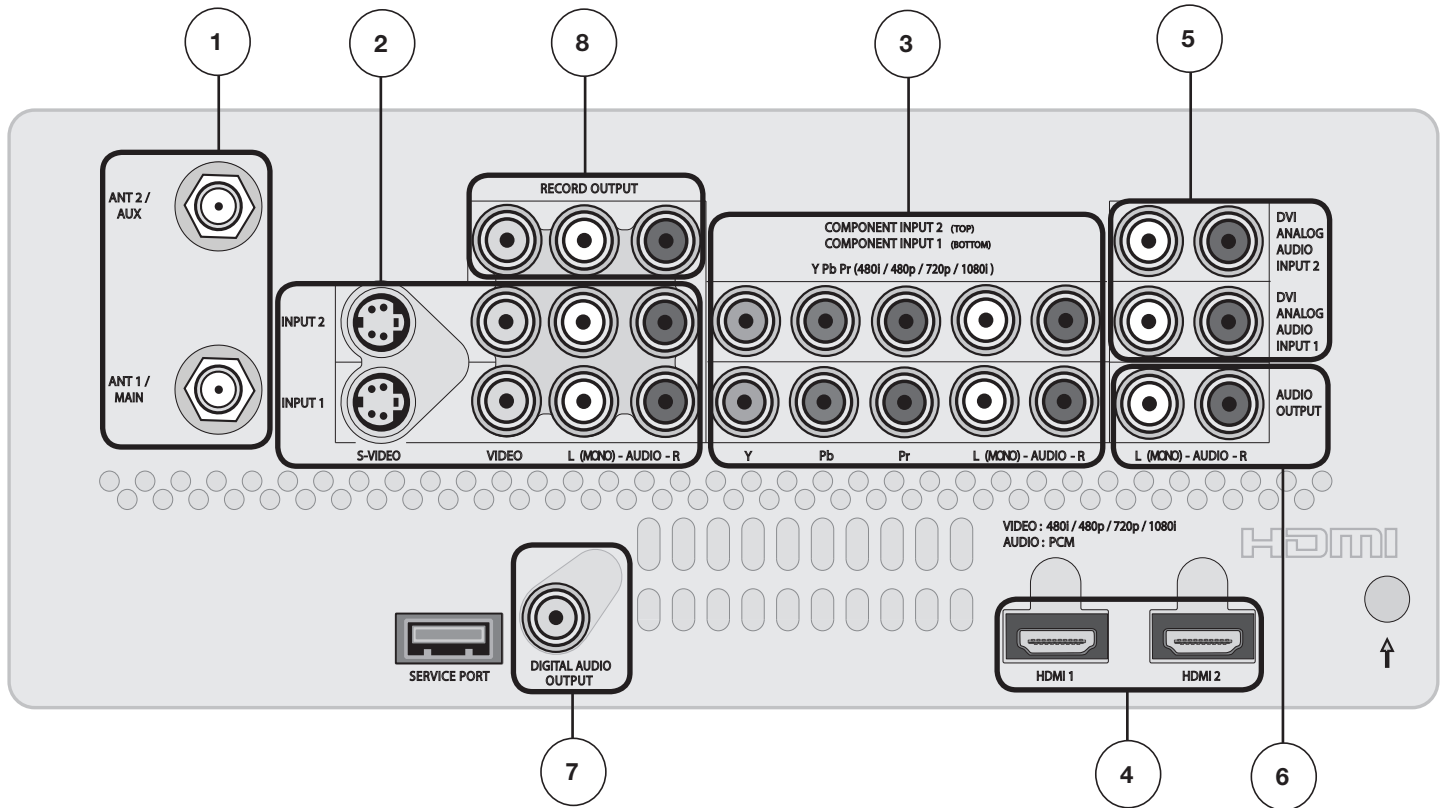
## Side Panel Inputs

The side panel (**Input 3**) provides an easily accessible set of standard audio/video jacks that allow you to connect a camcorder or other audio/video device.

Note that if you connect to the **S-VIDEO** jack, the **VIDEO** jack is deactivated; the **VIDEO** jack is active only when there is no S-Video connection.



## TV Back Panel



### 1. ANT 1/MAIN & ANT 2/AUX (Antenna)

If you are connecting an antenna or direct cable without a cable box, connect the main antenna or cable source to **ANT 1/MAIN**. You can also connect another antenna or cable source to **ANT 2/AUX**.

**ANT 1/MAIN** and **ANT 2/AUX** can each receive both digital and analog over-the-air channels from a VHF/UHF antenna or non-scrambled digital/analog cable source.

### 2. INPUT 1 & 2

**(Audio and Video)**

**INPUT 1** and **INPUT 2** can be used to connect a VCR, Super VHS (S-VHS) VCR, DVD player, standard satellite receiver, or other A/V device to the TV. Please note that if **S-VIDEO** and (Composite) **VIDEO** are both available, you must choose to connect only one.

**Note:** Because S-Video provides a better video signal than Composite Video, use S-Video if available on the source A/V device.

### 3. COMPONENT INPUT 1 & 2

**(Audio and Video)**

**Y Pb Pr (Support 480i/480p/720p/1080i video formats)**

Use these jacks to connect devices with component video outputs, such as DVD players, external HDTV receivers, or

compatible video game systems. Please see Appendix B for signal compatibility.

### 4. HDMI™ 1 & 2 (Inputs)

**(Both Audio and Video in each HDMI jack)  
(Support 480i/480p/720p/1080i video formats)**

HDMI (High Definition Multimedia Interface) supports uncompressed standard and high-definition digital video formats and PCM digital audio format. The WD-62530 model has only one HDMI jack.

**Do not connect a computer to either of the HDMI jacks .**

Use these inputs to connect to EIA/CEA-861 compliant devices such as a high-definition receiver or DVD player.

These inputs can also accept DVI inputs. To connect a DVI device, use an HDMI-to-DVI cable adapter plus analog audio cables. Connect the analog audio cables to the **DVI ANALOG AUDIO** inputs (#5) on the TV to receive left and right stereo audio from your DVI device. The WD-62530 model has only one pair of DVI Analog Audio input jacks.

These inputs are HDCP (High-Bandwidth Digital Copy Protection) compliant.

These inputs are **SimpleplayHD™** certified for proper interoperability with other products certified by Simpleplay™.

## ***TV Back Panel, continued***

### **5. DVI ANALOG AUDIO INPUT**

Use these analog audio inputs when connecting DVI devices to the TV's **HDMI** jacks. Unlike HDMI, DVI does not carry audio information on the same cable. The WD-62530 model has only one pair of L/R DVI analog jacks.

### **6. AUDIO OUTPUT L/R**

These jacks send analog audio of the program currently shown on the screen to an A/V surround sound receiver or stereo system. Digital audio from digital channels and HDMI devices is converted to analog audio by the TV. If using an analog A/V receiver or stereo system, this is the only audio connection needed between it and the TV.

### **7. DIGITAL AUDIO OUTPUT**

This output sends Dolby Digital or PCM digital audio to your digital A/V surround sound receiver. Analog audio from analog channels and devices is converted by the TV to PCM digital audio. If you have a digital A/V receiver, in most cases this is the only audio connection needed between the TV and your A/V receiver.

### **8. RECORD OUTPUT**

These Composite and L/R Audio jacks send analog video and audio signals to an external recording device, such as a VCR. The signals from these jacks are from the program currently being viewed on the TV screen. **To make recordings from this output, the TV must be in normal full-screen mode rather than in Split Screen mode.**

- From this output you can record audio and video signals from **ANT 1**, **ANT 2** and **INPUT 1**, **2** and **3**.
- Digital signals from **ANT 1** and **ANT 2** are converted to analog video and audio signals.
- Some signals cannot be recorded because of copy-protection flags in the content.

## TV Connections

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## Before You Begin

### Choosing a Language for Menus

When you first power on the TV, you can select either English or Spanish for all menus. You can later change the language through the Setup menu.

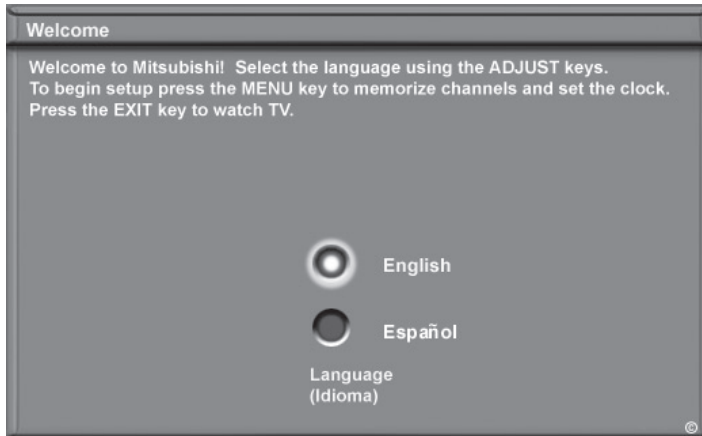


Figure 1. The Welcome screen lets you change the menu language when you first power on the TV.

### ClearThought® Easy Connect Auto Input Sensing

ClearThought automatically recognizes the devices you connected to TV inputs. The first time you connect each device you will be prompted to identify it by selecting from a pre-set list of device names.

Only the names of input devices currently connected will appear in the Input Selection Menu. This makes it easy for you to know which input devices are available for you to use.

The table below defines how connections on each TV jack are handled.

Auto Detection Active	No Auto Detection
<b>INPUT 1, 2, 3</b> video jacks	<b>ANT 1/ANT 2</b>
<b>COMPONENT 1 &amp; 2</b> video jacks	<b>RECORD OUTPUT</b> (all jacks)
<b>HDMI* 1 &amp; 2</b>	All <b>AUDIO</b> jacks

\* If the device is powered off when connected, detection will occur when the device is next powered on.



Figure 2. The Auto Input Sensing screen appears when a device is first detected. Select a name for the connected device in this screen.

1. Connect your devices to the TV.  
The TV and the devices can be either on or off when connecting. If the TV is powered off, the detection process will occur the next time you turn on the TV.
2. When the Auto Input Sensing screen opens (figure 2), you can accept the default name or press ▲▼ to select from a list of device names (e.g., cable box, DVD, Satellite, VCR).  
Choose a name that will help you when selecting inputs in the Input Selection menu.
3. Press EXIT to close the screen. If you connected several devices at the same time, the screen for the next connection will open.


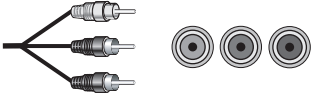
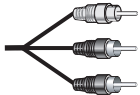







#### More About Auto Input Sensing

- You can change the input name at a later time using the Input Name menu.
- If you disconnect a device and then later connect a different device to that jack, open the Input Name menu to update the device name.
- Antenna inputs (**ANT 1/ANT 2**), all audio and all Record Output jacks are never detected.
- Be careful to choose different names for each input.

## Connection Types

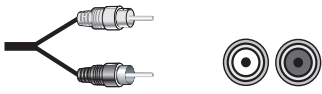
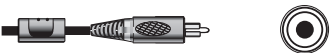


### Video-Only and Combined Audio/Video Connections

These descriptions apply to TV video only and do not cover signals from personal computers.

Picture Quality (most sources)	Name	Signal Type	Figures (not to scale)	Additional Information
Best (carry high-definition video when available)	HDMI	Digital audio and video	 	Carries digital audio and uncompressed digital video on a single one-way cable.
	Component Video	Analog video only	 	Y Pb Pr RCA-style connectors colored green, blue, and red.
Good	S-Video	Analog video only	 	Provides better quality video than composite or RF coaxial video.
Fair	(Composite) Video	Analog video only	 	RCA-style connector, usually colored yellow
Fair to Best (depending on source; carry all qualities of signals)	RF Coaxial Video (from antenna or direct cable)	Analog and digital audio and video	 	Carries audio and video on a single cable.

### Audio-Only Connections

There are two types of audio connections used on this TV. Refer to the table below.

Audio Connection	Figures	Additional Information
Left/Right Analog Stereo Audio	 	RCA-style connectors usually colored white for left and red for right stereo audio. For monaural sound (all speakers playing the same sound), use only the white connector.
Digital Audio (Coaxial)	 	RCA-style connector usually colored orange. Use to send digital audio from the TV to your digital A/V receiver for surround-sound effects. Usually the only audio connection required between the TV and the A/V receiver.

**Note:** Only some TV signals are high-definition signals. To view high-definition programming from your cable or satellite provider, you must subscribe to the provider's high-definition service. Some over-the-air broadcasts are in high-definition and can be received with a high-quality antenna suited to your location.

**Note:** **Digital video that is sent to the TV through HDMI or DVI cables can not be recorded.**

## HDTV Cable Box or Satellite Receiver with Component Video

If your cable box or satellite receiver has HDMI or DVI outputs, use the connections for HDMI or DVI video devices described later in this chapter.

Required: RCA component video cables, left/right analog audio cables.

A coaxial splitter, available at most electronic supply stores, may be required to complete this installation

1. Connect the cable from the outside cable or satellite service to **CABLE IN** or **SATELLITE IN** on the cable box or satellite receiver. See your device's owner's guide for instructions and cable compatibility.

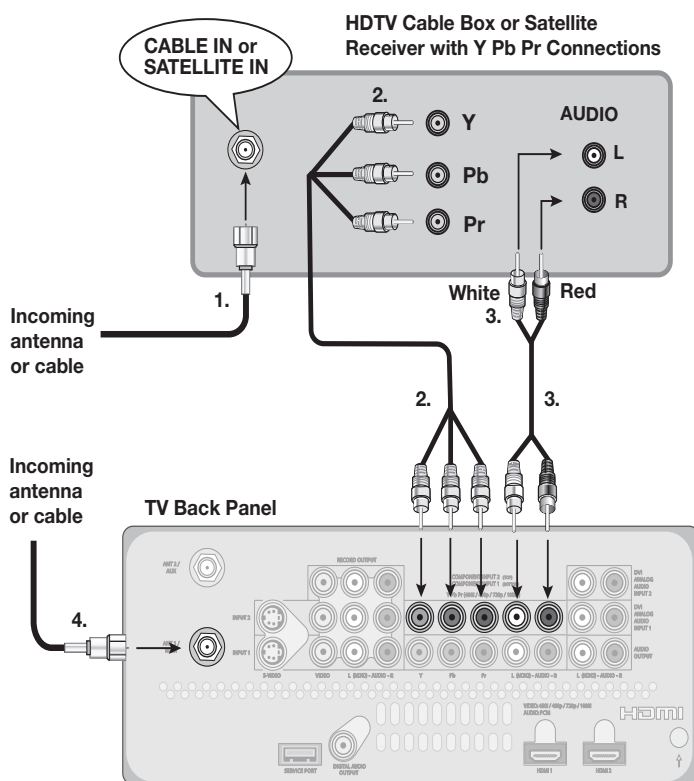


Figure 3. Connecting an external HDTV receiver with component video connections

2. Connect RCA-type cables from the Y Pb Pr outputs on the cable box or satellite receiver to **COMPONENT INPUT** on the TV back panel, matching the colored connections.
3. Connect left (white) and right (red) audio cables from the cable box or satellite receiver to **COMPONENT INPUT AUDIO L** and **AUDIO R** on the TV back panel.
4. Optional: To allow use of the Split Screen feature with channels from **ANT 1** and the cable box, connect the incoming terrestrial antenna or cable service (not satellite) to **ANT 1/MAIN** on the TV

back panel. A coaxial splitter, available at most electronics supply stores, may be required to complete this installation.

**Note:** To receive the benefits of digital surround sound, connect the digital audio output from your HDTV cable box or satellite receiver directly to your digital A/V receiver

**If your cable box or satellite receiver has HDMI or DVI outputs, please see “HDMI Device” and “DVI Device” connections later in this chapter.**

## Standard Cable Box, Satellite Receiver, or Other Device with S-Video

Required: S-Video cable and left/right analog stereo audio cables.

1. Connect the cable from the outside cable or satellite service to **CABLE IN** or **SATELLITE IN** on the cable box or satellite receiver.
2. Connect an S-Video cable from **VIDEO OUT** on the cable box or satellite receiver back panel to **INPUT S-VIDEO** on the TV back panel.
3. Connect left (white) and right (red) audio cables from **AUDIO OUT** on the cable box or satellite receiver to **INPUT/AUDIO L** and **AUDIO R** on the TV back panel.

**Note:** Refer to the cable box or satellite receiver Owner's Guide for cable or dish antenna connections to the receiver.

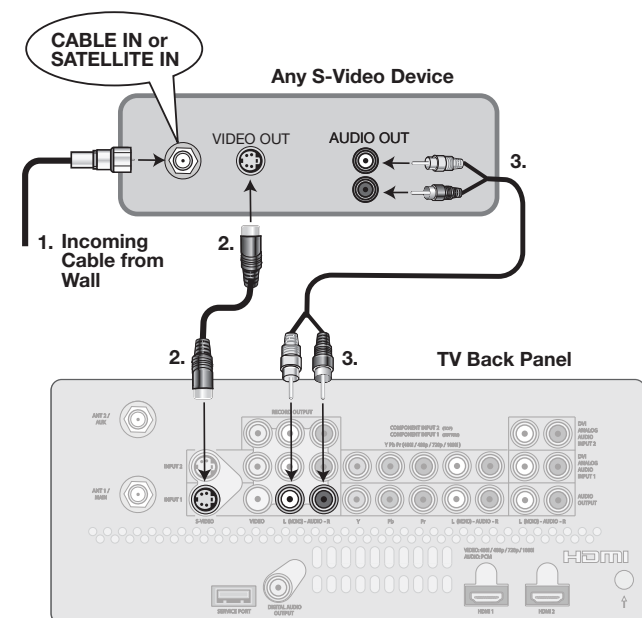


Figure 4. Connecting a device with S-Video

## Wall Outlet Cable (no cable box)

It is very important to connect the incoming cable for your primary viewing source to **ANT 1/MAIN**.

1. Connect the primary incoming coaxial lead cable to **ANT 1/MAIN** on the TV back panel.
2. For an optional secondary antenna source, connect an antenna (or cable) to **ANT 2/AUX**.

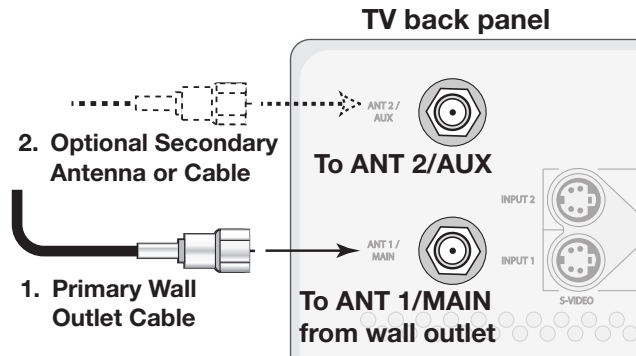


Figure 5. Wall Outlet Cable

## Antenna with a Single Lead

**For antennas with flat twin leads**

Required: 300-ohm-to-75-ohm transformer.

This is not included with the TV, but is available at most electronics stores.

1. For an antenna with flat twin leads, connect the 300-ohm twin leads to the 300-ohm-to-75-ohm transformer.
2. Push the 75-ohm side of the transformer onto **ANT 1/MAIN** on the TV back panel.

**For cable or antenna with coaxial lead**

Connect the coaxial lead directly to ANT 1/MAIN on the TV back panel.

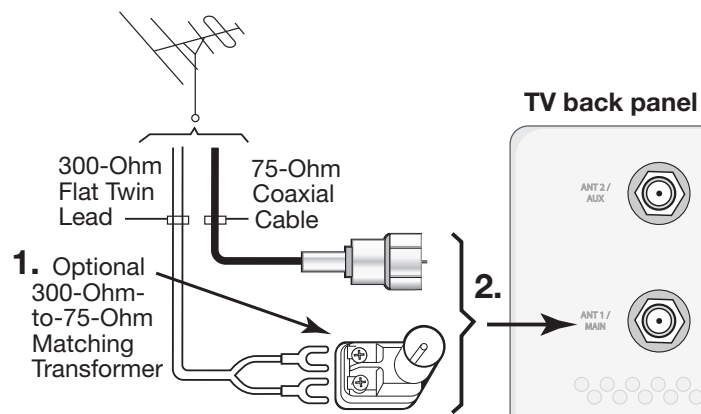


Figure 6. Connecting a Single Antenna

## Antennas with Separate UHF and VHF Leads

Required: UHF/VHF combiner

This is not included with the TV, but is available at most electronics stores.

1. Connect the UHF and VHF antenna leads to the UHF/VHF combiner.
2. Push the combiner onto **ANT 1/MAIN** on the TV back panel.

**Mitsubishi strongly recommends you avoid using antennas with flat twin leads. Flat twin lead antenna wires are subject to interference which may adversely affect the performance of the TV. We recommend using coaxial antenna cable.**

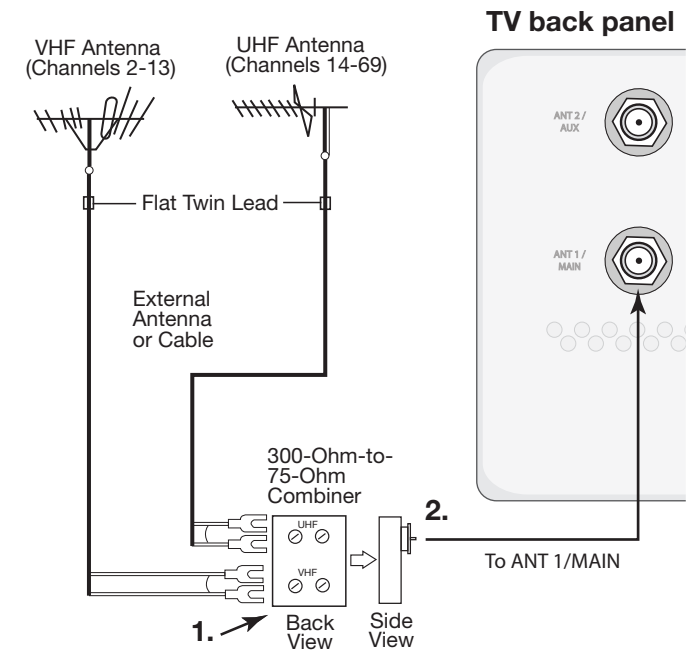


Figure 7. Connecting separate UHF and VHF Antennas



## VCR to an Antenna or Wall Outlet Cable

Required: Two-way RF splitter, 3 coaxial cables, right and left audio cables, either S-video or video cable. These are not included with the TV but are available at most electronics stores.

1. Connect the incoming cable or Antenna to **IN** on the RF splitter.
2. Connect one coaxial cable from **OUT** on the RF splitter to **ANTENNA IN** on the VCR back panel.
3. Connect one coaxial cable from **OUT** on the RF splitter to **ANT 1/MAIN** on the TV back panel. This connection also allows you to use the TV Guide On Screen® and Split Screen features.
4. To use the TV speakers with the VCR, connect a set of audio cables from **AUDIO OUT** on the VCR back panel to **INPUT 1/AUDIO L** and **AUDIO R** on the TV back panel. Connect the red cable to the **R** (right) jack and the white cable to the **L** (left) jack. If your

VCR is mono (non-stereo), connect only the white (left) cable.

5. Connect either an S-Video or composite video cable from **VIDEO OUT** on the VCR back panel to **INPUT 1/VIDEO** or **S-VIDEO** on the TV back panel. Connect only one type of video cable; S-Video is recommended, if available.

### Optional

To record high-definition digital channels converted to analog standard-definition video and analog stereo audio, perform these two additional steps.

6. Connect left (white) and right (red) audio cables from **AUDIO IN** on the VCR to **RECORD OUTPUT** audio jacks on the TV back panel. If your VCR is mono (non-stereo), connect only the white (left) cable.
7. Connect a Composite Video cable from **VIDEO IN** on the VCR back panel to the **RECORD OUTPUT** Video jack on the TV back panel.

**Note:** When using these connections, it is possible to view live cable programs through the VCR Device. For best picture quality always view live cable programs coming directly from the Cable.

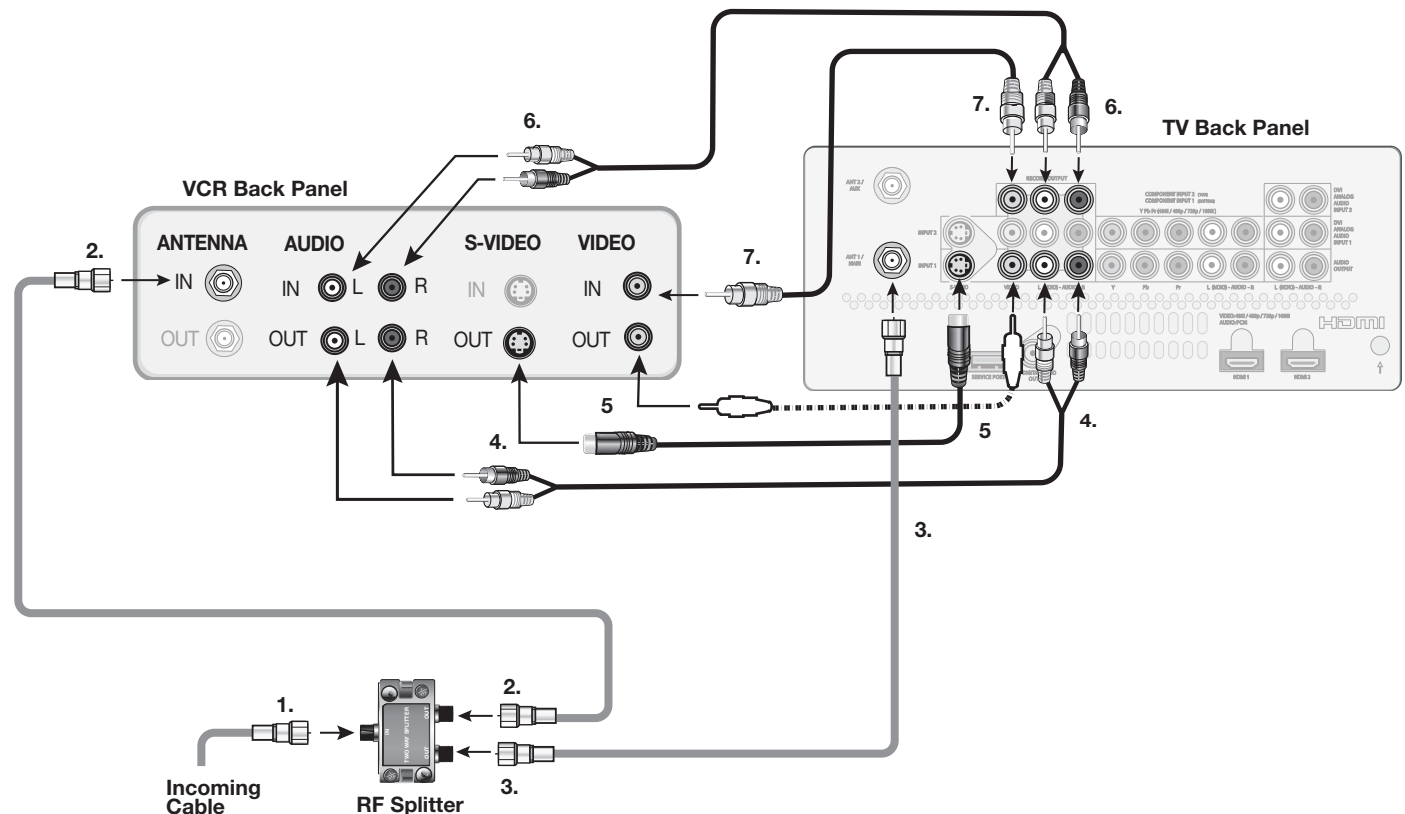


Figure 8. Connecting a VCR to an Antenna or Wall Outlet Cable

## VCR to a Cable Box (Audio & Video)

Required: Two-way RF splitter, 4 coaxial cables, right and left audio cables, S-Video or composite video cable, plus component or S-Video cables and audio cables required to connect the TV to the cable box.

1. Connect the incoming cable to **IN** on the RF splitter.
2. Connect one coaxial cable from **OUT** on the RF splitter to **CABLE IN** on the cable box.
3. Connect one coaxial cable from **OUT** on the RF splitter to **ANT 1/MAIN** on the TV back panel. This connection also allows you to use the TV Guide On Screen® and Split Screen features.
4. Connect one coaxial cable from **OUT** on the cable box to **ANTENNA IN** on the VCR back panel.
5. Connect the cable box outputs to the TV as shown in either figure 3 or figure 4 shown earlier in this chapter. This connection allows the TV to receive the best available signal directly from the cable box.

**Figure 3:** Component video output to the TV's **COMPONENT INPUT (YPbPr)** jacks; analog stereo audio to the associated **AUDIO** jacks.

**Figure 4:** S-Video output to the TV's **INPUT/S-VIDEO** jack; analog stereo audio to the associated **AUDIO** jacks.

6. To use the TV speakers with the VCR, connect left (white) and right (red) audio cables from **AUDIO OUT** on the VCR back panel to **INPUT/AUDIO L** and **AUDIO R** on the TV back panel. If your VCR is mono (non-stereo), connect only the white (left) cable.
7. Connect either an S-Video or composite video cable from **VIDEO OUT** on the VCR back panel to **INPUT/VIDEO** or **INPUT/S-VIDEO** on the TV back panel. Connect only one type of video cable. S-Video is recommended, if available.

### Optional

8. To allow recording from the TV to the VCR:
  - a. Connect left (white) and right (red) audio cables from **AUDIO IN** on the VCR to **RECORD OUTPUT** audio jacks on the TV back panel. If your VCR is mono (non-stereo), connect only the white (left) cable.
  - b. Connect a Composite Video cable from **VIDEO IN** on the VCR back panel to the **RECORD OUTPUT** Composite Video jack on the TV back panel.

**Note:** When using this connection configuration with connections used in step 5, it is possible to view live cable programs through the VCR Device. For best picture quality always view live cable programs directly from the Cable Box Device.

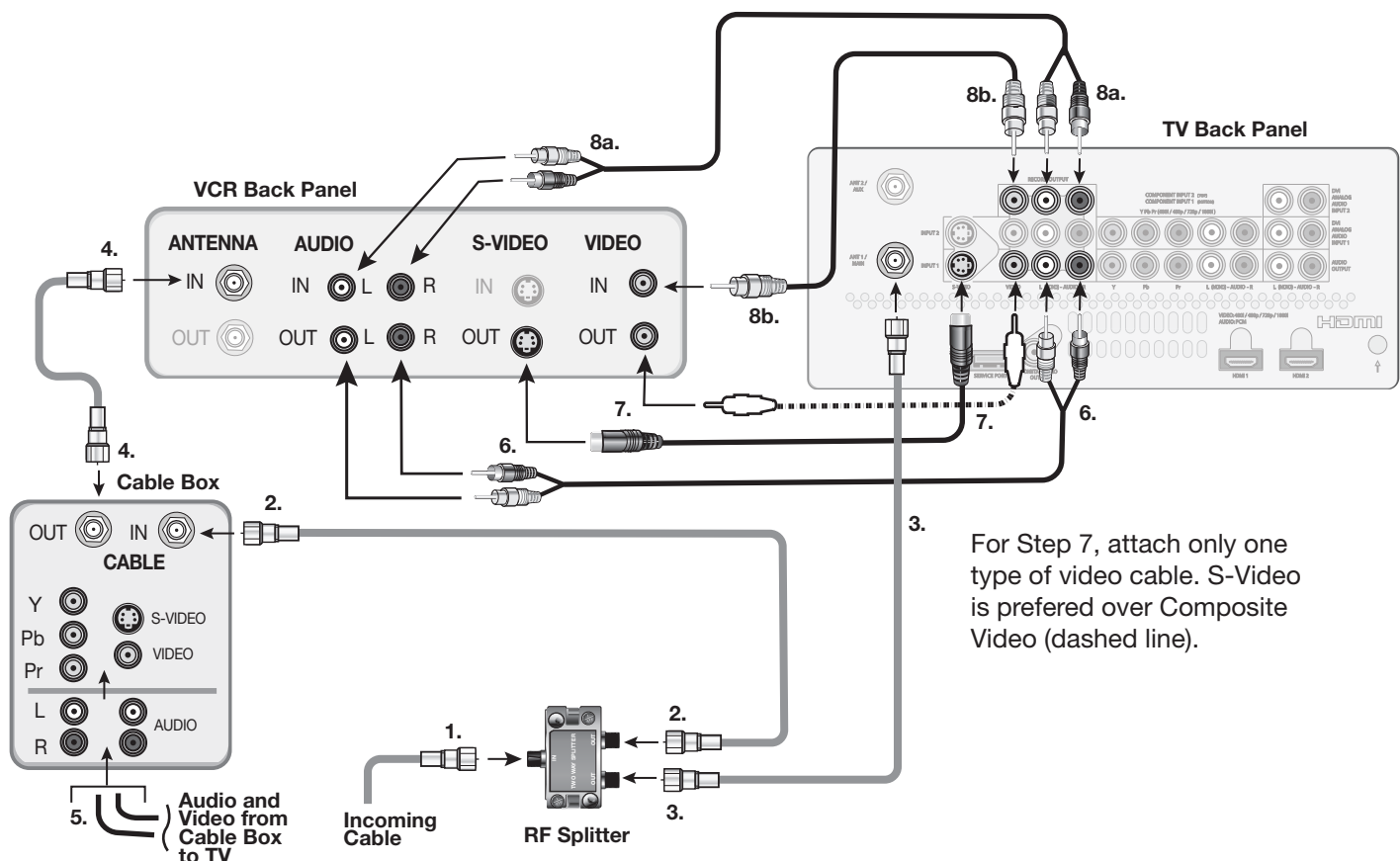


Figure 9. Connecting a VCR to a cable box

## HDMI Device (Cable Box, Satellite Receiver, DVD Player, or Other Device)

Required: HDMI-to-HDMI cable. This is not included with the TV. It may be available at your local electronics retailer.

Connect an HDMI cable from the TV back panel to the HDMI device output. HDMI devices provide video and audio through this cable, so no other connection is required. There are two HDMI inputs on the TV back panel (through the HDMI connections (the WD-62530 model has only one HDMI input)).

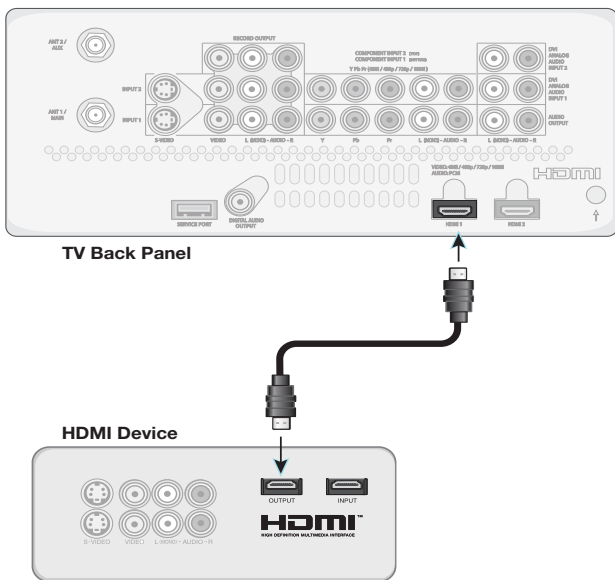


Figure 10. Connecting an HDMI device.

**Note:** HDMI inputs are *SimpleplayHD* certified for proper interoperability with other products certified by Simpleplay™.

### IMPORTANT

Do not use an HDMI-to-DVI adapter cable to connect a PC to the TV. The HDMI input processes signals as standard motion video and is not designed to process computer resolutions.

### IMPORTANT

The HDMI inputs only support PCM stereo audio. To use Dolby Digital® or other multi-channel audio, connect the HDMI device's digital audio output (coaxial or optical) directly to your AV receiver.

## DVI Device (Cable Box, Satellite Receiver, DVD Player, or Other Device)

Analog stereo audio cables and a DVI-to-HDMI cable or DVI/HDMI adapter and HDMI cable are required. These are not included with the TV. They may be available at your local electronics retailer.

1. Connect the DVI-to-HDMI cable (recommended) or HDMI cable with DVI/HDMI adapter from the DVI device's back panel to the TV back panel.

**NOTE:** If you are using a DVI/HDMI adapter, it is important to connect the adapter to the DVI device for best performance.

2. Connect a set of audio cables from **AUDIO OUT** on the DVI device back panel to the **DVI ANALOG AUDIO INPUT** jacks on the TV back panel. Connect the red cable to the **R** jack and the white cable to the **L** jack.

**NOTE:** The HDMI connection supports copy protection (HDCP).

Some devices require connecting to an analog input first, in order to view on-screen menus and to select DVI as the output. Please review your equipment instructions for DVI connectivity and compatibility.

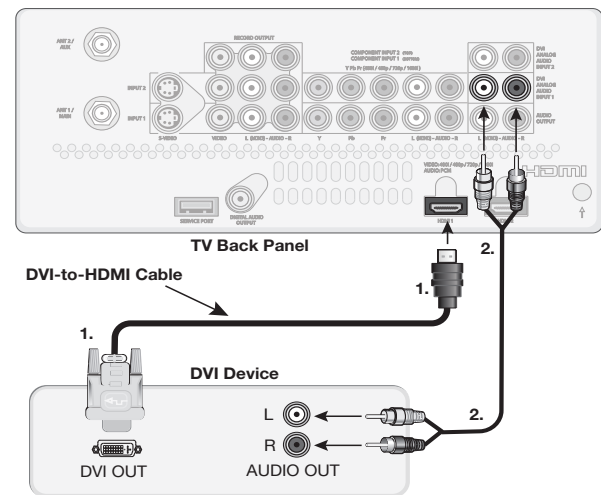


Figure 11. Connecting a DVI device

## DVD Player with Component Video

Component video cables and analog audio cables are required. These are not included with the TV.

1. Connect the component video cables from **COMPONENT OUT** (or YPbPr OUT) on the back of the DVD player to the **COMPONENT INPUT** jacks on the TV back panel, matching the red, green, and blue colored connections.
2. Connect left (white) and right (red) stereo audio cables from **AUDIO OUT** on the back of the DVD player to **COMPONENT INPUT/AUDIO L** and **R** on the TV back panel.

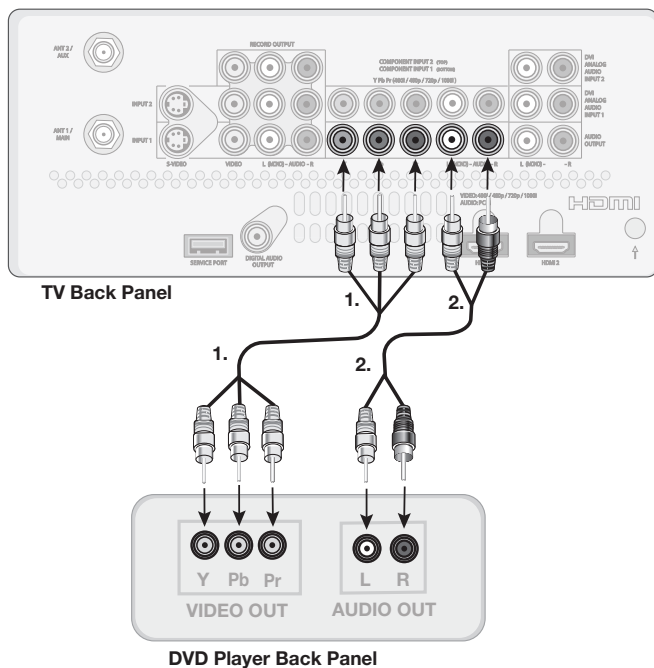


Figure 12. Connecting a DVD player with component video

### IMPORTANT

See Appendix B for component video signal compatibility information.

For digital audio connections to your A/V receiver, see your DVD player and A/V receiver Owner's Guides.

## A/V Receiver (Stereo System)

Most audio/video receiver setups require either a digital audio cable or analog stereo audio cables.

The TV makes all audio available in digital and analog formats. Analog audio coming into the TV is available in digital format on the **DIGITAL AUDIO OUTPUT** jack. Incoming digital audio is available in analog format on the **AUDIO OUTPUT** L/R jacks. Usually, only one of the following connections is required:

- **To connect an analog A/V receiver**  
Connect left (white) and right (red) audio cables from **AUDIO OUTPUT** L/R on the TV back panel to the **TV AUDIO INPUT** on the A/V receiver.
- **To connect a digital A/V receiver with Dolby Digital surround sound and PCM audio support**  
Connect one end of the digital audio cable to **DIGITAL AUDIO OUTPUT** on the back of the TV. Connect the other end to the **COAXIAL DIGITAL INPUT** on the back of the A/V receiver.

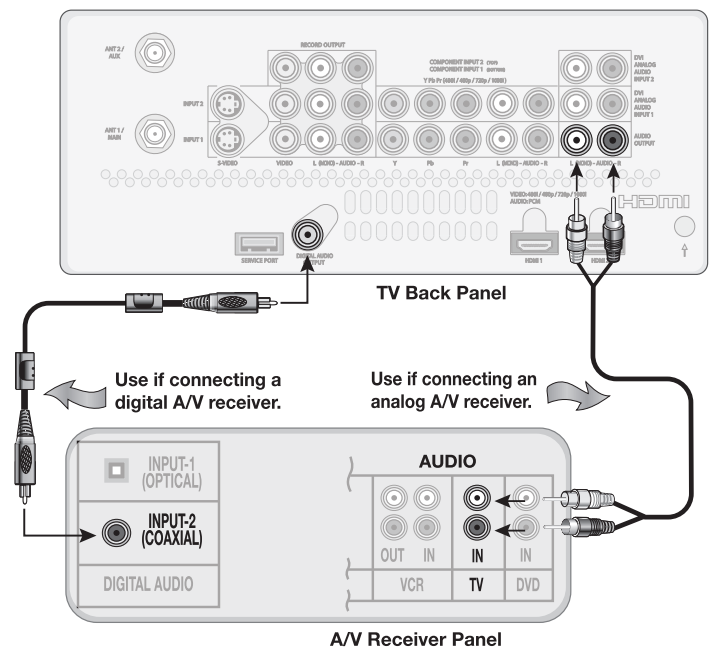


Figure 13. Connecting audio from the TV to an A/V receiver

### Note:

- On rare occasions, an HDMI signal may be copy-restricted and cannot be output from the TV as a digital signal. To hear these copy-protected signals through the A/V receiver, use connections for analog A/V receivers.
- Check the A/V receiver's Owner's Guide for information concerning use of the digital input and switching between digital sound and analog stereo sound from the TV.
- The digital audio jack supports digital stereo, but not multi-channel surround sound.

## Older Cable Box

Required: 3 coaxial cables, one two-way RF splitter. These are not included with the TV.

When this setup is complete, you can use the TV remote control, when programmed, to change channels on the cable box.

**Note:** This connection is not recommended. The other connections described in this chapter provide better quality audio and video to the TV.

1. Connect the incoming cable to **IN** on the RF splitter.
2. Connect one coaxial cable from **OUT** on the RF splitter to **ANT 1/MAIN** on the TV back panel.
3. Connect one coaxial cable from **OUT** on the RF splitter to **IN** on the standard cable box.
4. Connect one coaxial cable from **OUT** on the cable box to **ANT 2/AUX** on the TV back panel.

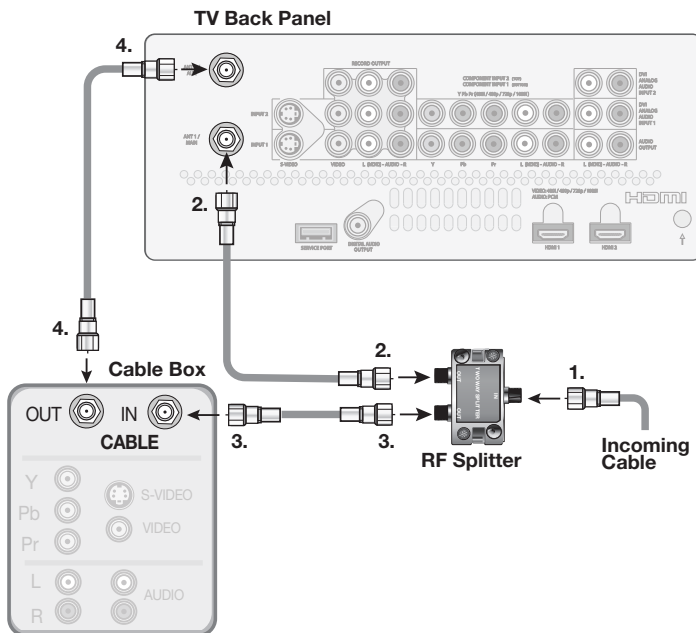


Figure 14. Connecting an older cable box

## Camcorder

Required: Analog stereo audio cables and either an S-Video or composite video cable.

1. Connect either an S-Video or composite video cable from **VIDEO OUT** on the camcorder to **VIDEO** or **S-VIDEO** on the TV Side Panel (Input 3). Connect only one type of video cable; S-Video is recommended, if available.
2. Connect left (white) and right (red) audio cables from **AUDIO OUT** on the camcorder to **AUDIO L** and **AUDIO R** on the TV Side Panel (Input 3).

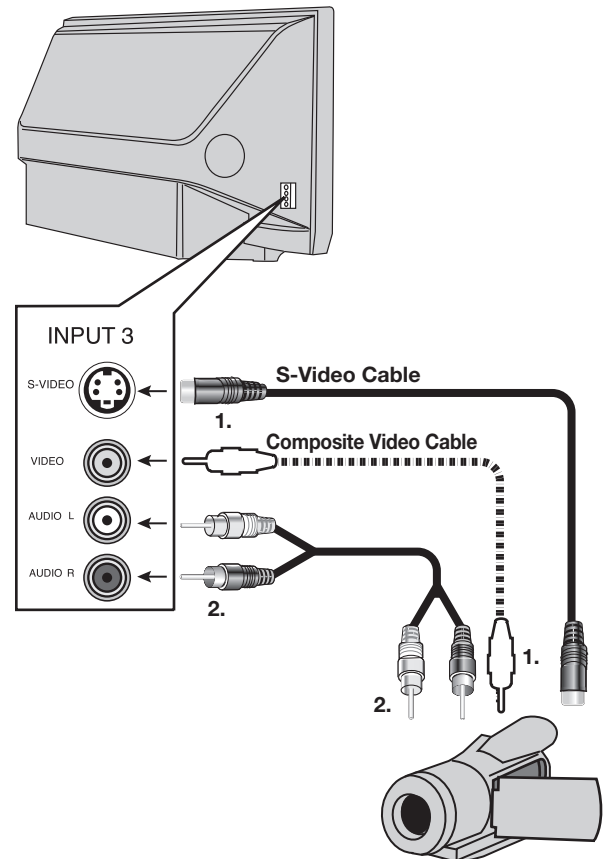


Figure 15. Analog connections for a camcorder

## TV Operation

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## Remote Control

### Overview

- Slide Switch:** Selects the A/V device to be controlled by the remote control. Set the slide switch to **TV** for operation of the TV. Control of other device types requires programming (see Chapter 5).
- SLEEP:** Sets the TV to turn off within 2 hours. See the next page for instructions.
- Digits/Letters:** Allow you to tune to a channel by entering channel numbers; press **ENTER** for faster tuning. Use numbers and the **-/CANCEL** key to enter digital sub-channels.

Also use for entering information (letters and numbers) to name channels. To select letters, repeatedly press the associated number key. For example, to enter "C" press the **2** key four times, then press **ENTER**. The following special characters are available with the **1** and **0** keys:

1	!	&	blank space
0	/	*	-

- /CANCEL (SUB-CHANNEL/CANCEL):** When entering digital channel numbers, adds a separator between main and sub-channel numbers. Clears FAV and some menu entries.
- POWER:** Turns TV power on and off.
- QV (QuickView™):** Switches between the current channel and the last channel viewed.
- MUTE:** Turns TV sound off or on.
- SPLIT:** Turns Split Screen mode on and off.
- VOL ^/∨ (Volume Up/Down):** Changes sound level.
- CH/PAGE ^/∨ (Channel or Page Up/Down):** Scans up or down through memorized channels. Pages up and down through screens when used with TV Guide On Screen® or ChannelView™.
- FAV (Favorites):** Scans through memorized lists of favorite channels. See "Channel Menu" in chapter 4, "TV Menu Settings," for more information.

**Note:** The TV's remote control can operate other audio/video devices.

See Chapter 5 for:

- instructions on programming the remote.
- a list of functions available for controlling other devices.

- FORMAT:** Changes the shape and size of the main TV picture. When in Split Screen mode, changes the size of the split images while maintaining their aspect ratios.
- INPUT:** Displays the **Input Selection** menu from which you can select an input source to view, such as an antenna input (**ANT 1/2**) or a connected device.
- ▲ ▼ ◀ ▶ (Adjust Up/down/Left/Right):** Navigate menus and change settings.
- ENTER:** Selects a channel number or menu item.
- GUIDE:** Displays or removes ChannelView™ on-screen channel listing for **ANT 1** and **ANT 2**.
- INFO:** Displays an on-screen summary of the current device in use and any broadcast information available, including current V-Chip information. See Chapter 3 for details.
- AUDIO:** Selects individual audio settings for adjustment.
- VIDEO:** Selects individual video settings for adjustment.
- MENU:** Displays the main TV menu using the **▶ViewPoint** on-screen menu system. When a sub-menu is open, backs up one level.
- EXIT:** Closes all TV on-screen menus and displays and returns to normal TV viewing.
- F1-F4:** When programmed, these buttons work like the A, B, C, D buttons on some cable boxes and satellite receivers. Program the remote control for your equipment and test the keys. See Chapter 5.
- ⏸ (PAUSE):** Freezes a broadcast TV picture. When Split Screen is displayed, freezes the sub-picture. See below for use with recordable media.

### Record/Playback Keys

To enable the recording and playback functions, program the remote for your VCR or DVD player/recorder and set the slide switch to **VCR** or **DVD**. See Chapter 5 for instructions on programming the remote.

- ⏺ (RECORD):** Records with a VCR or DVD recorder.
- ⏸ (PAUSE):** Pauses a VCR or DVD. See above for use during TV viewing.
- ⏹ (STOP):** Stops play of a VCR or DVD.
- ⏮ (REVERSE):** Rewinds a VCR. Reverse scans a DVD.
- ▶ (PLAY):** Plays a VCR or DVD.
- ⏭ (FAST FORWARD):** Fast forwards a VCR. Forward scans a DVD.

## Remote Control, continued

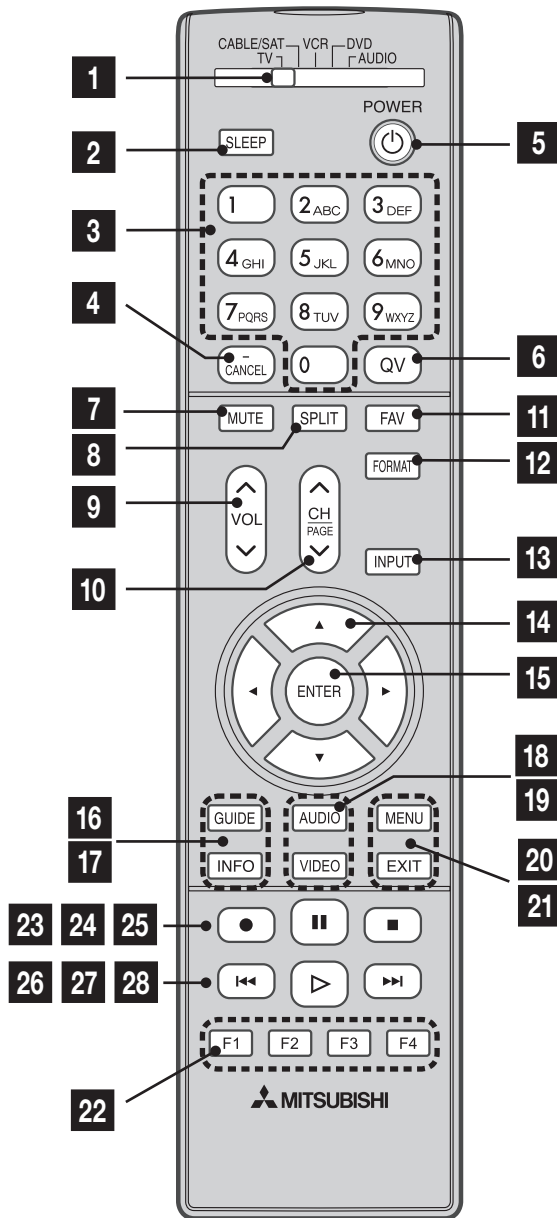


Figure 1. Remote Control Overview

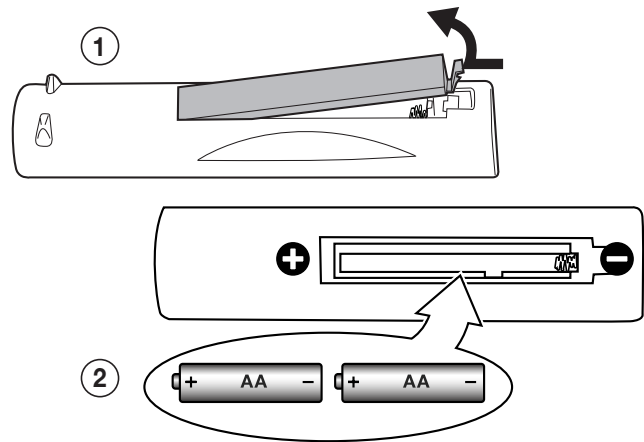


Figure 2. The remote control requires two AA alkaline batteries.

### Sleep Timer

#### Setting the Sleep Timer

1. Press **SLEEP** on the remote control.
2. Press **SLEEP** additional times to increase the time in 30-minute increments up to the maximum of 120 minutes.
3. Wait five seconds without pressing any buttons for the message to disappear or press **EXIT**.
4. Press **SLEEP** to view the time remaining before the sleep timer turns off the TV or press **EXIT**.

#### Cancelling the Sleep Timer

1. Press **SLEEP** to display the on-screen message.
2. Press **SLEEP** repeatedly until **OFF** is displayed.

**Note:** After five seconds of inactivity, the message box will disappear or press **EXIT**.

### Care

#### For Best Results from the Remote Control:

- Use only alkaline batteries.
- Be within 20 feet of the equipment.
- Do not press two or more buttons at the same time unless instructed to do so.
- Do not allow unit to get wet or become heated.
- Avoid dropping on hard surfaces.
- Do not use harsh chemicals to clean. Use only a soft, lightly moistened cloth.
- Do not mix old and new batteries.
- Do not heat, take apart, or throw batteries into fire.

### Resetting the Remote Control

If the slide switch is set to **TV** and the TV does not respond properly, do the following to reset the remote control.

1. Press and hold **POWER** for several seconds until the button blinks twice and goes off.
2. Release the **POWER** button.
3. Press keys **0 0 9 3 5** and the **POWER** button will blink twice when you finish entering the code. While entering the code, pause for a moment between each key press to ensure it is recognized.

### Battery Installation

1. Remove the remote control's back cover by gently pressing in the tab and lifting off the cover.
2. Load the batteries, making sure the polarities (+) and (-) are correct. For best results, insert the negative (-) end first.
3. Snap the cover back in place.

### FAV (Favorite Channels)

For use of the FAV feature with the remote control, see chapter 5, "TV Menu Setting," and the explanation of the Channel menu.



## Operating Tips

### Turning the TV On or Off

To turn the TV on or off, point the remote control at the front of the TV and press the **POWER** button. Alternatively, press the **POWER** button on the front panel of the TV.

### If You Turn the TV Off by Mistake

1. Press **POWER** again within about 30 seconds, while the lamp is still hot, to have the TV come back on immediately.
2. When the **LAMP** indicator starts blinking (about 30 seconds after you shut off power) the TV will ignore the **POWER** command. The **LAMP** indicator will continue to blink while the lamp is cooling.
3. **Wait about one minute for the LAMP indicator to stop blinking and press POWER to turn the TV on again.**

### IMPORTANT

**For faster power-on, keep the TV's Energy Mode set to Fast Power On. This setting is in the Setup menu.**

### Changing Channels

There are several ways to change channels:

- Enter the channel number using the number keys on the remote control and press **ENTER**. For a two-part digital channel, press **-/CANCEL** to enter a separator after the first, second, or third number, depending on the broadcaster's channel information.
- Press **CH ^/∨** to change channels one channel at a time.
- Press and hold **CH ^/∨** to move quickly through channels.
- Press **QV** (QuickView) to switch back to the previously tuned channel.
- Use the **FAV** (Favorites) feature to set up lists of favorite channels. See "FAV (Channel Menu)" in Chapter 4.

**NOTE:** Memorize channels to make finding channels easier. See "Setup Menu" in Chapter 4.

### Controlling Sound Volume

Press **VOL ^/∨** to adjust the sound level.

## Choosing a Program Source

**Note:** If your only viewing sources are connected to the **ANT 1** and **ANT 2** antenna jacks, you can switch inputs without the Input Selection menu. Press **INPUT** to switch between **ANT 1** and **ANT 2**. To verify which is the current source while watching TV, press **INFO** to see the on-screen status display.

### Selecting from Multiple Sources: The Input Selection Menu

The Input Selection menu allows you to select an input to watch on the TV. The current input appears as a gold-colored icon.

1. Press **INPUT** on the TV's remote control to display the Input Selection menu (Figure 1).
2. To select a different input, press **▲▼◀▶** on the TV's remote control to move the highlight through icons in the input section menu.
3. Press **ENTER** to switch to the device and close the menu.

#### More About the Input Selection Menu

- To assign meaningful labels to the icons, such as "VCR" or "DVD," see the "Input Name Menu" section of Chapter 4.
- To rearrange the icons, see the "Icon Order" section of Chapter 4.

*Icons will only be shown for devices that are connected to TV inputs.*

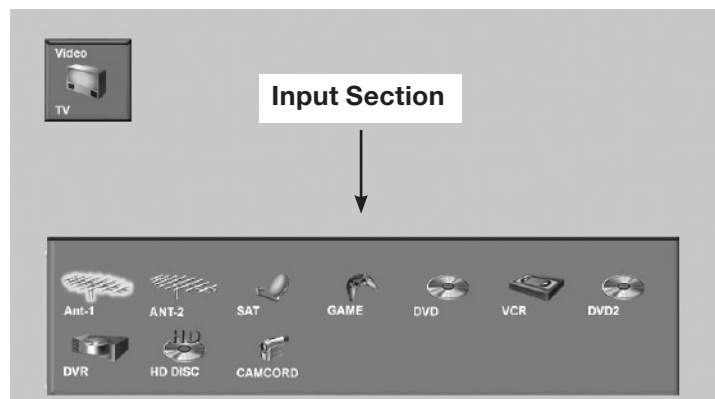


Figure 1. Input Selection menu

### IMPORTANT

**To receive ChannelView updates: Set the Energy Mode to Fast Power On and leave the TV powered off for a while each day. If the TV loses power, program listings will be lost until the next update.**

## ChannelView™ Channel Listings

ChannelView provides program listings for digital channels, as sent by the broadcasters, for memorized channels on **ANT 1** or **ANT 2**. Digital channels are indicated with a “D” and analog channels with an “A.” Digital channels are shown with the major channel and sub-channels. Analog channel information is displayed as sent.

**Note:** For digital channels if limited data is shown or no program data appears, it is because the broadcaster is not sending the information. *This is not a defect of your TV.*

### Using ChannelView

Feature	Instructions
View listings while viewing <b>ANT 1</b> or <b>ANT 2</b> .	Press <b>GUIDE</b> .
Scan through memorized channels one by one.	Press <b>▲</b> or <b>▼</b> .
Scan quickly through memorized channels.	Press <b>PAGE</b> <b>^</b> / <b>v</b> .
View detailed information for digital channels.	Press <b>▲</b> or <b>▼</b> to highlight a channel and press <b>▶</b> .
Return to viewing basic listings information	Press <b>◀</b> .

Channel	ChannelView™	Program
2	CBS A Ant-1	
2-1	KCBS-DT D Ant-1	CBS Local News
4	A Ant-1	
4-1	KNBC-DT D Ant-1	NBC Evening News
7	ABC A Ant-1	
7-1	KABC-DT D Ant-1	ABC World News
28	PBS A Ant-1	
28-1	KCET-DT D Ant-1	The 2005 Rose Parade
28-2	KCET-DT D Ant-1	Nightly Business Report
30	A Ant-1	
62-101	D Ant-1	
62-102	D Ant-1	
128	CNN A Ant-1	
1104	KNBC-DT D Ant-1	NBC Evening News

Figure 2. ChannelView screen, current programs. Use **◀** **▶** to exchange displays for current and future programs.

Channel	ChannelView™	Programs for 28-1
2	CBS A Ant-1	5:30 PM Nightly Business Report
2-1	KCBS-DT D Ant-1	6:00 PM NewsHour with Jim Leh
4	A Ant-1	7:00 PM Life and Times
4-1	KNBC-DT D Ant-1	7:30 PM California's Gold
7	ABC A Ant-1	8:00 PM Washington Week
7-1	KABC-DT D Ant-1	8:30 PM Wall Street Week with F
28	PBS A Ant-1	9:00 PM Now with Bill Moyers
28-1	KCET-DT D Ant-1	10:00 PM Culture of Hate: Who ar
28-2	KCET-DT D Ant-1	11:00 PM Life and Times
30	A Ant-1	11:30 PM Charlie Rose
52-101	D Ant-1	12:20 PM Classic Arts Show
62-102	D Ant-1	
128	CNN A Ant-1	
1104	KNBC-DT D Ant-1	

Figure 3. ChannelView screen, future programs on the selected channel (digital channels only)

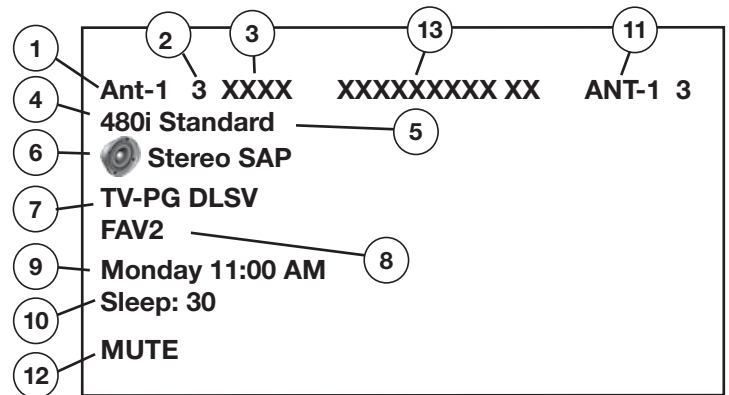
## Status Display

The on-screen status display appears when you turn on the TV, change inputs, change channels, or press the **INFO**

button on the remote control. The most common displays are shown below. Seldom or never do all the status indicators appear at the same time.

### Analog Program

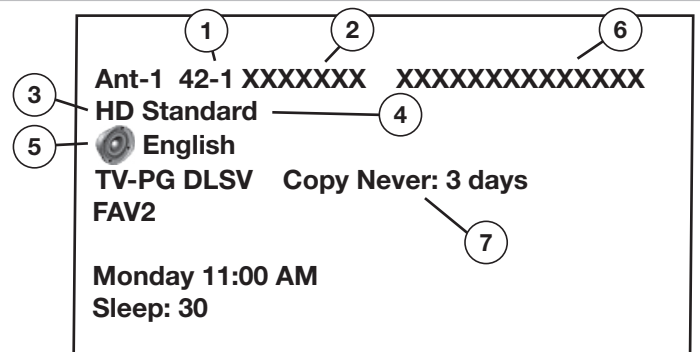
1. Source Antenna or Input
2. Analog Channel being received (If an antenna source)
3. Channel Name (if named in the Channel menu)
4. Signal Type Being Received. Possible:  
From **ANT-1**, **ANT-2**, or **INPUT** jacks: 480i  
From **COMPONENT** jacks: 480i, 480p, 720p, 1080i
5. Screen Format in use  
Possible:  
Analog 480i /480p signals: Standard, Expand, Zoom, Stretch, Stretch Plus, Narrow  
720p/1080i signals: Standard, Wide Expand
6. Stereo and/or SAP being broadcast. In Split Screen mode, the speaker icon is on either the left or right to indicate the sound source.
7. V-Chip Ratings
8. Channel is in current FAV bank (FAV bank 2)
9. Day and Time



10. Sleep Timer remaining time
11. Split Screen picture source and channel
12. Audio Mute on
13. Program Name (if provided by broadcaster)

### Digital Program

1. Digital Major and Sub-Channel Number
2. Digital Channel Name (only if broadcast)
3. Signal Type Being Received  
Possible: SD 4:3, SD 16:9, HD 16:9
4. Screen Format in Use  
Possible:  
SD 4:3: Standard, Expand, Zoom, Stretch, Stretch Plus, Narrow  
SD 16:9 or HD: Standard, Wide Expand
5. Language(s) being broadcast
6. Program Name (if provided by broadcaster)
7. Copy-Protection Status. Possible:  
**Copy Once**: Program can be recorded.  
**Copy Never** [Retention Period]: Program can never be recorded; may display program retention period.



## TV Signals and Picture Formats

This is a widescreen TV, also known as a 16:9 TV. This shape reflects the new types of picture formats available from HDTV and many DVDs. There are still many older style narrow-screen picture formats (for example, 4:3 aspect ratio) you will encounter. While there is no perfect solution for displaying a squarish, narrower image on a wide screen, Mitsubishi offers several picture formats from which you can choose.

*Note: "Picture format" refers to the aspect ratio or the relative size/shape of the picture, such as 16:9 or 4:3.*

Press **FORMAT** on the TV remote control to cycle through the available picture formats. The last-used format for each device is used when you return to that device.

**Note: In Split Screen mode, the **FORMAT** key changes the picture size on both sides of the screen, but the aspect ratio (relative height and width) of both pictures remains the same.**

### DVD Definitions

#### Anamorphic (or Enhanced for WideScreen TV)

These DVDs are recorded in a special way to properly show widescreen pictures on 16:9 TV sets using the Standard format mode. This is the recommended viewing choice.

#### Non-Anamorphic (or 4:3, 1:33:1, Letter Box, or Full Screen)

These DVDs are recorded for use with traditionally shaped, squarish TVs. They may be full screen (4:3 or 1:33:1) which crops movies to fit the narrow TV, or letter box, which adds black top and bottom bars.

This information may be listed on the DVD case. Some DVDs support both types of recordings.

### Signal Definitions

**480i Signals:** Traditional analog interlaced signals from or through **ANT-1** and **ANT-2**, **INPUT 1, 2** and **3**, **COMPONENT 1-2**, and **HDMI 1** and **2**.

**480p Signals:** Progressive-scan DVD signals on **COMPONENT INPUT 1-2** and **HDMI 1** and **2**.

**720p & 1080i Signals:** High-definition analog signals received through **COMPONENT INPUT 1** and **2** and **HDMI 1** and **2**. These signals are always 16:9 (widescreen).

**SD 4:3:** Standard-definition narrow-screen format signals from digital channels.

**SD 16:9:** Standard-definition widescreen format signals from digital channels.

**HD:** High-definition wide-screen format signals from digital channels. These signals are always 16:9 (widescreen).

### TV Picture Format Definitions

**Standard:** This is the full-screen format. HDTV signals use this format. This format is useful for displaying Anamorphic DVDs that have 1.78:1 or 1.85:1 aspect ratios. Anamorphic DVDs that have a 2.35:1 aspect ratio are displayed with black bars at the top and bottom, but show the entire picture correctly. Narrow (4:3) pictures are stretched evenly from side to side. Available for all signals.

**Expand:** This enlarges the picture to fill the screen, cropping off some of the image at the top and bottom. This is useful for reducing the letter box top and bottom bars of non-anamorphic DVD images. Available for 480i, 480p, and digital SD 4:3 signals only.

**Zoom:** This enlarges the picture, cropping off some of the image at each side and top and bottom. This is useful for removing or reducing the black top and bottom bars on anamorphic DVDs with a 2.35:1 aspect ratio. Available for 480i and 480p and SD 4:3 signals only.

**Stretch:** This format stretches a narrow (4:3) picture across the screen; there is less stretch in the center than at the sides, however. This allows the entire narrow image to be displayed across the screen with less distortion than is seen in the Standard format. Available for 480i and 480p and SD 4:3 signals only.

**Stretch Plus:** Similar to stretch mode, but to minimize distortions on the side, the picture is expanded to crop off portions of the top and bottom. Except when displaying menus, press **▲▼** to adjust the position of the picture vertically. Available for 480i and 480p and SD 4:3 signals only.

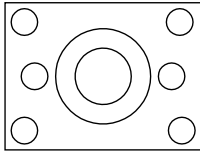
**Narrow:** This format displays narrow (4:3) pictures in their original shape, and adds stationary black side bars to fill the screen. Available for 480i, 480p and SD 4:3 signals only.

**Wide Expand:** Enlarges the picture, cropping some of the image on both sides. This Expand format is useful to remove or reduce black side bars added to narrow pictures that are converted to 16:9 signals for digital broadcast. Available for 1080i, 720p, digital SD 16:9 and digital HD signals.

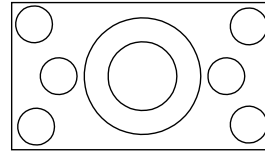
**Note:** All high-definition channels send widescreen (16:9) signals, but not all programming sent on these channels was created for this format. As a result, the broadcaster must convert such programming for broadcast, and may stretch the picture or add side bars to fill the widescreen area.

**TV Picture Formats**

**ORIGINAL SIGNAL  
Non-anamorphic or SD 4:3**

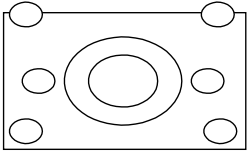


**ORIGINAL SIGNAL  
Anamorphic DVD**



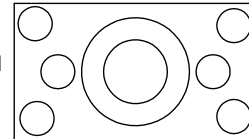
**TV Picture Formats**

Standard



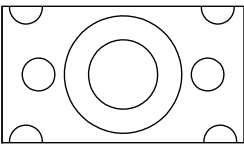
(not recommended, distorted)

Standard



(recommended)

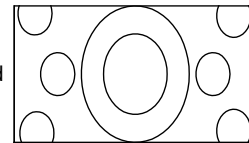
Expand



(recommended for letterboxed)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

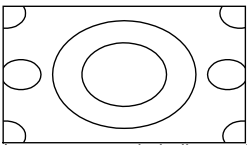
Expand



(not recommended, distorted)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

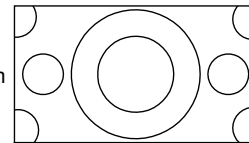
Zoom



(not recommended, distorted)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

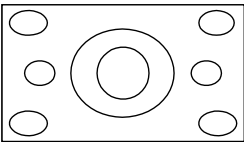
Zoom



(recommended for anamorphic 2.35:1)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

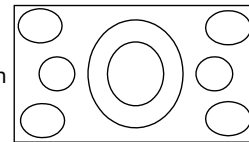
Stretch



(recommended for standard broadcast)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

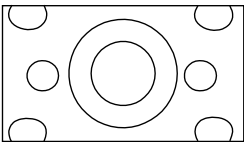
Stretch



(not recommended, distorted)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

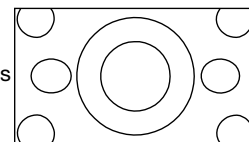
Stretch Plus



(recommended for standard broadcast)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

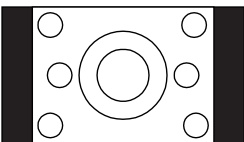
Stretch Plus



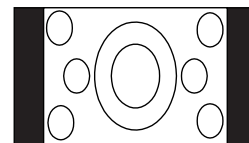
(not recommended, distorted)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

Narrow



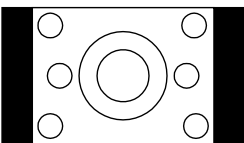
Narrow



(not recommended, distorted)

not available for  
HD, SD 16:9 or  
analog 720p, 1080i

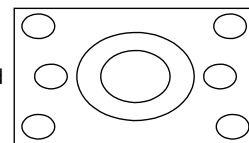
**SD 16:9 or  
HD Digital**



(with side bars in broadcast)

Standard  
Original HD or SD  
16:9, 720p or 1080i

Wide Expand




(recommended to remove side bars)

available only for  
digital SD 16:9, HD,  
analog 1080i or 720p

## Split Screen

Split Screen allows you to view pictures from two different sources at the same time. Split Screen is available when you have video sources connected to the TV in addition to any connections to **ANT 1** and **ANT 2**.

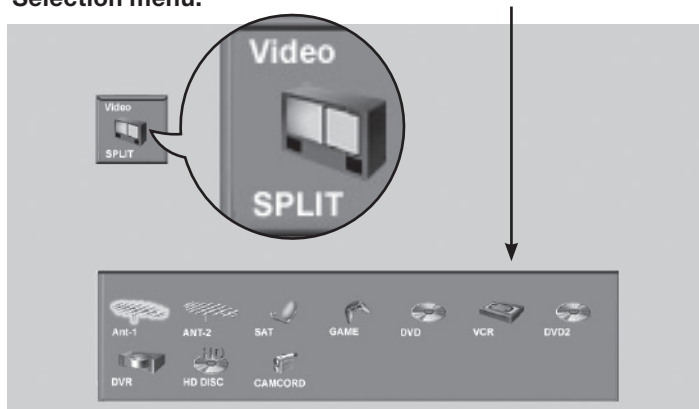
### Operation

Split Screen Operations	Instructions
Turn Split Screen on or off	Press <b>SPLIT</b> .
Switch the sound source between main and sub-picture.	Press ◀ or ▶. The speaker icon appears briefly to indicate the source as either the main picture (left) or the sub-picture (right). The sound source is the side you can control with the remote control. 
Check which picture is the sound source.	Press <b>INFO</b> . The speaker icon appears in the information display to indicate the active picture.
Change the source of the sub-picture.	<ol style="list-style-type: none"> <li>1. Press ▶ to switch the sound source to the sub-picture.</li> <li>2. Press <b>INPUT</b> and move the highlight to the icon for the input you wish to view in the sub-picture (see figure 4).</li> <li>3. Press <b>ENTER</b> to make the change.</li> </ol> <p>Grayed-out input icons are unavailable as Split Screen sources or with the current source.</p>
Change sub-picture channel (when the input source is <b>ANT 1</b> or <b>ANT 2</b> .)	Press ▶ to make the sub-picture the sound source, then press <b>CH</b> ^/∨.
Freeze or unfreeze the sub-picture image.	Press <b>PAUSE</b> (⏸). Press <b>PAUSE</b> (⏸) again to return to normal video.
Change the size of the main and sub-pictures.	Repeatedly press <b>FORMAT</b> to cycle through picture sizes. See the following page for sample displays.
Make the sub-picture fill the screen.	<ol style="list-style-type: none"> <li>1. Press ▶ to make the sub-picture the sound source.</li> <li>2. Press <b>SPLIT</b> to close Split Screen mode.</li> </ol>

Display choices. Press the **FORMAT** key repeatedly while in Split Screen mode to view different display options.

“**SPLIT**” appears under the **Video** icon to distinguish this menu from the Input Selection menu.

Choice of Split Screen sub-Picture Sources



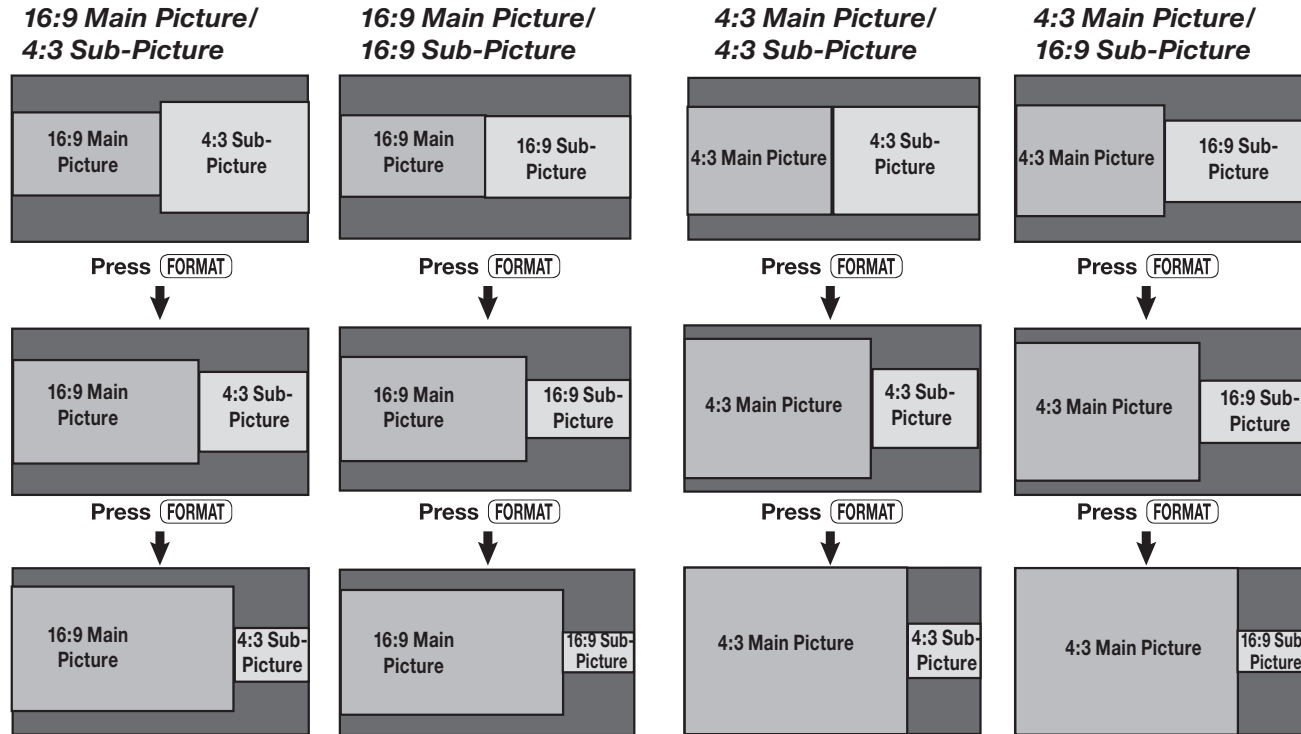
### IMPORTANT

Split Screen is unavailable if:

- Your only inputs are **ANT 1** and **ANT 2**.
- The main and sub-picture can not both have **HDMI** inputs
- Either picture source is a **1080p** signal from an **HMDI** jack.

Figure 4. Change the source of the sub-picture with the Split Screen Input Selection menu.

## Split Screen Displays



Display choices. Press the **FORMAT** key repeatedly while in Split Screen mode to view different picture formats.

## TV Inputs for Split Screen

The available Split Screen picture sources are listed below.

Available as either main picture or sub-picture	<ul style="list-style-type: none"> <li>Analog channels</li> <li>Devices on <b>VIDEO/S-VIDEO</b> inputs</li> <li>Devices on <b>COMPONENT INPUT 1</b> or <b>2</b> inputs</li> <li>Devices on either <b>HDMI 1</b> or <b>2</b> inputs. <i>Note: The main and sub-picture can not both have HDMI inputs.</i></li> </ul>
Available as main picture only	<ul style="list-style-type: none"> <li>Digital channels received from either Antenna input</li> </ul>

Main Picture \ Sub-Picture	ANT 1 (analog only)	ANT 2 (analog only)	INPUT	COMPONENT	HDMI (no 1080p)
<b>ANT 1</b>			✓	✓	✓
<b>ANT 2</b>			✓	✓	✓
<b>INPUT</b>	✓	✓	✓*	✓	✓
<b>COMPONENT</b>	✓	✓	✓	✓**	✓
<b>HDMI 1 &amp; 2</b>	✓	✓	✓	✓	

Combinations of picture sources you can view with Split Screen.

Check marks indicate available combinations.

\* Only when main picture and sub-picture are from different **INPUT** jacks

\*\* Only when main picture and sub-picture are from different **COMPONENT** jacks

## TV Menu Settings

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## 3D Graphical ▶ViewPoint® Menu System

Your TV has Mitsubishi's exclusive 3D Graphical ▶ViewPoint® on-screen operating system, which provides on-screen information for menu choices and changes using the TV's remote control.

### ▶ViewPoint® Menu Screens



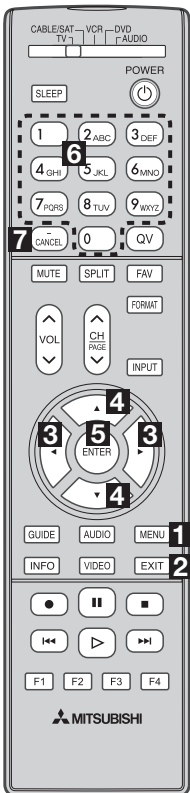
A picture (icon) is highlighted on the menu screen when selected with the directional arrows ▲▼◀▶. You may then make changes within the menu or access sub-menus, if available.



You can also open sub-menus from a button. Sometimes when you select a button, an automatic function begins.

The ▶ViewPoint® system includes the following special features:

- The currently selected icon or button is highlighted with a yellow outline; the text color is yellow.
- On-screen instructions, shown in the message line at the bottom of the menu, provide feature selection and adjustment information.
- Some on-screen menu options must be set before other options are available.



### ▶ViewPoint® Remote Control Buttons

The following buttons on the remote control help you navigate within the ▶ViewPoint® system:

Key	Function
<b>1</b> MENU	Display or close the Main menu or move back one menu screen at a time.
<b>2</b> EXIT	Close all menus and return to TV viewing.
<b>3</b> ◀▶ (Adjust Left/Right Keys)	◀▶ to select a menu item to change.
<b>4</b> ▲▼ (Adjust Up/Down Keys)	<ul style="list-style-type: none"> <li>• to change the settings.</li> <li>• to scroll through pre-set text-box entries.</li> </ul>
<b>5</b> ENTER	Open a menu, start an automatic function, or select a check box.
<b>6</b> Numbers, Letters	Enter custom names in some text boxes.
<b>7</b> CANCEL	Clear a setting or stop an automatic function.

## Main Menu

Press **MENU** on the remote control to open the Main menu, figure 1. See below for an overview of the options available through the Main menu.

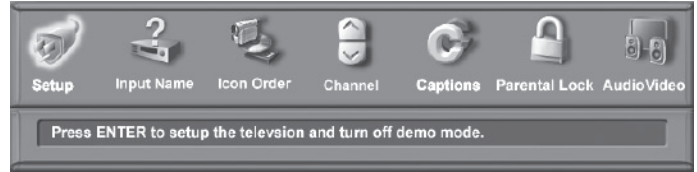


Figure 1. Main menu.



### Setup

- ◆ Select English or Spanish for menus and on-screen displays.
- ◆ Memorize the available channels for the antenna or cable service connected to the **ANT 1** and **ANT 2** jacks.
- ◆ Set the TV's internal clock either manually or have the TV set the clock automatically.
- ◆ Set the TV Timer to turn on the TV automatically at a designated time.
- ◆ Set the energy mode for power consumption when the TV is powered off.
- ◆ Turn off Demo Mode.
- ◆ View the TV's software version.



### Input Name

Assign useful names to TV inputs so that you can easily find them in the Input Selection menu.



### Icon Order

Rearrange icons in the Input Selection menu to put frequently used input devices first.



### Channel

- ◆ Edit channels for the **ANT 1** and **ANT 2** inputs.
- ◆ Manually add or delete channels from memory, name channels, or add your favorite channels to a **FAV** (Favorites) list.
- ◆ View signal strength of a currently tuned digital channel.



### Captions

- ◆ Display closed captions (if sent by the broadcaster).
- ◆ Select settings for analog or digital captions.



### Parental Lock

- ◆ Block or allow programming based on rating signals sent by the broadcast station.
- ◆ Lock the TV by time.
- ◆ Lock the front-panel buttons.



### Audio/Video

- ◆ Reset a selected input's A/V memory to the original factory settings.
- ◆ Customize individual audio and video settings.
- ◆ Display a blue screen when viewing an input with no video signal or a poor video signal.
- ◆ Enable/disable Film Mode.
- ◆ Turn the TV speakers on or off.

## Setup Menu



Figure 2. Setup menu

### Language (Setup Menu)

Choose to display the on-screen menus in either English or Spanish (Español).

To listen to audio in other languages (when available), see the *Audio Settings* section in this chapter.

### Memorize Channels (Setup Menu)

#### For ANT 1/MAIN and ANT 2/AUX

The memorization process performs two scans of all local channels on the selected **ANT** input. Analog channels are scanned first, then the process is repeated for digital channels. Channel memorization may take up to 15 minutes to complete.

#### To start channel memorization

1. Highlight an input selection based on your connections:

Input	Condition
Ant 1 Air, Ant 2 Air	When connected to an indoor/outdoor antenna
Ant 1 Cable, Ant 2 Cable	When connected to direct cable (no cable box)

2. Press **ENTER** to start automatic channel memorization.

#### To stop channel memorization before completion

Press **CANCEL**.

Channels memorized before you pressed **CANCEL** are retained in memory. If you restart memorization, all previously memorized channels for the selected antenna input are erased and the process starts over from the beginning.

After channel memorization, press **CH**  $\wedge/\vee$  to tune to memorized channels. Select the Channel menu for further channel editing, such as adding and deleting channels from memory, naming channels, and saving favorite channels in custom memory banks.

### Clock (Setup Menu)

Set the clock if you wish to use the TV's Timer function or schedule delayed recordings. You can use either the manual or auto method to set the clock.

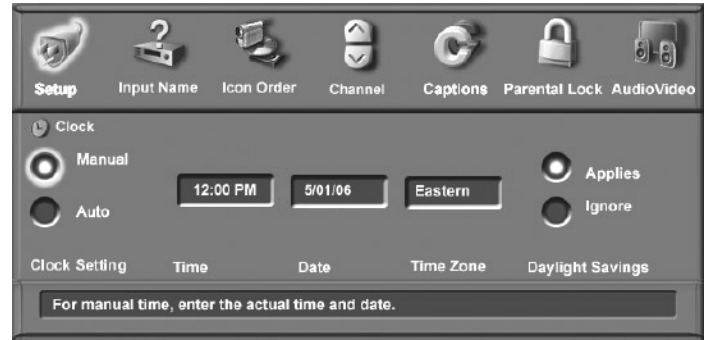


Figure 3. Clock submenu

### Setting the Clock Manually

#### Time

With the hour highlighted in yellow characters, press  $\blacktriangle$   $\blacktriangledown$  repeatedly to slowly increment the hour and associated **AM/PM** indicator or press and hold to quickly increment the hour. Press **ENTER** to highlight the minutes in yellow. Press  $\blacktriangle$   $\blacktriangledown$  to set the minutes. Press  $\blacktriangleright$  to move to the **Time** box.

#### Date

With the month highlighted in yellow characters, press  $\blacktriangle$   $\blacktriangledown$  to select the correct month. Press **ENTER** to highlight the day. Press  $\blacktriangle$   $\blacktriangledown$  to select the correct day. Press **ENTER** to highlight the year. Press  $\blacktriangle$   $\blacktriangledown$  to select the current year. Press  $\blacktriangleright$  to move to the **Date** box.

#### Time Zone

Select your correct time zone. Press  $\blacktriangle$  or  $\blacktriangledown$  to select the time zone for your area (**Atlantic, Eastern, Central, Mountain, Pacific, Alaska** or **Hawaii**). Press  $\blacktriangleright$  to move to the **Daylight Savings** option.

#### Daylight Savings

Press  $\blacktriangle$  or  $\blacktriangledown$  to select either **Applies** or **Ignore**, depending on whether or not daylight savings time is used in your area.

**Note:** If Clock Setting is set to Manual, you must manually set the TV's clock ahead or back each time the time change occurs.

If you have selected Auto for Clock Setting, the TV's clock adjusts automatically to daylight savings time.

### Setting the Clock Automatically

Select the **Time Zone** and the **Daylight Savings (DST)** options for your state. Press  $\blacktriangle$   $\blacktriangledown$  to select **Applies** or **Ignore**. You may then tune to a channel on **ANT 1** or **ANT 2** that uses Extended Data Service (XDS) time

## Setup Menu, continued

data, typically a PBS channel. With **Auto** selected, the TV automatically retrieves the correct time and date information from this channel.

Be aware that if a channel displays incorrect time information, it is because of information sent from the broadcaster and is not a defect of the TV.

**Note:** You may find that some channels send the incorrect time and the TV clock is reset every time you tune to those channels. To prevent unwanted clock resets, first use the **Auto** method to set the clock from a channel sending the correct time, then change the method to **Manual**.

### Timer (Setup Menu)



Figure 4. Timer submenu

The Timer feature allows you to set a day and time for the TV to turn on automatically and the device and channel to display when it switches on. If the TV is already on at the requested time, the TV automatically tunes to the channel you designated in the Timer menu.

When the Timer turns on the TV, the following message is displayed: “Press a button for the TV to stay on.” Press any button on the remote control within five minutes if you wish the TV to remain on.

**Note:** The TV clock must be set before you can use the Timer feature (see preceding page to set the clock).

#### On/Off

Press ▲▼ to enable or disable the Timer. Press ► to move to the **Day** box.

#### Set Day

Select the day or days that the TV will turn on automatically. Press ▲ or ▼ to select **Daily**, **Mon-Fri** (Monday through Friday), or individual days of the week. Press ► to move to the **Time** box.

#### Set Time

With the hour highlighted in yellow characters, press ▲▼ repeatedly to slowly increment the hour and associated **AM/PM** indicator or press and hold to quickly increment

the hour. Press **ENTER** to highlight the minutes. Press ▲▼ to set the minutes. Press ► to move to the **Device** box.

#### Device

Press ▲ or ▼ to select the device to use when the Timer turns on the TV. If the TV is already on at the selected time, the Timer will switch the TV to this device. Press ► to move to the **Channel** box.

#### Channel

When the selected device is an antenna, you can select a channel for the TV to tune to when it comes on. Highlight the **Channel** box and

- Press **CH** ^/∨ or ▲▼ to choose from memorized channels.
- Enter a channel number from the remote control. You can also enter sub-channel numbers for digital channels.

### Energy Mode (Setup Menu)

The Energy Mode option lets you select the TV’s level of power consumption while the TV is turned off. Choose either **Low Power** or **Fast Power On**. The **Low Power** setting uses less energy, but TV power-on takes longer. The default is **Fast Power On**. Keep this setting at **Fast Power On** if you:

- Expect to use the TV Timer function to turn on the TV at a preselected time.
- Need the TV Clock to remain accurate for the TV Timer. With the **Low Power** setting, you must reset the TV Clock if the TV is left turned off for over 48 hours.
- Wish to receive updates to the ChannelView™ channel listings.
- Need faster power on.

### Demo Mode (Setup Menu)

Some TVs are shipped from the factory with Demo Mode active for use in retail stores. If Demo Mode is active, highlight the **Demo Mode Off** button and press **ENTER**.

### Software Version (Setup Menu)

For servicing purposes it may be necessary to know the software version in your TV. This information is displayed at the right side of the Setup menu screen.

## Input Name Menu

Use the Input Name menu to assign useful labels to the TV inputs that appear in the Input Selection menu.

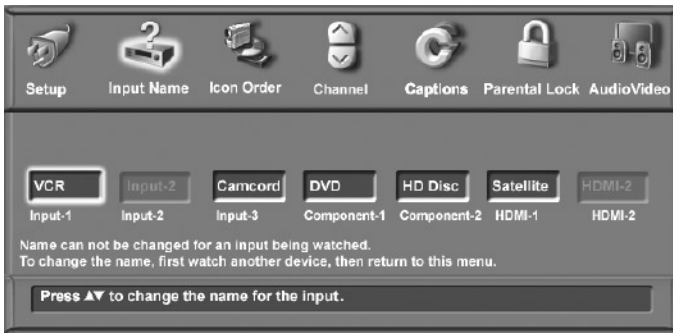


Figure 5. Input Name menu

### IMPORTANT

It is possible to use the same name for more than one input. To avoid confusion, be sure to use a different name for each input.

### To rename an input device

1. If you are currently watching the input you wish to rename, change to another input. To do so, press **INPUT** to open the Input Selection menu, highlight a different input, and press **ENTER**.
2. Press **▲▼** to select a label from the following list.

<b>Cable Box</b>	<b>Game</b>
<b>Camcorder</b>	<b>HD Disc</b>
<b>DVD</b>	<b>Satellite</b>
<b>DVD2</b>	<b>VCR</b>
<b>DVR</b> (digital video recorder, recordable DVD)	

Only one VCR and one Cable Box label is available, so if you have a second VCR or Cable Box connected, leave the name as the default name.

## Icon Order Menu

The Icon Order menu allows you to rearrange the device icons that appear in the Input Selection menu. Change the sequence to put frequently used icons at the start of the list.

### To change the icon order

1. Press **▲▼◀▶** to highlight the icon to be moved and then press **ENTER**.
2. Press **▲▼◀▶** to drag the icon to the desired position. Press **ENTER** to set the new position.

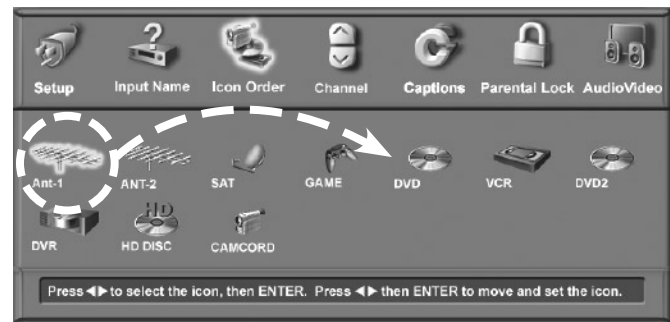


Figure 6. Icon Order menu

## Channel Menu

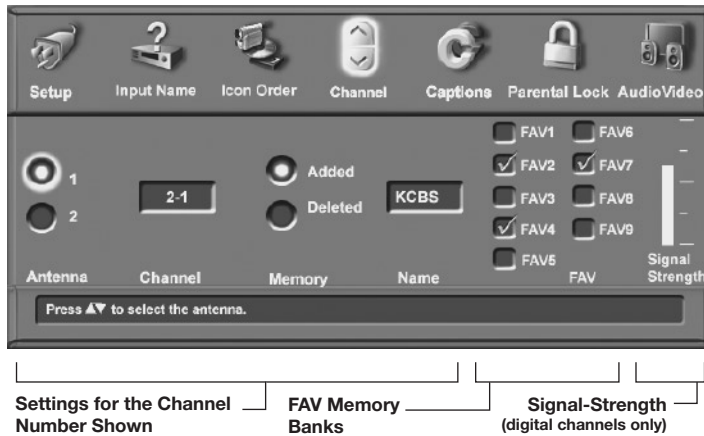


Figure 7. Channel menu

### Antenna (Channel Menu)

Select either **1 (ANT 1 MAIN)** or **2 (ANT 2 AUX)** as the antenna source for the channels you wish to edit.

### Channel (Channel Menu)

Select the affected channel number (shown in the **Channel** box) in any of three ways:

- Press **CH**  $\wedge/\vee$  to select from channels already in memory. If you also wish to tune to the channel, press **ENTER**.
- With the channel box highlighted, press  $\blacktriangle/\blacktriangledown$  to move through all channel numbers, one at a time. If you also wish to tune to the channel, highlight the channel number and press **ENTER**.
- With the channel box highlighted, enter the number directly and press **ENTER**. Note that with this method, you must press **ENTER** for the screen to display settings for the selected channel.

Channel numbers can be one part, analog or digital (up to five digits long), or two part for digital channels. For a two-part digital channel, press **-/CANCEL** on the remote to enter a separator after the first, second, or third number, depending on the broadcaster's channel information.

For digital channels, when the broadcaster has sent a virtual channel number, the virtual channel number is shown in the text box and the original physical digital channel is shown below on screen as a reference. One original channel number can be associated with several different virtual channels.

### Memory (Channel Menu)

After the available channels have been memorized with **Memorize Channels** on the Setup menu, you can add weaker channels or delete unwanted channels using this option. For example, if you wish to see only digital chan-

nels listed, use this menu to delete analog channels from memory.

Press **CH**  $\wedge/\vee$  to review the channels in memory. Press  $\blacktriangle/\blacktriangledown$  to select **Added** or **Deleted** for the channel shown in the **Channel** box.

### To Add a new Digital Channel

1. In the Channel menu, enter the physical channel number in the Channel box, including the sub-channel number; press **-/CANCEL** and then enter the sub-channel number. If no sub-channel is specified, press **-/CANCEL** and 1.
2. Press **ENTER** to tune the channel.
3. Highlight the **Added** radio button.

### Name

Analog channels from **ANT 1** and **ANT 2** can be named with up to four characters. The name you enter here will appear on the TV screen as part of the on-screen status display. Digital channels may already be named if the broadcaster sends the information.

1. Press a number key repeatedly to cycle through the characters associated with the key.
2. Press **ENTER** to set the letter and move to the next letter position. Press **CANCEL** to move back one position.

### Signal Strength (Channel Menu)

Displays the approximate signal strength of the currently tuned digital channel. Use this indicator to help you adjust the antenna direction for best signal reception. The taller the bar, the stronger the signal. This indicator applies only to digital channels.

To view the effects of antenna adjustments, tune to the channel you wish to measure while remaining in this menu. To tune to a channel, either:

- Highlight the channel box, press **CH**  $\wedge/\vee$  or  $\blacktriangle/\blacktriangledown$  to display the desired channel number, then press **ENTER**.
- Enter the channel number on the remote control and press **ENTER**.

### Terminology

#### Virtual Channel Number

A channel number used by a local broadcaster to help you identify their digital channel. Usually this is associated with their traditional analog channel number.

#### Physical Digital Channel Number

The channel number officially assigned to the actual broadcast frequency.

## Channel Menu, continued

### FAV (Channel Menu)

The FAV feature lets you store groups of favorite channels in up to nine different FAV memory banks. For example, each household member can store favorite channels in their own bank or you can store groups of channels by content, e.g., news, sports, children's programming, etc. You can store the same channel in multiple FAV banks.

Once you have added a channel to FAV memory, **FAV** and the memory bank number appear under the tuned channel number on the TV screen. You can access the FAV feature through the Channel menu or you can bypass the menu and use only the remote control.

#### FAV Setup Using the Channel Menu

##### **Initial Setup of a FAV Bank and Adding FAV Channels Using the Menu**

1. With the Channel menu displayed, select a channel using one of the methods described on the preceding page, for example, press **CH**  $\wedge/\vee$  for a memorized channel.
2. Highlight the desired bank (**FAV1–FAV9**) and press **ENTER** to check mark the selected FAV memory bank. The channel number displayed has now been added to the checked FAV bank.
3. With the FAV bank still highlighted, press **CH**  $\wedge/\vee$  to display the next channel you wish to add to the FAV bank.
4. Press **ENTER** to add a check mark next to the highlighted FAV bank.
5. Repeat steps 2–4 for additional channels and FAV banks.

##### **Removing FAV Channels Using the Menu**

1. With the Channel menu displayed, press **CH**  $\wedge/\vee$  to display the memorized channel you wish to remove.
2. Highlight the desired FAV memory bank (**FAV1–FAV9**).
3. Press **ENTER** to remove the check mark.

#### Using FAV Channels

##### **Viewing FAV Banks**

1. Press the **FAV** key. Wait for the TV to tune to a channel in the current FAV bank.
2. Press the **FAV** key repeatedly to cycle through the channels available in the current FAV bank.

##### **Changing FAV Banks**

1. Press the **FAV** key. Wait for the TV to tune to a channel in the current FAV bank.
2. When tuning is complete and while the TV status display is still visible on screen, press the number key for the desired bank.

**Note:** Wait for the channel change to finish before pressing the number key. Otherwise, the TV may ignore the FAV number.

##### **If No FAV Banks Are Set Up**

The **FAV** key switches to the previously tuned channel; works like the **QV** key.

#### FAV Setup Using Only the Remote Control

##### **Adding FAV Channels**

1. While watching TV, tune to the channel you want to add to the current FAV memory bank. See the instructions above if you need to first change to a different FAV bank.
2. Press and hold the **FAV** button for about 2 seconds. When **FAV** and the memory bank number appear under the channel number, the channel has been successfully added.

##### **Removing FAV Channels**

This procedure removes the channel only from the selected bank and leaves the other banks unchanged.

1. While watching TV, press the **FAV** button
2. While the TV status display is still visible on screen, press the number key for the memory bank.
2. Press the **FAV** button repeatedly until you see the desired channel.
3. While the channel number and **FAV** indicator (with correct bank number) are still displayed on the screen, press **CANCEL**. You must press **CANCEL** before the indicator disappears. When the **FAV** indicator disappears, the channel has been successfully removed.

## Captions Menu

For analog channels, broadcasters can send either standard closed captions or text service. Standard closed captions follow the dialogue of the characters on screen and display in a small section of the screen. Text-service closed captions often contain information such as weather or news and cover a large portion of the screen.

For digital channels, broadcasters can send up to six different captioning selections or can send analog captions that are the same as those sent by the analog station. Each TV station may broadcast only one or two types of captions or none at all. The TV cannot decode closed captions received on component or HDMI inputs.



Figure 8. Captions menu

## Analog Captions

The TV can display one of the following captions for analog sources:

- **CC1, CC2, CC3, or CC4:** standard closed-caption signals
- **Text1, Text2, Text3, or Text4:** Text-service signals
- **On if mute:** Closed captions appear when audio is muted. When selected, press MUTE on the TV remote control to turn on/off the standard closed-caption signal CC1.
- **Off:** No closed captions.

### IMPORTANT

When analog text closed captioning is selected, a large black or gray box appears on your TV screen if no signal is broadcast.

## Background

To make the analog closed captions easier to read, you can choose to display the background color as either black or gray behind the text.

## Digital Captions

The following display options are available for digital sources:

- **Captions 1–6:** Sent by broadcaster.
- **On if Mute:** Closed captions are displayed when audio is muted. When selected, press MUTE on the TV remote control to turn captioning on/off (Caption 1).
- **Off:** No closed captions.

**Note:** For digital programs, if the broadcaster is sending only analog captions converted to digital format, then the analog caption settings apply.

## Appearance

The closed-captions provider selects the default options when sending digital closed captions. Select **Custom** to override defaults and customize the appearance of closed captions. These settings do not apply to analog closed captioning converted to digital.

## Digital Settings

The Digital Settings menu allows you to customize the appearance of the closed captions sent by the broadcaster. Digital settings do not apply to analog closed captions converted to digital.

To open the Digital Settings menu, select **Custom** for the **Appearance** option. Move the highlight to the **Digital Settings** icon and press ENTER.

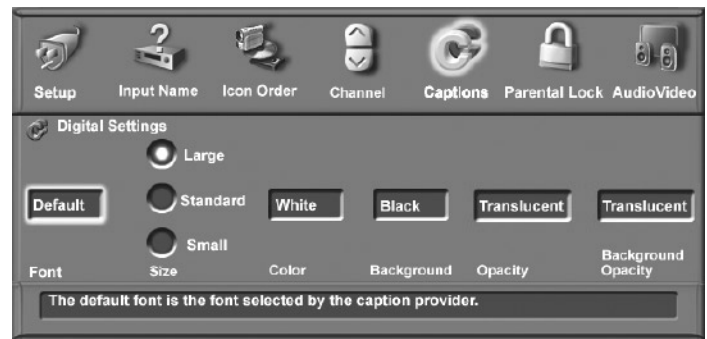


Figure 9. Closed Captions, Digital Settings sub-menu

## Font

The available font options are as follows:

- **Default:** Selected by the closed-captions provider
- **Font 1:** Monospaced font with serifs
- **Font 2:** Proportionally spaced font with serifs
- **Font 3:** Monospaced font without serifs
- **Font 4:** Proportionally spaced without serifs
- **Font 5:** Casual font
- **Font 6:** Cursive font
- **Font 7:** Small capitals font



## Captions Menu, continued

### Size

Select the desired font size. Large is the recommended font size.

### Color

The available font colors are listed below. Text and background cannot be set to the same color.

White	Yellow
Black	Green
Magenta	Cyan
Red	Blue

### Background

You can change the background color to make the digital closed captions easier to read. The available background colors are listed below. Text and background cannot be set to the same color.

White	Yellow
Black	Green
Magenta	Cyan
Red	Blue

### Opacity (Font)

You can customize the visibility of your fonts using the following settings:

- **Translucent:** TV program is dimmed behind the text
- **Transparent:** Invisible text reveals the TV program behind.
- **Opaque:** Solid text blocks view of the TV program
- **Flashing:** Text flashes at intervals

### Background Opacity

You can customize the background for digital captions using the following settings:

- **Translucent:** TV program is dimmed behind the background
- **Transparent:** No visible background
- **Opaque:** Solid background covers TV program
- **Flashing:** Background flashes at intervals

#### **IMPORTANT**

Mitsubishi recommends you use contrasting colors for captions and background.

Black translucent background combined with a white font makes an easy-to-read combination.

Use care when selecting custom colors. Your choice may affect the readability of captions.

#### **IMPORTANT**

The content of captions is determined by the broadcaster. If your captions show strange characters, misspellings, or odd grammar, it is not a malfunction of the TV.

## Parental Lock Menu

The Parental Lock menu gives you control over three different types of parental controls. You must use a pass code to open this menu to enable/disable the lock options. The three parental controls available are:

- **Ratings (U.S. Ratings/Other Ratings)**  
V-Chip technology lets you restrict access to programming based on program-rating signals sent by the broadcaster. For U.S. ratings, you can also set the time of day for these restrictions to be in effect.
- **Lock by Time**  
Lets you restrict TV use by time of day.
- **Front Panel Lock**  
Lets you disable the controls on the front of the TV. Use this option if there are small children near the TV who may be tempted to press the buttons.

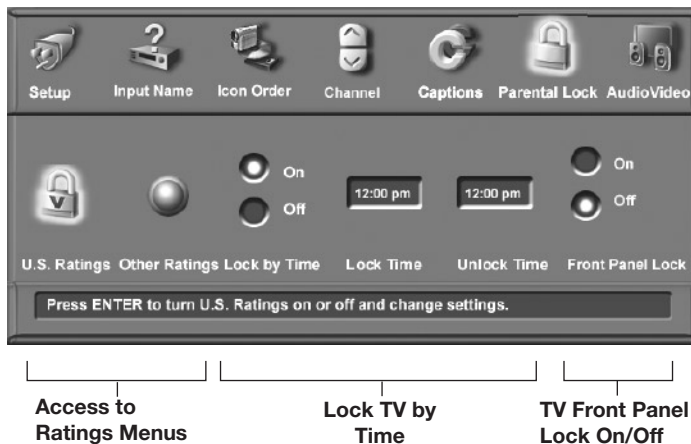


Figure 10. Parental Lock menu

### Setting a Pass Code

You are prompted to enter a pass code whenever you select Parental Lock on the Main menu. To set a pass code for the first time:

1. Press **MENU**, highlight **Parental Lock**, then press **ENTER**. A screen prompting you for a pass code will display.
2. Input a four-digit pass code using the number keys on the remote control.
  - Press **CANCEL** to delete a number and move back one space.
  - Press **MENU** or **EXIT** to close the menu without setting a pass code.
3. Press **ENTER** to set the pass code just input.

To reset the pass code, see the procedure in Appendix A.

## Lock TV by Time and Front-Panel Lock

### Front Panel Lock (Parental Lock Menu)

**Front Panel Lock** lets you disable controls on the front panel to prevent inadvertent changes to TV settings. Select **On** to disable the buttons and select **Off** to restore their operation.

To release the front button lock without using the remote control:

- When Energy Mode is set to **Fast Power On**, press and hold the **MENU** button on the front panel for over eight seconds. If the TV is on, a message will display confirming release of the Front Panel Lock.
- When Energy Mode is set to **Low Power**, press **POWER** on the front panel to turn on the TV. Press and hold the **MENU** button on the front panel for over eight seconds.

### Front Panel Lock (Parental Lock Menu)

**Front Panel Lock** lets you disable controls on the front panel to prevent inadvertent changes to TV settings. Select **On** to disable the buttons and select **Off** to restore their operation.

To release the front button lock without using the remote control, press and hold the **MENU** button on the front panel for more than eight seconds. If the TV is on, a message will display confirming release of the Front Panel Lock.

## Ratings Menus

The rating menus allow you to:

- Turn rating restrictions on or off
- Change the permitted rating level
- Set the time of day to enforce rating restrictions (U.S. ratings only)

The TV comes from the factory with pre-set U.S. V-Chip ratings and with the rating locks turned off. The pre-set ratings are TV rating TV-PG and movie rating PG. If you turn on V-Chip blocking, these presets allow only programs rated TV-PG/PG or lower until you change the rating level.

After changing the channel or device, there may be a delay of up to five seconds before the rating restrictions take effect.

### **IMPORTANT**

**If you forget your four-digit pass code, see Appendix A.**

## Parental Lock Menu, continued

### U.S. Ratings Menu

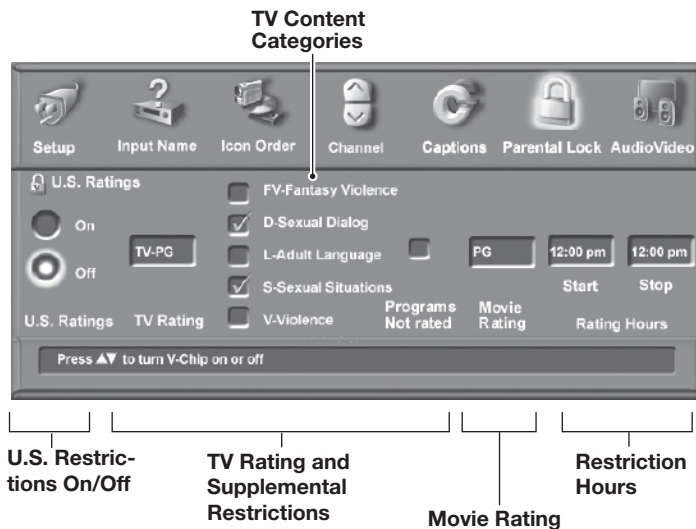



Figure 11. U.S. Ratings menu

Use this menu to turn U.S. rating restrictions on or off and to change the permitted rating levels.

1. Highlight the **U.S. Ratings** icon  on the Parental Lock menu (figure 10) and press **ENTER** to open the U.S. Ratings menu (figure 11).
2. Press **▲▼** to select **On** or **Off**.
3. If you selected **On**, press **▶** to move to the **TV Rating** box.
4. Press **▲▼** to select the TV rating level you want to allow.
5. Press **▶** to move to the TV content categories. This section allows you to specify content blocking in addition to that blocked by the TV rating. See the section on V-Chip ratings for an explanation of TV content categories.
  - Press **▲▼** to move the highlight among the categories.
  - Press **ENTER** to add or remove a check mark to each TV content category you want to block or unblock.
6. Press **▶** to move to the **Programs Not Rated** box. Press **ENTER** to add or remove a check mark to allow or block programs that are not rated.

**Note:** Use care when choosing to block unrated programming. News programs and emergency bulletins carry the “None” or “NR” (Not Rated) V-Chip signal, and they are blocked with this option active.

7. Press **▶** to move to the **Movie Rating** box. Press **▲▼** to select the movie rating level you want to allow.

Detailed information on rating guidelines follows this discussion of the Parental Lock menu.

8. To set the time of day for these restrictions to be in effect, press **▶** to move to the **Start** box. To make the rating restrictions active twenty-four hours a day, set **Start** and **Stop** to the same time. To set the time:
  - a. With the highlight on the hour number, press **▲▼** repeatedly to change the hour. You can also just press and hold to change the hour.
  - b. Press **ENTER** to move the highlight to the minutes.
  - c. With the highlight on the minutes number, press **▲▼** repeatedly to change the minutes. Just press and hold to move quickly through the numbers.
  - d. Press **ENTER** to move the highlight to the **am/pm** option. Press **▲▼** to make a selection.
  - e. Repeat these steps for the **Stop** time.
9. Press **MENU** to return to the Parental Lock menu or press **EXIT** to close all menus.

### Other Ratings Menu

This TV can recognize new rating systems that may come into effect in the future. The Other Ratings menu allows you to block digital broadcast programming based on such alternate rating systems. The alternate rating systems will apply to digital broadcast programming only.

**Note:** The **Other Ratings** button remains inaccessible until the TV receives signals for an alternate rating system.

The first time you tune to a channel broadcasting an alternate rating system, the TV defaults to the most restrictive setting. Use this menu to change the allowed rating if you are unable to watch a program broadcast with an alternate system.



Figure 12. The Other Ratings menu is available only if the TV receives broadcast signals carrying an alternate rating system.

## Parental Lock Menu, continued

### **IMPORTANT**

**New rating systems recognizable by the TV may be new U.S.-based systems not included in the original V-Chip rating system. The use of “Canadian” in the sample screen is just one possibility.**

1. Highlight the button labeled **Other Ratings** on the Parental Lock menu (figure 10) and press **ENTER** to open the Other Ratings menu (figure 12).
2. Press **▲ ▼** to select **On** or **Off**.
3. If you selected **On**, press **▶** to move to the **Rating Group** box.  
Note that you can change settings only for the rating system available on the currently tuned channel. In the figure above, for example, the Canadian rating system is in effect. To change settings at a later time for the Canadian rating system, you must again tune to a channel broadcasting the Canadian system.
4. Press **▲ ▼** to select from the subgroups available for the rating system—**English** or **French** in this example.
5. Press **▶** to move to the **Rating** box.
6. Press **▲ ▼** to select the program rating level you want to block.
7. Press **ENTER** to add a check mark to indicate blocking is in effect for the rating. When a rating shows a check mark, press **ENTER** to remove the check mark and allow programs with this rating.
8. Repeat steps 3 through 7 for each additional rating system you would like to set up.
9. Press **MENU** to return to the Parental Lock menu or press **EXIT** to close all menus.

---

### **Bypassing the Ratings Lock and Lock by Time**

If you try to watch blocked programming, a notice appears prompting you for a pass code. To use the TV:

- Input your four-digit pass code and press **ENTER**.
- Change to a channel airing an allowed program or change to another device.

If you try to use the TV when it is locked by time, a similar screen appears, prompting you for your pass code.

To reactivate the rating lock or TV Lock by Time after using the pass code, power the TV off and then on.

## V-Chip Signal Information

When provided by the broadcaster or program source, V-Chip ratings let you control the types of programming that can be viewed on the TV. When V-Chip ratings are supplied, they are displayed when you change the channel or press **INFO** on the remote control.

### TV Ratings

TV ratings apply to TV programs and made-for-TV movies. You can apply supplemental blocking to TV ratings based on the TV content categories described below. TV ratings are:

- TV-Y** Youth. For children under the age of 7.  
**TV-Y7** Youth 7 and older.  
**TV-G** General Audience. For the entire family to view.  
**TV-PG** Parental Guidance. Parental Guidance is recommended; may not be suitable for some children.  
**TV-14** Adolescent 14 and older. Not recommended for children under the age of 14.  
**TV-MA** Mature Audience. For adults only.

### TV Content Categories

Used in association with the TV ratings above, TV content categories allow you to apply supplemental blocking. Apply supplemental blocking using the U.S. Ratings menu.

- FV Fantasy Violence.** Applies to TV-Y7 only.  
**D Sexual Dialog.** Applies in different degrees to TV-PG and TV-14.  
**L Adult Language.** Applies in differing degrees to TV-PG, TV-14, and TV-MA.  
**S Sexual Situations.** Applies in differing degrees to TV-PG, TV-14, and TV-MA  
**V Violence** (graphic or realistic). Applies in differing degrees to TV-PG, TV-14, and TV-MA.

TV Rating	FV	D	L	S	V
TV-Y					
TV-Y7	<b>X</b>	<i>Not Applicable</i>			
TV-PG	<i>Not Applicable</i>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
TV-14	<i>Applicable</i>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
TV-MA			<b>X</b>	<b>X</b>	<b>X</b>

*TV content categories. Boxes marked with an "X" indicate supplemental blocking you can apply to each rating level.*

The TV rating you select is for the least-restrictive program level allowed. For example, if you select TV-PG, programs rated TV-Y, TV-Y7, and TV-PG can be viewed, but programs rated TV-14 and TV-MA are blocked.

When you select a TV content category to block, all TV programs with the same content category listing are blocked. For example, if you select to block V (Violence) at the TV-14 level, any programs with the V category listing rated TV-PG are also blocked.

### V-CHIP EXCEPTIONS:

- V-Chip blocking is ineffective for programs viewed on devices connected to component or HDMI inputs. Many of these devices, however, have their own parental-control systems.
- Videotapes, laser discs, and DVDs may not contain V-Chip rating signals. V-Chip cannot block playback recordings without V-Chip rating signals.
- Broadcasters are not currently required to include V-Chip rating signals. V-Chip cannot block programming broadcast without the V-Chip rating signal.

### Movie Ratings

Movie ratings are the MPAA ratings used for theater-released and direct-to-video movies. Movie ratings are:

- G General Audience.** Designed for the entire family to view.  
**PG Parental Guidance.** Parental Guidance is recommended, may not be suitable for some children.  
**PG-13 Parental Guidance, 13 and Older.** Not recommended for children under the age of 13.  
**R Restricted.** Restricted in theaters to 17 years old and older unless accompanied by an adult.  
**NC-17 No Children 17 or Under.** Restricted in theaters to 18 years old and older.  
**X Adult.** Designed for and restricted in theaters to adult audiences only.

The movie rating you select is for the least-restrictive program level that can be viewed. For example, if you select the PG-13 rating, movies rated G, PG and PG-13 can be watched, but movies rated R, NC-17, and X are blocked.

**Programs Not Rated:** This refers to programs that carry no rating, such as news, sports, weather, emergency bulletins, or movies prior to or without MPAA ratings. This does not include programs without V-Chip signals.

### IMPORTANT

**If you enable blocking with the Programs Not Rated option, you may block news or emergency bulletins carrying the "None" or "NR" Not Rated V-Chip rating. Use care when blocking programming that is not rated.**

## Audio/Video Menu

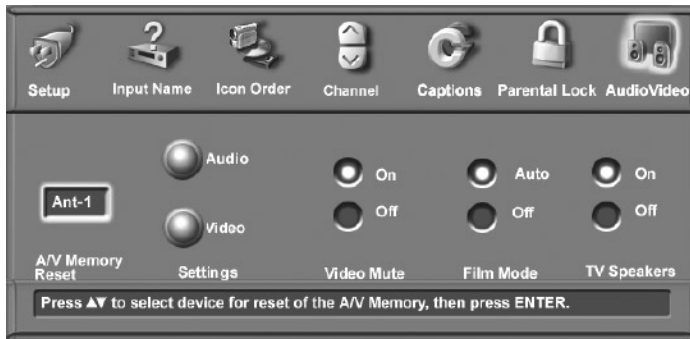


Figure 13. Audio/Video Menu

### A/V Memory Reset

A/V Memory Reset allows you to reset a specific input's A/V settings to the original factory settings. Highlight the box and press **▲▼** to select the input name. Next press **ENTER**.

The audio settings of **Balance**, **Listen to**, and **Language** are general TV settings unaffected by A/V Memory Reset.

To reset all A/V settings at once, including the three general settings, perform an A/V Reset by pressing the front-panel buttons **GUIDE** and **FORMAT** simultaneously.

### Settings (Audio and Video)

Each input or device has its own A/V memory. Press **▲▼** to select the input or device in the **A/V Memory Reset** box, then select **Audio** or **Video** to adjust individual settings. Press **ENTER** to close the menu and display the individual settings.

Use **▲▼** to cycle through the individual settings. Use **◀▶** to change the setting values. Press **EXIT** to return to normal TV viewing. For descriptions of the individual A/V settings, see the following pages.

### Video Mute

The default is **On**, which displays a blue background when no signal is being received on the **INPUT**, **COMPONENT**, or **HDMI** jacks.

### Film Mode (480i signal only)

**Auto** is the default setting. With **Auto** selected, the TV automatically detects and applies film-decoding correction for images that originated on 24-frame-per-second film cameras and were converted to 30-frame-per-second video for broadcast (3:2 pulldown conversion). Try the **Off** setting if the TV adds noticeable jagged edges to the images.

When the original video was filmed on 30-frame-per-second cameras, the **Auto** setting automatically applies video decoding, the same as used with the **Off** setting.

Film Mode is not effective for high-definition signals.

### TV Speakers

This selection turns the TV's internal speakers on or off. Select **Off** when sending the sound through a separate stereo system or surround sound A/V receiver.

**Note:** To prevent damage from a sudden increase in volume, turn the TV volume down low before changing this option to **On**.

### Audio/Video Settings and the Remote Control

To adjust individual audio or video settings directly with the remote control:

1. Press **AUDIO**, **VIDEO**, or **▲▼** repeatedly to cycle through the available settings.
2. Press **◀▶** to adjust the setting. The setting display will disappear after five seconds of inactivity.

## Audio/Video Menu, continued

### Audio Settings

#### Analog and Digital Audio Settings

Enter the audio adjustment mode using either the Audio/Video menu or the **AUDIO** key. Use ◀ ▶ to change settings. The adjustable settings display a slider and corresponding numeric value on screen. Values can be adjusted from 0 to 63, with 31 as the midpoint.

**Note:** The effects of the audio settings of **Bass**, **Treble**, **Balance**, and **Surround** affect only the sound heard through the TV speakers.

#### ◇ **Bass**

Enhances or reduces low-pitched sound.

#### ◇ **Treble**

Enhances or reduces high-pitched sound.

#### ◇ **Balance**

Adjusts the level of sound between the left and right TV speakers.

#### ◇ **Surround**

Creates simulated stereo and surround effects through the TV speakers. Your choices are:

- **Off:** No surround effects (default).
- **Simulated Stereo:** The TV creates a simulated stereo effect when watching a non-stereo program.
- **Surround Sound:** The TV creates a simulated surround effect when watching a stereo program.

#### ◇ **Level Sound**

When on, automatically equalizes the volume level when there are significant sound-level differences between program segments, such as between regular programming and commercials.

- To receive the best fidelity with music programs, change this setting to **Off**.
- When connecting to an A/V receiver, set **Level Sound** to **Off** and turn off the TV speakers to send full dynamics to the A/V receiver.

#### Analog-Only Audio Settings

You can set analog-only audio settings while viewing either analog or digital sources, but the settings affect only broadcast analog content.

#### ◇ **Listen To**

Determines how your TV receives a broadcast audio signal and plays the sound you hear.

Your choices are:

- **Stereo:** Default setting. The TV plays stereo broadcasts in stereo and mono broadcasts in mono. The word **Stereo** is displayed when you tune to a channel broadcasting in stereo.
- **SAP** (Second Audio Program): Additional monoaural sound track that you cannot hear during normal TV viewing. The SAP signal might be related to the program you are watching, (such as a sound track in a foreign language), or it might be unrelated (such as a weather report). If an SAP signal is broadcast, the letters **SAP** are displayed when you tune to the channel.
- **Mono:** Reduces background noise. Use when receiving a weak stereo audio signal. All audio is played mono with this setting.

**Listen To** is not available for devices connected to the **INPUT**, **COMPONENT** or **HDMI** jacks.

#### Digital-Only Audio Settings

You can set digital-only audio settings while viewing either analog or digital sources, but the settings affect only broadcast digital content.

#### ◇ **Language**

Determines what possible language you can hear. Your choices are:

<b>English</b>	<b>Portuguese</b>
<b>French</b>	<b>Spanish</b>
<b>German</b>	<b>Other</b>
<b>Italian</b>	

### Video Settings

Enter the video adjustment mode using either the Audio/Video menu or the **VIDEO** key. Press the **VIDEO** key repeatedly to cycle through the video options to the one you want to change. Use ◀ ▶ to change settings.

**Note:** A slider displays on screen for some settings. When the slider is displayed, it represents numeric values, with 63 as the maximum, 31 as the midpoint, and 0 as the minimum.

◇ **Picture Mode:** Set the Picture Mode first before adjusting other settings, as each Picture Mode stores its own values for Contrast, Brightness, and Color Temperature. Picture Modes allow you to optimize the image for different lighting conditions. The Picture Modes are:

- **Bright:** Suited for most daytime viewing.
- **Natural:** Suited for most nighttime viewing.
- **Brilliant:** The default setting. For use under strong light.

## Audio/Video Menu, continued

- ◇ **Contrast** (Bright/Natural/Brilliant): Provides a slider to adjust the white-to-black level. Low contrast shows a variety of shades in darker images, while high contrast shows darker images more uniformly black and makes colors appear more vibrant. In most home lighting situations, a medium contrast looks best. High contrast is good for brightly lit environments.
- ◇ **Brightness** (Bright/Natural/Brilliant): Provides a slider to adjust the overall brightness of the picture.
- ◇ **Color**: Provides a slider to adjust color intensity.
- ◇ **Tint**: Provides a slider to adjust the red-to-green ratio.
- ◇ **Sharpness**: Provides a slider to adjust the detail and clarity.
- ◇ **Color Temperature** (Bright/Natural/Brilliant): Allows you to adjust how white is displayed.
  - **Low**: White images have a warm cast. This adjustment is an average and can vary due to ambient room lighting, video scene brightness, and the TV's age. Natural/Color Temp at the low setting displays video at the 6500K industry standard for NTSC pictures.
  - **High**: White images have a cool cast. This setting may provide the most realistic picture under bright lighting.

- ◇ **PerfectColor™ (WD-52531, WD-62531)** Lets you adjust the intensity of any or all of six colors (Magenta, Red, Yellow, Green, Cyan and Blue) to create color balance for the current image source. PerfectColor settings are memorized for each TV input or device. Select the **PerfectColor** option and press **ENTER** to open the adjustment screen.

**Note:** PerfectColor is not available for the WD-52530 model.

Individual sliders for each color are displayed. Highlighted text shows which slider you are adjusting. Press **CANCEL** while in the PerfectColor screen to reset all colors to the default settings.

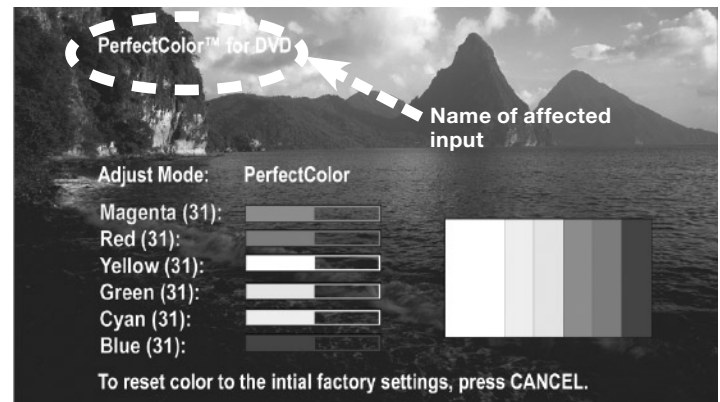


Figure 14. Set PerfectColor adjustments independently for each TV input.

- ◇ **Video Noise**: Reduces minor noise (graininess) in the picture. Use the **Low** setting with good-quality signals. Use **High** with poor-quality signals. Turn off to leave the picture unaltered.





# Chapter

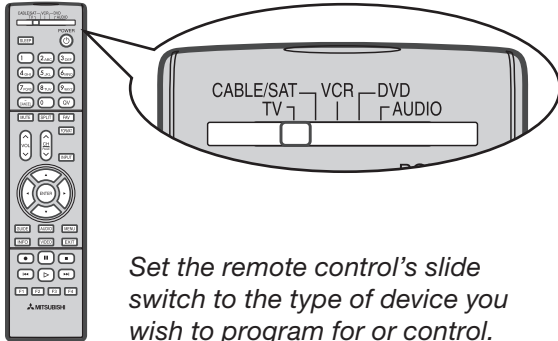


## Operating Other A/V Devices with the Remote Control

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## Functions Available for Other A/V Devices

The TV's remote control can be programmed to operate other types and brands of A/V products. To use the remote when programmed, set the slide switch to the position labelled for the product type. The functions performed in each switch position can vary depending on the product. Not all functions work for all models. The most common functions available are listed on this page.



Set the remote control's slide switch to the type of device you wish to program for or control.

### IMPORTANT

Some manufacturers may change their products or they may use more than one remote control system. The TV's remote control may be unable to operate your A/V equipment in these cases.

#### VCRs and DVRs

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• CH <math>\wedge/\vee</math></li> <li>• POWER</li> <li>• SLEEP</li> <li>• <math>\blacktriangleright\blacktriangleright</math> (FAST FORWARD)</li> <li>• <math>\parallel</math> (PAUSE)</li> </ul> | <ul style="list-style-type: none"> <li>• <math>\blacktriangleright</math> (PLAY)</li> <li>• <math>\bullet</math> (RECORD)</li> <li>• <math>\blacktriangleleft\blacktriangleleft</math> (REVERSE)</li> <li>• <math>\blacksquare</math> (STOP)</li> <li>• 0-9 Number Buttons</li> </ul> |
|---|---|

Mitsubishi VCRs are compatible with some additional buttons.

#### Cable Boxes and Satellite Receivers

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• AUDIO (for Page Up)</li> <li>• EXIT (on some models)</li> <li>• CH <math>\wedge/\vee</math></li> <li>• ENTER (on some models)</li> <li>• GUIDE (on some models)</li> <li>• PG <math>\wedge/\vee</math></li> <li>• POWER</li> <li>• <math>\blacktriangle\blacktriangledown\blacktriangleleft\blacktriangleright</math> (on some models)</li> <li>• VIDEO (for Page Down)</li> </ul> | <ul style="list-style-type: none"> <li>• 0-9 Number Buttons (on some models)</li> <li>• F1-F4 (A, B, C, D keys on some models)</li> </ul> <p>The record/playback keys (on some models):</p> <ul style="list-style-type: none"> <li>• <math>\blacktriangleright\blacktriangleright</math> (FAST FORWARD)</li> <li>• <math>\parallel</math> (PAUSE)</li> <li>• <math>\blacktriangleright</math> (PLAY)</li> <li>• <math>\bullet</math> (RECORD)</li> <li>• <math>\blacktriangleleft\blacktriangleleft</math> (REVERSE)</li> <li>• <math>\blacksquare</math> (STOP)</li> </ul> |
|---|---|

#### A/V Receivers

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• MUTE</li> <li>• POWER</li> <li>• SLEEP</li> <li>• VOLUME</li> <li>• 0-9 Number Buttons</li> </ul> | <ul style="list-style-type: none"> <li>• Direct Input Selection buttons: numbers, FAV and QV (on some Mitsubishi models)</li> </ul> |
|--|---|

#### CD Players

(not all functions for all models)

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• SLEEP</li> <li>• <math>\blacktriangleright\blacktriangleright</math> (FAST FORWARD)</li> <li>• <math>\parallel</math> (PAUSE)</li> <li>• <math>\blacktriangleright</math> (PLAY)</li> </ul> | <ul style="list-style-type: none"> <li>• <math>\blacktriangleleft\blacktriangleleft</math> (REVERSE)</li> <li>• <math>\blacksquare</math> (STOP)</li> <li>• 0-9 Number Buttons</li> </ul> |
|--|---|

#### DVD and Laser Disc Players

(not all functions for all models)

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• CANCEL (on some models)</li> <li>• CH <math>\wedge/\vee</math> (on some models)</li> <li>• ENTER</li> <li>• MENU</li> <li>• POWER</li> <li>• SLEEP</li> <li>• <math>\blacktriangle\blacktriangledown\blacktriangleleft\blacktriangleright</math> (on some models)</li> </ul> | <ul style="list-style-type: none"> <li>• <math>\blacktriangleright\blacktriangleright</math> (FAST FORWARD)</li> <li>• <math>\parallel</math> (PAUSE)</li> <li>• <math>\blacktriangleright</math> (PLAY)</li> <li>• <math>\bullet</math> (RECORD)</li> <li>• <math>\blacktriangleleft\blacktriangleleft</math> (REVERSE)</li> <li>• <math>\blacksquare</math> (STOP)</li> <li>• 0-9 Number Buttons (on some models)</li> </ul> |
|---|--|

## Programming the Remote Control

### Method 1: Code Entry

1. Move the slide switch at the top of the remote to the position for the product you want to control. Refer to the table below. Only one of each device type can be controlled in each slide-switch position.

Switch Position	Compatible Device Types
CABLE/SAT	Cable Box DTV Receiver Satellite Receiver
VCR	VCR DVR Laser Disc Player DVD Player/Recorder
DVD	DVD Player/Recorder DVR Laser Disc Player VCR
AUDIO	A/V Receiver Audio Amplifier CD Player

2. Press and hold **POWER** on the remote control for several seconds until the button blinks twice and goes off.
3. Release the **POWER** button.
4. Enter the first five-digit code listed for your equipment.
  - The **POWER** button blinks twice when you start to enter the code and then once for each additional keypress.
  - The **POWER** button blinks twice when you finish entering a valid code.
  - Move the slide switch to another position if you need to start over or wish to exit programming mode.
5. Point the remote control at the equipment and press **POWER**. If the product has no power on/off function, press a different key, such as **▶ (PLAY)**, **■ (STOP)**, **VOLUME UP**, or **MUTE**.
  - If the equipment responds, the remote control is properly programmed to operate the equipment.
  - If the equipment does not respond, repeat steps 2–4 with the next five-digit code listed for your equipment.

6. Once you have found the correct code, write it in the space below for future reference.

Switch Position	Device Type	Code
CABLE/SAT		
VCR		
DVD		
AUDIO		

### Method 2: Code Search

In this method of programming, you step through the remote control's internal code library to find the correct code for your A/V product.

1. Move the slide switch at the top of the remote control to the correct position for the product. See the table under "Method 1."
2. Press and hold **POWER** on the remote control for several seconds until the button blinks twice and goes off.
3. Press keys **9 9 1**
4. Press the number 1, 2, or 3 depending on the slide-switch position and the table below.

Switch Position	Number
CABLE/SAT	1
DVD, VCR	2
AUDIO	3

5. Press **CH ^** and **POWER** repeatedly until the product responds by powering on or off. You can press **CH v** to move backward through the code library if needed.

**NOTE:** If the product has no power on/off function, check for a response using a different function. Press **▶ (PLAY)**, **■ (STOP)**, **VOL ^**, or **MUTE** and then repeatedly press **CH/PAGE ^/v** to check for a response.

6. When the product responds, press **ENTER** to set the code.

### Code Verification

To determine the code programmed for any position of the slide switch:

1. Move the slide switch to the position you wish to verify.
2. Press and hold **POWER** on the remote control for several seconds until the button blinks twice and goes off.
3. Press keys **9 9 0**
4. Press 1 and count the blinks of the power button. Write down the number of blinks as the first digit of the code.
5. Repeat step 4 for the second, third, fourth, and fifth digits of the code.

### IMPORTANT

You may need to reprogram the remote control after changing the batteries.

## Appendix D: Programming the Remote Control

### Audio Lock: Universal A/V Receiver Control

With Audio Lock active, the remote control operates the volume and mute functions of the A/V receiver in all positions of the slide switch. Activate Audio Lock if you normally use an A/V receiver with your TV and other A/V equipment.

1. Program the **AUDIO** position for your A/V receiver as described earlier in this section.
2. Move the slide switch to the **AUDIO** position.
3. Press and hold **POWER** on the remote control for several seconds until the button blinks twice and goes off.
4. Press keys **9 9 3 ENTER**  
The **POWER** button will blink twice to indicate Audio Lock is active.

### To Reset the Remote Control to Operate Volume and Mute for the TV Speakers

1. Press and hold **POWER** for several seconds until the button blinks twice and goes off.
2. Press keys **9 9 3 VOL ^**.  
The **POWER** button will blink four times to indicate Audio Lock has cleared.

### Programming Codes

Audio Amplifiers	
Brand	Code
Acurus	30765
Adcom	31100, 30577
Altec Lansing	31742
Aragon	30765
Bel Canto Design	31583
Bose	30674
Carver	30892
Classe	31462, 31461
Curtis Mathes	30300
Durabrand	31561
Elan	30647
GE	30078
Harman/Kardon	30892
JVC	30331
Klipsch	30765
Left Coast	30892
Lenoxx	31561
Lexicon	31802
Logitech	31408
Marantz	30892
Mark Levinson	31483
McIntosh	30251
Mondial	30765
Optimus	30823, 30395, 30300
Philips	30892
Pioneer	30823, 30300, 30257, 30013
Polk Audio	30892
RCA	30823, 30300
Realistic	30395
Sharp	30226
Sony	30815
Soundesign	30078
Technics	30374, 30372
Toshiba	30353
Victor	30331
Wards	30078, 30013
Yamaha	30354

A/V Receivers	
Brand	Code
ADC	30531
Adcom	31617, 31616
Aiwa	31641, 31405, 31388, 31347, 31321, 31243, 30189, 30121
Akai	31255
Alco	31390
AMC	31077
Amplifier Technologies	31584
Anam	31609, 31074
Apex Digital	31774, 31430, 31257
Arcam	31189
Atlantic Technology	31487
Audiophase	31387

## Programming Codes, continued

A/V Receivers	
Brand	Code
ADC	30531
Adcom	31617, 31616
Aiwa	31641, 31405, 31388, 31347, 31321, 31243, 30189, 30121
Akai	31255
Alco	31390
AMC	31077
Amplifier Technologies	31584
Anam	31609, 31074
Apex Digital	31774, 31430, 31257
Arcam	31189
Atlantic Technology	31487
Audiophase	31387
Audiotronic	31189
Audiovox	31627, 31390
B & K	30840, 30820, 30701
Bel Canto Design	31584
BK	30702
Bose	31253, 31229, 30639
Brix	31602
Cambridge Soundworks	31477
Capetronic	30531
Carver	31289, 31189, 30189, 30121
Coby	31263
Curtis	30797
Delphi	31414
Denon	31360, 31311, 31142, 30121,
Fisher	31801, 31409
Fosgate	31487
Glory Horse	31263
GPX	31299
Harman/Kardon	31306, 31304, 31289, 30891, 30189, 30110
Hitachi	31801, 31273
Integra	31320, 31298, 30135
JBL	31306, 30110
JVC	31811, 31643, 31495, 31374, 31282, 31263, 31058
Kenwood	31570, 31569, 31313
KLH	31428, 31390
Koss	31497, 31366
Linn	30189
Liquid Video	31497
Magnavox	31514, 31269, 31189, 30531, 30189
Marantz	31289, 31269, 31189, 30200, 30189,
McIntosh	31289
Micromega	31189
Mitsubishi	31957, 31922, 31921, 31920, 31393, 30176
Myryad	31189
Nakamichi	31555, 31313, 30097
Onkyo	31320, 31298, 30842, 30135

A/V Receivers	
Brand	Code
Optimus	31074, 31023, 30849, 30797, 30670, 30531
Oritron	31497, 31366
Outlaw	31487
Panasonic	31764, 31763, 31633, 31548, 31518, 31509, 31363, 31350, 31316, 31308, 31288, 30309
Philips	31368, 31365, 31283, 31269, 31268, 31266, 31189, 30189
Pioneer	31384, 31343, 31023, 30630, 30531, 30150, 30014
Polk Audio	31414, 31289, 30189
Proscan	31254
RadioShack	31263
RCA	31609, 31511, 31390, 31254, 31074, 31023, 30531
Rio	31869
Samsung	31500, 31295
Sansui	31189, 30189
Sanyo	31801
Sharp	31386, 31361
Sharper Image	31416, 31411, 31410, 31409, 31385, 31263, 30797
Sherwood	31077
Sirius	31811, 31627, 31602
Sonic Blue	31869
Sony	31858, 31759, 31758, 31658, 31622, 31558, 31529, 31503, 31458, 31441, 31406, 31382, 31371, 31367, 31258, 31131, 31058
Soundesign	30670
Stereophonics	31023
Sunfire	31313

CD Players	
Brand	Code
Aiwa	30157
Akai	30156
Arcam	30157
Audio-Technica	30170
Burmester	30420
California Audio Labs	30303, 30029
Carver	30437, 30299, 30179, 30157
Classic	31297
Denon	30873, 30034, 30003
DKK	30000
DMX Electronics	30157
Emerson	30305
Fisher	31325, 30179, 30174
Garrard	30420, 30393
Gemini	30625
Genexxa	30305, 30032
GPX	31296
Harman/Kardon	31202, 30173, 30157, 30083
Hitachi	30032
Integra	30101

## Programming Codes, continued

CD Players	
Brand	Code
JVC	31294, 30072
Kenwood	30826, 30681, 30626, 30190, 30037, 30028,
KLH	31711, 31373, 31372, 31318
Koss	31317
Krell	30157
LG	31208
Linn	30157
LXI	30305
Magnavox	30305, 30157, 30038
Marantz	30626, 30435, 30180, 30157, 30038, 30029
Mark Levinson	31484
McIntosh	30660, 30290, 30256
MCS	30029
MGA	30083
Miro	30000
Mission	30157
Mitsubishi	30098, 30083
MTC	30625, 30420
NAD	30299, 30019
Nikko	30625, 30174, 30170
NSM	30157
Onkyo	31327, 30868, 30102, 30101
Optimus	31075, 31063, 30468, 30437, 30420, 30305, 30179, 30145, 30087, 30037, 30032, 30000
Panasonic	30752, 30388, 30303, 30029
Parasound	30420
Philips	30626, 30274, 30157
Pioneer	31087, 31063, 31062, 30551, 30468, 30305, 30032
Polk Audio	30157
Proceed	30420
Proton	30157
QED	30157
Quad	30157
Quasar	30029
RadioShack	31075
RCA	31062, 30764, 30468, 30420, 30305, 30179, 30053, 30032
Realistic	30420, 30180, 30179
Rotel	30420, 30157
SAE	30157
Sansui	30305, 30157
Sanyo	30179, 30087
Scott	30305
Sears	30305
Sharp	30861, 30265, 30180, 30037
Sherwood	31067, 30180
Sonic Frontiers	30157
Sony	31364, 30673, 30605, 30604, 30490, 30185, 30100, 30000
Soundesign	30145
Sugden	30157

CD Players	
Brand	Code
Symphonic	30305
TAG McLaren	30157
Tascam	30420
TDK	31208
Teac	30420, 30393, 30378, 30180, 30174
Technics	30303, 30029
Tivoli Audio	31553
Toshiba	30299, 30019
Victor	30072
Wards	30157, 30053
Yamaha	31292, 30888, 30490, 30261, 30187, 30170, 30036,
YBA	30625
Yorx	30461

Cable Boxes	
Brand	Code
ABC	10017, 10014, 10013, 10011, 10008, 10007, 10003, 10001
Allegro	10315, 10153
Americast	10899
Antronix	10207, 10022
Archer	10797, 10207, 10153, 10022
BBT	10267
Belcor	10056
Bell & Howell	10014
Bell South	10899
Cable Star	10056
Cabletenna	10022
Cableview	10022
Century	10153
Citizen	10315, 10153
Clearmaster	10883
ClearMax	10883
Colour Voice	10031, 10025
Comtronics	10040
Contec	10019
Coolmax	10883
Digeo	11187
Digi	10637
Director	10476
Dumont	10637
Eastern	10002
Emerson	10797
Everquest	10040, 10015
Focus	10400
Garrard	10153
GC Electronics	10207, 10056
Gemini	10797, 10015
General Instrument	10810, 10476, 10276, 10011, 10003
GoldStar	10144, 10040
Goodmind	10797

## Programming Codes, continued

Cable Boxes	
Brand	Code
Hamlin	10273, 10259, 10034, 10020, 10009
Hitachi	10011
Hytex	10007
i3 Micro	11602
Jasco	10315, 10153, 10015
Jerrold	10810, 10476, 10276, 10024, 10015, 10014, 10012, 10011, 10003
Linsay	10440
Magnavox	10027
Memorex	10000
Motorola	11376, 11254, 11187, 11106, 10810, 10476, 10276, 10014,
Movie Time	10156, 10063
Multitech	10883
Myrio	11602
Novaplex	10618
NSC	10156, 10063
Oak	10019, 10007
Optimus	10021
Pace	11877, 10237, 10008
Panasonic	10107, 10021, 10000
Panther	10637
Paragon	10000
Philips	11305, 10317, 10153, 10031, 10027, 10025
Pioneer	11877, 10877, 10533, 10144, 10023
Popular Mechanics	10400
Pulsar	10000
Quasar	10000
RadioShack	10883, 10797, 10315, 10015
RCA	11256, 10021
Realistic	10207
Recoton	10400
Regal	10279, 10273, 10259, 10020
Regency	10002
Rembrandt	10011
Runco	10000
Samsung	10144, 10040
Scientific Atlanta	11877, 10877, 10477, 10017, 10008,
Seam	10510
Sejin	11602
Signal	10040, 10015
Signature	10011
SL Marx	10040
Sony	11006
Sprucer	10021
Starcom	10015, 10003
Stargate	10797, 10040, 10015
Starquest	10015
StarSight	10422
Supercable	10276
Supermax	10883

Cable Boxes	
Brand	Code
Sylvania	10001
Tandy	10258
TeleCaption	10221
Televue	10040
Texscan	10001
TFC	10310
Thomson	11256
Timeless	10418, 10040
Tocom	10013, 10012
Torx	10003
Toshiba	10000
Tristar	10883
Tusa	10015
TV86	10063
Unika	10207, 10153, 10022
United Artists	10007
Universal	10207, 10191, 10153, 10056, 10022,
V2	10883
Viewmaster	10883
Viewstar	10258, 10063, 10027
Vision	10883
Vortex View	10883
Zenith	10899, 10525, 10054, 10000
Zentek	10400

DVD Players/Recorders	
Brand	Code
Adcom	21094
Aiwa	20641
Akai	21089, 20770
Alco	20790
Allegro	20869
Amphion Media Works	20872
AMW	20872
Apex Digital	21100, 21061, 21056, 21020, 21004, 20797, 20796, 20794, 20755, 20717, 20672
Aspire Digital	21407, 21168
Audiologic	20736
Audiovox	21072, 21041, 20790
Axion	21072
B & K	20662, 20655
Bel Canto Design	21571
Blaupunkt	20717
Blue Parade	20571
Broksonic	20695
California Audio Labs	20490
CAVS	21057
Cinea	20831
CineVision	20876, 20869, 20833
Citizen	21277
Coby	21351, 21177, 21165, 21107, 21086, 20852, 20778
Craig	20831



## Programming Codes, continued

DVD Players/Recorders	
Brand	Code
Curtis Mathes	21087
CyberHome	21129, 21117, 21024, 21023, 20874, 20816
Daewoo	21242, 21234, 21172, 21169, 20869, 20833, 20784, 20705
Daytek	20872
Denon	20634, 20490
Desay	21407
Disney	21270, 20675
Dual	21085, 21068
Durabrand	21127
DVD2000	20521
Emerson	21268, 20675, 20591
Enterprise	20591
Fisher	20670
Funai	21334, 21268, 20675
Gateway	21158, 21077, 21073
GE	20815, 20717, 20522
Go Video	21730, 21304, 21158, 21144, 21099, 21075, 21044, 20869, 20833, 20783, 20744, 20741, 20715
Go Vision	21072
GoldStar	20741
GPX	20769, 20699
Gradiente	20490
Greenhill	20717
Grundig	20539
Harman/Kardon	20702, 20582
Hitachi	20664, 20573
Hiteker	20672
iLo	21348
Initial	20717
Integra	20627, 20571
Jaton	21078
JBL	20702
JSI	21423
JVC	21275, 21164, 20867, 20623, 20558
jWin	21051, 21049
Kawasaki	20790
Kenwood	20737, 20682, 20534, 20490
KLH	21149, 21020, 20790, 20717
Konka	20721, 20711
Koss	21423, 20896, 20651
Landel	20826
Lasonic	21173, 20798
Lecson	21533
Lenoxx	21127
LG	20869, 20801, 20741, 20591
LiteOn	21440, 21416, 21158, 21058
Loewe	20511
Magnavox	20675, 20646, 20539, 20503
Malata	21159, 20782
Marantz	20539

DVD Players/Recorders	
Brand	Code
McIntosh	21533, 21273
Memorex	21270, 20831, 20695
Microsoft	20522
Mintek	20839, 20717
Mitsubishi	21521, 20521
Momitsu	21082
Myryad	20894
NAD	20741, 20692, 20591
Nakamichi	21222
NEC	20785
Nesa	20717
Next Base	20826
NexxTech	21402
Norcent	21265, 21107, 21003, 20872
Onkyo	20792, 20627, 20503
OptoMedia Electronics	20896
Oritron	20651
Panasonic	21762, 20703, 20632, 20503, 20490
Philips	21354, 21267, 20675, 20646, 20539, 20503,
PianoDisc	21024
Pioneer	21571, 20632, 20631, 20571, 20525
Polaroid	21086, 21061, 21020
Polk Audio	20539
Portland	20770
Princeton	20674
Proceed	20672
Proscan	20522
ProVision	20778
Qwestar	20651
RCA	20822, 20790, 20717, 20571, 20522
Rio	20869
RJTech	21360
Rotel	21178, 20623
Rowa	20823
Sampo	20752, 20698
Samsung	21075, 21044, 20820, 20744, 20573, 20490
Sansui	20695
Sanyo	20873, 20695, 20670
Sensory Science	21158
Sharp	21256, 20752, 20675, 20630
Sharper Image	21117
Sherwood	21077, 21043, 20770, 20633
Shinsonic	20839, 20533
Sigma Designs	20674
Sonic Blue	21099, 20869
Sony	21533, 21431, 21033, 20864, 20533
Sungale	21074
SVA	21105, 20860
Sylvania	21268, 20675
Symphonic	21268, 20675
TAG McLaren	20894
Teac	20809, 20790

## Programming Codes, continued

DVD Players/Recorders	
Brand	Code
Technics	20703, 20490
Technosonic	20730
Techwood	20692
Terapin	21031
Theta Digital	20571
Toshiba	21154, 20695, 20503
Tredex	20804, 20803, 20800, 20799
Urban Concepts	20503
US Logic	20839
Venturer	20790
Vizio	21226, 21064
Vocopro	21027
Xbox	20522
Xwave	21001
Yamaha	20545, 20539, 20490
Yamakawa	20872
Zenith	20869, 20741, 20591, 20503
Zoece	21265

Laser Disc Players	
Brand	Code
Aiwa	20203
Carver	20323, 20194, 20064
Denon	20243, 20241, 20172, 20059
Disco Vision	20023
Funai	20203
Harman/Kardon	20194
Hitachi	20023
Kenwood	20258
Magnavox	20243, 20241, 20217, 20194
Marantz	20194, 20064
Mitsubishi	20059
NAD	20059
Optimus	20059
Panasonic	20204
Philips	20194, 20064
Pioneer	20059, 20023
Polk Audio	20194
Quasar	20204
Realistic	20203
Samsung	20323
Sega	20023
Sony	20270, 20201, 20193
Technics	20204
Theta Digital	20194
Yamaha	20451, 20217

Satellite Receivers	
Brand	Code
AlphaStar	10772
Chaparral	10216
Crossdigital	11109

Satellite Receivers	
Brand	Code
DirecTV	11856, 11749, 11640, 11639, 11609, 11444, 11443, 11442, 11414, 11392, 11377, 11142, 11109, 11108, 11076, 10819, 10749, 10724, 10639, 10566, 10392, 10247, 10099
Dish Network System	11775, 11505, 11170, 11005, 10775,
Dishpro	11775, 11505, 11005, 10775
Echostar	11775, 11505, 11170, 11005, 10775
Expressvu	11775, 10775
GE	10566, 10392
General Instrument	10869
GOI	11775, 10775
Goodmans	11246
Hisense	11535
Hitachi	11250, 10819
HTS	11775, 10775
Hughes Network Systems	11749, 11444, 11443, 11442, 11142, 10749
iLo	11535
Jerrold	10869
JVC	11775, 11170, 10775
LG	11414, 11226
Magnavox	10724, 10722
Memorex	10724
Mitsubishi	10749
Motorola	10869, 10856
NEC	11270
Next Level	10869
Panasonic	10701, 10247
Paysat	10724
Philips	11749, 11442, 11142, 11076, 10819, 10749, 10724, 10722, 10099
Pioneer	11442
Proscan	10566, 10392
Proton	11535
RadioShack	10869
RCA	11392, 10855, 10566, 10392, 10143,
Samsung	11609, 11442, 11377, 11276, 11142, 11109, 11108
Sanyo	11219
Sony	11640, 11639, 10639
Star Choice	10869
Tivo	11444, 11443, 11442, 11142
Toshiba	11749, 11285, 10819, 10790, 10749
UltimateTV	11640, 11392
Uniden	10724, 10722
US Digital	11535
USDTV	11535
Voom	10869
Zenith	11856

## Programming Codes, continued

VCRs and DVRs	
Brand	Code
ABS	21972
Admiral	20479, 20209, 20048
Adventura	20000
Aiko	20278
Aiwa	20307, 20124, 20037, 20000
Akai	20242, 20175, 20106, 20061, 20041
Alienware	21972
America Action	20278
American High	20035
Asha	20240
Audiovox	20278, 20037
Beaumark	20240
Bell & Howell	20104
Broksonic	20479, 20295, 20209, 20184, 20121, 20002
Calix	20037
Canon	20035
Capehart	20020
Carver	20081
CCE	20278, 20072
Citizen	20278, 20037
Colt	20072
Craig	20271, 20240, 20072, 20047, 20037
Curtis Mathes	20760, 20162, 20060, 20041, 20035
Cybernex	20240
CyberPower	21972
Daewoo	20637, 20561, 20278, 20045, 20020
Daytron	20020
Dell	21972
Denon	20042
DirecTV	20739
Durabrand	20039, 20038
Dynatech	20000
Electrohome	20043, 20037
Electroponic	20037
Emerex	20032
Emerson	21593, 20637, 20593, 20561, 20479, 20295, 20278, 20212, 20209, 20208, 20184, 20121, 20068, 20061, 20043, 20037, 20036, 20002, 20000
Fisher	20104, 20066, 20054, 20047
Fuji	20035, 20033
Funai	21593, 20593, 20000
Garrard	20000
Gateway	21972
GE	20761, 20760, 20240, 20202, 20060, 20035
Go Video	20643, 20526, 20432, 20240
GoldStar	20038, 20037
Gradiente	20000

VCRs and DVRs	
Brand	Code
Harley Davidson	20000
Harman/Kardon	20081, 20075, 20038
Harwood	20072, 20068
Headquarter	20046
Hewlett Packard	21972
HI-Q	20047
Hitachi	20105, 20089, 20042, 20041, 20000
Howard Computers	21972
HP	21972
Hughes Network Systems	20739, 20042
Humax	20739
Hush	21972
iBUYPOWER	21972
Jensen	20041
JVC	21162, 20067, 20041, 20008
KEC	20278, 20037
Kenwood	20067, 20041, 20038
KLH	20072
Kodak	20037, 20035
LG	21037
Linksys	21972
Lloyd's	20208, 20000
Logik	20072
LXI	20037
Magnasonic	20593
Magnavox	20593, 20563, 20149, 20110, 20081, 20039, 20035, 20000
Magnin	20240
Marantz	20081, 20035
Marta	20037
Matsushita	21162, 20162, 20035
Media Center PC	21972
MEI	20035
Memorex	21262, 21162, 21037, 20479, 20307, 20240, 20209, 20162, 20104, 20048, 20047, 20046, 20039, 20037, 20035, 20000
MGA	20240, 20061, 20043
MGN Technology	20240
Microsoft	21972
Mind	21972
Minolta	20105, 20042
Mitsubishi	20443, 20242, 20214, 20173, 20075, 20067, 20061, 20043
Motorola	20048, 20035
MTC	20240, 20000
Multitech	20072, 20000
NEC	20104, 20067, 20041, 20040, 20038
Nikko	20037
Nikon	20034
Niveus Media	21972
Noblex	20240
Northgate	21972
Olympus	20035
Onkyo	20222

**Programming Codes, continued**

VCRs and DVRs	
Brand	Code
Optimus	21262, 21162, 21062, 21048, 20593, 20432, 20162, 20104, 20048, 20037
Optonica	20062
Orion	20479, 20295, 20209, 20184, 20002
Panasonic	21262, 21162, 21062, 20616, 20225, 20162, 20077, 20035
Penney	20240, 20054, 20042, 20040, 20038, 20037, 20035
Pentax	20105, 20042
Philco	20035
Philips	21181, 21081, 20739, 20618, 20110, 20081, 20062, 20035
Pilot	20037
Pioneer	20067
Polk Audio	20081
Portland	20020
Profitronic	20240
Proscan	20761, 20760, 20202, 20060
Protec	20072
Pulsar	20039
Quarter	20046
Quartz	20046
Quasar	21162, 20162, 20077, 20035
RadioShack	21037, 20000
Radix	20037
Randex	20037
RCA	20880, 20761, 20760, 20240, 20202, 20149, 20106, 20105, 20077, 20060, 20042
Realistic	20104, 20066, 20062, 20048, 20047, 20046, 20037, 20035, 20000
ReplayTV	20616, 20614
Ricavision	21972
Ricoh	20034
Runco	20039
Salora	20075
Samsung	20739, 20240, 20045
Samtron	20643
Sanky	20048, 20039
Sansui	20479, 20271, 20209, 20067, 20041, 20000
Sanyo	20240, 20159, 20104, 20047, 20046
Scott	20212, 20210, 20184, 20121, 20045, 20043
Sears	20105, 20104, 20066, 20054, 20047, 20046, 20042, 20037, 20035, 20000
Sharp	20848, 20062, 20048
Shintom	20072
Shogun	20240

VCRs and DVRs	
Brand	Code
Singer	20072
Sonic Blue	20616, 20614
Sony	21972, 21032, 20636, 20035, 20034, 20033, 20032, 20000
Stack 9	21972
STS	20042
Sylvania	21593, 20593, 20110, 20081, 20043, 20035, 20000
Symphonic	21593, 20593, 20000
Systemax	21972
Tagar Systems	21972
Tatung	20041
Teac	20041, 20000
Technics	20162, 20035
Teknika	20037, 20035, 20000
Thomas	20000
Tivo	21503, 20739, 20636, 20618
TMK	20240, 20208, 20036
Toshiba	21972, 21503, 21008, 20212, 20210, 20209, 20066, 20045, 20043
Totevision	20240, 20037
Touch	21972
Unitech	20240
Vector	20045
Vector Research	20040, 20038
Video Concepts	20061, 20045, 20040
Videomagic	20037
Videosonic	20240
Viewsonic	21972
Villain	20000
Voodoo	21972
Wards	20760, 20240, 20212, 20149, 20081, 20072, 20062, 20060, 20048, 20047, 20042, 20035, 20000
White Westinghouse	20637, 20209, 20072
XR-1000	20072, 20035, 20000
Yamaha	20038
Zenith	21139, 20637, 20479, 20209, 20039, 20034, 20033, 20000
ZT Group	21972



# Appendices

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## Appendix A: Bypassing the Parental Lock

**Lock Bypass Instructions Have Been Filed for Future Reference**

### Bypassing the Parental Lock

After you set the lock, you must use your pass code to view a locked program, view the locked TV, cancel the lock, or enter the Parental Lock menus.

If you forget your pass code, you can view the locked TV without entering your pass code. When you are prompted for your pass code, press the number 9 and QV buttons on the TV remote control at the same time. This process temporarily unlocks the TV.

When entering the Parental Lock menu, this process deletes your old pass code and prompts you to enter a new pass code. Press EXIT to exit the menu.

#### **IMPORTANT**

Cut along the dotted line and file bypass instructions in a safe place for future reference.

#### **IMPORTANT**

When changing or deleting your pass code, you must use the remote control included with this TV. You cannot use a Mitsubishi remote control from another component or a "universal" remote.



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## Appendix B: Specifications

Picture Technology	
<b>Projection System</b>	3 LCD, 0.7" x 3, 1280 x 720 pixels
<b>Lamp</b>	132-watt high-pressure mercury discharge
Reception	
<b>Channel Frequency Reception</b>	Over-the-Air: VHF 2–13, UHF 14–69 Analog Cable: 1–125 Digital Cable: 1–135
<b>Channel Type*</b>	Over the Air: Analog NTSC, Digital ATSC with sub-channels (all 18 video formats)
	Cable: Analog NTSC (non-scrambled) Digital QAM 64 and 256 with sub-channels (non-scrambled)
<p>* Note for Digital Channels: The channel numbers displayed on screen are determined by the broadcaster or cable company and can vary from the standard frequency number. If there is no channel-number information provided by the broadcaster or cable company, the TV creates a channel number. The created channel number uses the frequency number as the main channel number and the program number as the sub-channel number.</p>	

Inputs			
Description	Qty.	Signal Type	Input Specifications
<b>Antenna/Cable input</b>	2	RF	F connector, 75-ohm
<b>HDMI (digital video/audio)</b> WD-52531 & WD-62531: WD62530:	2 1	HDMI EIA-861B standard for digital audio and video	HDMI standard connector Video: 480i, 480p, 720p, 1080i Audio: PCM stereo Note: Not for use with personal computers.
<b>Video</b> (one side, two rear) <b>S-Video</b> (one side, two rear)	3 3	NTSC 480i only	(Composite) Video: RCA Pin Plug, 1.0 V p-p, 1.0 V p-p, 75 ohm S-Video: Four-Pin DIN Plug Y: 1.0 Vp-p 75-ohm C: 0.286 Vp-p (burst signal), 75-ohm
<b>Component Video (Y/Pr/Pb)</b>	2	EIA-770.1 & EIA 770.2 480i, 480p, EIA 770.3 720p and 1080i (video standards)	RCA Pin Plug (EIA-770.3 Standard Levels and Timing) Y: 1.0 Vp-p (includes sync), 75-ohm Pr: 700 mV p-p, 75-ohm Pb: 700 mV p-p, 75-ohm
<b>Audio Inputs</b> WD-52531 & WD-62531: WD62530:	6 pairs 5 pairs	analog left and right audio	RCA Pin Plug 500 mV (full scale), 43-k ohm

## Appendix B: Specifications, continued

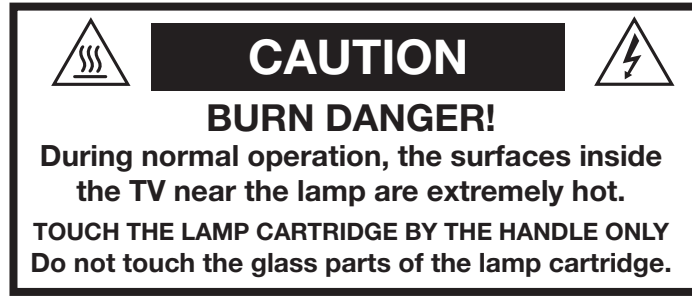
Outputs		
Description	Qty.	Output Specifications
<b>Video</b>	1	Video (Composite): RCA Pin Plug 1.0 Vp-p, 75-ohm Signal Type: NTSC 480i only
<b>Audio (Signal)</b>	2 pairs	RCA Pin Plug, 500 mV rms $\pm$ 200 mV (full scale) for analog sources, 1.5 Vrms $\pm$ 0.5 Vrms (full scale) for digital sources.
<b>Audio (Internal Speakers)</b>	2	Woofers, 5.5" x 2.2"
Digital Interfaces		
<b>Digital Audio Output</b>	1	RCA Pin Plug, Signal Type, Dolby Digital, PCM

Physical Characteristics and Power Consumption					
Model	Dimensions (inches)			Weight	Power Consumption
	Height	Width	Depth		
<b>WD-52531</b>	33.31	47.13	16.93	72 lbs.	225 w
<b>WD-62531</b>	39.13	55.85	19.2	89 lbs	225 w
<b>WD-62530</b>	39.13	55.85	19.2	89 lbs	225 w

### HDMI Compliance

The HDMI input is compliant with EIA-861B standards for standard, extended, and high-definition video; digital audio, and HDCP copy protection. The HDMI inputs on this TV are not intended for use with personal computers or devices outputting video signals with computer resolutions.

## Appendix C: Replacing the Lamp Cartridge



**CAUTION:** If the television is on, press **POWER** to turn it off. **Unplug the television and allow it to cool for at least one hour before attempting to replace the lamp cartridge.**

### Lamp Life

The light source for this television is a lamp, which is part of a lamp cartridge assembly. The life of the lamp can vary, based on the lamp itself, the air temperature around the TV while it is operating, and your viewing patterns. Warmer air or poor ventilation shorten the lamp life, as does turning the television on and off frequently. Mitsubishi warrants the lamp for one (1) year from the date of original purchase at retail. It is likely that the lamp will last much longer than this.


**Order a new lamp cartridge when the TV picture becomes noticeably dimmer.** It is best to have a replacement lamp cartridge on hand before the existing lamp fails.

### To Order A New Lamp Cartridge

While Under Warranty	After Warranty
Call (800) 553-7278. Please have model number, serial number, and TV purchase date available. <b>IMPORTANT:</b> All lamps replaced under warranty must be returned to Mitsubishi where they will be inspected for defect verification.	Visit our website at: <a href="http://www.mitsuparts.com">www.mitsuparts.com</a> or Call (800) 553-7278 and order lamp cartridge part number <b>915P043010</b> .

### WARNING

- Do not remove the lamp cartridge immediately after turning off the television. You may get burned because the lamp is very hot. Allow the television to cool for at least one hour before replacing the lamp cartridge.
- Do not remove the lamp cartridge except when replacing it. Careless treatment can result in injury or fire.
- Do not touch the lamp glass element. It may be very hot and break, causing injuries or burns.
- Be sure not to insert any metal or flammable object into the lamp cartridge opening, as it may cause fire or electrical shock. If a foreign object is inserted into the opening, unplug the AC cord of the TV and contact your dealer for service.
- Install the lamp cartridge securely. Failure to do so may cause a fire.
- Do not touch the lamp glass elements. Oils from your fingers may cause premature lamp failure.

 = MERCURY

THE LAMP INSIDE THIS PRODUCT CONTAINS MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance at [www.eiae.org](http://www.eiae.org)

## Appendix C: Replacing the Lamp Cartridge, continued

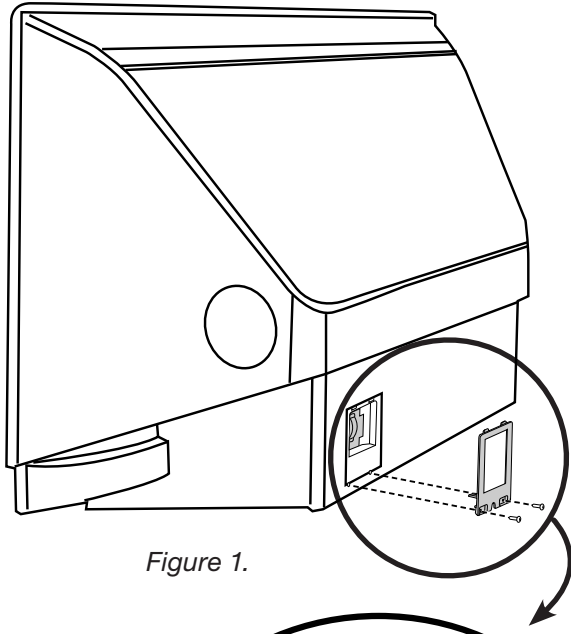


Figure 1.

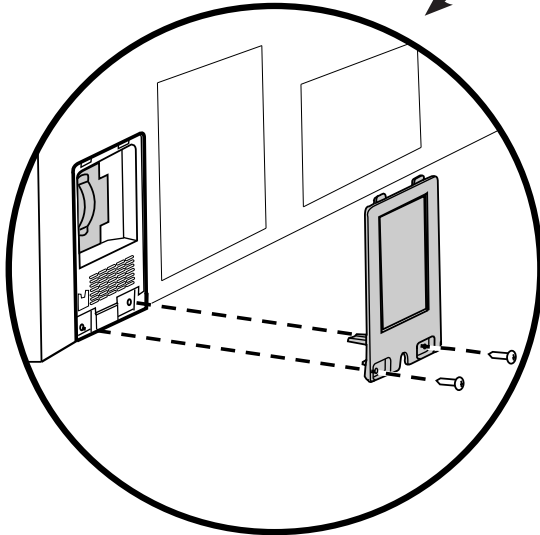


Figure 2.

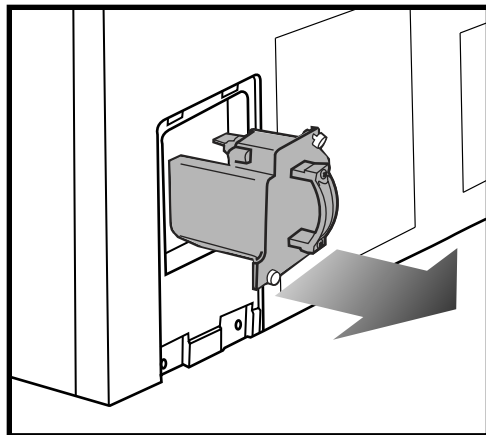


Figure 3.

### WARNING

THE COVER IS PROVIDED WITH AN INTERLOCK TO REDUCE THE RISK OF EXCESSIVE ULTRAVIOLET RADIATION. DO NOT DEFEAT ITS PURPOSE OR ATTEMPT TO SERVICE THE TV WITHOUT REMOVING THE COVER COMPLETELY.

### Removing the Old Lamp Cartridge

1. Turn off TV power and allow the lamp to cool for at least one hour before proceeding.
2. After the lamp has cooled, remove the cover. Refer to figures 1 and 2. Use a #2 (large) Phillips screwdriver to remove the two screws securing the cover. Keep the screws and cover for re-installation
3. With a large flat-blade screwdriver, loosen the two shiny screws securing the lamp cartridge until they disengage from the mating threads. These are captive screws and cannot be separated from the lamp cartridge.
4. Fully open up the bag supplied with the replacement lamp cartridge and set the opened bag aside.
5. Gently grasp the handle of the old lamp cartridge and pull it straight out towards you. See figure 3. Note the orientation of the cartridge.

**CAUTION:** Do not tilt or rotate the cartridge, as small glass fragments may fall out.

6. Without tilting or putting down the old lamp cartridge, insert it into the opened bag. Close the bag while being careful not to let any glass particles fall out.

### Installing the New Lamp Cartridge

1. **Do not touch the glass parts of the new lamp cartridge.** Insert the new cartridge into the TV in the same orientation as the old cartridge. Push on the cartridge housing until it is fully seated.
2. With either your fingers or the screwdriver, gently tighten the two shiny screws. If using a screwdriver, use only two fingers for final tightening. **AVOID OVERTIGHTENING!**
3. Replace the plastic cover and retaining screws.
4. **WASH YOUR HANDS THOROUGHLY, AS THIS LAMP CONTAINS MERCURY.**

### Disposing of the Old Lamp Cartridge

Contact your local authorities or the Electronic Industries Alliance at [www.eiae.com](http://www.eiae.com) for lamp-disposal or recycling instructions. Do not dispose of the old lamp cartridge with common trash.

## Appendix D: Troubleshooting, Service, and Support

### TV Reset Functions

You can resolve many common TV problems using the reset functions described in the following table. See also the additional troubleshooting suggestions later in this appendix.

#### IMPORTANT

**Before you change sound or picture settings:** If picture or sound settings seem wrong for a broadcast

channel (a channel from **ANT 1**, **ANT 2**, a cable box, or satellite receiver), first check other channels from the same input before changing settings. If most other channels from the same input seem correct, there is likely a problem with the broadcast rather than with the TV. Use care in this case, as changes you make to fix problems on individual channels also affect all other channels on the same input.

Reset Name	When to Use	How to Use	Resulting Action
<b>Demo Mode Turn-Off</b>	To turn off the retail demo mode slide show.	<ol style="list-style-type: none"> <li>1. While viewing the TV, press <b>MENU</b> to display the TV Main menu with the <b>Setup</b> icon highlighted.</li> <li>2. Press <b>ENTER</b> to display the Setup menu.</li> <li>3. When the Setup menu is displayed, use <b>▶</b> to highlight the <b>Demo Mode Off</b> button and press <b>ENTER</b>.</li> </ol>	The demo mode will be turned off. The <b>Demo Mode Off</b> button in the setup menu will turn gray and be unselectable. The demo mode slide show cannot be turned on again.
<b>Format</b>	When the picture shape seem incorrect, use <b>FORMAT</b> to change the shape of the picture.	Press the <b>FORMAT</b> key to cycle through the available formats to find the best format for the current picture.	The last-used format for a signal type is memorized for each input. The next time the same input and the same signal type is viewed, the last-used format will be recalled.
<b>PerfectColor™ (WD-52531 and WD-62531 models only)</b> (for the single input currently being watched)	When the color intensities seem out of balance, use PerfectColor resets to reset the color balances to the original factory settings.	<ol style="list-style-type: none"> <li>1. While viewing the input to be reset, press <b>VIDEO</b> repeatedly to cycle to the <b>PerfectColor™</b> option.</li> <li>2. Press <b>ENTER</b> to display the PerfectColor menu.</li> <li>3. Press <b>CANCEL</b> to reset the colors.</li> </ol>	All PerfectColor sliders are reset to the original center position. The PerfectColor settings for other inputs remain unchanged.
<b>A/V Memory Reset</b> (for the single input currently being watched)	When audio and/or video settings for a single input seem incorrect, use A/V Memory Reset to return the input to the original factory settings.	<ol style="list-style-type: none"> <li>1. While viewing the input to be reset, press <b>MENU</b> to display the TV Main menu.</li> <li>2. Use <b>▶</b> to highlight the Audio/Video icon and press <b>ENTER</b>.</li> <li>3. When the Audio/Video menu is displayed with the <b>AV Memory Reset</b> text box highlighted, press <b>ENTER</b> to reset.</li> <li>4. Press <b>EXIT</b> to exit the menu.</li> </ol>	All Audio and Video settings for the individual input are reset except for the Listen To, Language, audio Balance, and Closed Caption settings.
<b>A/V Reset</b> (for 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 <b>GUIDE</b> and <b>FORMAT</b> at the same time.	All Audio and Video settings are returned to the original factory settings, including Listen To and Language, plus Closed Captions settings and Format settings .
<b>Channel Memorization</b>	To erase and re-memorize channels on <b>ANT 1</b> or <b>ANT 2</b> .	<ol style="list-style-type: none"> <li>1. While viewing the TV, press <b>MENU</b> to display the TV Main menu with the <b>Setup</b> icon highlighted.</li> <li>2. Press <b>ENTER</b> to display the Setup menu.</li> <li>3. When the Setup menu is displayed, use <b>▲▼◀▶</b> to highlight the antenna and reception mode button and press <b>ENTER</b> to start memorization.</li> </ol>	All previously memorized channels for the selected antenna input are erased and a new set of memorized channels is created. To add or delete individual channels, see the Channel Menu instructions in chapter 5, "TV Menu Settings."

## Appendix D: Troubleshooting, continued

Reset Name	When to Use	How to Use	Resulting Action
<b>Parental Lock Pass Code</b>	To change your Parental Lock Pass Code	This information is listed on the cutout page in Appendix A. Please refer to that page.	Allows a new code to be established.
<b>Front-Panel Lock Release</b>	To re-enable the front-panel controls after activation of the Front-Panel Lock	<ul style="list-style-type: none"> <li>When Energy Mode is set to <b>Fast Power On</b>, press and hold the <b>MENU</b> button on the front panel for over eight seconds.</li> <li>When Energy Mode is set to <b>Low Power</b>, press <b>POWER</b> on the front panel to turn on the TV. Press and hold the <b>MENU</b> button on the front panel for over eight seconds.</li> </ul>	Allows the front panel to be unlocked if the remote control is misplaced.
<b>System Reset</b>	If the TV does not turn on or off, does not respond to the remote control or front panel buttons, or has audio but no video.	Press the <b>SYSTEM RESET</b> button on the front panel with a pointed object such as the point of pencil or end tip of a paperclip.	The TV will turn off and the green LED will flash quickly for about one minute. When the green LED stops flashing, you may turn on the TV. The changes you made most recently, before using <b>SYSTEM RESET</b> , may be lost. Changes you made previously, however, are not lost.
<b>TV Reset</b> <b>IMPORTANT:</b> Use this reset only if all other resets have been unsuccessful.	To reset all consumer-accessible settings and all memories to the original factory defaults.  <b>CAUTION:</b> All owner-performed setups and adjustments will be erased.	<ol style="list-style-type: none"> <li>While viewing the TV, press <b>MENU</b> to display the TV Main menu.</li> <li>With the Main menu displayed, press number keys <b>1 2 3</b> to display the Reset Menu.</li> <li><b>READ THE ON SCREEN WARNING AND INSTRUCTIONS.</b> <ul style="list-style-type: none"> <li>If you do not wish to use this reset, press <b>EXIT</b> or <b>MENU</b> to back out.</li> <li>If you do wish to use the reset, press <b>ENTER</b> to erase all memories and settings.</li> </ul> </li> </ol>	The TV will start the initialization process. The TV will then turn off and the front green LED will start flashing. When the LED stops flashing, you can turn the TV on again. The Parental Lock Access code will remain unaffected, but all other memories and settings outlined in this Owner's Guide will need to be set again.

### Service and Support

#### Service

If you are unable to correct a problem with your TV, consult your Mitsubishi dealer or Mitsubishi Consumer Relations at (800) 332-2119.

- DO NOT adjust any controls other than those described in this Owner's Guide.
- DO NOT remove the protective back cover of your TV.

#### Support

- To order replacement or additional remote controls, lamp cartridges, or Owner's Guides, visit our website at [www.mitsuparts.com](http://www.mitsuparts.com) or call (800) 553-7278.
- For questions:
  - Call Consumer Relations at 800-332-2119.
  - E-mail: [MDEAservice@mdea.com](mailto:MDEAservice@mdea.com)
  - Website: [www.mitsubishi-tv.com](http://www.mitsubishi-tv.com)

#### Important

All lamps replaced under warranty must be returned to Mitsubishi where they will be inspected for defect verification.

## Appendix D: Troubleshooting, continued

General TV Operation		
Symptom		Remarks
1.	A fan is running even while the TV is powered off.	Normal TV operation. When the TV is off, internal components continue to draw power and must be cooled by the fan.
2.	The TV remote control does not work.	<ul style="list-style-type: none"> <li>• Check that the batteries are installed correctly.</li> <li>• Check that the slide switch is set to TV.</li> <li>• Be no more than 20 feet from the TV when using the remote control.</li> <li>• Program the remote control to operate the TV or other device (see Chapter 5).</li> </ul>
3.	TV functions do not respond to the remote control or to front panel control and TV will not power off.	Use the System Reset button.
4.	When a device is selected from the Input Selection menu, the screen is blue (no signal source).	<ul style="list-style-type: none"> <li>• Make sure the selected device is turned on.</li> <li>• Begin play of the VCR.</li> </ul>
5.	Devices are grayed out in the Input Selection menu or the Split Screen Input Selection menu.	Digital channels and digital devices cannot display in the Split Screen sub-picture.
6.	You have forgotten your Parental Lock pass code.	See Appendix A, Bypassing the Parental Lock.
7.	Rating restrictions are not working.	<p>Open the Parental Lock menu and:</p> <ul style="list-style-type: none"> <li>• Verify that the U.S. Ratings or Other Ratings setting is On.</li> <li>• Check the Lock Time/Unlock Time to see if rating restrictions are disabled.</li> </ul>
8.	On-screen displays appear each time you change a function.	Normal TV operation.

TV Channels		
Symptom		Remarks
1.	The TV takes several seconds to respond to channel changes.	<ul style="list-style-type: none"> <li>• Press <b>ENTER</b> after a channel number to avoid delays.</li> <li>• Use a 4-digit number for an over-the-air digital channel.</li> <li>• Use a 6-digit number for digital cable channels if your cable service is able to recognize 6-digit channel numbers.</li> </ul>
2.	You cannot access a channel.	<ul style="list-style-type: none"> <li>• Use number keys instead of <b>CH/PAGE</b> <math>\wedge/\vee</math>.</li> <li>• Be sure the channel you want to view is in memory. See page 46.</li> <li>• Check that the TV is turned to the correct device or antenna for that channel by pressing the <b>INPUT</b> key.</li> <li>• Make sure the Parental Lock is off.</li> <li>• If you cannot tune to a virtual digital channel even though the TV has already memorized digital channels, tune to the actual channel number used by the broadcaster. The virtual channel will then be automatically added to memory.</li> </ul>
3.	Name options are not available for some channels.	Only memorized analog channels can be named.
4.	When ChannelView™ list is displayed, information appears incomplete	Available information is sent from the broadcaster or cable provider. No other data is available.



## Appendix D: Troubleshooting, continued

TV Power On/Off		
Symptom		Remarks
1.	TV takes an excessively long time to power on.	<ul style="list-style-type: none"> <li>TV Energy Mode is set to Low Power. To change TV Energy Mode to Fast Power On: Press <b>MENU</b>, open the Setup menu, highlight the Fast Power On radio button, press <b>ENTER</b>.</li> <li>When switched on, the TV needs time to boot up, just as a computer. The TV's lamp also requires a few moments to heat up to full brightness.</li> </ul>
2.	You cannot program the TV to turn on automatically (Timer function)	<ul style="list-style-type: none"> <li>The TV may be locked.</li> <li>The clock may not be set.</li> <li>TV Energy Mode is set to Low Power. Change to Fast Power On in Setup menu.</li> </ul>
3.	The TV will not turn on after being plugged in.	If green light on front panel is blinking, wait for at least one minute for the light to turn off, then press <b>POWER</b> again.
4.	TV turned itself off and the light on the front panel started to blink.	<ul style="list-style-type: none"> <li>Momentary power fluctuation caused the TV to turn off to prevent damage. Wait for the green light to stop flashing and turn the TV on again.</li> <li>If the TV does not stay turned on, use the System Reset button on the front panel. If this happens frequently, obtain an AC line power conditioner/surge protector.</li> </ul>
5.	TV will not power off.	Use the System Reset button. See "TV Front Panel" in Chapter 1 for more information.

Picture		
Symptom		Remarks
1.	Picture does not look like a high-definition picture.	Not all signals are high-definition signals. To receive high-definition programming from your cable or satellite provider, you must subscribe to the provider's high-definition service. Some over-the-air broadcasts are in high-definition and can be received with a high-quality antenna suited to your location.
2.	Split Screen does not display a sub-picture.	<ul style="list-style-type: none"> <li>Make sure the Parental Lock is off.</li> <li>Not all inputs can be displayed as a sub-picture.</li> </ul>
3.	There is a large black or gray rectangle on the screen.	The TV's analog closed captioning has been set to "text" mode in the Captions menu. Turn off because there is no text information being broadcast.
4.	You cannot see a picture when playing a VHS tape.	Check your VCR's owner's guide for further troubleshooting.
5.	When viewing a stopped VCR, white lines are rolling on the screen.	<ul style="list-style-type: none"> <li>Turn off video mute for the VCR.</li> <li>Begin playing the tape.</li> <li>Change the VCR input to the antenna input.</li> </ul>
6.	The picture is black and white when viewing any program.	(For WD-52531 and WD-62531 models only) The PerfectColor™ color balance has been incorrectly set. Press <b>VIDEO</b> repeatedly until you see the PerfectColor option and press <b>ENTER</b> to open the PerfectColor™ menu.

**Appendix D: Troubleshooting, continued**

<b>Indicators</b>	
<b>Symptom</b>	<b>Remarks</b>
1. Lamp indicator light is a constant red.	Turn the TV off for at least 2 minutes. Turn it back on. If light is still red, the lamp has failed. Replace the lamp cartridge. See Appendix C for information about replacing the lamp cartridge. If you have questions call Mitsubishi Consumer Relations at 800-322-2119.
2. Lamp indicator light is a flashing yellow.	Lamp cover door is open or lamp cartridge is not secure. See Appendix C for information about replacing the lamp cartridge.
3. Status indicator light is a steady yellow.	Room temperature has exceeded proper levels. Cool the room.
4. Status indicator light is a steady/flashing red.	Service is required. Contact your dealer or a Mitsubishi Authorized Service Center to arrange for a service evaluation. Listings of Mitsubishi Authorized Service locations can be obtained from our web site, <a href="http://www.mitsubishi-tv.com">www.mitsubishi-tv.com</a> or by calling 1-800-332-2119.


<b>Sound</b>	
<b>Symptom</b>	<b>Remarks</b>
1. There is no sound even when the volume is turned up.	<ul style="list-style-type: none"> <li>• Check to see if the MUTE button is on.</li> <li>• The TV's "Listen to:" setting may be set to SAP.</li> <li>• Check that the TV Speakers setting is On in the Audio/Video menu.</li> <li>• Perform System Reset.</li> </ul>
2. The sound does not match the screen picture.	<ul style="list-style-type: none"> <li>• The TV's Listen to: setting may be set to SAP.</li> <li>• If using stereo or A/V receiver speakers, check their input selection.</li> <li>• If using stereo or A/V receiver, check that AUDIO OUTPUT L/R on TV's back panel is connected to the A/V receiver.</li> </ul>

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# Mitsubishi TV Software

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8. **GENERAL.** This License Agreement will be governed by the laws of the State of California.

**WARNING:** This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

# Mitsubishi LCD Rear Projection Television Limited Warranty

**MITSUBISHI DIGITAL ELECTRONICS AMERICA, INC. ("MDEA") warrants as follows to the original purchaser of this television from an authorized MITSUBISHI Audio/Video Dealer, should it prove defective by reason of against defects arising from improper workmanship and/or material:**

**a. Parts.** The lenticular (i.e. front picture) screen is warranted against defects in materials and workmanship for a period of thirty (30) days from the date of the original purchase at retail. The lamp cartridge and all other parts (except any software incorporated into this television) are warranted for a period of one (1) year from the date of the original purchase at retail. We will repair or replace, at our option, any defective part without charge for the part. Parts used for replacement may be replaced with those of like kind and quality and may be new or remanufactured. Parts used for replacement are warranted for the remainder of the original warranty period.

**b. Embedded Software.** MDEA warrants that all software incorporated into this television set (the "Embedded Software") will perform in accordance with the functional description of Embedded Software in all material respects, but MDEA does not warrant that the Embedded Software is error-free. MDEA also does not warrant that the Embedded Software will be compatible under IEEE 1394 AV/C and HAVi software standards with products produced by any other manufacturer. The limited warranty contained in this section shall continue for a period of one (1) year from the date of the original purchase at retail. If, after prompt notice within the warranty period, MDEA determines that the Embedded Software has failed to perform in accordance with such functional description in all material respects and if such failure is not due to accident, misuse, modification or misapplication of the Embedded Software, then MDEA shall modify or replace the nonconforming Embedded Software at no charge to you, which at MDEA's sole discretion may be fulfilled by means of modification or replacement software contained on a replacement memory card for Customer installation. The foregoing shall be MDEA's sole obligation to you under this limited warranty. All rights under this limited warranty on the Embedded Software are also subject to your acceptance of and compliance with the terms of the Software License Agreement applicable to this television, and this limited warranty on the Embedded Software shall be null and void if the Embedded Software is modified or changed in any manner except as specifically authorized by MDEA.

**c. Labor.** For thirty (30) days after the original purchase at retail, we will repair or replace, at our option, the lenticular screen if it proves defective. For certain items that are designed to be replaced by the consumer, including (but not limited to) some Embedded Software, the consumer is solely responsible for any replacement labor. Air filter cleaning is normal consumer required maintenance and labor for this procedure is not covered under warranty. Please refer to the Owner's Guide for air filter cleaning procedures. For all other parts, we will provide the labor for a warranty repair by an authorized MITSUBISHI service center without charge for one (1) year from the original date of purchase at retail.

**d. Notice.** To obtain warranty service, you must notify an authorized MITSUBISHI service center of any defect within the applicable warranty time period.

**e.** This LCD Rear Projection TV uses three LCD panels to create the screen image. This technology creates the image using small dots, or picture elements (pixels). Your CD Rear Projection TV is manufactured to a high level of performance and quality, in fact, 99.99% perfect in the number of properly functioning pixels. As in other display technology, sometimes a pixel is continuously active, inactive or the incorrect color. Our standard is clear; MDEA warrants only that the percentage of properly functioning pixels will be not less than 99.99% of all pixels.

**BEFORE REQUESTING SERVICE, please review the instruction booklet to insure proper installation and correct customer control adjustment. If the problem persists please arrange for warranty service.**

## 1. TO OBTAIN WARRANTY SERVICE:

a. Contact your nearest authorized MITSUBISHI service center, whose name and address can be obtained from your MITSUBISHI dealer, by writing at the address provided below, calling MDEA at the 800-332-2119, or by using the support feature of our website site at [www.Mitsubishi-tv.com](http://www.Mitsubishi-tv.com).

b. Warranty service will be provided in your home or, if required, at an authorized service shop, provided that your television is located within the geographic territory customarily covered by an authorized MITSUBISHI service center. If not, you must either deliver your television to an authorized service location at your own expense, or pay for any travel and/or transportation costs the service center may charge to and from your home. Actual service labor will be provided without charge.

c. Proof of purchase date from an authorized MITSUBISHI dealer is required when requesting warranty service. Present your sales receipt or other document which establishes proof and date of purchase. THE RETURN OF THE OWNER REGISTRATION CARD IS NOT A CONDITION OF COVERAGE UNDER THIS LIMITED WARRANTY. However, please return the Owner Registration Card so that we can contact you should a question of safety arise which could affect you.

**d. To obtain a replacement lamp cartridge during the warranty period, please contact the MDEA Consumer Relations Department at (800) 332-2119. After the warranty period you may order the lamp cartridge directly from the MDEA Parts Department at (800) 553-7278.**

## 2. THIS LIMITED WARRANTY DOES NOT COVER:

a. Up to .01% pixel outages (small dot picture elements that are dark or incorrectly illuminated).

b. Damage to the lenticular screen or Fresnel lens, screen frame, cosmetic damage or to any other damage where such damage is caused by unauthorized modification, alteration, repairs to or service of the product by anyone other than an authorized MITSUBISHI service center; physical abuse to or misuse of the product (including any failure to carry out any maintenance as described in the Owner's Guide including air filter cleaning or any product damaged by excessive physical or electrical stress); any products that have had a serial number or any part thereof altered, defaced or removed; product use in any manner contrary to the Owner's Guide; freight damage; or any damage caused by acts of God or other factors beyond the reasonable control of MDEA, such as power surge damage caused by electrical system or lightning.

(Continued on next page)

## Mitsubishi LCD Rear Projection Television Limited Warranty (continued)

This limited warranty also excludes service calls where no defect in the product covered under this warranty is found, service calls related to unsatisfactory audio or visual reception or signal unless caused by a defect in the product that is covered under this limited warranty, all costs, expenses or any other damages arising from product installation, or set-ups, any adjustments of user controls (including contrast, brightness, color, tint, fine tuning, sharpness), other adjustment necessary to prepare the unit for display or use, connection with any external audio receiver, antenna, cable or satellite systems, or service of products purchased or serviced outside the U.S.A. Please consult the operating instructions contained in the Owner's Guide furnished with the product for information regarding user controls.

3. ANY EXPRESS WARRANTY NOT PROVIDED HEREIN, AND ANY REMEDY WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, IS HEREBY EXCLUDED AND DISCLAIMED. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO A TERM OF ONE YEAR.

4. UNDER NO CIRCUMSTANCES SHALL MDEA BE LIABLE TO PURCHASER OR ANY OTHER PERSON FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING OUT OF BREACH OF WARRANTY, BREACH OF CONTRACT, OR OTHERWISE.

5. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental, special, or consequential damages, so the above limitations or exclusions may not apply to you.

6. This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



MITSUBISHI DIGITAL ELECTRONICS AMERICA, INC.  
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**Website:** [www.mitsubishi-tv.com](http://www.mitsubishi-tv.com)

**E-mail:** [MDEAservice@mdea.com](mailto:MDEAservice@mdea.com)

**To order replacement or additional remote controls, lamp cartridges, or Owner's Guides, visit our website at: [www.mitsuparts.com](http://www.mitsuparts.com) or call 800-553-7278.**

**For questions, call Consumer Relations at: 800-332-2119.**

#### **Demo Mode**

This TV has a demo mode for use in retail stores. Demo mode causes the TV to display a series of screens outlining the TV's features.

If Demo Mode is turned on when you first use the TV:

1. Press **MENU**.
2. When the Main menu appears with **Setup** highlighted, press **ENTER**.
3. When the Setup menu opens, press **▶** to highlight the on-screen **Demo Mode Off** button.
4. Press **ENTER**.

#### **System Reset**

If the TV does not respond to the remote control, front panel controls, or will not power on/off, press the **SYSTEM RESET** button on the front panel with a pointed object, such as the point of a pencil or end tip of a paperclip.

The green LED will flash quickly for about one minute. When the green LED stops flashing, you may turn on the TV.