myprojectorlamps.com

The most trusted, dependable name in projector lamp sales.

http://www.myprojectorlamps.com

http://www.myprojectorlamps.ca

http://www.myprojectorlamps.eu

The following projector manual has not been modified or altered in any way.

MITSUBISHI

THE BIG SCREEN COMPANY™

Digital

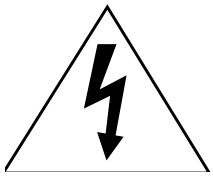
Owner's Guide

Projection Television Models

VS-50111, VS-60111, WT-42311, WS-48311, WS-55311, WS-65311, WS-55411, WS-65411 and WS-73411

visit our website at

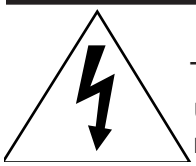
www.mitsubishi-tv.com



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 avoid permanently imprinting a fixed image onto your TV screen, please do not display the same stationary images on the screen for more than 15% of your total TV viewing in one week. Examples of stationary images are letterbox top/bottom bars from DVD disk or other video sources, side bars when showing standard TV pictures on widescreen TV’s, stock market reports, video game patterns, station logos, web sites or stationary computer images. Such patterns can unevenly age the picture tubes causing permanent damage to the TV. Please see page 51 for a detailed explanation.

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 void the user’s authority to operate this equipment.

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

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

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.

IMPORTANT SAFEGUARDS....4-5

INTRO
Thank You Letter....8
Unpacking Your New TV....9
Special Features....9

INSTALLATION
Front Control Panel Functions....12
Back Panel Functions....13
How Connections Affect:
PIP and POP....14
System 4 Home Theater IR Control....14
Connecting to Your New Mitsubishi Bigscreen:
Antenna or Wall Outlet Cable....16
Cable Box....16
VCR....17
Audio Receiver....18
DVD Player/S-Video Device....19
DTV Receiver....20
IR Emitter Repeater (System 4 Home Theater IR Control)....22
IMPORTANT NOTES....23

SETUP
Use of the Remote Control with Other A/V Products....26
ViewPoint on-screen menu system....28
Using ViewPoint®....28
Menu Screens (Overview)....29
Setup Menu....31
Memorize Channels....31
Input Assignment....31
Language....32
Front Button Lock....32
Clock Setting....33-34
Captions Menu....35
Channel Edit Menu....37-39
V-Chip Lock Menu....40
V-Chip....40-41
Lock by Time....42
Advanced Features Menu
Timer....43
Convergence....45
Color Balance....47
Audio Video Settings Menu....48
IMPORTANT NOTES....51

OPERATION
Remote Control Functions....54-65
Overview....54
Care and Operation....55
Channel Selection....56
Sleep Timer....56
System 4 Home Theater IR Control....57
Special Functions....58-65
Operation of PIP and POP....58-65
Display Formats....60-65
Appendix A: Bypassing the V-Chip Lock....66
Appendix B: High Definition Inputs Connection Compatibility....67
Appendix C: Remote Control Programming Codes....68
Appendix D: Cleaning and Service....69
Appendix E: Diamond Shield Installation and Removal....70-71
Appendix F: Cabinet Separation Procedure....72-73
Appendix G: Troubleshooting....74-75
Index....76-77
Mitsubishi Projection TV Limited Warranty....78

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 periods 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

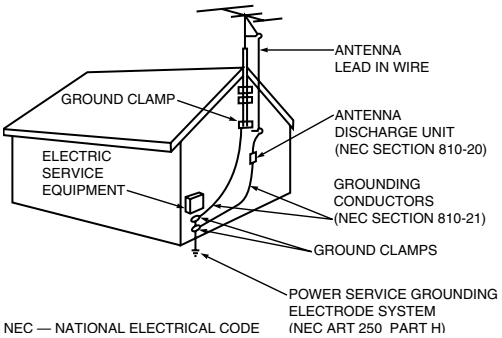
Never push objects of any kind into this TV through openings as they may touch dangerous voltage points or short-out parts that could result in fire or electric shock. Never spill liquid of any kind on or into the TV.

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.

Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, 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.

EXAMPLE OF ANTENNA GROUNDING



NEC — NATIONAL ELECTRICAL CODE

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.

CONSUMER RELATIONS

If you have questions regarding your television
Call (800) 332-2119, or email us at

MDEAservice@bigscreen.mea.com

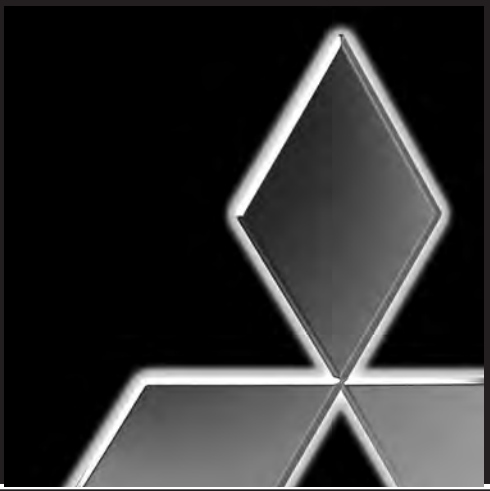
REMOTE CONTROL AND OWNER'S GUIDE

Call (800) 553-7278 to order a replacement Remote Control or Owner's Guide.

Or visit our website at

www.Mitsubishi-TV.com

Part I



Introduction

Thank You Letter.....8

Unpacking Your New TV 9

Special Features.....9

We at Mitsubishi Would Like to Thank You

To the Mitsubishi Consumer:

Welcome to the wonderful and exciting world of digital television! We are honored that you chose Mitsubishi as your premier home entertainment partner. The development team at Mitsubishi understands that our customers demand and expect the very best. Mitsubishi is founded on the core beliefs and philosophies that drive us to deliver products that are both cutting-edge and upgradeable.

While some televisions are destined for near-future obsolescence, Mitsubishi's HD-upgradeable televisions are engineered with "future-ability." Your television will continue to provide unparalleled home entertainment for years!

Whether this is your first Mitsubishi consumer electronics product or an addition to your growing Mitsubishi family, we hope that this television will bring you and your family many hours of enjoyment.

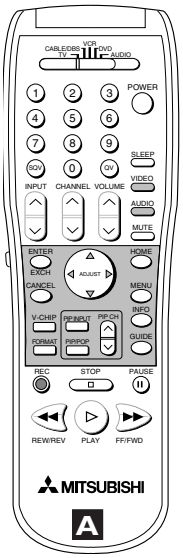
THE PROMISE

We will engineer and manufacture the upgrades necessary so the HD-Upgradeable television you purchased today can be made compatible with near-future advances in digital television and digital interconnectivity. Specifically, we promise that you will be able to have your television upgraded, at a reasonable cost, to include an off-air HDTV tuner, a cable TV tuner (for unscrambled programming), an IEEE 1394 (FireWire®) connection, HAVi system control, and 5C copy protection.

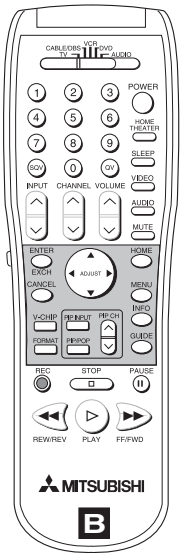
Unpacking Your New TV

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

1. Remote Control type A or B
2. (2) AAA Batteries
3. (2) IR Emitter Cables
   (WS-55411, WS-65411 and WS-73411 Only)
4. Product Registration Card
- Owner's Guide
- Quick Reference Card



Or



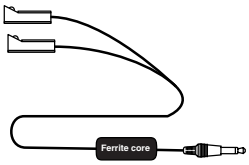
1

Remote Control
(VS-50111,VS-60111, WT-42311,WS-48311, WS-55311, and WS-65311)

Remote Control
(WS-55411, WS-65411, and WS-73411)

(2) AAA Batteries

3 ***(2) IR Emitter Cables***
(WS-55411, WS-65411 and WS-73411)



4 ***Product Registration Card***

Special Features

Your new High Definition (HD) Upgradeable bigscreen television has many special features that make it the perfect addition to your home entertainment system. A few of these special features are described below.

HD Upgradeable

With the use of an optional HDTV receiver (Mitsubishi SR-HD400 or similar model) your Mitsubishi bigscreen can display high definition pictures.

See pages 20 & 21 for more information.

16:9 Widescreen TV

Enjoy a full theatrical experience in the comfort of your home. View pictures as film directors intended them. Both the DTV and DVD support the widescreen format well-suited for your new TV.

See pages 62-65 for more information.

4:3 Narrow Screen TV

Your Mitsubishi narrow screen displays widescreen HD signal source(s) through the letterbox format. The gray bars on top and bottom make widescreen viewing possible.

See pages 60 & 61 for more information.

PIP/POP Viewing Option

Using Picture-in-Picture and Picture-outside-Picture give you exciting options for viewing favorite programs.

See pages 58-59 for more information.

V-Chip Technology

Mitsubishi understands you may want to shield certain viewers from specific program content. Your Mitsubishi bigscreen will allow you to restrict programming by general contents, specific contents, or even by time.

See pages 40-42 for more information.

Multibrand Remote Control

Your Mitsubishi remote control can be programmed to control many other audio/video components.

See page 26 & 27 for more information.

Part II

Installation

Front Control Panel 12
Back Panel 13

How Connections Affect:
PIP and POP 14
System 4 Home Theater
IR Control 14

Connecting Your New Mitsubishi Bigscreen:
Antenna or Wall Outlet Cable ...16
Cable Box 16
VCR 17
Audio Receiver.....18
DVD Player.....19
DTV Receiver 20
Connecting the System 4 Home Theater IR Control 22

IMPORTANT NOTES.....23

Front Control Panel

Many remote control buttons are duplicated on the front control panel. These buttons are shaded in Figure 1 and Figure 2. Please see *Remote Control Functions*, pages 54-58, for an explanation of their usage.

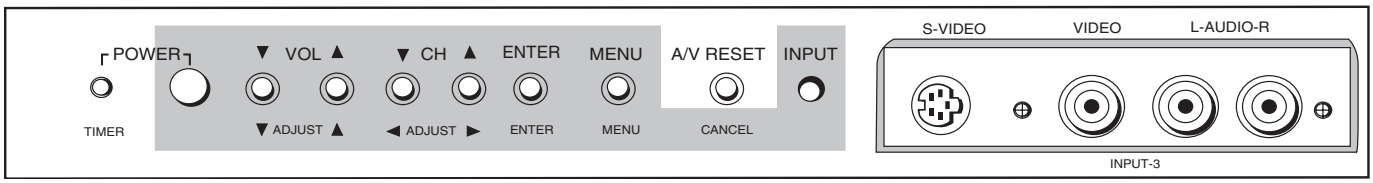


Figure 1. *The ADJUST, ENTER, MENU, and CANCEL buttons may be used to access or navigate through the screen menus.*

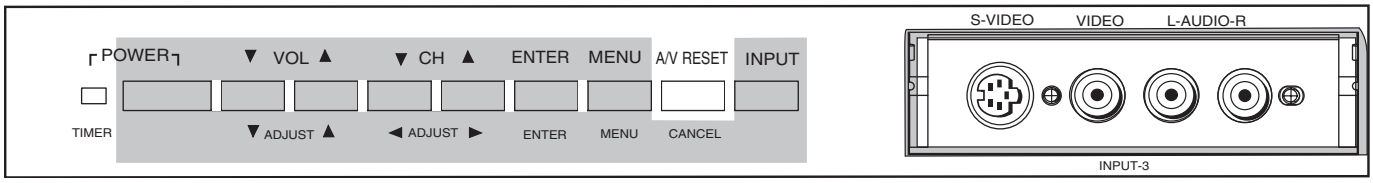
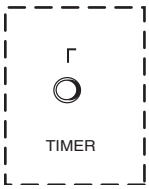
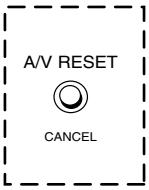


Figure 2. *The ADJUST, ENTER, MENU, and CANCEL buttons may be used to access or navigate through the screen menus (for models WT-42311 and WS-48311 only).*



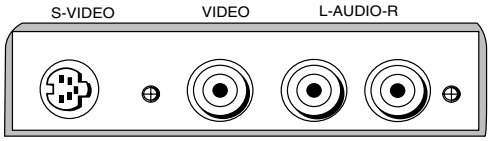
Timer

During normal operation, the timer light glows green when the TV is **On**. It does not glow when the TV is **Off**. When the time is used to turn **On** at a specific time, the green timer light blinks while the TV is **Off**. See *Timer Menu*, pages 43-44 for timer setup instructions.



A/V Reset

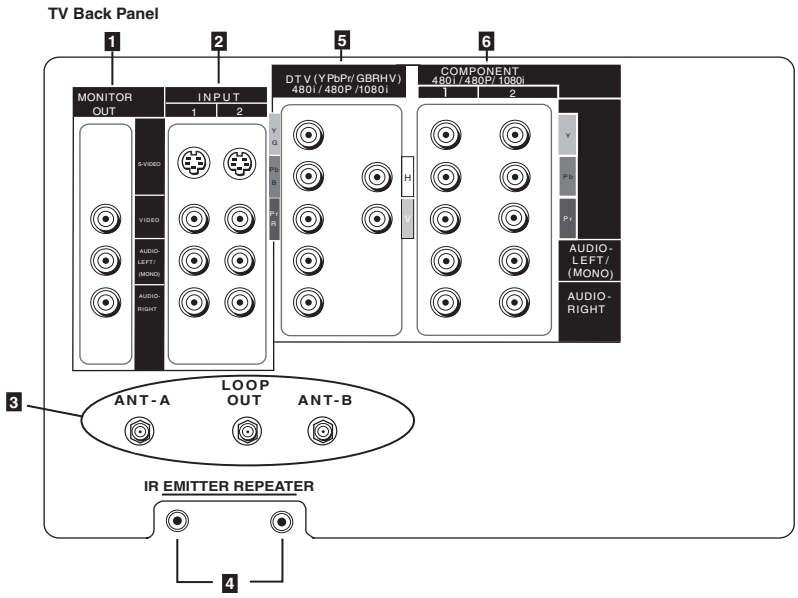
Press this button to reset the A/V memory on all eight inputs (seven inputs for the VS-50111 and VS-60111) to the factory default settings. See *Audio/Video Settings Menu*, page 48 for instructions.

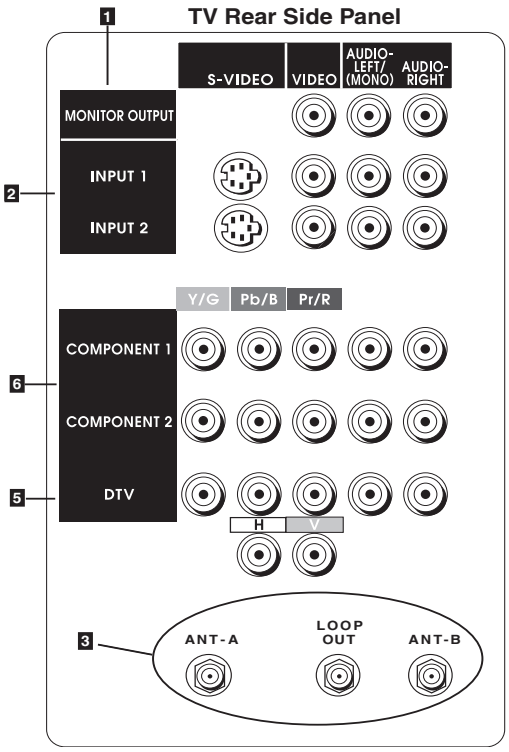


Input 3

This input can be used for convenient connection of a camcorder or other video device to the TV. You may connect to the S-VIDEO or VIDEO terminal but **not to both**.

Back Panel





1 Monitor Out

The Monitor Output sends the TV audio and video signals (excluding component video or DTV video) to an A/V receiver or other equipment.

2 Inputs 1-2

These inputs can be used for the connection of a VCR, Super VHS (S-VHS) VCR, laser disc player, or other A/V device to the TV. With each input, you may connect to the S-VIDEO or VIDEO terminal but **not to both**.

3 Antenna (ANT-A, LOOP OUT, and ANT-B)

ANT-A and ANT-B receive signals from VHF/UHF antennas or a cable system. LOOP OUT sends the ANT-A signal out to another component, such as a cable box or VCR.

4 IR Emitter Repeater (System 4 Home Theater IR Control)

Connecting IR emitters here allow the TV to automatically change a digital A/V receiver's input in a home theater setup and pass IR commands to other A/V devices.

(Applicable for WS-55411, WS-65411 and WS-73411 only.)

5 DTV Input

This input is used to connect a DTV receiver and can be configured for HDTV component (YPbPr), RGB sync on green, and RGB plus H&V. Please see *Appendix B*, page 67, for signal compatibility.

6 Component Inputs 1-2

These inputs can be used for the connection of A/V equipment with component video outputs, such as a DVD player or Video Game System. Please see *Appendix B*, page 67, for signal compatibility. **(Models VS-50111 and VS-60111 [4:3] only include Component Input 1.)**

How Connections Affect the PIP and POP

To see a picture in the PIP or POP, you may need to select an input source. If the only input connected is ANT-A, then both the main picture and the PIP/POP will be from that input source. If other video equipment is connected, you may be able to view these input sources as the PIP/POP. When connecting your new Mitsubishi bigscreen, it is important to understand which main picture and PIP/POP input sources can and cannot be used together. Table 1 shows which inputs can and cannot be used together and the limitations they may have. If you press the INFO key it will display the current Input, signal (480i, 480p, or 1080i), format, time, day and sleep time.

See Operation of PIP and POP, pages 58-62, for operating instructions.

Main \ PIP/POP	Ant-A	Ant-B	DTV 480i, 480p, 1080i	Input-1 Input-2 Input-3	Component-1 (Component-2) 480i, 480p,1080i
Ant-A	OK*	No PIP/POP	OK	OK	OK
Ant-B	OK	OK*	OK	OK	OK
DTV 480i, 480p, 1080i	OK	OK	OK**	OK	OK
Input-1 Input-2 Input-3	OK	OK	OK	OK**	OK
Component-1 (Component-2) 480i, 480p,1080i	OK	OK	OK	OK	OK**

Table 1. **No Side-by-Side with the same channel.*
***No Side-by Side with the same input.*

How Connections Affect the System 4 Home Theater IR Control

(Applicable for WS-55411, WS-65411 and WS-73411 only.)

The Mitsubishi System 4 Home Theater IR Control is a special feature that makes it easier to use your TV with a digital surround sound A/V receiver. Once your equipment is properly connected and set up, your TV and digital A/V receiver will change inputs together to match high resolution pictures with the proper surround sound.

When you change inputs on your TV to watch different video products, your TV will send signals via your remote control and the infrared emitters to your digital A/V receiver to change inputs.

You will automatically hear the high quality digital surround sound from digital products like your DTV receiver and DVD player, and high quality analog stereo or surround sound from non-digital products like your VCR.

Additionally, all IR remote signals from your Mitsubishi remote or other manufacturer's remote will be passed through your TV to your A/V devices. Your A/V devices can be hidden or behind cabinet doors and controlled by pointing the remote at the TV.

Special Setups: A/V Equipment (For System 4 Home Theater IR Control)

VCR: Connect the cables to the TV as directed on page 17, with one exception. Connect the audio output connection to the appropriate input on the back of the A/V receiver (as shown in Table 1).

DVD: Connect the cables as directed on page 19 (using the COMPONENT-1 input), with one exception. Connect the digital audio output connection on the DVD player to the appropriate digital input on the back of the digital A/V receiver (as shown in Table 1).

DTV: Connect the cables as directed on pages 20-21, with one exception. Connect the digital audio output connection on the DTV receiver to the appropriate digital input on the back of the digital A/V receiver (as shown in Table 1).

A/V Receiver: Connect as directed on page 18, with two additions. Use an S-Video cable in step 1 if you have an S-Video VCR. The TV outputs should be connected to the A/V receivers input marked TV.

- **Auto Standby:** ON (See your A/V receiver's Owner's Guide for this procedure). For all TV use, the sound will come from the A/V receiver. Not available with all A/V receivers.
- **Digital Input Assignment for DVD:** Assign the digital input you used for your DVD player to the A/V receiver's DVD input selector. This procedure is explained in your A/V receiver's Owner's Guide.
- **Digital Assignment for DTV:** Assign the digital input you used for DTV to the A/V receiver's DTV input selector. This procedure is explained in your A/V receiver's Owner's Guide.

Infrared Emitter: Connect as shown on page 22.

Special Setups: TV

To correctly setup System 4 use the following settings

- **TV Speakers:** OFF
- **Audio Output:** Fixed
  See *Audio Video Menu,* page 31.
- **TV Inputs Appropriately Named**
  See *Input Assignment Menu,* page 31.

Remote Control, pages 26-27.

- Set the slide switch to the TV position and follow the programming instructions using the A/V receiver code appropriate for your A/V receiver, page 27 (Figure 5).

Samples of various brands of AV Receivers are shown below.

Brand	Model	The products listed at the top of this column connect to the below listed inputs on the back of the appropriate A/V receiver.			
		TV/Cable	SAT/DBS/DTV	VCR	DVD
Mitubishi	M-VR1000/MR800	TV	VCR 2	VCR 1	DVD
Mitsubishi	M-RVR900/M-VR700	TV	CABLE/DBS	VCR	DVD
Denon	AVR2800	TV/DBS	VCR 2	VCR 1	DVD/LD
JVC	RX-888V	TV	VIDEO 2	VCR 1	DVD
Kenwood	VR-2080	AV AUX	LD	VIDEO 1	DVD
Onkyo	TX-DS575	VIDEO 3	VIDEO 2	VIDEO 1	DVD
Pioneer	VSX-21	TV/SAT	VIDEO 2	VCR 1	DVD/LD
Sony	STR-DE825	TV/DBS	VIDEO 2	VIDEO 1	DVD/LD
Yamaha	RX-V2095	TV/DBS	VCR 2	VCR 1	DVD/LD

Table 1. *A/V receiver back panel input table (Connections vary by model; you may need to test individually)*

Connecting an Antenna, Wall Outlet Cable, or Cable Box

Note: The TV back panel and connections shown here are for reference only and may vary by model.

Separate UHF and VHF Antennas

(Figure 1)

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

➡ UHF/VHF combiners are not provided with the TV. They are available at most electronic stores.

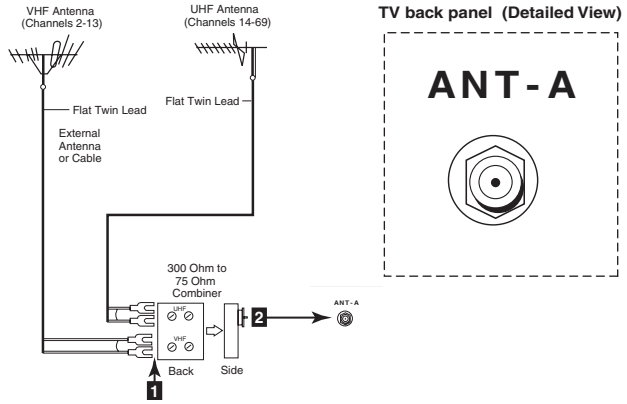


Figure 1. *Connecting separate UHF and VHF antennas.*
Note: *See page 5 for Outdoor Antenna Grounding*

Twin Lead Antenna, Coaxial Lead Antenna, or Wall Outlet Cable

For antenna with twin flat leads (Figure 2)

1. Connect the 300ohm twin leads to the transformer.
2. Push the 75ohm side of the transformer onto ANT-A on the TV back panel.

➡ 300ohm to 75ohm matching transformers are not provided with the TV. They are available at most electronic stores.

For cable or antenna with coaxial lead (Figure 2)

3. Connect the incoming cable to ANT-A on the TV back panel.

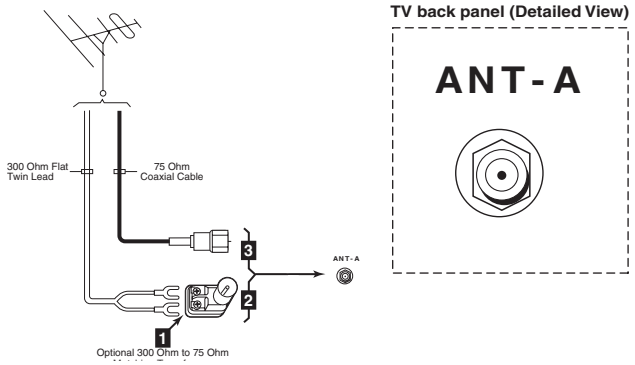


Figure 2. *Connecting twin lead antenna, coaxial lead antenna, or wall outlet cable.*
Note: *See page 5 for Outdoor Antenna Grounding*

Cable Box

(Figure 3)

1. Connect the incoming cable to ANT-A on the TV back panel.

➡ Connect two coaxial cables as follows:

2. One from LOOP-OUT on the TV back panel to IN on the cable box back panel.
3. One from OUT on the cable box back panel to ANT-B on the TV back panel.

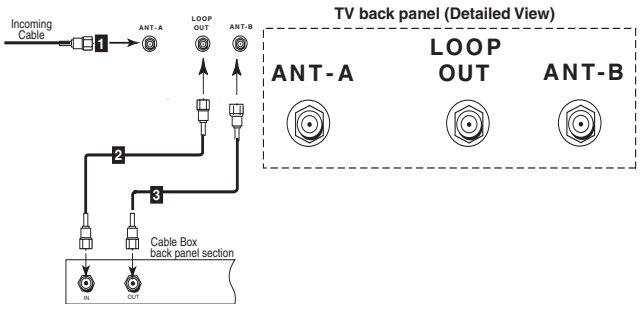


Figure 3. *Connecting the cable box.*
Note: *See page 5 for Outdoor Antenna Grounding*

Note: ***If you have a digital cable box, refer to your Digital Cable Box owner's guide for instructions on optimal connections to this TV.***

IMPORTANT

➡ **Additional connection cables are not provided with the TV. They should be available at most electronic stores.**

Connecting a VCR

Note: The TV back panel and connections shown here are for reference only and may vary by model.

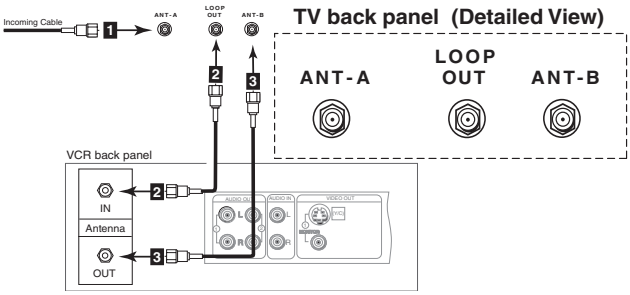


Figure 1. Connecting VCR with antennas or wall outlet table.

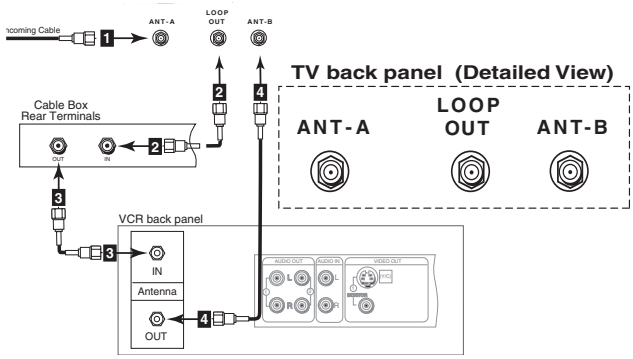


Figure 2. Connecting VCR with cable box.

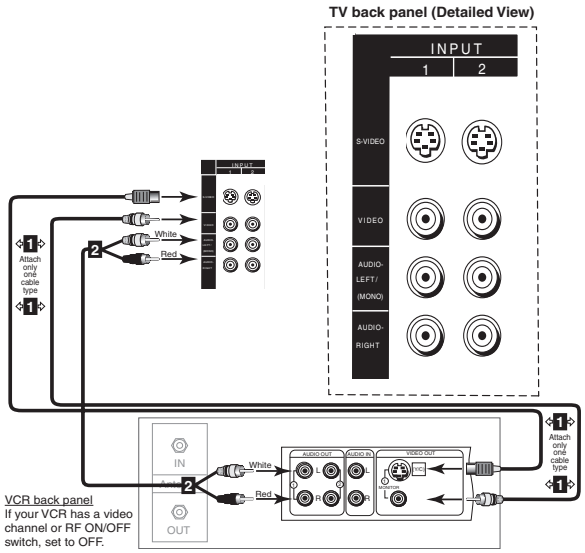


Figure 3. Connecting the VCR Audio/Video.

IMPORTANT

➡ **Additional connection cables are not provided with the TV. They should be available at most electronic stores.**

Antennas or Wall Outlet Cable

(Figure 1)

1 Connect the incoming cable to ANT-A on the TV back panel.

➡ Connect two coaxial cables as follows:

2 One from LOOP-OUT on the TV back panel to ANTENNA IN on the VCR back panel.

3 One from VCR back panel ANTENNA OUT to ANT-B on the TV back panel.

4 Now complete Figure 3, steps 1-2.

Cable Box

(Figure 2)

1 Connect the incoming cable to ANT-A on the TV back panel.

➡ Connect three coaxial cables as follows:

2 One from LOOP-OUT on the TV back panel to IN on the back of the cable box.

3 One from OUT on the back of the cable box to ANTENNA IN on the VCR back panel.

4 One from ANTENNA OUT on the VCR back panel to ANT-B on the TV back panel.

5 Now complete Figure 3, steps 1-2.

Composite Video with Audio or S-Video with Audio

(Figure 3)

1 Connect a video cable from VIDEO OUT on the VCR back panel to VIDEO INPUT-1 or INPUT-2 on the TV back panel.

➡ If you have an S-VHS VCR, follow the same steps using the S-Video terminals the VCR and TV (in place of the composite terminals). You may connect to the S-VIDEO or VIDEO terminal but **not to both**.

2 Connect a set of audio cables from AUDIO OUT on the VCR back panel to AUDIO INPUT-1 or INPUT-2 on the TV back panel. The red cable connects to the R (right) channel and the white cable connects to the L (left) channel. If your VCR is mono (non-stereo), connect only the white (left) cable.

Connecting an Audio Receiver

Note: The TV back panel and connections shown here are for reference only and may vary by model.

Stereo Audio System

(Figure 1)

1. Connect the audio cables from AUDIO MONITOR OUTPUT on the TV back panel to TV IN or AUX IN terminals on the back of the audio system. The red cable connects to the R (right) channel, and the white cable connects to the L (left) channel.
2. Turn off the TV's speakers through the *A/V SETTINGS Menu*, page 48.
3. Set the audio system's input to the TV or AUX position to hear the TV's audio through your stereo system.

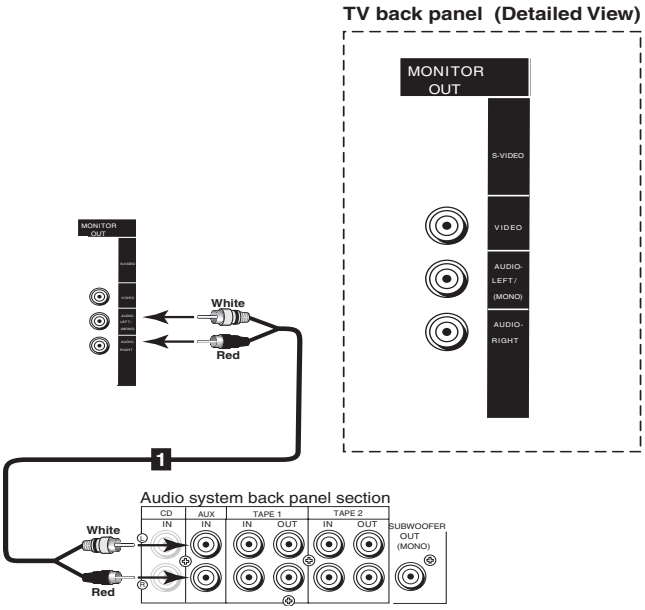


Figure 1. *Connecting the Stereo Audio System.*

IMPORTANT

➡ **Additional connection cables are not provided with the TV. They should be available at most electronic stores.**

A/V Receiver

(Figure 2)

1. Connect either a video cable or an S-Video cable **(but not both)** from VIDEO MONITOR OUT on the back of the A/V receiver to VIDEO INPUT-1 or INPUT-2 on the TV back panel.
2. Connect a video cable from VIDEO MONITOR OUTPUT on the TV back panel to VIDEO TV IN on the back of the A/V receiver.
3. Connect a set of audio cables from AUDIO MONITOR OUTPUT on the TV back panel to AUDIO TV IN on the back of the A/V receiver. The red cable connects to the R (right) channel, and the white cable connects to the L (left) channel.

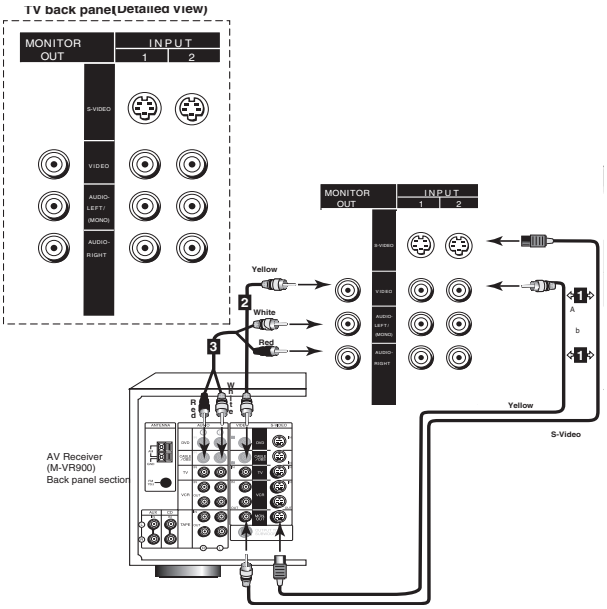


Figure 2. *Connecting the A/V Receiver.*

IMPORTANT

➡ **Please see your A/V receiver Owner's Guide for more detailed connections.**

WARNING: Do not display the same stationary images on the screen for more than 15% of your total TV viewing in one week. Examples of stationary images are letterbox top/bottom bars from DVD or other video sources, side bars when showing standard TV pictures on widescreen TV's, stock market reports, video game patterns, station logos, web sites, or stationary computer images. Such patterns can unevenly age the picture tubes causing permanent damage to the TV. Please see pages 23 and 51 for a detailed explanation.

Note: The TV back panel and connections shown here are for reference only and may vary by model.

Connecting a DVD Player

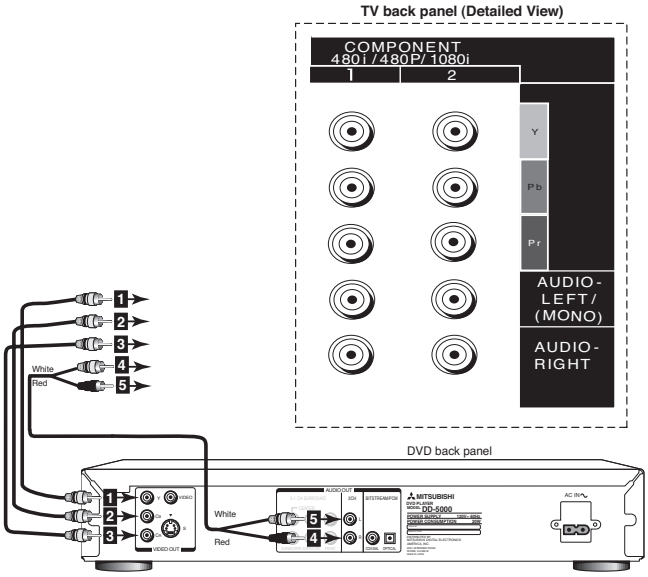


Figure 1. Connecting a DVD Player with Component Video.

Connecting an S-Video Device

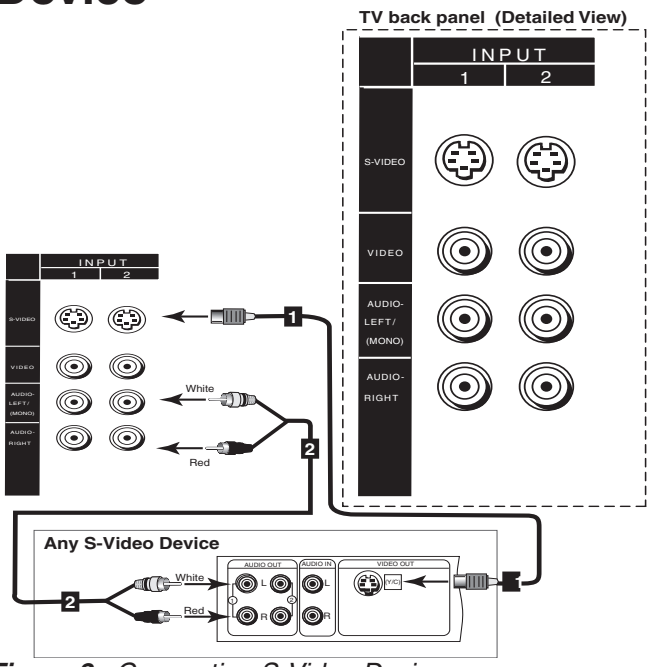


Figure 2. Connecting S-Video Device.

DVD Player with Component Video

(Figure 1)

➡ Connect the Component Video cables from (Y Cb Cr or Y Pb Pr) VIDEO OUT on the back of the DVD player to COMPONENT-1 or COMPONENT-2 on the TV back panel, matching the correct components:

1. Y to Y
2. Cb or Pb to Pb
3. Cr or Pr to Pr

➡ Connect a set of audio cables from AUDIO OUT on the back of the DVD player to COMPONENT AUDIO Input 1 or 2 on the TV back panel. The white cable **4** connects to the L (left)channel, and the red cable **5** connects to the R (right) channel.

IMPORTANT

➡ **See Appendix B, page 67, for component video signal compatibility information.**

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

Other S-Video Device

(Figure 2)

1 Connect an S-Video cable from VIDEO OUT on the device back panel to VIDEO INPUT-1 or INPUT-2 on the TV back panel.

2 Connect a set of audio cables from AUDIO OUT on the device back panel to AUDIO INPUT-1 or INPUT-2 on the TV back panel.
- The red cable connects to the R (right) channel and the white cable connects to the L (left) channel.
- If your S-Video Device is mono (non-stereo), connect only the white (left) cable.

Connecting a DTV Receiver

Note: The TV back panel and connections shown here are for reference only and may vary by model.

DTV Connectors and Adaptors

(Figure 1)

The TV back panel has five RCA-type connectors for the DTV connection. The back panel of your DTV receiver may use RCA-type connectors or BNC-type connectors. If your DTV receiver comes with BNC type connections, you will need to purchase BNC to RCA adaptors to connect the TV to the DTV receiver. These adaptors should be available at most electronic supply stores.

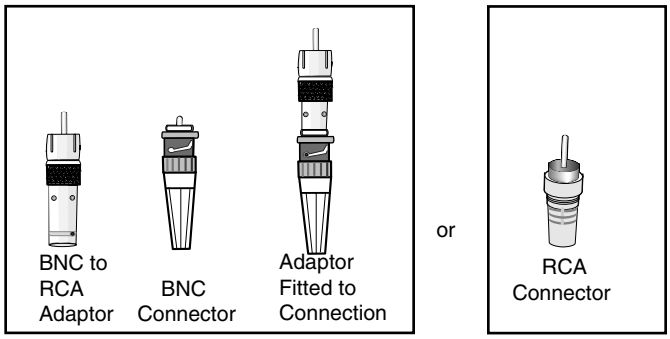


Figure 1. *DTV connectors and adaptors.*

DTV Receiver with Component Video Connections

(Figure 2)

1. Connect the outside antenna cable, or satellite to ANT or SATELLITE IN on the DTV receiver (see your DTV receiver owner's guide for instructions and cable compatibility).
2. Connect the incoming terrestrial antenna or cable (not satellite) to ANT-A on the TV back panel (a coaxial splitter, available at most electronic supply stores, may be required to complete this installation).
3. Connect the RCA-type cables from the outputs on the DTV receiver to DTV INPUT Y/Pb/Pr or Satellite/Box on the TV back panel. You may need to set the DTV *Input Assignment*, page 31, to Y/Pb/Pr.
4. Connect the L (left) and R (right) audio cables from the DTV receiver to DTV AUDIO on the TV back panel.

➡ To utilize the benefits of a digital A/V receiver, connect your DTV receiver's digital audio out to a digital input on your digital A/V receiver. Component 1 and 2 may also be used for 1080i component.

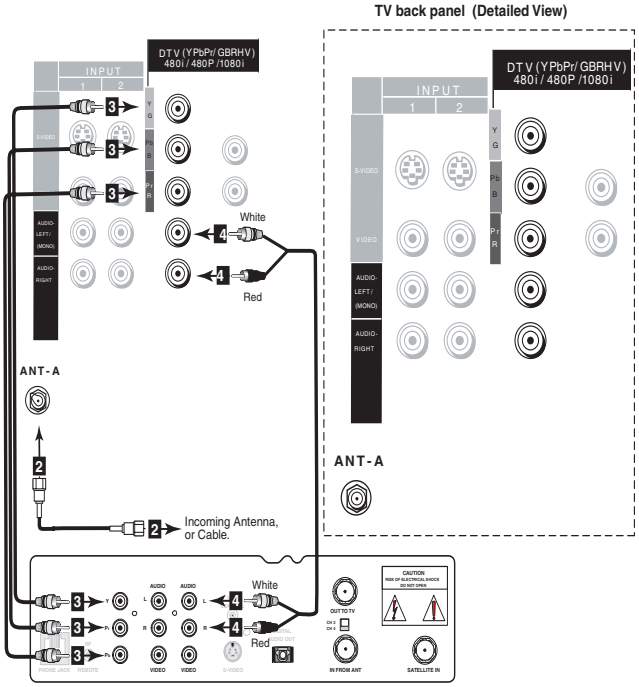


Figure 2. *Connecting the DTV receiver with component Video Connections.*

IMPORTANT

➡ **See Appendix B, page 67, for component video signal compatibility information.**

➡ **For digital audio connections, see your DTV receiver and A/V receiver Owner's Guides.**

Connecting a DTV Receiver

Note: The TV back panel and connections shown here are for reference only and may vary by model.

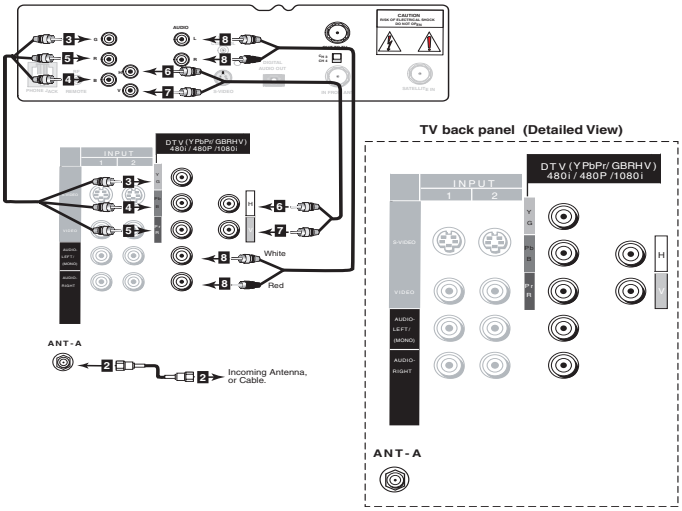


Figure 1. Connecting the DTV receiver with RGB video connections.

IMPORTANT

- **See Appendix B, page 67, for RGB video signal compatibility information.**
- **For digital audio connections, see your DTV receiver and A/V receiver Owner's Guides.**

DTV Receiver with RGB Video Connections

(Figure 1)

1 Connect the outside antenna, cable, or satellite to ANT or SATELLITE IN on the DTV receiver (see your DTV receiver's owner's guide for instructions and cable compatibility).

2 Connect the incoming terrestrial antenna or cable (not satellite) to ANT-A on the TV back panel (a coaxial splitter, available at most electronic supply stores, may be required to complete this installation).

➡ Connect the RGB cables from the DTV receiver to the TV back panel as listed below (if your DTV receiver uses BNC-type cables, use the adaptors shown in Figure 1, page 20):

	DTV Receiver		TV Back Panel
3	G (green)	=	Y
4	B (blue)	=	Pb
5	R (red)	=	Pr

➡ If the DTV receiver has outputs for H and V sync, connect as listed below (**DO NOT** connect if DTV receiver uses "Sync on Green"):

6	H (horizontal sync)	=	H
7	V (vertical sync)	=	V

8 Connect the L (left) and R (right) audio cables from the DTV receiver and to DTV AUDIO on the TV back panel.

➡ To utilize the benefits of a digital A/V receiver, connect your DTV receiver's digital audio out to a digital input on your digital A/V receiver.

You may need to setup the DTV (See *Input Assignment*, page 31) to RGB.

Connecting the System 4 Home Theater IR Control

(Applicable for WS-55411, WS-65411 and WS-73411 models only)

(Figure 1)

Note: The TV back panel and connections shown here are for reference only and may vary by model.

Connecting the System 4 Home Theater IR Control.

1. Connect the IR emitter to IR EMITTER REPEATER on the TV back panel.
2. Place the IR emitter cable under or along the side of the A/V device. Place the IR lens directly in front of the A/V device infrared signal receiver. Infrared signal receivers are usually behind the front translucent panel of the receiver.
3. Place the unused transmitter in an out-of-the-way location.
4. For permanent installation of the IR emitter cable, use the included adhesive tape to secure the bottom of the emitter to the anchoring object of your choice.

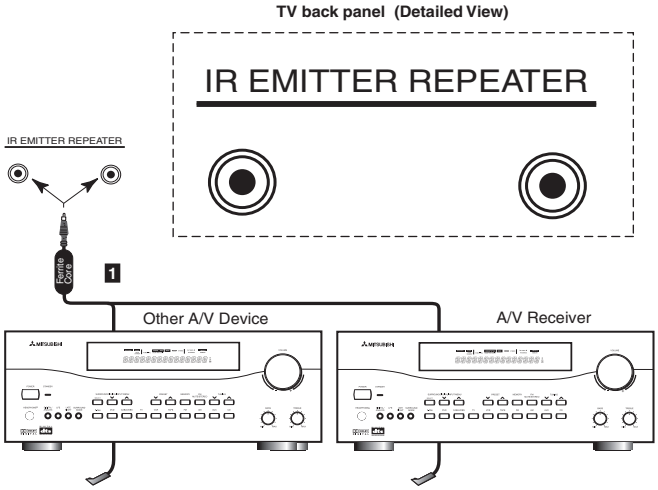


Figure 1. *Connecting the System 4 Home Theater IR Control.*

IMPORTANT

➡ **See page 57 for details on using the TV's IR emitter to control a Mitsubishi A/V receiver.**

Warning: Do not leave stationary or letterbox images on the screen for extended periods of time. Mix the types of pictures shown. Uneven picture tube aging is NOT covered by your warranty.

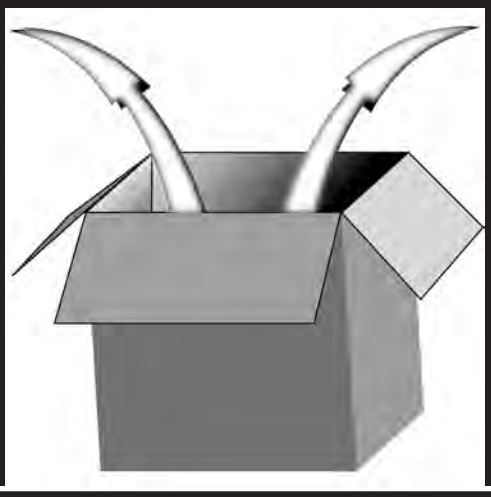
The normal use of a TV should include a mixture of TV picture types. The most frequently used picture types should fill the screen with constantly moving images rather than stationary images or patterns. Displaying the same stationary patterns over extended period of time or displaying the same stationary pattern frequently can leave subtle but permanent ghost images. To avoid this, mix your viewing pattern. Do not show the same stationary image for more than 15% of your total TV viewing in any given week. Display constantly moving and changing images that fill the screen whenever possible.

This projection TV uses picture tubes to project the image to the screen. **All picture tubes age with use.** As they age, their light output is gradually reduced. Normal TV pictures fill the screen with constantly changing images. Under these conditions, picture tubes age at an even rate across the entire screen. This maintains a TV picture that is evenly bright over the whole screen. Stationary images or images that only partially fill the screen (leaving black or colored bars to fill the screen), when used over extended periods of time or when viewed repeatedly, can cause uneven aging of the phosphors and leave subtle ghosts from the stationary images in the picture.

Still or stationary images may be received from broadcasters, cable channels, satellite channels, DVD discs, video tapes, laser discs, online services, web/Internet searching devices, video games, and digital TV tuner/converter boxes. Examples of these types of images can be, but are not limited to the following:

- **Letterbox top/bottom black bars**: shown at the top and bottom of the TV screen when you watch a widescreen (16:9) movie on a standard (4:3) TV.
- **Side bar images**: solid bars shown on each side of an image when watching a standard (4:3) program on a widescreen (16:9) TV.
- **Stock-market report bars**: ticker running at the bottom of the TV screen.
- **Shopping channel logos & pricing displays**: bright graphics that are shown constantly or repeatedly in the same location.
- **Video game patterns and scoreboards**
- **Bright station logos**: moving or low-contrast graphics are less likely to cause uneven aging of the picture tubes.
- **Online (Internet) websites**: or any other stationary or repetitive computer style images.
- **Closed Captioning**

Part III



Setup

Use of the Remote Control with Other A/V Products 26-27

ViewPoint® Menu System 28

Using ViewPoint® 28

Menu Screens (Overview)... 29-30

Setup Menu.....29

Memorize Channels 31

Input Assignment.....31

Language.....32

Front Button Lock.....32

Clock Setting.....33

Captions Menu 35

Channel Edit Menu.....37

SQV (Super Quick View™)...39

V-Chip Lock 40

Lock by Time.....42

V-Chip Hours.....42

Passcode.....42

Advanced Features Menu.....43

Timer 43

Convergence 45

Color Balance.....47

Audio Video Settings Menu....48

Use of the Remote Control with Other A/V Products

To Program the Remote to Control Other Brands of Audio and Video Products:

(Figures 1-5)

1. Move the slide switch at the top of the remote to the product you want to control.
2. Press and hold the POWER button on the remote control.
3. Enter the first three digit code listed for your equipment, and then release the POWER button on the remote control.
4. Point the remote control to the equipment and press the POWER button.

Note: 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 three digit code listed in step 3 for your equipment.

3 Cable Box Codes

Cable box brand	Code to enter:
General Instruments/ Jerrold	111, 119, 120, 121, 122, 123, 124, 125, 126, 127
Oak	102, 137, 139
Pioneer	101, 116
Scientific Atlanta	111, 112, 113
Zenith	100, 117
To reset to default code, enter 000	

If your cable box code is not listed here, please see page 68 for a complete listing.

Figure 1. Programming the remote to control your cable box.

3 Satellite Receiver Codes

Satellite brand	Code to enter:
Mitsubishi DTV - DBS	006
Dishnetwork/Echostar	175
Hughes - DBS	173
RCA - DBS	176
Sony - DBS	177
Toshiba - DBS	170
Panasonic - DBS	174
To reset to default code, enter 000	

If your satellite receiver code is not listed here, please see page 68 for a complete listing.

Figure 2. Programming the remote to control your satellite receiver.

3 VCR Codes

VCR brand	Code to enter:
Mitsubishi	001, 002
Hitachi	020, 043, 065
JVC	030, 054, 059
Phillips / Magnavox	043, 044, 051
Panasonic	041, 042, 043
RCA	020, 053, 065, 079
Sony	048, 049, 050, 074, 075
Toshiba	021,
To reset to default code, enter 000	

If your VCR code is not listed here, please see page 68 for a complete listing.

Figure 3. Programming the remote to control your VCR.

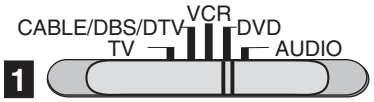
IMPORTANT

➡ **If you cannot turn the cable box ON by pressing POWER, try pressing CHANNEL or the number buttons.**

IMPORTANT

➡ **When set to TV, the PLAY, STOP, REW/ REV, and FF/FWD buttons will operate the VCR after the VCR codes have been properly programmed into the remote control.**

Use of the Remote Control with Other A/V Products



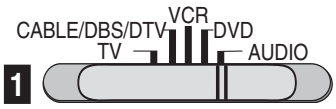
3 DVD/LDP Player Codes

DVD/LDP brand	Code to enter:
Mitsubishi (DVD)	003
Mitsubishi (LDP)	016, 017
Panasonic	250
Pioneer DVD (LDP)	252 (016, 017)
Sony	254
Toshiba	253
Zenith	259

If your DVD code is not listed here, please see page 68 for a complete listing.

To reset to default code, enter 000

Figure 4. *Programming the remote to control your DVD/ LDP.*



3 A/V Receiver Codes

Audio brand	Code to enter:
Mitsubishi A/V receiver and/or CD player	010, 011
Kenwood	200, 208
Onkyo	209, 214,240
Pioneer	205, 207
Sony	222
Yamaha	201, 202
Harman	215
Teac	210

If your audio code is not listed here, please see page 68 for a complete listing.

To reset to default code, enter 000

Figure 5. *Programming the remote to control your A/V receiver.*

IMPORTANT

➡ **If the slide switch is set to TV when you enter an A/V receiver code, VOLUME and MUTE will control the A/V receiver rather than the TV. To return volume and mute control to the TV, set the slide switch to TV, press and hold POWER and enter 000.**

IMPORTANT

➡ **Some manufacturers may change their products, or they may use more than one remote control system. If this is the case, your remote control may not be able to operate your VCR, DVD, cable box, satellite receiver, or A/V receiver.**

After entering the correct codes in each position of the remote control, use the slide switch to select which product will respond when an operational button is pressed. If you enter a code from the AUDIO chart while the slide switch is set to TV, the volume and mute functions change to match the A/V receiver. This is useful when using an A/V receiver with the TV all the time. In all other cases, only one of the below devices is allowed for each slide switch position.

TV position:
- TV
- A/V receiver (volume and mute only)

Cable/DBS/DTV position:
- Cable box
- Satellite receiver
- DTV receiver

VCR position:
- VCR

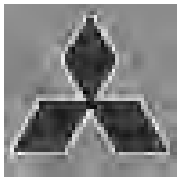
DVD position:
- DVD
- LD Player

Audio position:
- A/V receiver
- Mitsubishi CD player

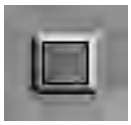
If you have a Mitsubishi A/V receiver, the audio position may be used in conjunction with select Mitsubishi CD players. Your audio position must be programmed to either 010 or 011. Plug the CD player power cord into a switched outlet on the back of your A/V receiver. Pressing the POWER button turns On the A/V receiver, along with the CD player. In the audio position, for some CD players, the transport controls (FF, Play, Rew, etc.) operate the CD player.

The ViewPoint® Menu System

Your TV has Mitsubishi's exclusive ViewPoint® on-screen operating system, which provides on-screen information for menu choices and changes (Figure 1).



A picture (icon) will be highlighted when selected with the ADJUST arrows. When selected, the appropiate menu will appear or start an automatic function. You may then make changes within the menu or access available sub-menus.



A square button indicates that you may make changes to the menu screen.

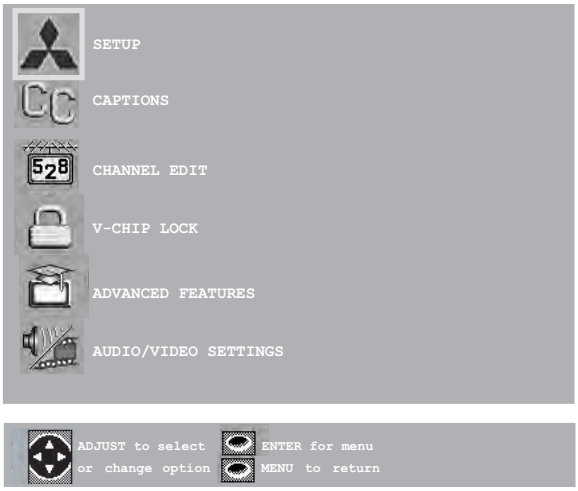


Figure 1. *MAIN menu:*
The first screen that appears when you press the MENU button from your remote.

The ViewPoint® system includes the following special features:

- The currently selected icon or button is highlighted with a rectangular yellow outline and the text color will be yellow.
- On-screen instructions provide complete menu choice information.
- Some on-screen menu options must be set before other options are available. For example, *"Timer Menu"* will only be possible if *"Clock Time"* and *"Set Day"* have been set.

The following buttons on your remote control helps you to navigate within the ViewPoint® system (Figure 2):

1. ADJUST ▲ or ▼ to select the menu item you want to change.
2. ADJUST ▶ to move to the setting field.
3. ADJUST ▲ or ▼ to change the settings.
4. ADJUST ◀ to move back to the menu item.
5. ENTER to enter into a menu, start an automatic function, or select a checkbox.
6. CANCEL to clear a setting, or stop an automatic function.
7. MENU to move back one menu screen at a time.
8. HOME to exit all menus and return to TV viewing.

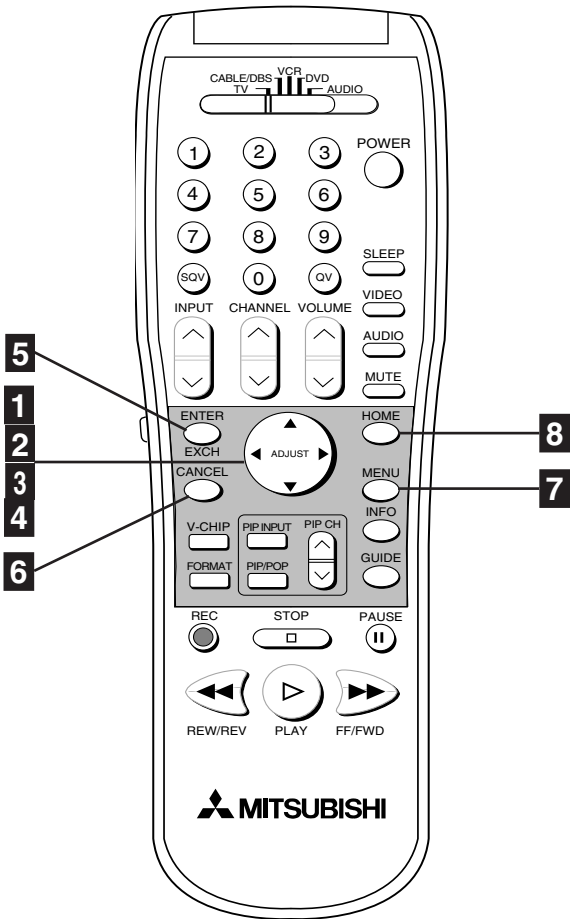


Figure 2. *These buttons are used for navigation within the ViewPoint® on-screen operating system.*

Main Menu Screens (Overview)

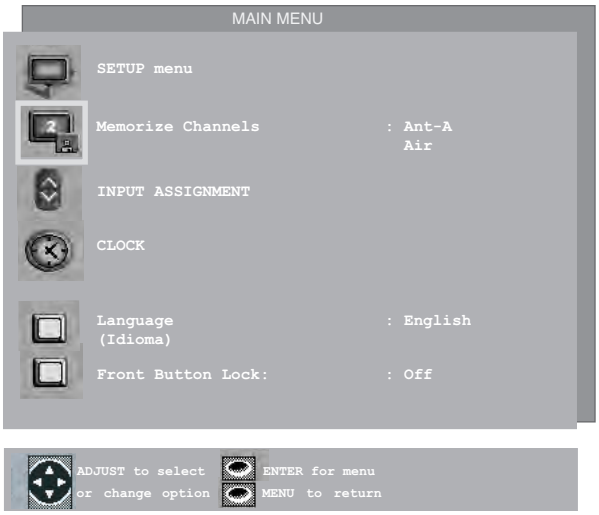


Figure 1. *SETUP menu*

SETUP Menu

(Figure 1)

Basic (initial) setup instructions and functions are available through the SETUP submenu screens. You can memorize channels, turn the TV input connections **On** or **Off**, set the time and day, select English or Spanish for the menus or screen display, and set the Front Button Lock. (Use the setup menu when you relocate the TV, experience a power loss or when accessories are added after initial setup).

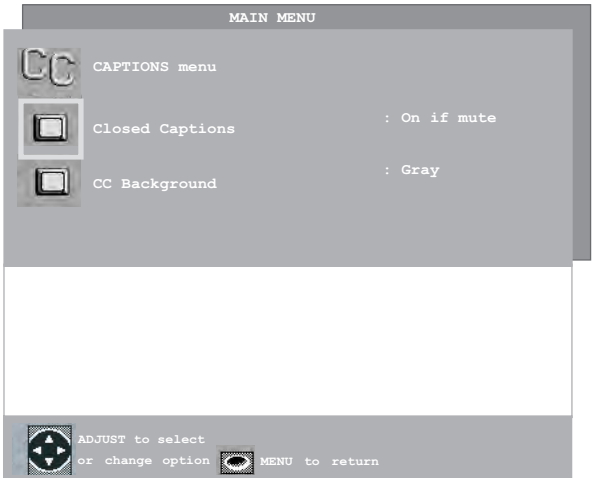


Figure 2. *CAPTIONS menu*

CAPTIONS Menu

(Figure 2)

Display broadcasted captions or text on the screen. You can select the closed caption setting by choosing to display the background color as either black or translucent gray.

Note: Mitsubishi recommends using the translucent gray background to prevent CRT aging and/or burn-in.

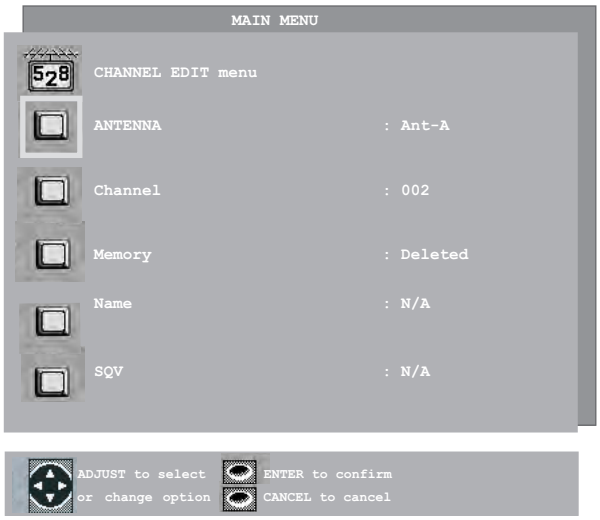


Figure 3. *CHANNEL EDIT menu (ANTENNA)*

CHANNEL EDIT Menu

(Figure 3)

Use to customize the channel information for Ant-A and Ant-B. Manually add or delete channels from memory, name channels for Ant-A and Ant-B, or add your favorite channels to a SQV (Super Quick View™) list.

Main Menu Screens (Overview)

V-CHIP LOCK Menu

(Figure 1)

The V-Chip Lock locks the entire TV based on a scheduled set time, or blocks programs based on rating signals sent by broadcasting system.

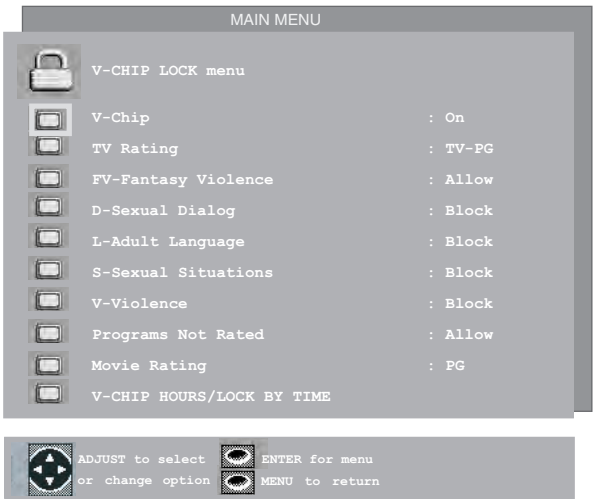


Figure 1. *V-CHIP LOCK menu*

ADVANCED FEATURES Menu

(Figure 2)

Set your TV to turn On automatically, converge (align) the three main colors, display a blue screen when viewing an input with no signal, enhance the darker parts of bright pictures, and adjust the color balance.

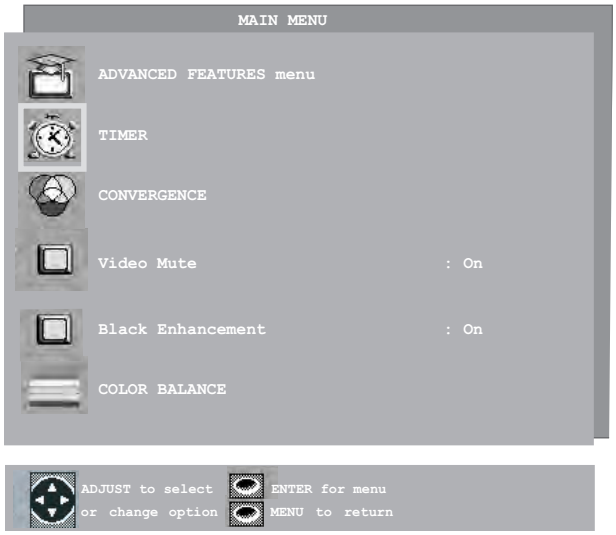


Figure 2. *ADVANCED FEATURES menu*

AUDIO/VIDEO SETTINGS Menu

(Figure 3)

Adjust some or all of the A/V settings. Each input can be set to your preferences. A/V Reset on the menu allows you to return the A/V settings for the current input to the factory presets. A/V Reset on the front button resets all inputs at one time.

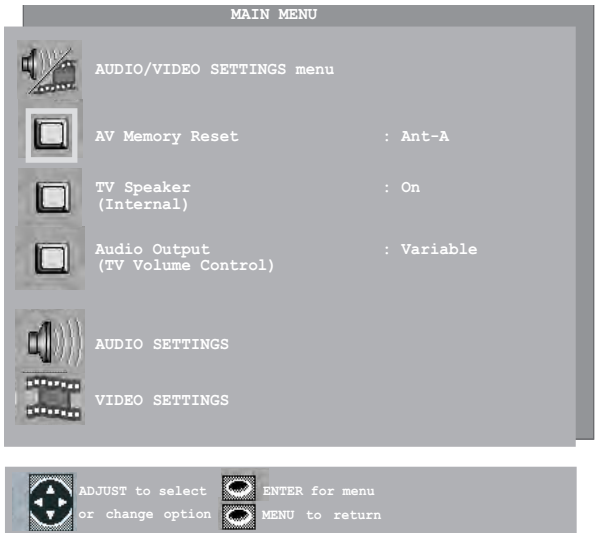


Figure 3. *AUDIO/VIDEO SETTINGS menu*

SETUP Menu: Memorize Channels/INPUT ASSIGNMENT

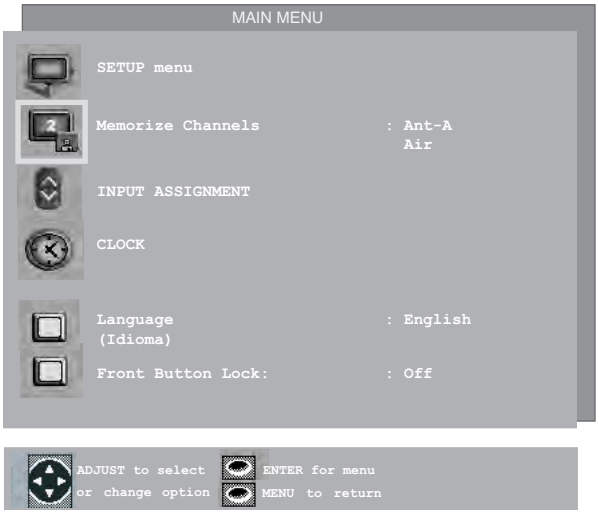


Figure 1. *Memorize Channels*

Figure 2. *MEMORIZE menu (Memorize Channels in memory)*

Figure 3. *INPUT ASSIGNMENT menu*

Memorize Channels

(Figure 1)

This selection memorizes the channels your TV can receive and skips the unused or weak channels.

IMPORTANT

- **DTV Note: If you have a DTV receiver connected, you will need to use that receiver's channel memorization system to memorize digital channels.**

MEMORIZE Menu

(Figure 2)

You can stop memorization at any time by pressing CANCEL. Channels memorized prior to pressing CANCEL will stay in memory. After channels are memorized, you may select memorized channels in ascending or descending order by pressing the CHANNEL button on the remote control.

INPUT ASSIGNMENT Menu

(Figure 3)

INPUT ASSIGNMENT turns off unused inputs, turns them on again, or changes the name of the input. If you turn an input Off, it will be skipped when you press the INPUT button on the remote control. Input choices are:

- Antenna-A or Antenna-B: On or Off.
- DTV: YPbPr, RGB, or Off.
- INPUT-1, INPUT-2, INPUT-3: Cycle through a list of preset names, or Off.
- COMPONENT-1 or COMPONENT-2: Cycle through a list of preset names, or Off.

SETUP Menu: Language / Front Button Lock

Language

(Figure 1)

Display the on-screen menus in either English or Spanish (Español). The first time your power On your TV, you were requested to select an on-screen menu language. When you change the selection to Español, all text will immediately switch to Spanish.

Figure 1. *Language / Idioma*

Front Button Lock

(Figure 2)

Front Button Lock lets you disable controls on the front panel to prevent young children from changing settings by accident.

Select On to lock out the operations of the front panel button and select Off to restore the operations of the front panel buttons. If the front panel buttons have been locked and you misplace the remote control, you can restore the function of the front panel buttons by pressing and holding the MENU button on the front panel for more than 8 seconds. If the TV is already on, a message will be displayed to confirm the release of the Front Button Lock.

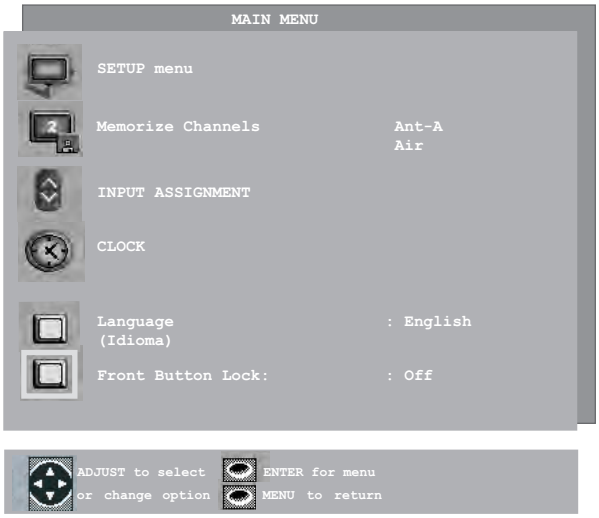


Figure 2. *Front Button Lock*

CLOCK Menu: Clock Setting / Tme Zone / D.S.T.

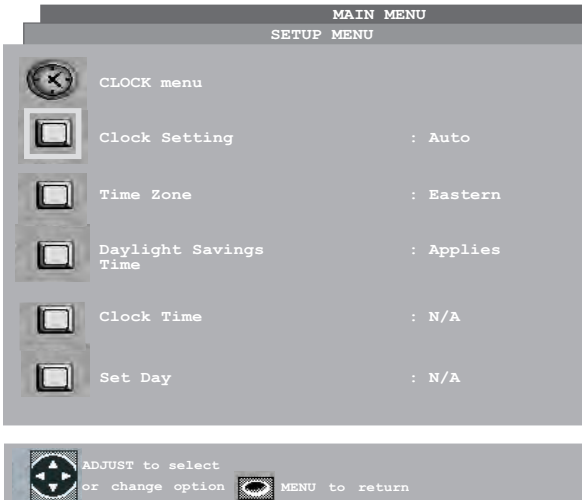


Figure 1. *Clock Setting (Auto)*

Clock Setting (Auto)

(Figure 1)

Setting the Clock Setting to Auto will automatically set the day and time using Extended Data Service (XDS) time data. This data is automatically retrieved when tuned to a PBS channel or other channels carrying this service.

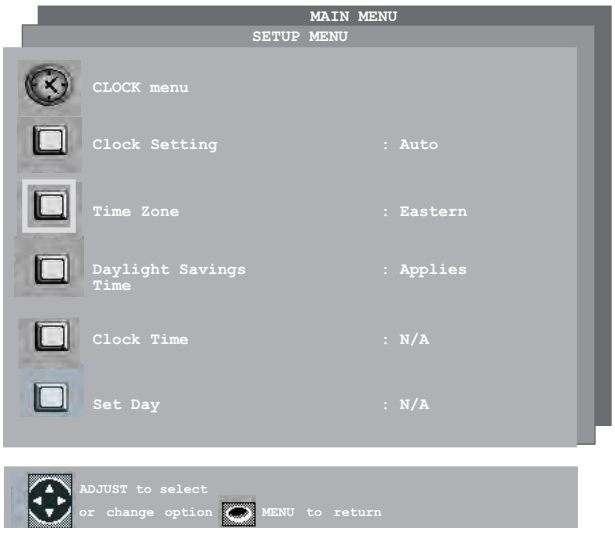


Figure 2. *Time Zone*

Time Zone

(Figure 2)

When Auto has been selected for the Clock Setting, you need to select the correct time zone (Atlantic, Eastern, Central, Mountain, Pacific, Alaska, or Hawaii) for your area.

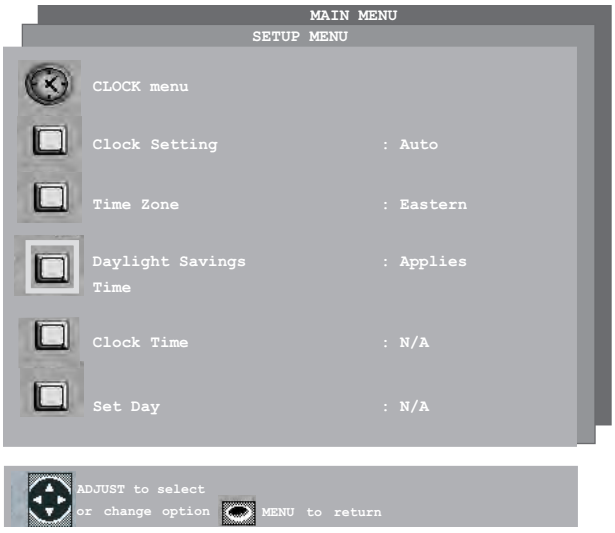


Figure 3. *Daylight Savings Time*

Daylight Savings Time

(Figure 3)

When Auto has been selected for the Clock Setting, you need to select the Daylight Savings Time (DST) option that your state uses.

Applies = uses DST
Ignore = does not use DST

The clock time and day will be set automatically after tuning to a channel carrying the Extended Data Service (XDS) time data (usually your local PBS channel).

Clock Menu: Clock Time / Set Day

Clock Time

(Figure 1)

For the manual clock setting, select the current time, including AM or PM.

Press ▲ or ▼ to slowly adjust the time. Press and hold ▲ or ▼ to quickly adjust the time.

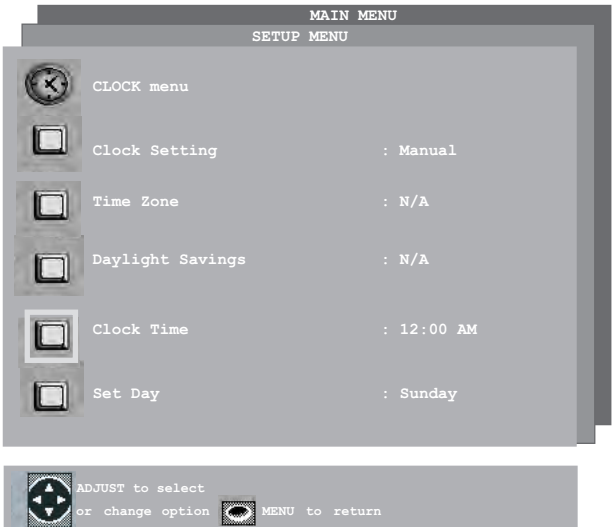


Figure 1. *Clock Time*

Set Day

(Figure 2)

When Manual has been selected for the Clock Setting, you need to select the current day of the week.

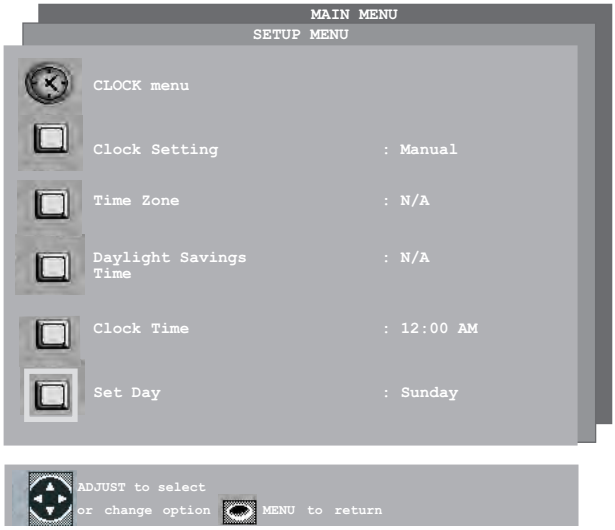


Figure 2. *Set Day*

CAPTIONS Menu: Closed Captions

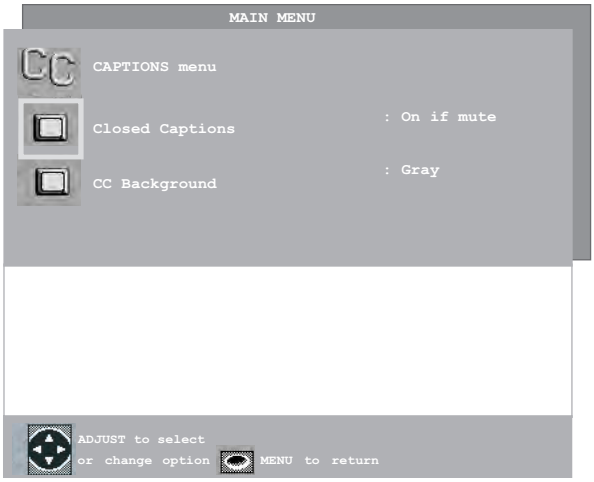


Figure 1. *CAPTIONS menu*

CAPTIONS Menu

(Figure 1)

Broadcasters can send either Standard or Text closed captioning. Standard closed captioning follows the dialogue of the characters on-screen and displays in a small section of the screen. Text closed captioning often contains information such as weather or news and covers a large portion of the on-screen program. Your TV can decode four different standard and four different text closed captioning signals from each TV station. However, each TV station may broadcast only one or two closed captioning signals, or none at all.

Within the CAPTIONS menu, you can turn On or Off the closed caption decoder, select the type of captions or text, and choose black or translucent gray as the background color for the closed caption area.

IMPORTANT

- **When Text closed captioning is selected, a large black or gray box will appear on your TV screen if no signal is broadcast.**

Figure 2. *Closed Captions*

Closed Captions

(Figure 2)

The TV can display one of the following:

- CC1, CC2, CC3, or CC4: Standard closed captioning signals.
- Text1, Text2, Text3, or Text4: Text closed captioning signals.
- On if mute: Closed captions when mute. When selected, the standard closed captioning signal (CC1) will turn on/off by pressing the MUTE button on the TV remote control.
- Off: No closed captions.

CAPTIONS Menu: CC Background

CC Background

(Figure 1)

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

Note: Mitsubishi recommends using the translucent gray background to prevent CRT aging and/or burn-in.

Figure 1. *CAPTIONS menu*

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.**

CHANNEL EDIT Menu: Antenna and Channel

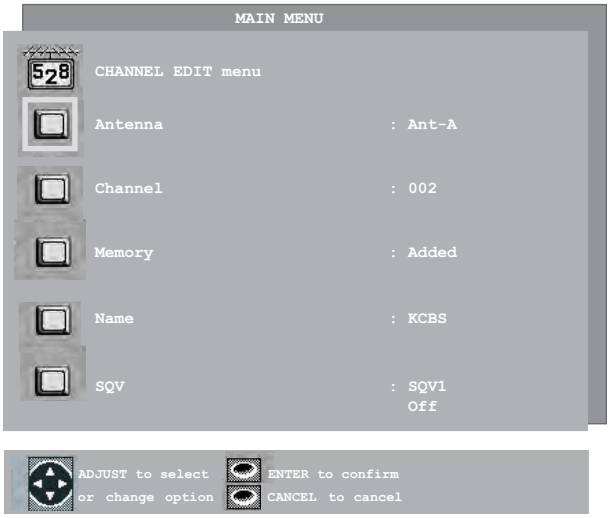


Figure 1. *Antenna*

Antenna

(Figure 1)

Select Ant-A or Ant-B. For each antenna, you can add or delete channels in memory, name channels, and add channels to the SQV (Super Quick View™) list.

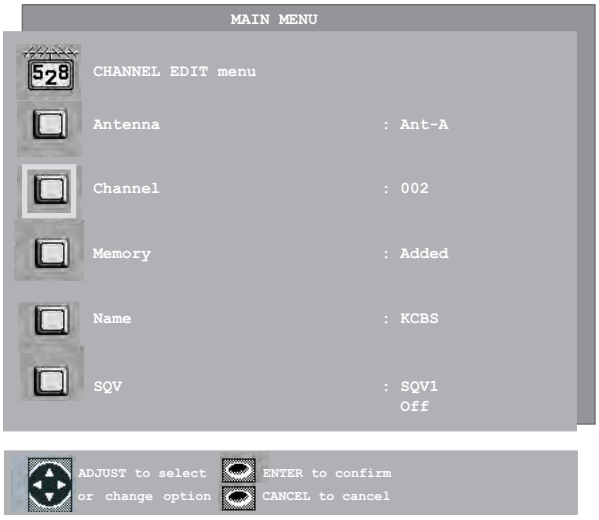


Figure 2. *Channel*

Channel

(Figure 2)

Select the channel you want to add or delete from memory, name, or add to the SQV (Super Quick View™) list.

CHANNEL EDIT Menu: Memory and Name

Memory
(Figure 1)

After all available channels have been memorized with *Memorize Channels* (page 31), weaker channels viewed with Ant-A or Ant-B can be added and unwanted channels can be deleted.
Use the CHANNEL button on the remote control to view memorized channels.

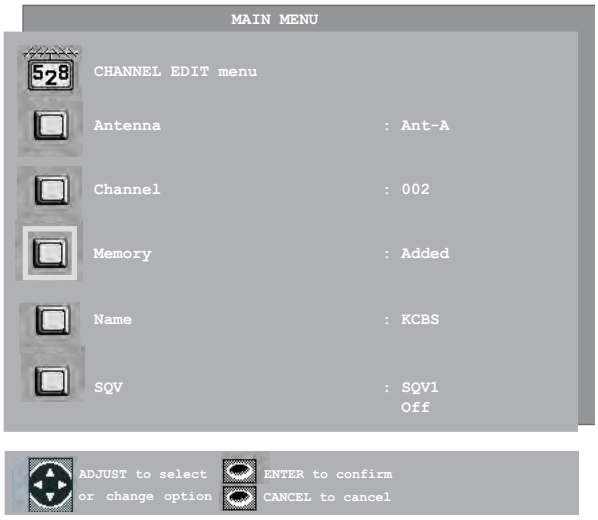


Figure 1. *Memory*

Name
(Figure 2)

Channels shown on Ant-A or Ant-B can be given names (up to four characters). After you enter a name, it will appear on the TV screen next to the channel number.

1. Select Ant-A or Ant-B.
2. Select the memorized channel you want to name.
3. Press ADJUST until you see the underline highlighted in the Name field.
4. Use ADJUST ▲ or ▼ to select letters A-Z, numbers 0-9, and/or symbols (!.&'/:*- and blank) for each character of the name you would like for the selected channel. Press ENTER after choosing each letter and after the name is complete. If you want to change your selection while on the option field, use CANCEL to delete the current character. You will move one position back. If you press CANCEL while at the first character, the entire name will be deleted.

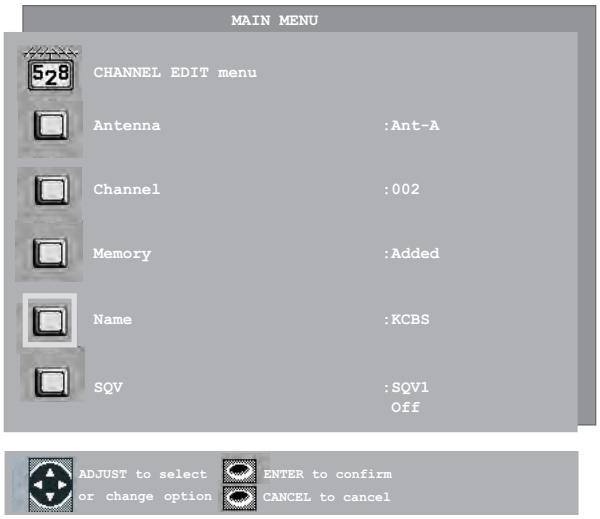


Figure 2. *Name*

CHANNEL EDIT Menu: SQV (Super Quick View™)

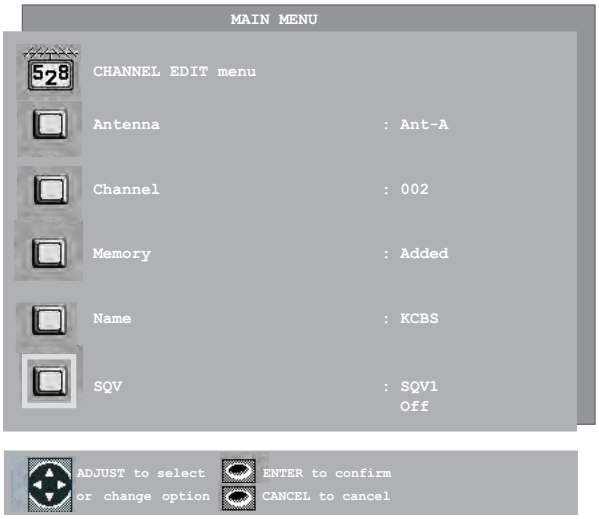


Figure 1. *SQV (Super Quick View™)*

SQV (Super Quick View™)
Using The Menu Screen
(Figure 1)

SQV (Super Quick View™) allows you to put together a list of your favorite channels from Ant-A and Ant-B. You can store up to 6 channels in each of the 9 different memory banks. Once you have added a channel to the SQV memory, "SQV" will appear under the channel number on the TV screen.

Changing SQV channels and banks using the menu:

1. Press ▲ or ▼ when at Channel in the menu or use the CHANNEL button on the remote control to select the channel you wish to add or delete from a SQV memory bank.
2. Press ▶ when at SQV in the menu to move the selector to the On/Off choice.
3. Press ▲ or ▼ when at SQV in the menu to select the SQV memory bank you wish to modify.
4. Press ENTER to add (On) or delete (Off) the current channel from the SQV memory bank that you have selected.

SQV (Super Quick View™)
Using The Remote Control

Changing SQV banks using the remote control:

1. Press the SQV button.
2. To change memory banks, press a number button within 5 seconds of pressing the SQV button.

Viewing and Adding SQV channels using the remote control:

1. Use the CHANNEL or number buttons to select the channel you want to add to the current SQV memory bank.
2. Press and hold the SQV button for about 3 seconds. When "SQV" and the memory bank number appear under the channel number, the channel has successfully been added.

Removing SQV channels using the remote control:

1. Press the SQV button repeatedly until you see the desired channel.
2. While the channel number and SQV indicator are still displayed on the screen, press the CANCEL button. If the CANCEL button is not pressed before the SQV indicator disappears, the channel will not be removed.
3. When the SQV indicator disappears, the channel has successfully been removed.

V-CHIP Menu: V-CHIP LOCK

Entry to the V-CHIP LOCK

(Figures 1-2)

The first time you select V-CHIP LOCK from the MAIN menu or after you have canceled your passcode, you will see the screen shown in Figure 1. Use the number buttons on the remote control to input a new four-digit passcode, then press ENTER. You can delete a character and move back one character by pressing CANCEL, or leave the passcode screen by pressing MENU or HOME. The next time you select V-CHIP LOCK from the MAIN menu, input your passcode as shown in Figure 2 (Note: Text changes from “a new” to “your” passcode.)

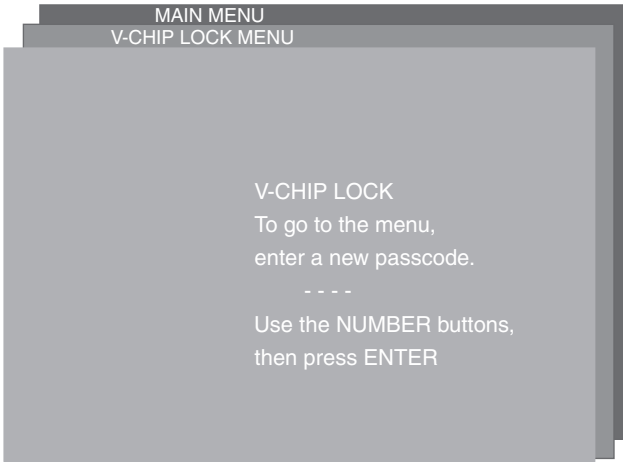


Figure 1. *First time entry to the V-CHIP LOCK*

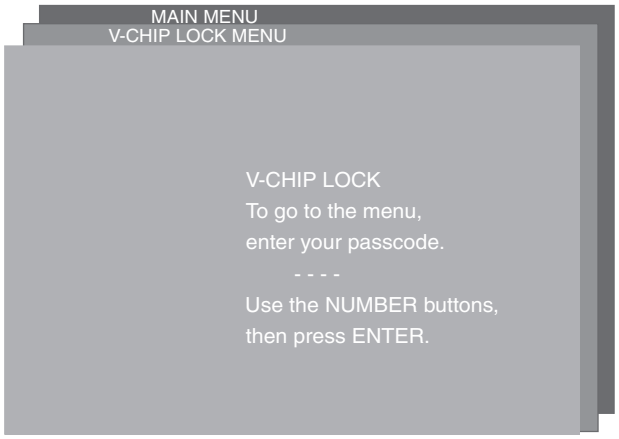


Figure 2. *Re-entry to the V-CHIP LOCK*

V-CHIP LOCK

(Figure 3)

You can Block or Allow programs based upon rating signals sent by the broadcasting station. The factory preset for TV Ratings is TV-PG (Parental Guidance) allowing only programs rated TV-PG or lower. The factory preset for Movies is PG, allowing only movies rated PG or lower.

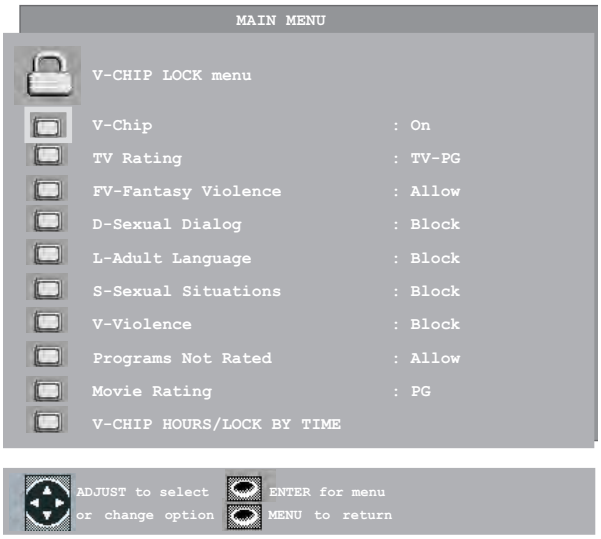


Figure 3. *V-CHIP LOCK menu*

IMPORTANT

➡ **If you forget your four-digit passcode, see *Appendix A*, page 66.**

V-CHIP LOCK Menu: V-Chip (continuation)

V-Chip Signal Information

When provided by the broadcaster, V-Chip ratings can be used to control which programs can be viewed or will be blocked. When V-Chip ratings are sent, you will see the ratings when you change the channel or when you press the INFO button on the remote control. The V-Chip rating includes both TV and Movie ratings. TV ratings apply to programs and movies developed for TV. TV ratings can have supplemental blocking by content categories. Movie ratings use MPAA ratings for movies released in theaters.

TV Ratings:

Used with TV programs and made for TV movies.

TV-Y Youth, designed for children under the age of 7.
TV-Y7 Youth, 7 years old and older. Designed for children 7 years old and older.
TV-G General Audience. Designed for the entire family to view.
TV-PG Parental Guidence. Parental Guidence is recommended, may not be suitable for some children.
TV-14 Adolescent 14 years old and older. Not recommended for children under the age of 14.
TV-MA Mature Audience. Recommend for adults only.

Content Categories:

Used in association with the TV ratings above.

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 different degrees to TV-PG, TV-14, and TV-MA.
S Sexual Situations- applies in different degrees to TV-PG, TV-14, and TV-MA.
V Violence (graphic or realistic)- applies in different degrees to TV-PG, TV-14, and TV-MA.

TV Rating	FV	D	L	S	V
TV-Y					
TV-Y7	×				
TV-PG		×	×	×	×
TV-14		×	×	×	×
TV-MA			×	×	×

Movie Ratings:

Used with theater released movies and direct-to-video movies.

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

Programs Not Rated: Used for programs that are not rated like news, sports, weather, emergency bulletins, or movies such as those prior to or without MPAA Ratings. This does not include programs without V-Chip signals.

IMPORTANT: If you select to block programs that carry the V-Chip rating "Programs Not Rated," you may block News or Emergency Bulletins. The "None" or "NR" Not Rated V-Chip rating is included. Care should be used when blocking programming that is not rated.

When you select a TV or Movie rating, you are selecting the highest level of program that will be allowed to be viewed. As an example, if you select TV-PG, you are allowing programs rated TV-Y, TV-Y7, TV-G and TV-PG to be seen and blocking programs rated TV-14 and TV-MA. If you select a movie rating of PG-13, you are allowing movies rated G, PG and PG-13 to be seen and blocking movies rated R, NC-17, and X. When you select a TV Content category, you will block all TV programs that have the same content category listing. As an example, if you select to block V (Violence) at the TV-14 level, you will also block any program that has the V category listing at the TV-PG rating level as well.

IMPORTANT: V-Chip is effective only for programs viewed on Ant-A and Ant-B or from devices connected to Inputs 1-3. It is not effective for programs viewed on devices connected to Component 1 and 2 or DTV input.

IMPORTANT: Videotapes, laser discs, and DVD's may not contain V-Chip rating signals, in this case V-Chip cannot block the program or movie.

IMPORTANT: Broadcasters are not currently required to include V-Chip rating signals at this time. If the broadcaster does not include the V-Chip rating signal, V-Chip cannot block the program.

V-CHIP LOCK Menu: V-Chip Hours / Lock by Time

V-CHIP HOURS / LOCK BY TIME

(Figure 1)

V-CHIP HOURS / LOCK BY TIME will allow you to activate the V-Chip or lock the entire TV during specific hours.

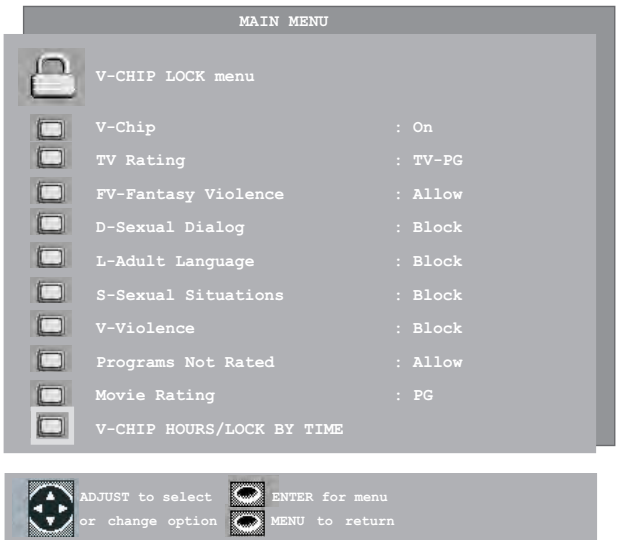


Figure 1. *V-CHIP HOURS / LOCK BY TIME*

V-CHIP Start Time and V-CHIP Stop Time

(Figure 2)

Select the times you would like the V-Chip to be Active. By setting the V-Chip Start Time and V-Chip Stop Time to the same time, the V-Chip will be active 24 hours a day.

Press ▲ or ▼ to slowly adjust the time. Press and hold ▲ or ▼ to quickly adjust the time.

Lock by Time, Lock Time, and Unlock Time

(Figure 2)

Lock by Time locks the entire TV when Lock by Time is On. Your TV continues to be locked until you input your passcode, or when the locked time expires.

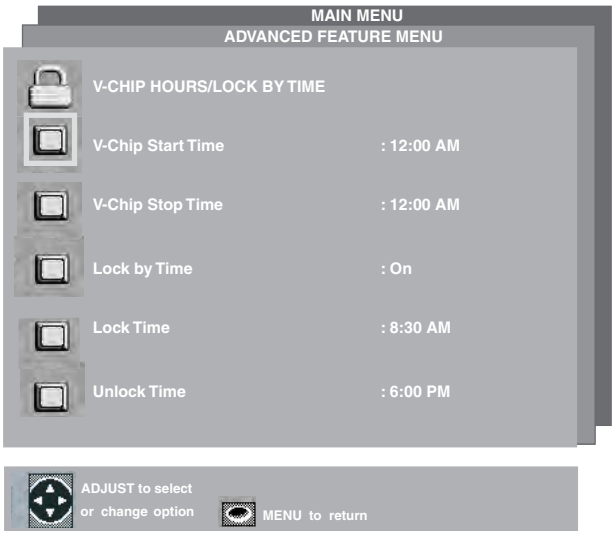


Figure 2. *V-CHIP HOURS / LOCK BY TIME*

Passcode Screen

(Figure 3)

To view a program blocked by V-Chip or watch the TV blocked by Lock by Time, you must enter your four-digit passcode. The figure to the right shows the passcode request when Lock by Time has blocked the TV. A similar passcode request is displayed when V-Chip has blocked a program. A released block will not block again until the TV is turned off. When the TV is turned on again, if the block still applies, the passcode is requested again.

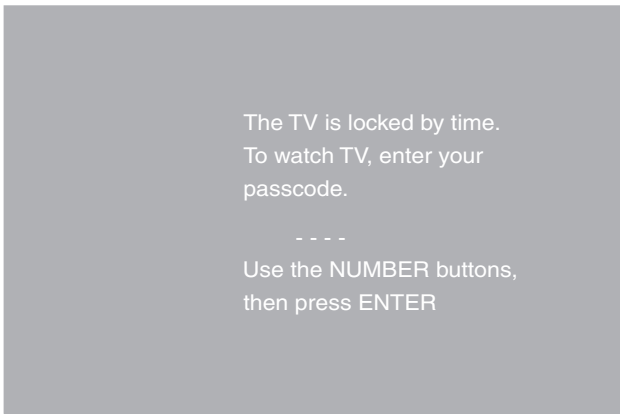


Figure 3. *Passcode Screen*

ADVANCED FEATURES Menu: TIMER, Timer Menu, and Set Time

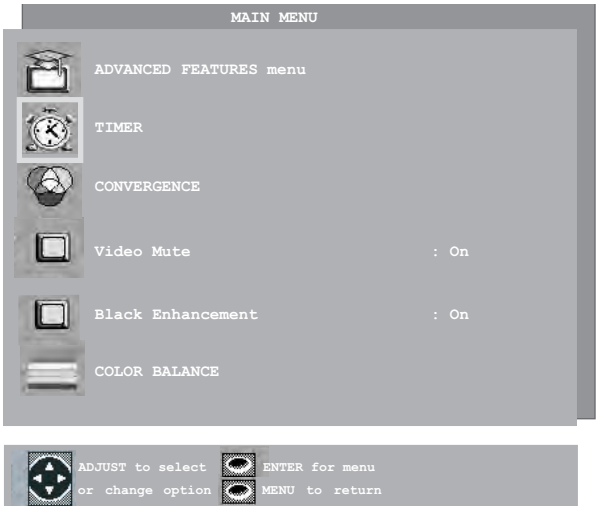


Figure 1. *ADVANCED FEATURES menu (Timer)*

Figure 2. *TIMER menu (Timer)*

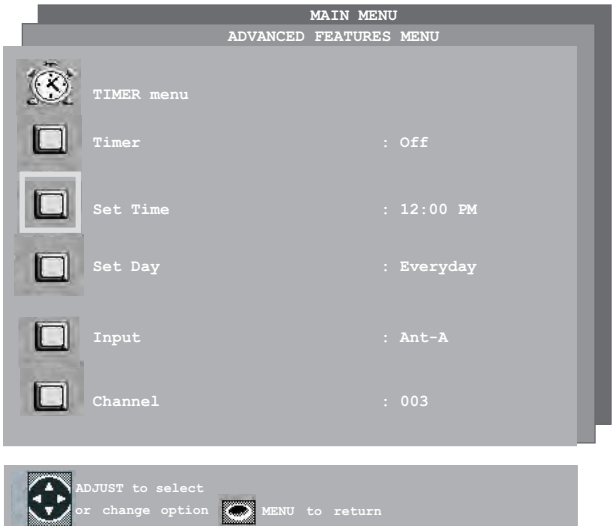


Figure 3. *TIMER menu (Set Time)*

TIMER

(Figure 1)

The timer will automatically turn the TV on (if it is off) at the time you schedule and select. When Ant-A or Ant-B is the selected input, you may select any memorized channel. The TV will tune to this channel when the timer turns it on.

IMPORTANT

➔ **The TV's clock must be set before you can set the timer. If you have not set the clock and/or day, you will see the CLOCK menu instead of the Timer menu.**

TIMER menu

(Figure 2)

The timer can be turned On or Off. When On, you need to select the time and the day to turn On and the input and channel to display. At your preselected time, the timer will turn the TV on and a message will be displayed, "Press a key for the TV to stay on." Any button on the remote control must be pressed within 5 minutes or the TV will turn itself off.

Set Time

(Figure 3)

Select the hour and minute, including AM or PM, when the TV is to turn on.

Press ▲ or ▼ to slowly adjust the time. Press and hold ▲ or ▼ to quickly adjust the time.

ADVANCED FEATURES Menu: Set Day, Input, and Channel

Set Day
(Figure 1)

Select the days that the TV will turn on automatically. You can select Everyday, Mon-Fri (Monday through Friday), or the individual days of the week.

Figure 1. *TIMER menu (Set Day)*

Input
(Figure 2)

Select the input to use when the timer turns on the TV. If the TV is already on, the timer will turn the TV to this selected input.

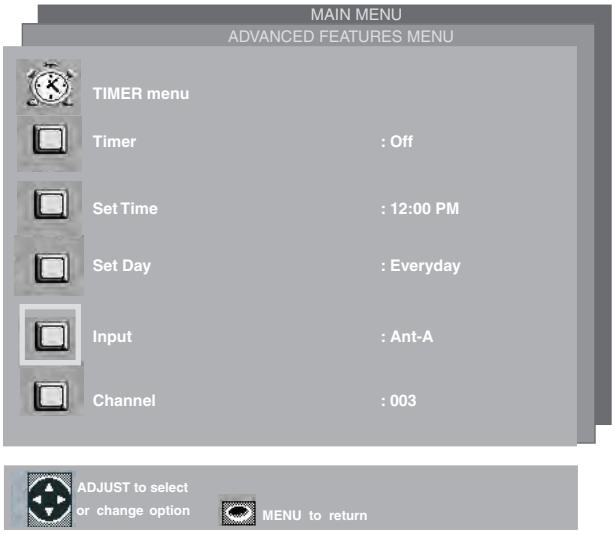


Figure 2. *TIMER menu (Input)*

Channel
(Figure 3)

If the selected input is for Ant-A or Ant-B, the timer will turn the TV to the selected channel.

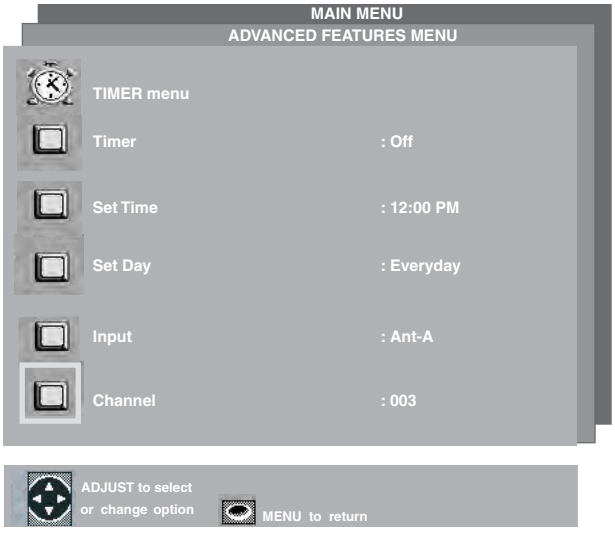


Figure 3. *TIMER menu (Channel)*

ADVANCED FEATURES Menu: CONVERGENCE

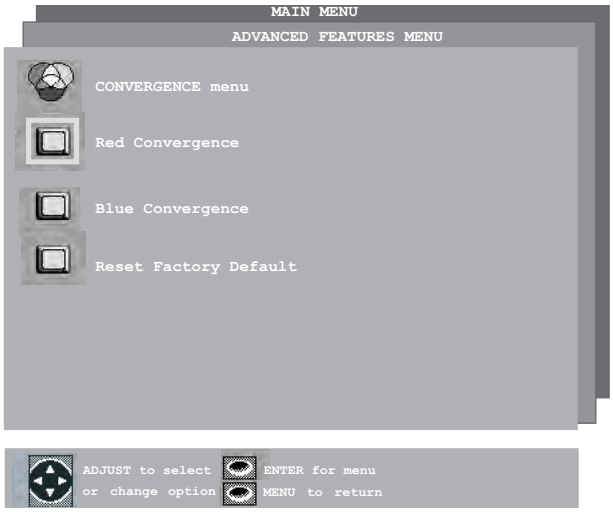


Figure 1. *CONVERGENCE menu*

CONVERGENCE Menu

(Figure 1)

Your Mitsubishi TV has three picture tubes which are aligned to properly converge the projected light beams on the screen. Each picture tube projects a single color of red, blue or green. During production, your TV was carefully adjusted to properly align these colors. As a special feature, you have the ability to adjust the red and blue light beams in reference to the fixed green light beam. This process is called convergence. Convergence aligns the entire screen at once. Select either Red Convergence or Blue Convergence to begin alignment.

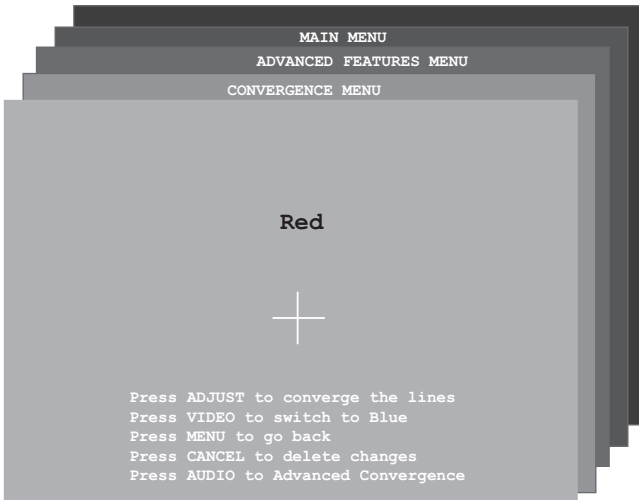


Figure 2. *Convergence screen*

Convergence Screen

(Figure 2)

When the Red and Blue crosshairs are properly converged, the center-screen crosshairs will appear white. You can use ▲, ▼, ◀, or ▶ to move the Red and Blue crosshairs. Press VIDEO to switch between Red and Blue. Press AUDIO for the Advanced Convergence screen.

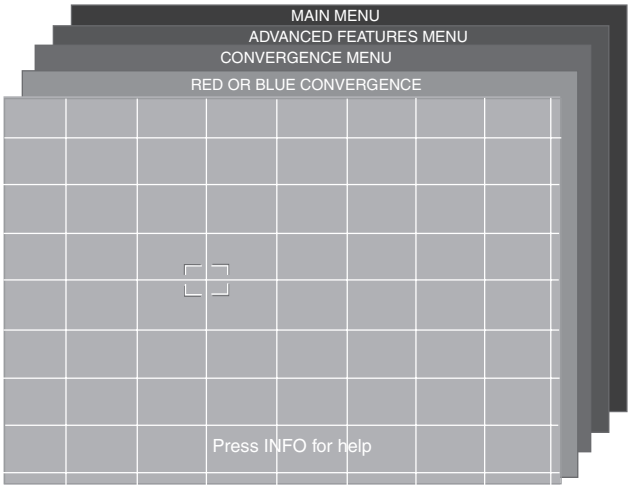


Figure 3. *Advanced Convergence screen*

Advanced Convergence

(Figure 3)

After adjusting the Red Convergence and Blue Convergence, you can fine-tune your TV by adjusting the Red and Blue convergence at 64 individual points. Move the flashing bracket to a position needing adjustment by pressing ▲, ▼ ◀, or ▶. Press ENTER to select the position (flashing will stop). Move the Red or Blue line by pressing ▲, ▼, ◀, or ▶. Press VIDEO to switch between the Red and Blue lines. A position is properly converged when all three lines combine to appear white. Press ENTER to deselect the position (flashing will resume), and move the brackets to the next position needing adjustment. When completed, press MENU to save your changes, and exit the Advanced Convergence screen.

ADVANCED FEATURES Menu: Reset Convergence, Video Mute, Black Enhancement

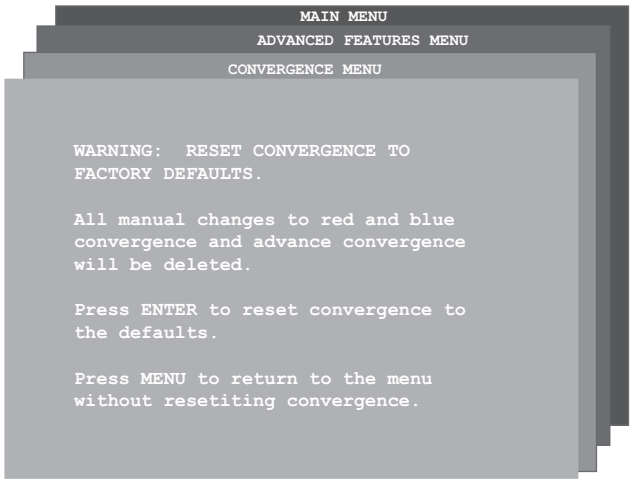


Figure 1. *RESET CONVERGENCE TO FACTORY DEFAULTS*

RESET FACTORY DEFAULTS

(Figure 1)

If you do not want to reset the convergence, press the MENU key to return to the Convergence menu without performing a reset.

You may reset the red and blue convergence to factory default settings when you first use your TV or after making manual changes. Press the ENTER key to restore the convergence to the default settings. All the changes you made manually will be deleted. The message "Convergence Completed" appears when the convergence reset process ends.

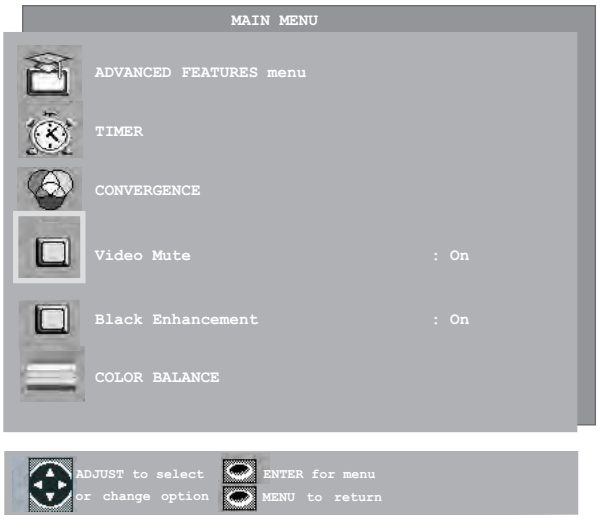


Figure 2. *Video Mute/Black Enhancement*

Video Mute

(Figure 2)

Video Mute lets you display a blue or gray background when no signal is being received on Inputs 1-3, DTV, and Component 1-2.

Black Enhancement

(Figure 2)

The contrast in dark scenes is enhanced for better picture quality. Brighter scenes will not be affected.

ADVANCED FEATURES Menu: Color Balance

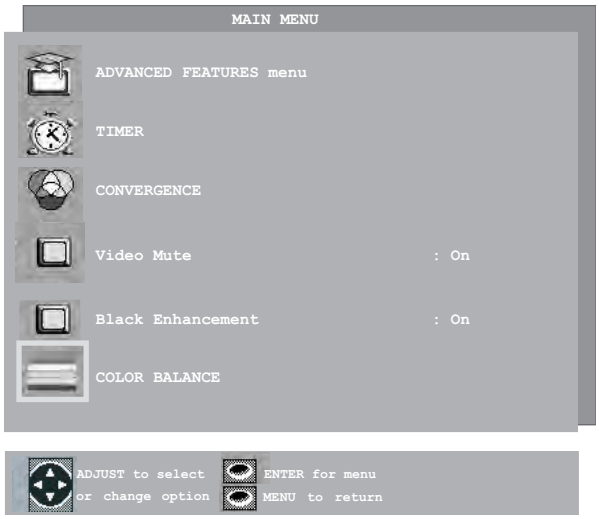


Figure 1. *COLOR BALANCE*

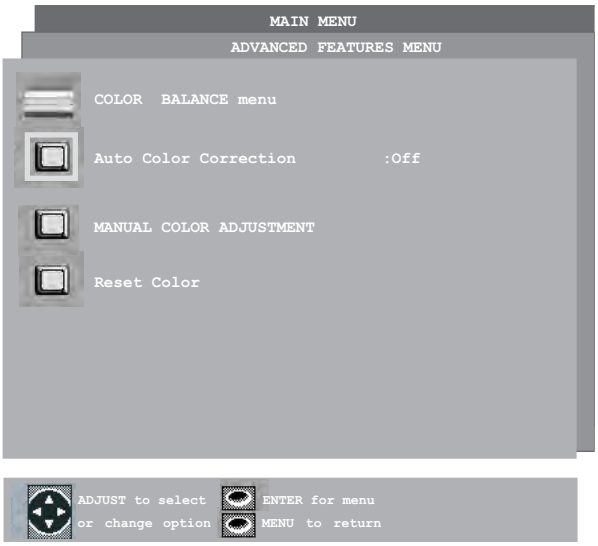


Figure 2. *Auto Color Correction*

Figure 3. *Manual Color Balance screen*

Color Balance

(This feature only applies to 480i signal sources affecting all inputs.) (Figure 1)

Your Mitsubishi TV uses six basic colors (Magenta, Red, Yellow, Green, Cyan and Blue) for color balancing. You may refine the colors on your TV screen automatically or manually. You can also reset the colors to the default settings, if you prefer.

Auto Color Correction

(Figure 2)

Set the Auto Color Correction option to On to optimize skin tone color. Both Manual Color Adjustment and Reset Color options are grayed out and unavailable when On is selected for Auto Color Correction.

Manual Color Adjustment

(Figure 3)

Press Enter to display the menu for manual color adjustment. The menu includes sliders for Magenta, Red, Yellow, Green, Cyan and Blue. The default for each color is center. The slider you are adjusting is for the color with the highlighted text.

Note: The color bar test pattern signal found on certain DVDs and non-broadcasting TV stations can be used in conjunction with this adjustment.

Press Adjust ▲ or ▼ to navigate between colors and Adjust ◀ or ▶ to change the color slider settings.

The Manual Color Adjustment option is only available when Auto Color Correction is turned Off.

Reset Color

(Figure 2)

Use the Reset Color option to reset to the factory default settings used for Auto Correction. “Reset Completed” appears when the color reset is complete.

Reset Color is only available when Auto Color Correction is Off.

AUDIO/VIDEO SETTINGS Menu: Audio Output

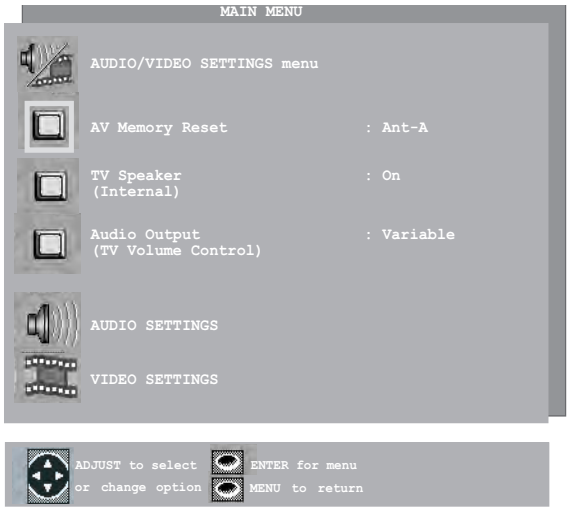


Figure 1. *AUDIO/VIDEO SETTINGS menu (A/V Memory Reset)*

AUDIO/VIDEO SETTINGS Menu

(Figure 1)

Each of the seven or eight inputs has its own A/V memory. You can adjust each input's A/V memory in two ways. You can use the menu or the remote control.

A/V Memory Reset

A/V Memory Reset will return the currently selected input's A/V memory to the factory settings. To reset an input's A/V memory, select A/V Memory Reset, select the input you want to reset, and press ENTER.

TV Speakers

This selection will turn on or off the TV's internal speakers. You may select Off when sending the sound through a separate stereo system or surround sound A/V receiver.

Audio Output

Select Fixed if your audio receiver or stereo system can be controlled with a remote. This allows you to adjust the volume with the system's remote control or the TV remote control, if compatible. This setting is better for surround sound receivers. Select Variable if your audio receiver or stereo system cannot be controlled with a remote. This allows the TV's internal circuitry to adjust the volume.

AUDIO SETTINGS and VIDEO SETTINGS

After selecting AUDIO SETTINGS or VIDEO SETTINGS, you can adjust the settings by pressing ▲, ▼, ◀, or ▶. For descriptions of the individual A/V settings see *A/V Setting Descriptions*, pages 49-50.

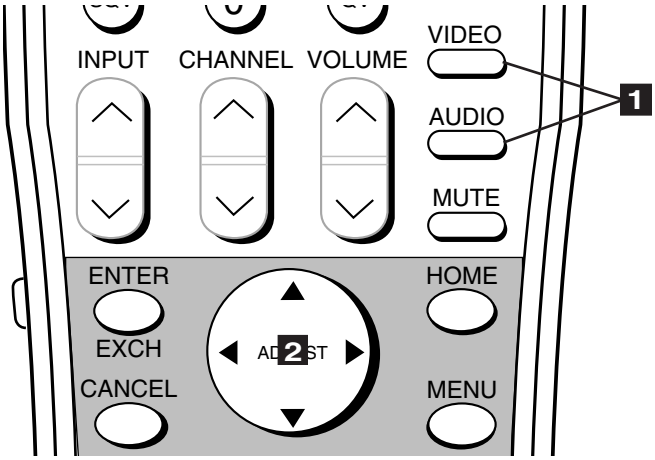


Figure 2. *The AUDIO, VIDEO, and ADJUST buttons.*

Using the AUDIO and VIDEO Buttons on the Remote Control

(Figure 2)

1 Press AUDIO or VIDEO to cycle through the available settings.

2 Press ◀ or ▶ to adjust the setting. After 5 seconds of inactivity, the setting display will disappear.

A/V Setting Descriptions: Audio

Audio Settings

- **Bass** enhances or reduces low frequency sound.
- **Treble** enhances or reduces high frequency sound.
- **Balance** adjusts the level of sound between the left and right speakers.
- **Surround** creates simulated stereo and surround effects. Your choices are:
  - **Off**: No surround effects. Use this setting when using an A/V receiver with Dolby™ Pro Logic Surround, or Dolby™ Digital Surround.
  - **Simulated Stereo**: Your TV will create a simulated stereo effect when watching a non-stereo program.
  - **Surround Sound**: Your TV will create a simulated surround effect when watching a stereo program.
- **Listen to** (for Ant-A and Ant-B) determines how your TV will receive a broadcast audio signal and play back the sound you hear. Your choices are:
  - **Stereo**: Default setting. The TV will play stereo broadcasts in stereo and mono broadcasts in mono. The word “Stereo” will be displayed when you tune to a channel broadcasting stereo.
  - **SAP (Second Audio Program)**: Additional monaural soundtrack that you cannot hear during normal TV viewing. The SAP signal might be related to the program you are watching, such as a soundtrack in a foreign language, or unrelated to the program you are watching such as a weather report. If a SAP signal is broadcast, the letters “SAP” will be displayed when you tune to the channel.
  - **Mono**: Reduces background noise and should be used when receiving a weak stereo audio signal. All audio will be played mono with this setting.
- **Listen to** (for INPUTs) is not available.
- **Level Sound** automatically equalizes the volume level of programs containing significant level differences from one segment to another (for example, regular programming to commercials). To receive the best fidelity with music programs, you can turn this setting to Off.

A/V Setting Descriptions: Video

Video Settings

- **Contrast** 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.
- **Brightness** provides a slider to adjust the overall brightness of the picture.
- **Sharpness** provides a slider to adjust the detail and clarity.
- **Color** provides a slider to adjust the color intensity.
- **Tint** provides a slider to adjust the proportion of red to green.
- **Color Temp** (Color Temperature) allows you to adjust how white images are displayed. Your choices are:
  - **Low 6500K** or **Low** (for DTV): White images will have a warm cast to them. This adjustment is an average and can vary due to ambient room lighting, video scene brightness and the TV's age. The Low 6500K represents the 6500K industry standard for NTSC (non-DTV) pictures.
  - **Medium**: White images will be balanced between the Low (warm) and High (cool) settings.
  - **High**: White images will have a cool cast to them. This setting may provide the most realistic picture under bright lighting.
- **Video Noise** reduces minor noise (graininess) in the broadcast or input signal.

- **Film Mode (Automatic)**

Video media uses a video camera created at 30 frames per second. Film media uses a film camera created at 24 frames per second. Examples of video media are live TV broadcast such as news, special events, or video taped programs. Examples of film media are motion pictures, made-for-TV movies, and many prime time programs. Filmed media is converted by the broadcaster or home video company to 30 frames per second to match TV or video standards. This conversion can leave subtle "picture artifacts" or conversion errors.

The settings are On and Off. If you select On, the system automatically detects if the signal source is Film and corrects for conversion errors. If you select Off, the system will never correct for conversion errors.

Velocity Scanning Modulation (VSM) Sharpness

When turned On selected image outlines are emphasized, resulting in sharper images. The default is On. When turned Off, the velocity scanning modulation function is prevented.

Warning: Do not leave stationary or letterbox images on-screen for extended periods of time. Mix the types of pictures shown. Uneven picture tube aging is NOT covered by your warranty.

The normal use of a TV should include a mixture of TV picture types. The most frequently used picture types should fill the screen with constantly moving images rather than stationary images or patterns. Displaying the same stationary patterns over extended periods of time or displaying the same stationary pattern frequently may leave a subtle but permanent ghost image. To avoid this, mix your viewing pattern. Do not show the same stationary image for more than 15% of your total TV viewing in any given week. Display constantly moving and changing images that fill the screen whenever possible.

This projection TV uses picture tubes to project the image to the screen. **All picture tubes age with use.** As they age, their light output is gradually reduced. Normal TV pictures fill the screen with constantly changing images. Under these conditions, picture tubes age at an even rate across the entire screen. This maintains a TV picture that is evenly bright over the whole screen. Stationary images or images that only partially fill the screen (leaving black or colored bars to fill the screen), when used over extended periods of time or when viewed repeatedly may cause uneven aging of the phosphors and leave subtle ghosts of the stationary images in the picture.

Still or stationary images may be received from broadcasters, cable channels, satellite channels, DVD discs, video tapes, laser discs, on-line services, web/Internet searching devices, video games, and digital TV tuner/converter boxes. Examples of these types of images can be, but are not limited to the following:

- **Letterbox top/bottom black bars**: shown at the top and bottom of the TV screen when you watch a widescreen (16:9) movie on a standard (4:3) TV.
- **Side bar images:** solid bars shown on each side of an image when watching a standard (4:3) program on a widescreen (16:9) TV.
- **Stock-market report bars:** ticker running at the bottom of the TV screen.
- **Shopping channel logos & pricing displays:** bright graphics that are shown constantly or repeatedly in the same location.
- **Video game patterns and scoreboards**
- **Bright station logos:** moving or low-contrast graphics are less likely to cause uneven aging of the picture tubes.
- **Online (Internet) websites:** or any other stationary or repetitive computer style images.
- **Closed Captioning**

Part IV

Operation

Remote Control Functions..... 54-65

Overview.....54

Care and Operation 55

Channel Selection 56

Sleep Timer 56

System 4 Home Theater IR Control 57

Special Functions 58-65

Operation of PIP and POP... 58-65

Display Formats..... 60-65

Remote Control Functions: Overview

Overview

(Following page, Figure 1)

1. **Slide Switch**: Select A/V product to be controlled by the remote control.
2. **Numbers**: Individually select channels or input information into TV.
3. **POWER**: Turns power on and off for TV and other A/V products.
4. **SQV (Super Quick View™)**: Scan through a memorized list of favorite channels.
5. **QV (Quick View™)**: Switch to last channel viewed.
6. **HOME THEATER:** Enables the System 4 Home Theater Control. Once enabled, a press of this key (when in the VCR, DVD, or Cable/DTV/DBS layer), will automatically switch the inputs of the A / V receiver and the TV. (WS-55411, WS-65411 and WS-73411 ONLY)
7. **SLEEP**: Set the TV to turn off within 2 hours. See *Sleep Timer*, page 56, for setup instructions.
8. **VIDEO**: Select the video settings.
9. **AUDIO**: Select the audio settings.
10. **MUTE**: Turn sound on or off.
11. **INPUT**: Select the signal to view (Ant-A, Ant-B, DTV, Input-1, Input-2, Input-3, Component-1, or Component-2).
12. **CHANNEL**: Scroll up or down through memorized channels.
13. **VOLUME**: Change sound level.
14. **ENTER/EXCH**: Select a channel number or menu item. Exchange PIP or POP and main TV picture.
15. **HOME**: Exit on-screen menus and return to TV viewing.
16. **ADJUST**: Navigate menus, change settings, and move the PIP on-screen location.
17. **CANCEL**: Clear SQV and some menu entries.
18. **MENU**: Display ▶ViewPoint® on-screen menu system.
19. **INFO**: Display on-screen summary of the current input used and any broadcast information available (including current V-Chip information, Signal Source and Format). Additionally, if you press the INFO key, it will display time, day and sleep time.
20. **GUIDE**: When the slide switch is set to CABLE/DBS/DTV, display the on-screen program guide (some cable boxes and DBS/DTV receivers).
21. **V-CHIP**: Enable/Disable the V-Chip Lock.
22. **FORMAT**: Change the shape and size of the main TV picture.
23. **PIP INPUT**: Select the PIP or POP input source.
24. **PIP/POP**: Cycle through PIP and POP display choices.
25. **PIP CH**: Scroll up or down through memorized channels in PIP or POP.
26. **REC**: Manually record with your VCR.
27. **STOP**: Stop your VCR, DVD, or CD.
28. **PAUSE**: Pause your VCR, DVD, CD, or freeze the PIP or POP image.
29. **REW/REV**: Rewind or reverse search with your VCR, reverse scan with your DVD, or skip reverse with your CD.
30. **PLAY**: Play your VCR, DVD, or CD.
31. **FF/FWD:** Fast forward or forward search with your VCR, fast play with your DVD, or skip forward with your CD.

Remote Control Functions: Care and Operation

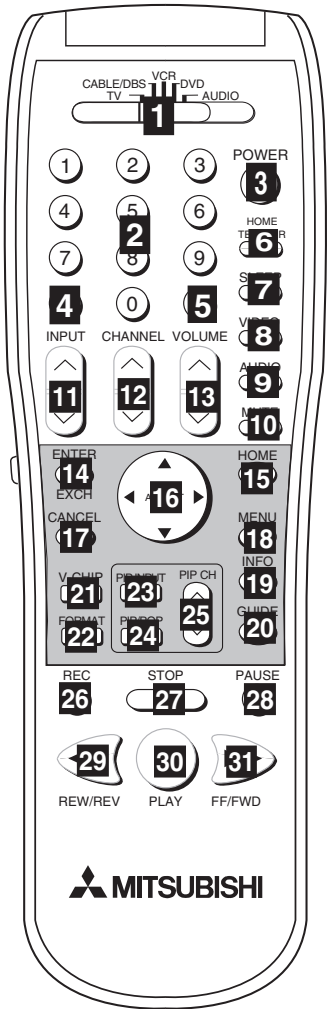


Figure 1. *Remote Control Functions.*

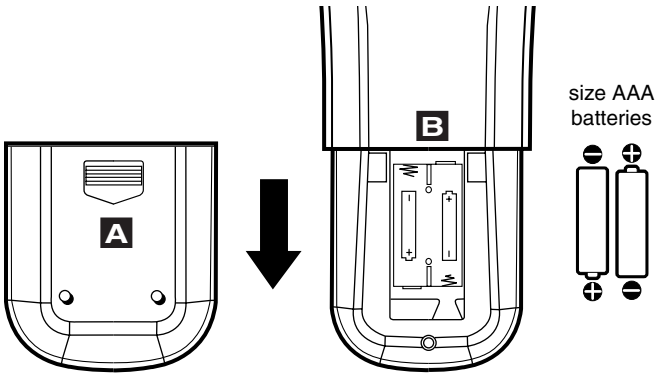


Figure 2. *Installing the batteries.*

IMPORTANT

➡ **The remote control may return to its initial setting when the batteries are changed. You may need to reprogram.**

Operation

Installing the Batteries:

(Figure 2)

A Remove the remote control's back cover by gently pressing the ridged tab in the direction of the arrow and sliding off the cover.

B Load the batteries, making sure the polarities (+) and (-) are correct.

For Best Results from the Remote Control:

- ➡ Be within 20 feet of the equipment.
- ➡ Do not press two or more buttons at the same time unless instructed to.
- ➡ Do not allow 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 new and old batteries.
- ➡ Do not heat, take apart, or throw batteries into fire.
- ➡ Use only AAA batteries.

Operating the Remote Control:

You can use the remote to control the TV, CABLE/DBS/DTV, VCR, DVD, and AUDIO products. Select the product you want to control by moving the slide switch (**1** of Figure 1) to the appropriate position. The remote control has been preset to operate the TV and other Mitsubishi products. To program the remote control to operate other products, see *Use of the Remote Control with Other A/V Products*, pages 26-27.

Channel Selection

For Non-DTV Channels:

- Enter three numbers (for channel 2, press 002).

or

- Press the channel number and ENTER (for channel 2, press 2, then ENTER).

or

- Enter the channel number and wait four seconds. The TV will change automatically.

Sleep Timer

Setting the Sleep Timer:

- Press SLEEP on the remote control.
- A message indicating the length of time the sleep timer is to be set appears on the TV screen.
- Each press of SLEEP will increase the time displayed by 30 minutes, until the maximum value of 120 minutes is reached.
- After 5 seconds of inactivity, the message will disappear.
- Press SLEEP to view the remaining time before the timer turns the TV off.

Canceling the Sleep Timer:

- Press SLEEP to display the on-screen message.
- Press SLEEP repeatedly until OFF is displayed. After 5 seconds of inactivity, the message will disappear.

Remote Control Functions: System 4 Home Theater IR Control (WS-55411, WS-65411 and WS-73411 ONLY)

The Mitsubishi Home Theater IR System Control is a special feature that makes it easier to use your TV with a Mitsubishi digital A/V receiver. Once your equipment is properly connected and set up, your TV and Mitsubishi digital A/V receiver will change inputs together, to match high resolution pictures with the proper surround sound. See *How Connections Affect the System 4 Home Theater IR Control*, Pages 14-15, for installation instructions.

When you change inputs on your TV to watch different video products, your TV will send signals via the infrared emitter to your Mitsubishi digital A/V receiver and will also change inputs to hear the sound from that product. You will automatically hear the high quality digital surround sound from digital products like your DTV receiver and DVD, and high quality analog stereo or surround sound from non-digital products like your VCR.

As you change TV inputs, the A/V receiver changes its source for sound.

Remote Control Functions: Special Functions

When your remote control has been Programmed to operate another manufacturer's product, the function performed on each layer may vary. The most common functions are:

VCR			
•POWER	•PLAY	•PAUSE	•FF/FWD
•CHANNEL up/down	•REC	•STOP	•REW/REV
•Mitsubishi VCRs will be compatible with additional buttons			
Cable Boxes and Satellite Receivers			
•POWER	•ENTER (on some models)	•ADJUST up/down/left/right (on some models)	
•CHANNEL up/down	•CANCEL (on some models)		
•0-9 Number Buttons (on some models)		•GUIDE (on some models)	
A/V Receivers			
•POWER	•VOLUME	•MUTE	
Mitsubishi A/V Receivers			
•Direct Input Selection Buttons -use number buttons, SQV, and QV (on some models)			
Mitsubishi CD Players (not all functions for all models)			
•PLAY	•FF/FWD	•REW/REV	•PAUSE •STOP
DVD and Laser Disc Players (not all functions for all models)			
•POWER •PLAY	•ARROW up/down/left/right (on some models)	•PAUSE	•CANCEL (on some models)
•MENU •STOP		•REW/REV	•ENTER
•0-9 Number Buttons (on some models)			

Remote Control Functions: Operation of PIP and POP

Picture-In-Picture (PIP) and Picture-Outside-Picture (POP) features allow you to view Programming in different ways. While watching the main screen, you can display programs from other channels and other inputs. To see which inputs can and cannot be used together, see *How Connections Affect the PIP and POP* - Table 1, page 14. You can display large and small PIPs, side-by-side pictures, three POPs, or nine POPs.

Activating the PIP and POP

Figures 1-4 on following page / Figure 1-5 on page 62

Press PIP/POP to choose a display format. Each time the PIP/POP button is pressed on the TV remote control (within 3 seconds of each other), the PIP/POP cycles through the following display options.

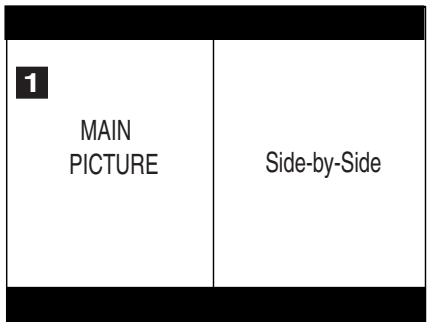
1. **POP**: side-by-side pictures
2. **POP**: three POPs
3. **PIP**: large PIP
4. **PIP**: small PIP
5. **POP**: nine POPs (Widescreen models Only)

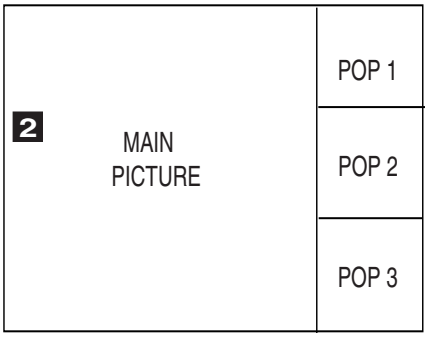
To turn PIP/POP **Off**, wait at least 10 seconds, and press PIP/POP. The next time you activate PIP/POP, the last used PIP/POP format will be displayed first.

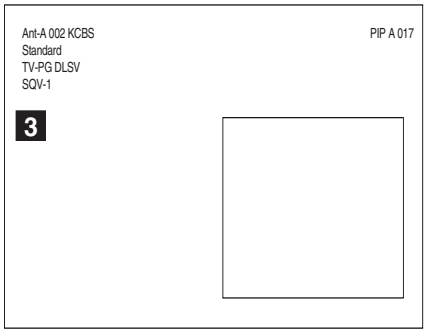
Operation of PIP and POP

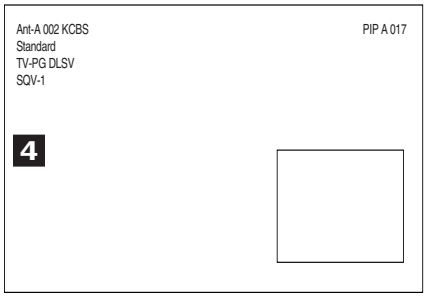
4:3 Narrow Screen Set: Models VS-50111 and VS-60111

You have the option to view two TV shows or inputs at the same time. For example, you can watch a game show or a sports event on another channel or a DVD movie. The PIP option allows you to view another input as a picture-inside-picture. The POP option allows you to view a main picture and another input as a side-by-side or three pictures-outside-picture at the side (only one moving POP).









Changing PIP/POP Inputs

Press PIP INPUT to browse through available PIP or POP images.

Changing PIP/POP Channels

Press PIP CH to scroll up or down through memorizes channels on the Ant-A and Ant-B.

Exchanging Program Images

Press ENTER/EXCH to exchange the main picture with the PIP / POP picture.

Moving PIP Images

Press ADJUST ▲, ▼, ◀, or ▶ to move the PIP display anywhere on the main screen.

Automatic POP Switching

When automatic POP switching is active, the TV cycles through memorized channels, or strobe pictures from other A/V components in the POP display. Press PAUSE to activate/pause automatic POP switching.

Selecting POP "Live" Image

Press ADJUST ▲, ▼, ◀, or ▶ to select a different POP "live" image (automatic POP switching must be paused).

Freeze the PIP and Side-By-Side Picture

Press PAUSE to freeze the PIP and side-by-side images. Press Pause again to return to a "live" image.

4:3 Display Formats (Picture Shape)

VS-50111 & VS-60111 only

Your Mitsubishi narrow screen TV (also known as 4:3 TV) reflects several types of display formats depending upon the type of input available for HDTV and many DVD images.

By pressing FORMAT on the TV remote control, you may select from four available formats:

1. **Standard** – default format fills the screen with the entire picture and squeezes HD (high definition) pictures.
2. **Expand** – enlarges the picture and crops off some of the image at each side. This is useful to correct distorted HDTV images and fill the screen (Only available for 1080i images).
3. **Zoom** - enlarges the picture, cropping off some of the image at each side. The Zoom format is useful when you want to remove or reduce the black top and bottom bars (only available for 480i/480p images).
4. **Letterbox** – (HD 1080i signals only) fills the screen and adds gray bars on top and bottom. The Letterbox format displays the correct aspect ratio ideal for widescreen viewing, with a vertical picture area resolution of 810i.

IMPORTANT: You can find aspect ratios on the back of most DVD covers. Also, Anamorphic DVDs are usually marked “Anamorphic” or ”Enhanced for 16:9 TVs.”

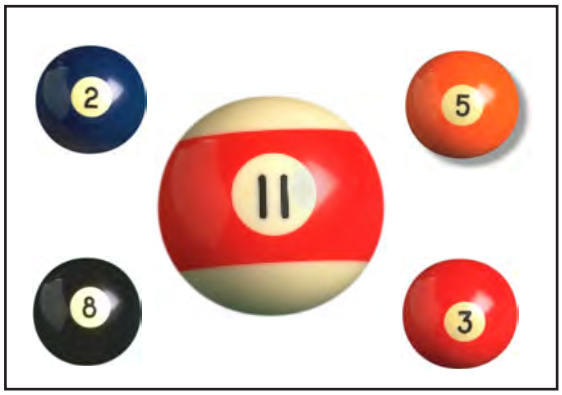
Format (picture shape) availability based on Input/Signal Source(s):

INPUTS	Standard	Zoom	Expand	Letterbox
Ant-A 000	YES	YES	NO	NO
Ant-B 000	YES	YES	NO	NO
DTV 480i/480p	YES	YES	NO	NO
DTV (1080i)	YES	NO	YES	YES
Input-1	YES	YES	NO	NO
Input-2	YES	YES	NO	NO
Input-3	YES	YES	NO	NO
Component-1 (480i/480p)	YES	YES	NO	NO
Component-1 (1080i)	YES	NO	YES	YES

For the 4:3 Models

Note the difference between the appearance of figures in Normal Broadcast and Widescreen Picture.

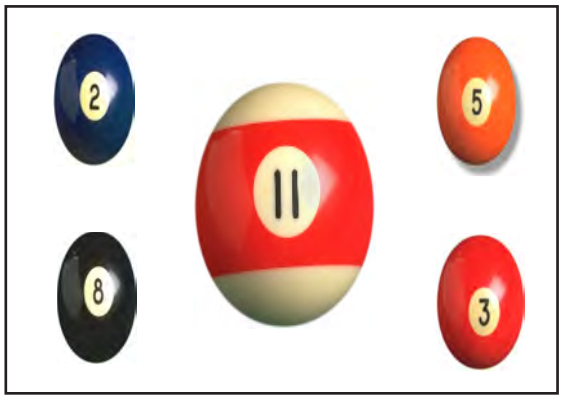
Normal Broadcast Picture (4:3)



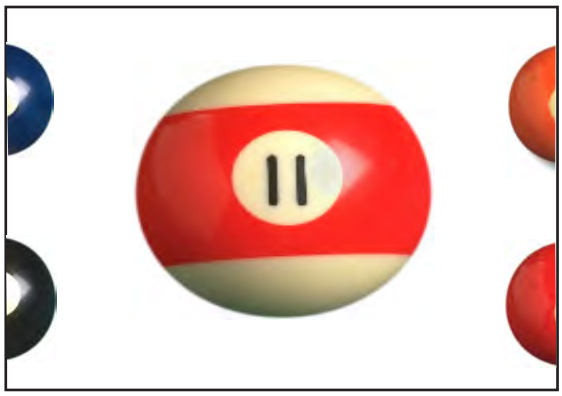
Standard
(Recommended)

Zoom
(Recommended for Letterbox)

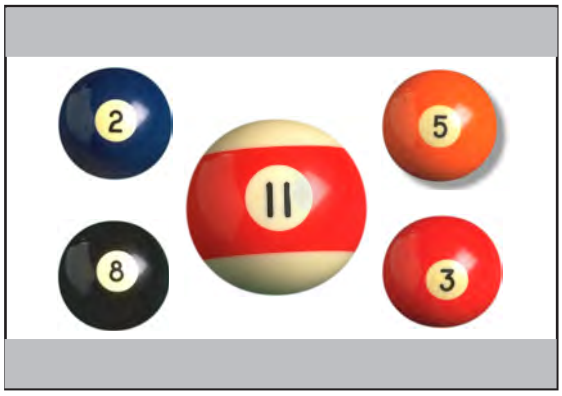
Widescreen Picture - HD 1080i (16:9)



Standard
(Not Recommended)



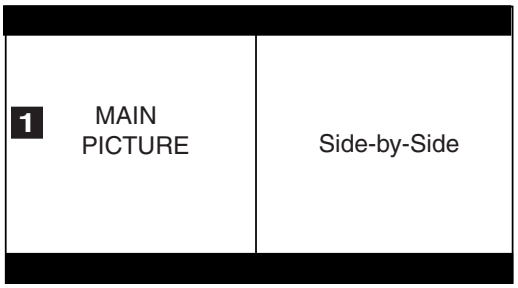
Expand
(Recommended for Broadcast with Black Side Bars)

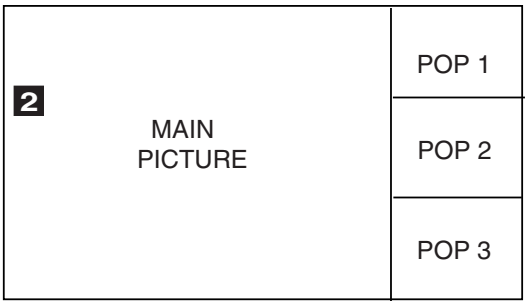


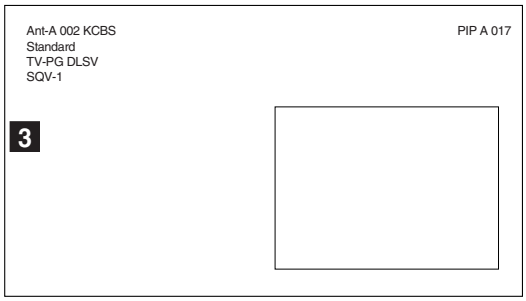
Letterbox
(Recommended)

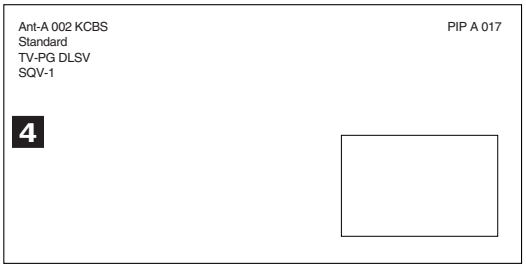
Operation of PIP and POP (16:9 Widescreen Set)

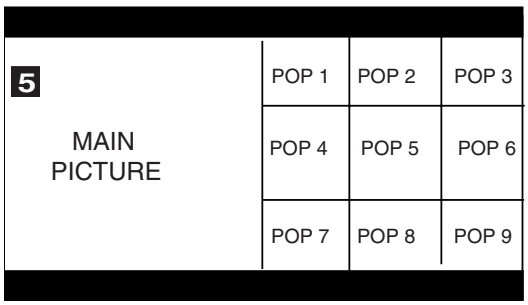
Picture Inside Picture (PIP) vs. Picture Outside Picture (POP)
You have the option to view two TV shows or inputs at the same time. For example, you can watch a game show and a sports event on another channel, or a DVD movie and more. The PIP option allows you to view another input as a picture-inside-picture. The POP option allows you to view a main picture and another input as a side-by-side or three or nine pictures-outside-picture at the side (only one moving POP).











Changing PIP/POP Inputs
Press PIP INPUT to browse through available PIP or POP images.

Changing PIP/POP Channels
Press PIP CH to scroll up or down through memorizes channels on the Ant-A and Ant-B.

Exchanging Program Images
Press ENTER/EXCH to exchange the main picture with the PIP / POP picture.

Moving PIP Images
Press ADJUST ▲, ▼, ◀, or ▶ to move the PIP display anywhere on the main screen.

Automatic POP Switching
When automatic POP switching is active, the TV cycles through memorized channels, or strobe pictures from other A/V components in the POP display. Press PAUSE to activate/pause automatic POP switching.

Selecting POP "Live" Image
Press ADJUST ▲, ▼, ◀, or ▶ to select a different POP "live" image (automatic POP switching must be paused).

Freeze the PIP and Side-By-Side Picture
Press PAUSE to freeze the PIP and side-by-side images. Press Pause again to return to a "live" image.

For the 16:9 Models

Widescreen Picture (16:9 - HD 1080i only)

For Example: A True HD Broadcast

Standard (Recommended)

Expand (Recommended for 4:3 images with Black Side Bars)

Format (picture shape) availability based on Input/Signal

INPUTS	Standard	Expand 480i/480p	Expand 1080i	Zoom	Stretch	Narrow
Ant-A 000	YES	YES	NO	YES	YES	YES
Ant-B 000	YES	YES	NO	YES	YES	YES
DTV 480i/480p	YES	YES	NO	YES	YES	YES
DTV (1080i)	YES	NO	YES	NO	NO	NO
Input-1	YES	YES	NO	YES	YES	YES
Input-2	YES	YES	NO	YES	YES	YES
Input-3	YES	YES	NO	YES	YES	YES
Component-1 (480i/480p)	YES	YES	NO	YES	YES	YES
Component-1 (1080i)	YES	NO	YES	NO	NO	NO
Component-2 (480i/480p)	YES	YES	NO	YES	YES	YES
Component-2 (1080i)	YES	NO	YES	NO	NO	NO

16:9 Display Formats (Picture Shape)

Wide Screen Models Only

Your Mitsubishi widescreen TV (also known as 16:9 TV) reflects several types of display formats (picture shape) available for HDTV and many DVD images.

By pressing FORMAT on the TV remote control, you may select from six available formats:

1. **Standard -** default format for DTV and Component Input displays a full-screen format. The Standard format displays Anamorphic DVDs that have the 1.78:1 or 1.85:1 aspect ratios. However, Anamorphic DVDs that have the 2.35:1 aspect ratio still display black bars at the top and bottom of the screen, while narrow (4:3) images are stretched evenly from side to side.

2. **Expand (480i/480p)-** enlarges the picture, cropping some of the image at the top and bottom. The Expand format is useful to reduce the letterbox top and bottom bars of non-Anamorphic DVDs or to correct narrow 4:3 images that have been stretched in the Standard format.

   Note: This format is not available in the 1080i format.

3. **Expand (1080i) -** enlarges the picture, cropping some of the image on both sides. This Expand format is useful to remove or reduce black side bars on HD broadcasts of 4:3 images with black bars (See page 63).

4. **Zoom -** enlarges the picture, cropping some of the image at each side, top and bottom. The Zoom format is useful to remove or reduce the black top and bottom bars on Anamorphic DVDs with 2.35:1 aspect ratio.
   Note: This format is not available in the 1080i signal.

5. **Stretched -** is the default format for ANT-A and Ant-B, and Inputs 1-3. The Stretched format stretches narrow 4:3 images across the screen, however, there is less stretch in the center than the sides. The Stretched format allows the entire narrow image to be displayed across the screen, however, there is less distortion in the center than in the sides.
   Note: This format is not available in the 1080i signal.

6. **Narrow** format displays narrow 4:3 images in their original shape and adds stationary gray side bars to fill the screen. Note: This format is not available in the 1080i signal.

IMPORTANT: You can find aspect ratios on the back of most DVD covers. Also, Anamorphic DVDs are usually marked “Anamorphic” or ”Enhanced for 16:9 TVs.”

IMPORTANT

➡ **Caution should be observed when using the Narrow format due to the stationary gray side bars. Please see pages 23 or 51 for guidelines concerning stationary images.**

For the 16:9 Models

Note the difference between the appearance of figures in Non-Anamorphic (Left) and Anamorphic Widescreen (Right) pictures

Normal Broadcast Picture (4:3 - 480i/480p)

For Example: NON-ANAMORPHIC DVDs

Standard (Not Recommended)

Expand (Recommended for Letterbox)

Zoom (Not Recommended)

Stretched (Recommended for Standard Broadcast)

Narrow (Recommended for Occasional Use)

Widescreen Picture (16:9 - 480i/480p)

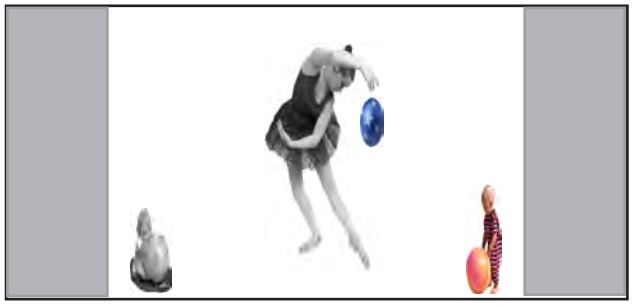
For Example: ANAMORPHIC DVDs

Standard (Recommended)

Expand (Not Recommended)

Zoom (Recommended for 2.35:1 DVDs)

Stretched (Not Recommended)



Narrow (Not Recommended)

Lock Bypass Instructions Have Been Filed for Future Reference

Appendix A: Bypassing the V-Chip Lock

Bypassing the V-Chip Lock

After you set the lock, you need your passcode to view a V-Chip locked program, view the locked TV, cancel the lock, or enter the V-Chip lock menus.

If you forget your passcode, you can view the locked TV without entering your passcode. This is done by pressing the number 9 and QV buttons on the remote TV control at the same time, when your password is requested. This process temporarily unlocks the TV.

When entering the V-Chip Lock menu, this process deletes your old passcode and prompts you to enter a new passcode.

IMPORTANT

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

IMPORTANT

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

Component-1 and Component-2 Inputs

These inputs are compatible with most standard DVD and DTV signals with component video outputs. Compatible DTV signals are SDTV 480i, 480p, and HDTV 1080i.
All other DTV signals, such as 720p, need to be converted by the DTV receiver to one of the compatible signal types. Please check the DTV receiver specifications before connecting.

Input Levels with Component Video

- Y =1.0Vp-p (includes sync) 75ohms
- Pb =700mVp-p, 75ohms (can also receive signals from outputs labeled B- Y and Cb)
- Pr =700mVp-p, 75ohms (can also receive signals from outputs labeled R-Y and Cr)

DTV Input

These inputs are compatible with most standard DVD and DTV signals with component video outputs. Compatible DTV signals are SDTV 480i, 480p, and HDTV 1080i.
All other DTV signals, such as 720p, need to be converted by the DTV receiver to one of the compatible signal types. Please check the DTV receiver specifications before connecting.

This input is also compatible with some DTV receivers using RGB with “sync on green” or RGB with “separate H and V sync.” Industry standards for DTV RGB signals systems, synchronization, timing, and signal strengths are not currently established. These inputs will not be compatible with all DTV receivers that offer RGB. If your DTV receiver offers both DTV component video signals and DTV RGB signals, Mitsubishi suggests you use the DTV component video signals. Please check the DTV receiver specifications before connecting.

Input Levels When Used With Component Video Signals

EIA - 770.3 Standard Levels

- Y =1.0Vp-p (includes sync) 75ohms
- Pb =700mVp-p, 75ohms
- Pr =700mVp-p, 75ohms
- H =Not Used
- V =Not Used

Input Levels when Used With RGB Video Signals

- G (Y) =1.0Vp-p 75ohms (compatible with sync on green)
- B (Pb) =700mVp-p, 75ohms
- R (Pr) =700mVp-p, 75ohms
- H =4Vp-p+/-1.0v, 2.2k ohms (when using separate H and V sync)
- V=4Vp-p+/-1.0v, 2.2k ohms (when using separate H and V sync)

A/V Receivers

Mitsubishi	010, 011, 012, 013, 014, 015
Admiral	220
Aiwa	225, 226
Denon	234, 235, 236
Fisher	204
Gerrard	213
Harman Kardon	215
Jensen	223
JVC	232, 233
Kenwood	200, 208
Magnavox	227, 228
Marantz	224
Mclintosh	216
Nakamichi	206, 217
Onkyo	209, 214, 240
Optimus	203, 227, 231, 230
Panasonic	219, 218, 221
Philips	223
Pioneer	205, 207
Quasar	219, 218, 221
RCA	203, 205, 227, 231,230
Sansui	203, 211, 239
Sharp	234, 237
Sony	222
Sound-sigh	238
TEAC	212, 213, 210, 211
Technics	221, 218, 219
Victor	232, 233
Yamaha	201, 202

DVD Players

Mitsubishi	003
Denon	250
Ferguson	251
GE	251
JVC	257
Normande	251
Panasonic	250
Philips/Magnavox	258
Pioneer	252
RCA/Proscan	251, 256
Saba	251
Sony	254
Thompson	251
Toshiba	253
Yamaha	250
Zenith	259

Satellite Receivers

Mitsubishi	
HD/Satellite Receiver	006
Echostar/Dishnetwork	175
GE	176
Hitachi	173, 181
Hughes	173
Panasonic	174
Philips	171, 172
RCA	176, 179, 180
Sony	177
Toshiba	170
Uniden	171, 172

VCRs

Mitsubishi	001, 002, 060, 067, 068, 061, 062
Admiral	055
Aiwa	047, 052
Akai	049, 034, 035, 036
Audio Dynamic	059, 031
Bell & Howell	025, 033
Broksonic	040, 046
Canon	043, 045
Citizen	026
Craig	025, 049, 026
Curtis Mathes	065, 044, 047
Daewoo	063, 021, 044, 079
DBX	059, 030, 031
Dimensia	065
Emerson	023, 038, 039, 040, 045, 046, 062, 063
Fisher	025, 028, 029, 027,033
Funai	047, 046, 040,054
GE	057, 065, 044
Go Video	057, 069, 070, 071
Goldstar	026
Gradiente	054
Hitachi	043, 065, 020,047
Instant Replay	044, 043
Jensen	059
JVC	059, 030, 031, 054, 076, 077
Kenwood	059, 030, 026, 031
LXI	047, 026, 020, 027, 028, 025, 029
Magnavox	051, 043, 044
Marantz	059, 030, 031
Marta	026
Memorex	044, 029
MGA	058, 060, 067, 068, 061, 062
Minolta	020, 065
Multitech	067, 047, 024
NEC	059, 030, 031, 054
Olympic	044, 043
Optimus	048, 041, 055, 026
Orion	046, 040
Panasonic	043, 044, 041, 042
Penney	044, 020, 065, 025, 059, 030, 031
Pentax	020, 031, 065
Philco	051, 044, 047, 043, 046, 040, 063
Philips	051, 043, 044
Pioneer	043
Proscan	065, 020, 043, 044, 051, 066, 021, 022, 053
Quasar	041, 042, 043, 044
Radio Shack	053, 044, 025, 056, 029, 060, 047
RCA	053, 065, 020, 043, 044, 049, 051, 066, 021, 022,079
Realistic	044, 025, 056, 029, 060, 047
Samsung	057, 022, 024, 053
Sansui	059, 046, 040, 072
Sanyo	025, 029,033
Scott	021, 022, 024, 029, 058, 060, 067, 068, 046, 040
Sears	025, 026, 027, 028, 020
Shaintom	037
Sharp	055, 056
Signature 2000	047, 055
Singer	037
Sony	048, 049, 050, 073, 074, 075, 079
SV2000	047
Sylvania	051, 043, 044, 047
Symphonic	047
Tashiro	026
Tatung	059, 030, 031
TEAC	059, 030, 047, 031
Technics	032, 041, 042, 043, 044
Teknika	044, 047
Toshiba	021
Totevision	026
Vector Research	031
Wards	055, 056, 029, 064, 026
Yamaha	025, 059, 030, 031,031
Zenith	064,026

Cable Box

ABC	124
Archer	132, 125
Cableview	105, 132
Citizen	122, 105
Color Voice	128, 129, 130, 106, 107
Comtronics	128, 129, 130 ,106, 107
Curtis	112, 113
Diamond	124, 132, 125
Eagle	129
Eastern	134
GC Brand	132, 105
GE	111, 112, 113
Gemini	122, 143
General Instrument /Jerrold	111, 119, 120, 121, 122, 123 124, 125, 126, 127
Hamlin	140, 141, 142, 145, 118, 112
Hitachi	103, 124
Macom	103, 104, 105, 108
Magnavox	128, 129, 130, 106, 107, 133, 138
Memorex	130
Movietime	132
Oak	139, 137, 102
Panasonic	109, 110, 114
Paragon	117
Philips	128, 129, 130, 106, 107, 133, 138
Pioneer	101, 116
Pulsar	105, 132
Puser	132
RCA	115
Realistic	132
Regal	112, 118, 140, 141, 142, 145
Regency	134
Rembrant	137, 132, 105, 138
Samsung	105
Satellite	100
Scientific Atlanta	111, 112, 113
Signature	119, 124, 125, 126, 127, 120, 121, 122, 111
SL Mark	105, 101
Sprucer	105, 110
Starcom	119, 124, 125, 126, 127, 120, 121, 122, 111
Stargate	132, 105
Teleview	101, 105
Texscan	144
Tocom	135, 136
Toshiba	104
Unika	132, 125
United Artists	139, 137, 102
United Cable	119, 124, 125, 126, 127, 120, 121, 122, 111
Universal	122, 132
Videoway	106
Viewstar	129, 130
Zenith	117, 100

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 dishwashing 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 behind the Diamond Shield™:

➡ Follow the instructions for the top and sides, however, wipe gently in an up and down motion, following the grooves in the screen.

➡ 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 between the screen and the screen frame.

You may purchase Mitsubishi Screen Cleaner, part number CLEANING-VSS, by calling (800) 553-7278.

IMPORTANT

➡ **DO NOT use any kind of abrasive, liquid, or spray cleaner on the surface of the TV screen.**

Cloth speaker grills:

➡ Lightly brush with a soft brush.

➡ If necessary, you can vacuum using the brush and hose attachments of your vacuum cleaner. Do not use the beater brush section on the grill cloth.

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 with ammonia, bleach, alcohol, benzine, 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.

IMPORTANT

➡ **For further assistance, please call**

(800) 332-2119

E

Diamond Shield™ Installation and Removal Procedure

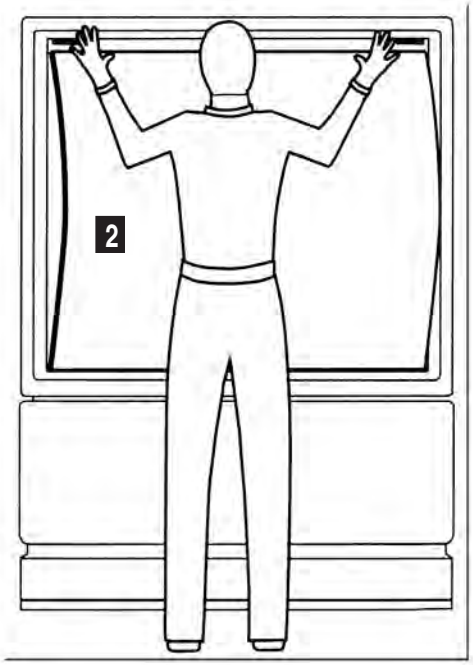
(WS-48311)

Follow the steps below to install and remove the Diamond Shield™

INSTALLATION

Note: Included in the Diamond Shield™ package are the following items:

- (1) Diamond Shield™
- (2) Molding Clips



1 Carefully remove the Diamond Shield™ from its protective packaging. Wipe off any dust with a lint-free cloth.

2 Begin by inserting the shield, sliding it into the channels, starting at the bottom. Gently bow the Diamond Shield™ toward you and insert the Diamond Shield™ into the top channel.

3 Install the left and right molding clips by pressing them into the opening starting at a corner. **Do not force the clip.** The clip will slide into place. This completes the Diamond Shield™ installation.

REMOVAL

To remove the Diamond Shield™, reverse the order of the above procedure.

IMPORTANT:

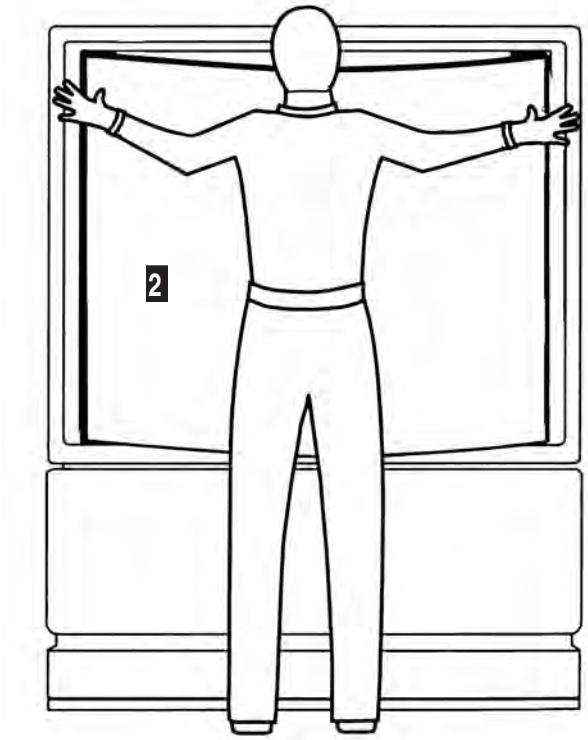
The WT-42311 Diamond Shield is not designed to be removed by the Customer.

Diamond Shield™ Installation and Removal Procedure

(VS-50111, VS-60111, WS-55311, WS-55411, WS-65311, WS-65411, WS-73411)

E

Follow the steps below to install and remove the Diamond Shield™



INSTALLATION

Note: Included in the Diamond Shield™ package are the following items:

- (1) Diamond Shield™
- (2) Molding Clips

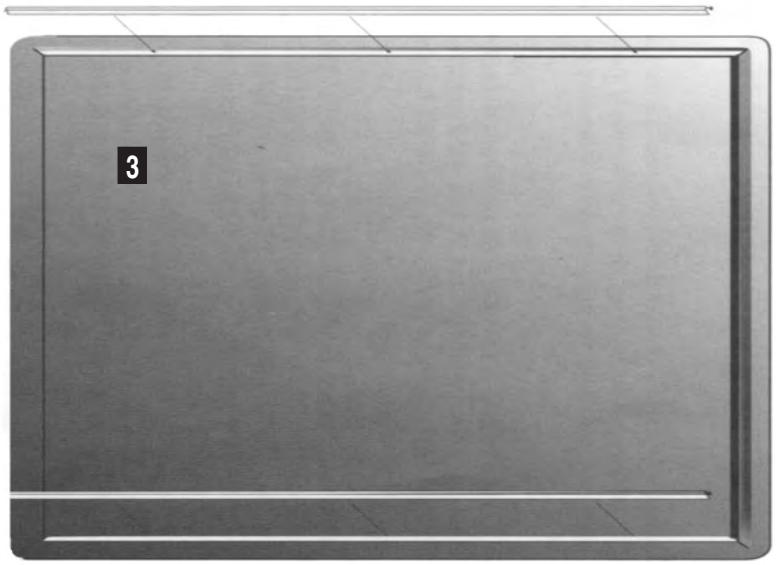
1 Carefully remove the Diamond Shield™ from its protective packaging. Wipe off any dust with a lint-free cloth.

2 Begin by inserting the shield, sliding it into the channels, starting at one side. Gently bow the Diamond Shield™ toward you and insert the other side of the Diamond Shield™ into the oppositive channel.

3 Install the top and bottom molding clips by pressing them into the opening starting at a corner. **Do not force the clip.** The clip will slide into place. This completes the Diamond Shield™ installation.

REMOVAL

To remove the Diamond Shield™, reverse the order of the above procedure.



Cabinet Separation for Models WS-65411 and WS-73411

Instructions for Separating the Upper and Lower Section of the Projection Television Cabinet For Mitsubishi Dealers and Service Personnel ONLY

This Mitsubishi projection television cabinet has been assembled in two pieces. These pieces may be separated to allow for easier delivery and setup. The instructions below show how to safely separate and reattach the cabinet.

IMPORTANT

- **This projection television weighs over 320 pounds and has many sensitive components.**
- **This dismantling procedure should be done by authorized Mitsubishi Dealers or Service Personnel ONLY.**

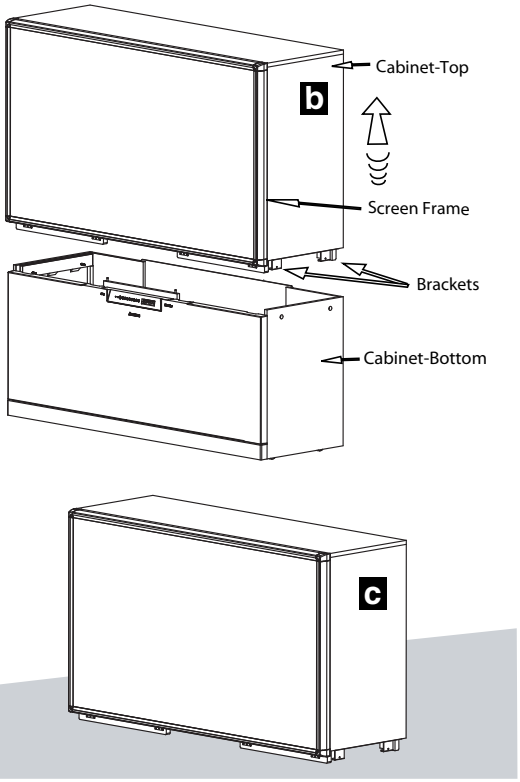
The following operations should be performed by two people:

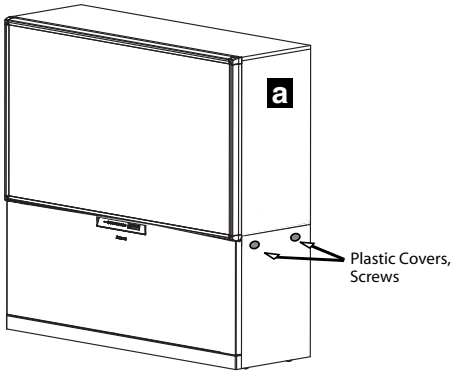
a Remove the decorative Plastic Covers (2) on each side of the cabinet and then remove the exposed Screws (2) on each side.

b Carefully lift the Cabinet-Top straight up until the Brackets are clear from the Cabinet-Bottom. **DO NOT** use the Screen Frame when lifting the Cabinet-Top.

c Carefully place the Cabinet-Top on to the floor.

d Once you have moved and positioned the Cabinet-Bottom to its desired location, reverse the procedure and mount the Cabinet-Top on the Cabinet-Bottom. Be sure you align the Brackets properly. Keep fingers clear of all joints! Replace the Screws and the decorative Plastic Covers that were removed in Step **a**.





Cabinet Separation for Model WS-65311

Instructions for Separating the Upper and Lower Section of the Projection Television Cabinet For Mitsubishi Dealers and Service Personnel ONLY

This Mitsubishi projection television cabinet has been assembled in two pieces. These pieces may be separated to allow for easier delivery and setup. The instructions below show how to safely separate and reattach the cabinet.

IMPORTANT

- **This projection television weighs over 320 pounds and has many sensitive components.**
- **This dismantling procedure should be done by authorized Mitsubishi Dealers or Service Personnel ONLY.**

The following operations should be performed by two people:

Front Cabinet Disassembly Procedures

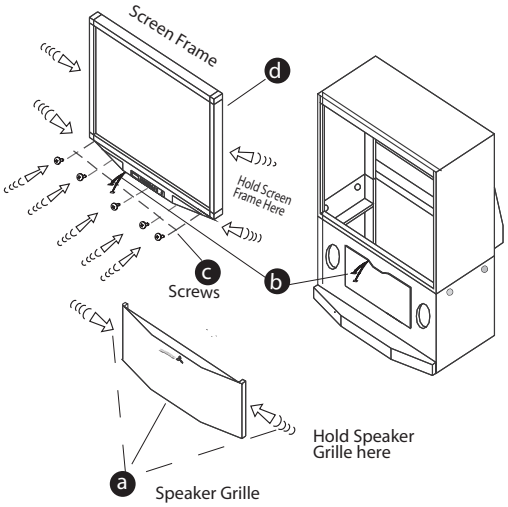
a. Remove the Speaker Grille by gently pulling both the right and left side of the Speaker Grille away from the wood cabinet.

b. Undo the wire ties and disconnect the CC and ZF connectors.

c. Remove the Screws that attach the Screen Frame to the wood Cabinet-Bottom. The Screws are located at the bottom portion of the screen frame.

d. This operation should be performed by two people. Carefully remove the Screen Frame by holding the sides and bottom of the frame and lift the frame vertically off the Cabinet. NEVER PULL THE SCREEN FRAME FROM THE TOP.

e. Place the Screen Frame in a location where nothing will come in contact with the screens. The screens' surface can be damaged if not properly handled.

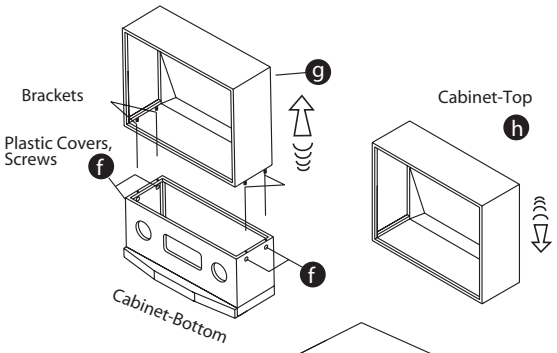


Cabinet Separation Procedure

f. Remove the decorative Plastic Covers (2) on each side of the cabinet and then remove the exposed Screws (2) on each side.

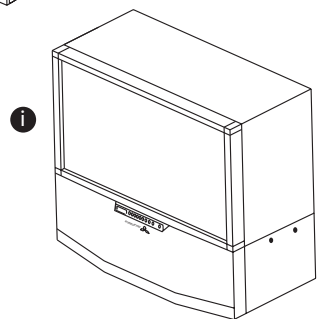
g. Carefully lift the Cabinet-Top vertically until the Brackets are clear from the Cabinet-Bottom.

h. Carefully place the Cabinet-Top on the floor.



Cabinet Re-assembly

i. Once you have moved and positioned the Cabinet-Bottom to its desired location, reverse the procedure and mount the Cabinet-Top on the Cabinet-Bottom. Be sure you align the Brackets properly. KEEP FINGERS CLEAR OF ALL JOINTS! Replace the Screws and the decortive Plastic Covers that were removed in step f. Reinstall the ScreenFrame d. Replace the Screws per step c. Place wires in the wire ties and join the connectors per step b. Reinstall Speaker Grille a.



Problem	Possible Solution
• The TV remote control does not work.	• Check that the batteries are installed correctly. • Check that the selected switch is set to “TV.” • Be no further than 20 feet from the TV when using the remote control.
• The TV takes several seconds to respond to channel commands.	• Press ENTER after a channel number to avoid delays. • Use the three digit number, i.e 002 for channel 2.
• You cannot access a channel.	• Use number keys instead of CHANNEL up/down. • Be sure the channel you want to view is in memory. • Check that the TV is turned to the correct input source for that channel, by pressing the INPUT button. • Make sure the V-Chip setting is off (page 40).
• On-screen displays appear each time you change a function.	• This is part of normal TV operation.
• You cannot program the TV to turn on automatically.	• The TV may be locked. • The clock may not be set.
• There is no sound even when the volume is turned up.	• Check to see if the MUTE button is on. • The TV’s “Listen to:” setting may be set to SAP. • Check that “TV Speakers” setting is ON.
• You have forgotten your lock passcode.	• See *Appendix A, Bypassing the V-Chip Lock*, page 66.
• PIP does not display a picture.	• Make sure the V-Chip setting is off (page 40). • Not all inputs can be displayed as a PIP (page 14).
• The sound does not match the screen picture.	• The TV’s “Listen to:” setting may be set to SAP. • If using stereo or A/V reveiver speakers, check input selection on the stereo or A/V receiver. • If using stereo or A/V receiver, check that AUDIO is from MONITOR OUT on TV’s back panel.
• There is a large black or gray rectangle on the screen.	• The TV closed captioning has been set to “text” mode, but there is no text information being broadcast. Turn Off in the CAPTIONS menu (page 35).
• You cannot see a picture when you play a VCR tape.	• If you connected your VCR with A/V cables, use the INPUT button to select the Input source (INPUT-1, INPUT-2, or INPUT-3) that the VCR is connected to. • Check your VCRs owner’s guide for further troubleshooting.
• V-Chip Lock is not working	• Make sure that V-Chip is On (page 40). • If V-Chip Hours/Lock by Time is currently set to disable the V-Chip lock, the V-Chip will not block programming.

Problem	Possible Solution
Cannot set adjustments to factory settings	•Follow the steps below to reset system defaults to factory settings. 1. Press the MENU button followed by number buttons 1, 2, and 3 on the remote control. Result: The above steps activate the Reset System Defaults menu screen. 2. Press the ENTER button on the remote control. Result: The settings reset to factory defaults. 3. Press the HOME or MENU button on the remote control to return to the HOME or MENU screen. **IMPORTANT:** This function is not recommended unless it is mandatory to reset system defaults to factory settings. This operation CANNOT be undone and all custom settings will be erased.

A

adding and deleting channels, 38
Advanced Features menu, 30, 43-47
adaptors (BNC to RCA), 20
adjusting (convergence), 45-46
alignment (convergence), 45-46
antennas (connecting), 13, 16-17
audio settings, 48, 49
Auto Color Correction, 47

B

back panel, 13
balance, 49
bass, 49
Black Enhancement, 46
blocking (enabling V-Chip), 40-42
brightness, 50
bypassing (V-Chip-Lock), 66

C

cleaning, 4, 69
Clock (setting), 33-34
compatibility (signal), 67
contrast, 50
convergence, 45-46
Color Balance, 47

D

date (setting), 34
daylight savings time (DST), 33
dusting, 69

E

español, 32
EXCH button on remote, 54-55

F

Film Mode (Automatic), 50
formats (display), 60-65
front control panel, 12

G

games, 23, 51
ghost, 23, 51

H

Home Theater IR System
  connection, 14, 22, 57
  special setups, 15
  remote control functions, 26-28, 54-58

I

IMPORTANT NOTES, 23, 51
Important Safeguards, 4-5

L

language, 32
letterbox, 23, 51, 60
Lock by Time, 42
locked, 40-42

M

maintenance, 2, 74
manual color adjustment, 47
memorize channels, 31
memory (channel), 38

N

naming channels, 38
naming inputs, 31

P

passcode, 42
Picture-in-Picture (PIP), 9, 14, 58-59, 62
Picture-outside-Picture (POP), 9, 14, 58-59, 62

R

remote control
  Settings
    Audio, 49
    Video, 50
  care and operation, 55
  channel selection, 56
  functions, 54-65
  installing batteries, 55
  programming codes, 26-27, 68
  replacement, 6
  reset convergence, 46
  reset color, 47
  Sleep Timer, 56
reset (A/V), 48

Q

Quick View™ (QV), 54

S

safeguards, 4-5
servicing, 2, 5
signal types
  1080i, 14, 60-61, 63-65, 67
  480i, 14, 60-61, 63-65, 67
  480p (progressive DVD), 14, 60-61, 63-65, 67
Sleep Timer, 56
sound (adjusting), 48-49
Spanish, 32
Special Functions (Remote), 58
SQV (Super Quick View™), 28,54
stand, 4
STATIONARY PICTURE WARNING, 23-51
surface, 4
surges, 4

T

time (setting), 34
Timer (turn TV on), 43-44
Timer (Sleep), 56
treble, 49
Troubleshooting, 74-75
TV speakers, 48

U

unpacking, 9
upgradeable, 9

V

V-Chip Lock, 40-42
  bypassing, 66
  entry to, 40
  Lock by Time, 42
  passcode screen, 42
  ratings and categories, 41
  signal information, 41
  V-Chip, 40,41
  V-Chip Hours, 42
Velocity Scanning Modulation (VSM), 50
ventilation, 4, 69
Video Mute, 46
Video Settings, 50

W

Mitsubishi Limited Warranty, 78

MITSUBISHI PROJECTION TELEVISION LIMITED WARRANTY

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

a. **Parts**. The lenticular (i.e. front picture) screen and/or the DiamondShield™ is warranted against defects in materials and workmanship for a period of 30 days. All other parts are warranted for a period of one 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. **Labor**. For 30 days after the original purchase at retail, we will repair or replace, at our option, the lenticular screen if it proves defective. For all other parts, we will provide the labor for a warranty repair by an authorized MITSUBISHI service center without charge for one year from the original date or purchase at retail.

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

1. TO OBTAIN WARRANTY SERVICE:

a. Contact your nearest authorized MITSUBISHI service center whose name and address can be obtained from your MITSUBISHI dealer or by writing or calling MDEA at the address and telephone number provided below.

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 WARRANTY COVERAGE. However, please return the Owner Registration Card so that we can contact you should a question of safety arise which could affect you.

2. THIS WARRANTY DOES NOT COVER damage to Diamond Shield, Lenticular screen or Fresnel lens, screen frame, cosmetic damage or to any other product 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 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 (including uneven picture tube aging and imprinted images on the viewing screen); 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. This 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 a defect in the product that is covered under this warranty, all costs, expenses or any other damages arising from product installation, or set-ups, any adjustments of user controls (including convergence, 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 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 warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

7. BEFORE REQUESTING SERVICE, please review the instruction booklet to insure proper installation and correct customer control adjustment. If the problem persists, contact your nearest MITSUBISHI Dealer for the name(s) of authorized MITSUBISHI Service Center(s). If you are unable to obtain this information, please call 800-332-2119, or write us at the address below.

MITSUBISHI DIGITAL ELECTRONICS AMERICA, INC.
9351 Jeronimo Road
Irvine, CA 92618-1904

MITSUBISHI

RETAIN THIS PORTION FOR YOUR RECORDS

SERIAL NUMBER _____
MODEL NUMBER _____

DEALER NAME _____

STREET ADDRESS _____ZIP _____

PHONE NUMBER _____ PURCHASE DATE _____

CONSUMER RELATIONS

If you have questions regarding your television
Call (800) 332-2119, or email us at

MDEAservice@bigscreen.mea.com

REMOTE CONTROL AND OWNER'S GUIDE

Call (800) 553-7278 to order a replacement Remote Control or Owner's Guide.

Or visit our website at

www.Mitsubishi-TV.com

© 2002 Mitsubishi Digital Electronics America, Inc.
871D347B10

Designed and Printed in the U.S.A.