

# User's Manual

Model : MVS-500



---

## Table of Contents

## Safety Instructions

### Information on digital Television

Digital Television

Digital Broadcasting and Cable TV

Receiving Digital Broadcasts

Digital Picture Formats

Digital Audio

### Information on the Set Top Box

ProHD Digital Set Top Box Model MDR-500

DTV-Compatible Monitor/Receiver Compatibility

### Congratulations

### Important Notes

STB Location

Connecting Cables

AC Power Supply Cord

Antenna Installation and Orientation

Antenna/Cable Connection

### Front and Rear View of MDR-500

Front Panel

Rear Panel

### Features of the ProHD STB

Channel and Program Tuning

Channel Banner

ATSC Display Formats

Display Format Selection

Aspect Ratio Selection

Dolby Digital (AC-3) Audio

### Getting Started

Step 1. Connect AC Power Cord

Step 2. STB Connection to DTV-Compatible TV

---

Step 2a. STB Connection to Conventional TV

Step 3. Antenna/Cable Connection

Step 3a. Digital TV Reception with DTV-Compatible TV

Step 3b. Digital TV Reception with Conventional TV

Step 3c. Digital TV/Cable Reception with DTV-Compatible TV

Step 3d. Digital TV/Cable Reception with Conventional TV

Step 3e. Digital 8 VSB Cable/Analog Cable Reception with DTV-Compatible TV

Step 3f. Digital 8 VSB Cable/Analog Cable Reception with Conventional TV

Step 4. Turning STB On

Step 5. Menu Guide

Step 5a. ACTION/Navigation Button

Step 6. TV/Cable Mode

Step 7. Programming Available Channels

### **Optional Connections**

STB Connection to Dolby Digital AC-3 Decoder

### **Audio Set Up Guide**

#### **Remote Control Guide**

Remote Controller

Remote Controller Functional Key Chart

Battery Installation and Precautions

#### **Menu Guide**

#### **Roller Guide Feature Chart**

#### **Special Features**

---

## Safety Instructions

 <b>CAUTION</b>  <b>RISK OF ELECTRIC SHOCK</b> <b>DO NOT OPEN</b>	
To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.	
 This symbol indicates that parts inside the product are a risk of electric shock to persons.	 This symbol indicates that important operating and servicing instructions are in the papers with the appliance.

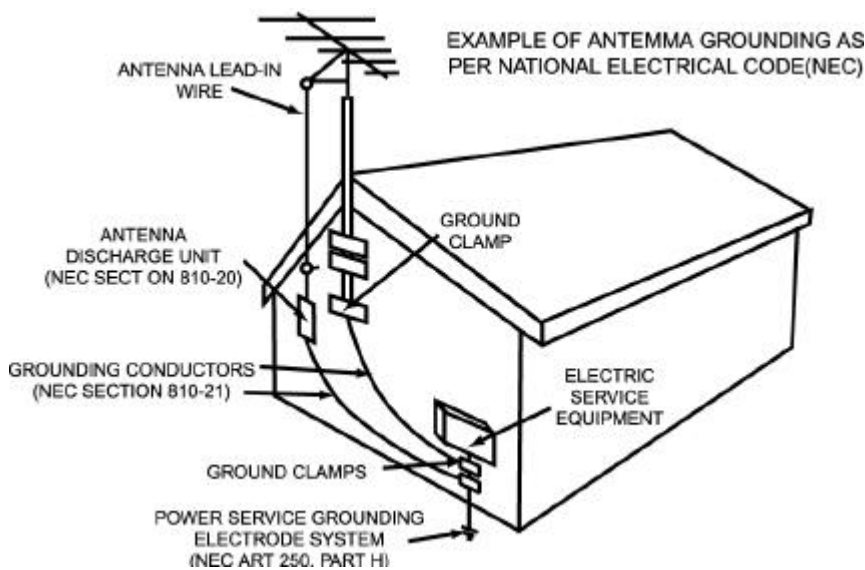
### Safety Instructions For High Definition Television Decoder

1. Read and apply the operating instructions provided with your High Definition Television Decoder.
2. Read all of the instructions given here and retain them for later use.
3. Unplug this High Definition Television Decoder from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use attachments not recommended by the High Definition Television Decoder manufacturer as they may cause hazards.
5. Do not use this High Definition Television Decoder near water. For example: Avoid placing it near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
6. Do not place this High Definition Television on an unstable cart, stand, or table. The High Definition Television Decoder may fall, causing serious injury to a child or adult and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the High Definition Television Decoder. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
  - 6a. 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. Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the High Definition Television Decoder and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the High Definition Television Decoder on a bed, sofa, rug or other similar surface. This High Definition Television Decoder should never be placed near or over a radiator or heat register. This High Definition Television Decoder should not be placed in installation such as a bookcase unless



proper ventilation is provided.

8. Operate 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 television dealer or local power company. For High Definition Television Decoders designed to operate from battery power, refer to the operating instructions.
9. This High Definition Television Decoder is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the outlet only one way. This is a safety feature. 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 safe purpose of the polarized plug.
10. Do not allow anything to rest on the power cord. Do not locate this High Definition Television Decoder where the cord will be abused by persons walking on it.
11. Follow all warnings and instructions marked on the High Definition Television Decoder.
12. Do not overload wall outlets and extension cords as this can result in fire or electric shock.



13. Never push objects of any kind in to this High Definition Television Decoder through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the High Definition Television Decoder.

14. If an outside antenna is connected to the decoder equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. In the U.S Section 810 of the National Electrical Code, ANSI/NFPA 70, and in Canada Part 1 of the Canadian Electrical code 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. See Figure.

15. For added protection for this High Definition Television Decoder 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. This will prevent damage to the decoder due to lightning and power-line surges.

- 
16. An outside antenna system should not be located in the vicinity of overhead power lines of 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.
17. Unplug this High Definition Television Decoder from the wall outlet, and refer servicing to qualified service personnel under the following conditions:
- When the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the High Definition Television Decoder.
  - If the High Definition Television Decoder has been exposed to rain or water.
  - If the High Definition Television Decoder does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the High Definition Television Decoder to normal operation.
  - If the High Definition Television Decoder has been dropped or the cabinet has been damaged.
  - When the High Definition Television Decoder exhibits a distinct change in performance—this indicates a need for service.
18. Do not attempt to service this High Definition Television Decoder yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
20. Upon completion of any service or repairs to this High Definition Television Decoder, ask the service technician to perform routine safety checks to determine that the decoder is in safe operating condition.
- 21. WARNING : To prevent fire or shock hazard, do not expose this appliance to rain or moisture.**
- 22. CAUTION : TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.**
- NOTE :** This equipment is designed to operate in the U.S.A. Canada and other countries where the broadcasting system and AC house currents is exactly the same as in the U.S.A. and Canada.

---

## **INFORMATION ON DIGITAL TELEVISION**

### **Digital Television**

In April 1997, the Federal Communications Commission (FCC) announced that by 2006, all television broadcasting will be digital. However, Television stations are required to continue broadcasting regular TV signals along side the digital signals until 2006. Cable and satellite TV are not affected by the FCC ruling.

According to the FCC, digital broadcasting must be available from each of the four major networks in each of the top ten markets, covering 30% of households by May 1999. By the end of 1999, it must be available in the top 30 markets, covering 50% of households.

The FCC has allocated to each of the broadcasters a fixed amount of transmitting "space" for digital programming. At the highest resolution, High Definition (HDTV), one (1) or two (2) programs can be transmitted within this "space". At lower resolutions, Standard Definition (SDTV), several programs can be simultaneously transmitted. Broadcasters will choose their own broadcast formats. For example, they may choose to broadcast day programs in SDTV and night sports and movies in HDTV. Digital Television (DTV) broadcasting will deliver crystal-clear pictures, approaching the quality of 35mm movies, and compact disc (CD) sound.

### **HDTV (High Definition Television)**

HDTV signal formats are 1080i (interlaced scan) and 720p (progressive scan). HDTV provides the highest resolution picture and audio in either stereo or 5.1 channel surround sound.

### **SDTV (Standard Definition Television)**

SDTV signal formats are 480p and 480i. SDTV provides lower resolution, yet presents a very sharp clear picture. Lower resolution allows broadcasters to transmit multiple programs per channel.

### **Digital Broadcasting and Cable TV**

The FCC has not mandated any standards for cable operators or satellite broadcasters at the time this manual is printed. Some cable companies have announced plans to introduce digital cable boxes into their markets. They may choose, however, to use the digital capability to increase the number of channels HDTV programming.

**Contact your local cable provider to determine if digital cable is available and whether a cable box is needed for converting the signals.**

### **Receiving Digital Broadcasts**

Most households will be able to receive a digital broadcast by regular antenna with VHF/UHF reception capability. However, like regular TV signals, it will

---

depend on location, terrain and environmental factors. Outdoor or attic antennas will generally be more effective than a set-top antenna. For cable, check with your local cable provider to find out if they will carry the DTV signal in your area.

### **Digital Picture Formats**

DTV supports eighteen (18) Advanced Television System Committee (ATSC) \* display formats, which are variations of the four (4) following formats : 1080i (interlaced), 720p (progressive), 480p (progressive) and 480i (interlaced). The larger the number means the higher the resolution of the picture.

#### **Interlaced Scan**

For interlaced pictures, the odd number lines (picture information) are scanned, creating field 2. The two fields are interlaced to provide the entire image (one frame). This process takes 1/30th of a second and is invisible to human eye.

#### **Progressive Scan**

For progressive pictures, all lines in an entire frame are scanned sequentially in 1/60<sup>th</sup> of a second. With progressive scan, you will generally not see the thin black horizontal scan lines (venetian blind effect) associated with an interlaced picture.

### **Digital Audio**

For all HDTV formats, Dolby \* \* Digital surround sound (also commonly referred to as AC-3 \* \* or DD 5.1) is the audio standard. AC-3 will provide CD-quality sound. The system provides 3 separate audio channels for the front speakers (left, center, right), 2 channels for the rear surround sound speakers, plus one channel for subwoofer sound. You will need an external audio system capable of decoding the AC-3 encoded sound to get the full surround sound effect. Otherwise, it can be connected directly to your TV or audio system using only the stereo (left/right) audio outputs.

Note: The stereo audio outputs are Dolby Surround compatible. You can connect a Dolby Surround Pro Logic \* \* decoder (not included) to the stereo audio outputs and receive surround sound.

\* The ATSC is responsible for digital television development and standards.

\* \* Manufactured under license from Dolby Laboratories. "Dolby", "AC-3", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works.

1992-1997 Dolby Laboratories, Inc. All rights reserved.



---

## INFORMATION ON THE SET TOP BOX

### **ProHD Digital Set Top Box Model MDR -500:**

Current Conventional Televisions

MDR-500 model can receive only DTV format (ATSC).

#### **DTV-Compatible Televisions**

The STB, by using component video connections, will allow DTV-compatible televisions to produce picture with incredible resolution. Component video consists of three (3) primary color signals: red, green and blue that together convey all necessary picture information. The three (3) component signals have been translated into luminance (Y) and two color difference signals (P<sub>B</sub>, P<sub>R</sub>), each on a separate wire.

The STB, depending on the capabilities of the DTV-compatible television, will give you the choice of HDTV or SDTV format.

#### **Audio**

The STB has an internal Dolby Digital(AC-3) decoder and an internal Dolby Pro-logic encoder & decoder.

Audio output consists of Optical & Coaxial Digital output and 6 channel Analog Output.

You can also do what ? 2 channel pro-logic encoder signal or AC-3 encoder signal if you use an external decoder.

### **DTV-Compatible Monitor/Receiver Capability**

#### **HDTV-Compatible (1080p/1080i/720p)**

HDTV-compatible TV models process and display high definition output from the STB as a 1080p or 1080i or 720p Format. When DTV broadcasts are available in your viewing area, your HDTV monitor/receiver will be compatible using the STB. It will display the 16:9 wide screen aspect ratio format.

#### **SDTV-Compatible (480p)**

SDTV-compatible TV models process and display standard definition output from the STB as a 480p format. When DTV broadcasts are available in your viewing area, your SDTV monitor/receiver will be compatible using the STB. It will display the incoming SDTV format.

---

## CONGRATULATIONS

Your MDR-500 feature state-of-the-art technology for high-quality picture and sound with complete audio/video output jacks for your home theater system. DTV signals are displayed in either an interlaced or progressive format, providing a clear, crisp picture. When connected to the STB, your HDTV-compatible monitor/receiver can display high-definition (HDTV) 1080p or 1080i or 720p format and standard definition (SDTV) 480p format. Your new STB is designed to give you many years of enjoyment.

### Care and Cleaning

#### Set Top Box (Turn STB Off)

For STB, avoid excessive moisture and wipe dry.

Avoid bumping or scraping the STB.

#### Remote Control

For Remote Control, use a soft cloth dampened with water or a mild detergent solution. Avoid excessive moisture and wide dry.

Do not use benzene, thinner or other petroleum based products.

### Specifications

Input	Analog Input	Composite (CVBS)
		S-Video
	DVD Input	Rt, Lt (Stereo Audio) Component (Y, Pb, Pr) - for 480i
		Rt, Lt (Stereo Audio)
	DTV Input	Component (Y, Pb, Pr) - for 480p, 720p, 1080i
		Rt, Lt (Stereo Audio)
	RGB Input	D-SUB15 - for 480p, 720p, 1080i/ for PC output upto 1024p(60Hz)
		Rt, Lt (Stereo Audio)
	IEEE1394	
Output	Video Output	Component (Y/G,Pb/B,Pr/R,H,V) - 480p, 720p, 768p, 1024p, 1080i, 1080p
		RGB(D-SUB15) - 480p, 720p, 768p, 1024p, 1080i, 1080p
		DVI (Digital Video Interface)

		- 480p, 720p, 768p, 1024p, 1080i, 1080p
	Audio Output	Rt, Lt ( Stereo Audio)
		Digital Audio - Coaxial
		Digital Audio - Optical

Specifications are subject to change without notice or obligation.

\*The digital tuning system allows channel numbers up to 999 to be displayed. The total channel capability, however, remains as stated.

## IMPORTANT NOTES

### STB Location

This unit can be used as part of an entertainment center. Consult your dealer for available options.

Avoid excessive sunlight or bright lights.

Keep away from excessive heat or moisture. Inadequate ventilation may cause internal component failure.

Fluorescent lighting may reduce Remote Control transmitting range.

### Connecting Cables

Component video cables (Y, P<sub>B</sub>, P<sub>R</sub>) are provided for connection to a DTV-compatible monitor/receiver.

Shielded audio and video cables (not provided) should be used for all other connections between components.

For best results:

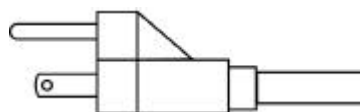
- Use 75 Ohm coaxial shielded cables.
- Check type of output and input connectors on your components.
- Determine required cable lengths.

### AC Power Supply Cord

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT OF AC OUTLET AND FULLY INSERT. DO NOT USE

---

A PLUG WITH A RECEPTACLE OR OTHER OUTLET UNLESS THE BLADE CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

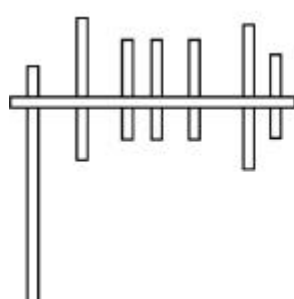


### Antenna Orientation

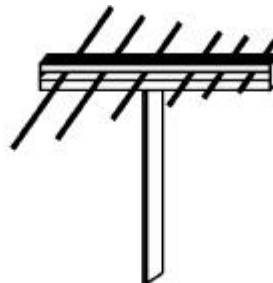
### Installation and

In many areas, an indoor antenna can be used to receive DTV signals. Certain conditions, however, create a situation where an outdoor antenna is required. Tall buildings, large metal objects (e.g., a water tower) or hills may block the line-of-sight to the station and interfere with DTV signal reception. Keep the followings in mind when installing and orienting your outdoor antenna. For additional information about antennas, see the Consumer Electronics Manufacturing Association (CEMA) website at [www.cemacity.org](http://www.cemacity.org).

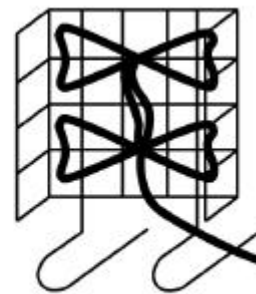
- Choose an antenna with directional receiving characteristics such as a Yagi, log periodic, or reflector antenna. Avoid loop, wire bowtie, rabbit-ear and omni-directional antennas.
- Use good grade 75 Ohm coax (round) cable to connect the antenna to the STB. Do not use 300 Ohm flat twin-lead cable.
- Place the antenna away from large metal objects. If using an indoor antenna, remember that aluminum siding and foil-covered insulation can greatly reduce the signal strength inside your house.
- Point the antenna in the direction of the TV station. Allow a 4-6 second delay in tuning. Watch for a program to appear on the TV. If the signal indicator is "NO SIGNAL" or if a program comes and goes, try a slightly different for the antenna. Slowly raising or lowering the antenna by a few feet may help.
- Avoid standing in front of the antenna while adjusting its position. Move a few feet to the rear to avoid changing the signal characteristics.
- If you are located in an area serviced by two (2) different DTV stations in different directions, you may need an antenna rotator to receive signals from both stations.



<Yagi>



<Log Periodic>



<Reflector>

---

## Antenna/Cable Connection

For proper reception, an antenna or cable connection is required.

### Antenna Connection

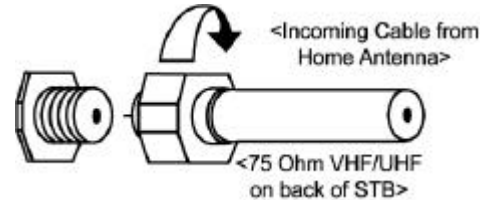
For proper reception of VHF/UHF channels, a directional antenna is required (see previous page). For best reception, an outdoor antenna is recommended.

#### Procedure

- Connect the antenna cable from your antenna.

- Select ANTENNA, in the AUDIO/VIDEO Menu

(see Getting Started section, Step 7).



### Cable Connection

Before connecting your cable to the STB, contact your local cable provider and ask the following questions:

- Is DTV available through your cable service?

- What type of cable do you have? Standard cable TV signals (Cable STD), Harmonic Related Carrier (Cable HRC) or Incremental Related Carrier (Cable IRC).

- Do you need a separate cable box to receive DTV signals?

#### Procedure

- Connect the cable wire provided by your local cable provider.

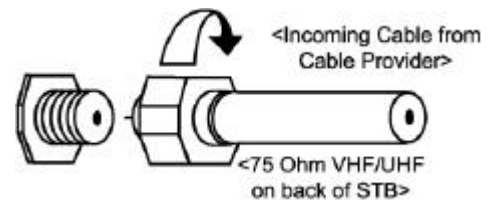
- Select one of the following in the AUDIO/VIDEO Menu

(see Getting Started section, Step 7).

- Cable STD-Standard Cable TV Signals

- Cable HRC-Harmonic Related Carrier

- Cable IRC-Incremental Related Carrier



Note : The DTV set-top box is able to receive DTV signals from your local cable provider **only if** they are transmitted in the 8VSB modulation format approved by the FCC for DTV transmission. Also, your cable provider may elect to transmit the 8VSB format for only a limited period of time. **Please contact your cable provider to determine if 8VSB modulation is available.**



program is available. If you setup channels using AUTO SEARCH, then channel can be up/down.

**In the picture**

**D15**

(1) means digital single program channel

**D14-1**

(2) means digital multi-program channel

**Channel Banner**

The Channel Banner is used by all tuning methods to show you which channel and program you are currently viewing or selecting. The banner will appear in the upper right hand side of your TV screen.



**ATSC Display Formats**

The STB converts all eighteen (18) ATSC display formats available in DTV into viewable programming. The display formats are variations on the four (4) formats, 1080p, 1080i, 720p, and 480p . The following table shows the four (4) formats, their resolutions and aspect ratios.

DTV Format	Resolution	Aspect Ratio
1080p		
1080i	High Definition	16:9
720p		
480p	Standard Definition	16:9 or 4:3
1024p		
768p	VESA Standard	4:3

**Display Format Selection**

The STB allows you to choose a display format based on the capability of your TV or monitor. To select the appropriate display format, use the YpbPr/RGB button on the front panel of the STB. The button selectss one of the Y, P<sub>B</sub>, P<sub>R</sub>

---

or RGB output. Output Resolution selection is accomplished by Output Sel button on the front panel. All display format (1080p, 1080i, 720p, 1024p, 768p, 480p) are available.

### **Aspect Ratio Selection**

The STB allows you to choose a display ratio one of 16:9 or 4:3.

You can select display ratio in the menu within audio/video sub menu.

#### **<Aspect Ratio formats>**



The 16:9 and 4:3 pictures represent the incoming source signals received by the STB.

### **Dolby Digital (AC-3) Audio**

Dolby Digital (AC-3) 5.1 channel surround sound delivers CD-quality sound. AC-3 provides five discrete full-bandwidth channels for front left, front right, center, surround left and surround right, plus a LFE (Low Frequency Effect) subwoofer channel.

#### **Internal Dolby Decoder**

MDR-500 outputs 5.1 channel surround sound by an internal AC-3 decoder and does PCM decoding for external audio input. It also support down mix to Two Left/Right Channel

#### **External Dolby Decoder (Optional)**

For a full Home Theater sound experience, an external AC-3 decoder and multichannel amplifier must be connected to the STB.

#### **Stereo Output**

The internal decoder converts compressed audio data, up to 5.1 channels, into two CD-quality stereo audio outputs, delivering stereo sound.



---

**Note:** The stereo audio outputs are Dolby Surround compatible. You can connect a Dolby Surround Pro Logic decoder (not included) to the stereo audio outputs and receive surround sound.

**Dual-Mode**

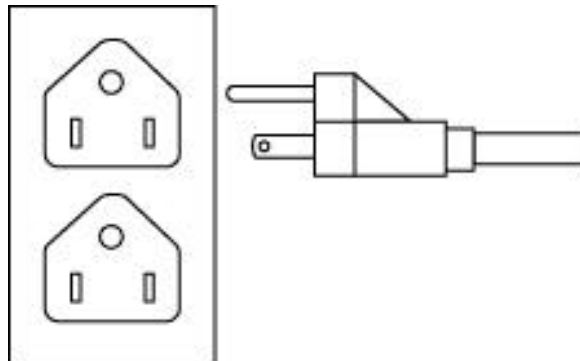
Users can set up Dual-Mode if Dual-Mode program come in.



**Getting Started**

**Step 1. Connect AC Power Cord**

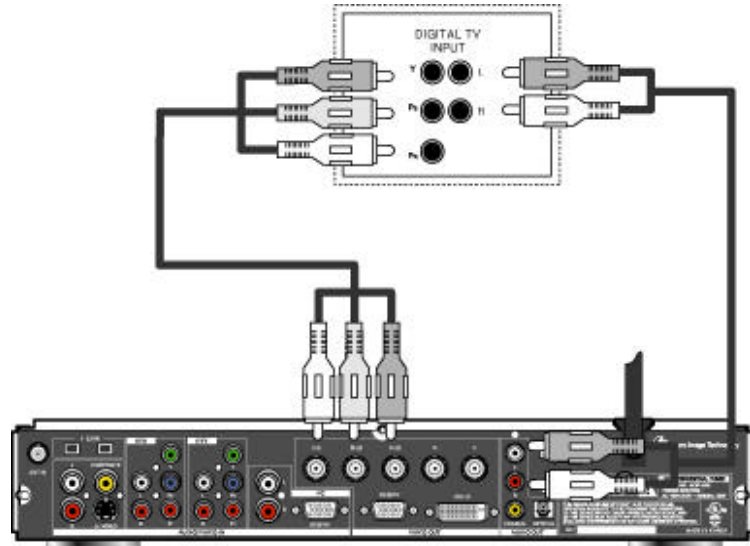
Plug the AC power cord into a grounded outlet. Do not turn on any devices until you have finished making all necessary connections.



---

## Step 2. Set-Top Box Connection to DTV-Compatible TV

Follow this diagram when connection the STB to a DTV-compatible TV.



### DTV-COMPATIBLE TV SETUP

#### Procedure

- Connect video cables from the Y, P<sub>B</sub>, P<sub>R</sub> digital TV video output jacks on the STB to the Y, P<sub>B</sub>, P<sub>R</sub> digital TV video input jacks on the DTV-compatible TV.
- Connect audio cables from the left and right digital TV audio output jacks on the STB to the left and right digital TV audio input jacks on the TV.

**Note:** There are three video inputs, Y, P<sub>B</sub>, P<sub>R</sub>. Separate component video inputs provide luminance and color difference signals.

#### Step 3. Antenna/Cable Connection

Connect the antenna or cable wire to the ANT (Antenna) jack on the rear panel of the STB.

You can select ANT using ANT menu under AUDIO/VIDEO menu.



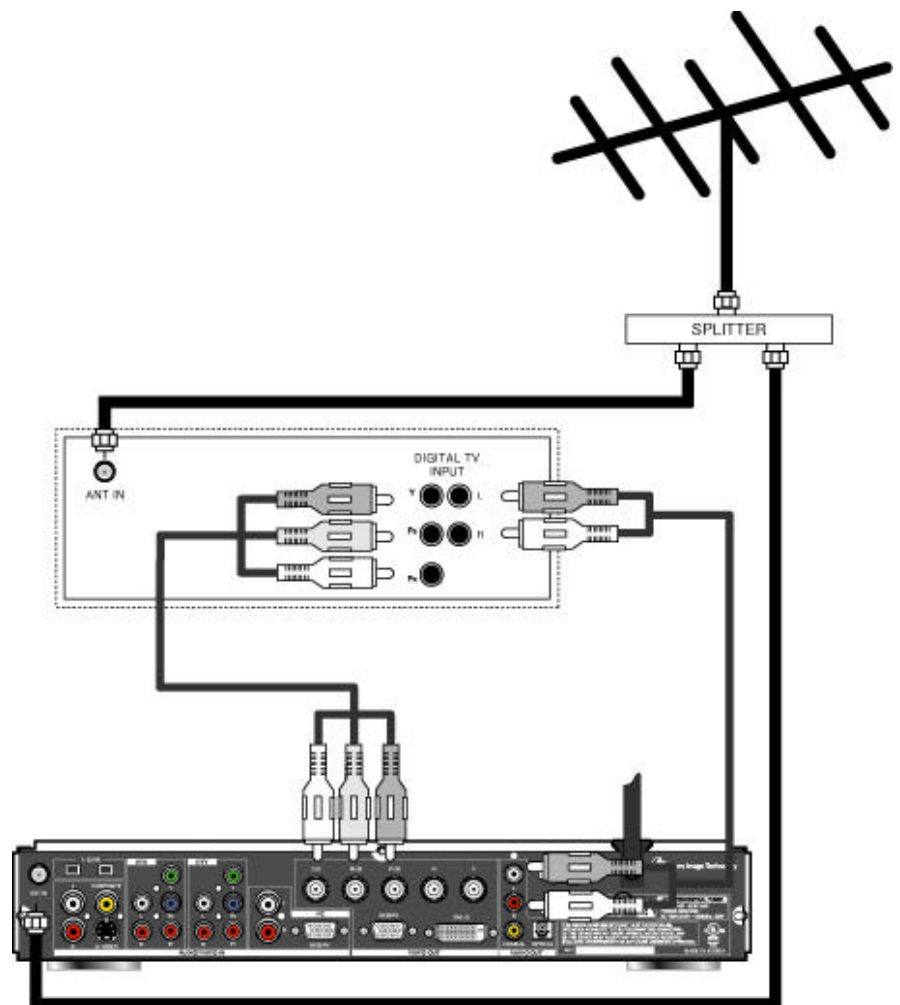
---

### Step 3a. Digital TV/Standard TV reception with DTV-Compatible TV

Follow this diagram if you have a DTV-compatible TV, no cable service and you want to receive digital channels through the STB and standard channels through the TV. An additional antenna may be required depending on which frequencies your current antenna can receive.

#### Procedure

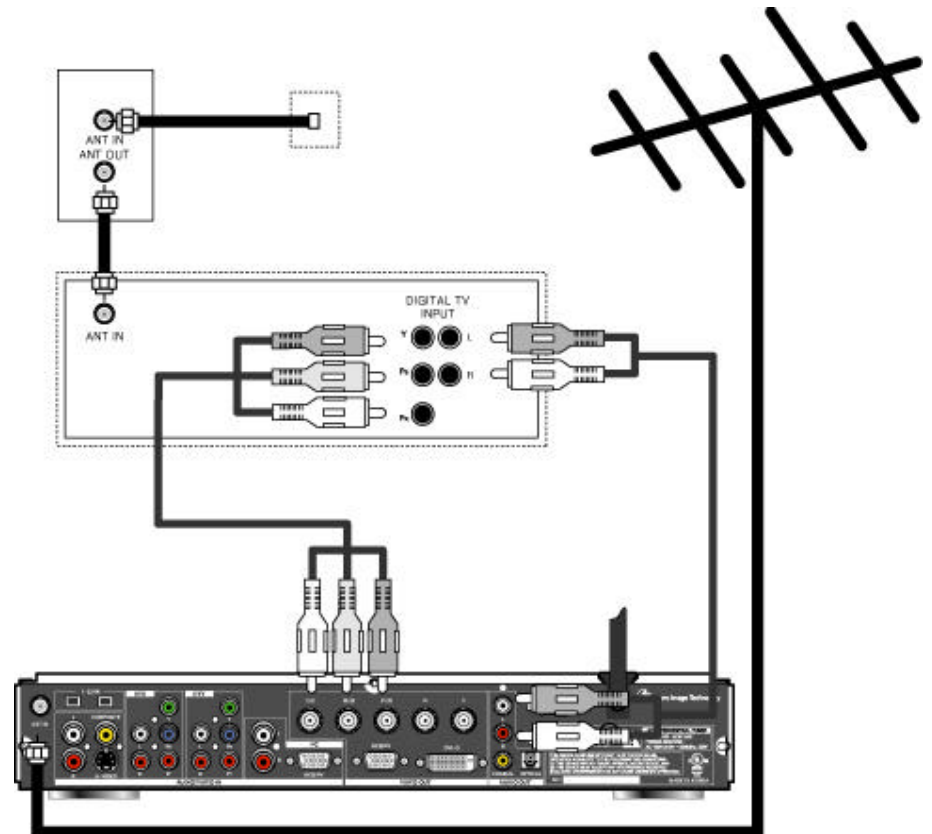
- Connect the antenna cable to a splitter.
- Connect the splitter outputs to the STB and DTV-compatible TV ANT (antenna) jacks using standard RF cables with coaxial connectors.
- Follow directions in Getting Started section to connect the STB to a DTV-compatible TV.



---

### Step 3b. Digital TV/Cable Reception with DTV-Compatible TV

Follow this diagram if you have a DTV-compatible TV, Cable service and you want to receive digital channels through the STB and cable channels through the cable box (or through the TV if you have no cable box).



#### Procedure

- Connect the antenna cable to the STB ANT (antenna) jack.

If using a cable box, connect the cable wire from the wall jack to the cable box ANT (antenna) IN jack using a standard RF cable with a coaxial connector. Connect the cable box ANT (antenna) OUT jack to the DTV-compatible TV ANT (antenna) IN jack using a RF cable.

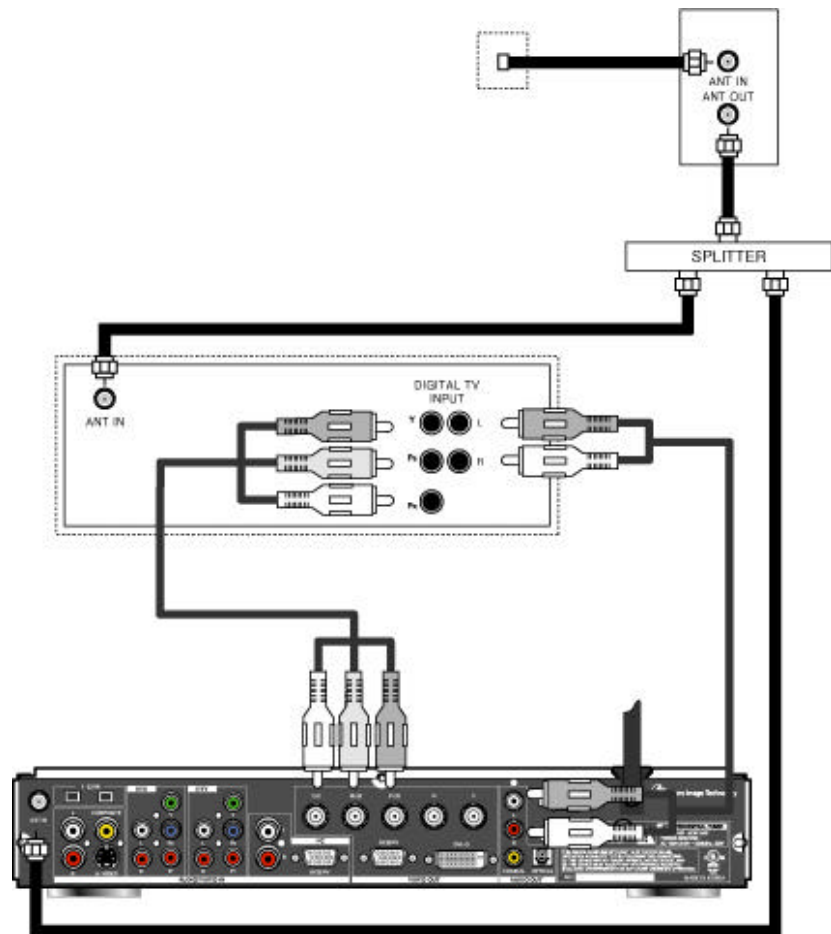
- If not using a cable box, connect the cable wire from the wall jack to the DTV-compatible TV ANT (antenna) IN jack using a RF cable (not shown).
- Follow direction in Getting Started section to connect the STB to a DTV-compatible TV.

---

### Step 3c. Digital 8VSB Cable/Analog Cable with DTV-Compatible TV

Follow this diagram if you have a DTV-compatible TV, cable service providing 8VSB digital cable and you want to receive digital cable channels through the STB and analog cable channels through the cable box (or through the TV if you have no cable box).

**Note:** The STB is able to receive DTV signals from your local cable provider **only if** they are transmitted in the 8VSB modulation format approved by the FCC for DTV transmission. Also, your cable provider may elect to transmit in the 8VSB format for only a limited period of time. **Please contact your cable provider to determine if 8VSB modulation is available.**



---

#### Procedure

- Connect the cable wire from the wall jack to the splitter using a standard RF cable with coaxial connectors. Connect one splitter output to the STB ANT (antenna) IN jack using a RF cable.
- If using a cable box, connect the other splitter output to the cable box ANT (antenna) IN jack using a RF cable. Connect the cable box ANT (antenna) OUT jack to the DTV-compatible TV ANT (antenna) IN jack using a RF cable.
- If not using a cable box, connect the other splitter output to the DTV-compatible TV ANT (antenna) IN jack using a RF cable (not shown).
- Follow directions in Getting Started section to connect the STB to a DTV-compatible TV.

---



## Step 4. Turning STB On

### Procedure

- Press the **POWER** button.





**Note:** TV should also be turned on.

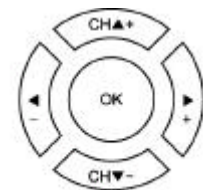
## Step 5. MENU Guide.

Press the **MENU** button to display the **Menu\***. Press the  or  arrow to change the MENU Position. Press the ESC or MENU button to exit the Roller Guide Menu.



### Step 5a. ACTION / Navigation Button

Press the **SELECT** button to select main menu items. Press the  or  arrows to highlight sub menus. Press the SELECT arrow to select features. Press the  or  arrows to scroll through options within a feature. Press the ESC or MENU to return to main menu items.



<Remote ACTION/NAVIGATION BUTTON>

---

### Step 6. Antenna/Cable Mode

Select either Antenna or Cable mode, depending on the type of incoming signal you are using.

#### Procedure

- Select INPUT to choose either ANTENNA or Cable. Using Air/Cable button.
- Select ANTENNA either A or B using ANTENNA menu.



### Step 7. Programming Available Channels

YOU MUST PERFORM THE AUTOMATIC CHANNEL PROGRAMMING BEFORE MANUALLY ADDING AND DELETING CHANNELS BECAUSE OF THE DIGITAL TUNING SYSTEM USED BY THE STB. THIS METHOD WILL ENSURE THAT EVERY AVAILABLE CHANNEL IS CAPTURED AND STORED INTO MEMORY.

#### Automatic Channel Programming

The STB will scan for all available channels and store them in memory. The scan will normally take several minutes to complete.

#### Procedure

- In **CHANNEL** Menu, select **AUTO SEARCH** to automatically scan and store all channels with a signal. It takes several minutes.





#### Manual Channel Programming

After programming all available channels, you can use the **MANUAL** feature to selectively add or delete channels.



---

### Procedure

- In **CHANNEL** Menu, select **CHANNEL ADD/DEL** to manually add or delete channels.
- Use the  ,  arrow buttons to select menu.
- Use the  and  arrow buttons to add delete channels or select a channel.

**Note:** Procedure of Favorite Channel Add/Delete are Source.

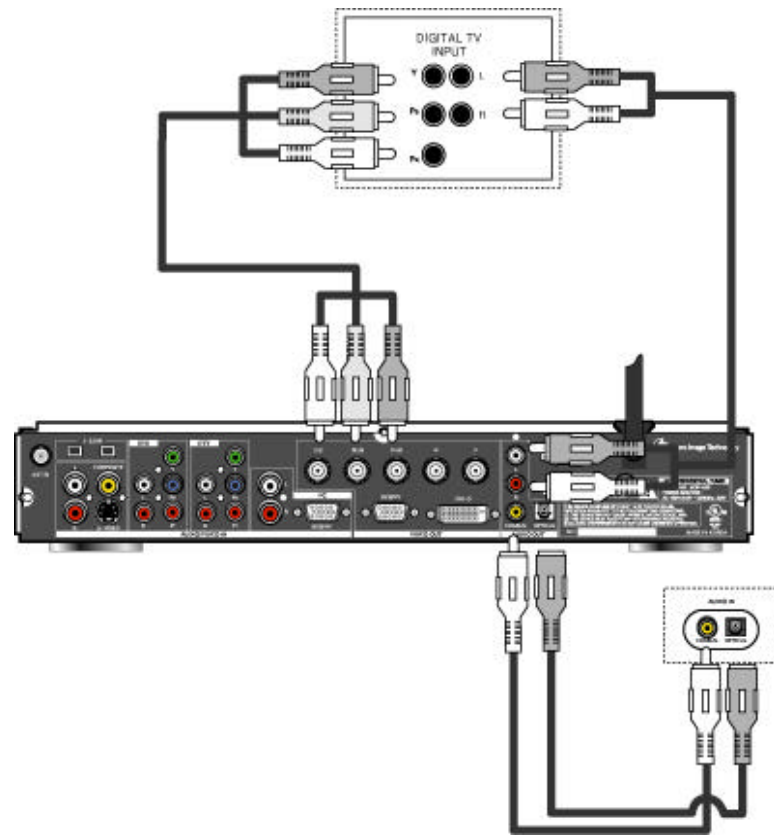


---

**OPTIONAL  
CONNECTIONS**

**Set-Top Box Connection to Dolby Digital AC-3 Decoder**

Follow this diagram to connect the STB to a Dolby Digital AC-3 decoder.



## Audio Set Up Guide

### Digital output select



Output: AC-3 and PCM

User can enjoy AC-3 output if there is an amp with AC-3 decoder.

PCM digital output: 2 channel stereo or Dolby-prologic(Lt/Rt)

### Dual Mode Select



Select a channel for channel 1(Left) and Channel 2(Right) if programs are coming separately.

Main + Sub: Channel 1-Left, Channel 2-Right

Main: Channel 1-left, Right

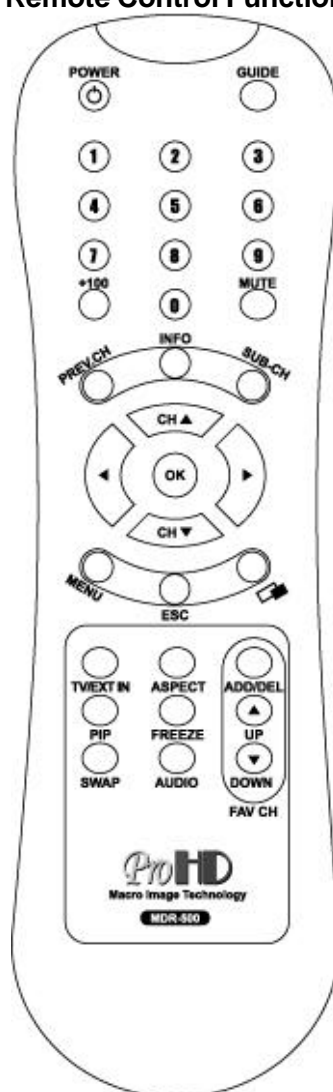
Sub: Channel 2-Left, Right

Mono: Channel 1 + Channel 2-Left, Right

## REMOTE CONTROL GUIDE

### Remote Control

#### Remote Control Functional Key Chart



Power : Turn Components on and off

Dual : Select language Code

Audio : Audio mode

Info : Display information

Freeze : Still the picture

Air/Cable : Select one of Cable & Antenna.

Fav Ch : Favorite channel add/delete,  
Favorite channel up/down

ANT : Antenna Select

Aspect : Aspect Ratio select (16:9 or 4:3)

Sleep : Sleep mode select

Guide : on/off program Guide

Caption : closed Caption on/off

Prev.ch : go to previous channel

1234567890 : Channel Set

CH+( ) – ( ) : channel up/down

Menu navigation

( ) ( ) : Menu navigation

OK : Menu Action

MENU : MENU

ESC : Previous MENU

MUTE : Audio Mute

SUB-CH : Next Program.

---

### **Battery Installation**

- Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control.
- Use two AA batteries:
- Remove the battery cover by pushing in near the arrow and sliding the cover back.
- Install batteries matching (+) and (-) polarity signs.
- Replace the battery cover.

### **Precautions**

- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
- Do not recharge, short-circuit, heat, burn, or disassemble batteries.

---

## Menu Guide

### MAIN MENU



### CHANNEL



## VIDEO



## AUDIO





## SETUP



## Roller Guide Feature Chart

### Roller Guide Menu

Press the **MENU** button on the Remote Control to display the **Menu**.

Press the  or  arrow to rotate **MENU**. Press the ESC or MENU arrow to exit the MENU.





---

## SPECIAL FEATURES

### SET UP

#### Antenna/Cable Mode

Select either Antenna or Cable mode, depending on the type of incoming signal you are using.



#### Procedure

- Select Air/Cable button to choose either ANTENNA or Cable.

#### Programming Available Channels

You must perform the automatic channel programming before manually adding and deleting channels because of the digital tuning system used by the STB, This method will ensure that every available channel will be captured and stored into memory.

#### Automatic Channel Programming

The STB will scan for all available channels and store them in memory. The scan will normally take several minutes to complete.

### Procedure

- In Menu, select CHANNEL first and select Auto search AUTO to automatically scan and store all channels with a signal.

**NOTE: As more digital channels become available in your area, the AUTO feature must be selected to store the new digital channels into memory.**

### Manual Channel Programming

After programming all available channels, you can use the MANUAL feature to selectively add or delete channels.

In MENU, you first select CHANNEL and then select one of CHANNEL ADD/DEL or FAVORITE CHANNEL.

And then using arrow key ( ) select sub menu item using arrow key ( ) you can add/delete channel or favorite channel.

