Graphical symbols and supplemental warning markings are located on the back and bottom of the terminal.

**WARNING**

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

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

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.

Product identification and supply rating are provided on the label found on the bottom of the unit.

**IMPORTANT SAFETY INSTRUCTIONS**

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install according to the manufacturer’s instructions.
- Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
Follow these important safety guidelines when positioning and connecting your TV receiver:

- Do not block the slots and openings
- Do not place anything on top of the TV receiver
- Do not position the TV receiver in a confined space, such as an enclosed cabinet, that does not provide adequate ventilation.
- Do not position the TV receiver near any external heat source that could raise the temperature around the unit. Do not place the terminal on top of another heat producing electronic device.
- Allow for adequate ventilation around the TV receiver to maintain normal operating temperature. Do not place it in a sealed enclosure without providing for adequate airflow.
- Do not plug the AC power adapter into a switched power outlet.
- A coaxial cable screen shield needs to be connected to the earth at the building entrance per ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93, Grounding of Outer Conductive Shield of a Coaxial Cable.
- Because the receiver contains a hard drive, it must be positioned so that it remains horizontal and rests on its rubber feet. Do not attempt to mount or position it in a vertical position.
- To allow the disk drive to spin down properly, wait at least 10 seconds after disconnecting power before moving the receiver.
- Always transport the receiver in its original factory carton, or in an equally well-padded container.
- Whether installed or being transported, do not expose the receiver to temperature extremes. The temperature range for operation is from 0°F to +40°C. The non-operating (transport or storage) temperature range is from -40°F to +60°C.

This manual includes the manufacturer’s recommended safeguards and all the information needed to connect your receiver to both your in-home IP network and your entertainment system. The safety and installation information was developed and provided primarily by the receiver manufacturer, ARRIS Enterprises, Inc.
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Connecting to a Home Theater Receiver, TV, and VCR 11  
Troubleshooting .......................................... 12
Congratulations on receiving this ARRIS VIP2250 U-verse DVR TV Receiver.

The VIP2250 provides these extraordinary home entertainment features:

- High Definition TV (HDTV), which provides up to twice the color resolution and up to six times the sharpness of standard TV when connected to an HD-capable TV
- A digital video recorder (DVR), which can record Standard Definition and High Definition programs
- A direct digital connection to consumer audio and video devices through multiple interfaces
- Video on Demand (VoD)
- Commercial free, CD quality music

This installation manual introduces the basic features, outlines important safeguards, and provides options for integrating your TV receiver into your entertainment system. Take a few moments to read through this manual. Its configuration diagrams and troubleshooting section will help you make the most of your home entertainment experience.

**Included in the carton:**

- VIP2250 Digital Video Recorder (DVR) Receiver
- Power adapter

For more information about your U-verse TV service, refer to the other documentation from your service provider.

**Dimensions:** 10.0” W. x 8.0” D., x 2.2” H.

**Unit Weight:** 4.37 lbs.

**Top Assembly Weight** (incl. carton and all inserts): 6.39 lbs.
Overview

Front Panel

The illustration below and the table following it describe the VIP2250 front-panel features.

<table>
<thead>
<tr>
<th>Key</th>
<th>Item</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>POWER</td>
<td>Turns the U-verse TV receiver on or off</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If held for ten (10) seconds or longer, restarts the TV receiver</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lights green when the TV receiver is on</td>
</tr>
<tr>
<td>2</td>
<td>USB</td>
<td>USB 2.0 connector</td>
</tr>
<tr>
<td>3</td>
<td>LINK</td>
<td>Lights green when receiving a video stream</td>
</tr>
<tr>
<td>4</td>
<td>HD</td>
<td>Lights blue when receiving video resolution of 720p or 1080i</td>
</tr>
<tr>
<td>5</td>
<td>RECORD</td>
<td>Lights red when a recording is in progress</td>
</tr>
<tr>
<td>6</td>
<td>MENU</td>
<td>Displays the menu</td>
</tr>
<tr>
<td>7</td>
<td>Up/Down</td>
<td>Changes the channel (channel up/channel down)</td>
</tr>
<tr>
<td></td>
<td>arrow keys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Left/Right</td>
<td>Use to navigate through on-screen program guide and menu</td>
</tr>
<tr>
<td></td>
<td>arrow keys</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OK center key</td>
<td>Use to select programs or menu options</td>
</tr>
</tbody>
</table>
Rear Panel

The illustration below and the table following it describe the VIP2250 front-panel features.

<table>
<thead>
<tr>
<th>Key</th>
<th>Item</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TO WALL (VIDEO IN)</td>
<td>Coaxial input for digital signal from your service provider</td>
</tr>
<tr>
<td>2</td>
<td>NETWORK</td>
<td>Ethernet 10/100Base-T RJ-45 port for IP video output</td>
</tr>
<tr>
<td>3</td>
<td>eSATA</td>
<td>(Reserved for future use)</td>
</tr>
<tr>
<td>4</td>
<td>OPTICAL</td>
<td>Toslink (S/PDIF) audio output to a digital home theater receiver</td>
</tr>
<tr>
<td>5</td>
<td>S-VIDEO</td>
<td>High-quality video output to a VCR or TV that accepts S-Video. It carries video only; you must also connect to the TV or home theater receiver for audio</td>
</tr>
<tr>
<td>6</td>
<td>Y Pb Pr</td>
<td>RCA component video outputs to an HDTV</td>
</tr>
<tr>
<td>7</td>
<td>VIDEO OUT</td>
<td>RCA video outputs to a TV, VCR, or other device</td>
</tr>
<tr>
<td>8</td>
<td>AUDIO OUT R and L</td>
<td>Left and right RCA stereo audio outputs</td>
</tr>
<tr>
<td>9</td>
<td>TO TV (VIDEO OUT)</td>
<td>Coaxial output to connect the TV receiver to the TV or VCR</td>
</tr>
<tr>
<td>10</td>
<td>HDMI</td>
<td>Connects to a High Definition TV or home theater receiver with an HDMI input (for a DVI input, use an HDMI-to-DVI adapter)</td>
</tr>
<tr>
<td>11</td>
<td>USB</td>
<td>USB 2.0 connector</td>
</tr>
<tr>
<td>12</td>
<td>POWER +12 VDC</td>
<td>Connector for the DC power adapter (36 W.)</td>
</tr>
</tbody>
</table>
Connecting Your TV Receiver

This section describes connecting the VIP2250 to your home entertainment system. Instructions and diagrams are included for connections to:

- High-Definition TV (HDTV)
- Home Theater Receiver–Audio
- Stereo TV
- Stereo TV and Stereo VCR
- Home Theater Receiver, TV, and VCR

Before you move or change components on your entertainment system, disconnect power from the TV receiver.

Connection Options

The VIP2250 offers the following video outputs:

<table>
<thead>
<tr>
<th>HDTV</th>
<th>HDMI or Component video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>S-Video, Composite video, or RF coaxial</td>
</tr>
</tbody>
</table>

To determine the available inputs on your TV, check the manual supplied with the TV or on the TV itself. Use the following guidelines to determine the best connections for your system. Use one of the following.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-Definition</strong></td>
<td></td>
</tr>
<tr>
<td>HDMI</td>
<td>HDMI offers higher video quality than component video. If your HDTV has an HDMI input, use the HDMI connector. HDMI provides both digital video and digital audio (including Dolby® Digital 5.1 Surround Sound). No other connections are necessary. If your HDTV has a DVI input, you can use an HDMI-to-DVI converter cable to connect to the VIP2250 HDMI connector. Use a cable with an HDMI connector on one end and a DVI connector on the other end. We do not recommend using an HDMI-to-DVI or DVI-to-HDMI adapter. Because DVI does not carry audio, a separate audio connection is required for a DVI TV. If your TV has an optical S/PDIF audio connection, use the OPTICAL connection. Otherwise, use the baseband AUDIO L and R connections.</td>
</tr>
<tr>
<td>Component Video</td>
<td>The Y Pb Pr connectors provide component video, the most widely supported HDTV connection. Component video provides a High-Definition analog video signal. If your equipment supports an optical S/PDIF audio connection, use the OPTICAL connection. Otherwise, use the baseband AUDIO L and R connections.</td>
</tr>
</tbody>
</table>
Connecting Your TV Receiver

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-Video</td>
<td>If your standard TV has an S-Video input, use S VIDEO, which is the highest quality Standard-Definition video output on the VIP2250. S-Video provides a Standard-Definition analog video signal. If your equipment supports an optical S/PDIF audio connection, use the OPTICAL connection. Otherwise, use the baseband AUDIO L and R connections.</td>
</tr>
<tr>
<td>Composite Video</td>
<td>If your standard TV does not have an S-Video input, use the composite VIDEO OUT connector. Composite video provides a Standard-Definition analog video signal. If your equipment supports an optical S/PDIF audio connection, use the OPTICAL connection. Otherwise, use the baseband AUDIO L and R connections.</td>
</tr>
<tr>
<td>RF Coaxial</td>
<td>If your TV only has a coaxial RF input, use the coaxial TO TV (VIDEO OUT) connector. RF coaxial provides a Standard-Definition video and audio signal. No other connections are necessary.</td>
</tr>
</tbody>
</table>

Common Cabling Examples

The following cabling diagrams illustrate common sample audio/video (A/V) connections. When connecting other components to your TV Receiver, refer to the other component installation manuals for additional connection information.
### Connecting to an HDTV – Video Only

- Connect an RF coaxial cable to the cable wall outlet and the TO WALL (VIDEO IN) connector on the TV receiver.
- If your HDTV has an HDMI input, connect an HDMI cable to the HDMI connector. HDMI connection carries both video and audio signals.
- If your HDTV has a DVI input, you can use an HDMI to DVI converter to connect to the VIP2250 HDMI connector.
- If your HDTV has component video, connect component video cables to the Y, Pb, and Pr connectors.

DVI and component video carry video signals only. To connect the audio, refer to the following page. To connect to a home theater receiver, refer to “Connecting to a Home Theater Receiver – Audio Only.”
Connecting to an HDTV – Audio Only

RF (75 Ohm) connection  Optical S/PDIF connection  Baseband audio connection

If your equipment supports it, use the OPTICAL S/PDIF output. Otherwise, use the AUDIO OUT L and R connectors. In most cases, S/PDIF offers better audio quality, including support for Dolby Digital 5.1 Surround Sound.

HDMI carries video and audio. If you connect your HDTV using HDMI, no additional audio connections to the TV are necessary.
Connecting to a Home Theater Receiver

RF (75 Ohm) connection
Optical S/PDIF connection
Baseband audio connection

If your home theater receiver supports it, use the OPTICAL S/PDIF output. Otherwise, use the AUDIO OUT L and R connectors. In most cases, S/PDIF offers better audio quality, including support for Dolby Digital 5.1 Surround Sound.

Need Help:
Contact AT&T ConnecTech® service to learn about affordable flat-rate home theater installation services.
Call (800) 344-1734 to speak with an AT&T ConnecTech Representative.
(Not available in all areas; See offers and terms & conditions at www.att.com/ConnecTech)
Connecting to a Stereo TV

RF (75 Ohm) connection  S-Video connection  Baseband video connection  Baseband audio connection  Optical S/PDIF connection

This video connection method does not support HD video. For more information, see “Connecting an HDTV – Video Only.”
Connecting to a Stereo TV and Stereo VCR

RF (75 Ohm) Baseband video Baseband audio
connection connection connection

Video in

Sample stereo VCR Sample stereo TV

This video connection method does not support HD video. For more information, see “Connecting to an HDTV – Video Only.”
Connecting to a Home Theater Receiver, TV, and VCR

RF (75 Ohm) connection
Baseband video connection
Baseband audio connection
Optical S/PDIF connection

Video in

Sample stereo VCR
Sample stereo TV
Sample home theater receiver

This video connection method does not support HD video. For more information, see “Connecting to an HDTV – Video Only.”

VIP2250 U-verse DVR Receiver Installation Manual 11
## Troubleshooting

Before calling your service provider, review this troubleshooting guide. If the suggestions do not help you quickly solve a problem, contact your service provider.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Solution</th>
</tr>
</thead>
</table>
| The TV receiver will not power on.   | Verify that the power adapter is connected to the TV receiver and an AC outlet. Unplug the TV receiver from the outlet, plug it back in, and press the POWER button.  
If the TV receiver is connected to a switched outlet on a wall or another unit, verify that the switch or unit is powered on. Unplug the TV receiver from the AC outlet, plug it back in, and press the POWER button.  
Press the POWER button on the TV receiver front panel instead of the remote control. The batteries in the remote control may be depleted. |
| The remote control does not work.    | Verify that the TV is on.  
Verify that the remote control is on AT&T mode.  
Verify that there are no obstructions between the remote control and the TV receiver. Aim the remote control directly at the TV receiver front panel, not the TV or VCR.  
The angle between the remote control and the TV receiver may be too large. Stand in front of the TV receiver and not too far to either side.  
Press and release operation keys one at a time, firmly and deliberately.  
Try changing channels using the buttons on the TV receiver front panel.  
Check the batteries in the remote control. Install new batteries if needed. |
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no audio when viewing TV channels.</td>
<td>Verify that the Mute button on the remote control has not been pressed. Press Mute on the remote control to restore sound.</td>
</tr>
<tr>
<td></td>
<td>If the TV receiver audio output is connected to the TV, verify that the Mute button on the TV has not been pressed.</td>
</tr>
<tr>
<td></td>
<td>If the TV receiver audio output is connected to a home theater receiver, verify that the home theater receiver is set to the appropriate input source and its Mute button has not been pressed.</td>
</tr>
<tr>
<td></td>
<td>Verify that you have the correct cables for the audio ports.</td>
</tr>
<tr>
<td></td>
<td>Verify that the audio cables are firmly connected between the TV receiver and the audio playback device (TV, home theater receiver, etc.).</td>
</tr>
<tr>
<td>There is no audio from the center and/or surround speakers of a home theater receiver connected to the TV receiver.</td>
<td>Not all Dolby Digital programs feature full 5.1 surround sound. In some cases, the programs may only contain left and right stereo audio.</td>
</tr>
<tr>
<td></td>
<td>Verify that the Optical S/PDIF cable is firmly connected to the TV receiver and the home theater receiver.</td>
</tr>
<tr>
<td></td>
<td>Verify that the home theater receiver is set to a surround sound audio mode (Dolby Digital, Dolby Pro Logic® II, Dolby Pro Logic).</td>
</tr>
<tr>
<td></td>
<td>Verify that the home theater receiver is properly configured to work with all connected speakers.</td>
</tr>
</tbody>
</table>
Regulatory Information

Federal Communications Commission Radio and Television Interference Statement for a Class ‘B’ Device

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 the 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 the 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 of the following measures:

• Reorient or relocate the device and/or the antenna receiving the interference.
• Increase the separation between the equipment and the affected receiver
• Connect the equipment on a circuit different from the one the receiver is on
• Contact your service provider for help.

Changes or modification not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Declaration of Conformity

According to 47 CFR, Parts 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers, ARRIS Enterprises, Inc., 6450 Sequence Drive, San Diego, CA 92121, 1 800 225 9446, declares under sole responsibility that the product identifies with 47 CFR Part 2 and 15 of the FCC Rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47 CFR 2.909. Operation is subject to the following condition: This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47 CFR, Paragraphs 15.101 to 15.109. The Class B digital apparatus meets all requirements of the Canadian Interface Causing Equipment Regulations.
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VIP2250 U-verse DVR Receiver
ARRIS Enterprises, Inc. (“ARRIS”)
3871 Lakefield Drive
Suwanee, Georgia 30024 USA

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**ARRIS VIP2250**

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ARRIS Enterprises, Inc.
Software Pedigree Operations
2450 Walsh Avenue, Santa Clara, CA 95051, USA

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MEMTEST

Description: General-purpose memory testing functions.

Notes: Some of the constants in this file are specific to Arcom's Target188EB hardware. This software can be easily ported to systems with different data bus widths by redefining ';datum';.

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