Only use attachments/accessories specified by the manufacturer.

To reduce the risk of fire or electric shock do not

Clean only with dry cloth.

Do not install near any heat sources such as radiators, heat registers,

Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Unplug the apparatus during lightning storms or when unused for long periods of time.

Do not defeat the safety purpose of the polarized or grounding-type plug.

A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Do not use this apparatus near water.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.

WARNING: To reduce the risk of fire or electric shock do not

The lightning flash with arrowhead within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the apparatus enclosure that may be of 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 product.

FCC Statement
FCC Compliance and Advisory Statement: This hardware device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial 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: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for help. Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

Important Safety Instructions, Save These Instructions.

1. Keep these instructions.
2. Heed all warnings.
3. Follow all instructions.
4. Do not use this apparatus near water.
5. Clean only with dry cloth.
6. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

ZeeVee products convert your video and audio source to a digital cable channel and broadcast it over coax to all your HDTVs. This guide walks you through basic and more enhanced setup for ZeeVee’s HDbridge 2500/2600 DIRECTV Series modulators.

If you run into problems during setup, feel free to contact Technical Support at +1(877) 4-ZEEVEE (1.877.493.3833).

Welcome to ZeeVee.

ZeeVee Modulator

H25 Audio/Video Cables
x2 with HD2520-DT and HD2620-DT
x4 with HD2540-DT and HD2640-DT

Here’s what you can expect to find when you open the package:

What’s in the Box

Contact ZeeVee

Warranty

Troubleshooting

Labeling channels with channel and content information

Using other Maestro tabs

Configuring RF numbers and virtual channels

Connecting with Maestro

Maestro Configuration

FCC Statement
Front and Back Panels

1. Model Number  
   Name and description of unit
2. Color Display  
   Displays configuration and system status
3. 5-Way Control  
   Navigate options on front panel display
4. Coax Output  
   Up to 2 paired, frequency-agile QAM RF CATV output channels for up to 4 video sources. Output power can be set between +45 to +25 dBmV using the Maestro web interface or the front panel.
5. Audio/Video Inputs  
   Full size DIN connector for A/V input
6. 10/100 LAN Port  
   Two symmetrical Ethernet ports for configuration and remote management
7. AC Power Input  
   100-240VAC / 50-60Hz

Basic Installation

Factory default settings allow HDbridge2500/2600-DT series modulators to broadcast up to 4HD sources on RF channels 2, 3, 5, and 6 for reception at connected HDTVs. We recommend using the most updated version of firmware. You can find the latest version on the Support section of our website.

Beginning setup

1. Apply power.
2. Use the A/V cable to connect the mini-DIN connector to the A/V Output on your H25 Receiver and the DIN connector to the AV Input on the HDbridge unit.
3. Connect the Coaxial Output of the HDbridge unit to your RF network.
4. If the RF power for your network is too high, you will observe video breakup.
5. Specify Cable (not Air or Antenna) setting in your TV menu.
6. Enter the RF number to tune directly to the channel. (Refer to the Default Channel Lineup for default information.)
7. If you cannot tune directly to the channel at this point, it is because most TVs will require you to run a full Auto Scan.
8. Run the Auto Scan through the menu system of your HDTV to find the channels.

Tuning your channel at the HDTV (Auto Scan)

1. Connect the Coaxial Output of the HDbridge unit to your RF network. If the RF power for your network is too high, you will observe video breakup.
2. Specify Cable (not Air or Antenna) setting in your TV menu.
3. Enter the RF number to tune directly to the channel. (Refer to the Default Channel Lineup for default information.)
4. If you cannot tune directly to the channel at this point, it is because most TVs will require you to run a full Auto Scan.

WARNING: +45 dBmV  
Do not connect directly to HDTV

H25 A/V Cable

The H25 Cable passes information as follows:
- Video: Component
- Closed Captioning: Composite
- Audio: Analog

H25 A/V cables are included with this product for use with DIRECTV H25 receivers. Standard Hydra A/V cables and VGA-DIN cables for use with other video sources can be purchased separately from your distributor.
Front Panel Configuration

You can set the RF broadcast channels using the front panel controls. In many cases, your ZeeVee modulator will require only these configurations.

Setting the RF broadcast channels or power

1. Unlock the panel by pressing/holding together the left and right arrow buttons (↑↓) until "Setup" lights up.
2. Press "OK" to enter the Configuration screen.
3. Press "OK" to select "RF Setup".
4. Use the arrow buttons (↑↓) to go to each item you want to configure (such as RF Number or RF Power), then press/hold "OK" to edit the highlighted field. Use the up and down (↑↓) arrow buttons to scroll through the options for that field.
5. Once you've made changes, press "OK" to accept. You can then select the next item for configuration.
6. When finished making changes, use the arrow buttons to scroll down and select "Apply," then click "OK" to save your changes. Note: The front panel locks automatically after a few seconds. To make more changes, press/hold the left and right arrow buttons again to unlock front panel capabilities.

To update firmware:
- If unit is connected to the internet and can communicate with our servers, select Update Firmware from the Setup screen and press "OK." When finished making changes, use the arrow buttons to scroll down and select "Apply," then click "OK" to save your changes.
- To restore factory defaults or revert firmware:
  - Press "OK" to boot normally
  - DOWN to revert FW
  - UP to reset config

IMPORTANT NOTES
- RF numbers are applied in pairs based on the frequency map. For instance, if you enter RF # 2, then RF # 3 cannot be applied to it if the RF channels are paired and with RF frequency. You will need to refer to this map when configuring RF numbers and virtual channels.
- RF numbers “4” and “5” cannot be paired together because of a gap in the frequencies (MHz). The RF numbers are applied in pairs based on the frequency map. For instance, if you enter RF # 4, then RF # 5 cannot be paired to it if the RF channels are paired and with RF frequency.
- The RF numbers are not always paired in numerical sequence (as with RF # 6, which pairs with 95, and RF # 99 which pairs with 14 and so on).
- ZV channels can be set directly adjacent to any other well-formed channel and will not cause interference. No channel spacing is required.

The highlighted areas in the frequency map show the RF numbers that can be paired together but are not numerically sequential.
Maestro Configuration

Maestro is a configuration tool that you use optionally to customize your system beyond what is allowed in the front panel. For example, using Maestro you can assign a channel number (virtual channel) independent of the RF number and label the channels.

Connecting with Maestro
1. Connect your computer directly to the ZeeVee modulator using a standard Ethernet cable (not a cross-over cable) or connect the unit and your computer to any LAN that has a DHCP server.
2. After a few moments, an address will appear at the top of the front panel display.
3. Using any web browser (Chrome or Firefox preferred) enter the IP address to launch Maestro.
4. You will be directed to a login page. Your user name is always “admin.” The default password is “admin” but you can change the password. Login is case-sensitive.
5. After you log in, the Maestro Status tab appears. Here you can see the general information status.

Configuring RF numbers and virtual channels
1. Click on the Channel Plan tab.
2. Click in the RF # field and enter the RF number as you choose from the RF Frequency Map (on page 7). Make sure you’ve reviewed the RF Frequency Map Important Notes before completing this task.
3. Click in the Channel # field and enter a channel number (virtual channel). The channel number is what the TV displays. You can configure a channel number two ways:
   • As a dotted number — Enter the number with a “.” following it, for example, “5.1”. This is the default display.
   • As a dotless number — Enter the number with a “#” preceding it, for example, “#5”.
   Note that you can choose a channel number that is different from the RF#. For instance, if your RF# is 3, you can choose a channel number of 10.1 or #10.
4. Click Apply to save changes. Your unit stores configurations so they are not lost on power-down.
5. Run Auto Scan at TV (see Tuning your channel at the HDTV, page 5) when you have saved configuration changes.

Labeling channels with channel and content information
1. In the Channel Plan tab, click in the Name field and enter the channel short name (up to 7 characters).
2. Click in the Long Name field and enter the long or more descriptive channel name (up to 63 characters). The TV displays these names and descriptions when the channel is changed or info guide information is requested.
3. Click Apply to save changes.

Using the other Maestro tabs
Click on any other Maestro tab to configure your unit as needed. We provide brief information below. Please click on the Help button on each tab or refer to the Support section of our website for further detail on configuration options.

THE RF TAB
Allows you to change the RF power output.

THE DEVICE TAB
Allows you to change the device password and update firmware as well as configure Emergency Alert System (EAS). You can find detailed information on EAS in the Support section of the website.

THE NETWORK TAB
Allows you to assign a static IP address.

THE SUPPORT TAB
Provides technical support contact information and allows you to send logs for troubleshooting.

AV SOURCE TAB
Allows you to specify audio and video sources as well as other configuration options for the sources.

ADMIN TAB
Allows for creating user accounts which limit access to specific parts of Maestro including ZvShow, STB and EAS access.

STB TAB
Allows for high level management of networked DirecTV H25 Set Top Boxes. For details on the network setup please see the STB application note on our website.
HDbridge 2500/2600-DT Configuration Guide

Troubleshooting

If unable to connect, try one of the following:

• If you are getting a page not found error when directly connected to a PC, try disabling WIP. If you are still unable to connect, try making sure your PC is on the same IP subnet for communication. For details on how to check for a static IP address, please see the FAQ section of our website.

• If the page loads, but all you see is a purple background and the ZeeVee logo (and are not prompted to log in) please try a different web browser. We have found some older versions of Internet Explorer are not compatible with the Maestro tool. Upgrading E or using Firefox or Chrome should correct the issue.

No picture output from ZeeVee equipment

Verify that the HD bridge has a digital cable tuner. Verify that you have performed a full channel scan on the HD bridge with “callback” enabled. Verify that the ZeeVee unit is powered on. If the ZeeVee unit is a ZeeVeeHD product, ensure that the ZeeVee unit is connected to the HDTV via an HDMI cable. If the ZeeVee unit is the ZeeVeeHD-700-2000, ensure the ZeeVee unit is connected to the HDTV via an component cable.

If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV will not display and that these signals may cause RF power imbalances.

If you are combining with a digital cable service and the unit does not work, ensure that the digital cable service has an RF output that is compatible with the ZeeVee unit. If not, you will need to purchase an RF input splitter or other RF components that allow you to combine with the digital service.

If you are combining with a cable service, keep in mind that most analog cable systems may still use analog channels and cause sync issues.

Image breakup (bouncing Idle Screen logo)

One reason this may happen is when the unit does not detect video input. Verify the source is and producing a video signal, then verify the source is outputting a supported resolution. If the Video Source (Channel Plan tab in Menu) is set to Auto, the ZeeVee unit will automatically select the source closest to any channel your broadcast service is configured to. If you set the specific video source to Auto, the ZeeVee unit will only select a source that supports the same video format as the other source.

If you are combining with a source, keep in mind that you may sometimes see extra signals that a TV that does not display and that these signals may cause RF power imbalances.

There may also be an RF power balance issue. Verify that the RF power of the unit is balanced with signals from other components in your cable system. If you are combining with a cable service outside of your country, you may need to adjust the RF power of the unit.

Audio and video are not synchronized

If both the audio and video are being sent through the unit to the TV, but the Virtual firmware is fully updated, later versions of firmware may have lip sync corrections.

If the audio is heard directly from the source into a distributed (whole house) audio system and not through the ZeeVee unit, it will arrive to the speakers before the video arrives to the HDTV. This happens because the video is being encoded and decoded just as the audio did. If the ZeeVee unit does not detect video input, the audio signal is not sent to the HDTV. If the ZeeVee unit cannot sense video input or display video, the audio signal will be sent to the HDTV.
**Contact ZeeVee**

**Support**

Contact us for installation and technical support, repairs, and warranty service:

+1 (877) 4-ZEEVEE (1.877.493.3833)

support@zeevee.com

Representatives are available from 9:00 AM to 6:00 PM, Monday through Friday (Eastern Time).

**Sales**

**North America:**

+1 (347) 851-7364 Phone

sales@zeevee.com

**EMEA:**

+44 1494 956677 Phone

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If you choose to register by mail, complete the form below and mail to ZeeVee at the address on the back. Be sure to PRINT CLEARLY and attach a postcard stamp.

Fill out the form, attach a stamp, and mail to ZeeVee

Contact +1.877.493.3833 or warranty@zeevee.com with any questions.