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

Important Safety Instructions. Save These Instructions.

WARNING: When using electronic products, basic precautions should always be followed, including:

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 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.
9. Power cord must be allowed to allow for the removal of power from the unit.
10. Protect the power cord from being walked on or pinched, particularly at plugs, conveniences receptacles, and the point where they exit from the apparatus.
11. Unplug the apparatus during lightning storms or when unused for long periods of time.
12. Only use attachments/accessories specified by the manufacturer.
13. 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.
14. WARNING: To reduce the risk of fire or electric shock do not remove the cover or back. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONAL.

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 B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed or 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. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

Welcome to ZeeVee.

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 Series modulators.

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

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

ZeeVee Modulator

AC Power Cord

Hydra Audio/Video Cables x2 with HDb2620 and HDb2520
x4 with HDb2640 and HDb2540

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE THE COVER OR BACK.
NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONAL.
Factory default settings allow HDb2500/2600 Series modulators to broadcast up to 4 HD 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 AC power.**
2. **Connect the component (or VGA) video connectors on the AV cable to the corresponding video outputs on your video source.** Use the composite (yellow) connector for closed captioning.
3. **Connect either the Digital (orange) or Analog (red/white) audio connectors on the AV Cable to the audio outputs on your video source.**

### Tuning your channel at the HDTV (Auto Scan)
1. **Connect the Coaxial Output of the HDb2000 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.) 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.
4. **Run the Auto Scan through the menu system of your HDTV to find the channels.**
Unlock front panel capabilities.

Hold the left and right arrow buttons again to unlock the panel.

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".
- To reset IP address:
  - Power down the unit.
  - Hold the left and right arrow buttons down and select "Apply," then click "OK." To revert firmware:
- When using DHCP, select Reset IP Address to force a release/renew of your IP address, and press "OK." To reset RF address:
- Power down the unit.
- Hold the left and right arrow buttons down and select "Setup." (Press the highlighted field. Use the up and down (▲▼) arrow buttons to scroll through the options for that field.)
- Once you’ve made changes, press "OK" to accept. You can then select the next item for configuration.
- When finished making changes, use the arrow buttons to scroll down and select "Apply," then click "OK" to save your changes.

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" (RF Power). Press "OK" to edit the highlighted field. Use the up and down (▲▼) arrow buttons to scroll through the options for that field.

4. Once you’ve made changes, press "OK" to accept. You can then select the next item for configuration.

5. 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 5 minutes of inactivity.

To restore factory defaults or revert firmware:
- OK to boot normally
- DOWN to revert FW
- UP to reset config
- • The RF numbers are matched with RF frequency.
- • RF numbers “4” and “5” cannot be paired together because of a gap in the frequencies (MHz).
- • 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.

IMPORTANT NOTES

- No channel spacing is required (except for:
  - Channel 5: Video = 78.0 MHz
  - Channel 6: Video = 84.0 MHz
- IRC Frequencies = Same as Standard Frequencies minus 1.25 MHz

Frequency Map shows how Cable TV Channels vs RF Frequency (MHz) are matched with RF number. You will need to refer to this map when configuring RF numbers and virtual channels.

The Cable TV Channels vs RF Frequency (MHz) Map shows how the RF channels are paired and matched with RF Frequency. You will need to refer to this map when configuring RF numbers and virtual channels.

IMPORTANT NOTES

- RF numbers are applied in pairs based on the frequency map. For instance, if you choose RF # 1 and RF # 2, then RF # 3 automatically populates.

Cable TV Channels vs RF Frequency (MHz) Map

<table>
<thead>
<tr>
<th>RF Ch</th>
<th>Band MHz</th>
<th>RF Ch</th>
<th>Band MHz</th>
<th>RF Ch</th>
<th>Band MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54.65</td>
<td>2</td>
<td>54.65</td>
<td>3</td>
<td>54.65</td>
</tr>
<tr>
<td>2</td>
<td>54.65</td>
<td>4</td>
<td>54.65</td>
<td>5</td>
<td>54.65</td>
</tr>
<tr>
<td>3</td>
<td>54.65</td>
<td>6</td>
<td>54.65</td>
<td>7</td>
<td>54.65</td>
</tr>
<tr>
<td>4</td>
<td>54.65</td>
<td>8</td>
<td>54.65</td>
<td>9</td>
<td>54.65</td>
</tr>
<tr>
<td>5</td>
<td>54.65</td>
<td>10</td>
<td>54.65</td>
<td>11</td>
<td>54.65</td>
</tr>
<tr>
<td>6</td>
<td>54.65</td>
<td>12</td>
<td>54.65</td>
<td>13</td>
<td>54.65</td>
</tr>
<tr>
<td>7</td>
<td>54.65</td>
<td>14</td>
<td>54.65</td>
<td>15</td>
<td>54.65</td>
</tr>
<tr>
<td>8</td>
<td>54.65</td>
<td>16</td>
<td>54.65</td>
<td>17</td>
<td>54.65</td>
</tr>
<tr>
<td>9</td>
<td>54.65</td>
<td>18</td>
<td>54.65</td>
<td>19</td>
<td>54.65</td>
</tr>
<tr>
<td>10</td>
<td>54.65</td>
<td>20</td>
<td>54.65</td>
<td>21</td>
<td>54.65</td>
</tr>
<tr>
<td>11</td>
<td>54.65</td>
<td>22</td>
<td>54.65</td>
<td>23</td>
<td>54.65</td>
</tr>
<tr>
<td>12</td>
<td>54.65</td>
<td>24</td>
<td>54.65</td>
<td>25</td>
<td>54.65</td>
</tr>
<tr>
<td>13</td>
<td>54.65</td>
<td>26</td>
<td>54.65</td>
<td>27</td>
<td>54.65</td>
</tr>
<tr>
<td>14</td>
<td>54.65</td>
<td>28</td>
<td>54.65</td>
<td>29</td>
<td>54.65</td>
</tr>
<tr>
<td>15</td>
<td>54.65</td>
<td>30</td>
<td>54.65</td>
<td>31</td>
<td>54.65</td>
</tr>
<tr>
<td>16</td>
<td>54.65</td>
<td>32</td>
<td>54.65</td>
<td>33</td>
<td>54.65</td>
</tr>
<tr>
<td>17</td>
<td>54.65</td>
<td>34</td>
<td>54.65</td>
<td>35</td>
<td>54.65</td>
</tr>
<tr>
<td>18</td>
<td>54.65</td>
<td>36</td>
<td>54.65</td>
<td>37</td>
<td>54.65</td>
</tr>
<tr>
<td>19</td>
<td>54.65</td>
<td>38</td>
<td>54.65</td>
<td>39</td>
<td>54.65</td>
</tr>
<tr>
<td>20</td>
<td>54.65</td>
<td>40</td>
<td>54.65</td>
<td>41</td>
<td>54.65</td>
</tr>
<tr>
<td>21</td>
<td>54.65</td>
<td>42</td>
<td>54.65</td>
<td>43</td>
<td>54.65</td>
</tr>
<tr>
<td>22</td>
<td>54.65</td>
<td>44</td>
<td>54.65</td>
<td>45</td>
<td>54.65</td>
</tr>
</tbody>
</table>

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 IP 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. You can also change from DVB-T to DVB-C and from CCIR to None.

THE DEVICE TAB
Allows you to change the device password and update firmware.

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.
Synchronized does not fill VGA or Image (bouncing Idle Screen to Maestro) Unable to
work around the issue, you can try one of the following:
- If both the audio and video are being sent through the unit to the TV, be sure your firmware is fully updated, later versions of
  firmware may have lip sync corrections.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels,
  keep in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.

VGA or HDMI Input (when available) with an HDBridge 2000 Series
HDscreen
to ensure the picture is the same.

The unit is broadcasting in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
channel number that is not available.

The unit is broadcasting in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
channel number that is not available.

To get around the issue, you can try one of the following:
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
- If you are combining with other modulators, be sure the RF# selected on the unit does not conflict with any other channels, keep
  in mind that some networks may switch signal to adjacent channels and cause unexpected interference.
- If you are combining with a cable service, keep in mind that they sometimes have extra signals that a TV that is not display
  and often have other signals.
- There may also be a RF power balance issue. Verify that the RF power of the unit is balanced with signals from other
  networks, the power from the cable company, and any other RF signals that you may be seeing. Also, if you are using
  modulators and from the cable company. As a test, try removing all other signals (cable, other modulators, etc) and see if you
  still see similar issues.
- Set the unit to broadcast in “compatibility mode.” This means it’s receiving a resolution from your VGA/HDMI source that
  is not completely vacant. Image or video break up is often caused by an issue in the RF/coax network. You may have chosen a
  channel number that is not available.
## 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

EMEAsales@zeevee.com

---

### Ways to Register

- **Maestro:** Click on "ZeeVee Website" in the Support Tab when you begin your configuration.
- **Mobile:** Click on the QR code with your mobile device’s code reader app.
- **Online:** Go to zeevee.com/register.
- **Email:** Send an email with all card info (below) to warranty@zeevee.com.
- **Mail:** Fill out the form, attach a stamp, and mail to ZeeVee.

---

### Contact Details

<table>
<thead>
<tr>
<th>Customer Details</th>
<th>Product Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>End User Company Name</td>
<td>Model Number</td>
</tr>
<tr>
<td>End User Address 1</td>
<td>Invoice or PO Number</td>
</tr>
<tr>
<td>End User Address 2</td>
<td>Serial Number (an 11 or 12 digit number)</td>
</tr>
<tr>
<td>State / Province (if US or Canada)</td>
<td>Purchase Order</td>
</tr>
<tr>
<td>Country</td>
<td>State / Province (if US or Canada)</td>
</tr>
<tr>
<td>Dealer / Installer Company Name</td>
<td>Model Number</td>
</tr>
<tr>
<td>Telephone</td>
<td>Order Number</td>
</tr>
<tr>
<td>Email</td>
<td>Date of Installation</td>
</tr>
<tr>
<td>Contact Name</td>
<td>End User Name</td>
</tr>
</tbody>
</table>

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.

---

A 5 Year Warranty is available. Contact +1.877.493.3833 or warranty@zeevee.com with any questions.