ZvPro 600i CONFIGURATION GUIDE







ZvPro610i • ZvPro620i

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.
- Do not block any ventilation openings. Install in accordance with 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.
- 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.

- 9. Power cord must be accessible to allow for the removal of power from the unit.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience 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 powersupply 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 place this apparatus in a position where it is exposed to dripping or splashing liquids, rain, moisture, or excessively high humidity. Objects containing liquid shall not be placed in proximity to the unit such that they present a risk of spillage onto the apparatus.



CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE THE COVER (OR BACK). NO USER SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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 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 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 in a commercial installation. 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 and also allows for the same video signal to be sent out as an IP stream. This guide walks you through basic and more enhanced setup for ZeeVee's ZvPro 600i 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:



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Front and Back Panels

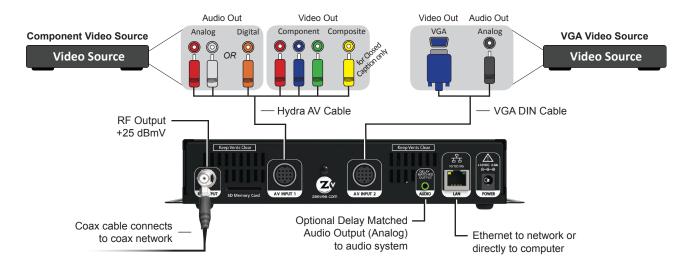


0	Model Number	Name and description of unit
2	Color Display	Configuration and system status
8	5-Way Control	Navigate options on front panel display
4	Coax Output	One channel or one channel pair, frequency-agile QAM RF CATV output channels for up to 2 video sources. Output power can be set between +45 to +25 dBmV using the Maestro web interface or the front panel.
6	SD Card Slot	This function not implemented
6	Audio/Video Inputs	Full size DIN connector for A/V input
7	Delay Matched Output	For matching audio to external audio system (first port only, requires analog audio as input)
8	10/100 LAN Port	One Ethernet port for configuration, remote management, and IP streaming
9	DC Power Input	+12 Volts

Basic RF Installation

Factory default settings allow ZvPro 600i series modulators to broadcast up to two sources on RF channels 2 and 3 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. Connect the cables according to your cable choice:
- ► HYDRA AV CABLE—Connect the Component (RED/GREEN/BLUE) Video connectors on the A/V Cable to the corresponding Video Outputs on your video source. Use the Composite (YELLOW) connector for closed captioning. Connect either the Digital (ORANGE) or Analog (RED/WHITE) Audio connectors on the A/V Cable to the Audio Outputs on your video source. Connect the DIN to the A/V Input on the ZvPro. If you want to implement the delay matched audio feature, you need to use analog audio.
- ► VGA/DIN CABLE—Connect the VGA connector to the VGA Output on your video source. Use the Analog Audio connector with the Audio Out on the Video Source. Connect the DIN to the A/V Input on the ZvPro.

Tuning your channel at the HDTV (Auto Scan)

- **1.** Connect the Coaxial Output of the ZvPro 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. For default channel lineup information, refer to the Default Channel Lineup table.

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.

DEFAULT CHANNEL LINEUP

AV Input	RF #	HDTV Channel
AV Input 1	2	2.1
AV Input 2	3	3.1

Front Panel Configuration



Shows audio/video being encoded

Green — Both audio and video are detected Yellow — Video, but no audio detected Red — No video detected

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

Setting the RF broadcast channel, RF power or audio delay

- 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."
- Use the arrow buttons (▲▼◀►) to go to each item you want to configure (such as RF Number or RF Power), then press "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 re-enter the setup screen.

Press OK to enter setup Press LEFT to return

RF Setup	
AV Setup Service	

SETUP SCREEN

RF Number RF Power Audio Delay	2 / 3 25 400
Arrows to mo	ve
OK to select	
	APPLY
CONFIGURATION S	SCREEN

RF Number	2/3	
RF Power	25	
Audio Delay	400	
Up/Down to r OK when don CANCEL		

ACTIVE CONFIGURATION SCREEN

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:

• When using DCHP, select Reset IP Address to force a release/ renew of your IP address, and press "OK".

To restore factory defaults or revert firmware:

- 1. Power down the unit.
- 2. Hold the left and right arrows down and reapply power. You will be prompted with options: PRESS
 - UP to reset config
 - DOWN to revert FW
 - OK to boot normally

Map for 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 enter RF # "2," then RF #"3" automatically populates.
- 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 wellformed channel and will not cause interference. No channel spacing is required.

RF Ch.	Band (MHz)	RF Ch.	Band (MHz						
2	54-60	27	240-246	57	420-426	87	600-606	122	780-786
3	60-66	28	246-252	58	426-432	88	606-612	123	786-792
4	66-72	29	252-258	59	432-438	89	612-618	124	792-798
5	76-82	30	258-264	60	438-444	90	618-624	125	798-804
6	82-88	31	264-270	61	444-450	91	624-630	126	804-810
95	90-96	32	270-276	62	450-456	92	630-636	127	810-816
96	96-102	33	276-282	63	456-462	93	636-642	128	816-822
97	102-108	34	282-288	64	462-468	94	642-648	129	822-828
98	108-114	35	288-294	65	468-474	100	648-654	130	828-834
99	114-120	36	294-300	66	474-480	101	654-660	131	834-840
14	120-126	37	300-306	67	480-486	102	660-666	132	840-846
15	126-132	38	306-312	68	486-492	103	666-672	133	846-852
16	132-138	39	312-318	69	492-498	104	672-678	134	852-858
17	138-144	40	318-324	70	498-504	105	678-684	135	858-864
18	144-150	41	324-330	71	504-510	106	684-690		
19	150-156	42	330-336	72	510-516	107	690-696	HRC Frequencies =	
20	156-162	43	336-342	73	516-522	108	696-702	Standard	
21	162-168	44	342-348	74	522-528	109	702-708	Frequent minus 1.	
22	168-174	45	348-354	75	528-534	110	708-714	Except for	
7	174-180	46	354-360	76	534-540	111	714-720	Channel	
8	180-186	47	360-366	77	540-546	112	720-726	Video =	78.0 MHz
9	186-192	48	366-372	78	546-552	113	726-732	Channel Video =	6, 84.0 MHz
10	192-198	49	372-378	79	552-558	114	732-738		
11	198-204	50	378-384	80	558-564	115	738-744		uencies =
12	204-210	51	384-390	81	564-570	116	744-750	Same as Frequenc	Standard cies
13	210-216	52	390-396	82	570-576	117	750-756	Except fo	or:
23	216-222	53	396-402	83	576-582	118	756-762		5, Video =
24	222-228	54	402-408	84	582-588	119	762-768	79.25 MI	
25	228-234	55	408-414	85	588-594	120	768-774	Channel 85.25 MI	6, Video = Hz
26	234-240	56	414-420	86	594-600	121	774-780		

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. You can also set up IP streaming.

Connecting with Maestro

- 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.

Zvp620i YPrPb VGA in QAM/IP out	• F72.16.2.169 ZvPro • RF 2 • MYTV-HD 2.1 • RF 3 • MYTV-HD 3.1	нр
Encoder Modulator		

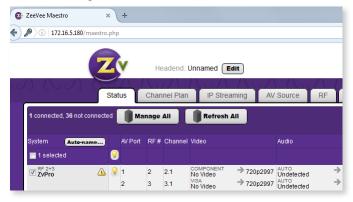
3. Using any web browser (Chrome or Firefox

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.

Log In	
Enter your user name	and password for this system:
User Name:	admin
Password:	•••••
	Log in

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.

		Stat	us	Channel I	Pla	n IP S	Streaming	AV S	Source F	R
1 connected, 3	6 not connecte	d	👔 Ma	nage All		Refr	esh All		🗸 Apply	
									settings have b	be
System 🧃	Auto-name)		AV Port	Enabled		RF#	Channel #	Name	Long Name	
🔲 1 selected		9		Set All	۰	Set All 🔻	Set All 🔻	Set All 🔻	Set All 🔻]
RF 2+3 ZvPro	<u> </u>	Ŷ	1	Enabled	Ŧ	2	2.1	MYTV-HD	HD Video Ove	
			2	Enabled	•	3	3.1	MYTV-HD	HD Video Ove	

- 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).
- 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.

Configuring IP streaming

You can configure the ZvPro 600i to output either UDP unicast or UDP multicast IP-streams concurrently with the channels being generated out its RF-port.

ZvPro streams MPEG2 IP output at the same video resolution that arrives on the input port. For example, if a video source is connected at 720p60, the output stream will arrive at 720p60.

The IP stream generated is an exact copy of the broadcast-grade transport stream over the RF ports. The bandwidth required for the MPEG2 format is high for Ethernet – so you should take this into account before deployment to avoid overwhelming the Ethernet switching infrastructure.

Current generation ZeeVee products generate IP streams appropriate for bulk distribution of high quality video over dedicated switching infrastructures. Without any modifications to the stream parameters, a typical 1080 resolution stream will be around 20Mbps. The ZvPro originated stream is not intended for Internet distribution and will quickly overwhelm most Internet infrastructures. Similarly, unless the scope of WiFi distribution is managed correctly and sparingly, the distribution of the ZeeVee IP stream will also overwhelm most local Ethernet WiFi distribution schemes.

	Sta	tus	Channel F	Plai	IP Streamin	ng A	V Source	RF	Device	Υ	Network
1 connected, 36 not connected Manage All Refresh All Apply X Reset											
System Auto-name.	.)	AV Port	Enabled		IP Address	IP Port	No settings I Name	have been cha Long Name	nged from Rating	n thei	r active values.
1 selected)	Set All	•	Set All 🗸	Set All 🔻	Set All 🔻	Set All	Set All	•	
V RF 2+3 ZvPro 4	<u>ı</u>	1	Disabled	•	0.0.0.0	0	MYTV-HD	HD Video Ov		•	
		2	Disabled	•	0.0.0.0	0	MYTV-HD	HD Video Ov	TV-G	•	

- 1. Click on the IP Streaming tab.
- 2. Click in the IP Address field and enter the destination address to direct the stream. If you enter a valid IP multicast address (range 224.0.0.0 to 239.255.255.255), any endpoint registered with that multicast receives the stream. If you enter a valid IP unicast address, only that specific address receives the stream.
- **3.** Click in the IP Port field and set the IP port number for the stream to be sent. This IP port number must be a valid one and one that does not conflict with well-known IP protocols already existing on the wire. Selection of an appropriate IP port is the task of the IT administrator on the destination network.

Each IP stream from a ZeeVee unit on the Ethernet network should have a unique IP address and port number combination. For example, you can configure two streams with the same IP address, but they must have different ports. Or you can configure two streams with the same port, as long as they are using different IP addresses.

4. Click Enabled and then click Apply to save changes.

Deployment Considerations (IP Streaming only)

To receive and display an IP stream, you must employ a decoder capable of receiving UDP video streams and rendering them to a video device – such decoders include:

IP SET TOP BOX – This purpose-built device registers and receives an IP transport stream and renders it to a video port that is attached to a display.

COMPUTER OR SERVER – If you want secondary processing of the stream, the stream can be sent to a server or servers. In such a case, UDP unicast addressing is typically used to avoid congestion issues on the Ethernet network.

PC OR LAPTOP – With suitable display software (the open source program VLC is commonly used), the computer can receive and render the IP stream.

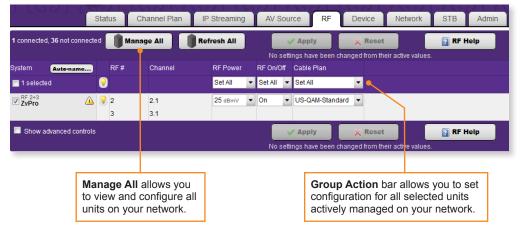
Using the Maestro tabs

Click on the Maestro tabs to configure your unit as needed. We provide brief information here. 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 AV SOURCE TAB

Allows for specifying audio and video inputs and adjusting settings such as Delayed Audio Out (for matching audio to external audio systems – first port only).



THE RF TAB

Allows you to change the RF power output.

	Status	Channel Pla	an IP Streaming	AV Source	RF	Device	Network	STB	Admin
1 connected, 36 not con	nected	Manage All	Refresh All	🗸 App	ly	× Reset		? Device	Help
System Auto-name	⊵) D€	evice Name Actio	ns	No settings ha	ve been cl Firmv		eir active values		le Screen
1 selected		et All 🔹 🧭	Reboot 🕜 Defaul	ts 🛛 💊 Passwo	rd	Ø 1	lpdate 🏼 🚳	Revert S	et All 🔻
ZvPro	<u>∧</u>	Pro 🥑	, Reboot 🕜 Defaul	ts 🔥 Passwo	rd 1.9.8	.30041 🖉 🕻	lpdate 🝕	Revert)efault 👻
Show advanced con	trols			🖌 🗸	ly	🗙 Reset		2 Device	Help

THE DEVICE TAB

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

	Stat	us	Channe	el Plan	IP	Streaming	A	V Source	RF	De	vice	Network	STB	Admin
1 connected, 36 not co	nnected	Ma	inage Al	•	Ref	fresh All		🗸 🗸			Reset		Netwo	rk Help
								No settings ha	ive beei	n changed	from the	ir active values		
System Auto-nar	me	ІР Туре	IP A	ddress		Mask		Def. Gateway						
🔲 1 selected	9	Set All	▼ Set	All	•	Set All	•	Set All	•					
ZvPro	▲ 💡	DHCP	▼ 0.0	.0.0		0.0.0.0		0.0.0.0						

THE NETWORK TAB

Allows you to assign a static IP address.

			LOCI			-	2			_				
	Sta	atus	Channel Pla	In IP:	Streaming		AV So	urc	e RF		Device	Network	STB	Admin
I connected, 36 not conr	nected		Manage All	Refr	esh All			~	Apply		× Rese	t	🔋 Admi	n Help
							No se	tting	s have bee	en c	changed from t	heir active value	б.	
System Auto-name		Name	e Pass	sword	EAS		ZvShow		STB		Delete			
1 selected	()			Set All	۰	Set All	۰	Set All	•				
V RF 2+3 ZvPro		user	use	ſ	Enabled	Ŧ	Enabled	Ŧ	Enabled	Ŧ				
						•		•		•				

ADMIN TAB

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

Î	Stat	cus Channel Plan	IP Streami	ng AV So	urce RF	Devid	e N	etwork	STB	Admin		Support
nec	ed	Manage All	Refresh All	Need	assistance? C	all ZeeVee su	oport at (87	7) 493-383	13 for help.	ZeeVe	e Websit	te
ie		Report		Serial	Model	Firmware	RF#		Operating	System		Temperature
	9	Send helpful data to Zee	Vee									
	9	🛟 Send Troublesh	ooting Report	ZZ56E500126C	ZVPro620i-NA	1.9.8.30041	2, 3		54m18s, 1	boot		🜡 (41c, 43c)

THE SUPPORT TAB

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

Troubleshooting

Unable to	If unable to connect, try one of the following:
Connect to Maestro	► If you are getting a page not found error when directly connected to a PC, try disabling WIFI. If that does not correct it, make sure your PC is not using a static IP address. The PC and the ZvPro unit must be on the same IP subnet for them to communicate. 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. Updating IE or using Firefox or Chrome should correct the issue.
No picture or channel found at TV	Verify the HDTV has a QAM (digital cable) tuner. Verify that you have performed a full channel scan on the HDTV with "cable mode" selected. Lower the power on the unit, then verify that the modulator is not conflicting with any other channel by connecting the unit directly to the HDTV.
Idle Screen (bouncing logo)	One reason this may happen is when the unit does not detect video input. Verify the source is on and producing a video signal, then verify the source is outputting a supported resolution. If the Video Source (Channel Plan tab in Maestro) is set to Auto, change it to the specific video type being used (Component or VGA).
lmage Breakup	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 completely vacant.
	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 analog modulators may spill over 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 will no display and can cause interference.
	There may also be an RF power balance issue. Verify that the RF power of the unit is balanced with signals from other 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.
	Some TVs will also show video issues if the signal strength is too high. Try lowering the RF power on the unit to ensure you are not overdriving the HDTV tuner.
VGA or HDMI video does not fill HDTV screen	The unit is broadcasting in "compatibility mode." This means it's receiving a resolution from your VGA/HDMI source that doesn't match standard 1280x720 or 1920x1080 HDTV picture resolutions. When that happens, the unit fits the incoming picture inside either a 720 or 1080 window and pads the outside area with black. To resolve the issue, set your VGA source to output 1280x720 or 1920x1080 resolution. For more detailed information about setting up VGA and HDMI resolutions, see the FAQ section of our website.

continued next page

Audio and video are not synchronized	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 feeding the audio 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 into a digital signal, modulated by the unit and then demodulated at the HDTV. Each of these steps adds latency that will not be reflected in the audio because it is traveling a shorter path.
	To work around the issue, you can try one of the following:
	Use an audio delay device that allows you to add a delay to the audio stream before it reaches the sound system.
	► Feed the audio to the ZeeVee unit and send it to the HDTV with the video. Then take the audio out from an HDTV or external QAM tuner (such as the ZvSync) and connect it to your audio system. The audio should have a similar amount of delay since it has gone through the encoding and decoding process just as the video did.
IP Stream not received and displayed at television	Check configuration parameters in Maestro. Check network parameters to make sure Ethernet switches are set to locally forward multicast traffic (if employed). As a debug step, try connecting a PC running VLC directly to the ZvPro Ethernet port and configure it to receive the stream.

(intentionally blank)

WARRANTY

HDbridge 2000 Series and ZvPro Product Lines ZeeVee, Inc. January 1, 2014

LIMITED FIVE YEAR WARRANTY

ZeeVee warrants your ZeeVee Equipment (defined to include only HDbridge Series and ZvPro Series of equipment) against defects in materials and workmanship for a period of five years from the date of purchase. ZeeVee's limited warranty extends only to the original end user purchaser or any person receiving the ZeeVee Equipment as a gift from the original end user purchaser and to no other purchaser or transferee. All warranties implied by law, including any implied warranties of merchantability and fitness for a particular purpose, are expressly limited to the duration of this express limited warranty. Some countries or states of the U.S. do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

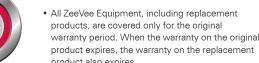
YEAR

EXCLUSIVE REMEDY FOR ZEEVEE EQUIPMENT

At the option of ZeeVee, the ZeeVee Equipment will be repaired or replaced with a new, repaired or refurbished product (whichever ZeeVee deems as necessary) if it becomes defective or inoperative. If ZeeVee cannot reasonably repair or replace the ZeeVee Equipment then ZeeVee may, at its sole discretion, refund the original purchase price or the current retail price of the ZeeVee Equipment. If ZeeVee chooses to repair or replace the ZeeVee Equipment, or to refund the purchase price, this will be the exclusive remedy. With the exception of any warranties implied by the law of any country or state of the U.S., this express limited warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of ZeeVee.

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS

- You must have proof of purchase from an authorized ZeeVee dealer to receive warranty service. A sales receipt or other document showing that you purchased the ZeeVee Equipment is considered proof of purchase.
- Warranty coverage begins the day the original end user purchaser or any person receiving the ZeeVee Equipment as a gift from the original end user purchaser purchased the ZeeVee Equipment.



- product expires, the warranty on the replacement product also expires. • If we determine that the problem is not covered under the limited warranty, we will notify you and
- inform you of service or replacement alternatives that are available to you on a fee basis. . In the case of a paid repair: at the option of ZeeVee, the ZeeVee Equipment will be repaired or replaced with a new, repaired, refurbished, or
- comparable product (whichever ZeeVee deems as necessarv).
- ZeeVee Equipment must be purchased through an authorized ZeeVee distribution partner and dealer/ reseller. Check zeevee.com for a list of authorized distributors and a list of any expressly excluded dealer/resellers. ZeeVee does not warrant equipment purchased through grev market resellers or certain internet resellers.

WHAT THESE WARRANTIES EXCLUDE

Your warranties do NOT cover:

- Shipping, tax or duty charges for return or replacement of unit.
- · Labor charges for installation or set-up of the ZeeVee Equipment.
- Repairs or replacement due to misuse, accident. lightning damage, unauthorized repair, power surges, or other causes not within the control of ZeeVee.
- Any modifications or other changes to the ZeeVee Equipment, including but not limited to software or hardware modification in any way other than as expressly authorized by ZeeVee, will void these limited warranties. Except in the case of hardware or software provided by ZeeVee, installing modifications, "hacks," or utilizing service access or "back doors" will void these limited warranties.
- · Reception or transmission problems caused by signal conditions, Internet connection problems, or any other communication systems outside the unit.
- Expendable accessories included in ZeeVee Equipment such as batteries.
- Any ZeeVee Equipment that has been modified or adapted to enable it to operate in any country other than the country for which it was designed, manufactured, approved, and/or authorized.

- Any ZeeVee Equipment that has altered or missing serial numbers.
- Any ZeeVee Equipment that has been opened or otherwise tampered with.
- · Problems that are directly caused as a result of using any third party accessories, parts or components.

MATERIALS REQUIRED FOR WARRANTY

Please keep your sales receipt and any other documentation showing proof of purchase. Also, keep the original box and packaging material in case you need to return your ZeeVee Equipment.

TO GET WARRANTY SERVICE

Warranty service will be provided by ZeeVee. If you believe you need service for your ZeeVee Equipment, please contact ZeeVee by calling our customer care center at (877)-4ZeeVee: (877)-493-3833. If it is determined that the product needs to be returned for service or exchange, you will receive a Return Material Authorization (RMA) number. Our agents will help you through the process through which you can return the product. ZeeVee is not responsible for customer products received without an RMA number and may reject such products.

TO GET OUT-OF-WARRANTY SERVICE

To obtain out-of-warranty service for your ZeeVee Equipment, please contact ZeeVee by calling our customer care center at (877)-4ZeeVee; (877)-493-3833 for information on the possibility of and any costs for repair or replacement of out-of-warranty products. No agent, company, dealer, distributor, or person is authorized to change, modify, or extend the terms of these warranties in any manner.

LIMITATION OF LIABILITY

In no event will ZeeVee be liable for any amount greater than the retail price of the ZeeVee Equipment, ZeeVee shall not be liable for any incidental or consequential damages (including lost profits) for breach of any express or implied warranty on the ZeeVee Equipment. Some countries and states of the U.S. do not allow the exclusion or limitation of incidental or consequential damages. so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from country to country and state to state.



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



REGISTRATION 01460 lnc. eeVee,

Send to:

1 Monarch Drive -ittleton, MA ATTN: | JS/ Ň

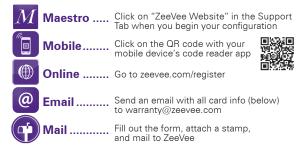


EMEAsales@zeevee.com + 44.1494.956677

:upport@zeevee.com + 1.877.4ZEEVEE (1.877.493.3833) Support: echnical



5 Warranty **Register**



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

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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.	form below and mail to ZeeVee at the LY and attach a postcard stamp.
Customer Details	Product Details
End User Company Name	Serial Number (an 11 or 12 digit number)
End User Address 1	Model Number
End User Address 2	Date of Purchase/Installation
State / Province (if US or Canada)	Invoice or PO Number
Country	Dealer / Installer Company Name
Telephone	Telephone
Email	Email
Contact Name	Contact Name

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



