ZyPerMX

Video Encoder

User Manual

INSTRUCTIONSPERTAININGTOARISKOFFIRE,ELECTRICSHOCK,ORINJURYTOPERSONS

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 a dry cloth.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. Do not install or place this product 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 are 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 fro the removal of the power from the unit.
10. 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 this 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 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.

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.

Features and Package Contents

Features

- Input: One standard HDMI 1.3 input
  - Resolutions from common Standard Definition, through all resolutions including 1080p60, up to and including1920x1200 @ 60Hz.
- Standards-based H.264/MPEG-4 AVC video compression.
  - High-profile H.264/MPEG-4 AVC compression standard in real-time.
  - Adjustable video bandwidth targets from 2 Mbps through 20 Mbps.
  - Assignable Program Number and Short Channel Name inserted in encoded stream.
  - Output resolution can track input resolution, or be fixed at a static size.
- Audio input as component of HDMI input.
  - LPCM, AAC, MPEG1 Layer 2 inputs formats all supported.
  - Fixed programmable data rate LPCM supported.
  - Variable AAC audio compression supported.
- Output: one standard 10/100/1000Base-T Ethernet port.
  - Common communications protocols/methods supported to includeTCP/IP, ARP, DHCP, ICMP (ping), IGMP, HTTP, RTP, RTSP, and UDP.
- Output stream can be set to UDP or RTP using either unicast or multicast addressing.
- RTP / RTSP supported at up to four simultaneous sessions.
- UDP video stream can be decoded by any number of Ethernet attached output devices.
  - PC / Mac, VLC, IP Set Top Box, IPSTB-enabled television, or custom appliance.
- Maestro Web GUI browser management of unit.
- Custom, downloadable idle screen for active display when no input is present.
- Bonjour protocol supported for automatic discovery of ZyPerMX on network.
- Power-over-Ethernet (PoE) supported allowing for ZyPerMX to be powered by an appropriately capable switch or power injector.
- Software upgradable through the Maestro web management application.
- Rack-mountable 1U, half rack width metal enclosure input/output resolutions up to 1080p and 1920 x 1200 @ 60 Hz.

What's In The Box

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

- 1 x ZyPerMX

- 1 x Power Adapter

- 2 x Mounting Ears

Table of Contents

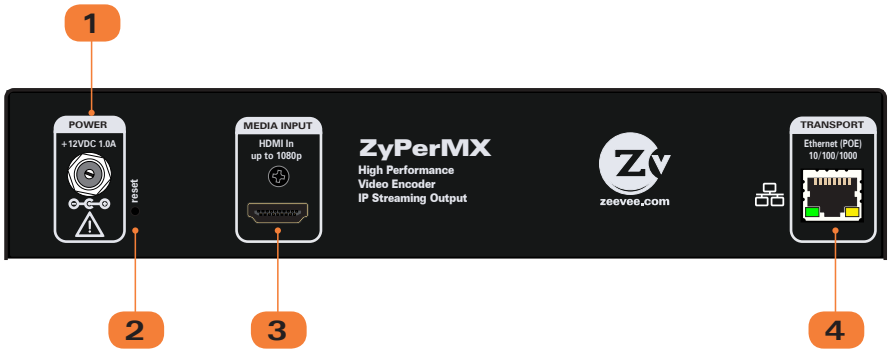
1 Getting Started

Panel Descriptions

Front View

ID	Name	Description
1	POWER	This LED indicator glows bright blue when the ZyPerMX is powered.
2	STATUS	This LED glows bright blue when the System Boot Process is complete and the ZyPerMX unit is functioning normally.

Rear View



ID	Name	Description
1	POWER	Connect the included 12V DC power supply to this power receptacle.
2	Reset	Press and hold this button for approximately 5 seconds, then release, to reset the ZyPerMX encoder to factory-default settings. See Resetting the ZyPerMX (page 20) for more iniformation.
3	HDMI In	Connect an HDMI cable from this port to the HD video source.
4	TRANSPORT	Connect an Ethernet cable from this port to a switch on the Local Area Network.

Installation

Basic Connections

1. Connect an HDMI cable from the **HDMI In** port on the ZyPerMX to an HD video source.
2. Connect an Ethernet cable from the TRANSPORT connector, on the rear panel of the ZyPerMX, to a LAN or directly to the PC.
3. Connect the included 12 V DC power supply to the POWER connector on the rear panel of the ZyPerMX.

Connecting to the ZyPerMX

By default, each ZyPerMX encoder uses a static IP address of `192.168.1.10`. In order to connect to the unit, and depending upon your network setup, it may be necessary to adjust the IP settings of the computer so that it can connect to the ZyPerMX.

For example, if the computer being used to connect to the ZyPerMX has an IP address of `10.5.64.223`, then it will not be able to connect because `192.168.1.10` is within a different subnet. In order to connect to the ZyPerMX, temporarily change the IP address of the computer to something like `192.168.1.x`, where `x` can be any number except 10.

Once the computer is reconfigured, launch a browser, and enter the IP address of `192.168.1.10` in the address bar to display the ZyPerMX Maestro web interface.

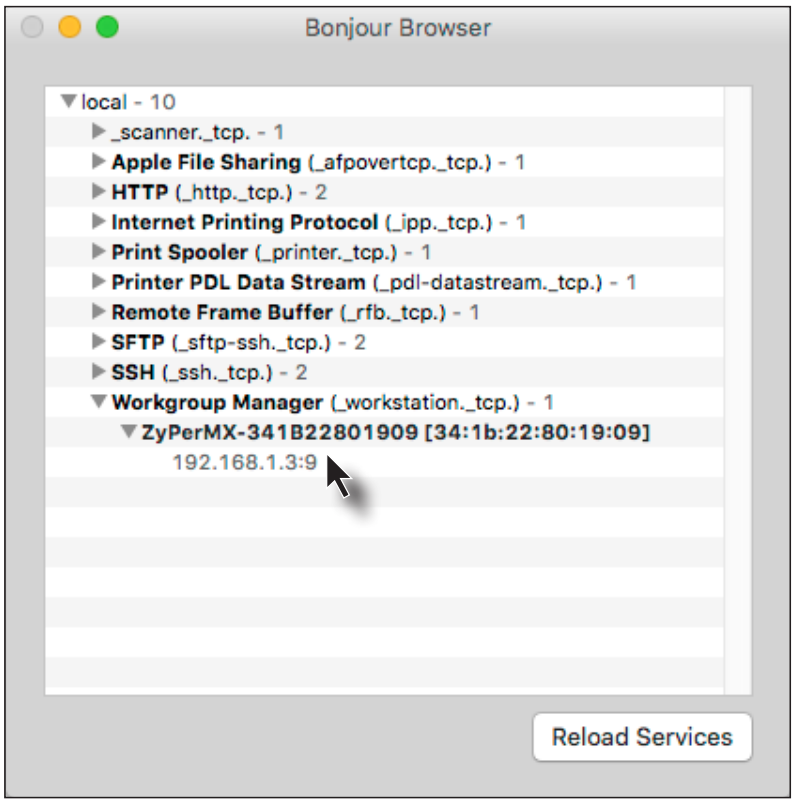
See Logging In (page 8) for more information on logging in to the Maestro web interface.

See Network Configuration (page 9) for details on setting DHCP and static IP addresses.

Using Bonjour Discovery

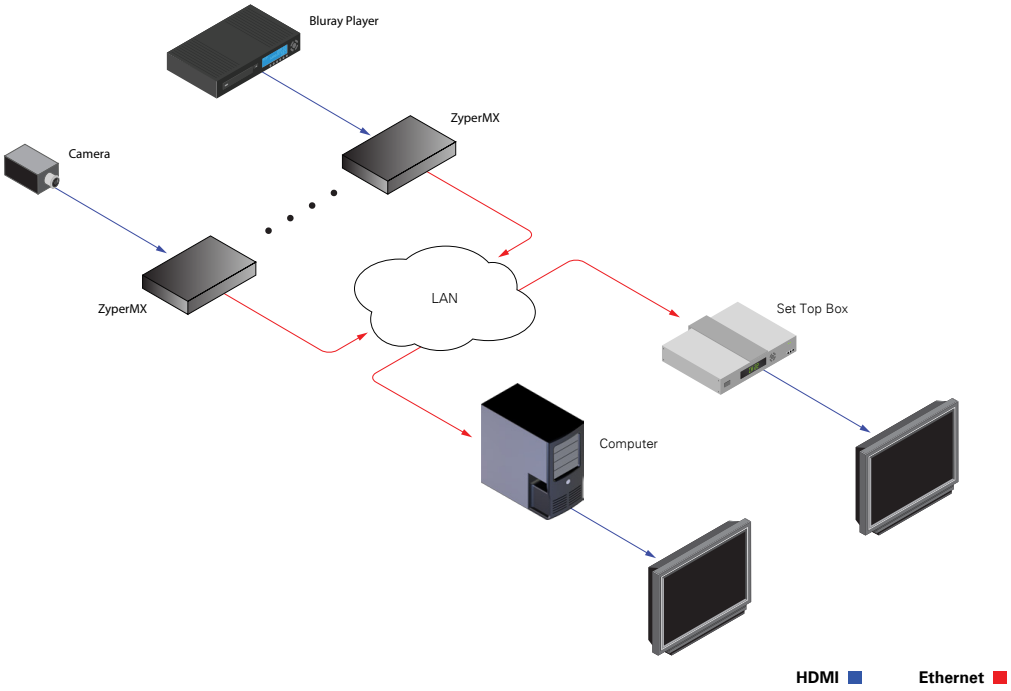
The Bonjour zero-configuration (zeroconf) service provides a simple method for automatically detecting and displaying services and devices on a Local Area Network. This service can be used on both OS X and Windows platforms.

1. Download a Bonjour browsing application.
2. Launch the Bonjour application. The example below shows the Bonjour Browser for OS X.
3. Click the Workgroup Manager section to expand it.
4. Each ZyPerMX device will be displayed, along with the MAC address.
5. Click the arrow next to the ZyPerMX unit to expand it and display the IP address.



6. Launch a web browser, and enter the IP address of the ZyPerMX unit to display the ZyPerMX Maestro web interface.
7. See Logging In (page 8) for more information on logging in to the Maestro web interface.

Sample Application Diagram



2 Basic Operation

The Maestro Web Interface

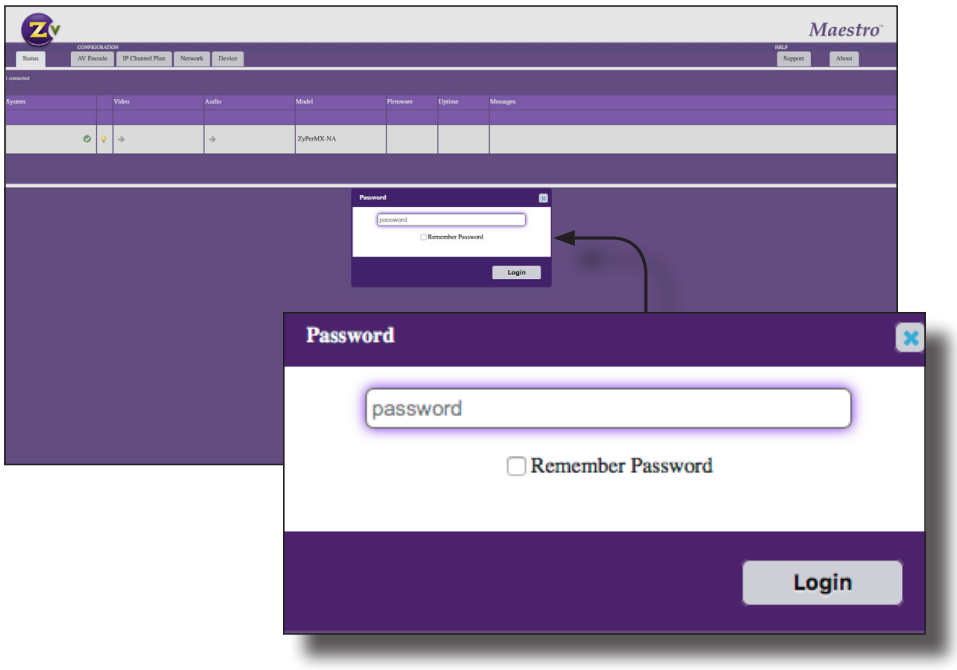
The ZyPerMX features the Maestro web interface. Maestro allows you to control and manage all features of the ZyPerMX. To access Maestro, open a web browser and enter the IP address of the ZyPerMX into the address bar. We recommend using Firefox or Chrome browsers.

Logging In

1. Make sure that the computer used to access Maestro and the ZyPerMX encoder are on the same network. If a network is not being used, the ZyPerMX can be directly connected to the computer. In both cases, the ZyPerMX and the computer must be on the same subnet.

2. Launch the web browser and enter the default IP address of `192.168.1.10` in the address bar.

3. The Maestro interface will be displayed with the password dialog.

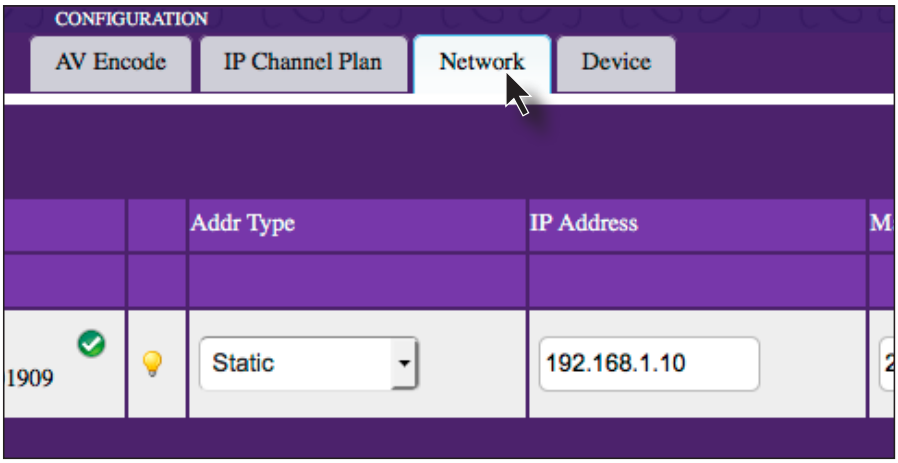


4. Enter the password. The default password is `admin` and is case-sensitive. If you wish to have the password stored, next time Maestro is launched, click the **Remember Password** check box.

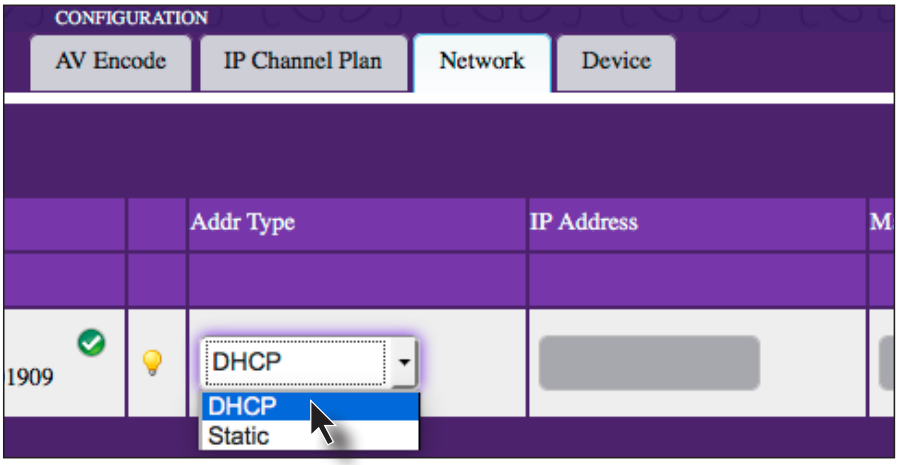
5. Click the **Login** button.

Network Configuration

1. Login to the Maestro web interface. See the previous page for more information.
2. Click the **Network** tab.



3. The current network settings will be displayed.
4. Click the drop-down list, under **Addr Type**, to select the desired network mode.



The default setting for **Addr Type** is `Static` and uses an IP address of `192.168.1.10`.

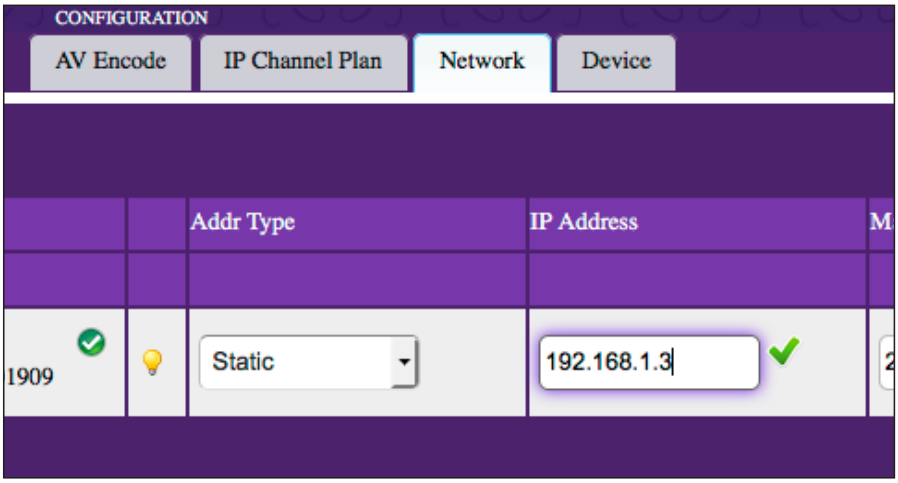
Once the ZyPerMX is aproperly configured, click the “lightbulb” icon, at any time, to physically identify the ZyPerMX on the network. This will cause the **Status** LED indicator on the front panel to flash rapidly for about 10 seconds.

5. Locate the **Addr Type** field:

   ► If this field is set to `DHCP`, then all network parameters are assigned automatically, providing there is a DHCP server connected to the network.

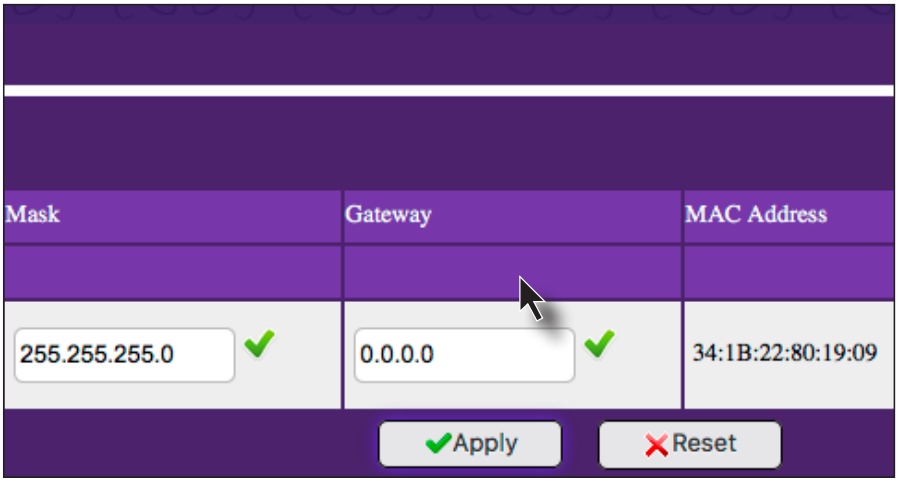
   ► If the **Addr Type** is set to `Static`, then follow steps 6 - 9.

6. Enter the IP address in the IP Address field. When a value is changed, within a field, a green check mark will appear next to the field.



7. Enter the subnet mask in the **Mask** field.

8. Enter the gateway address in the **Gateway** field.



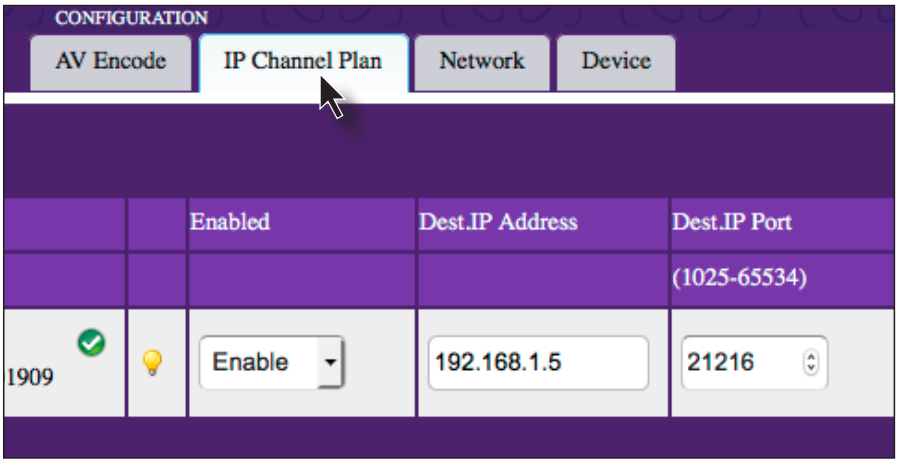
9. Click the **Apply** button to commit the changes. To discard recent changes, click the **Reset** button.

IP Stream Configuration

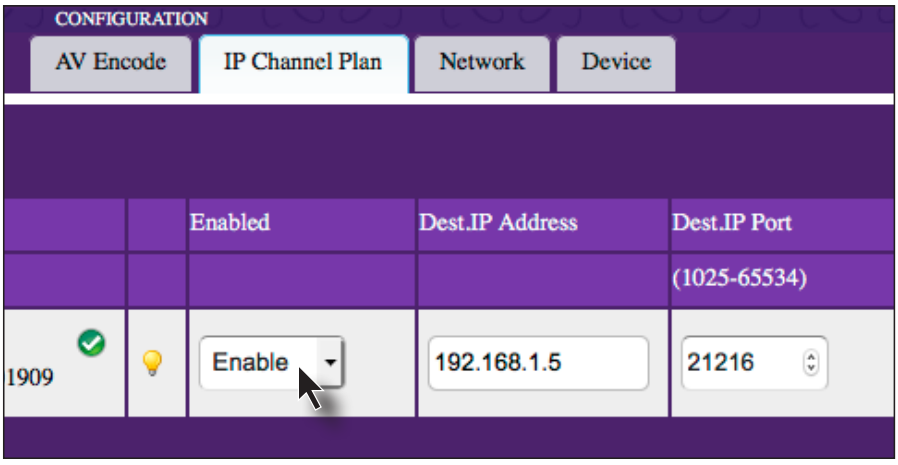
The ZyPerMX can be configured to output either unicast or multicast IP streams using UDP or RTP protocols.

1. Login to the Maestro web interface. See Logging In (page 8) for more information.

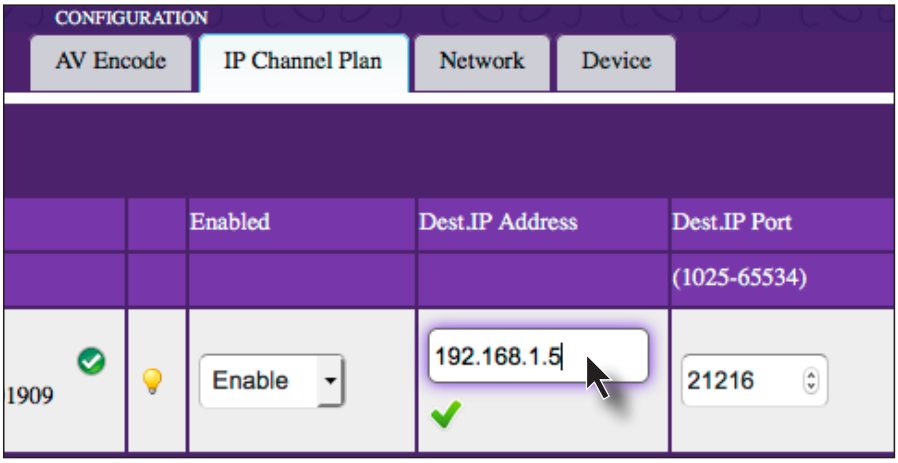
2. Click the **IP Channel Plan** tab.



3. To enable IP streaming, be sure that the **Enabled** drop-down box is set to `Enable`. This is the default setting. To disable IP streaming, select `Disable` from the drop-down list.



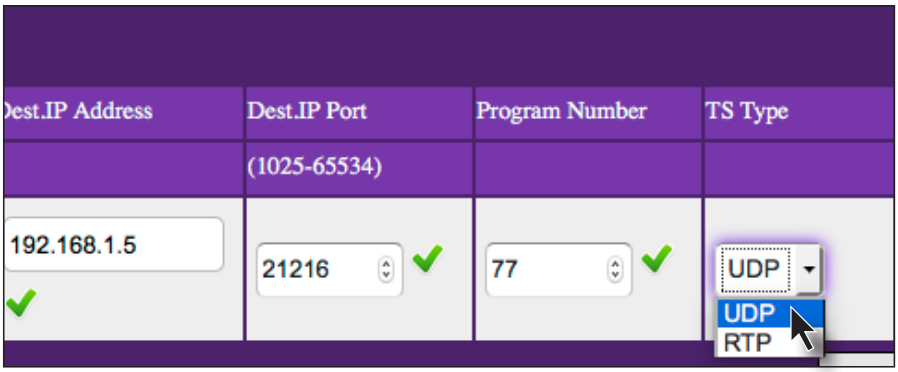
4. Enter the destination IP address in the **Dest. IP Address** field. If you enter a valid IP multicast address (range 224.0.0.0 to 239.255.255.255), any endpoint registered with that multicast receives the stream. If you enter a valid IP unicast address, only that specific address receives the IP stream.



5. Enter the port number in the **Dest. IP Port** field. The arrows can also be used to set the port number. The supported port range is `1025` to `65534`.
The destination IP port must not conflict with other IP protocols. If necessary, contact the System Administrator for assistance.

6. Enter the desired program number from 1 to 65535 in the **Program Number** field. The spinner controls may also be used to set the program number.

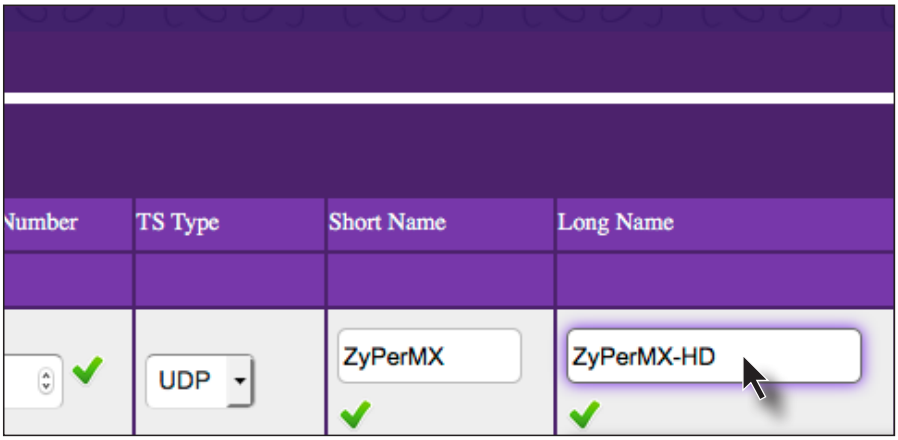
7. Select either `UDP` or `RTP` for the stream type from the **TS Type** drop-down list.



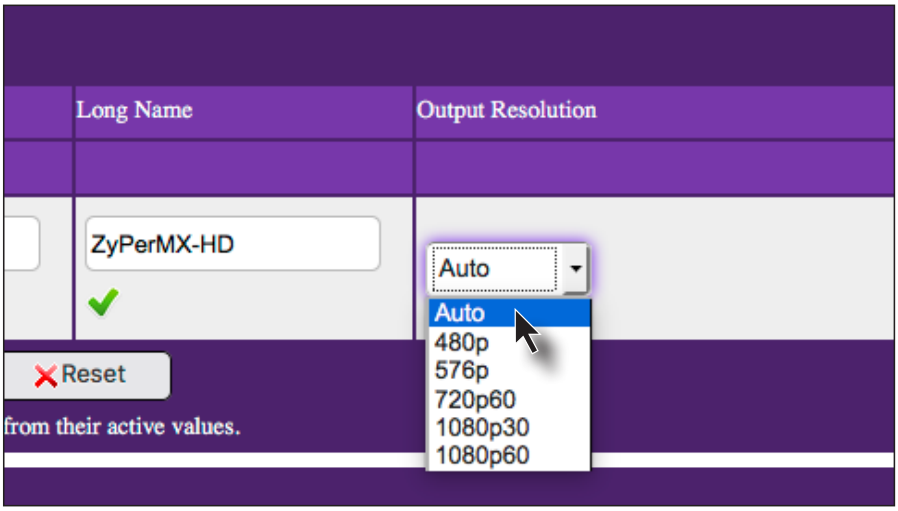
TS Type	Description
UDP	Uses less overhead; lacks packet acknowledgement or error correction.
RTP	Protocol built on top of UDP; delivers real-time multimedia and detects out of sequence packets.

8. Enter a description of the content in the **Short Name** field. Often, the viewing client will display the short channel name when tuning to different streams. The short name cannot exceed 60 characters in length. Letters, numbers, and spaces are permitted.

9. Enter a description of the content in the **Long Name** field. The long name cannot exceed 60 characters in length. Letters, numbers, and spaces are permitted.

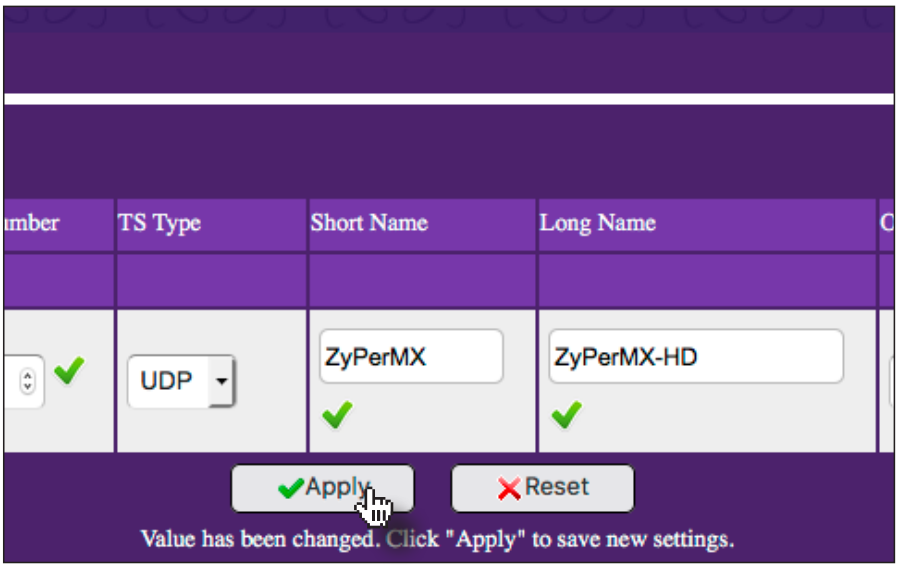


10. Click the **Output Resolution** drop-down list to select the desired output resolution. The following resolutions are supported:



Note that if **Auto** is selected, the resolution of the encoded output stream will match the resolution of the input video stream.

11. Click the **Apply** button to save the changes or click the **Reset** button to discard any changes.

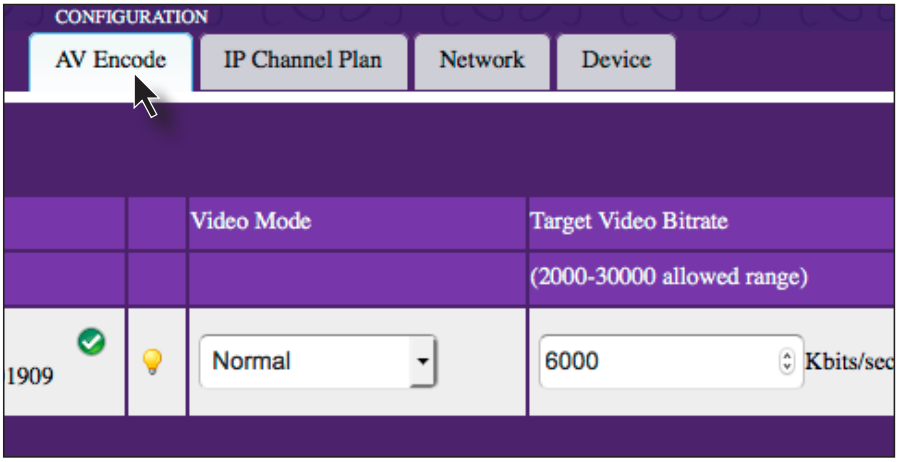


Adjusting Audio and Video Settings

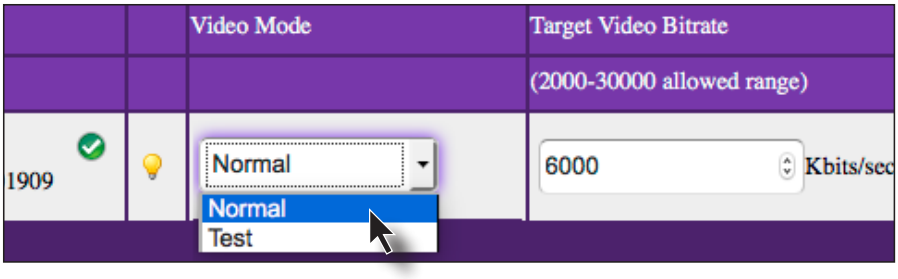
The ZyperMX Video Encoder employs Variable Bit Rate (VBR) encoding when transmitting IP streams. Specifying the “target” and “maximum” bit rate for both audio and video will define the limits of IP stream transmission, without overloading the network bandwidth.

1. Login to the Maestro web interface. See Logging In (page 8) for more information.

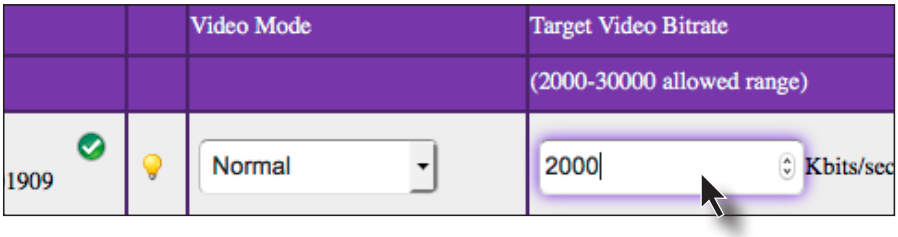
2. Click the **AV Encode** tab.



3. Click the **Video Mode** drop-down list to select the video mode. `Test` can be used to evaluate different HDMI video sources. However, in production environments, make sure that the **Video Mode** is set to `Normal`.



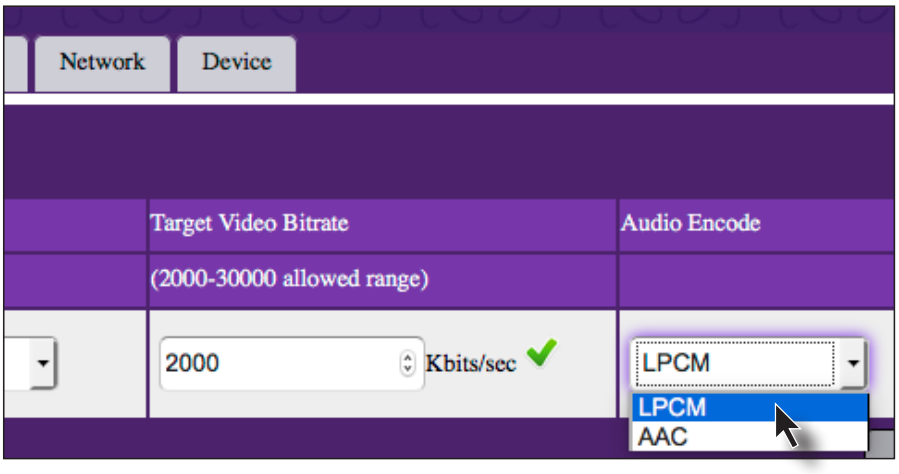
4. Enter the desired “target” video bit rate (in kilobits per second) in the **Target Video Bitrate** field. The spinner controls can also be used to set the value. The supported range is from `2000` to `30000`.



The **Target Video Bitrate** defines the bit rate at which you want the ZyPerMX to try and use, as a relative average.

Both STB and PC devices will vary in their ability to handle different bit rates. The ZyPer MXe STB will handle approximately 8000 kilobits / second. Laptops can handle anywhere from 2000 kilobits / second to a 10000 kilobits / second. It is recommended to set this value to `6000`. The value can then be adjusted depending upon the capability of the endpoint.

5. Click the **Audio Encode** drop-down list and select the audio encoding method.

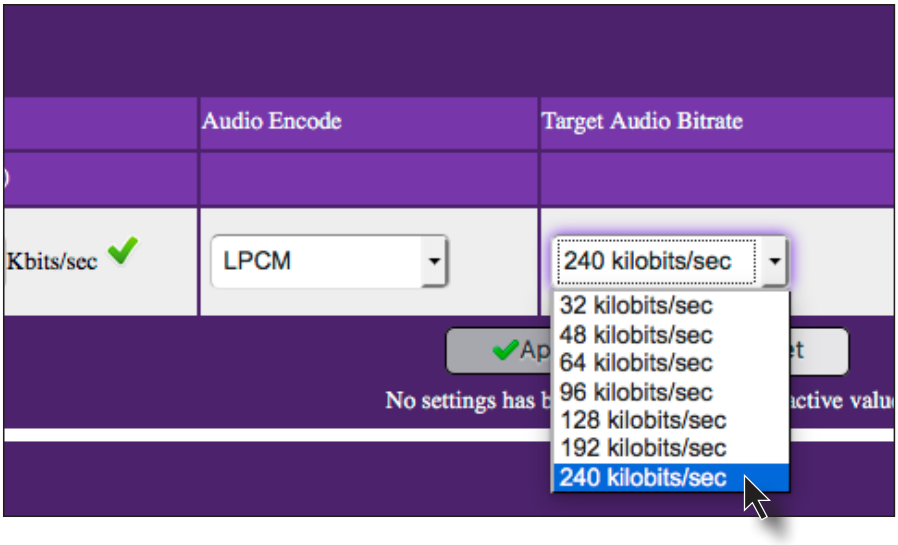


Type	Description
LPCM	LPCM is a two-channel uncompressed (“lossless”) audio format and should be used when bandwidth is limited at the STB or PC endpoint. Multichannel HDMI audio is downmixed to two-channel audio.
AAC	AAC is a multichannel compressed (“lossy”) audio format that should be used when multichannel HDMI audio is desired on the decoder endpoint. Due to the larger bandwidth required by AAC, be sure that the STB or PC can handle the data stream.

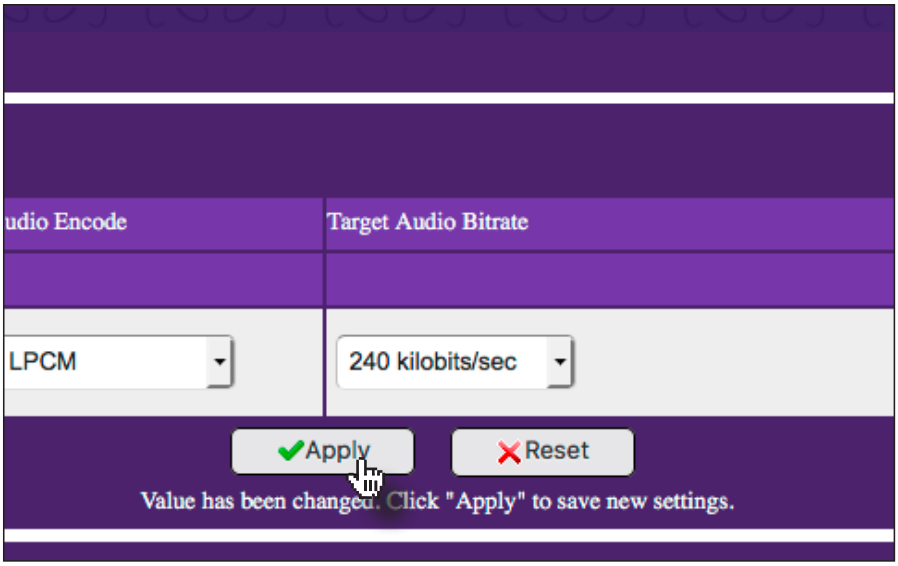
6. Click the **Target Audio Bitrate** drop-down list and select the desired “target” audio bit rate.

The **Target Audio Bitrate** defines the audio bit rate at which you want the ZyPerMX to try and use, as a relative average.

The default setting is `240 kilobits/sec` which provides broadcast-quality IP streams and is more than acceptable for most STB and PC devices. The **Target Audio Bitrate** should only be reduced when a minimal audio stream is required. In most cases, this will not be necessary.



7. Click the **Apply** button to save the changes or click the **Reset** button to discard any changes.

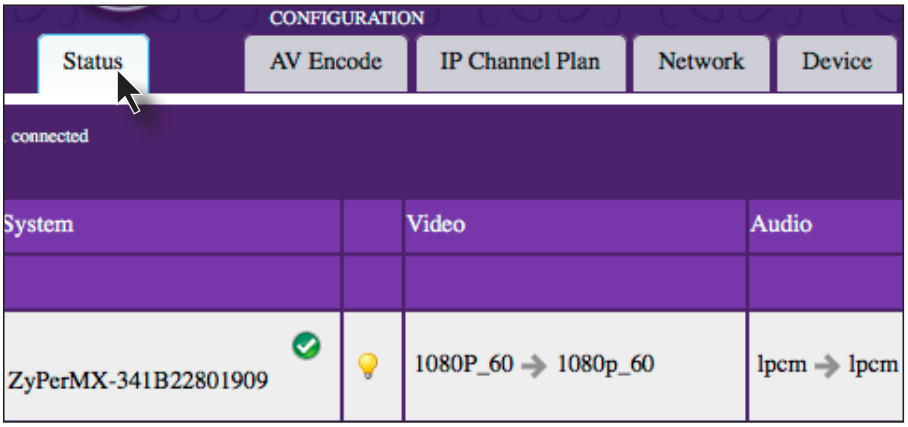


Displaying Device Information

The **Status** page is automatically displayed after logging in to Maestro. This page displays network, video and audio input/output information, firmware version, and status messages.

1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.

2. The **Status** tab will be selected automatically.

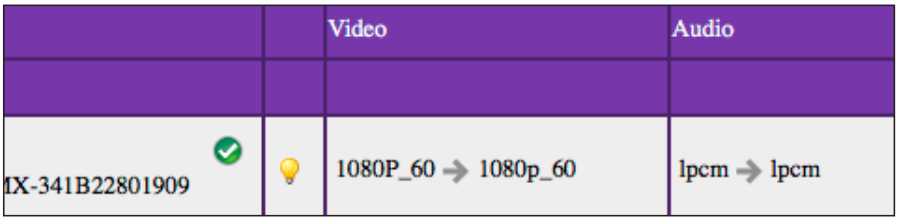


- The **System** field displays the name of the ZyPerMX. This name can be changed. See the next page for more information.

- Click the “lightbulb” icon to physically identify the ZyPerMX on the network. When this icon is clicked, the **Status** LED indicator on the front panel will flash rapidly for about 10 seconds.

- The **Video** field displays the video input and output resolution. In the illustration above, the input is 1080p60 and the output is 1080p60. Video input and output resolution cannot be changed. To change the video bitrate see Adjusting Audio and Video Settings (page 15).

- The **Audio** field displays the input audio type and the output audio type. In the illustration above, the input is LPCM and the output is LPCM. To change the output audio type, see Adjusting Audio and Video Settings (page 15).

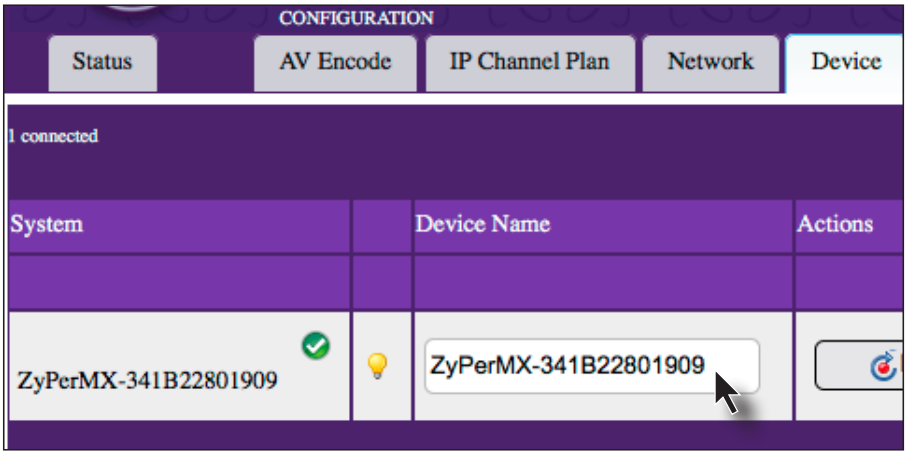


- The **Model** field displays the name of the model of the ZyPerMX.
- The **Firmware** field displays the current version of firmware.
- The **Uptime** field displays the time, in days and hours, since the unit was last rebooted.
- The **Messages** field receives messages reported by the ZyPerMX, during operation.

Changing the Device Name

By default, the ZyPerMX is automatically assigned a name by combining the string "ZyPerMX" and the MAC address of the ZyPerMX. This name can easily be changed to something more descriptive using the procedure below.

1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.
2. Click the **Device** tab.
3. Enter the desired name in the **Device Name** field.



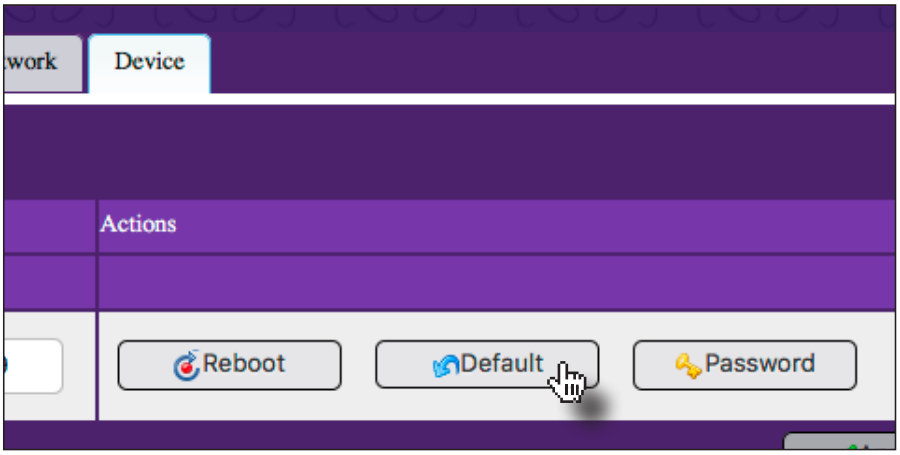
4. Click the **Apply** button to save the changes or click the **Reset** button to cancel changes and revert to the previous settings.

Resetting the ZyPerMX

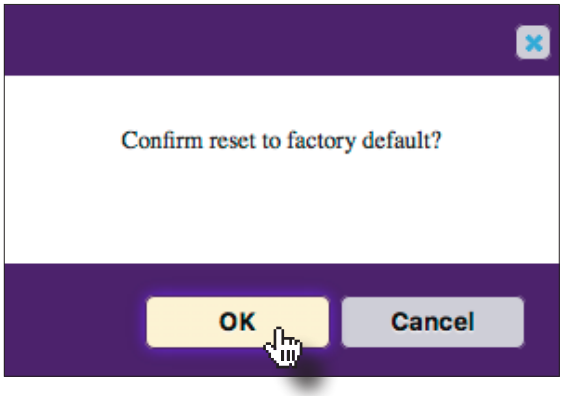
The ZyPerMX can be reset to factory-default settings by clicking the **Default** button under the **Device** tab or by pressing the **reset** button on the rear panel of the unit. When the ZyPerMX is reset to factory-default settings, the IP address will be reset to `192.168.1.10` and will be set to `Static` mode.

► Using Maestro

1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.
2. Click the **Device** tab.
3. Click the **Default** button, under **Actions**.

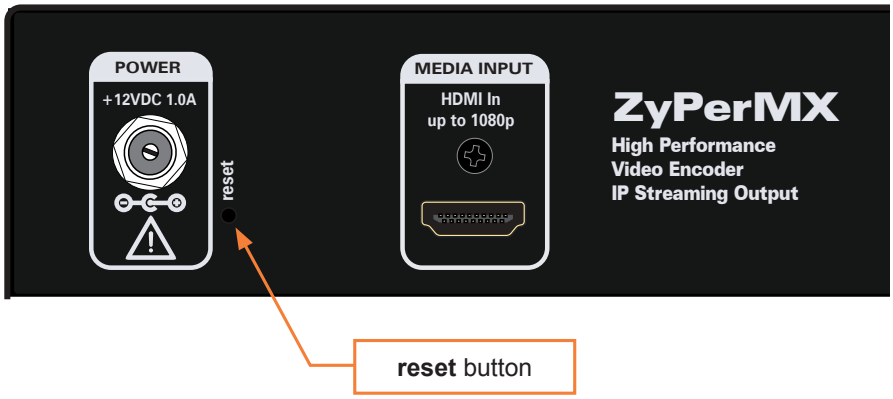


4. The following dialog will be displayed, prompting to confirm the reset procedure.
5. Click the **OK** button to reset the ZyPerMX to factory-default settings. Click the **Cancel** button to return to the **Device** tab.



► Using the **reset** button

1. Locate the **reset** button on the rear panel of the unit, next to the POWER receptacle. The button is recessed to prevent the unit from being accidentally reset.



2. Press and hold the reset button, using the end of a paperclip or other pointed object. Wait approximately 5-10 seconds, then release the button.

3. After about 60 seconds, the unit will be ready for use.

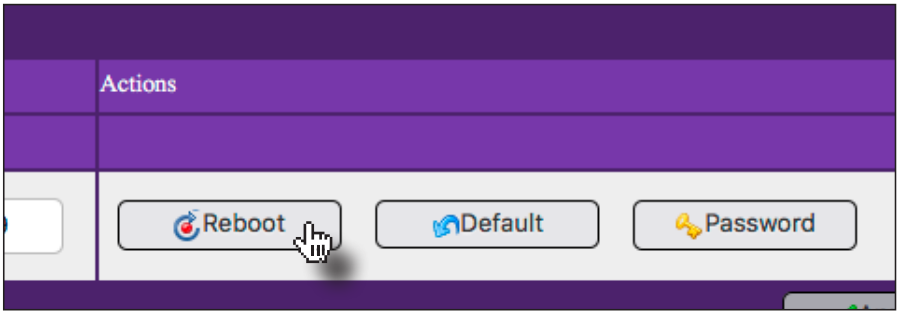
Rebooting the ZyPerMX

The ZyPerMX can be rebooted using Maestro Rebooting the unit does not reset the ZyPerMX to factory-default settings.

1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.

2. Click the **Device** tab.

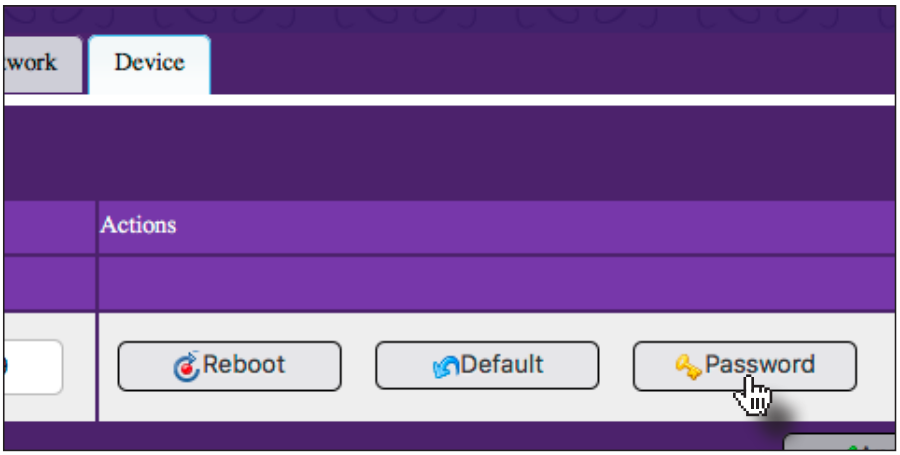
3. Click the **Reboot** button, under **Actions**.



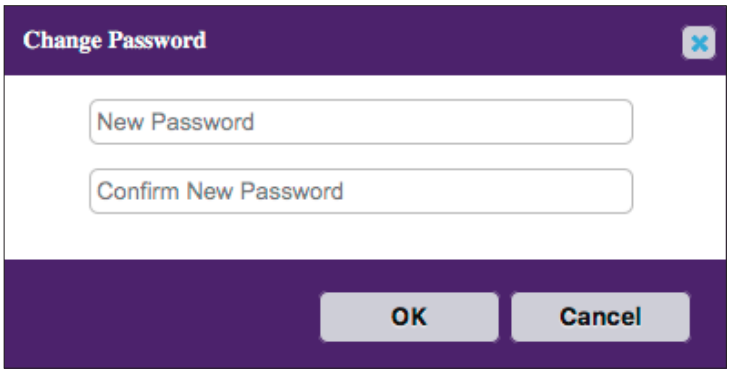
Setting the Password

The default login password for the Maestro web interface is `admin`. This password can be changed using the following procedure. To recover a lost or forgotten password, see Recovering a Lost Password (page 23).

1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.
2. Click the **Device** tab.
3. Click the **Password** button, under **Actions**.



4. Enter the new password in the top field, then retype the password in the bottom field. All passwords must be 4 to 16 characters in length and are restricted to alphanumeric (letters and numbers) characters.

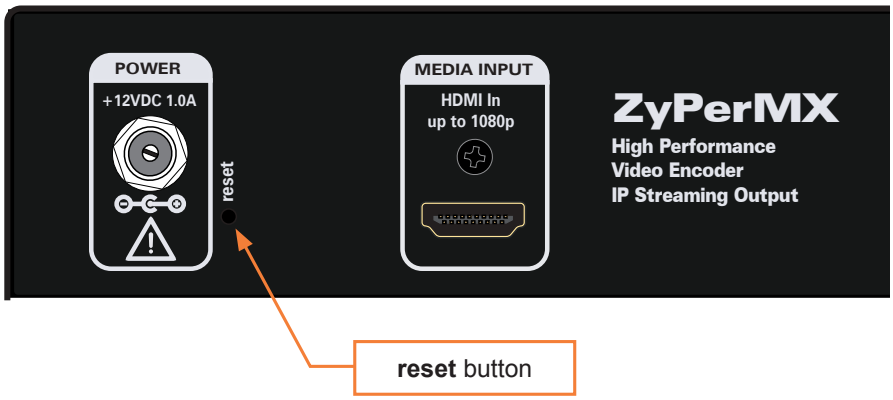


5. Click the **OK** button to accept the changes. Click the **Cancel** button to return to the **Device** tab without any changes.

Recovering a Lost Password

The ZyPerMX does not provide any built-in safeguards for lost or forgotten passwords. The ZyPerMX must be reset to factory-default settings using the reset button on the rear panel. Use the `admin` passowrd to login and then change the password under the **Device** tab.

1. Locate the **reset** button on the rear panel of the unit, next to the POWER receptacle. The button is recessed to prevent the unit from being accidentally reset.



2. Press and hold the reset button, using the end of a paperclip or other pointed object. Wait approximately 5-10 seconds, then release the button.

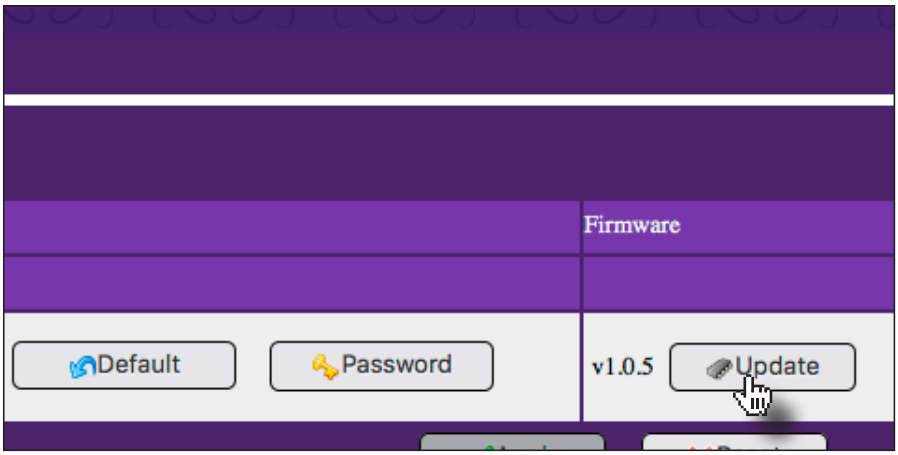
3. After about 60 seconds, the unit will be ready for use.

4. Follow the steps under Setting the Password (page 22) to complete the process.

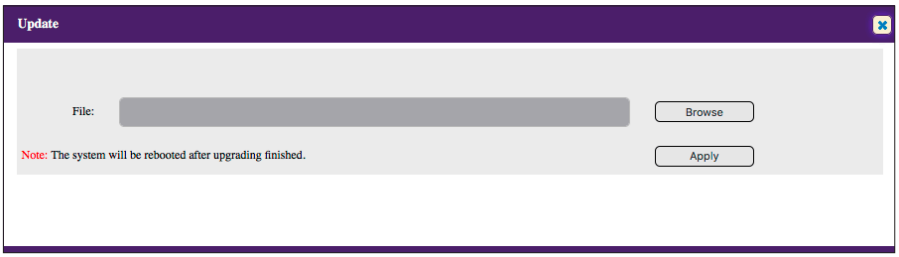
Updating the Firmware

Firmware updates will be available when required. Contact Technical Support for more information.

1. Download the firmware to the desired location on your computer.
2. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.
3. Click the **Device** tab.
4. Click the **Update** button, under **Actions**.



5. The following dialog will be displayed. Click the **Browse** button to select the firmware file.



6. Click the Apply button to begin the firmware update process.
7. Once the firmware as been applied, the ZyPerMX will automatically reboot.
8. The firmware update process is now complete and the unit is ready for use.

Using Custom Screens and Icons

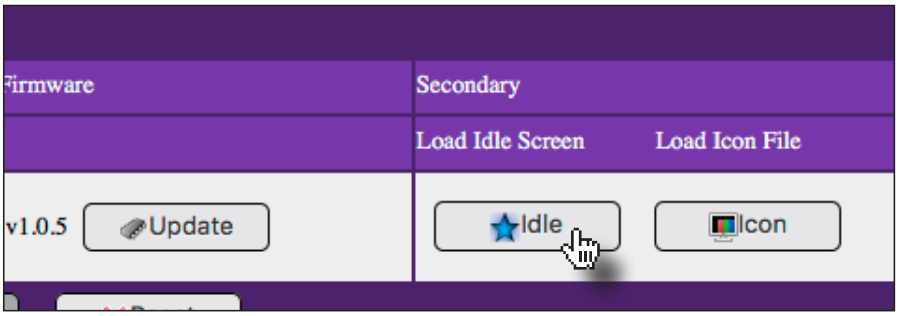
When no video is being passed from the ZyPerMX to the decoder/display, a blank background will be displayed. This can be changed to display a custom graphic. Icons are designed for use with the ZyPerMXe and can be associated with the IP stream in the MXe interface.

► Adding a Custom Screen

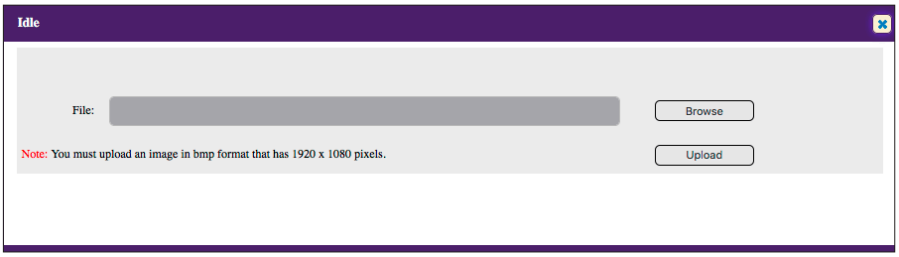
1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.

2. Click the **Device** tab.

3. Click the **Idle** button, under **Secondary**.



4. The following dialog will be displayed. Click the **Browse** button to select the desired image. The image must be a 24-bit (8 bits per color channel) `.bmp` file at a resolution of 1920 x 1080 pixels.



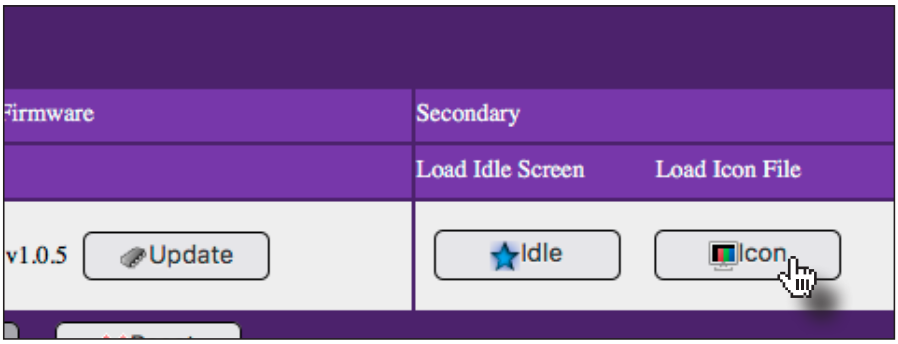
5. Click the **Upload** button to upload the image to the ZyPerMX.

6. Once the upload has been completed, the following message will appear in the **Idle** dialog.

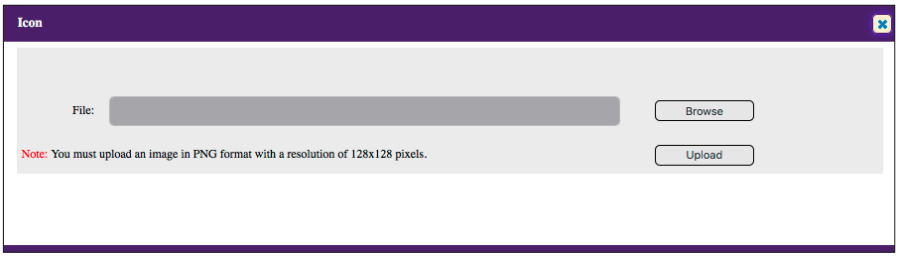
► Adding a Custom Icon

NOTE: Icons that are uploaded to the ZyPerMX will only be available when using the ZyPerMXe interface.

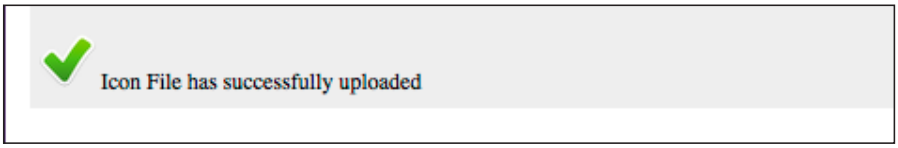
1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.
2. Click the **Device** tab.
3. Click the **Icon** button, under **Secondary**.



4. The following dialog will be displayed. Click the **Browse** button to select the desired image. The image file must be in `.png` format and have a resolution of 128 x 128 pixels.



5. Click the **Upload** button to upload the image to the ZyPerMX.
6. Once the upload has been completed, the following message will appear in the **Icon** dialog.

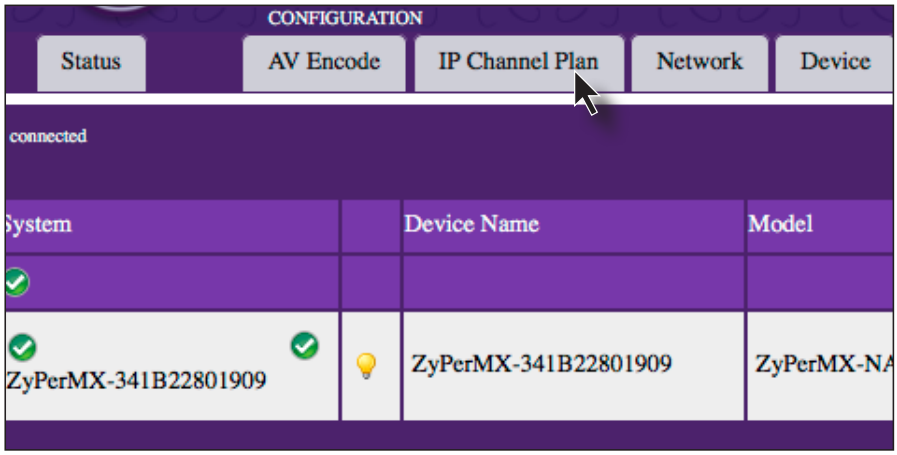


The Support Page

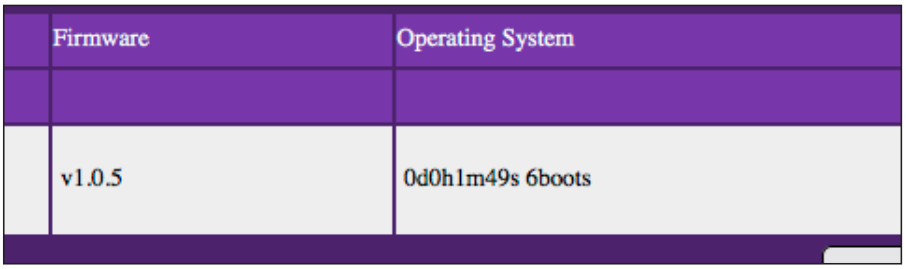
The **Support** page is similar to the Status page and current information about the ZyPerMX.

1. Login to the Maestro web interface. See The Maestro Web Interface (page 8) for more information.

2. Click the **Support** tab on the far-right of the screen.



- The **System** field displays the name of the ZyPerMX. This name can be changed. See Changing the Device Name (page 19) for more information.
- Click the “lightbulb” icon to physically identify the ZyPerMX on the network. When this icon is clicked, the **Status** LED indicator on the front panel will flash rapidly for about 10 seconds. This icon is available under all tabs, except the **About** tab.
- The **Device Name** field displays the name of the ZyPerMX. This name can be changed. See Changing the Device Name (page 19) for more information.
- The **Model** field displays the model of the ZyPerMX.



- The **Firmware** field displays the name of the ZyPerMX. Firmware updates will be available when required. Contact Technical Support for more information.
- The **Operating System** field displays the total uptime and the number of boot sequences that have occurred on this unit.

3 Appendix

Specifications

Video Input	1 x HDMI Type A, 19-pin, female	
Input Signal	0.5 ~ 1.2 Vp-p	
Input DDC Signal	5 Vp-p (TTL)	
Video Output	1 x LAN (PoE), 10/100/1000Base-T	
Output Type	H.264/MPEG-4 AVC	
Video Encoding Bit Rate	2 Mbps ~ 30 Mbps (configurable)	
Input / Output Resolutions	60 Hz	
	640 x 480 800 x 600 1024 x 768 1280 x 768 1280 x 800 1280 x 1024 1360 x 768 1366 x 768	1440 x 900 1400 x 1050 1600 x 1200 1680 x 1050 1920 x 1200 720 x 480p 1280 x 720p 1920 x 1080p
	50 Hz	
	720 x 576p 1280 x 720p	1920 x 1080p
	30 Hz	
	1280 x 720p	1920 x 1080p
	25 Hz	
	1920 x 1080p	
	24 Hz	
	1920 x 1080p	
Audio Input	1 x HDMI Type A, 19-pin, female	
Audio Sampling Rate	48 kHz	
Audio Compression and Sampling Rates	Linear PCM (fixed 1.6 Mbps) AAC (configurable, 32 k, 48 k, 64 k, 96 k, 128 k, 192 k, 240 k	
Operating Temperature	+32 ºF to +113 ºF (0 ºC to +45 ºC)	
Operating Humidity	10% to 90% (non-condensing)	
Storage Temperature	-4 ºF to +140 ºF (-20 ºC to +70 ºC)	
Storage Humidity	10% to 90% (non-condensing)	

Power Input	12 V DC / 1 A
Power Consumption	10.5 W (max), using included adapter 15.4 W (max), using PoE
Dimensions (W x H x D)	4.25 in x 1.33 in x 4.5 in (107.9 mm x 33.8 mm x 114.3 mm)

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Warranty

ZyPerMX Series of Equipment
ZeeVee, Inc. January, 2016

LIMITED TWO YEAR WARRANTY
ZeeVee warrants your ZeeVee ZyPer MX Series of Equipment ("ZyPer MX Equipment") against defects in materials and workmanship for a period of two (2) years from the date of purchase. ZeeVee's limited warranty extends only to the original end user purchaser or any person receiving the ZeeVee ZyPer MX 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 States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

EXCLUSIVE REMEDY FOR ZEEVEE ZYPER MX EQUIPMENT
At the option of ZeeVee, the ZeeVee ZyPer MX 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 ZyPer MX Equipment then ZeeVee may, at its sole discretion, refund the original purchase price or the current retail price of the ZeeVee ZyPer MX Equipment. If ZeeVee chooses to repair or replace the ZeeVee ZyPer MX 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 state of the USA, 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 ALL CONDITIONS LISTED BELOW:

- 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 ZyPer MX Equipment is considered proof of purchase.
- Warranty coverage begins the day the original end user purchaser or any person receiving the ZeeVee ZyPer MX Equipment as a gift from the original end user purchaser purchased the ZeeVee ZyPer MX Equipment.
- All ZeeVee ZyPer MX Equipment, including replacement products are covered only for the original warranty period. When the warranty on the original 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 ZyPer MX Equipment will be repaired or replaced with a new, repaired, refurbished, or comparable product (whichever ZeeVee deems as necessary).
- ZeeVee ZyPer MX Equipment must be purchased through an authorized ZeeVee Distribution Partner and Dealer/Reseller. Check www.ZeeVee.com for a list of authorized distributors and a list of any expressly excluded Dealer/Resellers. ZeeVee does not warrant equipment purchased through grey market resellers or certain internet resellers.

WHAT THESE WARRANTIES EXCLUDE
Your warranties do NOT cover:

- Labor charges for installation or set-up of the ZeeVee ZyPer MX Equipment.
- Shipping, tax or duty charges for return or replacement of unit
- 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 ZyPer MX 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 ZyPer MX Equipment such as batteries.
- Any ZeeVee ZyPer MX 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 ZyPer MX Equipment that has altered or missing serial numbers.
- Any ZeeVee ZyPer MX 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.

MAKE SURE YOU KEEP…
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 ZyPer MX Equipment.

TO GET WARRANTY SERVICE
Warranty service will be provided by ZeeVee. If you believe you need service for your ZeeVee ZyPer MX 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 ZyPer MX 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 ZyPer MX 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 ZyPer MX Equipment. Some States 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 State to State.

North America: +1(347)851-7364 • sales@zeevee.com
International: +1 (347) 851-7364 • sales@zeevee.com
EMEA: +44 1494 956677 • EMEAsales@zeevee.com

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