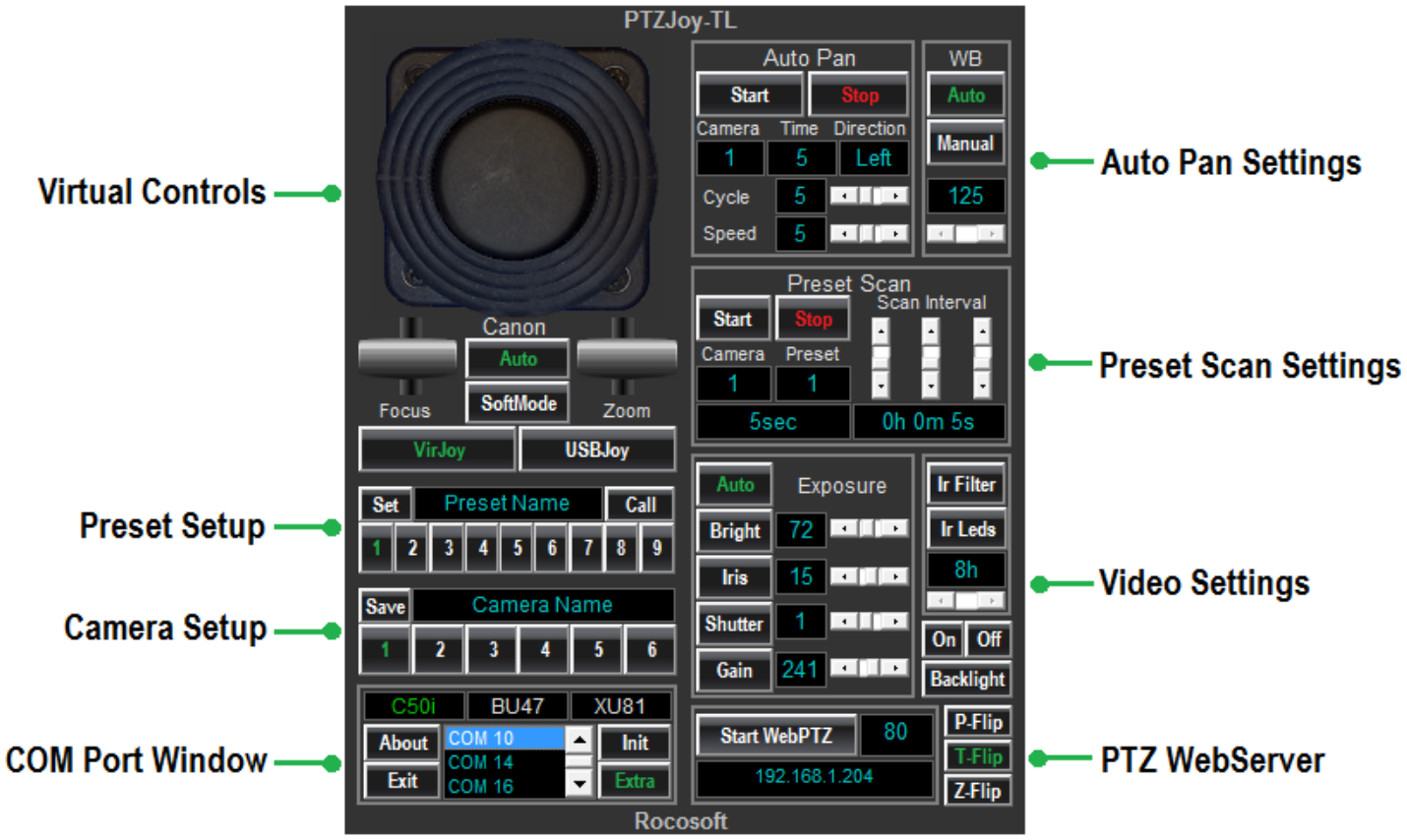
PTZJoy™ for NewTek TriCaster™ HD/XD and Livestream™ Systems User Manual

Canon



Getting Started

Before you begin using PTZJoy, you must connect your PTZ camera to your TriCaster or Livestream system ("system") using a Visca Control cable. You can connect your camera using either a Serial or a USB Visca Control cable, depending on which type of port you have on your system. Please make sure your PTZ camera is turned ON.

If using a serial port:

1) Check which COM port number is being used by your serial device in the Ports section of the ***Device Manager**** on your system (example: COM2)**.
2) Connect the Serial Visca control cable to the ***Serial COM port*** of your system and to the ***Visca In*** jack of your camera.

If using a USB port:

1) Install the USB Drivers that came with the USB Visca control cable.
2) Connect the USB adapter to the ***USB port*** of your system and to the ***Visca In*** jack of your camera and allow your system to recognize the hardware. You should see a message that your hardware device is ready to use.
3) Check which COM port number is being used by your USB device in the Ports section of the ***Device Manager**** on your system (example: COM7)**.

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To access the **Device Manager, open the **System** folder from your **Control Panel**, and click on **Device Manager**. Expand the **Ports** section to view your active COM ports and double check that there are no yellow exclamation marks. If you see a yellow exclamation mark next to any of your COM ports, your will need to fix this issue. If there are no yellow exclamation marks, these ports are active and available to control cameras.*

*** If you are connecting only one camera, or multiple cameras in a daisy chain mode, you will need to know only one COM port number. If you have multiple cameras connected to multiple ports, you will need to know the COM port numbers being used in order to switch between cameras in the application.*

Controlling your PTZ camera

Once your PTZ camera is connected to your system, open PTZJoy. PTZJoy will automatically launch the TriCaster or Livestream application and you can begin controlling your PTZ camera from your system. You should see all COM ports available to control PTZ cameras in the list of available COM ports. Select the COM port your camera is connected to from the list of available COM ports.

Virtual Joystick

1) Using your computer mouse, click on any point on the virtual joystick and drag your computer mouse in the direction you want to move your selected camera*.
2) To activate the Zoom In and Zoom Out feature, click and drag the **Zoom Lever** with your computer mouse up to zoom in and down to zoom out*.
3) Adjust the focus of the camera but clicking and dragging the **Focus Lever** with your computer mouse up to focus near, and down to focus far*. Click on the **Auto** button to auto focus the camera.

**Regulate the speed of the pan, tilt, and zoom movements by the movement of the computer mouse relative to the center point of the virtual controls - called the zero point, at which the speed is zero. The speed of pan and tilt movements is determined by they location of the mouse relative to the center point of the virtual joystick; the speed of the zoom in and out movement is determined by the location of the mouse relative to the center point of the zoom lever. The further away from the zero point of the virtual joystick or zoom lever that you move the mouse, the quicker the camera will rotate. The closer the mouse is to the zero point of the virtual joystick or zoom lever, the slower the camera will rotate.*

USBJoy Joystick Control

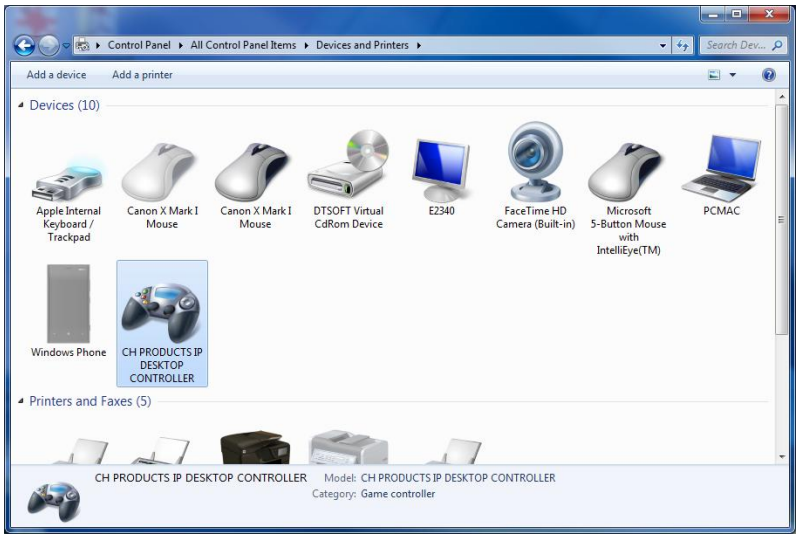
We recommend checking if your camera works with our Virtual Joystick first before trying to connect a USB Joystick.

1) Connect your joystick controller to an available USB port on your system and wait until your computer initializes it.
2) Follow instructions below to calibrate your joystick.

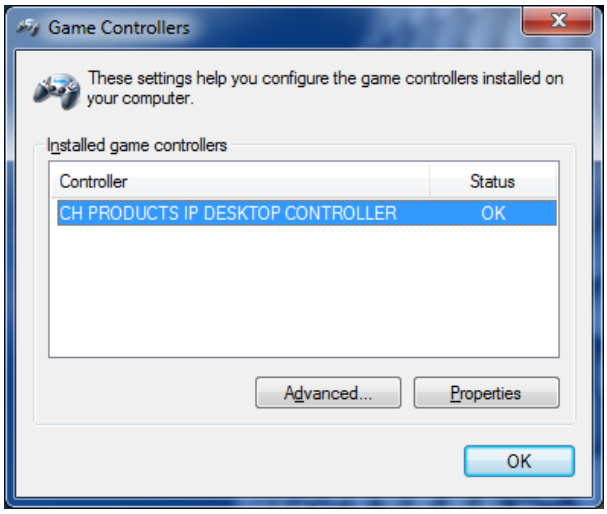
Calibrating Joystick

Calibrating your joystick controller will help the joystick work more accurately with the PTZJoy application by finding the exact zero point and peripheral borders of the controller.

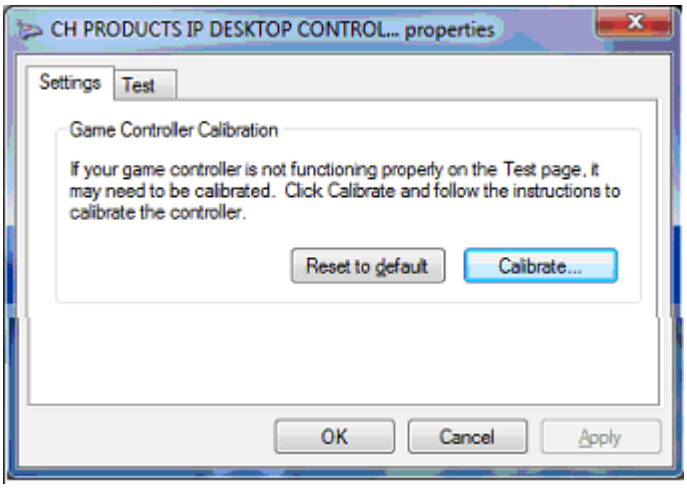
1) Open ***Control Panel*** → open ***Devices and Printers***
2) You should see a screen showing available devices:



3) Find your Joystick Controller and right click on the icon. Select ***Game Controller Settings***. Highlight the controller you wish to calibrate and select ***Properties.***



4) To start the calibration process, select ***Calibrate*** under the ***Settings tab*** to initiate the ***Device Calibration Wizard:***



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Using your Joystick

Once your joystick is connected and calibrated, you can begin using it to control your connected PTZ camera.

1) Click on the ***USBJoy Button***.
2) Move your USB joystick in the desired direction to control your camera. Regulate the speed of the pan and tilt movements by the movement of the joystick relative to its center point, or zero point. The further you move the joystick away from its zero point, the quicker the camera will rotate.

Using the Button Shortcuts on your Joystick

All USB joysticks are different, but most of them have special shortcut buttons that can be assigned specific commands. This is a list of the PTZJoy pre-assigned functions for buttons on a USB joystick:

Button #	Function
1	Zoom In
2	Zoom Out
3	Previous Camera
4	Next Camera
5	Previous Preset
6	Next Preset
7	Call Preset

Here are some examples of different button locations for several common joysticks:

LOGITECH ATTACK3

PROFESSIONAL PTZ JOYSTICK

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CYBORG V-1

LOGITECH WIRELESS GAMEPAD

THRUSTMASTER T.1600M

THRUSTMASTER TOP GUN USB VERSION

Your joystick may have a different button layout. To check your joystick's button layout:

1) Open ***Control Panel*** → open ***Devices and Printers***
2) Find your Joystick Controller and right click on the icon. Select ***Game Controller Settings.*** *Select your USB joystick from the list* and click on ***Properties.***

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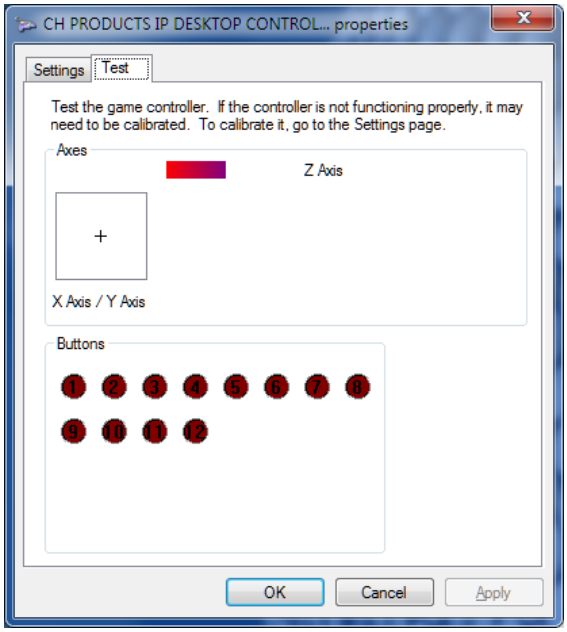
3) Select the ***Test*** tab. Press the buttons on your joystick and take note of which numbers light up under the ***Buttons*** section in this window. Once you know which buttons on your joystick correspond to a specific number, refer to our command table to see a list of functions and their corresponding buttons.



Controlling Zoom Function on a gaming PTZ Joystick

If using a gaming joystick with a zoom lever, you can use this lever for controlling the zoom function with variable speeds. Since gaming joystick levers do not have a center, or zero, position like professional joystick levers do, they will not return to the zero position when you release the lever – it has to be done manually.

You must manually find a zero position on you gaming joystick and always start the program with the lever in that position. By doing this, you will have full zoom control with variable speed of your camera.

1) Start PTZJoy with the joystick's lever in roughly the middle position.
2) Move the zoom lever up and down to zoom in and out to find the point where you can completely stop the zoom. This is your zero point.
3) Restart PTZJoy with the lever in zero position. Your joystick is now configured to use the zoom lever with a zero point.
4) You can now regulate the speed of the zoom by the movement of the zoom lever relative to its zero point. The further you move the lever away from its zero point, the quicker the camera will zoom in and out. To stop the zoom, you must move the zoom lever back to the zero point.

Soft Joystick Mode

This mode allows for slower, more precise movements of the camera while using the Virtual or USB joystick. Click on the ***Soft Mode*** button to switch to Soft Joystick Mode.

Connecting Multiple Cameras

Home Run Connection

In a home run connection, multiple cameras are connected to different USB/Serial ports on your system and each camera is controlled through a separate COM port.

How to connect:

1) Connect your cameras to the USB/Serial ports of your system using Serial or Visca cables *(described in detail in the **Getting Started** section).*
2) Check which COM port numbers are being used by your cameras in the ***Ports*** section of the ***Device Manager***.
3) Switch between cameras in the application by selecting the COM port number of the camera you wish to control from the list of active COM ports.

Note: *In a Home Run Mode you can connect as many cameras as there are USB/Serial ports.*

Daisy-Chain Connection

In a daisy chain connection, the first camera is connected to a USB port/Serial port of your system and additional cameras are "daisy-chained" to the first camera using daisy chain cables. In this configuration, multiple cameras can be controlled through one COM port.

How to connect:

1) Connect your first camera to the USB/Serial port of your system using a USB or Serial Visca cable.
2) Connect additional cameras to the first camera with daisy chain cables.
3) Switch between cameras in the application by selecting the camera from the list of camera number buttons in the **Camera Setup** section in the application.

Note: *You can Daisy Chain up to 7 Sony or 9 Canon cameras per COM port. Additional Daisy Chain connections can be added to additional available USB/Serial ports.*

Naming cameras in Daisy Chain Mode

1) In the Camera Setup section, select the number of the camera you wish to name.
2) Type in the desired name for the camera in the ***Camera Name Window*** and click ***Save.*** Repeat for all cameras connected in the daisy chain
3) Once all cameras are named, you can switch between cameras by selecting the camera from the list of camera number buttons and be able to see which camera is currently chosen by name.

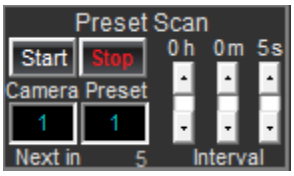
Working with Presets

1) In the Preset Setup section, select the camera you wish to configure by either selecting a COM port number from the COM port list (home run connection) or by selecting the number of the camera in a daisy chain that corresponds to the desired camera (daisy chain connection).
2) Click on the Preset number that you wish to set up for the selected camera.
3) Move your camera in the desired position, type the desired name for the preset in the ***Preset Name Window,*** and click on the ***Set*** button.
4) Repeat for up to 6 preset positions. Once each preset is configured, call on a specific preset by clicking on the desired preset number.

Note: *You can configure presets for as many cameras as you have connected either in home run or daisy chain mode.*

Preset Scan

Ideal for security applications, the Preset Scan feature allows you to command a selected camera to scan between presets at a specified time interval. Presets must already be configured.

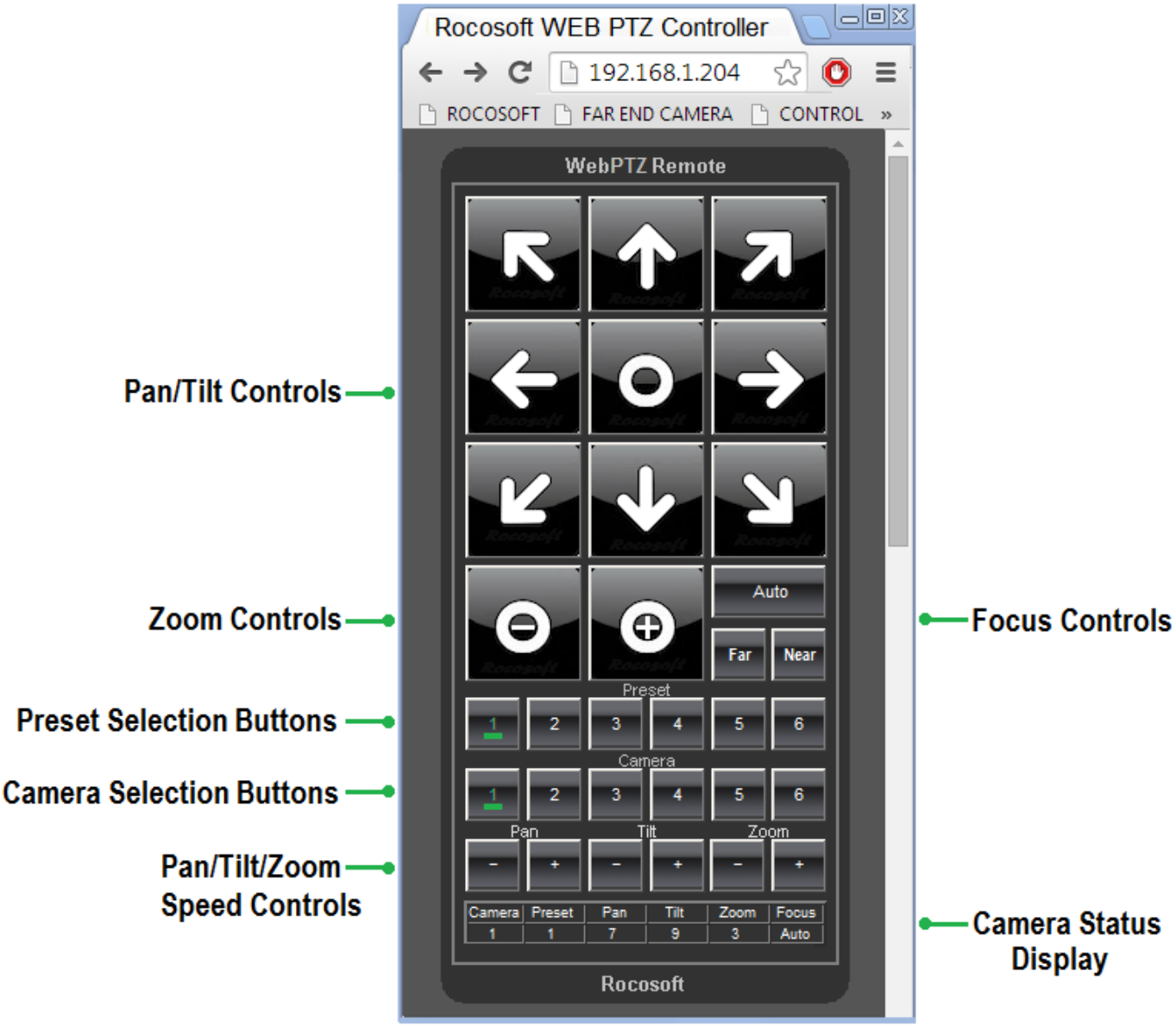


1) To begin Preset Scan, click on the ***Start*** button.
2) To stop Preset Scan, click on the ***Stop*** button.

Note: *You can configure the time interval to be as little as 1 second between each preset, or as great as 13 hours by adjusting the time interval scroll bars.*

Using the PTZ Web Server

Control your PTZ cameras from any mobile device to a Wi-Fi, LAN, or WAN IP Network using our innovative Web Remote.



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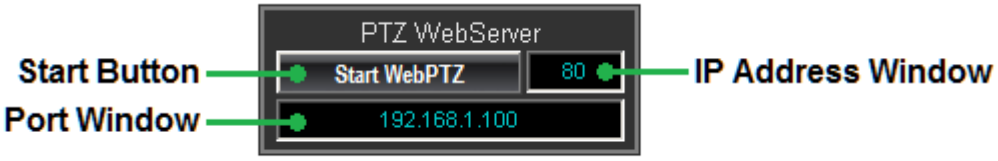


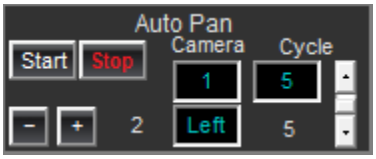
1) The default port for the Web Server is 80 and the current IP Address of your web server is shown in the ***IP Address Window***. You can add security to the connection by changing the Web Server port number by typing your custom port number in the ***Port Window***. You will see the corresponding IP Address for that port in the ***IP Address Window***.
2) Once you have your port selected, click on ***Start WebPTZ.***
3) Open the web browser on your mobile device and type in the IP Address shown in **the *IP Address Window*** into the URL Bar on your mobile device.
4) The Camera Status Display will show relevant information such as which camera is being controlled, which presets position is active, the pan, tilt, and zoom speed, and focus mode.

** You can also allow for control of your cameras using our PTZ WebRemote from a device outside of your local area network. Please contact your network administrator to configure your router and open ports to accept outside signals. Once your router is configured, you can open a web browser on any device and type in the IP Address and open port number for the PTZ WebServer and control your camera.

Additional Features

Pan, Tilt, Zoom Flip: The ***P-Flip***, ***T-Flip*** and ***Z-Flip*** buttons inverse the Pan, Tilt, and Zoom directions of a selected camera.
Camera ON/OFF Buttons: Turns selected camera ON or OFF
Camera Initiation: Allows you to add or remove cameras in a Daisy Chain connection without restarting all cameras.

Auto-Pan



1) Move your selected camera to the desired position.
2) Click on the minus and plus buttons to adjust pan speed.
3) Select ***Start*** to begin pan cycle and ***Stop*** to stop pan cycle.
4) Adjust the length of the pan cycle by sliding the scroll bar up to increase time in seconds and down to decrease time in seconds.

Video Settings

Exposure Control Settings: Auto, Bright, Iris, Shutter, and Gain. Manually adjust settings with the scroll bar.
White Balance Settings: Auto Mode, Manual**.**
Infrared Filter: ON/OFF
Infrared LED's: ON/OFF
Backlight: Backlight Compensation

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