Rocosoft PTZJoy™ Canon BU PRO Controller

User Manual
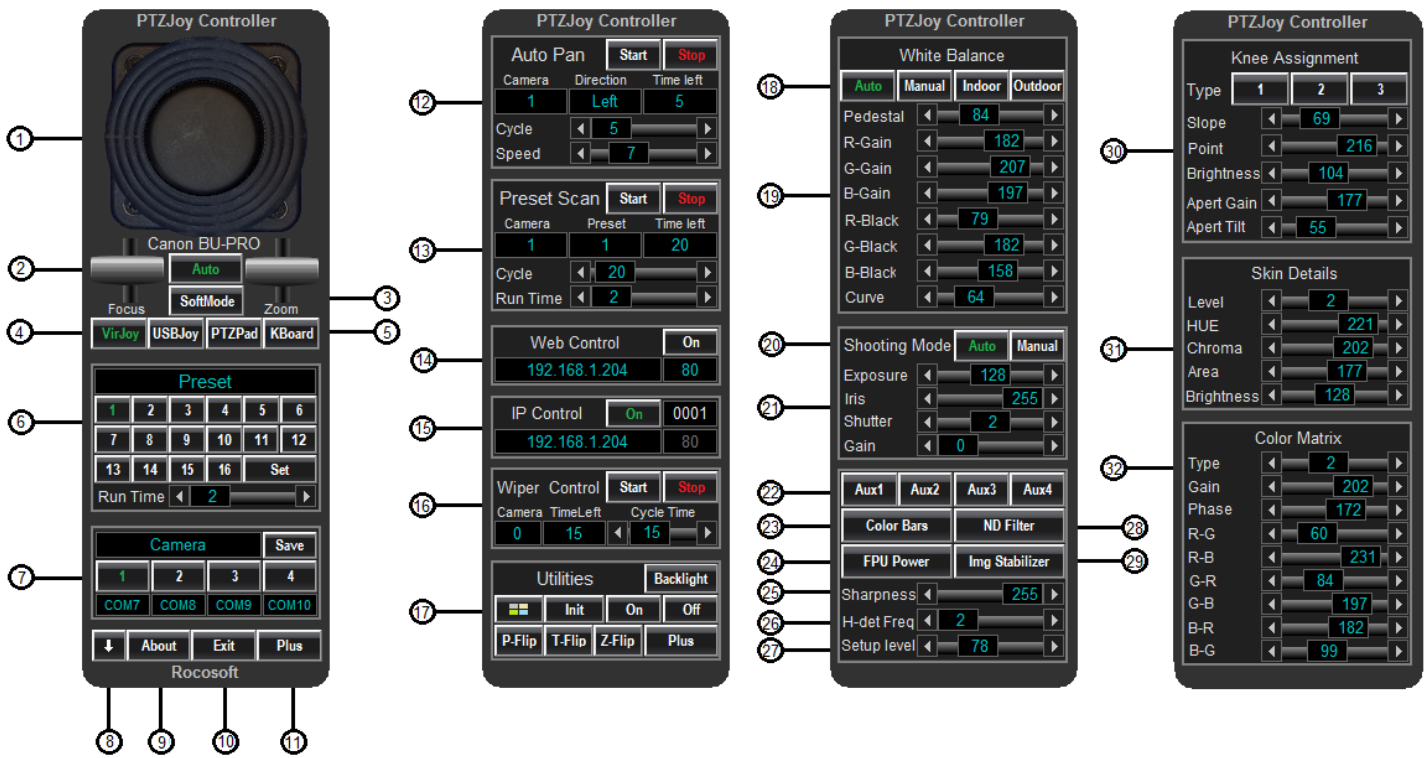
VISCA PTZ Camera Control Software for PC

- Canon BU-46H
- Canon BU-47H
- Canon BU-51H

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*PTZJoy Canon BU PRO Controller is composed of 4 sliding screens. The Plus buttons expand the application to reveal more options

GETTING STARTED

Before starting PTZJoy Canon BU PRO, connect your PTZ camera to your computer or live production system using a VISCA Control cable. Please make sure your PTZ camera is turned ON.

1) Connect the VISCA control cable to the **Serial/USB COM port** of your computer and to the **VISCA In** jack of your camera.

2) Check which COM port number is being used by your serial device in the Ports section of the **Device Manager*** on your computer (example: COM2)**.

To access the **Device Manager, open the **Computer** 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, you 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 the PTZ camera is connected to your computer, open PTZJoy Canon BU PRO. All COM ports available to control PTZ cameras will be listed in COM port window. Select the COM port your camera is connected to from the list of available COM ports and choose the desired method of camera control from the Control Type Selection buttons: **VirJoy, PTZPad, USBJoy,** or **KBoard.** The default Control Type is **VirJoy**.

VIRTUAL JOYSTICK CONTROL

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.
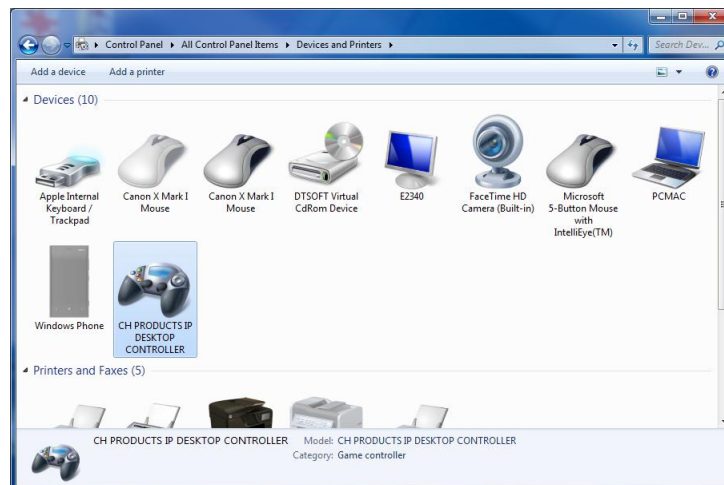
USBJOY JOYSTICK CONTROL

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

1) Connect your joystick controller to an available USB port on your computer and wait until your computer initializes it.

2) Follow instructions below to calibrate your joystick.

CALIBRATING YOUR JOYSTICK

Calibrating your joystick controller will help the joystick work more accurately with the PTZJoy Canon BU PRO 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.*
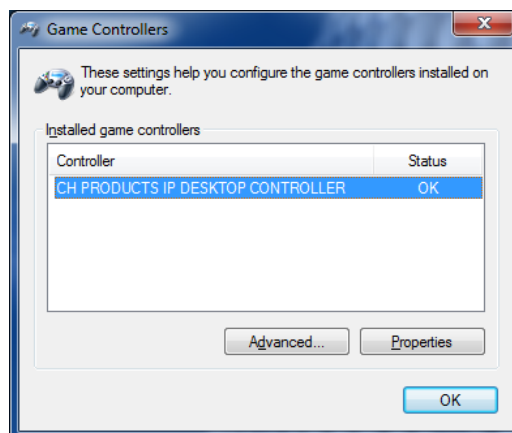
4) To start the calibration process, select Calibrate under the Settings tab to initiate the Device Calibration Wizard:

USING YOUR JOYSTICK

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

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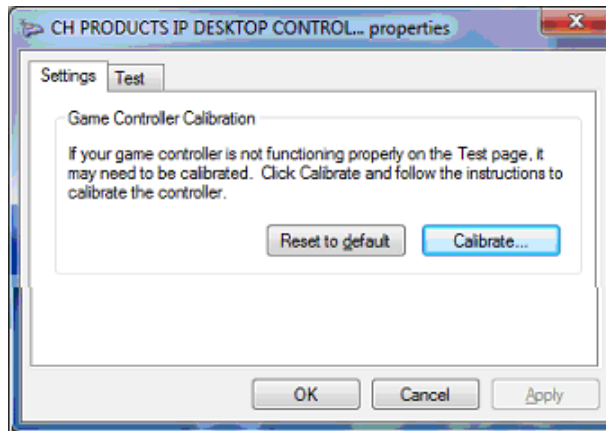
2) Move your USB joystick in the desired direction to control your camera. Regulate the speed of the pan and tilt movements by the movement of the joystick relative to its center point, or zero point. The further you move the joystick away from it's zero point, the quicker the camera will rotate.

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 Canon BU PRO 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

PREVIOUS CAMERA
NEXT CAMERA
PREVIOUS PRESET
ZOOM OUT
ZOOM IN
NEXT PRESET
CALL PRESET
ZOOM LEVER

PROFESSIONAL PTZ JOYSTICK

ZOOM OUT   ZOOM IN
ZOOM OUT
NEXT CAMERA
NEXT PRESET
ZOOM IN
PREVIOUS CAMERA
PREVIOUS PRESET
CALL PRESET

THRUSTMASTER T.1600M

PREVIOUS CAMERA
NEXT CAMERA
ZOOM OUT
ZOOM IN
CALL PRESET
NEXT PRESET
PREVIOUS PRESET
ZOOM LEVER

THRUSTMASTER TOP GUN USB VERSION

ZOOM OUT
ZOOM IN
PREVIOUS CAMERA
NEXT CAMERA

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CYBORG V-1

LOGITECH WIRELESS GAMEPAD

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.**

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.
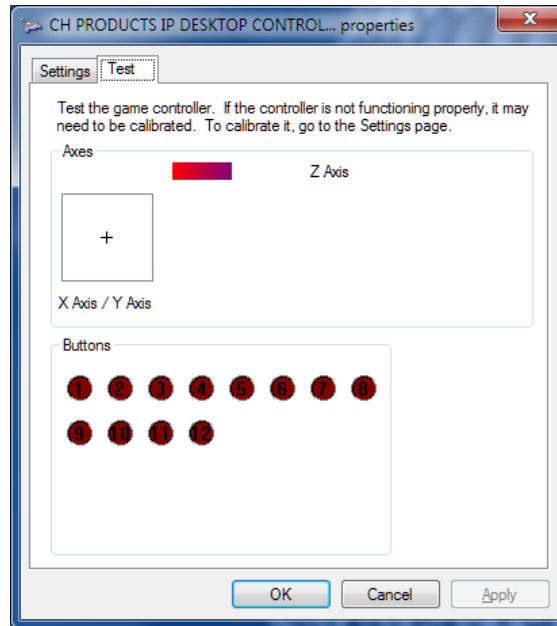
CONTROLLING ZOOM FUNCTION ON A GAMING PTZ JOYSTICK

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 Canon BU PRO 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 Canon BU PRO 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 it's 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.

PTZPAD CONTROL

This mode allows you to control your PTZ camera from any laptop touchpad, trackball mouse, or simply using the movement of any regular mouse. By simply pressing a designated computer keyboard button, your mouse, laptop touchpad, trackball mouse, or regular mouse becomes a PTZ controller. This feature is ideal for controlling your cameras from a laptop computer in a video conferencing environment, eliminating the need for any additional equipment such as bulky joystick controllers.

1) Activate this feature by clicking on the **PTZPad** button in the application.
2) On you computer keyboard, press and hold the "ALT" button to pan/tilt and the "Z" button to zoom with your mouse, laptop touch pad, or trackball mouse. Release the keyboard button to stop the movement.

KEYBOARD HOTKEYS

Control pan/tilt/zoom/focus functions, change speed settings, call on presets, and switch cameras using pre-assigned shortcuts or "hotkeys" on any standard keyboard. This is a diagram of the PTZJoy Canon BU PRO pre-assigned keyboard hotkeys:

BUTTON CONTROLS

Control pan/tilt/zoom/focus functions with convenient button controls and speed sliders located on the third control panel of the program.

CONNECTING MULTIPLE CAMERAS

HOME RUN CONNECTION

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

HOW TO CONNECT:

1) Connect your cameras to the USB/Serial ports of your computer using Serial/USB 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.

WORKING WITH PRESETS

SETTING AND RECALLING PRESETS

1) Use the Preset Selection Buttons to select the preset number you wish to set up for the selected camera.
2) Move your camera in the desired position, type the desired name for the preset in the preset name window, and click **Set.**
3) Repeat for up to 16 presets.
4) Recall on a preset by clicking on the desired preset number from the Preset Selection Buttons. The current preset number and name will appear on the screen.
5) If using your USB Joystick to select presets, the current preset number and name will also appear on the screen.

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.

| Preset Scan | Cycle | ◄ | 10 | ► |
| Cam 1 | Preset 1 | Time 10 |

1) Click **Preset Scan** to start the scan cycle. Click it again to stop it.

2) Adjust the time interval between the presets with the cycle slider.

USING THE PTZ WEB REMOTE

Control PTZ cameras connected to the Main Controller from the web browser of any mobile device over any LAN, Wi-Fi, and WAN IP network. Use it as a far-end controller to switch between cameras, control pan, tilt, zoom, and focus, change the speed settings of camera movements, and call on presets.
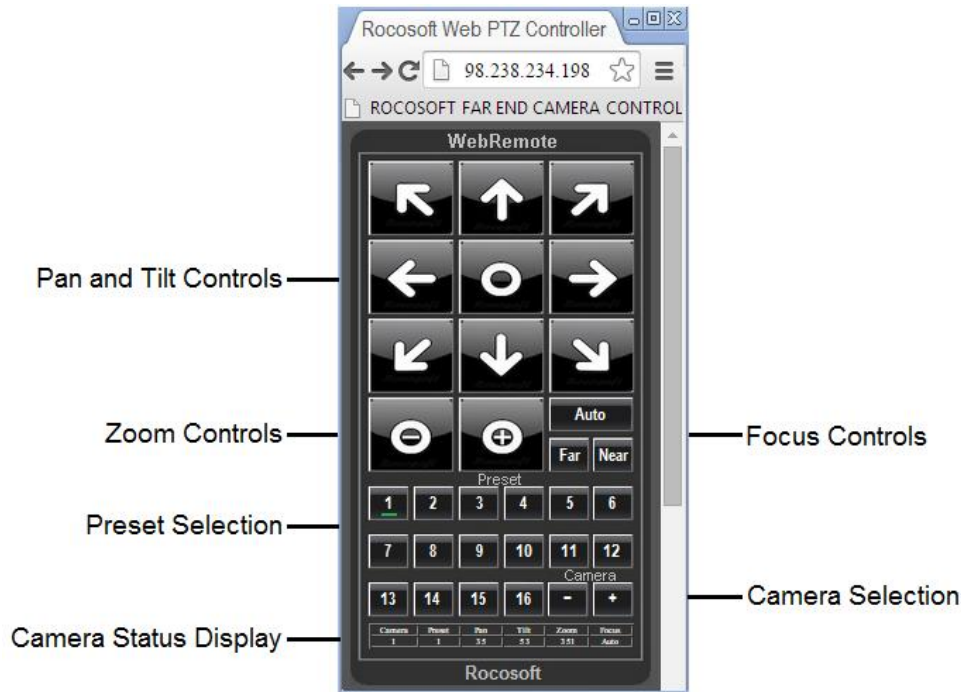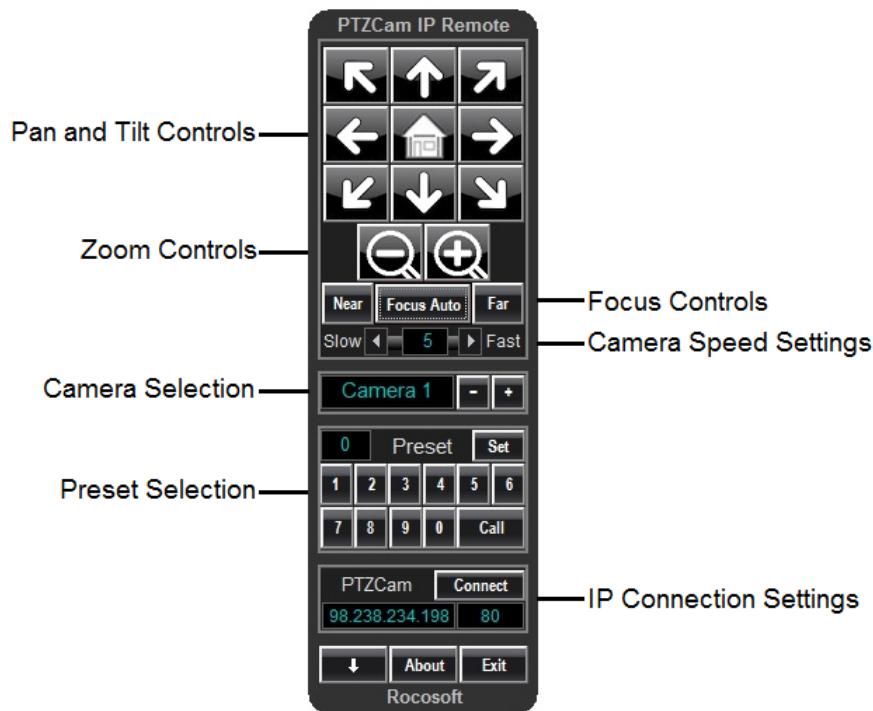

1) Turn ON Web Control access on the Main Controller.

2) The default port for Web Control is 80 and the current IP Address and access information of the Main Controller can be found by clicking on the **About** button. You can add security to the connection by changing the Web Control port number on the Main Controller.

3) Open the web browser on your mobile device and type in the IP Address of the Main Controller (see **About**) into the URL Bar on your mobile device.

4) The WebRemote will appear in the web browser of your mobile device and you can now control the PTZ cameras connected to the Main Controller.* The WebRemote will appear full size in your web-browser – if you are using a computer, you can resize the WebRemote to a more convenient-to-use size by simply changing the zoom settings in the browser.

5) 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.

*Control cameras using the WebRemote from a device outside of your local area network by configuring your router and opening 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 of the Main Controller and control your camera.

USING THE IP REMOTE

The IP Remote Controller works in conjunction with the Main Controller to turn your camera into an IP camera controllable from anywhere over any LAN, Wi-Fi, and WAN IP network. The IP Remote Controller comes as an executable file that can be loaded on any computer and used as a far-end controller for the cameras connected to the Main Controller*. Use the IP Remote Controller to control pan, tilt, zoom, and focus, change the speed settings of camera movements, switch between cameras, and call on presets.

1) Download the IP Remote Controller provided in the installation package on any computer you wish to control your camera from. No installation required - simply download and load.

2) Turn ON IP Control access on the Main Controller.

3) The default port for IP Control is 80 and the current IP Address and access information of the Main Controller can be found by clicking on the **About** on button. You can add security to the connection by changing the IP Control port number on the Main Controller and on the IP Remote.

4) Open the IP Remote Controller on any remote computer, type in the IP Address of the Main Controller (see **About**) and click **Connect.** You will now be able to control the PTZ cameras connected to the Main Controller*.

* Control cameras using the IP Remote Controller from a device outside of your local area network by configuring your router and opening ports to accept outside signals. Once your router is configured, you can open the IP Remote on a far-end computer, type in the IP Address of the Main Controller and control connected cameras.

ADDITIONAL CONTROL SETTINGS

Minimize to Taskbar: Minimizes program to taskbar for quick access

**Start with Windows:** Configure program to automatically start with Windows Startup.

1) Click on the Windows Logo Button to activate this feature

2) Restart the computer.

3) The program should start with Windows automatically.

4) If it does not start automatically, right click on the PTZJoy Canon BU PRO program loader file and click "Run as Administrator". Click on the Windows Logo Button in the program again, close the program, and restart your computer.

Pan, Tilt, Zoom Flip: The *P-Flip*, *T-Flip* and *Z-Flip* buttons inverse the Pan, Tilt, and Zoom directions of camera.

Camera ON/OFF: 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
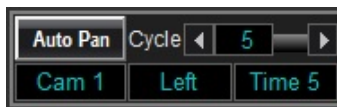
1) Click *Auto Pan* to start the pan cycle. Click it again to stop it.

2) Adjust the length of the pan cycle with the cycle slider bar.

Wiper Control

1) Click *Start* to turn on camera wiper. Click *Stop* to turn off wiper.

2) Adjust wiper interval using the cycle time slider bar.

ADDITIONAL VIDEO SETTINGS

White Balance Settings: Auto, Manual, Indoor, Outdoor

Gain Settings: Pedestal, R-gain, B-gain, G-gain, R-Black, G-black, B-black, Curve. Manually adjust settings with slider bars.

Shooting Modes: Auto, Manual

Exposure Control Settings: Exposure, Iris, Shutter, and Gain. Manually adjust settings with slider bars.

AUX Output Selection: Aux 1-4

Color Bars: ON/OFF

FPU Power: ON/OFF

ND Filter: ON/OFF

Image Stabilizer: ON/OFF

Backlight: Backlight Compensation

Sharpness: Manually adjust settings with slider bars.

H-det Frequency: Manually adjust settings with slider bars.

Setup Level: Manually adjust settings with slider bars.

Knee Assignment Settings: Type, Slope, Point, Brightness, Aperture Gain, Aperture Tilt. Manually adjust settings with slider bars.

Skin Details Settings: Level, Hue, Chroma, Area, Brightness. Manually adjust settings with slider bars.

Color Matrix Settings: Type, Gain, Phase, R-G, R-B, G-R, G-B, B-R, B-G. Manually adjust settings with slider bars.