BirdDog
XL Ultra User Guide

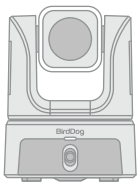
FEB · 2026

BirdDog

SAFETY PRECAUTIONS

- During the installation and operation, **all electrical safety regulations of the country and region of use must be strictly observed.**
- Please use the power adapter that comes standard with this product.
- **Do not rotate the camera by hand,** otherwise it may cause mechanical failure.
- When installing this product on a wall or ceiling, make sure the device is secured and there are no obstacles within the rotation range; **Do not power on until installation is complete.**
- To avoid overheating, **please ensure adequate ventilation is provided to the camera.**
- If the device malfunctions, makes unexpected noises or smells, turn off the power and unplug the power cord immediately. Contact your dealer for service.
- This device is designed for **internal use only,** and is not water resistant or waterproof.
- This product has no user serviceable parts, **damage caused by disassembly by the user is not covered by the warranty.**

WHAT'S IN THE BOX



1 x **PTZ Camera**

1 x **IR Remote Controller**

1 x **DC 12V Power Supply**

Rear Silicon Numbers

Welcome Pack

PRODUCT CONNECTIONS

Please check all connections before powering on.
Power on sequence of the camera involves rotating the lens body to the lower left limit, upper right limit, and finally settling in the HOME position.
Once initialisation is complete, the camera is ready for general operation.

Note: If Preset position 0 is stored, the PTZ will automatically recall this position when finalising the startup procedure).

ABOUT THE PRODUCT

4K UHD

XL Ultra utilizes the latest generation High-Quality 4/3" UHD CMOS sensor delivering 4K UHD images (3840x2160), it is also compatible with 1080p and 720p formats.

AI Tracking

XL Ultra supports 4 different tracking modes including: Advanced Presenter, Single Tracking, Zone Tracking, and Auto Framing.

Single Tracking is the mode that doesn't utilize both Cameras for tracking.

The other 3 modes utilize the wide bottom camera for subject tracking and advanced tracking options for creating boundaries and zones.

20x Optical Zoom + 100° Secondary Wide-angle Lens

XL Ultra has a high-quality 4K 20x lens. 40x in HD and up to 8 Digital Zoom. It contains 3 ND filters for intense light conditions environments.

NDI|HX3®

NDI® | HX3 is the next generation of NDI network transmission with ultra-low latency, high quality images, easy network deployment, and expansive ecosystem. The NDI® | HX3 protocol supports transmission of Video, Audio and Control Signals.

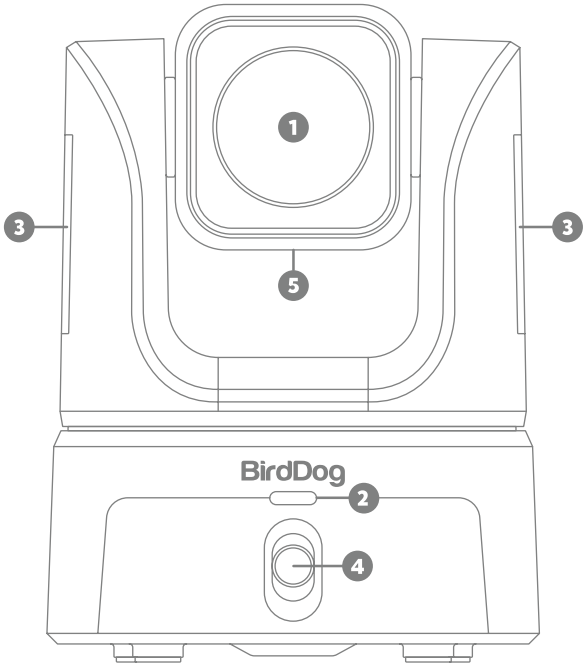
Dual Built in e-ink screens

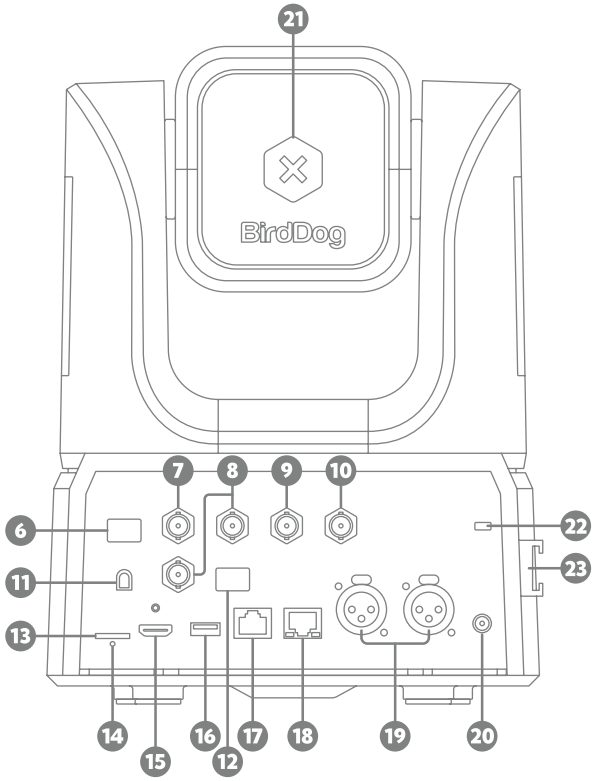
Information is displayed on the onboard e-ink displays including the devices network host name, IP address, and current video format.

Multiple Control Method

You can control the XL Ultra camera via multiple control protocols including RS232,RS422, Network (VISCA IP, NDI) Pelco, FreeD.

PRODUCT DESCRIPTION





No.	Name
1	Primary Lens
2	Power & Standby indicator
3	Display (e-ink)
4	Secondary Panoramic Lens
5	Tally Light
6	12G-SDI SFP+
7	12G-SDI
8	3G-SDI
9	Genlock
10	Time Code
11	IR

No.	Name
12	SFP
13	Micro SD Card
14	Reset
15	HDMI Port
16	USB 3.0
17	RS232 / RS422
18	PoE / LAN
19	2x XLR Audio In
20	12V DC Power
21	Rear Tally Light – Silicon Number
22	Lock
23	Cold Shoe Mount

TECHNICAL SPECIFICATIONS PAGE

Feature	XL
PRIMARY CAMERA	
Image Sensor	4/3" Sony CMOS 5K Sensor
Lens	20x Optical Zoom Lens
Video Format	2160p60
Additional Resolutions	2160p60, 59.94, 50, 29.97, 25 1080p60, 59.94, 50, 30, 29.97, 25 1080i60, 59.94, 50 720p60, 59.94,50
Focal Length	9.8mm ~ 186mm
Apeture	f2.8~f4.5
Focus	Auto, Manual
AF Method	PDAF (Phase Detection Auto Focus)
Horizontal Field of View	71° ~ 4°
Exposure	Auto, Shutter Priority, Iris Priority, Manual, BLC, WDR
Shutter Speed	1/1- 1/10,000s
3D Noise Reduction	Yes
SNR	300lux-600lux 45-50dB
Effective Pixels	20.89 MP
Vertical Field of View	40° ~ 2°
Diagonal Field of View	79° ~ 4.5°
ND Filter	Yes 1, 1/4/ 1/16, 1/64
Optical Low Pass Filter (OLPF)	Yes
Image Stabilization	Digital
Digital Zoom	16x Supersampling
SECONDARY PANORAMIC CAMERA	
Image Sensor	1/1.8" Sony CMOS 4K sensor
Lens	Fixed
Focal Length	4.4mm
Aperture	f2.0
Horizontal Field of View	85°
Vertical Field of View	53°
Diagonal Field of View	93°
MECHANICAL	
Pan/Tilt Rotation	±170°, -30° ~ +90°
Pan Control Speed	0.05° ~ 120°/s
Tilt Control Speed	0.05° ~ 90°/s
Preset Number	256
Integrated Tally Light	Halo Style, RGB (Front), Number Style (Rear)
e-Ink Display	2x 3" Grayscale e-Ink Displays
Pan/Tilt Drive System	Ultra-fine drive

Feature	XL
Quietness	NC 50 (with a sound pressure level corresponding to the 500Hz - 1kHz frequency band being 49 - 51 dB)
I/O INTERFACE	
Video Output Interfaces	12G-SDI, 3G SDI x 2, HDMI 2.0, USB-C, 1Gb RJ45, SFP+ Cage (Ethernet)
Video Compression Formats	H.264, H.265, SpeedHQ
Network Interfaces	1x 1GbE Adaptive Ethernet port, PoE++, 1x SFP+ Cage (Ethernet)
Encoder Network Protocols	High-Bandwidth NDI® (SpeedHQ), NDI® HX3, NDI® HX2, SRT, RTSP, RTMP
Control Interfaces	1Gb Ethernet, SFP+, RS232 (input & output), RS422, TYPE-C (UVC)
Control Protocols	VISCA-IP, NDI®, VISCA Serial, Pelco-P, Pelco-D
FreeD Protocol	Supported - UDP / NDI® Embedded
Analogue Audio	Balanced Audio XLR x2
Digital Audio	Embedded with Main and Secondary HDMI, 12G-SDI, Network Video, USB (UVC)
Genlock	Supported
Timecode	Supported
SD Card Slot	MicroSD - Recording supported
Kensington Lock	Supported
WebUI Control	Integrated BirdDog BirdUI 2.0
API Support	API Support
AI FEATURES	
Presenter Tracking	Advanced with Secondary camera assistance
Auto-Framing	Advanced with Secondary camera assistance
Zone Tracking	Supported
Gesture control	Supported
GENERAL	
Environmental Operation	Internal
Input Voltage	DC-12V, PoE++
Input Current	5A
Power Consumption	⊠60W (Max.)
Working Temperature	0°C ~ 40°C (32°F ~ 105°F)
Working Humidity	~20% ~ 80% (Non-condensing)
Dimension (W*H*D)	218.6 x 291.6 x 263.3mm (8.61 x 11.48 x 10.37in)
Weight	≈4KG
Price in USD	$6995

REMOTE CONTROL

Power & Camera Selection

- **Power button (red):** Powers the camera on/off.
- **Home button:** triggers camera to return to home position.
- **Camera 1-4 buttons:** Select and control individual cameras in a multi-camera setup.
- **F1-F4 buttons:** Programmable function keys for custom presets or commands.

Menu & Mode Controls

- **AUTO/MANU buttons:** Toggle between automatic and manual camera control modes.
- **MENU button:** Access on-screen display menu system.
- **Iris RESET button:** Reset iris to default auto-exposure settings.

Focus Controls

- **TRIG FOCUS button:** Trigger one-push autofocus.
- **A.FOCUS/M.FOCUS toggle:** Switch between auto-focus and manual focus modes.
- **Focus +/- buttons:** Manual focus adjustment (near/far).

Exposure & Image

- **Iris/Gain adjustment buttons:** Control aperture and signal gain.
- **BLC (Backlight Compensation):** Compensate for strong backlighting.
- **WB (White Balance) button:** Adjust color temperature settings.

PTZ Movement

- **Directional pad (center):** Pan and tilt camera movement.
- **Zoom ring around directional pad:** Control zoom in/out.

Preset & Settings

- **DATA button:** Access data/configuration settings.
- **CALL button:** Recall saved presets.
- **SET button:** Save current camera position as preset.
- **CLEAR button:** Delete saved presets.

Numeric Keypad (1-9, 0)

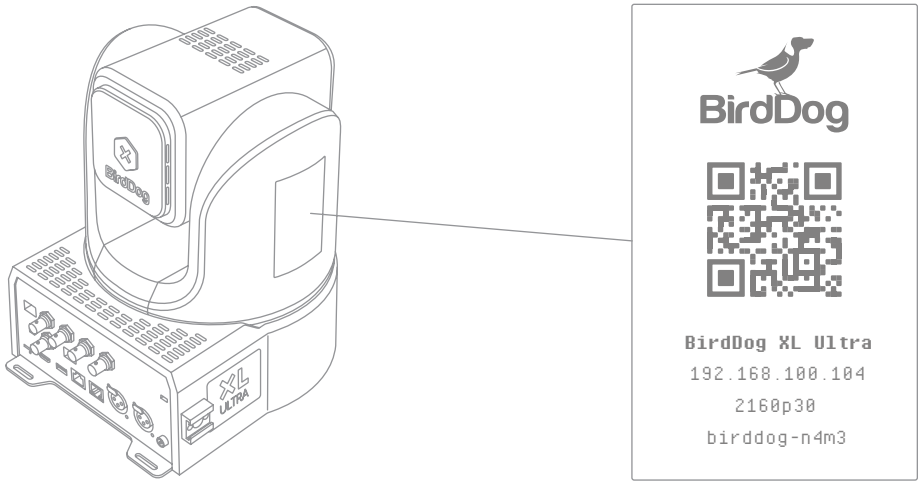
- Used for direct preset recall, camera addressing, or numeric input for menu navigation.
- **Special function buttons:** Additional controls (C, #) for advanced features.

SETUP GUIDE

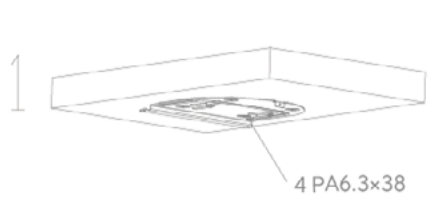
Step 1: Connect your camera directly to your network via PoE++ or with the included DC Power adapter and a regular network connection.

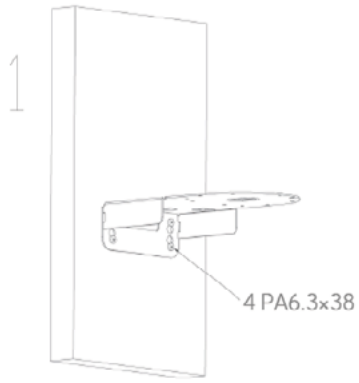
Step 2: View IP Address and basic camera status on the e-ink screen to verify the camera has started up.

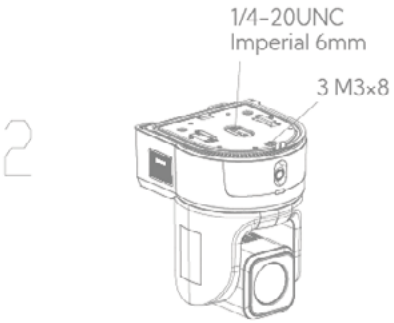
Step 3: For more settings, please visit the BirdUI Web Configuration page.

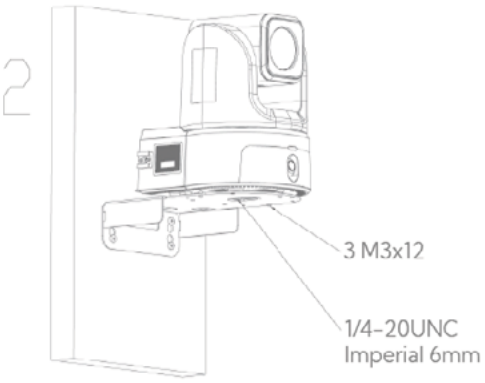


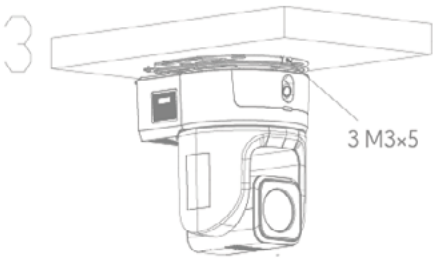
INSTALLATION

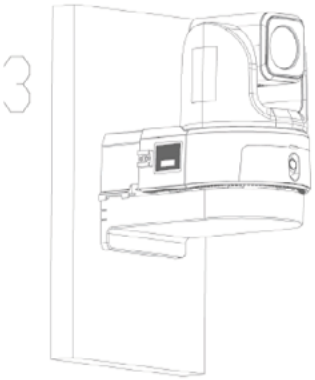












Wall mount bracket: 317.5*185*75 mm

Wall mount bracket screws:

4 PA6.3×38 (Wall section – not included)

1/4–20UNC Imperial 6mm +3 M3x12 (Camera section – included)

Ceiling mount bracket: 230*218.2*17.5 mm

Ceiling mount bracket screws:

4 PA6.3×38 (Ceiling section – not included)

1/4–20UNC Imperial 6mm + 3 M3×8 (Camera section – included)

3 M3×5 (Combining section – included)

CONNECTIONS & CONFIGURATIONS

Power

First off, you'll have to decide on how you are going to power the camera. You have three choices. You can use PoE++ (Power over Ethernet) or, if your network doesn't support PoE++, you can use the included 12VDC power adaptor. Lastly, you can decide to opt for a POE++ Injector. If available, PoE++ is the easier choice, since you can use the same Ethernet cable to power and control the camera, as well as send the video, audio and data. For the purposes of this quick start guide, we'll assume your network offers PoE++ (IEEE 802.3bt).

Network

Connect your camera to a network switch with a Cat5/6 cable. By default, the camera is configured to automatically obtain an IP address via DHCP. Some standalone or private networks may not have a DHCP server. After 30 seconds of waiting for an automatically assigned IP address, your camera will fall back to a default address of 192.168.100.100. To ensure that you can always reach your camera, it is recommended that you don't change this default.

Power Up

When first powered up, the camera will perform its initialization routine by rotating to the left and then centering again.

BASIC CONFIGURATION

NDI® Tools

NDI® Tools is a free suite of applications designed to introduce you to the world of IP video and is available at: https://ndi.video/tools/

Once installed, launch the Studio Monitor (Video Monitor, if using a Mac) application. This simple application allows you to view all NDI® sources on your network. Right click on the Studio Monitor window to view your camera as an NDI® source.

Tip

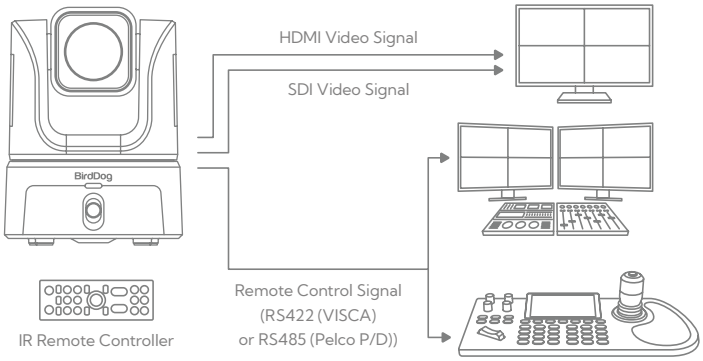
By default, the displayed sources have names that include the last five digits of your camera MAC address which is printed on the bottom of the camera.

Clicking on your camera in the source list will display the image from your camera with the default automatic settings.

USING RS232 / RS422 (VISCA)

You can use the RS232 / 442 port to connect to optional controllers, such as a joystick control keyboard, or control PC station, to operate the camera, perform pan, tilt and zoom operations and to use the Preset function using the control buttons.

An application software that supports this unit is needed if you use a PC station.

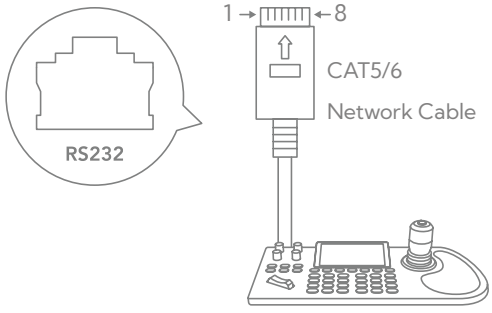


RS232 CONNECTION

In order to use a RJ45 to RS232 (VISCA) cable, the controller must be VISCA compatible.

You can use CAT5/6 cable (T-568B standard pinout) to make an RS232 connection by following the pin definition here on the right side.

You can use RS232 to daisy chain multiple camera connection with a standard RS232 serial port controller as on the right side.



RS232 PIN DEFINE		RS422 PIN DEFINE	
1. ---	(Orange/White)	**1. RX-**	**(Orange/White)**
2. ---	(Orange)	2. RX+	(Orange)
3. GND	**(Green/White)**	3. GND	(Green/White)
4. TX	**(Blue)**	4. ---	(Blue)
5. RX	**(Blue/White)**	5. ---	(Blue/White)
6. ---	(Green)	6. ---	(Green)
7. ---	(Brown/White)	7. TX-	(Brown/White)
8. ---	(Brown)	**8. TX+**	**(Brown)**

WEB CONFIGURATION PANEL

BirdDog cameras have a web interface (also known as BirdUI) that is displayed by your computer browser and can be used to configure your camera remotely.

Please note that some features of the BirdUI interface are only available on some models. Please check System Specifications for camera capabilities.

In order to access the BirdUI interface you will need to scan the QR Code on your camera e-ink screen, or via web browser by inserting the correct address IP as a web link.

An alternative way to access the BirdUI is through NDI® Studio Monitor application:

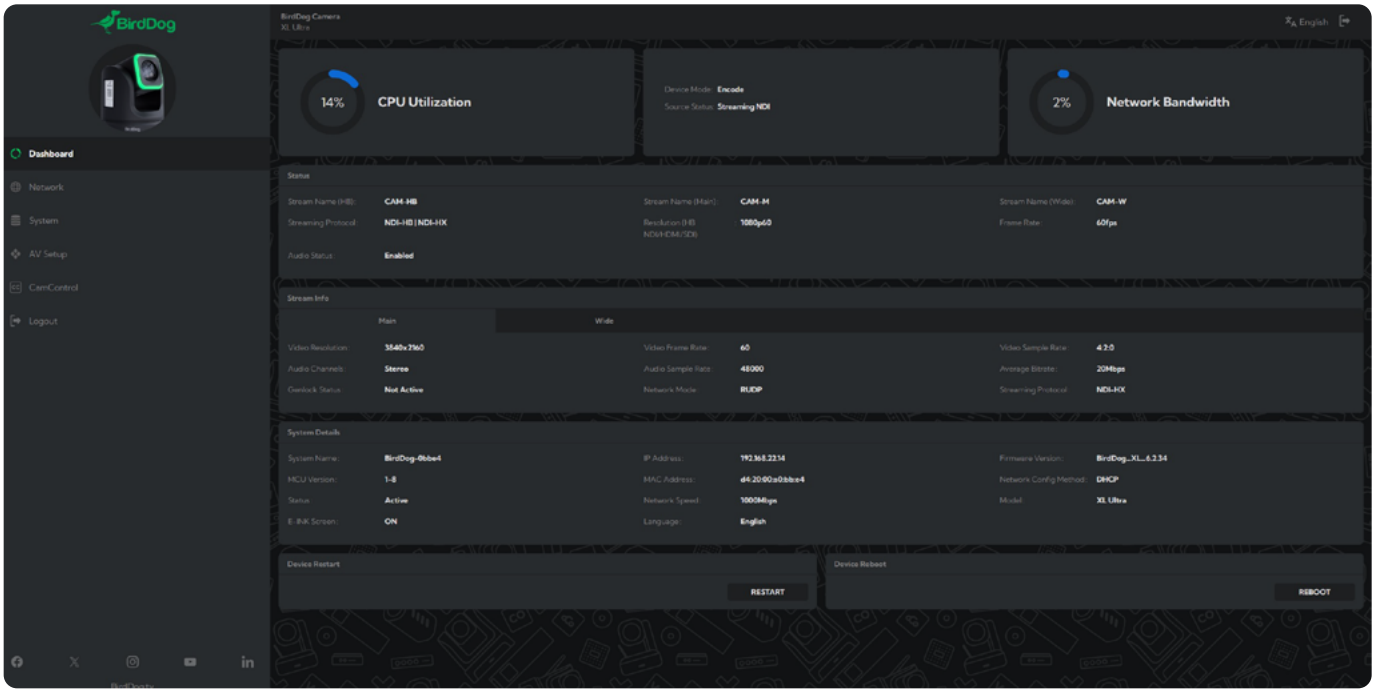
1. Click on the gear icon on the bottom right of the Studio Monitor window.
2. In the displayed window, type the default password '**birddog**' (all lower case) and click the OK button.

The dashboard window is displayed. When you first login, the system will prompt you to set your own password to maintain ongoing security.

The dashboard shows important basic camera settings. For now, check that the displayed Status is Active and take note of the frame rate that is currently output from the camera (displayed under NDI® connection info). This frame rate should be set identically for all cameras according to the requirements of your production.

Note: For more infomation about the BirdUI, please visit BirdDog.tv/downloads, or, BirdDog.tv/birdui-overview

BIRDUI WALKTHROUGH



DASHBOARD

CPU Utilization
Real-time current processor usage percentage for encoding and camera operations

Device Mode
Shows current operational mode (Encode) and source status if the Camera is outputting an NDI Stream.

Network Bandwidth
Real-time circular gauge showing current network utilization percentage.

Status Section
Stream Name (HB)
Identifies the high-bandwidth NDI stream name .

Stream Name (Main)
Identifies the NDI HX stream name for the Main Lens.

Stream Name (Wide)
Identifies the NDI HX stream name for the Wide Lens.

Streaming Protocol
Displays overview of active streaming protocols (NDI-HB | NDI-HX, SRT, etc.).

Resolution
Identifies the HB/SDI/HDMI output resolution.

Frame Rate
Identifies the HB/SDI/HDMI output frame rate.

Audio Status
Indicates whether embedded audio is "enabled" or "muted".

Stream Info Section (NDI HX and IP Protocols)
Main/Wide Toggle
Switches between main and wide camera stream configurations.

Video Resolution
Current output resolution for NDI HX/IP protocol streams (e.g., 3840x2160) .

Video Frame Rate
Identifies the NDI HX/IP protocols output frame rate.

Video Sample Rate
Color sampling format for IP protocol stream (4:2:0, 4:2:2).

Audio Channels
Number of embedded audio channels (Stereo, Mono) .

Audio Sample Rate
Audio sampling frequency in Hz.

Average Bitrate
Current streaming bitrate in Mbps.

Genlock Status
Synchronization status for SDI genlock (Active/Not Active).

Network Mode
Network protocol (RUDP, UDP, TCP).

Streaming Protocol
IP streams active (NDI-HX, SRT, RTSP, RTMP).

System Details Section
System Name
Device hostname/identifier.

IP Address
Current network IP assignment.

Firmware Version
Current camera firmware build number.

MCU Version
Microcontroller firmware version number.

MAC Address
Hardware network interface identifier.

Network Config Method
IP assignment method (DHCP/Static).

Status
Current operational status (Active/Inactive).

Network Speed
Connected ethernet speed capability.

Model
Camera model designation.

E-ink Screen
Electronic ink display status (ON/OFF).

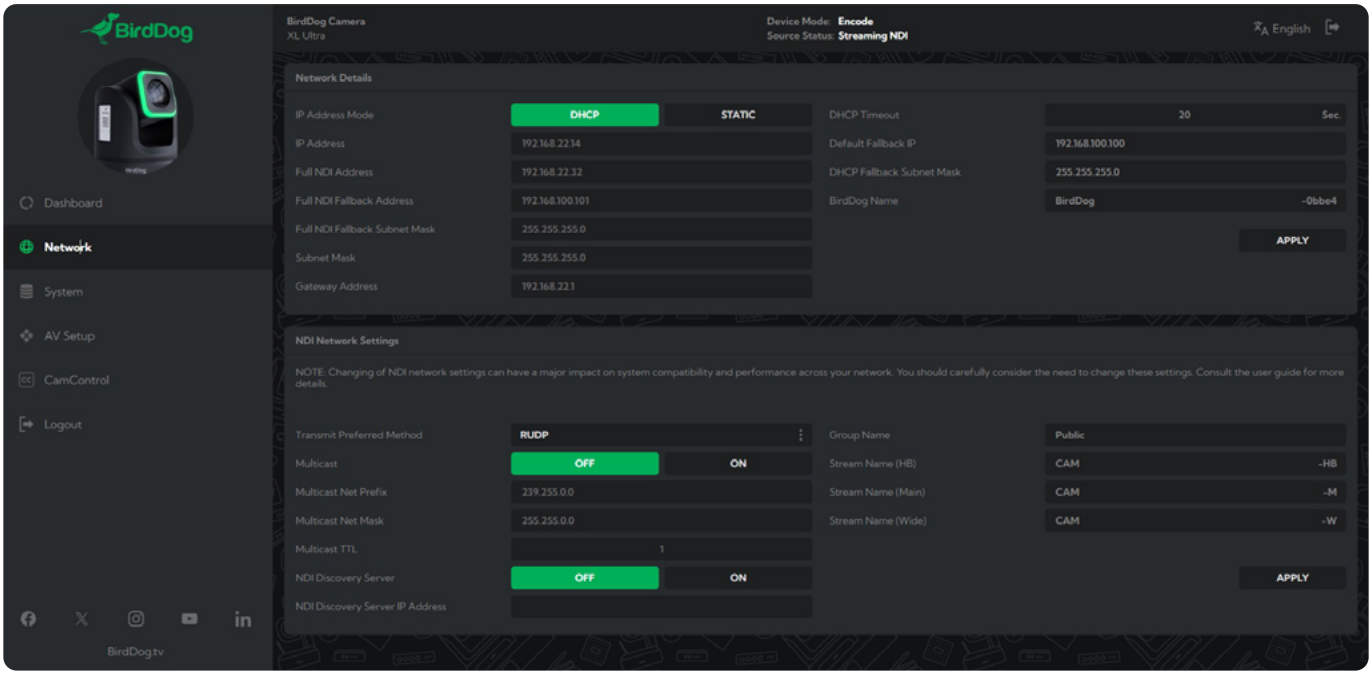
Language
Web interface language setting

Device Control Buttons

Device Restart
Restarts camera services without power cycle.

REBOOT
Full system power cycle and restart.

NETWORK TAB



NETWORK DETAILS SECTION

IP Address Mode
Toggle between DHCP (automatic) and STATIC (manual) IP address assignment.

IP Address
Current assigned IP address for BirdUI and XL's IP protocol streams.

Full NDI Address
Current assigned IP address for the XL's Full NDI HB Stream (BirdUI management will not work at this address).

Full NDI Fallback Address
Backup IP address used when primary NDI network is unavailable for the Full NDI HB Stream.

Full NDI Fallback Subnet Mask
Subnet mask for fallback network configuration for the Full NDI HB Stream.

Subnet Mask
Network subnet mask defining IP address range scope.

Gateway Address
Router IP address for network traffic routing.

DHCP Timeout
Duration in seconds before reverting to fallback IP when DHCP fails (20 seconds is the default).

Default Fallback IP
Preconfigured IP address for BirdUI and used when DHCP assignment fails.

DHCP Fallback Subnet Mask
Subnet mask applied when using fallback IP configuration.

BirdDog Name
Device hostname identifier visible on network and in NDI discovery (includes mac address identifier).

APPLY
Saves and implements network configuration changes.

NDI NETWORK SETTINGS SECTION

Transmit Preferred Method
Network transport protocol selection (RUDP for reliability, TCP for compatibility, UDP for low latency).

Multicast
Toggle to enable/disable multicast transmission for NDI streams (reduces bandwidth when multiple receivers present).

Multicast Net Prefix
First three octets of multicast IP address range (239.255.0.0 standard).

Multicast Net Mask
Subnet mask defining multicast address scope.

Multicast TTL
Time-to-live value controlling how many network hops multicast packets traverse (1–255).

NDI Discovery Server
Toggle to enable/disable custom NDI discovery server for cross-subnet stream visibility.

NDI Discovery Server IP Address
IP address of external NDI discovery server when enabled.

Group Name
NDI group assignment for stream organization and filtering in NDI workflows (Public by default).

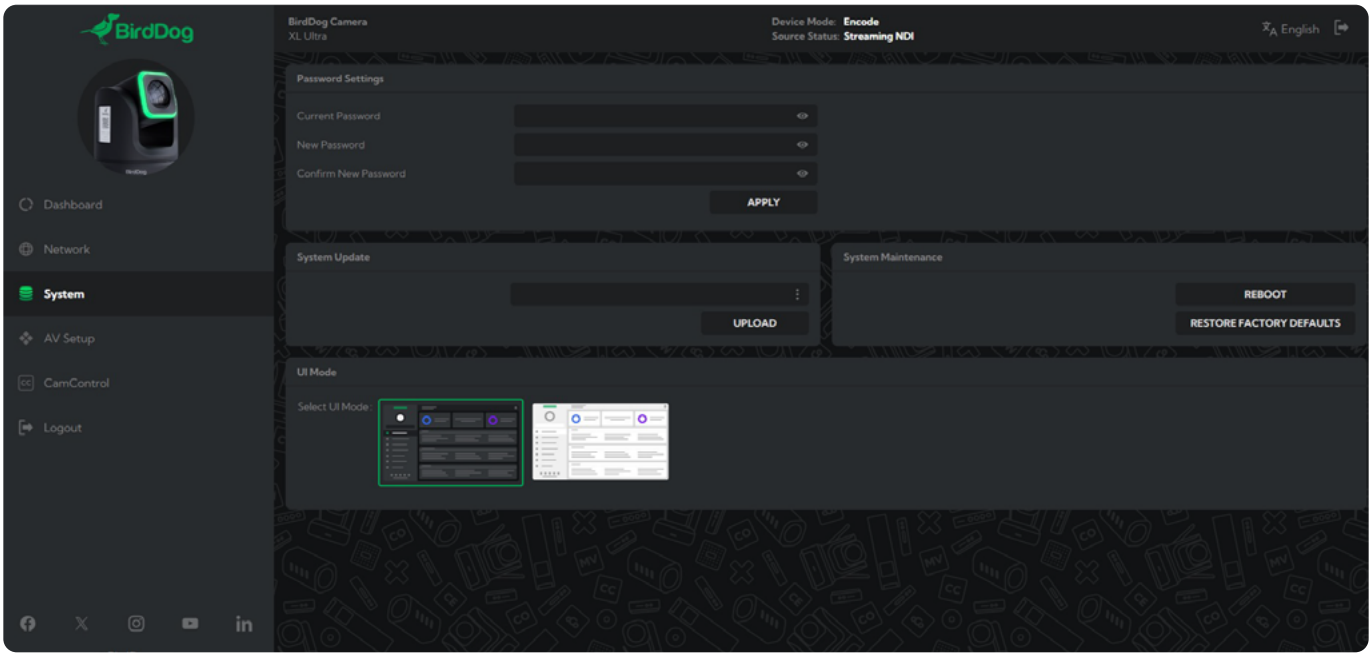
Stream Name (HB)
High-bandwidth NDI stream identifier with hardcoded suffix (-HB).

Stream Name (Main)
Main Camera NDI stream identifier with hardcoded suffix (-M).

Stream Name (Wide)
Wide Camera NDI stream identifier with hardcoded suffix (-W).

APPLY
Saves and implements NDI network configuration changes.

SYSTEM TAB



PASSWORD SETTINGS SECTION

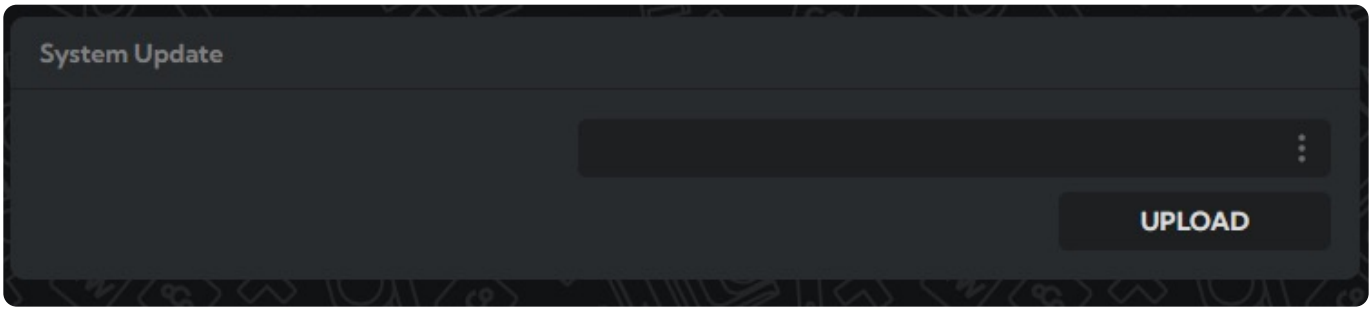
Current Password
Input field for entering existing BirdUI password with show/hide toggle icon.

New Password
Input field for entering desired new password with show/hide toggle icon.

Confirm New Password
Input field for re-entering new password to verify accuracy with show/hide toggle icon.

APPLY
Saves and implements password change across XL BirdUI Login.

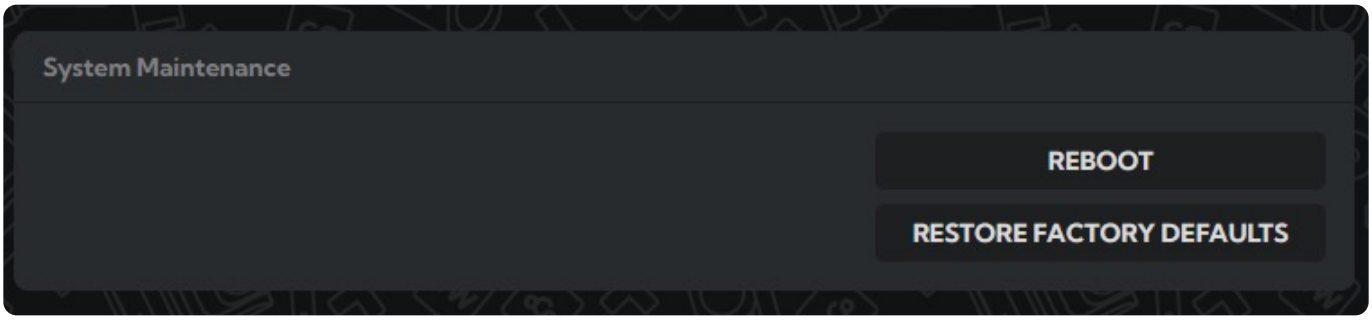
SYSTEM UPDATE SECTION



File Upload Field
Click on the 3 dots to open file browser to find the update .bin file for XL downloaded from the birddog.tv downloads page for XL.

UPLOAD
Initiates firmware update process after selecting valid update file
The update process can take several minutes, please do not power off or unplug XL during update process.

SYSTEM MAINTENANCE SECTION



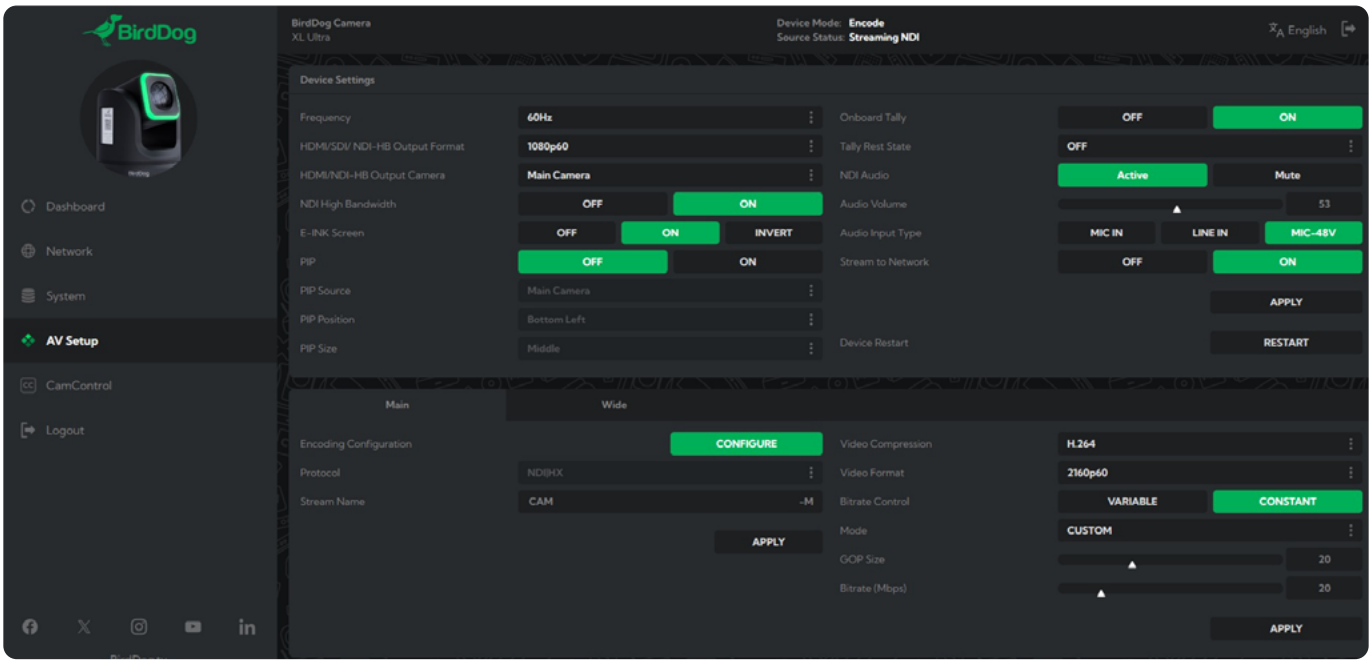
REBOOT
Performs full system power cycle restart, reinitializing all camera systems and network connections.

RESTORE FACTORY DEFAULTS
Resets all camera settings to original firmware configuration, erasing custom network settings, passwords, presets, and user configurations.

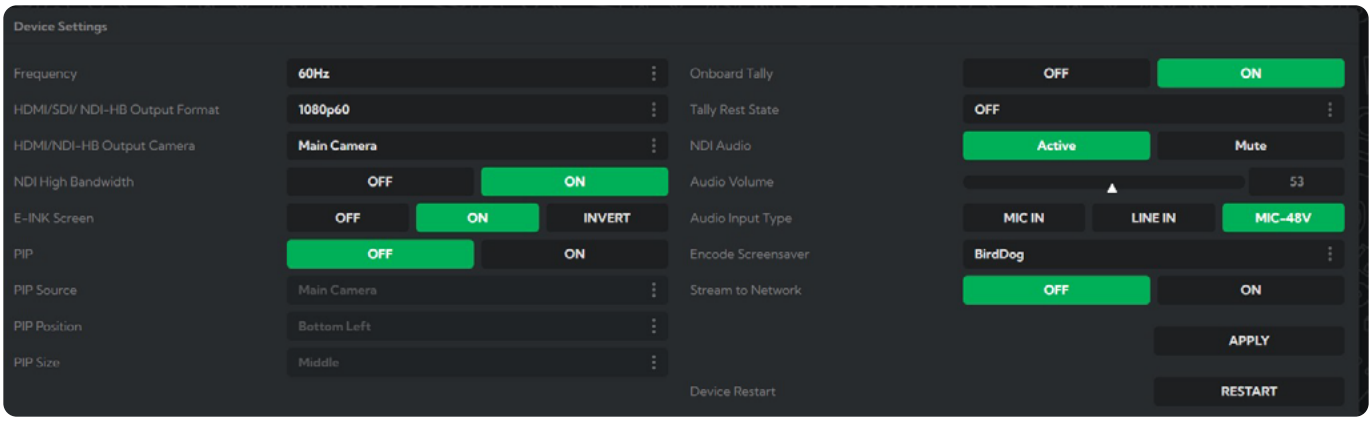
UI MODE SECTION

Select UI Mode
Visual toggle between Dark Mode (left, currently selected) and Light Mode (right) interface themes for BirdUI appearance preference.

AV SETUP TAB



DEVICE SETTINGS



Frequency
Dropdown selector for video frame rate (50Hz/59.94Hz/60Hz) determining output fps for the HDMI, SDI, and NDI high-bandwidth streams.

HDMI/SDI/NDI-HB Output Format
Dropdown selector for output resolution (1080p60, 2160p30, etc.) applied to HDMI, SDI, and NDI high-bandwidth streams (note – the frequency selected will determine which options are available).

HDMI/NDI-HB Output Camera
Dropdown selector choosing which camera source (Main Camera/Wide Camera) outputs through the HDMI, 12G-SDI and the NDI-HB stream.

NDI High Bandwidth
Toggle to enable/disable the NDI-HB (high bandwidth) stream on the network.

E-INK Screen
Three-way toggle controlling the dual onboard E-INK display: OFF (disabled), ON (enabled), INVERT (reversed colors).

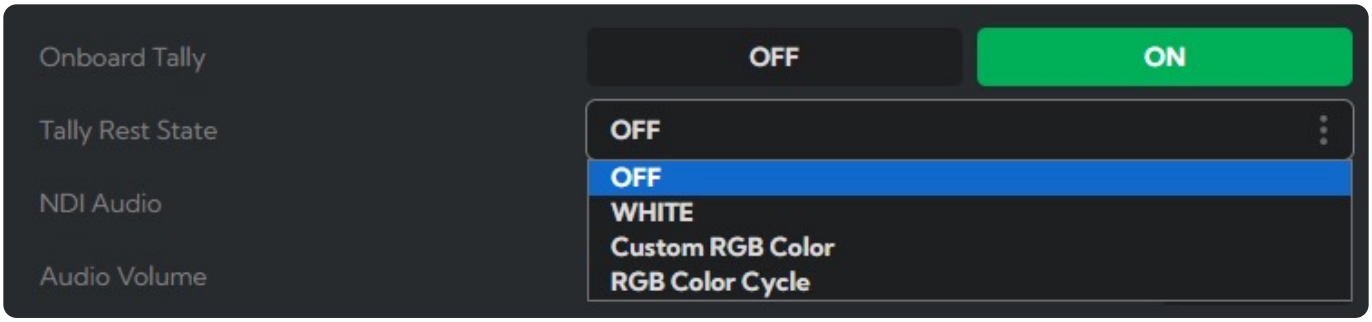
PIP
Toggle to enable/disable Picture-in-Picture overlay on video output.

PIP Source
Dropdown selector for PIP window content source (Main Camera/Wide Camera/External input).

PIP Position
Dropdown selector for PIP window placement (Bottom Left, Bottom Right, Top Left, Top Right).

PIP Size
Dropdown selector for PIP window dimensions (Small, Middle, Large).

TALLY SETTINGS



NOTE: Onboard Tally and Tally Rest State are independent settings.

Onboard Tally
Toggle to enable/disable physical tally light from reacting when controlled by vision switcher for Preview/Program (green, red) Tally.

Tally Rest State
Dropdown selector for tally LED behavior when idle.

OFF
Tally Light is off unless Onboard Tally is on and camera is in Preview/Program.

WHITE
Tally Light is constant white LED.

Custom RGB Color
Choose custom tally light constant color.

RGB Color Cycle
Smoothly cycles through RGB colors on loop.

AUDIO SETTINGS

NDI Audio
Toggle between Active (audio embedded in NDI/Baseband streams) and Mute (no audio in NDI/Baseband streams).

Audio Volume
Slider control with numeric value (0–100) adjusting audio gain level for embedded audio.

Audio Input Type
Three-way selector for audio source: MIC IN (microphone level), LINE IN (line level), MIC-48V (phantom powered microphone).

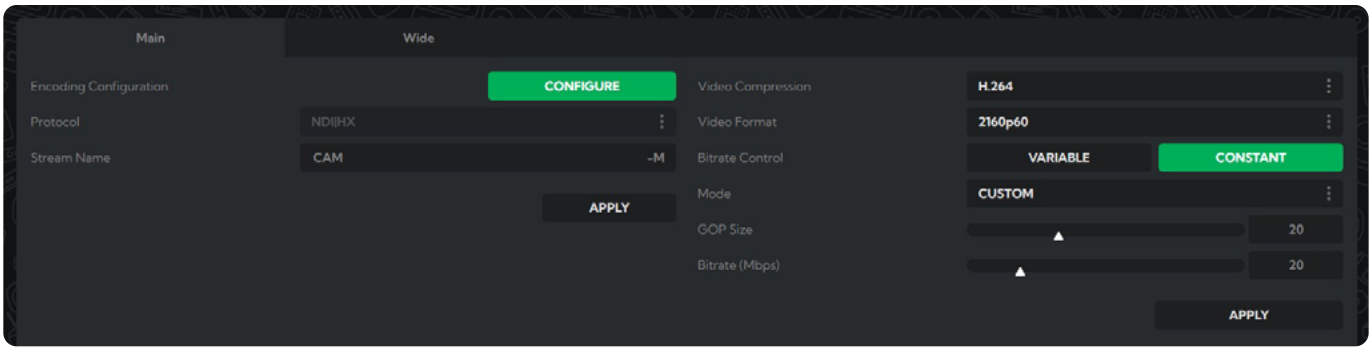
Encode Screensaver
This option appears when "Stream to Network is 'Off' and determines what is displayed on the NDI HX stream.

Stream to Network
Toggle to enable/disable NDI HX Streams.

APPLY
Saves and implements any configuration changes made in Device Settings.

Device Restart
Restarts camera services without full power cycle, applying settings changes.

IP STREAM CONFIGURATION PAGE



CAMERA SOURCE SELECTION

Main
Tab selector for configuring Main Camera streaming parameters.

Wide
Tab selector for configuring Wide Camera streaming parameters.

ENCODING CONFIGURATION

Encoding Configuration/CONFIGURE
Button to choose what streaming protocols for each camera you will use.

Protocol
Dropdown selector showing which streaming protocl is active and been selected.

Stream Name
Text input field for custom stream identifier with automatic suffix (-M for Main, -W for Wide).

APPLY
Saves and implements streaming configuration changes for selected camera.

VIDEO ENCODING SETTINGS (APPLIES TO SELECTED IP STREAMS)

Video Compression
Dropdown selector for codec format (H.264, H.265/HEVC).

Video Format
Dropdown selector for resolution and frame rate combination (2160p60, 2160p30, 1080p60, etc.) (Defined by Frequency selection in Device Settings).

Bitrate Control

Toggle between VARIABLE (VBR for network challenged environments) and CONSTANT (CBR for consistent bandwidth).

Mode
Dropdown selector for encoding preset (CUSTOM for manual control, or predefined quality presets).

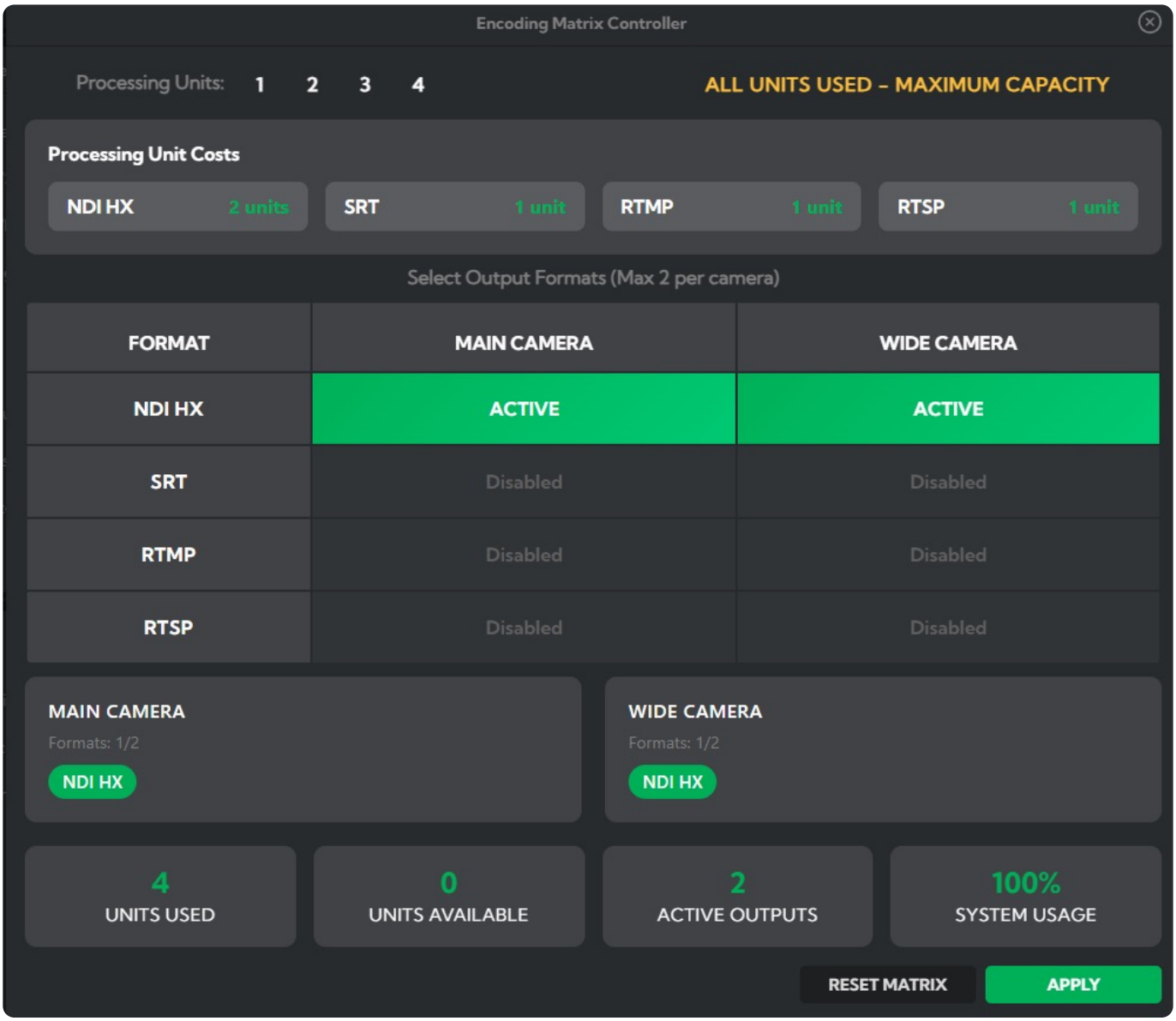
GOP Size
Slider control with numeric value setting Group of Pictures interval (keyframe frequency) for encoder, affecting compression efficiency and seeking performance.

Bitrate (Mbps)
Slider control with numeric value setting target bitrate in megabits per second for stream bandwidth allocation (only editable in Custom mode).

APPLY
Saves and implements video encoding configuration changes.

ENCODING CONFIGURATION

ENCODING MATRIX CONTROLLER



The Encoding Matrix Controller is a resource management system that governs the XL Ultra camera's multi-stream encoding capabilities based on available processing power.

PROCESSING UNIT SYSTEM

The BirdDog XL has 4 total processing units that serve as the encoding budget for all simultaneous video encoding H264/H265 operations. Each streaming protocol consumes a specific number of units:

- **NDI HX:** 2 units per stream.
- **SRT:** 1 unit per stream.
- **RTMP:** 1 unit per stream.
- **RTSP:** 1 unit per stream.

DUAL-CAMERA ARCHITECTURE

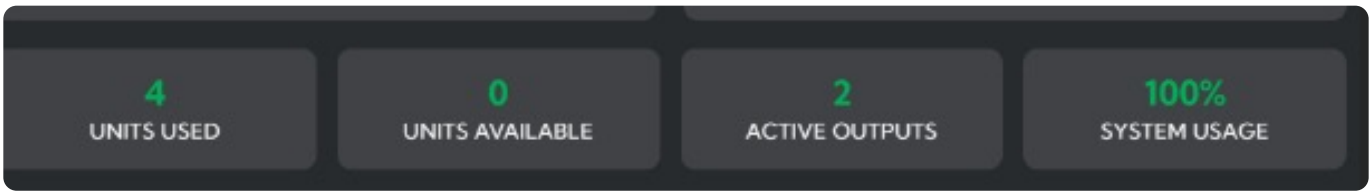
The XL Ultra features two independent camera sources:

- **Main Camera** – Primary PTZ camera .
- **Wide Camera** – Fixed wide-angle camera.

Each camera can output up to 2 different streaming formats simultaneously, but all active streams combined cannot exceed the 4-unit processing limit.

HOW IT WORKS

1. **Protocol Selection Matrix**
   The grid shows available protocols (rows) versus camera sources (columns). Green "ACTIVE" indicates enabled streams; "Disabled" means the stream is off.
2. **Resource Allocation**
   When you enable streams, the system automatically calculates processing unit consumption. The warning "ALL UNITS USED – MAXIMUM CAPACITY" appears when you've allocated all 4 units.
3. **Format Limitations**
   Each camera is limited to "Max 2 per camera", meaning you can simultaneously enable two different protocols per camera source, provided sufficient processing units remain available.
4. **Current Configuration Display**
   At the bottom, separate panels show which protocols are active for each camera along with the format count (e.g., "Formats: 1/2").
5. **System Metrics - Real-time statistics display:**



   a. **Units Used:** Total processing units currently allocated
   b. **Units Available:** Remaining processing capacity
   c. **Active Outputs:** Number of simultaneous streams running
   d. **System Usage:** Overall encoder utilization percentage

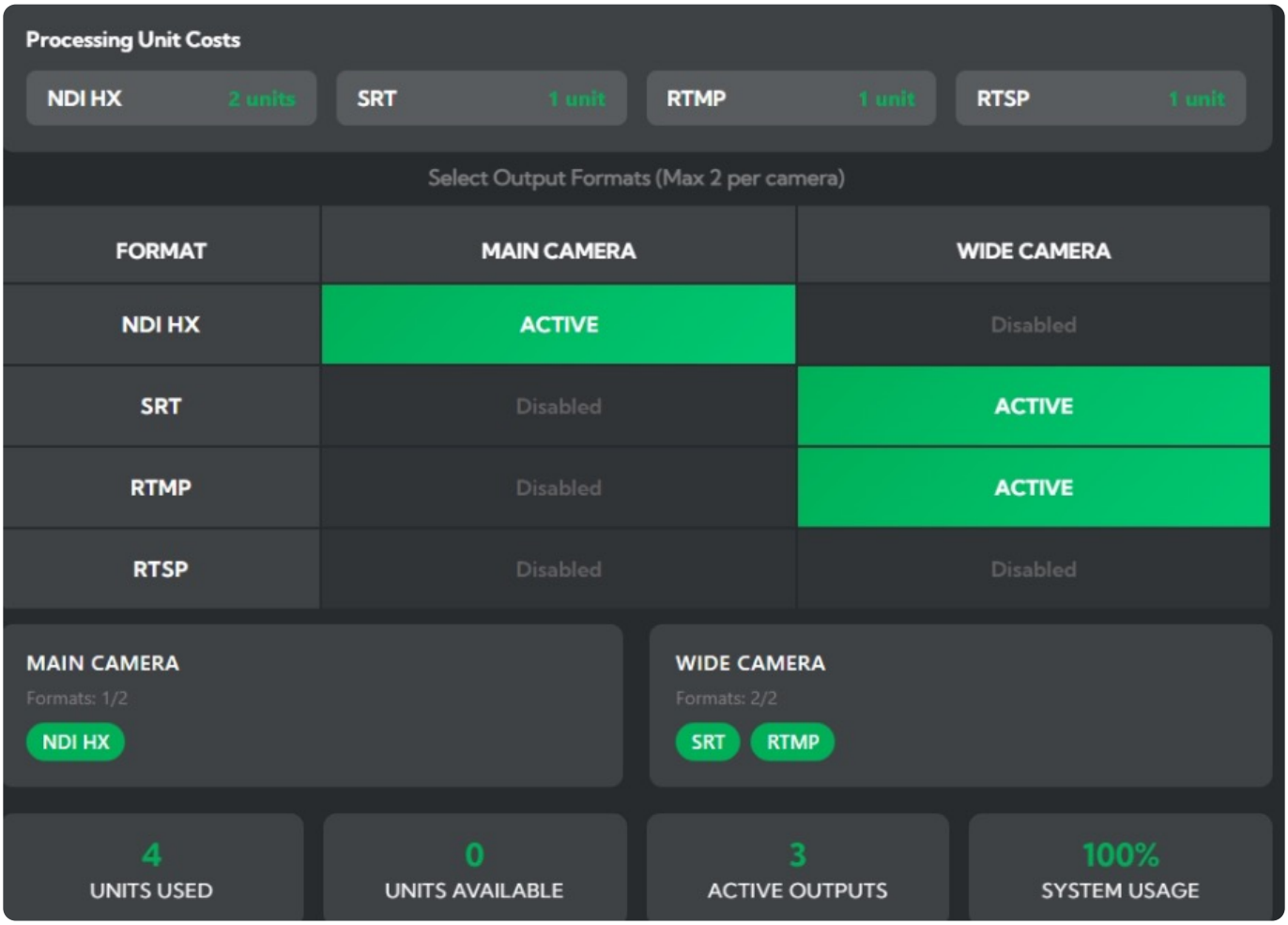
PRACTICAL EXAMPLE

The current configuration shows:

FORMAT	MAIN CAMERA	WIDE CAMERA
NDI HX	ACTIVE	ACTIVE

Main Camera: NDI HX active (2 units)
Wide Camera: NDI HX active (2 units)
Total: 4 units used, 0 available, 2 active outputs, 100% system usage

To enable an additional SRT stream, you would need to disable one NDI HX stream first, freeing up 2 units (allowing 1 SRT streams and 1 additional IP stream to be added).



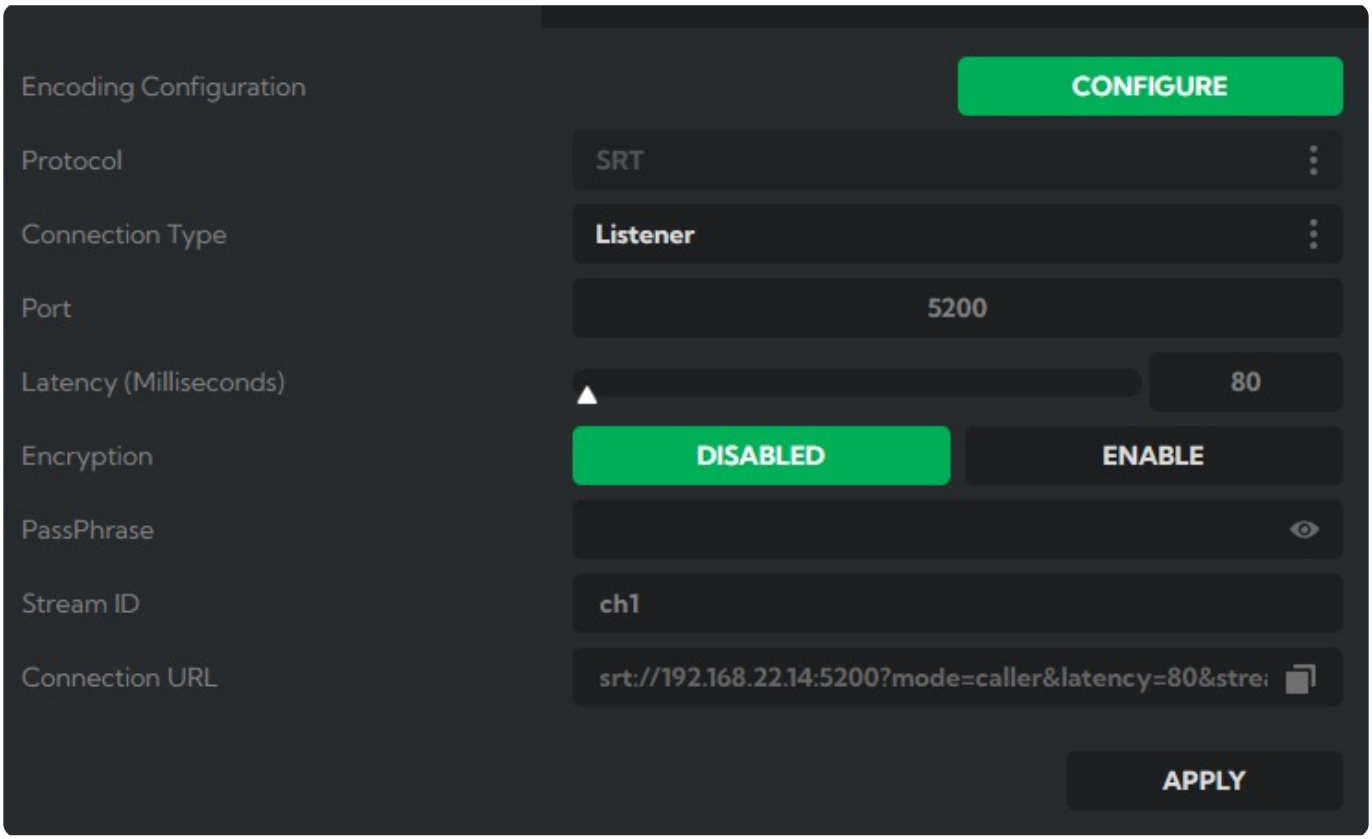
CONFIGURATION CONTROLS

RESET MATRIX
Clears all active stream assignments, returning to default state

APPLY
Saves and activates the selected streaming configuration to be reflected on AV setup tab

This system ensures the camera operates within its processing capabilities while maximizing flexibility for various production workflows.

SRT CONFIGURATION SECTION



Encoding Configuration/CONFIGURE
Button to access the Encoding Matrix Controller for managing multi-stream resource allocation.

Protocol
Dropdown selector displaying current protocol (SRT – Secure Reliable Transport).

Connection Type

Dropdown selector for SRT connection mode: Listener (camera waits for incoming connections), Caller (camera initiates connection to server), or Rendezvous (bidirectional connection establishment).

Port
Numeric input field for UDP port number where SRT stream listens or connects (default 5200, range 1024–65535).

Latency (Milliseconds)
Slider control with numeric value setting buffer delay for packet recovery and network jitter compensation (typical range 20–8000ms, shown: 80ms).

Encryption
Toggle between DISABLED (unencrypted stream) and ENABLE (AES-encrypted transmission for secure delivery).

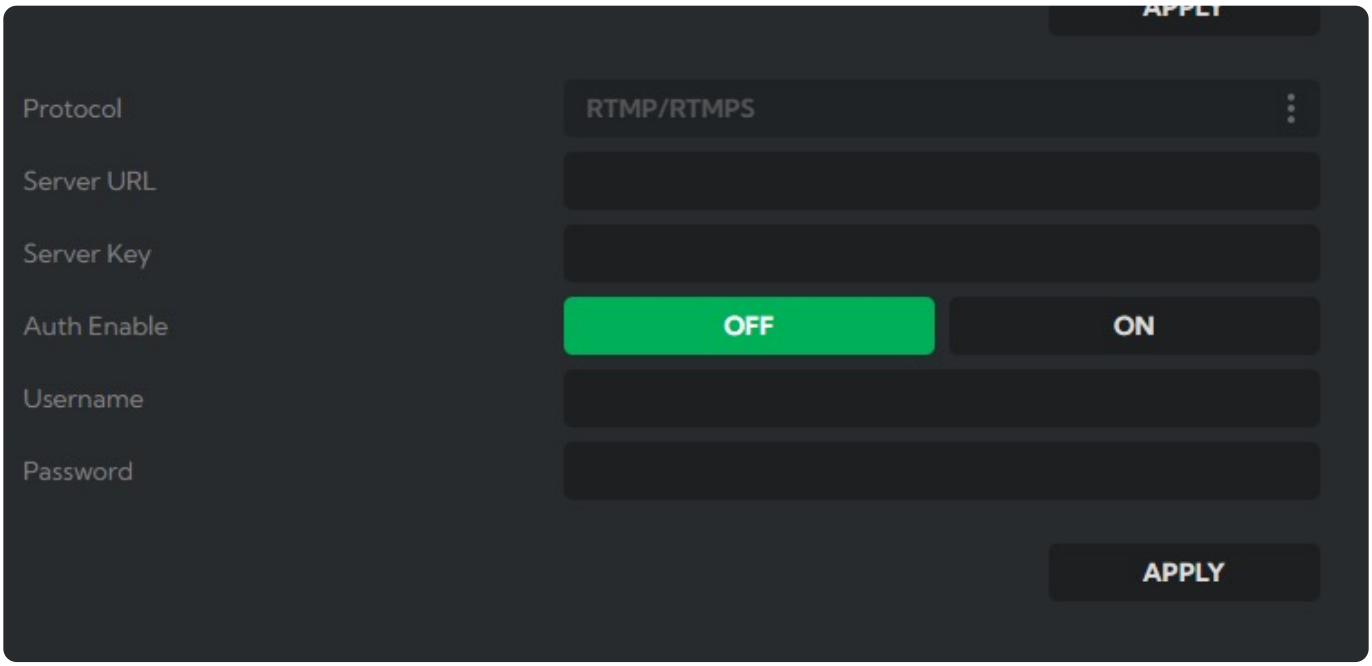
PassPhrase
Password input field with show/hide toggle for AES encryption key (10–79 characters, required when encryption enabled).

Stream ID
Text input field for custom SRT stream identifier used for routing and authentication on SRT servers.

Connection URL
Auto-generated read-only field displaying complete SRT connection string with all parameters (format: srt://ip:port?mode=caller&latency=80&streamid=ch1) – includes copy button for easy sharing.

APPLY
Saves and activates SRT streaming configuration.

RTMP/RTMPS CONFIGURATION SECTION



Protocol
Dropdown selector for streaming protocol: RTMP (Real-Time Messaging Protocol) or RTMPS (RTMP over SSL/TLS for encrypted delivery).

Server URL
Text input field for RTMP ingest endpoint (format: rtmp://a.rtmp.youtube.com/live2 or rtmps://server.domain/application).

Server Key
Text input field for stream key or authentication token required by RTMP server (platform-specific, provided by streaming service).

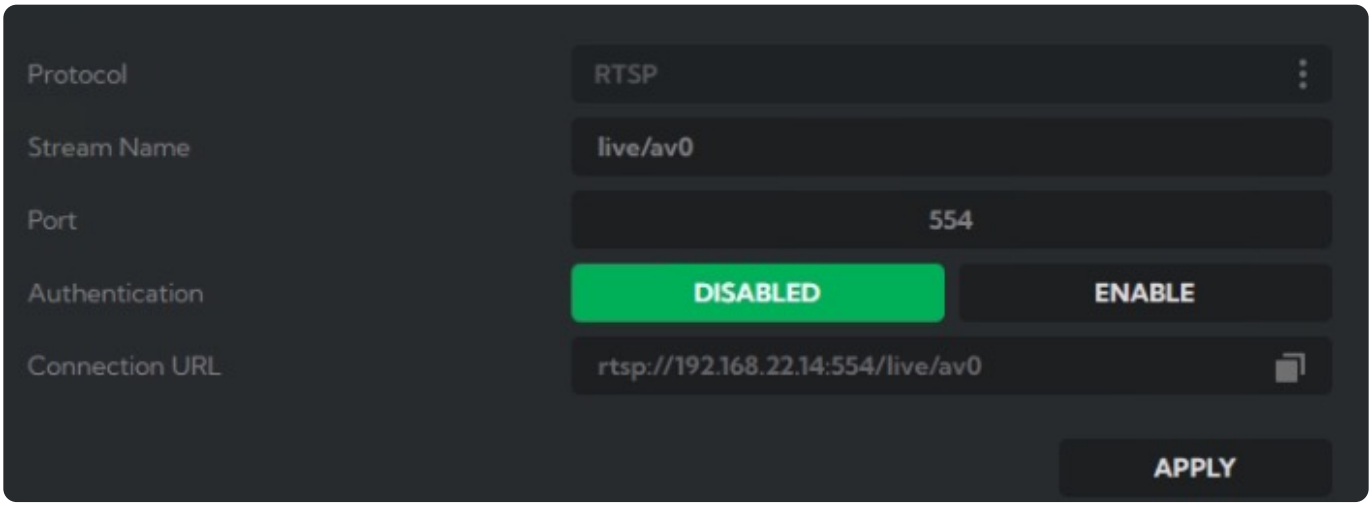
Auth Enable
Toggle to enable/disable username/password authentication for RTMP server access (OFF or ON).

Username
Text input field for RTMP server authentication username (active when Auth Enable is ON).

Password
Password input field for RTMP server authentication credentials (active when Auth Enable is ON).

APPLY
Saves and activates RTMP/RTMPS streaming configuration.

RTSP CONFIGURATION FIELDS



Protocol
Dropdown selector displaying current protocol (RTSP – Real-Time Streaming Protocol).

Stream Name
Text input field for custom RTSP stream path identifier (default: live/av0, appears after rtsp://ip:port/ in URL).

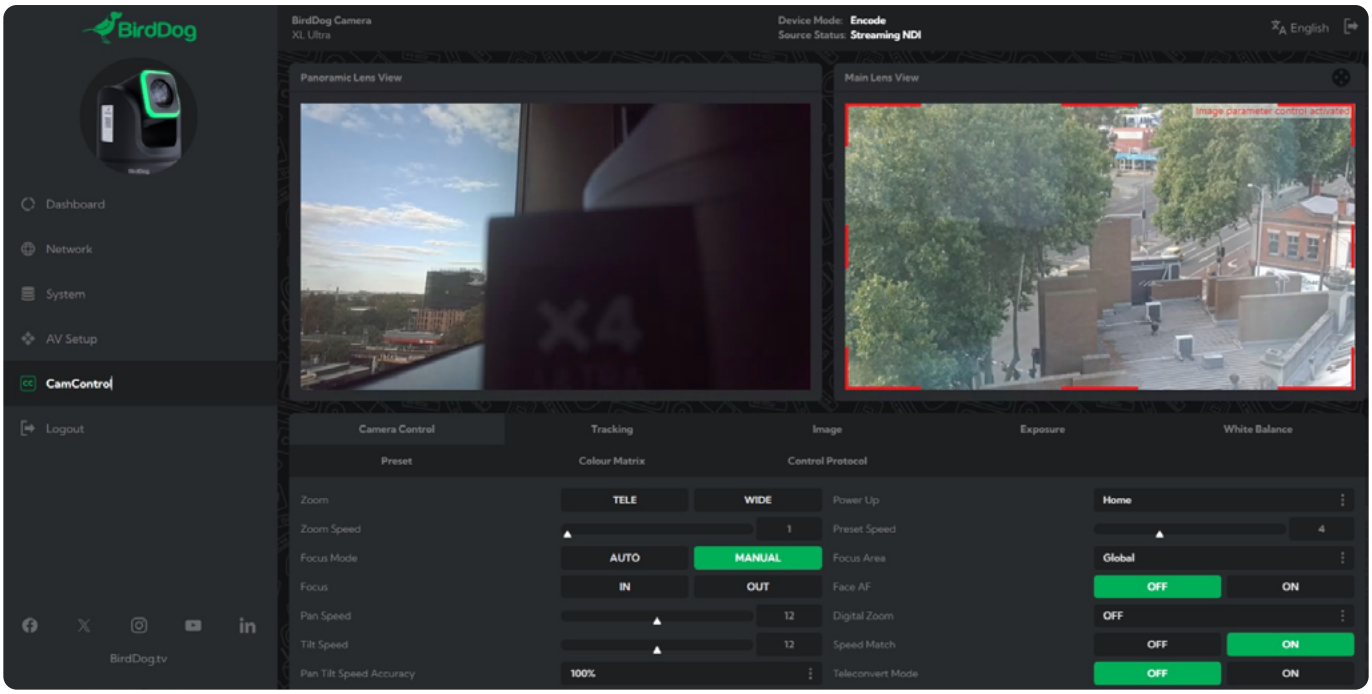
Port
Numeric input field for TCP port number where RTSP stream is accessible (default 554, standard RTSP port, range 1024–65535).

Authentication
Toggle between DISABLED (open access without credentials) and ENABLE (requires username/password for stream access).

Connection URL
Auto-generated read-only field displaying complete RTSP playback address (format: rtsp://camera-ip:port/stream-name) – includes copy button for easy sharing with media players or video management systems.

APPLY
Saves and activates RTSP streaming configuration.

CAMCONTROL TAB



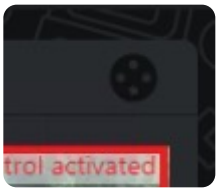
In the CamControl tab you will find all of your image settings and PTZ control.

LIVE PREVIEW PANELS

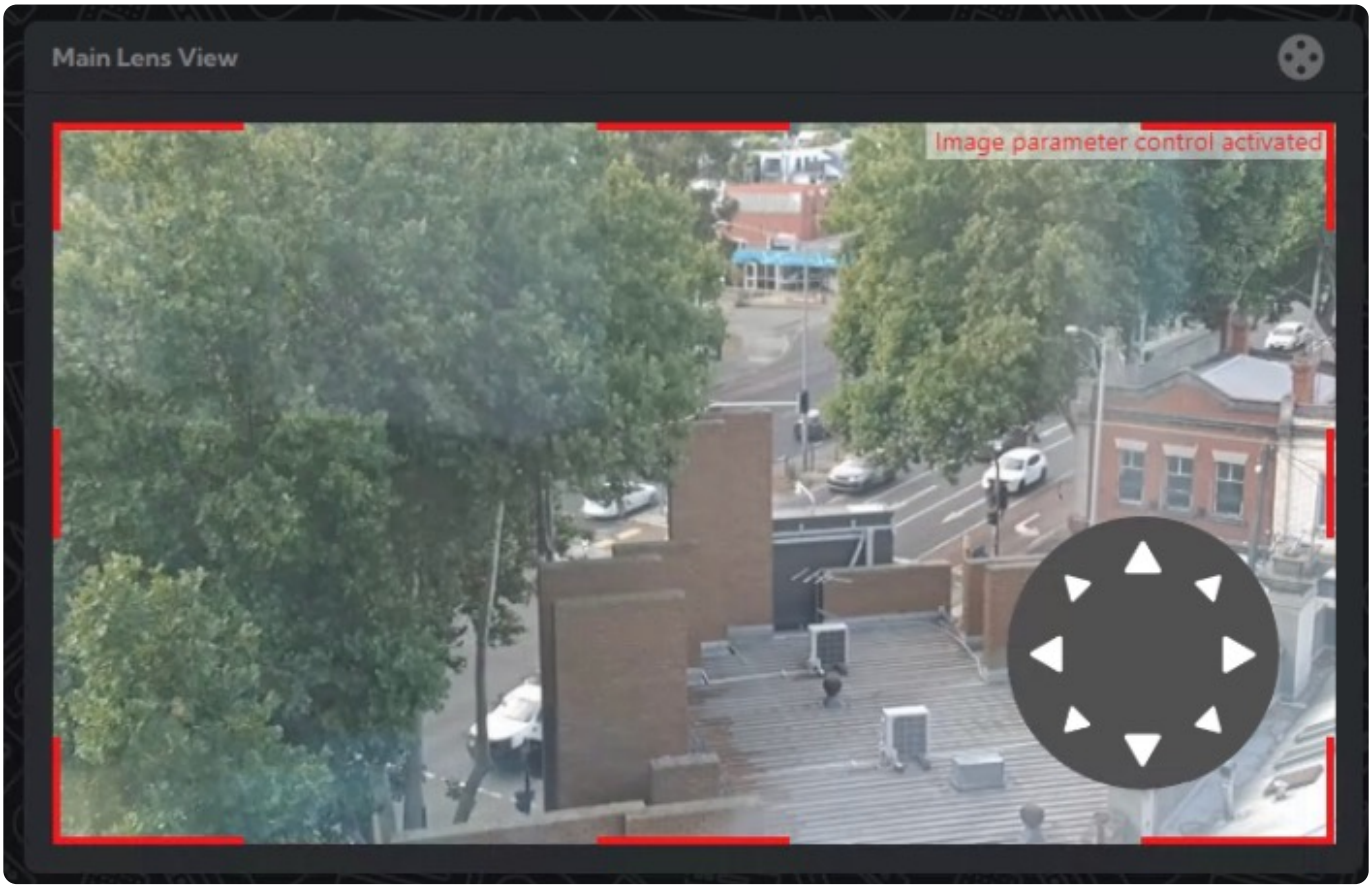
Panoramic Lens View
Real-time preview window displaying wide-angle camera output.

Main Lens View
Real-time preview window displaying main PTZ camera output with red border indicating active image parameter adjustment mode.

Image Parameter Control Activated
Status indicator (red border) showing that image adjustment controls are currently active on the main camera view. Simply click on the Camera video preview window that you would like to edit or control.



Click on the top right icon to activate webUI PT control



CAMCONTROL TAB NAVIGATION

Camera Control
Primary tab for PTZ movement, zoom, focus, and other settings.

Tracking
Tab for auto-tracking configuration and target following settings.

Image
Tab for picture quality adjustments (brightness, contrast, saturation, sharpness, etc.).

Exposure
Tab for exposure control settings (iris, gain, shutter speed, exposure compensation).

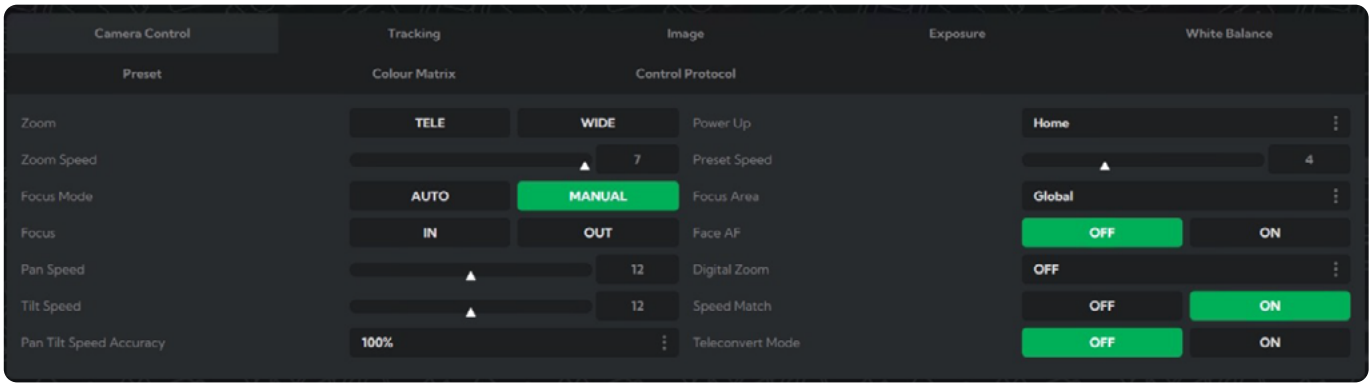
White Balance
Tab for color temperature and white balance configuration.

Preset
Sub-section for saving and recalling camera position presets, as well as Camera ISP preset styles (Sony, Blackmagic, Panasonic).

Colour Matrix
Sub-section for advanced color science adjustments.

Control Protocol
Sub-section for selecting camera control protocol (VISCA, Pelco, etc.).

CAMERA CONTROL TAB



ZOOM CONTROLS

Zoom (TELE/WIDE)
Toggle buttons for zoom direction control: TELE (telephoto) zooms IN WIDE zooms OUT.

Zoom Speed
Slider control with numeric value (1–7) adjusting how quickly the camera zooms in or out.

FOCUS CONTROLS

Focus Mode
Toggle between AUTO (camera automatically maintains focus) and MANUAL (user controls focus manually).

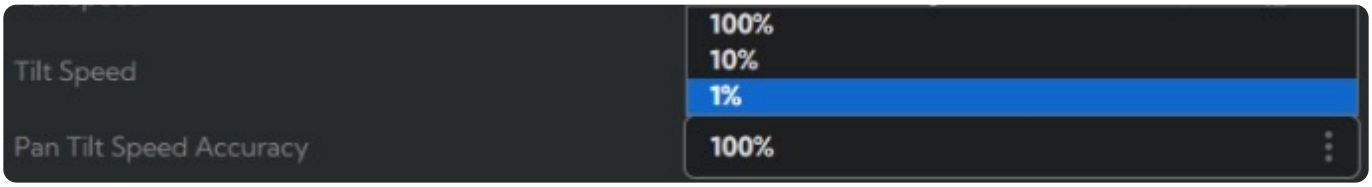
Focus (IN/OUT)
Toggle buttons for manual focus adjustment: IN focuses closer to camera, OUT focuses farther from camera (active only in MANUAL mode).

MOVEMENT SPEED CONTROLS

Pan Speed
Slider control with numeric value (1–24) setting horizontal pan movement speed for camera rotation.

Tilt Speed
Slider control with numeric value (1–24) setting vertical tilt movement speed for camera angle adjustment.

Pan Tilt Speed Accuracy
Percentage indicator (100%) displaying calibration precision of pan/tilt speed settings, with dropdown menu for 10% and 1% speed multiplier to drastically slow down control for precision movements.



POSITION AND PRESET CONTROLS

Power Up
Dropdown selector defining camera behavior on power-on (options: return to home, specific preset 1-9).

Preset Speed
Slider control with numeric value (1-10) determining movement speed when recalling saved camera positions.

Home
Button with dropdown menu to return camera to predefined home position or manage home position settings.

FOCUS AREA AND DETECTION

Focus Area
Dropdown selector (Global/Center/Foreground/Up/Down) specifying which screen region has autofocus priority.

Face AF
Toggle between OFF and ON to enable/disable automatic face detection and focus tracking features.

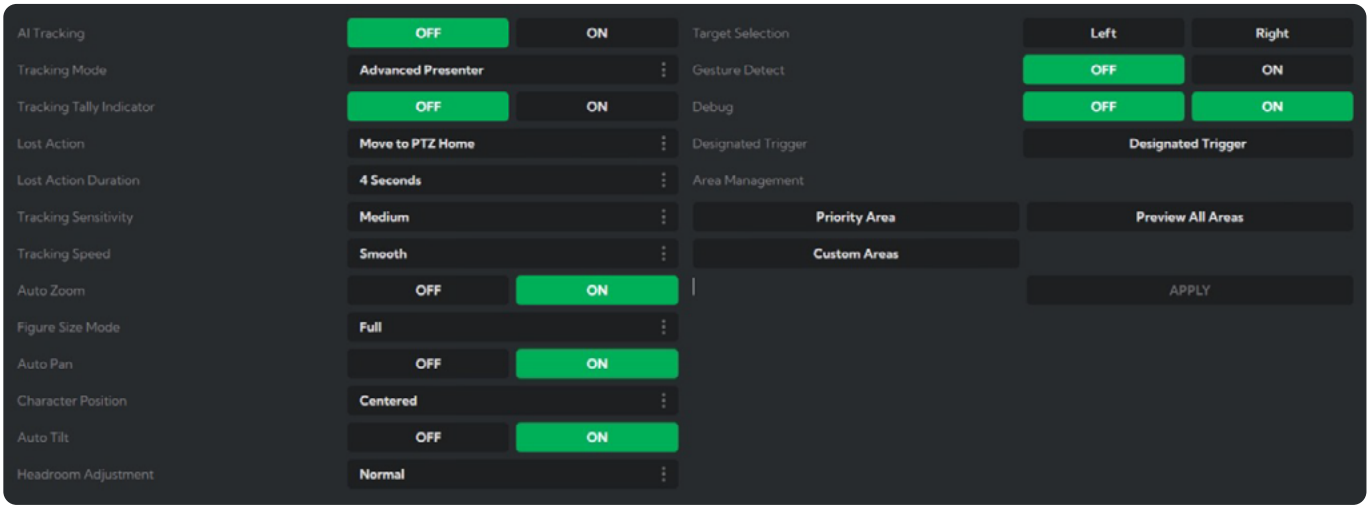
ADVANCED ZOOM AND MOTION FEATURES

Digital Zoom
Toggle between OFF and ON to enable up to 8x Digital Zoom at the top of the Optical zoom range.

Speed Match
Toggle between OFF and ON to choose whether the PTZ scales the PT speed with how far you are zoomed in. When ON is selected, the PTZ PT will slow down according to how far you are zoomed in for smoother control.

Teleconvert Mode
Toggle between OFF and ON to activate 2x digital telephoto extender for increased magnification range. ON will require reboot and the XL will be limited to 1080p resolutions.

TRACKING SETTINGS

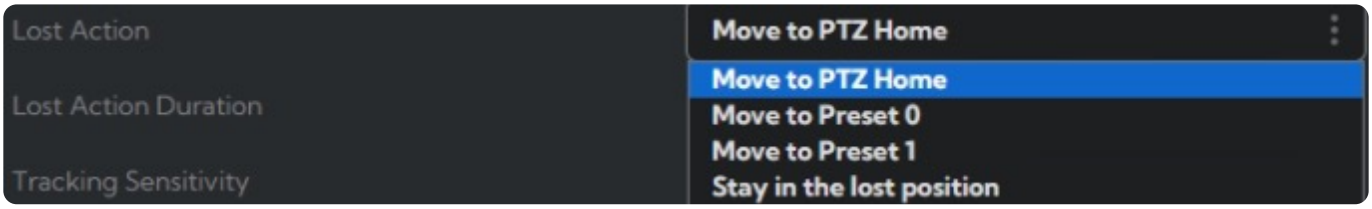


AI Tracking
Master toggle between OFF and ON to enable/disable auto tracking.

Tracking Mode
Dropdown selector for tracking behavior preset (Advanced Presenter, Zone, Auto Framing, Single Tracking).

Tracking Tally Indicator
Toggle between OFF and ON to show visual tally indicator on camera when actively tracking a subject.

TRACKING BEHAVIOR SETTINGS



Lost Action
Dropdown selector defining camera behavior when tracked subject is lost (Move to PTZ Home, Preset 0, 1, or stay in lost position).

Lost Action Duration
Dropdown selector with time delay 2,4, or 6 seconds before executing lost action.

Tracking Sensitivity

Dropdown selector (Low/Medium/High) adjusting how quickly camera responds to subject movement, Medium balances responsiveness with stability.

Tracking Speed
Dropdown selector (Slow/Smooth/Fast) controlling pan/tilt speed during active tracking, Smooth provides natural-looking motion.

AUTOMATIC CAMERA ADJUSTMENTS

Auto Zoom
Toggle between OFF and ON to enable or disable zooming while tracking a subject.

Figure Size Mode
Dropdown selector defining how much frame space the tracked subject occupies during AI tracking:

Full
Frames the entire subject from head to toe with minimal additional space.

Half Body
Frames subject from waist up, providing tighter framing for presentation scenarios.

CloseUp
Tight framing focused on head and shoulders, ideal for interview or keynote speaking situations.

Customized
Allows manual configuration of specific framing subject size 1-300 value.

Auto Pan
Toggle between OFF and ON to enable horizontal panning while following tracking subject.

Character Position
Dropdown selector (Left/Centered/Right) defining preferred horizontal placement of tracked subject within frame.

Auto Tilt
Toggle between OFF and ON to enable vertical tilting while following tracking subject.

Headroom Adjustment
Dropdown selector controlling the amount of vertical space between the tracked subject's head and the top of the frame:

More
Maximum headroom, placing subject lower in frame with substantial space above head.

Normal
Standard headroom following conventional framing guidelines with balanced spacing.

Less
Minimal headroom, positioning subject higher in frame with reduced space above head.

TARGET SELECTION AND TRIGGERING

Target Selection (Left/Right)
Toggle between subjects identified in the wide camera, selected green subject will be tracked

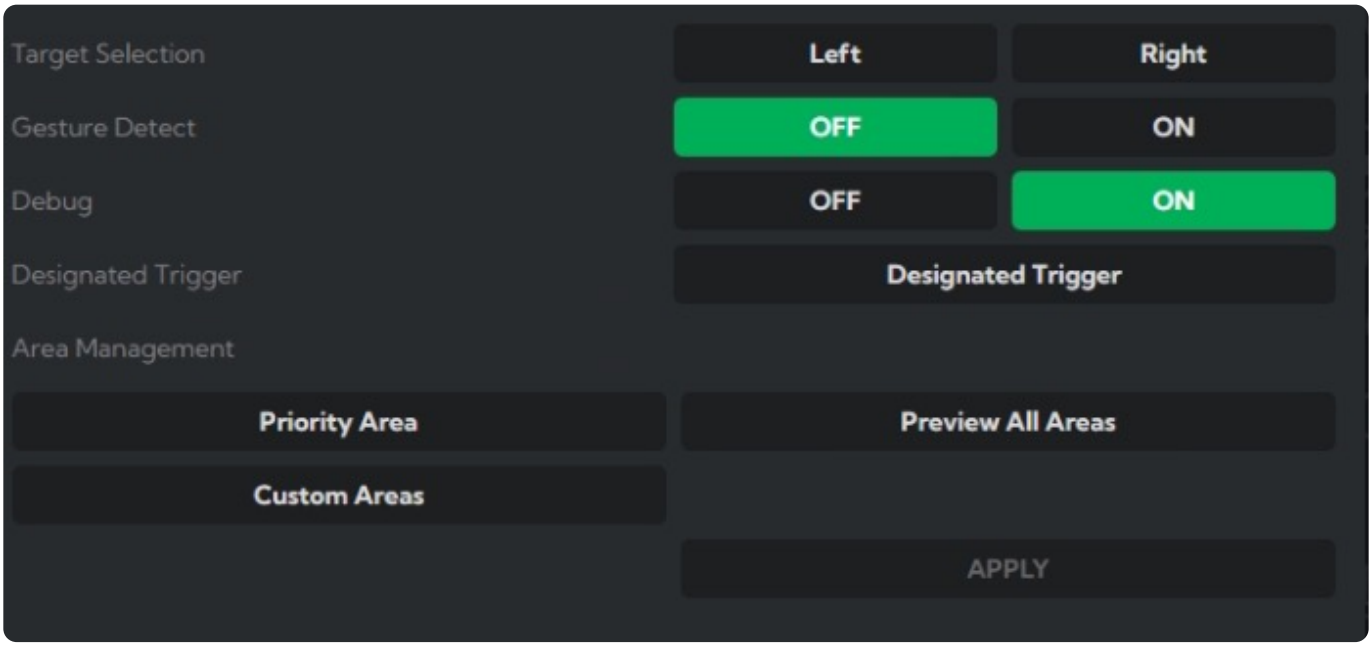
Gesture Detect
Toggle between OFF and ON to enable hand gesture recognition for starting/stopping tracking

Debug
Toggle between OFF and ON to display on-screen detection boxes

Designated Trigger
Button to manually initiate tracking on currently detected subject

AREA MANAGEMENT (OPTIONS VARY BASED ON SELECTED TRACKING MODE)

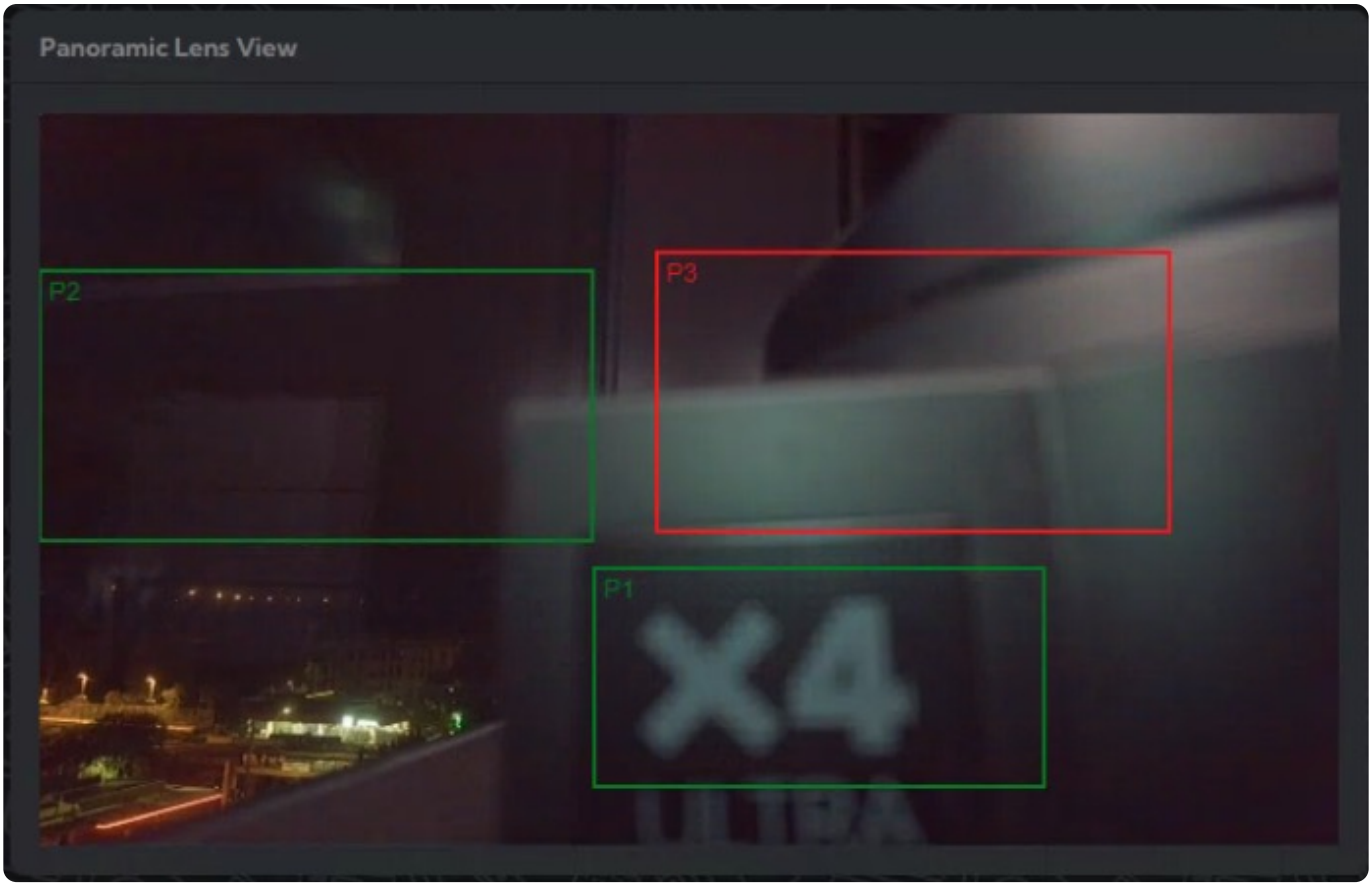
ADVANCED PRESENTER



Priority Area (Magenta Box)
Button to access configuration for 1 Top priority area that will override custom tracking zones or if a new subject enters the area that is different then the currently tracked subject. Use this for places such as a podium or key speaking spot you also want the camera to focus on.

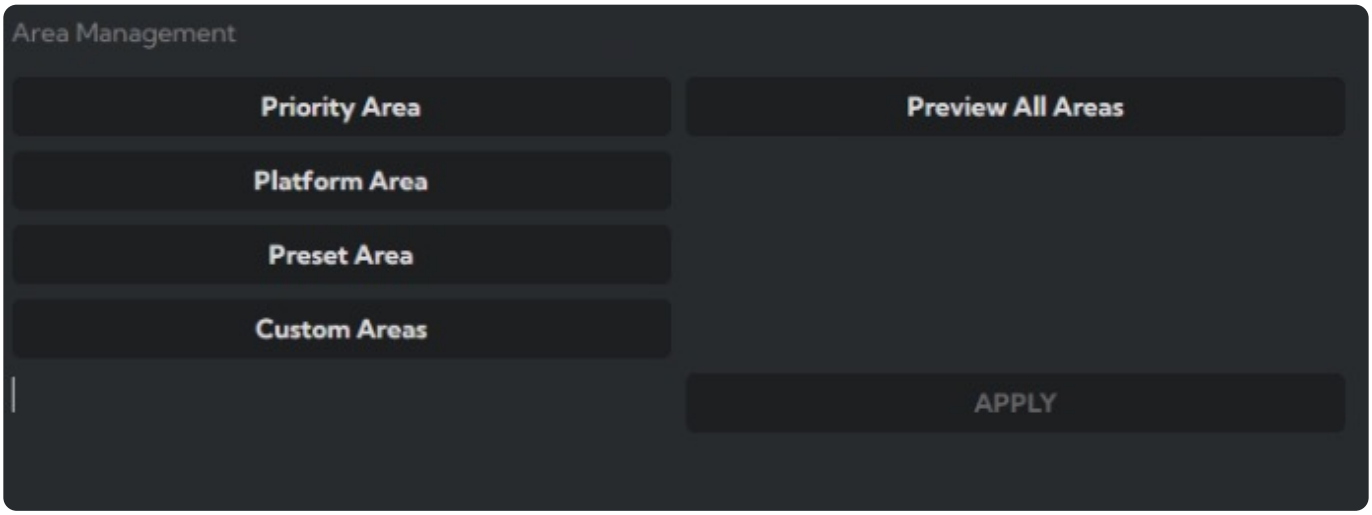
Custom Areas (Green Box)
Button to create and manage multiple custom tracking zones. Select up to 8 zones and draw custom boxes to either stop tracking or keep tracking when the active tracked subject enters them. To delete custom areas

simply click on them in the left wide camera preview window, they will turn red, then click the 'delete' key on your keyboard and press 'apply' at the bottom right of the tracking tab.



Preview All Areas
Button to visualize all configured tracking zones overlaid on camera preview
APPLY – Saves and activates all tracking configuration changes

ZONE TRACKING



Zone tracking is used for setting up different areas within the wide angle lens such as multiple stages or areas that you want to trigger camera presets when subjects enter them.

Priority Area (Magenta Box)
Button to access configuration for 1 Top priority area that will override custom tracking zones or if a new subject enters the area that is different then the currently tracked subject. Use this for places such as a podium or key speaking spot you also want the camera to focus on.

Preset Area
Create custom areas to call presets when subject enters them.

Custom Areas (Green Box) – Button to create and manage multiple custom tracking zones. Select up to 8 zones and draw custom boxes to either stop tracking or keep tracking when the active tracked subject enters them. To delete custom areas simply click on them in the left wide camera preview window, they will turn red, then click the 'delete' key on your keyboard and press 'apply' at the bottom right of the tracking tab.

AUTO FRAMING

Automatically detects and frames all subjects visible in the wide camera view to best fit them within the main camera frame. The main camera continuously readjusts to keep all detected people in the shot. Ideal for conference rooms, panel discussions, or stage environments where multiple participants need to remain visible and the group composition may change dynamically.

You can also set up custom zones if there are seats on the outside that you don't want to be accounted for in the auto framing, just click on custom areas and draw boxes on the wide camera preview window and for the work mode select 'Stop Tracking'.

SINGLE TRACKING

In this mode, just the main camera is used for tracking the subject. You can still set all your framing adjustment controls, but the XL will not use the wide camera for tracking enhancement. Use this mode if your subject will often walk outside of the wide-angle view.

Note: This mode does not support Area Management.

IMAGE TAB

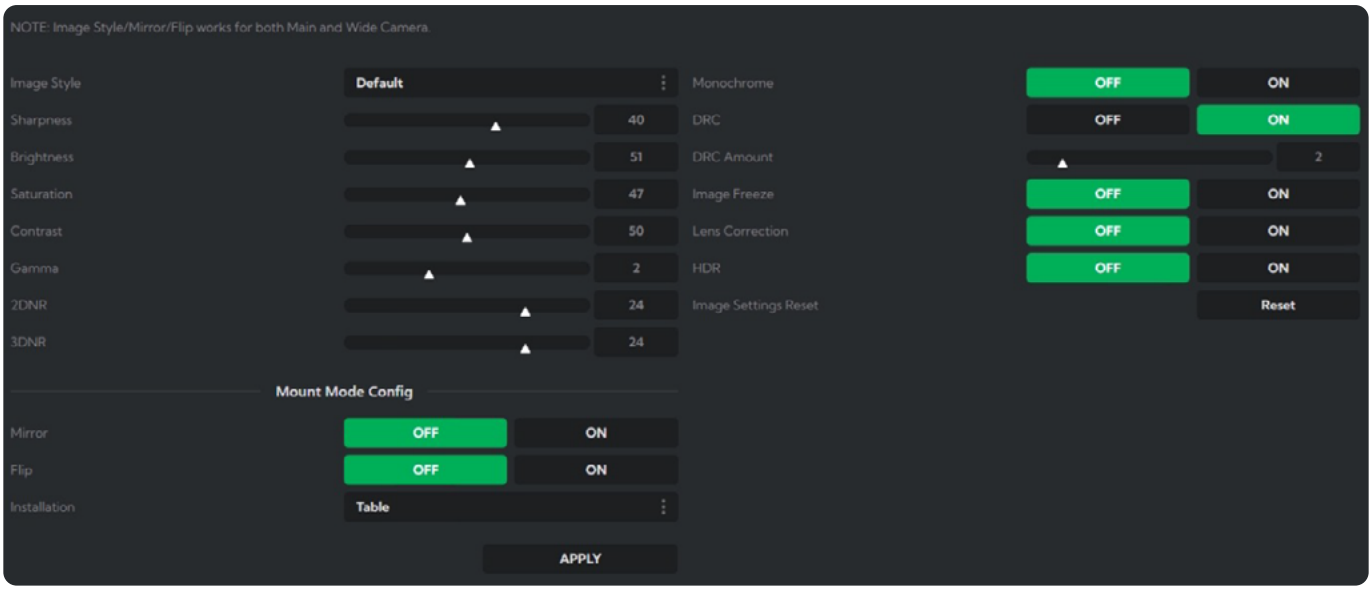


Image Style
Dropdown selector for picture profile presets (Default/Bright/Soft/) affecting overall image character and color science.

Soft
Gentler picture profile with reduced contrast, lower sharpness, and slightly desaturated colors. Creates a more subdued, film-like aesthetic ideal for scenarios requiring post-production color grading, beauty/portrait applications, or environments where softer imagery is preferred. Preserves more detail in highlights and shadows for greater editing flexibility.

Bright
Enhanced picture profile with increased contrast, elevated brightness, and boosted saturation. Well-suited for live streaming, web content, corporate presentations, or environments where the image needs to stand out with minimal post-production. May reduce dynamic range in extreme lighting conditions.

Sharpness
Slider control with numeric value (0-64, default:40) adjusting edge definition and detail enhancement in the image.

Brightness
Slider control with numeric value (0–100, default: 51) adjusting overall image luminance level without affecting exposure settings.

Saturation
Slider control with numeric value (0–100, default: 47) controlling color intensity and vibrancy in the image.

Contrast
Slider control with numeric value (0–100, default: 50) adjusting the difference between light and dark areas of the image.

Gamma
Slider control with numeric value adjusting midtone brightness response curve range (0–6 default: 2).

2DNR (2D Noise Reduction)
Slider control with numeric value (0–32, default: 24) setting 2D spatial noise reduction strength for cleaner images in low light. 2DNR processes each frame independently, making it faster than 3DNR but less effective at eliminating temporal noise like video grain or compression artifacts.

Best for: Fast-moving content, sports, dynamic scenes where motion clarity is critical.

3DNR (3D Noise Reduction)
Slider control with numeric value (0–32, default: 24) setting 3D temporal noise reduction strength combining multiple frames for superior noise reduction. Higher values produce exceptionally clean, broadcast-quality video but may introduce motion blur, ghosting artifacts, or "trailing" effects on fast-moving subjects. Lower values preserve motion sharpness and responsiveness but retain more visible noise.

Best for: Static or slow-moving scenes, interviews, presentations, controlled environments.

Monochrome
Toggle between OFF and ON to convert color image to black and white (grayscale) output.

DRC (Dynamic Range Compression)
Toggle between OFF and ON to enable shadow/highlight recovery for high-contrast scenes.

DRC Amount
Slider control with numeric value (0–16, default: 2) adjusting intensity of dynamic range compression when DRC is enabled.

Image Freeze
Toggle between OFF and ON to freeze current frame on output (useful for troubleshooting or holding a static image).

Lens Correction
Toggle between OFF and ON to apply digital correction for lens distortion at wide angle zoom ranges.

Image Settings Reset
Button to restore all image parameters to factory default values.

MOUNT MODE CONFIGURATION

Mirror
Toggle between OFF and ON to horizontally flip the image (left becomes right, right becomes left).

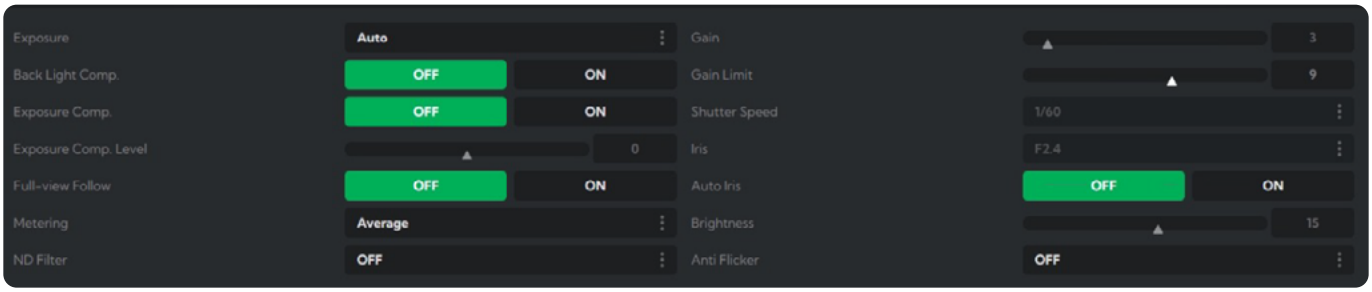
Flip
Toggle between OFF and ON to vertically flip the image (upside down).

Installation
Dropdown selector for mounting orientation (Table/Ceiling).

Table = upright
Ceiling = upside down

APPLY
Saves and implements all image configuration changes

EXPOSURE TAB



EXPOSURE MODE CONTROL

Exposure

Dropdown selector for exposure control mode determining how the camera manages light sensitivity:

- **Auto**
  Fully automatic exposure with camera controlling gain, shutter, and iris simultaneously for optimal brightness.
- **Manual**
  Complete manual control over all exposure parameters (gain, shutter speed, iris). Note: Disables backlight and exposure comp and metering.
- **Shutter Priority**
  User sets shutter speed, camera automatically adjusts gain and iris to maintain proper exposure. Note: Disables backlight and exposure comp and metering.

- **Iris Priority**
  User sets iris/aperture, camera automatically adjusts gain and shutter to maintain proper exposure. Note: Disables backlight and exposure comp and metering.
- **Bright**
  Automatic mode optimized for well-lit environments, prioritizing faster shutter speeds and lower gain. Allows user to just adjust the Brightness setting to set image exposure.

EXPOSURE COMPENSATION AND ENHANCEMENT

Back Light Comp.
Toggle between OFF and ON to enable backlight compensation, brightening subjects that are silhouetted against bright backgrounds.

Exposure Comp.
Toggle between OFF and ON to enable manual exposure compensation adjustment.

Exposure Comp. Level
Slider control with numeric value (-32 to +32, default: 0) for fine-tuning overall exposure brightness when Exposure Comp is enabled, positive values brighten the image, negative values darken it.

Full-view Follow
Toggle between OFF and ON to enable exposure tracking across the entire frame rather than center-weighted metering.

METERING AND FILTRATION

Metering - Dropdown selector for exposure metering pattern determining which area of the frame the camera analyzes to calculate proper exposure:

- **Average**
  Evaluates light across the entire frame with equal weighting for balanced overall exposure
- **Center**
  Prioritizes the center portion of the frame for exposure calculation, ideal for centered subjects
- **Top**
  Meters primarily from the upper portion of the frame
- **Bottom**
  Meters primarily from the lower portion of the frame
- **Left**
  Meters primarily from the left side of the frame
- **Right**
  Meters primarily from the right side of the frame

ND Filter
Dropdown selector for neutral density filter control to reduce light entering the sensor in bright conditions without affecting color temperature or depth of field:

- **OFF** - No ND filtration applied, full light transmission to sensor

- **1/4** – Reduces incoming light by 2 stops equivalent to ND 0.6
- **1/16** – Reduces incoming light by 4 stops equivalent to ND 1.2
- **1/64** – Reduces incoming light by 6 stops equivalent to ND 1.8

GAIN (ISO SENSITIVITY) CONTROLS

Gain
Slider control with numeric value (1–27 dB, default: 3) adjusting sensor gain/ISO sensitivity, higher values brighten the image in low light but increase noise.

Gain Limit
Slider control with numeric value (1–14, default: 9) setting maximum allowable automatic gain in auto exposure modes to prevent excessive noise.

SHUTTER SPEED CONTROLS

Shutter Speed
Dropdown selector for shutter speed/exposure time (1/25,1/60, 1/120, 1/4000, etc.) controlling motion blur and light capture duration, shown as fractional seconds.

IRIS (APERTURE) CONTROLS

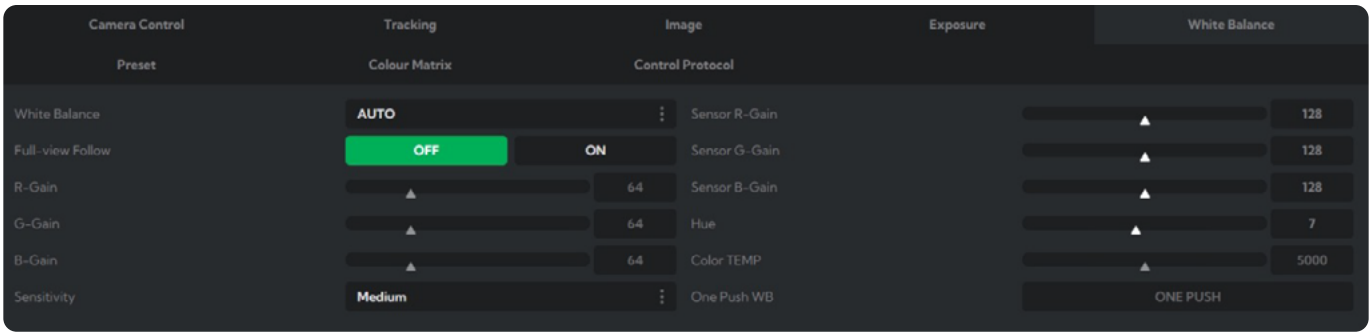
Iris
Dropdown selector showing current f-stop value (F1.6, F2.4, F2.8, F4.0, F5.6, F8.0, F11, F14, etc.) controlling lens aperture opening and depth of field.

Auto Iris
Toggle between OFF and ON to enable automatic iris adjustment in response to lighting changes (available in Auto, and Shutter Priority modes).

Brightness
Slider control with numeric value (0–27, default: 15) for digital brightness boost independent of exposure settings, useful for fine-tuning image luminance without affecting camera exposure parameters in Bright exposure mode.

Anti Flicker
Dropdown selector (OFF/50Hz/60Hz) to synchronize shutter speed with AC power line frequency, eliminating visible flicker from artificial lighting in video.

WHITE BALANCE TAB



WHITE BALANCE MODE CONTROL

White Balance – Dropdown selector for color temperature correction mode determining how the camera adjusts color balance:

AUTO
Continuous automatic white balance tracking that adapts to changing lighting conditions in real-time.

MANUAL
User-defined custom white balance using manual RGB gain adjustments for precise color control.

INDOOR
Preset optimized for tungsten/incandescent lighting (approximately 3200K).

OUTDOOR
Preset optimized for daylight conditions (approximately 5600K).

STATIC
Allows for Kelvin Color Temp adjustment.

One Push WB
Semi-automatic mode that sets white balance based on a reference white object when triggered.

WHITE BALANCE ADJUSTMENT CONTROLS

Full-view Follow
Toggle between OFF and ON to enable white balance tracking across the entire frame rather than center-weighted analysis.

R-Gain
Slider control with numeric value (0-255, default: 64) for manual red channel gain adjustment, increasing values adds warmth/red cast to the image.

G-Gain
Slider control with numeric value (0–255, default: 64) for manual green channel gain adjustment, affecting green color balance.

B-Gain
Slider control with numeric value (0–255, default: 64) for manual blue channel gain adjustment, increasing values adds coolness/blue cast to the image.

Sensitivity
Dropdown selector (Low/Medium/High) controlling how aggressively AUTO white balance mode responds to color temperature changes, Medium provides balanced responsiveness.

INDIVIDUAL SENSOR RGB GAIN CONTROLS (AUTO ONLY)

These are **hardware-level color channel gain adjustments** that operate at the image sensor level, before any digital signal processing occurs. They provide the most fundamental level of color correction in the camera's imaging pipeline.

These controls are typically adjusted during initial camera setup or calibration rather than on a per-scene basis, as they affect the fundamental color character of the entire imaging system.

Sensor R-Gain
Slider control with numeric value (0–255, default: 128) for hardware-level red channel gain adjustment at the sensor level.

Sensor G-Gain
Slider control with numeric value (0–255, default: 128) for hardware-level green channel gain adjustment at the sensor level.

Sensor B-Gain
Slider control with numeric value (0–255, default: 128) for hardware-level blue channel gain adjustment at the sensor level.

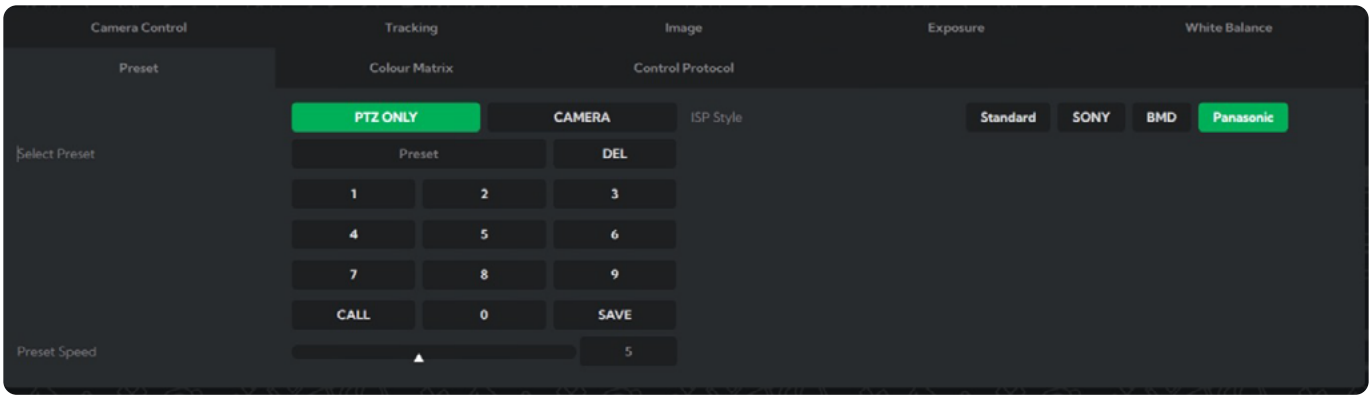
COLOR FINE-TUNING

Hue
Slider control with numeric value (1 to 14, default: 7) for global hue rotation, shifting overall color palette toward warmer (lower number) or cooler (higher number) tones.

Color TEMP
Slider control with numeric value (2600–7400K, default: 5000) for precise color temperature selection in Kelvin when using STATIC white balance mode.

One Push WB
Button to trigger one-time white balance calibration when pointing camera at a white or neutral gray reference surface (18% gray card or white balance card).

PRESET TAB



PTZ ONLY
Toggle button to set presets to store only Pan/Tilt/Zoom position data.

CAMERA
Toggle button to set presets to store complete camera state including PTZ position plus all image settings (exposure, white balance, focus, etc.).

ISP STYLE SELECTION

ISP Style
Selector for Image Signal Processor preset to help XL match other base camera colour profiles

Standard
BirdDog native preset format for BirdDog PTZ Cameras.

SONY
Preset numbering and Sony Fx camera series.

BMD
Preset format compatible with Blackmagic Design Ursa series.

Panasonic
Preset format compatible with Panasonic camera control systems.

This allows the camera to work seamlessly with third-party control cinema cameras.

PRESET MANAGEMENT INTERFACE

Select Preset
Label indicating the preset number selection area.

Preset
Text field or dropdown showing currently selected preset number for operations.

DEL
Button to delete the currently selected preset from memory.

PRESET NUMBER PAD

To set a preset type the number you want, then click 'save' .

To call a preset type the number you want, then click 'call'.

To overwrite simply click save over the preset number again.

1–9
Numeric buttons for selecting preset numbers 1 through 9 for save, recall, or delete operations.

CALL
Button to recall/execute the selected preset, moving the camera to the stored position (and settings if CAMERA mode is active).

SAVE
Button to store current camera position (and settings if CAMERA mode is active) to the selected preset number.

PRESET SPEED CONTROL

Preset Speed
Slider control with numeric value (1–10, shown: 5) setting the movement speed when recalling presets, lower values produce slower, smoother transitions while higher values enable faster repositioning.

COLOUR MATRIX TAB

To set slider back to default state, simply double click the slider

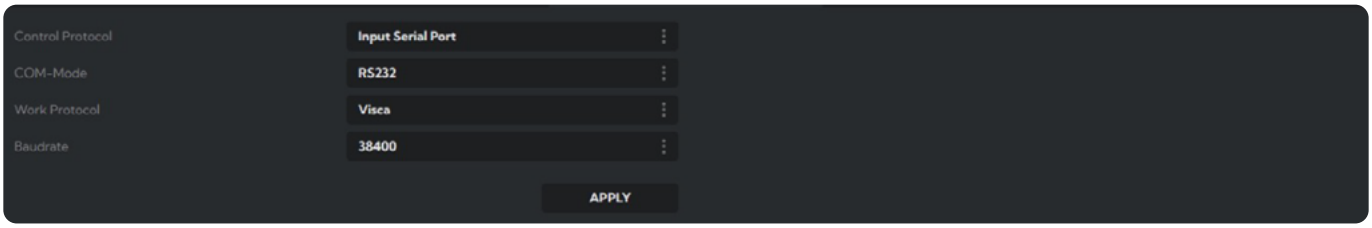
Saturation
The Color Matrix features 120 levels of adjustment of Hue across six color sections, Red, Green, Blue, Cyan, Magenta and Yellow, and allows individual fine-tuning of each of these without affecting the response of other color components.

Saturation
The Color Matrix features 200 levels of adjustment of Saturation (Intensity) across six color sections, Red, Green, Blue, Cyan, Magenta and Yellow, and allows individual fine-tuning of each of these without affecting the response of other color components.

The Colour Matrix provides professional-grade six-vector color correction, allowing independent adjustment of each primary (Red, Green, Blue) and secondary (Cyan, Magenta, Yellow) color in the image. This enables precise color grading for:

- Matching multiple cameras in multi-camera productions.
- Correcting color casts from specific lighting conditions.
- Creative color styling without affecting overall white balance.
- Fine-tuning skin tones by adjusting red/yellow/magenta independently.
- Enhancing or suppressing specific colors (e.g., grass, sky, wardrobe) for broadcast standards or aesthetic preferences.

CONTROL PROTOCOL TAB



SERIAL CONTROL PROTOCOL CONFIGURATION

Input Serial Port
Dropdown selector for physical serial connection type used for camera control commands.

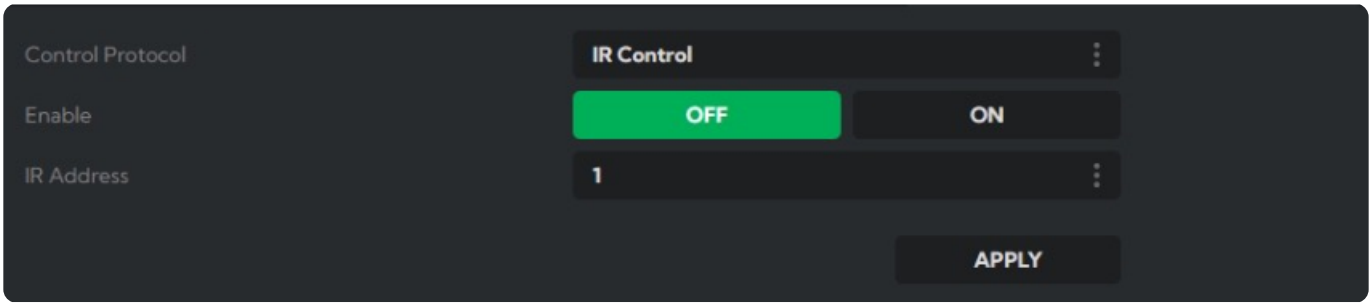
COM-Mode
Dropdown selector (RS232/RS422) defining serial communication standard and wiring configuration.

Work Protocol
Dropdown selector (Visca/Pelco-P/Pelco-D/FreeD) choosing camera control protocol language.

Baudrate
Dropdown selector (2400/4800/960038400) setting serial communication speed in bits per second.

APPLY
Saves and implements control protocol configuration changes.

IR CONTROL CONFIGURATION



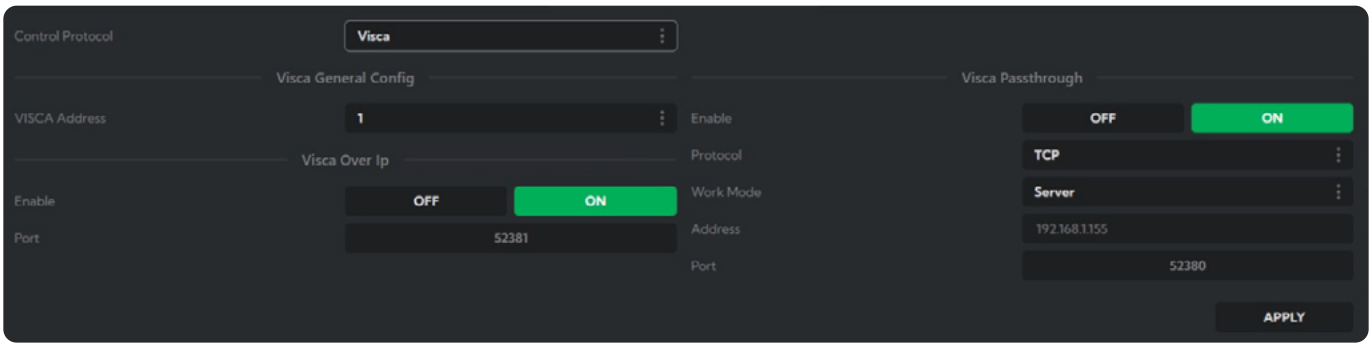
Control Protocol
Dropdown showing IR Control mode selected.

Enable
Toggle between OFF and ON to activate infrared remote-control functionality.

IR Address
Camera number selection (1–4) setting unique infrared remote-control address for multi-camera environments, preventing crosstalk between cameras.

APPLY
Saves and implements IR control settings.

VISCA PROTOCOL CONFIGURATION



VISCA GENERAL CONFIG

VISCA Address
Numeric input field (1–7, shown: 1) setting camera address on VISCA daisy chain, allowing up to 7 cameras on single serial connection.

VISCA OVER IP

Enable
Toggle between OFF and ON to activate VISCA over IP network control.

Port
Numeric input field (default 52381) specifying UDP port for VISCA over IP commands
Visca Passthrough.

Enable
Toggle between OFF and ON to activate VISCA command passthrough/forwarding to downstream devices.

Protocol
Dropdown selector (TCP/UDP) choosing network transport protocol for passthrough connections.

Work Mode
Server/Client IP address input field (shown: 192.168.1.155) specifying destination server or Client for forwarded VISCA commands.

Port
Numeric input field (default 52381) specifying destination port for forwarded VISCA commands

APPLY
Saves and implements VISCA protocol settings.

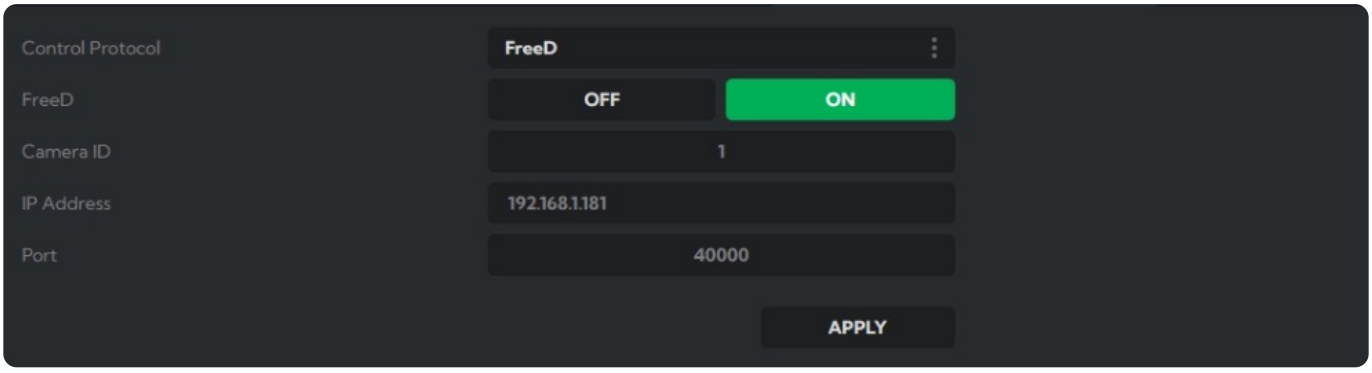
PELCO-P/D PROTOCOL CONFIGURATION

PelcoP Address
Numeric input field (1–255, default: 1) setting camera address for Pelco-P protocol communication.

PelcoD Address
Numeric input field (1–255, default: 1) setting camera address for Pelco-D protocol communication.

APPLY
Saves and implements Pelco protocol address settings

FREED PROTOCOL CONFIGURATION



FreeD
Toggle between OFF and ON to enable FreeD camera tracking data output protocol.

Camera ID
Numeric input field (0–255, default: 1) setting unique FreeD camera identifier for virtual production and tracking systems.

IP Address
IP address input field (shown: 192.168.1.181) specifying destination for FreeD tracking data packets.

Port
Numeric input field (default 40000) specifying UDP port for FreeD data transmission.

APPLY
Saves and implements FreeD protocol settings.

TROUBLESHOOTING

IMAGE

The monitor shows no image.

1. Ensure that the camera power supply is connected, the voltage is normal, and the power indicator is always on.
2. Turn off the power switch to check that the camera is self-testing.
3. Ensure the cable of video platform and TV that in correct connection.

Image jitters after the camera is properly connected.

1. Ensure that the camera installation is in stable position.
2. Check that any vibrating machinery or object near the camera.

There is no video image in browser.

It is recommended to use a modern Internet browser such as Google Chrome, Firefox, or Safari to interact successfully with the camera. Other browsers may have unexpected issues.

Unable to access camera through the browser

1. Using PC to access the network, test that other network tasks like internet browsing are working correctly.
2. Reset the network connectors at the camera and your computer, and reboot your camera
3. Ensure that the IP address, subnet mask and gateway settings match your network configuration.
4. Check that there are no IP address conflicts.

Forgotten IP address or login password

The default IP address is: 192.168.100.100; The default password is: 'birddog'. If you forget the camera IP address or password, using the supplied IR remote control, press the [*] + [#] + [Manual] keys in sequence to restore system default settings.After restoring the defaults, you will need to set a strong password again when first logging in to the BirdUI webpage.

CONTROL

Remote control does not work

1. Check and replace batteries with new batteries.
2. Ensure that the camera is operating normally.
3. Ensure that the address key of remote control matches the camera number set in the OSD.

Cannot control camera over the serial port

1. Ensure that the protocol, address and bit rate of the camera are consistent.
2. Ensure that the control cable is properly connected.

WARRANTY

5 Year Warranty

BirdDog X-series cameras feature a 5 year, global warranty. BirdDog prides itself on delivering the best possible products to customers, but if something was to go wrong, you can rest assured knowing that no matter where in the world you are, BirdDog has your back.

Read more at BirdDog.tv/warranty-terms

BirdDog.tv