

SKAARHOJ Blue Pill

with

PTZ Pro v2 + PTZ Extreme v2

For Canon PTZ



USER GUIDE | February 2022

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Important Information

Legal Notice

Attention:

The content and instructions of this document are subject to change without prior notice. Updates will be added to the manual.

Best effort have been conducted to verify the correctness of the content in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical error in this manual.

The product and graphic appearance demonstrated in this manual is for reference only, and may differ from the actual appearance of your device and associated software applications.

Use of this manual and the subsequent result shall be entirely on the user's own responsibility.

Reference to product names of other companies in this manual are the trademark or registered trademark of the respective companies.

Warnings

- If the product does not work properly, please contact your dealer. Never attempt to disassemble the controller yourself (we will not assume any responsibility for problems caused by unauthorized repair or maintenance)
- This installation should be made by a qualified service person and should conform to all the local codes
- When shipping, the controller should be packed in its original packaging
- Make sure the power supply voltage is correct before using the controller
- Do not drop the controller or subject it to physical shock

Maintenance Precautions

- If there is dust on the controller and the displays, remove the dust gently using a oil-free brush or dust blowing apparatus

- Do not use organic solvents, such as benzene or ethanol when cleaning the surface of the controller

Regulatory Compliance

For private households: Information on Disposal for Users of WEEE

This symbol on the product(s) and / or accompanying documents means that used electrical and electronic equipment (WEEE) should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge.



Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

For professional users in the European Union

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.

For disposal in countries outside of the European Union

This symbol is only valid in the European Union (EU). If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

Overview

This user guide is suitable for the following models

- PTZ Pro v2 and PTZ Extreme v2 using a Blue Pill with Canon CR-N300/N500 default configuration

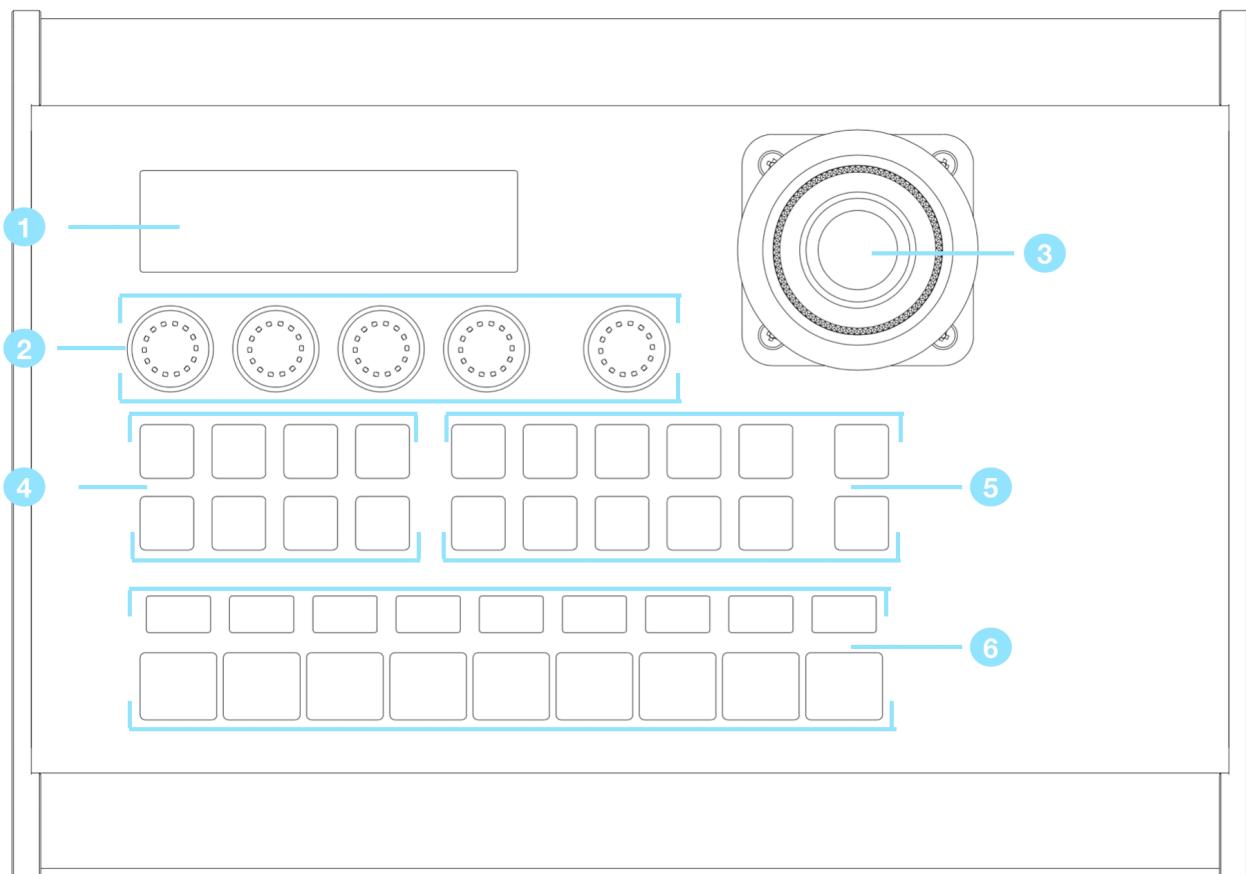
- Image Stabilisation
- Presets
- Preset Speed
- Preset Time
- Preset Store Mode
- NR Mode
- Noise Reduction
- Super crisp display tiles for settings
- High-quality encoders with RGB backlight for function identification
- Four-way buttons with OLED legends for dynamic labelling and functionality
- Classic PTZ joystick with top button reset
- Option for changing configuration layout

Features

- Support for XC protocol including
 - Zoom
 - Zoom Mode
 - Focus
 - Auto Focus
 - MF Speed
 - Face Detection
 - Iris Absolute
 - Auto Iris
 - White Balance
 - Black Gain
 - Gain
 - Sharpness
 - Shutter
 - Shooting Mode
 - Joystick Sensitivity
 - Gain Mode

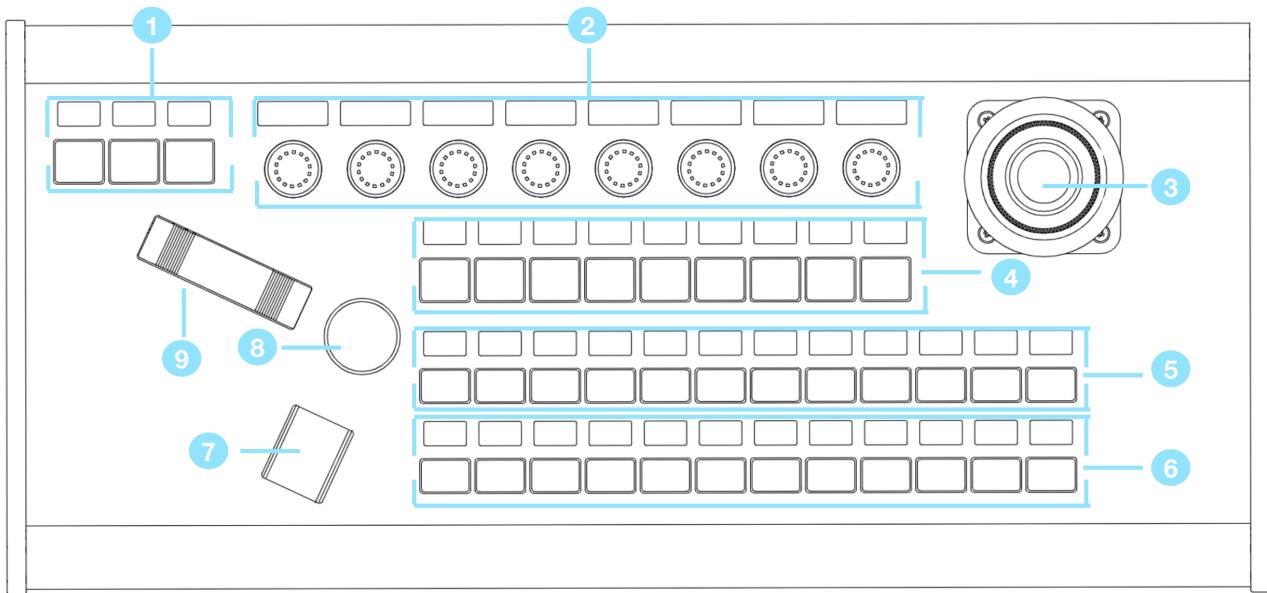
Controller Diagram

PTZ Pro v2 Top



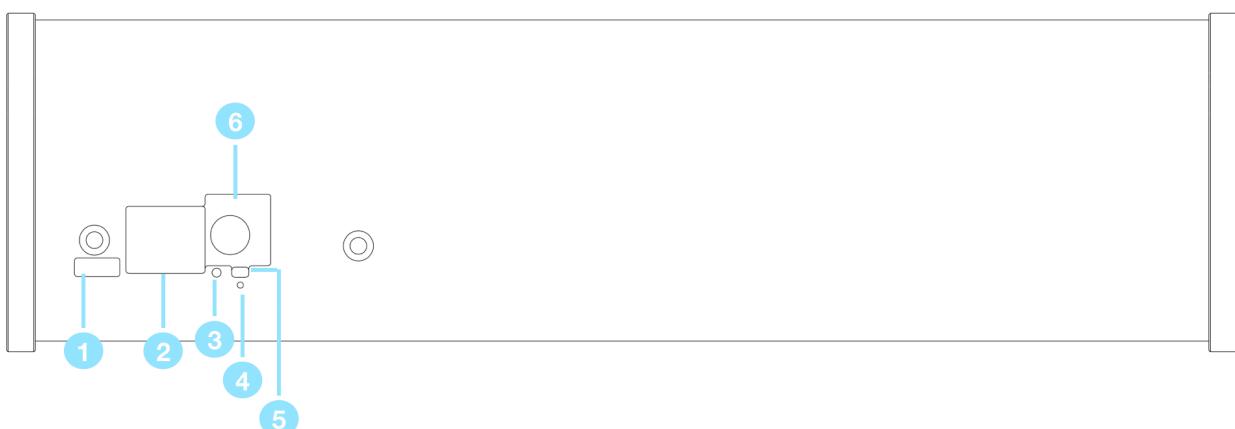
1. Large display with 8 tiles. Functions associated with encoders from group 2 and buttons in groups 4 and 5
2. 5 rotary encoders with RGB backlight for function identification
3. 3 point joystick for pan/tilt/zoom and top button home function
4. Menu navigation buttons
5. Camera preset buttons
6. Camera select buttons with associated displays

PTZ Extreme v2 Top



1. 3 quick access buttons with associated displays
2. 8 rotary encoders with RGB backlight for function identification
3. 3 point joystick for pan/tilt/zoom and top button home function
4. Menu navigation buttons with associated displays
5. Camera preset buttons with associated displays
6. Camera select buttons with associated displays
7. Roller Wheel
8. Focus Knob
9. Zoom Rocker

PTZ Pro v2 and PTZ Extreme v2 Backside



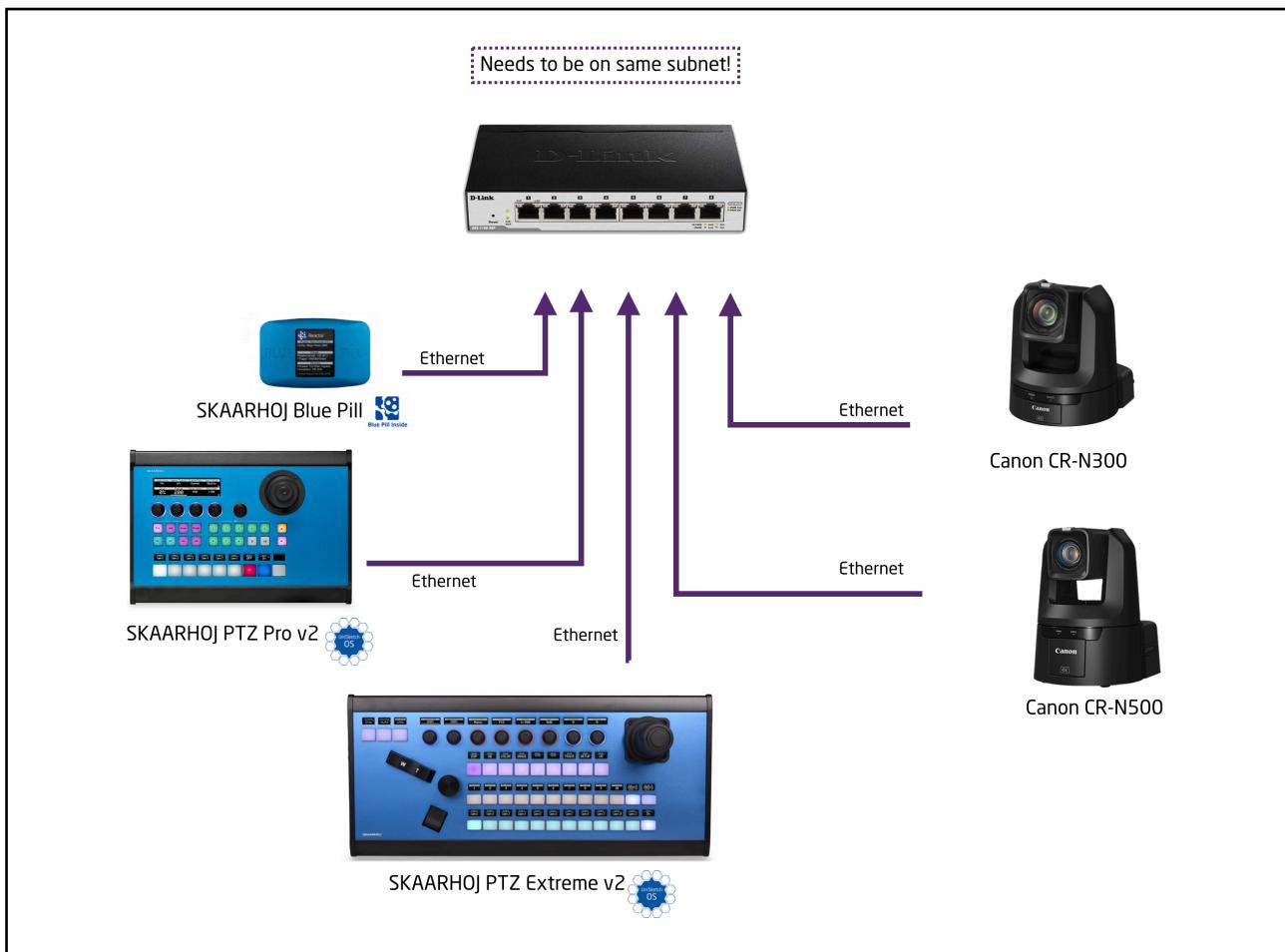
1. Micro USB Port for serial communication with SKAARHOJ Firmware Updater
2. IP Network RJ45 Port for IP Control and PoE Standard: IEEE 802.3af
3. Status LED for monitoring and debugging
4. Reset, use only under the guidance of SKAARHOJ support
5. Config Button, to enable WiFi Access Point
6. 12V DC Power Supply, connect the supplied DC Power adaptor

System Configuration

Connection

The SKAARHOJ Blue Pill communicates to camera(s) and the SKAARHOJ controllers via a networked IP connection. This is the supported case.

The layout of the configuration for the PTZ Pro v2 and PTZ Extreme v2 is set on the Blue Pill and is expandable to handle multiple connected cameras with a camera select row of buttons.



Power

- Use only the DC power adapter supplied with the controller. Do not use any other DC power adaptor
- The Blue Pill can be used with a PoE switch providing 5W-30W PoE (+)/PoE Standard: IEEE 802.3af/t
- The UniSketch controllers can be used with a PoE switch providing PoE Standard: IEEE 802.3af
- Ensure the PoE provider has sufficient power budget to power the controller. Otherwise it will not function properly

Controller Settings

Blue Pill

IP Settings

1. Connect controller to same network as cameras
2. Power the controller if networked switch does not provide PoE
3. Navigate to IP address on display (requires DHCP)
4. Add controller in the Panels section
5. Add cameras in the Devices section
6. Select PTZ Pro Generic or PTZ Extreme Generic configuration next to the panel
7. Select cameras in the camera selector for camera order and custom names

Firmware Update

1. Access the web interface
2. Navigate to the System Menu page
3. Press "Upgrade Packages"
4. For OS Updates, Navigate to the Settings page
5. Press Update in System Information
6. Select OS version in the dropdown

Network Recommendations

- SKAARHOJ Blue Pill controllers have a 1 GBit network interface
- 5W-30W PoE (+)
- PoE Standard: IEEE 802.3af/t

UniSketch

IP Settings

1. Connect controller to same network as cameras
2. Power the controller if networked switch does not provide PoE
3. Connect controller to computer via USB
4. Open Skaarhoj Firmware Updater
5. Select Online Configuration
6. Select Blue Pill Mode default configuration
7. Set static IP or select DHCP
8. Save Configuration
9. Select Update Configuration/Firmware in the Firmware Updater

Network Recommendations

- SKAARHOJ controllers have a 100 mbps network interface
- Network switch must have Auto-MDI/MDIX
- Network switch must support 100 mbps
- PoE: IEEE 802.3af
- SKAARHOJ controllers only support Half Duplex mode without Auto-Negotiate

Remember a SKAARHOJ controller and client must be on the same subnet (192.168.10.* or one defined for the local network used by the controller). With multiple SKAARHOJ units connected to the same network they need to have different IP addresses!

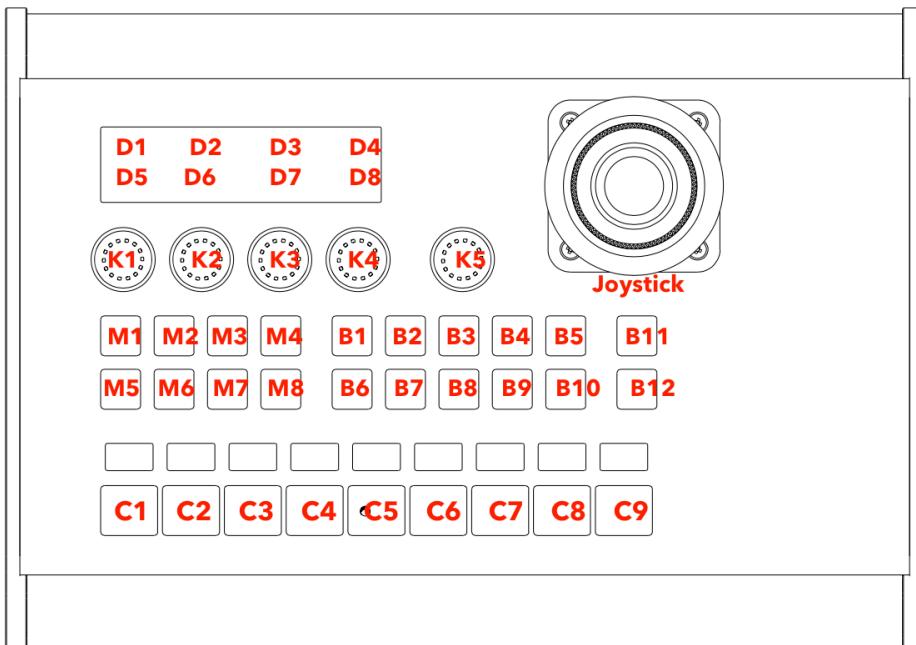
Power over Ethernet (PoE) Specifications

We use the PoE industry standard 5W-30W PoE (+) IEEE802.3af7t. To power our controllers using PoE it is important the switch supports this standard. Please notice some manufactures such as Ubiquity have their own non-standard 24V type of PoE which is incompatible with our controllers. Especially pay attention to the standard when using a PoE injector.

Controller Use

PTZ Pro v2

Overall the controller have eight menus. To change between the menus press M1-M8. The camera select row is dynamic to the number of cameras connected



Joystick

UD	Tilt
LR	Pan
Rotate	Zoom
Top Button	Home

B1-B12

M1-M8

M1	Exposure
M2	White Balance
M3	Black
M4	Focus
M5	Home
M6	Modes
M7	Presets
M8	Various

D1-D8

D1	Selected Menu
D2	-
D3	Preset/Camera Page (B1-10)
D4	Focus Position (K5)
D5	K1
D6	K2
D7	K3
D8	K4

	Preset Select	Camera Select
B1-10	Preset Select	Camera Select
B11	Preset Page Up	Camera Page Up
B12	Preset Page Down	Camera Page Down

C1-C9

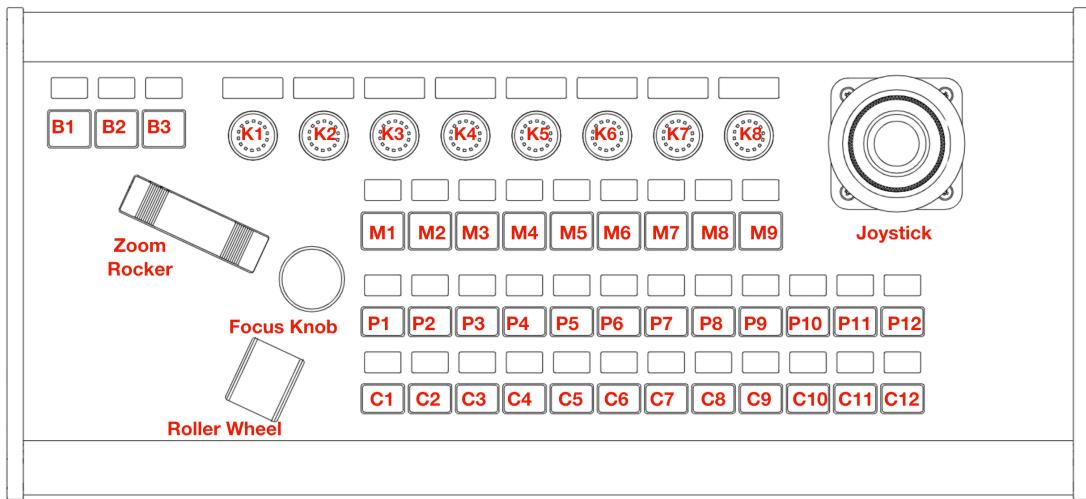
	Camera Select	Preset Select
C1-7	Camera Selects	Preset Selects
C8	Camera Page Selects	Preset Page Selects
C9	Camera/Preset Position Toggle	Camera/Preset Position Toggle

K1-K5

	Exposure	White Balance	Black	Focus	Home	Modes	Preset	Various
K1	Auto Iris	WB Mode	Sharpness Level	Focus Mode	Shooting Mode	Shutter Mode	Speed Mode	Joystick Sensitivity
K2	Iris (F-Stop)	WB Kelvin	BG Level	Face Detect	Joystick Sensitivity	Gain Mode	Preset Speed	Zoom Mode
K3	Shutter Speed	Red Gain	BG Point	F. Track	MF Speed	ND Filter	Preset Time	NR Mode
K4	AE G. Limit	Blue Gain	BG Range	AF Speed	Focus	Image Stabilization	Store Mode	NR
K5	Focus	Focus	Focus	Focus	Focus	Focus	Focus	Focus

PTZ Extreme v2

Overall the controller have eight Menus. To change between the menus press M1-M8. The camera select row is dynamic to the number of cameras connected. All displays are associated with the buttons below them.



C1-12

C1-10	Camera Selects
C11	Camera Page Selects
C12	Camera Page Home

P1-12

P1-10	Preset Selects
P11	Preset Page Select
P12	Preset Page Home

B1-3

B1	Tally
B2	Connection Status
B3	Focus One Push

Joystick

UD	Tilt
LR	Pan
Rotate	Zoom
Top Button	Home

M1-9

	Default	Shifted
M1	Home	Presets
M2	Exposure	System
M3	Color	-
M4	Details	-
M5	Matrix	-
M6	Focus	-
M7	Exec WB A	Exec WB A
M8	Exec WB B	Exec WB B
M9	Shift	Shift

Analog Components

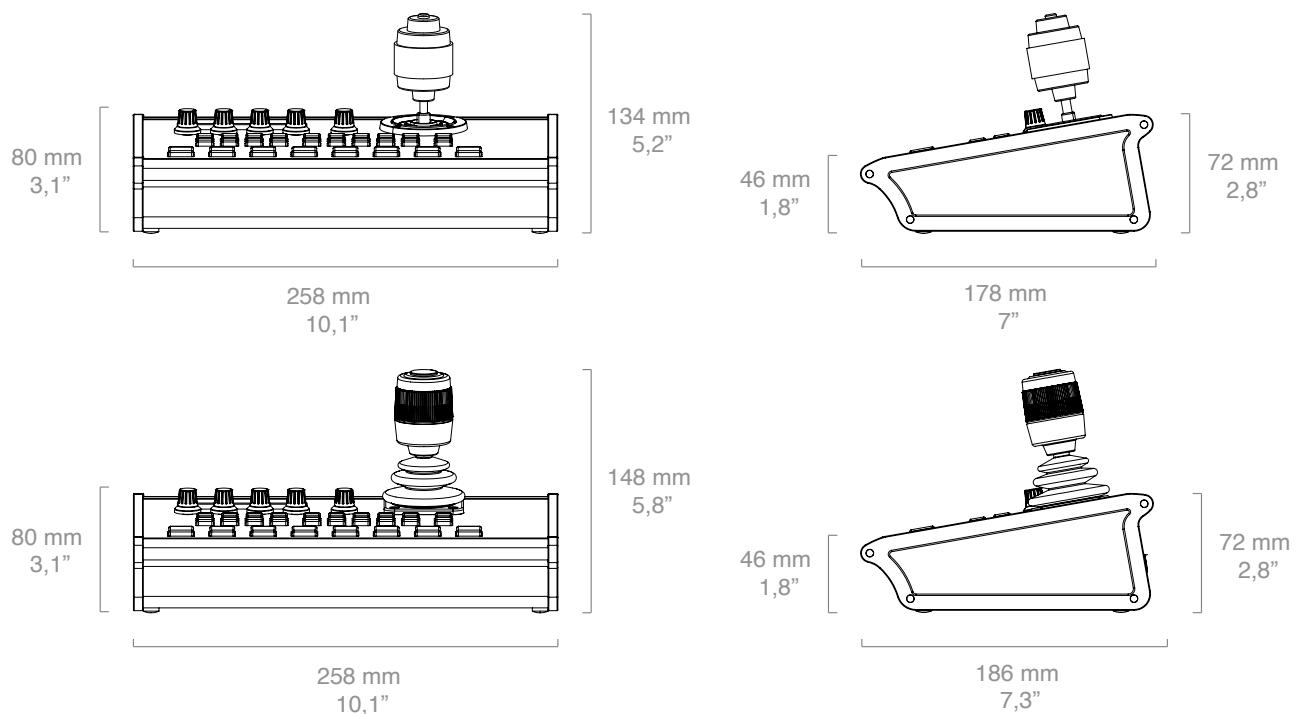
Zoom Rocker	Zoom
Focus Knob	Focus
Roller Wheel	Iris

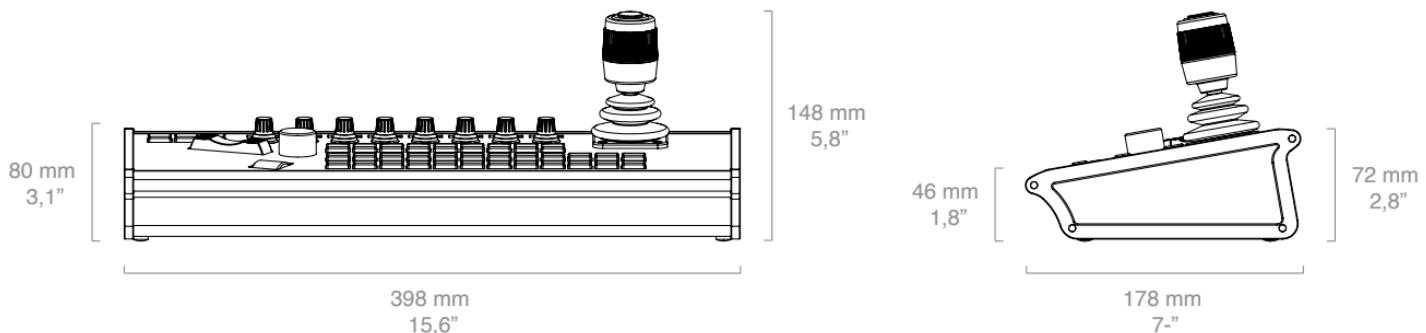
K1-8

	Home	Exposure	Exposure/ Shifted	Color	Color/ Shifted	Details	Matrix	Focus	Focus/ Shifted	Preset	System
K1	WB Mode	Auto Iris	Flicker Reduction	WB Mode	Matrix	Sharpness Level	Matrix Phase	Focus Mode	F. Track Mode	Speed Mode	Joystick Sensitivity
K2	Red Gain	Iris (Abstract)	Exposure Response	Red Gain	Color Space	Sharpness Limit	Matrix Gain	Face Detect	F. Track	Preset Speed	P. Speed Mode
K3	Blue Gain	Gain Mode	AE Shift	Blue Gain	Image Q. Mode	BG Level	Matrix R-G	F. Limit	Face Detect	Store Mode	T. Speed Mode
K4	Shooting Mode	Gain	-	WB Kelvin	Gamma	BG Point	Matrix R-B	AF Mode	AFT X Cord	Store PTZ	Z. Mode
K5	Gain	Shutter Mode	Image Stabilization	Exec WB A	-	BG Range	Matrix G-R	AF Response	AFT Y Cord	Store Focus	Z. Mag
K6	Iris (F-Stop)	Shutter Speed	NR Mode	Exec WB B	NR Mode	NR Mode	Matrix G-B	AF Speed	AF Frame Size	Store Exposure	-
K7	MF Speed	ND Filter	NR	Pedestal	NR	NR	Matrix B-R	MF Soeed	AFX Cord	Store WB	Tally Color
K8	Focus	Shooting Mode	Shooting Mode	BG Level	Image Stabilization	Image Stabilization	Matrix B-G	Focus	AF Y Cord	Store IS	Tally

Dimensions

PTZ Pro v2





Troubleshooting

Home Screen disappeared from web interface	-Check that Reactor is running in the Packages section. If it is not, restart it.
Can't find IP address	-Connect the controller to the computer via USB and use the Skaarhoj Firmware Updater to identify the IP address or set a static IP address. https://www.skaarhoj.com/support/firmware-updater
Controller not connected	-Check the IP address is correct -For Blue Pill Inside units the IP should be: host and the type should be: server
Cameras not connected	-Check their IP addresses are correct -Check the username and password are correct
Other Questions	Check out the full Blue Pill/Reactor manual available at www.skaarhoj.com/support

Contact Support

You are always welcome to contact us for support questions - write an email to support@skaarhoj.com and we will do our best to accommodate your request.

In order for us to provide the best support please state:

- Which SKAARHOJ unit it is about
- The serial number of your device (small silver label with 6 digits)
- The nature of the problem
- Which hardware device(s) you are controlling and their firmware version
- If you have successfully installed the Firmware Updater Application and made contact with your device though the Serial Monitor (you need the USB programming cable)
- Your operating system



Additional Resources

For additional information, tips, and tricks please visit our YouTube page at:

www.youtube.com/SKAARHOJ

Or check out additional manuals at:

www.skaarhoj.com/support