

# SKAARHOJ PTZ Pro v3

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.

## What's In the Box

- 1 x SKAARHOJ PTZ Pro v3 Controller
- 1 x Power Adaptor including power plug
- 1 x 2m CAT.5E Ethernet cable

## Overview

This user guide is suitable for the following models

- PTZ Pro v3 with Canon CR-N300/N500 default configuration

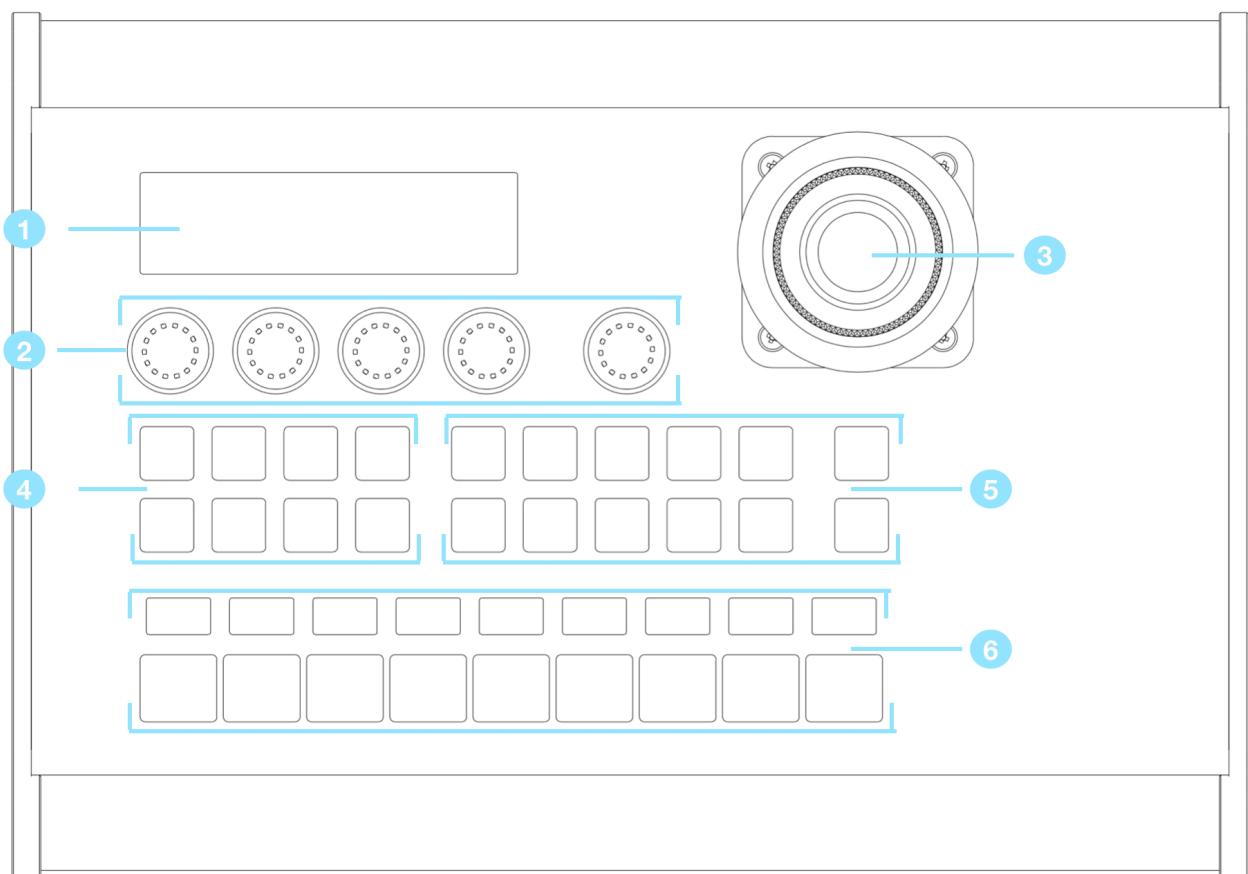
## Features

- 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

- 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
- Power: 5W-30W PoE (+)
- PoE Standard: IEEE 802.3af/t
- Option for changing configuration layout

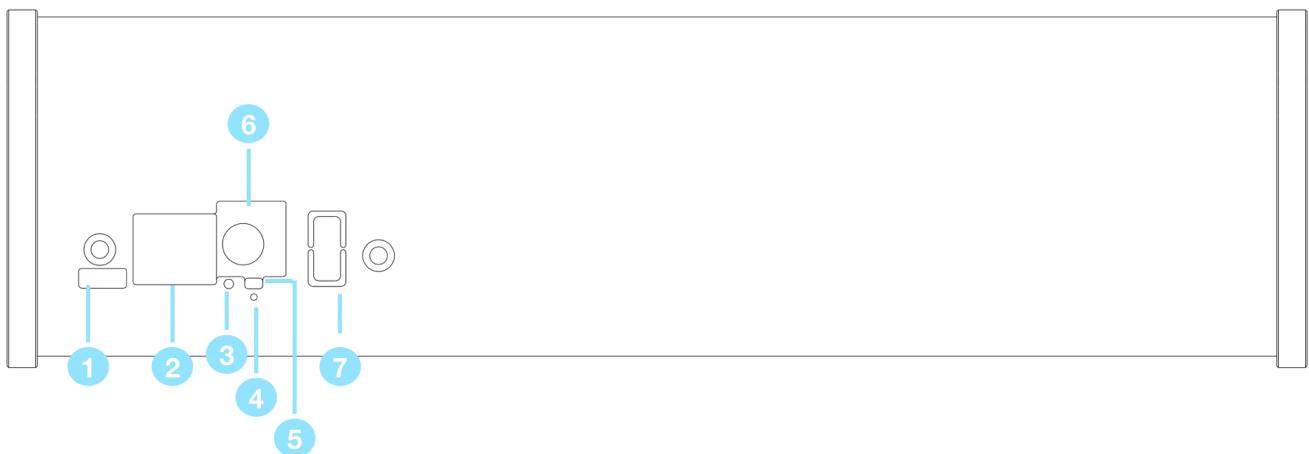
# Controller Diagram

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

## Backside



### 1. **Micro USB Port**

For serial communication with SKAARHOJ Firmware Updater

### 2. **IP Network RJ45 Port**

For IP Control and 5W-30W PoE (+) /PoE Standard: IEEE 802.3af/t

### 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

### 7. **USB-A Port**

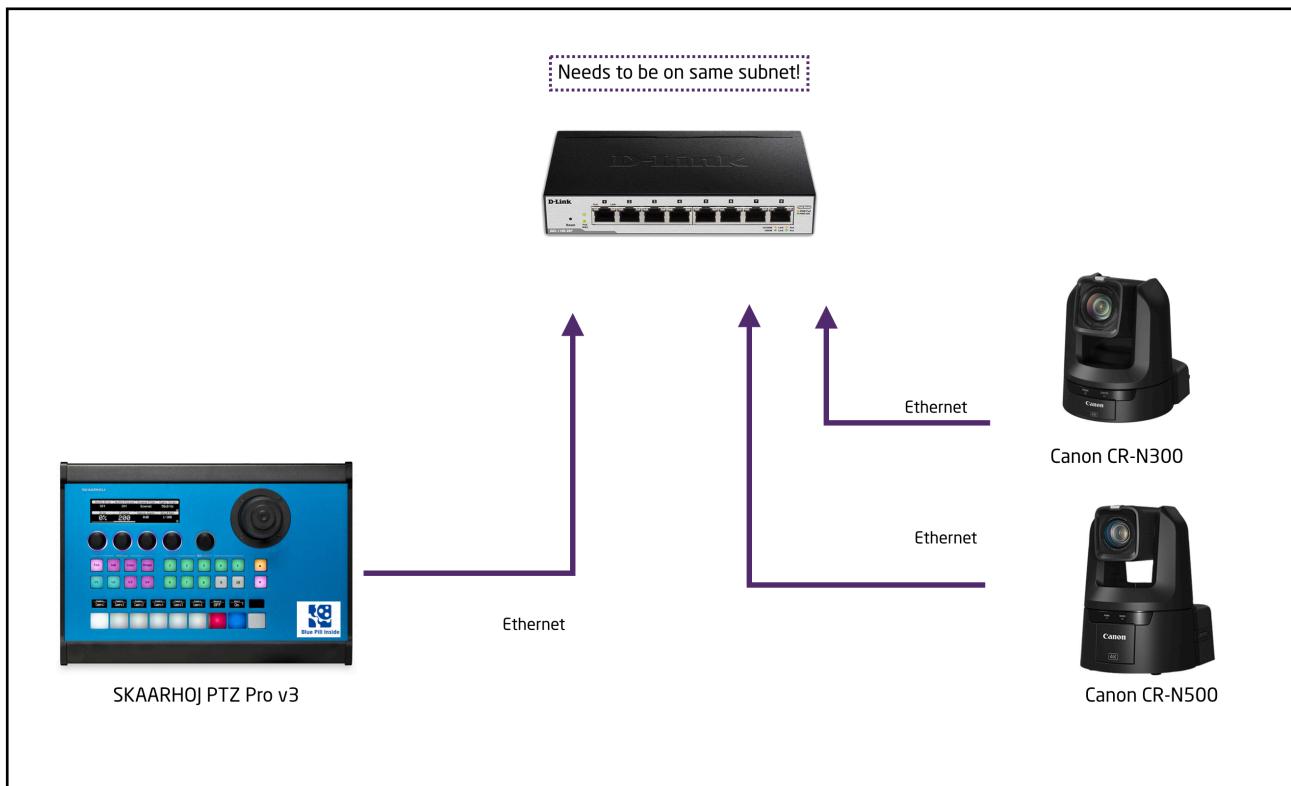
Controller reset - same as taking the power of the controller

# System Configuration

## Connection

The SKAARHOJ PTZ Pro v3 communicates to camera(s) via a networked IP connection. This is the supported case. No video signal processing is done on the SKAARHOJ PTZ Pro v3.

The layout of the configuration for the PTZ Pro v3 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
- If using PoE to power the controller, make sure the network switch supports 5W-30W PoE (+)/PoE Standard: IEEE 802.3af/t
- Ensure the PoE provider has sufficient power budget to power the controller. Otherwise it will not function properly
- Power Consumption: 6 Watts

# Controller Settings

## IP Settings

1. Connect controller to same network as cameras
2. Power the controller if networked switch does not provide PoE
3. Go to the IP address in bottom left display of the controller
4. Add cameras in the Devices section
5. Select PTZ Pro Generic configuration next to the panel
6. 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

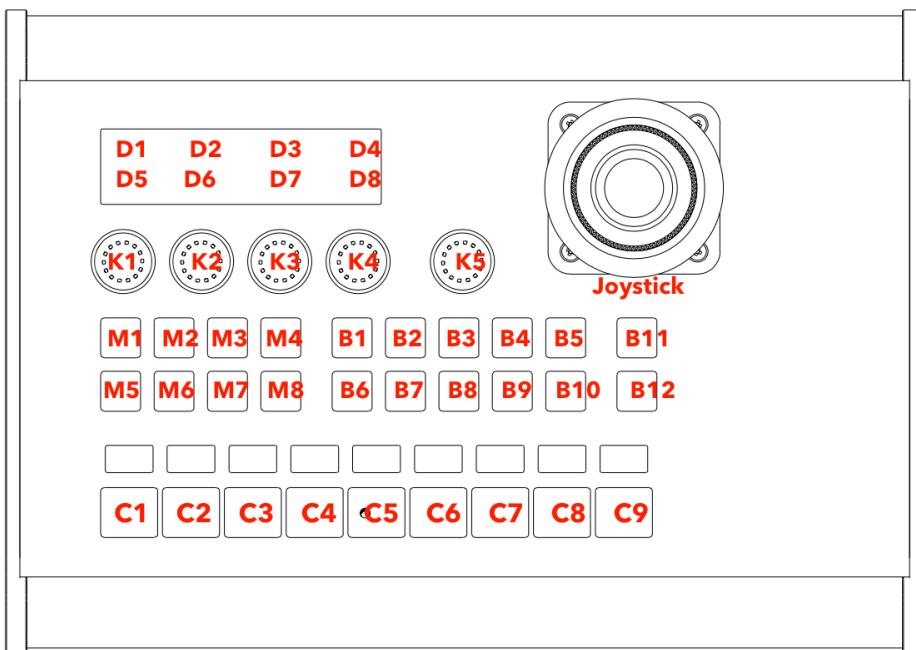
Remember a SKAARHOJ controller and client must be on the same subnet (192.168.10.\* or one defined for the local network used by the controller). With multiple SKAARHOJ units connected to the same network they need to have different IP addresses!

## 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

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

D1-D8

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

C1-C9

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

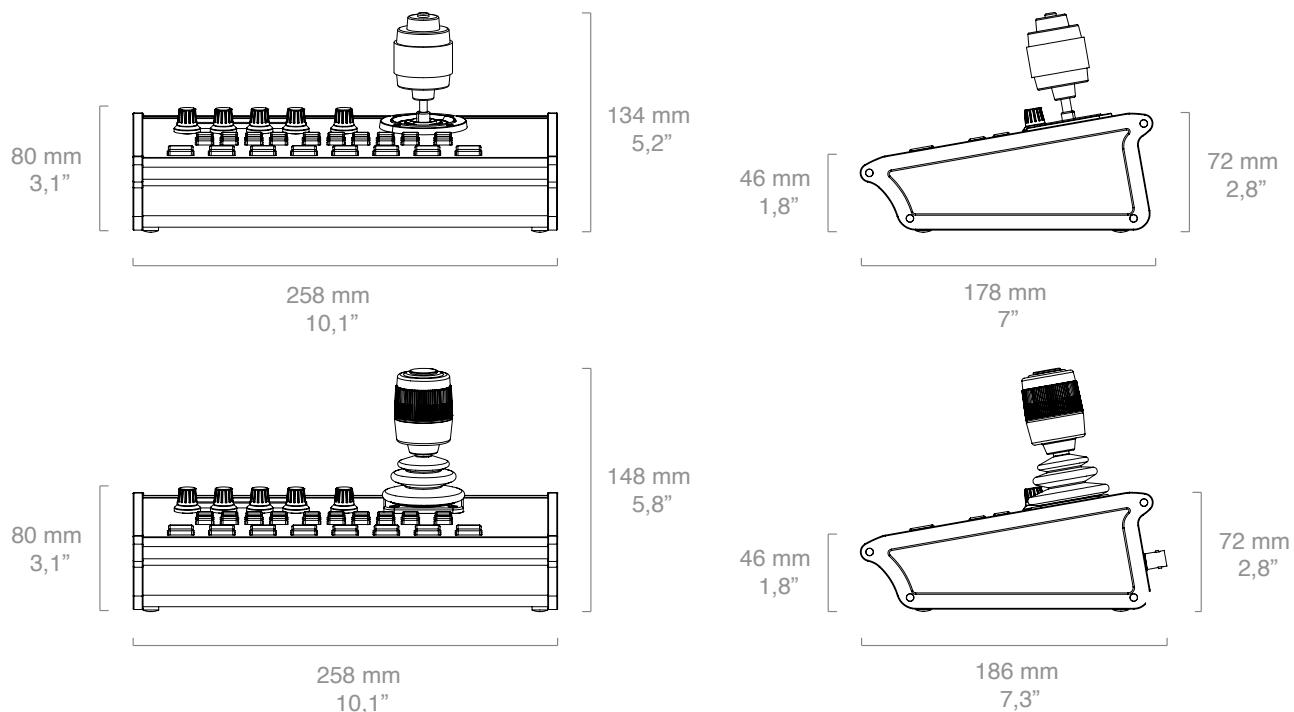
M1-M8

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

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

# Dimensions



## 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. <a href="https://www.skaarhoj.com/support/firmware-updater">https://www.skaarhoj.com/support/firmware-updater</a>
Controller not connected	-Check the IP address is correct -For Blue Pill Inside units the IP should be: <b>host</b> and the type should be: <b>server</b>
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 <a href="http://www.skaarhoj.com/support">www.skaarhoj.com/support</a>

# Contact Support

You are always welcome to contact us for support questions - write an email to [support@skaarhoj.com](mailto: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 made contact with the web interface
- Your operating system



## Additional Resources

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

[www.youtube.com/SKAARHOJ](https://www.youtube.com/SKAARHOJ)

Or check out additional manuals at:

[www.skaarhoj.com/support](http://www.skaarhoj.com/support)