

VERSION 1.1

NOVEMBER 10, 2021



EZY FOCUS HAND CONTROLLER

PRODUCT MANUAL

BY PEGASUS ASTRO

INTRO

Thank you for purchasing Pegasus Astro – EZY Focus Hand Controller. The EZY Focus Hand Controller is a perfect match for your Ultimate Powerbox v2 or Prodigy Microfocuser. This little device allows precision control of your motorized focuser. It also ensures a vibration free focus routine!



DEVICE CARE

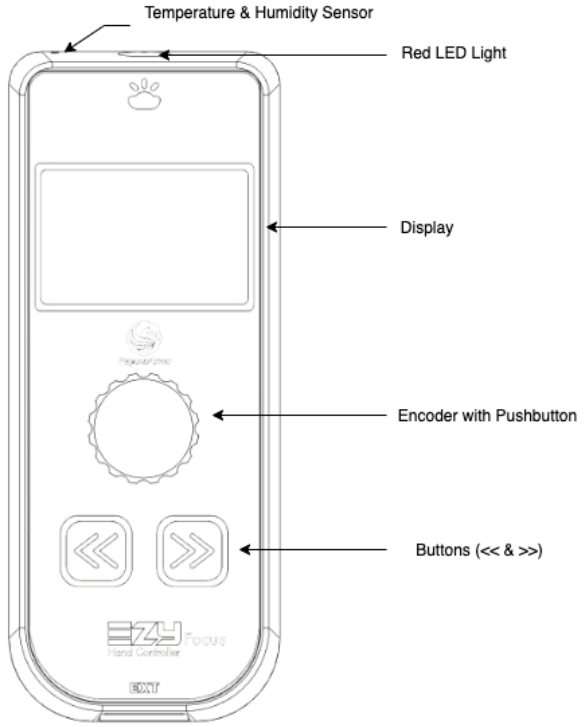
- Hand Controller's electronics are protected from moisture but it is not waterproof and it should be kept clean and dry.
- Excessive moisture for long periods of time can damage electronics and connectors
- Do not allow solvents or chemicals to come into contact with the device
- Store device indoor in a dry room when not in use for long time
- Do not open the device enclosure

<p style="text-align: center;">What is inside the box</p>	<p style="text-align: center;">1 x EZY Focus Hand Controller</p> 	<p style="text-align: center;">1 x RJ11 to RJ11 Cable (2m length)</p> 
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OPERATING INSTRUCTIONS

- ⇒ Use the RJ11 and connect one side to the EXT port of the UPBv2 or Prodigy Microfocuser. Connect the other side to the EZY Focus Hand Controller.
- ⇒ Power device **after you connect the EZY Focus hand controller**
- ⇒ EZY Focus will initialize, communicate with main device and display the motor position.

OVERVIEW



POWER

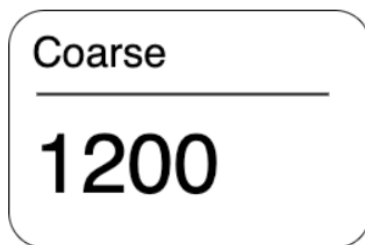
EZY Focus requires only the RJ12 cable for power and data exchange from main focus device.

DISPLAY

An 128x64 pixels red transparent film OLED display ensures that your night vision will not get affected. Brightness of the display can be tuned in settings menu.

FOCUS CONTROL


Motor position can be seen on the main display along with rate selection.





EZY Focus support two focus rates which each step count can be configured in settings menu.


⇒ **Coarse**

⇒ **Fine**

By pressing the  one time, you can select between **Coarse** and **Fine** Focus rates.

EZY Focus allows you to move motor focus position / focus steps in two different ways.

1. Use   push-buttons to precisely move the focuser IN or OUT with a predefined step count. Every time you press the button, the motor moves to the predefined steps.

2. Turn  digital knob clockwise for OUT or anticlockwise for IN focus. This knob simulates the knob of your focuser. Every click of the knob moves the motor to the desired steps.

When motor moves you can inspect in real-time, the position of the motor. Moreover, **IN** or **OUT** label appears on the top right of the display pointing in which direction the focuser moves.

RED LIGHT

A red colored LED light is located in front of the hand controller. You can adjust the brightness of this LED light in settings menu. There are 10 brightness levels you can select of.

The main purpose of this light is support reading of astronomical maps. Therefore, its max intensity has been selected to keep your night vision unaffected.

Please note that brightness level is automatically stored in memory. Each time the hand controller initializes, it will retrieve the brightness setting and adjust the LED light.



ENVIRONMENTAL SENSOR

Hand controller includes a high-accuracy digital temperature and relative humidity sensor. A small hole in front of the device allows ambient air reach the sensor.

Sensor has the following features:


- Relative Humidity Accuracy $\pm 3\%$ (typical)
- Temperature Accuracy $\pm 0.2^{\circ}\text{C}$ (typical)
- Excellent Stability at High Humidity

Ultimate Powerbox v2 automatically detects and uses this sensor (instead of stock sensor) to retrieve environmental values. (ambient temperature and relative humidity).

This means that when you have the Hand controller plugged into the Ultimate Powerbox v2 you do not need the stock env sensor of the UPBv2 anymore.







PRESETS

EZY Focus allows three (3) presets (focus positions) to be stored in memory. You can easily retrieve this motor position and command the motor to move to this preset.


To enter focus preset menu double click the  knob.

#1	5435
#2	0
#3	4364
<hr/>	
Save	Goto

Preset menu shows the 3 (#) presets and the stored motor position in each preset.



- Push knob  to select each preset.
- Turn  knob **anti-clockwise** to reset preset.
- Turn  knob **clockwise** to enter the current position into selected preset.
- Press  to **Save** presets.
- Press  to **GoTo** to selected preset / motor position.
- To return to main display without saving, double click .


SETTINGS


Press and hold  knob for two (2) seconds to enter the **settings** menu.


Below settings menu is available:

1.Coarse	100
2.Fine	20
3.Light	3
4.Units	°C
5.Display	8
6.Beep	ON
>Exit	

- You can easily move UP or DOWN / select menu items by pressing the   buttons.

Another way to move DOWN to menu items is by pressing the  knob.

- To select a value for each menu item, select the menu item and rotate the  knob clockwise (**increase**) or counterclockwise (**decrease**) and modify the value.

To exit **settings** menu, return to main display select “>Exit” and **rotate** the  knob.

Please note that when you exit settings, all values are stored in Hand Controller’s internal memory. These values are also retrieved on controller’s initialization / boot.

Menu (Settings) Selection

1. Coarse

Define step count for the Coarse focus rate

2. Fine

Define step count for the Fine focus rate

3. Light

Tune the brightness (0-10) of Red LED light in front of the hand controller.

4. Units

Define Celsius or Fahrenheit degree for ambient temperature

5. Display

Tune display brightness (0-10)


6. Beep


Select if beeper should be ON or OFF

7. >Exit

Exit settings menu and return to main display. All values are stored in memory during exit.

SET OUTER LIMIT

Press and hold  button for 2 seconds to enable outer position limit. EZY Focus hand controller sets current motor position as outer limit position. The hand controller will not allow you to move beyond this position.

When enabled, press and hold  button for 2 seconds to disable outer position limit.

FREQUENTLY ASKED QUESTIONS

Question	Answer
Why EZY Hand Controller displays “---” after initialization.	Communication with main focus device has failed. Please ensure that main device is rebooted with EZY hand controller plugged in.
What is the max cable length I can use to connect EZY Focus with main focus device?	We recommend up to 3 meters / 9ft
How can I disable beep sound?	You can disable the beeper from settings menu

Device is covered by two (2) years warranty

Designed and assembled in Greece