Camtraptions Lens Heater

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Overview

The Camtraptions Lens Heater system helps prevent your valuable camera trap images from getting spoilt by condensation, dew formation and fogging.

The Lens Heater system consists of a programmable heating controller unit and a lens heater strip.

The heating controller has built-in timer functionality that operates on a 24-hour loop, so the device can be left running unattended for many days or weeks at a time. The controller can be set to provide heating during a time window when condensation is more likely to form (e.g. during the night), and turn off the heating automatically when dew formation is less likely to conserve power.

The controller offers three different heating power levels which allows further refinement of the power consumption.
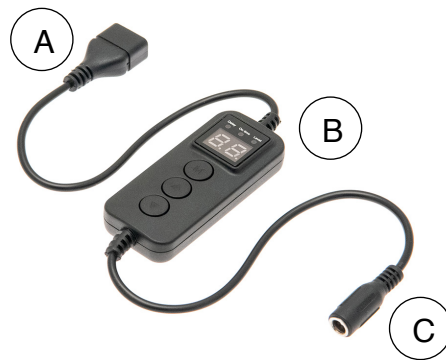
Accessories

When this system is being used with the Camtraptions Camera Housing, it is recommended that you use the Heated Camera Housing Window (purchased separately), for the ultimate power-efficient and focused heating solution.

Safety Warnings

- Only use power sources within range of 6V to 18V and rated to provide at least 1.5 Amps.
- The Lens Heater is not a toy. Please keep out of reach of children and pets.
- Disconnect any batteries if not being used.
- The Lens Heater is not waterproof. Please keep it dry and do not expose to water or other liquids.
- Do not disassemble or attempt to modify the Lens Heater.

Components

1. Lens Heater Controller

2. Lens Heater Strip

A. USB Type A Socket, 5V Power Output
B. Heater Controller Interface
C. DC 5.5mm x 2.5mm female socket, 6V – 18V Power Input

Usage Instructions

First, connect the USB connector of the Lens Heater Strip into the USB Power Output socket of the Lens Heater Controller.

Next, connect a suitable power source to the Power Input socket of the Heater Controller. The power source must have a voltage between 6V to 18V and be rated to provide at least 1.5 Amps of continuous current.

As soon as power is connected, the Heater Controller's LCD display will light up red and the controller will enter into the programming stage.

There are three settings that can be altered: "Delay", "On time" and "Level".

Press the "M" button to cycle through these three settings. A red light will glow next to the currently selected setting.

Press the ▲ button to increase the current setting. Press the ▼ button to decrease the current setting.

Setting Descriptions:

> **Delay:** This setting can be changed from 0 up to 24. It refers to the number of hours that the controller should remain inactive (not heating), until it begins heating for the first time.

> **On time:** This setting can be changed from 0 up to 24. It refers to the number of hours that the controller will remain active (heating), starting from the end of the "Delay" period. Note that the total "Delay" plus "On time" cannot exceed 24 hours.

> **Level:** This setting changes the heating power level, and it can be set to L1, L2 or L3. L1 is the lowest power setting and provides the smallest temperature increase, but it is the most power-efficient. L3 is the highest power setting and provides the largest temperature increase, but it is the least power-efficient.

Once the desired "Delay", "On time" and "Level" have been set, you should not press any buttons on the Heater Controller. The heating program will commence running 1 minute after the last button-press occurred, and the LCD display will shut off to conserve energy.

Note: If the heating program has already commenced and changes subsequently need to be made to the "Level", "Delay" or "On time", then the power source should be disconnected and reconnected to ensure that the new settings are registered correctly.

Examples

Example 1 – permanent gentle heating:

The time is currently 08:33. I want the Lens Heater system to start warming my equipment immediately and to remain heating permanently (but only on a low power) until the battery is exhausted or until I disconnect the power later on.

Required settings:
- Delay: 0
- On time: 24
- Level: L1

After I finish entering the above settings, I press no more buttons on the Heater Controller and the time is now 08:34. At 08:35 the Heater Controller's LCD display will turn off and the system will start to provide gentle heating. The heating will be provided continuously until the power is disconnected or the battery is exhausted.

Example 2 – high power heating during the night:

The time is currently 14:10. I want the Lens Heater system to start warming my equipment 10 hours from now at approximately midnight and to remain heating on high power until the morning. Heating will remain off tomorrow during the day and it will switch back on again tomorrow at midnight, heating through the night again until the morning, and so on.

Required settings:
- Delay: 10
- On time: 7
- Level: L3

After I finish entering the above settings, I press no more buttons on the Heater Controller and the time is now 14:11. At 14:12 the Heater Controller's LCD display will turn off, and the heating system will remain inactive for 10 hours. At 00:12 the heating will begin on high power (L3) and remain on for 7 hours until 07:12. Heating will remain off for 17 hours until 00:12, at which point the heating will begin again on high power (L3). This 24-hour loop will continue until the power is disconnected or the battery is exhausted.

Legal Notices

In no event shall Camtraptions Ltd be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of our products.

This product should not be treated as household waste, but rather be brought to the appropriate collection point for recycling of electrical and electronic equipment. Please see www.camtraptions.com for details.

Support

For technical support, please email support@camtraptions.com.