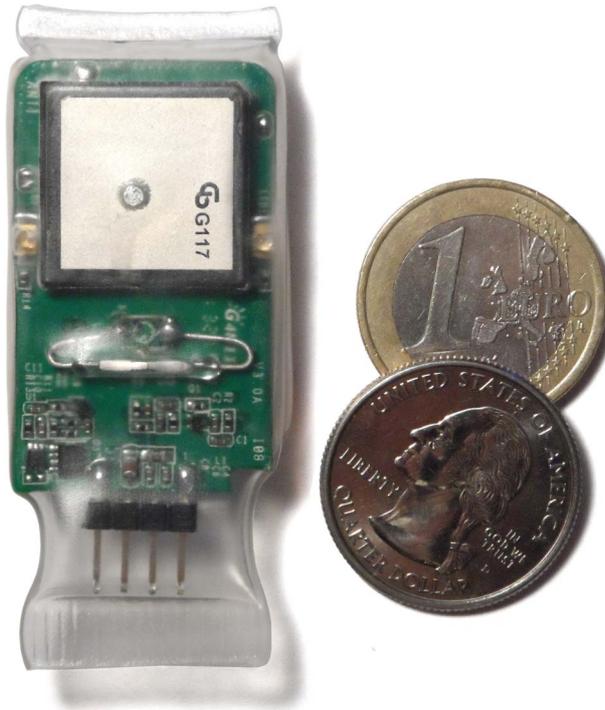


CatLog-S - User Manual

With ThermoSeal™



Perthold Engineering
www.perthold.de

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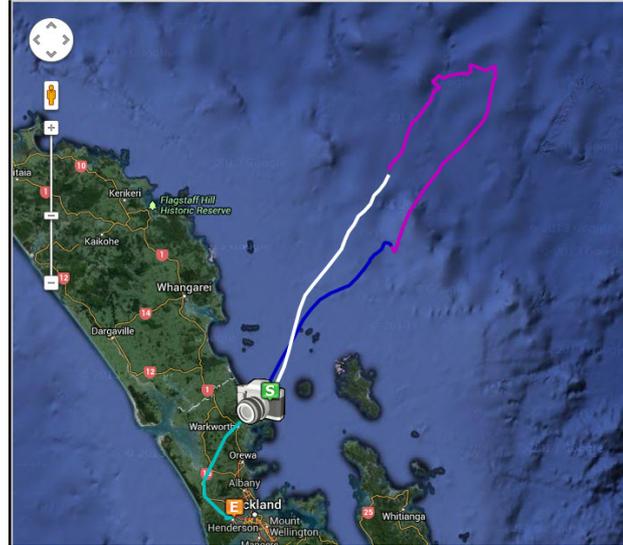


1. Overview

Originally designed for use with seabirds the CatLog-S GPS Logger tag is a small but powerful device.

Its low power consumption combined with small dimensions, low weight and high accuracy makes it an ideal device for domestic and wildlife animal observation.

The device will record the position in an adjustable time interval. The movement profile can later be displayed on a map or exported to use with other software.

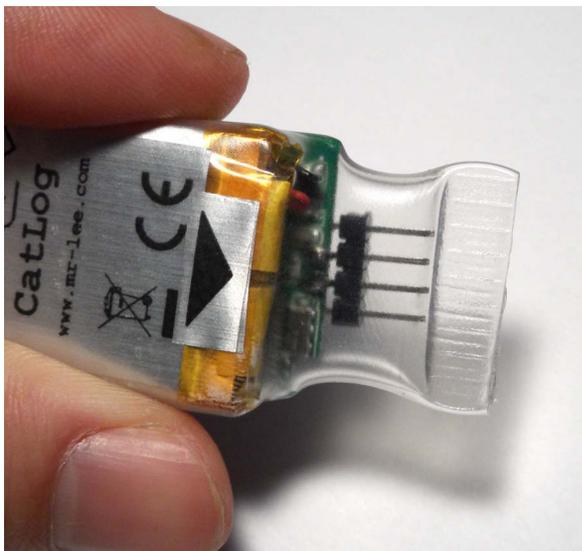


The device operates similar to the CatTrack1/CatLog. For general information such as downloading positions refer to the manual of CatTrack1/CatLog.

Optimized for scientific use, CatLog-S offers the following features:

- Magnetic switch to activate and deactivate it
- ThermoSeal™ protection (see features below) withstands seawater and tough conditions
- Optimized weight and operation time by scalable battery sizes

One key feature of the CatLog-S is the ThermoSeal enclosure that offers the best environmental protection for the least weight. It is a special heat shrink tubing with outstanding characteristics.



ThermoSeal™ Features:

- Provides reliable water tightness and is absolutely corrosion and pressure resistant.
- Reusable seal, just heat it up to open it and seal it again with heat !
- Sufficient wall thickness to mechanically protect the device
- Sticks to tape for universal deployment
- Allows to create special attachment fixtures
- Cheap, clean, economic, simple !

2. Specifications

Specifications like size, weight, runtime can be found in the datasheet „[CatLog-S Datasheet EN](#)“

3. Support and Help

You can get in contact with the technical support by sending a mail to support@mr-lee-catcam.de

Website: www.mr-lee.com

Perthold Engineering LLC
224 Syracuse Pl,
Richardson, TX 75081
USA

4. Software Setup



Note: run the setup program **before** you plug in the device to your computer.

The latest version of the driver is always available from the Mr. Lee website (www.mr-lee.com → CatLog → Support → Drivers).
Software is only available for Windows operation systems.

5. Connecting / Interface

The interface is a miniature connector. When you plug in the cable, make sure you connect it with the **right polarity**. The arrow on the cable connector must match with the arrow on the backside of the device. See image below.



Important: An unwanted destruction of the device can occur when the connector is attempted to get plugged in reverse.

The correct sequence to connect the CatLog to a computer is that first the CatLog is connected to the cable and after this the cable is plugged into the computer. This way a potential reverse polarity condition is as well as a lock-up of the USB driver or the CatLog is prevented due to possible signal bounces while applying the interface cable. To disconnect, first pull the cable from the computer then from the CatLog.



Note: A lot of problems are avoided if you follow the strict rule “CatLog first – Computer last” for the connection sequence !

Once the device is connected to the computer charging begins and the communication is established.

If the battery is completely discharged, the device may not be accessible through USB for some minutes. It will also behave strangely if disconnected from the computer. In such cases allow the battery to charge for some minutes before trying accessing data or disconnecting it from the computer.



Note: Do not store the device with a discharged battery. The battery will get permanently damaged.

6. Setup and Download Data

See user manual for CatTrack1 / CatLog. "[CatTrack1 User Manual](#)"

7. Switch Device On/Off

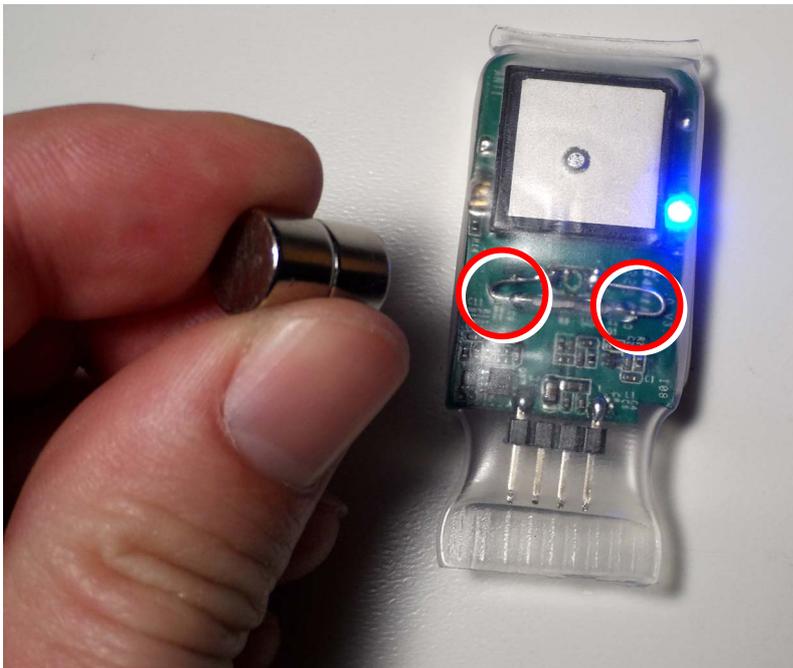
To activate or deactivate the device you will need to disconnect it first from the computer.

CatLog-S is equipped with a magnetic switch. Take a permanent magnet and place it in the proximity of the switch. The switching zone is left or right of the center. To get familiar with the switching zones and correct distance simply swipe the magnet across the switch. **Please do not touch the switch directly with a magnet !**

If the device is OFF and you swipe the magnet the red light will come on if the time for activation was too short. To activate, hold the magnet in place until the blue light comes ON.

If the device is ON (blue light blinks intermittently) and you swipe the magnet the blue light will come on if the time for deactivation was too short. To deactivate, hold the magnet in place until the red light comes ON.

If the magnet seems not to work change the polarity of it.



Note: If you enable the scheduler the device is not controlled with the switch any more. The operation will follow your settings.

8. ThermoSeal™

Below follows the description of the sealing process. We have also a video available to show the workflow and details.

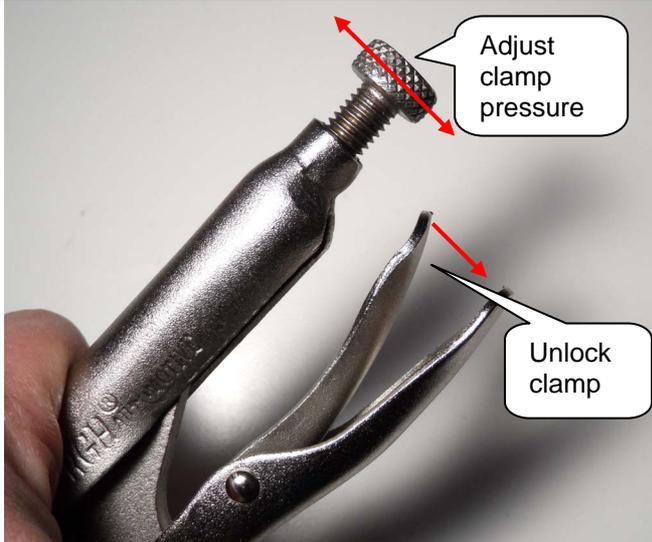


The ThermoSeal material is handled like regular shrink tubing. You will need the following tools: Heat gun, seal clamp and scissors.

All CatLog-S devices are pre-sealed and just need to be sealed on the interface prior to use.

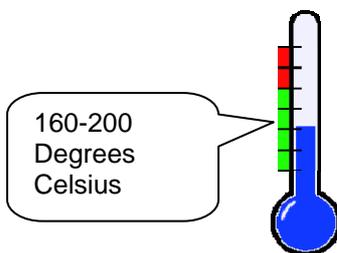
We sell the sealing tool as well as the ThermoSeal material.

Please note that regular shrink tubing will not have the ability to open and close the seal again without compromising the seal tightness.

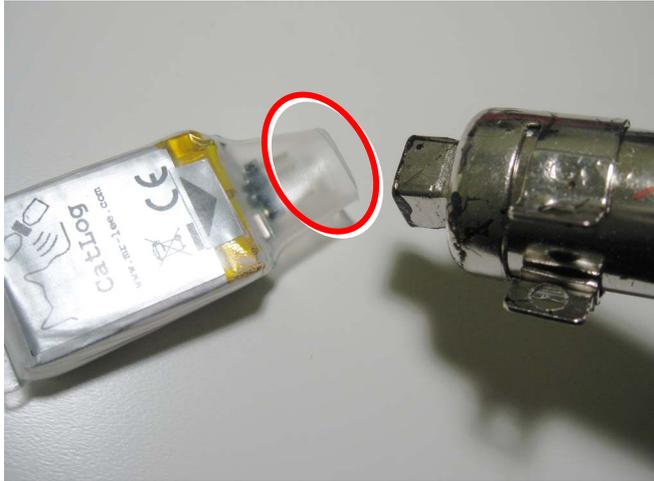


Before you start adjust the sealing clamp. With the adjustment wheel you set the clamp force. Make the adjustments while the clamp is open, when close the clamp to see the resulting gap size/pressure. The clamp will lock itself in closed position making it very convenient for the later sealing operation. To unlock press the handle lever as indicated in the picture below.

The right adjustment for ThermoSeal is that in closed empty position the jaws still touch each other but the closing pressure is very low.



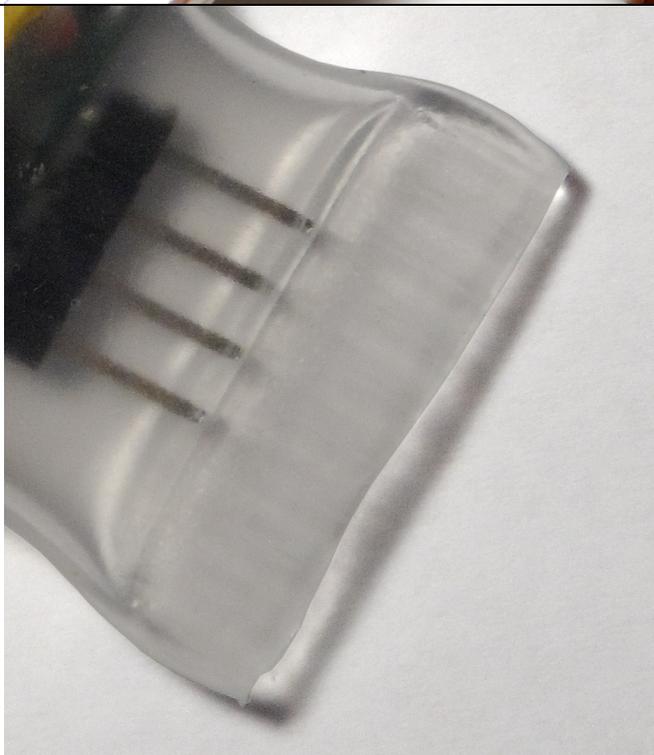
Next step is to adjust the heatgun. The optimal temperature range is 160-200 degrees Celsius (320 – 390 Fahrenheit). If you have an unregulated heatgun you will need to vary the distance between air outlet and device to not overheat the material. You may also want to shield the battery. The battery may get damaged by too high temperatures.



Now heat the material at the sealing location (see red circle in image) from **all sides** until it gets soft and sticky. If you are opening a seal apply heat until the material gets back to the tubular shape. Do not overheat or apply heat for a long period of time. Usually it takes 30s to 1 minute to properly heat the material.



Now quickly take the device, place the seal area between the jaws (center area) and close the clamp. It is important to note to **not clamp the interface pins**.



After about 30-60s you can unlock the clamp and remove the device. In batch operation you will heat the next device while the seal of the previous device cools down. Please remember to let the clamp cool down itself from time to time.

If the seal is closed for the first time you may need the scissors to cut off excess material. The ideal seal width is 5-8mm.