

# ANABAT™ ROOST LOGGER - QUICK START GUIDE

**IMPORTANT:** The Quick Start Guide is only a summary of some important procedures. Until you are familiar with those procedures, it is essential to refer to the User Manual which provides the details you will need to use the Quick Start Guide effectively.



## USES

The primary purpose of the AnaBat™ Roost Logger is to monitor bat activity over time. It is not well-suited to species identification because of the narrow bandwidth of the transducer. However, many bats will be identifiable from the echolocation calls recorded by this system.

- Monitoring bat activity over time
- Detection of hibernaculum affected by White-Nose Syndrome
- Determination of activity levels for mine-closure assessments
- Determination of temporal patterns of activity at a bat roost

## FEATURES

- Washable
- Sensitivity optimised for roost monitoring
- Narrow bandwidth
- Extended recording time with internal batteries (up to 6 months at night only, with 50% duty cycle or 6 weeks continuously)
- Calibrated – all Roost Loggers leave factory set to same sensitivity

## OPERATION

### Power Supply

- 4 D cells
- Alkaline for low cost
- Lithium if available for extended use at low temperatures (below freezing point)
- Key points:
  - Check Use-by dates
  - Check voltage of each cell and note uniformity
    - Cells should be at least 1.5 Volts each
    - Do not use cells markedly lower voltage than the rest eg. if three are 1.6V and one is 1.5V, avoid using the latter

### Setting Up PC for Use

- Install Roost Logger USB driver (required for CFCread to set clock etc)
- Install Firmware Update USB driver (necessary for firmware upgrades)

### Setting the Roost Logger Clock

- Connect to PC with USB
- Open CFCread
- Set port (check in Device Manager if unknown)
- Click on Open > Set

This will set the Roost Logger to whatever time is shown on the PC. The PC time must be set correctly to ensure the Roost logger is set correctly.

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### **OPERATION (CONT'D)**

#### **Starting up Sampling Regime on SD card**

- Use CFCread version 4.4j or later
- Click on Sampling - opens Wizard
  - Choose total run time, click "Next"
  - Choose time of day to sample, click "Next"
  - If required, provide Latitude, Longitude and Time Zone, click "Next"
    - Latitude in degrees and decimals (positive latitude reading is northern hemisphere)
    - Longitude in degrees and decimals (positive longitude reading is east of England)
    - Time Zone in hours ahead of GMT (may use decimals)
  - Choose battery capacity, click "Finish"
  - Select a folder for storing a log file (you can store it anywhere)
  - OK
- Be conservative in setting battery capacity
  - If battery does not achieve rated capacity, monitoring will stop earlier than expected

#### **Starting Roost Logger**

- Insert batteries
  - Make sure batteries make contact at each end
  - Heartbeat LED (red) will flash twice per second
- Insert SD card
  - SD LED flashes rapidly three times then off
  - Heartbeat LED also off
- Close lid
- Check operation with magnet

#### **Deployment**

- Point front surface of microphone towards bats
- Avoid obstructions in front of microphone
- Ensure Roost logger is securely positioned in a safe place away from any potential damage by falling objects
- Avoid directing towards obvious noise sources such as cascading or dripping water
- Avoid likely habitat of ultrasonic insects
- Where possible, protect from direct impacts of weather
- Use horizontal microphone alignment when feasible
- Elevate detector above ground if feasible

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#### OPERATION (CONT'D)

##### Checking Operation

- Use magnet to switch on Heartbeat LED
  - Place magnet as shown on the right
  - Moving magnet around slightly may help
  - Even one flash of LED indicates the unit is powered ON
- Practice using magnet before field deployment
  - Practice the steps until you feel confident you can get an indication
  - Avoid false negatives suggesting dead batteries
- Understanding Heartbeat LED
  - OFF in normal operation to save power and avoid flashing which could draw unwanted attention to the Roost Logger
  - Turned ON using magnet to show indication without any disturbance to the Roost Logger
    - **Standby mode:** two flashes a second apart then OFF
    - **Record mode:** a flash then faint flickering. No data being recorded
    - **Recording data:** flashing brightly or continuously bright
    - **No indication:** Roost Logger is not running, may require batteries replacement



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### OPERATION (CONT'D)

#### Downloading

- Open lid
- De-press SD card remove button
- Wait till SD card remove LED is lit (this may take several seconds)
- Remove SD card
- If desired, turn the unit off by removing battery or placing a strip of paper in battery holder to prevent one battery making contact
- If desired, replace batteries and/or SD card
- Use CFCread version 4.4j or later

#### Data Analysis

- Use AnalookW version 3.8y or later

#### Upgrading Firmware

- Copy Roost Logger Firmware Upgrade Pack to PC hard drive and extract
- Open Device Manager
- Power up Roost Logger with no SD card installed
  - **Heartbeat LED** flashes twice per second
- Plug in USB cable from PC to Roost Logger
  - **Heartbeat LED** off
  - **SD LED** will be flashing fast
- Place Roost Logger in Update Mode
  - Hold down **SD Remove** Button, **SD LED** will turn on continuously
  - Briefly press the **Reset Button**, **SD LED** will turn off
  - Release the **SD Remove Button**
- The Roost Logger will now be in **Update Mode** and connected to the PC via the **Firmware Update USB driver**. If this has not already been installed, it must be installed before firmware can be upgraded.

#### Care and Maintenance

- Avoid damage to microphone front face
- Make sure the inside of the unit is dry before deployment
- Make sure the outside of the unit is dry before opening the case
- Only ever immerse in hot water (eg. 50 Degree C = 122F) to ensure pressure will keep water out. Avoid immersing in water unnecessarily.