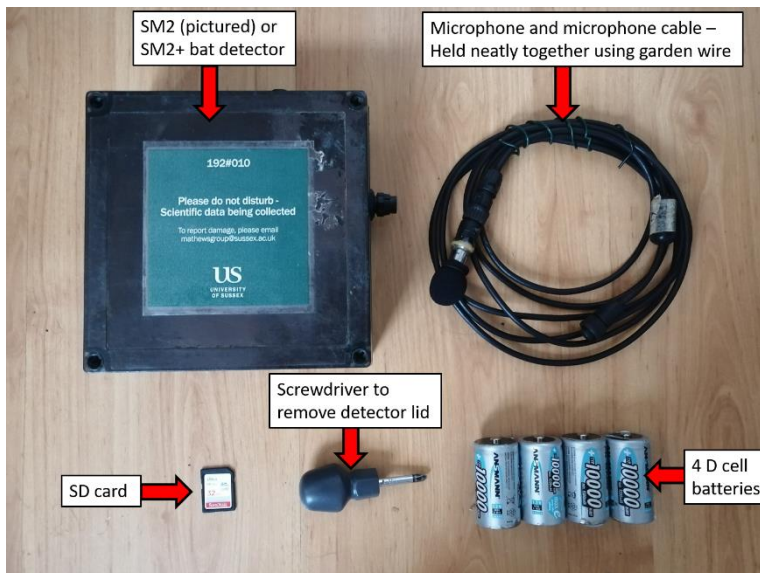


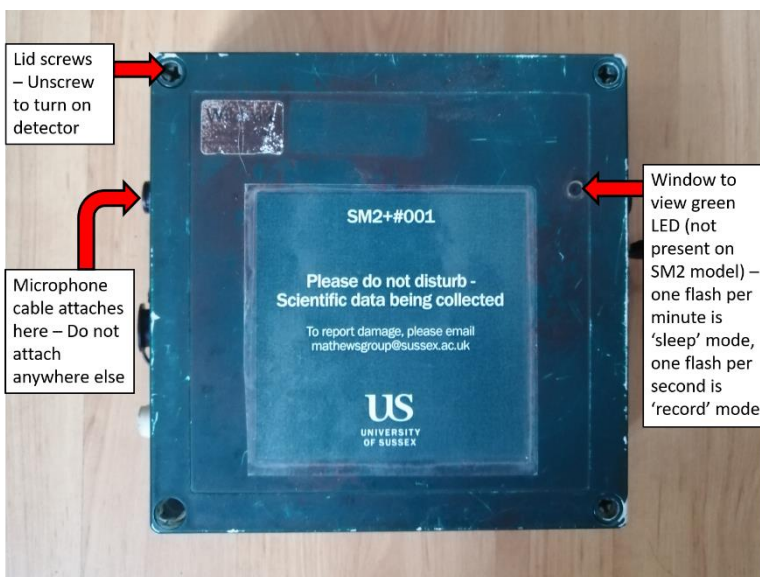
Barbastelle Volunteer Bat Survey:

Quick survey guide

The detector equipment



Outside the detector

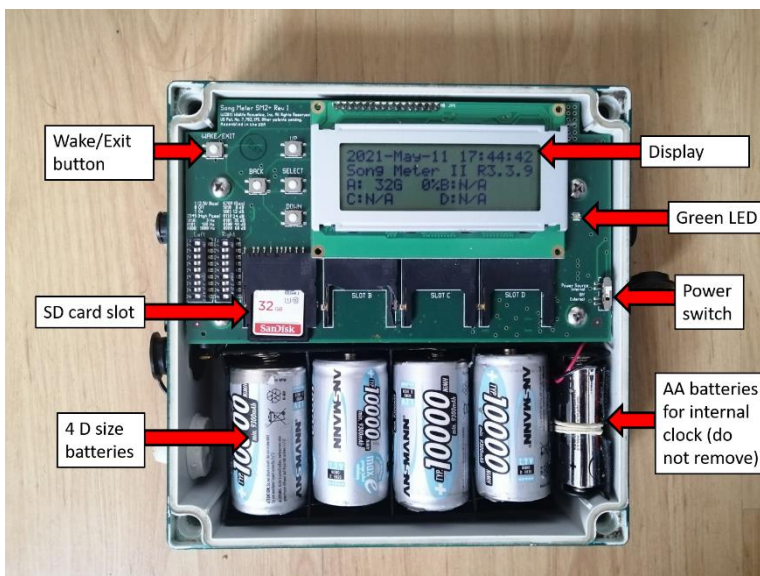
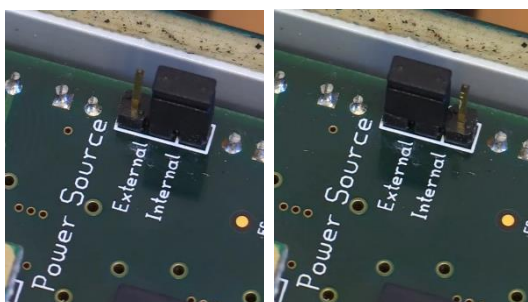


Inside the detector

Switching the SM2 model on/off:

ON

OFF



Getting started

Please check the following after collecting your detectors.

Batteries

- Remove detector lid using the screwdriver. **Please never try to use your car key or other implement to undo the screws as this damages the fittings!**
- Fully charged batteries will be provided when you collect your detectors. Each detector holds 4 D size batteries. Please insert the batteries provided, making sure they are seated properly i.e. touching both terminals.

SD card

- Each SD card is numbered (on the back of the card).
- Please make sure the number of the card matches the number printed on the top of the detector.
- Push SD card into slot A. You need to ensure the card is fully inserted.
- Turn the detector on and check that the display is showing.
- Display will appear and show **A: 32G 0%**. If the display shows **N/A**, please place the card in an alternative slot.

User settings

- **IMPORTANT** - There is no need to change any settings.

Transporting detectors

- Once you have checked your detectors are working, please remove the batteries until you reach your deployment location.
- Please take care when packing detectors inside your vehicle. If the detectors are loose they may be damaged when the vehicle is moving.
- **IMPORTANT** – You will need to provide an appropriately sized bag to carry your detectors and microphones/cables around your woodland site.

Bat detectors on site

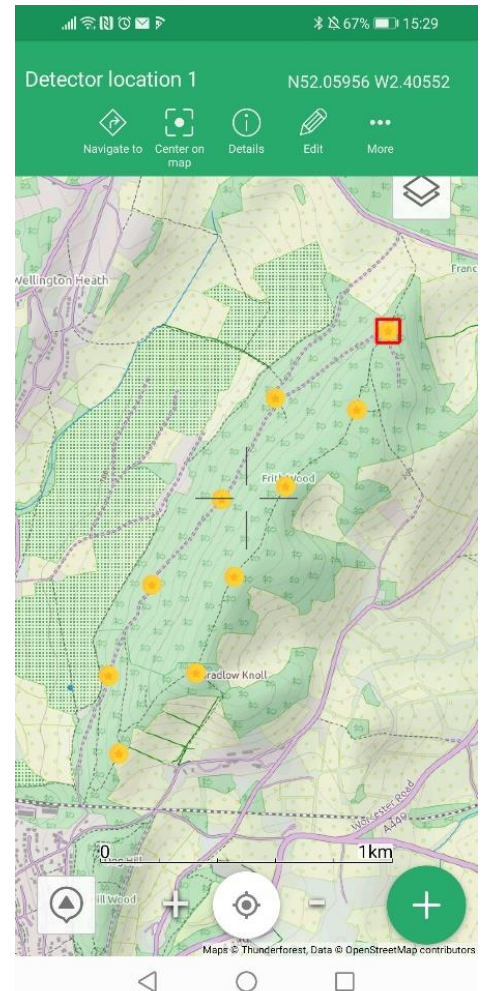
Please 'arm' detectors on site as this will save battery. Please see the instruction video on the VWT website for more information on microphone/detector placement.

Detector locations

- Please download the free mobile app **ViewRanger** – After you submit your survey request, you will be emailed a **GPX file** to download onto your phone. This will contain suggested detector locations for your survey. A video tutorial on how to import and view this file can be found on the VWT website.
- Woodlands have not been visited previously, therefore locations may not always be suitable if trails are in poor condition/overgrown or non-existent – If this is the case, please select a location as close as possible to the suggested one.
- Your detectors should be placed along trails/tracks/rides and evenly spaced throughout the woodland. Please keep this in mind if you are having to place a detector away from the suggested location i.e. not too close to another detector.

Microphone

- Having decided on your detector location, plug the microphone lead into the detector. Make sure it is firmly in place before tightening the lock ring.
- Microphone placement:
 1. Find a branch of a tree (or similar) approximately 1.5 metres above the ground.
 2. Use the garden wire (holding the microphone cable together) to help attach the microphone to the end of the branch.
 3. Microphones should be pointed into the trail at a horizontal angle.
 4. There should be no vegetation/obstructions around the microphone, particularly in front of it. The microphone should have a clear view of the trail.



Arming the detector for recording

- Remove the lid of the detector using the supplied screwdriver.
- Insert the batteries – check that they are securely fitted and the **straps are done up tight**.
- Check that the SD card is clicked in place.
- Turn the detector on by switching the power switch to **INTERNAL**.
- **IMPORTANT** – now press the **WAKE/EXIT** button to activate – the display will read **PREPARING TO RECORD / RECORDING**, or **GOING TO SLEEP UNTIL**. The display will be left blank after a few seconds.
- The detector is now ready to record, and will do so without any further button pressing. Leave the power switch on **INTERNAL**.

Green light and leave

- A light to the right of the display screen will produce a green flash every minute to confirm the box is 'armed', but sleeping, and a green flash every second confirms the box has started recording. Either is good. For some detector models (SM2+), this GREEN FLASH will be visible through a small plastic window on the lid of the box.
- Place the detector lid back on and tighten with the screwdriver
- Place the detector on the ground, but off the track/trail. The detector should be made as hidden as possible, such as behind a tree and/or covered in leaves and branches to disguise it.
- **IMPORTANT** – Please take photos of where you have placed the detector AND/OR anything that will help you recognise the location. Even with GPS coordinates, it can be difficult to find detectors again and photos may help you identify the location.

Recording form

Please complete the recording form and return it to the Survey Base when returning the detectors. The sheet will ask you to record the dates that the detectors were left out to record, and the locations (GPS coordinates) of where they were left out.

Detector locations

IMPORTANT – PLEASE RECORD LOCATIONS ON SITE IF POSSIBLE – If you have a GPS, please use this to determine the coordinates of each location where a detector was left out. Alternatively, you can use the ViewRanger app to obtain these coordinates. You can change the ViewRanger coordinates format in the settings (see video). Please provide coordinates in a decimal latitude/longitude format with decimal degrees (e.g. 50.961379, -0.849339 or N50.961379, W0.849339).

After recording

Collecting your detectors and returning them to the base

Microphone lead

- Detach the microphone lead from the detector by undoing the lock ring and holding the plug (not the lead) to remove.
- Please coil as neatly as possible and secure with garden wire used to attach the microphone to the branch.

Switching the detectors off

- Remove the lid using the screwdriver
- **IMPORTANT** – Switch the power to OFF or EXTERNAL (some detector models do not have an OFF option)
- Replace lid and tighten screws

Returning equipment to base

- Return equipment to the survey base as soon as possible after completing your survey
- To help the base coordinator, please remove the batteries and SD cards from the detectors before you return equipment
- **IMPORTANT** - Please complete and return your recording form to the base coordinator, along with all equipment that you borrowed (detectors / SD cards / batteries).
- Please be aware that each base may be managed slightly differently. For example, it may be your responsibility to put detectors on charge at the survey base. This will be made clear beforehand.