

Standard Operating Procedure



SONG METER MINI BAT

FIRMWARE VERSION – 3.4 – to be used until 2027 unless otherwise advised.

The Song Meter Mini Bat utilizes an ultrasonic microphone for recording bat calls. The Song Meter Mini Bat device will be set up and configured prior to field deployment for acoustic recording.

The following is a quick set up method for the device in the office:

- 1 Remove the lid from the Song Meter Mini recorder.
- 2 Insert four or NiMH batteries and a 64 (128) GB SD card.
- 3 Switch the recorder’s power switch to On.
- 4 If the Bluetooth LED flashes red this indicates that the recorder’s internal clock is not set. It will be set when pairing.
- 5 Make sure Bluetooth is enabled on your mobile device.
- 6 Launch the app.
- 7 The Song Meter Mini bat will be detected by the app and will appear in the Recorders screen.
- 8 Press and hold the Pair button on the Song Meter Mini bat recorder for three seconds. The Bluetooth LED on the recorder will blink green, indicating it is ready to pair.
- 9 In the app, tap the Pair icon when it appears in the Recorders screen. The recorder’s details will turn green, indicating successful pairing.
- 10 A pop-up asks if you want to set the recorder’s time zone to your mobile device’s time zone. Tap Yes. Next, a pop-up asks the same about location. Tap Yes.
- 11 After pairing, tap the Configure icon for the paired Song Meter Mini recorder in the Recorders screen. The Configuration Editor screen will open.
- 12 Select a preset recording schedule from the dropdown menu and make any desired setting changes.
- 13 The recording schedule and settings changes load onto the recorder after each change.
- 14 Format data card.
- 15 **Ensure the Recorder Name is adjusted to the sub-plot name eg C-001-off-BA for each new deployment.**
- 16 Tap the Unpair icon on the Recorders screen and the Song Meter Mini is now ready to deploy and record.

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NOTE:

It is important that high quality, new lithium batteries must be used on each equipment deployment. Battery failure is a major cause of data loss in passive devices. Ensuring that you have a good battery management procedure is essential to ensuring good data quality and minimising the risk of having to redeploy gear..

Songmeter mini bat detector settings for the Fauna Monitoring

Time	Set from your device (Ipad or Iphone)	
Ultrasonic settings	Recording Format	Full Spectrum
	Full Spectrum Sample rate	256 kHz
	Minimum trigger frequency	8 kHz
	Max recording length	15 secs
	Trigger window	2 secs
	Save noise files?	YES
	Left channel gain	12 dB
Location	Set to general region	Use pinpoint to set office location
	Time zone	UTC +10.00 or use the configurator app to set to your phone
Delay start	Off	
Schedule	Record bats 30 min before sunset to 30 min after sunrise	
	Mode	Ultrasonic
	Start	Time 00:00
	Duty Cycle	Always
	End	Time 00:00

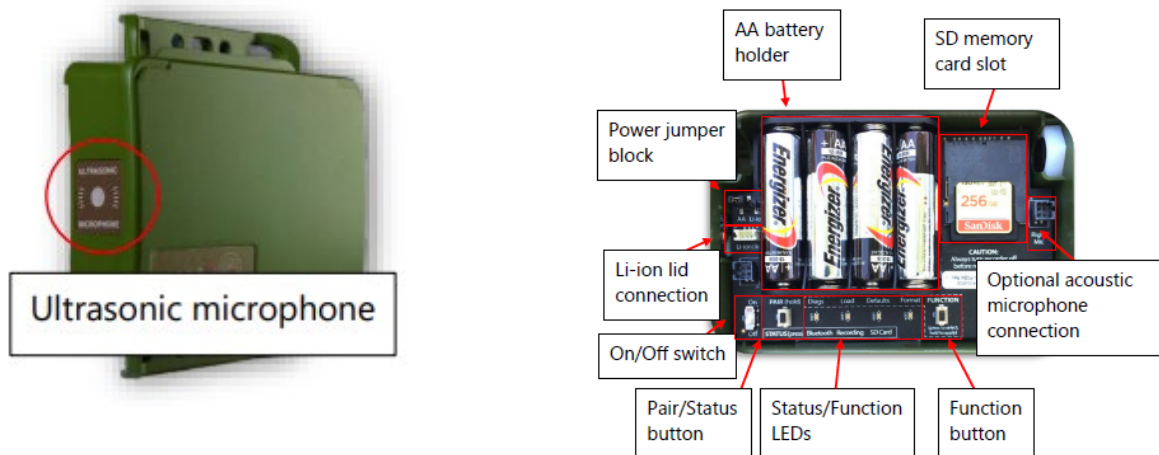


Figure 8: Song Meter Mini Bat

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SETTING IN THE FIELD

- Chest height 1.5 – 1.7 m –
- On track sites
 - ~5m from track- theft –
 - Tree selection
 - Small tree so not to block mic
 - Rough bark
 - No shrubs in front of mics- block signal
 - Not obvious from track- theft – Turn on
- Attach to tree
- Aim mic
 - horizontal and slightly down - rain
- Place on south side of trunk if possible – overheating in summer



Figure 12: Song Meter Mini Bat. A python lock or strap may be fitted through the top loops in the unit. Photograph: Anna McConville

Ensure to Aim at road or nearby open space flyway

*******WARNING – MAKE SURE LIDS ARE CLOSED TIGHT AND CLICK INTO POSITION, AS THEY ARE FICKLE*******

CAPTURING SITE IN IPAD

A monitoring plan should already be linked in the IPAD through the PLAN PORTAL

At site, capture new **SITE** for the SM Mini Bat (as well as a site each for the camera and SM Mini)

Site NAME:

Region (N – North, C- Central, S – Southern),

site number (001 – 100),

location (“on” or “off”),

device (BA – song meter mini Bat) –

eg **C_002_off_BA** – same details as put into songmeter.

(Note use an underscore between region, site number, location, device)

Capture new census – date, people and

In Census notes – add serial number of device being used.

For subsequent seasons/years keep the sites the same just add new census and details

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PICKUP SONG METER MINI

17 Open cover. The unit should be still recording and will show a display when you open it. If it is not recording, use the check status button to see if it will power on. Check that it is switched on. Record the error in the form.

- Switch off and replace cover

18 Remove from tree.

AT CAR:

- Open cover
- Remove SD data card by pressing and sliding card into slot – listen for click – and then slide card out
- Place SD data card into Zip Lock bag with label – ensure label has site name, date, name of person picking up equipment and device type (Song meter Mini BAT - BAT)
- Place Zip lock bag in container in safe place in car.

Label:

- Site name – eg C_001_on_BA or C_001_off_BA
- Date –
- Name of person:
- Device Type:
- Device serial number

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