



Mobile Transect Instructions

Before going into the field

Look over datasheet

Verify that all necessary materials are present with checklist

Confirm adequate battery power

Open SM4 unit casing and move small black switch on the right side to the **INT** position (FIGURE 1), recorder should begin to turn on

- If the recorder does not turn on, change out the batteries (FIGURE 2)

Press [**Check Status**]

Verify battery voltage levels to the right of **Bat:** (FIGURE 3)

- If less than 4.0V, replace batteries
- New batteries should have voltage of about 6.0V
- Record voltage for each unit on datasheet
- Change out batteries if needed (FIGURE 2)

Verify space on SD cards

Look to the right of **SDA:** and **B:** (FIGURE 2).

- Recorder should have a 128 GB SD card in both slot A & B
- Verify there is at least 64GB of space on one of the cards.

If it says **0/128**, the card is empty and if it says **128/128**, that card is full.

Verify date and start time are accurate

The time should be accurate to at least 1 minute of verified time source (eg. cell phone or internet).

If time needs to be adjusted –

Return to Main Menu

Navigate to **Settings** then **Date and Time**

Press the right arrow to navigate between date and time

Use up and down arrows to change settings

Press [**Enter**] when done

Turn off SM4 recorder by switching the black switch on top right side (FIGURE 1) to the **EXT** position

Verify that painter pole set up will work properly with vehicle (FIGURE 4)

FIGURE 1.

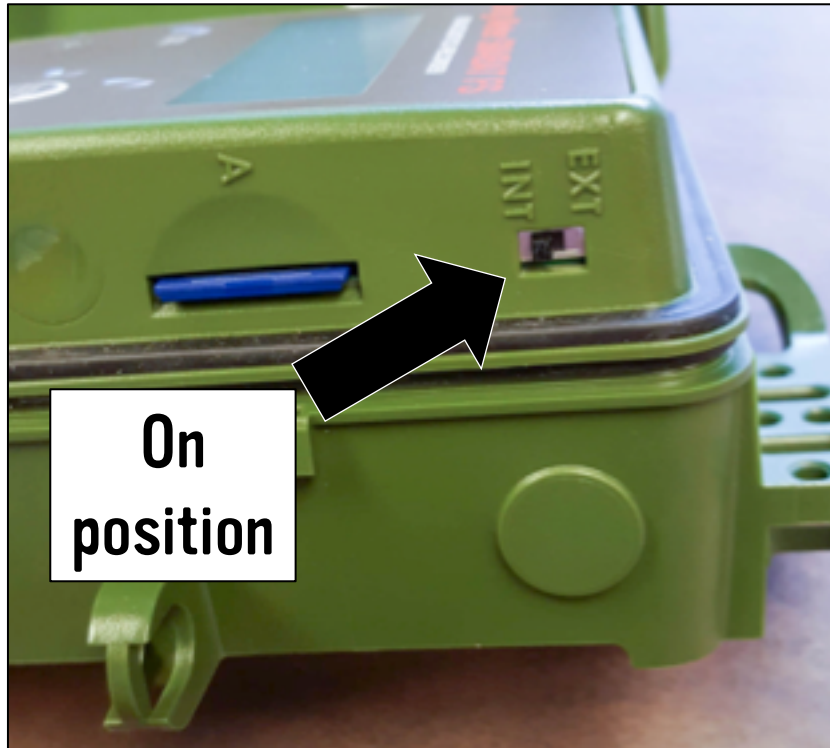


FIGURE 2.

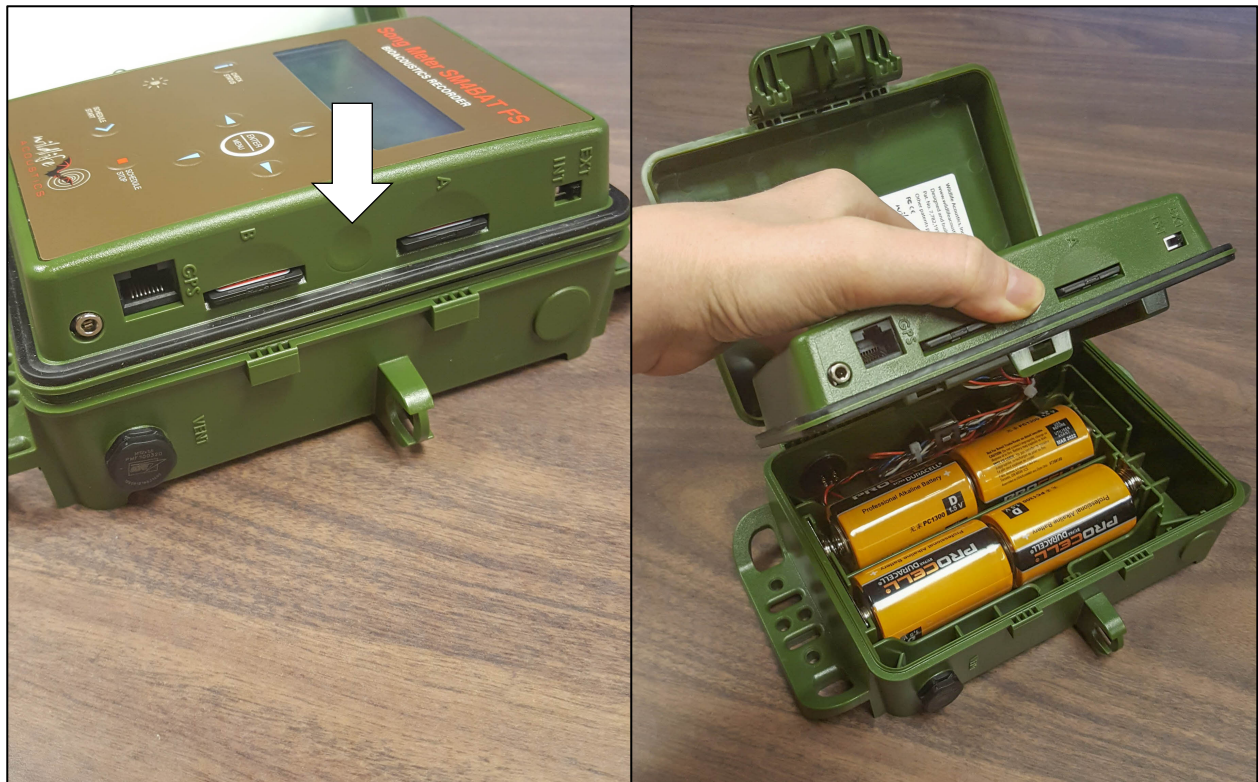


FIGURE 3.

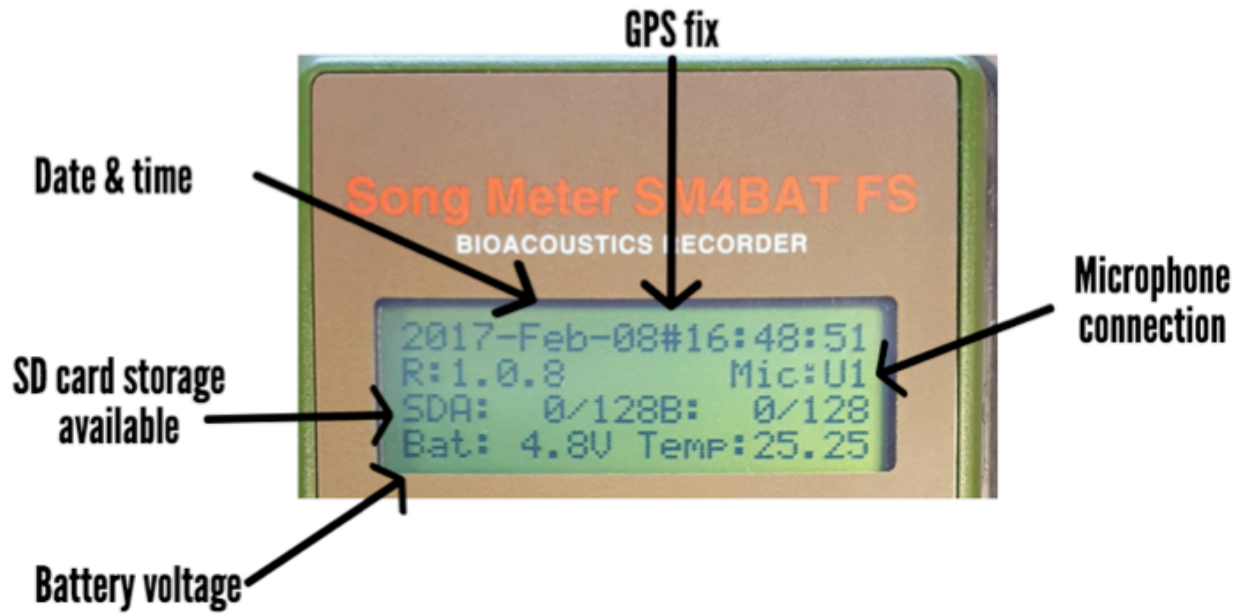


FIGURE 4.





Mobile Transect Instructions

In the field – ready to setup

*** Get to site with at least 30 minutes to prepare***

1. Park vehicle in safe location off the road at the start of the transect
2. Turn on Kestrel weather meter and allow to acclimate to ambient air temperature
3. Use GPS receiver to record start of transect
 - Navigate to **Satellite** (FIGURE 5)
 - Record coordinates on datasheet
 - Navigate to **Mark Waypoint** (FIGURE 6)
 - Name waypoint **START-MOBILE#** – example “Start-Mobile1”
 - Select **DONE** at bottom of screen
4. In GPS receiver, clear GPS track:
 - Navigate to **Track Manager** (FIGURE 7)
 - Select **Current Track**
 - Select **Save Track**
 - Use default name to save track
 - Select **Clear Current Track** (FIGURE 8; at bottom)
 - Select **Yes** to clear track
 - Keep GPS on and put in area of vehicle with access to satellites (not in vehicle compartment, dashboard works well)
5. Make sure microphone is securely fastened to the cable by tightening the gray ring at the base of the microphone (FIGURE 9).
6. Attach microphone to the top of the painter pole with enough rubber bands to be completely secure
7. Open passenger side window and put painter pole through window with bottom of the pole at the edge of the seat. Gently close passenger door to wedge pole securely in vehicle (FIGURE 4)
8. With Kestrel weather meter, take weather measurements, preferably with unit held outside of vehicle
9. Open SM4 recorder unit and switch power button on top right hand side to **INT** (FIGURE 1)
10. If at any point the unit goes into sleep mode or starts recording, press [**Schedule Stop**] to bring back to Main Menu

FIGURE 5.



FIGURE 6.



FIGURE 7.



FIGURE 8.



FIGURE 9.



11. Press [**Check Status**] to again check battery, card space, & microphone connection (FIGURE 10)
12. When ready to begin transect, select **Quick Start** in Main Menu (FIGURE 11)
13. Select **Record Always**
14. Press [**Schedule Start**] (FIGURE 11; bottom left)
15. Snap fingers or jingle keys in front of microphone to test recording
 - Bottom left of screen should say **TRIGGERED** if recording properly

FIGURE 10.



FIGURE 11.





Mobile Transect Instructions

Driving transect route

- Turn hazard lights on
- Begin survey 45 minutes after sunset
- Record actual start time of transect
- Drive at 20 mph as consistently as possible
- If microphone makes a whistling sound, (pull over if needed) slightly adjust the orientation of microphone pole

Completion of transect route

1. Pull over at end of transect and park in safe area
2. Record stop time on datasheet
3. Press [**Schedule Stop**] (bottom right) on recorder unit
4. Switch power button on top right hand side to **EXT**
5. Close recorder door until clicks shut
6. Save GPS track on GPS unit
 - Navigate to **Track Manager** (FIGURE 7)
 - Select **Current Track**
 - Select **Save Track** (FIGURE 12)
 - Enter name as **GRTS#-Date** (Example: 1355-06102017)
 - Select **Done** (at bottom)
 - Select **No** to clear current track
7. Turn off GPS unit
8. Take down microphone and pole setup

FIGURE 12.

