

SM4BAT

Daily Recording Schedules

Welcome to Wildlife Acoustics.

The Song Meter SM4BAT FS bioacoustics recorder provides powerful record scheduling options. This video will explore working with Daily Recording Schedules, including easy to use Quick Start schedules.

The SM4BAT can be configured for Daily or Advanced Schedule Mode. Daily schedules repeat the same recording cycle each day. Advanced schedules allow for the creation of different recording cycles on different dates. To select the schedule mode, go to the Settings menu, Advanced, and then Schedule Mode.

Back at the main menu you can see the first item is Quick Start. Select Quick Start and you'll see there are a three different recording schedules ready to go.

The first Quick Start choice is Record Sunset to Sunrise. The SM4BAT calculates sunset and sunrise times based on location and date. At sunset, the SM4BAT will go into Record-Armed mode and wait for a trigger signal. At sunrise the SM4BAT will sleep until the next record cycle.

Record 30 minutes before Sunset to 30 minutes after Sunrise is similar to Sunset to Sunrise, except that the record cycle starts 30 minutes before sunset and ends 30 minutes after sunrise.

Record Always puts the SM4BAT into a continuous Record-Armed mode. Regardless of time of day, if a trigger signal is detected the SM4BAT will commence recording.

Press the Enter button to confirm the schedule. Press Schedule Start to begin the record cycle. It's that easy. The SM4BAT is now record-armed and waiting for a trigger signal. The display shows the current date. The next line shows the SM4BAT is ready to write files to memory card A. The record schedule is Continuous. The number on the right represents how many recordings have been made since the SM4BAT was last powered on. The last line shows that the SM4BAT is either in Record-Armed mode or is currently being triggered. The current sample rate is set to 256 kHz.

I'll press Schedule Stop to cease the recording schedule. I'll go back into the Quick Start menu and this time I'll select the Sunset to Sunrise schedule. I'll press Schedule Start and the SM4BAT

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goes to sleep. At the calculated sunset time the SM4BAT will then wake up to start the recording cycle.

Any aspect of a Quick Start schedule is easily edited and we'll get to that in a moment.

I'll hold down the Schedule Stop button until the recorder wakes up and then ceases its current recording cycle.

Now let's take a look at how to edit the schedule. We'll use the currently selected Sunset to Sunrise Quick Start Schedule as the starting point. I'll scroll down the Main Menu to the Schedule settings, and press the right arrow button to view the schedule options. We see options to import or export schedules and settings between different Song Meter recorders. Importing and exporting is done via an SD memory card. This is also how you would import and export a schedule and settings to and from the SM4 Configurator software.

Now let's see how we can edit a schedule. When I press the right arrow button to see the Edit options the currently saved schedule settings are displayed.

Recording is based on schedule blocks. Right now what we're looking at is a single daily schedule block based on the Sunset to Sunrise Quick Start schedule.

There are three elements to the schedule block: Start tells the SM4BAT when to commence the schedule. End specifies when the SM4BAT will stop the schedule. Here you can see the schedule is starting at sunset and ending at sunrise. If I want the schedule to start and end at specific times each day I can edit those times. For example I can enter a Start time of 19 hundred hours, which is seven PM in the evening. The record cycle will now start at 19 hundred hours regardless of when the sun actually sets. I'll edit the End time to Sunrise Plus One Hour. Now the record cycle will cease at one hour after the calculated sunrise time.

The middle line of the schedule block is the Duty Cycle. The Duty Cycle works within the schedule Start and End times. The Duty Cycle can be used to conserve battery power and memory card space.

For example, now what I'll do is set the Duty Cycle so the SM4BAT is only set to record for ten minutes each hour. I'll set On to 10 and Off to 50. The record cycle will start at 1900 hours and run for ten minutes. After ten minutes the SM4BAT will sleep for 50 minutes and then wake to repeat that cycle until one hour after sunrise. To disable the Duty Cycle scroll down through the On or Off times until the display shows Always. Always means there is no Duty Cycle and the SM4BAT record schedule will run continuously within the specified Start and End times.



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It is possible to create a more complex schedule with different record Start and End times throughout the day and night. This is done by creating multiple schedule blocks. Schedule blocks can be added or deleted. Each schedule block will define a separate recording cycle within the 24 hour period.

Initially this Quick Start schedule uses a single schedule block that defines one Start time and one End time. I'll edit the Start time to one hour before Sunset. I'll edit the End time so this schedule block ends at 1 hour after sunset. Right now the SM4BAT is programmed to start it's record cycle one hour before sunset and stop the cycle one hour after sunset. I'll scroll down and create a second schedule block. You can only view one schedule block at a time. I'll scroll to display the second schedule block I've just created. I'll set the Start time to one hour before sunrise. I'll set the End time to one hour after sunrise.

Now by using these two schedule blocks the SM4 will go into its record cycle an hour before sunset, and stay in that mode until one hour after sunset. At one hour before sunrise, the second schedule block will start the next record cycle, which will continue until one hour after sunrise.

It is possible to create multiple schedule blocks that conflict with each other. For example there could be a first schedule block that describes recording only for two hours a day, and then there could be a second schedule block that is set to continuous record. If this ever happens the SM4BAT will always default to following the schedule block that is currently set to record.

In the next video we'll explore how to program the Song Meter SM4BAT with Advanced Schedules that can create different recording cycles for use on different dates.

Thank you for watching.