



redKnows MiniFinder

New Functions

Appendix to User Manual (2009-01)

In version 2 of MiniFinder, which you have purchased, some new functions have been added since the user manual was written. Read this manual addition as a complement to the user manual.

New functions in the software

a). Monitoring the voltage level when connected to an external battery.

When MiniFinder is connected to and powered by an external power source, you can choose to receive an alarm when the battery falls below a specified level. MiniFinder then sends an SMS to the mobile phone number registered on the web page.

To avoid alarms when voltage temporarily declines below a certain level, such as when a motor connected to the battery is started, this alarm is only active when you have armed your MiniFinder.

The current voltage of the external battery can also be seen in the Status-SMS you can request from MiniFinder (see section 5.2 of the manual).

Settings are made on your account at www.redknows.se.

Charging MiniFinder - Replaces the corresponding Chapter 3 in the manual!

The internal battery in MiniFinder is given a basic charge so that you will be able to start up and test your MiniFinder immediately upon delivery. However, it is preferable to charge MiniFinder before you begin using it or to charge it as soon as possible.

There are three charging alternatives:

- a. Connect the accompanying cable to an external power source, 6-30V DC.
- b. Charge MiniFinder's internal battery with the 230V charger. The battery is fully charged after about 4 hours.
- c. Charge MiniFinder's internal battery with the charging adapter for a 12V cigarette lighter socket (accessory). The battery is fully charged after about 4 hours.

Charging is automatically turned off when the internal battery is fully charged and then reverts to maintenance charging. The unit can be used during charging.

A fully charged battery lasts between 24 and 48 hours, depending on which settings you have made on your MiniFinder. When the internal battery begins to run down, an SMS is sent to the predetermined mobile phone number.

When power is furnished by an external battery, the internal battery retains its charge. Make sure that the internal battery is fully charged before you connect to an external power source, since it takes over operations if the external battery is disconnected. If the connection to the external battery is broken, you will receive a warning about it via SMS to your mobile phone if you have activated that option on your account on the home page.

How do I know it is charging?

When MiniFinder's internal battery is charging, a yellow LED located between the switch and the voltage input always indicates that charging is under way. When the battery is fully charged, the LED dies down.

If you start charging when MiniFinder is in operation (the switch is in the 1 position), the three other red, yellow and green LEDs indicate that an external power source is connected by blinking on an off in succession about 5 times. Then the LEDs revert to showing which functions of the alarm are active before going into power-saving mode. (It can take up to 30 seconds before MiniFinder detects the charger.)

Please note!

! Allow MiniFinder to charge for four hours the first time.

! If used for longer periods at temperatures below freezing, the unit should be connected to an external power source.

! If the LED that indicates charging blinks, some of the following problems have occurred:

- Problem with the internal battery
- Ambient temperatures do not allow charging of the internal battery. The internal battery is charged at temperatures between +40°C (+104°F) down to a few degrees below freezing. Connect to an external power source!
- External voltage is insufficient

When you receive an SMS from MiniFinder (Addition to Chapter 5.3)

MiniFinder sends an SMS to selected numbers:

- If voltage in the external power source drops below a specified value. This function is selected in the account on the home page.
- When there is a value of SEK 20 left on MiniFinder's prepaid card. This function is selected in the account on the home page.

Sleep mode for power saving (new subhead)

This setting is used to prolong internal battery life on the MiniFinder for up to two months. For example, Sleep mode can be used if the unit is placed in a setting where there is no possibility for charging or where steady voltage is lacking. Before activating Sleep mode, you should read this section carefully.

Do as follows:

1. Make sure than MiniFinder is operating and fully charged.
2. Log on to your account at www.redknows.se. Under the Advanced tab, choose whether or not you want to activate Sleep mode. You choose activation with or without GSM contact. Regardless of which you choose, the unit will always send an alarm message to you if something happens. Send the setting to MiniFinder as usual.
3. Wait a few minutes after you have sent the settings to the unit. Then use the remote controller to activate the function that MiniFinder should recognize when the controller is activated during the sleep function (Geofence, Vibration or both). You can tell that MiniFinder has activated the function when the relevant LED lights with a steady glow. To be on the safe side, delete any possible previous settings on the alarm by pressing the standby button before you activate Sleep mode settings.
4. Finally, activate Sleep mode by turning off MiniFinder – that is, by moving the switch from position 1 to 0.
5. Confirmation that Sleep mode has been activated:
 - a) When you turn off the switch, the unit will beep for three seconds. This indicates that Sleep mode has been activated from the home page.
 - b) If the alarm setting has been correctly activated, the unit then concludes with 5 beeps. Sleep mode is activated!

In other words: Beep for 3 seconds + 5 beeps = Sleep mode is activated

If the switch is set back to position 1, MiniFinder will function as usual. To eliminate the possibility of setting MiniFinder in Sleep mode - change the settings in your account!

Please note!

! When you activate the Geofence setting, it is best to wait until the unit has located the position before you turn it off and activate Sleep mode. Confirmation in the form of 5 beeps will not be given before MiniFinder has locked onto the Geofence location.

! When the Vibration function is activated, bear in mind that the MiniFinder should be properly positioned and should not be moved from the place where it will remain when armed during Sleep mode. Do not move the unit after you have turned off the switch to activate Sleep mode.

! If the unit is in Standby when you turn off the switch, it first beeps for three seconds if the settings for Sleep mode have been sent from the home page. No confirmation with 5 short beeps occurs since no alarm function has been activated. The unit is turned off.

How Sleep mode functions

When in Sleep mode, MiniFinder wakes up periodically to check if anything has happened (see the function description in the table below). If all is quiet, it goes back to sleep. Eventually, when 20% of the internal battery level remains, it will send an SMS indicating that it is soon time to recharge.

If MiniFinder wakes up and notes that something has happened, it will leave Sleep mode and become traceable. It immediately sends an SMS to the recipient you have registered on the home page. To revert to Sleep mode, you can send the SMS command "sleep" to MiniFinder from any of the registered mobile numbers (has the same effect as when the switch is moved from position 1 to 0). MiniFinder then emits a long tone and sends a confirmation via SMS that Sleep mode has again become active.

Please note!

! Remember that the internal battery level can be relatively low when the unit wakes up and restarts after an alarm. When 20% of the internal battery charge remains, the battery will last an average of 5-6 hours during normal operation.

! At least one alarm function must be activated for Sleep mode to be activated. If MiniFinder is in Standby when the setting for Sleep mode is made on the home page, when you turn off the unit, it will remain turned off.

MiniFinder’s different Sleep modes

The following happens with alarm functions when Sleep mode is activated (when the switch is moved from position 1 to 0):

| Type of Sleep mode | Activated alarm | How does it function? |
|---|---|---|
| Vibration setting Battery life < 60 days | Vibration alarm activated before turning off | MiniFinder wakes once every 15 minutes and checks if any vibration is occurring or if there has been a change in inclination since Sleep mode was activated. The unit can not be contacted unless a vibration alarm is triggered, waking the unit from Sleep mode. The alarm can always be restarted by moving the switch from 0 to 1. Restart can also occur from the home page if that alternative was chosen when you sent the settings. |
| Geofence setting Battery life < 30 days | Geofence alarm activated before turning off | MiniFinder wakes up every 60 minutes and checks if there has been a change in location (at least 250 m). The unit can not be contacted unless a Geofence alarm is triggered, waking the unit from Sleep mode. The alarm can always be restarted by moving the switch from 0 to 1. Restart can also occur from the home page if that alternative was chosen when you sent the settings. |
| Geofence and Vibration settings Battery life < 30 days | Vibration and Geofence alarm activated before turning off | MiniFinder wakes up every 60 minutes and checks if there has been a change in location (at least 250 m) or if vibration has occurred. The unit can not be contacted unless an alarm is triggered, waking the unit from Sleep mode. Restart – as stated above |

PLEASE NOTE! During Sleep mode you can not contact MiniFinder until you have waked it from Sleep mode. The alarm can always be started up by moving the switch from 0 to 1. Restart can also occur from the home page if that alternative was chosen when you sent the settings.

12. FAQ - Troubleshooting (item two is replaced by new text)

- 2. MiniFinder does not indicate charging and the alarm is in operation.
 If the alarm is in operation at the start of charging, a yellow LED located between the switch and the voltage input indicates that charging is under way. The LED will remain lit until the battery is fully charged. See Chapter 3 for more information.