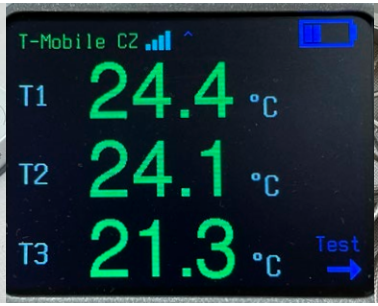
Temperature Alarm

OPERATING AND SETTINGS MANUAL US



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Contents

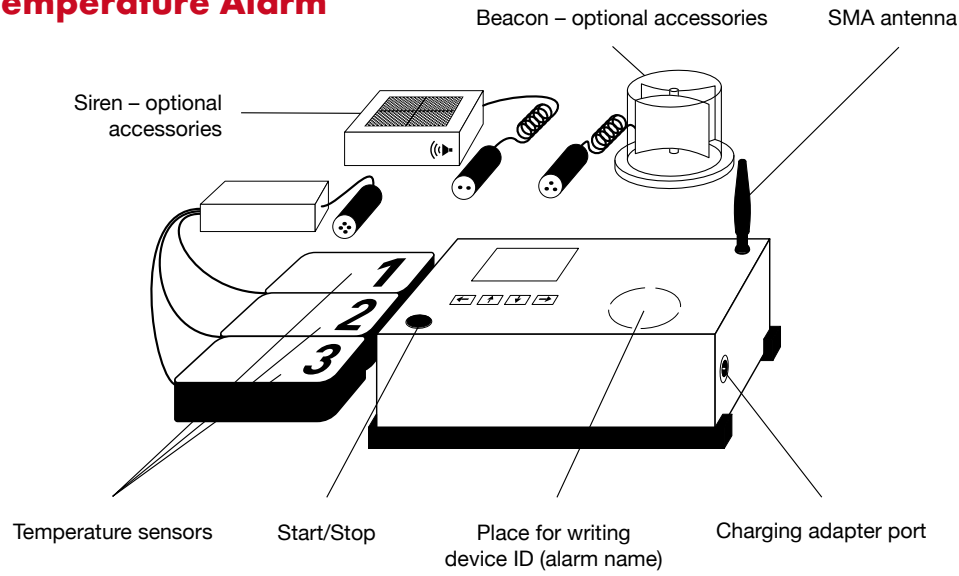
1 Basic information

1.1 Characteristics of the Temperature Alarm and the contents of the packaging

This document describes the operation and characteristics of the Temperature Alarm (hereinafter referred to as "alarm" or "device") and the way of its use as well as possible risks connected with its use. It contains important information about how to use the device properly so as to avoid injuries and increase its reliability and extend its lifetime. This document must always be available in the place where the alarm is used. Keep it together with the device at all times. The operator is responsible for using the device safely and in compliance with the instructions in this manual, which applies to any third persons as well. If you have any doubts about operating the alarm, please contact the manufacturer or an authorized dealer.

The Temperature Alarm is intended for monitoring the temperature of, for example, electric vehicle batteries, especially after an accident or failure, as fire prevention and battery status monitoring. The alarm's temperature sensors are placed on the surface of the monitored device (e.g. on recommended spots on vehicle floor). After being turned on, it regularly sends reports by SMS and email to a maximum of 5 recipients.

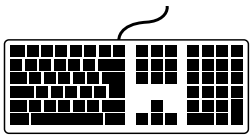
Temperature Alarm



The delivery includes:

- 1× Temperature Alarm
- 3× Temperature sensors
- 1× SMA antenna
- 1× Power supply adapter 100–240 VAC
- 1× External keyboard
- 1× Instructions for use, incl. warranty certificate
- + Optional accessories as per agreement

Keyboard – included as a standard

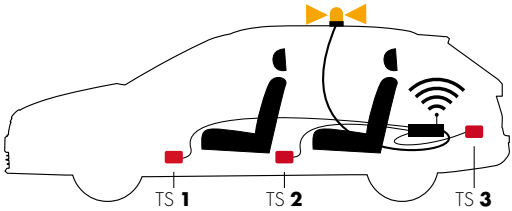


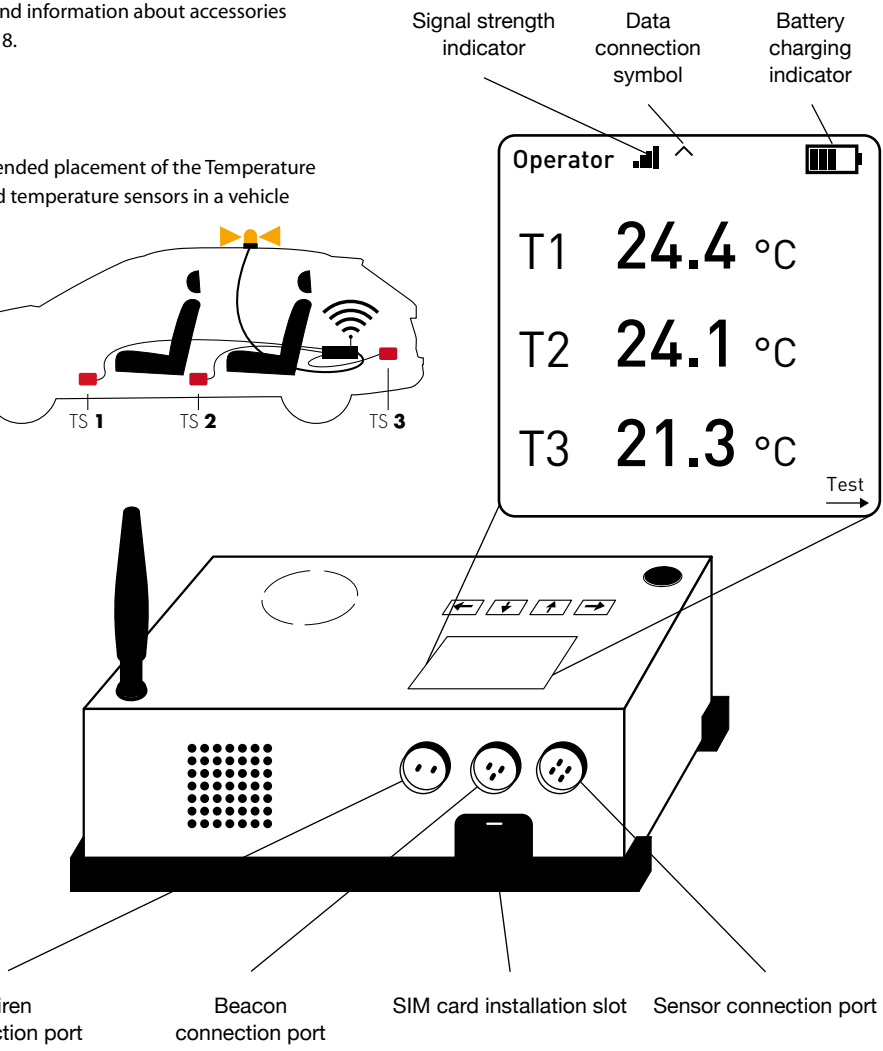
1.2 Technical data

Name	Dimensions (in)	Weight (lb)
Temperature Alarm	7.5 × 4.5 × 4.7	3.9
Optional accessories at extra cost		
Siren		
Beacon		
Special temperature sensors (other lengths)		

You can find information about accessories on page 18.

Recommended placement of the Temperature Alarm and temperature sensors in a vehicle





1.3 Safety instructions for

1.3.1 Using the Temperature Alarm

When using the alarm, observe these instructions as well as all the safety notices herein.

1. The alarm is intended for measuring the temperature of electric batteries.
2. Device administration may only be performed by a responsible person.
3. The alarm is fully functional only with a valid, registered and activated SIM card (not included).
4. All connectors (sensors, power supply adapter) must always be correctly connected only to the particular inputs as shown on alarm cover.
5. Before its first use, the alarm must be fully charged by the provided power supply adapter (100–240 VAC). The alarm battery only reaches full capacity after several charging/discharging cycles.
6. Before installing it on the monitored surface, disconnect the alarm from the power supply adapter.
7. Do not disassemble or modify the alarm.
8. Never drop the device from a height.
9. Do not expose the alarm to temperatures higher than 140 °F for longer periods of time. When the temperature of 104 °F is exceeded, the internal cooling ventilator of the device is automatically turned on.
10. Protect the alarm from direct sunlight. If the alarm is used for monitoring the temperature of an electric vehicle battery, it must not be placed on the dashboard. The ideal location for the alarm is on the vehicle floor or under the seats.
11. If the alarm is excessively hot, allow it to cool down and only start using it after that.
12. Never throw the alarm into fire or put it close to a fire.
13. Never immerse the device in water or wash it with water under pressure, and prevent water and moisture from entering it directly.
14. Prevent dust and other solid particles from getting into the alarm as they could damage the electronics inside the alarm, including the ventilator.
15. Never attempt to charge a damaged alarm.
16. The device must not be disposed of with household/municipal waste. At the end of its lifetime, the device must be taken to a waste collection point for environment-friendly disposal or returned to the manufacturer.
17. The manufacturer confirms the product's compliance with EU directives – no. 01052023/M.

1.3.2 Temperature Alarm charging

1. The alarm is equipped with the function of automatic sending of information about battery charging/discharging level. If battery capacity decreases under 20 %, the device sends an information SMS.
2. Only charge the alarm with the provided type of power supply adapter (100–240 VAC).
3. The operation time per charge is 3–5 weeks and it depends on the specific conditions of use (temperature, signal strength).
4. The permissible temperature range for charging is from 32 °F to 104 °F. Outside this temperature range the alarm might be damaged or its lifetime might be shortened.
5. No metal or other items must enter the port for the power supply adaptor connector on the alarm.
6. Never charge the device in a wet or humid environment.
7. Never charge the device near sources of heat or on flammable surface.
8. Make sure that the mains voltage agrees with the data on the nameplate of the mains adapter. There is a risk of electric shock.
9. During the charging process, the alarm and the power supply adapter are heated. That is normal and it is not regarded as a defect.

10. Do not cover the power supply adapter or the alarm during the charging process.
11. If the alarm is not charged within 5–10 hours, interrupt the charging process.
12. If an unusual smell, overheating, colour or shape change or any other abnormalities occur during alarm charging / operation, stop the charging process/operation immediately.
13. Never use a damaged power supply adapter. If it is damaged, please, send it to the manufacturer for repair or replacement.
14. Never open the power supply adaptor. If there is a defect, please, contact the alarm manufacturer.
15. **Warning!** Do not open the cover (casing) of the alarm. Opening the cover voids the device's warranty.

2 Charging

2.1 Instructions for Temperature Alarm charging

1. When charging the Temperature Alarm, follow all the safety instructions in the chapter Safety instructions for charging the Temperature Alarm, p. 5.
2. Insert the power supply adaptors connector into the corresponding port marked as "Charging input 12 V" on the alarm cover.
3. Insert the power supply adapter plug into a 230 V/50 Hz socket.
4. If you are charging an active (switched on) alarm, the START/STOP LED on the upper surface of the alarm will light up and turn on and off at regular intervals in the form of a slow smooth transition. The alarm is fully charged when the indicator light begins to flash regularly for a short period of about 2 seconds.
5. If you charge an inactive (switched off) alarm, the START/STOP LED on the upper surface of the alarm lights up and turns on and off at regular intervals in the form of a slow smooth interlacing. The alarm is fully charged when the indicator light goes out.
6. After the device has been fully charged, it is automatically disconnected from the charging adapter. If the device remains connected to the charging adaptor, charging automatically re-starts after the battery charge level decreases below 80%.
7. After charging, disconnect the charging adapter from the alarm and the device is ready for use.

2.2 Battery specification

An original 14.8 V Li-ion battery is supplied with the device.

Name	
Accumulator battery	Li-ion
Operating voltage	14.8 V DC

The operation time per charge is 3–5 weeks and it depends on the specific conditions of use (temperature, signal strength).

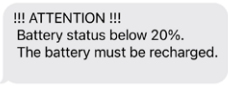
2.3 Power supply adapter specifications

Název	
Charging station	12 V
Mains voltage	100–240 VAC
Charging time	5-15 hours

2.4 Temperature Alarm battery charging indicator

The battery charging level is indicated by a blue icon in the upper right corner of the alarm display. The icon is divided into 5 segments. Each segment represents approximately 20% of battery charging.

If battery level decreases to 20%, we recommend charging the alarm. When the battery level drops below 20%, the system sends an automatic message to the defined recipients about the need to charge the device. This message is sent repeatedly ten times in total, at 2-hour intervals (e.g. at 10am, 12pm, 2pm, 4pm, etc.). If the device is not recharged within this notification message period, it is turned off automatically due to safety reasons. Another warning message about the device being turned off is again sent to pre-defined recipients.



In charging the alarm, observe the Instructions for Temperature Alarm charging on page 6.

When the device is fully charged, charging will be interrupted. If the device remains connected to the charging adaptor, charging automatically re-starts after the battery charge level decreases below 80 %.

3 Settings

Before using the alarm, it is necessary to read the document „Instructions for use". The Temperature Alarm is used, among other things, for monitoring the temperature of electric vehicle batteries, especially after an accident or failure, as fire prevention and battery status monitoring. The alarms temperature sensors are placed on three spots on vehicle floor. After being turned on, the alarm regularly sends reports by SMS and email to a maximum of 5 pre-defined recipients.

3.1 Basic settings of the Temperature Alarm

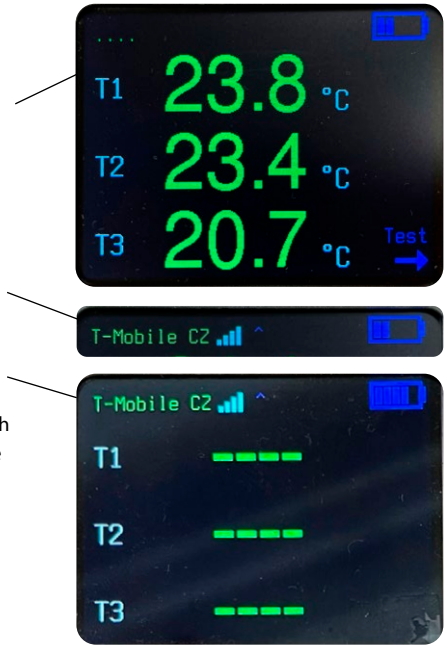
1. Take the Temperature Alarm, including all its accessories and the Instructions for Use, out of the packaging.
2. Device settings and administration must be done by an authorised person.
3. Insert the power supply adaptors connector into the corresponding port on the alarm cover. Before use, it is recommended to charge the alarm fully by the provided power supply adaptor; see "Instructions for Temperature Alarm charging," page 6. The alarm is designed so that it can be permanently connected to the power supply adaptor during storage.
4. Use only the power supply adapter provided by the manufacturer.
5. Insert your SIM card into the SIM card installation slot. That enables SMS communication and GPRS data

connection (up to 100MB per month). Use a cross-point screwdriver (not included) to unscrew the cover protecting the SIM card slot. After the device is turned on, it automatically connects to the mobile operator.
Caution! Before you insert the SIM card into the slot, make sure that

- → it is registered in the mobile operator's network;
- → the use of a PIN code with this card is disabled;
- → mobile data and text messaging are activated;
- → roaming is activated so that it can be used abroad.

All these settings can be done by the SIM card seller.

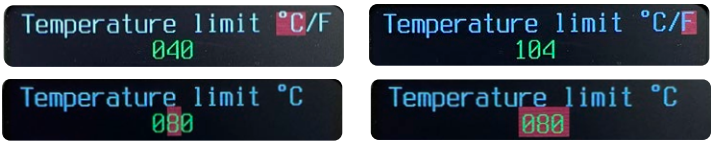
6. After that set the operator APN (Access Point Network) – operator access point – in the device (see below: paragraph 3.1.1, section 12); that can be found on the operator's website. For example: APN all operators CZ – internet, or APN Vodafone DE – web.vodafone.de The password for the operator APN can be changed at any time. Therefore, it is necessary to ask the mobile operator for the current APN when purchasing and installing the SIM card.
7. The arrow buttons on the upper board of the device or the external keyboard (included as a standard) can be used for the initial entering and future changes of the contact and user information. Use the USB port (marked as "Keyboard") on the side of the device cover to connect the keyboard. Turn on Numlock on the keyboard.
8. Press the START button for about 1–3 seconds. The device turns on and starts searching for the signal to connect to your mobile operator's network. Green dots will appear in the upper left corner of the display. This operation may last 1–5 minutes, depending on signal strength.
9. As soon as signal is found, the mobile operator's name, the signal strength indicator, the data connection symbol (blue roof) and battery level identifier appear in the upper left corner of the display as soon as signal is found.
10. Under the icons in the upper line of the display, three sensor identifiers appear, indicated as T1, T2 and T3. If the sensors are not connected to the alarm at that moment, four green horizontal lines are displayed at each sensor instead of sensor temperatures. The Temperature Alarm can also be set if the temperature sensors are not currently connected to it.



11. Now you can proceed to the technical settings of the Temperature Alarm in one of the following ways:
    - → Using the external keyboard, see "Using the external keyboard to set the technical data," page 9.
    - → Without using the external keyboard, see "Setting the technical data without using the external keyboard," page 11.
12. If any unexpected situation whose solution is not described in these Instructions for Use occurs during alarm administration, the device may simply be restarted by pressing the Start/Stop button and keeping it pressed for at least 5 seconds: the system is shut down and the device turned off. You can turn the Temperature Alarm on again after a few seconds and set any administration information from the beginning.

3.1.1 Using the external keyboard to set the technical data

1. If you have not done so yet, insert the external keyboard's connector into the USB port marked as "Keyboard" on the side of the device. The external keyboard automatically works in the EN keyboard mode.
2. Turn on Numlock.
3. Use Backspace and Delete to correct or delete any characters.
4. Use standard characters: letters, numbers, @, _ , +, !, ?, etc., during the setting procedure.
5. For menu navigation, use the arrows on the keyboard that correspond to the arrow buttons on the upper board of the device.
6. Use the down arrow on the keyboard to go from the initial screen to the settings **„Setting the temperature limit and SMS contacts"**
7. Setting the temperature limit:
   - 7.1 Press the right arrow to select the scale in the Temperature limit °C/F line.
   - 7.2 Press the down arrow to go to the temperature limit line. Press the right arrow once to activate the change entry line. Use the numeric keypad to set the temperature limit – if this limit is exceeded by any temperature sensors, a warning SMS is sent to the pre-defined telephone numbers and email addresses. The factory setting of the temperature limit is 60 °C (140 °F). The temperature limit is limited to the upper limit of 300 °C (572 °F). Confirm your choice by pressing the right arrow; the background of the text becomes red and the change is confirmed and saved.



8. Setting telephone numbers for sending information by SMS:
   - 8.1 Use the down arrow to go to the first telephone number entry line. The line has a completely red background.
   - 8.2 Press the right arrow once to activate the change entry line.
   - 8.3 Enter the complete telephone number including the country code.

   - 8.4 If an incorrect digit is entered, it can be corrected by simply entering the correct digit in the position of the digit that needs to be corrected or by using Backspace/Delete.
   - 8.5 After the complete number has been entered, press the right arrow once. The whole line becomes red and the number is confirmed and saved.
   - 8.6 Press the down arrow to go to the next line. Enter another telephone number.
   - 8.7 Proceed in the same way to enter other telephone numbers.
9. After all telephone numbers have been entered, press the down arrow again to go to the next screen to **enter contact email addresses.**
   - 9.1 Proceed in the same way as with the telephone numbers.
   - 9.2 Press the right arrow once to activate the text entry line. The first letter in the line will have a red background.

9.3 Use the letters on the keyboard to enter the email address.

9.4 The @ character is available on the EN keyboard: press the left Shift key and the 2 key in the upper keyboard line.

9.5 After the complete email address has been entered it must be confirmed and saved. Press the right arrow. The background becomes red and the email address is confirmed and saved.

9.6 Press the down arrow to go to the next line to enter another email address.

10. After entering the email addresses, press the down arrow to go to the **device ID** (alarm name) line. We recommend using, for example, the registration number of the vehicle where the alarm is to be placed or another name, such as Box 1, etc. Activate the entry line by pressing the right arrow.

11. After entering and saving the ID, press the down arrow to go to the last alarm settings screen.

12. Enter your mobile operator's **APN code** in the same way as the telephone numbers and email addresses.

13. After entering the correct code, use the down arrow to go to **Periodic 6 hour report,** where you choose whether (YES) or not (NO) you want to be sent periodic sensor temperature reports. Use the arrows to move between the options.

13.1 The factory setting of the device is automatically set to YES.

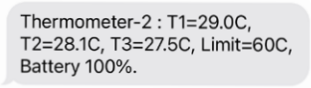
13.2 If you want to choose NO, press the right arrow to start editing. The background of the first letter (Y) goes red. Press the down arrow to change the setting to NO and confirm by pressing the right arrow. The background of the word NO goes red.

13.3 If you choose No in the **"Periodic 6 hour report"** settings, the device will not automatically send any periodic sensor temperature reports. However, the device will remain in the active temperature measuring mode and if the set temperature limit is exceeded by any sensor, the system will send a warning message to the defined recipients.

14. Press the down arrow to go to **Report start time.**

14.1 Press the right arrow once to activate the change entry line.

14.2 Enter the numeric figure representing the time when you want the device to begin sending periodic 6-hour reports. Numbers 1–12 are available. For example, if you wish to start the alarm activity at 3am, enter "3" and the periodic report will be sent to you at 3am, 9am, 3pm, 9pm, etc. If you wish to start the alarm activity at 7pm, enter "7" and the periodic report will be sent to you at 7pm, 1am, 7am, 1pm, 7pm, etc.



14.3 After the right arrow is pressed, the whole line goes red and your choice is confirmed and saved.

15. Press the down arrow to go to the last stage of the Temperature Alarm technical settings, which is **entering the protective PIN code,** which prevents unauthorised persons from changing the device settings; see "PIN code setting", page 13.

16. After the PIN code is confirmed, press the down arrow to go to the Temperature Alarm's home screen. The alarm is ready for testing; see "Operator connection quality test, Accessories – siren and beacon – functionality test," page 16.

3.1.2 Setting the technical data without using the external keyboard

1. All the alarm data can be set by using the arrow buttons on the top of the device.
2. Press the down arrow to go to the Temperature limit and SMS contacts settings section.
3. Setting the Temperature limit:
   - 3.1 Press the right arrow to select the scale in the Temperature limit °C/F line.
   - 3.2 Press the down arrow to go to the temperature limit line. Press the right arrow once to activate the change entry line. Use the up and down arrows to set the temperature limit – if this limit is exceeded by any temperature sensors, a warning SMS is sent to the pre-defined telephone numbers and email addresses. The default temperature limit is 60 °C (140 °F). The highest temperature limit is 300 °C (572 °F). Confirm your choice by pressing the right arrow; the background of the text becomes red and the change is confirmed and saved.
4. Setting telephone numbers for sending information by SMS:
   - 4.1 Use the down arrow to go to the telephone number entry line.
   - 4.2 Press the right arrow to activate the line for the first digit to be entered – the background of the first digit goes red.
   - 4.3 Use the up or down arrow to choose the digit that you need to enter.
   - 4.4 After choosing the correct digit, use the right arrow to go to the next digit entry.
   - 4.5 If an incorrect digit is entered, it can be corrected by simply entering the correct digit in the position of the digit that needs to be corrected.
   - 4.6 The telephone number is completely entered and saved once you have entered the last digit and confirmed that the number is correct by pressing the right arrow once: the background of the whole line goes red and the telephone number is saved.
   - 4.7 Press the down arrow to go to the next line.
   - 4.8 Enter another telephone number in the same way as the first one.
5. After all telephone numbers have been entered and confirmed, press the down arrow again to go to the next screen to **enter contact email addresses.**
   - 5.1 Proceed in the same way as with the telephone numbers.
   - 5.2 Activate the email entry line by pressing the right arrow once. The background of the first character field goes red.
   - 5.3 Use the up and down arrows to choose the letters or characters that you need to enter the complete email address.
   - 5.4 To enter another letter or character, use the right arrow.
   - 5.5 If an incorrect letter or character is entered, it can be corrected by simply entering the correct letter or character in the position of the letter or character that needs to be corrected.
   - 5.6 After you enter the complete email address, confirm it by pressing the right arrow. The background of the whole line goes red and the entered email address is confirmed and saved.
   - 5.7 Press the down arrow to go to the next line to enter another email address.
6. After entering and confirming the email addresses, press the down arrow to go to the **„device ID!“** (alarm name) section. We recommend using, for example, the registration number of the vehicle where the alarm is to be placed or another name, such as Box 1, etc. Proceed as in the previous steps.

7. After entering the ID, press the down arrow to go to the last alarm settings screen.
8. Enter your mobile operator's **APN code** in the same way as the telephone numbers and email addresses.
9. After entering the APN code, use the down arrow to go to **Periodic 6 hour report,** where you choose whether (YES) or not (NO) you want to be sent periodic sensor temperature reports. Use the arrows to move between the options.
    9.1 The default setting is YES.
    9.2 If you want to choose NO, press the right arrow to start editing. The background of the first letter (Y) goes red.
    9.3 Press the down arrow if you wish to select NO.
    9.4 If you choose NO in the "Periodic 6 hour report" settings, the device will not automatically send any periodic sensor temperature reports. However, the device will remain in the active temperature measuring mode and if the set temperature limit is exceeded by any sensor, the system will send a warning message to the defined recipients.
10. The last part of the device settings is **Report start time.**
    10.1 Use the down arrow to go to the figure under the "Report start time" heading
    10.2 Press the right arrow once to activate the line to enter your selection.
    10.3 Use the up and down arrows to select the figure representing the hour when you want start sending the periodic 6-hour reports. Numbers 1–12 are available. For example, if you wish to start the alarm activity at 3am, enter "3" and the periodic report will be sent to you at 3am, 9am, 3pm, 9pm, 3am, etc. If you wish to start the alarm activity at 7pm, enter "7" and the periodic report will be sent to you at 7pm, 1am, 7am, 1pm, 7pm, etc.
    10.4 After you finish entering your selection, confirm it by pressing the right arrow. The background of the whole line goes red and the entered figure is confirmed and saved.
11. Press the down arrow to go to the last stage of the Temperature Alarm technical settings, which is **entering the protective PIN code,** which prevents unauthorised persons from changing the device settings. For PIN code settings, see page 13.
12. After the PIN code is confirmed, press the down arrow to go to the Temperature Alarms home screen. The alarm is ready for testing - see "Operator connection quality test, Accessories – siren and beacon – functionality test," page 16.

3.2 PIN code setting – protecting the device against unauthorised changes to the settings

We recommend that only a responsible person is allowed to administer the device.

The factory setting of the device is provided with a PIN code of 0000 (in words „zerozerozerozero“).

The PIN code can be set by using the external keyboard or the arrow buttons on the top of the device.

Press the right arrow once to activate the change entry line. The background under the first digit in the line goes red. Enter a 4-digit PIN. To confirm the PIN code press the right arrow. The background of the whole line goes red and the entered code is confirmed and saved.

If the default PIN code remains unchanged, the alarm will be in an “unlocked” mode and anyone (even an unauthorized person) will be able to change the settings in any way. It will then be possible to make changes to the device by using the external keyboard as well as by using the arrows on the top of the device.

If an individual PIN code (different from the default PIN code) is set, any future changes of the technical settings will only be possible after this individual PIN is entered and also in both ways: using the external keyboard or the arrow buttons on the top of the device.

The individual PIN can be set at any time, not only during the initial device setting procedure.

3.3 Device setting changes

3.3.1 Temperature Alarm with default PIN code (0000)

1. Changes to device settings can be done in two ways: using the connected external keyboard or using the arrow buttons on the top of the device.
2. The external keyboard works in the EN mode. Turn on NUMLOCK.
3. Use the up and down arrows on the top of the alarm (or on the external keyboard) to go to the settings section where you want to make changes, e.g. entering a new telephone number, email address, temperature limit, etc.
4. Enter the change according to the instructions in “Setting the technical data,” pages 9–12.
5. After being entered, the changes must be confirmed and saved. Use the right arrow to put the cursor on the last letter or digit position in the line where the change has been done. Press the right arrow once. The whole line gets a red background and the change is confirmed and saved.
6. After entering and saving the required changes, press the left arrow to go back to the home screen displaying the temperatures of the individual sensors.
7. Press the up arrow to put the alarm into the Sleep mode; see “Sleep mode”, page 17.

3.3.2 Temperature Alarm with individual PIN code (XXXX)

1. The device administrator must be a qualified person.
2. Device administration can be done in two ways: using the connected external keyboard or using the arrow buttons on the top of the device.
3. The external keyboard works in the EN mode. Turn on NUMLOCK.
4. After device activation, the home screen displaying the temperatures of the individual sensors appears.
5. Press the down arrow to go to the PIN setting screen.
6. Enter your individual PIN code.
7. After entering the PIN, you can begin to make changes – e.g. enter a new telephone number, email address, temperature limit, etc.
8. Enter the change according to the instructions in "Setting the technical data," pages 9-12.
9. After being entered, the changes must be confirmed and saved. Use the right arrow to put the cursor on the last letter or digit position in the line where the change has been done. Press the right arrow once. The whole line gets a red background and the change is confirmed and saved.
10. After entering and saving the required changes, press the left arrow to go back to the home screen displaying the temperatures of the individual sensors.
11. After you have made the changes, put the alarm into the Sleep mode – see "Sleep mode", page 17.

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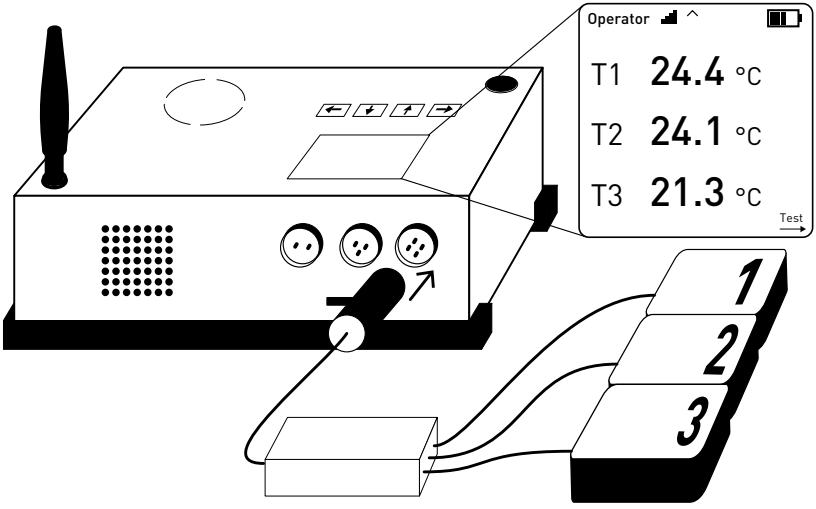
4 Operation

4.1 Connecting of the temperature sensors

Insert the connector of temperature sensors into the corresponding port on the back side of Temperature Alarm. After the sensors are connected, the temperatures of the individual sensors are immediately displayed. The displayed temperatures change in accordance with the temperatures of the sensors.



4.2 Temperature Alarm installation (e.g. in a monitored vehicle)

Put the charged, set and activated (turned-on) alarm with the temperature sensors connected to it and with any connected accessories on the monitored surface so that the whole surface of the T1, T2 and T3 sensors touches the monitored device.

If the Temperature Alarm is to monitor the vehicle battery, put it under a seat, on the vehicle floor or into the luggage compartment. The Temperature Alarm must not be put on the dashboard or on any other place where it might be exposed to sunlight. Beacon and siren (if connected to the alarm) should be placed preferably on the roof of the car so that their signalling in the event of an alarm is fully functional. The beacon is connected to the alarm by an approx. 13ft connecting cable.

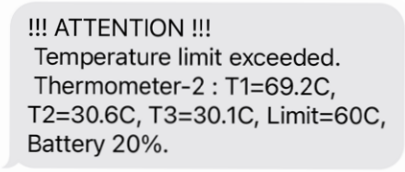
After installing the alarm in the electric vehicle it is recommended to perform a test of the mobile operator's connection quality and a test of accessories quality - see the corresponding chapter on page 16.

If the tests show no complications, you can (but you do not have to) put the alarm manually into the Sleep mode (to save battery) – see the corresponding chapter on page 17 – and start measuring.

The alarm continuously monitors the temperature of the electric vehicle's battery and automatically sends SMS and email reports at six-hour intervals to a maximum of 5 pre-defined recipients.

If battery temperature exceeds the determined limit:

- → the alarm immediately sends a warning SMS and email to the defined recipients;



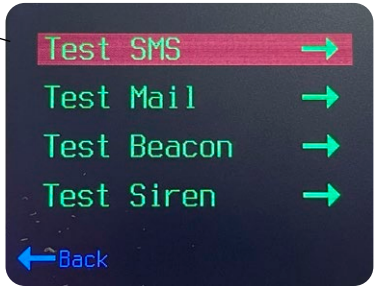
- → if the beacon is connected, it starts flashing at regular intervals (3 times in 2 minutes with 2-minute pauses);
- → if the siren is connected, it starts giving out a warning sound signal at regular intervals (3 times in 2 minutes with 2-minute pauses);

The visual and sound warnings of the beacon and siren can be turned off by pressing any arrow on the top of the alarm.

4.3 Mobile operator connection quality test; Accessories (siren and beacon) functionality test

Before turning the alarm on for operation and before putting it, for example, into the monitored vehicle, it is recommended to perform mobile operator's connection quality and a test of accessories quality. This test confirms the functional connection between the alarm and the telephone numbers (email addresses) of the defined recipients of regular and warning messages.

1. The activated alarm is in the basic position. The home screen with information about mobile operator, signal strength and quality, battery status and temperature sensors is on.
2. Press the right arrow to go to the test choice screen.
3. The device offers four test options – Test SMS, Test Mail, Test Beacon and Test Siren. The tests are functional if the texts "Test SMS," "Test Mail," "Test Siren" and "Test Beacon" are green. If these texts are white, the device is not ready for testing and is still in the connection preparation mode. The change of text colour from white to green after the alarm is turned on may take up to five minutes, depending on signal strength and quality in the place where the alarm is being used.
4. If the text of "Test SMS" is green and has a red background, the device is ready to send a check SMS to the defined telephone numbers.

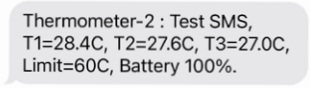


   4.1 Press the right arrow once.

   4.2 The device will display the title screen, in the upper part of which, next to the position of the signal strength, the inscription SMS will appear indicating the sending of a control SMS.

   4.3 A control SMS is sent when this inscription disappears

   4.4 An SMS stating the sensor temperatures should then be received by the defined telephone number. The temperatures are stated in the following order: current temperatures of individual sensors T1-T3 + pre-set sensor limit temperature + battery status.



5. To send a check email, use the down arrow to go from Test SMS to Test Mail. The device is ready to send a check email once the text of Test Mail is green with a red background.

   5.1 Press the right arrow once.

   5.2 The device will display the title screen, in the upper part of which MAIL will appear next to the signal strength position indicating that a control email has been sent.

   5.3 The check e-mail is sent once the heading has disappeared.

   5.4 A control e-mail with the indicated temperatures of the control sensors should then arrive at the defined e-mail addresses. The temperatures are stated in the following order: current temperatures of individual sensors T1-T3 + pre-set sensor limit temperature + battery status.

6. Use the right arrow to activate Beacon Test and Siren Test. The test of accessory modules finishes automatically after about 10 seconds.
7. Use the left arrow to leave the test options screen. The home screen with information about mobile operator, signal strength and quality, battery status and temperature sensors is shown.

4.4 The Sleep mode

After five minutes of no activity (none of the buttons on the top of the alarm are pressed), the alarm goes into the Sleep mode (energy-saving mode), in which it continuously measures vehicle battery temperature but the display is not activated. As a result, alarm battery operation is substantially longer.

In the Sleep mode, the alarms display is not activated but the Start/Stop button flashes shortly at regular intervals.

The Sleep mode can be activated in two ways:

- → Automatically – the device turns itself into the Sleep mode if no changes have been made (no buttons pressed) for more than five minutes.
- → Manually – the device can be turned into the Sleep mode manually from the home screed by pressing the up arrow once and confirming the choice (YES) by pressing the right arrow.

The Sleep mode is interrupted when:

- → The alarm is sending the periodic 6-hour report.
- → The temperature limit is exceeded and the alarm is sending a warning message.
- → The Start/Stop button is held down for a longer time. The Sleep mode is interrupted manually. Then the alarm becomes fully active after about 1–5 minutes when the mobile operator has been located and the signal strength and mobile data have been determined.

4.5 Turning off the Temperature Alarm

The Temperature Alarm can be turned off (deactivated) in two ways:

1. By pressing and holding down the Start/Stop button for more than 5 seconds – the system is shut down and the device is turned off.
2. By pressing the up arrow on the home screen twice.
   a. The "Switch off" option is displayed.
   b. After it is confirmed (YES) by pressing the right arrow, the system is shut down and the device is turned off.

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5 General information

5.1 Temperature Alarm safety function

1. The Temperature Alarm has a PIN code setting feature that enables the device to be locked. In such a case, no changes to the device settings can be made by an unauthorised person.
2. The device is fitted with an internal cooling ventilator. If the temperature exceeds 104 °F, the ventilator is turned on automatically and the device starts being cooled.

3. After the device has been fully charged, it is automatically disconnected from the charger. If the device remains connected to the charger, charging automatically re-starts after the battery charge level decreases below 80%.
4. If battery capacity decreases under 20%, the device sends an information SMS to the defined recipients.
5. If the alarm fails to send the information email about sensor temperatures three times, an SMS about this problem is sent to the defined recipients.

5.2 Temperature Alarm storage instructions

1. Store the alarm in a dry place.
2. If the alarm is not to be used for a long time, it should be stored at room temperature (66–73 °F).
3. The alarm system is designed in such a way that the power supply adapter can be connected to it permanently and the battery is safely recharged without any risk of damage. Therefore, it enables permanent connection to the mains power adapter even during storage.
4. If stored for a long time without the power supply adaptor connected to it, the alarm must be fully recharged at least once a year so as to prevent the battery from being totally discharged.

5.3 Recommended accessories

The following optional accessories for the Temperature Alarm are provided for a surcharge.

Name
Siren
Beacon
Special temperature sensors (other lengths)

If optional accessories (the beacon and siren) are connected to the alarm, the battery temperature change is reported not only by a warning SMS and email but also by the siren's warning sound and the beacon's flashing. We recommend putting the accessories on the roof of the vehicle so that the visual and sound signals can be identified as easily as possible if there is an alarm. The Beacon is connected to the alarm by a 13ft cable.

If the optional Siren is installed, its sound signal can be turned off by pressing any arrow button on the top of the alarm.

5.4 Important contact information

Qualified service:
ECCOTARP USA, inc.
357 West 36th Street
New York, NY 10018
USA

info@eccofighter.com
T: 1 212-725-9845

5.5 Repair

Any repair work must always be done by the manufacturer's qualified personnel. In order to report any malfunction, order spare parts or lodge a complaint, please contact only your qualified supplier.

5.6 Warranty conditions

The warranty period is stated in the warranty certificate, which is delivered with the product. The warranty period is 24 months and begins on the day indicated in the warranty certificate. The warranty does not apply to the normal wear and tear (e.g. gradual decrease in battery capacity) or to damage caused by improper use or by the instructions in this manual not being observed.

5.7 Disposal

The device or its parts must not be disposed of with household / municipal waste. At the end of its lifetime, the device must be taken to an electric waste collection point for environment-friendly disposal or returned to the manufacturer. A power supply adapter that is past service must be taken to an electric waste collection point or returned to the manufacturer.

Warranty certificate

The warranty period is 24 months.

The warranty covers:

defects caused by manufacturing defects of the material used and any other damage, not caused by demonstrable mishandling by the user or any modification of the product.

The warranty does not cover:

damages caused by improper handling and use of the product and failure to follow the „user manual" – e.g. mechanical damage of the device, when it is placed in an inappropriate place, or placing the alarm near an open fire, etc.

The manufacturer is not liable for any direct or indirect damage caused by other than the recommended use of the product.

Complaints must be applied within 24 months of purchase from your supplier. When applying please provide your complaint with full details – product serial number, proof of purchase, appropriate photographic documentation and a detailed description of the circumstances in which a fault has occurred.

Product name: .....

Production code: .....

Stamp and signature: .....

Date of sale: .....

In case of problems, please contact: .....

Failure description: .....

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