User Manual

GSM Transmitter

Sebalog GT-3-S

Mess- und Ortungstechnik
Measuring and Locating Technologies

Elektrizitätsnetze
Power Networks

Kommunikationsnetze
Communication Networks

Rohrleitungsnetze
Water Networks

Abwassernetze
Sewer Systems

Leitungsortung
Line Locating

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Consultation with SebaKMT

The present system manual has been designed as an operating guide and for reference. It is meant to answer your questions and solve your problems in as fast and easy a way as possible. Please start with referring to this manual should any trouble occur.

In doing so, make use of the table of contents and read the relevant paragraph with great attention. Furthermore, check all terminals and connections of the instruments involved.

Should any question remain unanswered or should you need the help of an authorized service station, please contact:

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Terms of Warranty

SebaKMT accept responsibility for a claim under warranty brought forward by a customer for a product sold by SebaKMT under the terms stated below.

SebaKMT warrant that at the time of delivery SebaKMT products are free from manufacturing or material defects which might considerably reduce their value or usability. This warranty does not apply to faults in the software supplied. During the period of warranty, SebaKMT agree to repair faulty parts or replace them with new parts or parts as new (with the same usability and life as new parts) according to their choice.

This warranty does not cover wear parts, lamps, fuses, batteries and accumulators.

SebaKMT reject all further claims under warranty, in particular those from consequential damage. Each component and product replaced in accordance with this warranty becomes the property of SebaKMT.

All warranty claims versus SebaKMT are hereby limited to a period of 12 months from the date of delivery. Each component supplied by SebaKMT within the context of warranty will also be covered by this warranty for the remaining period of time but for 90 days at least.

Each measure to remedy a claim under warranty shall exclusively be carried out by SebaKMT or an authorized service station.

This warranty does not apply to any fault or damage caused by exposing a product to conditions not in accordance with this specification, by storing, transporting, or using it improperly, or having it serviced or installed by a workshop not authorized by SebaKMT. All responsibility is disclaimed for damage due to wear, will of God, or connection to foreign components.

For damage resulting from a violation of their duty to repair or re-supply items, SebaKMT can be made liable only in case of severe negligence or intention. Any liability for slight negligence is disclaimed.

Since some states do not allow the exclusion or limitation of an implied warranty or of consequential damage, the limitations of liability described above perhaps may not apply to you.

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1 Safety Instructions

1.1 General Safety Instructions and Warnings

	• Do not drop the device / the system's components or subject it / them to strong impacts or mechanical shocks. • The limits described under Technical Data may not be exceeded. • The device / system must be in a technically perfect condition for measurement.

1.2 General Notes

Safety precautions

This manual contains basic instructions for the commissioning and operation of the device / system. For this reason, it is important to ensure that the manual is always available to the authorised and trained operator. He needs to read the manual thoroughly. The manufacturer is not liable for damage to material or humans due to non-observance of the instructions and safety advices provided by this manual.

Locally applying regulations have to be observed!

Labelling of safety instructions

The following signal words and symbols are used in this manual and on the product itself:

Signal word / symbol	Description
CAUTION	Indicates a potential hazard which may result in moderate or minor injury if not avoided.
NOTICE	Indicates a potential hazard which may result in material damage if not avoided.
	Serves to highlight warnings and safety instructions. As a warning label on the product it is used to draw attention to potential hazards which have to be avoided by reading the manual.
	Serves to highlight important information and useful tips on the operation of the device/system. Failure to observe may lead to unusable measurement results.

Check contents

Check the contents of the package for completeness and visible damage right after receipt. In the case of visible damage, the device must under no circumstances be taken into operation. If something is missing or damaged, please contact your local sales representative.

Working with products from SebaKMT

It is important to observe the generally applicable regulations of the country in which the device will be operated, as well as the current national accident prevention regulations and internal company directives (work, operating and safety regulations).

Use genuine accessories to ensure system safety and reliable operation. The use of other parts is not permitted and invalidates the warranty.

Repair and maintenance

Repair and maintenance work has to be carried out by SebaKMT or authorised service partners using original spare parts only. SebaKMT recommends having the system tested and maintained at a SebaKMT service centre once a year.

SebaKMT also offers its customers on-site service. Please contact your service centre if needed.

Special transportation requirements

The lithium batteries of the device are dangerous goods. The transport of the batteries itselves and of devices which contain such batteries is subject to regulations based on the UN Model Regulations “Transport of Dangerous Goods” (ST/SG/AC.10-1).

Please inform yourself about the transportation requirements and follow them when shipping the device.

Electromagnetic radiation

This device is designed for industrial use. When used at home it could cause interference to other equipment, such as the radio or television.

The interference level from the line complies with the limit curve B (living area), the radiation level complies with the limit curve A (industrial area) according to EN 55011. Given that living areas are sufficiently far away from the planned area of operation (industrial area), equipment in living areas will not be impaired.

1.3 FCC label / IC label

GT-3-S

This device/system complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device/system may not cause harmful interference, and (2) this device/system must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

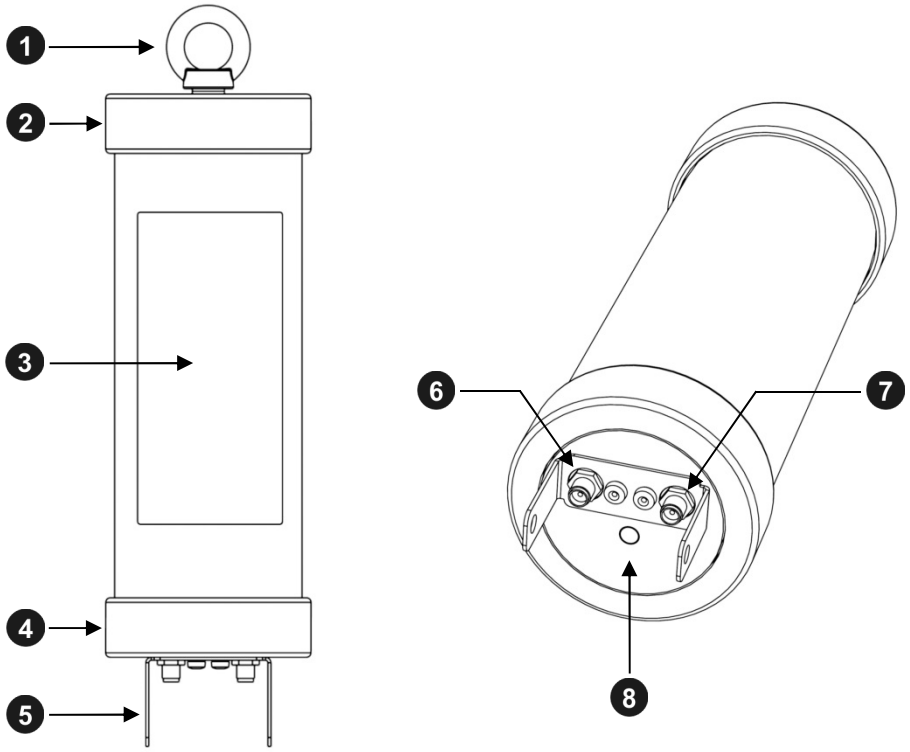
LOG RI+

User Information acc. to FCC15.21: *Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*
Part 15 Statement acc. to FCC 15.19/RSS Gen Issue 3 Sect. 7.1.3: *This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.* ***This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.***

2 Technical description

2.1 Device design

External features The GT-3-S has the following controls and external features:



Element	Description
1	**Cover plug with suspension ring**
2	**Top cover ring**
3	**Type plate with the device identification number (ID)**
4	**Bottom cover ring**
5	**Protective bracket**
6	**GPS socket for aerial connection**
7	**GSM socket for aerial connection**
8	**On/Off contact field (magnetic switch) and status LED** 1x red, 3x green ... When switched on Flashes blue ... Device is switched on and ready for transmission Remains lit in blue ... Data is being transmitted Yellow, then red ... When being switched off

Cover rings There is one “cover ring” at the top and bottom end of the GT-3-S respectively. These rings are screwed onto the housing by means of inside threads. They are used to secure the cover or the base of the device, and to seal the device tightly.

The top cover ring ❷ may be opened to access the SIM card slot and the battery.

NOTE

The bottom cover ring ❹ must NEVER be opened.

Otherwise, electronic components in the device may be damaged.

If the cover ring is unscrewed anyway, the yellow guarantee sticker will be damaged. In this case, the device guarantee is voided.

2.2 Function

The GT-3-S device is a compact, waterproof GSM module with its own source of energy. In addition, the device is equipped with an internal GPS receiver.

- The GT-3-S is used as an interface to the mobile network for: LOG N-3 noise level loggers
- LOG P-3 pressure loggers

The GT-3-S enables the following functions for the loggers to which it is connected:

- Regular uploads of measured data to an FTP server (1x daily)
- Regular transmission of measured data by e-mail/SMS
- Sending alarm messages by e-mail/SMS when thresholds are exceeded
- Identifying and saving the GPS position

Up to three loggers can be connected to one GT-3-S at the same time.

2.3 Communication

The GT-3-S features an integrated GSM/GPRS modem, and an integrated wireless module for short-range radio.

Short-range radio is used for:

- Communication between GT-3-S and the loggers connected
- Communication between GT-3-S and a PC/laptop
  (a wireless interface must be connected to the computer – see the following section)

The mobile network is used for:

- Transfer of the data measured by the logger from the GT-3-S to the FTP server
- Sending messages by e-mail/SMS

2.3.1 LOG RI / LOG RI+ wireless interface for the computer

LOG RI The “LOG RI” device is the compact, standard wireless interface for devices in the Sebalog series.

LOG RI+ The “LOG RI+” wireless interface is available as an accessory from SebaKMT. In contrast to the LOG RI, the device has a more powerful wireless module that has a greater wireless range.

Log RI

Log RI+

Handling The LOG RI / LOG RI+ is easily connected to the computer using a USB port. This turns it on automatically. The device is automatically recognised by the computer and is immediately ready to set up a radio connection. No other settings need to be made.

Status LED The LOG RI / LOG RI+ device is equipped with an LED as a status indicator:

- Flashes 1x red, 1x green … When switched on
- Lights up in blue … During radio operation
- Lights up in red … Malfunction

Update We recommend always operating the device with the latest firmware. Information on updating device firmware can be found in the respective operating manuals for the noise or pressure loggers.

2.3.2 Reader-3 as a wireless interface for the computer

The “Reader-3” reading device from SebaKMT can be used as a wireless interface.

Connect the device to the computer by means of the corresponding “docking station” and switch it on. The device automatically switches to “USB mode”. It is automatically recognised by the computer and is immediately ready to set up a radio connection. No other settings need to be made. You can find more information about this in the Reader-3 operating manual.

2.4 Power supply

The GT-3-S is supplied with energy by an internal lithium battery.
The battery can be inserted and replaced by the user.

Battery criteria

The battery used must meet the following criteria:

Parameter	Value
Type	Lithium battery
Size	D cell
Quantity	1
Rated voltage	3.6 V
Capacitance	min. 13 h
Continual discharge current	min. 3 A

Querying the battery status

If you wish to obtain information about the battery status of a GT-3-S, you should read out the current device configuration.
The GT-3-S must be switched on and be within wireless range of the computer.
Proceed as follows.

Step	Description
1	Mark the GT-3-S concerned in the directory tree of the SDV-3 software.
2	Click on **Program** in the menu bar.
3	Click on **Read settings** at the bottom of the window.
	Result: The current configuration is read out and displayed by the device.
4	Click on **Status** at the bottom of the window.
	Result: A window with information about the current status of the device opens. One of the following items of information can also be found there: • **Battery full** • **Battery OK** • **Battery critical**

2.5 Technical data

The GT-3-S is distinguished by the following technical parameters:

Parameter	Value
Display	Status LED
Communication	Short-range radio 913.02 MHz (US) 868 / 916 MHz (depending on country) Mobile network (913.02 MHz device): Dual band UMTS/HSDPA 850/1900 MHz Quad band GSM/GPRS/EDGE 850/900/1800/1900 MHz Mobile network (868 / 916 MHz device): Dual band UMTS/HSDPA 900/2100 MHz Quad band GSM/GPRS/EDGE 850/900/1800/1900 MHz
Power supply	3.6 V lithium battery
Operating temperature	-20 to +60 °C
Storage temperature	-20 to +70 °C
Dimensions	190 x 69 mm Ø
Weight	approx. 0.5 kg (without battery)
Protection class	IP68

2.6 Included in delivery

Standard accessories The standard delivery includes the following components:

Part	Description	Serial no.
LOG GT-3-S	GSM transmitter	
	LOG GT-3-S-868	1009289
	LOG GT-3-S-913	1008710
	LOG GT-3-S-916	1009291
LOG GT-3-S-A	GPS/GSM aerial	2009013
VK129	Connection cable for LOG GT-3-S-A (2 included)	90021036
	Switch-on magnet	

Optional accessories In addition to the standard delivery, additional accessory parts are available:

Part	Description	Serial no.
LSH-20	Spare battery	820007318
	Coil spring for aerial (USA)	90021150
	GPS receiver for laptop	820013945

3 Inserting the SIM card / changing the battery

The following is a description of the steps to carry out in order to

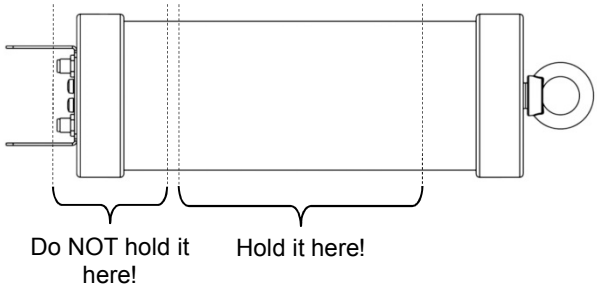
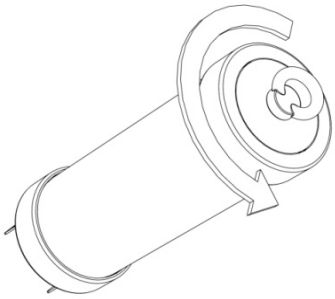
- insert a SIM card in the device
- replace a battery.

The device must be opened to access the battery holder and the SIM card slot.

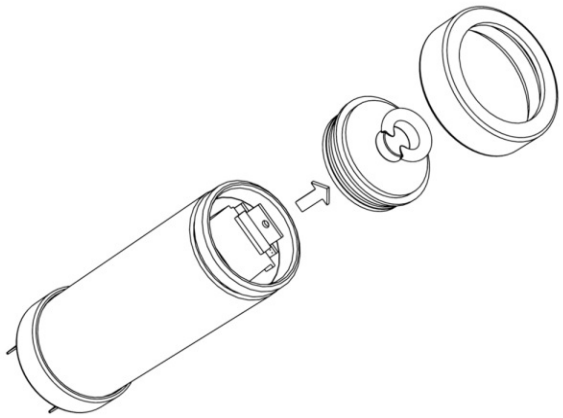
	**NOTE** **The device contains sensitive semi-conductor components.** Always proceed carefully in order not to damage any of the components. Do not use force.

Opening the housing

In order to open the housing, proceed as follows:

Step	Description
1	The device must be switched off (status LED ❶ stays off).
2	Hold the GT-3-S in one hand. Hold the device around the middle of the housing, and not by the bottom cover ring. 
3	Open the top cover ring ❻ and screw it off the housing.  **NOTE** **The bottom cover ring ❹ may NOT be unscrewed.** Electronic components inside the device could be damaged. When unscrewed, the guarantee sticker on the device will break and all guarantee claims are immediately voided.

(continued on next page)

Step	Description
4	Carefully pull the cover plug out of the housing.  **Result:** You can now access the battery holder. Placing the GT-3-S on a table or another level surface is recommended at this point. The type plate should face upwards.
5	Hold the housing tight in one hand. Use your other hand to carefully pull the battery holder out of the housing, but only as far as the ribbon cable allows. Caution: Do not pull with too much force, or with a sudden motion. The ribbon cable must not be torn or damaged in any other way. The ribbon cable may be disconnected from the battery holder when necessary, and be reconnected later on (also see the description that follows, “Changing the battery”). This is generally unnecessary when replacing the SIM card, because the battery holder does not need to be pulled completely out of the housing to do so. The ribbon cable has a sufficient length for this activity.

Inserting the SIM card

The slot for the SIM card is on the bottom of the battery holder.
Push the SIM card into the slot until you can feel it lock into place.

To remove the card, start by pushing the card slightly into the slot to release it from the holder. The card is then pushed out of the slot by the spring mechanism, and can be removed.

Proceed carefully! Otherwise the SIM card may be ejected suddenly, and may be lost.

Changing the battery

In order to change the battery, proceed as follows:

Step	Description
1	Unplug the ribbon cable connector from the battery holder.
2	Remove the battery holder from the housing completely.
3	Replace the old battery with a new one.

Step	Description
	When inserting the battery, make sure the polarity is correct. There are plus and minus symbols on the battery holder indicating this.
4	Reconnect the ribbon cable to the battery holder.

Closing the housing again

In order to close the housing again, proceed as follows.

Step	Description
1	Carefully push the battery holder back into the housing. Then push the ribbon cable into the housing. Note: • There is exactly one correct position in which the complete battery holder is in the housing, fits properly and can no longer be turned. Find this position. • Do not bend or pinch the ribbon cable!
2	Close the housing again using the cover plug. Note: • The rubber sealing ring on the plug and the contact surface must be free of dirt. • Once the battery holder has been correctly fitted in the housing, the cover plug is easy to insert and will not touch the battery holder. Should the battery holder prevent the plug from being inserted, then the battery holder is still not in the right position. • Do not bend or pinch the ribbon cable!
3	Screw the cover ring back onto the housing. Note: • The thread on the cover ring and housing must be free of dirt. • Carefully tighten the ring by hand. Do not overtighten!

Resetting the battery counter

When you have changed battery, then you will need to reset the internal “battery counter” of the GT-3-S to zero.

The following prerequisites must be met:

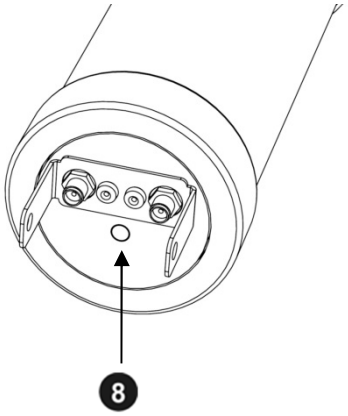
- A wireless interface (e.g. LOG RI) must be connected to the computer.
- The GT-3-S must have been added in the SDV-3 software.
- The GT-3-S must be switched on and be within wireless range of the computer.

Proceed as follows.

Step	Description
1	Mark the GT-3-S concerned in the directory tree of the SDV-3.
2	Click on **Program** in the menu bar.
3	Click on **Read settings** at the bottom of the window.
	Result: The current configuration is read out and displayed by the device.
4	Click on **Status** at the bottom of the window.
	Result: A new window opens.
5	Click on **Reset battery counter** in the window.

4 Switching the GT-3-S on/off

The GT-3-S features an internal magnet switch for switching it on and off.



Move the supplied magnet over the On/Off contact field 8. The status LED lights up in red first; after the magnet is removed, it flashes in green three times. An LED regularly flashing in blue then indicates that the device is switched on and ready for data reception.

To switch off the logger, hold the magnet on the On/Off contact field for a few seconds. The LED first lights up yellow. As soon as it lights up red, you can remove the magnet. The device then switches off and the LED goes out.

5 Preparatory work in the office

5.1 Mobile network, FTP server, e-mail account, etc.

GSM / GPRS / UMTS For data transfer using the mobile network, a contract with a mobile service provider must be concluded. You will require a **SIM card** that is enabled for data traffic using GPRS / UMTS.

FTP server You will require free memory on **an FTP server** to be able to upload measured data to it. You can use your company's own server environment for this purpose or conclude a licence agreement with a commercial provider on the Internet.

You can also rent storage space on an FTP server provided by SebaKMT. Please contact your SebaKMT sales partner to do so.

Under certain conditions, it is also possible to access the company's own "demo server" from SebaKMT.

Your log-in requires read and write rights for the FTP server concerned.
The FTP server must be configured so that the GT-3-S appears in the root directory of the FTP user after logging in.
After logging in, the GT-3-S runs the command "CWD /" and searches for the sub-directory corresponding to the device from there.
The corresponding root directories must have been created in this root directory for the respective device types.

E-mails If you wish to receive alarm messages or status messages per e-mail, you will require an **e-mail account** that functions as the sender. Should your company's own mail server be unsuitable for this (e.g. due to a firewall, etc.), then you can sign a usage agreement with a commercial provider.

Under certain conditions, it is also possible to access the company's own "demo account" from SebaKMT.

5.2 Inserting a SIM card in the GT-3-S

A SIM card must be inserted in every GT-3-S that is used for measurements. You received one from your mobile operator when you signed a mobile contract.

The card slot for the SIM card is inside the device, at the bottom of the battery holder. Exact information about the steps required can be found in the section "Inserting a SIM card / Changing the battery".

5.3 Preparing loggers

Have all loggers you wish to use for measurements ready.
The loggers must be switched off.

5.4 Connecting the wireless interface to the PC / laptop

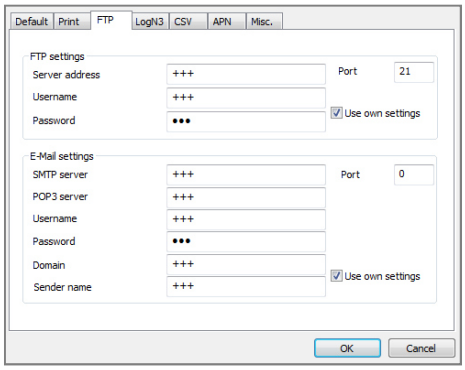
To communicate with the GT-3-S, a wireless interface (e.g. LOG RI) must be connected to the computer.

5.5 Saving access data for FTP server and e-mail account in the SebaDataView-3 software

You must now save the access data for the FTP server used, along with the access data for the e-mail account you are using, in the SebaDataView-3 software configuration.

This step is necessary to be able to download measured data from the FTP server and import it into the SDV-3 software at a later stage. Furthermore, the access data saved can then be entered in the respective input mask by “clicking the mouse” when programming the GT-3-S devices. This makes programming easier and considerably faster.

Procedure Proceed as follows:

Step	Description
1	Open the SebaDataView-3 software.
2	Click on the drop symbol  at the upper left of the window.
3	Click on **Settings** in the context menu that opens.
4	Open the **FTP** tab in the configuration.
	Result: The following entry screen then appears in the window:
	
	The **FTP settings** segment contains input fields for entering the access data for your FTP server. You can ask your company's system administrator or the server operator for this data, or look it up in your FTP usage agreement. The **E-mail settings** segment contains input fields for entering the access data for the sender e-mail account to be used when messages are to be sent by e-mail. Ask your company's system administrator or the e-mail account provider for this data. You can enter any name or similar designation in the **Sender name** field, and this will be used to identify the device as the sender of the message.
5	Click the respective **Use own settings** checkbox.
6	Enter the access data in the input boxes.
7	Click on **OK** to confirm the details and to close the window.
	Result: The access data are now on file in the software. When programming the devices, a checkbox is shown for each of the steps in the input area, and this can be used to add the access data saved.

5.6 Registering devices in the SebaDataView-3 software

5.6.1 Introduction

All GT-3-S and all loggers that are to be used for the upcoming measurement must have been registered in the SebaDataView-3 software.

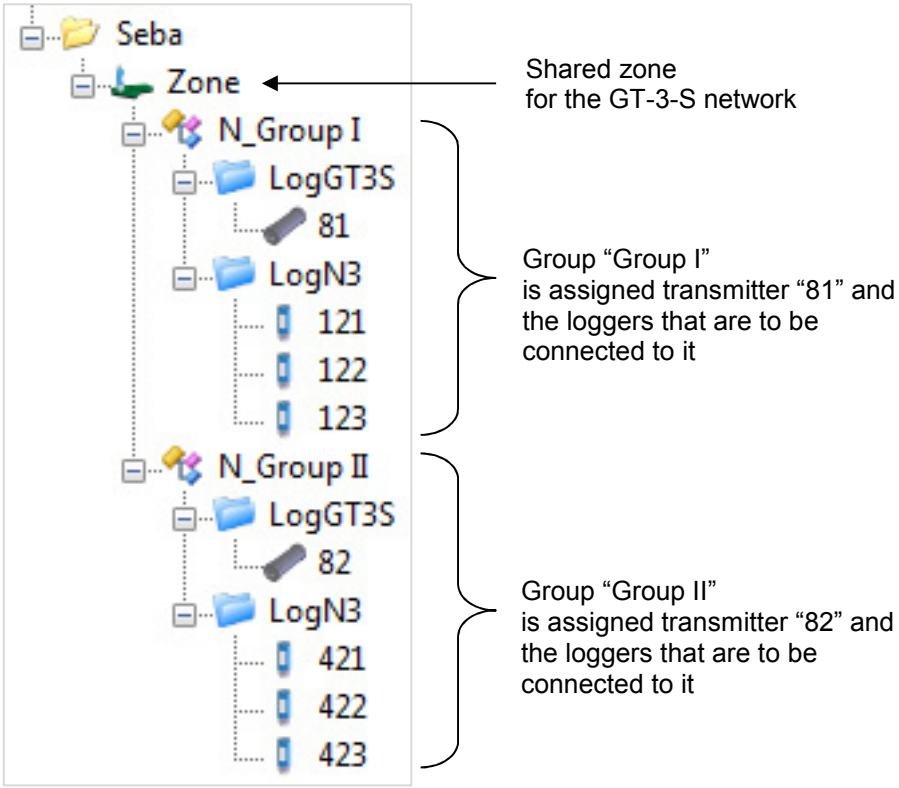
You can register the devices in the office, or do this directly on site.

Important information

Observe the following points:

- All devices in the network (i.e. all GT-3-S used and all loggers) must be combined to form a shared zone.
- A specific group must be created for every GT-3-S that is used for the measurement. The loggers that are to be connected to the GT-3-S concerned are added to this group.
- A maximum of 3 loggers can be added to a GT-3-S group.

Example:



5.6.2 Selecting a zone or creating a new one

Select the zone to which the GT-3-S and the loggers concerned should be added in the directly tree, or create a new zone.

To create a new zone, proceed as follows:

Step	Description
1	Mark the folder in which the new zone should be created.
2	Open the **Directory** tab in the menu bar.

(continued on next page)

Step	Description
3	Click **New** in the **Zone** segment.
4	In the window which opens, give the new zone a name and add a comment. Confirm the inputs using **OK**.
	Result: The new zone has now been created in the database and will appear in the directory tree.

5.6.3 Creating a group and adding a GT-3-S

Creating a new group

Create a new group in the directory tree.

Step	Description
1	Mark the zone under which the new group should be created.
2	Click **New** in the **Group** segment.
3	In the window which opens, give the new group a name and add a comment. Confirm the inputs using **OK**.
	Result: The new group has now been created in the database, and appears in the directory tree.

Adding GT-3-S to the group

Add a GT-3-S to the new group.

Step	Description
4	Mark the newly created group in the directory tree.
5	Open the **LogGT3S** tab in the menu bar.
6	Click **New** in the **Administration** segment.
7	Register the required GT-3-S. **Manually** Deactivate the **Automatic detection** checkbox and enter the identification number (ID) of the device. **Automatically** Activate the **Automatic detection** checkbox, then switch on the device. **Result:** The identification number (ID) of the device is recognised and displayed.
	Enter a comment about the device as a text input, and confirm all inputs using **OK**.
	Result: The GT-3-S is now registered and appears in the directory tree.
8	Click on **Close** to complete the process. (The GT-3-S is “connected” to the loggers later on at the site of use.)

Please remember: Only one GT-3-S can be registered per group. As soon as you wish to add an additional GT-3-S to the zone, you must start by creating a new group in this zone.

The first GT-3-S in the zone should have already received a complete configuration before additional GT-3-S devices are added to the zone. All new GT-3-S will automatically copy the configuration data of the first GT-3-S in the zone. This considerably reduces the work required to program these devices.

5.7 Programming the GT-3-S

5.7.1 Basic procedure

The GT-3-S must be programmed before measurements are taken. This involves allocating all GSM configuration data to the device.

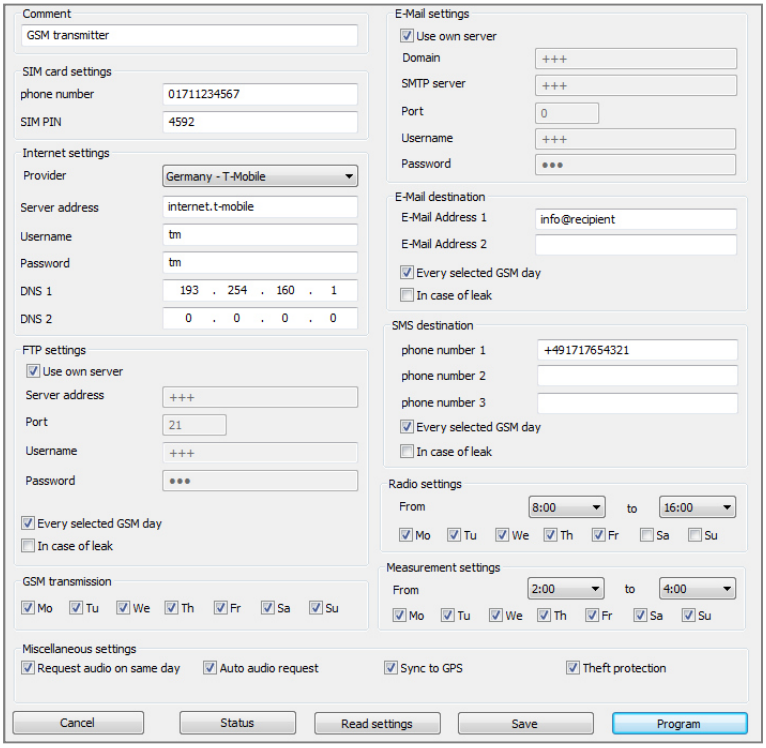
Requirements The GT-3-S concerned must be switched on and be within wireless range of the computer.

Procedure Proceed as follows:

Step	Description
1	Mark the GT-3-S concerned in the directory tree of the SDV-3.
2	Click on **Program** in the menu bar. (If necessary, open the **LogGT3S** tab beforehand.)
	Result: The window for input of the configuration data opens.
3	Enter all data required for the mobile connection. (You will find more detailed information in the next section).
4	Enter the weekdays, and from when until when on each of these days, the GT-3-S should be responsive to outside transmissions by short-range radio in the **Radio settings** segment.
5	Click on **Program** at the bottom of the window.
	Result: The GSM settings are sent to the GT-3-S by radio. After completing the process, a dialogue window appears. You will be asked whether you would like to continue with the next step directly.
6	Click on **No** in the dialogue window displayed.

5.7.2 Explanations for the GSM input window

The figure shows the input mask for GSM configuration data. All parameters necessary for the mobile connection from / to the GT-3-S to function must be entered in it. (The data required can be found in your mobile phone contract, or ask your mobile operator for them.)



GSM parameters

You will find explanations for the individual items in the configuration window in the table.

Segment	Parameter
SIM card settings	Enter the phone number and the PIN code for the SIM card being used in the GT-3-S.
Internet settings	Specify the Internet access data for your mobile operator here (server address, user name, password, etc.). If your mobile operator is included in the drop-down list **Provider**, select it and the required data will be entered automatically.
FTP settings	The access data for the FTP server to which the measured data are to be sent (server address, port, user name, password) must be entered here. The data will be given to you when you sign the FTP usage agreement, or you can ask the operator of the FTP server for them. If you have already entered the access data for your server in the software configuration and you wish to use this server, mark the **Use own server** checkbox. The data in the configuration are then accepted and the data appears in the input boxes. If you wish to use the SebaKMT demo server, mark the **Seba Demo Mode** checkbox. The access data are then entered automatically. (Please note that this server may be used temporarily and for demonstration purposes only!)

Segment	Parameter
	Use the checkboxes to specify when the measured data should be uploaded: **Every selected GSM day** … Data will be uploaded every day (more exactly: on every "GSM day"). **In case of leak** … Data will only be uploaded if the leak threshold of a logger was exceeded during the last measurement. If no measured data are to be uploaded, deactivate both checkboxes.
E-mail settings	Do you wish to receive alarm messages by e-mail in the event of suspected leaks or when a pressure surge occurs? Then enter the access data for the e-mail account used to send messages here (domain, server address, port, user name, password). The data will be assigned to you by the operator of the mail account, or by your system administrator. If you have already entered the access data for your server in the software configuration and you wish to use this server, mark the **Use own server** checkbox. The data in the configuration are then accepted and the data appears in the input boxes. If you wish to use the SebaKMT demo account, mark the **Seba Demo Mode** checkbox. The access data are then entered automatically. (Please note that this account may be used temporarily and for demonstration purposes only!)
E-mail destination	Do you wish to receive alarm messages and overviews of measured data by e-mail? Then enter up to two recipient addresses here. Use the checkboxes to decide whether you only wish to receive e-mails in the event of an alarm, or receive e-mails daily (more exactly: on every "GSM day"). If you do not wish to receive e-mails at all, deactivate both checkboxes.
SMS destination	Do you wish to receive alarm messages and overviews of measured data by SMS? Then enter up to three recipient phone numbers here. Do not use spaces or special characters. Use the checkboxes to decide whether you only wish to receive SMS in the event of an alarm, or receive SMS daily (more exactly: on every "GSM day"). If you do not wish to receive SMS at all, deactivate both checkboxes.

"GSM days"

Segment	Parameter
GSM transmission	Define the days of the week on which the GSM modem in the GT-3-S is to be active (so-called **"GSM days"**). Uploading or sending measured data or notifications is only possible on these days.

"Radio transmission time"

Segment	Parameter
Radio settings	Define when the GT-3-S and other devices connected should be responsive to outside transmissions by short-range radio. Use the checkboxes to select the required days of the week (so-called "Radio transmission days"). Use the two drop-down menus to select the transmission period for each transmission day. Explanation: Devices that should be responsive to outside transmissions by short-range radio around the clock consume much more energy. To conserve the energy in the batteries of the GT-3-S and the loggers connected, limiting the availability of the devices to a defined daily period (so-called "Radio transmission time") is recommended. The transmission time set does not affect transmission activities between the devices connected.

Audio data

Segment	Parameter
Miscellaneous settings	**Request audio on same day** checkbox *This checkbox is only relevant for work using N-3 noise loggers.* When this checkbox has been activated, audio requests are processed on the same day, meaning that the audio files on the logger are available for downloading on the same day. Prerequisite is that the audio request is sent one hour after the 'Radio transmission time' begins at the latest. If the request is sent later, then the audio files will only be available following the next regular data upload. When this checkbox is deactivated, then audio requests will not be processed on the same day. The audio files on the logger will only be available following the next regular data upload. Note: When this checkbox is activated, this results in much more energy being consumed by both the GT-3-S and the loggers connected.
	Auto audio request checkbox *This checkbox is only relevant for work using N-3 noise loggers.* When this checkbox is activated, audio files from the measurement day are also automatically uploaded in the event of an alarm (i.e. when a threshold is exceeded) without the user having to request this. The audio files are then uploaded to the FTP server by the GT-3-S on the same day. Note: • When this checkbox is activated, this results in much more energy being consumed by both the GT-3-S and the loggers connected. • From the third consecutive measurement days with an alarm onwards, no audio files will be uploaded to save energy.

GPS function

Segment	Parameters
Miscellaneous settings	**Sync to GPS** checkbox This checkbox allows you to define whether the GPS module for the GT-3-S is activated or deactivated for the upcoming measurement. When the checkbox is activated, the internal clock of the GT-3-S and the loggers connected can be synchronised with GPS time and the GPS position of the GT-3-S can be identified. Note: This checkbox must be activated when the noise data recorded are to be correlated later on.

Theft alarm

Segment	Parameters
Miscellaneous settings	**Theft protection** checkbox *This checkbox only functions when the "Sync to GPS" checkbox is activated at the same time.* When this checkbox is activated, the GPS position of the GT-3-S will be compared with the GPS data of the installation location once a day. If the positions are different, an alarm message is sent to the user by SMS / e-mail.

5.8 Performing a GSM test

To avoid complications on site, you should perform an initial GSM test with every GT-3-S to be used for measurements while still in the office. This involves checking whether the device can connect to the mobile network properly.

Requirements The following prerequisites must be met:

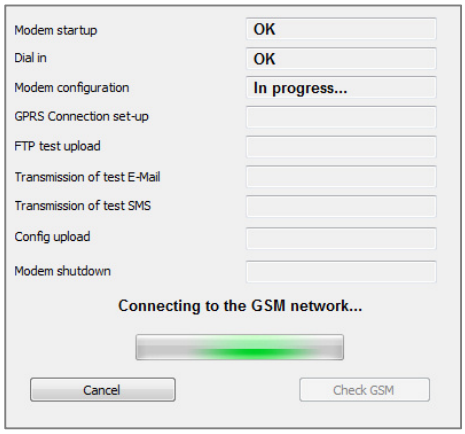
- A wireless interface (e.g. LOG RI) must be connected to the computer.
- The GT-3-S concerned must have been created in the SDV-3 software.
- The GT-3-S concerned must have been set up for GSM operation. (SIM card inserted, device programmed)
- The GT-3-S concerned must be switched on and be within wireless range of the computer.

Procedure To perform a GSM test with the aid of the computer, proceed as follows:

Step	Description
1	Mark the GT-3-S concerned in the directory tree of the SDV-3.
2	Click on **Check GSM** in the menu bar. (If necessary, open the **LogGT3S** tab beforehand.)
	Result: A new window opens.
3	Click on **Check GSM** in the window.
	Result: The GSM test starts. The GT-3-S uploads a test file called "ftp-test.csv" to the FTP server.

(continued on next page)

Step	Description
	The GT-3-S also sends a test e-mail or a test SMS to all recipients specified. The individual test steps are listed in the window on the screen. Successfully completed steps are marked with **OK**. An error message will appear if this is not the case.



Possible causes of faults

If the GSM test fails, check the following items again:

- Has a SIM card been inserted in the GT-3-S?
- Does the SIM card support data transmission?
  (Check the mobile contract or ask the mobile operator)
- Are GSM and data transmission activated on the SIM card?
  (Ask the mobile operator)
- Are the GSM settings that have been made suitable for the SIM card being used?
- Are the GSM settings that have been made suitable for the GT-3-S being used?
- Were the GSM settings sent to the GT-3-S?
- Is the battery charge of the GT-3-S still sufficient?

6 GT-3-S activities performed at the installation site

6.1 Introduction

After performing the set-up tasks in the office, all other steps must be performed directly at the usage site using a laptop.

The following prerequisites must be met:

- Laptop with SebaDataView-3 software
- A wireless interface (e.g. LOG RI) must be connected to the laptop.
- The loggers must be switched off.
- All GT-3-S devices must be equipped with a SIM card.
- All GT-3-S devices should be switched off.
- One GPS/GSM aerial and two 'VK129' connection cables for each individual GT-3-S need to be kept ready.

Note: The GT-3-S and the loggers connected to it must be installed in one and the same shaft. Otherwise, the radio connection between the devices might not function properly.

You will find explanations of the individual worksteps in the following sections.

6.2 Connecting the aerial and switching on GT-3-S

6.2.1 Connecting the GSM/GPS aerial to the GT-3-S

Introduction The GSM module and the GPS module for the GT-3-S are integrated in the device. The combined GSM/GPS aerial is not, however, integrated, and must be connected to the GT-3-S using the connection cables.

The long connection cables allows the aerial to be positioned high up in the shaft, or outside the shaft, while the GT-3-S remains inside the shaft.

Use of the GT-3-S is not possible without an aerial connected.

Requirements The following is required:

- 1x external GSM/GPS aerial for GT-3-S (included in delivery)
- 2x 'VK129' connection cables (included in delivery)

Procedure Proceed as follows:

Step	Description
1	Connect one of the two cables to the **GSM** socket of the aerial. Tighten the nut on the screw connection using your fingers. Do not use tools.
2	Connect the other end of the cable to the **GSM** socket on the GT-3-S.
3	Connect the second cable to the **GPS** socket of the aerial.
4	Connect the other end of the cable to the **GPS** socket on the GT-3-S.

6.2.2 Switching on GT-3-S

Switch on the GT-3-S, or ensure that it is still switched on. The status LED flashes regularly in blue when the device is switched on.

6.3 Adding loggers to the GT-3-S group

Introduction You have already created a GT-3-S group in the directory tree of the SDV-3 software.

All loggers that are to be connected to the GT-3-S must now be added to this group. A maximum of three loggers per group is possible.

Procedure Open the SDV-3 software on the laptop.

Then proceed as follows:

Step	Description	
1	Mark the relevant group in the directory tree.	
2	If you wish to register a N-3 noise logger, open the **LogN3** tab in the menu bar.	If you wish to register a P-3 pressure logger, open the **LogP** tab in the menu bar.
3	Click **New** in the **Administration** segment.	
	Result: The window for logger registration opens.	
4	Switch on the first logger to be registered. The logger will be detected automatically, and its identification number (ID) is shown. Use the **Insert** button to copy the ID shown into the directory tree. (Alternatively: if you deactivate the “Automatic detection” checkbox, you can enter the ID of the logger manually.)	
	Result: The logger is now displayed in the directory tree. You will find it in the group for the GT-3-S with which it will be connected later on.	
5	Add all other loggers to be connected to this GT-3-S to the group the same way.	
6	Use the **Close** button to end the registration process.	

6.4 Installing devices in the shaft

6.4.1 Installing loggers

Install the logger/s in the GT-3-S group in the shaft.

Detailed information on correct installation can be found in the operating manuals for the loggers.

If you install an N-3 noise logger horizontally, make sure that the red marking on the logger points upwards.

6.4.2 Installing GT-3-S

Make sure that the GT-3-S is switched on. The status LED flashes regularly in blue.

Positioning the GT-3-S

Place the GT-3-S in the shaft. The device can be suspended or be positioned vertically or horizontally to suit the on-site conditions. When possible, the connection sockets on the device should point downwards.

Suspending the device in the shaft, as shown in the following figure, is ideal. This device has been installed suspended in a service shaft using cable ties, just below the shaft opening.

Note: Do not suspend the GT-3-S by the cables.

Positioning the aerial

The GSM/GPS aerial connected to the GT-3-S can not receive a GPS signal when it is inside the shaft, and is only able to connect to the mobile network under certain conditions.

The aerial should therefore be guided out of the shaft, and be positioned outside.

Note:
- Do not bend or pinch the connection cable, or damage it in any other way.
- Do not subject the connection cable to strain.
- In order to receive GPS signals, the aerial must have an unobstructed “view” of the sky. Glass or plastic surface are not usually an obstacle to GPS signals. Walls, ceiling or other obstacles made of metal or stone do, however, inhibit GPS reception.

If there is nowhere to securely and safely install the aerial, or when the aerial should not be easily visible, then it can be buried a few centimetres deep in the ground.

6.5 Programming noise loggers (Log N-3)

This section is <u>not</u> relevant for Log P-3 / Log P-3 mini pressure loggers.

Introduction When programming the GT-3-S in the office, you defined whether the device should send alarm messages in the event of an alarm or not.

An alarm on an N-3 logger occurs when the lowest value recorded by the logger (minimum value) has reached or exceeded a specific threshold at the end of a measuring period. As a result, the GT-3-S sends alarm messages or triggers other alarm measures, depending on which alarm activities were defined by the use when programming the GT-3-S.

The noise level that is to form the alarm threshold must be defined individually for each N-3 logger. You also have the option of adding a comment text to each logger.

Note: It is important to perform these tasks <u>before</u> sending the configuration to the GT-3-S.

Procedure Proceed as follows:

Step	Description
1	Mark the required logger in the directory tree of the SDV-3.
2	Click on **Program** in the menu bar.
	Result: A new window opens.
3	Enter the value that should form the alarm threshold value for this logger in the **Leak threshold** field. Values between 1 and 60 are possible. 1 … Stands for the lowest noise level that can be measured. 60 … Stands for the highest noise level that can be measured.
4	You can leave notes and remarks about the logger under **Comment**.
5	Click on **OK** to confirm the input and to close the window.

Enter the alarm threshold value the same way for all other N-3 loggers in the group.

If the leak threshold of a logger proves to be too low or too high after a few measurement days, you can reprogram the GT-3-S group on site or by remote configuration, and modify the leak thresholds when doing so.

If you do not specify a leak threshold, “10” will be the leak threshold value that is automatically used by the loggers.

6.6 Programming pressure loggers (Log P-3 / P-3 mini)

This section is not relevant for Log N-3 noise loggers.

Introduction When programming the GT-3-S in the office, you entered a number of measurement settings which apply for all loggers in the group in equal measure, such as the measurement days and the exact measurement period.

Other measurement settings, in turn, must be made individually for each pressure logger in the group, such as the measuring interval.

Note: It is important to perform these tasks before sending the configuration to the GT-3-S.

Procedure Proceed as follows:

Step	Description
1	Mark the required logger in the directory tree of the SDV-3.
2	Click on **Program** in the menu bar.
	Result: A new window opens.
3	Set the measuring interval for this logger. Use the drop-down menu under **Log interval** to do so.
4	Select the measuring unit for the measurements recorded. Use the drop-down menu under **Unit** to do so.
5	Activate the **Record pressure shocks** checkbox when pressure fluctuations that occur suddenly (so-called pressure surges) should be recorded along with the standard pressure measurement. In the event of a pressure surge, a 60-second recording then starts. Use the input field to the right of the checkbox to define by how much a measured value must differ from the preceding measured value for a pressure fluctuation to be considered a pressure surge. Example: If a value of “0.5” is entered, then a pressure surge recording will start as soon as a measured value is at least 0.5 units above or below the last value measured. Use the **High resolution** checkbox to define which measuring interval should apply for the 60-second pressure surge recording: • Checkbox not activated: Sampling interval 1 sec. • Checkbox activated: Sampling interval 0.1 sec. The shorter measuring interval of 0.1 sec. allows a more detailed recording of the pressure surge. Please note that recording pressure surges at high resolution uses more energy, and will have a negative effect on the logger battery lifespan.
6	You can leave notes and remarks about the logger under **Comment**.
7	Click on **OK** to confirm the input and to close the window.

6.7 Sending the configuration to the GT-3-S

Introduction This step involves sending the GT-3-S configuration data from the computer to the GT-3-S.

You may have already performed this step during preparations in the office. This was necessary to be able to test whether the mobile connection functions there. This step must be repeated to ensure that the latest configuration data have been sent to the GT-3-S and the loggers.

Procedure Proceed as follows:

Step	Description
1	Mark the GT-3-S concerned in the directory tree of the SDV-3.
2	Click on **Program** in the menu bar.
	Result: The window for input of the configuration data opens.
3	If this GT-3-S was already created and programmed during preparations in the office, then now check the data displayed, and make any changes necessary. If this GT-3-S was only recently created and has not been programmed, now enter the required configuration data.  Does this group include N-3 noise loggers with noise recordings that are to be correlated with recordings by other loggers later on? Then the **Sync to GPS** checkbox, found at the bottom of the configuration window, must be activated.
4	Click on **Program** at the bottom right of the window.
	Result: The configuration data are then sent to the GT-3-S by the computer. After completing the process, a dialogue window appears. You will be asked whether you would like to continue with the next step directly.

6.8 Synchronising the GT-3-S with GPS

This step involves synchronising the internal clock of the GT-3-S with GPS time. The GPS position of the device is also determined.

This step is essential if you are working with N-3 noise loggers with measured data that are to be used for a correlation later on.

Requirement The following prerequisites must be met:

- The **Sync to GPS** option must be activated in the GT-3-S configuration.
- The GT-3-S should already be installed in the shaft, and the aerial be correctly positioned.

Procedure Proceed as follows:

Step	Description
1	Answer the question in the dialogue that appears with “Yes” or click on **Sync to GPS** in the menu bar.
	Result: A new window opens.
2	Click on **Start** in the window.
	Result: The internal GPS module in the GT-3-S is activated. The device starts searching for available satellites. As soon as the current GPS time has been received, it appears on the computer. As soon as the GPS position data have been received, the latitude and longitude also appear. This process can take some time. You can cancel the GPS search at any time using the **Stop** button. The GPS search is automatically stopped after 3 minutes to save energy. Once the GPS search is successful, a success message appears on the screen, followed by a dialogue window. You will be asked whether you now wish to continue with the next step.

You can repeat this process at any time.

To do so, mark the GT-3-S concerned in the directory tree of the SDV-3 and click on **Sync to GPS** in the menu bar.

6.9 “Linking” GT-3-S to loggers

This step involves “linking” the GT-3-S to the loggers in the group, meaning the GT-3-S sends the configuration data to the loggers. The internal clocks in the loggers are also synchronised with the internal time used by the GT-3-S.

Requirement The loggers in the group must be switched on.

The loggers and the GT-3-S should already be installed in the shaft.

Procedure Answer the question in the dialogue that appears with “Yes” or click on **Link to logger** in the menu bar.

Result: The GT-3-S successively contacts all loggers in the group by radio.

Once the process is complete, a message appears on the screen informing you whether the “linking” process was successful. The message also includes details about the quality of the radio connection between the GT-3-S and the loggers.

You can repeat this process at any time.
To do so, mark the GT-3-S concerned in the directory tree of the SDV-3 and click on **Link to logger** in the menu bar.

6.10 Performing the GSM test and closing the shaft

Now perform a GSM test to check whether the GT-3-S can connect to the mobile network properly at the usage site.

Closing the shaft before the test is recommended to obtain a realistic result. Otherwise, once the shaft is closed, there may not be a radio connection between the computer and the GT-3-S, and the test might not start.

Therefore, proceed as follows:

Step	Description
1	Start the GSM test. For that, mark the GT-3-S concerned in the directory tree of the SDV-3, then click on **Check GSM** in the menu bar.
2	Close the shaft. Note: Do not bend or pinch the connection cable, or damage it in any other way.
3	Wait for the test result. (You will find more detailed information about the GSM test in a separate section).

All devices ready for measurement

Has the GSM test been successful? Then all devices of the group are now ready for the upcoming measurement.

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Tällä merkinnällä ilmoitetaan, että kyseisellä merkinnällä varustettua tuotetta ei saa hävittää tavallisen kotitalousjätteen seassa. Koska kyseessä on yritysten välisen kaupan tuote, sitä ei saa myöskään viedä kuluttajien käyttöön tarkoitettuihin keräyspisteisiin. Jos haluatte hävittää tämän tuotteen, ottakaa yhteys lähimpään vanhojen sähkölaitteiden hävittämiseen erikoistuneeseen organisaatioon.

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Cuireann an siombail seo in iúl nár cheart an táirgeadh atá marcáilte sa tslí seo a dhiúscairt sa chóras fuíoll teaghlaigh. Os rud é gur táirgeadh ghnó le gnó (B2B) é, ní féidir é a dhiúscairt ach oiread in ionaid dhiúscartha phobail. Más mian leat an táirgeadh seo a dhiúscairt, déan é a thógáil ag eagraíocht gar duit a sainfheidhmíonn i ndiúscairt sean-fhearas leictrigh.

Dieses Symbol zeigt an, dass das damit gekennzeichnete Produkt nicht als normaler Haushaltsabfall entsorgt werden soll. Da es sich um ein B2B-Gerät handelt, darf es auch nicht bei kommunalen Wertstoffhöfen abgegeben werden. Wenn Sie dieses Gerät entsorgen möchten, bringen Sie es bitte sachgemäß zu einem Entsorger für Elektroaltgeräte in Ihrer Nähe.

Αυτό το σύμβολο υποδεικνύει ότι το προϊόν που φέρει τη σήμανση αυτή δεν πρέπει να απορρίπτεται μαζί με τα οικιακά απορρίμματα. Καθώς πρόκειται για προϊόν B2B, δεν πρέπει να απορρίπτεται σε δημοτικά σημεία απόρριψης. Εάν θέλετε να απορρίψετε το προϊόν αυτό, παρακαλούμε όπως να το παραδώσετε σε μία υπηρεσία συλλογής ηλεκτρικού εξοπλισμού της περιοχής σας.

Ez a jelzés azt jelenti, hogy az ilyen jelzéssel ellátott terméket tilos a háztartási hulladékokkal együtt kidobni. Mivel ez vállalati felhasználású termék, tilos a lakosság számára fenntartott hulladékgyűjtőkbe dobni.Ha a terméket ki szeretné dobni, akkor vigye azt el a lakóhelyéhez közel működő, elhasznált elektromos berendezések begyűjtésével foglalkozó hulladékkezelő központhoz.

Questo simbolo indica che il prodotto non deve essere smaltito come un normale rifiuto domestico. In quanto prodotto B2B, può anche non essere smaltito in centri di smaltimento cittadino. Se si desidera smaltire il prodotto, consegnarlo a un organismo specializzato in smaltimento di apparecchiature elettriche vecchie.

Šī zīme norāda, ka iztrādājumu, uz kura tā atrodas, nedrīkst izmest kopā ar parastiem mājsaimniecības atkritumiem. Tā kā tas ir izstrādājums, ko cits citam pārdod un lieto tikai uzņēmumi, tad to nedrīkst arī izmest atkritumos tādās izgāztuvēs un atkritumu savāktuvēs, kas paredzētas vietējiem iedzīvotājiem. Ja būs vajadzīgs šo izstrādājumu izmest atkritumos, tad rīkojieties pēc noteikumiem un nogādājiet to tuvākajā vietā, kur īpaši nodarbojas ar vecu elektrisku ierīču savākšanu.

Šis simbolis rodo, kad juo paženklinto gaminio negalima išmesti kaip paprastų buitinių atliekų. Kadangi tai B2B (verslas verslui) produktas, jo negalima atiduoti ir buitinių atliekų tvarkymo įmonėms. Jei norite išmesti šį gaminį, atlikite tai tinkamai, atiduodami jį arti jūsų esančiai specializuotai senos elektrinės įrangos utilizavimo organizacijai.

Dan is-simbolu jindika li l-prodott li huwa mmarkat b'dan il-mod m'għandux jintrema bħal skart normali tad-djar. Minħabba li huwa prodott B2B , ma jistax jintrema wkoll f'ċentri ċiviċi għar-rimi ta' l-iskart. Jekk tkun tixtieq tarmi dan il-prodott, jekk jogħġbok għamel dan kif suppost billi tieħdu għand organizzazzjoni fil-qrib li tispeċjalizza fir-rimi ta' tagħmir qadim ta' l-elettriku.

Dette symbolet indikerer at produktet som er merket på denne måten ikke skal kastes som vanlig husholdningsavfall. Siden dette er et bedriftsprodukt, kan det heller ikke kastes ved en vanlig miljøstasjon. Hvis du ønsker å kaste dette produktet, er den riktige måten å gi det til en organisasjon i nærheten som spesialiserer seg på kassering av gammelt elektrisk utstyr.

Ten symbol oznacza, że produktu nim opatrzonego nie należy usuwać z typowymi odpadami z gospodarstwa domowego. Jest to produkt typu B2B, nie należy go więc przekazywać na komunalne składowiska odpadów. Aby we właściwy sposób usunąć ten produkt, należy przekazać go do najbliższej placówki specjalizującej się w usuwaniu starych urządzeń elektrycznych.

Este símbolo indica que o produto com esta marcação não deve ser deitado fora juntamente com o lixo doméstico normal. Como se trata de um produto B2B, também não pode ser deitado fora em centros cívicos de recolha de lixo. Se quiser desfazer-se deste produto, faça-o correctamente entregando-o a uma organização especializada na eliminação de equipamento eléctrico antigo, próxima de si.

Acest simbol indică faptul că produsul marcat în acest fel nu trebuie aruncat ca şi un gunoi menajer obişnuit. Deoarece acesta este un produs B2B, el nu trebuie aruncat nici la centrele de colectare urbane. Dacă vreţi să aruncaţi acest produs, vă rugăm s-o faceţi într-un mod adecvat, ducând-ul la cea mai apropiată firmă specializată în colectarea echipamentelor electrice uzate.

Tento symbol znamená, že takto označený výrobok sa nesmie likvidovať ako bežný komunálny odpad.Keďže sa jedná o výrobok triedy B2B, nesmie sa likvidovať ani na mestských skládkach odpadu. Ak chcete tento výrobok likvidovať, odneste ho do najbližšej organizácie, ktorá sa špecializuje na likvidáciu starých elektrických zariadení.

Ta simbol pomeni, da izdelka, ki je z njim označen, ne smete zavreči kot običajne gospodinjske odpadke. Ker je to izdelek, namenjen za druge proizvajalce, ga ni dovoljeno odlagati v centrih za civilno odlaganje odpadkov. Če želite izdelek zavreči, prosimo, da to storite v skladu s predpisi, tako da ga odpeljete v bližnjo organizacijo, ki je specializirana za odlaganje stare električne opreme.

Este símbolo indica que el producto así señalizado no debe desecharse como los residuos domésticos normales. Dado que es un producto de consumo profesional, tampoco debe llevarse a centros de recogida selectiva municipales. Si desea desechar este producto, hágalo debidamente acudiendo a una organización de su zona que esté especializada en el tratamiento de residuos de aparatos eléctricos usados.

Den här symbolen indikerar att produkten inte får blandas med normalt hushållsavfall då den är förbrukad. Eftersom produkten är en så kallad B2B-produkt är den inte avsedd för privata konsumenter, den får således inte avfallshanteras på allmänna miljö- eller återvinningsstationer då den är förbrukad. Om ni vill avfallshantera den här produkten på rätt sätt, ska ni lämna den till myndighet eller företag, specialiserad på avfallshantering av förbrukad elektrisk utrustning i ert närområde.