

C.A.S. III

Caravan Alarm System

Operating instructions
Installation manual

!! Please read carefully before use !!

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Contents

Section	Page	Contents
1		Handling the system
1.1	1	Mode of operation, accessories, disclaimer
1.2	2	Controlling the system with the Thitronik remote control
1.3	2	Alarm storage
1.4	2	Activating the panic alarm
1.5	3	Running the system without the supply voltage
1.6	3	Sabotage protection
1.7	4	"Open contact" signal (ventilation function)
1.8	4	"Battery low" signal
1.9	4	Battery change
1.9.1	5	Changing battery of Thitronik remote control
1.9.2	5	Changing battery of magnetic contact
1.9.3	5	Changing battery of cable loop
1.9.4	5	Sequence of a burglary alarm
1.9.5	6	Sequence of a gas alarm (accessory)
1.9.6	6	Interrupting an alarm with the Thitronik remote control
1.9.7	6	Using the wireless gas alarm (accessory)
1.9.8	6	Using the cable loop (accessory)
2		GSM/GPS combi module
2.1	7-8	Using the GSM/GPS combi module (accessory)
2.2	9	Informations on using the GSM/GPS combi module
3		Installing the system
3.1	11	Scope of delivery
3.2	11	Installation instructions
3.3	11	Preparing for installation
3.4	11	Opening the base
3.5	11	Setting the program selector switch
3.6	12	Chart 1: Program selector switch
3.7	12	Starting for the first time
3.8	12	Storing contacts or other transmitters
3.8.1	13	Disconnecting contacts or other transmitters
3.9	14	Diagrams
3.9.1	15	Installing the wireless contacts
3.9.2	15	Installing the wireless gas alarm (accessory)
3.9.3	16	Diagrams wireless contacts
3.9.4	17	Installing the cable loop (accessory)
3.9.5	17	Installing the central unit
3.9.6	18	Connecting the central unit
3.9.7	18	Installing the GSM/GPS combi module
3.9.8	18-20	Programming/deleting the GSM/GPS combi module
3.9.9	20	Performing an alarm test
4		Miscellaneous
4.1	21	Technical specifications
4.2	21	Maintenance instructions
4.3	21	Disposal instructions
	22	Declaration of conformity

Handling the system

Please read the following instructions carefully to avoid faulty operation.

1.1 Mode of operation, accessories, disclaimer

The C.A.S. has been developed especially for caravans. This system does not use motion sensors, which have to be deactivated when the vehicle is staying somewhere and are often the cause of false alarms. The result is a thoroughly user-friendly alarm system which is operated at the touch of a button and is practically immune from false alarms.

The interior is secured via wireless magnetic contacts on the doors, windows and hatches. The system is operated via the handheld transmitter supplied or by SMS depending on the configuration.

Accessories

Accessories which are available include other wireless magnetic contacts, handheld transmitters, wireless cable loops, wireless gas alarms and a GSM/GPS Combimodule for vehicle tracking.

By using other **wireless magnetic contacts 868** (Item no: 100757/100758), it is possible to secure baffle plates, windows, doors, roof hatches and even roof boxes.

Other **handheld transmitters 868** (Item: 100756) enable other family members etc. to control the system and gain access to the vehicle.

By using the **wireless cable loop 868** (Item no: 100761), you can secure movable goods (such as bicycles, motor scooters, surfboards and camping furniture etc.) against theft outside the vehicle.

By using one or more **wireless gas alarms 868** (Item no: 100759), you can protect yourself from the threat of gas leaks and attacks with narcotic gases. The gas alarm immediately signals the presence of dangerous gases in the room air to the C.A.S. which then gives out an alarm.

In the event of an alarm, the **GSM/GPS Combimodule for C.A.S. III** (Item no: 101012) sends an SMS to up to 10 programmable telephone numbers. The alarm system can also be switched on or off via an SMS. By calling the GSM module, status enquiries can be sent at any time requesting information on the status of the C.A.S. and the position, speed and reception quality etc.

Disclaimer:


As with any other alarm system, C.A.S. III can only report a break-in or attempted break-in, but cannot prevent it. Therefore, be wise and do not leave any valuables on view or where they are easily accessible in the vehicle and do not leave the vehicle unlocked.

Thitronik does not accept any liability for stolen valuables or damage to the vehicle caused by a break-in.

1.2 Controlling the system with the Thitronik remote control


Arming:



Big button or -button arms the system with acoustic signal.



Integrated LEDs flash once and an internal buzzer* sounds once.



Small button or -button arms the system without acoustic signal.

Integrated LEDs flash once.

Disarming:

Any button disarms the system. With  or without  acoustic signal.

Integrated LEDs flash twice and an internal buzzer* sounds twice.


If the system is disarmed after an alarm event, instead of the buzzer sounding twice it gives out one long low sound.

*depending on the setting on the program selector switch or on the previous activation over big or small button (Signal tones are not permitted in road traffic)

The status LED shows the current operating modus:

green flashing: alarm system is disarmed 

red flashing: alarm system is armed 

green/red flashing: alarm system is armed, but at least one of the wireless magnetic contacts is open. 

1.3 Alarm storage

After an alarm has stopped, it makes sense to be alerted to the incident from outside the vehicle as you return. After an alarm has stopped, therefore, one of the integrated LEDs flashes at a time alternately.

Also, the buzzer give out a long low tone during deactivation.

1.4 Activating the panic alarm

If you feel threatened while you are in the vehicle, use the panic alarm function to draw attention. During a panic alarm, the siren and the LEDs are activated and it sends an SOS Message (GSM/GPS combi module needed). A panic alarm can be activated whether the system is armed or not armed.



The panic alarm is activated by pressing both buttons on the Thitronik remote control simultaneously.



The panic alarm is deactivated by pressing any button on the Thitronik remote control.

1.5 Running the system without the 12 V supply voltage

If a voltage supply is unavailable from either the vehicle or the parking place, the system will run on an integrated rechargeable battery for up to 48 hours. In order for this to happen, the battery must be charged. The battery is charged when the C.A.S. is supplied with a voltage for at least 9 hours without interruption.

1.6 Sabotage protection



C.A.S. has different methods of protection to prevent the system from being tampered with.

1. Stray-field protection on the wireless magnetic contacts and the cable loops

When the system is activated and the contact is closed, if another magnet approaches (to bypass the contact) the main alarm is activated immediately.

2. Interference signal detection

If the transmitter frequency of the system is superimposed by a radio signal, the LEDs are activated after 5 seconds and the siren sounds after 15 seconds.

Once a GSM/GPS module has been connected, an SMS with "interference signal" is transmitted after 5 seconds.

3. Voltage sabotage

If the supply voltage is interrupted for more than 30 seconds when the system is activated, a pre-alarm (a series of short tones) sounds and after 180 seconds, the main alarm* is activated (siren and LEDs).

Once a GSM/GPS module has been connected, an SMS with "tamper voltage" is transmitted after 5 seconds.

*depending on the setting of the program selector switch


4. Sabotage of the casing cover

If the casing cover is opened while the system is activated, the main alarm sounds immediately.

Once a GSM/GPS combi module has been connected, an SMS with "sabotage" is transmitted.

1.7 "Open contact" signal (ventilation function)

When locking, the interior beeper emits a series of short beeps.

This means that the system has detected that one or more of the wireless magnetic contacts is open. When activating C.A.S. III with the small button or the - button, there won't be signal tones (see 1.2).



If none of the contacts have been opened intentionally, check all the secured openings.

Unlike a passenger vehicle alarm system, in a caravan, you might well want to leave a window open, while all the other secured openings are monitored. For example, if you need to ventilate the vehicle. Read the following to see how this can be done:



Open the window you have chosen and activate the system as previously described under Point 1.2.



When locking, the interior buzzer gives out a series of short beeps and the status LED is flashing green/red. However, the alarm is armed and monitors all the remaining contacts.



If the window is closed while the system is activated, the alarm is not triggered.



The alarm does not sound until at least 5 seconds has elapsed before a window is opened again.

1.8 "Battery low" signal

By activating one of the wireless devices it sounds a long continuous tone from the internal siren.



This means that one of the batteries of a wireless transmitter is low and must be replaced. This may be the battery of a wireless magnetic contact, a wireless handheld transmitter or a cable loop.



The red "transmitter LED" goes off only after 30 seconds. See battery change 1.9.

1.9 Battery change

The memories of the transmitters are not volatile, i.e. once assigned, transmitters do not have to be re-assigned after the battery has been changed.



To prevent the electronics from being damaged from static discharge, earth yourself by touching an earthed part of the vehicle (door hinges or negative contact of the cigarette lighter).

1.9.1 Changing battery of the Thitronik remote control

- Unscrew one or three screws on the back of the remote control and open the casing. (Depends on the remote control generation)
- Remove the printed circuit board and remove the battery.
- Replace the battery with one of the same type (CR2032).
- When inserting the battery, make sure that the polarity is correct.
!!! Follow the labelling on the battery holder !!!

1.9.2 Changing battery of the magnetic contact

- Open the casing by gently levering up cover by the notch on the wider side of the casing.
- Remove the printed circuit board and remove the battery.
- Replace the battery with one of the same type (CR2032).
- When inserting the battery, make sure that the polarity is correct.
!!! Follow the labelling on the battery holder !!!

1.9.3 Changing battery of the cable loop

- Unscrew the 2 screws on the bottom of the cable loop and open the casing.
- Remove the battery without pulling out the printed circuit board.
- Replace the battery with one of the same type (CR2032).
- When inserting the battery, make sure that the polarity is correct.
!!! Follow the labelling on the battery holder !!!
- Insert the black seal in the casing cover and screw the casing closed.
- Only tighten the screws lightly so as not to crush the seal too much.

1.9.4 Sequence of a burglary alarm

If an opening which is secured with a wireless magnetic contact is opened or a cable loop is cut or removed from its holder when the system is armed, it will display this as a burglary alarm.



The siren will sound for approx 30 seconds.



The status LEDs is flashing for about 150 seconds.

As the alarm remains sharpened after an alarm has elapsed, the process will be repeated, if the same or any other accessory is triggered again.

1.9.5 Sequence of a gas alarm

If an assigned wireless gas alarm sends out an alarm signal because a critical gas concentration has been reached, this will signal an alarm whether the system is armed or not.



The siren sounds for about 30 seconds with short interruptions.



The status LEDs is flashing for about 150 seconds.

If the cause of the alarm is not eliminated (critical gas concentration), the LEDs will start to flash again until the gas concentration has reached a non-critical level.

1.9.6 Interrupting an alarm with the Thitronik remote control



Any button interrupts the alarm or disarms the system.

The LEDs is flashing twice and the internal buzzer gives out a long signal (approx. 4 seconds).

1.9.7 Using the wireless gas alarm (accessory)



The wireless gas alarm can be switched on or off via the pressure switch on the narrow side of the casing. After switching on, the power lamp on the front lights up green. After the cleaning phase has finished, which lasts approx. 4 minutes, the system flashes green and the gas alarm now monitors the room air for critical concentrations of propane, butane and narcotic gases.



Spray cans (hairspray and deodorants etc.) contain combustible propellants which can trigger the gas alarm at high concentrations. Even strong cleaning agents can trigger the gas alarm at high dosages because of the aerosols they contain. We therefore recommend deactivating the gas alarm when using these materials.

1.9.8 Using the cable loop (accessory)

The cable loop can be plugged into the holder when the system is either armed (after 4 seconds active) or disarmed. It can be used to secure bicycles, motor scooters, camping furniture, surfboards and many other movable objects. Once the cable loop has been placed in the holder and the system has been armed, cutting the cable or removing it from its holder will trigger the alarm.

If the cable loop is not placed in the mounting bracket while arming the C.A.S. III, a signal tone won't occur.

2.1 Using the GSM/GPS combi module (optional)

If a GSM/GPS combi module (Item no: 101012) has been connected, there are numerous additional functions and alarm options available.

- **Alarm message:** if there is a break-in, gas or, if the cable loop is triggered, with information on the type of incident, time of incident, position and speed. After sending alarm messages on all the destination numbers, the module calls the master number until the call is accepted or the mailbox activated.
- **Site monitoring** (Geofencing): If the vehicle leaves the original site beyond a radius of 1 km when the system is activated (as the crow flies, +/- 0.5 km), a theft signal will be transmitted after a maximum of 2 minutes. In order to pursue the vehicle, status messages can be requested as required.
- **Status enquiries:** If you want to enquire the location of the vehicle or the state of the alarm system (armed or unarmed), you can request status messages at any time.
- Can be **armed or disarmed via SMS** or phone call at any time. After switching successfully, you receive back a status message* with the current state of the system.
*depending on the setting of the program selector switch
- You receive **sabotage messages** if (when the system is activated) an interfering transmitter blocks the frequency of the alarm system for more than 5 seconds, the supply voltage is interrupted or the alarm system is opened.
- **Warning messages** will be sent to you if the vehicle battery voltage drops below 11.8 V while the system is armed. The SMS then says "switch to battery mode". If the rechargeable battery voltage drops to a critical level, a "Battery low" SMS will be sent and the alarm system switched off (when the battery is fully charged, this happens after approx. 36 hours).
- **Master numbers** are target phone numbers which not only receive alarm SMS and status messages but are also authorised to arm and disarm the C.A.S.

Example alarm message in the event of a break-in

The screenshot shows an SMS message from 'ALARM' with the following content:

- Break-in door/window
- Status: armed
- UTC: 14:09:11
- POS: 55 23.7468'N
011 10.3217'E
- Reception: -53 dB

Annotations on the right side of the screenshot explain the fields:

- Reason for message (points to Break-in door/window)
- State of alarm system (points to Status: armed)
- Time of incident (coordinated universal time) (points to UTC: 14:09:11)
- Position of vehicle (points to POS: 55 23.7468'N 011 10.3217'E)
- Reception quality of mobile phone (points to Reception: -53 dB)

At the bottom of the screenshot, there are two buttons: **Menu** and **Back**.

Reception quality legend:

- 99dB bis - 75dB very good
- 75dB bis - 50dB good
- 49dB bis - 39dB satisfactory
- 38dB poor

2.2 Using the GSM/GPS combi module (optional)

Activating by SMS:

Send an SMS with **"arm"** to the number of the SIM inside. After receiving the SMS, the system acknowledges the process with a single flash from all 4 LEDs and a status message by SMS.

Deactivating by SMS:

Send an SMS with **"disarm"** to the number of the SIM inside. After receiving the SMS, the system acknowledges the process with a single flash from all 4 LEDs and a status message by SMS.

Activating by phone call:

(only possible when the program selector switch is in the appropriate position)

Dial the number of the GSM module. The module ends the call after a few seconds.

The system acknowledges the process with a status message by SMS.

Deactivating by phone call:

(only possible when the program selector switch is in the appropriate position)

Dial the number of the GSM module. The module ends the call after a few seconds before it costs anything.

The system acknowledges the process with a status message by SMS.

Requesting the position report:

Send a text message of the number of the GSM-module with the content **"POS"**. After receiving the message, the module sends back a position report with a Google Maps® link.

Requesting status message by SMS:

Send an SMS with **"status"** to the number for the GSM module. After receiving the SMS, the system sends back a status message.

Requesting status message by phone call:

(only possible when the program selector switch is in the appropriate position)

Dial the number of the GSM module. The module ends the call after a few seconds and sends a status message.

When you receive a theft message, this is initially a so-called "quiet alarm" where neither siren nor LEDs are activated so as not to attract the attention of the culprit to the alarm system. Otherwise he may destroy it and make it impossible to pursue the vehicle. However, the alarm can be activated manually as described below in order to bring it to the attention of the police car if one is pursuing the vehicle.

Activating alarm by SMS:

Send an SMS with "alarm on" to the number for the GSM module. The siren and LEDs are switched on immediately after the SMS is received.

2.1 Information on using the GSM/GPS combi module (optional)

SIM card used:

In order to use the GSM module, you require the SIM card of a mobile phone supplier. We recommend using a card from T-mobile or Vodafone. However, cards from other suppliers are also generally suitable. If you use a pre-paid SIM card, the current credit should be transferred (see chapter 3.9.8, Page 19). When choosing a pre-paid card, make sure that it does not have to be removed from the device in order to top up the credit but can be topped up from another mobile phone or ATM etc..

Roaming:

Make sure that roaming is activated on the SIM card used. With pre-paid cards, the function may have to be enabled separately.

Call diversions/mailbox:

It is essential to make sure that all call diversions, automatic call back and the mailbox of the SIM card used are deactivated. Otherwise, there may be problems with switching by phone call.

Saving the number of the GSM module:

In order to assign the number quickly when there is an alarm message, you should assign it to a name, as with every other entry in the address book of your telephone. Since you may also have to access the number quickly, you should ideally label it ALARM, then it will be stored at the beginning of your address book. If you write alarm in the following way, it will always be at the top of the list: AAlarm. The number must always be stored with the country code (e.g. +44 for the UK) in order to access it from abroad.

Target phone numbers:

Target phone numbers are the numbers which are contacted when there is an alarm and can be used to control the alarm system by SMS or phone call. Therefore, only select people who you can really trust. If certain persons should be informed but are not to be able to control the alarm system, this can be taken into account with the programming SMS (see installation manual).

Controlling by SMS or phone call:

Each SMS sent by the GSM module results in costs which depend on your network carrier. If you control the system by SMS or phone call, this always produces a status SMS. For the actual control process not to cost anything, the program selector switch can be positioned when the system is installed so that the system can also be controlled by phone call. However, please note that in this case a status message can no longer be requested.

Installation manual C.A.S. III

Please read
carefully before
installation

3.1 Scope of delivery

C.A.S. III base, handheld transmitter, wireless magnetic contact with 2 different self-adhesive pads, 1 x warning sticker, installation manual, PG gland, connecting cable, status-LED, operating instructions

3.2 Installation instructions

Since there is a risk of causing a short circuit when working on the vehicle electrical equipment, the negative pole of the battery must be disconnected if an on-board voltage supply has been installed. If the towing vehicle is connected or there is a land electrical power supply, the connection must be disconnected.

When working on the vehicle, always follow the safety and working instructions stipulated by the vehicle manufacturer and vehicle trade.

3.3 Preparing for installation

Please write the serial number of the base on the last page of this manual before installation.

Make sure you have the tools and materials listed below:

- Torx screwdriver (T20)
- Crimping pliers
- Voltmeter
- Cordless screwdriver
- 6 mm drill bit
- Insulating tape
- Butt connectors
- Cable ties
- Shrink sleeve if necessary
- Cleaning cloth for degreasing
- Cleaning agent or degreaser

Choose a suitable place on the vehicle roof for installing the base, the wireless magnetic contact(s) and other accessories. Accessories such as further contacts, wireless gas alarms and cable loops should be assigned before they are installed. (see 3.8)

3.4 Opening the base

Open the base housing by undoing the two torx screws holding the cover. Pull down the two parts of the cover. The electric circuit is now exposed and the transmitters can be assigned and settings carried out as described in the following sections.

3.5 Setting the program selector switch



The program selector switch (B, Diagram 1, Page 14) defines whether arming or disarming C.A.S. is acknowledged by a beep (not permitted in areas subject to the road traffic ordinance), whether an alarm is triggered or only a message is sent by SMS when the supply voltage drops out and whether the system can be switched by a phone call instead of an SMS only. Select the setting which is suitable for you from Chart 1 and transfer this setting to the program selector switch.

3.6 Chart 1 programm selector switch

	Switch 1	Switch 2	Switch 3	Switch 5	Switch 6
on	acoustic response by arming/disarming	status report by SMS after arming the alarm via mobil phone	Arming/Disarming via phone call	input voltage disruption triggers an alarm	Jammer triggers an alarm (anti jamming)
off	no acoustic response	no status report by SMS after arming the system via mobil phone	a phone call generates status report	no alarm by disruption of the power supply	no jamming alarm





Please do not change switch 4, 7 and 8 (Default settings)

3.7 Starting for the first time

-  First the gasket has to be fitted into the appropriate notch in the bottom part of the housing (see diagramm 5 on page 17).
-  To start the system, it must be supplied with 12 V. Connect a suitable 12 V voltage source to the connection terminals (A, Diagram 1) with the correct polarity and connect the battery under the circuit board with suitable plug connector.

3.8 Storing contacts or other transmitters

When supplied, no transmitter is stored for security reasons.

-  Lay out the other magnetic contacts as shown on Diagram 2, Page 13. If several contacts are to be stored, make sure that a distance of at least 20 cm is maintained between the contacts concerned.
 -  Now briefly press the button "RX" (C, Diagram 1) on the printed circuit board. The 4 LEDs on the printed circuit board now light up.
 -  Now activate each magnetic contact to be stored as shown on Diagram 3 (keeping both parts away from each other until the LED ("C") lights up briefly) or press one of the buttons "A" or "B" on the handheld transmitter as shown on Diagram 4. The wireless gas alarms must be switched on to store them and cable loops must be removed from the holder.
-  After each storing procedure has been successfully carried out, a short beep will sound and the 4 LEDs will go out briefly.

Once all transmitters have been stored, press the "RX" button again. The LEDs go out and Assign mode is terminated. To perform a functionally test look up the chapter 3.9.9.1 performing test alarm.

3.8.1 Disconnecting contacts or other transmitters

Transmitters can only be deleted by erasing the memory.

Hold down the "RX" button on the printed circuit board (Diagram 1, Page 13) until the central unit gives out a long beep. All the transmitters are now erased.

3.9 Diagrams

Diagram 1

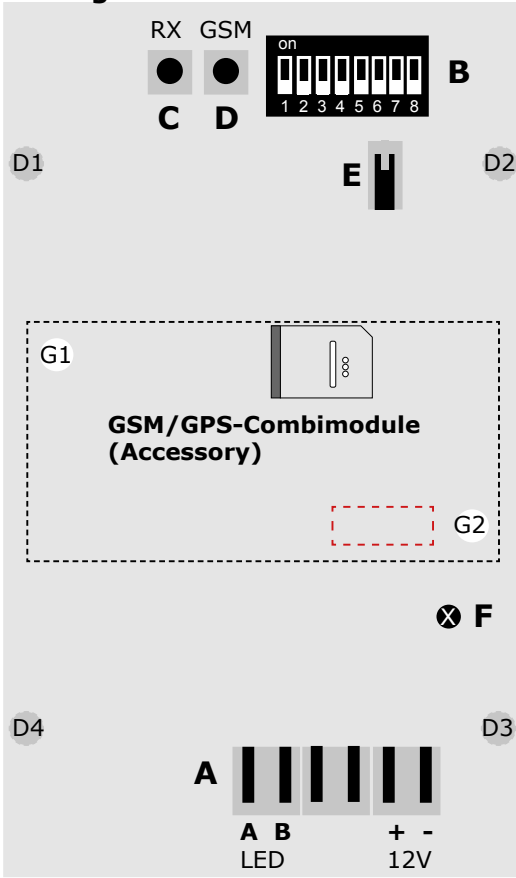


Diagram 2

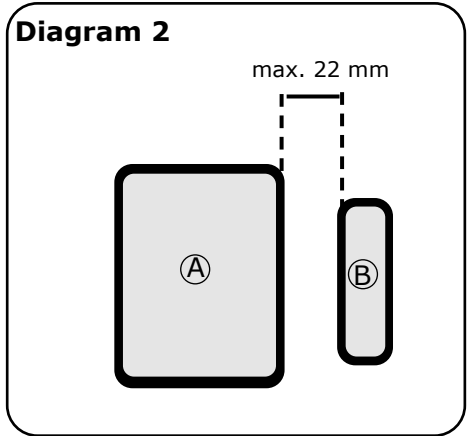


Diagram 3

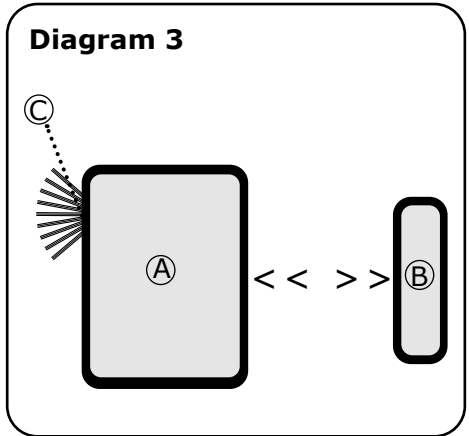


Diagram 4

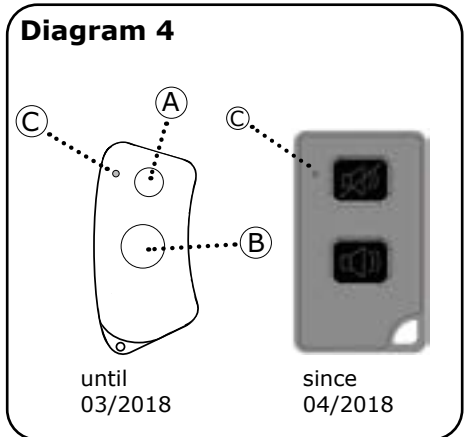




Chart 2: Meaning of the LED's


	light up	flash	off
D1	x	no target phone number	target phone number stored
D2	GSM logged in	network search	x
D3	x	incorrect PIN/ card missing	SIM-card ok
D4	GPS reception	search for satellites	x

Desired operating state

3.9.1 Installing the wireless contacts

-  Choose the places where you want to install the wireless magnetic contacts. The transmitters can be installed both on the window and the frame (see diagrams on Page 8). The distance between the transmitter (Diagram 2, Part A, Page 13) and magnet (Diagram 2, Part B, Page 13) can be around 22 mm. A larger distance activates the transmission process (LED lights up briefly. Diagram 4, C) and triggers the alarm when the system is activated.
-  Before installing the wireless magnetic contacts, carry out a range test using the adhesive pads.

In order to do so, fix the transmitter which is already assigned and the magnets to the places you have chosen using adhesive tape and follow the instructions under 1.9.3.

-  The contact surface must be clean, dry and free of grease. Treat with suitable cleaning agent beforehand.

Do not use on surfaces at temperature below 15 °C.
The adhesive pads reach their final strength after approx. 24 hours.



If installed on hatches, use the mounting adapter (Item no. 100428 black or 100729 white) to optimize the transmission and bridge larger gaps.

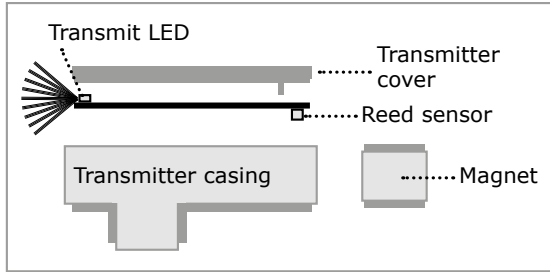
3.9.2 Installing the wireless gas alarm (accessory)

Choose a suitable place to mount the wireless gas alarm. The place where it is mounted should not be in the direct vicinity of the heater outlets or where there are lead-acid batteries. Mounting it in the direct vicinity of strong cleaning agents, petrol and other fuels should also be avoided.

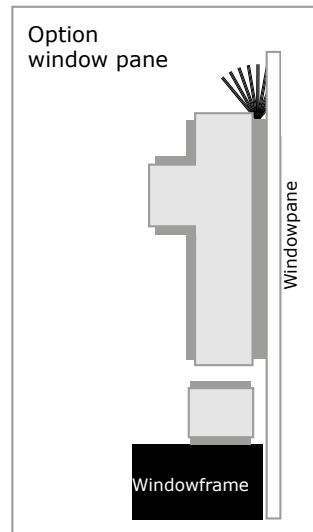
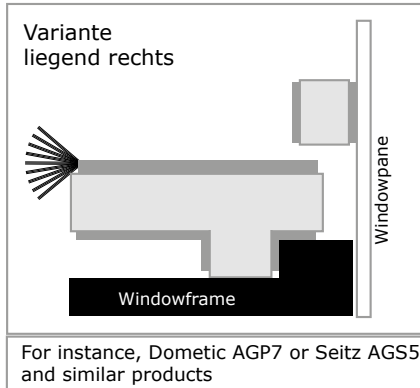
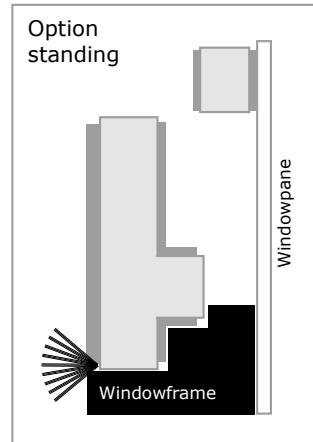
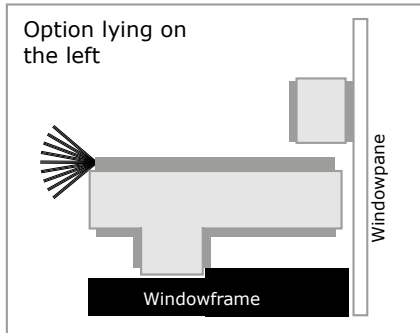
The ideal height of installation is at the lowest point of the vehicle just above the floor (approx. 10-20 cm).

Mount the wireless gas alarm using the template in the wireless gas alarm manual and connect the supply voltage. (brown = +12 V/white = earth)

3.9.3 Diagrams wireless magnetic contact



It is possible to mount the transmitter casing in a lying position (on the left or, rotated 180°, on the right) or standing on the side – depending on the frame and the available space/the distances to the pane. When the transmitter casing is rotated, the circuit board with the transmit LED, the reed sensor and the transmitter cover will keep their orientation to the magnet.



For instance, Dometic AGP7 or Seitz AGS5 and similar products

If the available space does not allow for the transmitter to be installed on the window frame, the transmitter can also be mounted on the window pane as shown on the right.

If installation is not possible using the included adhesive pads, you can also use screws to fix the transmitter housing in place. You will find screw position marks underneath the circuit board.



Please scan the QR code for additional information and video instructions.

www.thitronik-automotive.de/support.html

3.9.4 Installing the cable loop (accessory)

Choose a suitable place for installation at the back of the vehicle or on one of the sides. You can also obtain further holders as accessories (Item no: 100649) to use the cable loop for other areas of the vehicle.



Using the screws provided, fasten the holder of the cable loop to where you want to place it. If you drill through the outer skin of the vehicle, seal the drilled holes with Sikaflex to prevent the penetration of moisture.

3.9.5 Installing the central unit

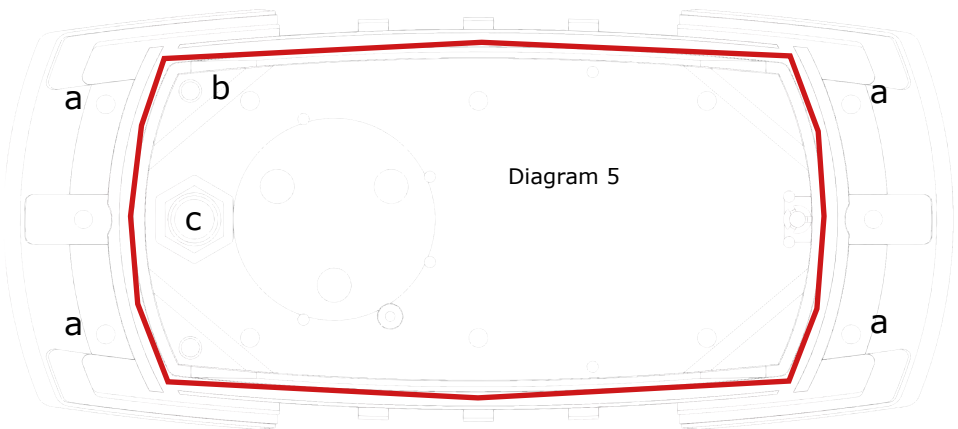
Choose a suitable place for installation on the outer skin of the vehicle. Installing on the roof provides good protection against tampering and further security in the event of an alarm. However, the central unit is less accessible to the user and visual acknowledgement of the switching process is not so easy to see close-up.

When choosing the place for installation, note that the connection cable must be laid inside the vehicle. Installing the unit above a wardrobe, for example, would be ideal.

The base plate has four screw holes (a, Diagram 5) which can be used to fasten the central unit to the vehicle. When using screws, make sure that no moisture can penetrate into the wall of the vehicle. The screw holes should be sealed over a large area with Sikaflex. If screws are not used, both places of attachment using adhesive must be properly treated beforehand and the central unit must be installed lengthways or with the narrow side in the direction of motion.

If the connecting cable is fed through the roof of the vehicle without another cable feedthrough, use the cable entry "b" (Diagram 5) and seal the opening from underneath with Sikaflex.

If an existing feedthrough is used, use the opening "c" (Diagram 5) and the PG gland supplied. The base of the housing has a break-out point and the opening can be broken out using a screwdriver etc..



3.9.6 Connecting the central unit

☞ Connect the connection cable fed through the base of the central unit to the connection terminals as follows (A, Diagram 1):

white	>	- (GND/earth)
brown	>	+12 V
green	>	clamp A - status LED green
yellow	>	clamp B - status LED yellow

Now connect the end fed into the vehicle likewise to +12 V and Earth and connect the fittings of the status LED using the provided butt connectors.

3.9.7 Installing the GSM/GPS combi module

☞ First remove the supply voltage and the battery.

☞ Insert the plastic spacers supplied with the GSM/GPS combi module through the two holes (G1 and G2, Diagram 1, Page 14) of the printed circuit board of the central unit.

☞ Now plug the GSM/GPS combi module onto the contact pins as shown in Diagram 1. Make sure that the pins are not bent.

☞ Make sure that the spacers connect the two printed circuit boards together securely in order to prevent malfunctions caused by vibrations in the vehicle.

☞ Now change the PIN code of the SIM card being used to "0000" and place this in the holder on top of the module.

☞ Adhere the antenna on the bottom housing, as shown on the following picture. Reconnect the battery and the power supply and screw the circuit board with the Philips screw (F, Diagram 1).



Please mount the antenna on the here depicted side. Otherwise is the cable length insufficient.

3.9.8 Programming the GSM/GPS combi module

As already mentioned under 3.9.7, the PIN code of the SIM card must be changed to "0000". Otherwise, the card will be recognised as faulty and LED D3 (Diagram 1) will flash (see Chart 2, Page 14).

3.9.8 Programming/deleting the GSM/GPS combi module



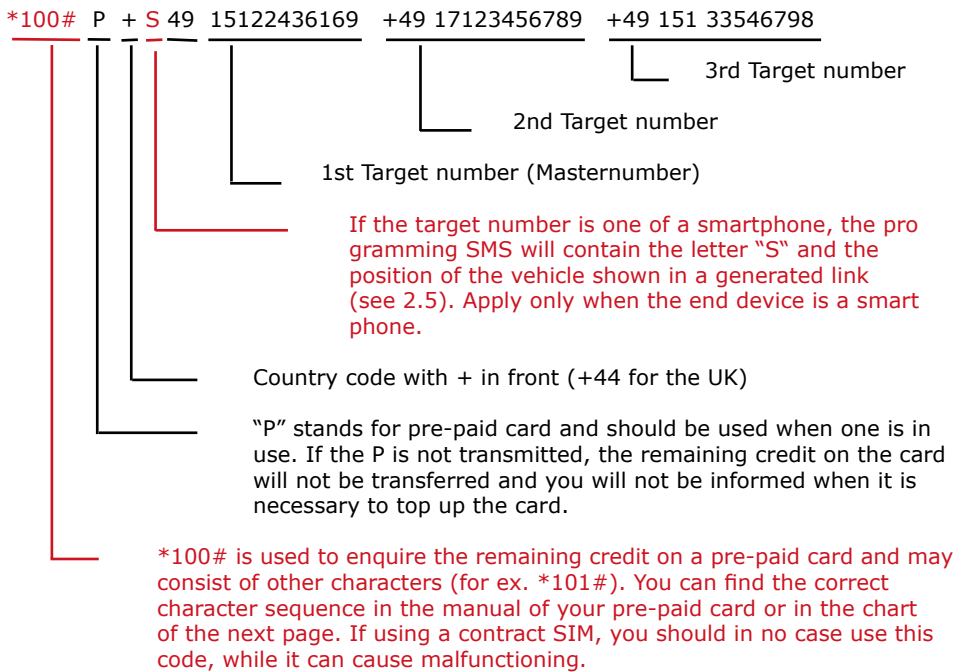
Once the SIM card has been inserted and the holder locked, briefly press the "GSM" button (D, Diagram 1, Page 14) on the printed circuit board of the central unit.



The 4 LEDs now show the state of the module as in Chart 2.



If D2 shows the logged-in status, send a "Programming SMS" to the number of the card in the module. Look at the structure of a "Programming SMS" on the diagram below.



In case of more recipients, you type in the target numbers subsequently, without blank space. Replace the interrogate codes by pre-paid cards consulting the interrogate codes chart. Replace the country code and the phone number according to your data.

Deleting or changing of target number:




In order to delete the target number, press the GSM button until the C.A.S. III sounds a long beep tone.

Target numbers can also be overwritten. You should send a programming SMS from your master number.


3.9.8 Programming the GSM/GPS combi module

Provider	Query code	Provider	Query code
e-plus	*100#	Simyo	*100#
O2	*101#	Tchibo	*101#
T-Mobile	*100#	Swisscom	*130#
Vodafone	*100#	Information without guarantee. Changes by provider possible.	

3.9.9 Performing an alarm test

 After the central unit has been installed and connected, a test alarm should be carried out with each assigned transmitter (wireless magnet contact, cable loop and wireless gas alarm).

A test alarm can only be performed with the cover closed since protect or tamper contact cannot be activated with the cover open.


 Activate C.A.S. and open one of the assigned wireless magnetic contacts.



The siren sounds and the signal LEDs flash.

Repeat the process with each of the installed and assigned transmitters. To test the alarm for a cable loop, remove it from the holder with the system activated.

To carry out an alarm test with a wireless gas alarm, switch it on and wait until the preheating phase is over (power lamp flashes green). Flood the wireless gas alarm with lighter gas. The power lamp flashes quickly and C.A.S. gives an alarm as described in the user manual.

 **Note!** If a GSM/GPS combi module is connected, every alarm causes an SMS and therefore costs money. If this is not wanted during the test phase, remove the SIM card with the supply voltage disconnected and the battery removed then and replace it once the test has been performed.

4.1 Technical specifications

Supply voltage:	12V
Current consumption:	approx. 15mA without GSM/GPS combi module approx. 25-30mA with GSM/GPS combi module
Assignable transmitters max:	99
Transmitter frequency:	868,35MHz
Transmitting power:	<10mW
Range max:	up to 100m in the open
Average battery life:	2 years
Battery type (transmitter):	CR2032 (button cell/3V)
Battery type central unit:	Rechargeable NimH 7,2V/1500 mAh
Number of codes:	<4 billion. (<4.000.000.000)
Temperature range:	-10°C bis +80°C
Temperature range, self-adhesive pad:	-15°C bis +80°C

4.2 Maintenance instructions

The battery life of the basic rechargeable battery (Item no: 100294) is approx. 1000 charge cycles or approx. 3 years. If the base housing is opened for the purpose of inspection, replacement or some other purpose after more than 2 years, the gasket set (Item no: 100710) must be replaced otherwise the base can no longer be guaranteed to be leakproof.

4.3 Disposal instructions



When the unit is no longer in use, please do not dispose of it with household waste. Municipal recycling centres have suitable containers for the disposal of electronic equipment.



Take the packaging materials to the recycling centre.

In order to assist you more accurately with any technical support which may be necessary, please enter the serial number of the unit here. You will find the serial number on the underside of the bottom of the unit.

Serial number of the unit: SN _ _ - _ _ _ _ _

Thitronik GmbH hereby declares that this product complies with the requirements and regulations of the directive 1995/5/EG.



The full declaration of conformity is available for download:

<http://www.thitronik-automotive.de/support.html>

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