CE

GSM-START
LINKING MAN AND MACHINE

GSM-REMOTE CONTROL FOR PRE-HEATERS

Webasto/Eberspächer

GSMS-PH4 Manual

- **Made in Sweden** with Swedish and non-Swedish components *
- Low power consumption
- SMS and phone call remote control
- IOS and Android app available
- Up to 5 authorized users to phone call control and receive input alerts
- Unlimited users using SMS control
- Battery voltage monitoring
- Configurable Multi-input as alarm-input or to turn heater on/off.
- Easy installation parallel with an existing heater controller
- Adjustable heating time 10-999 min
- Easy configuration via SMS or IOS/Android app
- High quality electronic components
- Smart temperature functions

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SWEDEN

www.gsm-start.com

* PCB made in China and enclosure made in the USA
Picked-and-placed, assembled and tested in **Sweden**

Thank you for purchasing the GSMS-PH4 GSM remote control for your Eberspächer and Webasto preheater. It lets you control your preheater at a distance using a mobile/landline phone. This manual shows how to install and operate this product easily and correctly. Make sure to read this manual carefully before using this product. Keep this manual handy for future reference until you are familiar with all its features.

This product is designed to work in conjunction with the Eberspächer and Webasto **controllers shown on page 4** and with preheaters that require an analog switch-on-signal (+12V/24V). The unit is installed parallel with the pre-heater controller and they work independently of each other i. e. if the heater is turned on with the GSM-unit, it needs to be turned off with the GSM-unit and vice versa. GSMS-PH4 can also be connected directly to the heater if the heater supports an analog switch-on-signal, please contact us or your local workshop if you are unsure.

Use this product only as specified in this manual. The manufacturer is not liable for damages caused by improper use or misuse.

Warning, do not use this product if a malfunction can result in danger for you and others and/or property damage.

This product has been developed and manufactured according to the current state of the art and recognized safety standards. It cannot be sure that the GSMS-PH4 works as intended under all circumstances, at all times and under all conditions.

Due to the nature of how SMS and phone calls behaves, please allow up to 10 seconds between every sent SMS and/or phone call made to the unit to avoid flooding the network.

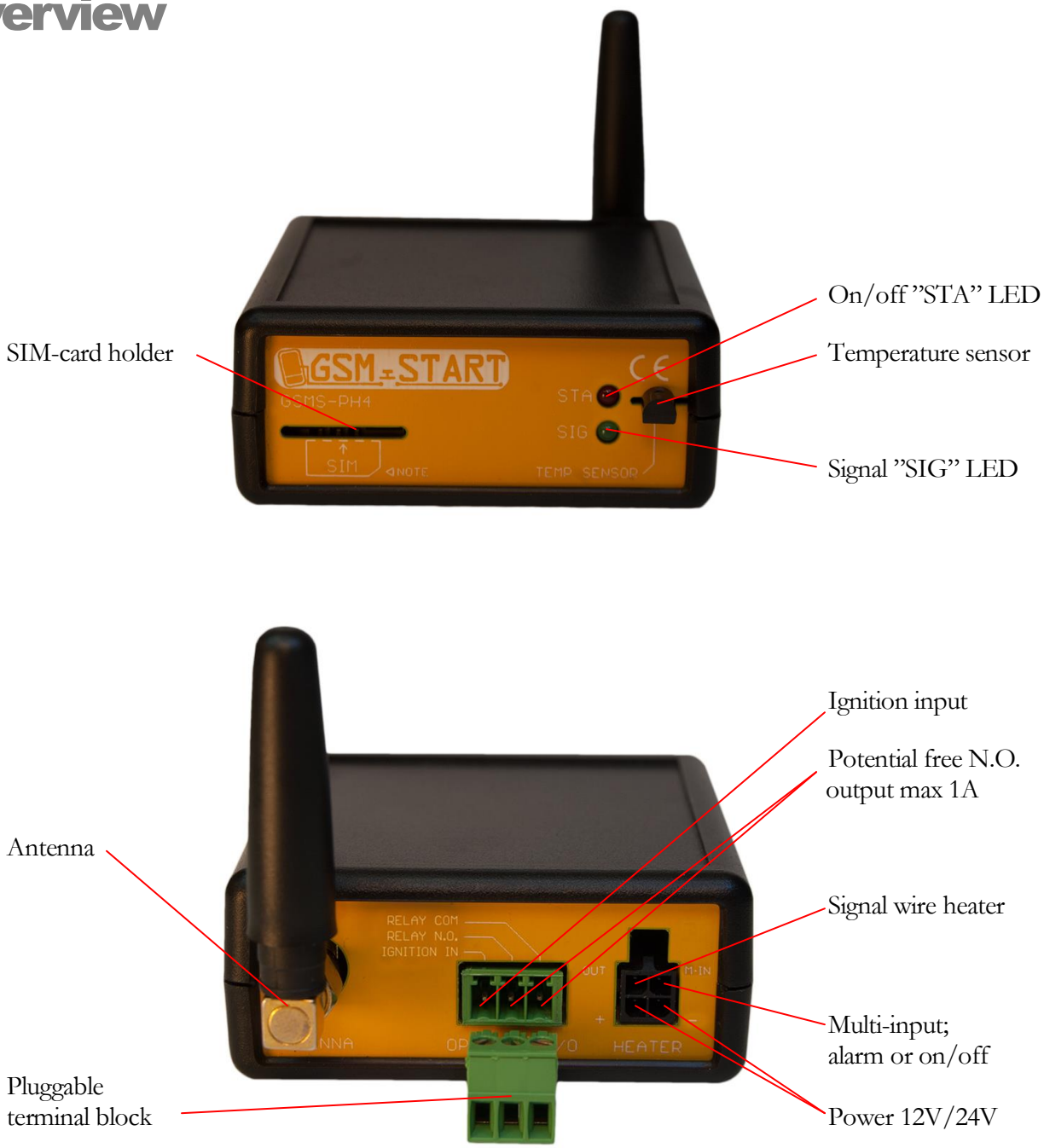
We recommend using a new fresh SIM-card in the unit to avoid unnecessary unauthorized users from occupying the unit.

When using a new fresh SIM-card it is a good idea to wait approximately 5 minutes before trying to communicate with the unit. This is because the network provider will often send SMS information messages and settings the first time a SIM-card is put in use.

Even if the unit typically only uses under 0,3W it needs to be connected to a 10W (for example 1A@12VDC or 0.5A@12VDC) power supply because of short current bursts.

The enclosure is rated IP20 and should be installed inside the cabin of the vehicle. If possible try to install the unit in a place most protected from direct sunlight.

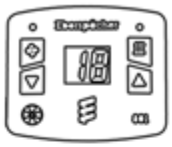
Overview



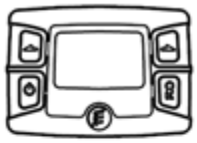
- Suitable for both 12V and 24V vehicle systems
- Configurable Multi-input as alarm-input or to control heater on/off
- Potential free Normally Open output, controlled simultaneously as main out

Compatibility

Eberspächer compatible controllers



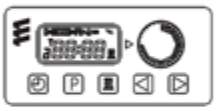
801 modulator



EasyStart T

Mini controller

701 modulator



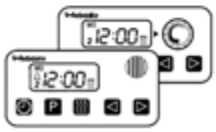
Module timer

Mini Timer

Webasto compatible controllers

1529

1530



1531

1533*

Pin 1 (W-bus) wire not present
COMPATIBLE

Pin 1 (W-bus) wire present
INCOMPATIBLE

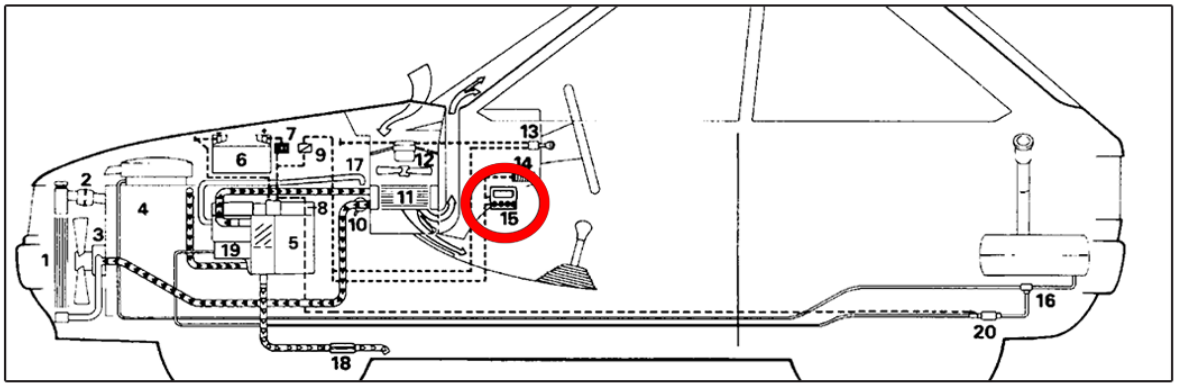
Installation

Before carrying out any work on a vehicles electrical system you should always disconnect the battery.

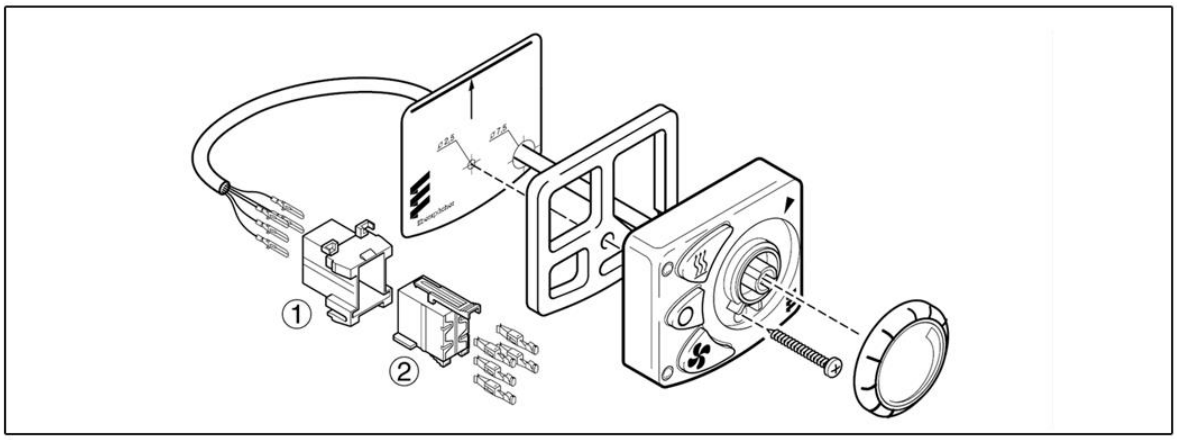
This unit only works with GSM SIM-cards, not 3G/4G/LTE or CDMA!
*The SIM-card must be installed **prior to turning on the power**.*

To reduce SMS delay it can be a good idea to have the same network operator in the unit as in the mobile phone controlling it.

1. Locate your Eberspächer or Webasto controller, usually inside the vehicle cabin. Find the plug coming from the controller that connects to the main wiring loom; usually you will need to remove some panels inside the cabin to get to the back of the controller. Refer to your controller user manual for further information.



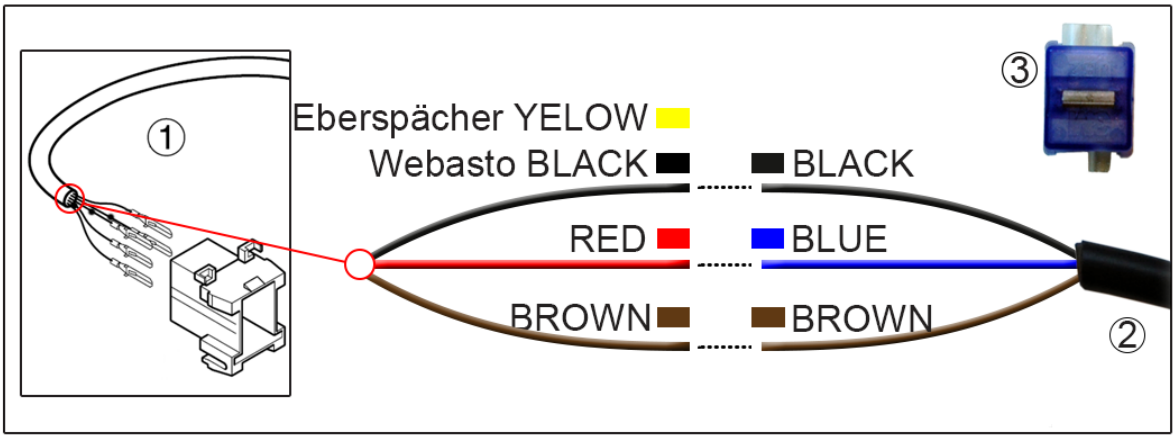
2. Disconnect the controller plug **(1)** from the main wiring loom **(2)**.



3. Connect the supplied connection cable **(2)** to the wires **(1)** coming from the controller with the supplied 3M Scotchloks **(3)** as the illustration shows below.

Please note that different controllers may have different number of wires; yours may vary from the illustrations five wires. Only the colors of the wires matter.

The BLACK wire on the connection cable should be connected to the BLACK wire if you have a Webasto controller or the YELLOW wire if you have an Eberspächer controller.



4. Gently install the SIM-card into the SIM-card slot taking notice of the SIM-card direction.

Make sure that the SIM-card does not have a PIN-lock. To disable the SIM-card PIN-lock insert the it into a mobile phone and go to settings and disable the PIN-lock.

If possible, install the SIM-card in a regular mobile phone and call it to verify that the SIM-card works correctly.

5. Lastly connect the unit to the connection cable and connect the battery again. After you turn on the power the green "SIG" LED will start to flash every second. When the unit has connected to the GSM network the "SIG" LED will start to flash every 4 seconds instead (this usually takes about 1 minute). Wait 1 more minute before calling or sending SMS to the unit.

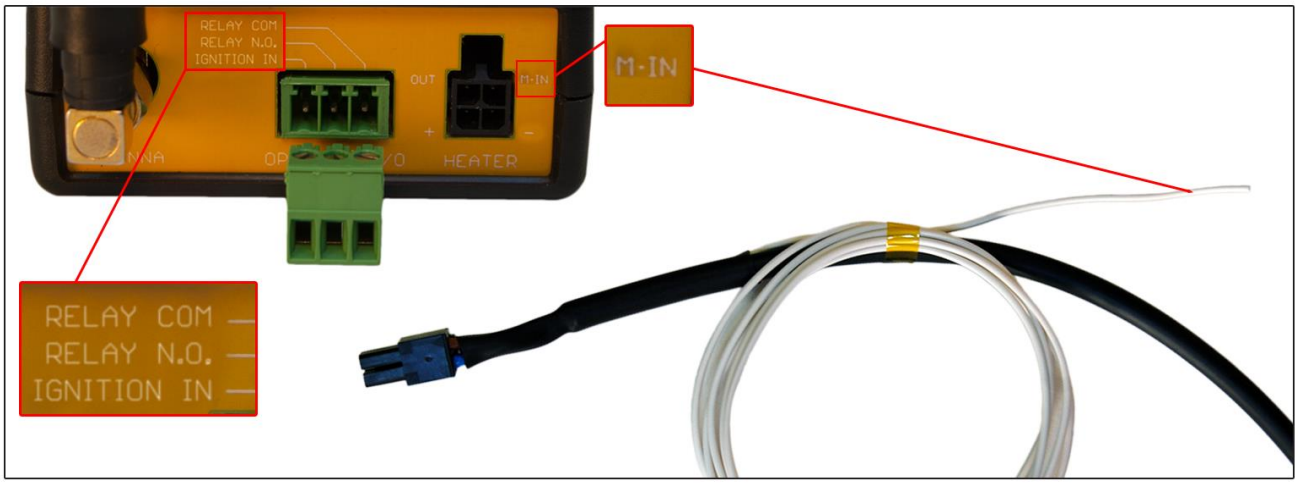
6. Done! Try and send an SMS containing "PH0000CHECK" to the SIM-card installed in the unit and wait for a reply.

Download the app "GSMS Remote Control" or look at page 9 for all commands.

ANDROID APP ON Google play
Available on the App Store
GSMS Remote Control Utilities
GET

Optional inputs/output

The GSMS-PH4 has two inputs and one potential free output that are optional to connect. Since the inputs draws virtually no current they can be connected to any source without overloading it.



RELAY COM / RELAY N.O.	GREEN TERMINAL BLOCK

This output is controlled at the same time as the main output for switching on the heater. It is a potential free Normally Open output that can handle max 1A.

IGNITION IN	GREEN TERMINAL BLOCK

This can be connected to a source that feeds +12V/24V when the ignition key is turned on. This is used to turn off the preheater when you start the vehicle. This is useful if you need the vehicle earlier than the time you have set the preheater to run

M-IN (MULTI-INPUT)	WHITE WIRE CONNECTION CABLE

A configurable input that can be set as an alarm-input or to switch the state of the heater on and off. The input is activated when feed +12V/24V. When in alarm mode the unit will send an SMS and call the authorized users, this is useful when you want to connect it to a car alarm system. The other mode is suitable when you want an external switch to control the heater on and off.

If you want the unit to be able to send SMS / call an international phone number, please use this format "0046123456789" (0046 = Swedish landcode).

Usage

The GSMS-PH4 can be controlled using SMS, phone calls or with our IOS/Android app. When controlling the unit with phone calls you will first need to add the phone numbers you choose to the unit's memory (up to 5 numbers) so that only these authorized phone numbers can call and control the heater. After this is done, all you need to do is to call the phone number to the SIM-card installed in the GSMS-PH4 and roughly 2 tones will be heard and then the call will hang up and the preheater will switch state turn on if turned off and vice versa. Since the call is not answered by the unit, there will be no costs using this method.

Depending on the telephone network operator you will hear either a busy signal or a recorded announcement when the call hangs up.

If you want to, you can setup the unit so it will send back a confirmation SMS to let you now that the command has been successfully executed when you called the unit (this is by default off).

Please make sure that the SIM-card placed in the unit is charged with money or else you will not be able to get a confirmation SMS back.

Another way to control the unit is by SMS messages. When using SMS to control the unit you do not have to add the users phone number to the unit's memory, instead for security a 4-digit password is used. This way an unlimited number of users can control the unit with SMS. With SMS you can turn on and off the preheater and also check if the preheater is on or off (please note that this command cannot be used to check if the preheater is on or off if the preheater is controlled by the controller). As with the phone call method you can set the unit to send back confirmation SMS (this is by default off). Using SMS is also the way you configure the unit's settings as explained on page 9.

Note that even if there is no money on the SIM-card the commands will be executed anyway, only difference is that you will not get a confirmation SMS back.

Controlling the unit with SMS will charge you for the SMS that you send to the unit and for the SMS received from the unit. Please refer to your telephone operator for pricing.

SMS commands

When controlling the unit using SMS it will require a 4 digit password (default "0000"). Every command will begin like this "PH0000".

Please do not use any spaces or characters other than specified. The commands are not case-sensitive but for clarification all examples is uppercase. So for example if you want to change the password to "1234" you send an SMS containing "PH0000CP1234" to the phone number connected to the installed SIM-card. Please see down below for all commands.

COMMAND EXAMPLE	*DESCRIPTION*
PH0000CP1234	*Changes the password from "0000" (default) to for example "1234"; this new password "1234" will be used in the following examples.*
PH1234CHECK	*Returns an SMS from the unit containing the state of the heater (on or off) and also information on battery voltage, temperature and signal.*
PH1234SETTINGS	*The unit will send back an SMS with an overview of the settings.* *– Information about the heating time "TIMER:".* *– What thermostat temperature that is set "THERMOSTAT:".* *– Value for the alarm temperature "ALARMTEMP:".* *– The setting for verification-SMS "VER. SMS:".* *– How many authorized phone numbers to contact (counted from the first user "U1") when an input is triggered "INPUTAUTHS:".* *– How the Multi-input is configured "MULTI-IN FUNC:"*
PH1234ON **… OFF**	*Commands to turn the heater on or off.*
PH1234ONF00H01M **… ONF99H99M**	*Turns on the heater into the future. Please note that you always need to specify both hours and minutes to turn on as the format to the left.*
PH1234ONF0	*Cancels any scheduled start. Note last character is a digit (zero).*
PH1234TIMER010M **… TIMER999M**	*Set up how long the heater should run. This setting has affect every time the heater is turned on using both SMS and phone calls except when using the command below.*
PH1234ON010M **… ON999M**	*Turns the heater on but **overrides the timer-setting**. For instance if the timer is set up at 60 minutes but you want to turn the heater on for 20*

minutes one time only.

PH1234U1A11111 **… U2A22222** **… U3A33333** **… U4A44444** **… U5A55555**	*Adds a phone number that should be authorized to control the heater with phone calls. The unit has memory for 5 users (user slots U1-U5). When the unit is controlled with SMS this have no effect, with SMS a password is used instead. These phone numbers (all or selected ones) are also the ones contacted if an input is triggered.*
PH1234U1A0 **… U2A0** **… U3A0** **… U4A0** **… U5A0**	*Removes an authorized user from a selected slot. Please note that the last character is a digit (zero).*
PH1234AUTHLIST	*Returns an SMS from the unit with a list of authorized phone numbers.*
PH1234INPUTAUTHS1 **… INPUTAUTHS2** **… INPUTAUTHS3** **… INPUTAUTHS4** **… INPUTAUTHS5**	*By default all users will be contacted if one of the inputs is configured to send SMS/call, but if you want only selected users to be contacted use this command. The number of users to contact is counted from the first user slot i.e. if "3" is selected, users U1-U3 will be contacted*
PH1234MULTIFUNC0	***Disables** the Multi-input. Please note that the last character is a digit (zero). Should be disabled if not used.*
PH1234MULTIFUNC1	*Sets up the Multi-input as an alarm-input i. e. the unit will send an SMS and call the authorized users when triggered.*
PH1234MULTIFUNC2	*This configures the input to control the state of the heater on or off. Use this setting if you want to add an external manual on/off switch.*
PH1234RESETALARM	*Every time an input has been triggered and the unit has sent an input-alert SMS telling you, this command needs to be sent to the unit before it can send a new input-alert SMS.*
PH1234SMS0	*Turn off SMS verifications.*
PH1234SMS1	*Only with SMS control.*
PH1234SMS2	*With SMS & phone call control.*
PH1234SMS3	*As above and when timer ends.*
PH1234THERMOST-20 **… THERMOST+05** **… THERMOST+40**	*Sets up a thermostat temperature that the unit will try and keep. Span -99 to +99 degree. Degree's in Celsius.*

PH1234THERMOST0	***Disables*** *the thermostat. Note that the last character is a digit (zero).*
PH1234 ALARMTEMP-20 **… ALARMTEMP+05** **… ALARMTEMP+40**	*When the temperature goes under this value the unit will send an SMS to the authorized users in the memory. Span -99 to +99 degree. Degree's in Celsius. Please note 2 digit format.*
PH1234ALARMTEMP0	***Disables*** *the temp. alarm. Note that the last character is a digit (zero).*
PH1234RESETDATA	*Erases all data and returns the unit to factory default.*

The commands below are not regularly used and are not available in the app.

PH1234MAKECALL0 **… MAKECALL1**	*Enable or disable the unit from calling the authorized users in case of an alarm report. An SMS will always be sent.* ***MAKECALL0 = No phone call, MAKECALL1 = Normal mode.***
PH1234SWITCHMODE0 **… SWITCHMODE1**	*This command configures the outputs to switch on momentary and can be used if for example the potential free output has been connected parallel to a switch that starts the button when pushed momentarily.* ***SWITCHMODE0 = Normal mode SWITCHMODE1 = Momentary mode.***
PH1234ATEMPMODE0 **… ATEMPMODE1**	*Sets up how the temperature alarm is triggered.* ***ATEMPMODE0 = Normal mode, temperature gets below value.*** ***ATEMPMODE1 = Temperature gets over configured value.***
PH1234DEGREEUNIT0 **… DEGREEUNIT1**	*Configures the temperature unit used.* ***DEGREEUNIT0 = Celsius, DEGREEUNIT1 = Fahrenheit.***

Troubleshooting

🕮 I have forgotten my 4 digit password

If you have lost or forgot the 4 digit password used to control the GSMS-PH4 via SMS you will need to have physical access to the unit to do a hardware reset as described below.

The default password is "0000".

Please note that this will erase all authorized phone numbers and change all settings to default!

1. Disconnect the unit from the connection cable.
2. Connect the unit again and roughly 5 seconds after the unit has been power up activate the Multi-input and leave activated for 10 seconds, done!

🕮 After changing SIM-card in the unit, it stops responding

Every time you take in and out a SIM-card you need to restart the unit by first disconnecting the unit from the connection cable and connecting it again.

🕮 The unit does not connect to the GSM network

1. Please make sure that the installed SIM-card does not have a PIN-lock.
2. Confirm that the SIM-card have support for the GSM/2G network.
3. Bad reception, try moving the GSMS-PH4 to another location known for good reception.
4. Make sure that you have the proper voltage range connected and the polarity is correct.
5. Confirm that the antenna is installed properly.

🕮 When calling the unit, I hear tones, but the heater do not start

Make sure you have added your phone number to the unit's memory as described in the "SMS commands" section on page 9.

🕮 Wire colors do not match my setup

1. In some cases the wire colors may vary on different preheater installations. Refer to your controller manual to find the correct wire colors.
2. Measure the voltage at each wire when the controller is plugged into the cars main wiring loom. Easiest is to measure the voltage at the plug between the controller and main wiring loom. First find the wire that is +12V/24V and connect it to the BLUE (+) wire on the connection cable. Then find out which wire is ground and connect it to the BROWN (-) wire on the connection cable. Last check which wire measures 0V when the preheater is off at the controller and +12V/24V when you turn on the preheater at the controller. This last wire should be connected to the BLACK wire on the connection cable.

🕮 When I call the GSMS-PH4, the red "STA" LED lights up but the preheater do not start

1. Disconnect the unit from the connection cable and try turning on the preheater at the controller. If the preheater do not start refer to your preheater manual for troubleshooting.
2. Measure the voltage between ground and the connection cables BLACK wire when the red "STA" LED indicates on, if it reads +12V/24V the BLACK wire is connected wrong. Refer to troubleshooting "Wire colors do not match my setup." If the BLACK wire reads 0V, disconnect the connection cable from the wiring loom, but still plugged into the GSMS-PH4. Connect +12V/24V to the BLUE (+) wire on the connection cable and ground to the BROWN (-) wire and check the voltage at the BLACK wire again, if it still reads 0V when the "STA" LED indicates on, the GSMS-PH4 unit is most likely broken. If it reads +12V/24V the connection cable was connected wrong.

🕮 Nothing happens when the GSMS-PH4 is plugged into the connection cable

1. Make sure the connection cable is installed to the correct wires in installation step 3.
2. Check if the controller is working, if not check the controller fuse. Refer to controller manual.
3. Disconnect the GSMS-PH4 from the connection cable and measure the voltage between the connection cables plugs BLUE (+) wire and BROWN (-) wire, it should read 12V/24V. If not, reconnect the BLUE (+) and BROWN (-) wires on the connection cable to another 12V/24V power source (battery).

🕮 The signal LED "SIG" (green) does not light up at all after power on

1. Make sure you have connected the proper voltage range.
2. Please make sure you have connected the positive and negative poles correctly.

🕮 How do I check how much money I have on the installed pre-paid SIM-card

Please talk to your SIM-card provider. Generally you can add money online and with most providers you can also register the SIM-card and monitor it online.

Technical specifications

Operating voltage	8-35Vdc (12V/24V)
Operating temperature	-30 °C to +70 °C
Power consumption	Nominal < 0,3W
Inputs/outputs	2 inputs / 2 outputs (1 DPDT relay)
Relay	1A 250VAC / 1A 30VDC
Overload protection	Resettable PTC fuses for power and relay
SIM-card type	Mini-SIM
Heating time	10 – 999 minutes (30 minutes default)
Timer accuracy	Max 3% off
Memory	5 authorized phone numbers
IP-rating	IP20
Dimensions	Approx. 65 x 28 x 80 mm
GSM-bands	850/900/1800/1900 MHz