

HEATING SYSTEMS

GBW 300

NGW 300 / LGW 300

**Operating and
maintenance instructions**

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Valeo

Operating and maintenance instructions

General information!

Dear SPHEROS user,

We assume that the operation and function of your new heater will have been explained to you properly and to your complete satisfaction by the installing workshop/service outlet. This owner's handbook is designed to give you a brief summary of how to use the GBW heaters.

Maintenance and safety instructions

For the heater exists a type approval according to ECE Regulations R122 (Heater) and R10 (EMC).

The heaters must be installed as described in the attached installation instructions and must be registered on the vehicle registration document. If applicable, the approval confirmation or the general operating licence must be carried in the vehicle.

The year in which the heater is used for the first time must be permanently marked on the heater's model plate by removing the inapplicable year numbers.

Switch off the auxiliary heating system before refuelling.

The heater must not be operated:



Brand-, Explosions-
und
Erstickungsgefahr

- at filling stations and other refueling points.
- if the heater or its exhaust outlet is in locations where inflammable vapors or dust may form (e.g. close to fuel, coal, wood dust or cereal storage facilities).
- if the heater or its exhaust outlet is located close to inflammable materials for example dry grass and leaves, cartons, paper etc.
- in enclosed areas (e.g. garages, hall without a suck off facility), not even if the digital timer or Tele Start is used.
- If the exhaust outlet of the heater is partial or fully obstructed (e.g. by soil or snow, as it may occur while move the vehicle backwards).
- NGW 300 at temperatures of less than -25°C and the LGW 300 at temperatures of less than -20°C .
- At altitudes of over 1500 m.

The heater must not:



- be exposed to temperatures of more than 120°C (storage temperature), otherwise the electronics may suffer permanent damage.
- be operated without at least 20% brandname anti-freeze in the water of the heating circuit.

The heater **must**:



- be operated using the gas type shown on the model plate (for the NGW 300 with a minimum methane content of 95%) and the rated voltage shown on the model plate. If the methane content is lower than this, the heater's gas nozzle is to be adjusted by SPHEROS trained personnel. The oil content of the gas must not exceed 70 ppm.
- be taken out of operation by removing the fuse if smoke develops, if unusual burning noises are heard or if there is a smell of fuel. The heater must not be restarted until the unit has been checked by personnel duly trained by SPHEROS.
- be run for 10 minutes at least once per months when the engine is cold and with the blower at its lowest setting. At the latest at the start of the cold weather the heater must be inspected by an expert. For this purpose the CO value must be checked and adjusted. In addition it must be checked whether disconnecting the control valve results in the immediately extinguishing of the flame (burning noise). If not, the controller must be replaced.

The gas controller **must**:



- be replaced after four years for safety reasons (manufacturer's directive). If you fail to do this it may leak and gas may escape
- be drained of oil through the oil drain screw every three months (by SPHEROS trained personnel).

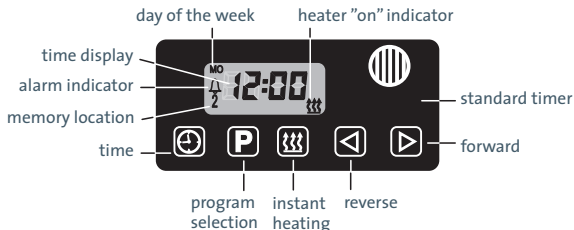
Liability:



- Non-compliance with the installation instructions and the warnings contained therein will lead to the exclusion of all liability by SPHEROS. The same also applies if repairs are not undertaken by professionals or without using genuine spare parts. This invalidates the type approval for the heater and its homologation / ECE type permit.
- Liability claims can only be made if the claimant can verify compliance with all the servicing and safety instructions.

Operating and maintenance instructions

Standard timer



General

The standard digital timer enables you to preset the start of the heater operation up to 7 days in advance.

It is possible to program 3 different starting times, only one of which can be activated.

The standard digital timer features a wake-up alarm function.

When the ignition is switched on, the timer displays the current time and the day of the week. When the heater is switched on, the display and the buttons are illuminated.

After the power supply has been connected, all symbols on the display

will flash. The current time and weekday must be set.

Operation


The timer can be operated in that all flashing symbols can be adjusted by means of the ◀ and ▶ buttons. If the buttons are not pressed within 5 seconds, the time displayed will be stored. If the ◀ and ▶ buttons are pressed for more than 2 seconds, the fast time-setting mode is activated.

If the ignition is switched off while the heater is operating in the continuous mode, the remaining operating time of 15 minutes is displayed and the heater continues to operate for this period of time.


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Switching the heater on

Manually: by pressing the button 
(continuous heating mode)
Automatically: by programming the heater starting time


Switching the heater off

Manually: by pressing the button 
Automatically: by programming the operating time
With the heater running: by programming the remaining operating time





Setting time/day of the week

Press the  button for more than 2 seconds - time of the day is flashing - and set the clock using the  and  buttons. Day of the week is flashing - adjust the day of the week.



Viewing the time

With the ignition switched off: press the  button




Programming heater starting time

Press the  button - the memory location is flashing - using the  and  buttons, set the heater starting time. Day of the week is flashing - set the day of the week. By repeatedly pressing the  button, memory locations 2 and 3 can be programmed or the time display mode can be reached.



Recalling/erasing preset times

Repeatedly press the  button until the desired memory location is displayed. To erase the preset time, press the  button several times until the time of the day is displayed instead of the memory location.





Programming duration of operating time

The heater must be switched off. Press the  button for 3 seconds - operating time is flashing - and set the desired operating time (10 to 120 minutes) using the  and  buttons.





Setting the remaining operating time

Set the desired remaining operating time (1 to 120 minutes) using the  and  buttons. The remaining operating time refers to the time the heater still continues to remain in operation. It can only be changed while the heater is in operation and the ignition switched off.

Setting the wake-up time

A wake-up time can only be programmed on the standard digital timer. The wake-up time is not bound to a specific day of the week. Repeatedly press the  button until the bell symbol  appears on the display. Set the desired wake-up time using the  and  buttons. The alarm clock turns off after 5 minutes or when one of the buttons is pressed.

Recalling/erasing the wake-up time

Repeatedly press the  button until the bell symbol  appears on the display - read off wake-up time. To erase the wake-up time: press the  button until the bell symbol  is no longer visible on the display.

Remote control

Possible by means of an optional external "instant heating" button

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Heater operation

The water heater can be switched on using either a switch or timer.

Before switching on the heater, the vehicle heating must be set to "warm". The heater fan in the vehicle should be set to the 1st speed in the case of a 3-speed fan and to the 2nd speed in the case of a 4-speed fan. Fans with infinitely variable speed should be set to at least 1/3 of the fan performance.

Troubleshooting

If a fault occurs, check the fuse and the plug connectors to ensure that they are in perfect condition and secure. If the action described below does not rectify the fault, have the heater checked by SPHEROS trained personnel.

The heater cuts out automatically

Cause	Remedy
No flame after the start	Switch the heater off and on again once
The flame goes out during operation	Switch the heater off and on again once
The vehicle's voltage is too low	Charge the battery Switch the heater off and on again once
Combustion air and/or exhaust lines are blocked	Check that the combustion air and exhaust lines are clear

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