

INSTALLATION AND SERVICING INSTRUCTIONS

PRIMARY WATER STORAGE 50 LITRES



6720803559-00.1Wo

 **WORCESTER**
Bosch Group

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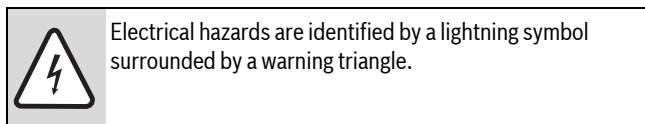
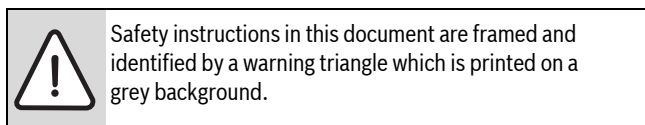
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1 SAFETY PRECAUTIONS AND EXPLANATION OF SYMBOLS

1.1 EXPLANATION OF SYMBOLS

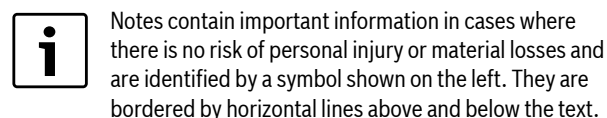
Warning symbols



Signal words indicate the seriousness of the hazard in terms of the consequences of not following the safety instructions.

- **NOTICE** indicates possible damage to property or equipment, but where there is no risk of personal injury.
- **CAUTION** indicates possible personal injury.
- **WARNING** indicates possible severe personal injury.
- **DANGER** indicates possible risk of life.

Important information



Additional symbols

Symbol	Meaning
▶	step in an action sequence
→	reference to a related part in the document or to other related documents
•	list entry
–	list entry (second level)

Table 1

1.2 SAFETY PRECAUTIONS

FITTING & RETROFITTING

- ▶ **Risk of fire!**
Exercise due care when soldering and welding.
- ▶ This storage tank must only be fitted or refitted by a competent installer.

OPERATION

- ▶ In order to ensure trouble-free operation, read these instructions carefully.
- ▶ **Risk of scalding!**
During operation of this storage tank temperatures over 60 °C can occur.

SERVICING

- ▶ Only original spare parts must be used with this appliance.

INSTALLING THE BUFFER TANK

The buffer tank should be installed on a flat floor surface. Ensure that the bottom of the tank is fully in contact with the floor. Care should be taken not to damage the metal casing of the tank.

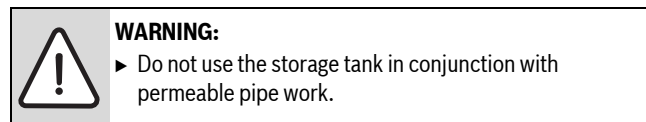
Ensure that the floor is dry and the outside of the buffer tank cannot get wet during its lifetime. The insulation will be damaged if left in contact with water.

If the buffer tank cannot be mounted on a flat floor surface (for example if the tank is mounted on a wall frame) the tank must first be placed on top of a suitable metal plate. The bottom of the tank must be fully in contact with the metal plate and completely cover the tank bottom.

2 PRODUCT INFORMATION

2.1 USE

The storage tank is designed to act as a buffer for the heating system and is ideally suited to heat pump applications.



2.2 INTENDED USE

The storage tank must only be filled with heating water and must only be used in sealed heating systems which are designed for use with heat pumps. Any other use is an infringement of use for intended purpose. Any damage that may result is excluded from liability.

Not for use as a method of potable hot water (Domestic Hot Water) storage.

2.3 SCOPE FOR DELIVERY

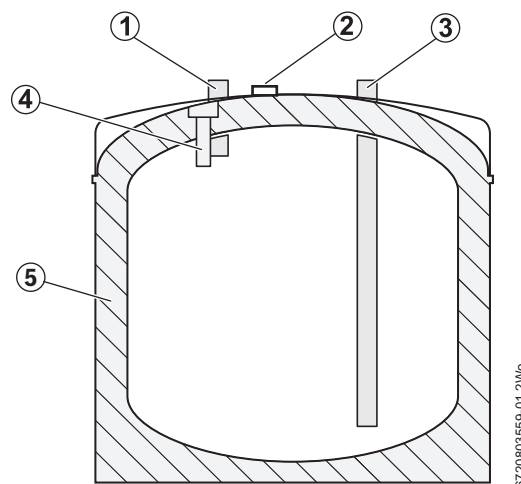
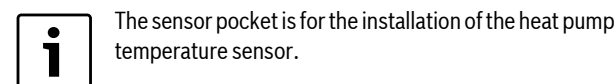


Fig. 1 Primary water storage tank

- [1] V₁ / V₂
- [2] Sensor cable retaining clip
- [3] R₁ / R₂
- [4] Sensor pocket (for flow temperature sensor)
- [5] Insulation



2.4 DIMENSIONS AND CONNECTIONS

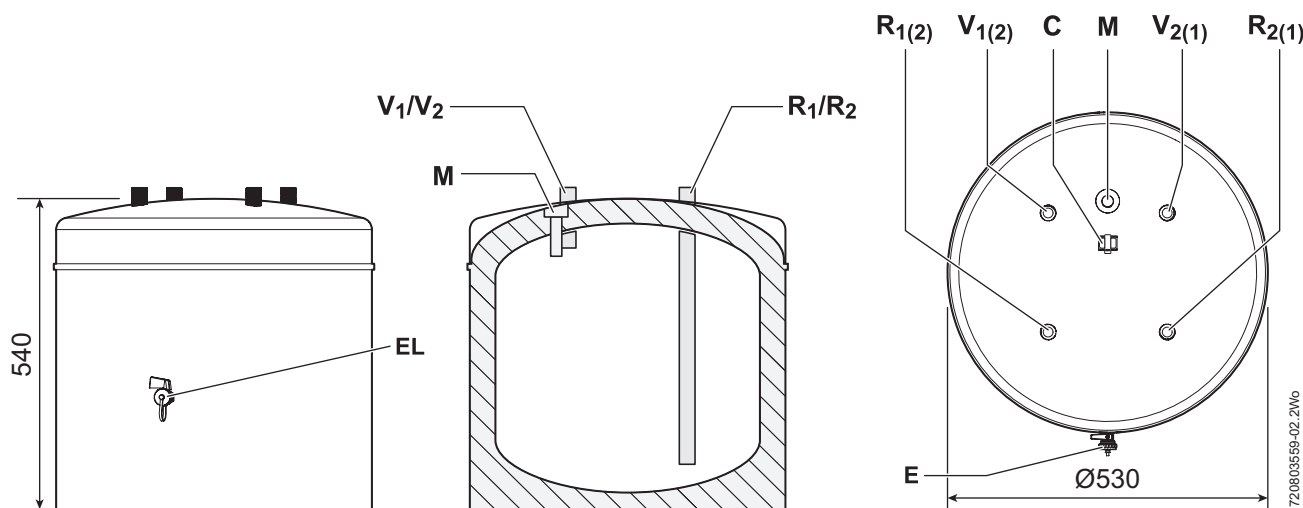


Fig. 2 Dimensions and connections (dimensions in mm)

For parallel tank connections:		For series tank connections:	
V₁	flow (heat pump)	V₁ or V₂	flow (heating) - cap off unused connection
V₂	flow (heating)	R₁ or R₂	flow (heat pump) - cap off unused connection
R₁	return (heat pump)	M₁	measuring point for flow temperature sensor (if required)
R₂	return (heating)	EL	drain valve
M₁	measuring point for flow temperature sensor	C1	Sensor cable retaining clip
EL	drain valve		

Table 2

2.5 TECHNICAL DATA

Storage tank		
storage volume (heating water)	L	50
flow V ₁ , V ₂	R ¾	
return R ₁ , R ₂	R ¾	
measuring point M ₁	R ½	
maximum heating water temperature	°C	95
max. heating water working pressure	bar	3
Additional data:		
weight (empty)	kg	24
weight (full)	kg	74

Table 3

3 INSTALLATION REGULATIONS

3.1 REGULATIONS

This appliance must be installed and serviced only by a competent person in accordance with the current:

- IEE Regulations, Building Regulations,
- Building Standards (Scotland) (Consolidation),
- Building Regulations (Northern Ireland),
- local water by-laws,
- Health and Safety Document 63S (the Electricity at Work Regulations 1989,
- IS813 (Eire)
- and other local requirements
- Where no specific instruction is given, reference should be made to the relevant codes of Practice:
 - BS7074:1 : Code of practice for domestic and hot water supply
 - EN:12828 : Central heating for domestic premises

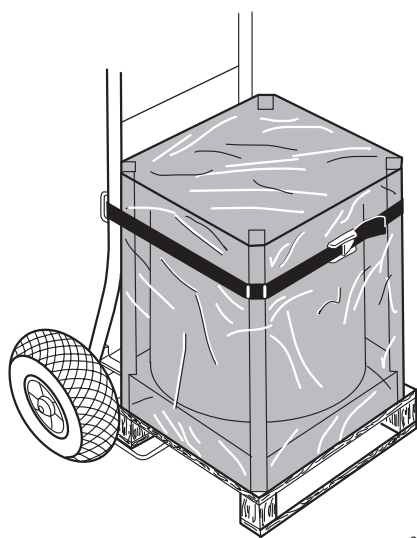
4 TRANSPORT

4.1 MEANS OF TRANSPORT

DANGER: Risk of injury from carrying heavy weights!
► Do not try to lift or carry the storage tank alone.

CAUTION: Damage from inappropriate protection during transport!
► For transport, use appropriate means, e. g. a sack truck or pump truck with a tension belt.

- Protect the storage tank against tilting and transport to its installation location standing upright and in its packaging.
- Do not remove the storage tank packaging before it is in the installation location.



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Fig. 3 Transport of the hot water storage tank by suitable means

4.2 INDUSTRIAL LOCATION

NOTICE: Protect from freezing!
► Place storage tank in a frost-proof room.
► Ensure the tank is frost protected.
► Insulate pipes with class O insulation.

NOTICE: Damage from corrosion!
► Use the storage tank in sealed systems only.

- Observe minimum clearances.
- Place storage tank on an even and load-bearing ground.
- In damp rooms: put storage tank on a platform.
- Recommend minimum clearance of 25mm around the tank.
- Ensure you have adequate access to the drain valve.

5 FITTING

5.1 FITTING THE TEMPERATURE SENSOR

- Slide the temperature sensor into the sensor pocket, use heat paste to ensure a good contact. Fit the sensor cable into the cable retaining clip with a small loop to ensuring the cable is not pulled tight.



Ensure that the sensor area has contact with the sensor pocket area for the sensor's full length.

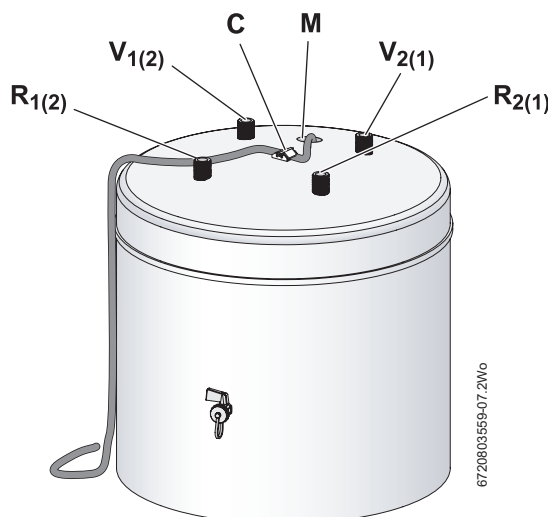
Sensor positions:

- **M₁** = Measuring point for flow temperature sensor top
- **C₁** = Sensor cable retaining clip



For information on the sensor refer to the documentation of your heat pump or of the control unit.

- Lay the sensor lead through open cable retaining clip, ensuring that a small loop of cable exists between the clip and the sensor, and close the clip firmly on the cable.



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Fig. 4 Primary water storage tank

- [V1] Flow (Heat pump)
- [V2] Flow (Heating)
- [R1] Return (Heat pump)
- [R2] Return (Heating)

5.2 CONNECTION OF THE STORAGE TANK TO THE HEAT PUMP AND HEATING SYSTEM



DANGER: Risk of fire from soldering and welding!
► Take suitable safety measures when soldering and welding.

- When sizing the heating system expansion vessel, take the storage tank volume into consideration.
- For further information about system layout refer to installation instructions of main appliance.



NOTICE: Risk of damage to non heat-resistant installation materials (e. g. plastic piping)!
► Use installation material which is heat resistant to $\geq 80^\circ\text{C}$.

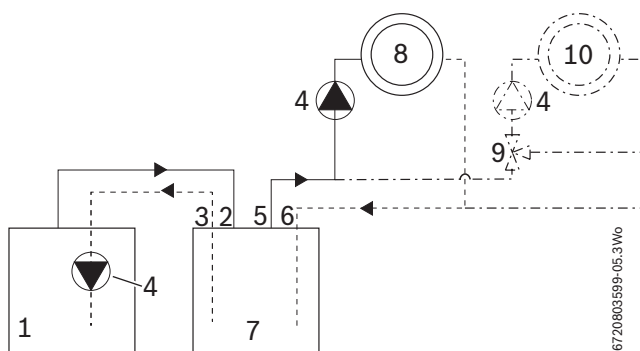


Fig. 5 Functional schematic: connection of the storage for parallel tank connection to the heat pump

- [1] heat pump
- [2] V1
- [3] R1
- [4] pump (An additional external circulation pump, for each heating system, may be needed. This will be fitted to the flow outlet from the tank to the heating system as shown)
- [5] V2
- [6] R2
- [7] storage tank
- [8] heating system
- [9] 3-way-valve
- [10] additional heating system (in case of expansion)

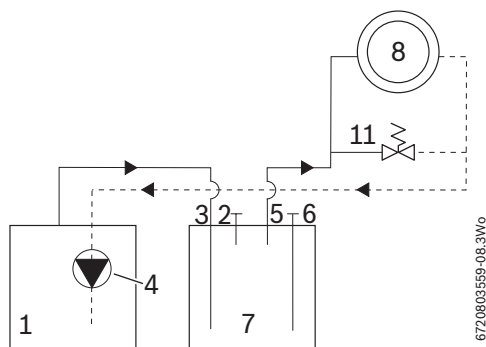


Fig. 6 Functional schematic: connection of the storage for series tank connection to the heat pump

- Ensure pipe work is adequately supported
- Ensure that the correct connections are made to the storage tank.
- Check all connections for tightness.



NOTICE: Fitting the air vent

- A suitable air vent should be fitted to the top of the tank on either V₁ or V₂ pipes.

6 INITIAL OPERATION

6.1 CUSTOMER HAND OVER

The installer must explain to the customer (user) the mode of operation and the handling of the heating appliance and the storage tank.

- Hand all enclosed documents over to the user.

6.2 START OF OPERATION

Start of operation has to be done by the installer of the heating system or by a technical expert.

- Start the operation of the heat pump in accordance to the manufacturers information, installation or instruction manuals.

7 DE-COMMISSIONING

7.1 DE-COMMISSIONING THE SYSTEM WHEN THERE IS A RISK OF FROST

- When the heating system is not in use and there is a risk of frost, de-commission the heating system in accordance with the heat pump (or other accessories) instruction manual.

7.2 ENVIRONMENTAL PROTECTION

Environmental protection is a key company commitment for the Bosch Group.

Quality of performance, efficiency and environmental protection are our long term objectives. Legal and corporate guidelines are strictly adhered to.

To protect the environment we utilise the most efficient processes, technology and materials

PACKAGING

We are dedicated in adhering to country specific disposal standards as they relate to packaging to ensure optimum recycling. All packaging materials are environmentally friendly and can be recycled.

OBSELETE EQUIPMENT

Obsolete products contain raw materials that can be recycled.

The components are easily separated and are clearly marked. In this manner the individual components are easily sorted and added into the recycling and disposal systems.

7.3 DISPOSAL

- Dispose of the storage tank packaging in an environmentally sound method.
- Dispose of the storage tank in an environmentally sound method at an appropriate disposal facility.

8 SERVICING

Apart from occasional visual inspection, storage tanks do not require any particular servicing or cleaning.

- Use original spare parts only!

SPARE PARTS

Sensor pocket R $\frac{1}{2}$ 95mm	5 446 142
Drain valve $\frac{1}{2}$ inch	6 300 597 4
Installation & servicing instructions primary water storage 50 litres	6 720 803 559 0

Table 4

EMPTYING



WARNING: Risk of scalding!

Hot water can cause severe scalding

- Allow the storage tank time to cool down after de-commissioning.

- If required, empty the storage tank via the drain valve at the bottom of the tank, see fig. 2, page 5.

NOTES

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