Saga Coil - S_2C

150-210-300 l.

EN



SAFETY INFORMATION
O&M INFORMATION
INSTALLATION MANUAL
TDS - TECHNICAL DATA SHEET

OSO
HOTWATER

Manufactured by OSO Hotwater AS
Industriveien 1 - 3300 Hokksund - Norway
Tel.: +47 32 25 00 00 / E-mail: oso@oso.no
www.osohotwater.com

11012296-01 - 11-2024

CONTENTS

1. Safety instructions 3
1.1 General information 3
1.2 Safety instructions for users..... 4
1.3 Safety instructions for installers 4

2. Product description 5
2.1 Product identification..... 5
2.2 Intended use 5
2.3 CE marking 5
2.4 Technical data..... 5
2.5 ErP data (TDS) 5
2.6 Spare parts 5

3. Installation instructions..... 6
3.1 Products covered by these instructions..... 6
3.2 Included in delivery 6
3.3 Product dimensions 6
3.4 Requirements for installation location 7
3.5 Pipe installation..... 8
3.6 Electrical installation 10

4. Initial commissioning 12
4.1 Filling with water 12
4.2 Turning on the power..... 12
4.3 Setting the mixer valve..... 12
4.4 Control points..... 12
4.5 Emptying of water 12
4.6 Handover to end user 12

5. Settings..... 13
5.1 Settings..... 13
5.2 Maintenance 13

6. Troubleshooting..... 14
6.1 Faults and fixes..... 14

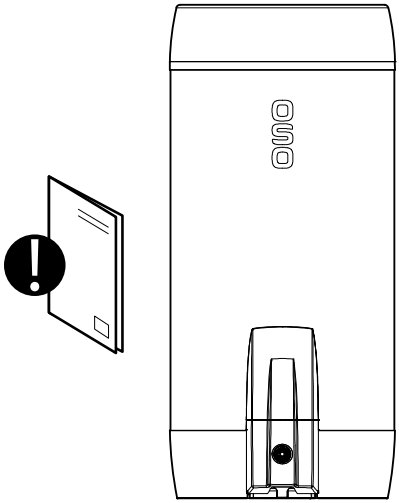
7. Warranty conditions 15
7.1 Warranty and registration..... 15
7.2 Customer service..... 15

8. Removing the product..... 15
8.1 Removal..... 15
8.2 Returns scheme..... 15

1. SAFETY INSTRUCTIONS

1.1 General information

- Read the following safety instructions carefully before installing, maintaining or adjusting the water heater.
- Personal injury or material damage may result if the product is not installed or used in the intended manner.
- Keep this manual and other relevant documents where they are accessible for future reference.
- The manufacturer assumes compliance (by the end user) with the safety, operating and maintenance instructions supplied and (by the installer) with the fitting manual and relevant standards and regulations in effect on the date of installation.



Symbols used in this manual:

⚠ WARNING	Could cause serious injury or death
⚠ CAUTION	Could cause minor or moderate injury or damage to property
⊘	DO NOT
❗	DO

❗	This document should be kept in a suitable place where it is accessible for future reference.

1.2 Safety instructions for users

⚠ WARNING	
⊘	The overflow from the safety valve must NOT be sealed or plugged.
⊘	The product must NOT be covered over the cover on the front.
⊘	The product must NOT be modified or changed from its original state.
⊘	Devices for remotely controlling the power supply to the product are NOT allowed without the approval of the supplier.
⊘	Children must NOT play with the product or go near it without supervision.
❗	The product shall be filled with water before the power is switched on.
❗	Maintenance/settings shall only be carried out by persons over 18 years of age, with sufficient knowledge.

⚠ CAUTION	
⊘	The product must not be exposed to frost, over-pressure, over-voltage or chlorine treatment. See warranty provisions.
⊘	Maintenance/configuration shall not be carried out by persons of diminished physical or mental capacity, unless they have been instructed in the correct use by someone responsible for their safety.

1.3 Safety instructions for installers

⚠ WARNING	
⊘	The overflow from the safety valve must NOT be sealed or plugged.
❗	Any external control of the power supply to the product must be approved by OSO.
❗	Any overflow pipe from safety valves must be of a suitable size, clear, undamaged and frost-free with a fall to the drain.
❗	Fixed electrical fittings must be used for installations in domestic properties in accordance with NEK 400:2010 *or later,* as well as in the event of any changes to the property's existing electrical installations in accordance with the regulations. The supplied mains cable with plug for a wall socket can be used when installing the product *without* requiring any alteration of the home's electrical installations as installed in accordance with NEK 400:2006 *or earlier*.
❗	The factory-fitted mains cable is certified up to 90°C (H05V2V2-F) and can also be used for permanent installation, a strain reliever must be installed in the event of cable replacement.
❗	The product shall be filled with water before the power is switched on.
❗	The relevant regulations and standards, as well as this installation manual, must be followed.

⚠ CAUTION	
❗	The product shall be placed in a room with a floor drain. The manufacturer assumes no responsibility whatsoever if this provision is not followed.
❗	The product shall be properly aligned vertically and horizontally, on a floor or wall suitable for the total weight of the product when in operation. See rating plate.
❗	The product must be installed with clearance for servicing of 40 cm in front of the electrical cover/10 cm above the highest point.

2. PRODUCT DESCRIPTION

2.1 Product identification

Identification details for your product can be found on the rating plate affixed to the product. The rating plate contains details of the product in accordance with EN 12897:2016 and EN 60335-2-21 in addition to other useful data. See the Declaration of Conformity at www.osohotwater.com for more information.

OSO products are designed and manufactured in accordance with:

- Pressure vessel standard EN 12897:2016
- Safety standard EN 60335-2-21

OSO Hotwater AS is certified for

- Quality ISO 9001
- Environment ISO 14001
- Working Environment ISO 45001

2.2 Intended use

The Saga Coil series is designed to supply homes with hot water and is fitted with a built-in stainless heat exchanger (coil). The appliance can be heated via an alternative energy source and has an electrical backup.

2.3 CE marking

CE

The CE mark shows that the product complies with the relevant directives. See Declaration of Conformity at www.osohotwater.com for more information.

The product complies with directives for:

- Low voltage LVD 2014/35/EU
- Electromagnetic compatibility EMC 2014/30/EU
- Pressurised equipment PED 2014/68/EU

Any safety valve(s) used should be CE-marked and comply with the PED 2014/68/EU.

2.4 Technical data

OSO Model no.	Product code:	Capacity, persons	Weight, kg.	Dia. x Height mm.	Freight vol. m³	Volume 40°C water	Thermostat setting °C
11011653	S_2C 150 - 2.8 kW / 1x230V+HX 0.8m²	3.5	36	Ø595x1110	0.41	260	75
11011654	S_2C 210 - 2.8 kW / 1x230V+HX 1.0m²	4.5	51	Ø595x1375	0.50	340	75
11011655	S_2C 300 - 2.8 kW / 1x230V+HX 1.1m²	5.5	57	Ø595x1780	0.64	490	75
The products are classified as IP21.							

2.5 ErP data - Technical Data Sheet

Brand	OSO Model no.	Model name	Actual volume L	Heat loss W	ErP Rating
OSO Hotwater AS	11011653	S_2C 150	147	47	B
OSO Hotwater AS	11011654	S_2C 210	197	57	B
OSO Hotwater AS	11011655	S_2C 300	274	77	C
Regulation: 2017/1369/EU - Regulation: EU 812/2013		Directive: 2009/125/EC - Regulation: EU 814/2013			
Heat loss tested acc. to standard EN 12897:2016					

2.6 Spare parts

NRF no.	OSO Product no.	Designation	Product description:	Dimension
800 4001	11000900	Thr. 5/4"	Element - 2.8 kW/1x230V - 1-tube - Inc 825 - for 200-300 l.	Length 420 mm.
801 5823	11001075	TS2	Thermostat - 59T/66T 60-90°C 1-phase	2-pole
801 5155	11001124	Mains cable	Cable with 1 x plug 2.5# - 2+earth	Length 3 m.
801 5519	11001141	Connecting cable	Internal cable - 2.5# ,180°C / Saga, fork+fork	Length 205 mm
801 5729	11001305	UX15	Mix Valve - f/service	ø15 mm conn.
801 5705	11001362	SVS	Safety valve - SV-385 (SVS), 9 bar, with nut	ø22 mm ring clamp

3. INSTALLATION INSTRUCTIONS

3.1 Products covered by these instructions

Saga Coil - S₂C 150-210-300.

3.2 Included in delivery

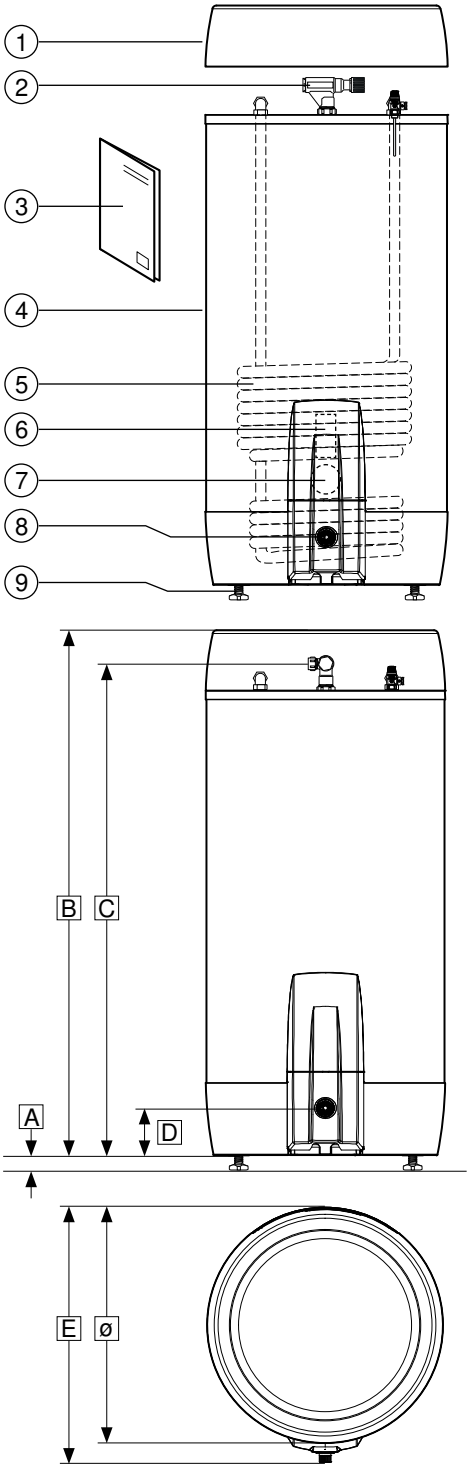
Ref no.	Num-ber of	Description
1	1	Top cover (factory-fitted)
2	1	Mixer valve (factory-fitted)
3	1	Installation manual (this document)
4	1	Water heater
5	1	Stainless heat exchanger (coil)
6	1	Thermostat (factory-fitted)
7	1	Heating element (factory-fitted)
8	1	Safety valve (factory-fitted)
9	3	Feet (factory-fitted)

3.3 Product dimensions

All dimensions in mm.

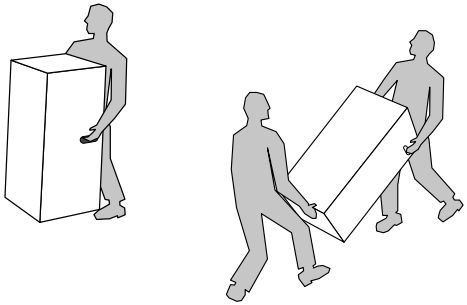
Product.	A	B	C	D	E	ø
S₂C 150	0-40	1105	1005	125	643	595
S₂C 210	0-40	1370	1270	125	643	595
S₂C 300	0-40	1775	1675	125	643	595

Tolerance +/- 5 mm (not dimension A).



3.3.1 Delivery

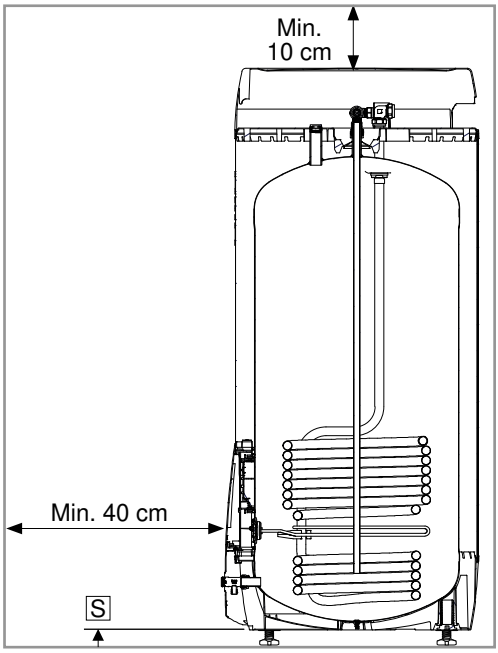
The product should be transported carefully as shown, with packaging. Use the handles in the box.



⚠ CAUTION
Pipe stubs, valves etc. should not be used to lift the product as this could cause malfunctions.

3.3.2 Unpacking and positioning of product

1. Open the packaging and remove the protective plastic from the product.
2. The product is equipped with three factory-fitted adjustable feet (8), adjustable from 0-40 mm. Place the product carefully on its back, preferably on the cardboard packaging to avoid cosmetic damage.
3. Unscrew the adjustable feet at least 15 mm. from the bottom of the product (S)
4. Raise the product onto its feet, making sure that the feet are not exposed to oblique loads while the product is raised.
5. Place the product in a suitable place in the home, adjust the feet individually until the product stands firm and stable in plumb and level.
6. Follow the requirements according to section 3.4.



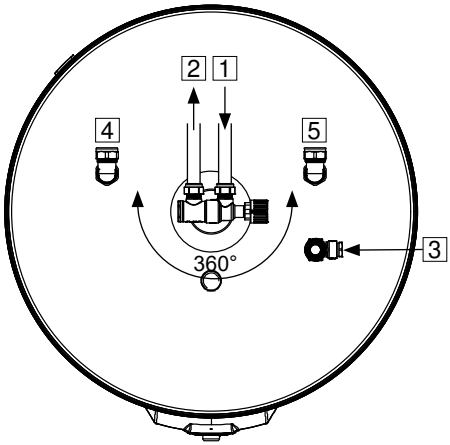
3.4 Requirements for installation location and positioning

⚠ CAUTION	
❗	The product shall be placed in a room with a floor drain. The manufacturer assumes no responsibility whatsoever if this provision is not followed.
❗	The product shall be placed in a dry and permanently frost-free position.
❗	The product shall be placed on a floor or wall suitable for the total weight of the product when in operation. See data plate.
❗	The product must be installed with clearance for servicing of 40 cm in front of the electrical cover/10 cm above the highest point.
❗	The product shall be easily accessible in the home for servicing and maintenance.

3.5 Pipe installation

The product is designed to be permanently connected to the mains water supply. Approved pipes of the correct size should be used for installation. The relevant standards and regulations must be followed.

No.	Connections	Dimension
1	COLD WATER in	15 mm ring clamp
2	HOT WATER out	15 mm ring clamp
3	Overflow from safety valve	G 3/4" F
4	Coil connection	22 mm ring clamp
5	Coil connection	22 mm ring clamp



3.5.1 Incoming water pressure

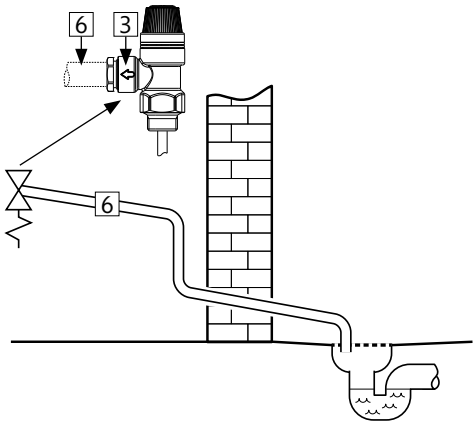
The efficiency of the product depends on the incoming cold water pressure. The water pressure should be min. 2 bar and max. 6 bar throughout the day. Excessive water pressure can be adjusted by installing a pressure reduction valve.

3.5.2 Fitting cold and hot water pipes (CW-HW) and overflow pipes

A) Turn the mixer valve to the desired position.
   • Tighten ring clamp onto the cylinder (see 3.5.4)

B) CW and HW pipes of a suitable size should be run to the mixer valve and tightened (see 3.5.4)

C) Overflow pipe (6) ≥ 18 mm inside run to the safety valve;
   • Connected to waste 3/4" internal thread.
   • The pipe must be clear and uninterruptable, undamaged and laid frost-free with a fall to a suitable drain or gulley.



3.5.4 Torque settings

Component	Torque
Ring clamp connection to CW/HW (ø15)	40 Nm (+/- 3)
Ring clamp connection to cylinder (ø22)	60 Nm (+/- 5)

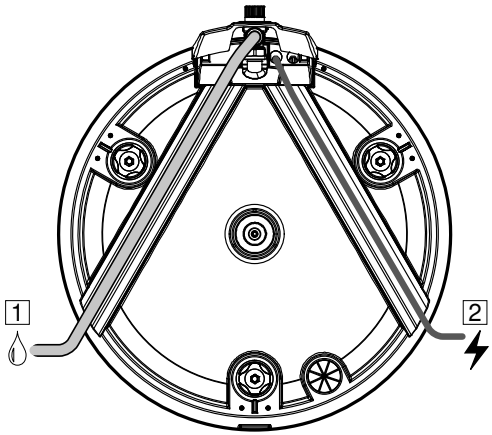
3.5.4 Fitting instructions

⚠ WARNING	
❗	The product shall be filled with water before the power is switched on.
❗	Any overflow pipe from safety valves must be of a suitable size, clear, undamaged and frost-free with a fall to the drain.

⚠ CAUTION	
❗	The product shall be placed in a room with a floor drain. The manufacturer assumes no responsibility whatsoever if this provision is not followed.
❗	The product shall be properly aligned vertically and horizontally, on a floor or wall suitable for the total weight of the product when in operation. See rating plate.
❗	The product must be installed with clearance for servicing of 40 cm in front of the electrical cover/10 cm above the highest point.

3.5.5 Fitting recommendation

RECOMMENDATION	
-	Allow clearance to the floor. Unscrew the feet a minimum of 15 mm from the bottom of the product.
-	Any overflow pipe from the safety valve to the drain (1) and the power supply cable from the control unit (2) can be hidden under the channels in the bottom of the product.
-	If a non-return valve is fitted, a reduction valve and expansion vessel shall be fitted to stop dripping from the safety valve.
-	If the maximum water pressure exceeds 6 bar in a 24-hour period, a reduction valve and expansion vessel shall be fitted.
-	For installation in rooms that do not conform to the wetroom standard, a watertight drip tray with overflow pipe of ≥ 18 mm inside diameter should be fitted under the product, in addition to an automatic stop cock with sensor. This will prevent potential material damage.



3.6 Electrical installation

Fixed electric fittings shall be used for installation in new homes or when changing an existing electrical setup in accordance with regulations. A mains cable with plug for wall socket can be used when replacing the product without changing the electrical setup. Any fixed electric fittings must be installed by an authorised electrician.

Installation or retrofitting of external power management equipment to the appliance or the circuit to the appliance must only be done by an electrician, and the external device must be approved by the supplier.
The relevant standards and regulations must be followed.

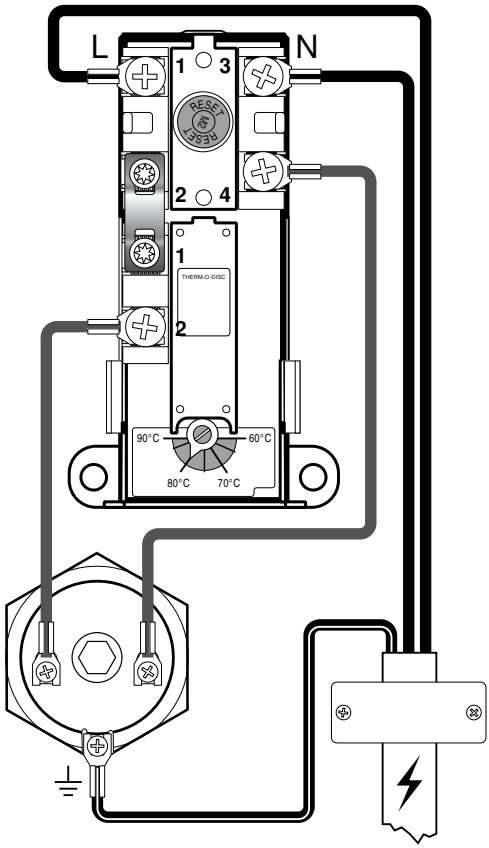
3.6.1 Electrical components

Component	Note
Safety thermostat	98°C thermal cut-out
Work thermostat	60-90°C adjustable
Heating element	1-phase 230 V
Mains cable with plug	Heat-resistant
Internal wires	Heat-resistant

3.6.2 Electrical connections in the junction box

⚠ WARNING
Constant voltage is present at terminals L and N. Before any electrical work is done, the power supply must be disconnected and secured against activation while the work is in progress.

A) Phase wire (L) is connected to point '1' on the safety thermostat.
B) Neutral wire (N) is connected to point '3' on the safety thermostat.
C) Yellow wire with green stripe ⏚ – Earth – is connected to the terminal for the heating element (hexagonal brass)
D) Internal wires from the element to the thermostat are connected to point '4' on the safety thermostat and point '2' on the operating thermostat respectively. See illustration.



Electrical connection, diagram

3.6.3 Torque settings

Component	Torque
G1.1/4" ext. heating element	60 Nm (+/- 5)
Thermostat screws	2 Nm (+/- 0.1)
Screw on the element head	2 Nm (+/- 0.1)

3.6.4 Fitting instructions

⚠ WARNING	
⊘	Fitting any device for external control of the power supply to the product is NOT permitted without the approval of the supplier.
❗	The product shall be filled with water before the power is switched on.
❗	Fixed electric fittings shall be used for installation in new homes or when changing an existing electrical setup in accordance with regulations. A mains cable with plug for wall socket can be used when replacing the product without changing the electrical setup.
❗	The mains cable must be able to withstand 90°C. A suitable strain reliever must be installed (supplied).

⚠ CAUTION	
❗	The product must be installed with clearance for servicing of 40 cm in front of the electrical cover/10 cm above the highest point.
❗	In case of damage to the mains cable and plug, it shall be replaced with a specially adapted mains cable from the manufacturer.

3.6.5 Fitting recommendation

RECOMMENDATION	
-	The mains cable supplied shall be used with fixed electric fittings by removing the plug for the wall socket. (Heat-resistant)
-	Mains cable for wall socket/wall box can be hidden under one of the channels in the bottom of the product.
-	An authorised electrician must dimension the supply cable and fuse in accordance with the current laws and regulations for the installation.

4. INITIAL COMMISSIONING

4.1 Filling with water

First check that all pipes are connected correctly. Then proceed as follows:

A) Open a hot tap – leave it open

B) Turn the adjustable knob on the mixer valve all the way to '+'.

C) Open the cold water supply to the product.

Check that the water from the open hot water tap is flowing freely, without any air locks.

A) Close the hot tap.

4.2 Turning on the power

When the cylinder has been filled with water, the power can be switched on.

A) Insert plug into specified wall socket or turn on switch/fuse.

4.3 Setting the mixer valve

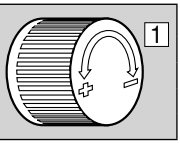
The outgoing hot water temperature from the product to the taps in the home can be adjusted with the knob on the mixer valve. Adjusting the mixer valve does not affect the temperature of the hot water in the product.

To adjust the temperature:

A) Turn the adjustable knob (1) all the way to '+'

B) Turn knob towards '-' to the desired temperature:

Turns	Temperature
0	Approx. 70°C
1/4	Approx. 60°C
1/2	Approx. 50°C
3/4	Approx. 40°C



4.4 Control points

A) Check that all pipe connections to/from the product are tightened and not leaking.

B) Check that the power supply to the product is not at risk of exposure to mechanical, thermal or chemical damage, including the effect of non-approved power control.

C) Check that any overflow pipe from the safety valve is clear, undamaged and frost-free with a fall to a suitable drain or gulley.

D) Check that the product is in a stable position both vertically and horizontally.

4.5 Emptying of water

⚠ WARNING
The water temperature in the product is 75°C and could cause scalding. Before emptying, a hot tap shall be opened to the max. pressure/ temperature for min. 3 minutes.

A) Disconnect the power supply.

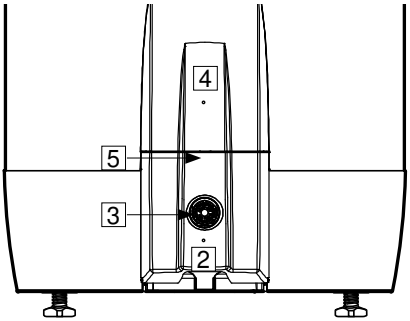
B) Shut off incoming cold water supply.

C) Open a hot tap to the maximum and leave it open (prevents vacuum).

D) Open the mixer valve all the way to '+'.

E) Remove the cover from the safety valve (2) by loosening the screw (5).

F) Open the drain valve (3). The product will drain.



After emptying, close the drain valve (3). Close all open taps. Adjust the mixer valve to its original setting. Fit the cover (2) in front of the drain valve.

4.1 Emptying the heat exchanger coil

The coil is drained by disconnecting both flow and return pipe connections, then using pressurised air to empty the coil of water.

4.6 Handover to end-user

THE INSTALLER MUST:
Brief the end-user on safety and maintenance instructions.
Brief the end-user on settings and emptying the product.
Hand this installation manual over to the end-user.
Enter contact details on the data plate on the product.

5. SETTINGS

5.1 Setting

5.1.1 Thermostat setting

The product thermostat is adjustable from 60-90°C. The thermostat shall not be set lower than 65°C to prevent bacteria growth. To adjust the temperature:

A) Disconnect the power supply.
B) Remove the junction box cover (4) by loosening the screw (5).
C) Adjust the temperature on the thermostat (7) with a screwdriver.

Fit the cover (4) before connecting the power supply. Changing the temperature setting on the thermostat only changes the temperature of the water in the tank. Temperature to the taps is adjusted on the mixer valve, see section 5.1.3

5.1.2 Resetting the safety thermostat

The safety thermostat on the product cuts out when there is a risk of overheating. This is reset by removing the cover (4) and pressing the red 'RESET' button (6). If the thermostat cuts out repeatedly, contact the installer.

5.1.3 Setting the mixer valve

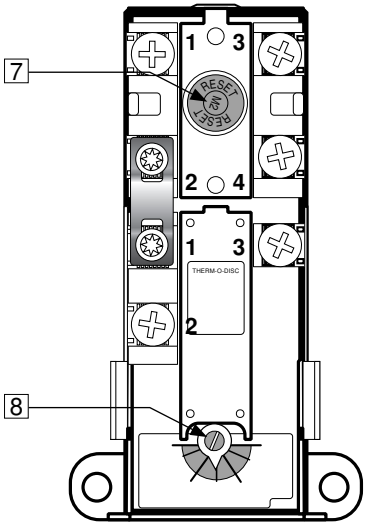
The outgoing hot water temperature from the product to the taps in the home can be adjusted with the knob on the mixer valve. To adjust the temperature:

A) Turn the adjustable knob (1) all the way to '+'
B) Then turn the knob towards '-' to the desired temperature.

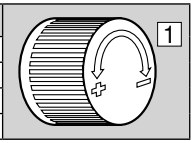
5.1.4 Adjusting the feet

The product is equipped with three factory-fitted feet, adjustable from 0-40 mm. Unscrew the feet a minimum of 15 mm from the bottom of the product. Adjust the feet individually until the product is level and stable vertically and horizontally.

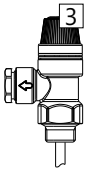
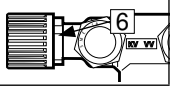
⚠ WARNING
Constant voltage present in the junction box. Before any electrical work is done, the power supply must be disconnected and secured against activation while the work is in progress. Local rules and regulations must be followed.



Turns	Temperature
0	Approx. 70°C
1/4	Approx. 60°C
1/2	Approx. 50°C
3/4	Approx. 40°C



5.2 Maintenance

MAINTENANCE INSTRUCTIONS		
❗	Maintenance shall be carried out by persons over 18 years of age, with sufficient knowledge.	
❗	Annual inspection of safety valve:	
-	Open valve for 1 min. by turning the knob (3) approx. 90 degrees to the open position.	
-	Visually check that the water is flowing freely to the drain.	
-	YES = OK. Close the valve by turning the knob (3) a further 90 degrees to the closed position.	
-	NO = NOT OK. Disconnect power supply / shut off water supply. Contact installer.	
❗	UX mixer valve - re-tighten secondary seal if needed:	
-	If water is dripping at the adjustment knob on the UX mixer valve, tighten the nut (6) until dripping stops. Alternatively replace valve.	

6. TROUBLESHOOTING

6.1 Faults and fixes

If problems arise when the product is in use, check for possible faults and fixes in the table. If the problem is not shown in the troubleshooting table or you are unsure what is wrong, contact the installer (see type plate on the product) or OSO Hotwater AS - see section 7.1.

TROUBLESHOOTING		
Problem	**Possible cause of fault**	**Possible solution**
There is leakage/dripping from the safety valve/there is often water on the floor by the cylinder in the morning	Pressure reduction valve, water meter or blocked non-return valve on the water intake. Water pressure into the home is too high.	Fit AX expansion vessel with absorbs expansion during heating, and fit pressure reduction valve for stable water pressure inside the home. The pressure reduction valve is adjusted in according to the pressure in the expansion vessel. Contact authorised installer.
	The safety valve is worn or there are particles stuck between the membrane and the valve seat because the water is dirty	Try to flush with water through the safety valve. Open valve for approx. 1 minute. See section 5.2. If the valve still leaks, it must be replaced. Contact authorised installer.
	Leak from heating element.	Verify as follows: a) cut the electric supply, b) unscrew the cover, c) visually check whether there is a leak from the heating element. If so, replace the gasket/ heating element. Contact authorised installer.
The mixer valve knob is dripping	The secondary seal must be re-tightened	Tighten the nut on the secondary seal, see Section 5.2
No hot water	Power supply interrupted.	Verify that the fuse is on / the plug is plugged in to the wall contact / the earth breaker has not tripped.
	Thermostat has cut out.	Press the 'RESET' button on the safety thermostat; see 'User guide'.
	Heating element is defective.	Replace heating element. Contact authorised installer.
	Leak in hot water pipe	Verify as follows: a) close the mixer valve, b) wait 2-3 hours, c) feel the mixer valve to see whether it is hot. If so, there is a leak in the hot water pipe or elsewhere. Contact authorised installer.
Not enough hot water	High hot water consumption in the home.	Raise the temperature on the thermostat to 85°C; see 'User guide'. Switch to a larger OSO water heater. Contact authorised installer.
Not high enough temperature	The mixer valve is set at too low temperature.	Raise the temperature on the mixer valve; see 'User guide'.
	The thermostat is set at too low temperature.	Raise the temperature on the thermostat to 85°C; see 'User guide'.
	Bleeding from cold to hot water in taps.	Contact authorised installer.
Fuse/earth breaker trips repeatedly	Possible fault in the heater's electrical system.	Verify as follows: a) cut the electric supply, b) unscrew the cover, c) visually check the junction box for any problems. If so, contact auth. installer to check. Fit the cover.
Long time before the water reaches the tap	Long stretch of pipe from water heater to tap.	Fit circulation wire or heating cable to HW pipe. Or fit an auxiliary heater by the tap. Contact authorised installer.
Knocking in the pipes when the hot tap is closed	Big pressure increase when the tap is closed quickly.	Completely normal. Fit AX expansion vessel if troublesome. Contact authorised installer.

7. WARRANTY CONDITIONS

1. Scope
OSO Hotwater AS (hereinafter called OSO) warrants for 2 years from the date of purchase, that the Product will: i) conform to OSO specification, ii) be free from defects in materials and workmanship, subject to conditions below. All components carry a 2-year warranty.
The warranty is voluntarily extended by OSO to 5 years for the stainless steel inner tank. This extended warranty only applies to Products purchased by a consumer, that has been installed for private use and that has been distributed by OSO or by a distributor where the Products have been originally sold by OSO. The extended warranty does not apply to Products purchased by commercial entities or for Products that have been installed for commercial use. These shall be subject only to the mandatory provisions of the law. The conditions and limitations set out below shall apply.

2. Coverage
If a defect arises and a valid claim is received within the statutory warranty period, at its option and to the extent permitted by law, OSO shall either; i) repair the defect, or; ii) replace the product with a product that is identical or similar in function, or; iii) refund the purchase price.
If a defect arises and a valid claim is received after the statutory warranty period has expired, but within the extended warranty period, OSO will supply a product that is identical or similar in function. OSO will in such cases not cover any other associated costs.
Any exchanged Product or component will become the legal property of OSO. Any valid claim or service does not extend the original warranty. The replacement Product or part does not carry a new warranty.

3. Conditions
The Product is manufactured to suit most public water supplies. However, there are certain water chemistries (outlined below) that can have a detrimental effect on the Product and its life expectancy. If there are uncertainties regarding water quality, the local water supply authority can supply the necessary data.
The warranty applies only if the conditions set out below are met in full:

- The Product has been installed by a professional installer, in accordance with the instructions in the installation manual and all relevant Codes of Practice and Regulations in force at the time of installation.
- The Product has not been modified in any way, tampered with or subjected to misuse and no factory fitted parts have been removed for unauthorized repair or replacement.
- The product has been connected to the public power grid and it has not been connected to an external power supply control unit not approved by OSO.
- The Product has only been connected to a domestic mains water supply in compliance with the European Drinking Water Directive EN 98/83 EC, or latest version. The water should not be aggressive, i.e. the water chemistry shall comply with the following:

- Chloride	< 250 mg / L
- Electric Conductivity (EC) @25°C	< 750 uS / cm
- Saturation Index (LSI) @80°C	> - 1,0 / < 0,8
- pH level	> 6,0 / < 9,5

- The immersion heater has not been exposed to hardness levels exceeding 10°dH (180 ppm $CaCO_3$). A water softener is recommended in such cases.
- Any disinfection has been carried out without affecting the Product in any way whatsoever. The Product shall be isolated from any system chemical disinfecting.
- The Product has been in regular use from the date of installation. If the Product is not intended to be used for 60 days or more, it must be drained.
- Service and/or repair shall be done according to the installation manual and all relevant codes of practice. Any replacement parts used shall be original OSO spare parts.
- Any third-party costs associated with any claim has been authorized in advance by OSO in writing.
- The purchase invoice and/or installation invoice, a water sample as well as the defective product is made available to OSO upon request.

Failure to follow these instructions and conditions may result in product failure, and water escaping from the Product.

4. Limitations
The warranty does not cover:

- Any fault or costs arising from incorrect installation, incorrect application, lack of regular maintenance in accordance with the installation manual, neglect, accidental or malicious damage, misuse, any alteration, tampering or repair carried out by a non-professional, any fault arising from the tampering with or removal of any factory fitted safety components or measures.
- Any consequential damage or any indirect loss caused by any failure or malfunction of the Product whatsoever.
- Any pipework or any equipment connected to the Product.
- The effects of frost, lightning, voltage variation, lack of water, connecting to a non approved external power supply control unit, dry boiling, excess pressure or chlorination procedures.
- The effects of stagnant (de-aerated) water if the Product has been left unused for more than 60 days consecutively.
- Damage caused during transportation. Buyer shall give the carrier notice of such damage.
- Costs arising if the Product is not immediately accessible for servicing.

These warranties do not affect the Buyer's statutory rights.

7.1 Customer service

In case of problems that cannot be resolved with the aid of the troubleshooting guide in this installation manual, contact either:

A) The installer who supplied the product.
B) OSO Hotwater AS: Tel.: +47 32 25 00 00
oso@oso.no / www.oso.no

8. REMOVING THE PRODUCT

8.1 Removal

A) Disconnect the power supply.
B) Shut off incoming cold water supply.
C) Empty the product of water – see section 4.4.
D) Disconnect all pipes.
E) The product can now be removed.

8.2 Returns scheme

This product is recyclable and should be taken to the environmental recycling centre. If the product is to be replaced with a new one, the installer can take the old cylinder away for re-cycling.

OSO
HOTWATER

OSO Hotwater AS
Industriveien 1
3300 Hokksund - Norway
Tel.: +47 32 25 00 00
oso@oso.no
www.osohotwater.com

© All parts of these installation instructions are protected under the Norwegian Copyright Act and may not be reproduced or distributed without the written agreement of the manufacturer. Subject to change.