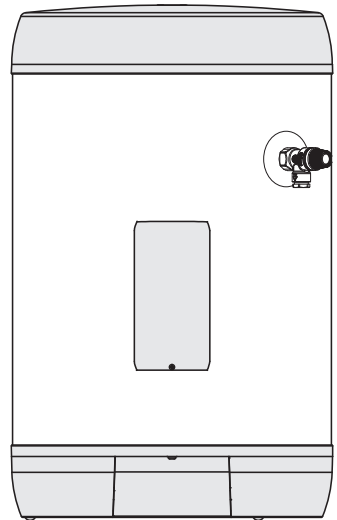


Multipoint - W

30-50-80-100 l.

EN

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



OSO

HOT WATER

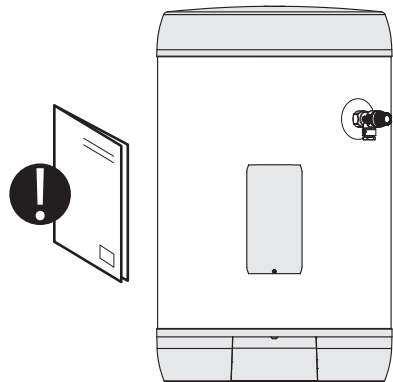
CONTENTS

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 UKCA 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	8
3.5. Pipe installation	9
3.6. Electrical installation	11
4. Commissioning	13
4.1. Commissioning and filling	13
4.2. Turning on the power	13
4.3. Temperature adjustment of tap water	13
4.4 Control points	13
4.5. Draining	14
4.6 System flushing	14
4.7 Handover to end-user	14
5. User Guide, safety and servicing	15
5.1. Safety cut out	15
5.2 Settings	15
5.3 Intermittent discharge from tundish	16
5.4 Continous very hot water discharge from tundish	16
5.5 Expansion vessel maintenance	16
5.6 Warranty	16
5.7 Service procedure	16
5.8 Discharge	16
5.9 Annual inspection of T&P valve	17
6. Troubleshooting	18
6.1. Faults and fixes	18
7. Service records and warranty	19
Installation, Commissioning and Service Record Log Book	19
Warranty	22
7.1. Customer service	22
Service interval records	23
8. Removing the product	22
8.1. Removal	22
8.2. Returns scheme	22





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 at 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	

1.2 Safety instructions for users

⚠ WARNING	
⊘	The overflow from the safety valve must NOT be sealed or plugged.
⊘	The product front and electric junction box shall NOT be covered
⊘	The product must NOT be modified or changed from its original state.
⊘	Children must NOT play with the product or go near it without supervision.
❗	The unit must be connected to a minimum 16 amp dedicated permanent supply complying with current IET Wiring regulations.
❗	The product shall be filled with water before the power is switched on.
❗	Maintenance/settings shall be carried out by persons over 18 years of age, with adequate technical understanding.

⚠ CAUTION	
⊘	The product must not be exposed to frost, over-pressure, over-voltage or chlorine treatment. See warranty provisions.
⊘	Maintenance/settings 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.
❗	The unit must be connected to a minimum 16 amp dedicated permanent supply complying with current IET Wiring regulations.
❗	Discharge must comply with current building regulations.
❗	The electrical supply to the heater shall be done in accordance with current local regulations and best practice by a qualified electrician. The product is intended for permanent supply.
❗	The mains cable shall withstand 90°C. A strain reliever shall be fitted.
❗	The product shall be filled with water before the power is switched on.
❗	The relevant regulations and standards, and this installation manual, must be followed.

⚠ CAUTION	
⊘	Do not use the balanced cold connection to feed any outlets other than mixer showers. Under no circumstances use the balanced cold connection to feed all cold water outlets as this practice contravenes Section 10 of water regulations.
❗	The cylinder must be installed in compliance with current building regulations. Liability for consequential damage will only apply if this is 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 type plate.
❗	The product shall have a clearance for servicing of 400 mm in front of the cover / 100 mm under the base plate when wall-mounted.

2. PRODUCT DESCRIPTION

2.1 Product identification

Identification details for your product can be found on the type plate fixed to the product. The type plate contains details of the product in accordance with EN 12897:2016 and EN 60335-2-21, as well as other useful data. See 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
- Welding standard EN ISO 3834-2

OSO Hotwater AS is certified for

- Quality ISO 9001
- Environment ISO 14001
- Work environment ISO 45001

2.2 Intended use

The Multipoint W series is designed to supply premises with domestic hot water. The product is designed for wall installation, but can also be fitted standing on the floor.

2.3 UKCA marking

**UK
CA**

The UKCA mark shows that the product complies with the relevant Directives. See Declaration of Conformity at www.osohotwater.co.uk for more information.

2.4 Technical data

Model no.	Product code:	IP class	Weight kg.	Dia. x Height mm.	Freight vol. m ³	Heating time hours Δt 65°C	Heat loss W
10800451	W 30 - 2.8 kW/1x240V	IP21	14	ø435 x 542	0.11	0.7	22
10800452	W 50 - 2.8 kW/1x240V	IP21	17	ø435 x 697	0.16	1.1	29
10800453	W 80 - 2.8 kW/1x240V	IP21	24	ø435 x 1017	0.22	1.9	36
10800454	W 100 - 2.8 kW/1x240V	IP21	28	ø435 x 1237	0.26	2.2	45

2.5 ErP data - Technical Data Sheet

Brand	Manufacturer product no.	Model name	Tap profile	ErP Rating	Energy eff. %	AEC kWh/a	Thermostat setting °C	Volume 40°C water
OSO Hotwater AS	11008568	Multipoint - W 30	S	C	34.2	539	70	52
OSO Hotwater AS	11008569	Multipoint - W 50	M	C	37.1	1384	70	84
OSO Hotwater AS	11008570	Multipoint - W 80	M	C	36.4	1411	60	113
OSO Hotwater AS	11008571	Multipoint - W 100	L	C	38.6	2653	60	142
Regulation: 2017/1369/EU - Regulation: EU 812/2013			Directive: 2009/125/EC - Regulation: EU 814/2013					
Efficiency-tested according to standard: EN 50440: 2015								

2.6 Spare parts

Prod. no.	Designation	Product description:	Dimension
71214	RGK 1"	Element - 2.8 kW/1x230V - 1-tube - Inc 825	Length 320 mm.
80020	TS2	Thermostat - 59T/66T 40-70°C 1-phase	2-pole
801 5519	Connecting cable	Internal cable - 2.5# ,180°C / Saga, fork+fork	Length 205 mm
W91803	FLEX 27	Flexhose DN13, Bend G1/2F x straight G1/2F, L=400 mm.	1/2" x 1/2"
92025	T&P valve	Temperature and pressure relief valve 7 bar/90-95°C	1/2"
92043	Inlet Group	G3 Inlet Group with Tundish	G3

3. INSTALLATION INSTRUCTIONS

3.1 Products covered by these instructions

- 10800451 Multipoint - W 30
- 10800452 Multipoint - W 50
- 10800453 Multipoint - W 80
- 10800454 Multipoint - W 100

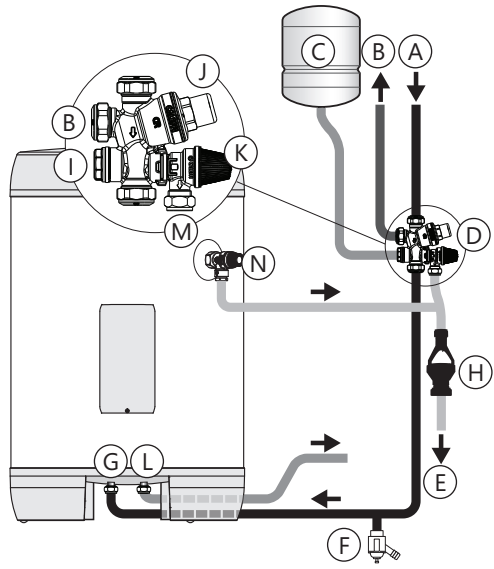
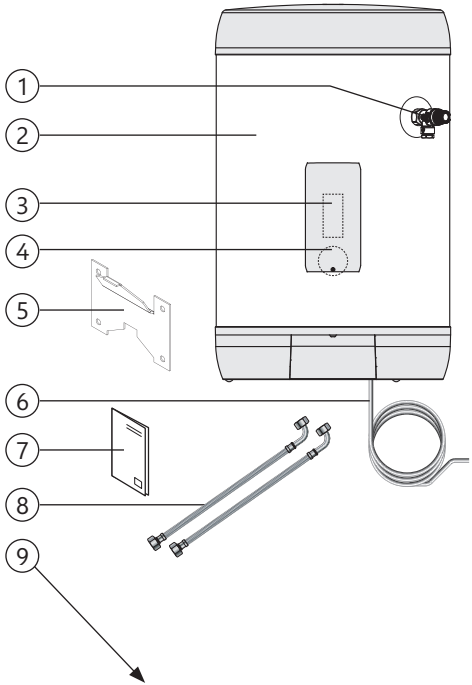
3.2 Included in delivery

Ref. no.	Pcs.	Description
1	1	T&P safety valve, 7 bar/90-95°C (factory fitted)
2	1	Stainless steel multipoint
3	1	Thermostat 40-70°C
4	1	Immersion heating element
5	1	Stainless steel wall bracket
6	1	Mains power cable (factory fitted)
7	1	Installation manual (this document)
8	2	CW/HW flexhose - 1/2" x 1/2" pipe thread
9	1	G3 Inlet Group kit (see pt. 3.2.1).

3.2.1 G3 Inlet Group kit

The product is supplied with a G3 Inlet Group kit. The kit contains the components shown in table below and illustration (right).

No.	Description	Dim.
A	Cold water supply	ø22 mm
B	Balanced cold supply (optional)	ø22 mm
C	Expansion vessel	1/2"
D	Multibloc valve	3/4"
E	Discharge pipework	15-22 mm
F	Drain cock (not supplied)	N/A
G	Cold water inlet	1/2" M
H	Tundish	15-22 mm
I	Expansion vessel connection point	3/4"
J	Line strainer	-
K	Expansion relief valve 6 bar	ø15 mm
L	Hot water outlet (DHW)	1/2" M
M	Expansion overflow connection	ø15 mm
N	T&P safety valve 90-95°C - 7 bar	1/2"

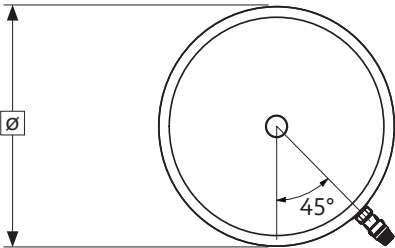
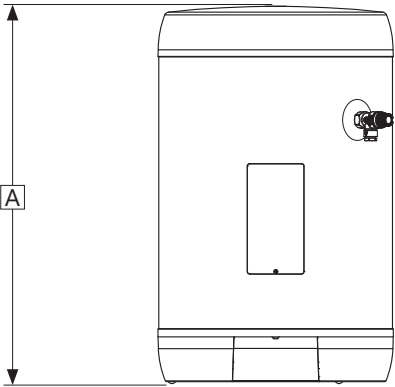


3.3 Product dimensions

All dimensions in mm.


Product.	A	ø
W 30	542	435
W 50	697	435
W 80	1017	435
W 100	1237	435

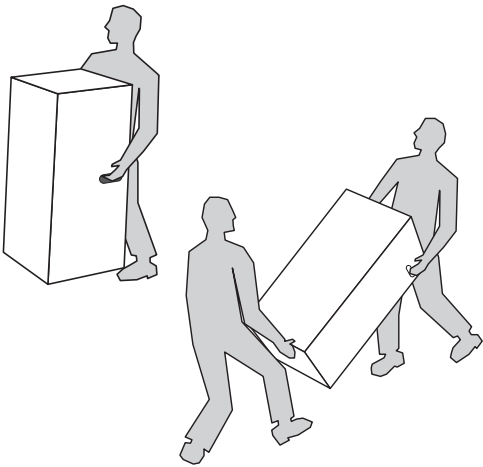
Tolerance +/- 5 mm.



3.3.1 Delivery

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

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

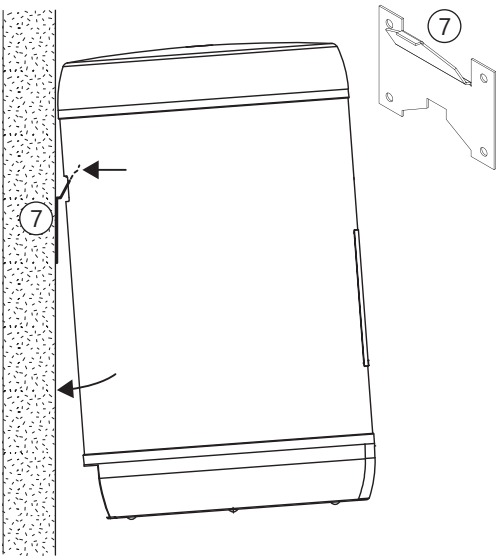


3.3.2 Wall bracket

The product can be mounted on the wall or floor and is supplied with a wall bracket (7). The supplied wall bracket must be used for wall installation. Ensure that the wall or floor will withstand the full weight of the product in operation. The minimum distance from ceiling to wall bracket is 250 mm, see section 3.4 and illustration below.

Wooden wall: Bracket should preferably be fixed with four screws to wall studs/beams, or at least two screws vertically above each other into stud/beam. Use ø8 mm. wood screws. For other types of wall, suitable fastening materials must be selected for any given wall design.

Installation of heater on bracket:
The product should be tilted down slightly on the bracket before turning it against the wall, see illustration. Make sure that the product is lowered all the way down onto the bracket and that the back of the product is in full contact with both bracket and wall.



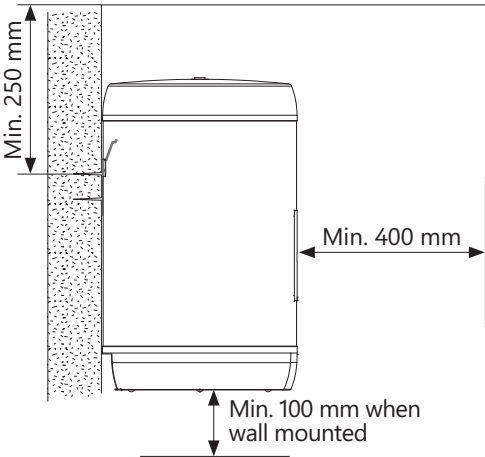
3.4 Requirements for installation location and positioning

⚠ CAUTION

❗	The cylinder must be installed in compliance with current building regulations. Liability for consequential damage will only apply if this is followed.
❗	The product shall be placed in a dry and permanently frost-free position.
❗	The product shall be fixed to a wall structure or placed on a floor surface suitable for the total weight of the product in operation.
❗	The minimum distance from the ceiling to the centre of the upper screw hole on the wall bracket is 250 mm. because of the space required for fitting. See diagram below.
❗	The product shall have a clearance for servicing of 400 mm in front of the cover / 100 mm under the base plate when wall-mounted.
❗	The product shall be easily accessible in the home for servicing and maintenance.

⚠ WARNING

Ensure that the product is lowered completely onto the bracket and that the back of the product is in full contact with both the bracket and the wall.



3.5 Pipe installation

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

Product.	COLD WATER (conn. 1)	HOT WATER (conn. 2)	P&T overflow (conn. 3)
W 30-100	1/2" ext. BSPP	1/2" ext. BSPP	ø15mm comp. fitting / 1/2" int. pipe thread

3.5.1 Incoming water pressure

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

3.5.2 Fitting cold and hot water hoses

Remove the front and base vanity cover (D) from the product by gently pulling them off. The supplied cold and hot water flexible hoses (H) should be fitted to their respective connections and tightened to the correct torque (see 3.5.4). The cold water hose is connected to the cold water connection (1). The hot water hose is fitted to the hot water connection (2).

3.5.3 Fitting the P&T valve discharge pipe

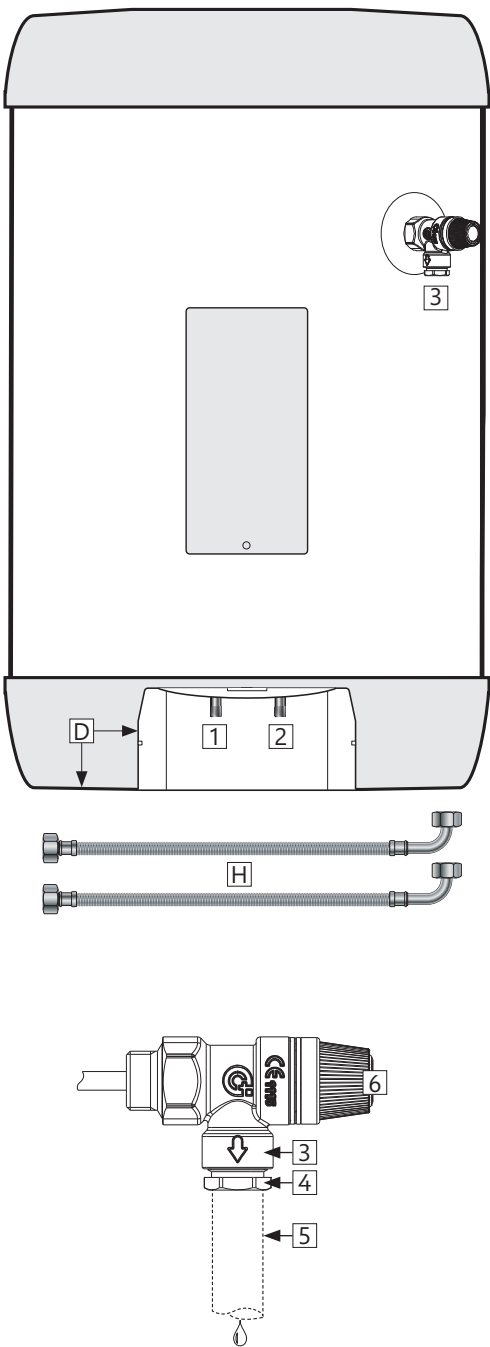
A discharge pipe (5) of suitable dimension (see table 3.5.5) is run to the overflow connection (3) on the top mounted P&T safety valve (6):

- Connect to overflow outlet (3) - ø15 mm ring clamp or 1/2" internal thread - unscrew ring clamp nut (4).
- Ensure the discharge pipe (5) is fitted uninterrupted and frost free sloping to a suitable drain, see illustration on next page and pt. 5.8.

All pipe connections should be checked for leakage when water is turned on and again after approx. 3 months of operation, then annually. Tighten connections if necessary. Refit front and base vanity covers (D) after pipe fitting is finalised.

3.5.4 Torque settings

Component	Torque
Hose nut on CW/HW connection	20 Nm (+/- 3)
Compr. ring clamp on safety valve	20 Nm (+/- 3)



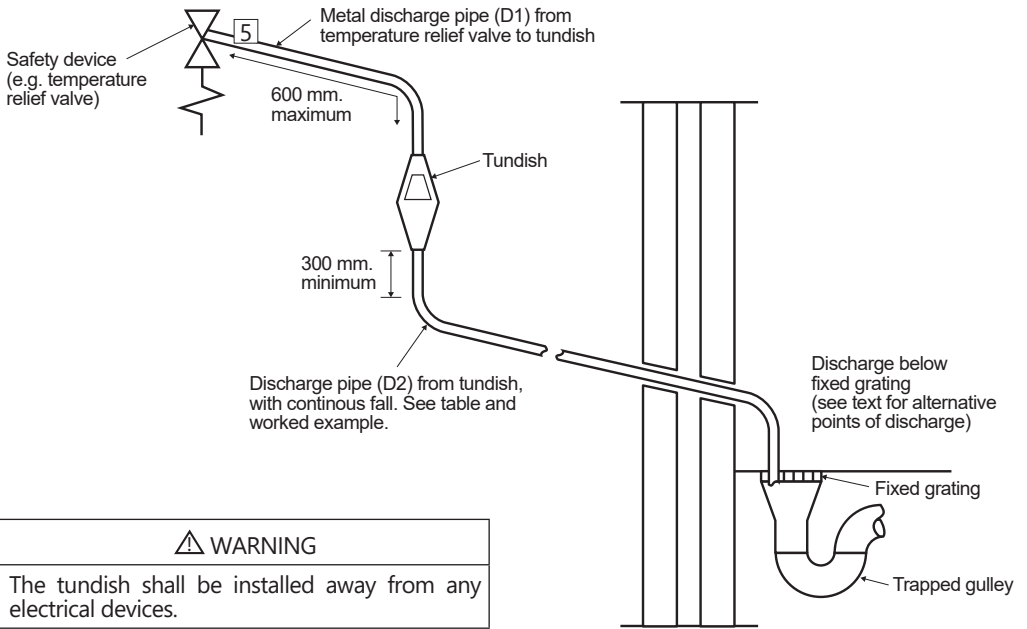
3.5.5 Fitting instructions

⚠ WARNING	
❗	The product shall be filled with water before the power is switched on.
❗	Discharge must comply with current building regulations.

⚠ CAUTION	
❗	The cylinder must be installed in compliance with current building regulations. Liability for consequential damage will only apply if this is followed.
❗	The product shall be properly aligned vertically and horizontally. The product shall be fixed to a wall structure or placed on floor suitable for the total weight of the product when in operation.
❗	The product shall have a clearance for servicing of 400 mm in front of the cover / 100 mm under the base plate when wall-mounted.

3.5.6 Installation recommendation

RECOMMENDATION	
❗	Min. distance from ceiling to upper screw on wall bracket is 330 mm to allow space for installation on wall bracket. See diagram in section 3.4.



3.6 Electrical installation

The unit must be connected to a minimum 16 amp dedicated permanent supply complying with current IET Wiring regulations, isolation is required via a minimum 20 amp double pole isolation switch with a minimum 3 mm separation required. All electrical wiring shall be carried out by a competent electrician, using a heat resistant flexible cable (minimum 90°C), and be in accordance with the latest IET Wiring Regulations. A mains cable is supplied with the product. The relevant standards and regulations must be followed.

3.6.1 Electrical components

Component	Note
Safety thermostat	85°C thermal cut-out
Work thermostat	40-70°C adjustable
Heating element	1-phase 240 V
Mains cable with plug	Heat-resistant
Internal wires	Heat-resistant

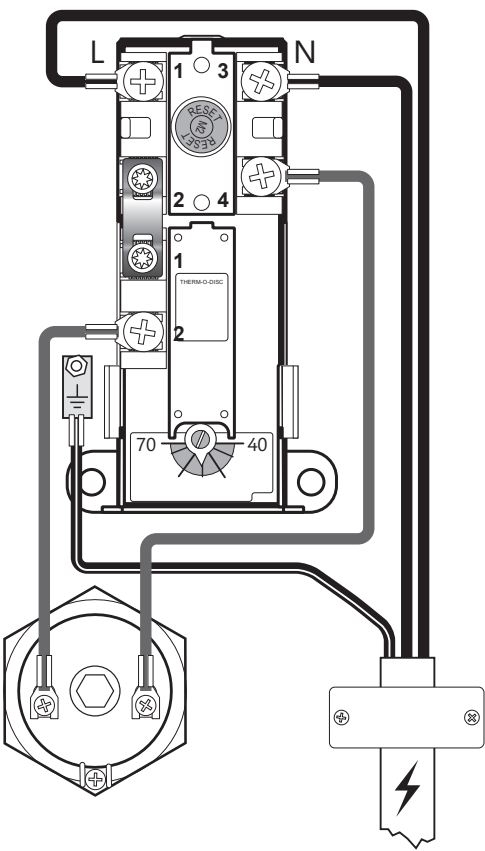
3.6.2 Electrical connections in the junction box

<div>⚠ WARNING</div>
Constant voltage 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) Live 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) Earth wire, yellow with green stripe (⊕) is connected to the earth terminal on the inner tank; see illustration.
- D) Internal wires from the element to the thermostat are connected to point '4' on the safety thermostat and point '2' on the work thermostat. See illustration.

3.6.3 Torque settings

Component	Torque
G 1" heating element	38 Nm (+/- 5)
Thermostat screws	2 Nm (+/- 0.1)
Screw on the element head	2 Nm (+/- 0.1)



Electrical connection, diagram

3.6.4 Fitting instructions

⚠ WARNING	
❗	The unit must be connected to a minimum 16 amp dedicated permanent supply complying with current IET Wiring regulations.
❗	The product shall be filled with water before the power is switched on.
❗	The electrical supply to the heater shall be done in accordance with current local regulations and best practice by a qualified electrician. The product is intended for permanent supply.
❗	The mains cable shall withstand 90°C. A strain reliever shall be fitted (supplied).

⚠ CAUTION	
❗	The product shall have a clearance for servicing of 400 mm in front of the cover / 100 mm under the base plate when wall-mounted.
❗	In case of damage to the mains cable it shall be replaced with a specially adapted mains cable from the manufacturer.

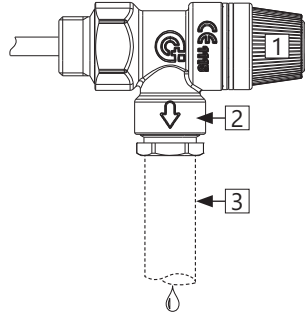
3.6.5 Fitting recommendation

RECOMMENDATION	
-	The mains cable supplied (heat-resistant) should be used with fixed electric fittings.
-	Mains cable for wall connection should be laid where it is not exposed to any harmful contact.
-	For products with $\leq 3\text{kW}$ capacity, a $\geq 20\text{A}$ fuse / $\geq 2.5\text{#}$ wire shall be used. This product is not suited for connection to a 3-pin plug.

4. COMMISSIONING

4.1 Commissioning and filling

1. Check all connections for correct fitment and tightness.
2. Open the hot water tap furthest away from the OSO water heater. Leave open.
3. Open the mains cold water supply stop cock to fill the water heater. When water flows evenly from the open tap without any air locks, allow to run for a few minutes to flush through any dirt, swarf or residue. Close the tap. Open successive remaining hot taps to purge any remaining air.
4. Check all water connections for leaks and rectify if necessary.
5. For test purposes manually operate Temperature and Pressure relief valve (1) to ensure free water flow through discharge pipe by turning knob counter-clockwise. Ensure that the water flows freely to drain. To close valve continue to turn knob counter-clockwise until the valve shuts.



4.2 Turning on the power

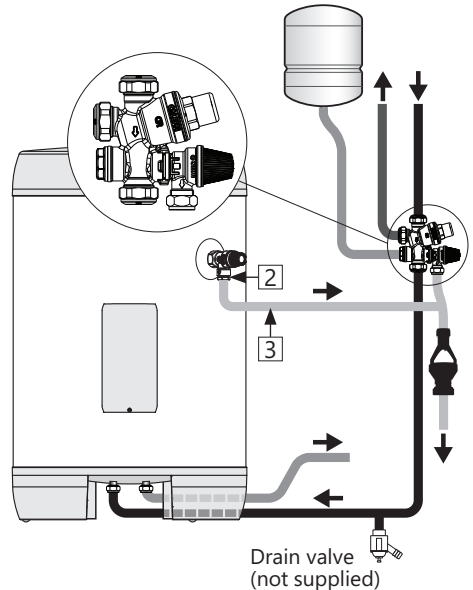
When the cylinder has been filled with water, the power can be switched on. Turn on power switch/circuit breaker.

4.3 Temperature adjustment of tap water

The outgoing hot water temperature from the product to the outlets is mixed automatically. The home is supplied with water that maintains a temperature approx. 10°C lower than the set temperature of the thermostat. For temperature adjustment, see section 5.1.1.

4.4 Control points (min. annually)

- A) Check that all pipe connections to/from the product are tight and not leaking. Tighten if necessary.
- B) Check that the power supply to the product is not at risk of exposure to mechanical, thermal or chemical damage.
- C) Check that any discharge pipe (3) from the safety valve overflow (2) is kept uninterrupted, undamaged and frost-free sloping to the drain.
- D) Check that the product is hanging securely on its wall bracket and is positioned level vertically and horizontally.



4.5 Draining

- A) Disconnect the power supply and ensure it can not be turned back on while work is in progress.
- B) Shut off incoming cold water supply.
- C) Open a hot tap to the maximum – leave open (prevents vacuum lock).
- D) Connect hose pipe to drain valve, then open drain valve discharging contents to a drain. Note that the water can be very hot, take necessary precautions.


Close drain valve and all open taps. The water heater must be refilled with water before power is turned on, see pt. 4.1.

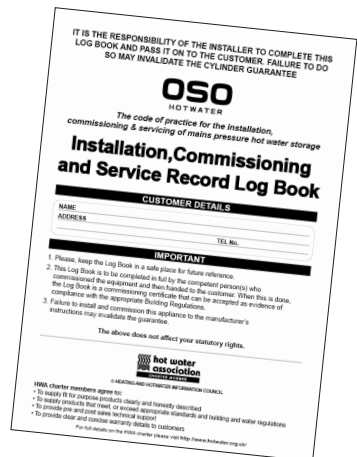
4.6 System flushing

System flushing will not be necessary under normal circumstances as the line strainer will prevent ingress of foreign materials, however if flushing is required, run at least 50 litres of water from the cylinder at the highest possible flowrate. Close the taps and follow draining procedure described in pt. 4.5.

4.7 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 in the Installation, Commissioning and Service Record Log Book at the back of this manual.

 WARNING
The water temperature in the product can be up to 90°C and could cause scalding. Before draining, a hot tap should be opened to maximum pressure/temperature for min. 3 minutes.



5. USER GUIDE, SAFETY AND SERVICING

Maintenance must be carried out by a competent person.

5.1 Safety cut out

1. The safety cut-out operates if:
 - a.) Wiring is incorrect.
 - b.) The immersion heater thermostat or cylinder thermostat fails.
2. Important: Before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electric junction box cover (1) by unscrewing the retaining screw (2).
3. Lower the thermostat setting by adjusting the dial (4) using a flathead screwdriver. Then press the RESET button (3). After adjustments are completed, the junction box cover (1) must be refitted before the power is switched back on.
4. If still out of operation, contact installer.

5.2 Settings

5.2.1 Thermostat setting

The factory fitted thermostat is adjustable from 40-70°C. The thermostat should not be set lower than 60°C to prevent bacteria growth.

To adjust the temperature disconnect power supply and remove the junction box cover (1) by unscrewing the retaining screw (2). Adjust the thermostat temperature setting as desired by turning the dial (4) using a flathead screwdriver.

The junction box cover (1) must be refitted before the power is switched back on.

Changing the temperature setting on the thermostat changes the temperature of the water inside the vessel. Increasing the temperature in the vessel will result in a higher available hot water volume. The product is designed with automatic mixing of the outgoing tap water and will supply the premises with hot water at a temperature approx. 10°C below the set temperature of the thermostat.

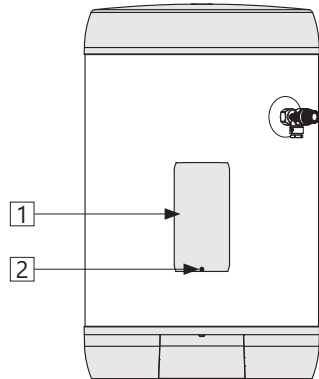
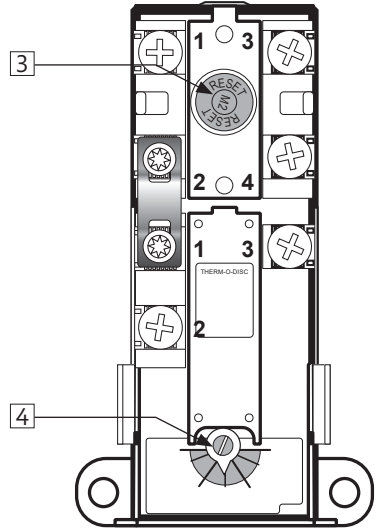
5.2.2 Resetting the safety thermostat

The safety thermostat on the product cuts out when there is a risk of overheating. It can be reset by disconnecting the power supply and removing the junction box cover (1) by unscrewing the fastening screw (2). Press the RESET button (3). A noticeable click should be heard when the thermostat resets. If the thermostat cuts out repeatedly, contact the installer.

The junction box cover (1) must be refitted before the power is switched back on.

⚠ 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.



5.3 Intermittent discharge from tundish

1. Turn off the electrical supply to the immersion heater.
2. Turn off cold water supply valve.
3. Open a hot tap.
4. Turn the knob (K) on the Temperature and Pressure Relief Valve clockwise and hold in this position for 30 seconds (see below).
5. Check pre-charge on vessel and adjust pressure if necessary.
6. Open cold water supply valve.
7. When water flows through open tap, close tap. Turn on electrical supply to the immersion heaters.



5.4 Continuous very hot water discharge from tundish

This indicates a malfunction of a thermal cut-out, operating thermostat or the combined temperature and pressure relief valve. Turn off the electrical supply to the immersion heater. Contact the installer or competent engineer.

5.5 Expansion vessel maintenance

The expansion vessel require annual maintenance by a competent person and the precharge pressure must be restored to the original value. An annual visual inspection is recommended. Important: to check the precharge the expansion vessel must be completely empty of water. if the pressure is different from the value shown on the label it must be restored to the original value.

Do not remove expansion vessel without depressurising the cylinder and draining 10 litres of water from the drain valve at the base of the cylinder

5.6 Warranty

Cylinder should be serviced annually (as below) and logbook should be updated in order to validate warranty. Logbook and service records act as warranty document. For terms of warranty see Service logbook at rear of manual.

5.7 Service procedure

The following maintenance work has to be carried out annually by a competent person:

1. Inspection of pressure/temperature relief valve and expansion relief valve.
2. Manually operate each valve by twisting the operating cap, and check if water flows unobstructed via the tundish to the discharge point.
3. Ensure that both valves re-seat satisfactorily.
4. Turn off mains water supply and open nearest hot water tap to depressurise the DHW system.
5. Check the expansion vessel.
6. If the pressure is below 3 bar, top up with a suitable air pressure pump to pressure shown on vessel label.
7. Complete the service section of the Cylinder Commissioning Checklist included in the inside back pages of these instructions.
8. Remove, clean and replace line strainer.
9. The immersion heater element must be removed for inspection on service after 5 years. The threads must be checked for corrosion. If signs of corrosion are evident, the element must be replaced. Subsequently the element must be removed and examined every 3 years. Failure to do so in areas of aggressive water may result in the element separating from the cylinder with consequential escape of water.
10. Visual inspection of all valves, external fittings, immersion heaters and electrical connections.

5.8 Discharge

Discharge pipes must be metal or suitably temperature rated as defined by G3 building Regulations. The pipe should have a continuous fall and should terminate in a safe and visible place.

Downward discharges at low level, i.e. up to 100 mm above external surfaces such as car parks, hard standings, grassed areas etc. are acceptable providing that where children may play or otherwise come into contact with discharges, a wire cage or similar guard is positioned to prevent contact, whilst maintaining visibility.

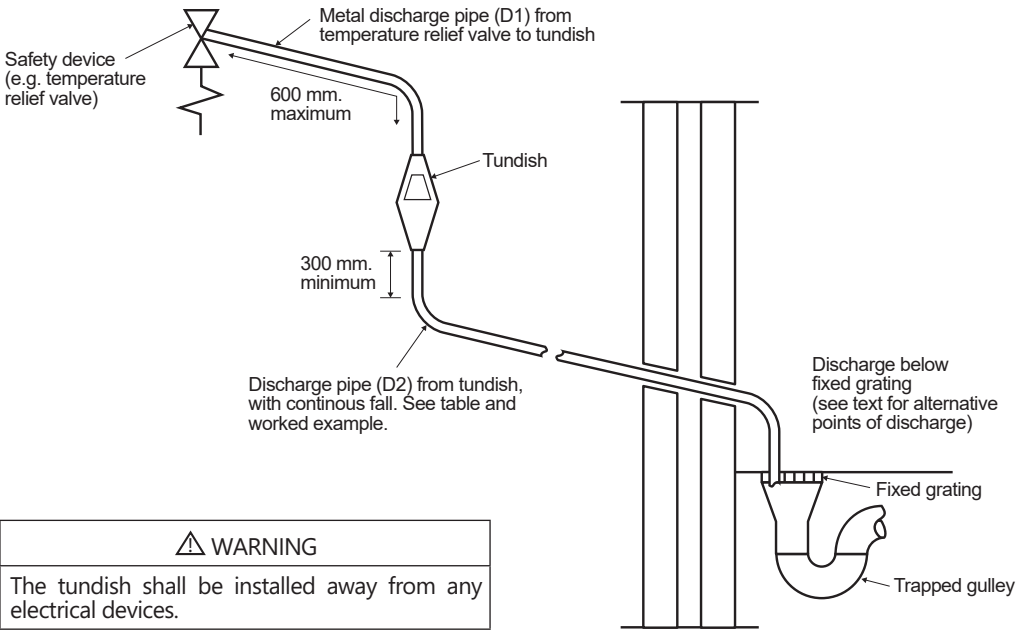
Discharge at high level, i.e. into a metal hopper and metal down pipe with the end of the discharge pipe clearly visible (tundish visible or not) or onto a roof capable of withstanding high temperature discharges of water and 3 m from any plastics gutting system that would collect such discharges

(tundish visible).

Where a single common discharge pipe serves more than one system, it should be at least one pipe size larger than the largest individual dis-

charge pipe (D2) to be connected.

For further information contact your Building Control Office.



Valve Outlet size	Minimum size of discharge pipe D1	Minimum size of discharge pipe D2 from tundish	Maximum resistance allowed expressed as a length of straight pipe (i.e. no blown or bends)	Resistance created by each elbow or bend
G 1/2	15 mm	22 mm 28 mm 35 mm	up to 9 m up to 18 m up to 27 m	0.8 m 1.0 m 1.4 m

5.9 Annual inspection of T&P valve

MAINTENANCE INSTRUCTIONS	
⚠ Maintenance shall be carried out by persons over 18 years of age, with adequate technical understanding.	
⚠ Annual inspection of T&P valve:	
- Open valve for 1 min. by turning the knob (1) 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 (1) a further 90 degrees to the closed position.	
- NO = NOT OK. Disconnect power supply / shut off water supply. Contact installer.	

6. FAULT FINDING GUIDE

6.1 Faults and fixes

If problems arise when the product is in use, check for possible faults and fixes in the flow chart. If the problem is not shown in the flow chart or you are unsure what is wrong, contact the installer (see

Installation, Commissioning and Service Record Log Book at the back of this manual.) or OSO Hotwater AS - see pt. 7.1 (page 22).

Problem	Possible cause	Possible solution
No water from hot taps	Mains supply off	Check and open stopcock
	Strainer blocked	Turn off water supply, remove and clean strainer
Water from taps is cold	Immersion heaters not switched on	Check and switch on
	Cylinder thermal cutout has operated	Check and press reset button
	Immersion heater thermal cutout has operated	Check and press reset button
Intermittent water discharge	Reduced expansion vessel charge	Follow instructions 5.2 Intermittent or slow discharge from tundish
Continuous water discharge	Thermal control failure (note: water will be hot)	Switch off power to immersion heater(s). When discharge has stopped check thermal controls, replace if faulty
	Expansion relief valve not working properly	Check and replace if faulty
	Cold water inlet pressure reducing valve not working	Check pressure from valve, if greater than 3 bar - replace
	Temperature and pressure relief valve faulty	Drain 10 litres from cylinder and replace valve

IT IS THE RESPONSIBILITY OF THE INSTALLER TO COMPLETE THIS LOG BOOK AND PASS IT ON TO THE CUSTOMER. FAILURE TO DO SO MAY INVALIDATE THE CYLINDER GUARANTEE

OSO

HOT WATER

*The code of practice for the installation,
commissioning & servicing of mains pressure hot water storage*

Installation, Commissioning and Service Record Log Book

CUSTOMER DETAILS

NAME _____

ADDRESS _____

TEL No. _____

IMPORTANT

1. Please, keep the Log Book in a safe place for future reference.
2. This Log Book is to be completed in full by the competent person(s) who commissioned the equipment and then handed to the customer. When this is done, the Log Book is a commissioning certificate that can be accepted as evidence of compliance with the appropriate Building Regulations.
3. Failure to install and commission this appliance to the manufacturer's instructions may invalidate the guarantee.

The above does not affect your statutory rights.



© HEATING AND HOTWATER INFORMATION COUNCIL

HWA charter members agree to:

- To supply fit for purpose products clearly and honestly described
- To supply products that meet, or exceed appropriate standards and building and water regulations
- To provide pre and post sales technical support
- To provide clear and concise warranty details to customers

For full details on the HWA charter please visit <http://www.hotwater.org.uk/>

INSTALLER & COMMISSIONING ENGINEER DETAILS

INSTALLER DETAILS

COMPANY NAME	DATE
ADDRESS	
INSTALLER NAME	TEL No.
REGISTRATION DETAILS	
REGISTERED OPERATIVE ID CARD No. (IF APPLICABLE)	

COMMISSIONING ENGINEER (IF DIFFERENT)

NAME	DATE
ADDRESS	
TEL No.	
REGISTRATION DETAILS	
REGISTERED OPERATIVE ID CARD No. (IF APPLICABLE)	

APPLIANCE & TIME CONTROL DETAILS

MANUFACTURER OSO HOTWATER (UK)		MODEL
CAPACITY	litres	MANUFACTURE date
TYPE	UNVENTED	
TIME CONTROL	PROGRAMMER <input type="checkbox"/>	or TIME SWITCH <input type="checkbox"/>

IT IS THE RESPONSIBILITY OF THE INSTALLER TO COMPLETE THIS LOGBOOK AND PASS IT ON TO THE CUSTOMER. FAILURE TO DO SO MAY INVALIDATE THE CYLINDER GUARANTEE

COMMISSIONING PROCEDURE INFORMATION

BOILER PRIMARY SETTINGS (INDIRECT HEATING ONLY) ALL BOILERS

IS THE PRIMARY A SEALED OR OPEN VENTED SYSTEM? SEALED ☐ OPEN ☐
WHAT IS THE BOILER FLOW TEMPERATURE? °C

ALL MAINS PRESSURISED SYSTEMS

WHAT IS INCOMING STATIC COLD WATER PRESSURE AT THE INLET TO THE PRESSURE REDUCING VALVE? bar
HAS STRAINER (IF FITTED) BEEN CLEANED OF INSTALLATION DEBRIS? YES ☐ NO ☐
HAS A WATER SCALE REDUCER BEEN FITTED? YES ☐ NO ☐
WHAT TYPE OF SCALE REDUCER HAS BEEN FITTED?

UNVENTED SYSTEMS

ARE COMBINED TEMPERATURE AND PRESSURE RELIEF VALVE AND EXPANSION VALVE FITTED AND DISCHARGE TESTED? YES ☐ NO ☐
IS PRIMARY ENERGY SOURCE CUT OUT FITTED (NORMALLY 2 PORT VALVE)? YES ☐ NO ☐
WHAT IS THE PRESSURE REDUCING VALVE SETTING (IF FITTED)? bar
WHERE IS OPERATING PRESSURE REDUCING VALVE SITUATED?
HAS THE EXPANSION VESSEL OR INTERNAL AIR SPACE BEEN CHECKED? YES ☐ NO ☐
WHAT IS THE HOT WATER TEMPERATURE AT THE NEAREST OUTLET? °C

ALL PRODUCTS

DOES THE HOT WATER SYSTEM COMPLY WITH THE APPROPRIATE BUILDING REGULATIONS? YES ☐
HAS THE SYSTEM BEEN INSTALLED AND COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS? YES ☐
HAVE YOU DEMONSTRATED THE OPERATION OF THE SYSTEM CONTROLS TO THE CUSTOMER? YES ☐
HAVE YOU LEFT ALL THE MANUFACTURER'S LITERATURE WITH THE CUSTOMER? YES ☐
COMPETENT PERSON'S SIGNATURE _____ CUSTOMER'S SIGNATURE _____

(To confirm demonstrations of equipment and receipt of appliance instructions)

PLEASE FOLLOW THE INSTALLATION AND COMMISSIONING INSTRUCTIONS IN THE INSTALLATION MANUAL SUPPLIED WITH THE EQUIPMENT (this document)

7. WARRANTY CONDITIONS - applies to UK only

1. Scope

OSO Hotwater UK Ltd. (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 10 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. In addition, for every year after the statutory warranty period, the claimant must contribute 4 % of the list price of the cylinder in question to OSO.

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 unit is connected to a minimum 16 amp dedicated permanent supply complying with current IET Wiring regulations.
- 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 5°dH (180 ppm CaCO₃). 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 chlorination.
- 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.
- The immersion heater element must be removed for inspection on service after 5 years. The threads must be checked for corrosion. If signs of corrosion are evident, the element must be replaced. Subsequently the element must be removed and examined every 3 years. Failure to do so in areas of aggressive water may result in the element separating from the cylinder with consequential escape of water.
- 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.
- The Service record / Benchmark logbook has been completed and updated after each annual service. Invoices should be kept as proof of service.
- The Commissioning Checklist / Benchmark certificate has been completed at the time of installation.
- 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, 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 UK: Phone: (0191) 482 0800
technical.uk@oso-hotwater.com
www.osohotwater.co.uk

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 recycling.

SERVICE INTERVAL RECORD

It is recommended that your hot water system is serviced regularly and that your service engineer completes the appropriate Service Interval Record below.

SERVICE PROVIDER

Before completing the appropriate Service Interval Record below, please ensure you have carried out the service as described in the manufacturer's instructions and in compliance with all relevant codes of practice.

SERVICE 1 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 2 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 3 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 4 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 5 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 6 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 7 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 8 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 9 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

SERVICE 10 DATE:

ENGINEER NAME

COMPANY NAME

TEL No.

COMMENTS

SIGNATURE

When all the above services have been completed, please contact OSO Hotwater for an additional service interval record sheet.



OSO Hotwater (UK) Limited

Endeavor House, Seventh Avenue,
Team Valley Trading Estate,
Gateshead,
Tyne & Wear,
NE11 0EF

Phone: (0191) 482 0800 Fax: (0191) 491 3655

E-mail: technical.uk@oso-hotwater.co.uk

E-mail: sales.uk@oso-hotwater.co.uk

OSO Hotwater AS

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