



**ECOLINE**

# INSTALLATION MANUAL

*This cylinder is manufactured and approved in accordance with EN 12897:2006. This manual gives detailed advice for installation and should be read carefully prior to fitting any unvented unit.*

*This OSO cylinder must be installed by a competent person and be installed in compliance with the OSO Installation and Maintenance Instructions, all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the date of installation.*

## Components supplied with the unit for site fitting

(See also page 2 for component list)

- \* Multibloc valve, includes pressure reducing valve, line strainer, balanced cold water take off, **(for shower or bidet only)** check and expansion valve.
- \* Tundish
- \* 3/4" x 22mm Elbow / Drain Cock
- \* Motorised valve
- \* Expansion vessel.

## Components factory fitted

- \* Immersion heater(s)
- \* Thermostats / thermal cut-out
- \* Temperature and pressure relief valve.

### Health and Safety

Manual Handling Operations Regulations 1992 defines manual handling as: "any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force". The Regulations set no specific requirements such as weight limits. However common sense still has to be used based on an ergonomic approach for each individual.

**DIMENSIONS AND WEIGHTS TABLE 1**

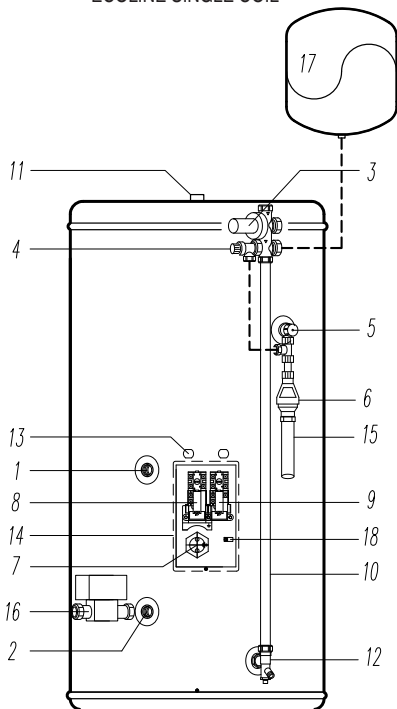
PRODUCT REF.	120	150	180	210	250	300
HEIGHT	770	915	1060	1200	1450	1660
DIAMETER	580	580	580	580	580	580
WEIGHT EMPTY	30,5	38,0	40,5	44,5	51,5	56,0
MAX WEIGHT FULL	150	181	212	244	299	347
COIL SURFACE AREA - M <sup>2</sup>	0.4	0.8	0.8	0.8	0.8	0.8

## Installation details

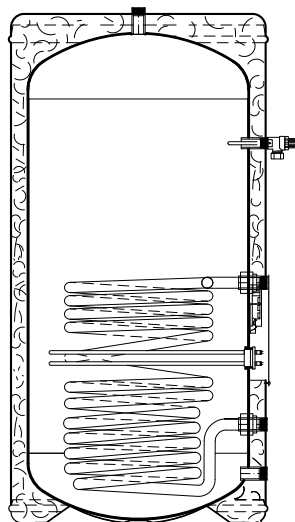
The OSO unvented unit is designed for use with supply pressure up to 10 bar. For pressures over 10 bar an additional pressure reducing valve must be fitted in the supply pipe to the unit.

# General Layout Fig: 1

ECOLINE SINGLE COIL



CUTAWAY VIEW



KEY

Part No.

1	Return 3/4" BSP Boiler	
2	Flow 3/4" BSP Boiler	
3	Pressure Reducing Valve Multibloc (3 bar) Includes Item 4	
4	Expansion relief valve (6 bar)	355030
5	Temperature and Pressure Relief Valve	550853
6	Tundish	219005
7	Immersion Heater	71259
8	Immersion Heater Control Thermostat	80020
9	Indirect Control Thermostat	80030
10	Cold Feed Tube (Not supplied see Table 2)	

KEY

Part No.

11	Hot Water Outlet 3/4" BSP	
12	Elbow / Drain Cock	250445
13	Cable Entry	
14	Electrical Box	
15	Discharge Pipe (Not supplied)	
16	Motorized Valve (Not Factory Fitted)	92000
17	Expansion vessel	AX 12, 18 or 24
18	Clip for Thermistor	

TABLE 2

Size	Length of tube (ø22) mm	Exp. vessel pre charge
120	600	3 bar
150	800	3 bar
180	800	3 bar
210	900	3 bar
250	1150	3 bar
300	1350	3 bar

## POSITIONING - COLD WATER SUPPLY

### Positioning the unit

The water heater should be fitted level on a hard surface with sufficient load strength to take the full weight of the cylinder (see table 1 page 1). There are no limitations regarding the fitting distance from walls etc., but it is strongly recommended to ensure easy access to all pipe fittings etc. There should be at least 80 cm of free space in front of the water heater to ensure easy access for servicing and maintenance.

### Protection from frost

If the water heater is in danger of being exposed to frost while not operating under electric power, the unit must be drained to avoid damage. Make sure the electric power is turned off before draining, otherwise the heating elements can be damaged and the warranty is void. Draining instructions, see "Commissioning" on page 4.

### Cold water supply

1. To obtain the best performance from your OSO unvented system it is advisable to feed the unit with an uninterrupted supply.
2. Before connecting to the multibloc, flush the cold supply pipework of all flux and debris.
3. Locate the water heater in a suitable position to facilitate the installation of the cold water supply, discharge fittings and pipework. Also take into account access to the immersion heater.
4. Fit the combined male elbow drain cock to cold supply point (13), so that the compression fitting is vertical.
5. Fit the length of copper tube 22mm specified in Table 2 to the cold feed elbow (see 4 above) to include a Tee piece if a secondary return is required
6. Fit the pressure reducing valve (3) to the top of the copper tube (see 5 above).
7. Connect 15mm copper tube from the expansion relief valve (4) and also from the T & P valve (5) and join together in a Tee as shown on page 2
8. Fit the tundish (6) to the bottom connection of this tee.
9. If a balanced mains pressure cold water supply is required to a shower or bidet (over rim type only), remove the blanking cap from the pressure reducing valve (3) and connect to the shower or bidet cold supply. **Do not use this balanced cold outlet to feed all cold outlets.**
10. Connect the cold supply to the PRV (3).
11. Fit the expansion vessel to the wall close to the water heater using the enclosed mounting bracket. Connect the expansion vessel to the PRV, as shown on page 2.

### Hot water supply

12. Connect the hot water supply pipe to the outlet (9). Ensure connection is water tight.

### Secondary return (optional)

13. Connect secondary return if required to the Tee piece in the cold feed tube see 5 above (see page 12).

### Discharge pipe

14. Connect the discharge pipe from the tundish (6). This must have a continuous fall and be fitted in accordance with The Building Regulations (see page 16). The tundish should be installed away from electrical devices.

### Boiler Primaries - Primary flow & return and motorised valve

15. The boiler primary flow and return connections should be made connections 1 & 2. The motorized valve can be connected to either the primary flow or return pipe. The primary flow and return fittings are 3/4" BSP female. The valve has 22mm x copper connections. The direction of primary flow in the coil is bottom to top. The maximum operating temperature of the primary flow would typically be 82°C.
16. For electrical connection of the motorised valve and immersion heater, please read Electrical Installation Instructions. (Pages 7 - 11).

### Tundish

Install the Tundish in a vertical position within a maximum of 600mm from the temperature and Pressure Relief Valve drain connection. Ensure the expansion relief pipework discharges through the tundish. Tundish pipework must be 22mm with a minimum vertical length of 300mm below tundish. Maximum permitted length of 22mm pipework is 9m. Each bend or elbow is equivalent to 0.8m of pipework. All pipework must have continuous fall and discharge in a safe, visible position. If any doubt, refer to *Building Regulation G3*.

## COMMISSIONING

### Filling up

1. Open a hot tap.
2. Open the cold water supply valve
3. When water flows from hot tap, close the tap
4. Allow the system to stabilize for 5 minutes
5. Open each hot water tap in turn to expel air from the system pipe work.
6. Check for leaks.
7. Manually operate Temperature and Pressure Relief Valve (5) to ensure free water flow through discharge pipe. (Turn knob to left.)

TABLE 3

Product ref.	Max. design pressure	Operating pressure CW feed & coil	Pressure drop primary heater coil	Temp. / pressure relief valve	Safety valve Pressure / conn.	Exp. vessel capacity
120	6 bar	cw in 3 bar, coil 2.5	0.03 bar	90-95°C / 10 bar	6 bar / 15mm - 1/2"	12 l.
150	6 bar	cw in 3 bar, coil 2.5	0.05 bar	90-95°C / 10 bar	6 bar / 15mm - 1/2"	12 l.
180	6 bar	cw in 3 bar, coil 2.5	0.05 bar	90-95°C / 10 bar	6 bar / 15mm - 1/2"	18 l.
210	6 bar	cw in 3 bar, coil 2.5	0.05 bar	90-95°C / 10 bar	6 bar / 15mm - 1/2"	18 l.
250	6 bar	cw in 3 bar, coil 2.5	0.05 bar	90-95°C / 10 bar	6 bar / 15mm - 1/2"	24 l.
300	6 bar	cw in 3 bar, coil 2.5	0.05 bar	90-95°C / 10 bar	6 bar / 15mm - 1/2"	24 l.

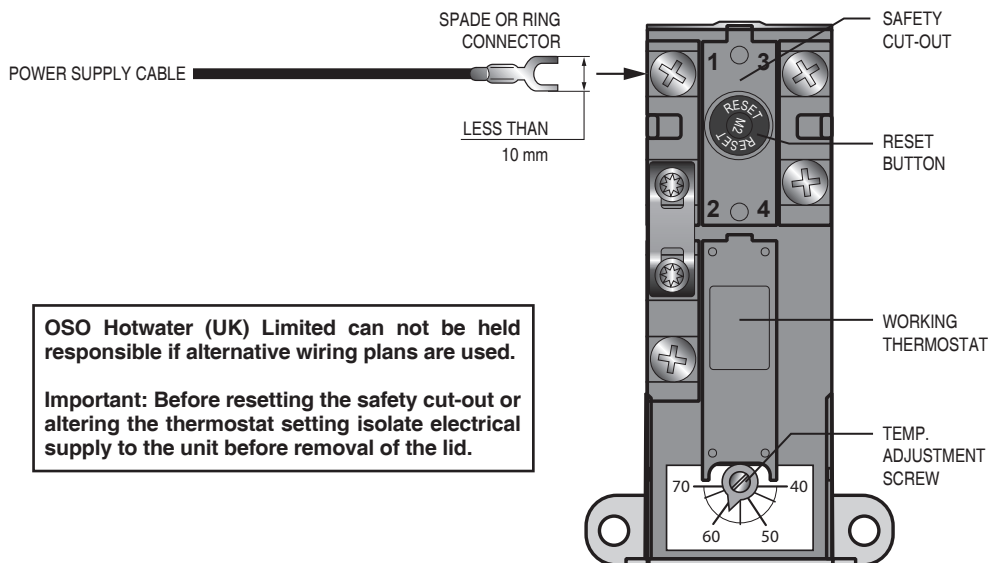
TABLE 4

Product ref.	Weight empty	Weight full	Heat-up (mins) coil	Rating (kW) coil	Heat loss kWh/24h	Recovery rate (70%)	Primary flow rate	Usable hot water at 40°C
120	30,5	150	21.1	13.6	1.08	15	15 l/min. - 80°C	160
150	38,0	181	24.3	17.2	1.30	17	15 l/min. - 80°C	223
180	40,5	212	29	17.3	1.44	20	15 l/min. - 80°C	253
210	44,5	244	33	17.1	1.59	23	15 l/min. - 80°C	307
250	51,5	299	42	16.8	1.87	29	15 l/min. - 80°C	391
300	56,0	347	49.5	16.5	2.08	35	15 l/min. - 80°C	468

Note: Temperature rise is from 15 to 60°C. Coil heating performance based on a primary flow rate of 15 l/min. at 80°C.

**Test results are in accordance with BS EN 12897:2006.**

# ELECTRICAL INSTALLATION



**OSO Hotwater (UK) Limited can not be held responsible if alternative wiring plans are used.**

**Important: Before resetting the safety cut-out or altering the thermostat setting isolate electrical supply to the unit before removal of the lid.**

## Thermostat connection

When connecting cables to thermostats, use spade or ring connectors as shown in diagram. Ensure that connector is less than 10mm in outer dimension and fits inside the shoulders of the thermostat and is not tightened onto the top of the shoulders.

## Immersion heaters

The immersion heater is designed as an auxiliary heater as an emergency back-up.

Wiring instructions for the immersion heater is located on the reverse side of the electrical box lid. Follow the wiring instructions connecting the live, neutral and earth as indicated. The electrical connection to the immersion heater must conform to current IEE wiring regulations. The unit must be permanently connected to the electrical supply through a double-pole linked switch with a minimum break capacity of 13 amps. All internal wiring is factory mounted. The immersion heater has a working thermostat adjustable between 40°C - 70°C. A safety cut-out is also incorporated within the thermostat and will operate at 85°C  $\pm$  3°C. Should this happen, press the reset button.

**Important: Before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the lid. Ensure the lid to the electrical box is replaced correctly and the retaining screw is fitted.**

## Motorised valve

To comply with regulations governing the installation of indirect unvented cylinders, a motorised valve must be fitted in the primary flow or return. Your OSO unit has been supplied with a two port motorised valve, which will act as a positive energy cut-out should the safety cut-out operate.

The motorised valve will also control the temperature of the domestic stored water via the cylinder thermostat, which is located in the electrical box. The unit should be installed on an "S" or "Y" plan system.

**Please follow the instructions carefully.** All electrical connections must conform to current IEE wiring regulations. The working thermostat is adjustable between 40°C - 70°C. A safety cut-out is also incorporated within the thermostat and will operate at 85°C  $\pm$  3°C. Should the safety cut-out be brought into operation, the motorised valve will operate and close down the primary flow to the cylinder. To reset the safety cut-out and the motorised valve the reset button must be pressed in (see fig.4 page 8).

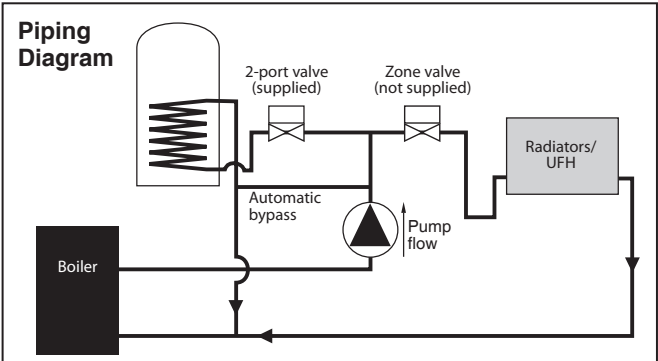
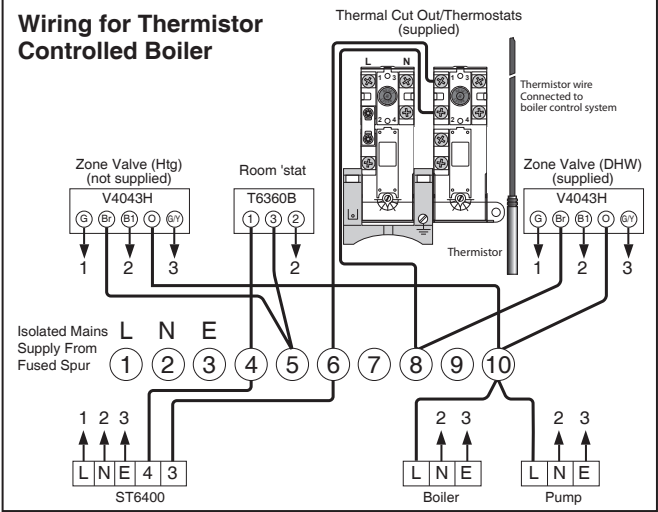
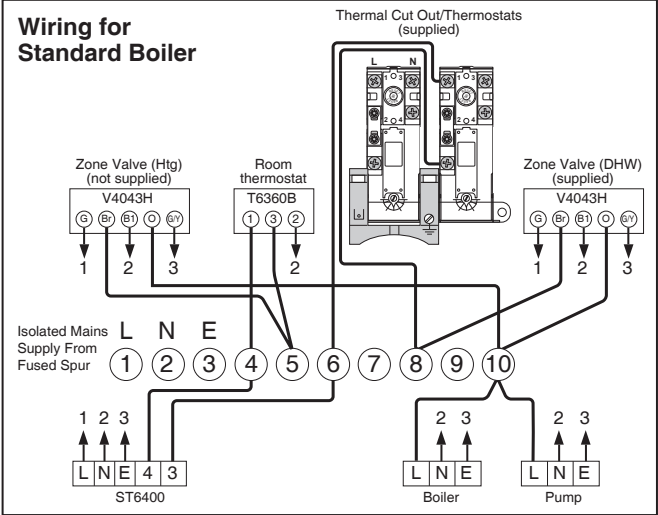
S-plan WIRING LAYOUT

**OSO Ecoline cylinders** can be fitted with all types of boilers. Standard boilers operate using room and cylinder thermostats. Please follow upper diagram: 'Wiring for Standard Boiler'.

Many popular boilers now use a thermistor principle. A thermistor temperature sensor is supplied with the boiler to attach to the cylinder. Temperature information is relayed back to the boiler control system. A clip is provided to secure the sensor on the EcoLine cylinder. The supplied motorised valve must be used in accordance with Building Regulation G3. This is wired from the thermal cutout on the cylinder thermostat. Please follow lower diagram: 'Wiring for Thermistor Controlled Boiler'.

Both wiring plans shown is based on the use of a 10-way Junction Box (Honeywell Part no. 42002116-001).

Junction Box terminal 8 is switched live and, if needed, terminal 10 is pump live.



**Electrical spare parts:**

Immersion Heater	71259
Thermostats	80030

# Y-plan WIRING LAYOUT

## OSO Ecoline cylinders

can be fitted with all types of boilers.

Standard boilers operate using room and cylinder thermostats. Please follow upper diagram: 'Wiring for Standard Boiler'.

Many popular boilers now use a thermistor principle. A thermistor temperature sensor is supplied with the boiler to attach to the cylinder. Temperature information is relayed back to the boiler control system.

A clip is provided to secure the sensor on the Ecoline cylinder. The supplied motorised valve must be used in accordance with Building Regulation G3. This is wired from the thermal cutout on the cylinder thermostat.

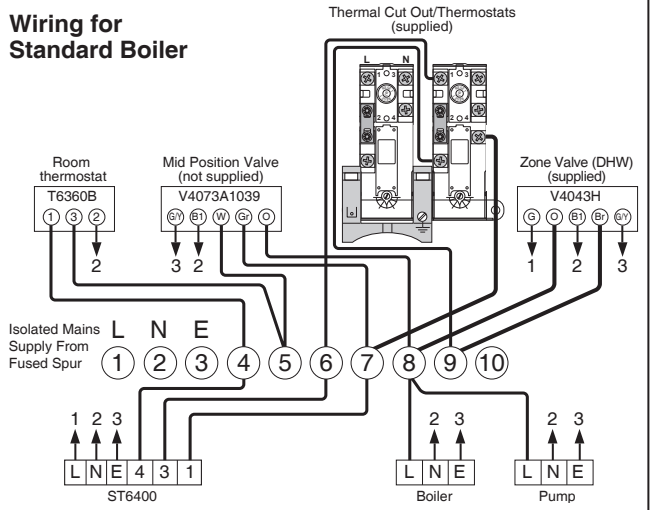
Please follow lower diagram: 'Wiring for Thermistor Controlled Boiler'.

Y-plan systems with unvented cylinders require use of both a mid-position valve and the supplied zone valve. Failure to use the zone valve contravenes regulations.

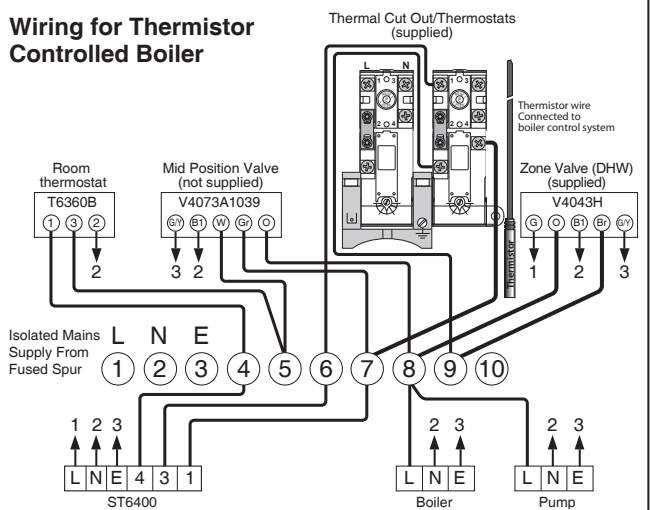
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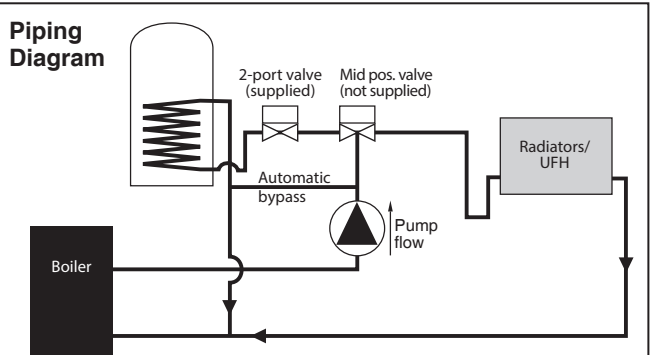
## Wiring for Standard Boiler



## Wiring for Thermistor Controlled Boiler



## Piping Diagram



## Electrical spare parts:

Immersion Heater	71259
Thermostats	80030

## MAINTENANCE

### Draining/flushing

1. Turn off mains supply.
2. Connect hose pipe to drain cock at base of cylinder.
3. Open hot tap. Open drain valve and open temperature & pressure relief valve.
4. Allow to drain. Follow commissioning instructions (above) to refill.

## RECOMMISSIONING INSTRUCTIONS

**Cold or tepid water discharge from tundish** - The tundish should be installed away from electrical devices.

1. Close cold water supply valve
2. Open a hot tap.
3. Repressurise the expansion vessel air charge to its set level.
4. Close hot tap
5. Open the cold water supply valve

### 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 and also isolate an indirect unit from the boiler. Contact the installer or competent engineer.

## SAFETY AND MAINTENANCE

### Safety Cut-out

1. The safety cut-out operates if:
  - a. Wiring is incorrect.
  - b. The immersion heater thermostat or cylinder thermostat fails.
  - c. Thermostat is set too high.
2. Remember before resetting the safety cut-out or altering the thermostat setting, isolate electrical supply to the unit prior to removal of the electrical box lid.
3. Reduce thermostat setting and press the reset button. After adjustments are completed, ensure the lid to the electrical box is replaced correctly and the retaining screw is fitted.
4. If still out of operation, contact installer.

**It is a condition of the guarantee that annually a competent person:**

- (a) Inspects and cleans the line strainer.
- (b) Checks the operation of the expansion relief valve and temperature & pressure relief valve.
- (c) Recommissions the cylinder in accordance with the instructions above.

### Corrosion resistance

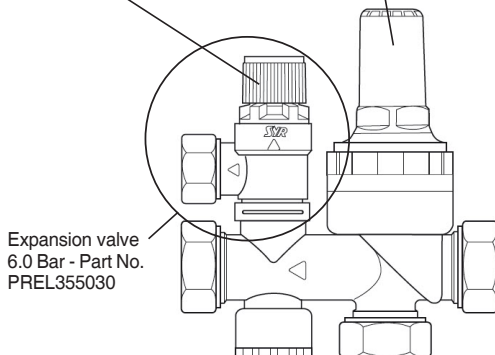
Stainless steel is naturally corrosion resistant to mains water supply. No specific maintenance is required to maintain this resistance. Please see guarantee terms for permissible water content. Please note: OSO cylinders are not guaranteed for use with a private water supply.

The immersion heater can be removed to provide visual inspection access to the cylinder.

### Spare parts

Expansion valve  
(Cartridge and seat)  
Part No. 214005  
6.0 Bar

Pressure reducing valve  
Cartridge - Part No.  
REDC 355030 - 3 bar



### Pressure reducing valve

1. Isolate the cold water supply and open a ground floor cold tap.
2. Unscrew the pressure reducing cartridge
3. Clean the filter mesh and the cartridge under running water.
4. Replace cartridge ensuring that strainer is correctly located and reassemble the unit. Pressure Reducing Valve cartridge and strainer Part No. REDC355030 - 3 Bar.

### Expansion relief cartridge

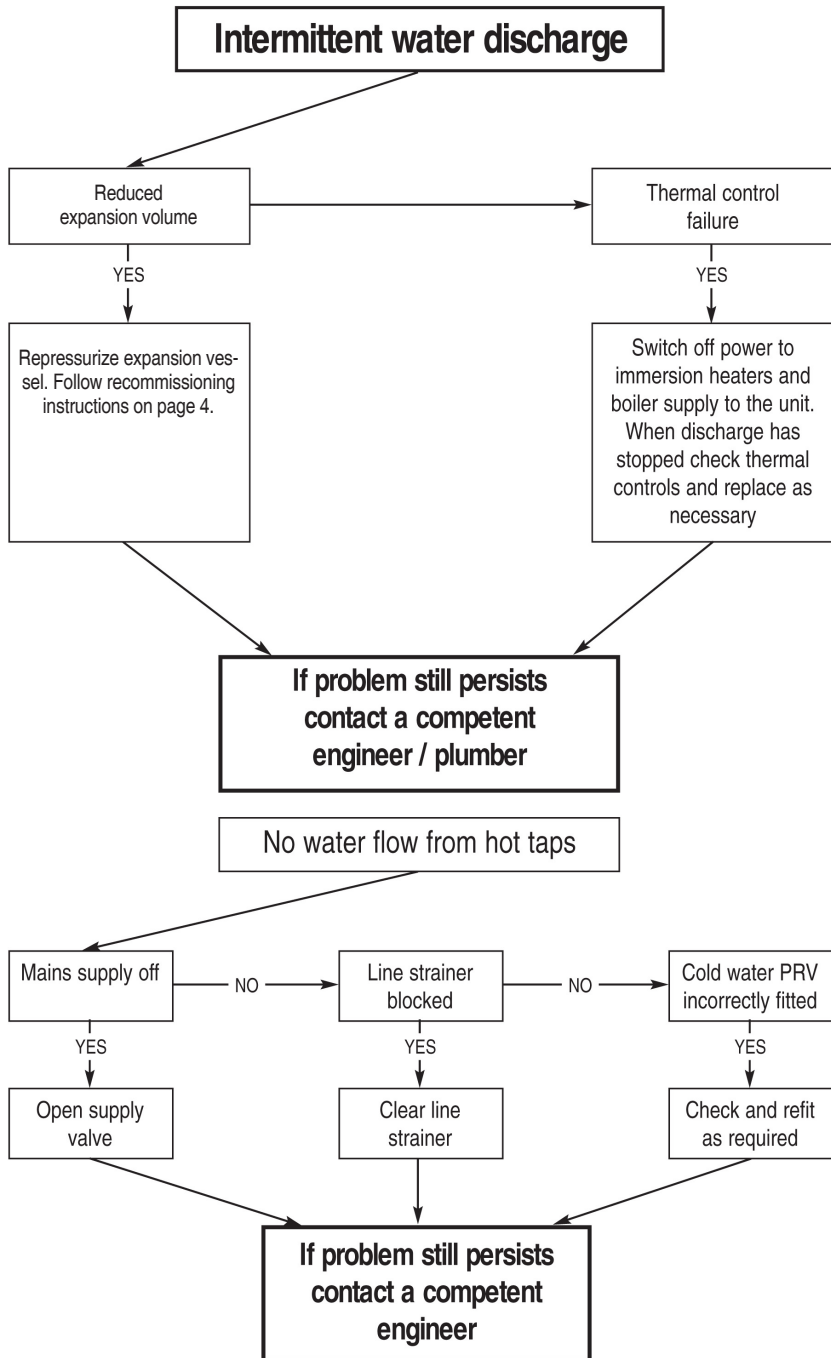
1. Isolate the cold water supply and open a ground floor cold tap.
2. Unscrew blue expansion relief headwork from valve body.
3. Clean valve seat face and seating - do not scratch or damage either seat face or seating.
4. Refit in reverse order. Do not overtighten Expansion valve cartridge and seat Part No. 214005 6.0 Bar.



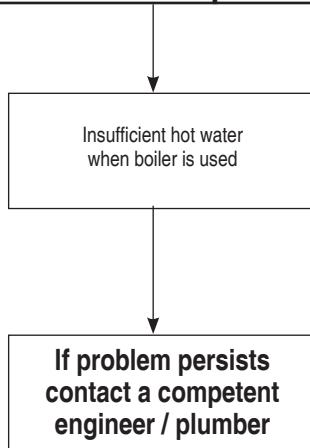
## OSO FAULT FINDING GUIDE

FAULT	POSSIBLE CAUSE	REMEDY
No water flow from hot taps	<ol style="list-style-type: none"> <li>1. Mains supply off</li> <li>2. Strainer blocked</li> <li>3. Cold water inlet Pressure Reducing Valve incorrectly fitted</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and open stop cock</li> <li>2. Turn off water supply. Remove strainer and clean (see Pressure Reducing Valve page 8)</li> <li>3. Check and refit as required (see item 3 page 5 of this manual).</li> </ol>
Poor pressure and flow from taps	<ol style="list-style-type: none"> <li>1. Strainer blocked</li> <li>2. Poor incoming supply</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn off water supply. Open cold tap. Remove strainer and clean (see Pressure Reducing Valve page 8 in this manual)</li> <li>2. Fit OSO SuperStream system to boost mains supply</li> </ol>
Water from hot taps is cold	<ol style="list-style-type: none"> <li>1. Programmer set to central heating or not switched on</li> <li>2. Boiler not working</li> <li>3. Cylinder thermal cut-out has operated (indirect units only)</li> <li>4. Motorised valve not operating correctly</li> <li>5. Immersion heaters not switched on</li> <li>6. Immersion heater thermal cut-out has operated</li> </ol>	<ol style="list-style-type: none"> <li>1. Check and set to hot water</li> <li>2. Check boiler operation. If fault suspected consult installer or boiler manufacturer</li> <li>3. Check and switch on</li> <li>4. Check wiring and/or plumbing connections to motorised valve (see pages 8 or 10)</li> <li>5. Check and switch on</li> <li>6. Check and reset button (see thermostat diagram page 9 and safety cut-out on p. 4)</li> </ol>
Excessive hot water from taps <i>-check which heat source is operating - boiler or immersion heater</i>	<ol style="list-style-type: none"> <li>1. Check temperature with thermometer. Reading should be 60-65°C</li> <li>2. Check wiring is correct</li> <li>3. Thermostat set too high</li> <li>4. Faulty thermostat</li> </ol>	<ol style="list-style-type: none"> <li>1. If lower temperature is required at taps, fit thermostatic mixing valve</li> <li>2. Seek advice from electrician</li> <li>3. Lower temperature at thermostat to 55°C</li> <li>4. Replace thermostat</li> </ol>
Intermittent water discharge through tundish when water is being heated	<ol style="list-style-type: none"> <li>1. Faulty expansion vessel</li> <li>2. Thermal control failure (Note: Water will be hot)</li> </ol>	<ol style="list-style-type: none"> <li>1. Repressurize expansion vessel. Follow recommissioning instructions on page 8.</li> <li>2. Switch off power to immersion heater(s) and boiler supply to the unit. When discharge has stopped, check thermal controls, replace if faulty. Contact a competent person</li> </ol>
Continuous water discharge (slow dribble)	<ol style="list-style-type: none"> <li>1. Expansion relief valve faulty</li> <li>2. Temperature and Pressure relief valve is faulty</li> </ol>	Identify which valve is discharging and replace
Continuous water discharge (fast flow)	<ol style="list-style-type: none"> <li>1. Cold water inlet pressure Reducing Valve not working</li> </ol>	<ol style="list-style-type: none"> <li>1. Check pressure from valve, if greater than 3 bar replace (see page 8)</li> </ol>
Continuous water discharge (fast flow steaming hot water)	<ol style="list-style-type: none"> <li>1. Temperature and Pressure Relief Valve operated due to excess temperature</li> </ol>	<ol style="list-style-type: none"> <li>1. Switch off power to immersion heater and contact competent person</li> <li>2. If immersion was not switched on, isolate power to boiler and contact competent boiler engineer</li> </ol>

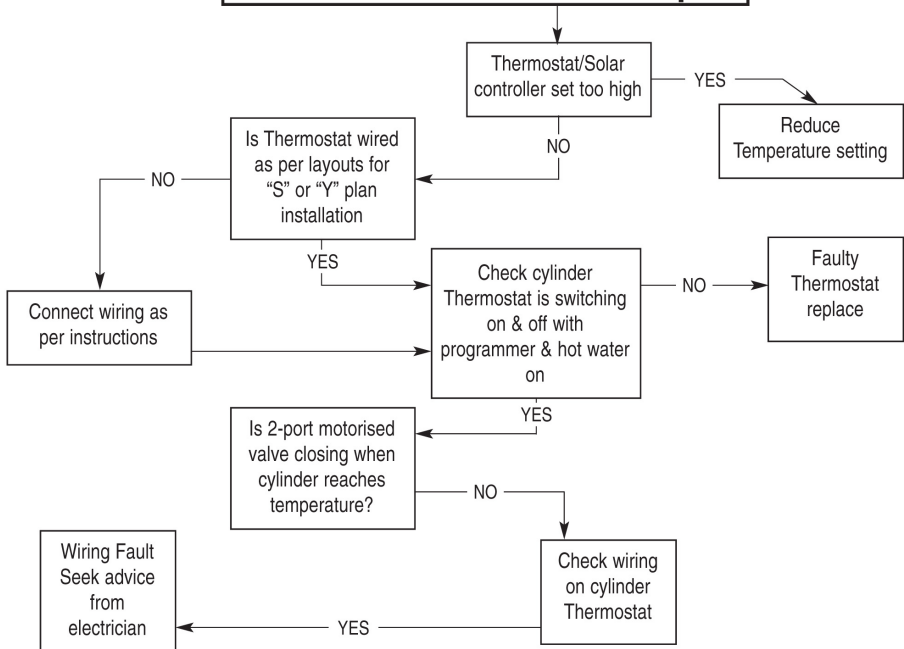
**Note: Disconnect electrical supply before removing any electrical equipment covers**



## Hot water from taps is cold



## Excessive Hot water from taps



**If in doubt at any stage you must consult a qualified electrician**

## ALTERNATIVE DISCHARGE

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 guttering system that would collect such discharges (tundish visible). Where a single pipe serves a number of discharges, such as in blocks of flats, the number served should be limited to not more than 6 systems so that any installation discharging can be traced reasonably easily. The single common discharge pipe should be at least one pipe size larger than the largest individual discharge pipe to be connected. For further information contact your Building Control Office or The British Board of Agrément.

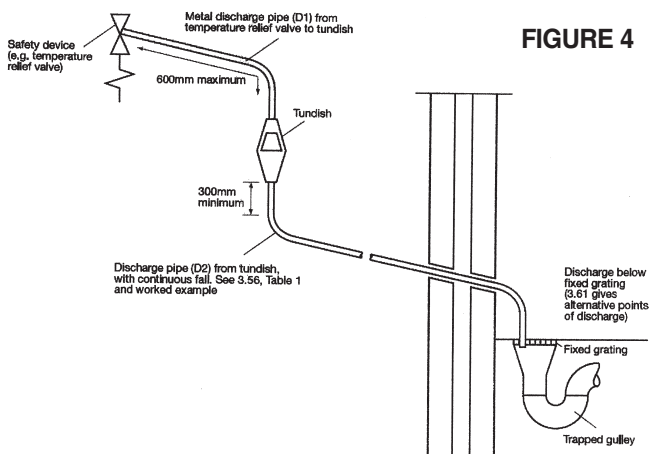
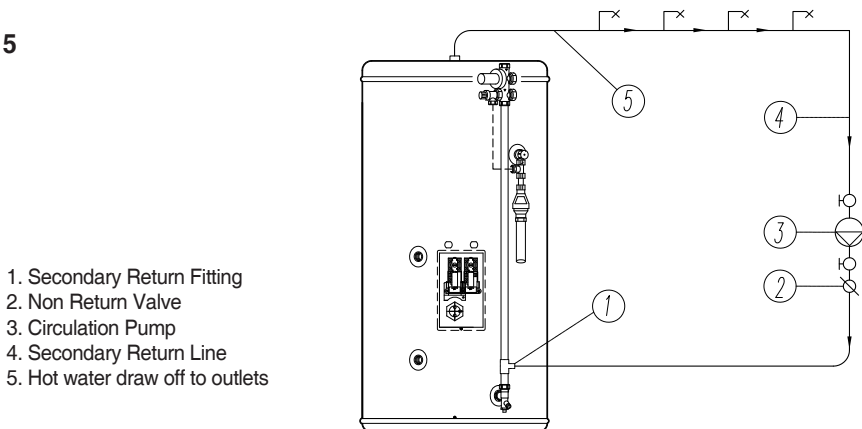


FIGURE 4

## SECONDARY RETURN

FIGURE 5



1. Secondary Return Fitting
2. Non Return Valve
3. Circulation Pump
4. Secondary Return Line
5. Hot water draw off to outlets



All replacement parts must be supplied by  
OSO HOTWATER (UK) LIMITED.

To obtain the address of a local stockist contact:

OSO HOTWATER (UK) LTD.

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

Phone: (0191) 482 0800 • Fax: (0191) 491 3655 • Website: [www.osohotwater.co.uk](http://www.osohotwater.co.uk) / [www.oso-spares.co.uk](http://www.oso-spares.co.uk)

E-mail: [technical.uk@oso-hotwater.co.uk](mailto:technical.uk@oso-hotwater.co.uk) • [spareparts.uk@oso-hotwater.co.uk](mailto:spareparts.uk@oso-hotwater.co.uk) • [sales.uk@oso-hotwater.co.uk](mailto:sales.uk@oso-hotwater.co.uk)

This OSO product is approved to building and water regulations by KIWA Watertec Ltd.

Tel: 01495 308 185 • Email: [watertecenquiries@kiwa.co.uk](mailto:watertecenquiries@kiwa.co.uk)

**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**



*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)

## GUARANTEE - OSO UNVENTED HOTWATER CYLINDER

The OSO stainless steel inner vessel is guaranteed against material defect or manufacturing faults for a period of 25 years from the date of purchase. All other parts including, but not limited to factory fitted electrical elements (damage caused by lime scale excluded), expansion vessel, thermostats and valves are guaranteed against material defects or manufacturing faults for 2 years from the date of purchase. In the event of a replacement component being required OSO Hotwater will supply such part(s) free of charge and freight paid, on condition that the defective component is delivered, freight paid to OSO Hotwater within 2 weeks of written notice being given to OSO Hotwater of the defect. Such replacement parts shall be guaranteed under the terms of this guarantee to the unexpired period of the aforementioned 2 year period.

This warranty is conditional upon the OSO cylinder being installed in compliance with the OSO Installation & Maintenance Instructions, all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the date of installation and provided that:

1. The water quality shall be in accordance with European Council Directive 98/83 EC, or revised version at the date of installation, and is not fed with water from a private supply.  
Particular: Chloride content: Max. 250 mg/l  
Sulphate content: Max. 250 mg/l  
Combination Chloride/sulphate: Max. 300 mg/l (in total)
2. The OSO cylinder is filled with water before turning the electricity supply on to the heater elements.
3. The log book certificate is completed at the time of installation.
4. The OSO cylinder is serviced and maintained every 12 months and is marked as such in the logbook provided with the cylinder. Invoices for the maintenance work should be kept as proof of regular maintenance. Care should be taken of the logbook and invoices as they serve as the guarantee certificate for the cylinder.
5. If the newly fitted water heater is not in regular use then it must be flushed through with fresh water for at least 15 minutes. Open at least one hot water tap once per week, during a period of at least 4 weeks.
6. The OSO unvented cylinder has not been modified in any way other than by OSO Hotwater and is only used for the storage of potable water.
7. No factory fitted parts have been removed for unauthorised repair or replacement.
8. Defects caused by frost, excess pressure, salt dehardner process, transient voltage, lightning strikes or incorrect installation, repair or use, are not covered by this warranty. A laboratory evaluation of possible defects can be ordered by the user, however the user must pay for this where the above mentioned conditions have not been fulfilled. Evidence of the purchase date and the date of supply must also be submitted with your claim.

*This guarantee does not confer any rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.*

**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**

# APPLIANCE & TIME CONTROL DETAILS

MANUFACTURER OSO HOTWATER (UK)

MODEL

CAPACITY

litres

SERIAL No.

TYPE

UNVENTED

TIME CONTROL

PROGRAMMER

☐

or

TIME SWITCH

☐

## 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?

YES ☐ NO ☐

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

# 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.

<b>SERVICE 1</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 2</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 3</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 4</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 5</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 6</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 7</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 8</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 9</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

<b>SERVICE 10</b>	<b>DATE:</b>
ENGINEER NAME	
COMPANY NAME	
TEL No.	
COMMENTS	
SIGNATURE	

When all the above services have been completed, please contact your Service Engineer for an additional service interval record sheet.