Contents

These instructions should be read carefully and understood before commencing the installation. Do not proceed if any part is unclear or if requirements cannot be fully met.

Please leave these instructions with the end user after installation.

Product Description

ILH 6 & 9 is a pressure-type, hydraulically controlled instantaneous water heater for supplying hot water at one or two outlets in close proximity to one another. (see typical application chart).

ILX6 - 12 is a flow-type electronically controlled instantaneous water heater for supplying hot water at one or two outlets situated in close proximity to one another. (See typical application chart).

Typical Applications

ILH6	Wash-hand basin
ILH9	Two wash-hand basins (not simultaneously) or kitchen sink
ILX6	Wash-hand basin
ILX9	Two wash-hand basins (not simultaneously) or kitchen sink or shower and basin (not simultaneously)
ILX12	Two wash-hand basins or large kitchen sink or shower and basin

Approvals

The ILH6, ILH9, ILX6, ILX9 & ILX12 have been examined, tested, and found, when correctly fitted, to comply with the requirements of the United Kingdom Water Regulations/ Byelaws (Scotland). The product, therefore, is listed under the WRAS (Water Regulations Advisory Scheme) Water Fitting and Materials Directory - **Certificate No. 0209074 (ILH6/9) No.0209073 (ILX6/9/12)**. The ILH6, ILH9, ILX6, ILX9 & ILX12 are CE endorsed.

Warranty

Your Zip InLine is precision-built from the finest materials available and should give many years of trouble-free service. Zip Heater (UK) Ltd warrants that, should any part of the heater fail within 12 months of installation, that part or parts will be repaired or replaced by Zip Heaters (UK) Ltd or its accredited distributor or service engineer, free of charge, except as set out below, provided that the failure is not due to incorrect use, incorrect installation, dirt in the inlet or outlet pipes, non-compliance with operating instructions, condition of water used or unauthorised modification of the heater.

All water heaters are susceptible to lime-scale formation, the degree of which will depend on local water conditions. Where excessive scale formation is likely to occur, the use of a scale reduction device is recommended.

The heater should only be returned to Zip or their accredited distributor with the agreement of Zip Heaters (UK) Ltd, whereupon the only charges payable by the customer are the cost of removal, re-installation and transport.

This warranty excludes damage resulting from non-operation of the water heater or consequential damage to any other goods, furnishings or property.

This warranty does not displace any statutory warranty in relation to the heater, but any liability of Zip Heaters (UK) Ltd under any statutory warranty, other than in the case of a person 'dealing as a consumer' as defined in section 12 of the Unfair Contract Terms Act 1977, will be limited to a replacement or repair at the option of Zip Heaters (UK) Ltd.

Warnings

Installation, commissioning and maintenance of this appliance must only be conducted by a competent installer, who will then be responsible for adherence to applicable standards and installation regulations.

The ILH6/9 and ILX6/9/12 are for connection to mains supply only. In any other case please contact Zip Customer Service on 0870 608 8888 for advice. We cannot be liable for any damages caused by failure to observe these instructions. When the appliance has been in use for some time. The fittings may be very hot.

- Do not use the appliance until it has been correctly installed and unless it is in perfect working order.
- Before commissioning and each time the appliance is emptied, it should be vented as follows:
  1 Disconnect appliance from the mains by removing the fuses.
  2 Open and close the hot water tap several times until nore more air emerges from the tap and all air has been evacuated from the water heater (approx.1 minute).
  3 Reconnect the power supply to the appliance.
- Always switch off the mains electrical supply before removing the front cover.

Never make technical modifications, either to the appliance itself or to electrical leads and water pipes.

Specification

Product Type	*ILH6*	*ILH9*	*ILX6*	*ILX9*	*ILX12*
Capacity:	0.2 litre				
Pressure type (rating pressure):	6 bar				10 bar
Heating system:	Tubular heater				Bare wire
Nominal rating: Rated voltage (50/60) Hz Rated current	6.6 kW/230V 1/NPE220-240V 28.7A	8.8 kW/230V 1/NPE220-240V 38.3A	6.6 kW/230V 1/NPE220-240V 28.7A	8.8 kW/230V 1/NPE220-240V 38.3A	13.5 kW 3/PE 400V 19.5A
Max. temperature increase: At nominal rating & flow rate of 4 l/min flow rate of 6 l/min flow rate of 8 l/min flow rate of 10 l/min	 24°C 16°C 12°C 9°C	 32°C 21°C 16°C 13°C	 24°C 16°C 12°C 9°C	 32°C 21°C 16°C 13°C	 48°C 32°C 24°C 19°C
Switch-on flow rate:	2.9l/min	3.5l/min		2l / min	
Temperature pre-setting:	N/A		35 - 55°C		
Minimum dynamic water pressure	·8 bar		N/A		
Suitable for cold water up to:			30°C		
Water connection:	½" B.S.P. for concealed or surface mounting				
Required spec. water resistance @15_C:	≥1100Ω cm@15°C (ILX 12 only)				
Net weight:	2.2kg				
Dimensions (h x w x d):	33cm x 21cm x 9cm				
Class / Degree of protection (IEC 529):	1 / IP25				
Approvals:	See paragraph 2				

Installation

This appliance is not intended for use with thermostatic blending valves.

The following must be observed:

- The appliance must be installed in accordance with current IEE regulations.
- Note the specifications on the rating plate and the technical specifications.
- Do not proceed if any stage of installation is unclear.

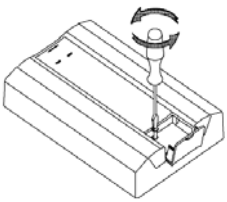
Installation site

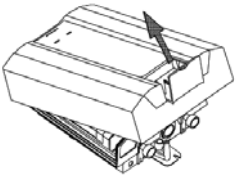
- The installation site must be free from frost at all times.
- The appliance complies with protection type IP25.
- In order to minimise thermal losses, the distance between the heater and the outlet tap should be as short as possible (<2m).

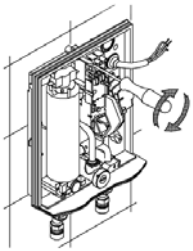
- **Best performance is achieved at a flow pressure of ≥ 3 bar, the rated pressure of 6 bar (10 bar ILX12) must not be exceeded as failure to observe this will invalidate the warranty.**
- Hot and cold water pipes should be WRAS approved and of copper or plastic construction.

Installing the appliance

Plumbing







1 An isolating valve must be installed in the cold water supply line to the heater.

2 Before connecting the water supply to the appliance flush the pipe by running a quantity of water into a bucket.

3 Remove the front cover by unscrewing the locking screw behind the small lid.

4 Locate and break out the required holes and cable inlets. Use the back-plate as a template to locate the drilling positions and drill them with a 6mm bit, ensuring there are no hidden cables or pipe-work.

5 Insert the rubber seal supplied and introduce the connecting lead. When using a flexible cable it must be secured, with the cable clamp provided, on the rear of the appliance back-plate.

6 Screw the appliance into position using the enclosed rawl plugs and screws.

7 Install the appliance vertically as per diagram. The inlet and outlet are marked with arrows.

8 The water connections are designed for concealed or surface-mounted installation and must be carefully sealed with a little PTFE tape when screwed into the wall connections.

9 The front cover must be cleanly parted at the specified points for surface-mounted installation or for direct connection to the pipes of the sanitary fitting using the optional piping kit ZL001.

10 Open the water supply to the appliance and the tap to check all connections for leaks.

11 Open and close the hot water tap several times until no more air emerges from the tap and all air has been evacuated from the heater.

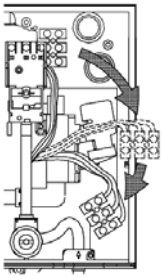
Electrical connection

The instantaneous water heater must be installed in accordance with current IEE regulations.

Please ensure that this appliance is earthed.

1 Check that the power supply is switched off prior to the electrical connection!
   - The appliance must be permanently connected to the supply through an isolation switch having a contact separation of at least 3mm in all poles.
   - The cross sectional area of the connection cable must be in accordance with the power rating.

2 The connecting cable should be sealed with the cable seal and carefully connected to the terminal block using leads L, N as well as the earth conductor.
   - If necessary, the connecting terminal can be moved to the lower part of the appliance.
   - The connecting cable must be adequately secured.



General

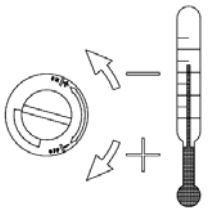
1 Locate the front cover and secure with the fixing screw.
2 Completely fill the appliance with water before switching on the power supply.
3 Explain to the user how the instantaneous water heater works and leave these instructions for their reference.

Operation

Please read these instructions carefully before using the appliance.

ILH6/9

The appliance heats water as it flows through the unit. It only consumes power during this period. The heating element is switched on automatically when the minimum pressure is exceeded. The 'Power' indicator shows when the heating element is switched on. The temperature of the hot water depends on the rate of flow and the temperature of the mains water supply. By adjusting the flow rate at the outlet the delivered water temperature can range from approx. 40°C to 60°C.



N.B. Reduced flow = Hotter water
Increased flow= Cooler water

The setting for the rate of flow can be changed on the flow valve if, for instance, the desired hot water temperature is not achieved due to excessively low mains water temperature.

If the heater supplies two outlets, the water from the unit will be shared between the outlets. Therefore you should use only one outlet at a time to have sufficient flow and to avoid variation in temperature.

ILX6/9/12

The appliance heats the water to the required temperature directly as it flows through the unit. It will switch on automatically when the minimum flow is exceeded. The 'Power' indicator lights up when the heater is switched on. The 'Pressure' indicator lights up when the flow rate is too low.

The power is automatically adjusted by the electronics in line with the water flow rate, in order to obtain the set temperature and keep it virtually constant. The required temperature can be set to within 1°C between 35°C and 55°C using the two buttons and can be read off the digital display. If the full power of the unit is insufficient to heat the water to the required temperature, this is shown by the flashing 'Power' indicator. At high incoming water temperatures, the power is automatically switched off to avoid producing excessively hot water. This is shown by the 'Overheat' indicator.

If the heater provides two outlets, the water from the unit will be shared between the two outlets. You should, therefore, only use one outlet at a time in order to obtain sufficient flow.

Saving Energy (ILX 6/9/12)

Set precisely the required temperature on the appliance and only open the hot water tap. If the water is too hot, set a lower temperature on the appliance instead of adding cold water. If you add cold water, the heated water is cooled again and energy is wasted. The cold water added through the tap cannot be controlled by the electronics and a constant temperature can no longer be guaranteed.

Routine Preventative Maintenance

N.B. Repairs should only be carried out by competent persons familiar with instantaneous water heaters.

- Plastic surfaces and fittings may only be wiped with a damp cloth. Never use abrasive cleaning agents or solvents.

- For a good water supply, any aerators and shower-heads should be separated and cleaned or renewed at regular intervals.

- The electrical and plumbing components should be inspected by a competent person at least every three years to ensure correct performance and operational safety at all times.

- The line strainer is located in the flow valve and should be examined and cleaned periodically, not only when operation of the appliance deteriorates, but also in conjunction with regular servicing. Turn clockwise to remove.

  Attention: Residual water will be discharged!

Fault Finding

Problem	Possible cause	Solution
The “Power” indicator does not light and the water is cold.	Circuit breaker tripped.	Have the fault rectified and reset.
	Flow pressure switch is not working (ILH only).	Increase flow pressure (ILH only).
	Safety thermal cut-out tripped (ILH only).	Contact customer service (ILH only). Re-set.
The “Power” indicator lights, but the water is cold.	Heating element is faulty.	Replace the element, contact customer service.
	Electronics faulty (ILX only).	Reset fuse. In case of repeated failures, contact customer service (ILX only).
	Safety thermal cut-out tripped. (ILX only).	Reset. In case of repeated trips contact customer service. (ILX only).
The “Overheat” indicator lights.	Over-temperature (ILH only).	Increase flow, check cold water temperature (ILH only).
	Dirt in tap or filter (ILH only).	Clean as necessary (ILH only).

Fault Finding (cont.)

Problem	Possible cause	Solution
The "Pressure" indicator lights, water remains cold.	Flow rate too low (ILX only).	Increase flow pressure (ILX only).
Water flow rate is less than expected.	Depends on the heater. Minimum dynamic water. pressure is below ·8 bar	Check technical specifications.
	Outlet fitting dirty or calcified.	Clean tap fitting or shower head.
	Filter dirty or calcified.	Clean or renew the filter.
	Unsuitable tap.	Contact customer service.
The hot water is not hot enough.	Electronics faulty (ILX only).	Reset fuse. In case of repeated failures, contact customer service (ILX only).
	Flow rate is too high (winter?).	Reduce the water flow slightly.
	Heating element defect.	Contact customer service.
Flow and temperature of the hot water varies.	The water pressure or the voltage is varying (ILH only).	Stabilise flow pressure, check supply voltage (ILH only).
Temperature and pressure vary.	Cold water is being added (ILX only).	Only hot water can be delivered to within one degree (ILX only).

Technical Support

If a fault in your appliance cannot be rectified with the aid of this table, please contact Zip Heaters who will either assist you directly or put you in touch with a service engineer in your area. Always specify the appliance model and serial numbers. Use this chart to record the number during installation.

*Model No.	*Serial No.	Date of Installation

Zip Heaters (UK) Ltd

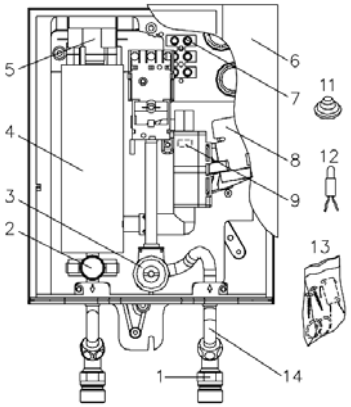
Tel: 0870 608 8888 Fax: 01362 692448

e-mail: service@zipheaters.co.uk

Spare Parts

ILH *Layout of appliance and spare parts*

When ordering, please always specify the appliance model and serial number!



Item Description

1 ½" b.s.p. connector
2 Temperature monitor
3 Flow valve with filter
4 Heating element
5 Safety thermal cut-out
6 Appliance front cover
7 Connection terminal
8 Differential pressure switch
9 Flow reducer
11 Cable seal
12 Pilot lamps
13 Set of small spare parts (Washers, filter, screws and micro-switch)
14 Cold water inlet

ILX

Item Description

1 ½" b.s.p. connector
2 Flow rate adjustment with filter
3 Heating element
4 Display panel
5 Safety thermal cut-out (STB)
6 Appliance front cover
7 Connection terminal
8 Electronic board
9 Flow sensor
10 Cold water inlet
11 Cable seal
12 Set of small spare parts (Washers, filter, screws and micro-switch)