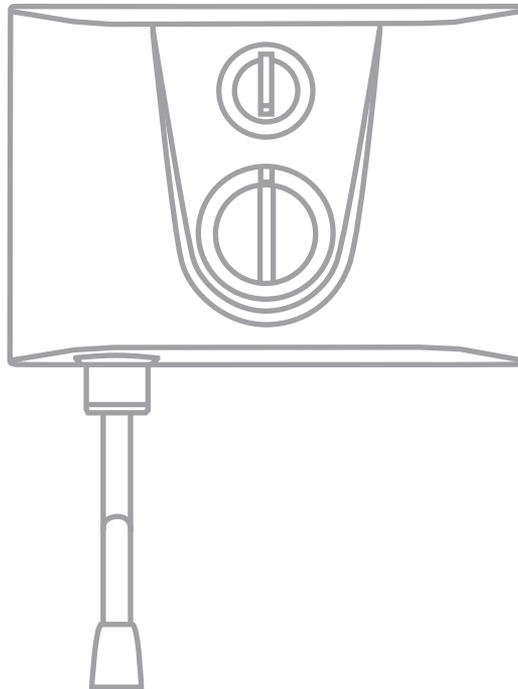




Product Instruction Manual

# Wave



**HW30A & HW30M**  
3kW Instantaneous Hand Wash unit

Thank you for purchasing a Hyco Wave hand wash unit. The Wave offers an indefinite supply of hot water thanks to its instantaneous operation. Without the standing losses associated with storage type heaters, the unit is a very energy efficient solution for light hand washing at a single basin. The Wave is available in two models; the HW30A operates automatically via an infra-red sensor and the HW30M is operated manually via a rotating knob on the front of the unit. Please read and understand these instructions before commencing installation and leave them with the user when installation is complete.

## **1. Important safety points**

- Electrical installation must be carried out by a qualified electrician in accordance with the latest edition of the IEE wiring regulations.
- This appliance must be earthed.
- Means for electrical disconnection must be incorporated into the fixed wiring in accordance with the wiring rules.
- This appliance is intended as an open outlet heater. Only use the spout supplied with the unit and do not attempt to modify the spout or the spray head in any way.
- The spray head must be descaled regularly to ensure it remains unimpeded and free from debris and to avoid a pressure build up.
- This appliance incorporated a safety relief valve ; do not attempt to modify this in anyway.
- Do not switch on if there is a possibility that the water in the heater is frozen.
- Do not use the appliance in an ambient temperature exceeding 30°C.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

## 2. Installation

### Wall Mounting

Select a suitable location for the final positioning of the heater, ensuring the spray will discharge into a suitable basin/sink during use.

To mount the heater first remove the front cover by unscrewing the two pairs of screws located at the top and bottom of the heater.

With the cover removed and the mounting position determined, offer the unit to the wall. Ensure the unit is level (a spirit level is recommended) and mark the two key hole slots onto the final location surface.

- Always ensure there are no hidden cables or pipes before commencement of drilling.
- Two cable entry points are available on the heater. If a concealed cable is required to enter through the back of the product the knock out section on the back plate should be removed to allow cable entry.

Drill the two holes marked in the previous step and insert the wall plugs provided. Offer up the unit and locate the two screws into the two holes drilled. Screw down until the heater is firmly fixed to the wall.

## Plumbing

Final connection to the water supply should be made by 15mm copper pipe compression fitting to the cold (right hand) inlet side of the heater.



Do not carry out soldering close to the heater as heat transfer can cause damage to the unit.



Fit an isolation valve close to the unit, this will aide necessary maintenance.

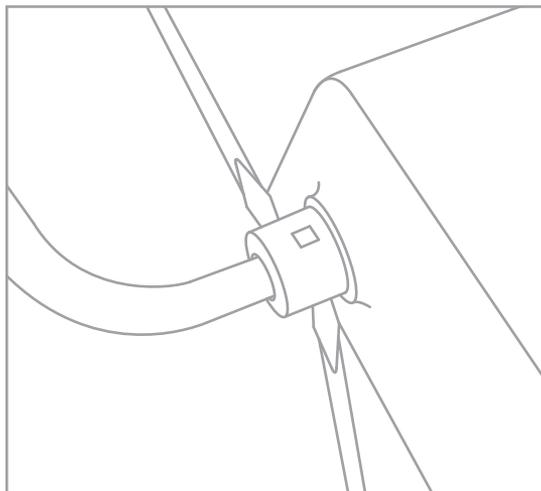


Before final connection of the water supply to the heater, ensure any debris such as loose solder is flushed from the system.



Do not use jointing compound for the plumbing connections of the heater.

To fit the spout push in onto the hot water outlet, ensuring the retaining lugs locate and click into position. To remove the spout gently prise the retaining lugs apart with a pair of part screwdrivers and separate the spout from the heater.



## Electrical

- A cable with a minimum size of 1.5mm<sup>2</sup> should be used for the fixed wiring of the heater.
- Electrical supply should be capable of isolation via double poled switch rated for 13 amps.
- The heater must be earthed.

Select the entry point for the cable; this can be via the concealed entry point in the back plate or through the cable exit at the bottom right of the heater.

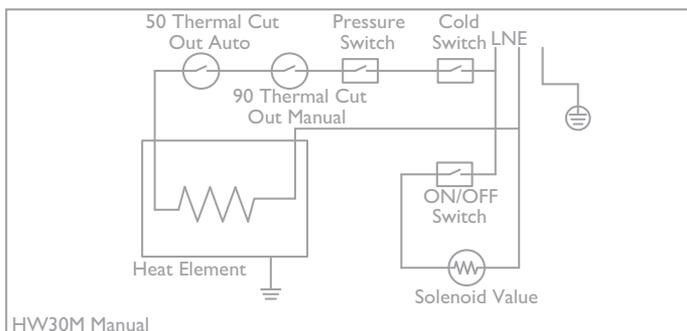
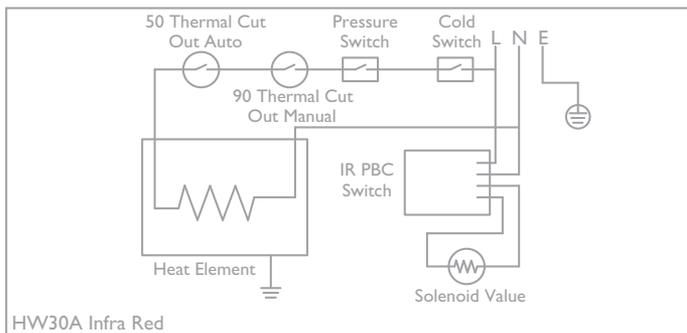
- When using the bottom right cable entry point the cable grip located directly below the terminal block must be used.

Earth cable to the terminal marked "E" (earth symbol)

Neutral cable to the terminal marked "N"

Live cable to the terminal marked "L"

Wiring diagrams are as follows:



## Replacing the cover

- Ensure the internal low valve is in the fully closed position (turned clockwise as far as it will go).
- When the cover is replaced ensure that the temperature/low control knob on the front cover indicates that the valve is closed. This ensures there is the correct correspondence between the external indication of the valve state (open/closed) as seen by the user and the true physical state of the valve (open/closed).
- Gently engage the temperature/flow control knob on to the valve spindle as you replace the cover. Check that the valve will now operate fully in both directions.
- The manual unit HW30M also features a linking rod that connects the on/off switch with the on/off control knob. The linking rod has a “D” cross section that ensure it will only connect with the rod in the correct orientation.
- Replace the two pairs of screws on the top and bottom of the unit.

### 3. Operation

#### Commissioning Mode



On first use the commissioning sequence must be followed to prevent dry operation of the element.

Turn on the water supply to the unit.

Turn the temperature/flow control knob on the front of the unit "fully" clockwise to the commissioning setting (°C). This disables the heating element.

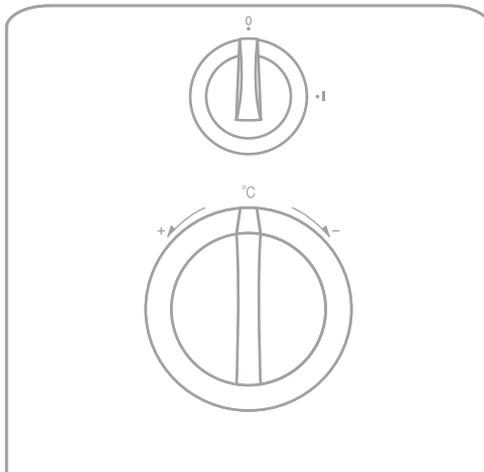
Turn on the electrical supply and activate the water flow:

(a) For the automatic unit place your hand close to the circular IR window.

(b) For the manual model turn the power switch clockwise to the 'ON' position (ON = 1, OFF = 0)

Allow the water to flow through the unit until a smooth spray is achieved from the spout for several seconds.

This completes the commissioning cycle. It must be repeated if the tank is ever drained.



## **Normal Operation**

- **Manual Model**

Turn on the power to the heater via the top on/off knob. Adjust the temperature selection knob until the desired temperature is achieved. When hand washing is complete turn off the power to the unit.

- **Automatic Model**

Turn on by placing the hand near the red Infra-Red window.

Adjust the temperature selection dial until the desired temperature is achieved.

The automatic unit will deliver a timed flow of water for about 30 seconds or until the unit is switched off by a repeated hand gesture.

## **Water Temperatures**

The Wave hand wash unit is an instantaneous water heater consuming a fixed 2840 kW of power. This power will raise the temperature of the incoming water by an amount that reflects the flow rate – a low water flow results in a relatively high temperature uplift and a high flow results in a relatively low uplift.

The delivered temperature = the incoming water temperature + the uplift.

Therefore in winter when incoming water temperatures drop the flow rate will need to be reduced to maintain the same delivered water temperature.

## **4. Maintenance**

### **Descaling the Spray Head**

The spray head will require de-scaling from time to time; failure to do so could result in an internal pressure build-up.

To carry out de-scaling of the spray head, unscrew the central screw in the sprayhead and remove any solid debris under a running tap. To remove stubborn scale it may be necessary to use a suitable hard brush or to soak the parts in a proprietary de-scaler solution (available in eg supermarkets).

### **Cleaning**

Wipe surfaces with a damp (not wet) clean cloth. Do not use abrasive compounds.

## Safety Features

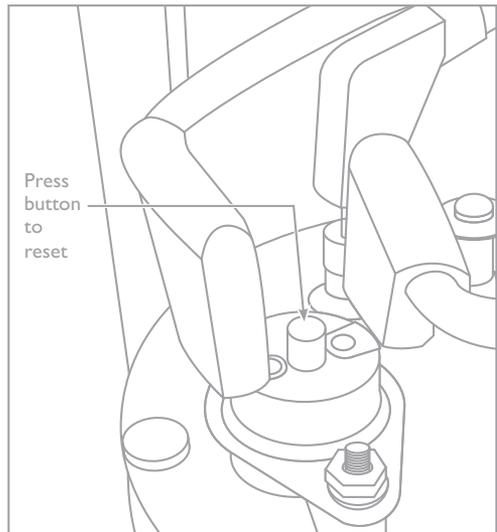
The Wave hand wash unit is fitted with two levels of thermal protection, the first is a self-resetting cut-out that will operate at 60°C and the second is a manual resettable cut-out that operates at 90°C.

- **Automatic Thermal Cut-out**

If the automatic resettable cut-out operates the element will not operate until the water cools back down below around 30°C. Allowing the water to flow for several seconds will achieve this. If the problem persists then adjust the temperature down using the temperature selection control.

- **Manual Reset Thermal Cut-out**

If the manual reset thermal cut-out operates the unit will cease to heat and will not reset automatically. To perform a manual reset it is necessary to remove the front cover in order to access the reset button.



Do not attempt to reset the manual cut-out unless the power has been isolated from the unit.

Once the cover is removed the manual reset thermal cut-out can be reset with a push of the button.



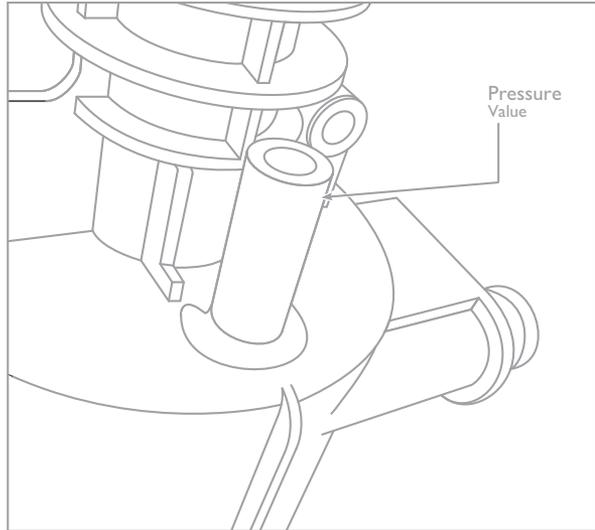
In the case of a manual reset event, the cause should be established before continuing usage. A low flow or obstruction in the spray head is the most likely cause and this problem should be rectified prior to re-using the heater. If in doubt contact Hyco technical support on 01924 225215.

## Pressure Relief Valve

The Wave hand wash unit also incorporates a pressure relief valve.

In the event of an over pressure event a small silicone ball will be expelled from the unit which will allow the unit to release the pressure build up.

If the valve does operate the reason for the discharge should be established and rectified and then the complete valve should be replaced. The valve is a small cylinder held in position by a circlip at the base of the tank.



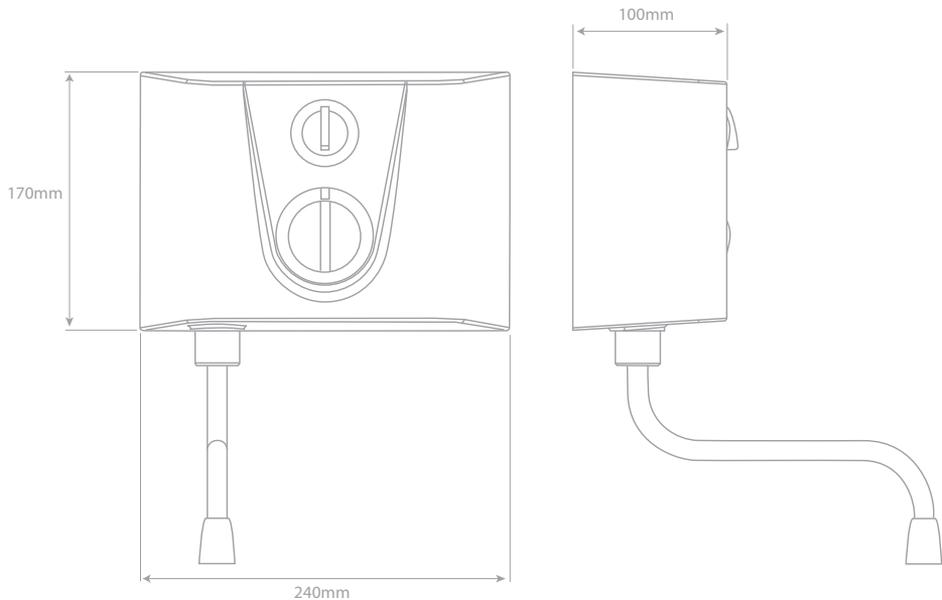
The replacement process is as follows:

- Isolate the unit from the power.
- Isolate the water supply from the unit.

Unscrew the tank, the flow valve and the solenoid valve from the back plate and separate the tank from the flow valve. Remove the element. Remove the circlip and tap the valve lightly from the outside of the tank to separate the valve from the tank. Replace the valve with a new one (available from Hyco) and reverse process to re-assemble.

## 5. Specifications

MODEL	Hand Wash Automatic (HW30A)	Hand Wash Manual (HW30M)
Power Consumption	230V~ 2840W	230V~ 2840W
Maximum Inlet Pressure	0.6 Mpa	0.6 Mpa
Minimum Pressure	0.1 Mpa	0.1 Mpa
Temperature Protection	60°C auto	60°C auto
	90°C manual	90°C manual
Maxim Ambient Temperature	30°C	30°C





INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT IN ACCORDANCE WITH THE EUROPEAN DIRECTIVE 2002/96/E.

At the end of its working life this equipment must not be disposed of as household waste. It must be taken to a local authority waste collection centre or to a dealer providing this service. Disposing of electrical and electronic equipment separately enables its components to be recovered and recycled to obtain significant savings in energy and resources. In order to underline the duty to dispose of this equipment separately, the product is marked with a crossed out dustbin.

## 6. Guarantee and service policy

This product is guaranteed against faulty materials and manufacture for a period of one year from the date of purchase. Hyco will in its sole discretion replace, repair or refund any faulty unit. Incorrect installation and failure to follow correct operating instructions are excluded. Consequential costs such as labour charges or damage to surroundings are expressly excluded.

Hyco Manufacturing Ltd  
Normandy Court  
Express Way  
Castleford, WF10 5NR

T 01924 225 200  
F 01924 225 210  
E [sales@hyco.co.uk](mailto:sales@hyco.co.uk)



2 6 4 4

[hyco.co.uk](http://hyco.co.uk)