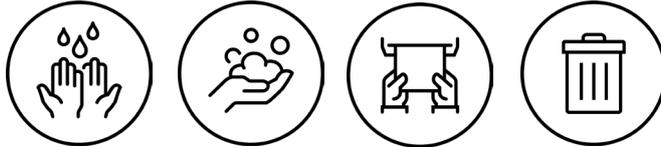
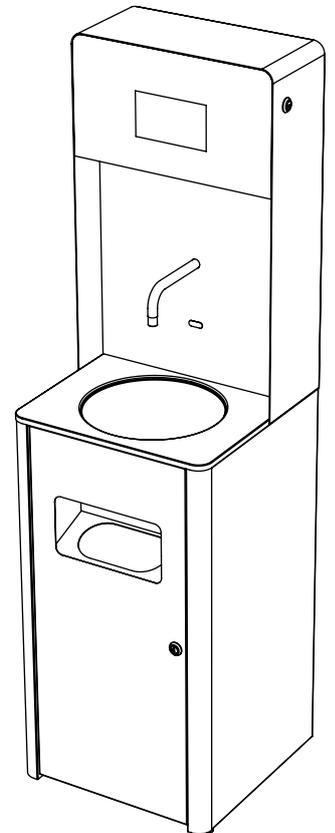


# Install & Operation Manual



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## Introduction

The Z1 model is a free standing hand wash station, available in the following operational types:

- Plumbed in (POU)
- Manual Fill

### Models

The Z1 model is a self-contained machine with a robust stainless steel frame cabinet and an attractive white acrylic with optiguard hygiene front and corian worktop. A 13Amp UK power lead is supplied for connection to the socket located at the rear of all models.

Ambient water is fed into the unit under mains pressure. The water is heated to a warm outlet temperature at the tap and dispenses via an infra-red proximity sensor. The water temperature is thermostatically controlled via the adjustment knob on the heater thermostat at the back of the unit. This is factory set and it is not necessary to adjust in most cases (see Controls).

For the manual fill option stored water from the storage tank is pumped into the system.

This handwash unit is manufactured to the highest standards and has been designed to meet all the latest relevant safety specifications. Please read and understand these instructions before starting work. Please leave these instructions with the user following installation. This unit must be installed by a qualified technician. The company will not be held liable for damages caused by incorrect installation and/or the failure to comply with the instructions contained in this manual. Please read and understand these instructions prior to installing your hand washing station. Particular attention should be paid to the section headed installation

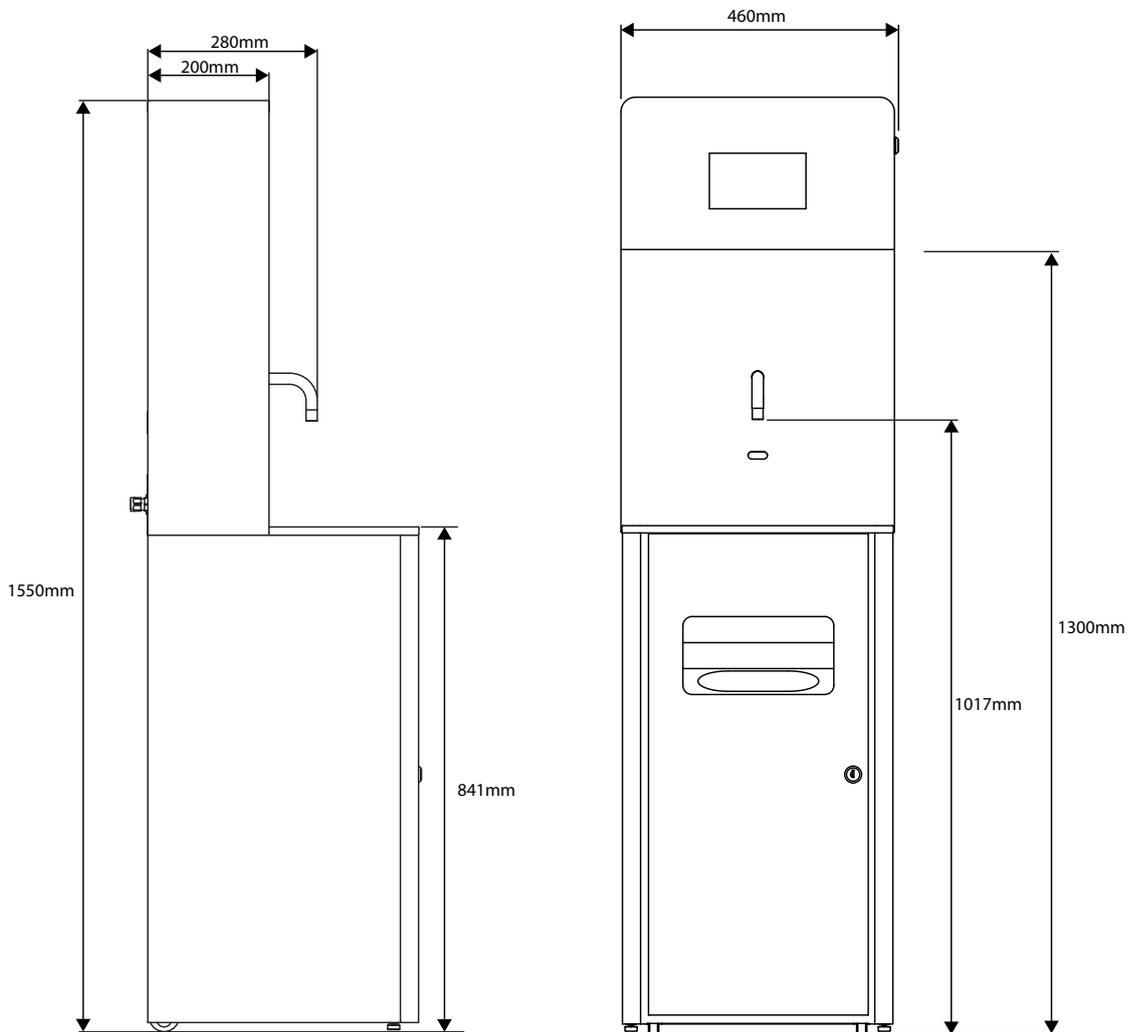
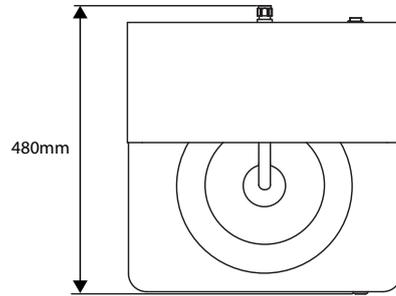
**This appliance can be used by children aged from 8 years and above and persons with reduced physical sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.**

**Children must be supervised to ensure they do not play with the appliance.**

**The spray head must be de-scaled regularly.**

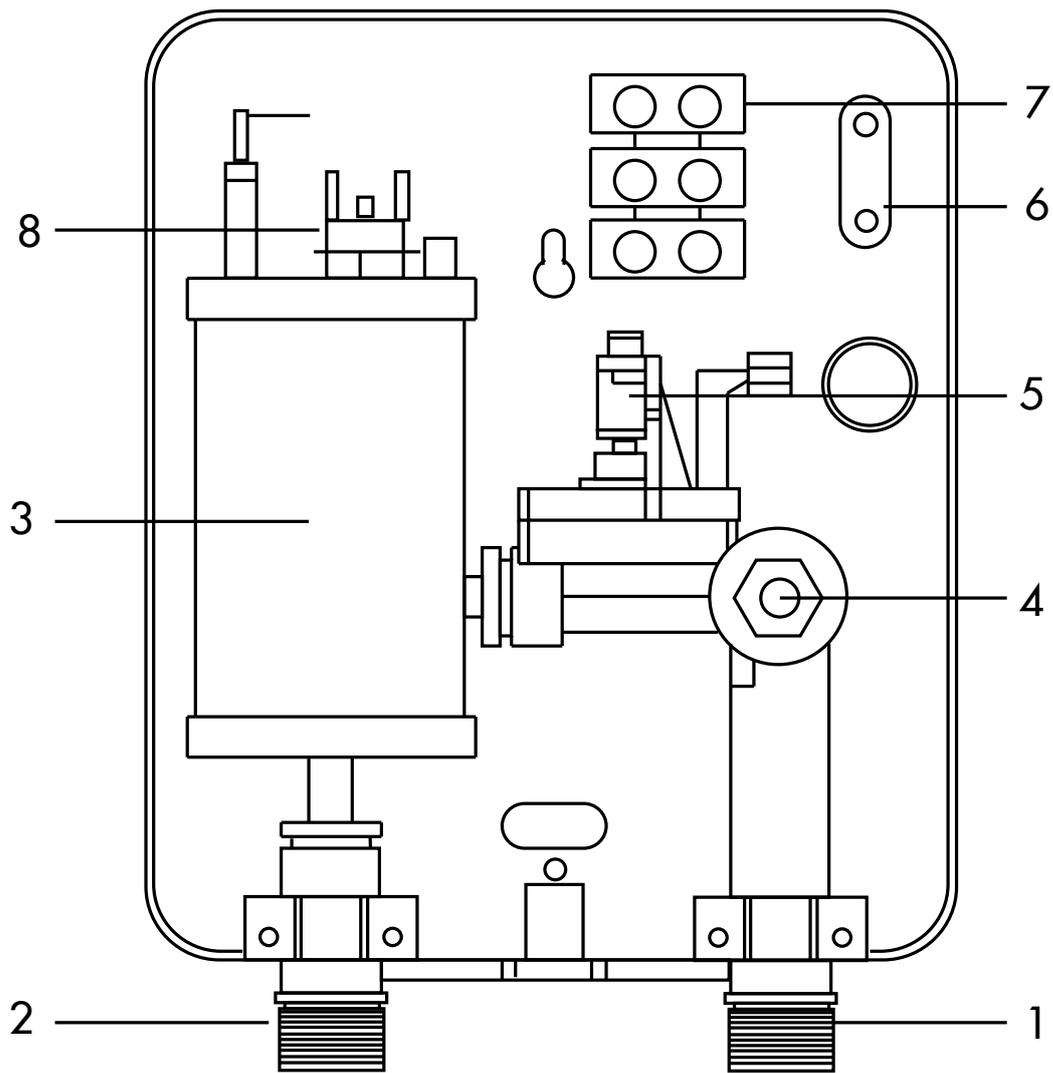
**WARNING: Do not switch on if there is a possibility that the water in the heater is frozen.**

# Technical Specification



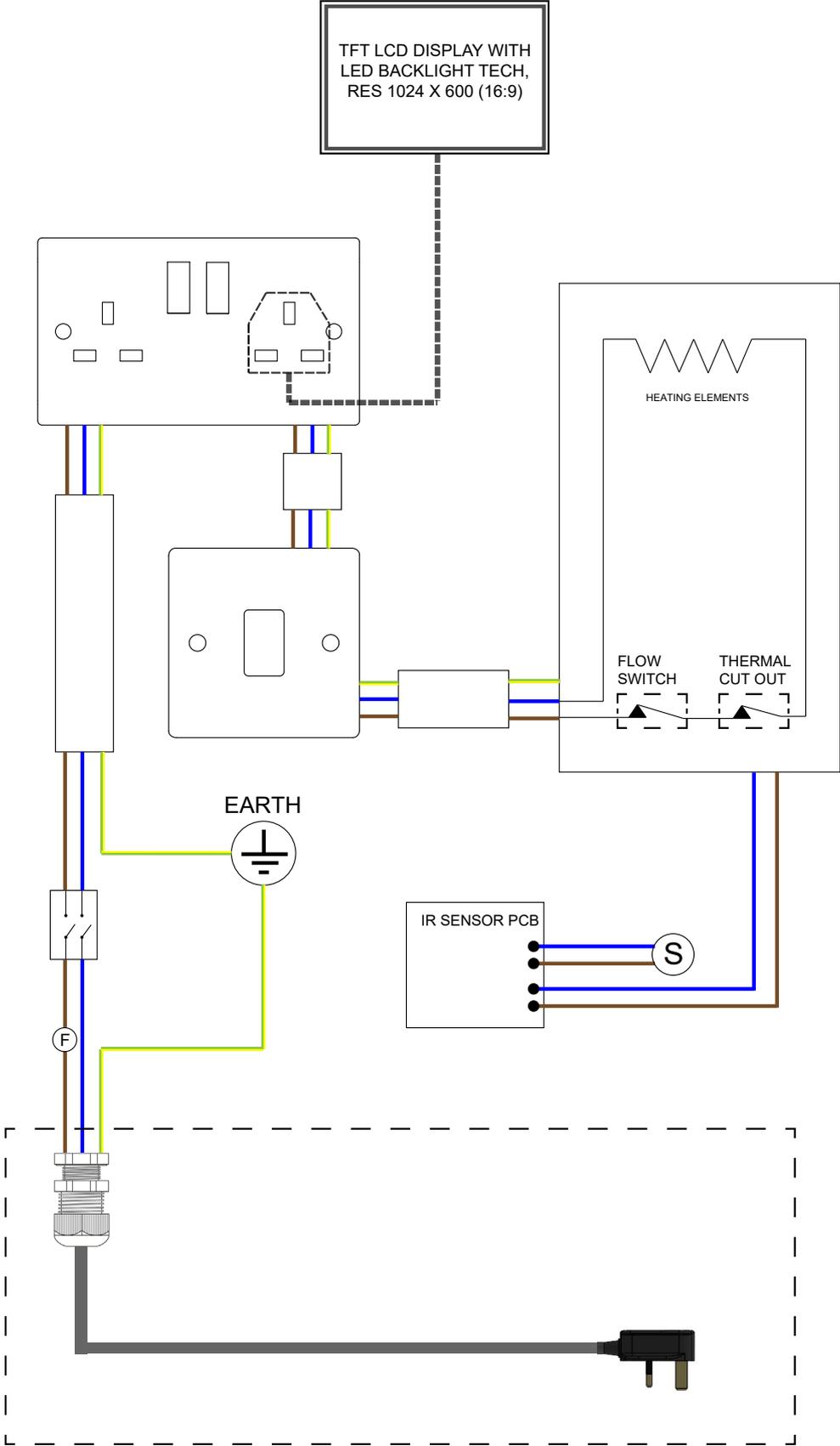
# Instantaneous Heater Technical Information

Power	2605 ~ 3100W
Voltage	220 ~ 240V
Current	11.8 ~ 12.9A
Rated pressure	0 Pa
Water pressure	1 ~ 7bar (0.1 ~ 0.7MPa)
Water connection	1/2" BSP male
IP Code	IPX1
ErP Band	A
Load Profile	XXS
AEC	509.3kWh



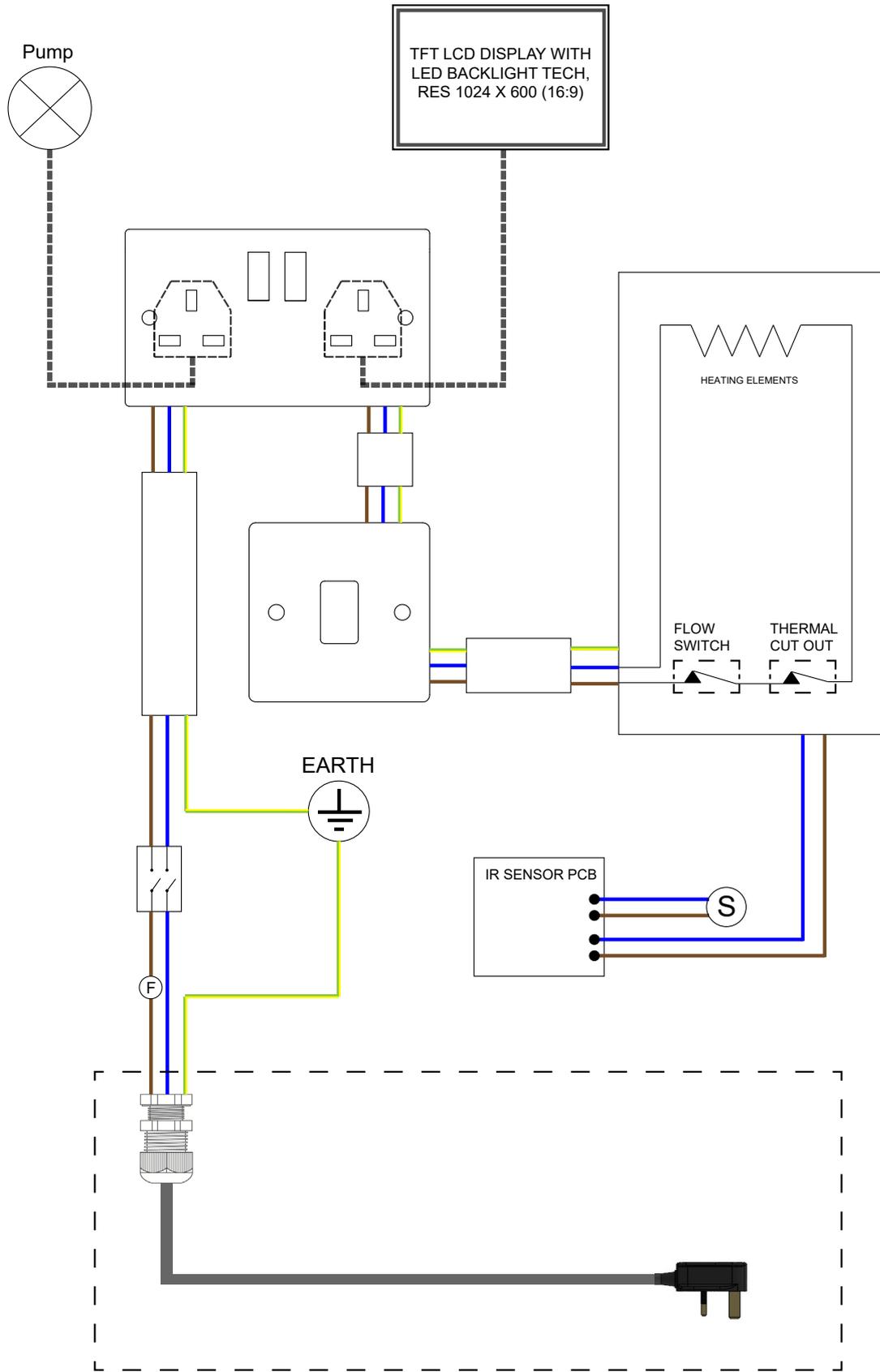
1	INLET	5	FLOW SWITCH
2	OUTLET	6	CABLE CLAMP
3	WATER CONTAINER ASSEMBLY	7	MAIN CONNECTOR BLOCK
4	FLOW VALVE (To close: turn clockwise)	8	THERMAL CUT OUT

# Electrical Circuit Diagram



Plumbed in version

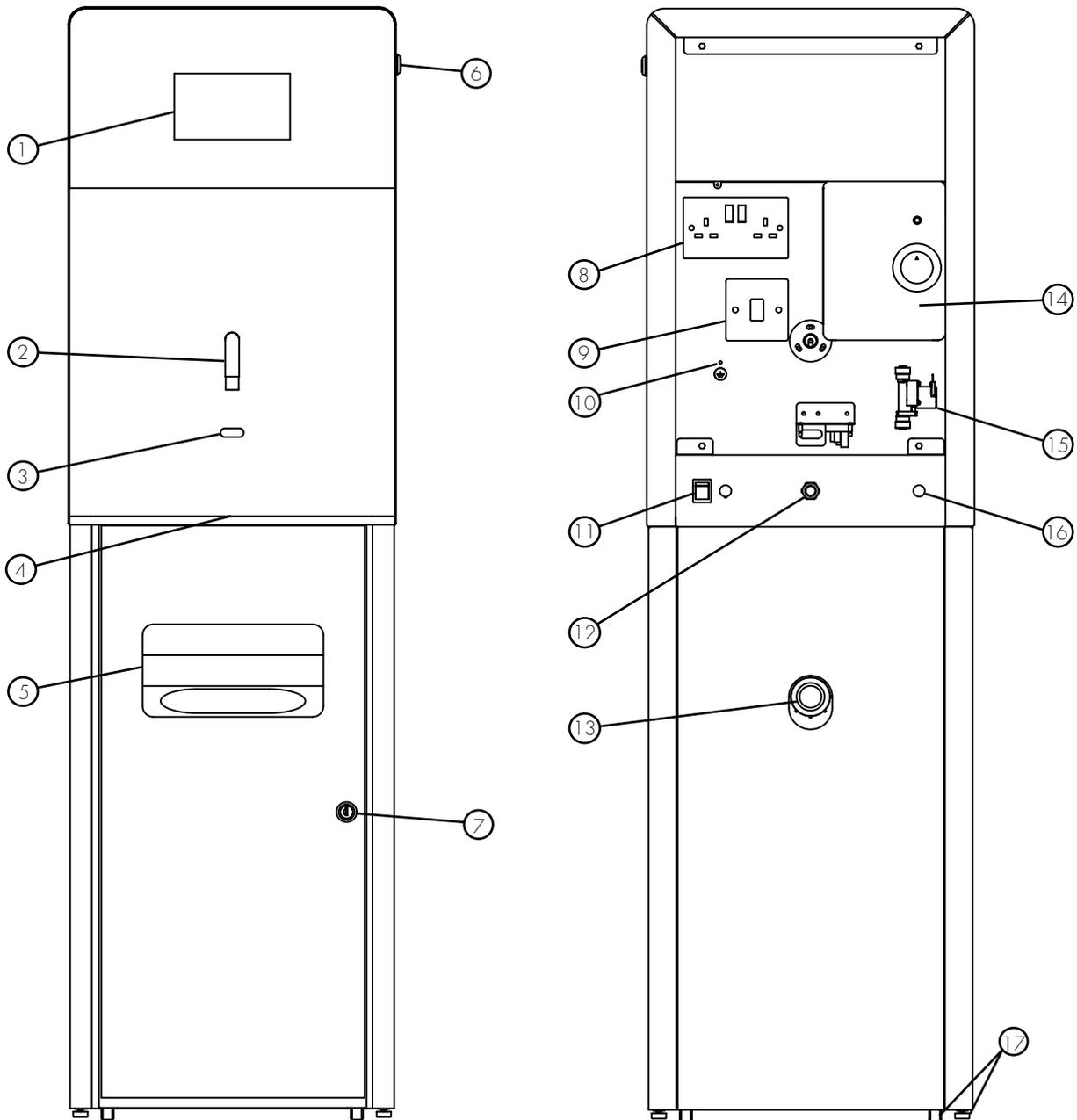
# Electrical Circuit Diagram



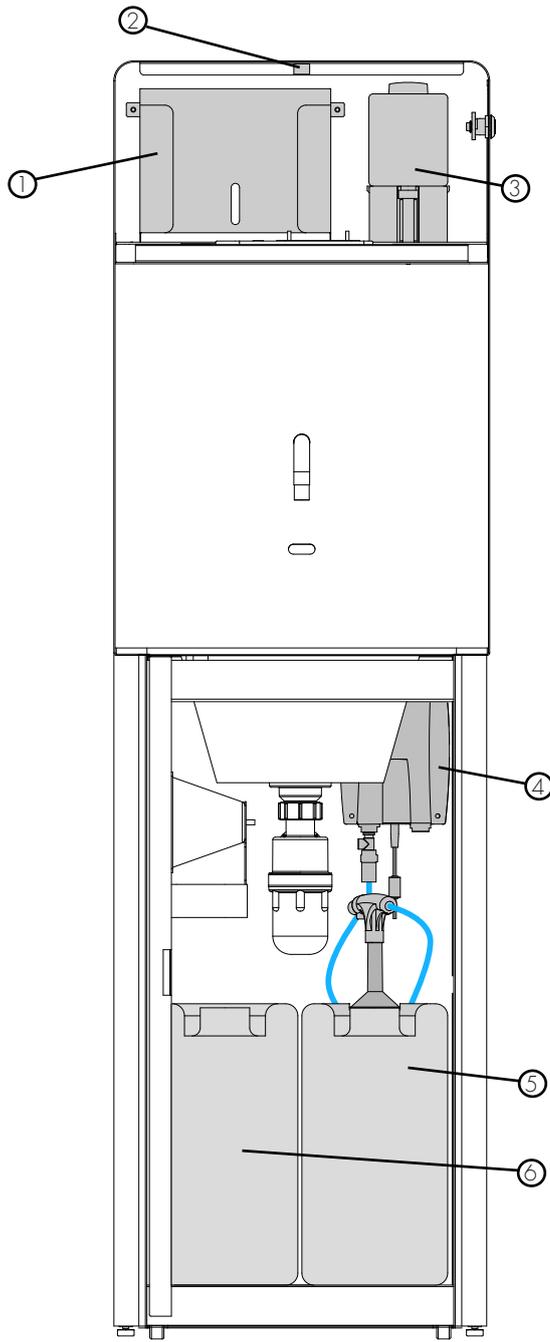
Manual fill option

# Installation

## Major Components



1	LCD SCREEN	10	EARTH
2	DISPENSE TAP	11	POWER SWITCH
3	IR SENSOR	12	MAINS CABLE GLAND
4	SINK	13	SINK WASTE
5	PAPER TOWEL BIN	14	WATER HEATER
6	TOP DOOR LOCK	15	SOLENOID VALVE
7	LOWER DOOR LOCK	16	MAINS WATER IN (Plumbed in version)
8	DOUBLE SOCKET	17	MOUNTING FEET AND WHEELS
9	FUSED SPUR		

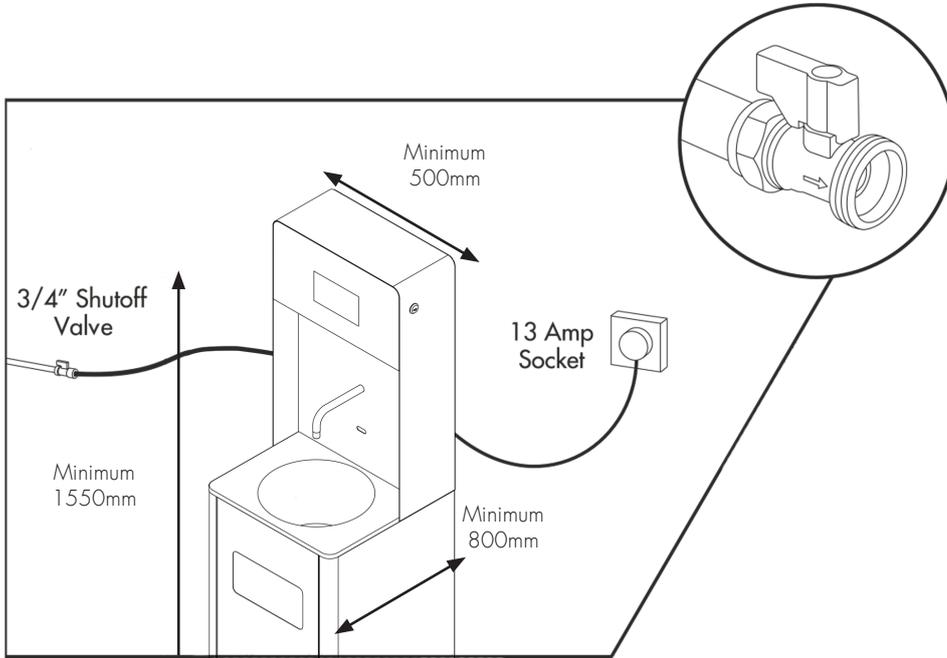


Manual fill option shown

1	PAPER TOWEL HOLDER
2	TOP DOOR PUSH LATCH
3	SOAP DISPENSER
4	PUMP (MANUAL FILL ONLY)
5	WATER STORAGE TANK (MANUAL FILL ONLY)
6	WASTE STORAGE TANK (MANUAL FILL ONLY)

## Before Installation

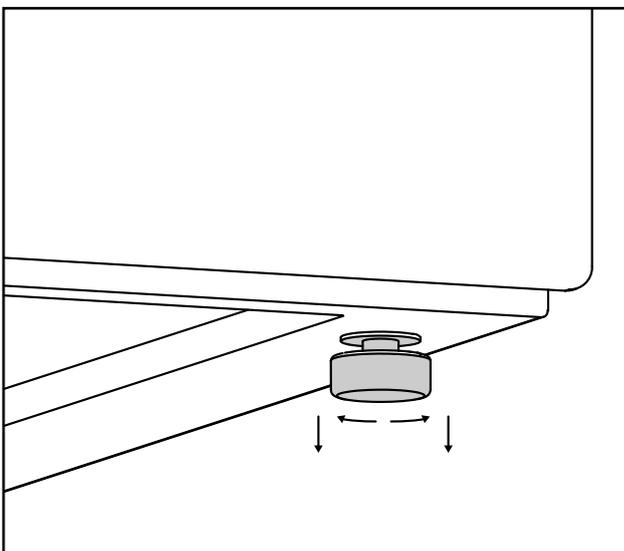
Before installation allow adequate space to install the appliance. Ensure the services are in place prior to installation.



## Mounting

The Z1 is a free standing model designed to fit in any space where there is a nearby power socket and water supply (manual fill version available if required).

There are two wheels at the rear to move the unit around easily. Ensure the feet are in the nesting positions. The Door Panel is hinged and fastened with a locking latch to the right hand side. The cabinet can be levelled using the adjustable feet. Service entry is at the back of the machine.



## General Safety

### Instantaneous Water Heater

Products manufactured are in accordance to International Standards; IEC 60335-1. These appliances are safe and without risk, provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.

Please read and understand these instructions before starting work and retain them for later use.

DO NOT operate the appliance if it is without water.

These heaters are of the opened outlet type (0 rated pressure) and are suitable for connection to normal cold water mains supplies up to a maximum of 0.7MPa (7bar).

DO NOT operate the appliance if:

- Water ceases to flow during use.
- Water has entered inside the unit because of an incorrectly fitted cover.
- If the appliance is damaged.

In all the above cases turn off mains power and isolate water supply.

ISOLATE the electrical and water supplies before removing the cover.

ISOLATE the electrical and water supplies BEFORE proceeding with installation or servicing.

## CAUTION

**It is recommended that persons who may have difficulty understanding or operating the controls should not be left unattended whilst using the appliance. Special consideration should be given to young children and persons with reduced physical, sensory, or mental capabilities.**

## Water and Electrical Connection

### Plumbing

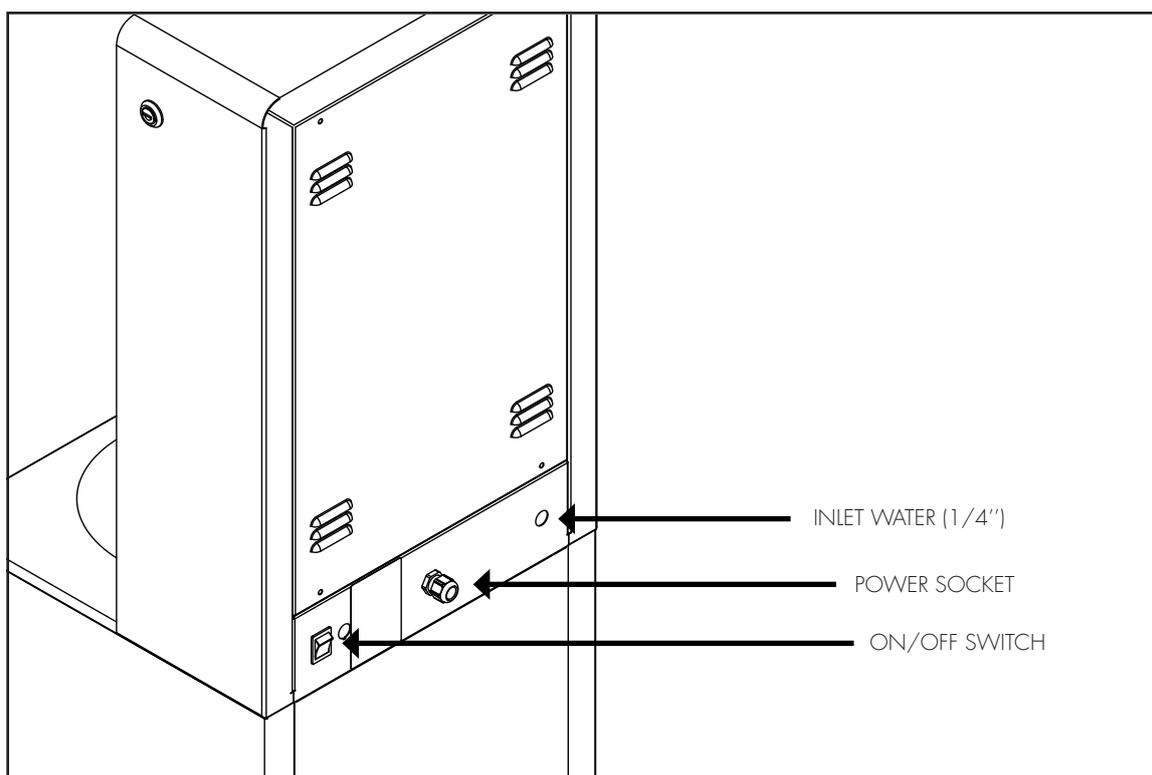
NOTE: The installation must be in accordance with Water Regulations. To ensure activation of the heating elements, the handwash must be connected to a mains water supply with a minimum running pressure of 0.1 MPa (1 bar) and a maximum static pressure of 0.7 MPa (7 bar). If static pressure exceeds 0.7 MPa (7 bar) fit a pressure reducing valve to avoid damaging the product. If in doubt, the pressure should be checked taking account of other services from the same water supply which could cause the pressure to fall below the minimum. The water supply can also be taken from a cold water storage cistern provided there is a minimum head of 10m above the product.

All plumbing connections must be completed and checked for leaks before making the electrical connections.

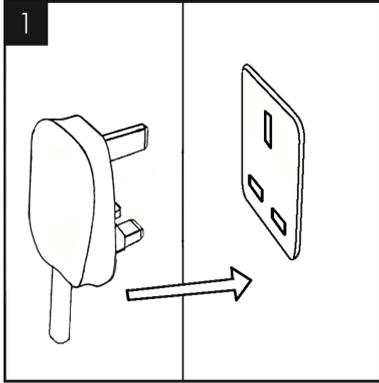
### Electrical

CAUTION: In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility. All electrical work must comply with national and applicable state and local electrical codes. Before fitting the appliance, ensure that the consumer unit and any switches are suitable for the additional load.

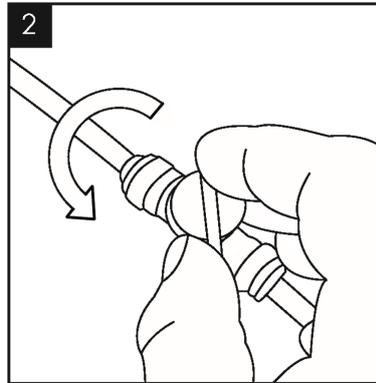
Failure to comply with this will invalidate your warranty.



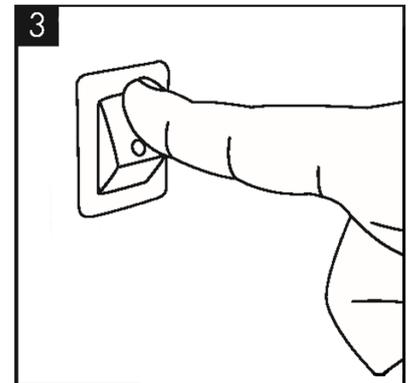
## Commissioning



1  
Plug in to the nearest socket ensuring the cable is not under tension.



2  
Turn on the water supply



3  
Power on the unit.

The instantaneous heater plastic cover must be fitted before the unit is turned on. Turn on main switch to bring electrical power to the unit.

Open the isolating stop valve for a few minutes. To purge the unit you must then open the tap via the infrared proximity sensor until water flow is continuous and all air is purged from water pipes.

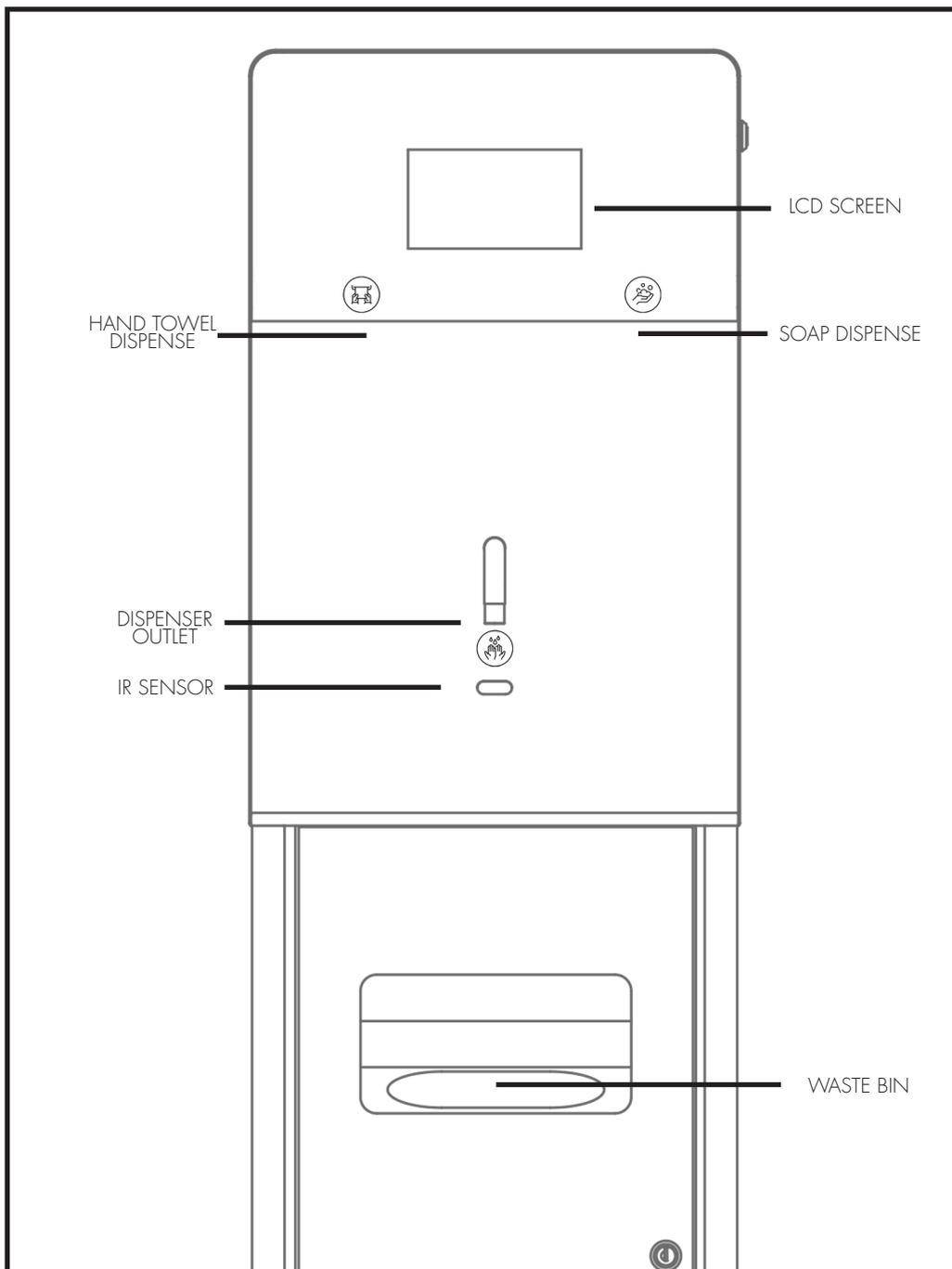
# User Instructions

## Operation

The Z1 is a touchless operation unit. There is a LCD Screen to guide you through the correct steps to take.

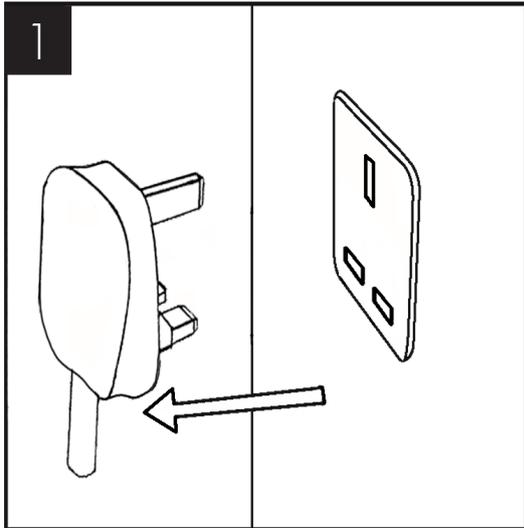
Firstly place your hands under the tap to start dispensing warm water. Then place your hand to the right side to dispense soap. Once finished wipe dry your hands with the paper towels located below the sink area and then dispose of them in the waste bin.

## Function and Controls

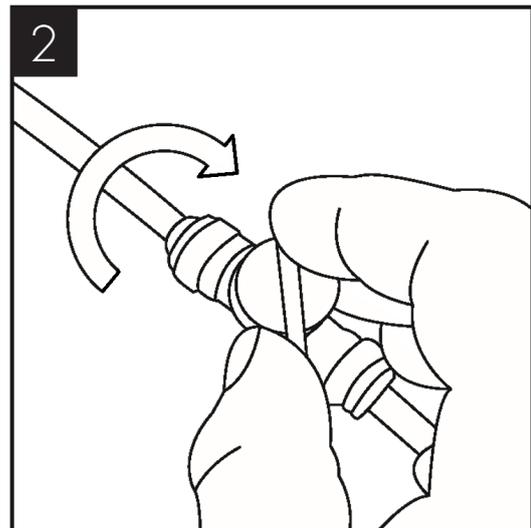


# Maintenance

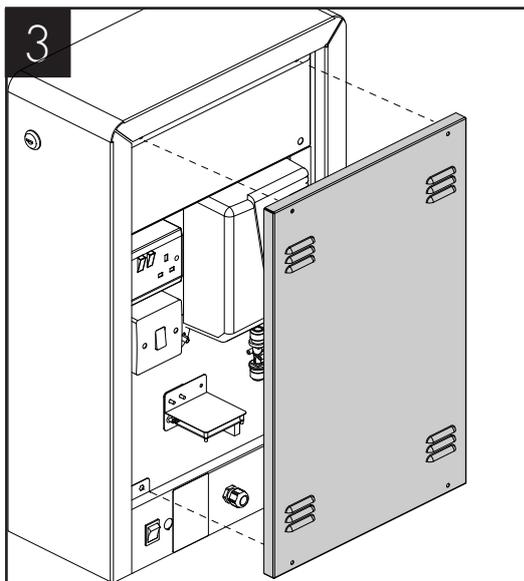
Isolation and removal of rear panel



Turn off the unit and remove the plug .



Turn off the water supply



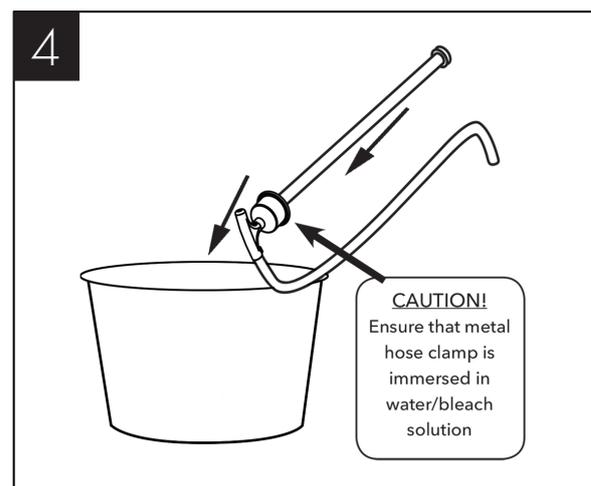
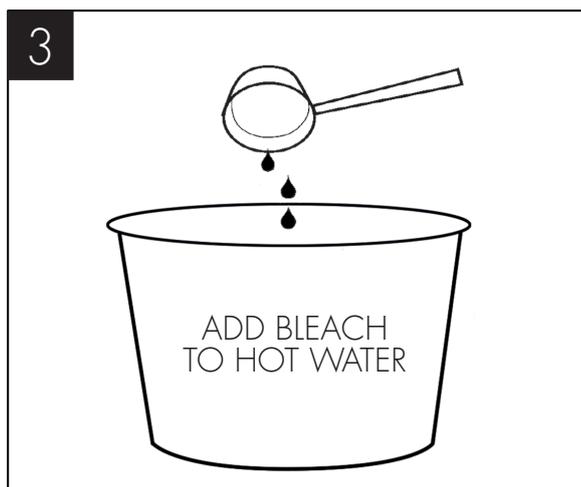
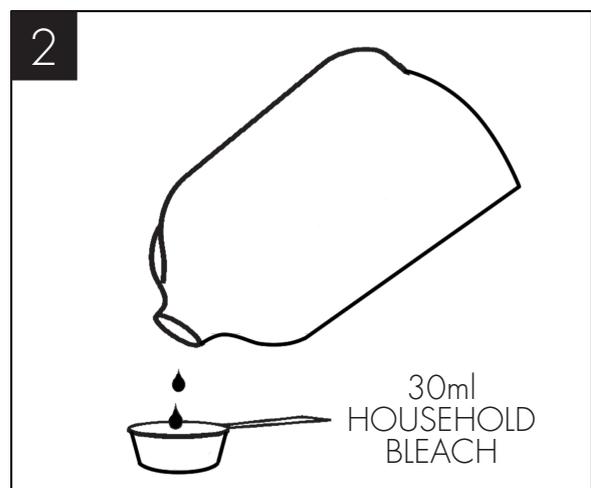
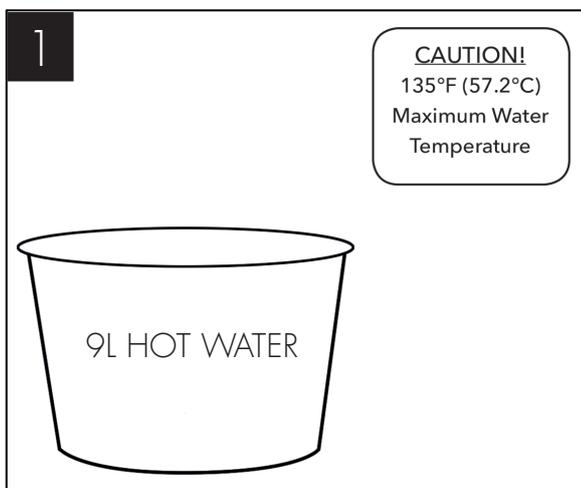
Remove the 4 rear fixing screws and remove rear panel to access components.

## Maintenance and Sanitation

### Equipment Required:

- 2 x 10L Buckets
- 1 x Roll of Paper Towels
- 1 x Small Container of Household Bleach
- Gloves / Glasses

Warning: Use the correct strength of bleach.  
If too much is used then there could be taste issues.



## Clean In-Place Procedure

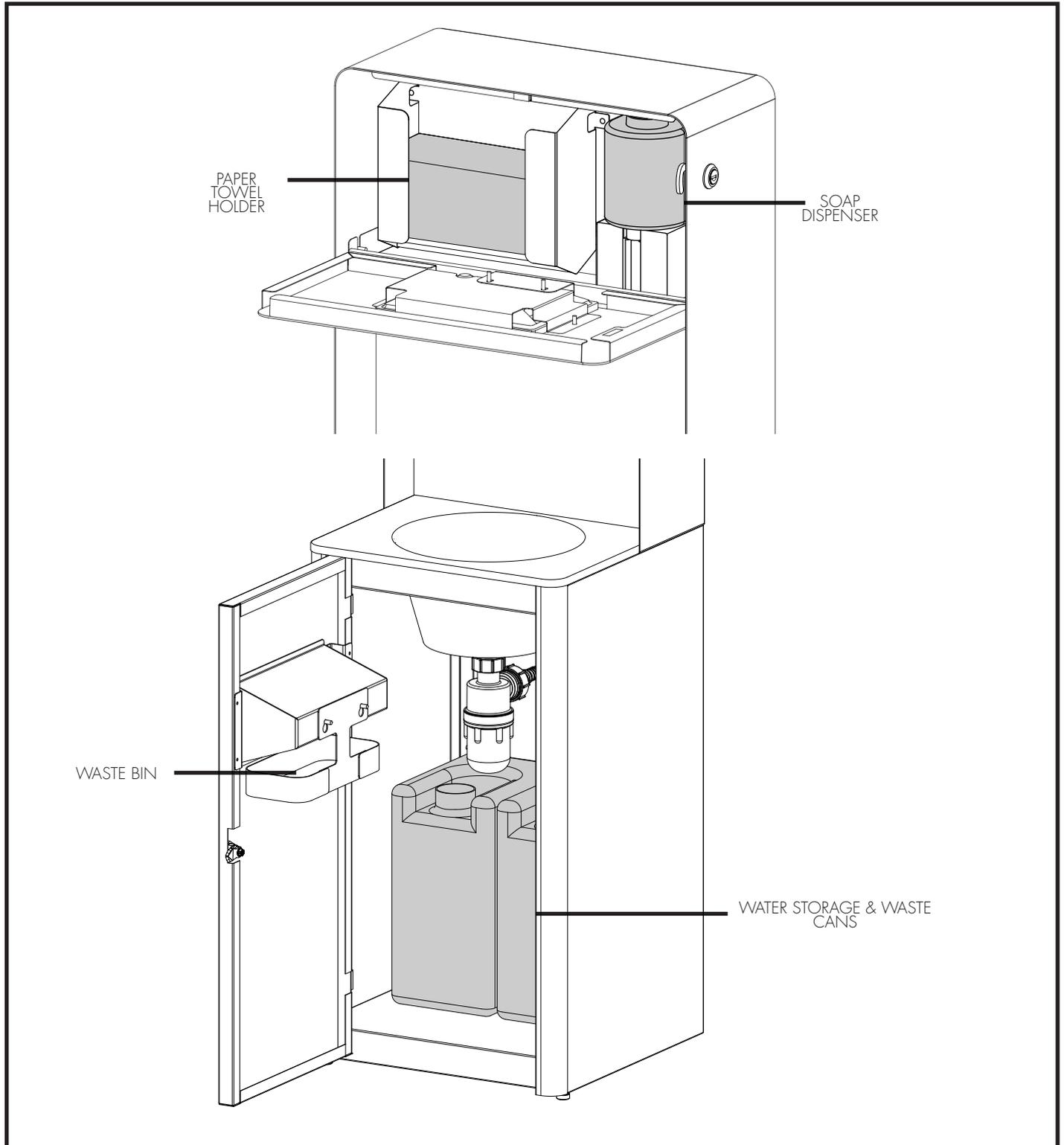
1. Sanitize unit before first use. Using the on/off switch on the front of the enclosure, turn Bottled Water Dispensing System off by putting the switch in the off position.
2. Cleaning should be performed at least six times per year. System should be cleaned and flushed with fresh water if stagnant for more than 48 hours.
3. Fill a clean bucket (A) with 9L of hot tap water (55°C), adding 30ml of household bleach.
4. Remove the suction wand from the pure water bottle and submerge the bottle cap end into bucket (A), taking care to ensure that the metal hose clamp connecting the hose to the suction wand(s) is/are totally immersed in the water/bleach solution, for ten minutes and then wash underside of cap and suction tube exterior with a clean paper towel. If using the optional Flojet faucet, disconnect the tubing. Remove the faucet, immersing it in the water/bleach solution for ten minutes. Wash the faucet exterior with clean paper towel; install the faucet and reconnect the tubing. Place suction wand into clean empty bucket (B) and dispose of solution in bucket (A).
5. Refill the cleaned bucket (A) with 9L of hot tap water (55°C) adding 30ml of household bleach and place suction wand(s) into bucket with bottle cap up.
6. Disconnect the discharge tube from the faucet or the refrigerator and place into the empty second bucket (B). (Do not use bucket with clean water and chlorine solution).
7. Turn dispensing system on, by placing on/off switch in the on position and dispense all of the chlorine solution into bucket (B). Place discharge tube into bucket (A) and dispose of bleach, and rinse bucket (B). Replace tube into bucket (B).
8. Refill bucket (A) with 9L of hot tap water (55°C), adding 30ml of household bleach. Dispense bleach as in step #6.
9. Reinstall suction wand(s) into new bottle(s) of pure water and reconnect discharge tube into refrigerator or faucet and dispense 350ml to 550ml of water, or until bleach taste is removed.

## CAUTION

**Do not place Bottled Water Dispensing System into a dishwasher as it will cause electrical failure of pump and controls.**

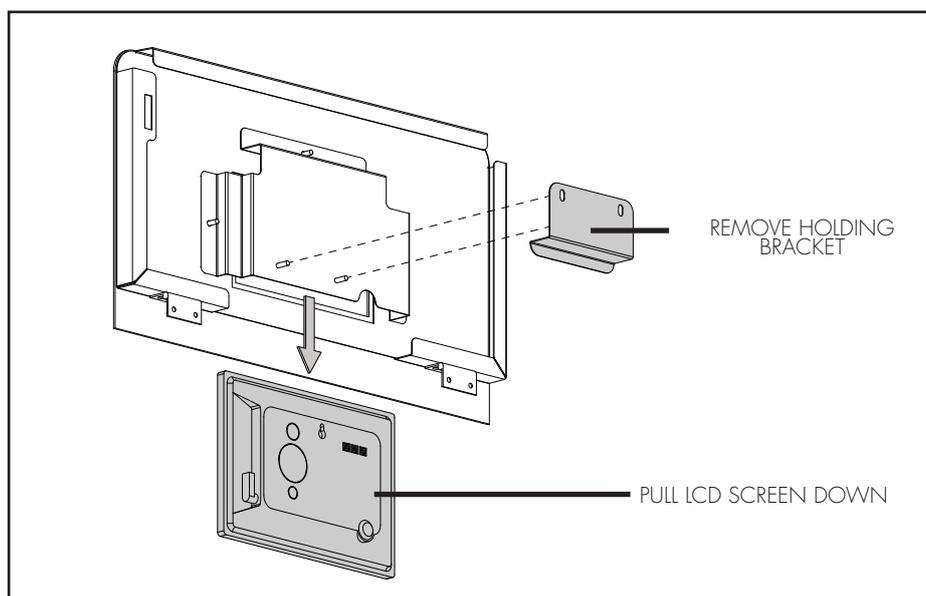
## Restocking the Z1 Unit

The Z1 has been designed so it can be quickly and easily refilled. To do so unlock the front and top door (door lock latch to right hand side of unit) to gain access to the soap dispenser, paper towels, waste bin and storage and waste cans (manual version only).



## LCD Screen Display

The LCD video display is controlled by a SD card. For access remove the small holding bracket and the LCD screen will drop down, allowing access to the SD card reader.



## Instantaneous Water Heater

The handwash is designed for a very long service life. Actual life expectancy will vary with water quality and use. The unit itself does not require any regular maintenance. To ensure consistent water flow, it is recommended to periodically remove scale and dirt that may build up at spray head.

## John Guest Fittings

John Guest products generally require little maintenance but as a minimum we recommend routine visual inspection. Frequency of visual inspection will depend on severity of application and risk of failure. If after visual inspection John Guest products appear damaged, cracked, charred, discoloured, heat distorted or corroded they should be replaced. Any product that is or appears to be leaking should be replaced. Product life is affected by the severity of the application, the hostility of the working environment and contact with aggressive chemicals or liquids. It is therefore important that specific replacement intervals be considered by specifiers/users/customers based on previous service life or when failure could result in unacceptable downtime, damage or injury risk.

The external surfaces of John Guest products must not come into contact with oxidising or acidic cleaners and sanitising agents, for example (but not limited to) those below pH 4, high in sodium hypochlorite level (bleach) or containing hydrogen peroxide. Our plastic material suppliers recommend ECOLAB Oasis 133 as a suitable cleaner for the external surfaces of products manufactured by John Guest. Several different methods exist for sanitising the internal surfaces of fluid systems, including sodium hypochlorite, hydrogen peroxide, chlorine dioxide or ozone. It is entirely the responsibility of the end user to determine if the chosen method is suitable for use with John Guest products over the planned working life of the system. However, to avoid unnecessary early failure, John Guest requires that the disinfection solution must be immediately flushed out at all draw off points with fresh, wholesome water at the end of the disinfection period. The solution must not be left in the system. Disinfection solutions must only come into contact with the internal (fluid carrying) surfaces of the system. If any other surfaces of a fitting come into contact with disinfection solution the whole fitting must be replaced immediately. Polypropylene fittings offer greater resistance to aggressive chemicals than Acetal fittings but do not have the same mechanical properties. John Guest polypropylene fittings are generally designated by the part number prefix PP or PPM.

# Care and Maintenance of Stainless Steel

## Introduction

All grades of stainless steel will stain and discolour due to surface deposits and can never be accepted as completely maintenance free. In order to achieve maximum corrosion resistance the surface of the stainless steel must be kept clean. Provided the grade of stainless steel and the surface finish are correctly selected, and cleaning schedules carried out on a regular basis, good performance and long service life are assured.

## Factors Affecting Maintenance

Surface contamination and the formation of deposits must be prevented. These deposits may be minute particles of iron or rust from other sources used on the building of new premises and not removed until after the stainless steel items have been fixed. Industrial and even naturally occurring atmospheric conditions can produce deposits which can be equally corrosive, e.g. salt deposits from marine conditions.

The working environment also offers more aggressive conditions e.g. hot humidity, such as in a swimming pool, increases the speed of discolouration and therefore requires the maintenance to be on a more frequent basis. Modern processes use many cleaners, sterilizers and bleaches for hygienic purposes. All these proprietary solutions, when used in accordance with makers instructions are safe but if used incorrectly (e.g. warm or concentrated) can cause discolouration and corrosion on the surface of any quality of stainless steel. Strong acid solutions are sometimes used to clean masonry and tiling of buildings, but they should never be permitted to come into contact with metals, including stainless steel. If this should happen the acid solution must be removed immediately and copious applications of water.

## Maintenance Programme

With care taken during fabrication and installation, cleaning before handing over to the Client should present no special problems, although more attention than normal may be required if the installation period has been prolonged. Where surface contamination is suspected, immediate attention to cleaning after site fixing will encourage a trouble-free product. Food handling, pharmaceutical, aerospace and certain nuclear applications require extremely high levels of cleanliness applicable to each industry.

Advice is often sought concerning the frequency of cleaning stainless steel and the answer is quite simple "clean the metal when it is dirty in order to restore its original appearance". This may vary from once to four times a year for external applications or it may be once a day for an item in hygienic or aggressive situations. Frequency and cost of cleaning is lower with stainless steel than with many other materials and will often outweigh the initial higher cost of this superior product.

PROBLEM	CLEANING AGENT	COMMENTS
Routine cleaning	Soap or mild detergent and water. (Such as Fairy Liquid)	Sponge, rinse with clean water, wipe dry if necessary
Fingerprints	Soap or warm water or organic solvent (e.g. Usher/Walker Thinners No PF8017, acetone, alcohol).	Rinse with clean water, wipe dry if necessary
Stubborn stains and discolouration	Mild cleaning solutions i.e Jiff, Goddard Stainless Steel Care	Rinse well with clean water, wipe dry if necessary
Rust and other corrosion products.	Oxalic Acid. The cleaning solution should be applied with a swab and allowed to stand for 15-20 minutes before being washed away with water. May continue using Jiff to give final clean	Rinse well with clean water. (precautions for acid cleaners should be observed)
Scratches on surface	Slight scratches. Impregnated nylon pads. Polishing with scuffs dressed with iron free abrasives. For deeper scratches; apply in direction of polishing. Then clean with soap or detergent as per routine cleaning	Do not use ordinary steel wool - iron particles can become embedded in stainless steel and cause further surface problems

## Precautions

Acids should only be used for on-site cleaning when all other methods have been proved unsatisfactory. Rubber gloves should be used and care taken to see that acid cleaners are not spilt over adjacent areas. Special precautions are necessary with oxalic acid. Solvents should not be used in closed places. Smoking must be avoided when using solvents.

# Fault Finding

Problem/Report	Possible Cause	Suggested Action
No Water Dispenses	Water Supply turned off	Check all that taps/valves/filters on the incoming supply are fitted and are turned on.
	Solenoid not working	Dismantle and check the solenoid, completely replacing the solenoid as necessary.
	No Electricity/Power Supply.	Check power cord is connected and live. Check machine is switched on.
	Blocked tank outlets/pipes.	Check and unblock or replace as needed.
	IR Sensor PCB not working	Check/replace Control PCB
	Pump not operating. (Manual fill only)	Check probes connected/Leads attached. Check power supply to pump.
Water Dispenses but not Correct Temperature	Heating operation tripped off	Reset overheat button on heater
	Heating element not working.	Check and replace Heater as required.
	Break in wiring to heater unit.	Locate break and repair.

Problem/Report	Possible Cause	Suggested Action
Water lying in machine	Leak from machine water pipe work fittings.	Check pressure and fit pressure reducing valve if needed.
		Locate and repair accordingly
	Leak in supply inlet pipe	Locate and repair accordingly
LCD Screen not displaying anything	No Electricity/Power Supply.	Check power cord is connected. Check machine is switched on.
	Cannot read the CARD or USB	Please confirm whether there is storage in the card or USB device. Empty devices cannot be read.
No soap dispense	Soap dispenser empty	Check and refill soap dispenser
	Hand sensor battery	Replace soap dispenser batteries