



BC 30SCA

Instruction
Manual

Dolphin all-in-one
Automatic Wash-Station

Touch free:

- Soap
- Warm water
- Warm air dryer

Edition 8(28102010)



Features:

The wash station has been designed specifically for fitting into recessed cavity walls or washroom cubicles where the cubicle design permits.

Incorporating the very latest technology the wash station provides a complete hand washing facility at the point of use.

The wash cycle:

The unit automatically dispenses a measured amount of liquid soap. After a short time delay to allow the user to lather the hands, a measured amount of temperature controlled rinse water is dispensed. Finally the integral warm air dryer is activated to dry the hands.

All the functions are adjustable and are failsafe.

Finished in brushed stainless steel the wash station is a robust easy to clean solution for the modern washroom environment and is the ideal solution for washrooms where space is at a premium.

Contents _____Page

1	Product Information	6
1.1	Operation.....	6
1.1.1	Sequence Of Operation	6
1.2	Safety Devices	6
2	Safety Instructions	6
2.1.1	Electrical Connection	6
2.1.2	Maintenance, Troubleshooting & Repair	6
3	Installation	7
3.1	Requirements	7
3.2	Removal Of Panels	7
3.2.1	Removal Of Top Panel.....	7
3.2.2	Removal Of Mid Panel	7
3.2.3	Removal Of Lower Panel/Sink	8
3.3	Unit Mounting	8
3.4	Water Supply Connection	8
3.5	Waste Connection	9
3.6	Fitting Of Lower Panel/Sink.....	9
3.7	Fitting Of Mid Panel.....	9
3.8	Electrical Connection	9
3.9	Access Panel.....	10
3.10	Water Priming.....	10
3.11	Soap Supply And Replenishment.....	10
3.11.1	Soap Reservoir Front Access	10
3.11.2	Soap Reservoir Rear Access.....	11
3.11.3	Soap Level Indication.....	11
3.12	Fitting Of Top Panel.....	12
3.13	Additional Notes	12
4	Adjustments.....	12
4.1	Cycle Time	12
4.2	Prime Buttons.....	13
4.3	Water Temperature	13
4.4	Sensor & Emitter	13
5	Maintenance	14
5.1	General Maintenance & Cleaning	14
5.2	Water Outlet Nozzle	14
6	Technical Specification.....	15
6.1.1	Electrical Supply	15
6.1.2	Water Supply – Cold Water Only.....	15
6.1.3	Soap Supply.....	15
6.1.4	Construction.....	15
6.1.5	Standards & Approvals	15

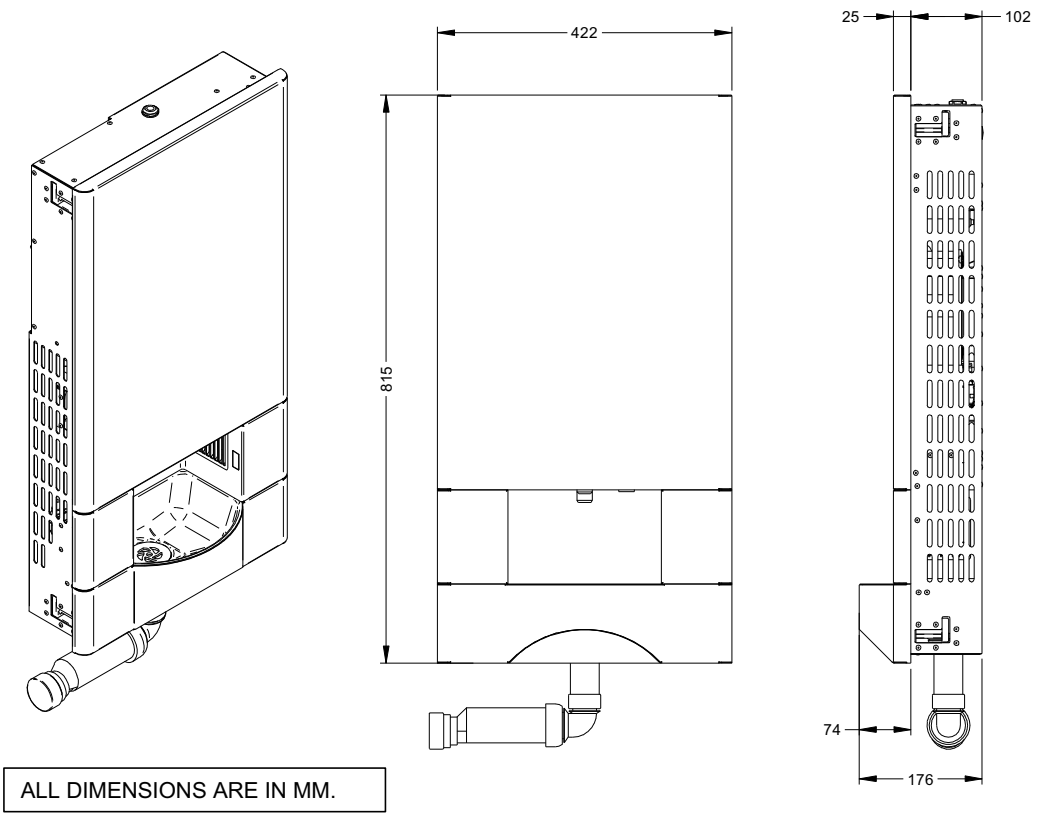


Figure 1

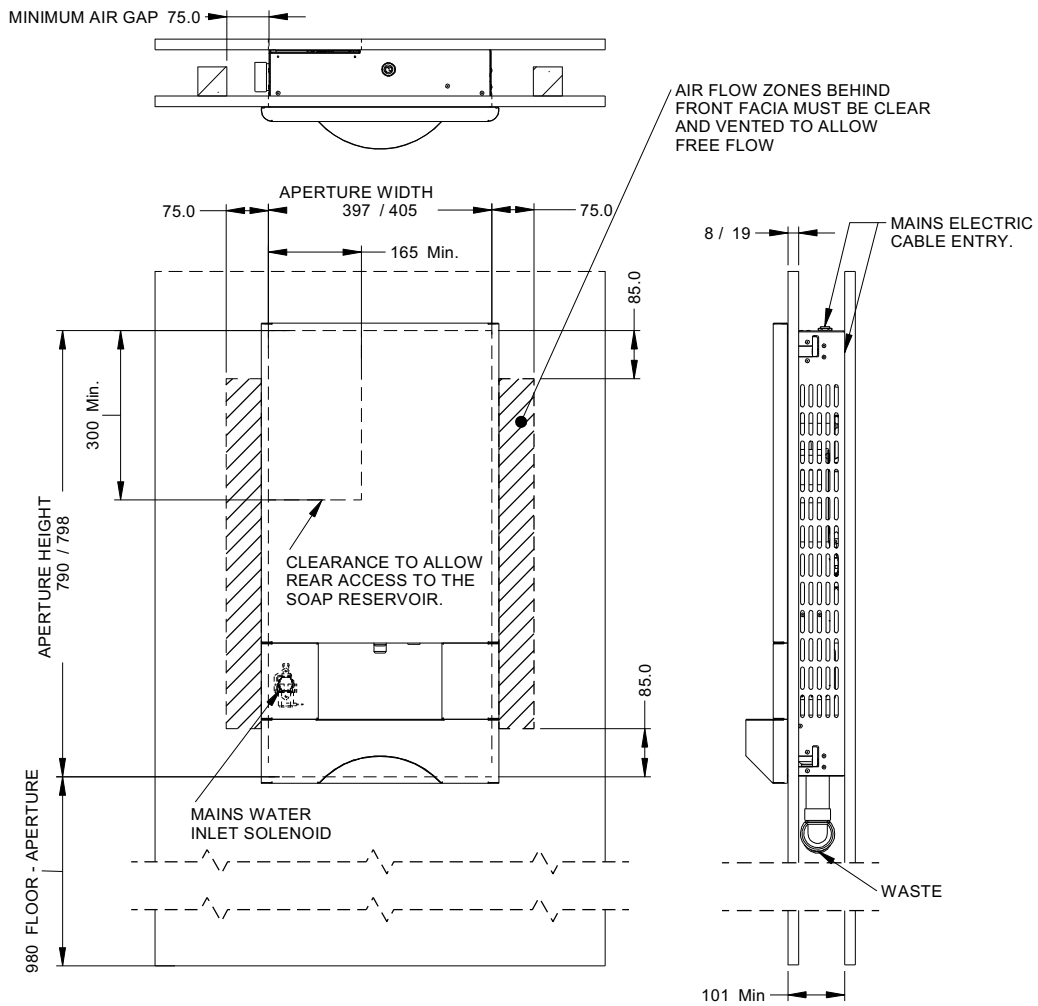


Figure 2

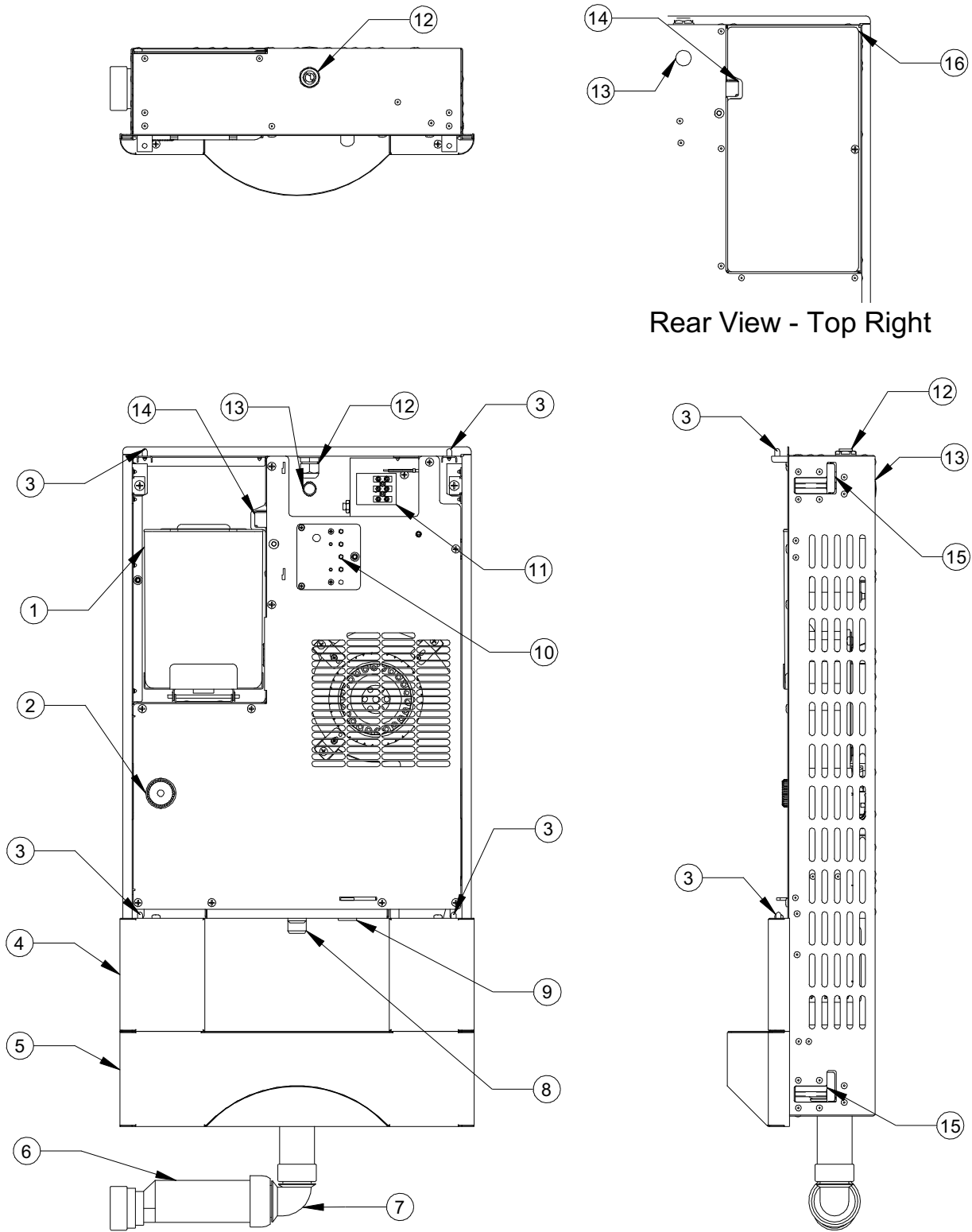


Figure 3

- | | | | | | |
|-----------|--------------------|------------|-------------------------------|------------|--|
| 1. | Soap Reservoir | 8. | Water & Soap Nozzles | 13. | Optional Mains Electric Cable Entry Position |
| 2. | Flow Regulator | 9. | Door Lock | 14. | Soap Reservoir Release |
| 3. | Panel Location Pin | 10. | Control Panel | 15. | Wall Clamp |
| 4. | Mid Panel | 11. | Mains Electric Terminal Block | 16. | Rear Access Panel |
| 5. | Lower Panel & Sink | 12. | Mains Electric Cable Entry | | |
| 6. | Waste Valve | | | | |
| 7. | Waste Elbow | | | | |

1 Product Information

1.1 Operation

The unit may be used once the water and electricity supply have been connected and the soap reservoir filled.

1.1.1 Sequence Of Operation

The user breaking the sensor beam when their hands are placed under the water and soap nozzles activates the cycle.

Once activated, soap is dispensed followed by a period for the user to rub the soap into their hands. After the delay period, the water solenoid valve opens allowing heated water to be dispensed for a set period.

Following the water, the fan is operated providing warm air for the user to dry their hands.

When the cycle is completed, remove hands from the outlet area for at least 4 seconds before restarting the wash cycle. If hands are kept in the sensor beam after the cycle end, the next cycle will not start.

The soap quantity, delay period, water flow time and air-drying time are adjustable to suit the user's preferences, see Section 4.1

1.2 Safety Devices

The unit has four safety devices:

Pressure Switch. This controls the operation of the boiler element. Once a sufficient pressure of water is sensed the electric supply to the water heater is switched on. If an insufficient flow of water is present the electric supply to the water heater will not be connected and cold water will be dispensed. The flow can be adjusted by turning the flow valve knob.

Boiler Thermal Cut Out: If the temperature of the water increases above a preset value or if the water heater is switched on without water in the tank the thermal cut out will interrupt the electric supply to the element. The thermal cutout will reset itself automatically once the temperature in the water heater has dropped sufficiently.

Warm Air Thermal Cut Out: If the temperature of the air increases above the preset value due to blocked vents or if the air element is switched on and the fan has failed the thermal cut out will interrupt the electric supply to the element. The thermal cutout will reset itself automatically once the temperature of the element & airflow has dropped sufficiently.

2A PCB Fuse: The PCB is fitted with a 2A fuse, which protects the PCB transformer.

2 Safety Instructions

When used according to the instructions this appliance is completely safe.

Before installing or servicing the appliance read carefully the following safety instructions, otherwise damage may be caused.

- The water outlet nozzle must not be allowed to become blocked. If the outlet becomes restricted the unit may not function correctly.
- The appliance is intended for hand washing & drying only.
- Installation, operating and maintenance procedures must be strictly observed and the system should be installed, maintained and repaired only by persons who are familiar with such appliances, and know about potential hazards.
- The relevant and generally accepted technical safety regulations in the country of use must be observed.
- The appliance should be used only when it is in a well-maintained condition.
- Do Not deactivate the unit's safety devices.
- The user's attention should be drawn to the potential hazards of misuse.

The manufacturer is not liable for any damage resulting from the unauthorized modification of this product.

- The manufacturer cannot be held responsible for any damage resulting from misuse of the unit.

2.1.1 Electrical Connection

- If the appliance is not installed in compliance with the relevant regulations there is the danger of injuries caused by electric shock.
- Observe all the indications given on the rating plate.
- The appliance should be earthed and protected with a 13A fuse.
- The power supply should be provided by 3 core 1.5mm² cable.

2.1.2 Maintenance, Troubleshooting & Repair

- Disconnect the electricity supply before working on the unit.
- Use original spare parts only.

3 Installation

After unpacking the unit check the condition of the packing materials and contents.

Check that the following items have been supplied:

- ✓ Automatic Wash Station
- ✓ Trim Tool
- ✓ 2 Keys
- ✓ Waste Valve
- ✓ Waste Elbow
- ✓ Inlet Hose
- ✓ Nozzle Spanner
- ✓ Nozzle Key
- ✓ Manual

3.1 Requirements

Before installing the unit check that the following requirements are in place.

- Safeguards against frost
- A mains electricity supply rated at 220/240V 50Hz ac.
- A Ø15mm copper cold-water feed fitted with an approved double check valve (or some other no less effective backflow prevention device) between the supply and the fitting and terminating with a ¾" BSP (G) appliance stop valve. Minimum running water pressure to be 100kPA (14.5psi) and a maximum static pressure of 700kPA (100psi).
- A Ø32mm plastic waste pipe.
- Vented partition wall – outer cladding to be 8 - 19mm board (clamping range to secure the unit in place is 8 – 40mm) and of suitable construction to support the weight of the product. Upper, lower & side faces of the unit must be clear of obstacles to allow ventilation (245m³/hr), see Figure 2, and access for water supply, waste water and mains electric supply.
- Recess aperture in 8/19mm board (clamping range to secure the unit in place is 8 – 40mm) – 790-798mm high x 397-405mm wide x 102mm deep. Lower edge of aperture to be 980mm from the floor. See Figure 2.
- If rear access to the soap reservoir is required it will be necessary to provide a clearance hole in the rear cladding as indicated in Figure 2.
- **All pipe work (particularly on new build) must be flushed through to clear any debris before fitting the wash station.**
- **The installer must ensure adequate ventilation to both sides of the unit. See Figure 2. The airflow zones must be clear and vented to open air**
- **ENCLOSED MOUNTING (EG SOLID WALL) IS NOT RECOMMENDED.**

3.2 Removal Of Panels

Before securing the unit into the recess it is necessary to remove the outer panels.

3.2.1 Removal Of Top Panel

The top panel is secured to the unit by 4 location pins and a single cam lock. To remove the top panel, using the key supplied unlock the panel and lift it clear of the unit. The lock is positioned beside the outlet nozzles. See Figure 4.

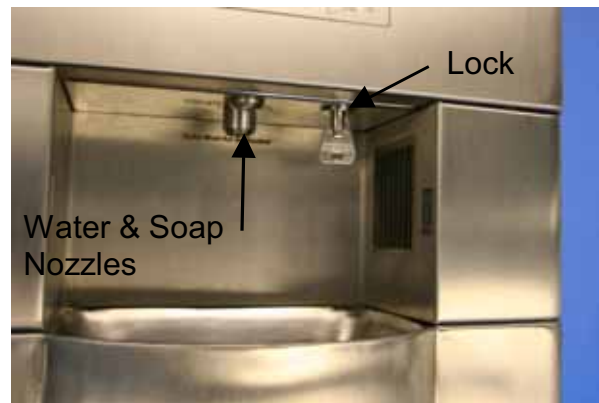


Figure 4

3.2.2 Removal Of Mid Panel

The mid panel is secured to the unit by 4 location pins and 2 M5 cross head screws. To remove the panel first remove the M5 screws, see Figure 5.

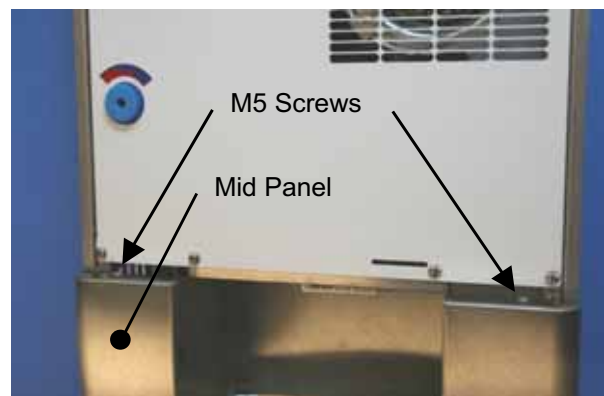


Figure 5

Once the screws have been removed, lift the lower front edge of the panel to release it from the lower pins. Once clear of the lower pins the panel may be sprung off the top pins and partially removed from the unit. Before the panel can be completely removed from the unit it is necessary to disconnect the leads to the sensor and the emitter housings. See Figure 6.

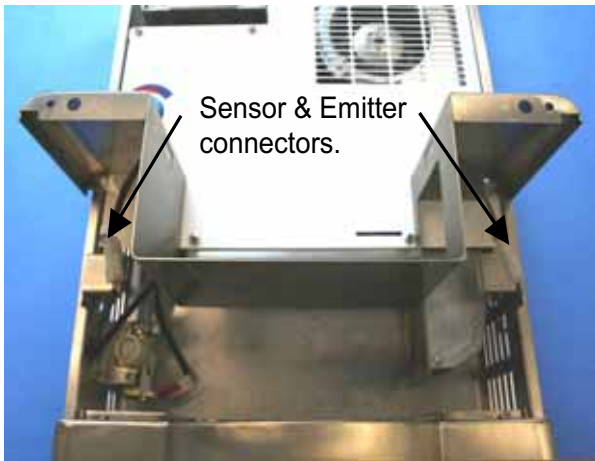


Figure 6

3.2.3 Removal Of Lower Panel/Sink.

The lower panel/sink is secured to the unit by 2 location pins, 2 brackets and 2 M5 cross head screws. To remove the panel, first remove the M5 screws

WARNING: If the lower panel/sink is to be removed from a unit already installed it will be necessary to disconnect the waste valve before lifting the sink out of the unit. In this instance lift the sink until it is possible to access the waste connection. Unscrew the waste valve and lift the sink out of the unit. See Figure 7.



Figure 7

For a new installation, lift the lower panel/sink off the pins and away from the unit.

With the panels removed the unit can now be fitted into the recess.

3.3 Unit Mounting

Before the unit can be fitted into the recess ensure that all services (water, waste & electric) are in place ready for connection to the unit.

The mains electric supply cable should be fed through the cable gland in the top of the unit. Tighten up the gland to stop the cable pulling back into the recess.

Check that the four wall clamps are in a vertical orientation and do not protrude out of the side of the unit. See Figure 8.

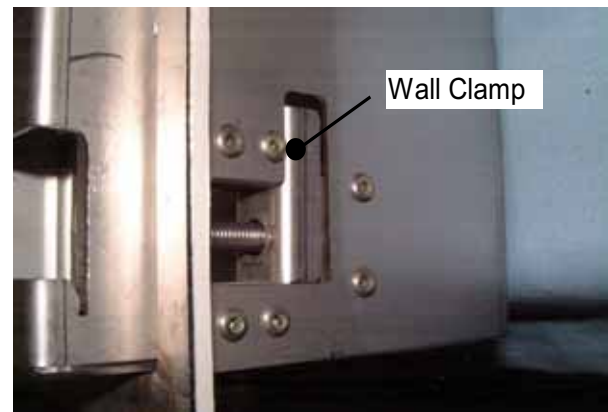


Figure 8

Lift the unit into the recess, feeding the top edge in first to clear the cable gland. Once the top is in pull the top forward slightly and push the bottom edge into the recess. The whole unit should now push back into the recess.

Four wall clamps are provided to secure the unit into the recess. The clamps are adjusted by an M6 cross head screw. To release the clamps rotate each of the M6 screws ½ of a turn in an anti-clockwise direction. Each clamp can now be rotated into a horizontal orientation positioned behind the wall panel.

Tighten the M6 screws, with a cross-headed screw drive, until each clamp pulls up tightly onto the inner face of the wall panel.

With the unit securely fitted into the recess the services may be connected up.

3.4 Water Supply Connection

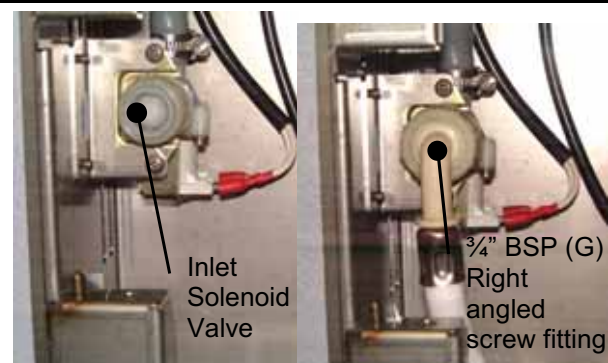


Figure 9

Water to the unit is to be supplied by a Ø15mm cold water feed fitted with an approved double check valve (or some other no less effective backflow prevention device) between the supply and the fitting and terminating with a ¾" BSP (G) appliance stop valve.

There is no need to install any kind of flow regulator to the cold water feed as the unit is already fitted with an adjustable flow regulator.

The unit is supplied with a 2m inlet hose. Feed the hose through the large aperture in the base of the unit. Connect the right-angled screw fitting to the solenoid valve (see Figure 9) positioned to the left of the sink area, the other to an appliance stop valve once the plumbing has been completed.

When routing the inlet hose ensure that it does not become kinked or overstretched as this may result in damage and poor water pressure.

All pipe work (particularly on new build) must be flushed through to clear any debris before fitting the wash station. Failure to do this may cause debris to become trapped in the unit causing a malfunction.

3.5 Waste Connection



Figure 10

Fit the waste valve supplied with the unit to the Ø32mm plastic waste pipe installed in the cavity. To assist with installation, it is recommended that a short length of flexi hose be fitted between the rigid pipe and the waste valve. Take care to avoid a loop in the hose that would prevent proper drainage.

Connect the waste valve to the sink drain. If flexi hose is not used it will be necessary to lower the sink almost into place. See Figure 10. If flexi hose is used the waste connection to the sink drain can be made as shown in Figure 7.

With the waste connected fit the lower panel/sink to the unit, see Section 3.6.

3.6 Fitting Of Lower Panel/Sink

Brackets on the inside front face of the panel hook over brackets in the bottom corners of the unit. Holes in the top edge of the panel locate over pins on either side of the unit. It may be necessary to push the panel down firmly into place before securing it to the unit with the 2 M5 screws removed earlier.

Once the Lower Panel/Sink has been refitted fit the mid panel, see Section 3.7.

3.7 Fitting Of Mid Panel



Figure 11

Important: Before fitting the mid-panel reconnect the sensor and emitter, see Figure 6. The connection blocks can be found beside the inlet solenoid and below the air duct.

With the upper back edge tipped down slightly to clear the nozzles and lock push the mid panel back into place. Once the panel is located over the bottom 2 pins spring the top face over the upper pins. See Figure 11.

With the panel located over the 4 pins, secure the panel to the unit with the 2 M5 screws removed earlier, see Figure 5.

3.8 Electrical Connection

The unit should be connected to a single-phase 220/240V 50Hz AC electricity supply. Always check the rating label to ensure that the local supply is suitable for the unit.

The unit must be installed to current I.E.E. wiring regulations and it must be possible to isolate the appliance for maintenance purposes by means of an accessible double pole fused switch box with at least 3mm contact separation. A fuse rated at 13A must be used.

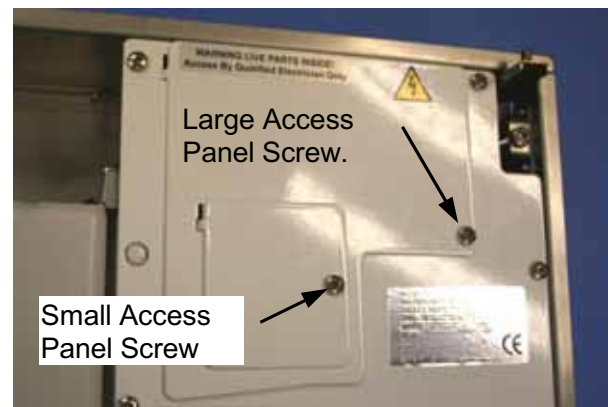


Figure 12

The cable entry is through the top, of the unit – see Figure 13. Optional rear cable entry is also provided. If the rear cable entry position is to be used remove the blanking plug (see Figure 13) and replace with the cable gland from the top

cable entry position. The blanking plug should be fitted to the top cable entry position.

The mains input cable should be 3 core 1.5mm² round. This cable should be fed through the cable gland and connected to the internal terminal block. To gain access to the internal terminal block remove the screw that holds the large access panel in place, open the access panel – see Figure 12.

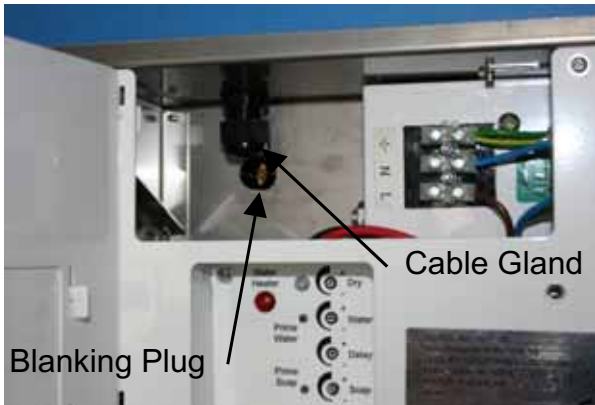


Figure 13

Connect the live wire, coloured brown or red, to the terminal block marked L; the neutral wire, coloured blue or black, to the terminal marked N; the earth wire, coloured green or green/yellow to the terminal marked with the earth symbol. Once the cable has been connected tighten the cable gland, close the access panel and secure with the M5 screw removed earlier.

THE UNIT MUST BE EARTHED.

3.9 Access Panel

To prime the soap reservoir or make adjustments to the cycle first open the small access panel from the center of the security panel by removing the M5 screw that holds it in place, see Figure 12. Once the screw has been removed the panel can be pivoted open revealing the control panel.

To refit, pivot the panel shut and secure with the M5 screw previously removed.

3.10 Water Priming



Figure 14

Turn on the water supply to the unit, and check supply pipe work and hoses for leaks, before switching on the mains electricity supply.

Rectify any leaks and then switch on the mains electricity supply. Hold down the water prime button until water flows from the water outlet nozzle, see Section 4.2.

The unit is factory set to give an operating temperature of approximately 36 - 42°C.

As the temperature of the water at outlet is dependant upon flow rate and ambient water temperature it may be necessary to make adjustment to the temperature for the particular installation, see Section 4.3.

3.11 Soap Supply And Replenishment

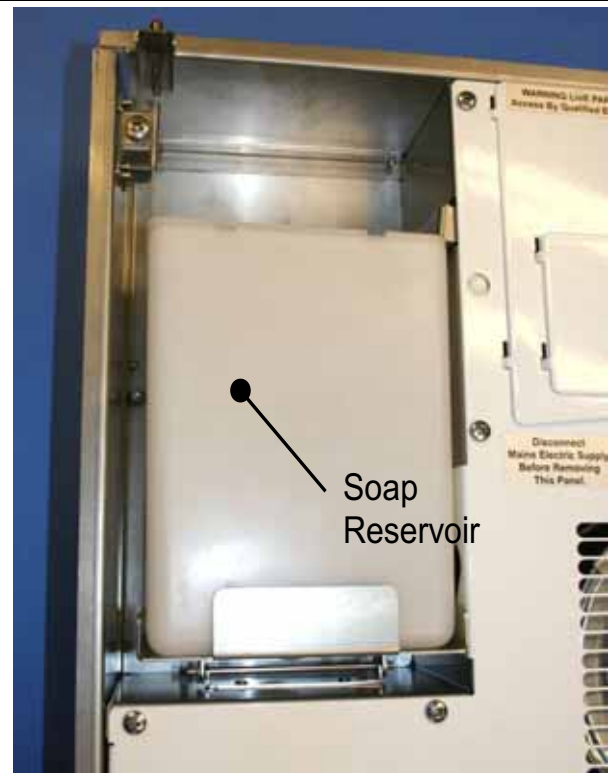


Figure 15

The unit is designed to dispense liquid soap only.

When first filling the soap reservoir from empty, it will be necessary to prime the soap pump, see Section 4.2. This is carried out by operating the prime button which is located behind the Access Panel, see Section 3.9.

The soap reservoir can hold approximately 2.0 litres of soap and may be filled from either the front of the unit or, where access is provided, from the rear.

3.11.1 Soap Reservoir Front Access

To fill the reservoir:

1. If the top panel is fitted, unlock and remove the top panel with the key supplied.

2. Press the lever at the top and to the right of the reservoir. When pressed, this lever releases the reservoir and allows it to be pivoted forward. See Figure 16.
3. Remove the lid and fill the reservoir taking care not to fill to overflowing or spill.
4. Refit the reservoir lid and push the reservoir back into the vertical position.
5. Refit the top panel and lock in place with the key.



Figure 16

3.11.2 Soap Reservoir Rear Access



Figure 17

To fill the reservoir:

1. Unscrew the crosshead screw and remove the rear access panel. See Figure 17

2. Press the lever at the top and to the left of the reservoir. When pressed, this lever releases the reservoir and allows it to be pivoted forward. See Figure 18.
3. Remove the lid and fill the reservoir taking care not to fill to overflowing or spill.
4. Refit the reservoir lid and push the reservoir back into the vertical position.
5. Refit the rear access panel and secure with the crosshead screw.



Figure 18

3.11.3 Soap Level Indication

The float switch inside the reservoir operates the 'Soap Level' indicator when 0.3 litres of soap remains.



Figure 19

The indicator is situated inside the sensor housing on the left hand side of the outlet aperture, see

Figure 19. The indicator begins to flash when there is less than 0.3 litres of soap remaining in the reservoir. The reservoir should be filled at this point, before the reservoir runs empty. If the unit is not filled at this point a further 75 cycles (doses of soap) will be allowed before the 'Soap Level' indicator is lit permanently, warning that no soap is left and that the unit is deactivated. To reactivate the unit pour at least 0.3 litres of soap into the reservoir.

3.12 Fitting Of Top Panel

When all adjustments have been made, operation of the unit is satisfactory and all other panels have been refitted, refit the Top Panel.

The panel is located by 4 pins, 1 at each corner of the panel, and 1 lock, see Figure 20.



Figure 20

Position the panel over the pins and push down firmly into place.

Using the key provided, turn the lock positioned alongside the outlet nozzles, to secure the panel in place, see Figure 4.

3.13 Additional Notes

The unit should be left switched on to give instant operation as required, unless it will not be required for use over extended periods, such as weekends or holidays. Current consumption in this 'standby mode' is minimal.

The soap level indicator, positioned in the sensor housing, is a soap level warning and only flashes when the soap level has dropped, indicating the need to replenish the soap supply, see Section 3.11.

4 Adjustments

In order to test full operation, it is necessary to partially fill the soap reservoir with at least 0.3 litres of soap, see Section 3.11.



Figure 21

To make the adjustments detailed in Section 4.1 – 4.4.

- remove the top panel, see Section 3.2.1
- remove small access panel, see Section 3.9
- It will be necessary to switch the mains electricity 'ON' at the fused switch.

4.1 Cycle Time

To allow for varying user requirements the following features of the cycle are adjustable:

- **Soap** – This controls the soap dispense time period. Adjustable between 0.05 and 2.0secs. Rotate clockwise to increase dosage, anti-clockwise to decrease. Use in conjunction with the soap prime button, see Section 4.2.
- **Delay** – This controls the time period between the soap dispense and the final rinse. Adjustable between 2 and 15secs. Rotate clockwise to increase, anti-clockwise to decrease.
- **Water** – This controls the rinse water period. Adjustable between 5 and 25secs. Rotate clockwise to increase, anti-clockwise to decrease.
- **Dry** – This controls the period of time that the fan runs, providing warm air for drying hands. Adjustable between 30 and 75secs. Rotate clockwise to increase, anti-clockwise to decrease.

Important: Adjustments to the cycle time will only take effect once either of the prime buttons have been operated or power is removed temporarily.

4.2 Prime Buttons

Two buttons are located on the control panel, see Figure 21.

Soap Prime Button: This button has two functions.

1. Press quickly and the soap pump will dispense 1 shot of soap, as set by the 'Soap Pot.' This function should be used when setting the soap dosage.
2. Hold the button down for more than 1 second and soap will be dispensed until the button is released up to a maximum time of 1 minute. This function should be used when priming the soap pump.

Water Prime Button: When this button is pressed the inlet solenoid is opened. Press and hold whilst setting the flow rate and water temperature, see Section 3.10.

4.3 Water Temperature



Figure 22

Adjustment to the output water temperature is made by adjustment to the flow regulator valve, see Figure 22.

As the flow is increased the temperature of the water will decrease, conversely, if the flow is decreased the temperature will increase.

To make adjustment first hold down the water prime button, see Section 4.2. With the prime water button held depressed rotate the flow regulator knob, see Figure 22, until a suitable temperature has been maintained.

- Clockwise – increases flow and reduces temperature.

- Anticlockwise – decreases flow and increases temperature, if the flow is reduced too much a pressure switch disconnects power to the water heater and the water at the outlet will run cold.

The water heater indicator lamp, see Figure 21, is illuminated when there is power to the water heater. If the flow is reduced too far a pressure switch disconnects power to the water heater, the indicator lamp will not be illuminated and the water at the outlet will run cold.

4.4 Sensor & Emitter

The infrared sensor & emitter housings are situated either side of the outlet aperture. These components have been factory set to detect hands within the outlet aperture via a break beam.

No adjustment is required.

5 Maintenance

5.1 General Maintenance & Cleaning

Check on a regular basis that the soap reservoir is kept filled. The 'Soap Level' indicator begins to flash when there is less than 0.3 litres of soap remaining in the reservoir. The reservoir should be filled at this point, before the reservoir runs empty. If the unit is not filled at this point a further 75 cycles (doses of soap) will be allowed before the 'Soap Level' indicator is lit permanently, warning that no soap is left and that the unit is deactivated. To re-activate the unit pour at least 0.3 litres of soap into the reservoir. See Section 3.11.

To clean the stainless steel covers use a proprietary stainless steel cleaner or baby oil. DO NOT use soap, chemical cleaning detergents, bleach or abrasive cleaners as these may discolour or damage the surface.

Regular cleaning of the soap outlet nozzle is advisable to ensure unrestricted supply of soap. This may be done by wiping over the outlet with a cloth.

5.2 Water Outlet Nozzle



Figure 23

Periodically (every 12 months maximum in hard water areas) it may be necessary to clean/unblock the water nozzle, see Figure 23.

WARNING: Failure to unblock a blocked water nozzle may lead to back pressure causing the internal pressure relief device to operate. Should this happen it will be necessary to call for an engineer to refit the device.

2 spanners (Figure 24) are provided with the unit to allow the aerator to be removed for cleaning. The larger spanner should be used to secure the outer body of the nozzle whilst the smaller spanner is used to undo the aerator (Figure 25).



Figure 24



Figure 25

Rinse the aerator through, ensuring that all the slots are completely clear before refitting.

6 Technical Specification

6.1.1 Electrical Supply

Voltage:	220/240V - 50Hz
Current:	13 Amps
Power Consumption:	2.5kW – 3.1kW

6.1.2 Water Supply – Cold Water Only

Pressure:	100 – 700kPA (1 – 7 bar (100psi))
Connection:	3/4in BSP (3/4 G) – Cold Water Feed Only.

6.1.3 Soap Supply

Viscosity (Kinematic):	1cst – 600cst
Specific Gravity:	0.85 (Minimum)

6.1.4 Construction

Front Panels:	Stainless Steel
Dimensions:	Height – 815mm
	Width – 422mm
	Depth – 176mm
Weight:	19.7kg
Degree of Protection	IP24

6.1.5 Standards & Approvals

The unit has been independently tested and complies with the following standards:

Low Voltage Electrical Equipment Regulations, with reference to the requirements of:

- BS EN 60335-1: 2002 Inc. Amd 1 to 4
- BS EN 60335-2-35: 2002
- BS EN 60335-2-23: 2003 + Amd 1.



Electro Magnetic Compatibility with reference to the requirements of:

- EN 61000-6-1: 2001
- EN 61000-6-2: 2001, A11: 2004
- EN 61000-3-2: 2000
- EN 61000-3-3: 1995, A1: 2001

For Technical assistance
please call the
Dolphin Technical Helpline
01424 20 22 24
or send an email to
info@dolphindispensers.co.uk



Bell-Chem Products Co
Haywood Way
Hastings
East Sussex TN35 4PL
Tel: 01424 202224
Fax: 01424 205 200
info@dolphindispensers.co.uk
www.dolphindispensers.co.uk