user manual

EvoWash

HYDRO
a DOVER company

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index

index (continued)

1.00 overview

Safety Precautions

WARNING! Please read precautions thoroughly before operation. Meet all applicable local codes and regulations.

THANK YOU FOR YOUR INTEREST IN OUR PRODUCTS
Please use this equipment carefully and observe all warnings and cautions.

WEAR protective clothing and eyewear when dispensing chemicals or other materials or when working in the vicinity of all chemicals, filling or emptying equipment, or changing metering tips.

ALWAYS
observe safety and handling instructions of the chemical manufacturer.
direct discharge away from you or other persons or into approved containers.
dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise CAUTION when maintaining your equipment.
reassemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.

KEEP equipment clean to maintain proper operation.

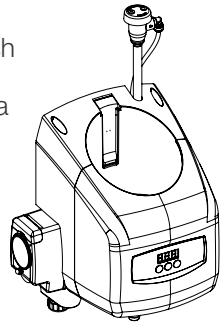
ATTACH only to water tap outlets with 30 to 90 PSI (2 to 6 bar), water temperature 40°F to 140°F (5°C to 60°C).

NOTE
if the unit is used to fill a sink, or the discharge hose can be placed into a sink. The unit must be mounted so that the bottom of the cabinet is above the overflow rim of the sink
if the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

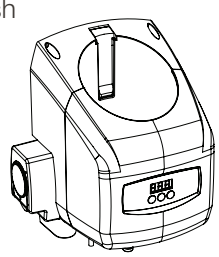
1.01 Package Contents

1) EvoWash Dispenser (P/N varies by model, see table on page 6)	3) Accessory Kit (NA P/N HYD10099378, Global P/N HYD10099406) (Pickup Tubing, Detergent Injection Fitting, Conductivity Probe)
2) Mounting Kit (P/N HYD90097975) (Wall Anchors, Screws, Wire Ties and Washers)	4) Rinse Pump Accessory Kit (only w/Rinse Pump) (P/N HYD90098478) (Pickup Tubing, Wire Ties, Rinse Injection Fitting, Foot Valve & Weight)

EvoWash North America with Rinse Pump

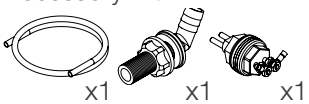


EvoWash Global with Rinse Pump

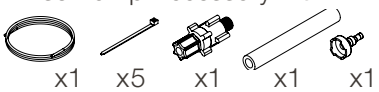


Mounting Kit

Accessory Kit



Rinse Pump Accessory Kit



1.02 Description (North America vs. Global)

The EvoWash is a powder or solid detergent dissolver for use with warewash machines, with an optional, integrated rinse pump. The built-in programmable control unit promotes safe and economical use of warewash supplies, ensuring accurate, automatic chemical dosage, only as needed. The North America models include a backflow prevention vacuum-breaker to meet ASSE 1055 and a conduit connector for the power, detergent and rinse signal wires to meet UL requirements.

1.03 Product Features

- Optional, integrated rinse pump, or retrofit option.
- Simple, three button programming of integrated controller.
- Rinse Saver feature prevents wasteful rinse additive dosing during water fills.
- Detergent conductivity measurement and adjustable control settings to minimize overuse of detergent.
- Rack counter feature is standard.
- De-scale mode allows for safe washer cleaning without wasting detergent.
- Rinse Delay option, to prevent wasting rinse aid with Door style machines.
- Manual Prime function for Rinse pump.

1.00 overview (continued)

1.04 Model Numbers and Features

Pump Build Options:

Rinse Pump: R = Rinse Pump Included
N = No Rinse Pump

Power Supply: Voltage 100 = 100 to 230 VAC

Water Inlet: Size 8 = 8 mm (5/16 in) Push-fit
6 = 6 mm (1/4 in) Push -fit

Spray Nozzle: RB80 = Royal Blue 80° Spray Angle

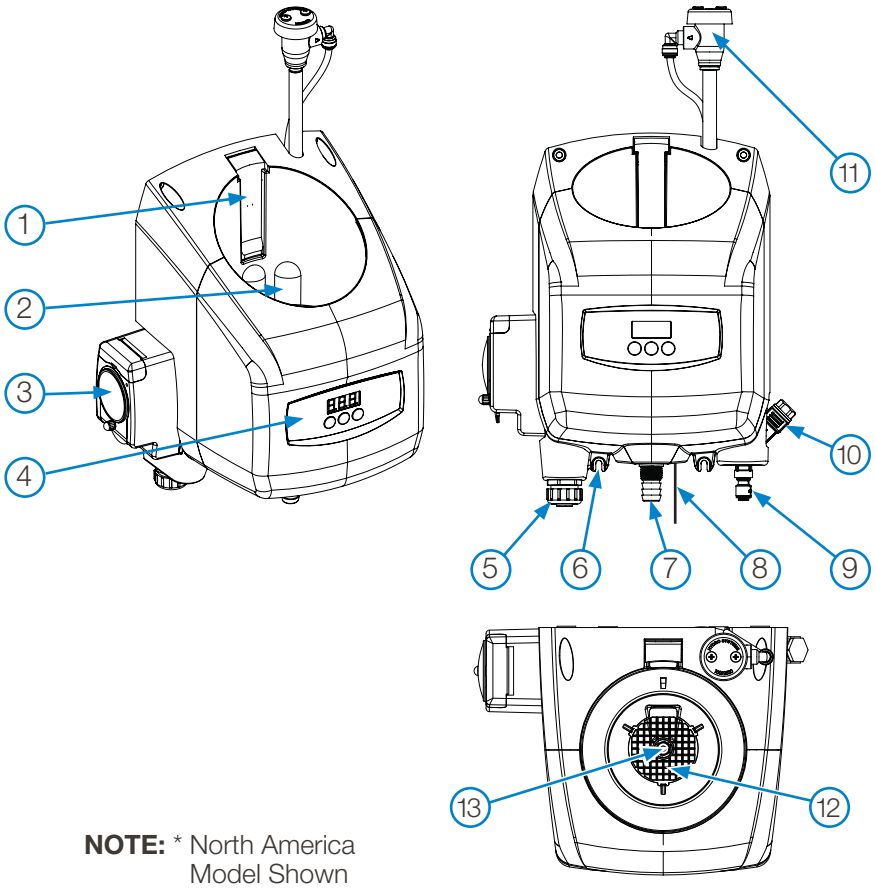
Bottle Style: SC = Standard Cylindrical

Electrical: Approvals CE = CE
UL = UL

Build Example:	HYD	EVW	R	100	8	RB80	SC	UL
Model Builder:	**Hydro Prefix**	**Base Model**	**Rinse Pump**	**Power Supply Voltage**	**Water Inlet Size**	**Spray Nozzle**	**Bottle Style**	**Electrical Approvals**
Popular UL Model								
HYDEVWR1008RB80SCUL NA EvoWash with Rinse Pump	HYD	EVW	R	100	8	RB80	SC	UL
Popular CE Models								
HYDEVWR1008RB80SCCE EMEA EvoWash with Rinse Pump	HYD	EVW	R	100	8	RB80	SC	CE
HYDEVWN1008RB80SCCE EMEA EvoWash No Rinse Pump	HYD	EVW	N	100	8	RB80	SC	CE

1.05 Product Diagram

1. Safety Stop Switch Lever
2. Keyways (Optional)
3. Rinse Pump (Optional)
4. Controls & Display Screen
5. Wiring Conduit Connector (Power & Signals)*
6. Mounting Slots/Holes (x4)
7. Detergent Discharge Fitting
8. Conductivity Probe Cable
9. Water Inlet Fitting
10. Water Y-Strainer
11. Backflow Prevention Vacuum-Breaker *
12. Mesh Screen
13. Water Spray Nozzle



NOTE: * North America Model Shown

1.06 General Specifications

Category		Specification	
Electrical			
Input Voltage		100-240 VAC at 50/60 Hz up to 0.75 Amps maximum (Class II)	
Power Usage		12W maximum	
Detergent Signal Input		24-249VAC at 50/60Hz up to 20mA or 24VDC up to 20mA	
Rinse Signal Input		24-249VAC at 50/60Hz up to 20mA or 24VDC up to 20mA	
Weights and Dimensions			
		Global Models	**North America Models**
Weight:	Unboxed	2.5 Kg (5.5 lbs) or 2.8 Kg (6.2 lbs) with rinse pump	2.7 Kg (5.9 lbs) or 3.0 Kg (6.6 lbs) with rinse pump
	Boxed	4.5 Kg (9.9 lbs) or 4.8 Kg (10.5 lbs) with rinse pump	4.7 Kg (10.4 lbs) or 5.0 Kg (11.0 lbs) with rinse pump
Dimensions:	Unboxed	259 mm Wide x 365 mm High x 232 mm Deep (309 mm Wide with rinse pump) 10.2 in Wide x 14.4 in High x 9.1 in Deep (12.2 in Wide with rinse pump)	259 mm Wide x 497 mm High x 232 mm Deep (309 mm Wide with rinse pump) 10.2 in Wide x 19.6 in High x 9.1 in Deep (12.2 in Wide with rinse pump)
	Boxed	555 mm Wide x 280 mm High x 390 mm Deep 21.9 in Wide x 11 in High x 15.4 in Deep	555mm Wide x 280mm High x 390mm Deep 21.9 in Wide x 11 in High x 15.4 in Deep
Operating Environment			
Ambient Temperature		10°C minimum to 50°C maximum (50°F minimum to 120°F maximum)	
Humidity		95% relative humidity maximum	
Indoor Installation		Indoor Use Only. Must not be installed outdoors.	
Rinse Pump Performance		0 to 30 mls/min flow (0 to 1.1 oz/min) Always test with actual chemical, at installation, for accurate flow rate.	
Inlet Water			
Water Temperature		5°C minimum to 60°C maximum (40°F minimum to 140°F maximum)	
Water Pressure		Min: 2 Bar - 0.2MPa - 30 PSI Max: 6 Bar - 0.6MPa - 90 PSI	
Regulatory Approvals			
	Global Models	IEC 60335-1:2010, COR1:2010, COR2:2011, AMD1:2013, COR1:2014, AMD2:2016, COR1:2016 EN61000 6-1 Residential immunity EN61000 6-3 Residential emissions EN1717 Certified with Category 4 Chemicals (Global models)	
	North America Models	ASSE 1055 (North America models) Safety Of Household And Similar Electrical Appliances, Part 1: General Requirements [UL 60335-1:2016 Ed.6] Safety Of Household And Similar Appliances - Part 1: General Requirements [CSA C22.2#60335-1:2016 Ed.2]	

1.00 overview (continued)

1.07 Intended Use

- The EvoWash is intended for use in industrial applications and is not suitable for domestic use.
- The product must only be used for dispensing washing and rinse aid chemicals for warewash applications.
- The manufacturer waives any responsibility arising from incorrect usage or transportation.

2.00 installation

Safety Precautions

CAUTION! Before an installation takes place it is advisable to complete a site survey to ensure the EvoWash can be installed in a position that meets all the requirements below.

CAUTION! Do not install unit in potentially explosive environment (ATEX) where flammable gas, steam, fog or dust can form an explosive combination with air.

WARNING! Electrical installation should be completed by a qualified electrician. All local and national electrical regulations are to be observed.

2.01 Site Survey and Installation Requirements

- Unit is to be installed by a trained technician; all local and national water regulations are to be observed.
- Unit must be installed indoors, in an area that does not suffer excess temperature changes, direct sunlight, frost or precipitation of any kind.
- The area must be free of high levels of ElectroMagnetic Interference (EMI).
- Ensure the unit will be mounted in an accessible location, above the height of the dishwasher's detergent inlet.
- Installer must ensure the suitability of the wall or mounting substrate, which should be flat and perpendicular to the floor.
- Unit location should be well lit for any maintenance, and should be free of high levels of dust particulates.
- Scheduled maintenance should be carried out on the unit at least once per year.
- It is a legal requirement that all water supply hose sets must be compliant with IEC 61770.
- Ensure the chemicals being used are compatible with supplied tubing. If you are unsure, please contact a local distributor.

2.10 Mechanical Installation

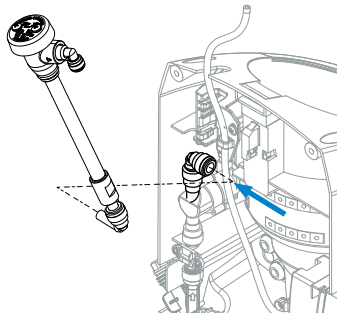
2.11 Installing the Vacuum Breaker (NA only)

For shipping protection the vacuum breaker / stand-pipe assembly is not pre-installed. The user must install the vacuum breaker / stand-pipe assembly to the dispenser before use.

1) While supporting the swivel connector with one hand, push in the stem of the vacuum breaker / stand-pipe assembly with the other hand, until firmly seated in the push-to-fit swivel connector.

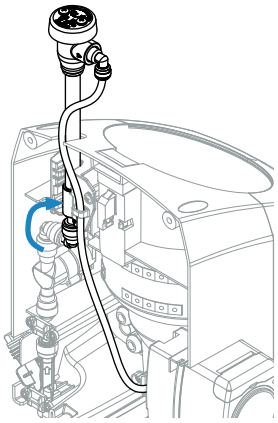
2) Rotate the vacuum breaker / stand-pipe assembly into position and snap into the mounting bracket.

3) Route 1/4" flexible plastic tubing from the vacuum breaker to the water inlet of the spray nozzle (as shown).



Push stem of vacuum breaker assembly into manifold swivel fitting.

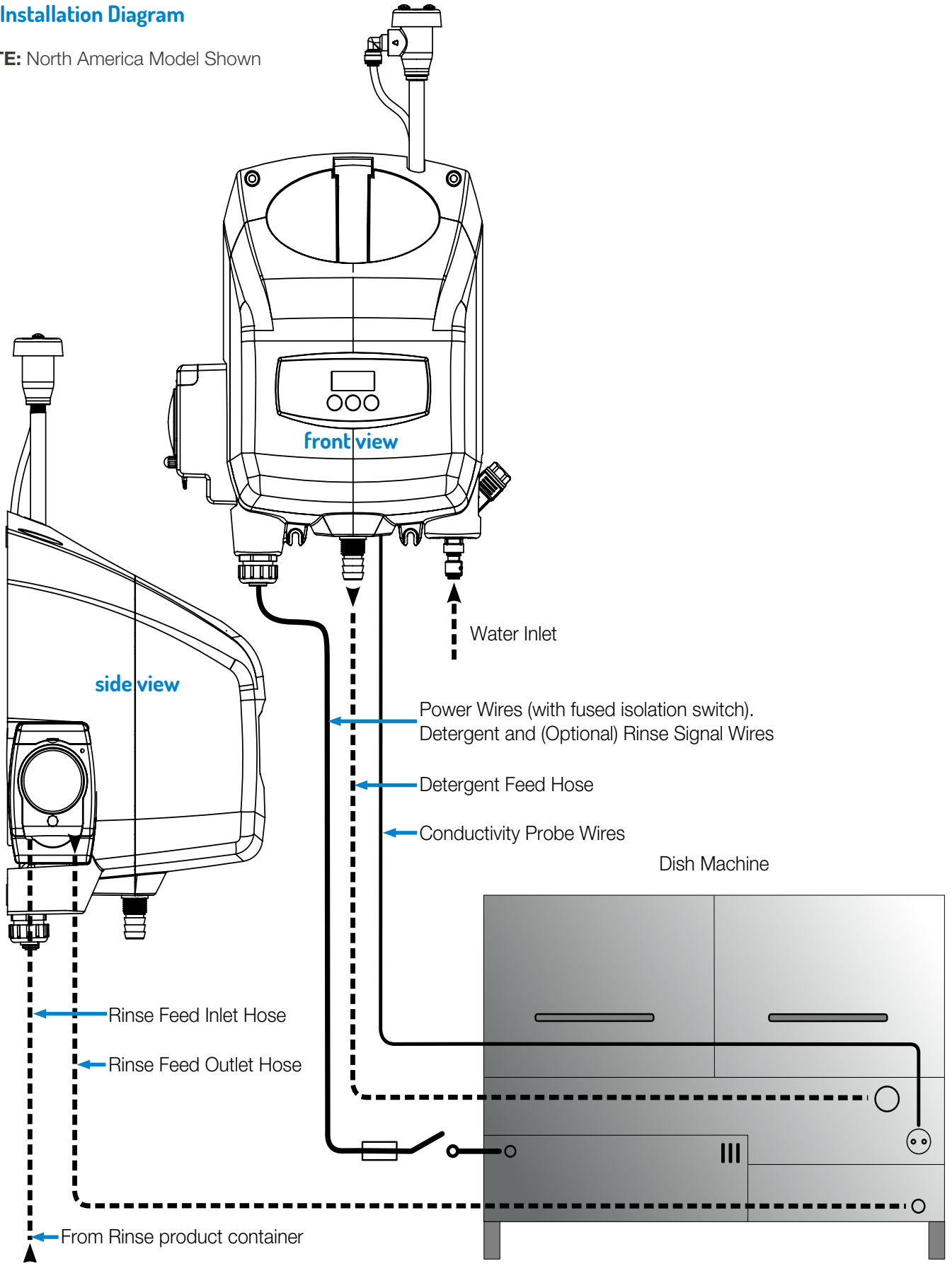
NOTE: North America Model Shown



Swivel the vacuum breaker up and secure. Connect the spray nozzle inlet tubing.

2.12 Installation Diagram

NOTE: North America Model Shown



2.00 installation (continued)

2.13 Wall Mounting the Enclosure

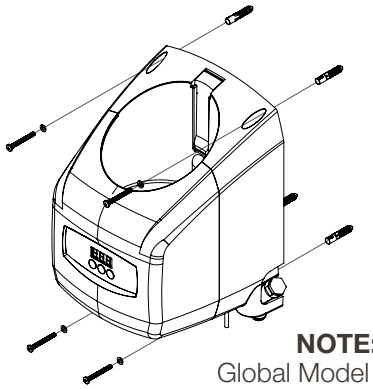
NOTE: Ensure the wall anchors are suitable for the wall being mounted to.

1) Position the enclosure against the wall at the chosen installation location and mark the wall through the four mounting holes.

2) Drill four holes in the marked positions using an 8 mm (5/16 inch) drill bit.

3) Insert the four wall anchors into the drilled holes, pushing them flush to the wall.

4) Secure the product to the wall with the four screws and washers, using a PZ2 or #2 Phillips screwdriver



NOTE:
Global Model Shown

2.14 Conductivity Probe

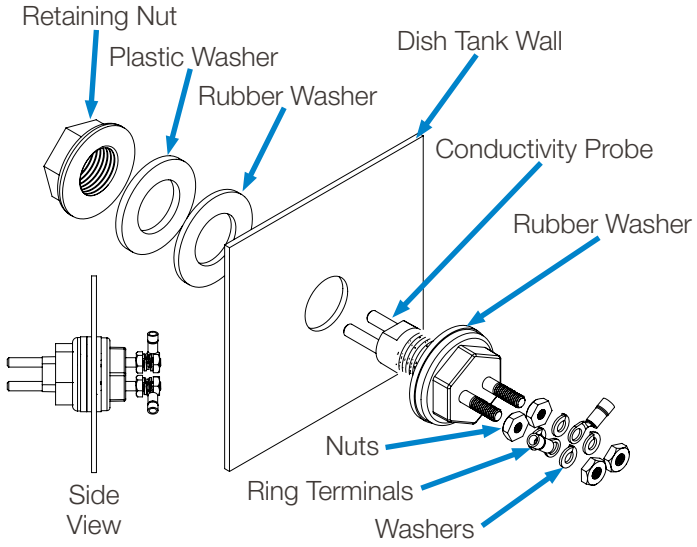
The probe senses the detergent concentration. Correct probe placement is critical for accurate detergent concentration control. Always use the new probe provided with the dispenser. When choosing a mounting location, make sure that the probe will be completely immersed in wash tank solution, in an area that has a good flow of solution and close to the product entry point.

Many dish machines will have knockouts provided for probe installation and/or will have existing probes. Previously punched holes may be suitable, but always confirm that the probe will be immersed in the wash tank solution before installing. The following steps describe probe installation.

1) Cut a 22mm or 7/8” hole using a suitable hole punch or cutter and ensure that all sharp edges, cutting debris and burrs are removed.

2) Remove probe retaining nut, plastic washer and one of the rubber washers.

3) Insert the probe into the hole and re-assemble the rubber washer, plastic washer and retaining nut back onto the probe from inside the dish tank. Tighten the retaining nut by hand, enough to prevent leaking.



2.15 Detergent Bulkhead Fitting

Correct placement of the detergent bulkhead fitting is critical for accurate detergent concentration control. Ensure that the detergent bulkhead fitting is:

- Above the water line in the tank.
- Close to the conductivity probe location.
- Discharging detergent directly into the wash tank and not on top of any shelf areas or obstacles that could prevent detergent from falling directly into the wash tank.

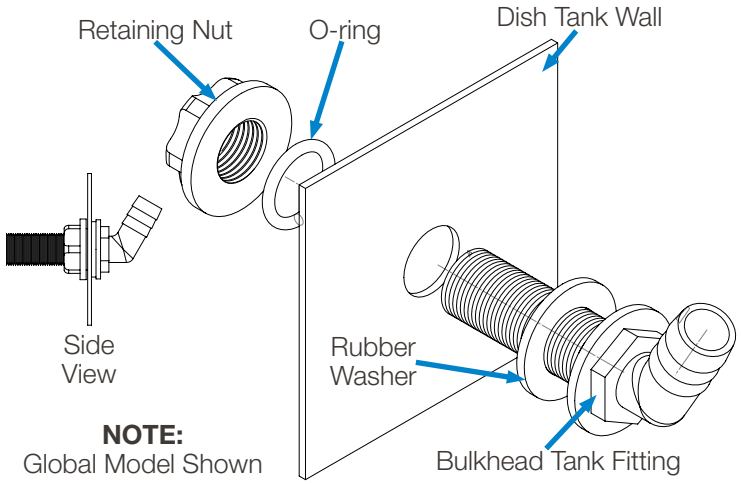
1) Cut a 22mm or 7/8” hole using a suitable hole punch or cutter and ensure all sharp edges, cutting debris and burrs are removed.

2) Remove the retaining nut and O-ring.

3) Push the threaded side of the bulkhead fitting into the hole in the tank, and add the O-ring and retaining nut back onto the fitting from inside the tank.

4) Align the external hose barb so it is facing upwards, to ensure flow of detergent from dispenser to tank.

5) Tighten retaining nut by hand, to ensure there are no leaks in the assembly



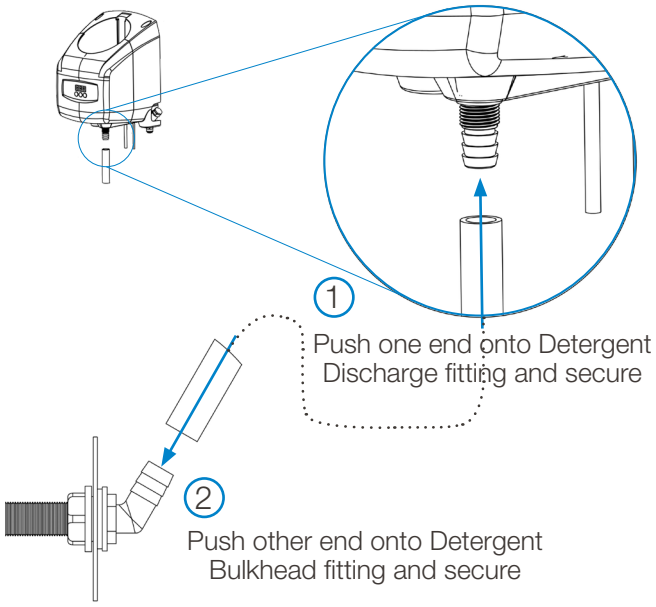
NOTE:
Global Model Shown

2.16 Detergent Discharge Hose

NOTE! Ensure there are no kinks or sharp bends in the discharge hose, between the unit and the detergent bulkhead fitting, to ensure free flow of detergent solution into the wash tank.

1) Using the supplied clear, flexible tubing, connect one end to the discharge hose outlet on the unit and secure with a cable-tie supplied in the mounting kit or a worm-gear hose clamp.

2) Connect the other end to the detergent bulkhead fitting. The tubing may need to be cut to the correct length. As before, secure with a supplied cable tie or a worm-gear hose clamp.



2.17 Optional Rinse Pump Tubing Connections

NOTE! Cable ties are provided in the fittings kit so that tubing can be tied together or to the wall, to create a neat and safe installation.

Inlet Tubing

1) Using the ¼" tubing provided, cut the tube to the correct length (keeping enough for the outlet tubing) and install the strainer & weight onto the end of the tube that will be placed into the rinse chemical container.

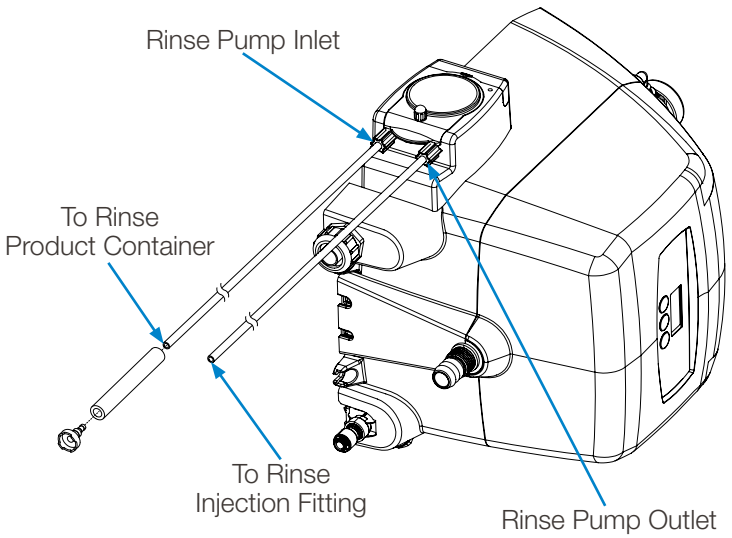
2) Install the strainer and weight into the rinse chemical container, ensuring that any entry hole produced in the container is suitable as not to allow particulates or any contamination to enter the container.

3) Connect the inlet tubing to the inlet on the rinse pump (left hand fitting). Loosen the compression fitting by 1 turn, then push the tube into the fitting and tighten.

Outlet Tubing

1) Install one end into the outlet of the rinse pump (right hand fitting). Loosen the compression fitting by 1 turn, then push the tube into the fitting and tighten.

2) Before cutting, measure the tubing length needed to reach the location where you will be installing the rinse injection fitting, and include some extra length for routing the tubing out of the way.



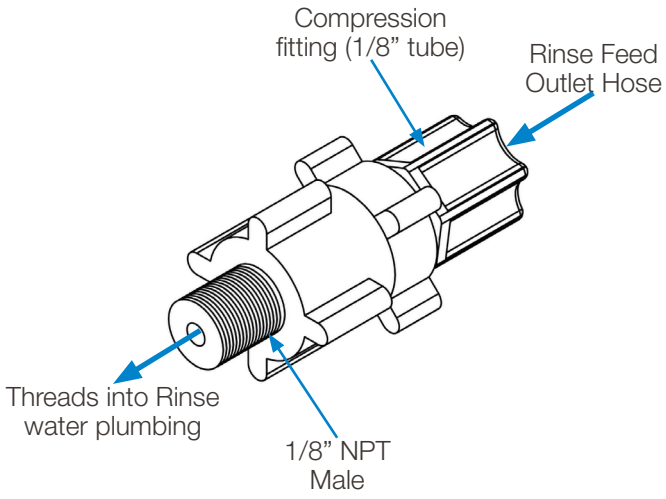
NOTE: Global Model Shown

2.18 Optional Rinse Pump Injection Fitting

NOTE! Only applicable to models that have the optional rinse pump fitted. You must install the rinse injection fitting downstream of any rinse solenoid.

CAUTION! Ensure there are no kinks or sharp bends in the tubing between the pump and the rinse injection fitting, to ensure free flow of rinse chemical into the rinse water.

CAUTION! Choose a location for the rinse injection fitting that allows the installation to comply with local and national plumbing regulations, ensuring there is no backflow of rinse chemicals into a potable or municipal water supply.



Installation Method 1:

1) Most machines will have a 1/8“ NPT inlet blanked off on the rinse water manifold
2) Remove the blanking cover and install the rinse pump injection fitting. Use thread sealant to ensure a leak free assembly.

Installation Method 2:

1) Drill a 5.5mm (7/32”) hole in the location at which you have decided to install the rinse pump injection fitting.
2) Cut threads into the hole using a 1/8” NPT tap, ensuring that all sharp edges, cutting debris and burrs are removed.
3) Install the rinse pump injection fitting. Use thread sealant to ensure a leak free assembly.

Connect pump discharge tubing:

1) Ensure the pump discharge tubing is long enough to reach the rinse injection fitting with enough extra to allow neat and safe routing. Connect the end of the tubing to the rinse injection fitting going into the dish machine. Loosen the compression fitting by 1 turn, then push the tube into the fitting and tighten.

2.19 Water Connection

CAUTION! Water supply temperature must be between 5°C and 40°C (40°F and 140°F). Maximum static water pressure is 0.6MPa (6 bar or 90 PSI). Ensure a pressure regulator is used before the water inlet if static water pressure will fluctuate above this level.

CAUTION! An isolation valve can be fitted between the water supply and the unit to ensure the water supply can be shut off if required.

1) The water inlet connection type will vary between models. Currently available connection types are:
   - Standard: 8mm, (5/16”) push fit connection
   - Optional: 6mm, (1/4”) push fit connection
2) Connect the water supply to the water inlet, ensuring that the supply hose is supported so as not to create unnecessary force on the inlet.
3) If the unit is being supplied from the municipal water supply, the hose sets used must comply with IEC 61770.

2.00 installation (continued)

2.20 Electrical Installation

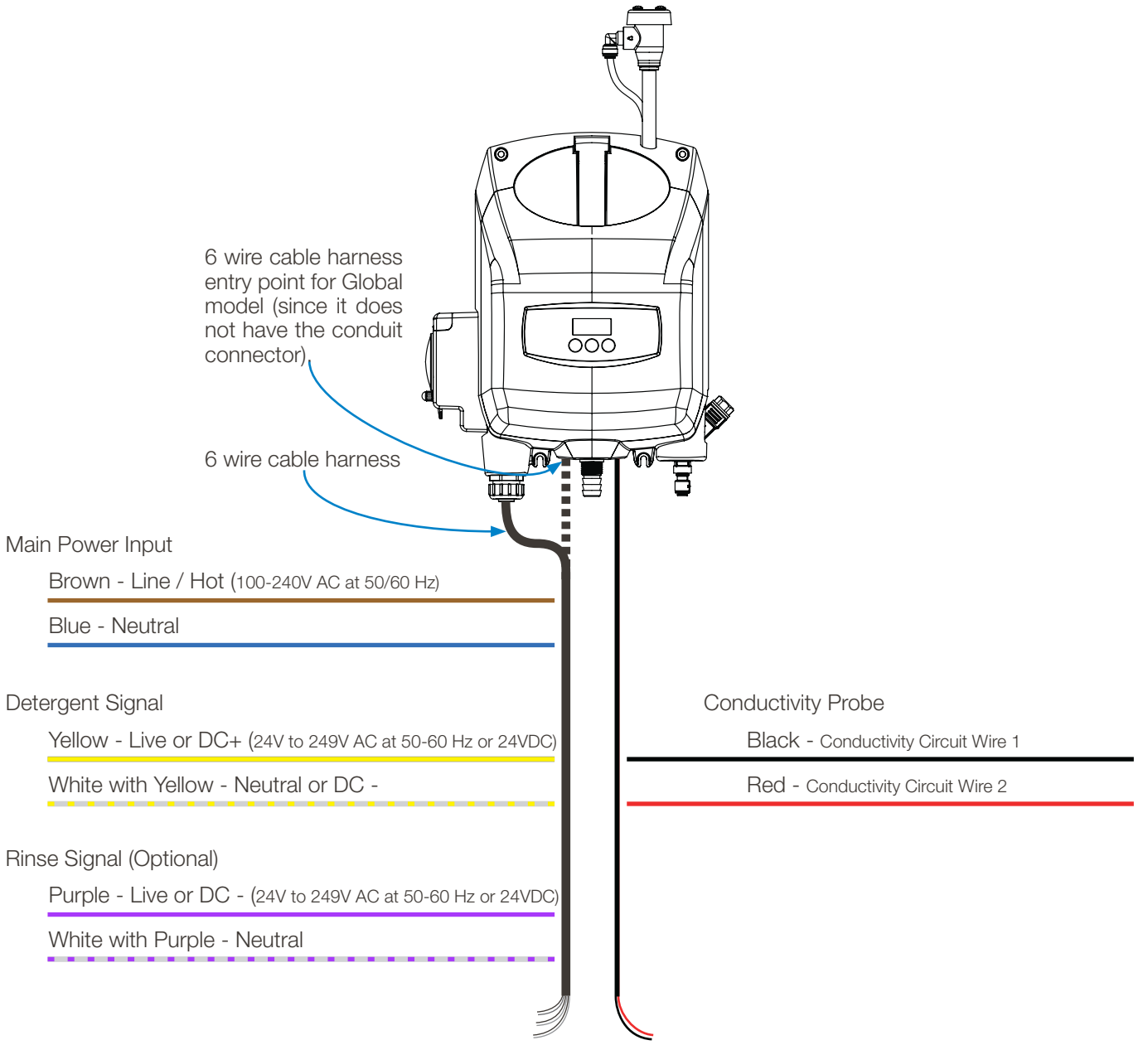
WARNING! Electrical installation and maintenance should be completed by a qualified electrician. All local and national electrical regulations are to be observed.

CAUTION! All electrical connections (excluding the conductivity probe) are to be made either in the dish machine control circuit panel or in a suitable, external junction box.

Where applicable, all cable entries into new equipment must be made with a water tight conduit fitting or gland, meeting the appropriate local and national regulations.

Ensure all wiring is routed neatly and safely between appliances, as not to create any trip hazards that could result in injury, or damage to the equipment or wiring.

2.21 Electrical Connections



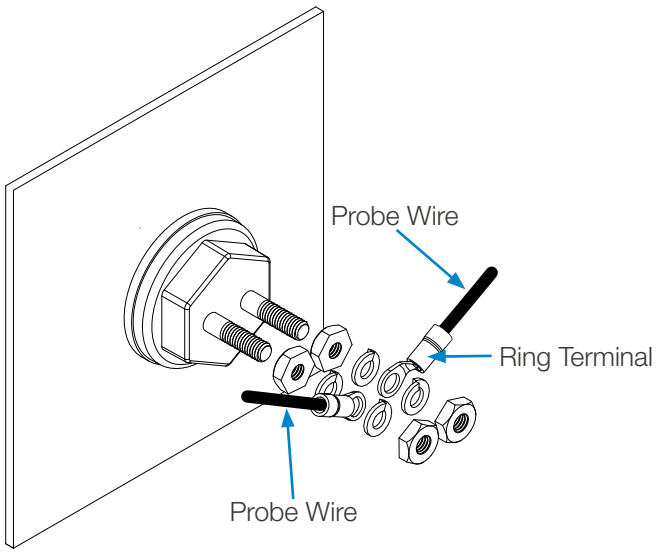
NOTE: North America Model Shown

2.22 Conductivity Probe Wiring

Although the conductivity probe wiring is pre-wired to the controller, you must make the connection to the probe installed on the washer.

1) Route the probe wires to the conductivity probe location and cut to fit if required.
2) Strip the wire ends and crimp on the ring terminals provided.
3) Connect the ring terminals to each of the probe connections, sandwiching each ring terminal onto the probe between the nuts and washers provided (see diagram at right). Ensure that connections are tight and secure.

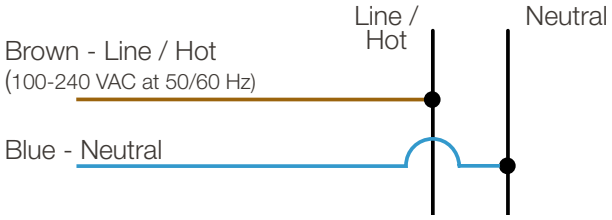
WARNING! Electrical installation should be completed by a qualified electrician. All local and national electrical regulations are to be observed.



2.23 Main Power Input Wiring

Power input to the EvoWash can be any voltage from 100-240 VAC at 50/60 Hz. For single phase systems, the brown wire of the six-wire harness is connected to the Hot source and the blue wire is connected to the Neutral source, as shown to the right. With a three phase supply, the EvoWash is a single-phase load. Line voltage is applied using just two wires (Brown and Blue). Avoid interconnection to power systems that are not ground-referenced. Choose a connection between a line (phase) and neutral, connecting the brown wire to the line and the blue wire to the neutral, following the illustrations below.

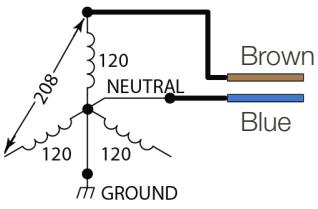
Main Power Input Wiring: Single Phase AC Power



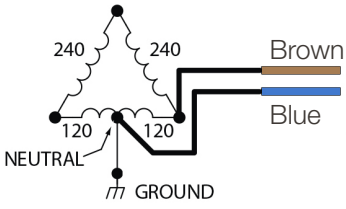
Main Power Input Wiring: Three Phase AC Power

Note! An accessible neutral is required. Connect between line and neutral ONLY.

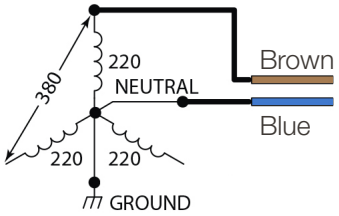
1. 120/208 VAC WYE (includes Neutral)



2. 120/240 VAC Delta with High Leg

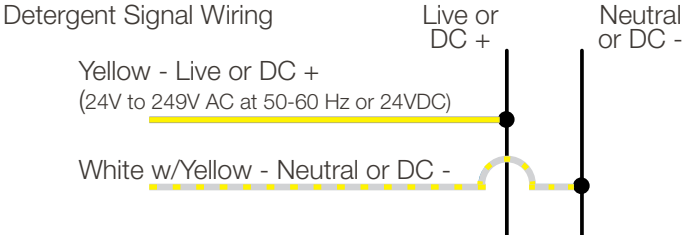


3. 220/380VAC or 240/415VAC WYE (includes Neutral)



2.24 Detergent Signal Wiring

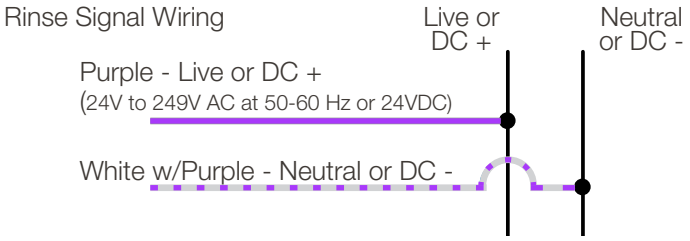
- Detergent signal input is optically isolated and draws no more than 20mA.
- It is a universal voltage input that accepts voltage between 24-249VAC nominal (± 10% fluctuation), or 24VDC nominal (± 20% fluctuation).
- Typical wiring locations are dispenser detergent power source or the wash motor contacts in the dish machine control panel. This power source is on when the dishwasher is running the wash pump.
- Connect yellow (DC+) and white w/yellow (DC-) colored wires to detergent signal power source.



2.25 Rinse Signal Wiring (Optional)

WARNING! If a rinse pump is not installed, cap off and insulate the unused rinse signal wires.

- Rinse signal input is optically isolated and draws no more than 20mA.
- It is a universal voltage input that accepts voltage between 24-249VAC nominal (± 10% fluctuation), or 24VDC nominal (± 20% fluctuation).
- Typical wiring locations are dispenser rinse power source or the rinse solenoid valve circuit in the dish machine control panel. This power source is live whenever the dishwasher is rinsing.
- Connect purple (DC+) and white w/purple (DC-) colored wires to detergent signal power source.



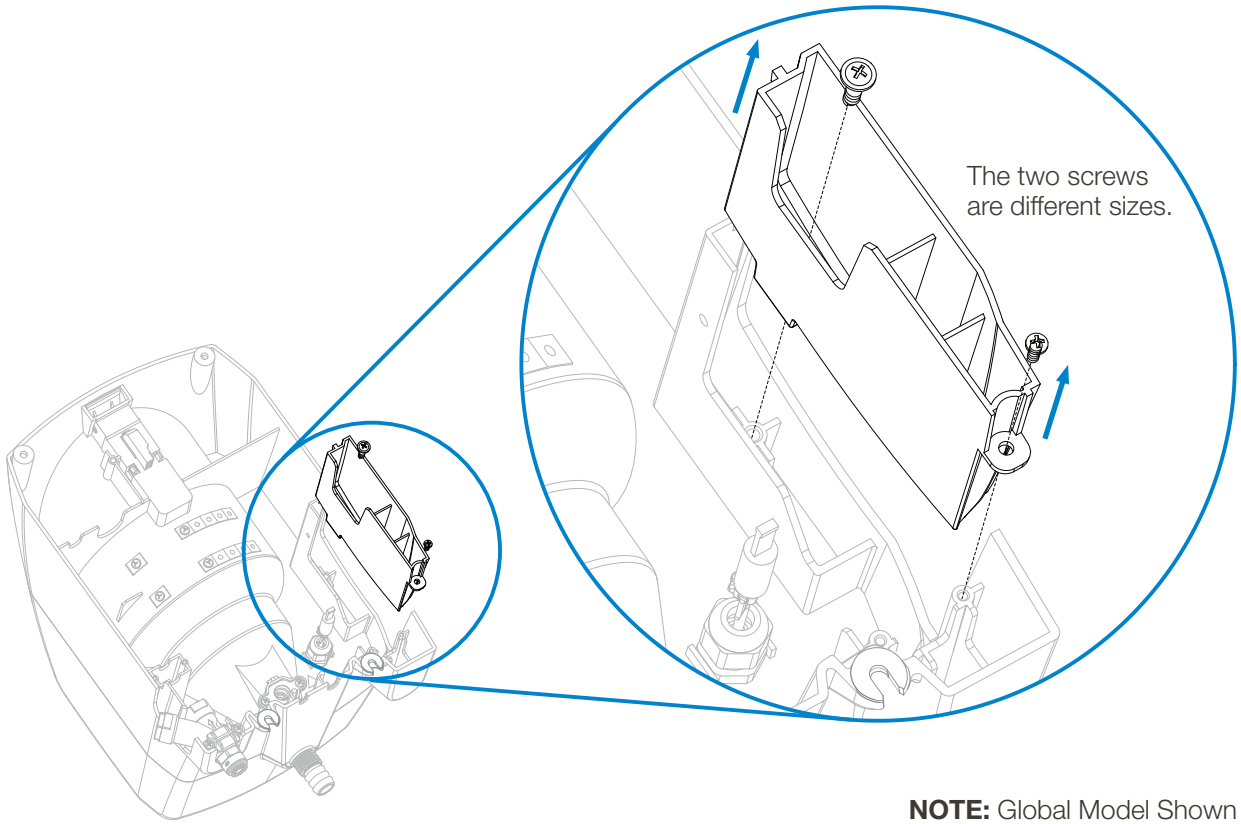
2.30 Retrofit Rinse Pump Installation

If an EvoWash unit was purchased without a rinse pump, you may want to add the functionality of having an integrated Rinse pump for dosing rinse aid into your system. All programming and settings are controlled through the same interface as the detergent control.

Warning! Disconnect and isolate the power and water supplies before performing any maintenance on the unit.

1) Remove the EvoWash enclosure from the wall, and set the unit face down on a clean, stable work surface. Support the device where necessary to prevent it from moving during the changeover.

2) Unscrew the 2 screws from the side cover and pull the side cover away from the main housing, as shown below.

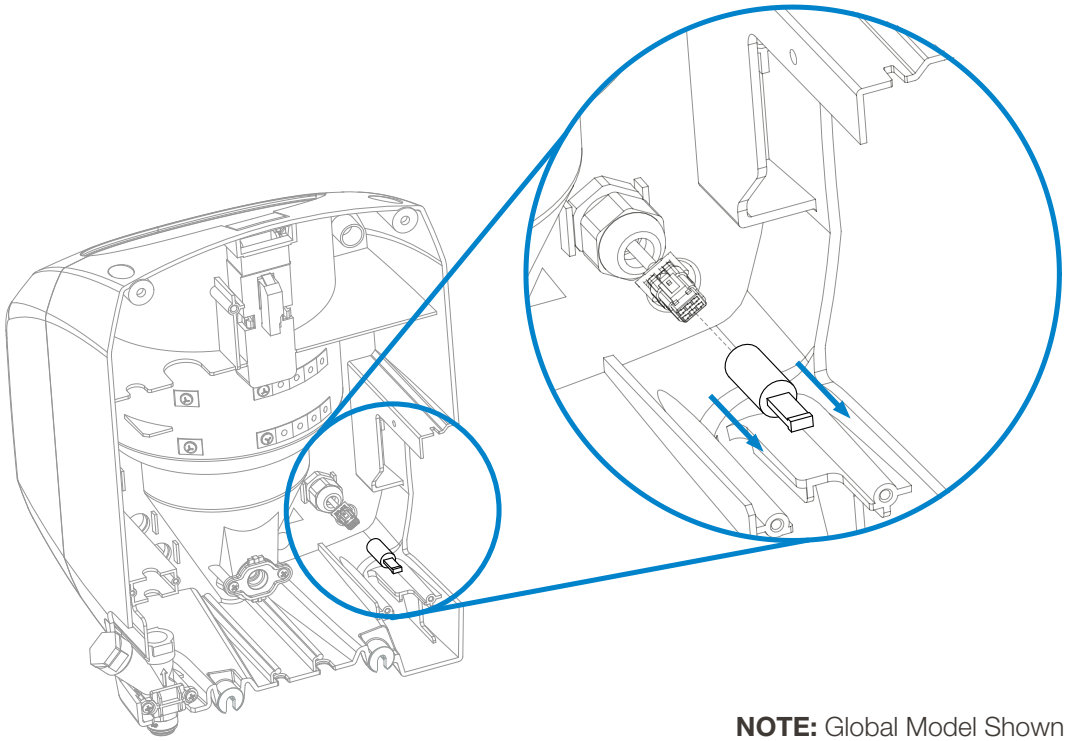


NOTE: Global Model Shown

2.30 Retrofit Rinse Pump Installation (continued)

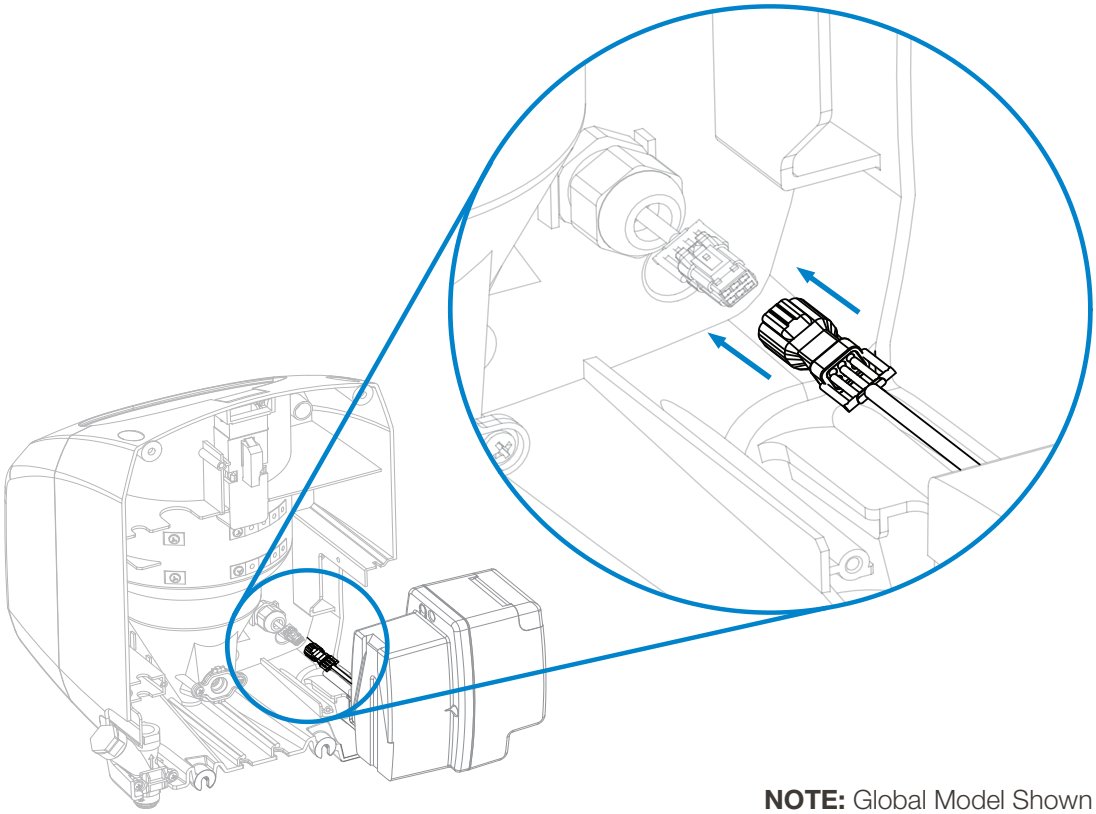
3) Remove the Rinse Pump from the packaging.

4) Remove the plastic cap from the end of the six-wire cable connector, inside the unit.



NOTE: Global Model Shown

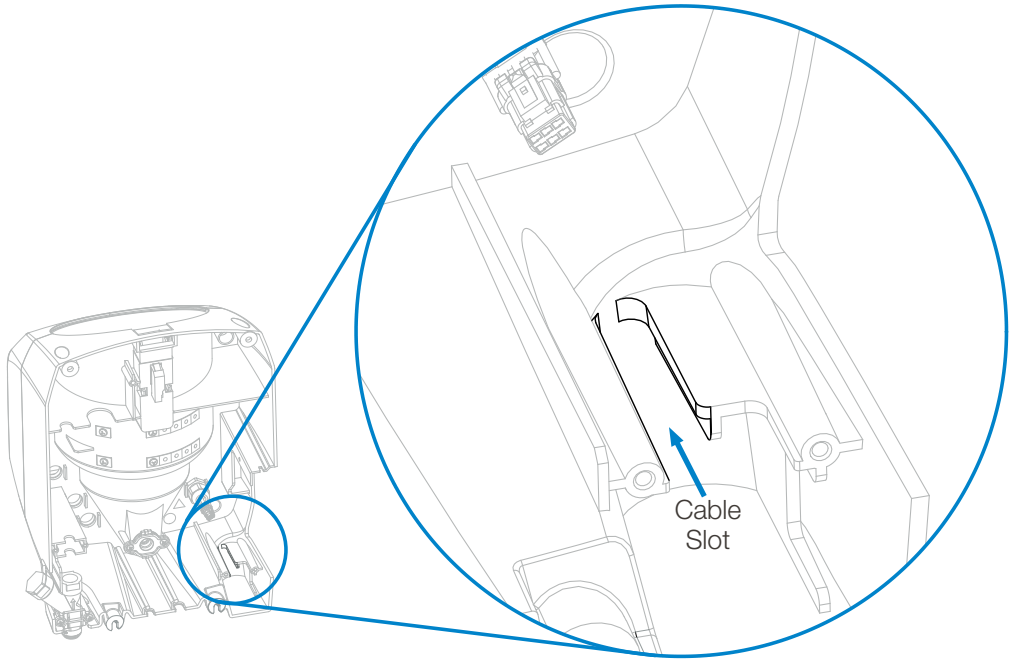
5) Clip the plug from the rinse pump to the six-connection plug on the unit, checking that the two mate together properly.



NOTE: Global Model Shown

2.30 Retrofit Rinse Pump Installation (continued)

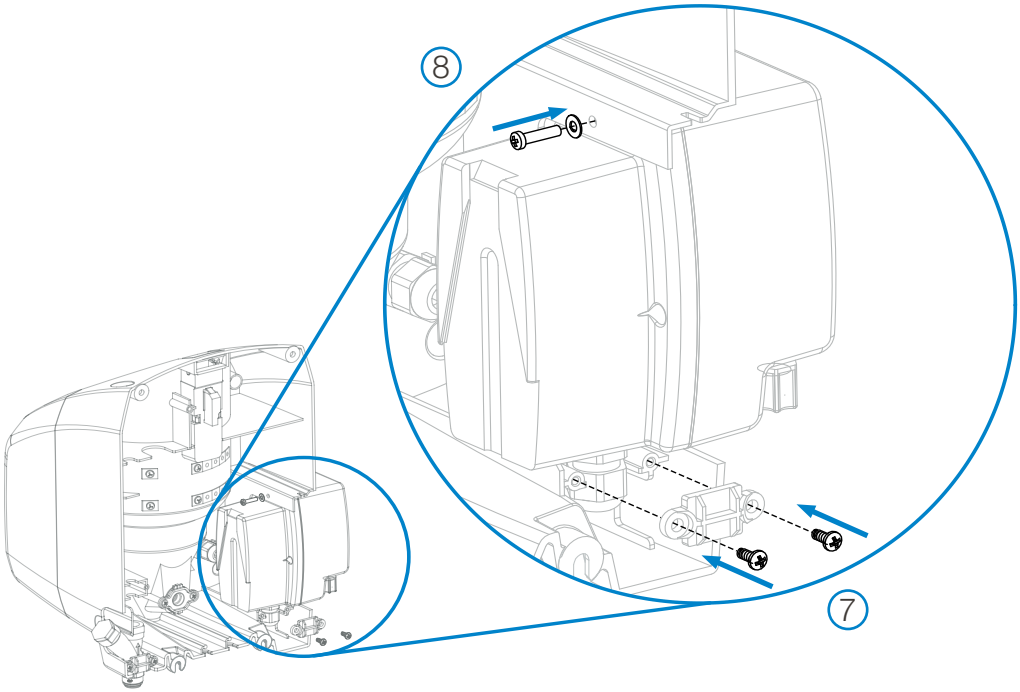
6) Push the rinse pump into the housing, feeding the cable under the pump and into the slot at the back of the unit.



NOTE: Global Model Shown

7) Screw the securing clip over the cable gland at the base of the pump.

8) Use the screw and washer to secure the rinse pump into the main housing at the top of the rinse pump.



NOTE: Global Model Shown

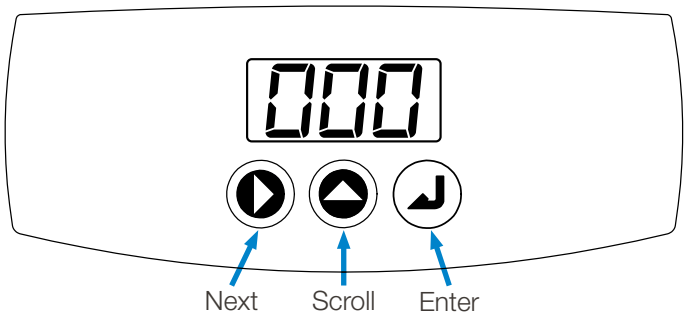
9) Once the rinse pump has been installed, secure the unit back onto the wall and install the rinse pump tubing and rinse injection fitting as per the Mechanical Installation instructions in sections 2.16 and 2.17 on pages 10 and 11.

3.00 operation

3.01 Controls

There are three control keys below the EvoWash display:

- **Next**: the “right arrow” that moves to the next item.
- **Scroll**: the “up arrow” that changes a value.
- **Enter**: the “down and over arrow” to make a selection.



3.02 User Mode

“User mode” is the default mode which the end user will be able to view and operate. The schematic and descriptions below detail the use of the User Mode menu screens.

The unit cannot be programmed in User Mode, go to the ‘Programming Mode” section on page 19, to program the unit.

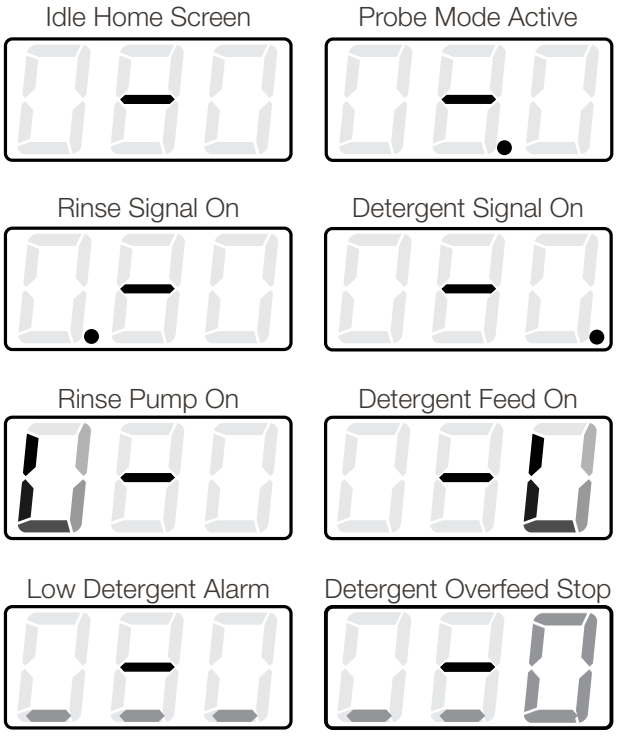
From the Home Screen, press the Next key to access and move through the user mode’s menu loop. After 30 seconds of inactivity, the unit will automatically return to the Home Screen (or the live conductivity display, if enabled).

3.03 User Mode Menus

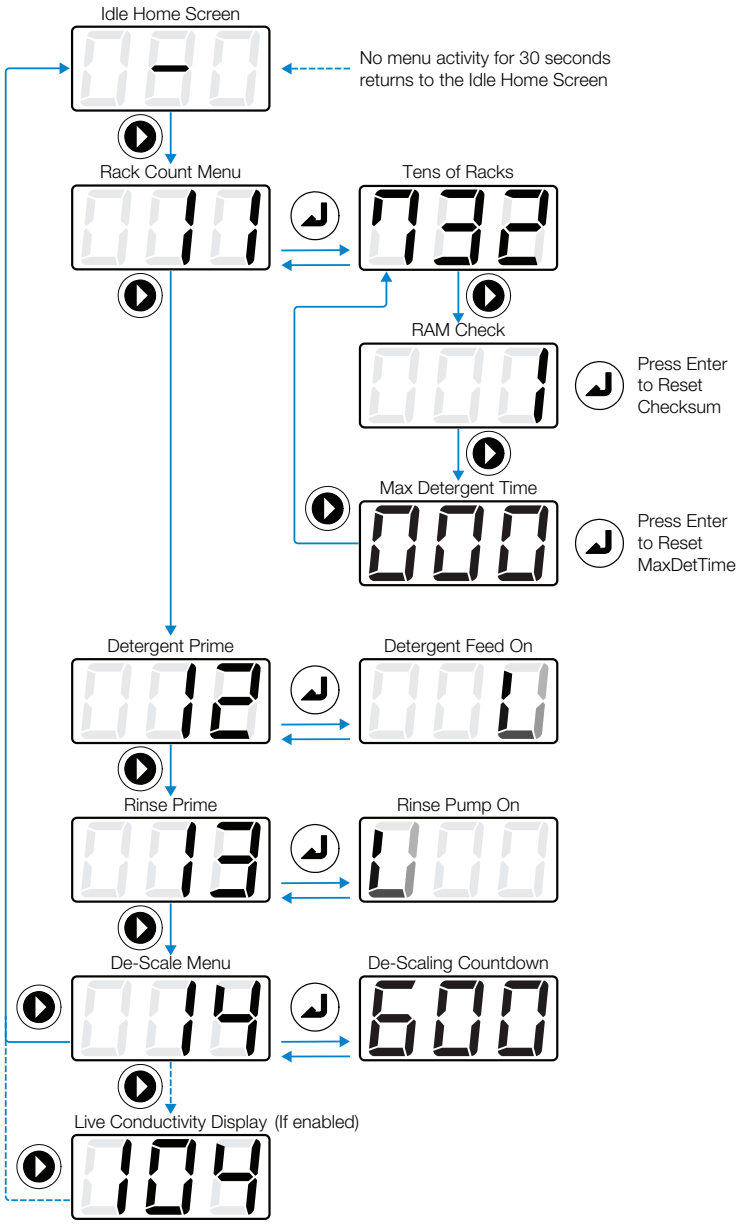
From an “idle” display, either the Home Screen or the live conductivity display if enabled, you press the Next key to move through the User Mode menus. The menu structure is shown to the right.

NOTE: If enabled, the live Conductivity display can be used in place of the normal Idle Home Screen display.

Below are examples of other displays you might see on the Home Screen, showing various signals, activities or errors.



NOTE: Black indicates on constant.
Gradient indicates rotating zero (0).
Gray indicates “blinking”.



3.03 User Mode Menus (continued)

Menu 11: Rack Count Menu

- At the Idle Home Screen press the **Next** key to move to Menu 11.
- Press the **Enter** key to display the number of racks washed (divided by ten). For example, 7,324 racks will display as 732.
- Press the **Enter** key again to return to Menu 11, or press the **Next** key to move to the RAM Check.
- At the RAM check screen press **Enter** to test the RAM memory. A "1" will display if the RAM memory passes the test.
- Press the **Next** key to move to the 'Max Det Time' screen, which displays the longest time (in seconds) the detergent feed has had to run to satisfy the set point. (Make note of this time, and see the Troubleshooting section for more information.)
- Press the **Next** key again to return to the Rack Count display, where you can press **Enter** to return to Menu 11.

NOTE: If not stopped manually, either prime function below will stop automatically after 30 seconds.

Menu 12: Detergent Prime

- At the Rack Count Menu (Menu 11) press the **Next** key to move to Menu 12, Detergent Feed Prime.
- Press and release the **Enter** key to start the detergent feed.
- Press and release the **Enter** key again to manually stop the detergent feed and return to Menu 12.

Menu 13: Rinse Prime

- At the Detergent Feed Prime screen (Menu 12) press the **Next** key to move to Menu 13, Rinse Pump Prime.
- Press and release the **Enter** key to start the Rinse pump.
- Press and release the **Enter** key again to manually stop the rinse pump and return to Menu 13.

Menu 14: De-scaling Menu

- At the Rinse Pump Prime screen (Menu 13) press the **Next** key to move to Menu 14. the De-scaling Menu.
- Press and release the **Enter** key to start the 600 second De-scaling countdown.
- Press and release the **Enter** key again to manually abort the De-scaling countdown and return to Menu 14.

NOTE: The controller/dispenser does not do anything during the 10 minute countdown, it simply ignores detergent and rinse signals to avoid wastefully dosing detergent and rinse aid while the operator is performing maintenance.

Live Conductivity Display (if enabled - only available in Probe Mode)

- At the De-Scaling Menu (Menu 14) press the **Next** key to move to the Live Conductivity display, if it has been enabled. (See section 4.04 in the Program Menu instructions for Menu 32.2)
- Press the **Next** key again to return to the Idle Home Screen. If the Live Conductivity display was not enabled, you would have returned to the Idle Home Screen when you pressed the **Next** key on the De-Scaling Menu (Menu 14).
- **NOTE:** When the Live Conductivity display is visible, the menu will NOT return to the Idle Home Screen after 30 seconds.

3.04 Alarms (Probe Mode Only)

Low Detergent Alarm (Flashes the lower line of each digit in the display and beeps in three sets of three beeps.)

- The visual and audible low detergent alarm occurs if the conductivity is below the set point, and the detergent feed activates, but after a user-defined number of racks (the Low Detergent Alarm Delay), the conductivity has not increased.
- The low detergent alarm will automatically reset if the controller senses an increase in conductivity in the wash tank before the Detergent Overfeed Stop Alarm occurs.

Detergent Overfeed Stop Alarm (Flashes the lower lines and right 0 in display and beeps sets of three beeps continuously.)

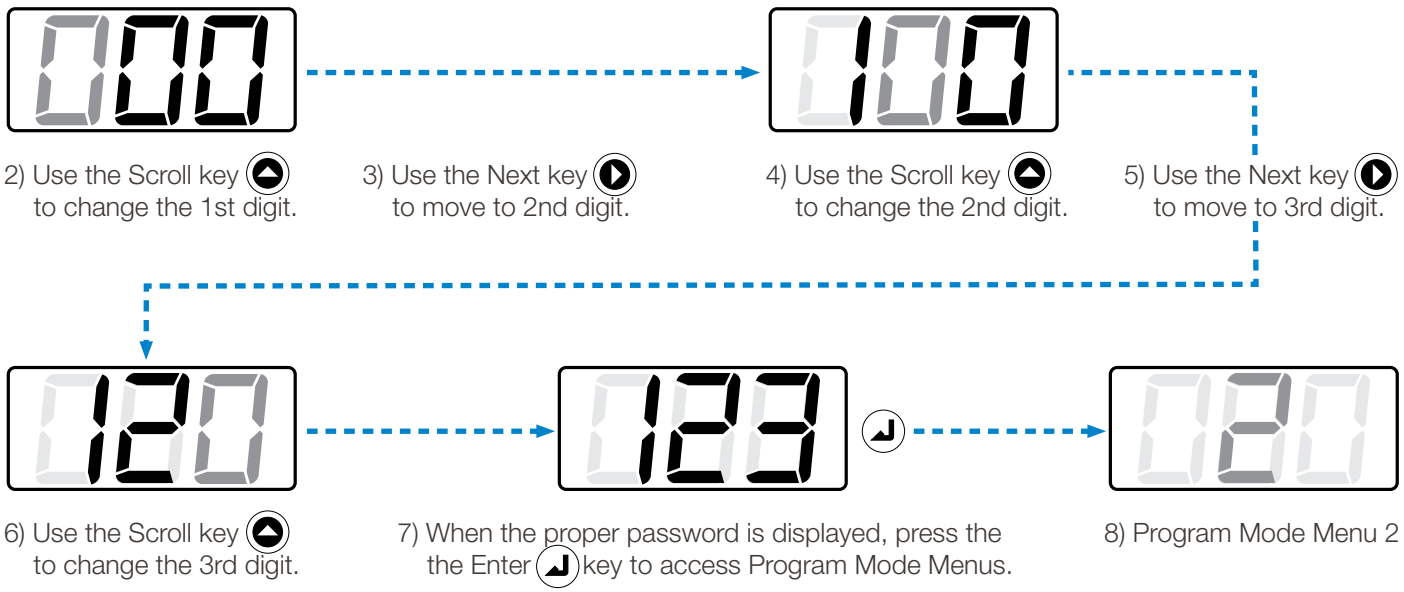
- If a low detergent alarm condition continues for twice the user-defined number of racks in the Low Detergent Alarm Delay, with no increase in conductivity, the visual and audible Detergent Overfeed Stop Alarm will occur and the detergent feed will be stopped until the alarm is manually cleared.
- When the issue causing the Detergent Overfeed Stop Alarm is resolved (such as installing a new container of detergent or cleaning the conductivity probe), the alarm can be manually cleared by pressing any of control keys (Next, Scroll or Enter).

4.00 programming

4.01 Program Mode

Program Mode is password protected (factory set to “123”) with two sets of menus for installers and maintenance technicians to adjust the unit settings to meet their wash requirements. Follow the steps below to access the Program Mode Menus.

1) Press and hold the Enter key for 2 seconds. (**NOTE:** Gray indicates blinking in displays below.)



4.02 Program Menu Settings (Program Menus 2, 3 and 4)

Program Menu 2 is considered the “Configuration Menu”. It is accessible by entering the proper Program Mode password.

Whether you see Program Menu 3 or Program Menu 4 after Program Menu 2 will depend on the setting in Menu 21, Detergent Control, where you set whether the controller will operate in “Probe Mode” or “Probeless Mode”.

Program Menu 3 is considered the “Adjustment Menu” for Probe Mode.

Program Menu 4 is considered the “Adjustment Menu” for Probeless Mode.

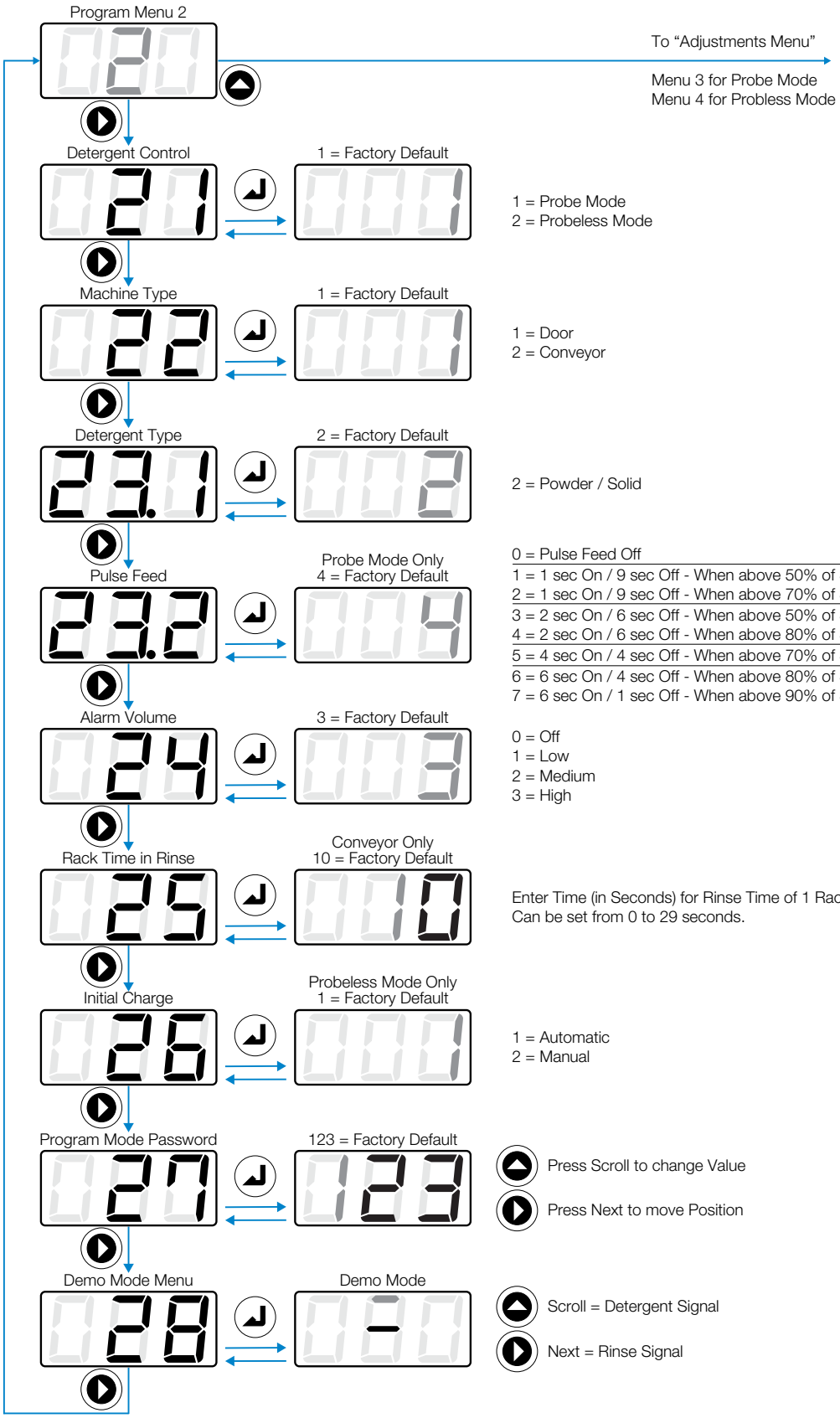
Details for the individual configuration settings available in Program Menu 2 and the individual adjustments available in Program Menus 3 or 4 are shown in the menu trees on pages 20 through 22, and then described on the following pages.

4.00 programming (continued)

4.03 Program Mode Menus

Entering the Program Mode password and pressing the **Enter** key will always move first to Program Mode Menu 2.

Program Mode Menu 2: Configuration

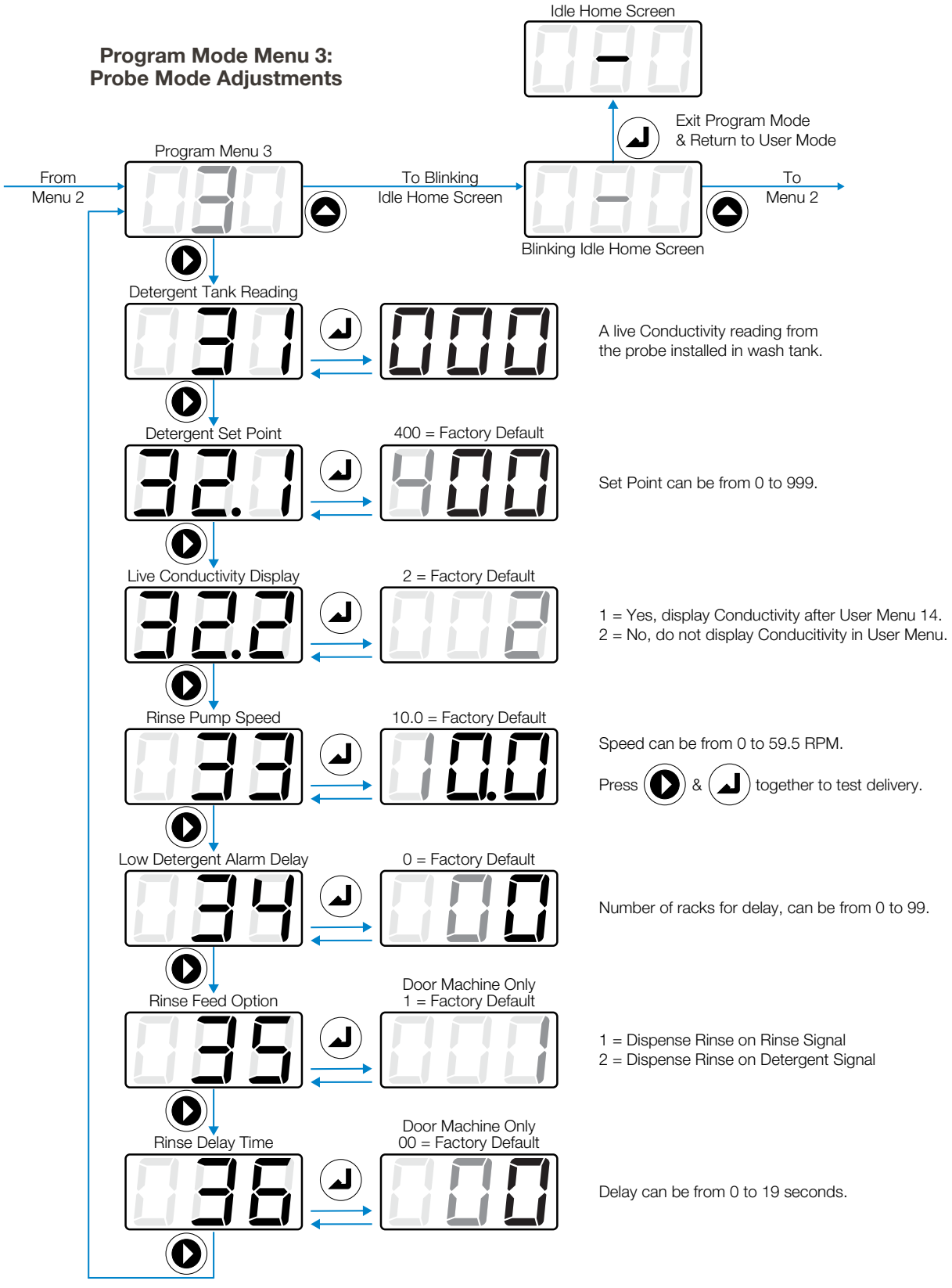


4.00 programming (continued)

4.03 Program Mode Menus (continued)

At the top of Menu 2 (with a blinking middle digit 2), press the **Scroll** key to move to the "Adjustments" menu appropriate for the Detergent Control Mode defined in Menu 21. That will be either Menu 3 for Probe Mode, or Menu 4 for Probeless Mode.

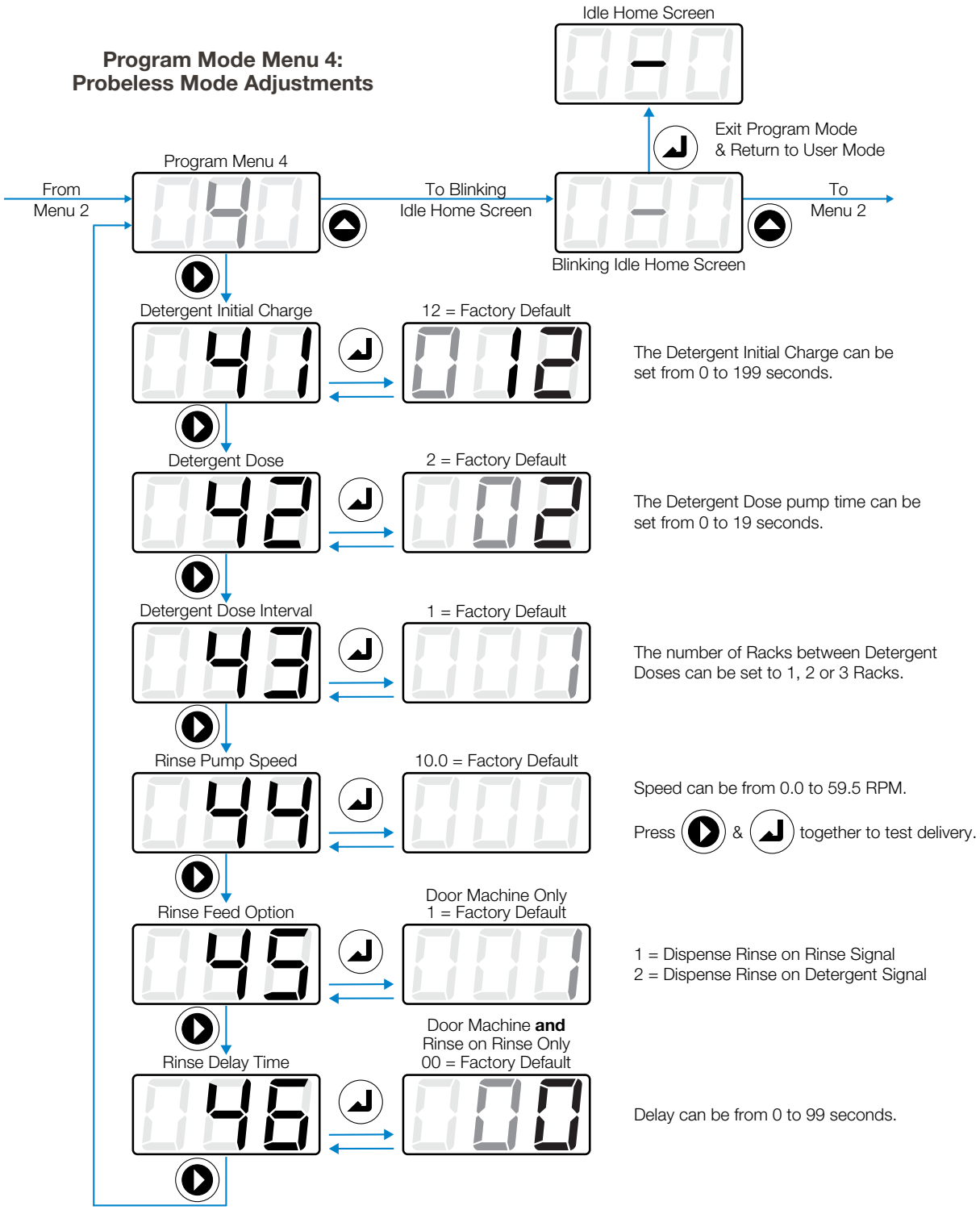
Program Mode Menu 3:
Probe Mode Adjustments



4.00 programming (continued)

4.03 Program Mode Menus (continued)

At the top of Menu 2 (with a blinking middle digit 2), press the **Scroll** key to move to the "Adjustments" menu appropriate for the Detergent Control Mode defined in Menu 21. That will be either Menu 3 for Probe Mode, or Menu 4 for Probeless Mode.



4.04 Configuration Menu Settings (Program Menu 2)

Menu 21: Detergent Control

1 = Probe Mode (default)
2 = Probeless Mode

In Probe Mode the EvoWash dispenser relies on the Conductivity probe to detect detergent concentration and therefore when to dose and how much. In Probeless Mode the dosage is set in seconds and the dosing follows the Detergent Dose Interval.

Menu 22: Machine Type

1 = Door Machine (default)
2 = Conveyor Machine

This menu is where the user indicates which type of warewash machine is being supplied by the EvoWash dispenser, which alters how the dispenser operates and what control settings are available, to correspond to the type of machine.

Menu 23.1: Detergent Type

2 = Solid / Powder (default)

Since the EvoWash dispenser only uses solid/powder chemistry this must always be set to "2" for the unit to operate properly.

Menu 23.2: Pulse Feed (Probe Mode Only)

0 = Pulse Feed Off

1 = 1 Sec. On / 9 Sec. Off - When above 50% of the Set Point
2 = 1 Sec. On / 9 Sec. Off - When above 70% of the Set Point

3 = 2 Sec. On / 6 Sec. Off - When above 50% of the Set Point
4 = 2 Sec. On / 6 Sec. Off - When above 80% of the Set Point (default)

5 = 4 Sec. On / 4 Sec. Off - When above 70% of the Set Point

6 = 6 Sec. On / 4 Sec. Off - When above 80% of the Set Point
7 = 6 Sec. On / 1 Sec. Off - When above 90% of the Set Point

Especially useful during initial tank fill or tank refill, the detergent will be dosed continuously until the probe measurement reaches the percentage of the Set Point defined by the setting, then start to feed on and off, to try and avoid "overshoot" of detergent feed. In general the lower settings often work well with smaller wash tanks and the higher settings with larger tanks.

Menu 24: Alarm Volume

0 = Off
1 = Low
2 = Medium
3 = High (default)

This setting controls the volume of the beeping sound used with the Low Detergent Alarm and Detergent Overfeed Stop.

Menu 25: Rack Time in Rinse (Conveyor Machine Only)

1 to 29 seconds (default = 10 seconds)

A setting that only pertains to Conveyor Machines, this menu is where the user would indicate how long it takes (in seconds) for a single rack to pass through the rinse stage. This time is used to help determine rack count on conveyor machines.

Menu 27: Program Mode Password

000 to 999 (default = 123)

Any value from 000 to 999 may be used. Press the **Scroll** key to change the value of the blinking digit. Press the **Next** key to move to the next digit. Press the **Enter** key at any time to accept the number displayed as the new Program Mode Password.

Menu 28: Demo Mode Menu

Press the **Scroll** key to simulate a Detergent signal. Press the **Next** key to simulate a Rinse signal.

This menu allows the user to test or demonstrate the reaction of the EvoWash dispenser to Detergent and Rinse signals.

4.00 programming (continued)

4.05 Probe Mode Adjustment Menu Settings (Program Menu 3)

Program Menu 3 is considered the Adjustment Menu for Probe Mode. It is accessible by entering the proper Program Mode password and pressing the Scroll key at the blinking "2" of the Program Menu 2 to move to Menu 3.

NOTE: Which adjustment menu appears, when pressing the Scroll key at the blinking "2" of the Program Menu 2, depends on the setting of Menu 21. If the Detergent Control is set to "1" for Probe Mode, then Menu 3 appears. If the Detergent Control is set to "2" for Probeless Mode, then Menu 4 appears.

Below are details for the individual adjustment settings available in Program Menu 3, as shown in the menu tree on page 21.

Menu 31: Detergent Tank Reading

Press the **Enter** key at Menu 31 to see a live reading from the Conductivity probe installed in the wash tank.

One use for this display is when establishing the proper Set Point during installation. Prepare for this reading by manually adding detergent to achieve the proper concentration, confirmed by testing via titration or measured volume. The dishwasher tank solution must be well mixed (wash pump running) and at operating temperature.

Then use Menu 31 to view the Conductivity reading, which is a running average updated every 0.1 seconds. Make note of the tank reading displayed and use the value as the Set Point for Detergent Control in Menu 32.1.

Menu 32.1: Detergent Set Point

000 to 999 (default = 400)

This is the setting that will initiate Detergent Feed, when the Conductivity reading falls below the value defined here.

Any value 000 to 999 may be used. Press the **Scroll** key to change the value of the blinking digit. Press the **Next** key to move to the next digit. Press the **Enter** key at any time to accept the number displayed as the new Detergent Control Set Point.

Menu 32.2: Live Conductivity Display

1 = Yes, display Conductivity after User Menu 14.
2 = No, do not display Conductivity in User Menu. (default)

This setting controls whether a live Conductivity reading will be displayed after User Menu 14. If enabled, pressing the **Next** key at Menu 14 will show a live Conductivity reading instead of returning to the Idle Home Screen. Also, this display will not "time out" like most menus which return to the Idle Home Screen after 25 seconds of no key activity.

Menu 33: Rinse Pump Speed

0.0 to 59.5 Revolutions Per Minute (RPM) (default = 10.0 RPM)

NOTE: This setting only effects the dispenser operation when the optional Rinse Pump is installed.

Instead of setting how long the rinse pump runs for each wash cycle, the amount of rinse agent added is adjusted using the rinse pump speed. Press **Scroll** to change the value of the blinking digit. Press **Next** to move to the next digit. Press **Enter** key at any time to accept the number displayed as the new setting for the Rinse Pump Speed.

NOTE: Adjust the rinse pump speed to dose an appropriate amount of product needed for good results on wares. To determine this adjustment, note the amount of rinse product per unit of water (check the dish machine specifications for rinse water flow rate per minute) or observe the sheeting action of the product on wares. With the standard rinse pump tube, in new condition, the EvoWash rinse pump will dispense approximately 0.5 ml per revolution.

Testing: With the Rinse Pump Speed displayed, press and hold **Next** and **Enter** to run the pump at the displayed speed.

Rinse Pump Speed Setting Guide: (Only a guide, indicated dosages are approximate. Dispensed amount must be verified.)

Rinse Pump Speed (RPM) → / Rinse Time per Rack (in seconds)	Rinse Agent Desired per Rack (in milliliters)								
	1	1.5	2	2.5	3	3.5	4	4.5	5
6	20	30	40	50	59.5				
8	15	23	30	38	45	53	59.5		
10	12	18	24	30	36	42	48	54	59.5
12	10	15	20	25	30	35	40	45	50
14	9	13	17	21	26	30	34	39	43
15	8	12	16	20	24	28	32	36	40
16	8	11	15	19	23	26	30	34	38
18	7	10	13	17	20	23	27	30	33
20	6	9	12	15	18	21	24	27	30

4.05 Probe Mode Adjustment Menu Settings (continued)

Menu 34: Low Detergent Alarm Delay (in Racks)

0 to 99 racks (default = 0 racks)

A setting that delays the Low Detergent Alarm by the defined number of racks. Although the range is 0 to 99 racks, there is always a delay of at least 1 rack. Also, the Low Detergent Alarm is always "on" or active, although you can turn the alarm beep volume to 0 (zero) and set a very large delay value to effectively disable the alarm.

The Low Detergent Alarm is a warning that occurs when the Conductivity reading is below the Set Point, and does not increase by 10% or more for the duration of the Low Alarm Detergent Delay setting. So, if the delay was set to 4 racks, and the Conductivity reading is below the Set Point, and does not increase by 10% or more for 4 racks, the Low Detergent Alarm will occur; indicated visually by the lower section of each digit blinking on the display as shown on page 17, and by three sets of three beeps. If the Conductivity does increase by 10% or more during the Low Alarm Delay period, the alarm will reset and the alarm logic starts over.

(After a Low Detergent Alarm does occur, and if the Conductivity still does not increase by 10% or more for a second duration of the Low Detergent Alarm Delay, then the Detergent Overfeed Stop occurs; which shuts off the detergent feed and sounds the "three beep" alarm continuously, until the stop is "cleared" by touching any key on the control pad.)

Menu 35: Rinse Feed Option (Door Machine Only)

1 = Dispense Rinse on Rinse Signal (default)
2 = Dispense Rinse on Detergent Signal

NOTE: This setting only effects the dispenser operation when the optional Rinse Pump is installed.

This setting determines what signal indicates the rinse pump should run. If the dish machine provides a rinse signal, then the Rinse on Rinse Signal option is usually employed. The Rinse on Detergent Signal option is available if needed, but when employed the rinse pump runs for only 12 seconds and any Rinse Delay Time setting is ignored.

Menu 36: Rinse Delay Time (Door Machine Only)

0 to 19 seconds (default = 0 seconds)

NOTE: This setting only effects the dispenser operation when the optional Rinse Pump is installed.

This setting can be used to delay the start of the rinse pump after the Rinse Signal has been detected. This delay only works when the Rinse Feed Option is set to Rinse on Rinse Signal.

4.06 Probeless Mode Adjustment Menu Settings (Program Menu 4)

Program Menu 4 is considered the Adjustment Menu for Probeless Mode. It is accessible by entering the proper Program Mode password and pressing the Scroll key at the blinking "2" of the Program Menu 2 to move to Menu 4.

NOTE: Which adjustment menu appears, when pressing the Scroll key at the blinking "2" of the Program Menu 2, depends on the setting of Menu 21. If the Detergent Control is set to "1" for Probe Mode, then Menu 3 appears. If the Detergent Control is set to "2" for Probeless Mode, then Menu 4 appears.

Below are details for the individual adjustment settings available in Program Menu 4, as shown in the menu tree on page 22.

Menu 41: Detergent Initial Charge

0 to 199 seconds (default = 12 seconds)

NOTE: Prepare for this setting by determining the detergent feed time (in seconds) required to charge the wash tank to the correct concentration on an initial fill.

Any value from 0 to 199 seconds may be used. Press the **Scroll** key to change the value of the blinking digit. Press the **Next** key to move to the next digit. Press the **Enter** key at any time to accept the number displayed as the new setting for the Detergent Initial Charge.

4.00 programming (continued)

Menu 42: Detergent Dose

0 to 19 seconds (default = 2 seconds)

This setting defines how long the detergent pump runs (in seconds) for each dose. Any value from 0 to 19 seconds may be used. Press the **Scroll** key to change the value of the blinking digit. Press the **Next** key to move to the next digit. Press the **Enter** key at any time to accept the number displayed as the new setting for the Detergent Initial Charge.

NOTE: This menu is where the detergent dose time is set in seconds. But how often the detergent dose occurs depends on the detergent dose interval set in Menu 43. The available dose intervals are every rack, every second rack, or every third rack.

Menu 43: Detergent Dose Interval

1, 2 or 3 racks (default = 1 rack)

This setting determines when a detergent dose occurs in probeless mode, either every rack (1), every other rack (2) or every third rack (3). Press the **Scroll** key to change the value of the blinking digit. Press the **Enter** key at any time to accept the number displayed as the new setting for the Detergent Dose Interval.

How a "rack" is counted depends on the setting in Menu 22 for Machine Type; Door Machine or Conveyor.

Door Dishwashers: A rack is counted each time a wash cycle completes, using the rinse signal activation as the trigger. The Detergent Dose Interval will determine when detergent is dosed; every wash cycle, every other wash cycle, or every third wash cycle.

For example, if the Detergent Dose Interval is set to 3 racks, the programmed Detergent Dose will occur every third wash cycle.

Conveyor Dishwashers: A rack is counted each time the rinse signal activation time becomes equal to the "Rack Time in Rinse" (set in Menu 25). The Detergent Dose Interval will determine when detergent is dosed.

For example, if the Rack Time in Rinse is set for 20 seconds and the Detergent Dose Interval is set to 3 racks, the programmed Detergent Dose will occur after every 60 seconds of rinse signal.

Menu 44: Rinse Pump Speed

0.0 to 59.5 Revolutions Per Minute (RPM) (default = 10.0 RPM)

NOTE: This setting only effects the dispenser operation when the optional Rinse Pump is installed.

Rather than setting how long the rinse pump runs for each wash cycle, you control how much rinse agent is added by adjusting the rinse pump speed. Press the **Scroll** key to change the value of the blinking digit. Press the **Next** key to move to the next digit. Press the **Enter** key at any time to accept the number displayed as the new setting for the Rinse Pump Speed.

NOTE: Adjust the rinse pump speed to dose an appropriate amount of product needed for good results on wares. To determine this adjustment, note the amount of rinse product per unit of water (check the dish machine specifications for rinse water flow rate per minute) or observe the sheeting action of the product on wares. With the standard rinse pump tube, in new condition, the EvoWash detergent pump will dispense approximately 0.5 ml per revolution.

Testing: When the Rinse Pump Speed value is being displayed, you can press and hold the **Next** key with the **Enter** key to have the rinse pump run at the displayed speed setting.

Rinse Pump Speed Setting Guide: (Only a guide, indicated dosages are approximate. Dispensed amount must be verified.)

Rinse Time per Rack (in seconds) \ Rinse Pump Speed (RPM) → Rinse Agent Desired per Rack (in milliliters)	1	1.5	2	2.5	3	3.5	4	4.5	5
6	20	30	40	50	59.5				
8	15	23	30	38	45	53	59.5		
10	12	18	24	30	36	42	48	54	59.5
12	10	15	20	25	30	35	40	45	50
14	9	13	17	21	26	30	34	39	43
15	8	12	16	20	24	28	32	36	40
16	8	11	15	19	23	26	30	34	38
18	7	10	13	17	20	23	27	30	33
20	6	9	12	15	18	21	24	27	30

4.00 programming (continued)

Menu 45: Rinse Feed Option (Door Machine Only)

1 = Rinse Feed on Rinse Signal or 2 = Rinse Feed on Detergent Signal (default = 1 = Rinse Feed on Rinse Signal)

NOTE: This setting is only for dishwashers whose Machine Type is designated as a Door Machine in Menu 22. This setting is ignored if the Machine Type is set to Conveyor.

This setting tells the controller to either use a rinse signal as the trigger for rinse agent feed (1), or to use a detergent signal as the trigger to feed rinse agent (2).

Press the **Scroll** key to change the value of the blinking digit. Press the **Enter** key at any time to accept the number displayed as the new setting for the Rinse Feed Option.

Setting 1 will run the rinse pump each time the rinse signal activates, for the entire time the rinse signal is present (minus any Rinse Delay set in Menu 46). Is expected that a Door Machine will activate the rinse signal once per wash cycle.

Setting 2 will run the rinse pump for a fixed time of 12 seconds each time the detergent signal activates. Any Rinse Delay Time setting is ignored. It is expected that a Door Machine will activate the detergent signal once per wash cycle.

NOTE: One result of this setting is you will probably see the detergent and rinse pumps running at the same time, which is normal and expected with this method of triggering rinse feed.

Menu 46: Rinse Delay Time

0 to 19 seconds (default = 0 seconds)

NOTE: This setting is only for dishwashers whose Machine Type is designated as a Door Machine in Menu 22 **and** that have the Rinse Feed Option set to Rinse on Rinse in Menu 45.

This setting simply delays the activation of the rinse pump by the defined number of seconds.

Press the **Scroll** key to change the value of the blinking digit. Press the **Enter** key at any time to accept the number displayed as the new setting for the Rinse Delay Time.

This setting is typically employed to accomplish two different goals:

1) Since the rinse pump will normal run for the entire time the rinse signal is active, you can reduce the total amount of rinse agent dispensed by setting a rinse delay time that will reduce the amount of time the rinse pump will run.

2) If a certain (higher) **concentration** of rinse agent is required, and it would be wasteful to maintain that concentration during the entire duration of the rinse signal, a rinse delay time can have the rinse pump run at that higher concentration for only the last portion of the total rinse time.

5.00 maintenance

WARNING! Before you perform any maintenance, disconnect the incoming power source!

5.01 Routine Maintenance

- Keep the detergent spray nozzle free from scale and other deposit build up.
- Check the Conductivity probe sensors for scale and other deposit build up. Clean as necessary.
- Titrate the wash tank solution to verify that the unit is holding accurate concentration.
- Check the rinse pump tube's condition and replace, if needed. (Only applicable to models with a rinse pump).
- Keep the unit cabinet clean. Wipe with a damp cloth as necessary.
- Clean the water inlet Y-strainer. Unscrew and rinse the mesh in clean water.

5.00 maintenance (continued)

5.02 Rinse Pump Squeeze Tube Replacement

NOTE: This maintenance is only applicable to units that have the optional rinse pump installed.

WARNING! Before you remove the rinse pump cover, disconnect the incoming power source!

Replace the rinse pump squeeze tubes at regular maintenance intervals, well before the tube fails and ruptures. If the tube does rupture, clean all product from the pump with a damp cloth.

1) Loosen the pump front captive screw and remove the pump front.

2) Remove the old tube with barbed connectors.

3) Install the new tube with barbed connectors oriented with flat sides facing towards the front.

4) Do not lubricate the squeeze tube or spinner roller. Maximum delivery volume and accuracy requires clean, dry surfaces.

5) Insert new tube from left side of pump, with pump spinner oriented between an 11 to 1 o'clock position.

6) Slowly turn the spinner clockwise, using a large flat head screwdriver in the central slot, as you position the tube into place, midway on the roller. The tube must also be evenly distributed on either side of the spinner.

5.03 Detergent Feed Spray Nozzle Replacement

1) Remove the container of detergent from the dissolver bowl to gain access to the spray nozzle.

2) Using a ½" socket, unscrew the nozzle counter-clockwise, being careful not to exert too much strain on the nozzle holder.

3) Screw the new nozzle into the nozzle holder and tighten clockwise until hand tight. Do not over-tighten the nozzle as that could cause the nozzle holder to break.

6.00 troubleshooting

6.01 Helpful Controller Displays

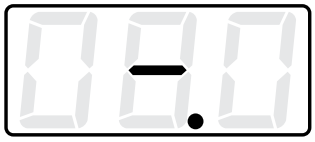
The controller displays shown below may be helpful when troubleshooting an issue with the EvoWash's operation.

For example, it can be important to know if an EvoWash dispenser is set to Probe Mode or Probeless mode, and the detergent feed and optional rinse pump will only dispense after the appropriate signal has been detected.

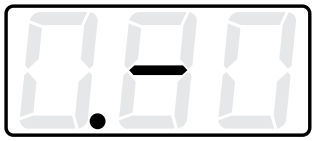
The Demo Mode (Menu 28), which can simulate a Detergent and Rinse signal, may also prove useful when troubleshooting.

Rinse Pump Jammed

Probe Mode Active



Rinse Signal On



Detergent Signal On

6.02 Troubleshooting Table

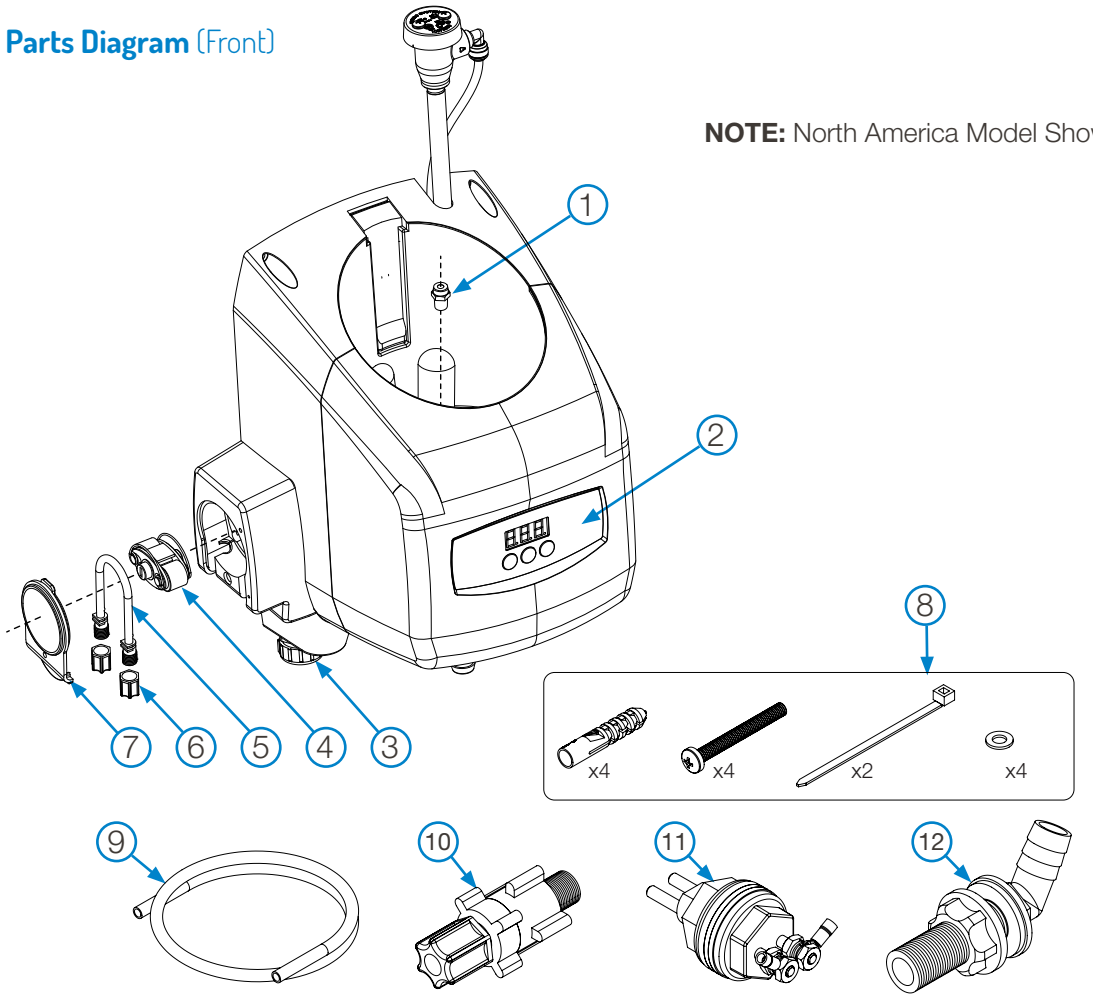
WARNING! Electrical installation and maintenance should be completed by a qualified electrician. All local and national electrical regulations are to be observed.

Problem	Cause	Solution
1. Dead unit - No display	a. No incoming main electrical power.	• Check wiring from dish machine • Check for power at dish machine connection
	b. Bad EvoWash PC board	• Replace EvoWash PC board
2. No detergent feed	a. Incorrect detergent type setting	• In Menu 23.1 choose “2” for Powder / Solid
	b. No detergent signal	• Check signal wiring to dish machine. • Check that dish machine is sending a signal • Replace EvoWash PC board
	c. Conductivity reading above Set Point	• Check Set Point value • Clean or replace Conductivity probe
	d. Water is not spraying on detergent source	• Restore input water supply • Clean inlet water Y-strainer • Check detergent solenoid function • Unclog detergent feed spray nozzle
3. Excessive detergent consumption	a. Deposits on Conductivity probe	• Clean or replace Conductivity probe
	b. Wash tank drain stuck open	• Clear wash tank drain obstruction
	c. Wash tank leaking	• Eliminate wash tank leaks
4. No rinse feed (Only applicable if optional rinse pump installed)	a. No rinse signal	• Check if dish machine providing rinse signal • Check rinse signal wiring.
	b. Detergent signal did not occur within 90 seconds before rinse signal	• Check detergent signal wiring. • Change Rinse Feed Option to Rinse on Detergent
	c. Bad EvoWash PC board	• Replace EvoWash PC board

7.00 service parts

7.01 Exploded Parts Diagram (Front)

NOTE: North America Model Shown



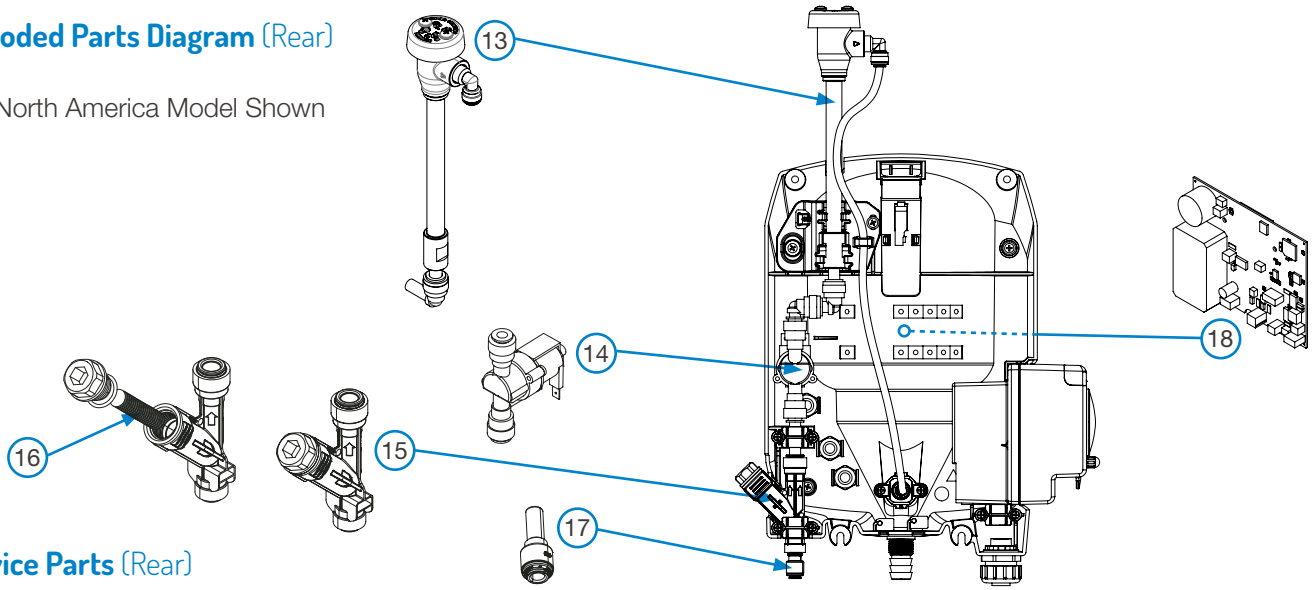
7.02 Service Parts (Front)

Key	Part No.	Description
1	HYD90096994	Replacement spray nozzle kit
2	HYD10099395	Front cover label, Hydro standard - 10 pack (custom labeling is available)
3	HYD47-07502-01 (North America models only)	Electrical cable conduit fitting
4	HYD13-06396-00	Rinse pump spinner assembly
5	HYD13-06395-01	EPDM rinse pump squeeze tube
	HYD13-06928-01	Silicone rinse pump squeeze tube
6	HYD41-05567-00	Pump tube compression nut w/ sleeve
7	HYD37-08602-04	Pump cover (blue) including thumb screw
	HYD13-08088-10	Pump cover thumb screw - 10 pack (not shown)
8	HYD10099397	Mounting kit (4 wall anchors, 4 screws, 2 wire ties, 4 washers) - 10 pack
9	HYD90097976	Replacement discharge hose
10	HYD13-06529-00	Rinse Injection fitting kit
11	HYD15-03361-01	Conductivity probe kit
12	HYD90096336 (North America)	Detergent injection fitting kit, 25 mm (North America models)
	HYD10095208 (Global)	Detergent injection fitting kit, 60 mm (Global models)
	HYDSP0134	Retrofit rinse pump kit, w/blue cover (not shown)

7.00 service parts (continued)

7.03 Exploded Parts Diagram (Rear)

NOTE: North America Model Shown



7.04 Service Parts (Rear)

Key	Part No.	Description
13	HYD10099344 (North America models only)	Backflow prevention vacuum breaker assembly
	HYD10092538 (North America models only)	Vacuum breaker rebuild kit (not shown)
14	HYD90097603	Solenoid assembly
15	HYD90097784	Y-Strainer Assembly - 10 pack
16	HYD10099398	Y-Strainer replacement screen - 10 Pack
17	HYD90099420	Push to connect reducer (female for 1/4 in O.D. tube to 5 mm O.D. male stem)
18	HYD10099396	Replacement circuit board (PCB)

8.00 decommissioning & disposal

WARNING! Before decommissioning the unit, disconnect the incoming power source!

NOTE: This section is intended for the markets that use the Global models of the EvoWash dispenser.

- All contents (including liquids and chemicals) have been removed and disposed of appropriately.
- Any hazard warning signs have been removed from surfaces and internally, or totally defaced.
- Unit has been completely and adequately cleaned and disinfected.
- “Safe for disposal” sign / appended to each piece of listed equipment.
- Equipment has been left in a condition such that it is safe for lay personnel or contractor to remove it without need for precautions against exposure to any chemical, biological, radioactive or other agents.

9.00 WEEE - Waste Electrical and Electronic Equipment

NOTE: WEEE Regulations apply to companies who Manufacture & Distribute electrical or electronic equipment in the markets that use our Global EvoWash models.

WEEE Classification – 10. Automatic dispensers.
The WEEE Regulations apply to importers, producers, retailers and users of EEE, and to businesses that treat or recover WEEE. The EvoClean unit is a product placed onto market POST 13.08.05 , therefore called ‘future WEEE’.

As a producer Hydro Systems Europe have the option to take responsibility for the EEE placed on the market. If Hydro Systems Europe chooses to receive WEEE they must make sure that it is disposed of in an environmentally sound way, including the treatment, reuse, recovery and recycling of the components where appropriate.

(continued)

9.00 WEEE (continued)

Responsibility as a producer of EEE
Hydro Systems Europe as a producer of EEE are registered with a producer compliance scheme who register them with the relevant environmental regulator. Through the regulator they become part of an approved producer compliance scheme (PCS).The PCS supply a unique and permanent producer registration number. If disposal is outsourced it (the product) must be taken to an appropriately licensed site (approved authorized treatment facility - AATF) where it can be treated safely.

The environmental impacts of the substances in EEE and waste electrical and electronic equipment (WEEE)
The main environmental concerns stem from soil and water contamination, resource depletion, energy use and waste.

At the production stage, obtaining raw material for EEE production consumes a large amount of energy, especially the process of extracting resources, which can also lead to degradation of the surrounding environment. For instance, when raw material is shipped to a plant, it goes through a complex, high energy-consuming process as it is converted into a finished product. Moreover, as demand for fuel and raw materials increases with the increase in exports, the environmental impact of these factors is also likely to increase.

The reasons for separating WEEE from other waste
Failing to separate waste properly can be very expensive as the majority of discarded products are shredded into small pieces of material and re-sold as raw material – much of which ends up in the Far East and goes back into manufacturing. If the hazardous components were not separated first the entire batch could be contaminated. This significantly increases the risk of environmental damage and could lead to legal action under hazardous waste regulations.

The meaning of the crossed out wheeled bin symbol
The crossed out wheeled bin symbol is not intended to indicate to you that WEEE is banned from being disposed of as general waste. Moreover, the intention behind the symbol is that, when coupled with information supplied by distributors as to the availability of recycling facilities, you will be reminded that these facilities exist.

How they can safely dispose of WEEE for proper treatment?
When the product is at its end of life, either contact the Local Authority in charge of electrical disposal, or contact Hydro Systems Europe who will either take the item back from yourself or supply you with relevant information for a local WEEE treatment facility. If asked, Hydro Systems Europe must provide yourself business with:

- Contact information for the EEE producer within Hydro Systems Europe. The producer's compliance scheme is responsible for the end-of-life handling of EEE.
- Records that will help producers to supply their producer compliance scheme with accurate information, for example numbers of sales of EEE to non-household users.

As a distributor Hydro Systems Europe have no legal obligation to take back WEEE from business users.

10.00 warranty

10.01 Limited Warranty

Seller warrants solely to **Buyer** the Products will be free from defects in material and workmanship under normal use and service for a period of one year from the date of completion of manufacture. This limited warranty does not apply to (a) hoses; (b) and products that have a normal life shorter than one year; or (c) failure in performance or damage caused by chemicals, abrasive materials, corrosion, lightning, improper voltage supply, physical abuse, mishandling or misapplication. In the event the Products are altered or repaired by **Buyer** without **Seller's** prior written approval, all warranties will be void.
No other warranty, oral, express or implied, including any warranty of merchantability or fitness for any particular purpose, is made for these products, and all other warranties are hereby expressly excluded.

Seller's sole obligation under this warranty will be, at **Seller's** option, to repair or replace F.O.B. **Seller's** facility in Cincinnati, Ohio (or Bracknell, UK) any Products found to be other than as warranted.

10.02 Limitation of Liability

Seller's warranty obligations and **Buyer's** remedies are solely and exclusively as stated herein. **Seller** shall have no other liability, direct or indirect, of any kind, including liability for special, incidental, or consequential damages or for any other claims for damage or loss resulting from any cause whatsoever, whether based on negligence, strict liability, breach of contract or breach of warranty.

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