# **BRIGHTWELL**



# Quantura

Dishwash Dosing System

**Instruction Manual** Quantura 200 & Quantura 200S Quantura 300 & Quantura 300S



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Α

Please read the following precautions carefully before using this equipment.

This unit contains high voltage circuits that may expose you to the danger of electric shock.



Means for disconnection must be incorporated in accordance with the wiring rules.



Do not open the enclosure without isolating the signal and supply sources.



**<u>Do not</u>** power the unit outside of the values stated on the rating label.



Do not use damaged or frayed cables.



Do not dismantle or modify this equipment.



**Do not** mount the unit to unstable, irregular or non-vertical surfaces.



**<u>Do not</u>** place heavy objects on top of the unit.



**<u>Do not</u>** attempt to place items (such as screwdrivers) into the moving parts of the Pump head.



Always ensure that care is taken when handling chemicals.



**Never** insert fingers into mechanisms without turning the power supply off first.



**Do not** discard manual; it must be retained.

Noise measurements performed with the microphone at 1m of distance from the appliance gave a value of 65.2dBA. The instantaneous peak was of 68dBC.

This unit must be installed by a suitably qualified personnel in accordance with local regulations, or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1, and Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.

#### Please read the following precautions carefully before using this equipment.

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

Wear protective clothing, gloves and goggles when installing dispensers or handling chemicals. Observe the guidelines from the chemical manufacturer regarding safety advice. Follow the instructions carefully to avoid accidents.

If the supply cord or the triggering cable are damaged, they must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard.

- <u>Do not</u> open the enclosure without isolating the signal and supply sources. Ensure that these
  sources have been isolated for a minimum of 5 minutes before entering the enclosure. Means of
  disconnection must be incorporated in accordance with the wiring rules.
- **Do not** mount the unit to unstable, irregular or non-vertical surfaces.
- Do not place heavy objects on top of the unit.
- <u>Do not</u> attempt to place item (such as screwdrivers) into the moving parts of the pump.
- **Do not** power the unit outside of the values stated on the rating label.
- **Do not** use damaged of frayed cables.
- **Do not** dismantle or modify this equipment.

# Warranty

Your product comes as standard with a **2 year warranty from the date of manufacture**, against manufacturing fault or defects and mechanical or electrical breakdown. Please visit our website for full terms and conditions.

www.brightwell.co.uk

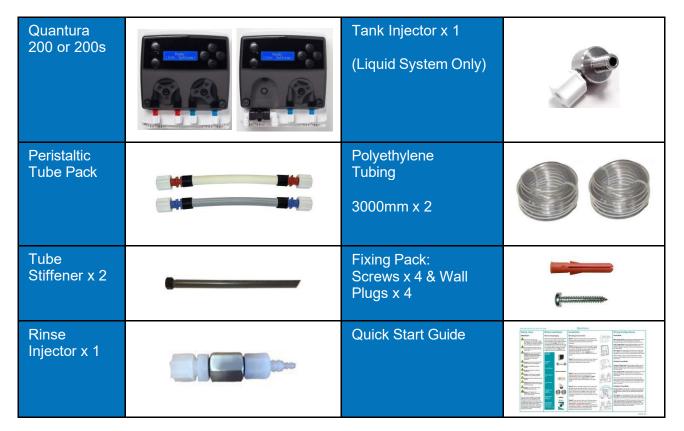
Unit Variations B

The Quantura range of dosing systems are designed to safely and accurately deliver Solid and Liquid Detergents, Rinse aids and Sanitisers to commercial dishwashers. The system has been developed to work with Single tank/Door/Door type machines and Conveyor and Rack type machines. The system is available in four formats; 2 liquid dosing pumps, 1 liquid and 1 solid pump, 3 liquid dosing pumps or 2 liquid dosing pumps with 1 solid chemical pump.

Q200	2 Product peristaltic pump dosing system for the delivery of <b>Rinse aid</b> and <b>Detergent</b> chemicals to commercial Dishwashing machines	The Parison
Q300	3 Product peristaltic dosing pump system for the delivery of <b>Rinse aid, Sanitiser</b> and <b>Detergent</b> chemicals to commercial Dishwashing machines.	THE PROPERTY OF THE PARTY OF TH
Q200S	2 Product Solenoid and peristaltic dosing pump system for the delivery of <b>Rinse aid</b> and <b>Solid Powder Detergent</b> chemicals to commercial Dishwashing machines.	Total Control
Q300S	3 Product Solenoid and peristaltic dosing pump system for the delivery of <b>Rinse aid, Sanitiser</b> and <b>Solid Powder Detergent</b> chemicals to commercial Dishwashing machines.	THE PROPERTY OF THE PARTY OF TH
Q100	1 Product add on peristaltic dosing pump for the delivery of Sanitiser chemical to commercial Dishwashing machines. Only to be used in conjunction with Q200 or Q200S.	

## **Before Installation**

Ensure you have checked all parts required are present and inspect for any damage before installation. In the unlikely event that your items are faulty, **DO NOT** install faulty or damaged parts as this is unsafe and will void any warranty. Please return goods to your distributor in the original delivery condition including any packaging. This unit is **ONLY** to be installed by a suitably qualified person complying with local regulations.

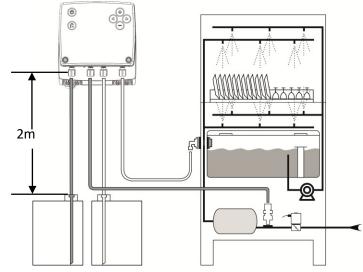


## **Installation Location**

When mounting the unit to ensure best performance practise, ensure that it is positioned no further than 2 meters from its chemical supply.

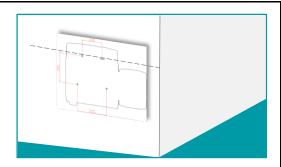
#### **PLEASE NOTE:**

The unit must be mounted in an upright orientation and level horizontally. The unit is IP55 rated however it is recommended that it is kept away from extreme sources of heat and steam as this may damage the unit over time. Access will be required for general maintenance by your service technician.



#### Step 1

Mark a horizontal line on the intended wall using a spirit level. Line up the drilling template supplied with the horizontal line you just marked on the wall.



#### Step 2

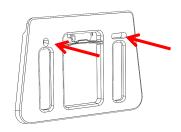
Using a 5.5mm drill bit, drill pilot holes for the supplied wall plugs and wall bracket.

**IMPORTANT NOTE**: please also drill for the security fixing also marked on the template, as this will be used later in the installation (see Step 4).



#### Step 3

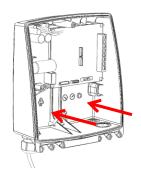
Using the wall plugs and screws supplied with this unit, fix the mounting bracket to the wall. There is an embedded spirit level to aid with this part of the installation.



#### Step 4

Mount the unit to the wall by hooking it onto the wall bracket. Please note: If you are connecting a third pump refer to the additional manual supplied with the unit before securing both units to the wall.

**IMPORTANT NOTE**: The main unit MUST have a security fixing retaining it to the wall before the unit lid is closed.



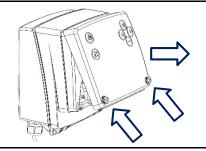
#### IMPORTANT INFORMATION

Brightwell Dispensers Ltd (manufacturer) accepts no responsibility and/or damages caused to either the product or premises if the installation process is not complied with in full.

# First Installation of Peristaltic Tubing

#### Step 1

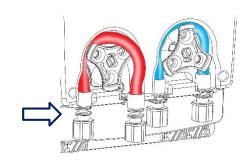
Ensure there is no power to the unit or it is in standby mode. Remove the front cover by removing the two screws and pulling the cover towards you as shown.



#### Step 2

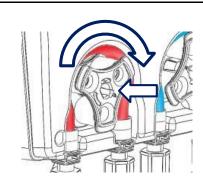
Insert one end of the tube ensuring that it is slotted into the body of the housing as shown.

PLEASE NOTE: For the variants Q200s and Q300s Pump 1 is replaced with a Solenoid valve. This is intended to have a permanent connection to the water supply.



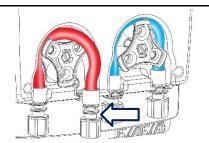
#### Step 3

Now by manually rotating the pump head, feed the tube into the unit as shown. TIP use some HT5 Silicone grease on the outer of the tube to help ease the tube in and prevent any snagging. There is also a flat head screw driver slot on the end of the spindle. Turn this with a screwdriver in a clockwise direction to assist installation.



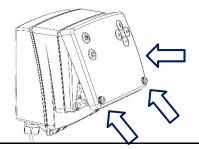
#### Step 4

Slot the other end of the tube as shown. Repeat steps 2 to 4 for the other pump head.



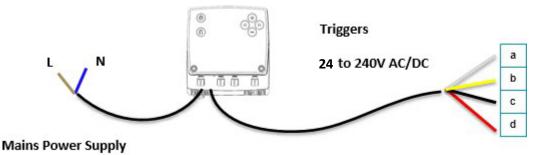
#### Step 5

Refit the outer lid and tighten the screws until secure.



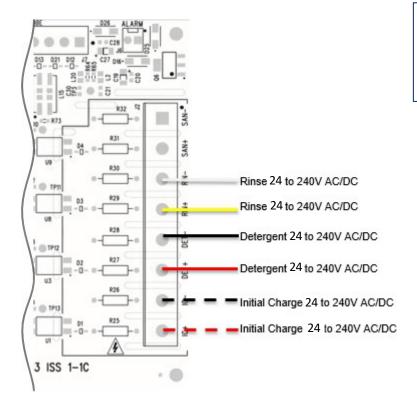
## **Wire Configurations**

**IMPORTANT:** The unit must have a means of disconnection from a mains power supply and all trigger supplies, either from a fuse spur, mains plug, or direct connection to the dishwasher. The disconnecting device should provide all poles separation. Should the appliance be connected directly to a host machine, a lock off tag or similar method should be considered on the machines isolating switch to ensure mains power is completely isolated before any work is carried out.



100 to 240V AC 50/60Hz

White: (a) Rinse Trigger	Black: (c) Detergent or Probe Trigger
Yellow: (b) Rinse Trigger	Red: (d) Detergent or Probe Trigger



**IMPORTANT:** Cable Colour Code:

White – Rinse Trigger Yellow – Rinse Trigger

i ellow – Kilise Trigger

Black – Detergent or Probe Trigger Red – Detergent or Probe Trigger

> Should a signalled Initial charge be required simply move the red and black core from the detergent input to the Initial charge input.

When LINK rinse & det option selected, rinse signal will operate both Detergent and Rinse

## **Choosing One of Three operating modes**

#### Probe Mode – Pages 11 & 17

Suitable for both Single tank machines and Conveyor/multi tank machines. Probe mode offers controlled dosing of detergent (Top up) with the use of a conductive probe. The probe can be set to dose to a specific level of concentration and will monitor the concentration adjusting the dosage accordingly. Rinse is controlled by a signal from the host machine and can be set to run on a timed basis (suitable for Single tank/Door machines) or to run continuously whilst a rinse signal is present (suitable for conveyor/multi tank machines).

#### Probeless Door - Pages 12 & 23

Suitable for single tank machines. Probeless Door mode operates on a timed dosage of Detergent (Top up), Rinse (Rinse) activated by an incoming signal from the host machine. Detergent dosage is programmed via a time setting. Rinse dosage can be either a time setting or programmed to run for the duration of the incoming signal. Optional delay time for rinse is available. Initial charge (Top up) options are **Signalled** requiring a signal from the host machine to the Initial charge input of the PCB (see page 12 for wiring instructions), **Power up**: Initial charge activates when the dosing pump is powered for the first time, **OFF** no Initial charge, **Auto**: Using a single signal from the host machine to operate detergent charge and rinse charge. When the signal remains high for longer than a programmable time the dispenser will stop Detergent and Rinse charges and start The initial charge.

## Probeless Conveyor – Pages 13 & 28

Suitable for Conveyor/Multi tank machines. Probeless Conveyor mode operates on a timed dosage of Detergent (Top up), Rinse (Rinse) activated by an incoming signal from the host machine. Detergent dosage is programmed via a time setting. Rinse dosage for the duration of the incoming signal. Optional delay time for rinse is available. Initial charge (Top up) options are Signalled requiring a signal from the host machine to the Initial charge input of the PCB (see page 13 for wiring instructions), Power up: Initial charge activates when the dosing pump is powered for the first time, OFF no Initial charge,

Probe Mode C

## **Detergent Operation**

(Top up) is controlled by the conductivity probe (See page 17 for probe settings) in either Signalled or Auto operation. Signalled operation, probe is initiated for the duration of a trigger signal between 24V and 240V AC or DC being present on the Detergent input of the PCB (Red and Black cores of 4 core cable). Auto operation the probe will operate on low concentration without the need for a trigger signal.

#### Rinse Charge

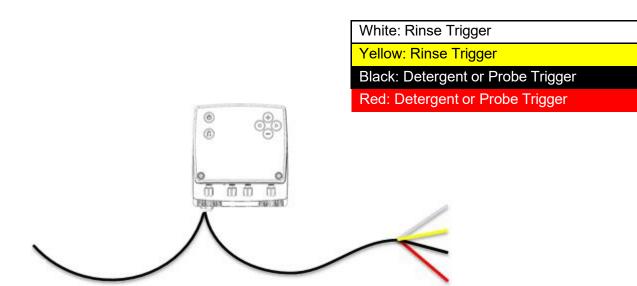
(Rinse) is initiated by a signal between 24V and 240V AC or DC being present on the Rinse input of the PCB (Yellow and White cores for the 4 core cable). Rinse options are Programmable run time or to operate for the duration of the signal with optional delay time.

## **Sanitiser Charge**

(sanitiser) is set to run proportional to Rinse without the need for a independent trigger signal.

Sanitiser options are only applicable when a 3rd pump (Q100) is connected or when using a 3 pump system (Q300 or Q300S).

Should a **Signalled Initial Charge** be required, a signal between 24V and 240V AC or DC can be applied to the Initial charge input of the PCB



#### **Probeless Door Mode**

## **Detergent and Rinse Operation (Top Up and Rinse)**

They are initiated by a signal between 24V and 240V AC or DC being present on the Rinse input of the PCB (Yellow and White cores for the 4 core cable). Detergent has a programmable run time, Rinse options are Programmable run time or to operate for the duration of the signal with optional delay time.

Separate Detergent and Rinse charges are available by changing the "Link Detergent and Rinse signals" option found on page 23. If the signal option is changed to separate the two charges the blow becomes applicable:

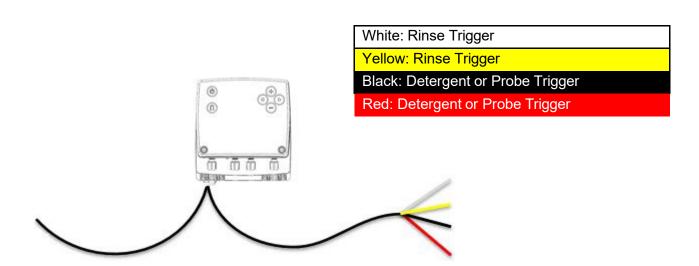
Detergent charge (Top up) is initiated by a signal between 24V and 240V AC or DC being present on the Detergent input of the PCB (Red and Black cores for the 4 core cable). Detergent will operate for a programmable run time.

Rinse Charge (Rinse) is initiated by a signal between 24V and 240V AC or DC being present on the Rinse input of the PCB (Yellow and White cores for the 4 core cable). Rinse options are Programmable run time or to operate for the duration of the signal with optional delay time.

#### **Sanitiser Charge**

(Sanitiser) is set to run proportional to Rinse without the need for a independent trigger signal.

sanitiser options are only applicable when a 3rd pump (Q100) is connected or when using a 3 pump system (Q300 or Q300S).



## **Probeless Conveyor Mode**

#### **Detergent and Rinse Operation (Top Up and Rinse)**

They are initiated by a signal between 24V and 240V AC or DC being present on the Rinse input of the PCB (Yellow and White cores for the 4 core cable). Detergent has a programmable Rack time, Rack pulse and run time, Rinse has a configurable on and off time activated by the rinse signal going high.

Separate Detergent and Rinse charges are available by changing the "Link Detergent and Rinse signals" option found on page 28. If the signal option is changed to separate the two charges the below becomes applicable:

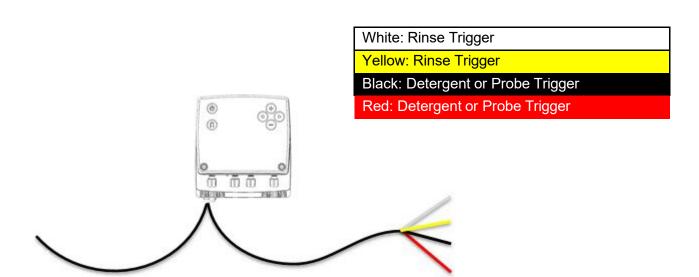
Detergent charge (Top up) is initiated by a signal between 24V and 240V AC or DC being present on the Detergent input of the PCB (Red and Black cores for the 4 core cable). Detergent will operate for the duration of the signal with optional delay time (Rack count).

Rinse Charge (Rinse) is initiated by a signal between 24V and 240V AC or DC being present on the Rinse input of the PCB (Yellow and White cores for the 4 core cable). Rinse has a configurable on and off time activated by the rinse signal going high.

#### **Sanitiser Charge**

(Sanitiser) is set to run proportional to Rinse without the need for a independent trigger signal.

sanitiser options are only applicable when a 3rd pump (Q100) is connected or when using a 3 pump system (Q300 or Q300S).



# **Connecting Chemical Supplies**

## Step 1

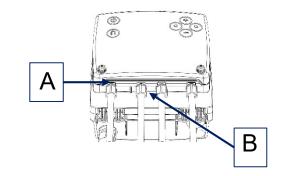
Attach the suction tubes to the tube stiffeners and place in the chemical containers.



## Step 2

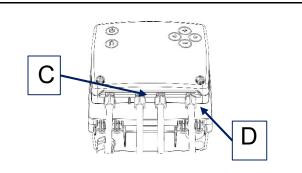
Connect your detergent suction tube to the far left hand compression connector (a), this is the corresponding pump you intend to use with this chemical.

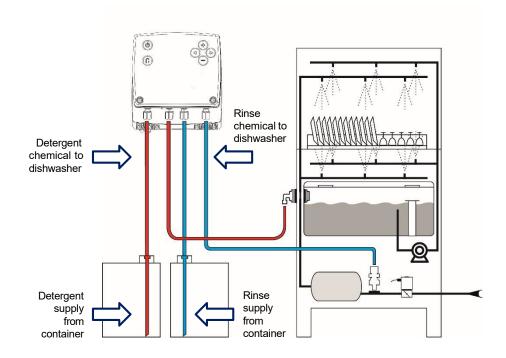
Then connect the detergent delivery tube (b) to your dishwasher tank injector.



## Step 3

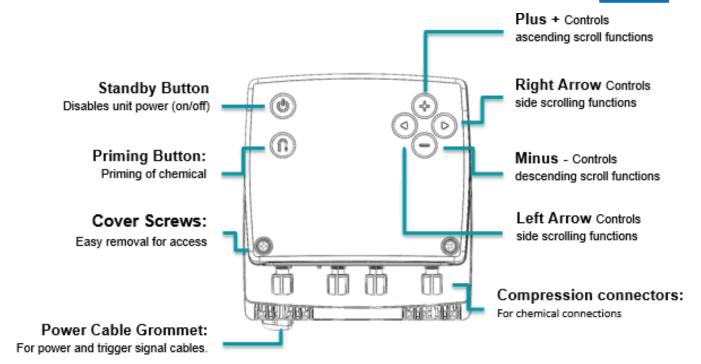
Connect your rinse aid suction tube to the left hand compression connector (c), this is the corresponding pump you intend to use with this chemical. Then connect the right hand compression connector (d) to the rinse aid delivery tube, the other end of this tube is to be connected to your rinse injector.





# **Initial Set Up & Operation**

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## Navigating the Menu's and the rest of the manual.

Language English

Blue Menu's are visible in all modes.

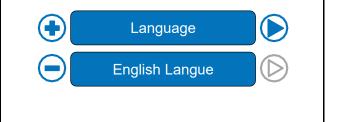
**Initial Charge Off** 

Yellow Menu's are advanced options and will only show if Advanced Setup is Selected when entering the menu.

Sanitiser to Copy Rinse No

Green Menu's are only shown when a 3<sup>rd</sup> Pump is attached and the unit becomes a Q300.

**Step 1:** When power is connected the unit will automatically power up. Now select your language using the Plus + or Minus – buttons to scroll up and down, press the RIGHT button > to confirm your selection.

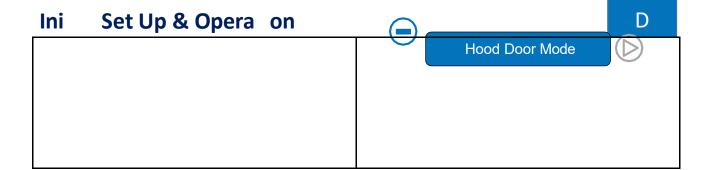


**Step 2:** set initial charge speed to 100%

The unit can be configured with an optional 4-digit access code to prevent unauthorized access to configuration parameters.

**Step 3:** This menu will allow you to select on of three ppera ng modes; use the Plus + or Minus – bu ttons to scroll up and down, press the RIGHT Butt on> to confirm your selection.





Step 4: To setup the unit with an access code, press the Plus + or Minus - buttons to select YES, then press the RIGHT arrow > to confirm the selection and move on to step 5. If no access code is required, move onto step 4.

Change Access Code? Ye Change Access Code? No

Step 5: To setup the unit without an access code. Press the Plus + or Minus - buttons to select NO, and then press the right > arrow to confirm the selection. The screen displays 'READY' and is prepared for programing. Press the RIGHT button > to confirm this selection and move onto step 6.



**Step 6:** To set an access code press the Plus + or Minus- buttons to choose a number. Then press the RIGHT > button to confirm the selection and move on to the next number in the code.

Repress RIGHT > button to confirm.

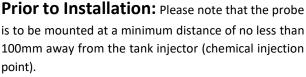


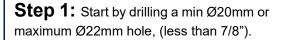
**IMPORTANT:** Solenoid Variants: The Q200S and Q300S Solenoid variants of this unit follow the same process functions as Top up (Detergent) throughout this manual, in all 3 program modes listed below. Please note: Speed percentage function is not applicable to Solenoid variants.

#### **Step 6:** Choosing an Operating Mode

Probe Mode: Pages 17-22 Probeless Door Mode: Pages 23-27 Probeless Conveyor Mode: Pages 28-32

is to be mounted at a minimum distance of no less than 100mm away from the tank injector (chemical injection point).

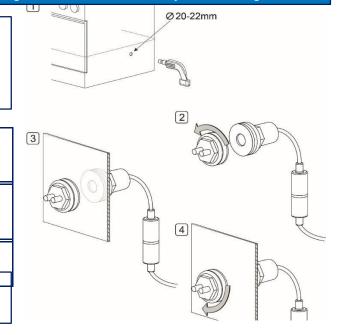




**Step 2:** Unscrew the head of the probe by turning it anti-clockwise.

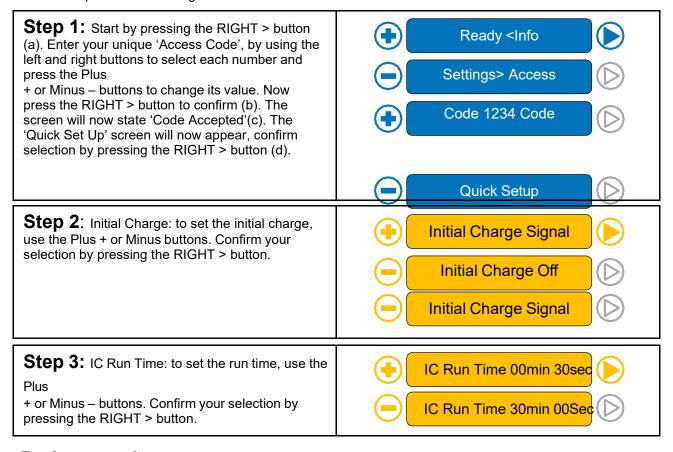
**Step 3:** Feed the body of the probe through the

**Step 4:** Replace the head of the probe and tighten in a clockwise direction.

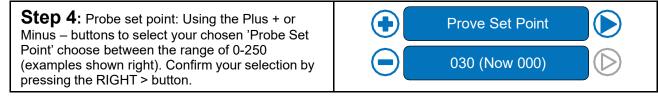


E

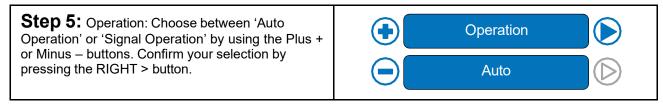
**Probe mode** - Detergent probe controls the dosage of detergent with adjustable delay time for the initial fill. Optional initial charge is also available.



**Probe set point** – Configurable chemical concentration point at which the pump will begin to dose should the level fall below this threshold. The screen also features a NOW display which will display current levels of concentration.



**Auto Operation** – Probe will automatically react to a drop in concentration. Using the UP & DOWN arrow it is possible to select '**Signal Operation**' which will require a signal to the DET input (Red and Black cores) to activate the probe when concentration levels drop below the set point.



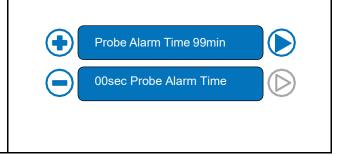
**Probe delay –** A configurable delay time, which will occur once after first power up. This feature allows for tank fill to take place before the probe begins checking concentration levels

**Step 6:** Probe delay: to set the probe delay time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Probe alarm time** — Configurable alarm time. If the pump exceeds a run time higher than the alarm time, Top up will stop, display a warning light and sound a buzzer to indicate a potential issue with water levels or chemical supply

**Step 7:** Probe alarm time: Set the delay time for the internal alarm to sound when the unit has run out of water or chemical supply (for example 01:30 is equal to 1 min 30secs before the alarm would sound). Use the Plus + or Minus – buttons to change the units. Confirm your selection by pressing the RIGHT > button. Please note: If you have no need for 'Initial Charge' or 'IC Run Time' please skip to Step 8.



**Rinse Speed** – Adjustable Rinse Pump speed option in increments of 5%

**Step 8:** Rinse speeds: to set the running speed of the pump, use the Plus + or Minus – buttons to select, (this is shown as a percentage %). Confirm your selection by pressing the RIGHT > button. TIP By pressing prime button you can simulate the setting.



**Rinse operations** – Configurable rinse operations. "Run for set time" is a configurable run time Rinse will activate for when a signal is received on RINSE INPUT. "Run on signal" allows the rinse pump to operate for the duration of a rinse signal on RINSE INPUT. "Run conveyor" allows the rinse pump to operate for the duration of a signal on RINSE INPUT and also contains a rack count feature to record the amount of washes completed.

**Step 9a:** Rinse operation: to set the run time of the pump, use the Plus + or Minus – buttons to select 'Door/Door mode', select 'Conveyor Mode'. Confirm your selection by pressing the RIGHT > button.



**Rack time (Cyclic mode only)** – Programmable time to record the duration of one rack entering and exiting the machine. This time is used to calculate the wash count when the rinse pump is running constantly.

**Step 9b:** Rack time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Step 10:** Rinse On time: to set the rinse on time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button, repeat for changing the seconds. Once complete press the RIGHT > button again to confirm.



**Rinse Run Time** – Configurable run time for rinse operation when a signal is received to RINSE INPUT. Using the UP and DOWN buttons, it is possible to select rinse to operate for the duration of the signal 'Rinse on Signal'.

**Step 11:** Rinse run time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button, repeat for changing the seconds. Go to Step 16a if you are not connecting a 3rd Pump.



**Rinse Delay Time** – Configurable delay time for rinse, when the rinse signal is received to the RINSE INPUT the delay time will activate before allowing the rinse pump to operate

**Step 12:** Rinse delay time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



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**Step 13**: sanitiser, copy Rinse settings: Press the

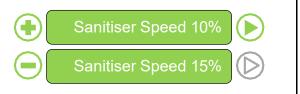
Plus

+ or Minus – buttons to select either YES or NO. Confirm your selection by pressing the RIGHT > button



**Sanitiser Speed** – Adjustable Rinse pump speed option in increments of 5%.

**Step 14**: sanitiser speed: to set the running speed of the pump, use the Plus + or Minus – buttons to select, this is shown as a percentage (%). Confirm your selection by pressing the RIGHT > button.



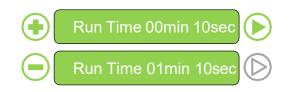
**sanitiser Delay Time** – Configurable delay time for rinse, when the rinse signal is received the delay time will activate before allowing the rinse pump to operate.

**Step 15**: sanitiser delay time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**sanitiser Delay Time** – Configurable delay time for sanitiser, when the Sanitiser signal is received the delay time will activate before allowing sanitiser to operate. Note this option will only be displayed if sanitiser to copy Rinse NO option is selected.

**Step 16:** sanitiser run time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button, repeat for changing the seconds



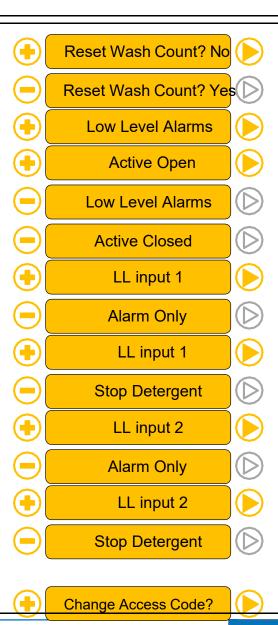
**Step 17:** Initial charge counter show the total cycles, pressing the Plus + or Minus – buttons changes the screen to show Hours, Minutes & Seconds. Holding either the Plus + or Minus – buttons will reset the counters.

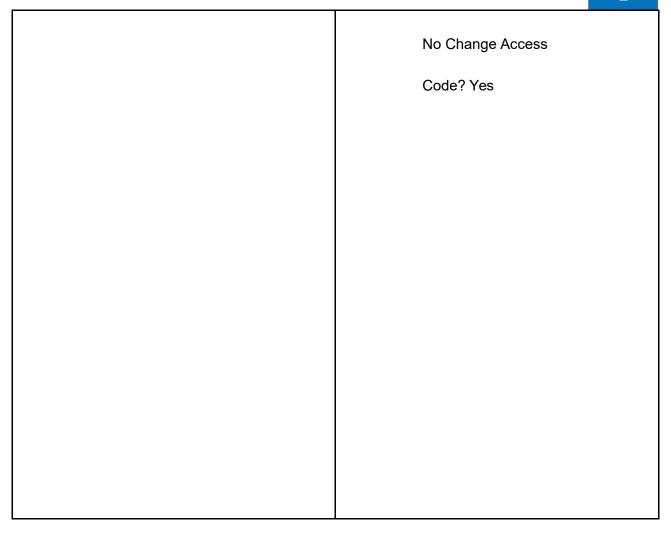


**Step 18:** Top up counter show the total cycles, pressing the Plus + or Minus – buttons changes the screen to show Hours, Minutes & Seconds. Holding either the Plus + or Minus – buttons will reset the counters.



Step 19: Rinse Counter show the total Rinse Counter cycles, pressing the Plus + or Minus – buttons 000000 Cycles changes the screen to show Hours, Minutes & Rinse Counter Seconds. Holding either the Plus + or Minus – 00hr 00min 00sec buttons will reset the counters. **Step 20:** Sanitiser Counter show the total Sanitiser Counter cycles, pressing the Plus + or Minus – buttons 000000 Cycles changes the screen to show Hours, Minutes & Seconds. Holding either the Plus + or Minus -Counter 00hr buttons will reset the counters. **Step 21**: Resetting the wash count: to reset the wash count, use the Plus + or Minus – buttons highlight YES. Confirm your selection by pressing the RIGHT > button. You will then be asked if you wish to change the access code to the unit before leaving this process (if you answer YES follow Steps 1-3 on page 17 on how to do this). If NO, skip to Step 17

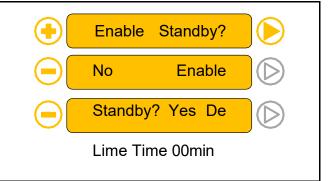




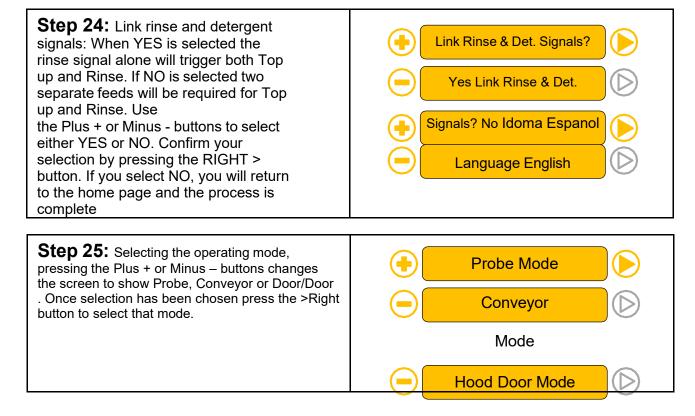
**Standby mode** can be toggled ON or OFF depending on preference. If NO is selected the standby function will not work.

**De Lime Time** is a safety feature for de-liming the machine. This allows the operator to put the unit into sleep mode for a configurable time. When the configurable Standby time has expired the unit will automatically restart.

**Step 22**: Enable standby: this allows maintenance to be carried out. Select YES by pressing RIGHT > button. If you select NO, standby mode is disabled. Step: 17b: De Lime time can be adjusted by pressing the UP+ or DOWN- buttons. Confirm your selection by press the RIGHT > button.



Step 23: Enable water	Enable Water? No
	Enable Water?
	Yes

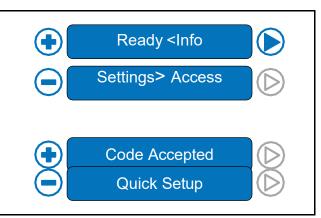


This Concludes Probe Mode Programming.

# Quick Set-up Programming: Probeless Door Mode

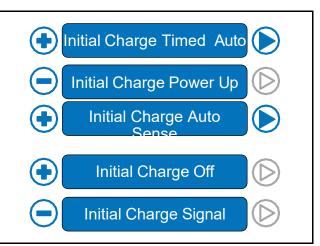
**Probeless Door Mode** – timed Detergent operation, with optional rinse operations. Rinse Trigger signal with adjustable delay time or rinse run time.

**Step 1:** Start by pressing the RIGHT > button (a). Enter your unique 'Access Code', now press the RIGHT > button to confirm (b). The screen will now state 'Code Accepted'(c). The 'Quick Set Up' screen will now appear, confirm selection by pressing the RIGHT > button (d).



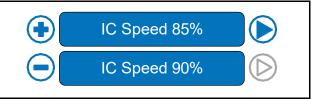
**Step 2:** Initial Charge: Using the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.

\*See note in step 4 if using 'Auto Initial Charge' functions.



**Probeless Door Mode** – timed Detergent operation, with optional rinse operations. Rinse Trigger signal with adjustable delay time or rinse run time.

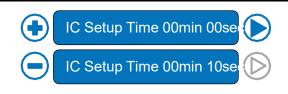
**Step 3:** IC Speed: to set the probe delay time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**IC Set Up Time** — Auto Initial Charge ONLY. Configurable time in which the pump will monitor the incoming rinse signal to determine if initial charge is required or Detergent top up & Rinse only. A signal present longer or equal to the SET UP TIME will start initial charge. Signal present less than

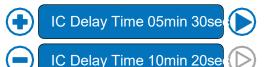
SET UP TIME will start Rinse and Top Up operation ONLY.

**Step 4:** IC set up time: to set the time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button. Skip to step 7 if you do not need an IC delay time.



**IC Delay Time** – Configurable delay time (Power up and Signalled only) to allow for tank fill before detergent is dosed.

**Step 5:** IC delay time: to set the delay time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.

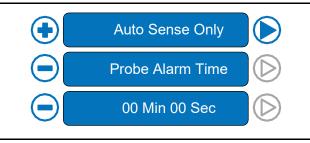


IC Run Time – A configurable run time for initial charge dose.

**Step 6:** IC run time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Step 7:** Probe alarm time only adds is probe is fitted



**Top up Speed** – Adjustable detergent top up pump speed option in increments of 5%

**Step 8:** Top up speed: to set the Top up speed, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Top up Every** – Choose after how many racks the top up should activate. For example: By selecting 2 the pump will dose once every 2 racks.

**Step 9:** Top up every 01 racks: to set the Top up speed, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



Top up Run Time - Configurable run time Top up will operate when a top up signal is received

**Step 10:** Top up run time: to set speed of Top up, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



## **Rinse Speed** – Adjustable rinse pump speed option in increments of 5%.

**Step 11:** Rinse speed: to set the Top up speed, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Rinse Delay Time** – A configurable delay time for rinse. When the rinse signal is received the delay time will activate before allowing the rinse pump to operate.

**Step 12:** Rinse delay: to set the delay time of Rinse, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



#### **Rinse Run for** set time or when the signal is present.

**Step 13:** Rinse operation: to set the run time of the pump, use the Plus + or Minus – buttons to select either for a 'Run for Set

Time' or 'Run on signal'. Confirm your selection by pressing the RIGHT > button.



**Rinse Run Time** – Configurable run time for rinse operation when a signal is received to Rinse INPUT. Using the UP and DOWN arrow it is possible to select rinse to operate whilst for the duration of the signal Rinse on Signal.

**Step 14:** Rinse run time: to set the run time of Rinse, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Step 15**: sanitiser, copy of Rinse settings: Press the Plus + or Minus – buttons to select either YES or NO. Confirm your selection by pressing the RIGHT > button.

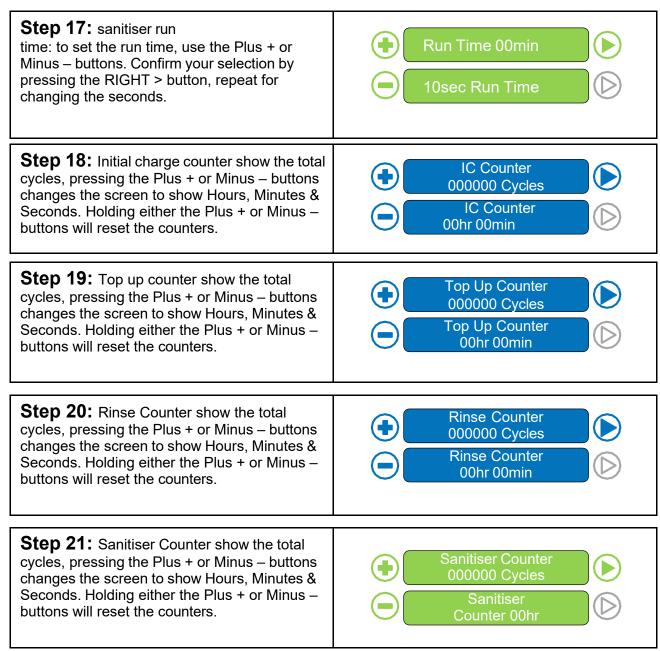


Sanitiser Speed - Adjustable Rinse pump speed option in increments of 5%.

**Step 16:** sanitiser speed: to set the running speed of the pump, use the Plus + or Minus – buttons to select, this is shown as a percentage (%). Confirm your selection by pressing the RIGHT > button.



**sanitiser Run Time** – Configurable run time sanitiser will operate when signal is received. Note this option will only be displayed if sanitiser to copy Rinse NO option is selected

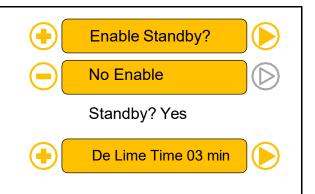


Step 22: Resetting the wash count: to reset the wash count, use the UP + or DOWN - buttons highlight YES. Confirm your selection by pressing the RIGHT > button. Step 17b: You will then be asked if you wish to change the access code to the unit before leaving this process (if you answer YES follow Steps 1-4 on page 12 on how to do this). If NO, skip to Step 18.	Reset Wash Count?  No Reset Wash  Count? Yes  Low level Alarms  Active Open
	Low level Alarms
	Active Closed
	LL Input 1
	Alarm Only
	LL Input 1
	Stop Detergent
	LL Input 2
	Alarm Only
	LL Input 2
	Stop Rinse
	Change Access Code? No
	Change Access Code? Yes

**Standby mode** can be toggled ON or OFF depending on preference. If NO is selected the standby function will not work.

**De Lime Time** is a safety feature for de-liming the machine. This allows the operator to put the unit into sleep mode for a configurable time. When the configurable Standby time has expired the unit will automatically restart

**Step 22**: Enable standby: this allows maintenance to be carried out. Select YES by pressing RIGHT > button. If you select NO, standby mode is disabled. 18b: De Lime time can be adjusted by pressing the UP+ or DOWN- buttons. Confirm your selection by press the RIGHT > button.

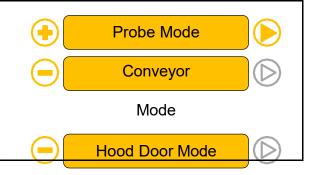


**Rinse Delay Time** – Configurable delay time for rinse, when the rinse signal is received the delay time will activate before allowing the rinse pump to operate.

Step 23: Link rinse and detergent signals: When YES is selected the rinse signal alone will trigger both Top up and Rinse. If NO is selected two separate feeds will be required for Top up and Rinse. Use the Plus + or Minus - buttons to select either YES or NO. Confirm your selection by pressing the RIGHT > button. If you select NO, you will return to the home page and the process is complete.



**Step 24:** Selecting the operating mode, pressing the Plus + or Minus – buttons changes the screen to show Probe, Conveyor or Door/Door. Once selection has been chosen press the >Right button to select that mode.



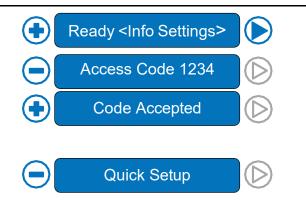
This Concludes Probeless Door Programming.

# **Quick Set Up Programming: Probeless Conveyor Mode**

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**Probeless Conveyor Mode** - Timed detergent operation, with optional rinse operations. Rinse on signal with adjustable delay time or rinse run time.

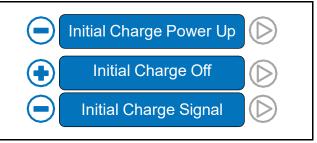
Step 1: Start by pressing the RIGHT > button (a). Enter your unique 'Access Code', now press the RIGHT > button to confirm (b). The screen will now state 'Code Accepted'(c). The 'Quick Set Up' screen will now appear, confirm selection by pressing the RIGHT > button (d)



**Initial charge** – Referred to as IC it is the initial dose of product when a tank fill operation occurs in the washer.

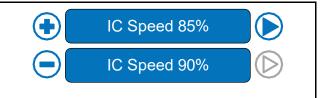
**Step 2:** Initial Charge: U sing the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.

\*See note in step 5 if using auto charge functions.



**IC Speed** – Adjustable Initial charge pump speed option in increments of 5%.

**Step 3:** IC Speed: to set the probe delay time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button



**IC Delay Time** – Configurable delay time (Power up and Signalled only) to allow for tank fill before detergent is dosed.

**Step 4:** IC delay time: to set the delay time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button



IC Run Time – A configurable run time for initial charge dose.

**Step 5:** IC run time: to set the run time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Top up Speed** – Adjustable detergent top up pump speed option in increments of 5%.

**Step 6:** Top up speed: to set the Top up speed, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



**Rack Time** – Configurable time used to programme the duration of 1 rack from start of wash to end of wash.

**Step 7:** Rack time: to set the time of the rack, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



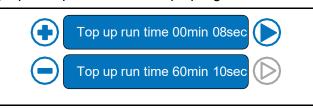
**Top up Every** – Choose after how many racks the top up should activate. For example: By selecting 2 the pump will dose once every 2 racks.

**Step 8:** Top up every 01 racks: to set the Top up speed, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button.



Top up Run time - Configurable run time Top up will operate when a top up signal is received

**Step 9:** Top up run time: to set the delay time of Rinse, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button



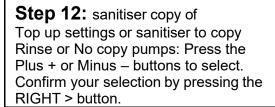
**Rinse Run** when the signal is present.

**Step 10:** Rinse speed: to set the speed of the pump, use the Plus + or Minus – buttons to select the percentage. Confirm your selection by pressing the RIGHT > button



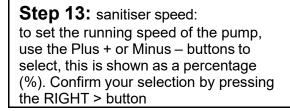
**Step 11:** Rinse On time: to set the rinse on time, use the Plus + or Minus – buttons. Confirm your selection by pressing the RIGHT > button, repeat for changing the seconds. Once complete press the RIGHT > button again to confirm.





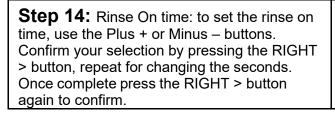


Sanitiser Speed – Adjustable Rinse pump speed option in increments of 5%.





**Sanitiser Delay** – Configurable run time sanitiser will be delayed when signal/command is received. Note this option will only be displayed if No Copy Pumps option is selected.





**Step 15:** Initial charge counter show the total cycles, pressing the Plus + or Minus – buttons changes the screen to show Hours, Minutes & Seconds. Holding either the Plus + or Minus – buttons will reset the counters.

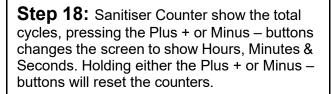


**Step 16:** Top up counter show the total cycles, pressing the Plus + or Minus – buttons changes the screen to show Hours, Minutes & Seconds. Holding either the Plus + or Minus – buttons will reset the counters.



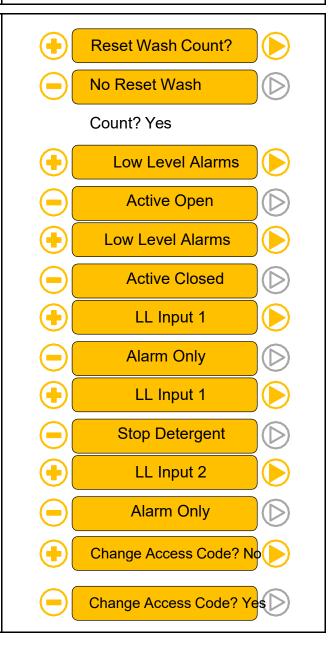
**Step 17:** Rinse Counter show the total cycles, pressing the Plus + or Minus – buttons changes the screen to show Hours, Minutes & Seconds. Holding either the Plus + or Minus – buttons will reset the counters.





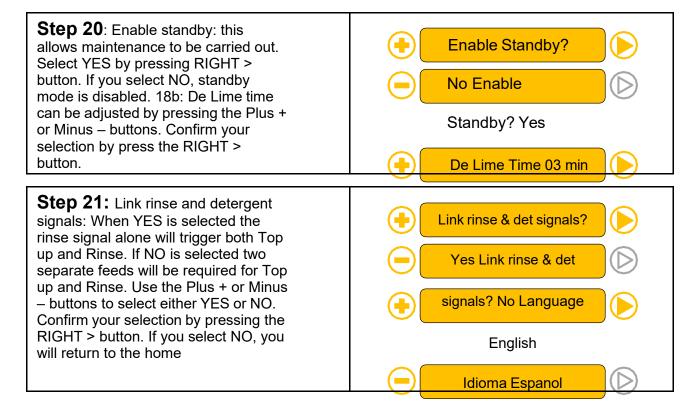


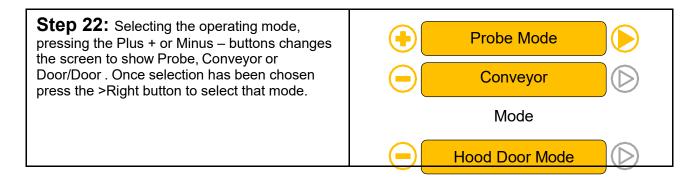
**Step 19:** Resetting the wash count: to reset the wash count, use the Plus + or Minus – buttons highlight YES. Confirm your selection by pressing the RIGHT > button. Step 17b: You will then be asked if you wish to change the access code to the unit before leaving this process (if you answer YES follow Steps 1-4 on how to do this).



**Standby mode** can be toggled ON or OFF depending on preference. If NO is selected the standby function will not work.

**De Lime Time** is a safety feature for de-liming the machine. This allows the operator to put the unit into sleep mode for a configurable time. When the configurable Standby time has expired the unit will automatically restart

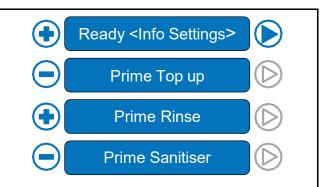




This Concludes Probeless Conveyor programing.

**Priming the Pumps** – this operation draws chemical up from source to the machine, ready to dose chemical prior to the commencement of one of the preprogramed cycles.

- (a) Start by pressing the RIGHT > button.
- (b) Choose the pump you wish to prime, by using the Plus + or Minus buttons.
- (c) Press and hold the prime button until enough chemical is drawn up to the desired level



#### **Maintenance**

**Important:** Before servicing or replacing parts the appliance must be disconnected from the mains supply and trigger signals and left to discharge for 10 seconds.

#### Service Intervals

- 1. Pump Tube Servicing: It is recommended the pump tubes are inspected for performance once every 3 months and lubricated with silicone grease to pro long tube life.
- 2. Pump Calibration: As a guide once every 3 months it is recommended the flow produced is checked to ensure consistent flow over the life of the tube. To do this run the pump for minute and capture the flow produced. Compare this figure with the run time of the pump to ensure the correct dosage is produced.
- 3. Pump tube replacement. As a guide it is recommended the tube is replaced for a new piece once every 6 months, or as needed.

## **Cleaning the Device**

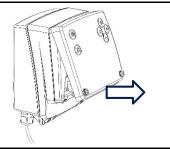
Wipe the unit with a soft damp cloth; avoid using harmful chemicals as this could potentially damage the housing or safety labels.

### **Replacing Peristaltic Tubing**

Your Quantura unit will require periodic maintenance by your chemical supplier technician. Do NOT attempt to service or fix this unit yourself as this may invalidate any agreement you have with your supplier and will void any warranty and responsibility with the manufacturer. Contact your service provider for any technical issues.

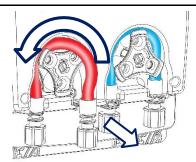
**IMPORTANT:** Before removing the tubes make sure you are wearing the appropriate eye protection and gloves in case any chemical suddenly escapes from the tube during this procedure.

**Step 1:** Power down the unit and remove the outer lid by removing the two screws and pulling the cover towards you.

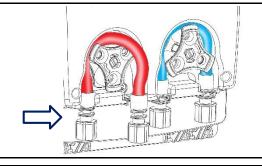


**Step 2:** Carefully disconnect the corresponding container inlet/discharge tubing while avoiding any spillage of chemical.

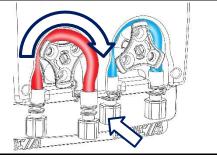
Now remove the old peristaltic tubes as shown by carefully working them around the pump head until free in an anti-clockwise direction.



**Step 3:** Insert the new tube at one end of housing, ensuring that it is slotted into the body of the housing as shown.



**Step 4:** Now feed the tube around the pump head until the other end is slotted into housing as shown. (Repeat steps 1-3 for the other pump head). Replace the outer lid in the reverse order as shown in step 1 and reconnect your container tubing.



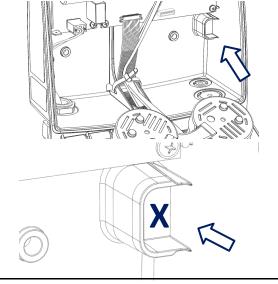
Will not turn on	Check main power supply with a volt meter Check Inline fuse if used Change out Mains Power board or Interface PCB
Display will not illuminate	Check power supply with a volt meter Check Standby status by pressing standby button Change out interface board
Pin code not accepted	Ensure you have the correct code and re-try Contact Brightwell Customer service with your serial number for back up code
Will not pump/dispense chemical	Check power supply Check display for probe alarm if using a probe Check chemical level Check Pump tube condition, replace if necessary Check all tube connections are tight and secure Check inlet/outlet tubes are correct way round
Pumps not initiating	Check the pumps prime to check functionality Check the correct trigger voltage is present 24 – 240V AC/DC Check the display for pump errors
Screen frozen-will not change	Turn the unit off, wait 1 minute for temporary memory to clear and turn back on again Check through installation again Contact service technician
Alarms & Indicators	Probe alarm – Check detergent supply Probe alarm - check Top up tube Check machine water level Pump Error – Turn the unit OFF and On again Pump Error – Replace Motor No Water Alarm – water tank needs to be replenished.
Accessories not recognised	3 <sup>rd</sup> Pump – Ensure pump is connected correctly 3 <sup>rd</sup> pump remove power for 10 seconds and re apply Probe – Ensure pump is connected correctly Probe remove power for 10 seconds and re apply

# FOR ALL OTHER FAULT ISSUES CONTACT YOUR SERVICE TECHNICIAN

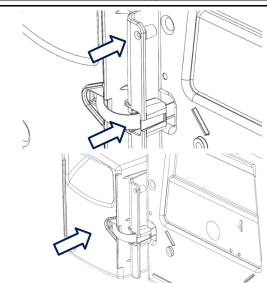
## **How to connect a Third Pump**

**Step 1:** Having opened the main enclosure, use a flat headed screw driver to knock out the location and entry point for the third pump (shown right, marked with the X).

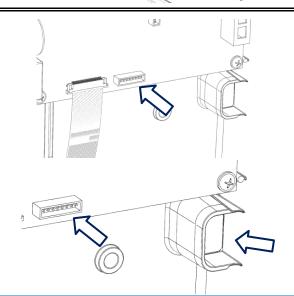
Important Note: In order to maintain the IP rating only the area shown should be knocked through.



**Step 2:** Feed the connecting cable from the third pump through the knock out hole (a) and into the main unit. Then push together the two units making sure the locating pin at the top lines up with the receiving hole (b), push until they click together.

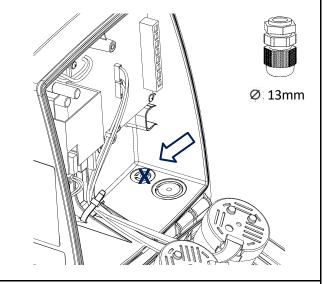


**Step 3:** Now connect this cable to the PCB board (shown right).

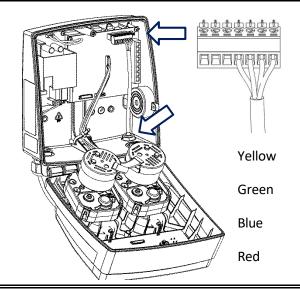


## How to connect a probe

**Step 1:** Remove the 13mm knock out on the underside of the unit and fit the probe gland which is included in the probe kit.

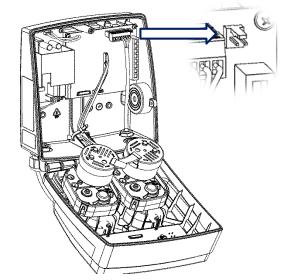


**Step 2:** Feed the probe cable through the 13mm gland and connect the 4 wires from the probe to the 7 way green connector provided with the probe kit as shown.

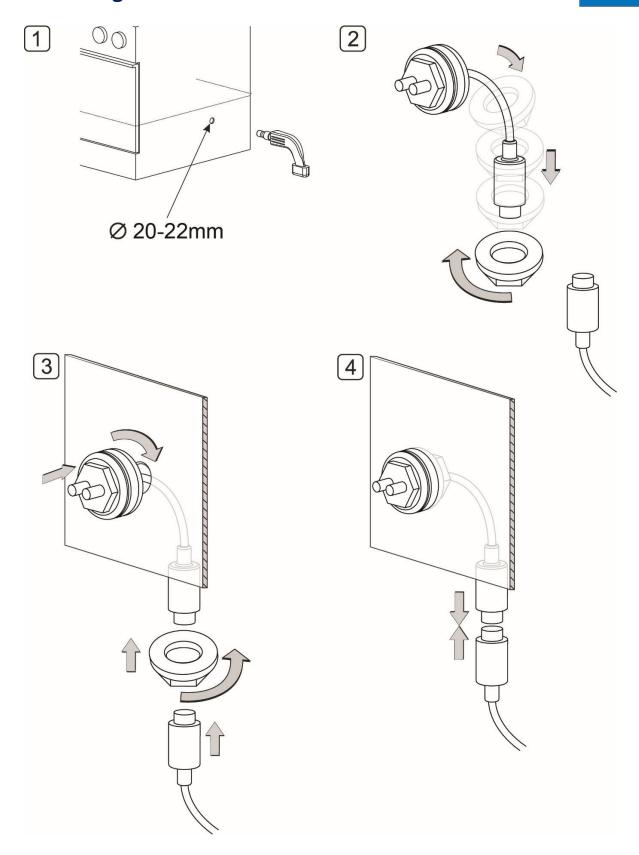


**Step 3:** Connect the buzzer provided in the kit to the Probe buzzer connector.

Using the Velcro pad provided with the buzzer attach the buzzer above the probe cable entry gland as shown.



## **Connecting the Probe to the Machine**

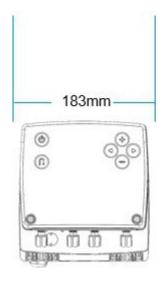


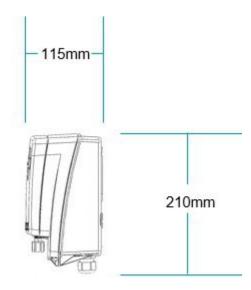
# **Technical Specifications**

	Voltage		110-240V AC
	Frequency		50/60Hz
Power Supply	Current	Q200 Q200 S Q300 Q300 S Q200 Q200 S Q300 Q300 S	0.22A @240V 0.15A @240V 0.33A @240V 0.25A @240V 28W 17W 42W 32W
Motor	24V DC		
Pump	Detergent: 30 - 250ml/min (BrightChem tube) Rinse: 3 - 30ml/min (BrightChem tube) Sanitiser 6 – 80ml/min (BrightChem tube)		
Enclosure	LG Lupol GP 3156F. White RAL9003 IP55 Rated.		
Weight	Q200 2kg Q200S 2kg Q300 3kg Q300S 3kg		

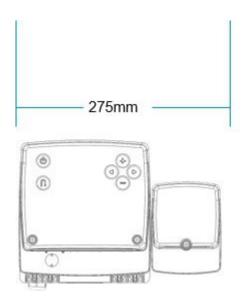
## **Dimensions: Foot Print**

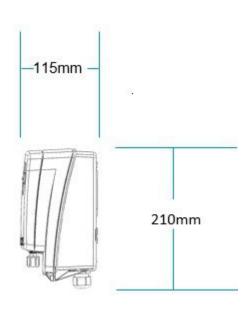
## Q200 & Q200S





#### Q300 & Q300S





### **EU Declaration of Conformity**

#### The EU Directives covered by this Declaration

- Low Voltage Directive (LVD 2014/35/EU)
- Electromagnetic Compatibility Directive (EMC 2014/30/EU)

#### The Products Covered by this Declaration

- Quantura Q200
- Quantura Q300
- Quantura Q200S
- Quantura Q300S

#### Basis on which Conformity is being Declared

# The products identified complies with the requirement of the above EU Directives by meeting the following standards:

EN 61000-6-1: 2007 Electromagnetic Compatibility (EMC) EN 61000-6-3: 2007, A1: 2001 Electromagnetic Compatibility

(EMC) EN 60335-1 Electrical Safety

EN 60335-2-41 Electrical Safety

EN 61000-6-2: 2005 Electromagnetic Compatibility (EMC)

EN 60526: 1992, A2: 2003 IP Testing

BS EN 62311: 2008 EMF Testing BS EN 62233: 2008 EMF Testing

#### **CSA Group Certificate of Compliance – Certificate Number**

#### 70123126 The Products Covered by this Certificate



Quantura Q100 Quantura Q200 Quantura Q300 Quantura Q200S Quantura Q300S

#### **WEEE Directive**



GB IRL	<ul> <li>Environment protection first!</li> <li>Your appliance contains valuable materials which can be recovered or recycled.</li> <li>Leave it at a local civic waste collection point.</li> </ul>
F	Participons à la protection de L'environnement Votre appareil contient de nombreux matériaux valorisables ou recyclables.  Confiez celui-ci clans un point de collecte ou à défaut dans us centre service agréé pour clue son traitement soit effectué.
D A	Schützen Sie die Umwelt! Ihr Gerät enthält mehrere unterschiedliche, wiederverwertbare Wertstoffe. Bitte geben Sie Ihr Gerät zum Entsorgen nicht in den Hausmüll, sondern bringen Sie es zu einer speziellen Entsorgungsstelle für Elektrokleingeräte (Wertstoffhof).
E	ii Participe en la conservación del medio ambiente !! Su electrodoméstico contiene materiales recuperables y/o reciclables.  Entréguelo al final de su vida útil, en un Centro de Recogida Especifico o en uno de nuestros Servicios Of iciales Post Venta donde será tratado de forma adecuada.
1	Partecipiamo alla protezione dell'ambiente Il vostro apparecchio è composto da diversi materiali che possono essere riciclati.  Lasciatelo in un punto di raccolta o presso un Centro Assistenza Autorizzato.
NL	Wees vriendelijk voor het milieu! i Uw apparaat bevat materialen die geschikt zijn voor hergebruik.  Lever het in bij het milieustation in uw gemeente of bij onze technische dienst.
PL	Bierzmy czynny udzial w ochronie środowiska ! Twoje urządzenie jest zbudowane z materialów, które mogą być poddane ponownemu przetwarzaniu lub recyklingowi. W tym celu należy je dostarczyć do wyznaczonego punktu zbiórki.
CZ	Podilejme se na ochrane životniho prostředi! Váš přístroj obsahuje četné zhodnotitelné nebo recyklovatelné materiály. Sveřte jej sbernému mistu nebo, neexistuje-li, smluvnimu servisnimu středisku, kde a nim bude naloženo odpovidajicim způsobem.

