



# UL

## Operator Manual

**STARLINE**



**STARLINE**



**STARLINE**<sup>®</sup>  
PROFESSIONAL WASH SYSTEMS

STARLINE SERVICE LINE  
UL 0000 NZS



**WARNING**

Before installation and commissioning, you must read the safety instructions and warnings carefully and all the warning labels attached to the equipment.



**IMPORTANT**

Failure to comply (even partially) with the instructions given in this manual will invalidate the product warranty and relieves the manufacturer of any responsibility



**IMPORTANT**

The alteration of machine operation, design or the replacement of parts not approved by the manufacturer may void warranties and approvals.



**IMPORTANT**

This machine is intended for commercial use only.

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We have checked that the contents of this document correspond to the model described. There may be discrepancies nevertheless, and no guarantee can be given that they are completely identical. The information contained in this document is reviewed regularly and any necessary changes will be included in the next edition. We welcome suggestions for improvement.

Specifications and document subject to change without prior notice.

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**Service 0800 782 754**

**Parts 09 829 0930**



Manufactured in New Zealand by Washtech Ltd.  
414 Rosebank Road, Avondale, Auckland 1026.  
PO BOX 90548, Auckland

# Safety Instructions



## **WARNING**

Equipment contains dangerous voltages and can be hazardous if installed or operated incorrectly. Non-compliance with warnings or failure to follow the instructions contained in this manual can result in loss of life, severe personal injury or serious damage to property.

## **Installation**

- Use qualified, skilled personnel
- Follow installation instructions
- Connect to correct voltage and supply current
- Provide fully accessible electrical Isolation Switch & water supply valves

## **Training and Supervision**

- Read and understand the Operating instructions and train all staff
- This appliance must not be operated by children or infirm persons
- Machine panels must only be removed by suitably qualified and trained personnel – internal hazards include live electrics and very hot surfaces
- This appliance is not intended for use as a stepladder

## **Hot Surfaces**

- Some surfaces may be hot or very hot

## **Chemicals**

- Commercial dishwashing detergents are hazardous – handle with care
- Read and follow the safety information found on the labels of detergent containers and Material Safety Data Sheets
- Use protective eyewear and clothing if decanting containers

## **Hot Water**

- Do not put hands in wash water which may be over 60°C and contain hazardous caustic detergent
- Rinse water can be over 90°C
- Door safety switches are designed for emergency use only

## **Cleaning**

- Do not hose down the machine or splash water over the exterior
- Watch for broken glass etc when cleaning the inside of the machine

## **Service/repair**

- Under no circumstances the user should attempt to carry out repairs
- All service/repair work must be carried out by qualified personnel only
- 

## **Power Cord Replacement**

- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person in order to avoid a hazard

# Installation Checklist



## WARNING

Installer must be suitably qualified and ensure compliance with all codes and standards including AS/NZS3500.1.

## Unpack

- Unpack the machine, check for damage and complete delivery.

## Positioning

- Place machine on sound waterproof self draining floor and adjust feet to level
- Allow room for adjacent chemical containers

## Water

- Flush supply lines before connection
- Connect hose supplied to adjacent accessible isolator valve - 20 mm 3/4 male
- Flow rate required - 15 litres per minute
- Temperature - 65°C
- Consumption per cycle - 2.6 litres
- Pressure required - 200-350 kPa - fit limiter above this pressure
- Back Flow - Atmospheric Vacuum Breaker
- Potable water quality is required - filter or soften if necessary

## Water Quality Requirements

Hardness			ppm				pH
min			20				7
max			100				8
Ions	Cl <sup>-</sup>	SO <sub>4</sub>	Fe	Mn	Cu	Cl <sub>2</sub>	
Max mg/L	100	400	0.1	0.5	0.05	0.1	

## Power

- Machine shipped with cordset for 15 A 230V 50Hz via adjacent switched outlet.
- Easily upgradeable to single phase 25 A 230V 50Hz or three phase 15 A per phase 400V 50Hz

## Waste

- Connect drain pump hose supplied to vented upstand or sink waste connection

## Detergent

- Insert hose into container of commercial dishwasher low foam detergent
- Adjust detergent dosing and prime detergent using the keypad (refer to page 7)
- Use good quality chemicals and regularly check containers

## Rinse Fluid

- Insert hose into container of commercial dishwasher rinse fluid
- Adjust rinse fluid dosing and prime rinse aid using the keypad (refer to page 7)
- Use good quality chemicals and regularly check containers

## Operation

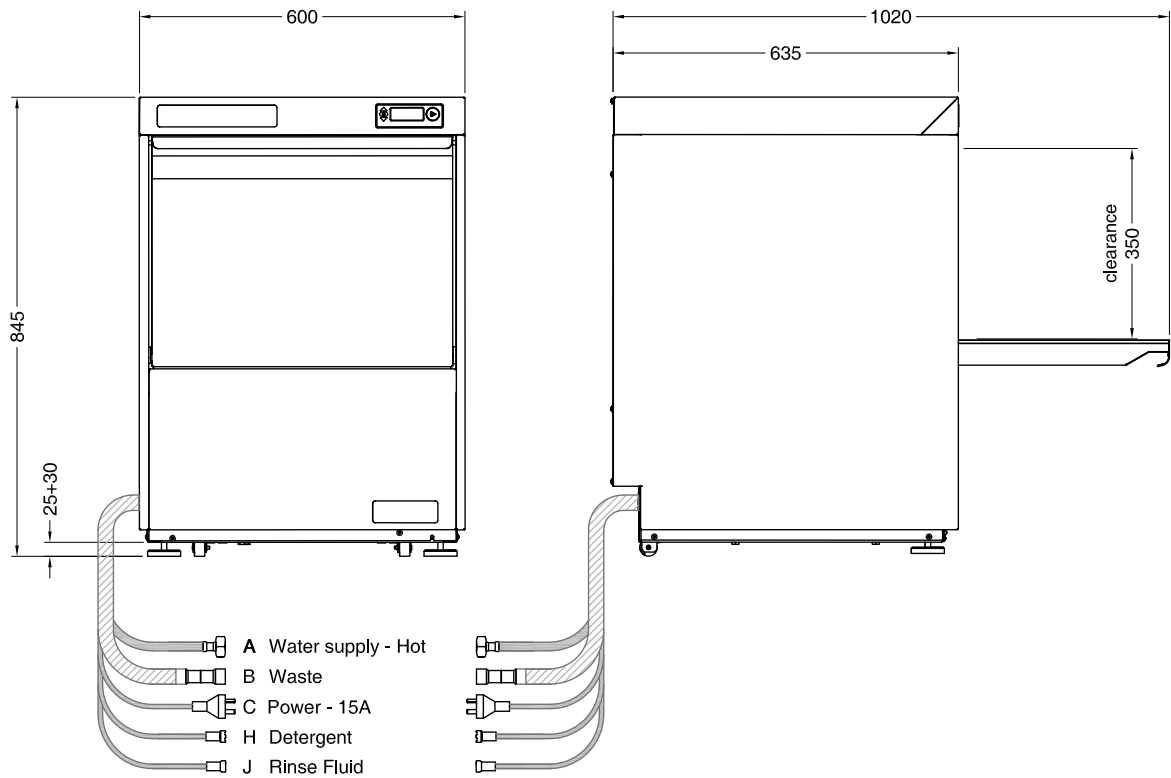
- Run several cycles, ensure that operator has read and understands instructions

## Troubleshooting Installation

- If machine doesn't fill after switching on power, check & ensure that hot water supply tap is open and water supply pressure is not below specification.

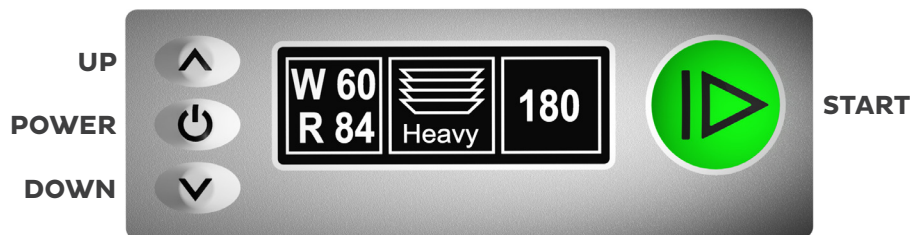
# UL Installation Diagram

UL-S INST 06-06-14 3A



All dimensions in millimeters

# UL Operating Instructions



## START

- Turn on at wall
- Ensure the Wash filter (3) is in place
- Ensure the Scrap tray (2) and Filter basket (1) are in place and shut door
- Press Power button for 3 seconds to turn machine on and begin the fill cycle

## OPERATION

- Select cycle using Up/Down buttons (use the Heavy cycle whenever possible)
- Press Start button (once this is Green or Orange) to begin washing
- Timer counts down to 00 then resets after door is opened

## START BUTTON COLOURS

- |  |                             |
|--|-----------------------------|
| White = machine is filling               | Purple = door is open       |
| Red = cycle is running                   | Orange = machine is heating |
| Green = rinse water is up to temperature | Blue = power saving mode    |

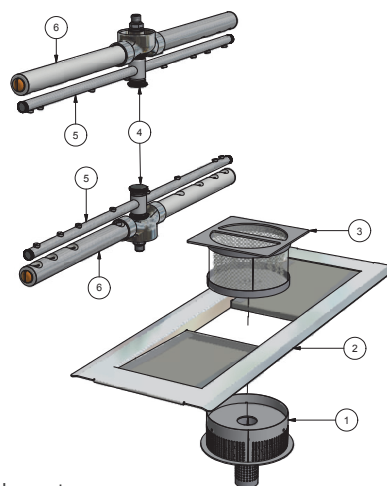
NOTE: The machine may be started while Orange light is on and while rinse water is being heated and the timer will pause at 22 seconds until rinse water is up to 83 degrees

## SHUT DOWN – EVERY NIGHT

- Select Drain cycle via Up or Down buttons and press Start button
- When Drain cycle is finished after 100 seconds, remove and rinse filter basket (1) and Scrap tray (2) before replacing back in machine

## CLEANING – AT LEAST ONCE A WEEK

- Remove, rinse and replace:
  - Filter basket 1
  - Scrap tray 2
  - Wash filter 3
  - Rinse Arms 4
  - Wash Arm 5
  - Thumbscrews 6
- Inspect and clear all jets in the wash and rinse arms



## SUGGESTED BEST PRACTICE

- Pre-rinse Scrape and/or rinse plates and glasses in cool water
- Chemical Use good quality non foaming commercial detergent and drying agent  
Do not use domestic detergent which will cause the machine to foam

# User Programming

The **User Settings** menu is accessed by pressing the UP and DOWN keys simultaneously for 5 seconds, the screen should then change to:



Press the POWER button to scroll between settings.  
Press the UP and DOWN keys to change a specific setting,  
Press the START button to return to the operator screen.

The programming options are specified in the table below:

User Settings	Factory Setting	Selection
Power Save	ON	ON/OFF
Detergent Prime	OFF	ON/OFF
F-Detergent Injection Time	40	0 - 180 secs
W-Detergent Injection Time	15	1 - 30
Rinse Aid Prime	OFF	ON/OFF
W-Rinse Aid Time	12	1 - 30
Display Contrast	27	10 - 40

**Power Save** function reduces the rinse temperature setting by 10°C when the machine is idle for 5 minutes or more. The temperature settings return to the set value when door is opened or START/STOP key is pressed.

**Detergent Prime** function allows manual operation of the detergent pump to fill the detergent hose with chemicals. Press UP key to switch the detergent pump on, DOWN key to switch the pump off. If the detergent pump is turned on and left running, it will stop automatically after 1 minute of operation.

**F-Detergent Time** controls the operation time of the detergent pump during the fill of the wash tank. The factory settings for passthrough models – 80 seconds.

**W-Detergent Time** sets the injection time of the detergent pump at the beginning of each wash cycle. Ex-factory setting is 15 seconds as board default.

**Rinse Aid Prime** function allows manual operation of the rinse aid pump to fill the rinse aid hose with chemicals. Press UP key to switch the rinse aid pump on, DOWN key to switch the pump off. If the rinse aid pump is turned on and left running, it will stop automatically after 1 minute of operation.

**W-Rinse Aid Time** controls the injection time of the rinse aid peristaltic pump. The rinse aid pump is set to operate at the beginning of each wash cycle. Ex-factory setting is 12 seconds as board default.

# Troubleshooting

If an error message appears on the control display first try turning the machine OFF for 30 seconds and then back ON. If the error message remains call for service.

<b>Issue</b>	<b>Resolution</b>
Not filling	Check water supply is on and door is closed
Refills during Wash	Check Drain upstand is fitted
Cycle does not start	Check door is closed
Wash too long	Check water supply temperature - wash stops at 22 seconds if rinse is still heating
Foaming Wash	Excessive use of rinse fluid and/or low wash temperature can cause foaming
Poor Results	Read and carefully follow the machine installation, operating and care procedures

**All of the following is actually in the instructions on previous pages of the manual**

Pre-scrap and pre-rinse washware

Do not overload dishracks - avoid overlap of plates, wash cutlery unsorted, handles up

Use quality low foam detergent and rinse fluid - check containers and adjustment

Use heavy cycle - baked on soil requires pre-scraping and/or pre-soaking

Remove and check wash & rinse arms & jets are clean and rotating freely

If plates are not pre-rinsed wash water may need changing regularly

Check wash and rinse temperatures

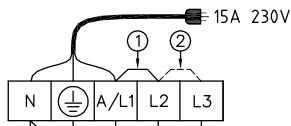
Remove rack when cycle ends and leave on the bench a few minutes for drying



# UL(S) Wiring Diagram

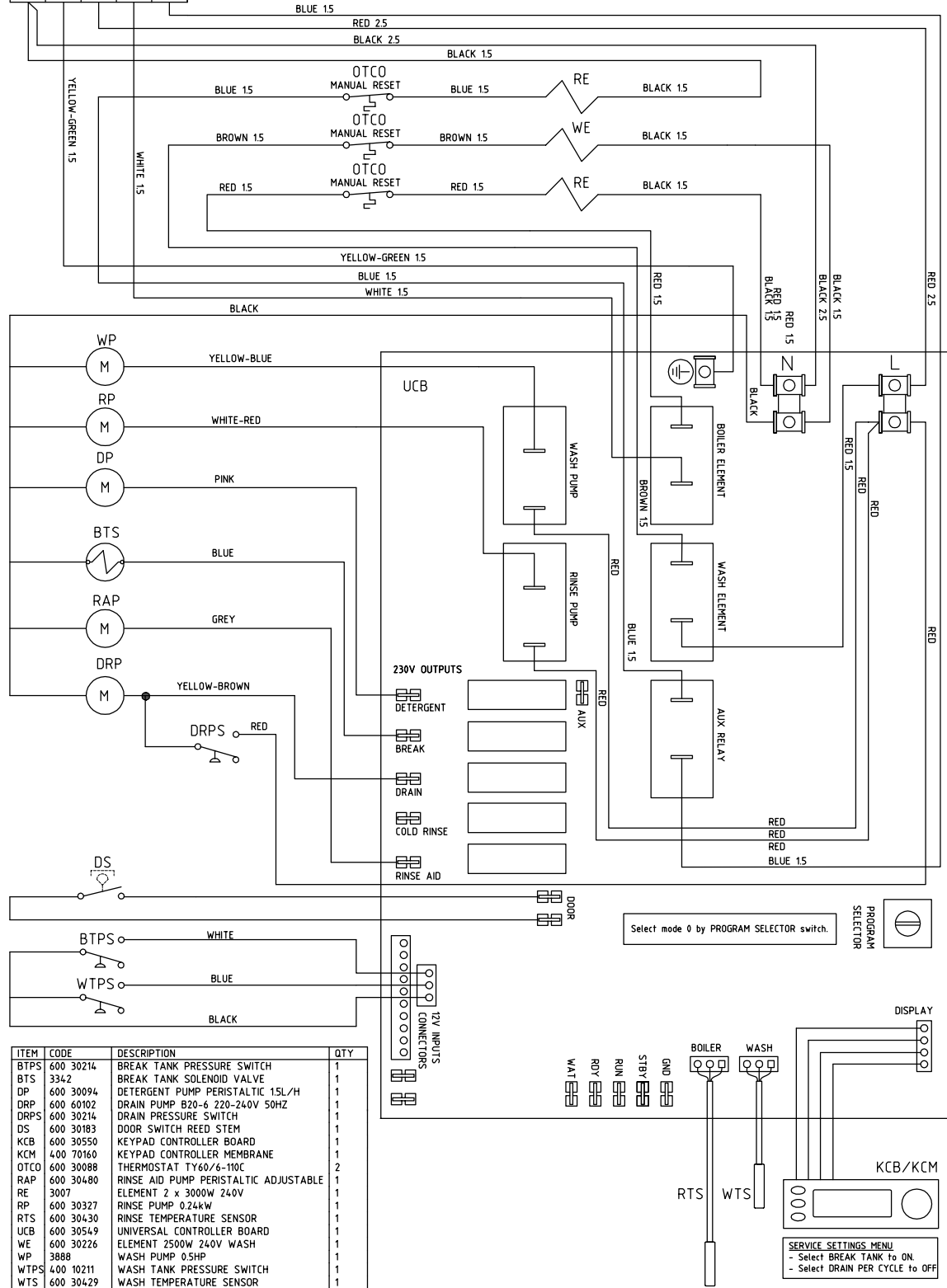
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POWER SUPPLY TERMINAL



### IMPORTANT

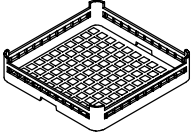
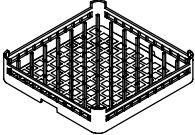

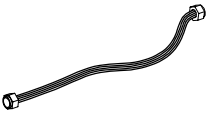



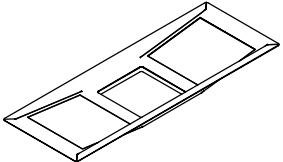


- 1P 230V 15A - 3KW RINSE HEATING, STANDARD AS SHIPPED WITH 15A CORDSET AND LINK 1 FITTED.
- 1P 230V 25A - 6KW RINSE HEATING - REPLACE CORDSET WITH PROPER RATED CABLE FROM 25A SUPPLY CIRCUIT, FIT LINK 2 BETWEEN L2 & L3
- 3P+N-E 400V 15A - 6KW RINSE HEATING - REPLACE CORDSET WITH PROPER RATED CABLE, REMOVE ALL LINKS.



ITEM	CODE	DESCRIPTION	QTY
BTPS	600 30214	BREAK TANK PRESSURE SWITCH	1
BTS	3342	BREAK TANK SOLENOID VALVE	1
DP	600 30094	DETERGENT PUMP PERISTALTIC 15L/H	1
DRP	600 60102	DRAIN PUMP B20-6 220-240V 50HZ	1
DRPS	600 30214	DRAIN PRESSURE SWITCH	1
DS	600 30183	DOOR SWITCH REED STEM	1
KCB	600 30550	KEYPAD CONTROLLER BOARD	1
KCM	400 70160	KEYPAD CONTROLLER MEMBRANE	1
OTCO	600 30088	THERMOSTAT TY60/6-110C	2
RAP	600 30480	RINSE AID PUMP PERISTALTIC ADJUSTABLE	1
RE	3007	ELEMENT 2 x 3000W 240V	1
RP	600 30327	RINSE PUMP 0.24kW	1
RTS	600 30430	RINSE TEMPERATURE SENSOR	1
UCB	600 30549	UNIVERSAL CONTROLLER BOARD	1
WE	600 30226	ELEMENT 2500W 240V WASH	1
WP	3888	WASH PUMP 0.5HP	1
WTPS	400 10211	WASH TANK PRESSURE SWITCH	1
WTS	600 30429	WASH TEMPERATURE SENSOR	1

SERVICE SETTINGS MENU  
 - Select BREAK TANK to ON  
 - Select DRAIN PER CYCLE to OFF

# Accessories

		QTY
	<b>600 70029</b> CUPRACK CB 500mm X 75mm high	1
	<b>600 70028</b> DISHRACK P12/18 500mm 18 DISH	1
	<b>C660503</b> CUTLERY CONTAINER G	1
	<b>600 60080</b> HOSE SS 2M	1
	<b>C440201</b> RUBBER FOOT D.60 X 10	2
	<b>ELECTRICAL WIRING DIAGRAM</b> ( UNDER FRONT COVER )	1
	<b>OPERATOR MANUAL</b>	1
	<b>212 10049</b> SCRAP TRAY ASSEMBLY <b>***CHECK IN MACHINE***</b>	1
	<b>212 10004</b> WASH FILTER ASSEMBLY <b>***CHECK IN MACHINE***</b>	1
	<b>212 10046</b> WASTE BASKET ASSEMBLY <b>***CHECK IN MACHINE***</b>	1

# Parts

<b>Description</b>	<b>Part No.</b>
<b>Controls &amp; Indicators</b>	
Digital Temperature Sensor 500mm	600 30429
Digital Temperature 1000mm	600 30430
Door Reed Switch	600 30183
Pressure Switch Break Tank & Drain	400 10214
Pressure Switch Fill GL/UL	400 10211
WI200 Controller PCBA	600 30549
WI200 Keypad Membrane	400 70160
WI200 LCD Interface PCBA	600 30550
<b>Heating Components</b>	
Rinse Element 2x3kW (from s/n 144621)	600 30496
Rinse Element 2x3kW (before s/n 144621)	3007
Wash Element 2.5kW	600 30226
<b>Hose &amp; Fittings</b>	
Hose Drain Pump 2.5m	600 60105
Hose Drain Pump Outlet	6197
Pressure Switch Hose (520mm)	3067
Rinse Hose	600 60073
Upper Wash Hose	400 90012
<b>Pumps &amp; Solenoids</b>	
Detergent Pump	600 30094
Detergent Pump Hose	600 30148
Detergent Squeeze Tube	600 30134
Drain Pump	600 60102
Rinse Aid Pump Adjustable	600 30480
Rinse Aid Squeeze Tube	600 30119
Rinse PUmp	600 30327
Solenoid Valve	3342
Wash Pump	3888
<b>Wash Tank Components</b>	
Rinse Arm Assembly	260 10097
Wash Arm Assembly	326 10030

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**WASHTECH**

414 Rosebank Road  
Avondale  
Auckland 1026  
New Zealand

PO Box 90548, Auckland

24HR Service 0800 Starline  
Tel 09 829 0930  
Fax 09 829 0935  
E-mail [info@washtech.co.nz](mailto:info@washtech.co.nz)  
web [www.starline.co.nz](http://www.starline.co.nz)

#### ISO9001

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