



AL

Operator Manual



STARLINE[®]
PROFESSIONAL WASH SYSTEMS



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.

CONTENTS

Safety Instructions.....	3
Installation.....	4
Installation Diagram.....	5
Operating Procedures.....	6
Troubleshooting.....	8
Wiring Diagram.....	10

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.

Information supplied in this manual is copyright. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical without the express permission of the author / publisher.

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
- Hood 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

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 within the following requirement ranges - filter or soften if necessary

Water Quality Requirements

Hardness	fH	dH	ppm	gf/gal	pH
Min	2	1	220	1	7
Max	10	6	100	6	8

Ions	CL	SO ₄	Fe	Mn	Cu	Cl ₂
Max mg/L	100	400	0.1	0.5	0.05	0.1

Power

- Machine shipped three phase 15 A per phase 400V 50Hz

Waste

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

Detergent

- Note that detergent is hazardous - read instructions and handle with care
- Insert hose into container of commercial dishwasher low foam detergent
- Refer operator procedures

Rinse Fluid

- Insert hose into adjacent container of commercial dishwasher rinse fluid
- Refer operator procedures

Operation

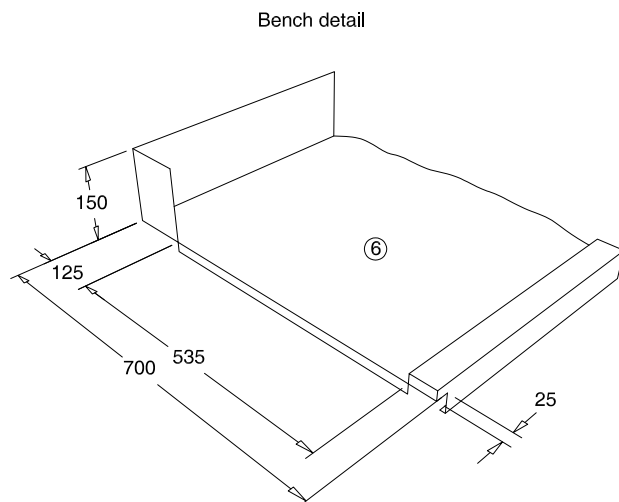
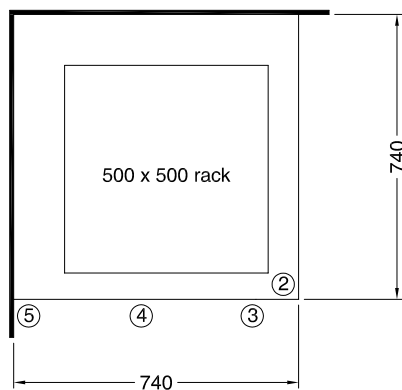
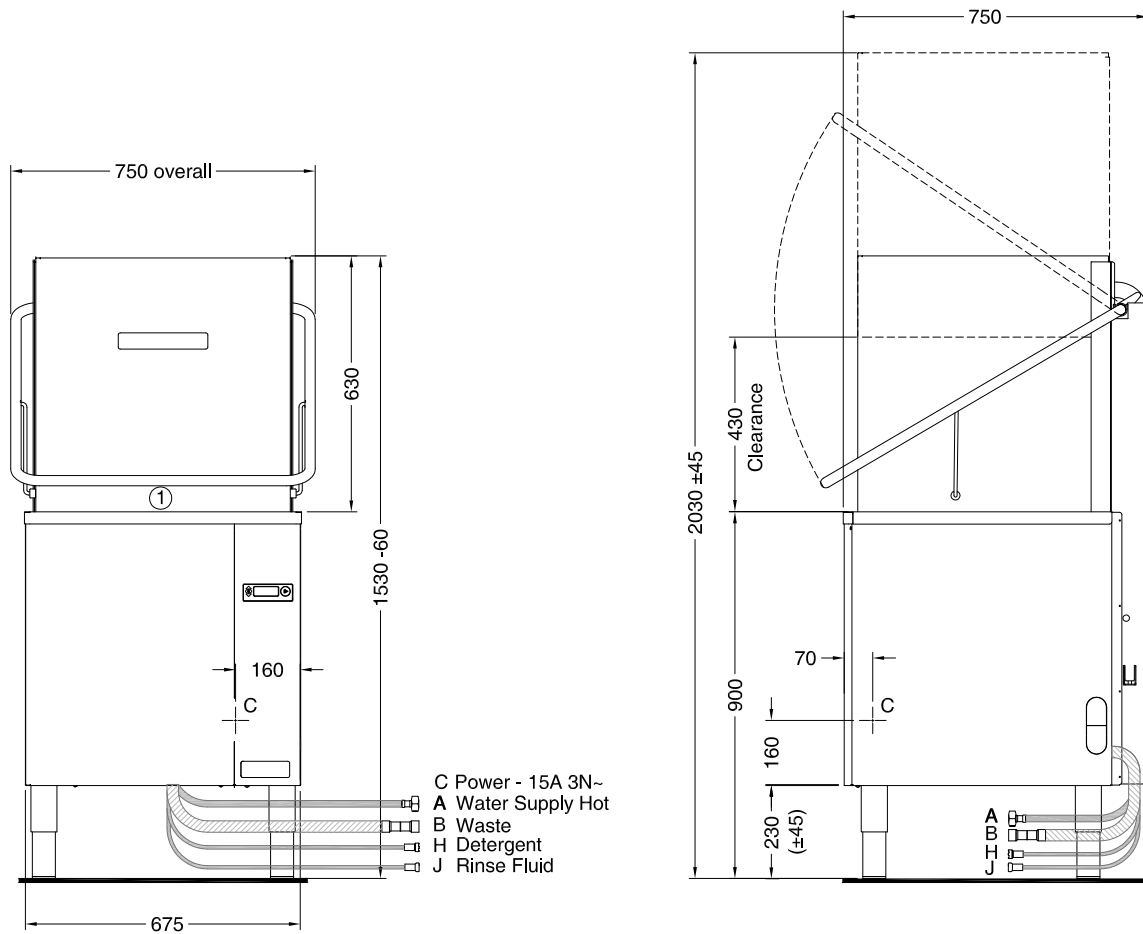
- Run several cycles, ensure that operator has read and understands instructions

Troubleshooting Installation

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

AL Installation Diagram

AL-S INST 11-01-16 3D



In-line Installation

① Bench gap 640

Corner Installation

② wall to front inside corner of wash tank 740

③ machine must face left for access to controls

④ allow 300 clearance beneath bench to front for service access

⑤ splashback return no higher than 150

⑥ left side is mirror image

AL Machine Operation

Turn machine on at wall. Fit scrap tray, filter and shut door.
Press On/Off Key for 3 Seconds

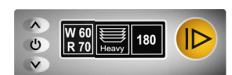
Start key glows white as machine fills. If door is open then the start key glows purple

Once full, rinse heating starts. Start key glows orange while heating. Machine can be started when machine is heating. NOTE: If rinse temperature is not sufficient cycle countdown will stop at 14 seconds. Washing continues until rinse reaches temperature required for sanitization and countdown then resumes.

Start key glows green when machine is fully heated. For different cycles press the UP and DOWN arrows: Light, Medium, Heavy, Manual or Drain.

Close door/Press start key to start cycle. When manual cycle is selected machine will continue washing until START button is pressed. Rinsing and draining follow washing to complete cycle.

Start key glows red during cycle. Pressing Start key again terminates cycle without rinse. Timer counts down to double zero and flashes 00 at cycle end until door is opened.



SHUT DOWN - EVERY NIGHT

Press UP or DOWN keys to select Drain cycle and shut the door. Press START key to start Drain cycle. Machine drains for 180 seconds with a cleaning rinse mid-cycle. When Draining is complete machine goes into Standby mode. Remove filter basket and scrap tray; rinse clean and replace.

DAILY CLEANING

The machine must be drained and cleaned at the end of each day.
Drain the machine as per the shut down instructions.
Remove, clean and replace filters.
Regularly check the wash and rinse jets and clean if necessary.

MAINTENANCE

Regular servicing of the dishwasher is essential for high performance, efficient operation and long machine life. Contact us for information on a maintenance programs.



STARLINE®

Service 0800 782 754
Parts 09 829 0930

Operating Procedures

PRE-RINSING

Pre-scraping of dishes is required by Food Hygiene Regulations. The best method is to pre-rinse with warm water with a Fisher Pre-rinse Unit - or alternatively by scraping or dunking in water. Cutlery should be pre-soaked in warm water, preferably containing cutlery pre-soak compound - refer your chemical supplier.

RACKING PROCEDURES

Do not overload racks or cutlery containers, minimise the overlap of crockery. Wash cutlery unsorted, handles down. Cycle times are short and water consumption per cycle low - so there is no advantage in overloading racks.

CYCLE TIMES

The AL has a 40, 60, 90 second cycle and extended manual cycle.

CHEMICAL

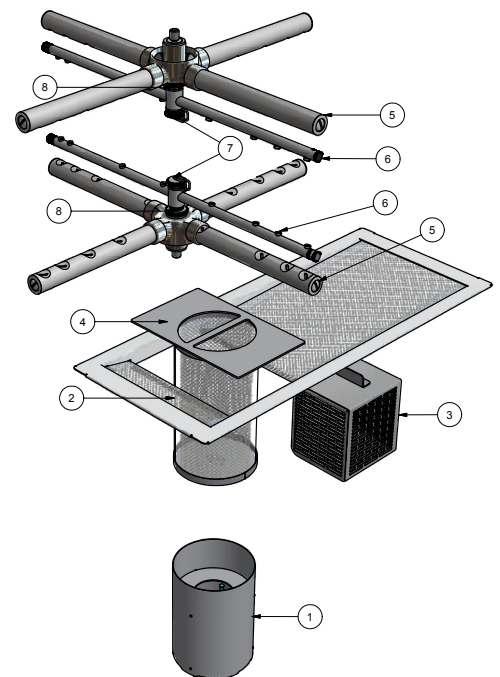
Correct type and quantity of detergent is essential for good results and rinse fluid speeds drying. Use good quality chemicals and regularly check supply containers. Detergent and rinse fluid concentration can be changed by adjusting dispensing time on the keypad (refer to page 8 User Programming). Prime detergent line by turning on the DETERGENT PRIME option in the User Settings menu. Detergent pump will operate continuously for up to 1 minute and prime the line; repeat process as necessary until line is fully primed.

DRYING

Single tank commercial dishwashers do not have a drying cycle. However, the machines do rinse at high temperatures which promotes fast drying particularly when drying agents are used. At the end of the cycle promptly remove the rack from the machine - leave the rack on the bench for 2 to 3 minutes before emptying.

REGULAR CLEANING – at least once a week

Remove filter basket (4), scrap tray (2) and wash filter (1) and pump inlet filter (3). Remove wash (5) and rinse arms (6) by undoing the central thumbscrews (7). Inspect all jets - use toothpick or paperclip and remove arm end-caps if necessary to flush and clear. Clean and then replace all items.



Keypad Start Button Colours

Machine State	Colour
Door Open	Purple
Filling	White
Heating	Orange
Ready	Green
Ecopower	Blue
Washing	Red
Error	Flashing Red

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
Fill Detergent Injection Time	40	0 - 180 secs
Wash Detergent Injection Time	15	1 - 30
Rinse Aid Injection 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.

QuickStart starts washing regardless of rinse temperature. If rinse temperature is not sufficient cycle countdown will stop at 14 seconds. Washing continues until rinse reaches temperature required for sanitization and countdown then resumes.

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.

Issue	Resolution
Not filling	Check water supply is on and door is closed
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

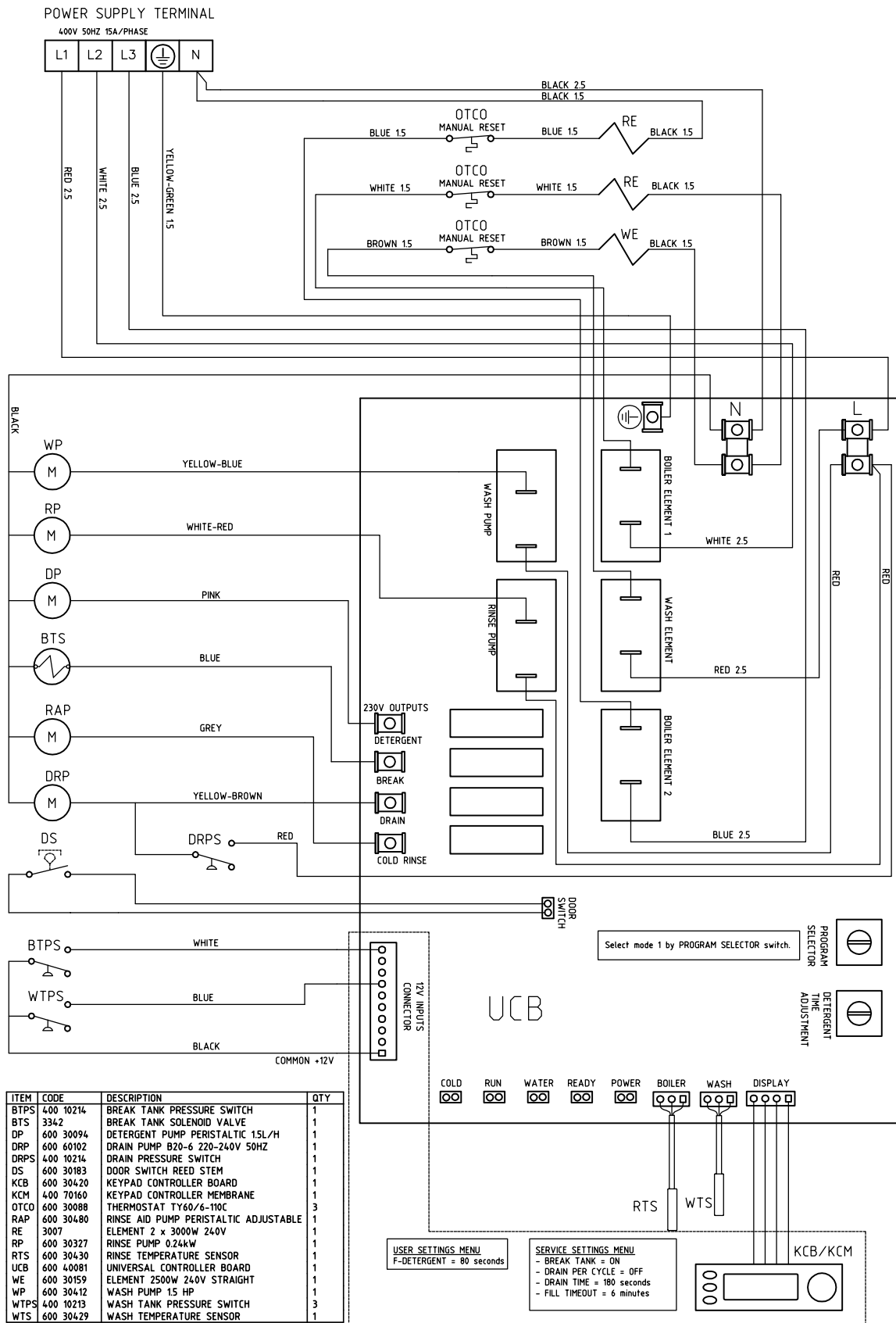
If plates are not pre-rinsed wash water may need changing regularly

Check wash and rinse temperatures

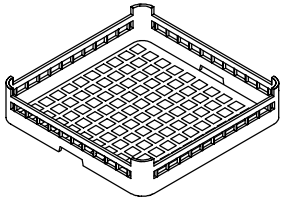
Remove rack when cycle ends and leave on the bench a few minutes for drying

AL Wiring Diagram

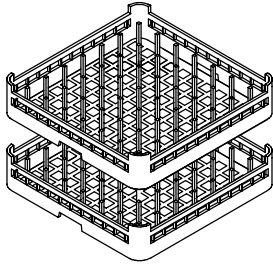
010301 16/12/14 3B



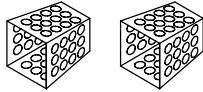
Accessories



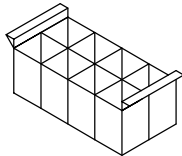
600 70029
CUPRACK 500mm OPEN



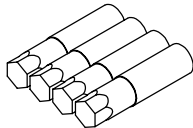
600 70028
DISHRACK 500mm 9 x 9 DIVISION



C660503
CUTLERY CONTAINER G



C660508
CUTLERY BASKET CP8 for 500mm



600 90154
SS LEG (63D x 225-325mm x M12)



600 60080
2M S/S HOSE

Information supplied in this manual is copyright.
No part of this work may be reproduced or copied
in any form or by any means, electronic or
mechanical without the express permission of the
author/publisher

Manufactured in New Zealand by Washtech Ltd.

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

web www.starline.co.nz

ISO9001

All Washtech products are designed and
manufactured by Washtech using the
internationally recognised ISO9001 quality
management system, covering design,
manufacture and final inspection, ensuring
consistent high quality at all times.

In line with policy to continually develop and
improve its products, Washtech Ltd reserves the
right to change specifications and design without
prior notice.

