ALC

Operator Manual

STARLINE®

PROFESSIONAL WASH SYSTEMS

WARNING
Before installation and commisioning, 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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Parts 09 829 0930

STARLINE®

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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

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 - Less than 20˚C
- Consumption per cycle - 2.6 litres
- Pressure required - 200-350 kPa - fit limiter above this pressure
- Back Flow - Dual Check Valve (DCV)
- Potable water quality is required - filter or soften if necessary

Water Quality Requirements

Hardness	ppm	pH
min	20	7
max	100	8

Ions	Cl^-	SO_4	Fe	Mn	Cu	Cl_2
Max mg/L	100	400	0.1	0.5	0.05	0.1

Power
- 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

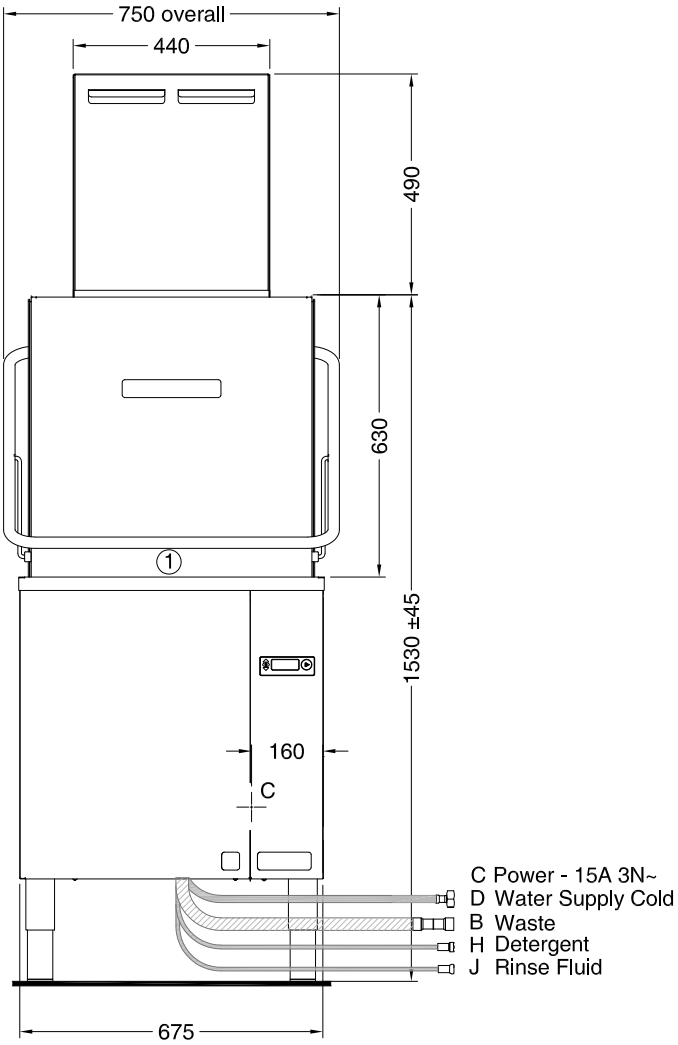
Rinse Fluid
- Insert hose into container of commercial dishwasher rinse fluid
- Adjust rinse fluid dosing and prime rinse aid using the keypad (refer to page 7)
- Use good quality chemicals and regularly check containers

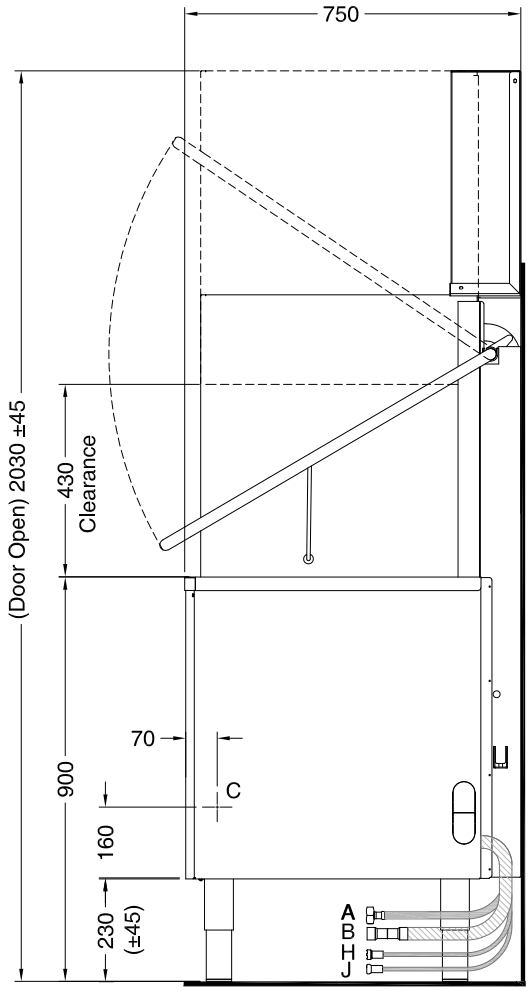
Operation
- Run several cycles, ensure that operator has read and understands instructions

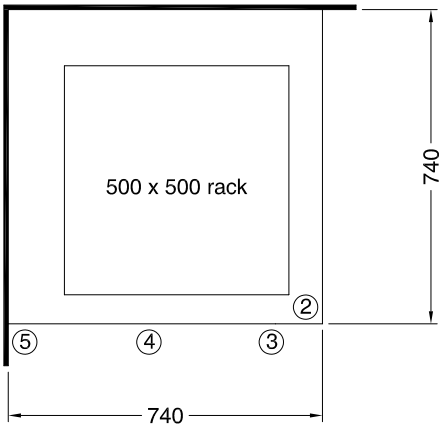
Troubleshooting Installation
- If machine doesn't fill after switching on power, check & ensure that hot water supply tap is open, water supply pressure is not below specification.

ALC(4) Installation Diagram

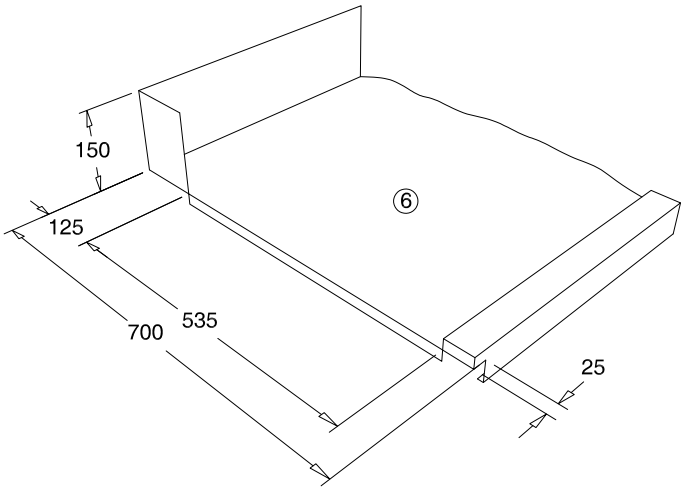
ALC-S(4) INST 16-11-16 3 A







Bench detail



In-line Installation

① Bench gap 640

Corner Installation

② wall to front inside corner of wash tank 740

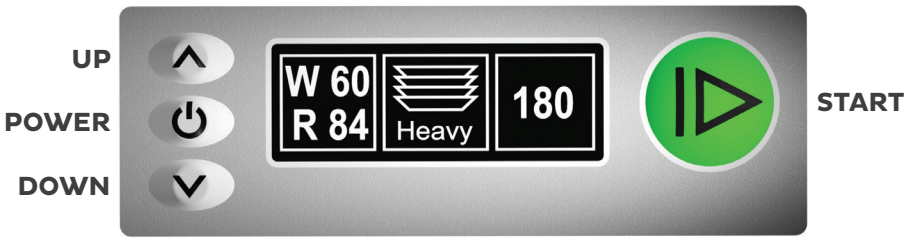
③ machine must face left for access to controls

④ allow 300 clearance beneath bench to front for service access

⑤ splashback return no higher than 150

⑥ left side is mirror image

ALC Operating Instructions



START
- Turn on at wall
- Ensure the Wash Filter (4) and Pump Inlet Filter (3) are 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

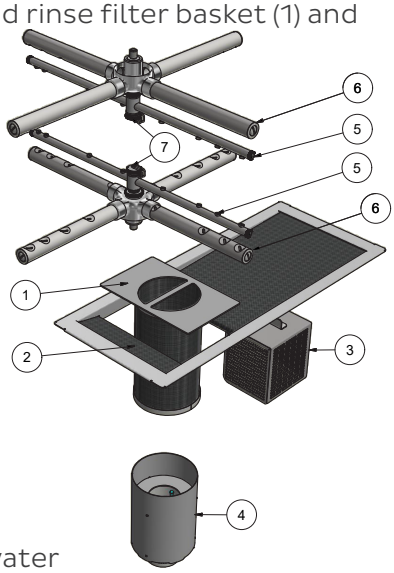
OPERATION
- Select cycle using Up/Down buttons (use the Heavy cycle whenever possible)
- Press Start button (once this is Green or Orange) to begin washing
- Timer counts down to 00 then resets after door is opened

START BUTTON COLOURS

White = machine is filling
Red = cycle is running
Green = rinse water is up to temperature
Purple = door is open
Orange = machine is heating
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 14 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
- Pump Inlet filter 3
- Wash filter 4
- Rinse Arms 5
- Wash Arm 6
- Thumbscrews 7
- 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.

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

ALC Wiring Diagram

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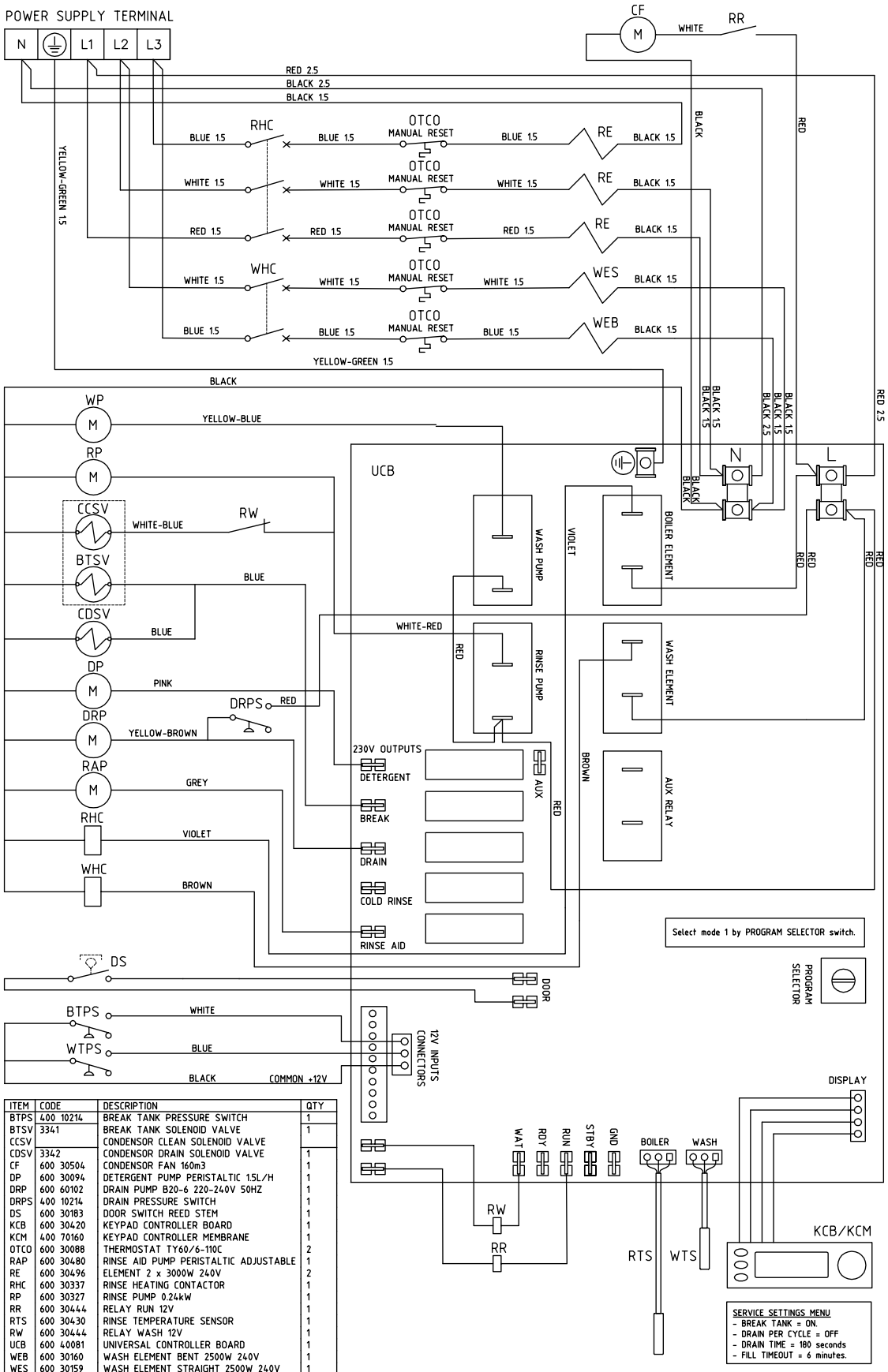
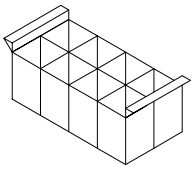
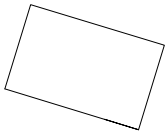
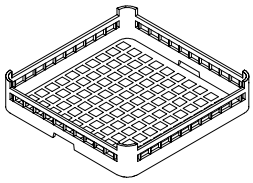
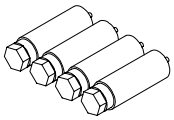
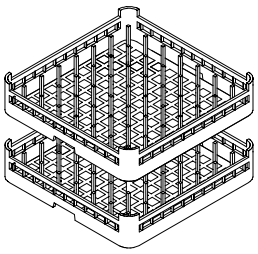
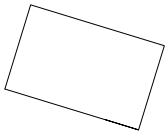
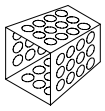


ITEM	CODE	DESCRIPTION	QTY
BTPS	400 10214	BREAK TANK PRESSURE SWITCH	1
BTSV	3341	BREAK TANK SOLENOID VALVE	1
CCSV		CONDENSOR CLEAN SOLENOID VALVE	
CDSV	3342	CONDENSOR DRAIN SOLENOID VALVE	1
CF	600 30504	CONDENSOR FAN 160m3	1
DP	600 30094	DETERGENT PUMP PERISTALTIC 1.5L/H	1
DRP	600 60102	DRAIN PUMP B20-6 220-240V 50HZ	1
DRPS	400 10214	DRAIN PRESSURE SWITCH	1
DS	600 30183	DOOR SWITCH REED STEM	1
KCB	600 30420	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	600 30496	ELEMENT 2 x 3000W 240V	2
RHC	600 30337	RINSE HEATING CONTACTOR	1
RP	600 30327	RINSE PUMP 0.24kW	1
RR	600 30444	RELAY RUN 12V	1
RTS	600 30430	RINSE TEMPERATURE SENSOR	1
RW	600 30444	RELAY WASH 12V	1
UCB	600 40081	UNIVERSAL CONTROLLER BOARD	1
WEB	600 30160	WASH ELEMENT BENT 2500W 240V	1
WES	600 30159	WASH ELEMENT STRAIGHT 2500W 240V	1
WHC	600 30337	WASH HEATING CONTACTOR	1
WP	600 30412	WASH PUMP 1.5HP	1
WTPS	600 30479	PRESSURE SWITCH 140/60MM	3
WTS	600 30429	WASH TEMPERATURE SENSOR	1

Accessories

		QTY
	**C660508** **CUTLERY BASKET CP8 for 5OOmm**	**1**
	**OPERATOR MANUAL**	**1**
	**600 70029** **CUPRACK CB 500mm X 75mm high**	**1**
	**600 90154** **SS LEG 225-325mm x M12**	**4**
	**600 70028** **DISHRACK P12/18 500mm 18 DISH**	**2**
	600 60080 **2M S/S HOSE**	**1**
	**ELECTRICAL WIRING DIAGRAM** (**UNDER FRONT COVER**)	**1**
	**C660503** **CUTLERY CONTAINER G**	**1**
	352 10080, 352 10078, 352 10032, 352 10026 **AL4 SCRAP TRAY, BASKET, DRAIN & WASH FILTERS** *****CHECK IN MACHINE*****	

Notes

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