

# M1C

## Operator Manual



**WASHTECH**<sup>®</sup>  
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.

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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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# 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							
min		ppm				pH	
max		20				7	
		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

- 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

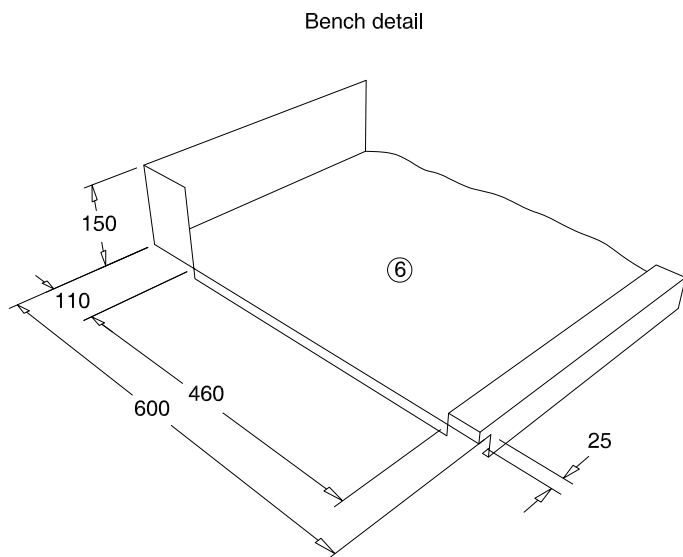
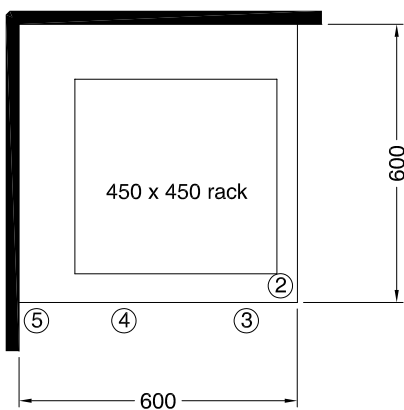
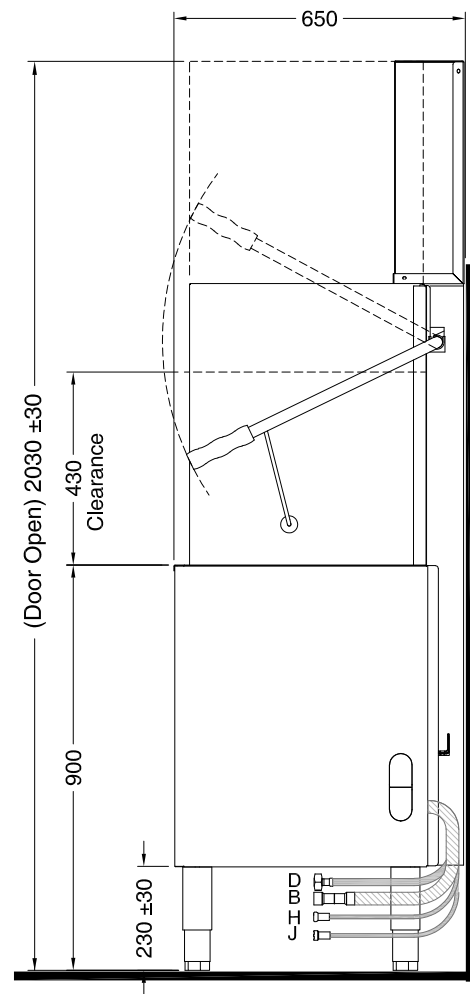
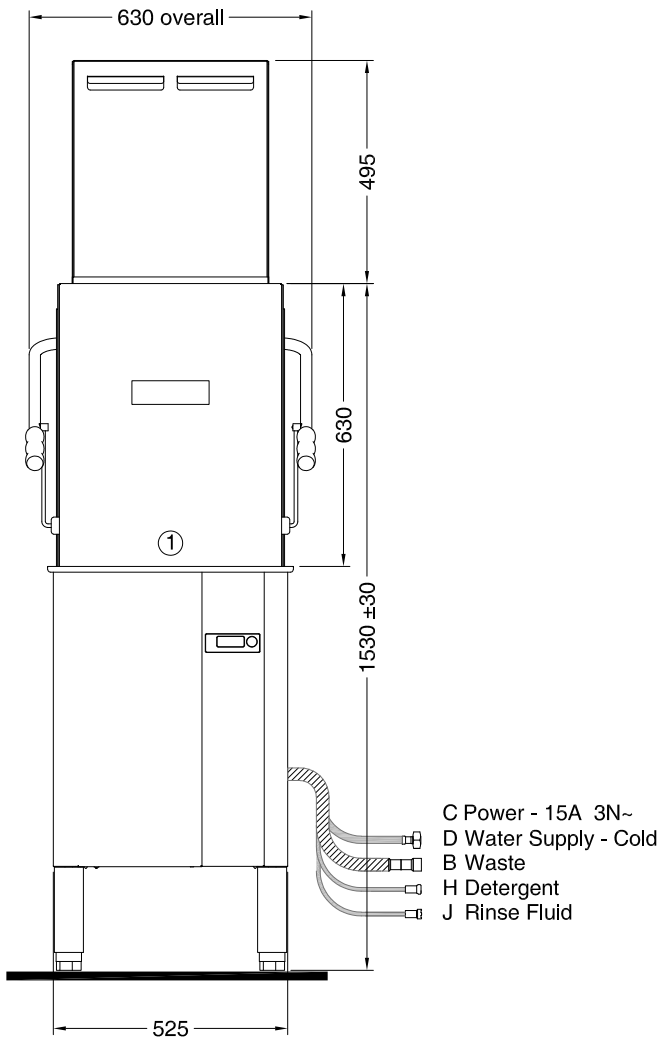
- Run several cycles, ensure that operator has read and understands instructions

## 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.

# M1C Installation Diagram

M1C INST 10-11-16 3 C



## In-line Installation

① Bench gap 510

## Corner Installation

② wall to front inside corner of wash tank 600

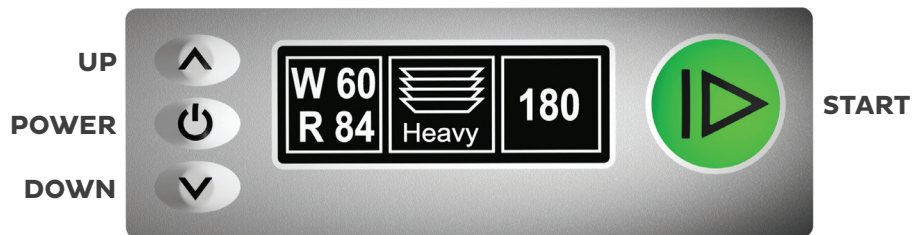
③ machine must face left for access to controls

④ allow 300 clearance beneath bench to front for service access

⑤ splashback return no higher than 150

⑥ left side is mirror image

# M1C Operating Instructions



## START

- Turn on at wall
- Ensure the Filter (2) is in place
- Ensure the Upstand (1) is 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 22 seconds until rinse water is up to 83 degrees

## SHUT DOWN – EVERY NIGHT

- Select Drain cycle via Up or Down buttons
- Remove drain Upstand (1) and shut door
- When Drain cycle is finished after 100 seconds, remove lower wash arm (3), scrap tray (6) and scrap cover (5)
- Remove and rinse wash filter (2) before replacing back in machine along with upstand (1)
- Replace scrap cover (5), scrap tray (6) and lower wash arm, then close hood

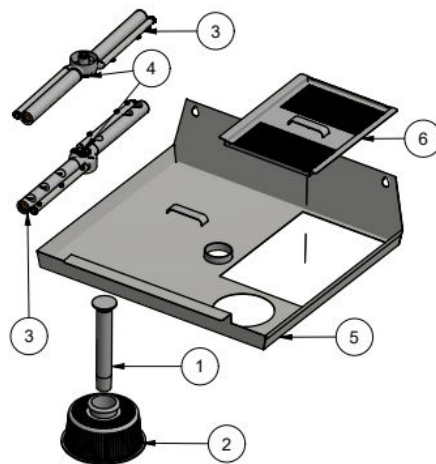
## CLEANING – AT LEAST ONCE A WEEK

Remove, rinse and replace:

Upstand	1
Wash Filter	2
Wash/Rinse Arms	3
Thumbscrews	4
Scrap Cover	5
Scrap Tray	6

Inspect and clear all jets in the wash/rinse arm.

NOTE: The wash filter (2) is to be removed by lifting directly upwards and clipped back into place by pressing down. Take care not to turn as this can unscrew the wash/drain sump.



## 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>
Error 7	Fill failure - check drain upstand is fitted & water supply is turned on and good flow rate.
Error 8	Drain failure - check drain upstand is removed & drain hose is not kinked or blocked
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
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

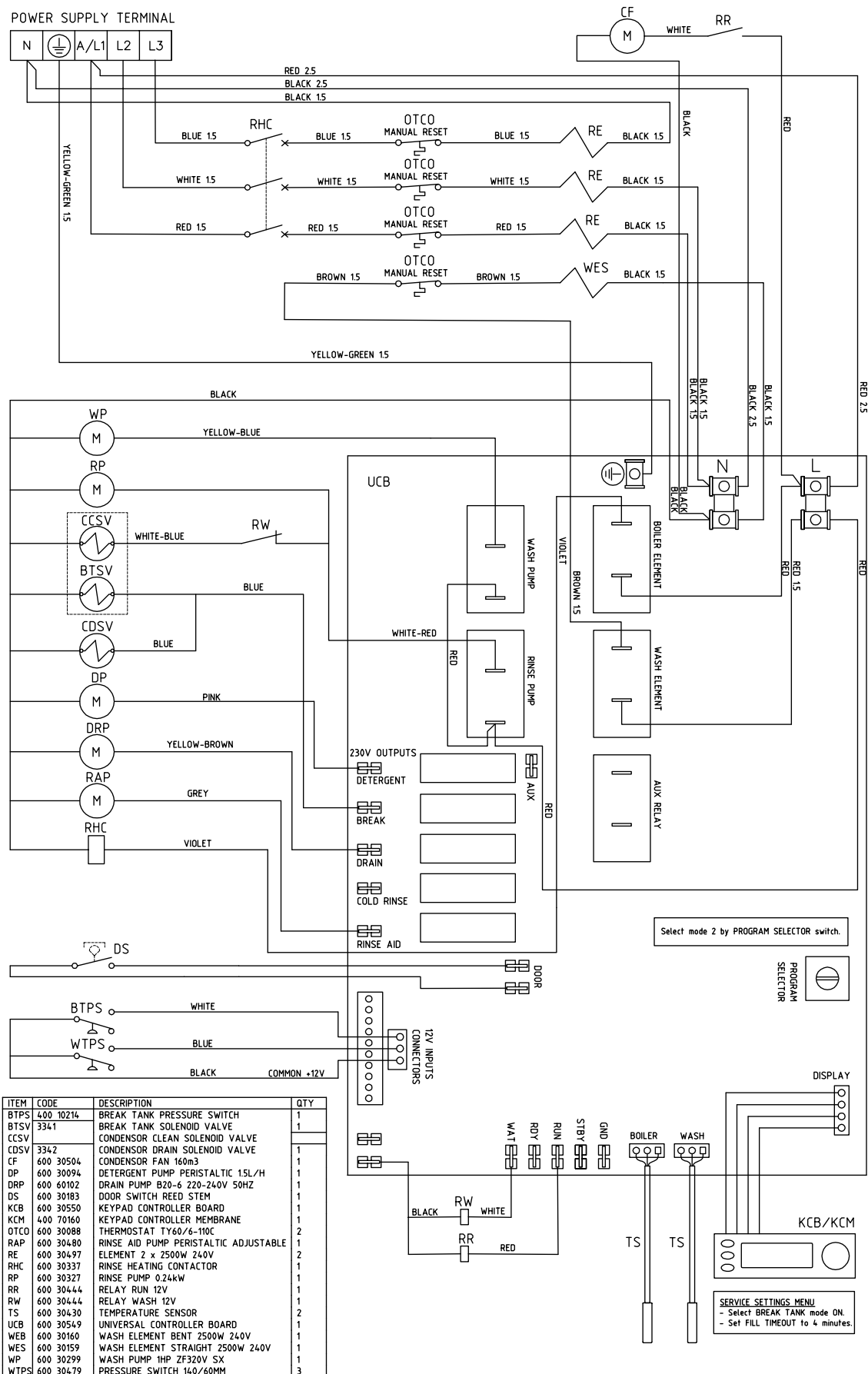
**All of the following is actually in the instructions on previous pages of this manual**

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 arms rotate 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 bench a few minutes for drying



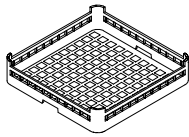
# M1C Wiring Diagram

090227 2/11/2017 1 B



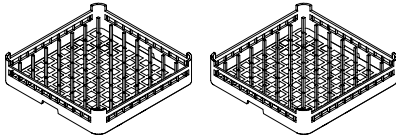
ITEM	CODE	DESCRIPTION	QTY
BTPS	400 10214	BREAK TANK PRESSURE SWITCH	1
BTSV	3341	BREAK TANK SOLENOID VALVE	1
CCSV		CONDENSOR CLEAN SOLENOID VALVE	1
CDSV	3342	CONDENSOR DRAIN SOLENOID VALVE	1
CF	600 30504	CONDENSOR FAN 160m3	1
DP	600 30094	DETERGENT PUMP PERISTALTIC 15L/H	1
DRP	600 60102	DRAIN PUMP B20-6 220-240V 50HZ	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	600 30497	ELEMENT 2 x 2500W 240V	2
RHC	600 30337	RINSE HEATING CONTACTOR	1
RP	600 30327	RINSE PUMP 0.24kW	1
RR	600 30444	RELAY RUN 12V	1
RW	600 30444	RELAY WASH 12V	1
TS	600 30430	TEMPERATURE SENSOR	2
UCB	600 30549	UNIVERSAL CONTROLLER BOARD	1
WEB	600 30160	WASH ELEMENT BENT 2500W 240V	1
WES	600 30159	WASH ELEMENT STRAIGHT 2500W 240V	1
WP	600 30299	WASH PUMP 1HP ZF320V SX	1
WTPS	600 30479	PRESSURE SWITCH 140/60MM	3

# Accessories



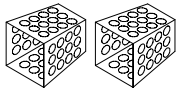
**600 70080**  
**CUPRACK 450mm PLASTIC**

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**600 70081**  
**DISHRACK 450mm PLASTIC**

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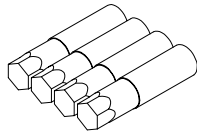
**C660503**  
**CUTLERY CONTAINER G**

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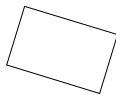
**600 60080**  
**HOSE SS 2M**

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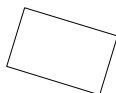
**600 90154**  
**SS LEG 63D x 225 - 325mm x M12**

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**WIRING DIAGRAM** ( UNDER FRONT COVER )

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**OPERATOR MANUAL**



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