

M1

Series 3

PASSTHROUGH DISHWASHER



Service Manual



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.

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.

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

Training and Supervision

- ◆ Read and Understand the Operating instructions
- ◆ Train all staff
- ◆ This appliance is not intended for use by young children, who must be supervised to ensure they do not play with the appliance
- ◆ This appliance is not intended for use by infirm persons without supervision
- ◆ This appliance is not intended for use as a stepladder

Hot Surfaces

- ◆ Be aware some surfaces can be hot

Chemicals

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

Hot Water

- ◆ Door safety switches are designed for emergency use only
- ◆ Wait for the green cycle light to go out before opening the door
- ◆ Wash water is 60°C and contains caustic detergent so DO NOT put hands in wash water

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

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



WARNING

Installation personnel must be suitably qualified and ensure compliance with all codes and standards.



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.

Install machine on sound waterproof self-draining floor and use adjustable feet to level machine.

Recommended bench depth = 600 mm, height = 900 mm – see Bench Details diagram.

In corner installations the front of the machine must face to the left of the corner.

Allow room for detergent to one side of machine or in adjacent cupboard. 20litre container requires about 450H x 250W x 350D, but smaller containers are available from many suppliers.

Water Supply

Temperature	65°C ± 5°C
Pressure	100-200 KPa (15-30 Psi) with rinse pump 200-400 KPa (30-60 Psi) without rinse pump
Flow rate minimum	20 litres per minute
Consumption	3 litres per cycle approximately
Connection	20 mm (3/4" BSP Male)



IMPORTANT

Installation shall comply with requirements of AS 3500.1.

Flush supply line before connection.

Do not use small diameter plastic supply lines.

Line strainer is recommended.

Booster pump is available option for low pressure.

Pressure limiter is required over 400 KPa

Waste

40 mm – refer point B on the Installation Diagram on the next page. Directly behind the machine, through knock outs in side panels or through hole in base.

Power

Electrical supply required is 15A 240V 50Hz via switched outlet adjacent to machine, which is supplied with cord set including 15A plug.

Troubleshooting

If the machine doesn't fill after switching on the power, check and ensure that the hot water supply tap is open, water supply pressure is not below specification and Dual Check Valve is not faulty and correctly installed (arrows on the dual check valve's body specify water flow direction).

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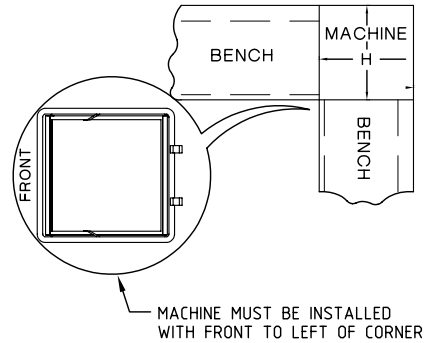


AL/M2/ME/M1/SL BENCH DETAILS

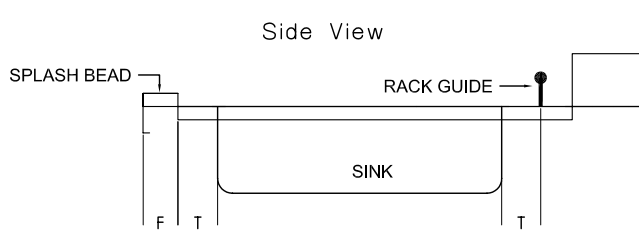
M2 0006 08-09-06 1 I

		AL	M2/ME	M1	SL	AL8
M	BENCH DEPTH MINIMUM - for straight through only	750 (700)	700 (650)	600	600 (550)	750 (700)
R	RETURN MINIMUM - for straight through only	150 (125)	125 (90)	125	50 (40)	150 (125)
G	BENCH GAP	640	595	510	510	790
B	BENCH OPENING	550	535	450	460	550
F	SPLASH BEAD MINIMUM	50 (25)	40 (25)	25	40 (25)	50 (25)
D	RACK SIZE	500	500	435	435	500
E	RACK PATH	520	520	450	450	520
S	SINK WIDTH	450	450	350	380	450
T	CLEARANCE	35	35	35	35	35
H	DISTANCE TO WALL FOR CORNER INSTALLATION	760	720	620	N/A	N/A

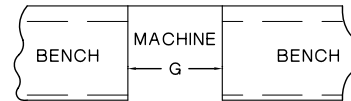
Corner Detail



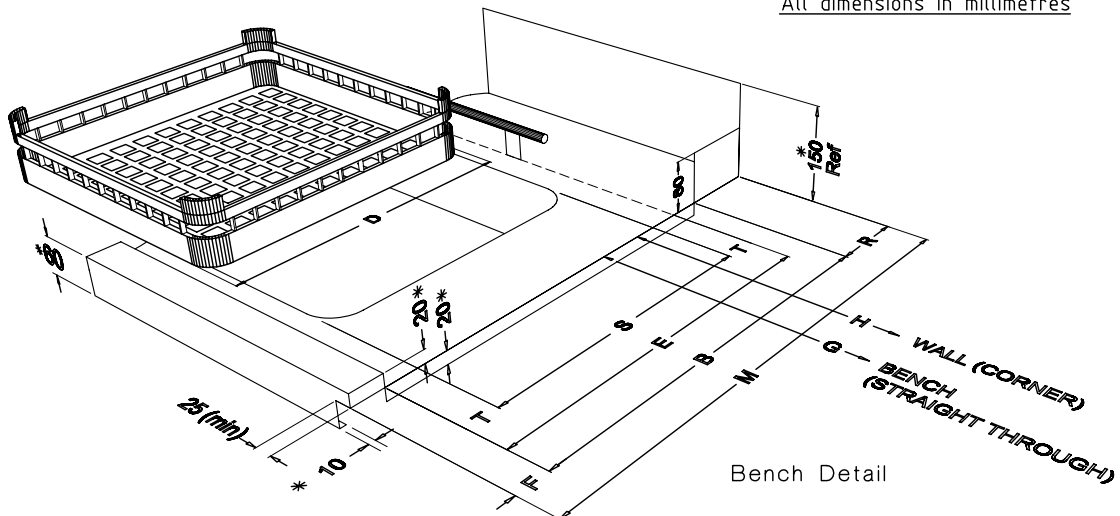
Side View



Straight through detail



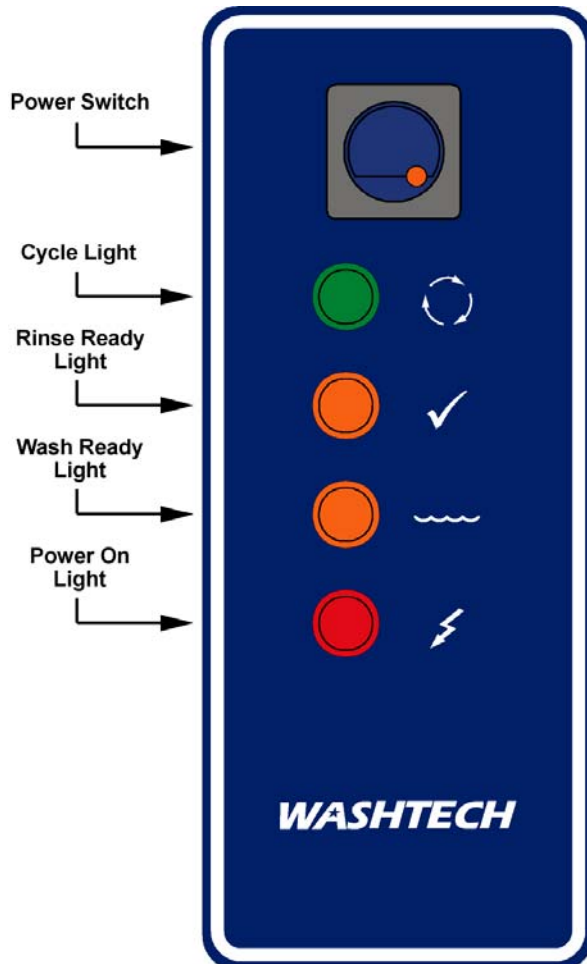
All dimensions in millimetres



Notes:

1. These dimensions are recommendations. They apply to straight through or corner installations. They are designed to ensure that the dishrack slides over an adjacent sink directly into the dishwasher. We recommend use of the sink size shown and a rack guide to keep the rack up against the splash bead and prevent it from falling into the sink. This arrangement is particularly suitable when a pre-rinse gun is used (as recommended).
2. Bench depth can be reduced by reducing the size of the splash bead and in straight through installations (only) dimension R can be reduced to the minimum shown.
3. Drawing is for the left of the machine - other side is mirror image (sink may be to either side).
4. Dimension with * are suggestions only and not critical.

Operating Instructions



Start up

Fit drain upstand, wash pump filter, scrap tray and shut door.

Turn wall and machine power switches on.

Power light glows red and machine fills automatically.

Wash Ready light glows amber when wash tank is ready.

Rinse Ready light glows amber when the machine is up to required temperature and ready to run.

Operation

Load rack into machine and close door to start the machine.

Cycle light glows green while machine operates.

When Cycle light goes out, cycle is complete.

Open door and remove rack.

After removing rack from machine, DO NOT shut door as machine will start up again.

NOTE: Machine will not operate unless Ready lights are on.

Shut down every night

Turn machine and wall power switches off.

Remove drain upstand to drain wash tank.

Remove scrap tray and wash pump filter and rinse clean.

Replace drain upstand, filter and scrap tray.

Dishwashing Procedures

for best results

Installation

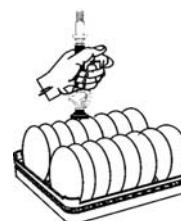


Read Operator manual. Correct installation, including an adequate supply of water at the correct temperature and pressure is essential for effective operation of your machine. Refer installation instructions for details. Water softening is recommended in hard water areas - especially for glasswashing.

Pre-rinsing



Pre-scraping of dishes is required by Food Hygiene Regulations. The best method is to pre-rinse with a Fisher Pre-rinse Unit - or alternatively by scraping or dunking in water.



Cutlery Procedures

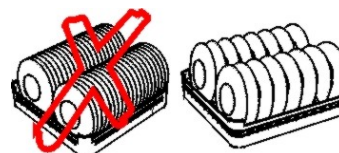


Pre-soak cutlery in warm water, preferably containing cutlery pre-soak compound - refer your chemical supplier.

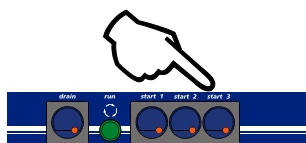
Do not overfill cutlery containers. Cutlery should be loose with handles down. Sort after washing rather than before. Cutlery of only one type nests together and obscures wash water.

Racking Procedures

Do not overload racks, minimize the overlap of crockery. Cycle times are short and water consumption per cycle low - so there is no advantage in overloading racks.



Cycle Times



For multi-cycle machine use the longest cycle whenever possible. Note that water consumption does not increase with longer cycles. Only choose faster cycles when necessary.



Detergent

Use of correct type and quantity of detergent is essential to the performance of the machine. Low foam specialty products are recommended. We strongly recommend that you use a professional dishmachine chemical supplier - and will be pleased to recommend a supplier in your region. Discuss with them the use of cutlery pre soak solution, detergent and drying agent.



Dishwashing Procedures

for best results

Drying

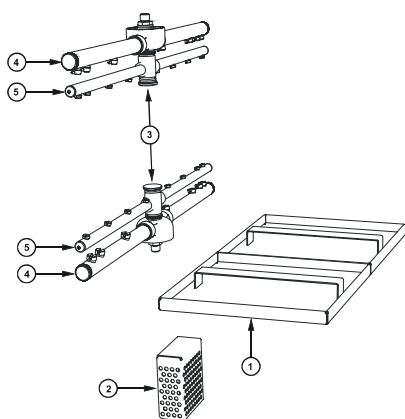


Single tank commercial dishwashers do not have a drying cycle. However, the machines do rinse at high temperatures which promote fast drying particularly when drying agents are used. We recommend prompt removal of the rack from the machine - leave the rack on the bench for 2 to 3 minutes before emptying. This time will be reduced with correct use of drying agent (rinse fluid) which reduces water surface tension and allows water to drain quickly from wash ware. For advice on drying agents and injectors refer to your chemical supplier.

Daily Cleaning

It is essential that the machine is drained and cleaned at the end of each day. Drain the machine then remove, clean and replace filters as per the operating instructions. Regularly check the wash and rinse jets and clean them if necessary – see Regular Cleaning.

Regular Cleaning



1. Remove scrap trays① and wash pump inlet filter②, and rinse or brush clean.

2. Remove wash and rinse arms by undoing the central thumbscrews③. Remove the end cap screws④ from the wash arms and the end screws⑤ from the rinse arms and flush the arms with water. Use a toothpick or paperclip, if necessary, to clear jets.

Regular Servicing

Regular servicing of the dishwasher is essential to keep the machine in top working condition and get the best performance results.

Please contact your Authorised Service Provider to organize regular servicing of the dishwasher.



Troubleshooting Chart

PROBLEM	POSSIBLE CAUSES	REMEDY (Check/Adjust/Replace)
Heating		
Rinse not heating	Over-temp thermostat tripped Rinse thermostat settings or fault Rinse element failed	Over-temp thermostat Rinse thermostat Rinse element
Overheating	Thermostat adjustment Thermostat probe out of pocket	Thermostat Insert & secure probe
Wash water cold	Wash thermostat setting Wash element faulty	Wash thermostat Wash element
Delays		
At start or between cycles	Rinse element faulty Water supply cold Water supply pressure excessive Rinse cycle too long Rinse element faulty	Rinse element Supply hot water Restrict supply pressure Timer Rinse element
Leaks		
Leak from pumps	Seal failure	Pump seal
Leak from hoses	Hose damage Hose clamp loose	Hoses Hose clamps
Splash from door	Wash arm end caps missing Wash jets blocked Wash jets missing Arms not rotating Arms not level	End caps Jets Jets Arms and bushes Arms
Filling		
Not filling	Fill/rinse solenoid faulty Supply valve shut Rinse lines blocked Door switch faulty Pressure switch faulty	Solenoid valve Water supply valve Rinse pump, solenoid valve filter Door switch Pressure switch
Won't stop filling	Solenoid valve faulty Pressure switch set too high or faulty Pressure bell or hose damaged	Solenoid valve Pressure switch Pressure bell or hose
Drainage		
Flooding	Drain waste blocked	Drain waste
Wash Arms		
Not rotating	Wash jets not clean Arm bushes worn Wash pump not working	Wash jets Bushes Wash pump

Troubleshooting Chart

PROBLEM	POSSIBLE CAUSES	REMEDY (Check/Adjust/Replace)
Rinse Arms		
Not rotating	Rinse jets not clean Arm bushes worn Water supply pressure low Rinse pump not working (if fitted)	Rinse jets Bushes Water supply Rinse pump (if fitted)
Cycle start		
Does not start	Not up to temperature Rinse thermostat faulty Door switch faulty	Give machine reasonable time initially Rinse thermostat Door switch
Cycle finish		
Rinse doesn't stop	Solenoid jammed open Timer stuck Pressure switch faulty	Solenoid valve Timer Pressure switch
Wash continues	Timer jammed	Timer / Timer motors
Noise		
Noisy rinse cycle	Rinse pump squeals	Low pressure / blocked water supply
Noisy wash cycle	Wash pump noisy	Wash pump including inlet filter
Cycle		
Cycle too long	Timer faulty	Timer / Timer motors
Performance		
Poor wash result	Detergent not used Detergent pump faulty Overloading racks Not pre-rinsing Wash arms not rotating Wash jets blocked Wash temperature low Excessive soiling Unrealistic expectation	Use quality low foam product Detergent pump Do not overload racks Use Fisher pre-rinse Remove and clean arms/check bushes Remove arms and clean jets Check wash heating Pre-rinse / use long cycle E.g. baked on soiling requires pre-soaking
Poor rinse results	Rinse jets blocked Rinse arms not turning Poor racking procedures Excessive wash tank soil build up	Remove arms and clean jets Remove arms, clean jets, check bushes Do not overload racks Pre-rinse, change wash water regularly
Not drying	Poor wash/rinse performance Low temperatures Drying agent not used	Refer above Check heating systems Use quality drying agent/rinse fluid

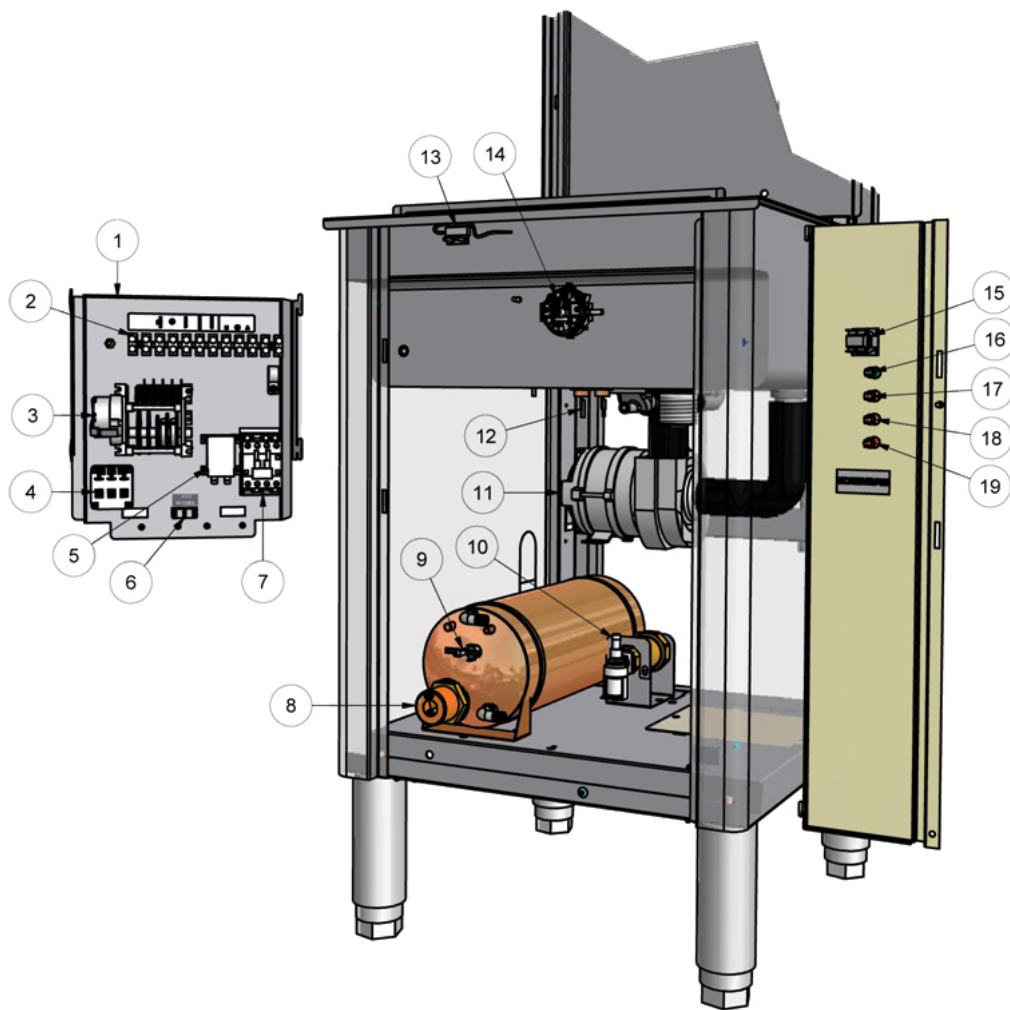
Components



WARNING

All service/repair work must be carried out by qualified personnel only.

Location and Access



1. Wiring Tray
2. Power/Chemical Terminal
3. Timer
4. Rinse Thermostat
5. Door Switch Relay
6. Test Switch
7. Fill/Heat Contactor
8. Rinse Element
9. Over Temperature Thermostats
10. Fill/Rinse Solenoid with DCV

11. Wash Pump
12. Wash Element
13. Door Switch
14. Pressure Switch
15. Power Switch
16. Cycle Light
17. Rinse Ready Light
18. Wash Ready Light
19. Power Light

Timer

Part Number

32661 001

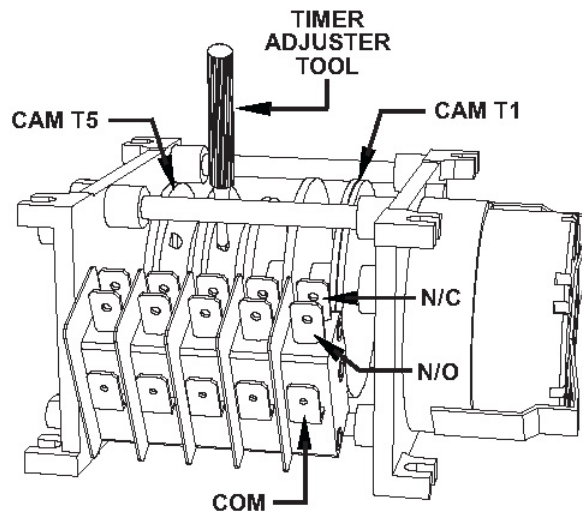
Function

Provides an automatic timing sequence of the wash, rinse, detergent and rinse aid injection stages in a dishwashing cycle.

Description

The electro-mechanical timer has five cams and a drive motor. The timer cams, rotated by the motor, operate individual changeover switches in a set timing sequence. The drive motor is rated at 120 sec per full turn and it is controlled by cam T1 (the cams are counted from the motor side). Cam T1 is built-in with a rapid start fitting, which provides a quick actuation of the T1 changeover switch after the power to the drive motor was applied. Cam T2 controls the wash pump, T3 – the hot rinse solenoid/rinse pump, T4 – detergent injection time. Cam T5 is for control of rinse aid injection time if an optional rinse aid pump is fitted.

Diagram



Replacement

To replace the timer take note of the position of each connection, preferably on paper. Disconnect all wires and remove the timer from the tray. Compare the cam setting of the old and new timer to ensure that special settings are duplicated. Fit new timer taking care to locate cam T1 in the same relative position. Reconnect the wires ensuring that no termination is under strain. Test the machine to confirm correct operation.

Adjustment

The timer cams T4 and T5 are adjustable. The time settings on these cams can be increased by making the gap in a cam wider, or reduced by reducing the gap. Use a timer adjusting tool, supplied with a machine to modify a gap in the timer cams.

Rinse Thermostat

Part Number

3020

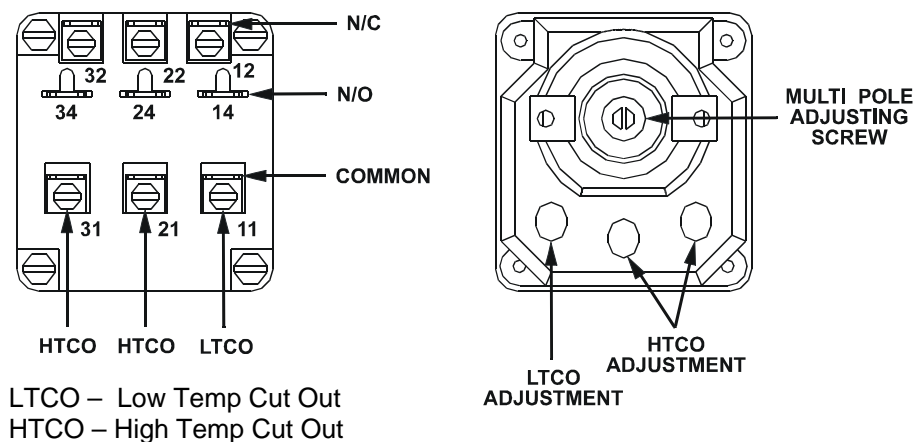
Function

Controls the rinse heating elements and prevents operation of machine if the rinse temperature is below that required.

Description

The rinse thermostat is a specially calibrated 3 pole capillary type temperature operated device. The thermostat does not have a control knob and it is factory set to the temperatures required by Hygiene Regulations. The first pole's LTCO changeover contact is set to operate at $83 \pm 3^{\circ}\text{C}$, the other two poles HTCO contacts are set to $90 \pm 3^{\circ}\text{C}$. Switching capacity: 16(4) A 380 V.

Diagrams



Replacement

Take note of the connections to the wiring loom before disconnecting. Remove the capillary bulb from the rinse tank pocket. Select a new thermostat and carefully unwind enough capillary to reach from the pocket to the thermostat mounting position. Carefully position the tube with no kink or stress on the tube, also have due regard for the protection of the tube against contact with live electrical terminals – secure or insulate as appropriate.

Adjustment



IMPORTANT

To make adjustments to the thermostat you will need a good quality thermometer fitted with a “type K” thermo junction. The use of a stainless steel probe is not permitted as slow response time in the device will cause inaccurate settings.

Insert the thermo junction into the rinse tank pocket for the machine's temperature gauge. Energize the elements and check all temperatures on temperature rise. Remove the grey tape covering three adjusting screws and adjust LTCO and HTCO settings if required (one or both HTCO poles are used depends on model – check which HTCO terminals are wired before making adjustments). Clockwise rotation of the screws increases the setting, anticlockwise – decreases it.



IMPORTANT

Do not break the seal or attempt to adjust the central MULTI POLE ADJUSTING SCREW that is sealed with red compound.

Wash Thermostat

Part Number

30201

Function

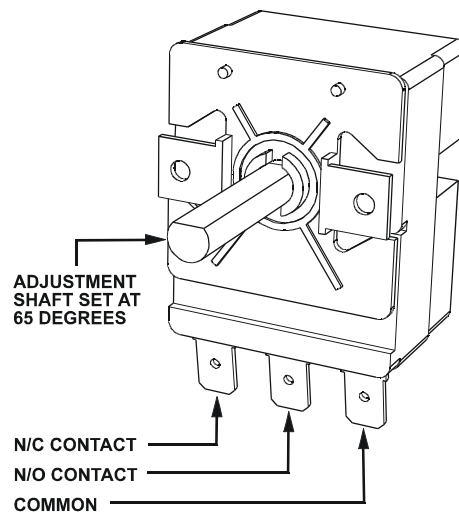
Controls the wash element

Description

The wash thermostat is a single pole capillary type device. It has a single changeover contact and a rotating shaft for a manual temperature adjustment.

Factory default setting is 65°C.

Contact switching capacity: 16(4) A 380 V.

Diagram**Replacement**

Drain the wash tank. Take note of the connections to the wiring loom before disconnecting. Release thermostat's gland nut, move the capillary bulb out of the mounting bracket inside the tank and remove the bulb from the wash tank (remove the probe from the pocket in the wash tank on the models supplied with a pocket for the thermostat probe). Replace in reverse order.

Adjustment

Insert the probe of a digital thermometer into the wash tank. Check the thermostat settings on a temperature rise. Adjustment is performed by rotating the adjustment shaft of the thermostat. Clockwise rotation of the shaft increases the setting, anticlockwise— decreases it.

NOTE: the adjustment shaft in a flat horizontal position is a factory default setting corresponding to 65°C (see the diagram).

Solenoid Valve

Part Number

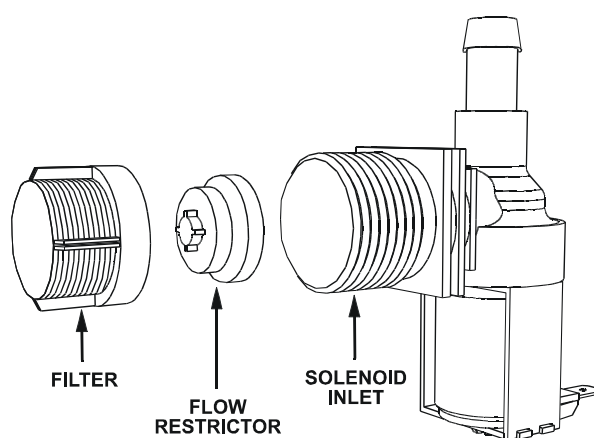
3342

Function

Controls flow of water into machine during filling of wash tank and final rinsing.

Description

Electromagnetically operating water valve for use with cold and hot water.

Diagram**Replacement**

Disconnect the wires from the solenoid connectors.
Remove hot water supply hose.
Release a hose clamp on the outlet solenoid hose and remove the hose.
Slide the solenoid valve up off the mounting bracket.
Replace in reverse order.

Adjustment

Remove the flow restrictor for installations with flow rate of hot water supply below 20 litres per minute.

Pressure Switch

Part Number

600 30252

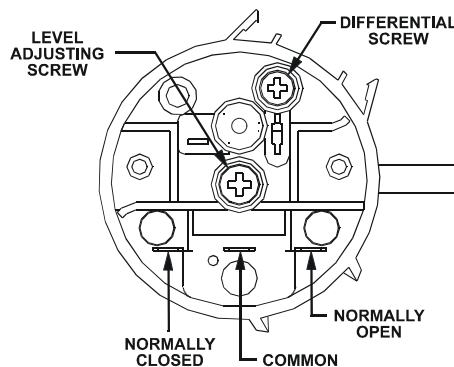
Function

Controls filling of wash tank and protects wash elements.

Description

The pressure switch is attached to the pressure bell. As the water level in the wash tank rises air is trapped in the bell and increasing pressure is transmitted to the pressure switch. When the tank is full the pressure switch shuts off the fill solenoid valve and switches on the wash element. It allows a water level differential so that the tank level may drop with the operation of the wash pump, without causing refilling of the machine.

Diagram



LEVEL ADJUSTING SCREW

CW rotation increases upper level setting

DIFFERENTIAL SCREW

CW rotation increases differential and reduces lower level settings

Adjustment

Before making any adjustments drain wash tank, remove pressure tube from pressure bell, blow gently into tube to check switching of pressure switch and then fit tube back.

Turn the power switch on, machine should start to fill. The machine should cease filling when the water attains a level about 10mm below an overflow level of the upstand. Adjust fill level if necessary by Level adjusting screw on the pressure switch.

Remove drain upstand to begin draining the wash tank. Fit back the upstand when Wash Ready light goes off and measure the refill water level. A refill level should be set 15-25mm above the wash element. Adjust if necessary by Differential screw on the pressure switch. Close door to refill the wash tank and re-check the fill level.

Replacement

To remove the switch take note of the electrical connections and remove the wires. Slide the switch from the mounting bracket and remove the rubber tube from the switch connector. Replace in reverse order. Whilst in the process of replacing the pressure switch, ensure that the pressure tube is in good order and clear of obstruction.



IMPORTANT

Ensure the tube from the air bell always goes up to the pressure switch.
Do not use thin wall vacuum tube for replacement.

Wash Pump

Part Number

3888

Function

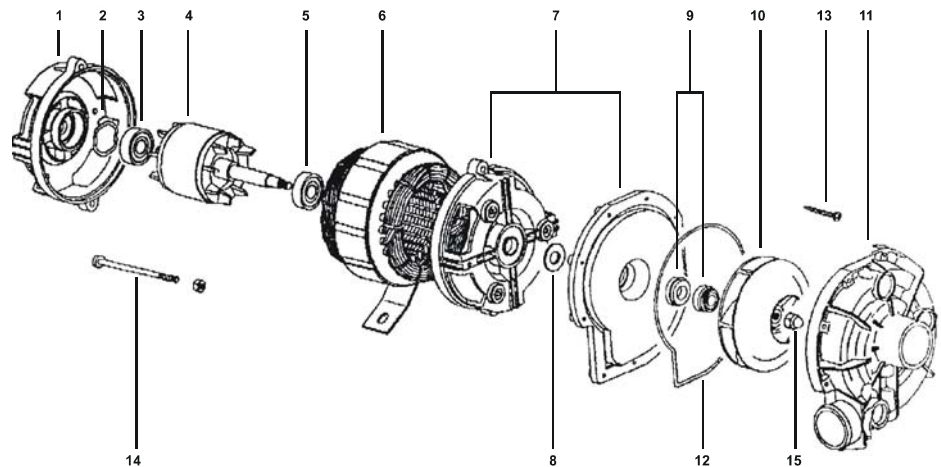
Pumps water from the wash tank to the wash arms providing a recirculating wash cycle.

Description

Electric Pump FIR

Power:	HP 0.5 Kw 0.37	Speed:	2800 rpm
Voltage:	220 V	Amperes:	2.6 A
Frequency:	50 Hz	Capacitor:	12.5 uF/400 V

Diagram



ITEM	DESCRIPTION	PART NO:	ITEM	DESCRIPTION	PART NO:
1	Housing		9	Seal	C630510
2	Compensation Ring		10	Impeller	38882
3	Ball Bearing	6201	11	Volute	38884
4	Rotor		12	Gasket	38886
5	Ball Bearing	6201	13	Pump Housing Screw	
6	Stator		14	Tie Rod	
7	Pump Support	38885	15	Impeller Nut	
8	Water Protect.Ring				

Replacement

Drain the wash tank and switch off the power.

Disconnect the wires from the pump connectors and the pump capacitor.

Remove M6 bolt that fastens the pump to the floor of the machine.

Release the hose clamps on the inlet and outlet pump hoses and remove the pump.

Replace in reverse order.

Rinse Aid Injector (Optional)

Part Number

C620120

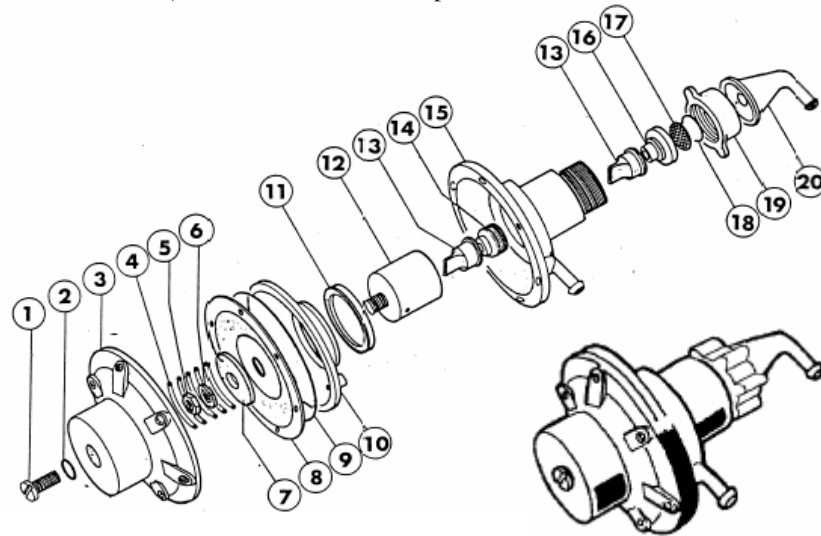
Function

Adjustable flow rate hydraulic rinse pump for rinse-aid chemical dosing

Description

The injector works by using the water pressure in the rinse line. The pressure in the input line causes the suction of a determined amount of chemical for each cycle. At the end of the cycle a spring injects the chemical in the rinse pipeline. The flow rate is adjustable from 0 to 5cc/pulse.

Diagram



ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Adjusting Screw	11	Gasket
2	O-ring	12	Piston
3	Cover	13	Suction Valve
4	Spring	14	Plug
5	Nut M6	15	Filter Holder
6	Tab Washer D6	16	Filter
7	Diaphragm Disk	17	Filter
8	Diaphragm	18	O-ring
9	O-ring	19	Lock Nut
10	Gasket Ring	20	Hose Barb

Replacement

Disconnect input and output tubes. Release M6 bolt, fastening the pump to a mounting bracket and remove the pump.
Replace in reverse order.

Adjustment

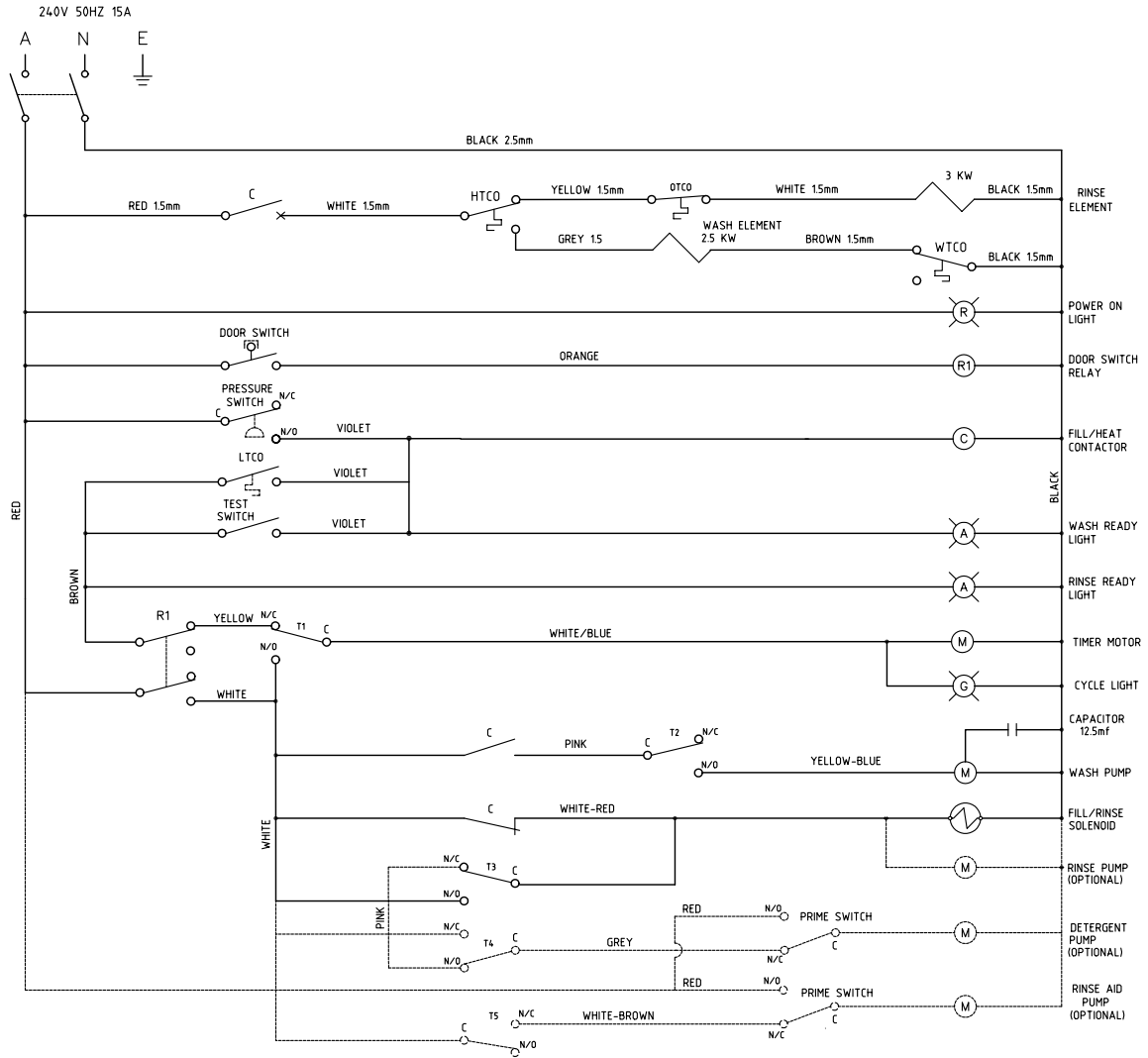
Insert injector inlet pipe into the rinse aid fluid container. Run the machine. Check the amount of the fluid rising up inside the pipe during the pulse at the start of the rinse cycle - a 25mm rise within the pipe with 5mm internal diameter will approximately correspond to the volume of 5 mls of rinse aid fluid per cycle.

The required amount of rinse aid fluid depends on factors such as product type, water hardness etc. Rotate Adjusting screw clockwise to reduce flow and anticlockwise to increase flow.

Electrical Diagrams

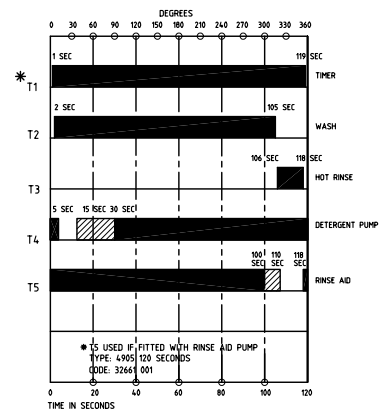
M1-3 (W) SCHEMATIC DIAGRAM

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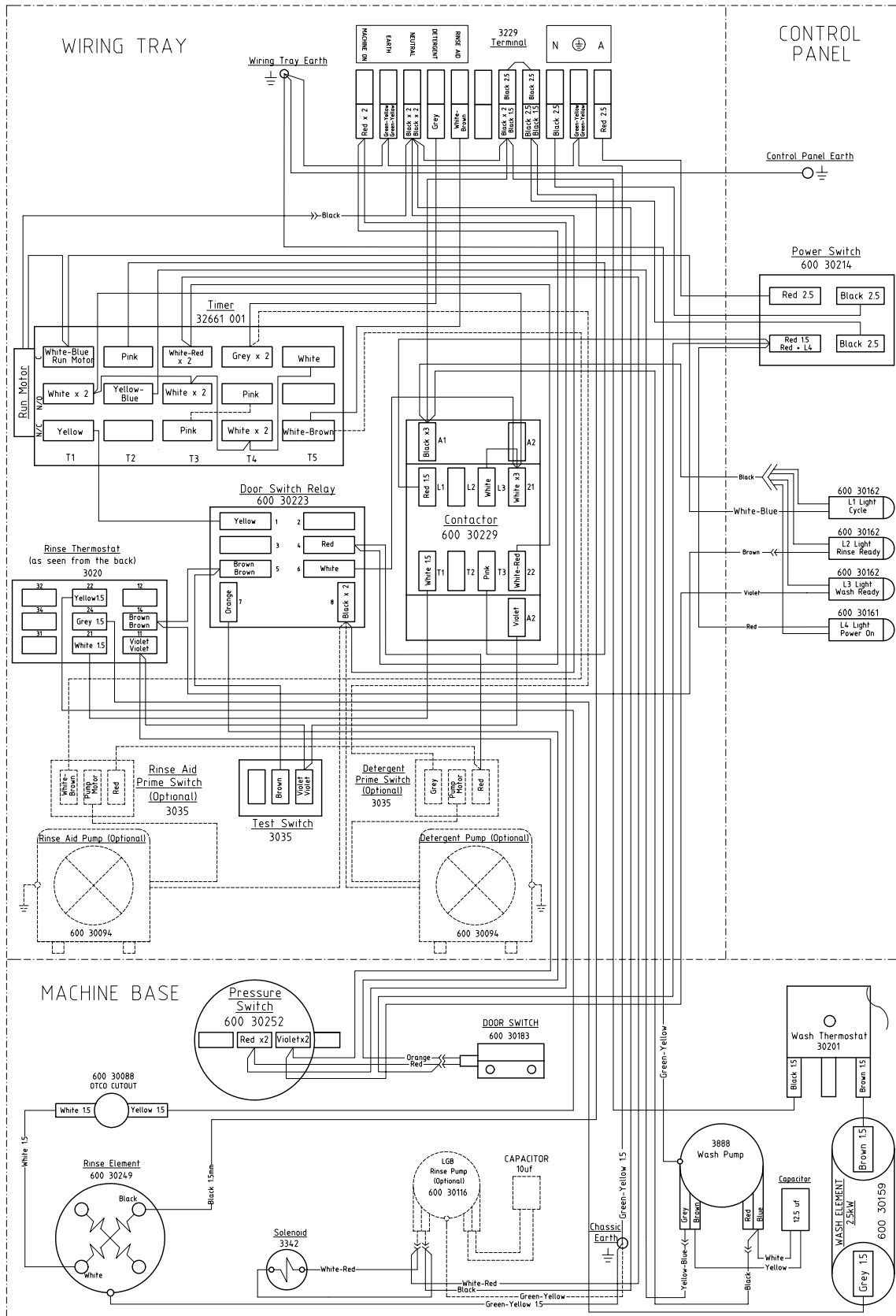
* T1 IS CAM CLOSEST TO 180 SEC. TIMER MOTOR

KEY
 [] ADJUSTABLE CAM
 [] PRESET CAM



M1-3 (W) WIRING DIAGRAM

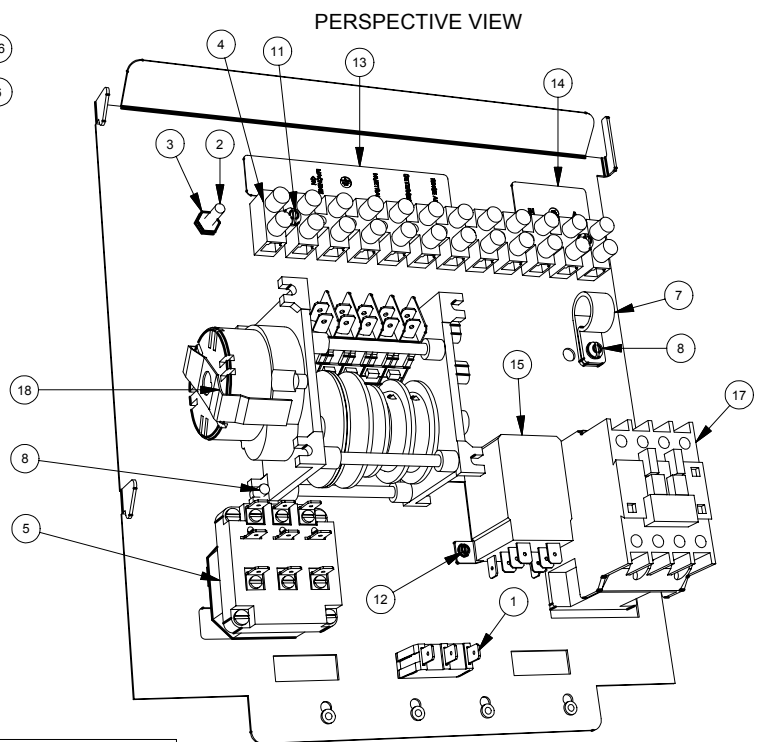
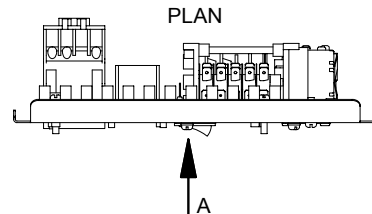
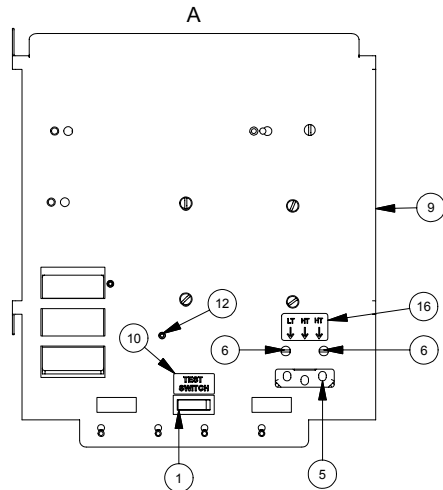
090221 16/08/06 3 A



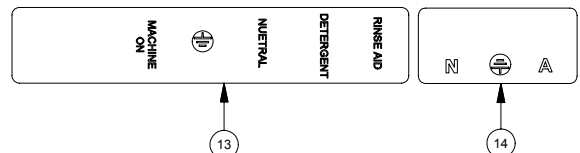
Assembly Diagrams

M1 (3) WASHTECH WIRING TRAY ASSY

301 10221 23/08/2006 REV 3-A

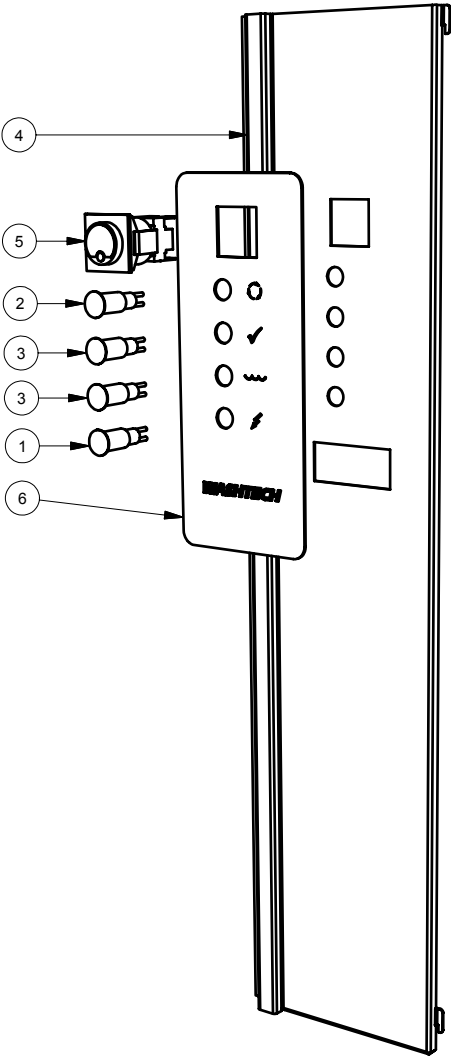


Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	3035	SWITCH SINGLE POLE BIASED BLACK	1
2	8816	MS RH BRASS 3/16 X 3/4	1
3	8151	NUT HX BRASS 3/16" PRESSED	1
4	32285	TERMINAL STRIP 12 WAY	1
5	3020	3 POLE THERMOSTAT	1
6	8800	MS PAN POZI ZP M4x6	2
7	600 30131	P CLIP 20.8mm	1
8	8801	MS PAN POZI ZP M4x12	5
9	301 10216	M1(3) WIRING TRAY SUB ASSEMBLY	1
10	REF	LABEL TEST SWITCH	1
11	8802	MS PAN POZI ZP M4x25	2
12	600 80052	MS RH ZP M3x6	2
13	REF	CHEMICAL CONNECTIONS LABEL	1
14	REF	POWER CONNECTIONS LABEL	1
15	600 30223	JQX-12F POWER RELAY	1
16	Label	LABEL THERMOSTAT ADJUSTMENTS	1
17	600 30229	CONTACTOR 25A	1
18	32661 001	TIMER 120sec 5 CAM	1



M1(W) CONTROL PANEL ASSEMBLY

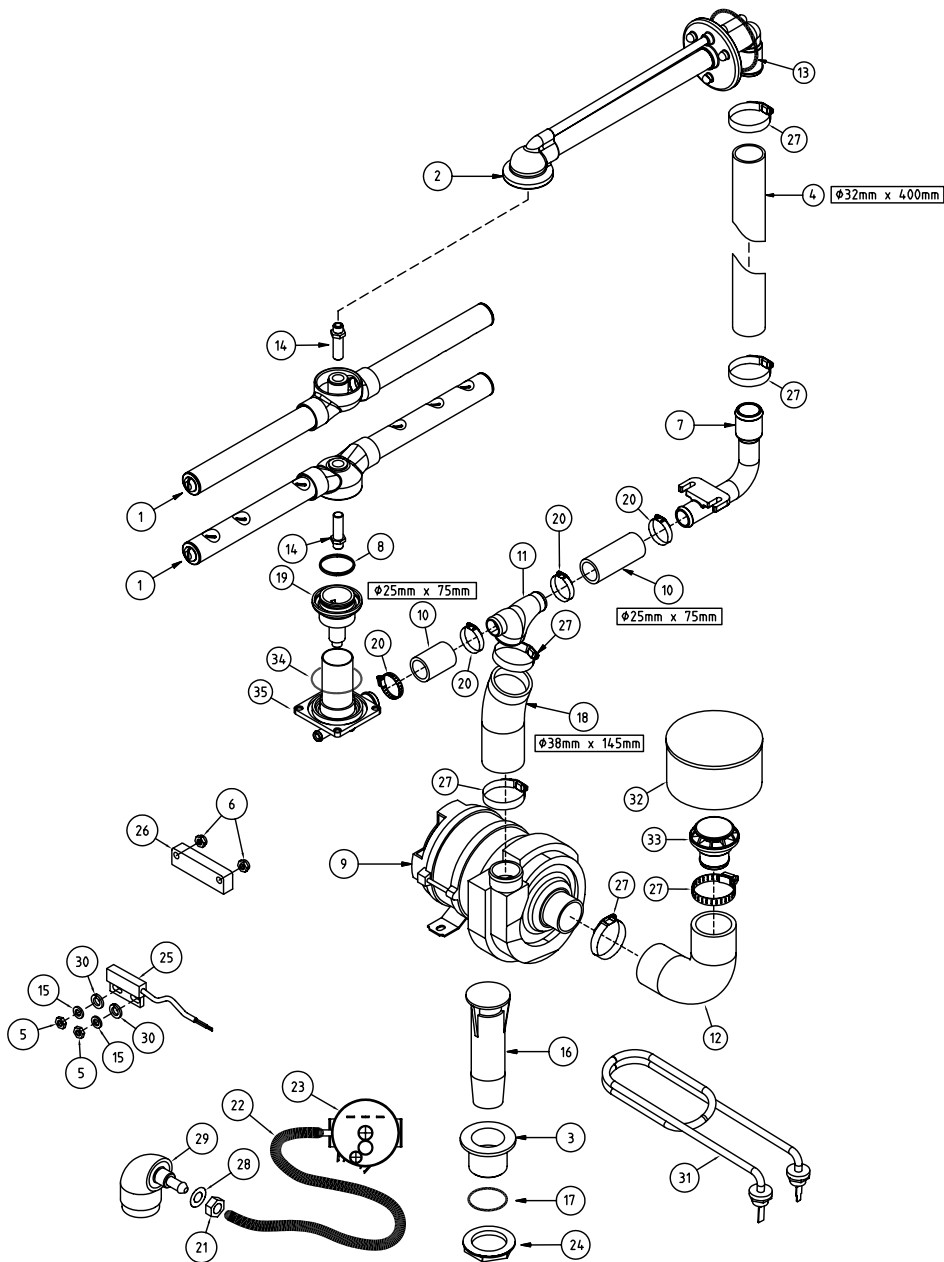
301 10017 7/08/2006 REV 3-A



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	600 30161	LENS & NEON ASSY (RED) 12mm	1
2	600 30163	LENS & NEON ASSY (GREEN) 12mm	1
3	600 30162	LENS & NEON ASSY (AMBER) 12mm	2
4	301 10008	M1(3) CONTROL PANEL SUB-ASSY	1
5	600 30214	SWITCH POWER 2P NO/NO LATCHED	1
6	327 70001	LABEL ME/M1(3) THROUGH CONTROL PANEL	1

M1 (3) WASH SYSTEM

M1 30001 22-08-06 3A

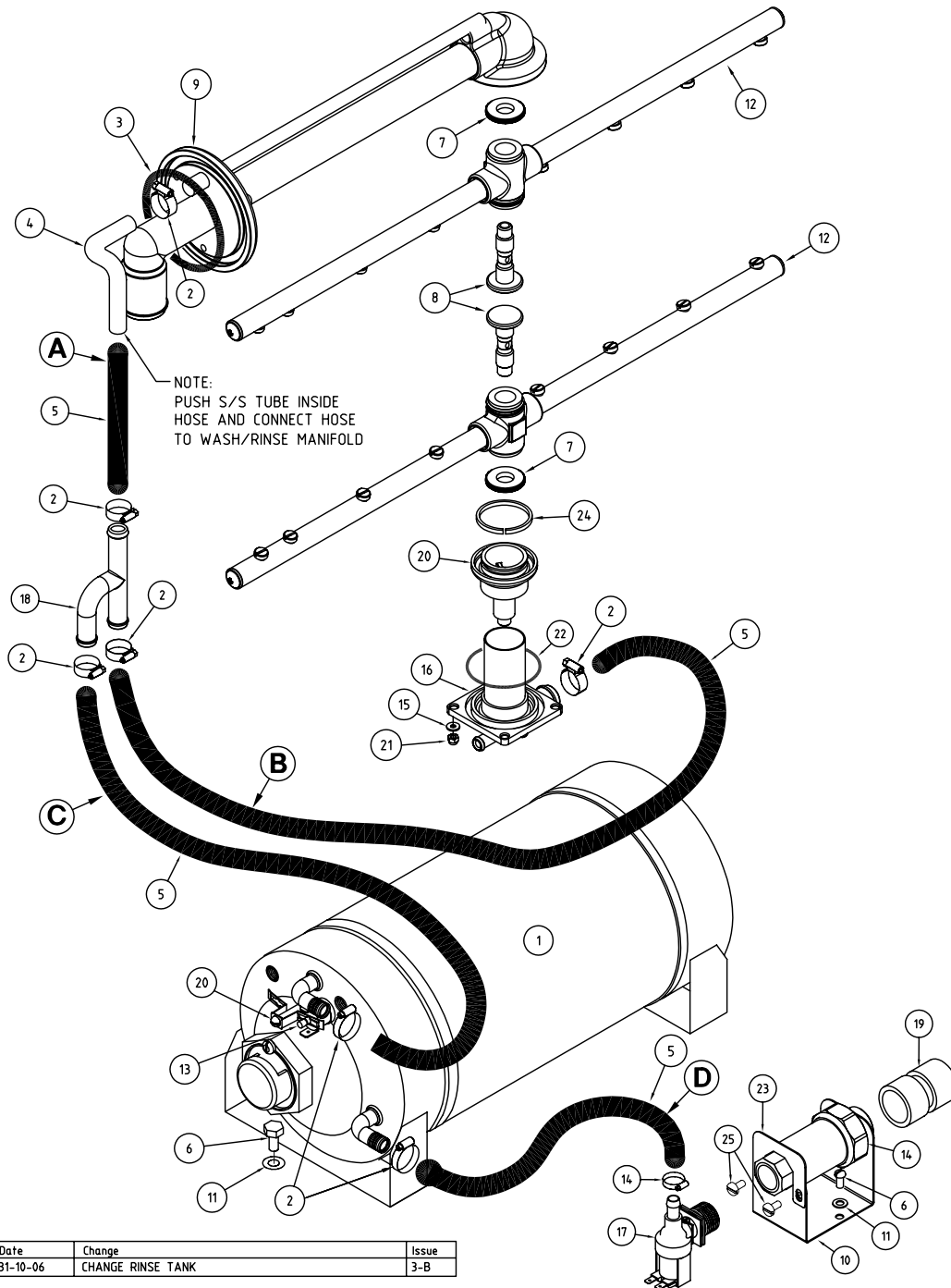


ITEM	CODE	DESCRIPTION	QTY
1	301 10030	ASSY M1 ALL SS WASH ARM ASSY	2
2	301 10040	M1(3) UPPER MANIFOLD ASSY	1
3	400 30042	WASTE DRAIN PLASTIC 40mm PLASTIC	1
4	61931	HOSE 32mm 2 PLY RADIATOR HOSE	1
5	8112	NUT HEX SS 304 M4	2
6	600 80079	NYLOC NUT M4 304	2
7	400 90108	25mm DIA 90 DEG ELBOW	1
8	400 30189	SLIP RING WHITE ACETAL	1
9	3888	PUMP WASH GL/GLV/SL/M1 0.5hp	1
10	6196	HOSE 25mm 2 PLY RADIATOR	1
11	400 90069	TEE 25/38MM REDUCER	2
12	1262	UHB44 ELBOW	1
13	ARP336	O-RING ARP336	1
14	400 30072	SPINDLE M2 WASH	2
15	8567	WASHER SPRING SS 304 MS	2
16	400 90119	GM5 UPSTAND 132mm LONG	1
17	1896	DRAIN WASTE GASKET	1
18	6195	HOSE 38mm 2 PLY RADIATOR	1

ITEM	CODE	DESCRIPTION	QTY
19	269 10051	UE(S) UNDER COUNTER COLLAR ASSEMBLY	1
20	ASS16	HOSE CLIP ASS16	4
21	600 80009	NUT SS 304 HEX M10	1
22	3067	HOSE PRESSURE SW VACUUM 4mm	1
23	600 30250	PRESSURE SWITCH 140/70mm	1
24	6037	BACKNUT 126x40mm	1
25	600 30183	REED SWITCH STEM	1
26	600 30182	MAGNETIC UNIT	1
27	ASS28	HOSE CLIP ASS28	4
28	ARP205	O RING 205	1
29	400 90093	CASTING PRESSURE BELL CAP	1
30	600 80081	M4 WASHER 304	2
31	600 30160	ELEMENT 2500W BENT ELEMENT	2
32	280 10021	WASH INLET FILTER	2
33	400 90103	DIA. 38mm PUMP INLET VORTEX	1
34	ARP333	ARP333 O-RING	1
35	269 10050	UE(S) UNDER COUNTER WASH TEE ASSY	1

RINSE SYSTEM M1(3) WASHTECH

M1 30002 31-10-06 3 B



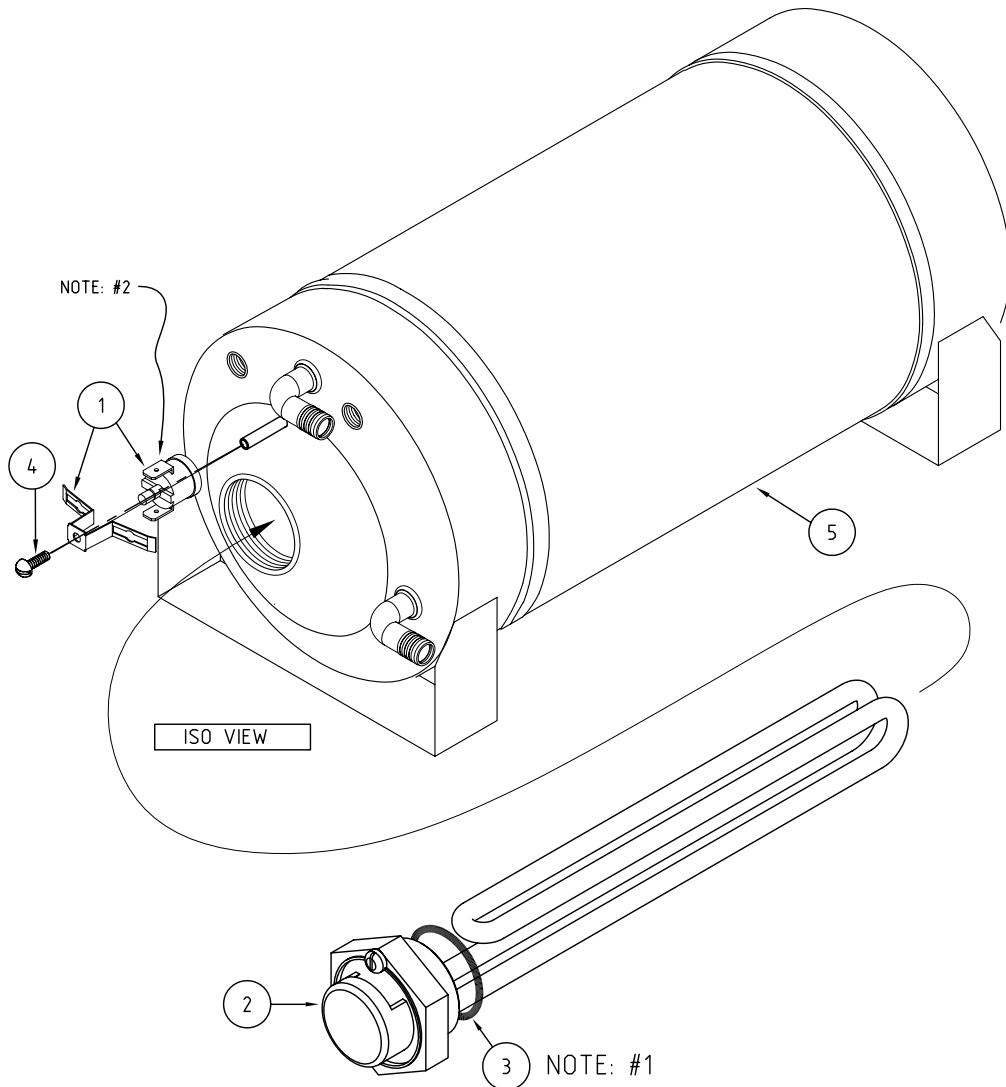
Date	Change	Issue
31-10-06	CHANGE RINSE TANK	3-B

ITEM	CODE	DESCRIPTION	QTY
1	400 10129	3KW ASSY R/TANK 1/2" 1 THERMOSTAT	1
2	ASS 06	HOSE CLIP ASS 6	8
3	ARP336	O-RING	1
4	326 31011	M2 UPPER RINSE TUBE	1
5	600 60073	HOTOTAL HOSE 11mm X 19mm	5m
6	88461	MS HX SS 304 M6 X 12	2
7	400 30074	NUT M2 WASH SPINDLE	2
8	400 30073	SPINDLE M2 RINSE	2
9	301 10040	M1(3) UPPER MANIFOLD ASSY	1
10	400 20107	DCV BOTTOM BRACKET	1
11	8566	WASHER SPRING SS 304 M6	2
12	400 10092	ASSY GM4/GL5/GLV5 RINSE ARM LOWER	2
13	600 30088	TSTAT TY60/R-95C (with E BRKT)	1

ITEM	CODE	DESCRIPTION	QTY
14	600 60108	DUAL CHECK VALVE	1
15	85651	M5 PLAIN SS WASHER	1
16	269 10050	UE(5) UNDER COUNTER WASH TEE ASSY	1
17	3342	SOLENOID VALVE GL 1 WAY 90o	1
18	400 90076	SS RINSE TEE	1
19	600 60111	3/4" x 3/4" BRASS NIPPLE FOR DCV	1
20	269 10051	UE(5) UNDER COUNTER COLLAR ASSY	1
21	600 80060	NUT NYLOC M5 S/S	4
22	ARP333	ARP333 O-RING	1
23	400 20108	BRACKET DCV CLAMP	1
24	400 30189	SLIP RING WHITE ACETAL	1
25	8801	MS PAN POZI ZP M4 x 12	2

3KW ASSY R/TANK 1/2" 1 THERMOSTAT

400 10129 30-10-06 3 A



ITEM	CODE	DESCRIPTION	QTY
1	600 30088	THERMOSTAT TY60/R-95C [with E bracket]	1
2	600 30249	ELEMENT 3kW RINSE	1
3	3006	GASKET ELEMENT 54.0:1.6mm	1
4	600 80052	MS PAN SLOT ZP M3X6.	1
5	400 10114	RINSE TANK NEW SUB ASSY 1/2"	1

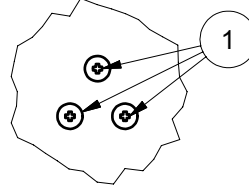
NOTE: 1. USE GRAPHITE JOINING COMPOUND ON BOTH SIDES OF GASKET BEFORE INSERTING ONTO ELEMENT.

NOTE: 2. USE HEAT TRANSFER COMPOUND UNDER THERMOSTAT HEAD.

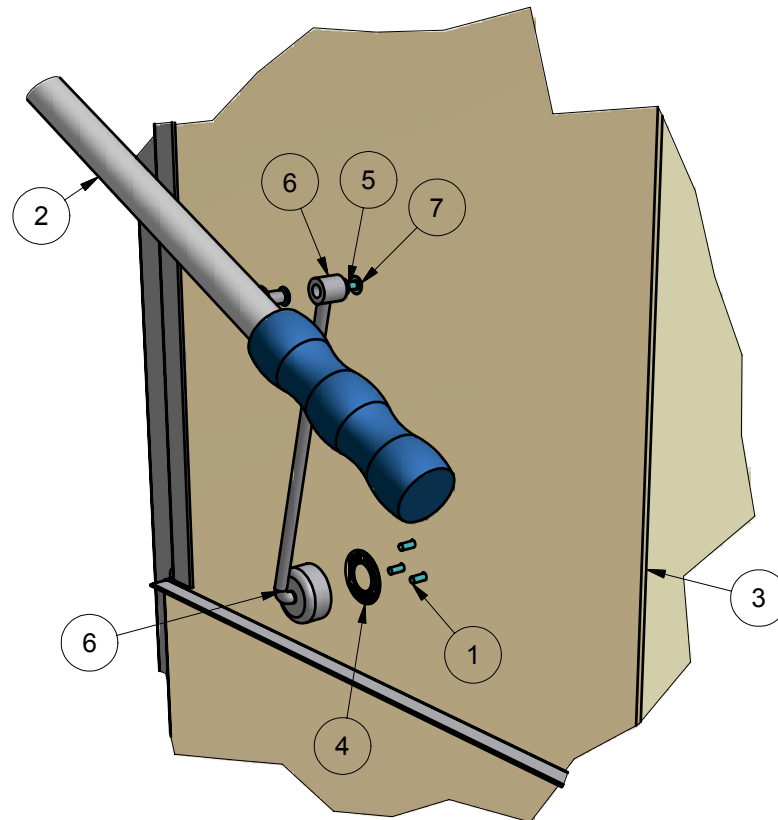
M1 (3) DOOR LINK ASSY

301 10010 7/08/2006 REV 3-A

INSIDE DOOR



EXPLODED PERSPECTIVE VIEW



Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	600 80017	M5 x 12 SS TRUSS HEAD SCREW	5
2	301 10037	ASSY M1(3) DOOR HANDLE	1
3	301 10007	M1(3) PASSTHRU DOOR ASSY	1
4	400 90120	PASSTHROUGH DOOR MOUNT GASKET	1
5	600 80026	WASHER FL SS 304 M5x11.5x0.8	1
6	326 10016	M2(3) DOOR STAY ASSY	1
7	600 80091	M5 x 12 SS BUTTON HEAD CAP SCREW	1

Spare Parts

DESCRIPTION	PART NO
Cabinet & Door	
Control Panel Sub-Assembly	301 10008
Control Panel Label	327 70001
Door Switch Magnet	600 30182
Controls & Indicators	
Contactor	600 30229
Door Reed Switch	600 30183
Door Switch Relay	600 30223
Power Cord Set 15A	600 30255
Power Light	600 30161
Power Switch	600 30214
Pressure Switch	600 30252
Ready Light	600 30162
Run Light	600 30163
Terminal Strip 12 Way	3229
Test Switch	3035
Timer	32661 001
Heating Components	
Over Temperature Thermostat	600 30088
Rinse Element 3 KW	600 30249
Rinse Tank Assembly	400 10129
Rinse Thermostat	3020
Wash Element 2.5 KW	600 30160
Wash Thermostat	30201
Hoses & Fittings	
DCV 3/4" x 3/4" Brass Nipple Fitting	600 60111
Pressure Switch Hose	3067
Rinse Hose	600 60073
Rinse Tee SS	400 90076
Upper Wash Hose (400 mm long)	61931
Wash Pump Inlet Hose	1262
Wash Pump Outlet Hose (145 mm long)	6195
Wash Tee Connection Hose	6196

Spare Parts

DESCRIPTION	PART NO
Pumps & Solenoids	
Dual Check Valve	600 60108
Solenoid Valve	3342
Wash Pump	3888
Wash Pump Capacitor 12.5 mF	3892
Wash Tank Components	
Drain Upstand	400 90119
Nut M2 Wash Spindle	400 30074
Pressure Bell	400 90093
Rinse Arm Assembly	400 10092
Rinse Arm Bush	C190624
Rinse Arm End Screw Plug	600 80017
Rinse Arm Jet	600 20001
Rinse Arm Spindle	400 30073
Slip Ring White Acetal	400 30189
Wash Arm	301 10030
Wash Arm Bush	C190624
Wash Pump Inlet Filter	280 10021
Wash Arm End Screw Plug	600 80072
Wash Arm Securing Nut	400 30074
Wash Arm Spindle	400 30072

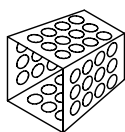
Note:

For more parts look in the section “Assembly Diagrams”.

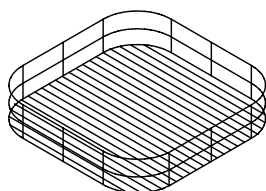
Accessories

M1(3)W ACCESSORIES

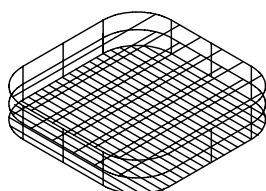
M1(3) ACW 24-08-06 3 A



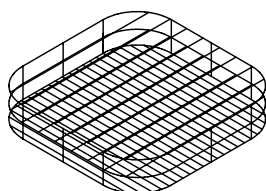
C660503
CUTLERY CONTAINER G



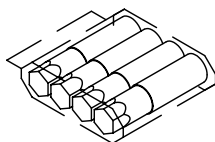
K0404
CUP/GLASS RACK 435 WIRE/PLAST.



K0406
DISHRACK 435mm 7 DIV WIRE/PLAST.



K0408
DISHRACK 435mm 9 DIV WIRE/PLAST.



600 90023
ASSY SL/M1/M2 LEG (INOX 50x240xM12)

7026@
BAG MINIGRIP 230 x 305 x 70mu

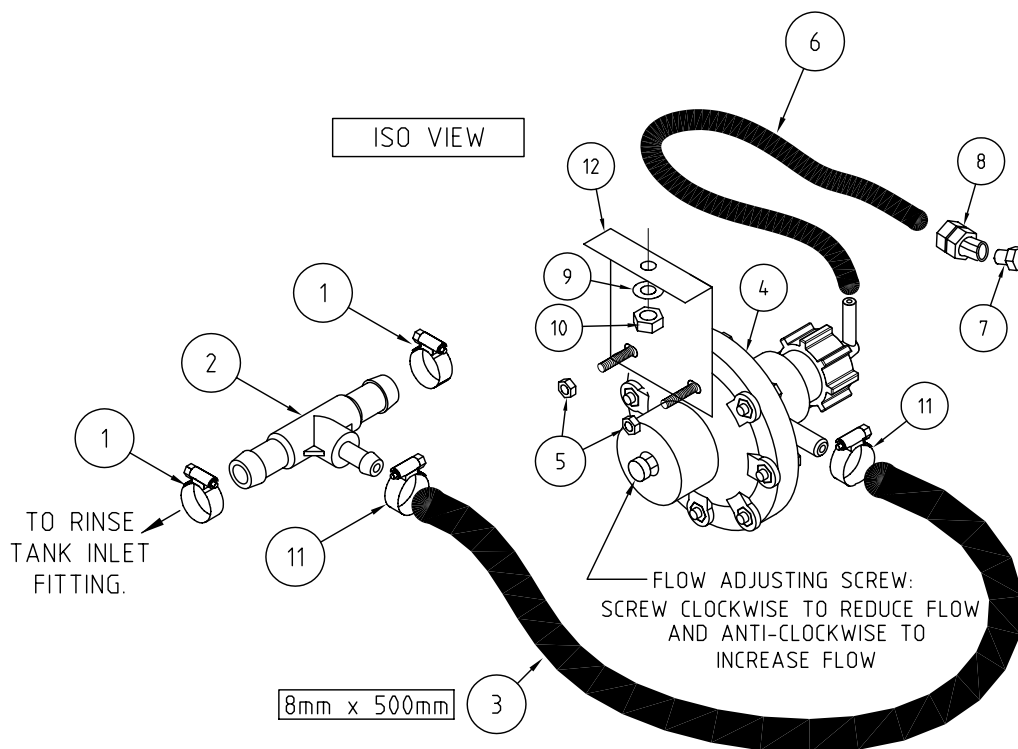
Appendices

RINSE AID INJECTOR RETROFIT

400 90141 19-10-06 1A

INSTALLATION

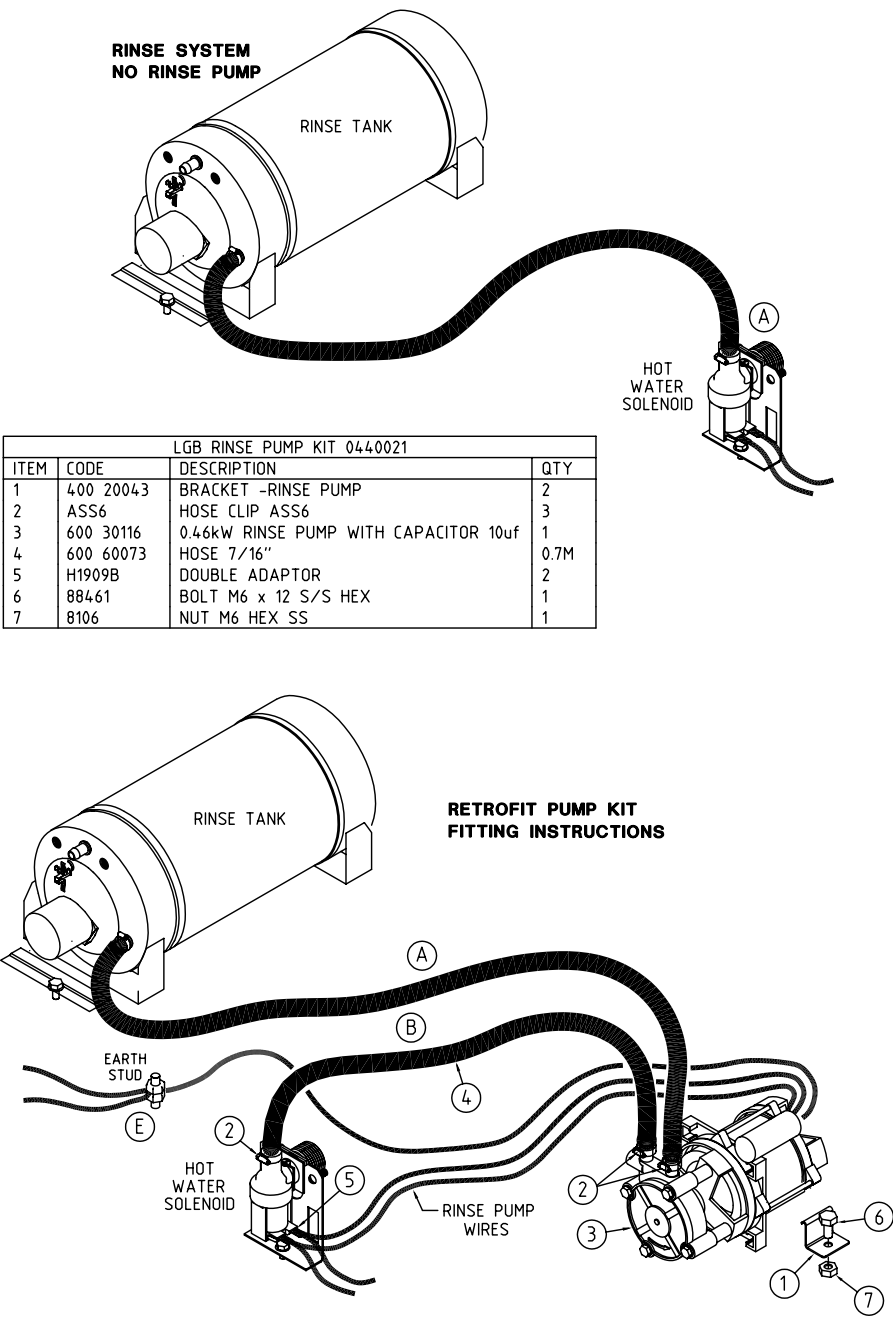
1. MOUNT BRACKET/PUMP INSIDE FRONT OF BASE OF MACHINE
2. REPLACE BLUE TEE FITTED ON RINSE TANK INLET HOSE WITH GREY TEE⁽²⁾. (ALTERNATIVELY CUT RINSE TANK INLET HOSE AT AN APPROPRIATE POINT AND INSERT PLASTIC TEE⁽²⁾ BETWEEN HOSE ENDS)
3. ASSEMBLE ALL OTHER COMPONENTS AS SHOWN BELOW AND INSERT HOSE⁽⁶⁾ INTO CHEMICAL CONTAINER.
4. SETUP IS NOW COMPLETED AND WILL REQUIRE ADJUSTMENT VIA FLOW ADJ. SCREW. THE VOLUME OF RINSE FLUID WILL VARY FOR DIFFERENT PRODUCT, BUT TYPICALLY 5 MLS PER CYCLE IS REQUIRED.



HYDRAULIC RINSE AID INJECTOR KIT 0440012				
ITEM	CODE	DESCRIPTION	QTY	
1	ASS06	HOSECLIP ASS06	2	
2	C180408	T-NIPPLE F.INJECT.W/CEN REDUC.	1	
3	600 60101	HOSE 8mm	0.5	
4	C620120	RINSE AID INJECTOR	1	
5	8152	NUT HX ZP M4	2	
6	D24-10	TUBING D260 .25 OD 8FT	1	
7	D24-11SP	FOOT STRAINER	1	
8	600 80009	M10 SS HEX NUT	2	
9	8566	WASHER SPRING SS 304 M6	1	
10	8106	NUT Hx SS M6	1	
11	ASS04	HOSECLIP ASS04	2	
12	275 20048	RINSE AID INJECTOR MOUNTING BRACKET	1	

RINSE PUMP RETROFIT

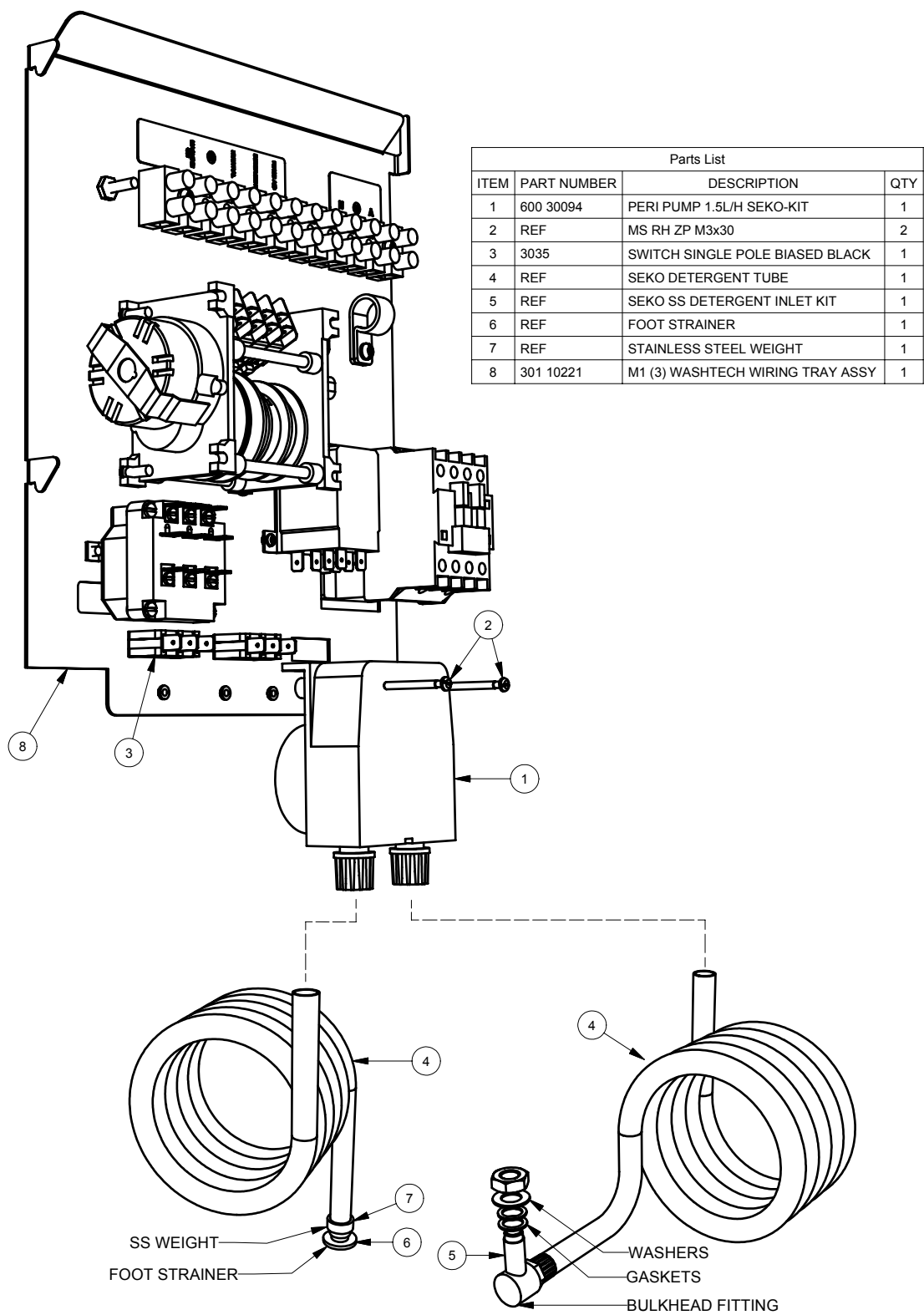
400 90142 19-10-06 1A



1. Install rinse pump using the bracket and bolt provided
 2. Remove hose A from solenoid and reconnect to rinse pump outlet using hose clamp provided
 3. Connect hose B supplied in kit from pump inlet to solenoid using hose clamp provided
 4. Earth pump on chasis earth stud with green wire provided in wiring loom
 5. Connect pump wiring to solenoid connections using double adaptors provided.
- xxxxxx IMPORTANT hoses must be connected as shown. xxxxxxxx

M1(3) DETERGENT PUMP RETROFIT

301 10220 26/10/2006 REV 3-A



Revisions

Manual Revisions

REVISION STATUS	REVISION DATE	REVISED PAGES	FROM SERIAL NO:	CHANGE DESCRIPTION
1A	24/08/06		016675 (except 016974 - 016978)	
1B	30/10/06	26, 27, 29, 32, 33, 34		Change Rinse Tank Assy part, change Retrofit kits.