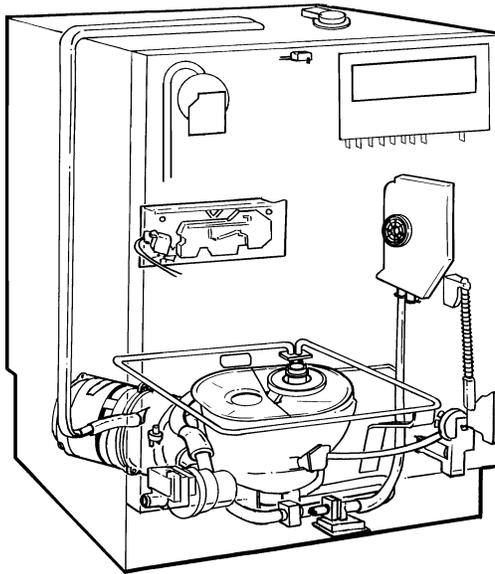




TECHNICAL SERVICE GUIDE

Monogram Dishwasher



MODEL SERIES:

- ZBD6400
- ZBD6500
- ZBD6600
- ZBD6700
- ZBD6900
- ZBD7000
- ZBD7100





IMPORTANT SAFETY NOTICE

The information in this service guide is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

WARNING

To avoid personal injury, disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

RECONNECT ALL GROUNDING DEVICES

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

GE Consumer Home Services Training
Technical Service Guide
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1.0 PRODUCT INFORMATION

1.1 DESCRIPTION

1.1.1 Electronic Control Panel Models



Electronic Model 6400

All white door, cabinet, and control panel,
or all black door, cabinet, and control panel

Electronic Model 6500

Stainless steel door, black cabinet and control panel



Electronic Model 6700

All white door, control panel and cabinet,
or all black door, control panel and cabinet

Electronic Model 6900

Stainless steel door, black control panel and cabinet

Electronic Model 6905

Stainless steel door, black control panel and cabinet
No turbidity sensor

1.1.2 Electronic Rotary Control Models



Electronic Rotary Model 6600

Stainless steel door and control panel, black cabinet,

Electronic Rotary Model 6605

Black cabinet, stainless steel door and control panel
No Turbidity Sensor

1.1.3 Electronic Integrated Models



Electronic Integrated Model 7000

Black cabinet, black door

Electronic Integrated Model 7005

Black cabinet, black door, no turbidity sensor



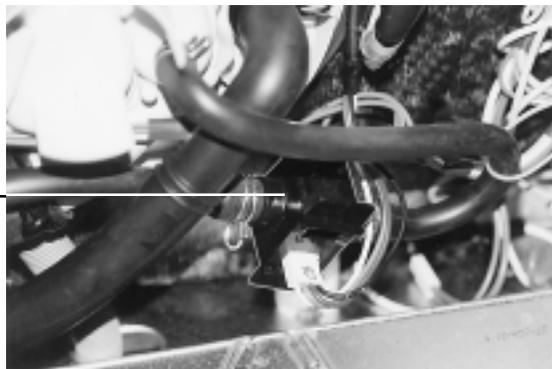
Electronic Integrated Model 7100

Black cabinet, stainless steel door

Electronic Integrated Model 7105

Black cabinet, stainless steel door, no turbidity sensor

Turbidity sensor



1.1.4 Interior, all Models

Light - All Models except 6400 & 6500

Upper Basket

Lower Basket

Detergent and
Rinse Aid
Dispenser



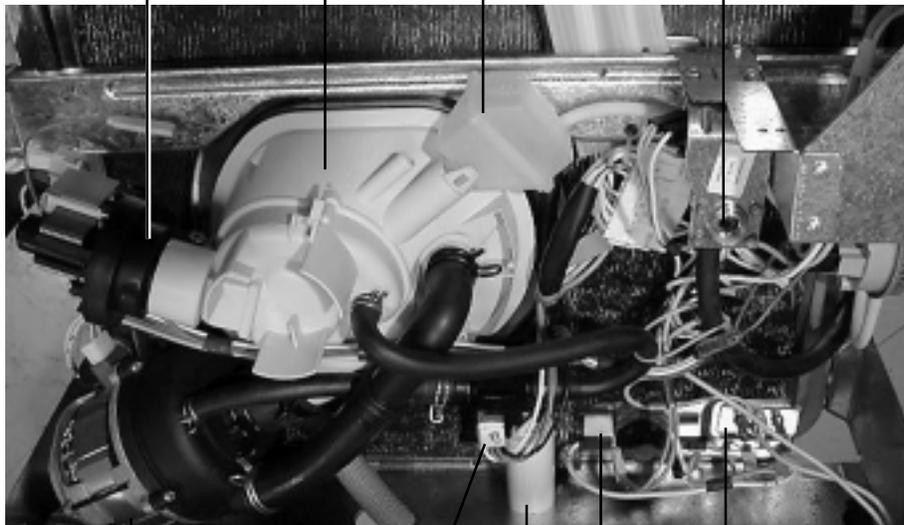
1.1.5 General view beneath the cabinet

Drain Pump

Sump

Air Dome

Water Inlet Solenoid Valve



Wash Motor / Pump Assembly

Turbidity Sensor (not on 6905, 6605)

Capacitor

Overtemperature Thermostat

Heating Element

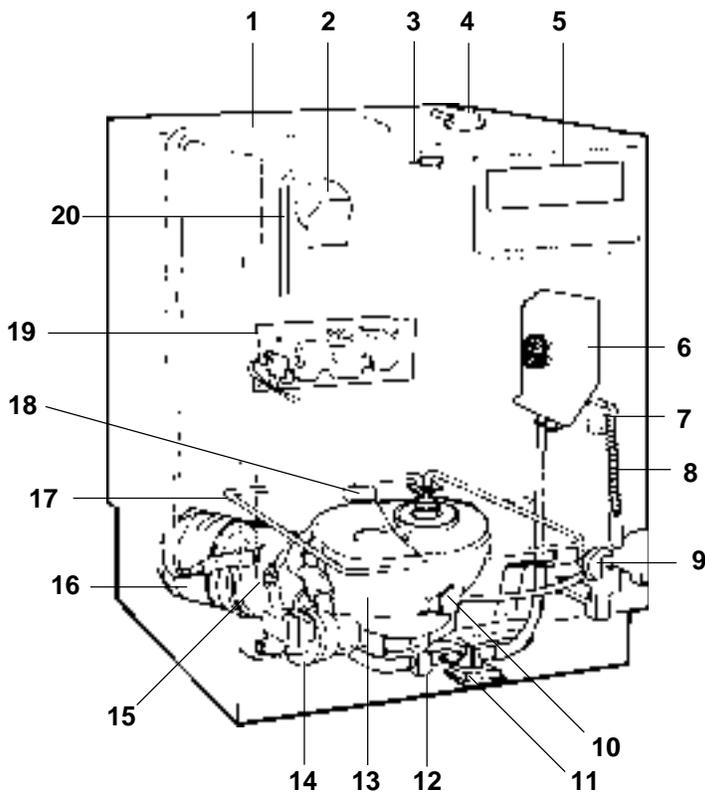
6000 & 7000 Series DISHWASHERS

1.2 Model Designation

Model	6400 6500	6700 6900	6905	6600	6605	7000	7005	7100	7105
Control Panel Type	Electronic	Electronic	Electronic	Electronic Rotary	Electronic Rotary	Electronic Integrated	Electronic Integrated	Electronic Integrated	Electronic Integrated
Door Finish									
White	6400	6700	No	No	No	No	No	No	No
Black	6400	6700	No	No	No	Yes	Yes	No	No
Stainless	6500	6900	Yes	Yes	Yes	No	No	Yes	Yes
Programs									
Rinse Only	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Speed Wash	No	No	No	Yes	Yes	No	No	No	No
China Chrystal	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Normal Wash	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Pots & Pans	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Pots Light	No	No	Yes	No	Yes	No	No	No	No
Pots Normal	No	No	Yes	No	Yes	No	No	No	No
Pots Heavy	No	No	Yes	No	Yes	No	No	No	No
Options									
Normal Temp	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sani Temp	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Super Sani Temp	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Delay Start	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Heated Dry	Yes	No	No	Yes	Yes	No	No	No	No
Smart Dry	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Clear Button	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Start/Clear Button	No	No	No	Yes	Yes	No	No	No	No
Features									
Fan Assisted Dry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Turbidity Sensor	Yes	Yes	No	Yes	No	Yes	No	Yes	No
Overfill Protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interior Light	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Place Settings	10	10	10	10	10	10	10	10	10
Upper Basket									
Height Adjustment Levels	2	2	2	2	2	2	2	2	2
Fold Down Cup Racks	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Fold Down Plate Racks	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Lower Basket									
Fold Down Plate Racks	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
Pots Wash Racks	No	No	Yes	No	Yes	No	Yes	No	No
Cutlery Basket Covers	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
Largest Plate (Inches)	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2

1.3 Major Component Location

The diagram below illustrate the location of the major components. Refer to Section 5.1

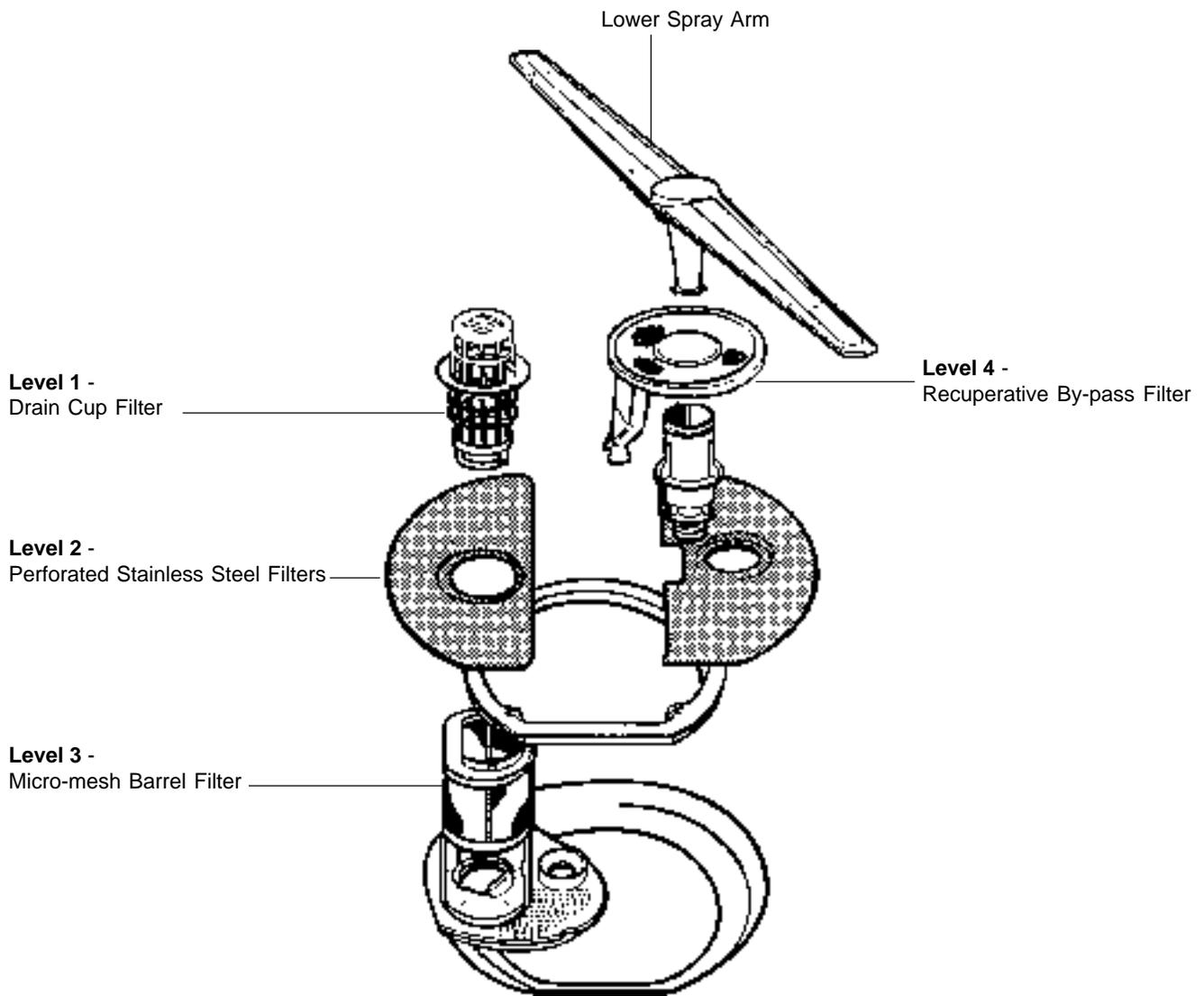


- | | |
|--|---|
| 1. Upper basket feed pipe | 11. Water inlet solenoid valve |
| 2. Drying assist fan | 12. Turbidity sensor (except 6905, 6605, 7005 & 7105) |
| 3. Door microswitch | 13. Sump |
| 4. Interior light (except 6400 & 6500) | 14. Drain pump |
| 5. Electronic controller | 15. Overtemperature thermostat |
| 6. Siphon break | 16. Wash motor pump |
| 7. Light switch (except 6400 & 6500) | 17. Heating element |
| 8. Door hinge, spring and push rod guide | 18. Wash motor capacitor |
| 9. Pressure switch | 19. Detergent and rinse aid dispenser |
| 10. Air dome | 20. Condensate duct |

1.4 Micro-Filtration

1.4.1 Level 4 Micro-Filtration

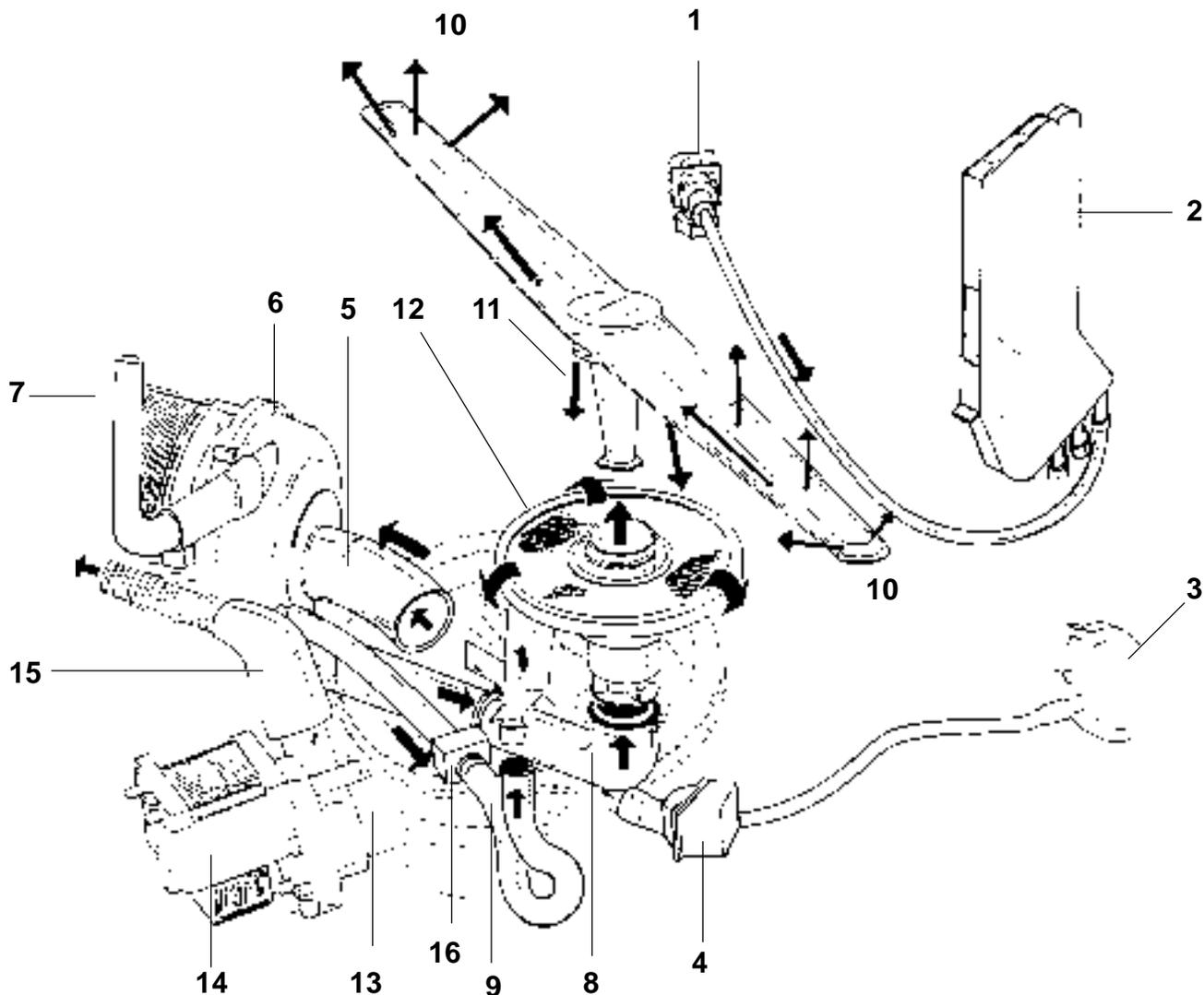
These models have a 4 level micro-filtration stainless steel filtering system.



1.4.2 Water flow - 4 Level System

The diagram below illustrates the water flow and identifies the main components in a 4 level micro-filtration system.

Note: The sump is drawn in dotted lines for illustration purposes.



- | | |
|--|--|
| 1. Water solenoid inlet valve | 10. Various lower spray arm water jets |
| 2. Siphon break | 11. Lower spray arm water jets to by-pass filter |
| 3. Pressure switch | 12. Recuperative by-pass filter |
| 4. Air dome | 13. Drain pump water inlet via sump |
| 5. Wash pump water inlet via sump | 14. Drain pump |
| 6. Wash pump | 15. Water outlet to drain |
| 7. Wash pump water outlet to upper spray arm | 16. Turbidity sensor |
| 8. Wash pump water outlet to lower spray arm | |
| 9. Wash pump water outlet to by-pass filter | |

2.0 SAFETY

2.1 WARNING

All work on electrical or plumbing systems must be carried out by persons so qualified and in accordance with the Federal, State or local authority legislation which applies. Always ensure that the power supply box for the unit has correct polarity and is within sight and reach of the unit being serviced.

2.2 SAFETY PRACTICES

Ensure that the unit is ELECTRICALLY SAFE and there are no WATER LEAKS before and after carrying out any service work. When electrical power is required to be connected for diagnosis or test purposes, disconnect the power immediately after use.

When carrying out tests on unit, ensure that high voltages do not come into contact with low voltage circuit.

Do not operate unit with any panels removed other than the kick panel and front panel.

At the beginning and/or end of each service procedure, the appropriate icons below will appear as a reminder to observe safe practices when servicing the unit.



Turn water supply off at main or isolating valve



Test for water leaks before leaving.



Switch off electrical power supply.

Reassemble dishwasher in reverse order.

Operate and test dishwasher before leaving.

3.0 SPECIFICATIONS

3.1 GENERAL SPECIFICATIONS

3.1.1 Control System

All control and interface boards operate at 120v.

3.1.1.1 6400 & 6500 Models

The controller has eight surface mounted switches.

The control switches are:



Nine surface mounted green LED's illuminate and display the actual wash, water temperature, dry, and delay mode.

Five surface mounted green LED progress indicators illuminate and display the actual wash mode as follows.:

SENSING WASHING RINSING DRYING CLEAN

All off board components are triac controlled, except the wash motor relay and the heating element for heating and drying which is also relay controlled.

3.1.1.2 6700 & 6900 Models

The controller has eight surface mounted switches.

The control switches are:



Ten surface mounted green LED's illuminate and display the actual wash, water temperature, dry, and delay mode.

Five surface mounted green led progress indicators illuminate and display the actual wash mode as follows:

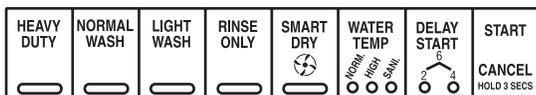
SENSING WASHING RINSING DRYING CLEAN

All off board components are triac controlled, except the wash motor relay and the heating element for heating and drying which is also relay controlled.

3.1.1.3 6905 Model

The controller has eight surface mounted switches.

The control switches are:



Ten surface mounted green LED's illuminate and display the actual wash, water temperature, dry, and delay mode.

Five surface mounted green LED progress indicators illuminate and display the actual wash mode as follows:

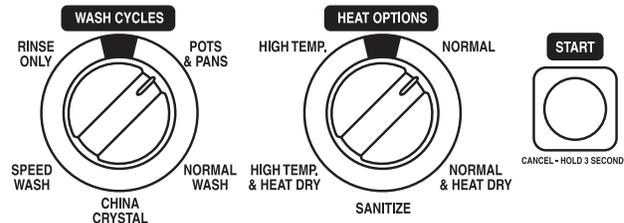
SENSING WASHING RINSING DRYING CLEAN

All off board components are triac controlled, except the wash motor relay and the heating element for heating and drying which is also relay controlled.

3.1.1.4 6600 Model

The controller has two large surface mounted rotary encoders for wash cycles and heat options and a smaller surface mounted switch for push button start.

The control switches are:



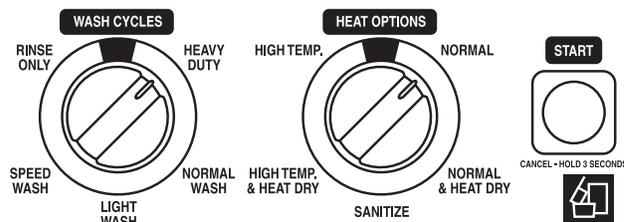
Two surface mounted red LED's illuminate and display the actual wash cycle and heat option selected.

All off board components are triac controlled, except the wash motor relay and the heating element for heating and drying which is also relay controlled.

3.1.1.5 6605 Model

The controller has two large surface mounted rotary encoders for wash cycles and heat options and a smaller surface mounted switch for push button start.

The control switches are:



Two surface mounted red LED's illuminate and display the actual wash cycle and heat option selected.

All off board components are triac controlled, except the wash motor relay and the heating element for heating and drying which is also relay controlled.

3.1.1.6 7000, 7005, 7100, & 7105 Models

The controller has eight surface mounted switches.

The control switches are:



Ten surface mounted green LED's illuminate and display the actual wash, water temperature, dry, and delay mode.

All off board components are triac controlled, except the wash motor relay and the heating element for heating and drying which is also relay controlled.

3.1.2 Water Circulating System

3.1.2.1 Wash Motor Capacitor

370V AC, 60Hz, 15 μ F.

Type - metallized Polypropylene.

Electrical connection - 2 x 1/4" x 1/32" Quick Connect tabs.

For usage 120V, 60Hz @ 185°F

3.1.2.2 Water Capacities

The Water Solenoid Inlet Valve is rated at a nominal 1.25 US gallons per minute. The factory setting results in a nominal fill of 1.17 to 1.95 US gallons subject to supply water pressure.

Water consumption: 6.0 US gallons (on fast wash)

Actual program selected will vary water consumption.

3.1.2.3 Solenoid Water Inlet 60Hz

Operating Supply Pressure Range:

- Static Cold: 20 psi minimum – 120 psi maximum

- Static Hot: 20 psi minimum – 120 psi maximum

Maximum inlet supply water temperature - 160°F

Nominal delivery flow rate from valve - 1.25 US gallons per minute.

120V AC, 60Hz.

Solenoid DC resistance 750/950 ohms

Electrical connection - 2 x 1/4" x 1/32" Quick Connect tabs.

3.1.2.4 Drain Pump

Rated Input - 30W, 0.25A, 120V AC, 60Hz.

Resistance of Field Winding @ 68°F - 35 ohms \pm 10%.

Insulation - Class F.

Nominal RPM - 3000, 2 pole motor.

Motor temperature protector field winding - 338°F trips open.

Outlet Drain equipped with non-return flap valve.

Nominal Discharge Rate - 3.96 - 5.28 US gallons/minute @ 3.25Ft/head.

6000 & 7000 Series DISHWASHERS

3.1.2.5 Wash Motor/Pump Assembly

120V AC, 60Hz, 1.7A.

110W, MCR CS&R, 3250 rpm.

Class F

Capacitor 15 μ F 370V

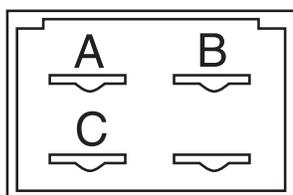
WARNING: Motor is fitted with internal auto reset overload and may restart without warning.

Resistance of windings @ 68°F \pm 5%

Terminals A & C = 11.6 ohms

Terminals B & C = 5.9 ohms

Motor Plug



3.1.3 Switches/thermostats

3.1.3.1 Thermostat - Overtemp

Identification - Blue Dot.

Mounting - Gasket in Tub base.

Electrical connection - 1/4" Quick Connect tabs.

125V/250V.

Temperature specification: - Open 185°F \pm 38°F.

- Reset 113°F \pm 41°F.

3.1.3.2 Switch-Light

All Models except 6400 & 6500

240V/120V AC, 5A.

Circuit - normally Open.

Electrical connection - 2 x 1/4" Quick Connect tabs.

3.1.3.3 Microswitch - Door Lock

General Purpose Type approved by UL.

250/125V AC, 21A.

Pin Plunger Actuator SPST.

Normally open with common terminal at bottom.

Electrical connection - 1/4" Quick Connect tabs.

3.1.3.4 Pressure Switch - Level 1

Main Contact Load - 16A, 240/125V AC.

Electrical connection - 1/4" Quick Connect tabs.

Nominal Calibration - set 2 3/16" water

- reset 19/32" water

Operating Temperature - 185°F maximum.

UL Approved.

3.1.3.5 Pressure Switch - Level 2

Main Contact Load - 16A, 250/125V AC.

Electrical connection - 1/4" Quick Connect tabs.

Nominal Calibration - set 3 13/16" water

- reset 3 1/32" water

Operating Temperature - 185°F maximum.

UL Approved.

3.1.4 Miscellaneous

3.1.4.1 Detergent & Rinse Aid Dispenser

Single actuator type with gravity latch/lock mechanism.

110 - 240V AC, 60 Hz.

Total capacity of detergent chamber - 1.4 fl.oz.

Normal level detergent chamber - 0.9 fl.oz.

Total capacity Rinse Aid tank - 140cc (4.2 fl.oz).

Six Rinse Aid settings ranging from 4cc - 0.12 fl.oz.

3.1.4.2 Interior Lamp - All Models except 6400 & 6500

120V AC, 60 Hz

Lamp Globe - 120V, 15W (max) B15

Electrical Connections - 2 x 3/16" Quick Connect tabs.

Lamp Housing - 2 1/4" x 0.08" pitch buttress right hand thread.

Ring gasket seal incorporated in lens.

Lens marked - maximum 15 watts.

3.1.4.3 Element - Heating

120V AC, 60 Hz, 1200W.

12 ohms 3 @ 68°F.

Insulation resistance - 1 meg ohms (minimum).

Element sheath material - 304 & 321 stainless steel.

Mounting - stainless steel (type 302)

Flange and stud - 1/4" stainless steel (type 302-304).

Ends of sheath sealed with epoxy-epirez 324A.

Electrical connection - 1/4" Quick Connect male stainless steel (type 302-304) spade terminals.

3.1.4.4 Drying Assist Fan

Single phase 2 pole motor

120V 60Hz

Fan speed 2000rpm at free air

Coil:- wire dia. 0.132mm

No of turns 4000

DC resistance 292 ohms ± 10%

3.1.4.5 Turbidity sensor

All models except 6605, 6905, & 7105

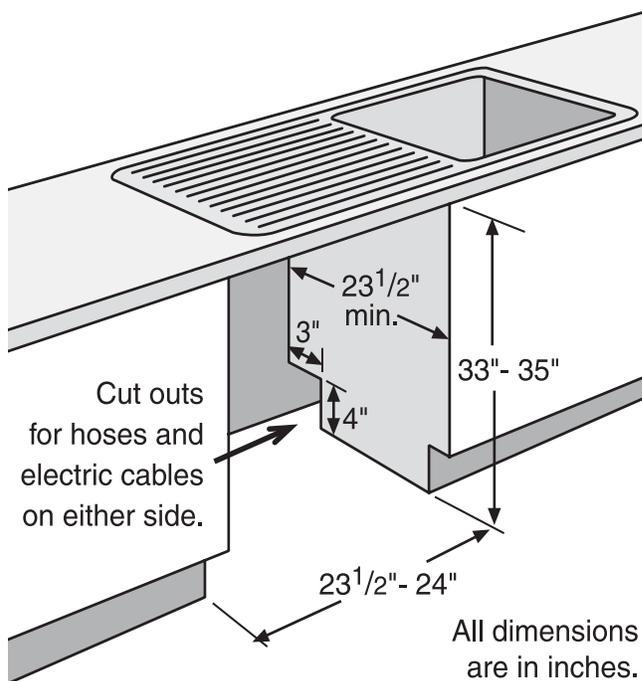
Operating voltage 5V DC ± 5%

Output frequency 50Hz to 150 KHz

Operating temperature 50°F to 180°F

3.1.4.6 Dimensions

The diagram below illustrates the cupboard space required.



4.0 FAULT INDICATION

4.1 Models 6400/6500, 6700/6900, 6905, 7000 Series.

To assist with the diagnosis of dishwasher faults, any faults that are detected during a wash cycle are saved in nonvolatile memory. These fault codes can then be accessed later on during a service call.

4.1.1 Fault Identification methods for faults detected during a wash cycle:

If a Not filling and/or Not draining fault is detected during a wash cycle, then the respective fault codes are to be displayed when detected, and remain on if the door is opened.

If a Not Filling fault code is detected during a wash cycle, then the China Crystal or Light Wash LED will flash, at a rate of 0.5 second on, 0.5 second off.

If a Not Draining fault code is detected during a wash cycle, then the Rinse Only or Sani Wash LED will flash, at a rate of 0.5 second on, 0.5 second off.

These fault codes can only be cleared from the display by pressing and holding the START/CANCEL button for 3 seconds at the end of the wash cycle, or by starting a new wash cycle. *(The fault codes stored in nonvolatile memory will not be cleared).*

4.1.2 Other Fault Identification methods:

Activating the Fault Indication mode:

If a fault has been detected by the Field Test Cycle, or by the Factory Test Cycle, then the Fault Indication mode will be automatically activated, and the fault will be reported as indicated below.

To manually recall the saved fault codes, press the buttons in the following sequence:

6400/6500	6700/6900
#5 Heated Dry	#5 Smart Dry
#2 Normal Wash	#2 Normal Wash
#4 Sani Wash	#4 Rinse Only
#5 Heated Dry	#5 Smart Dry
#6 Water Temp	#6 Water Temp
6905	7000 Series
#5 Smart Dry	#6 Smart Dry
#2 Normal Wash	#2 Normal Wash
#4 Rinse Only	#4 Rinse Only
#5 Smart Dry	#6 Smart Dry
#6 Water Temp	#5 Water Temp

Notes: The buzzer will then sound for 1 second to indicate that the Fault Indication mode has been accessed. Note: Buzzer silencing mode has no effect in this mode.

If no fault codes were saved, the control is to return to the stand-by (off) state with no LEDs illuminated.

6000 & 7000 Series DISHWASHERS

4.1.3 Identifying any faults that may have occurred:

The fault codes (if any saved) are displayed by flashing the relevant LEDs, (at a rate of 0.5 second on, 0.5 second off, unless otherwise noted). Refer table below.

Fault detected	Condition	Fault code LED
Not Heating	< 9 deg F in 15 minutes	Normal Wash
Over Temperature	Greater than 180°F, (but less than 210°F).	Pots & Pans or Heavy Duty indicator LED will flash at the standard rate (0.5 second on 0.5 second off).
Door thermistor.	Open circuit thermistor, (temperature sensed is below 32°F) or short circuit thermistor, (temperature sensed is above 210°F).	Pots & Pans or Heavy Duty indicator LED will flash slowly (1 second on, 1 second off).
Not filling	Not filled after selected fill time	China Crystal or Light Wash
Not draining	Not drained in 5 minutes	Rinse Only or Sani Wash
Overfill	Leak Detection switch closed or 2 nd level pressure switch	Heated Dry or Smart Dry
Turbidity Sensor		
High Signal	Count is greater than 65,279 in 0.4 seconds	Water Temp HIGH or SANI.
No Signal & Low Signal	Counter did not receive pulses from sensor	Delay Start 2hr
	Count is less than 50 in 3 seconds	
Turbidity Temp Sensor	Thermistor shorted ,open or constant	Delay Start 4hr

4.1.4 Exiting the Fault Indication mode:

To exit the fault indication mode, and clear any saved fault codes from memory, press and hold down the START/CANCEL button for 3 seconds. The control will then go into a standby (off) state with all LEDs off. *Note: The Average Clean Water Turbidity (ACWT) value will also be cleared.*

To exit the fault indication mode, without clearing the saved fault codes, repeat the button pressing sequence shown above, or remove power.

4.2 Rotary Models 6600 and 6605.

To assist with the diagnosis of dishwasher faults, any faults that are detected during a wash cycle are saved in nonvolatile memory. These fault codes can then be accessed later on during a service call.

4.2.1 Fault Identification methods for faults detected during a wash cycle:

If a Not filling and/or Not draining fault is detected during a wash cycle, then the respective fault codes are to be displayed when detected, and remain on if the door is opened.

If a Not Filling fault code was detected during a wash cycle, then the Wash Cycles indicator LED will flash, at a rate of 0.5 second on, 0.5 second off, .

If a Not Draining fault code was detected during a wash cycle, then the Heat Options indicator LED will flash, at a rate of 0.5 second on, 0.5 second off.

These fault codes can only be cleared from the display by pressing and holding the START/CANCEL button for 3 seconds at the end of the wash cycle, or by starting a new wash cycle. *(The fault codes stored in nonvolatile memory will not be cleared).*

4.2.2 Other Fault Identification methods:

Activating the Fault Indication mode:

If a fault has been detected by the Field Test Cycle, or by the Factory Test Cycle, then the Fault Indication mode will be automatically activated, and the fault will be reported as indicated below.

To manually recall the saved fault codes, carry out the following sequence:

1. Ensure the dishwasher is in Stand-by (OFF) with no program LEDs on;
2. Align the WASH CYCLES and HEAT OPTIONS knobs so that both knobs are horizontal with their position indicators pointing away from each other;
3. Press and hold the Start/Cancel button for 3 seconds.

Notes:The buzzer will then sound for 1 second to indicate that the Fault Indication mode has been accessed. Note: Buzzer silencing mode has no effect in this mode.

If no fault codes were saved, the control is to return to the stand-by (off) state with no LEDs illuminated.

4.2.3 Identifying any faults that may have occurred:

If a fault has been detected by the Field Test Cycle, or by the Factory Test Cycle, and hence the Fault Indication mode has been automatically activated, then the WASH CYCLES and HEAT OPTIONS LEDs will alternate on and off once every second, to indicate that a fault has occurred. This will continue until the first fault is found, (the LEDs will then behave in the manner specified below, and the Factory/Field test fault indication buzzer will be silenced if it was still activated).

To check if a particular fault has been recorded, rotate the appropriate control knob to the corresponding Fault type to be checked for. (Refer table below). If the selected fault type has occurred, then the indicator LED above that knob will flash, (at a rate of 0.5 second on, 0.5 second off), otherwise the indicator LED will be off.

Note: As the two knobs operate independently of each other, two faults can be identified at the same time.

4.2.4 WASH CYCLES

knob position.

6600	6605	Fault type to check for:	Wash Cycles indicator LED will be illuminated (fault detected) if:
Normal Wash.	Normal Wash.	<i>Not Heating</i>	< 9 °F in 15 minutes.
Pots & Pans	Heavy Duty.	<i>Over Temperature</i>	Greater than 180°F, (but less than 210°F).
China Crystal.	Light Wash.	<i>Not filling</i>	Not filled after selected fill time.
Rinse Only.	Rinse Only.	<i>Not draining</i>	Not drained in 5 minutes.
Speed Wash.	Speed Wash.	<i>Overflow</i>	Leak Detection switch closed or 2 nd level pressure switch activated.

4.2.5 HEAT OPTIONS

knob position.

6600	6605	Fault type to check for:	Heat Options indicator LED will be illuminated (fault detected) if:
Normal	Normal	<i>Open or short circuit Door thermistor.</i>	Temperature sensed was below 32°F or above 210°F.
Normal & Heat Dry.	Normal & Heat Dry.	<i>Open or short circuit Door thermistor.</i>	Temperature sensed was below 32°F or above 210°F.
Turbidity Sensor			
Sanitize.	Sanitize.	<i>High Signal</i>	Count was greater than 65,279 in 0.4 seconds
High Temp. & Heat Dry.	High Temp. & Heat Dry.	<i>No Signal & Low Signal</i>	Counter did not receive pulses from sensor. Count was less than 50 in 3 seconds.
High Temp.	High Temp.	<i>Turbidity Temp Sensor</i>	Thermistor was shorted ,open or constant.

4.2.6 Exiting the Fault Indication mode:

To exit the fault indication mode, and clear any saved fault codes from memory, press and hold down the START/CANCEL button for 3 seconds. The control will then go into a stand-by (off) state with all LEDs off. *Note: The Average Clean Water Turbidity (ACWT) value will also be cleared.*

To exit the fault indication mode, without clearing the saved fault codes: Remove power; or carry out the following sequence:

1. Align the WASH CYCLES and HEAT OPTIONS knobs so that both knobs are horizontal with their position indicators pointing away from each other;
2. Press and hold the Start/Cancel button for 3 seconds.

4.3 NOT HEATING

During a heating cycle, if the water temperature sensed has not been rising by greater than 9 deg F in 15 minutes, the heating element relay is to be de-energized and wash program operation is to continue until the maximum time in that heating step has been reached, the program is then to proceed to the next step. A not heating fault code is to be saved in memory for fault diagnosis during service.

4.4 OVER TEMPERATURE

If at any time water temperature sensed exceeds 180° F, program operation is to continue as normal, (without affecting the wash program execution in any way), and an over-temperature fault code is to be saved in non volatile memory for fault diagnosis during service.

4.5 NOT FILLING

If the controller has not sensed that the pressure switch has opened (water present) after the selected fill time, (refer section 4.10.8 FILL LEVEL), (this is a prerequisite for pump operation), the fill mode shall continue for a further 15 seconds or until the pressure switch opens, whichever occurs first. If the pressure switch opens during the 15-second period, the cycle shall continue, with total fill time remaining as specified in the wash program. If the pressure switch does not open after the additional 15 seconds, the control is to turn off all outputs, indicate a not filling fault code to the user, (refer section 4.1.3 IDENTIFYING FAULTS), and then save the not filling fault code in non volatile memory.

4.6 NOT DRAINING

If the controller has not sensed that the machine is empty after 5 minutes of draining, then the control is to turn off all outputs, indicate a not draining fault code to the user, (refer section 4.1.3 IDENTIFYING FAULTS), and then save the not draining fault code in non volatile memory.

4.7 OVERFILL

Overfill detection is to have a 1-second steady state signal before implementing.

The drain output is to be continuously monitored by the control system. Whenever the drain output goes to active potential other than in a normal drain cycle (i.e.. Leak Detection Switch or 2nd level pressure switch closed) the control is to save in nonvolatile memory the overflow fault code and continue the wash program.

4.8 TURBIDITY SENSOR FAILURE

A two-stage scheme is used for fault detection:

First stage – “fault suspected”: when a fault is first sensed, a fault suspected flag is set

Second stage – “fault found”: if the fault is sensed again the fault found flag is set

The second stage decides that the dishwasher system must run the default wash cycle, but if the fault was not sensed for a second time then the fault suspected flag is reset and the fault has been corrected.

To increase the signal to noise ratio of the turbidity measurement each turbidity value is an average of the current value

with the previous values and this represents one period of measurement.

There are 4 failure modes:

a. Low signal failure mode- the calibration routine ceases and the dishwasher system invokes the default wash cycle. This fault is non-correctable, does not have a fault suspected mode and the Low signal fault flag is set

b. High signal failure mode - the same like above but the High signal fault flag is set

Observation: a. & b. occurs when the calibration routine sets.

c. No signal failure mode - occurs when the turbidity sensor outputs no pulses (if the receiver failed or a dishwasher anomaly disrupts the signal from the receiver; if the LED failed the receiver could continue to send pulses, less than 200 in the measurement interval)

During the calibration phase if the sensor output is less than 200 pulses in the maximum interval of 3 seconds, then the Low signal fault is set. This condition is tested for each turbidity measurement. If fault is suspected, then the routine starts a counter, which will notify the fault detector when to check the average count value again. The next check will be after 4 samples of turbidity causing the detection period to occur over 8 samples of turbidity. If the new average value is again below the lower limit then the fault found flag is set and the system notifies a No signal fault.

d. Turbidity temperature sensor failure mode – when the control senses constant, abnormal voltages from turbidity temperature sensor. This condition for sensor fault is checked during each turbidity measurement.

This is a nonrecoverable fault the system invokes the default wash cycle.

The following LEDs are used to indicate the faults:

Low signal failure mode	- LED 2hr
High signal failure mode	- LED High Temp.
No signal failure mode	- LED 2hr.
Turbidity temperature sensor failure mode	- LED 4hr.

4.9 DOOR THERMISTOR FAILURE

During the wash cycle when door temperature is monitored, temperature sampling result is to be checked, in order to identify if the door thermistor is faulty.

If the Temperature sensed is below 32°F, then an Open Circuit Door Thermistor fault code is to be saved in memory for fault diagnosis during service.

If the Temperature sensed is above 210°F, then an Short Circuit Door Thermistor fault code is to be saved in memory for fault diagnosis during service.

If a door thermistor fault is detected during a wash and heat step of a cycle, then the heating element relay is to be de-energized, and wash program operation is to continue until the maximum time in that heating step has been reached, the program is then to proceed to the next step.

4.10 TEST FACILITIES

Several test functions are to be incorporated into the dishwasher control to facilitate fault finding.

Access to these test functions is via the normal front panel control switches.

Test functions incorporated are:

- 4.10.1 RELAY / TRIAC OUTPUT TEST
- 4.10.2 TEMPERATURE CALIBRATION TEST
- 4.10.3 WATER LEVEL SENSING OPERATION
- 4.10.4 TURBIDITY INPUT OPERATION
- 4.10.5 RINSE AID SWITCH INPUT OPERATION
- 4.10.6 FIELD TEST CYCLE
- 4.10.7 OVERFILL TEST
- 4.10.8 WATER FILL LEVEL
- 4.10.9 FAULT INDICATION
- 4.10.10 SPECIAL FUNCTIONS

6000 & 7000 Series DISHWASHERS

4.10.1 RELAY / TRIAC OUTPUT TEST (LATCHING MODE)

4.10.1.1 Models 6400/6500, 6700/6900, 6905, 7000

By pressing the following button sequence the relay output test mode can be accessed.

6400/6500	6700/6900	6905	7000 Series
#5 Heated Dry	#5 Smart Dry	#5 Smart Dry	#6 Smart Dry
#2 Normal Wash	#2 Normal Wash	#2 Normal Wash	#2 Normal Wash
#4 Sani Wash	#4 Rinse Only	#4 Rinse Only	#4 Rinse Only
#5 Heated Dry	#5 Smart Dry*	#5 Smart Dry*	#6 Smart Dry*
#8 Start Cancel	#8 Start Cancel	#8 Start Cancel	#8 Start Cancel

* **Note:** For 6700/6900, 6905 and 7000 series:

No beep will be heard when Smart Dry is pressed the second time, as Smart Dry is not a valid Customer option for a Rinse Only wash that was selected just prior.

Individual outputs can then be energized/de-energized by pressing the corresponding control button.

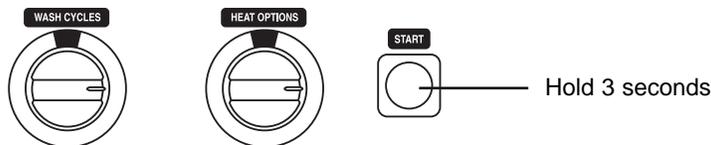
CONTROL BUTTON				OUTPUT CONTROLLED
6400/6500	6700/6900	6905	7000 Series	
#1 Pots & Pans	#1 Pots & Pans	<i>No Turbidity sensor fitted.</i>	#1 Pots & Pans	Turbidity Sensor. The SENSING LED, (or POTS & PANS LED on 7000 series), will light when there are valid turbidity sensor readings, (Refer 2.6).
#2 Normal Wash	#2 Normal Wash	#2 Normal Wash	#2 Normal Wash	Detergent/Rinse Aid Dispenser.
#3 China Crystal	#3 China Crystal	#3 Light Wash	#3 China Crystal	Drain Pump.
#4 Sani Wash	#4 Rinse Only	#4 Rinse Only	#4 Rinse Only	Heating Element + <i>Drying LED*</i> .
#5 Heated Dry	#5 Smart Dry	#5 Smart Dry	#6 Smart Dry	Continuously pulses the Heating element as per the Smart/Heated Dry – Post Heatup Drying Pulse specification.
#6 Water Temp	#6 Water Temp	#6 Water Temp	#6 Water Temp	Wash Pump.
#7 Delay Start	#7 Delay Start	#7 Delay Start	#7 Delay	Fan Motor.
#8 Start Cancel	#8 Start Cancel	#8 Start Cancel	#8 Start Cancel	Fill valve, (limited to 3 minutes o prevent flooding).

* **7000 Series note:** There is no Drying LED on the 7000 series. Special attention is required when activating the heater, to ensure it is not accidentally left on.

The relay / triac output test can be cancelled by, repeating the button sequence shown above, or by removing power.

6000 & 7000 Series DISHWASHERS

4.10.1.2 Models 6600 and 6605



To access the output latching mode on Rotary Models 6600, 6605 align the wash cycles and heat options indicators on the knobs with the Start/Cancel button (both knobs horizontal and pointing towards start/cancel button, then press and hold for 3 seconds the Start/Cancel button when no program LEDs are on. Both LEDs are to turn on for 1 second to indicate that the output test mode has been accessed.

To turn on an output, rotate the control knobs to the corresponding output to be controlled. (Refer table below). Then press the Start/Cancel button momentarily to latch that output on. Pressing the Start/Cancel button again will turn that output off. More than one output can be latched on at any one time.

To monitor the status of an input signal, rotate the control knobs to the corresponding input to be monitored, (Refer table below). The WASH CYCLES LED will then indicate the status of the selected input. (*Note: To aid testing, the Water Level can be monitored while controlling the Drain pump, Wash pump, or the Fill valve*).

CONTROL KNOB POSITIONS

(Wash Cycle / Heat Option)

6600	6605	OUTPUT CONTROLLED.	INPUT MONITORED.
Pots & Pans / Normal	<i>Not applicable, no turbidity sensor.</i>	Turbidity Sensor.	Turbidity Sensor. The WASH CYCLES LED will illuminate when there are valid turbidity sensor readings.
Normal Wash / Normal	Normal Wash / Normal	Detergent/ Rinse Aid Dispenser.	Rinse Aid Level Switch. The WASH CYCLES LED will illuminate when the low rinse aid reed switch is closed.
China Crystal / Normal	Light Wash / Normal	Drain Pump Motor.	Water Level. The WASH CYCLES LED will illuminate when water is detected, and Flash at 1Hz. when overflow is detected. <i>Note: Overflow can not be detected while the drain pump is activated.</i>
Speed Wash / Normal	Speed Wash / Normal	Heating Element (Calrod) & HEAT OPTION LED.	Door Thermistor. The WASH CYCLES LED will illuminate when a calibration point of 113°F is reached. Open and short circuit detection also exists.
Rinse Only / Normal	Rinse Only / Normal	Wash Pump.	Water Level. The WASH CYCLES LED will illuminate when water is detected, and Flash at 1Hz. when overflow is detected.
Pots & Pans / Normal & Heat Dry	Heavy Duty / Normal & Heat Dry	Drying Fan Motor.	None. The WASH CYCLES LED will not illuminate.
Normal Wash / Normal & Heat Dry	Normal Wash / Normal & Heat Dry	Fill valve, (limited to 3 minutes to prevent flooding).	Water Level. The WASH CYCLES LED will illuminate when water is detected, and Flash at 1Hz. when overflow is detected.

The output test mode can be cancelled by, pressing and holding down the Start/Cancel button for 3 seconds, or by turning off the power to the control.

4.10.2 TEMPERATURE CALIBRATION TEST

4.10.2.1 Models 6400/6500, 6700/6900, 6905.

During the Relay/Triac output test (Refer 4.10.1) the program and option LEDs form a bar graph display indicating the temperature of the door thermistor. See table below.

Note: A thermistor resistance of 1K7=113°F water temperature.

LEGEND: O = LED OFF X = LED ON

Thermistor Temperature (°F)

6400 / 6500	POTS & POTS	NORMAL WASH	CHINA CRYSTAL	SANI WASH	HEATED DRY	WATER TEMP	DELAY START
6700 / 6900	POTS & POTS	NORMAL WASH	CHINA CRYSTAL	RINSE ONLY	SMART DRY	WATER TEMP	DELAY START
6905	HEAVY DUTY	NORMAL WASH	LIGHT WASH	RINSE ONLY	SMART DRY	WATER TEMP	DELAY START
34-75 DEG	O	O	O	O	O	O O O	XX
77-93 DEG	O	O	O	O	O	XXX	XX
95-111 DEG	O	O	O	O	X	XXX	XX
113 DEG	O	O	O	O	X	O	O
115-129 DEG	O	O	O	X	X	XXX	XX
131-147 DEG	O	O	X	X	X	XXX	XX
149-165 DEG	O	X	X	X	X	XXX	XX
167-210 DEG	X	X	X	X	X	XXX	XX

An open circuit thermistor or temperature sensed below 32°F - all program and option LEDs are to turn on.

A closed circuit thermistor or temperature sensed above 210°F - all program and option LEDs are to flash at a 0.5 second on 0.5 second off rate.

4.10.2.2 Models 6600, 6605, and 7000.

During the Relay/Triac output test, (Refer 4.10.1), If the temperature calibration point of 113°F is reached, then Smart Dry LED will illuminate on 7000 series machines, alternatively the WASH CYCLES LED will illuminate on Rotary machines (provided Door Thermistor monitoring was selected).

If an open circuit thermistor is detected, (temperature sensed is below 32° F), then the indicator LED will flash at a 1 second on, 1 second off rate.

If a short circuit thermistor is detected, (temperature sensed is above 210° F), then the indicator LED will flash at a 0.5 second on 0.5 second off rate.

Notes: No other thermistor temperatures are displayed.

A door thermistor resistance of 1K7W = 113°F water temperature.

4.10.3 WATER LEVEL SENSING OPERATION

Models 6400/6500, 6600, 6605, 6700/6900, 6905 ,7000 Series.

During the Relay/Triac output test (Refer 4.10.1) the **RINSING** LED, (**RINSE ONLY** LED on 7000 series), (or the **WASH CYCLES** LED on Rotary machines, provided Water Level monitoring was selected), will indicate the water level in the dishwasher.

IF the second level pressure switch, or the under sump switch, activates the drain pump, (i.e.. Overfill detected),

THEN the indicator LED will Flash at 1Hz.

ELSE IF the Pressure switch circuit is open, (water detected),
THEN the indicator LED will be constantly illuminated.

ELSE the indicator LED will not be illuminated, (i.e.. Water not detected).

Note: Overfill can not be detected while the drain pump is activated.

6000 & 7000 Series DISHWASHERS

4.10.4 TURBIDITY INPUT OPERATION

Models 6400/6500, 6600, 6700/6900, 7000 Series.

Note: There is no turbidity sensor on the 6605 and 6905 models.

During the Relay/Triac output test (Refer 4.10.1) the **SENSING LED**, (**POTS & PANS LED** on 7000 series), (or the **WASH CYCLES LED** on Rotary machines, provided Turbidity Sensor monitoring was selected), will indicate if the turbidity sensor is operating correctly.

The LED is to illuminate only when the turbidity sensor is outputting both, a valid turbidity frequency, and a valid temperature signal, to the controller.

4.10.5 RINSE AID SWITCH INPUT OPERATION

Models 6400/6500, 6600, 6605, 6700/6900, 6905, 7000 Series.

During the Relay/Triac output test (Refer 4.10.1) the **WASHING LED**, (**NORMAL WASH LED** on 7000 series), (or the **WASH CYCLES LED** on Rotary machines, provided Rinse Aid Level Switch monitoring was selected), will function as a Rinse Aid Level Switch status indicator.

The LED is to illuminate only when the low rinse aid level reed switch is closed.

4.10.6 FIELD TEST CYCLE

4.10.6.1 Models 6400/6500, 6700/6900, 6905, 7000 Series.

To start the Field Test Cycle on push button models, press the buttons in the sequence shown below:

6400/6500	6700/6900	6905	7000 Series
#5 Heated Dry	#5 Smart Dry	#5 Smart Dry	#6 Smart Dry
#2 Normal Wash	#2 Normal Wash	#2 Normal Wash	#2 Normal Wash
#4 Sani Wash	#4 Rinse Only	#4 Rinse Only	#4 Rinse Only
#5 Heated Dry	#5 Smart Dry*	#5 Smart Dry*	#6 Smart Dry*
#1 Pots & Pans	#1 Pots & Pans	#1 Heavy Duty	#1 Pots & Pans

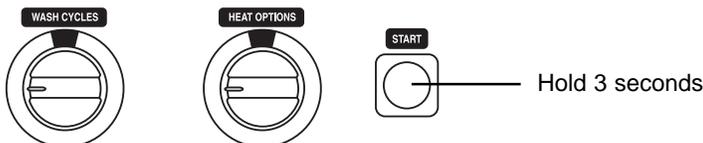
* **Note:** For 6700/6900, 6905 and 7000 series:

No beep will be heard when Smart Dry is pressed the second time, as Smart Dry is not a valid Customer option for a Rinse Only wash that was selected just prior.

4.10.6.2 Models 6600 and 6605.

To start the Field Test Cycle on Rotary models, the following steps must be performed:

1. Ensure the dishwasher is in Standby (OFF) with no program LEDs on;
2. Align the WASH CYCLES and HEAT OPTIONS knobs so that both knobs are horizontal with their position indicators pointing away from the Start/Cancel button;
3. Press and hold the Start/Cancel button for 3 seconds.



FIELD TEST CYCLE

STEP	ACTION	TIME/sec	COMMENTS (Note 1).
1	IDENTIFY MODEL TYPE Disable Child Lockout and Buzzer Silencing Modes. Set Fill Time = 30 seconds. Clear any fault codes stored in memory.	5	6400/6500 2 LEDs on 2 Beeps 6700/6900 7000 3 LEDs on 3 Beeps 6905 4 LEDs on 4 Beeps 6600 Heat Options LED on 1 Beep 6605 Wash Cycles LED on 4 Beeps

FIELD TEST CYCLE

STEP	ACTION	TIME / Sec	COMMENTS (Note 1)
2	LED and Button TEST	Unlimited	<p>For Push button models: The buzzer will sound for 0.5 seconds at the start of the step. Turn each Status LEDs on individually for a 1/2 second from top to bottom, (if fitted). Each Program/Option LED will turn on individually, from left to right and top to bottom, progressing only when the button associated with the LED is pressed. Note: If multiple LEDs are associated with a button then the button will need to be pressed once for each LED. All LEDs will then turn on until the Start/Cancel button is pressed.</p> <p>For Rotary control models: Both LEDs and Buzzer on for 3 seconds. Then each LED on individually for a 1/2 second from left to right.</p>
3	Checks TURBIDITY sensor for valid frequency and valid thermistor resistance, (only checked for turbidity sensing models). Checks DOOR THERMISTOR for valid resistance.	3	The buzzer will sound for 0.5 seconds at the start of the step. The Sensing or Pots & Pans LED will be on.
4	FILL.	10	The buzzer will sound for 0.5 seconds at the start of the step. The Normal or Pots Normal LED will be on. (Limited to 3 minutes if STEP HOLD function is activated. Refer section 4.9.7 Overfill test).
5.1	DRAIN.	15	The buzzer will sound for 0.5 seconds at the start of the step. The China Crystal LED, (or Light Wash LED on a Pot washer), will be on.
5.2	If (Pressure switch = Reset) continue, else indicate NOT DRAINING error.	n/a.	The China Crystal LED, (or Light Wash LED on a Pot washer), will be on.
6.1	FILL.	30	The buzzer will sound for 0.5 seconds at the start of the step. The Rinse Only or Sani Wash LED will be on. (Limited to 3 minutes if STEP HOLD function is activated). Refer section 4.10.7 Overfill test).
6.2	If (pressure switch = Set) continue, else indicate NOT FILLING error.	n/a	The Rinse Only or Sani Wash LED will be on.
7.1	FILL + WASH.	30	The buzzer will sound for 0.5 seconds at the start of the step. The Rinse Only or Sani Wash LED will be on. (Limited to 3 minutes if STEP HOLD function is activated). Refer section 4.10.7 Overfill test).
7.2	PAUSE	3	The Rinse Only or Sani Wash LED will be on.

FIELD TEST CYCLE

STEP	ACTION	TIME / Sec	COMMENTS (Note 1)
8	WASH + DISPENSE.	60	The buzzer will sound for 0.5 seconds at the start of the step. The Smart or Heated Dry LED will be on.
9	WASH + HEAT to 140°F. IF (temperature rise is not greater than 9°F in 15 minutes) THEN indicate NOT HEATING error.	Max 20 minutes	The buzzer will sound for 0.5 seconds at the start of the step. The Water Temp Normal LED will be on.
10	WASH	30	The buzzer will sound for 0.5 seconds at the start of the step. The Water Temp Hot or Sani LED will be on.
11.1	FAN + DRAIN	20	The buzzer will sound for 0.5 seconds at the start of the step. The Delay Start 2hr LED will be on.
11.2	If (Pressure switch ==Reset) continue, else indicate NOT DRAINING error.	n/a	The Delay Start 2hr LED will be on.
11.3	FAN + DRAIN	30	The Delay Start 2hr LED will be on.
12	FAN	40	The buzzer will sound for 0.5 seconds at the start of the step. The Delay Start 4hr LED will be on.
	Test Complete.	n/a	The buzzer will sound for 0.5 seconds. CLEAN LED is on.

Notes:

- Rotary models do not have any of the specific indicator LEDs mentioned. For rotary models, the only indication of progress from one major step to another is the buzzer sounding for 0.5 seconds at the start of each major step, where indicated.
- If a fault is detected during the test cycle, then the controller will: Stop the test; Shutdown all outputs; Sound the buzzer continuously; Immediately indicate the fault using the same indication method as described in section 4 FAULT INDICATION, (note fault codes will not be stored); Then wait for the Start/Cancel button to be pressed, at which time the buzzer will be silenced.
- On Push-button control models, pressing the Water Temp Button is to hold the outputs on in the current step, (except for the "LED and Button Test", and filling steps where a 3 minute time limit exists in order to prevent flooding). Pressing Water Temp Button again will allow progression.
- On Rotary control models, Turning the HEAT OPTIONS knob such that the position indicator is pointing towards the Heat Options LED, will cause the control to hold the outputs on in the current step, (except for filling steps where a 3 minute time limit exists in order to prevent flooding). Turning the HEAT OPTIONS knob such that the knob is horizontal with the position indicator is pointing away from the Start/Cancel button again, will allow the test to progress again.
- On Push-button control models, pressing the Delay Start button is to advance the control into the next step, except during the Model Identification, and LED and Button Test steps.
- On Rotary control models, Turning the WASH CYCLES knob so it is horizontal with the position indicator pointing away from the Start/Cancel button, and then turning the WASH CYCLES knob so the position indicator is pointing towards the Wash Cycles LED, will cause the control to advance into the next cycle step, except during the Model Identification, LED Test and drain steps. To advance the test again, this sequence must be repeated.
- Pressing and holding down the Start/Cancel button for 3 seconds at any stage, (including if a fault has been detected), is to return the control to the stand-by state, by turning off all LEDs, then draining until 45 seconds after the 1st level pressure switch detects empty, (or for 30 seconds if empty was detected when draining started). The last used Wash program and Option LEDs will flash during the pump out period.

Buzzer silencing mode has no effect during this mode.

4.10.7 OVERFILL TEST

Models 6400/6500, 6600, 6605, 6700/6900, 6905, 7000 Series.

This test is used for checking the operation of the second level pressure switch or under sump switch circuits as part of an off line audit. The test involves turning on the fill valve until the control senses that an overflow fault condition has occurred (drain pump running). Then the control is to display the overflow fault code (not to be saved in memory) and turn off the fill valve.

Access the Field Test Cycle. Refer [Section 4.10.6](#)

For Push-button control models:

While in step 4 (FILL), press the Water Temperature Button, the fill valve will then turn on, (time limited to 3 minutes).

For Rotary control models:

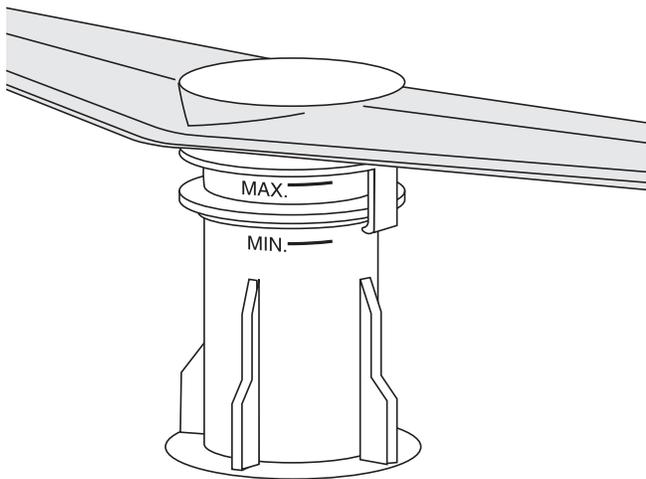
While in step 4 (FILL), turn the HEAT OPTIONS knob such that the position indicator is pointing towards the Heat Options LED, the fill valve will then turn on, (time limited to 3 minutes).

For all models:

Pressing and holding down the Start/Cancel button for 3 seconds at any stage, is to return the control to the stand-by state, by turning off all LEDs, then draining until 30 seconds after the first level pressure switch detects empty.

4.10.8 Fill level

For best performance, check the fill level of your dishwasher.



Once the dishwasher is fully connected, run it through a complete **Rinse Only** cycle to ensure it is emptying and filling correctly. For low water pressure situations run **Rinse Only** cycle 3 times. Half way through the final **Rinse Only** cycle, pause the dishwasher and check the water level inside the dishwasher. If the water level is not above the minimum water level (marked on the lower spray support tower), increase the fill level.

1. Ensure the dishwasher is not running through a cycle. Depress the **Water Temp** button for ten seconds until the buzzer sounds.

2. Press the **Start/Cancel** button to select fill time, as per chart (factory setting is 65 seconds). Continue to press the **Start/Cancel** button until the desired indicator is illuminated.

Cycle Status Indicator	Fill Time
Sensing	55 seconds
Washing	60 seconds
Rinsing	65 seconds
Drying	75 seconds
Clean	85 seconds

3. To test time, press **Delay/Start**. The dishwasher will start filling. Listen for the dishwasher to complete filling. Once filled, the fill level must be checked to ensure fill time is correct.

4. Once complete, press the **Water Temp** button to exit fill time.

4.10.10 Special Functions

4.10.10.1 Child Lockout Mode (C.L.M.)

This function is not available on Rotary Models 6600 and 6605

Child lockout mode is to reduce the possibility of unauthorized use of the dishwasher by not allowing a valid button press until it has been held down for 2 seconds or longer.

To enable this feature, POTS & PANS, (or POTS HEAVY on 6905) and START/CANCEL buttons must be pressed and held down together for 2 seconds or longer, after 2 seconds the buzzer will pulse on/off 3 times @ 6 cycles per second, indicating Child Lockout Mode enabled.

To activate a button once in C.L.M. a button must be held down for 2 seconds or longer to activate it.

For 6400/6500, 6700/6900, and 6905 models:

Upon pressing a button while in C.L.M., the Sensing & Clean LEDs are to be turned on, the buzzer is not to sound nor an output condition change until the button is held down for 2 seconds. The buttons are then to remain unlocked until 10 seconds after the last button press.

For 7000 series models:

Upon pressing a button while in C.L.M., all four wash program LEDs are to be turned on, the buzzer is not to sound nor an output condition change until the button is held down for 2 seconds. The buttons are then to remain unlocked until 10 seconds after the last button press.

To disable C.L.M. POTS & PANS, (or POTS HEAVY on 6905) and START/CANCEL buttons must be pressed and held down together for 2 seconds after which the buzzer will sound for 0.5 seconds indicating C.L.M. is disabled.

Note: Buzzer silencing mode has no effect when enabling and disabling this mode.

4.10.10.2 Suspend Mode

Models 6600,6605 and 7000 have no suspend mode indication

The suspend mode is intended to prevent water being pushed under the door, due to rapid expansion of the ambient temperature air inside a recently closed dishwasher cabinet, when hot water is initially recirculated (sprayed) throughout the cabinet. This is achieved by providing a delay, from when the dishwasher door is closed until the recirculation (Wash) pump is started, so that the air inside the cabinet can be heated slowly by natural convection. This delay is only necessary when the water is significantly hotter than the ambient air.

If the door switch contacts open after a program has been started, while the water temperature as sensed by the door thermistor is greater than 113°F, then the Suspend Timer shall be started once the dishwasher door is closed again. The Suspend Timer shall not be affected by the dishwasher being in a paused state. Suspend mode can not be overridden in any way.

While the Suspend Timer is active, any output step combination that involves the Recirculation (Wash) pump shall be suspended, until the Suspend Timer period expires. (This includes test modes). For example: Fill & Wash, Wash, Wash & Heat, Wash & Heat & Dispense, etc. steps will be suspended. However: Fill, Heat-Dry, Drain, Fan, etc. steps will not be suspended.

The Suspend Timer period shall be 90 seconds and shall only count down when the door is closed, regardless of whether the program is paused or not. The suspend time shall be reset to 90 seconds if the door is opened again during suspend mode.

Once the Suspend Timer has expired, (counted down from 90 seconds to zero), the program shall automatically continue, unless in the paused mode, in which case it shall remain paused until the program button or start button is pressed again.

LED operation during Suspend

While in suspend mode with the door closed and the machine paused, the **SENSING** LED shall be on and the selected program LED is to flash at a rate of, 1 second on, 1 second off.

While in suspend mode with the door closed and the program not paused, the **SENSING** LED and the selected program LED shall be on.

4.10.10.3 Buzzer silencing

This feature is not available on Rotary models 6600 and 6605.

The buzzer can be silenced by pressing **START/CANCEL** and **NORMAL WASH**, (or **POTS NORMAL** on 6905), buttons together. Subsequent pressing of both buttons together will enable/silence the buzzer. When silencing the buzzer is not to sound.

When enabling the buzzer a 0.5-second beep should be heard.

The buzzer silencing feature will only affect normal customer operation. It will not affect any of the test modes, or Special functions.

4.10.10.4 Toggle Light Mode (7000 series only).

This feature is only available on 7000 series models.

The Toggle Light mode allows the Program and Option LEDs to be observed while the door is closed, during normal customer operation. This mode does not affect test modes, as test modes do not turn off the LEDs when the door is closed.

This feature is enabled by holding down the **SMART DRY** and **START/CANCEL** buttons for 3 seconds or longer. After 3 seconds the buzzer will sound for 0.5 seconds to indicate that the mode has been enabled.

This feature is disabled by holding down the **SMART DRY** and **START/CANCEL** buttons for 3 seconds or longer. After 3 seconds the buzzer will sound for 0.5 seconds to indicate that the mode has been disabled, (no LEDs will flash). Alternatively this mode will be disabled when power is removed.

Note: Buzzer silencing mode has no effect when enabling and disabling this mode

4.11 GENERAL DIAGNOSTICS - All Models except 6600 & 6605

4.11.1 Overfill Mode - Drain Pump Operating Continuously

Symptom: Overfill mode indicated by **Heated Dry** or **Smart Dry** LED rapidly flashing and drain pump continuously operating.

An overfill mode may occur if the correct fill time mode not been selected in relation to the water pressure supplied to the dishwasher.

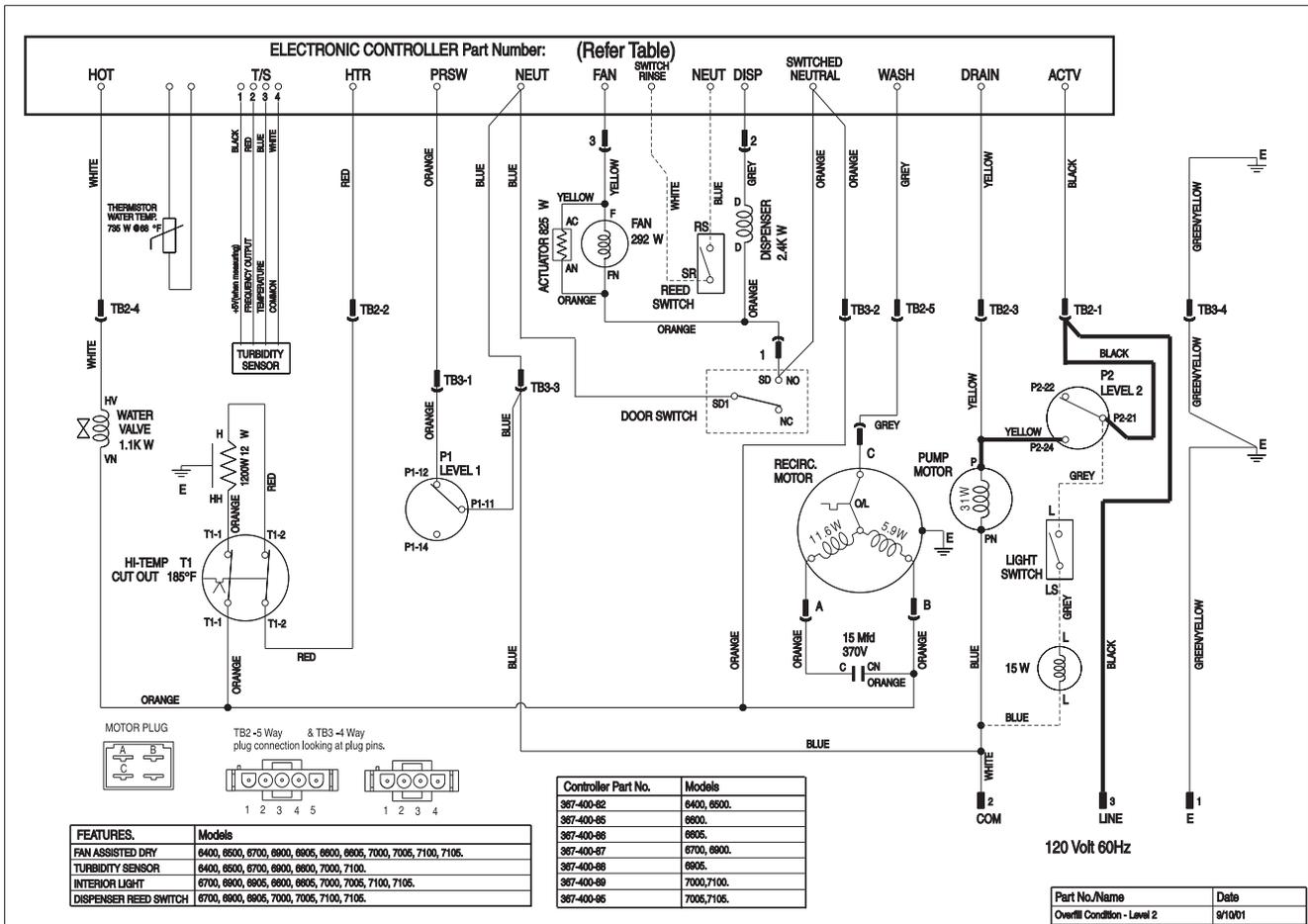
Three functions occur with the Overfill Pressure Switch (Level 2) contacts P2-21 & P2-24 continuity circuit and are listed accordingly:

- A circuit is connected to the Drain Pump. In this mode the Drain Pump will run continuously.
- A further function provides an active supply to the drain tab terminal of the electronic Power Control Board. A monitor circuit within the electronic Power Control Board is activated when the drain tab terminal has an active potential. All outputs from the electronic Power Control Board are terminated.
- The **Heated Dry** or **Smart Dry** LED will rapidly flash.

Refer to the following circuit diagram which illustrates an overfill condition with the active circuit highlighted.

Circuit Diagram: Overfill Condition with the active circuit highlighted

Important. Check all wiring connections before reconnecting to supply.



4.11.2 Overfill Mode - Drain Pump Not Operating

Symptom: Overfill mode indicated by *Heated Dry* or *Smart Dry* LED rapidly flashing, all outputs terminated and the Drain Pump NOT operating.

The electronic Power Control Board continuously monitors the complete drain and Drain Pump circuit from the DRAIN tab terminal to the N terminal on the Mains Terminal Block. In effect the “watch dog circuit”, ensures if an open circuit is present as a 120 V AC neutral, the *Heated Dry* or *Smart Dry* LED will rapidly flash to indicate an overfill. All outputs from the electronic Power Control Board will be terminated.

The complete 120 V AC neutral circuit with the Drain Pump field windings of DC resistance 35 ohms, must provide continuity from the electronic Power Control Board tab terminal DRAIN to the neutral N terminal of the Mains Terminal Block.

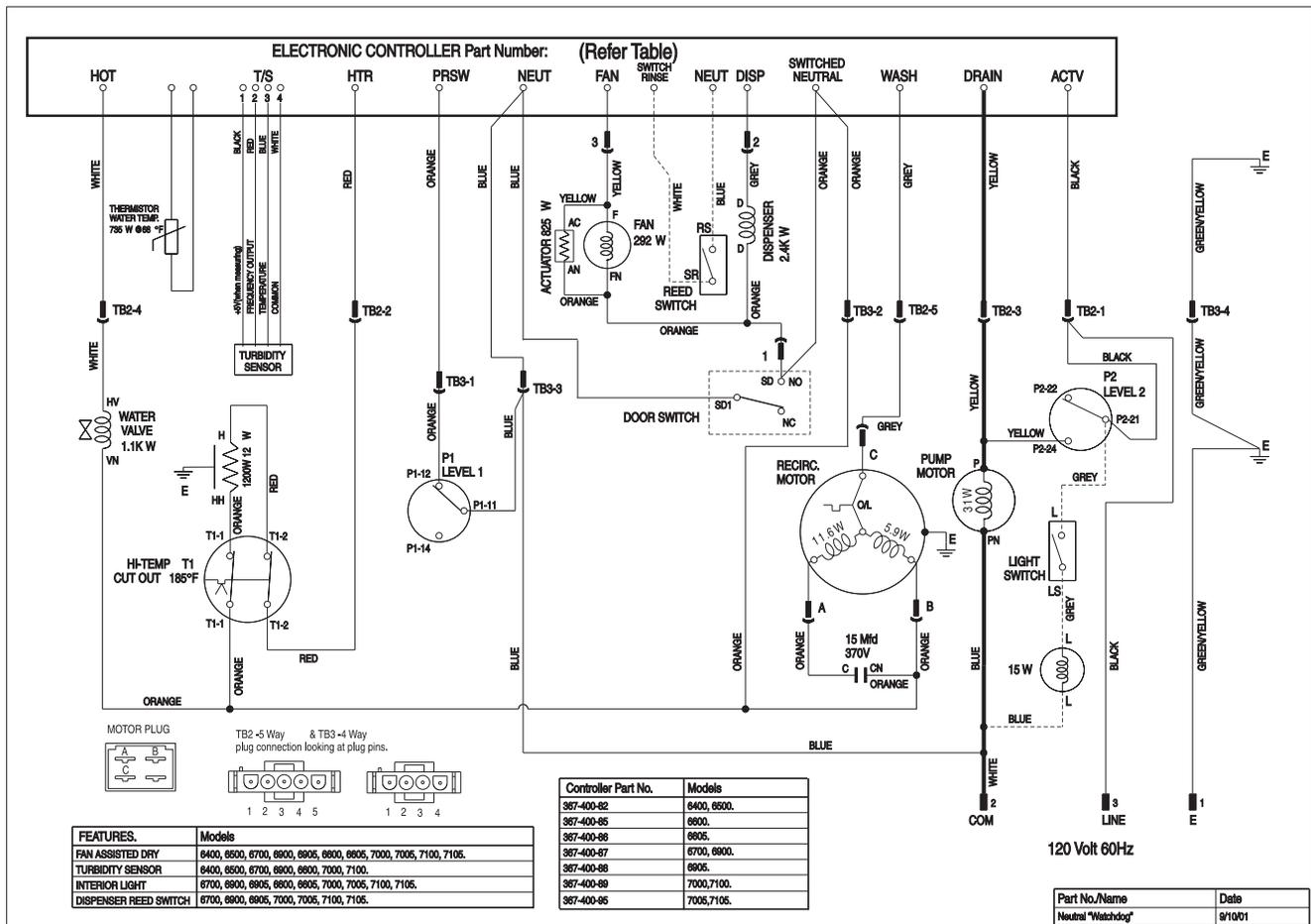
Refer to the following “Neutral” watch dog wiring circuit for drain mode.

The following malfunctions can cause the ‘*Heated Dry*’ or ‘*Smart Dry*’ LED to rapidly flash and terminate all outputs of the electronic Power Control Board.

- DRAIN tab terminal not attached to the electronic Power Control Board.
- Active cable not attached to Drain Pump tab terminal.
- Terminals at plug TB2-3 not connected.
- Open circuit of drain pump field windings - resistance 35 \pm 10% must be present.
- Neutral cable not attached to drain pump tab terminal.
- Neutral cable not connected to terminal of mains terminal block.
- Any faulty quick connect terminals in the neutral circuit.

Circuit Diagram: Neutral "Watch Dog" circuit for drain mode

Important. Check all wiring connections before reconnecting to supply.



4.11.3 Pressure Switch and Door Microswitch 120V AC neutral circuit

The Pressure Switch and Door Microswitch is in a series wiring configuration between the neutral N terminal of the Mains Terminal Block and the electronic Power Control Board tab terminal SWITCHED NEUTRAL. The electronic Power Control Board has three modes of 120 V AC neutral inputs to the following tab terminals:

- **Neutral:** Is a direct neutral supply from the N terminal of the Mains Terminal Block. It also provides a direct neutral to contact P1-11 of the Pressure Switch. The primary function is to power the neutral side of the 120 V AC transformer, which is continuously “on” to provide a secondary voltage of 12 V AC for the control rail and push button operation.
- **Pressure Switch:** A 120 V AC neutral circuit is provided to the electronic Power Control Board via the Pressure Switch contacts P1-11 to P1-12 (empty position). The function is to input to the controller, that the Pressure Switch is sensing an “empty” condition of the stainless steel tub. It also provides an input to the Power Control Board, wherein the Pressure Switch in the satisfied posi-

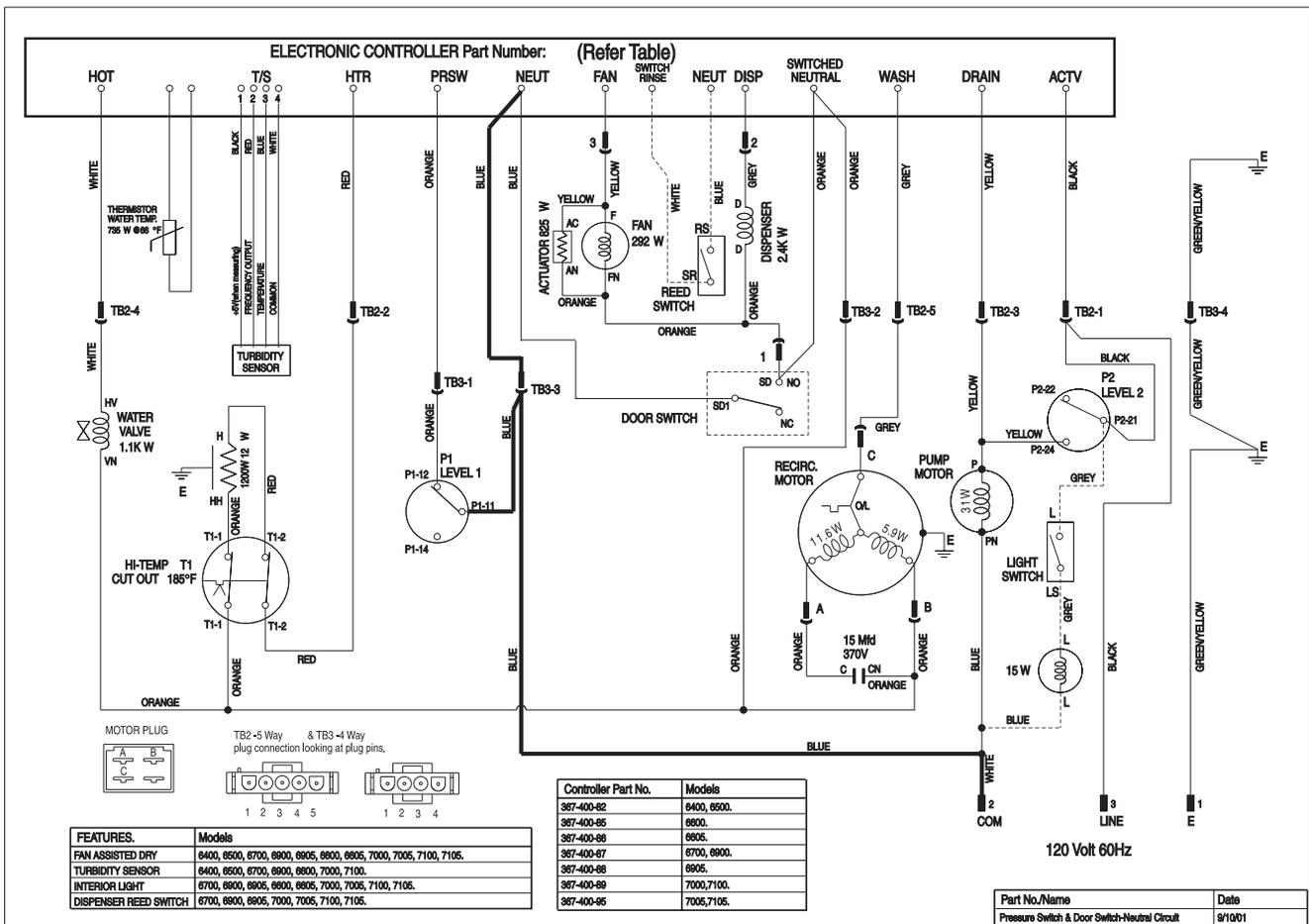
tion contact P1-11 to P1-14 (open circuit), senses water within the stainless steel tub.

- **Switched Neutral:** The switched neutral circuit from the N terminal of the Mains Terminal Block, is via the Door Microswitch, to the SWITCHED NEUTRAL tab terminal of the electronic Power Control Board. If the Main Door is opened all outputs (relay and triac outputs) will be disconnected.

NOTE: The Door Microswitch operates on a 120 V AC neutral circuit and carries the full operating current for relay and triac outputs.

Circuit Diagram: Neutral

Important. Check all wiring connections before reconnecting to supply.



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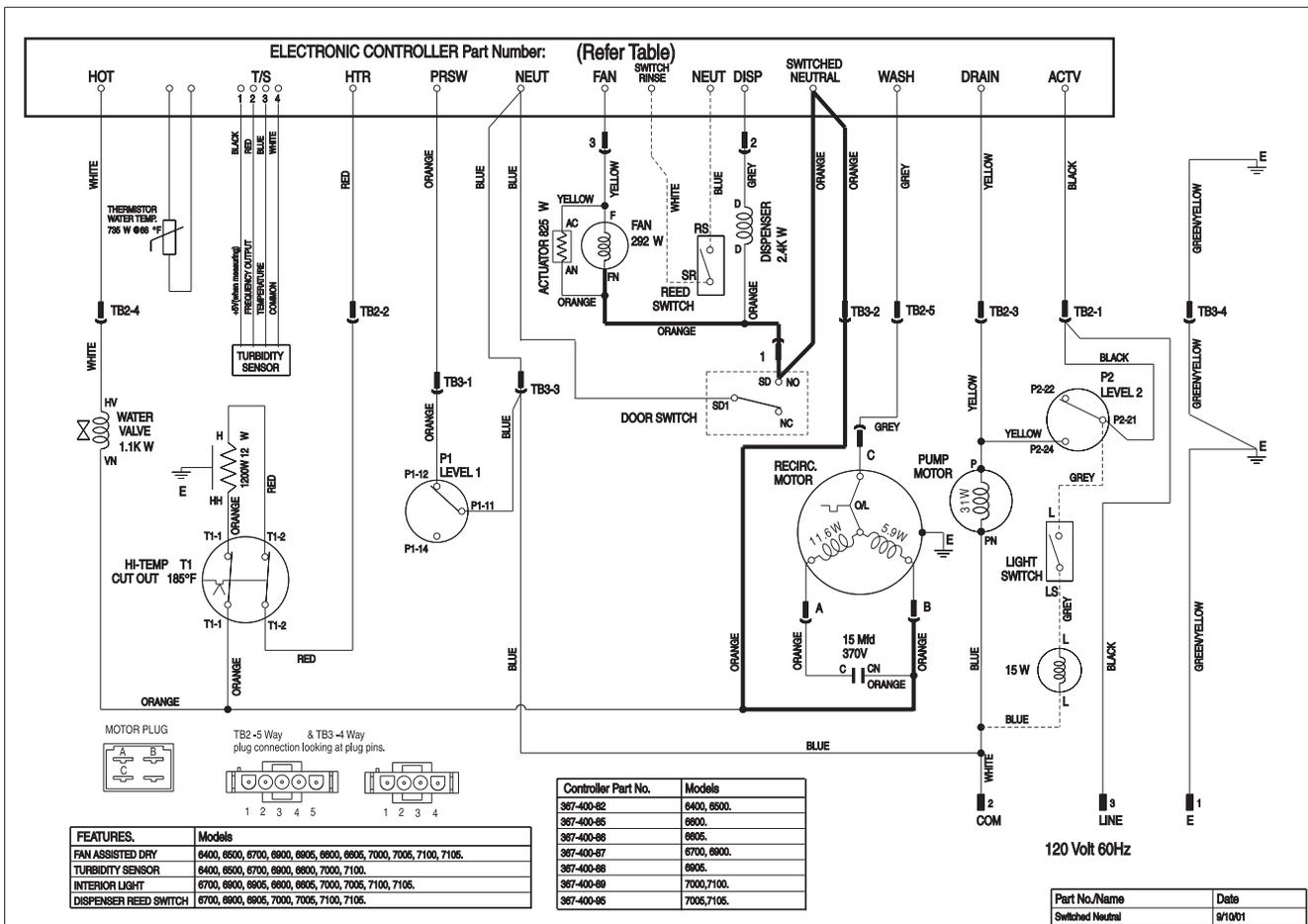
The “Switched Neutral” Circuit is designed to prevent operation of the following components, in the advent of the main door being left ajar to assist residual drying and/or a malfunction of the Power Control Board activating the Relay/Triac outputs:

- Detergent and Rinse Aid Dispenser
- Heating Element
- Water Inlet Solenoid Valve
- Wash Motor
- Fan Motor

Operation of the Door Micro Switch is therefore a 120V AC Neutral Circuit, which in the COM to NC position, open circuits the switched neutral circuit and hence prevents the operation of the above components.

Circuit Diagram: Switched Neutral Circuit

Important. Check all wiring connections before reconnecting to supply.



5.0 SERVICE PROCEDURES

5.1 GENERAL ACCESS

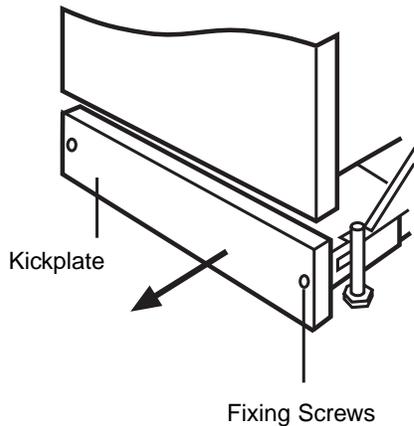
These dishwashers have a removable Kick Panel fitted in front of an Electrical Access Panel. These panels require removal to access under sump components such as thermostats, drain pump, water inlet solenoid valve, turbidity sensor, pressure switch, wash motor capacitor, heating element, wash motor, sump, drying fan etc.

The front door panel will require removal to gain access to the control panel and internal components such as PCB, door microswitch, door latching mechanism, wiring connections, detergent and rinse aid dispenser, etc.

5.1.1 Kick Panel removal

Remove the 2 fixing screws holding the Kickplate in position, then slide the Kickplate out from under the dishwasher.

Remove the sound insulation panel.

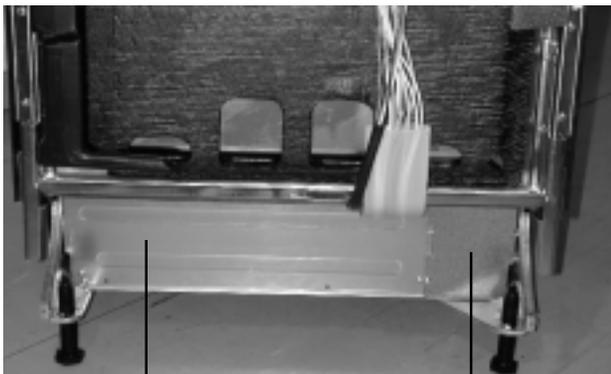


5.1.2 Electrical Access Panel removal

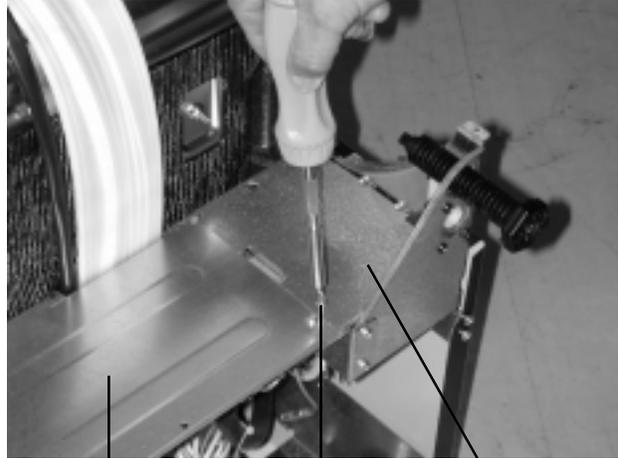


CAUTION. Switch off electrical power supply

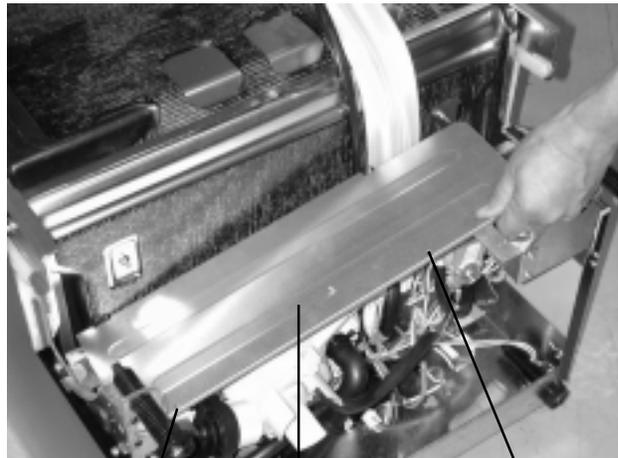
5.1.2.1 Remove the Door Front Panel. (Refer to 5.2.2 or 5.2.3)



5.1.2.2 Remove the Mains Terminal Cover.



5.1.2.3 Remove the Electrical Access Panel.

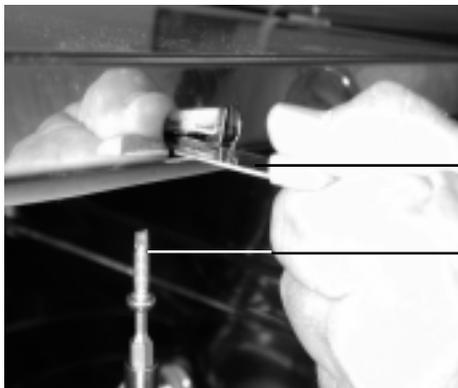


5.2 PROCEDURES

5.2.1 Door Latch



CAUTION. Switch off electrical power supply



Door Latch

Phillips headed screw.

5.2.1.1 To remove the Door Latch, loosen then remove the Phillips headed screw. Slide the Door Latch through the rectangular cut out in the front cabinet trim and lift the latch clear.

NOTE: 7000 Series Models have a door latch of a wire formed construction.

5.2.1.2 Reassemble the dishwasher in reverse order.

5.2.1.3 Operate and test dishwasher before leaving.

5.2.2 Door Panel for 6400, 6500, 6600, 6605 Models



CAUTION. Switch off electrical power supply

Note. The door panel must be removed to improve access to the control panel.

5.2.2.1 Open the door to the horizontal position.

5.2.2.2 Remove the 4 Phillips head stainless steel screws fitted to each side of the door to enable the Door Panel to be withdrawn from the stainless steel door liner. While removing the 8 stainless steel screws, ensure the Door Panel is supported to prevent paint damage. It is suggested to leave one central screw loose and in place for support while removing the 4 stainless steel screws on the other side of the door.

5.2.2.3 To remove the Door Panel, support the side with all 4 screws removed with your knee under the Door Panel while holding the Door Panel and stainless steel door liner together on the opposite side with your free hand and remove the remaining central screw.

5.2.2.4 Carefully lift the Door Panel clear from the dishwasher ensuring the lower section of the Door Panel clears the dishwasher and is not damaged.



Remove 4 screws each side of door

5.2.2.5 Reinstalling the Door Panel to the dishwasher requires the 4 Phillips headed stainless steel screws fitted to each side of the door to be replaced in reverse order as section 5.2.2.2

5.2.2.6 Operate and test dishwasher before leaving.

5.2.3 Door Panel Assembly - 6700, 6900, 6905 Models

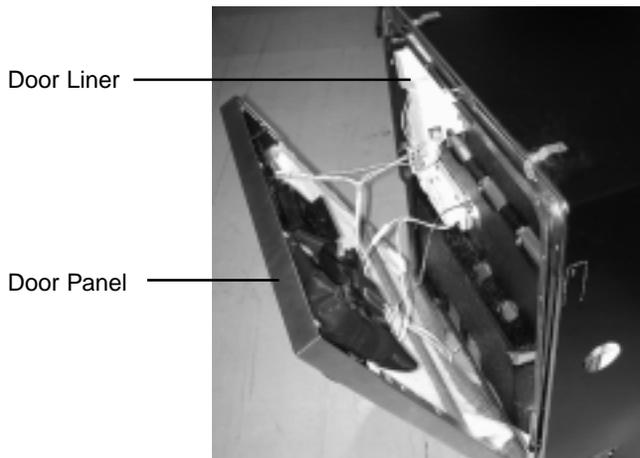


CAUTION. Switch off electrical power supply.

NOTE: These Models do not have a separate Control Panel. All controls are included in the door panel.

5.2.3.1 Remove the 6 Phillips Head countersunk stainless steel screws located across the top of the stainless steel door liner.

NOTE: The 6 screws have a “two start” or dual thread configuration. One thread is of a low profile while the other is of a high profile in order to prevent stripping of the Carrier Panel fixing points.



Door Liner

Door Panel

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5.2.3.2 Remove the 4 Phillips head stainless steel screws fitted to each side of the door to enable the Door Panel to be withdrawn from the stainless steel door liner. While removing the 8 stainless steel screws, ensure the Door Panel is supported. It is suggested to leave one central screw loose and in place for support while removing the three stainless steel screws on each side of the door.

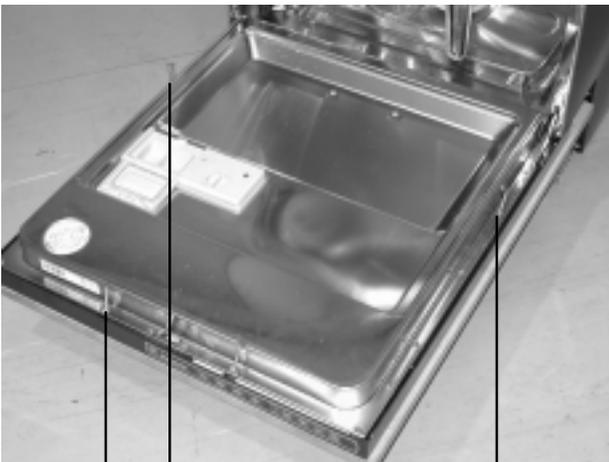
5.2.4 Door Panel for 7000, 7005, 7100 & 7105 Models



CAUTION. Switch off electrical power supply

Note. The door panel must be removed to improve access to the control panel.

5.2.4.1 Open the door to the horizontal position. Remove 3 Phillips head long (2 1/2") screws fixing the timber or stainless steel decorative panel to the door panel.



Screws fixing decorative panel

5.2.4.2 Close the door. Lift the decorative panel upwards to disengage the toggles holding it to the door panel. Pull the decorative panel forward and lift clear from the dishwasher.



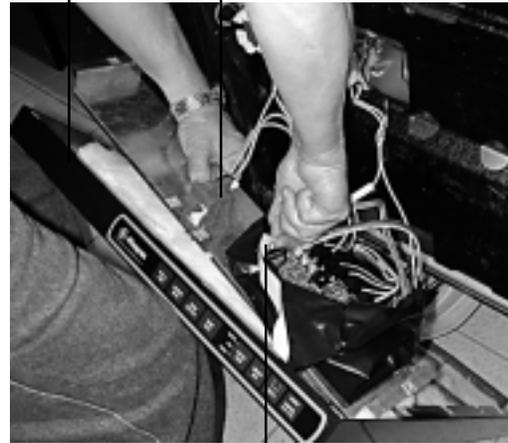
Lift panel upwards to disengage

5.2.4.3 Open the door to the horizontal position. Remove the remaining 13 Phillips head screws from the sides and top from the stainless door liner.

5.2.4.4 Supporting the door panel with your legs to hold it in position, grasp the metal carrier panel and remove the ribbon cable connector from the power control board as shown below.

Remove the 1/4" quick connect earth (ground) wire from the earth (ground) tab on the door.

Door Panel Metal Carrier Panel



Ribbon cable and connector

5.2.4.5 Lift the door panel clear. The power control board will remain on the carrier panel, giving access to both internal and external components.

NOTE: The wiring harness will restrict movement of the door panel.

5.2.4.6 Reassemble the dishwasher in reverse order.

5.2.4.7 Operate and test dishwasher before leaving.

5.2.5 Control Panel Assembly - 6400, 6500, 6600, 6605 Models



CAUTION. Switch off electrical power supply

5.2.5.1 Remove the six Phillips Head countersunk stainless steel screws located at the top section of the stainless steel door liner. Four screws are located on the top of the liner flange and one screw on each side.

If the Control Panel is too difficult to remove, it may also require removal of the outer door panel.

Note: The six stainless steel screws which retain the Control Panel have a “two start” or dual thread configuration. One thread is of a low profile while the other is of a high profile in order to prevent stripping of the Control Panel fixing points. The countersunk Phillips head 3/4" long stainless steel screws must be used for the Control Panel retention.



Remove the 6 screws side and top of door

5.2.5.2 Lift the complete Control Panel assembly clear from the stainless steel door liner to access both internal and external components.

Note: The wiring harness is retained within the main door and will restrict general service to the Control Panel and components. The door panel must be removed to improve serviceability to the Control Panel. Refer to section 5.2.2 to remove the Door Panel.

5.2.5.3 Reassemble the dishwasher in reverse order.

5.2.5.4 Operate and test dishwasher before leaving.

5.2.6 Power Control Board - All Models



CAUTION. Switch off electrical power supply

5.2.6.1 Remove relevant door and Control Panels.

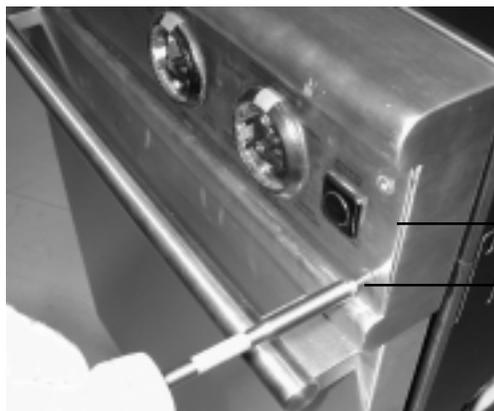
For Control Panels refer section 5.2.4

Carrier Panels and Dress Panels refer section 5.2.6

5.2.6.2 The Power Control Board has a switch/display board attached by a 1" wide dual ribbon cable. Release the retaining clips and lift the switch/display board away from the Carrier Panel.



On 6600 and 6605 models to access the switch/display board the control panel cover will need to be removed. This is done by pulling the two control knobs forward and off of the controls, then the four control panel cover fixing screws need to be removed and the cover lifted clear.



Control panel cover

4 screws

On 7000, 7005, 7100 & 7105 models to access the switch/display board the metal carrier panel will need to be removed. The switch/display board can be removed by releasing the ribbon cable connector from the power control board, then undoing 3 screws and 2 clips fixing it in position.

Ribbon cable and connector



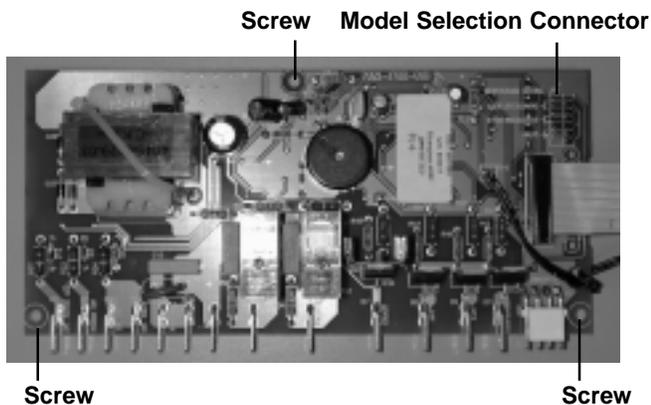
3 screws and 2 clips in door panel plastic housing

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5.2.6.3 A drip sheet (black PVC material as shown below) covers the Power Control Board and must be reinstalled if a Power Control Board is removed/replaced. Release the drip sheet from the power control board by removing the adhesive tapes.



Sealed PVC Drip Sheet covers the Power Control Board.



5.2.6.4 Undo the three (two start thread) mounting screws shown above, which fix the Power Control Board to the Carrier Panel.

5.2.6.5 Lift the Power Control Board clear of the Carrier Panel while feeding the Switch/LED Board through the slot in the Carrier Panel.

Note: On models 6600 and 6605, the ribbon cable will need to be disconnected from the switch/display board before the power control board is removed. This is done by unplugging the connector on the ribbon cable at the switch/display board.

5.2.6.6 If fitting a new Power Control Board, feed the new switch/LED Board through the slot in the Carrier Panel, position the new Power Control Board onto the Carrier Panel with the drip sheet underneath it.

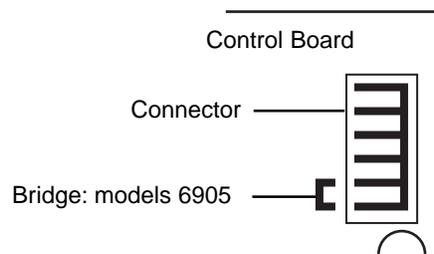
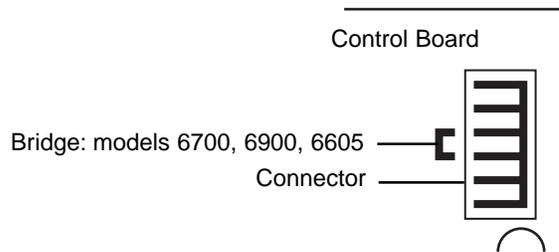
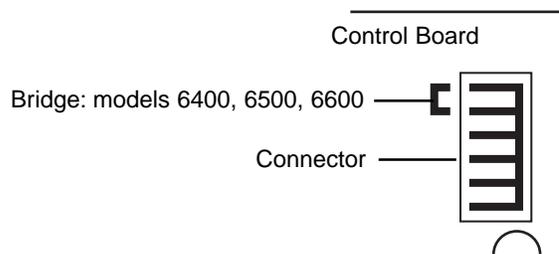
Align both Power Control Board and drip sheet with mounting holes on the Carrier Panel. Fit the central top retaining screw to the Carrier Panel, check alignment and fit the two lower retaining screws to the Carrier Panel.

5.2.6.7 Turn the Carrier Panel over and fit the switch/LED Board to the front of the Carrier Panel by engaging the clips at the top, aligning the two location holes at both ends of the board and engaging the retaining clips at the bottom.

5.2.6.8 Starting at one end of the Power Control Board that has been removed, remove each Quick Connect (Quick Connect) terminal and wire in sequence, and transpose onto the corresponding Quick Connect tab terminal of the replacement Power Control Board now fitted to the Carrier Panel.

IMPORTANT NOTE: To disconnect the Quick Connect terminals from the Power Control Board, do not remove by pulling on the wire. The correct method is to grasp the insulator covering the Quick Connect terminal and slide the insulator back towards the wire. This will unlatch the lock which is present with all Quick Connect terminals attached to the Power Control Boards.

Model selection connector located in one corner of the power control board is a connector with 6 pins, some of which may be bridged together to create different models. The bridging sequence is as follows.



Models 7000, 7005, 7100 & 7105 will not have any bridge fitted or may not even have a connector fitted to the control board.

5.2.6.9 Upon completion of the transposition of the Quick Connect terminals to the Power Control Board, check and establish that the loom numbering code (section 6.3) conforms to each relative terminal marking on the Power Control Board.

6000 & 7000 Series DISHWASHERS

5.2.6.10 Fold the sides of the drip sheets inward and fold the long wrap at the top of the Carrier Panel to the bottom of the Power Control Board.

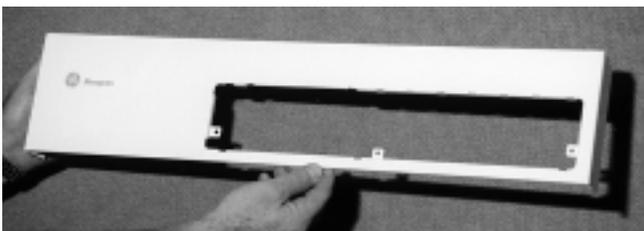
5.2.6.11 Apply adhesive tape to retain the drip sheet securely.

5.2.6.12 Reassemble dishwasher in reverse order.

5.2.6.13 Operate and test dishwasher before leaving.

5.2.7 Control Panel Assembly - Models 6400, 6500

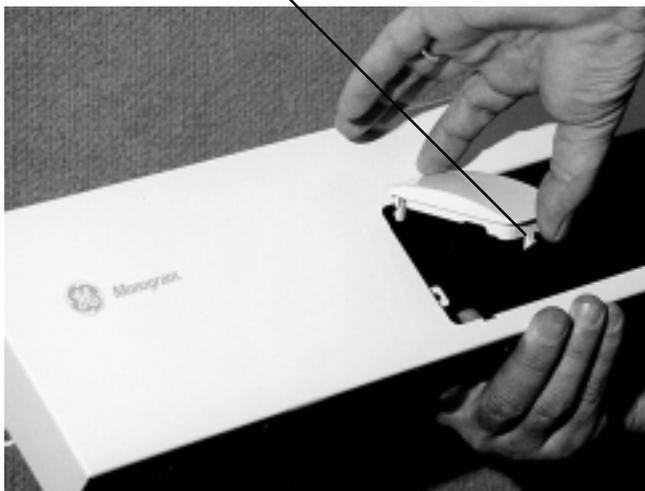
The installation of the Control Panel Assembly to the Stainless Steel Door Liner is covered in Sections 5.2.2-5.2.4. Prior to removing the Control Panel from the dishwasher, remove the Door Panel as damage to the PCB can result.



5.2.7.1 Steel Control Panel: The Steel Control Panel houses Carrier Panel (see section 5.2.6.4) to which are attached Dress Panels and Door Handle components to form an operator Control Panel. Component removal/reinstallation details are as follows.

5.2.7.2 Control Panel left hand side Dress Panel: The left hand side Dress Panel fits over the front of the Control Panel and clips into the Carrier Panel behind. To remove, press out the bottom clip from behind the panel, then carefully lift the bottom up and pull away from the front. Reassemble in reverse order.

Bottom clip



5.2.7.3 Control Panel right hand side Dress-Panel: The right hand side Dress Panel is attached and removed in a similar manner to section 5.2.6.2. The three lens assemblies are retained on the rear face of the Panel.

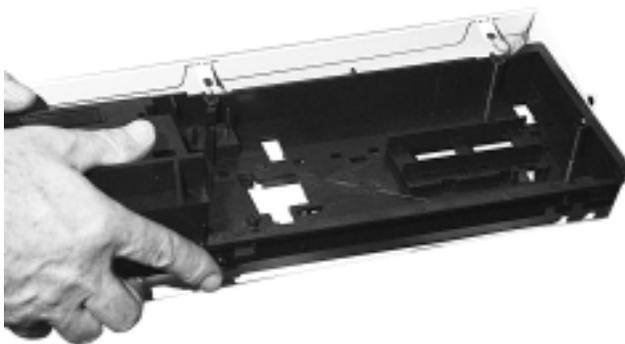
NOTE: While removing the Panel ensure the 6 retaining clips are not damaged. The bottom clips should be pressed out first during removal, and clipped in last on assembly. This will allow the small locaters molded to the top of the panel, to enter mating recesses in the steel Control Panel window. Reassemble in reverse order.



5.2.7.4 Carrier Panel: The Carrier Panel is removed from the assembly by bending the two side metal retainers on the Control Panel to a vertical position.

NOTE: There are 4 plastic "spacers" fitted to the Carrier Panel beneath the top metal retainers.

Unscrew 3 steel screws from the front of the Panel and lift the Carrier Panel away from the Control Panel in an outward and upwards direction. Reassemble in reverse order.



5.2.7.5 Power Control Board: For removal/reinstallation refer to section 5.2.5. The procedures are similar for both 6400, 6500, 6700 & 6900 models.

5.2.7.6 Door Lock Microswitch: Refer to 5.2.4.5 for removal/reinstallation of the Doorlock/ Microswitch.

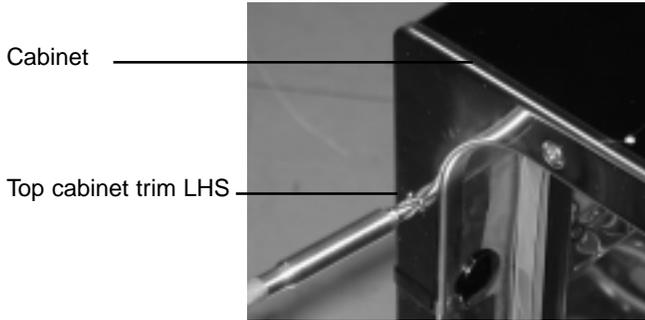
5.2.7.7 Door Handle/Door Handle Cover Plate: Refer to 5.2.4.5 for removal/reinstallation of the Door Handle/Door Handle Cover Plate.

5.2.8 Cabinet trims and wrap removal, all models

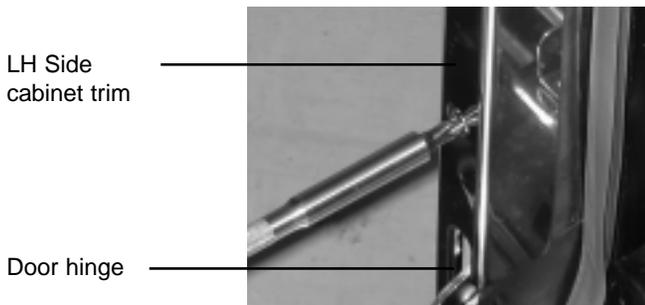


CAUTION. Switch off electrical power supply

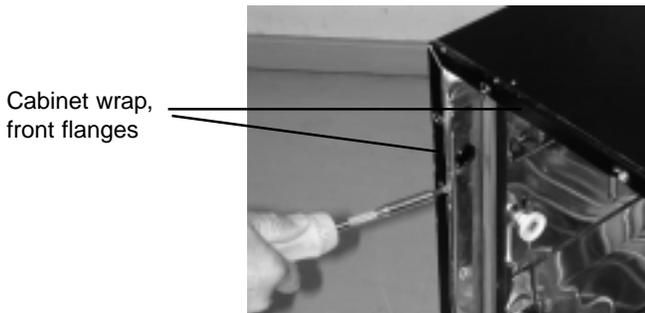
5.2.8.1 Open the dishwasher door. Remove the 4 Phillips head screws from the stainless steel trim in the left hand side and right hand side of the top corners of the cabinet. Then lift the top trim clear of the cabinet.



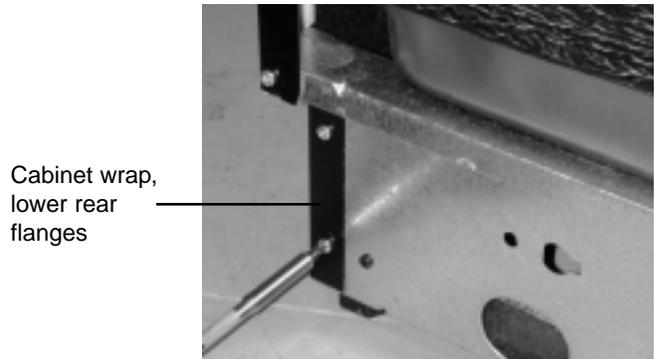
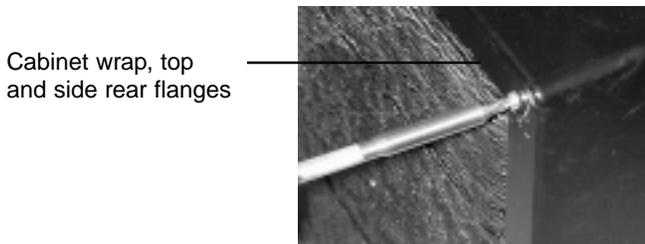
5.2.8.2 Remove the Phillips head screw from each of the left hand and right hand stainless steel trims, just above the open dishwasher door. Then lift the side trims clear of the cabinet.



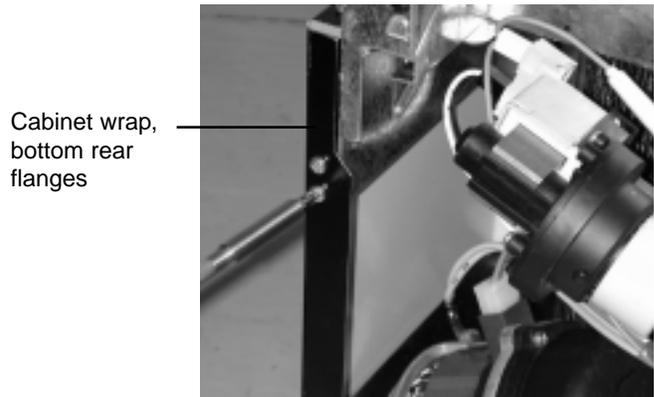
5.2.8.3 Remove the 12 Phillips head screws from the front flanges of the cabinet wrap.



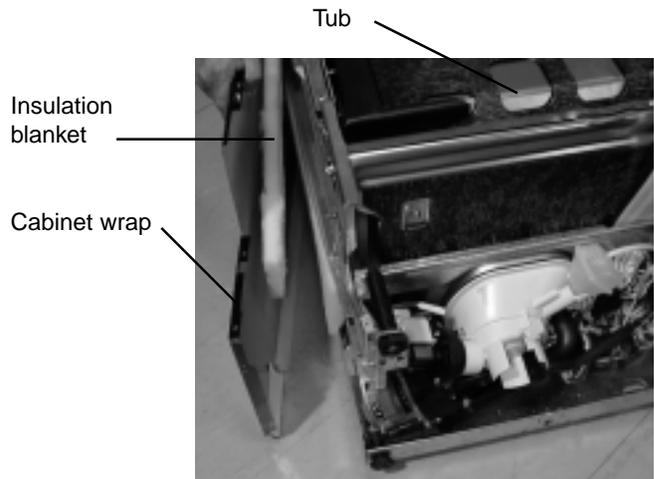
5.2.8.4 Remove the 8 Phillips head screws from the rear flanges of the cabinet wrap.



5.2.8.5 Lay the dishwasher carefully on its back. Remove the 8 Phillips head screws from the bottom flanges of the cabinet wrap.



5.2.8.6 Pull the cabinet wrap cabinet flanges carefully away from the sides of the dishwasher. Slide the cabinet wrap to the top and clear of the dishwasher tub.

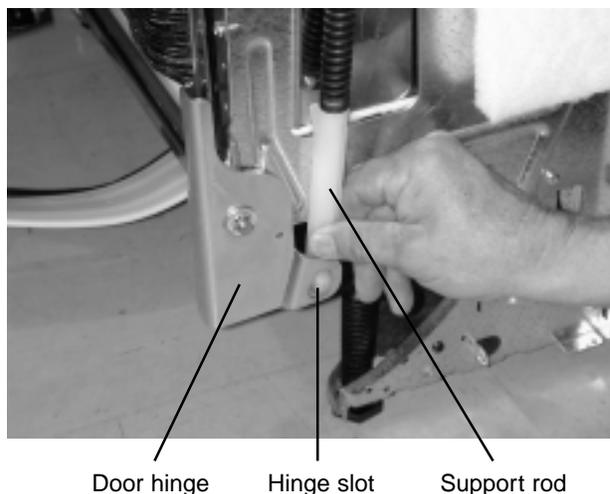
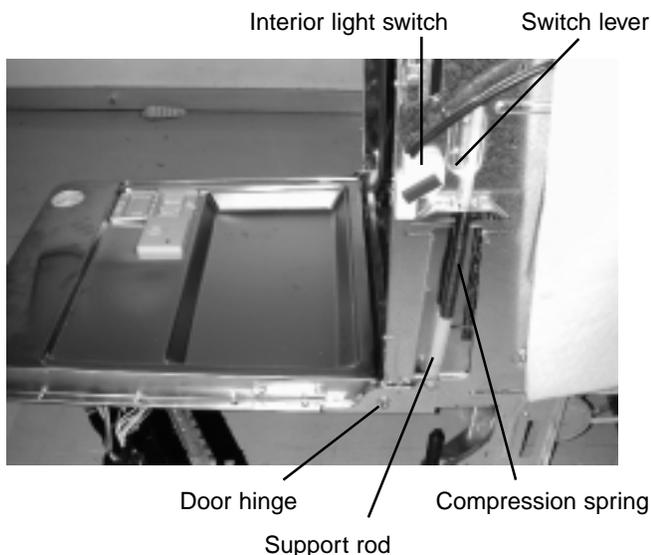


5.2.8.7 Lift the cabinet insulation blanket clear of the tub. Reassemble the dishwasher in the reverse order.

5.2.9 Door Hinge, Spring and Support Rods



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.9.3 Operate and test dishwasher before leaving.

Note: To replace the Door Hinges, the stainless steel door liner needs to be removed. Refer to 5.2.8.

5.2.10 Stainless Steel Door Liner

The stainless steel Door Liner is retained to the dishwasher by the hinges located at the base of the stainless steel Tub. Two Phillips head screws, on each side of the lower section of the stainless steel Door Liner Flange, clamp the Door Liner to the hinges.

The Fixed Arms of the hinge assembly are screwed to the front flange of the stainless steel Tub by two stainless steel countersunk Phillips head screws, identical to the screws used on the Swing Arms of the Hinges. It is advised to remove both Push Rod Springs prior to removal of the stainless steel Door Liner from the dishwasher.

5.2.10.1 Remove the Door Hinge Springs and Support Rods.

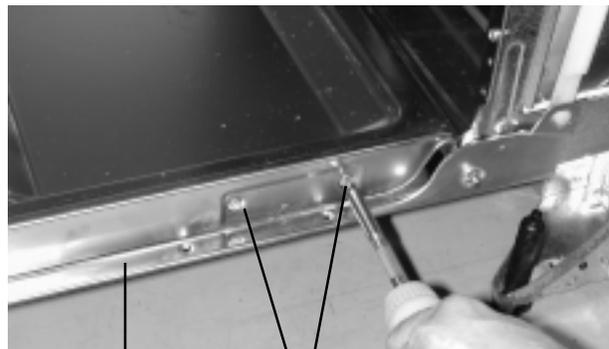
5.2.10.2 Remove the four Phillips head screws from the side flanges with the door in the open position.

Note: The compression springs fitted to various models have different spring rates to cater for the door weight of that particular model. The springs can be identified by a colored paint mark as to the ones to be replaced on that model. There may also be a mixture of colors on springs on some models.

All models will have 2 springs except integrated models that have 4 springs.

5.2.9.1 To remove the spring and support rod, close the door and lift the bottom of the support rod upward and away from the slot in the door hinge. Take care not to damage the interior light switch lever on the RHS support rod. The rod can be removed downward from the guide in the side plate and the spring then removed from the rod.

5.2.9.2 Reassemble the dishwasher in reverse order.



Door side flange 2 screws each flange

6000 & 7000 Series DISHWASHERS

5.2.10.3 Return the door to a partially closed position as shown in the photograph below to prevent damage to the spillway fixed to the front lip of the stainless steel tub.

5.2.10.4 With the Swing Arms of the door hinges returned to the door open position, lift the stainless steel door liner clear of the dishwasher as shown below.

Door liner to near closed position



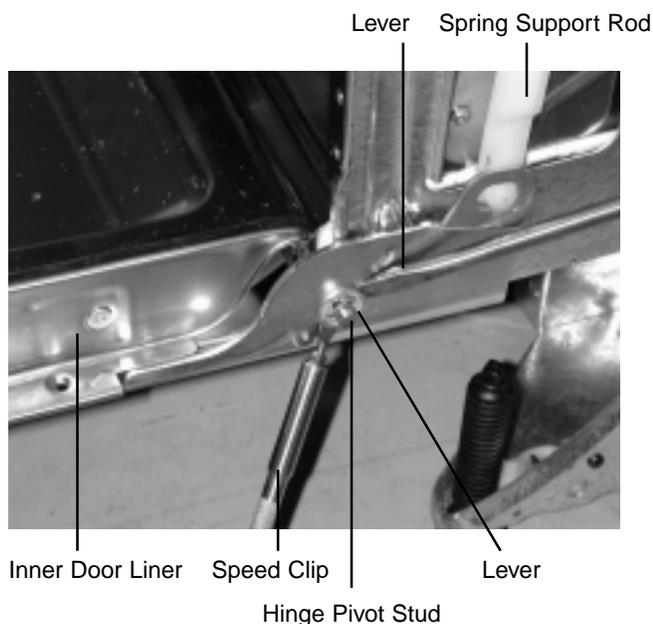
Hinge swing arms to door open position

5.2.11 To remove Door Hinges from Tub Side Plate.

5.2.11.1 Remove the door hinge springs and support rods.

5.2.11.2 Remove the inner door liner.

5.2.11.3 Lever the speed clip from the door hinge pivot stud. (The clip will be damaged in this operation and will need to be replaced). Slide the door hinge out from the tub and lift clear.



5.2.11.4 Reassemble the dishwasher in reverse order.

5.2.11.5 Operate and test dishwasher before leaving.

5.2.12 Door seal

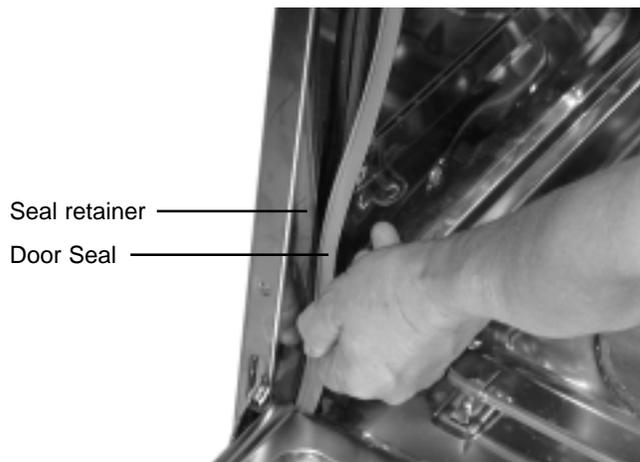


CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.

To correctly hold the door seal in position a channel is formed by a plastic seal retainer screwed to the front opening in the tub. The retainer runs up the inside surface of the tub, across the roof, then down the other side.

5.2.12.1 To remove the door seal grasp the bottom section of the seal near the door hinge and pull it out from the seal retainer starting from the LHS around the tub to the RHS.

5.2.12.2 When refitting the door seal, begin by positioning the seal in the bottom of the retainer on the LHS as shown below.



5.2.12.3 Then refit the seal into the retainer up the LHS, across the roof, then down the RHS. Ensure the door seal sits in the retainer correctly with the seal lip facing to the inside of the tub and has no puckering around the top corners of the tub.

5.2.12.4 Operate and test dishwasher before leaving.

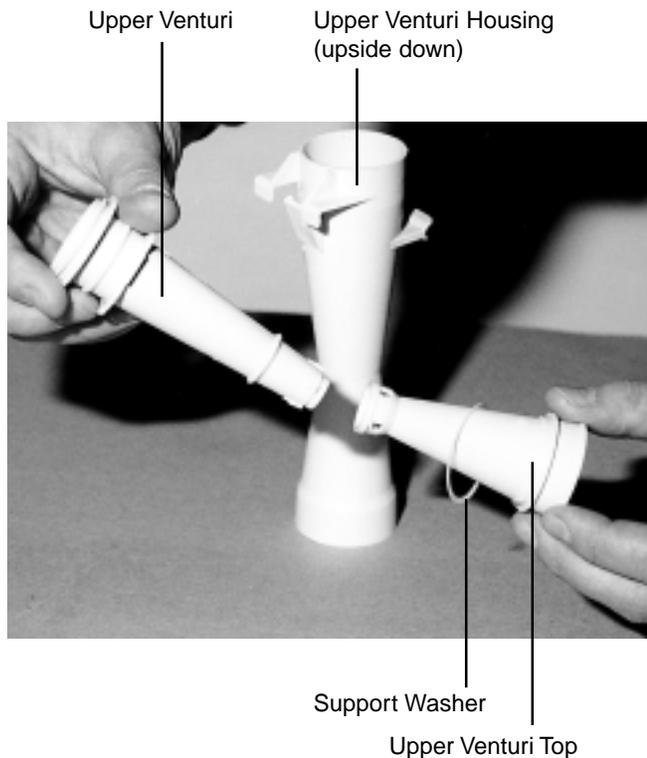


CAUTION. Test for water leaks before leaving.

5.2.13 Upper Venturi Assembly

The Upper Venturi Assembly consists of the Upper Venturi Housing, Upper Venturi Top and Upper Venturi Bottom. The Upper Venturi Housing is attached to the Upper Basket Assembly by integrally moulding retaining clamp and support lugs. The hollow Upper Venturi Housing is fitted with the following two components which rotate within the Upper Venturi Housing.

NOTE: The thread is left hand.



- Upper Venturi Top:- fitted to the top of the Upper Venturi Housing and has a support washer fitted. The Upper Venturi Top is to be prevented from rotating when removing the Upper Spray Arm.
- Upper Venturi Bottom:- fitted to the bottom of the Upper Venturi Housing and attached to the Upper Venturi Top collet and four barb clips. A left hand threaded boss on the lower face is provided to screw the Upper Spray Arm onto. **Do not over tighten when reinstalling the Upper Spray Arm onto the Upper Venturi Bottom.**

To remove the Upper Venturi Housing from the Upper Basket Assembly, proceed as follows:-

5.2.13.1 Remove the Upper Spray Arm.

5.2.13.2 Insert a screw driver between the Upper Venturi Housing and the Upper Basket cross bar support as shown below left. Gently prize the retaining clamp of the Upper Venturi Housing while carefully applying pressure to the top of the Upper Venturi Assembly as shown above right until clear of the Upper Basket cross bar support.



5.2.13.3 The opposite side to the retaining clamp will still be retained to another Upper Basket cross bar as shown below.



5.2.13.4 Prize the Upper Venturi Assembly from the cross bar and remove the Upper Venturi Assembly from the underside of the Upper Basket.

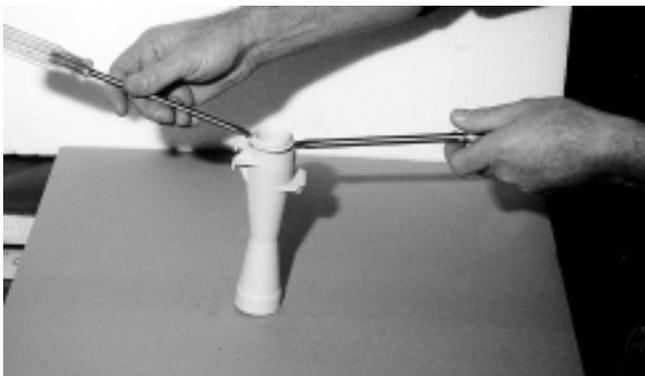
5.2.13.5 To reinstall the Upper Venturi Assembly refer to section 5.2.15 or refer to section 5.2.14 if Upper Venturi Assembly requires to be dismantled.

5.2.14 Upper Venturi Assembly - Dismantle

In general practice, the Upper Venturi assembly will not need to be dismantled except to replace the teflon support washer after a considerable service life, or perhaps damage to the left hand thread of the Upper Venturi Bottom from misuse or cross threading.

5.2.14.1 Stand the Upper Venturi Assembly upside down on a flat surface or bench top, i.e. with the left hand threaded end uppermost.

5.2.14.2 Insert two wide bladed screwdrivers between the under side of the Upper Venturi Bottom flange and the end face of the Upper Venturi Housing as shown below.



5.2.14.3 Gently exert an even pressure downward with both screwdrivers to prize the Upper Venturi Bottom from the Upper Venturi Housing. Refer to the photo in section 5.2.10 which shows both the Upper Venturi Top and the Upper Venturi Bottom with the teflon support washer dismantled from the Upper Venturi Housing.

5.2.15 Upper Venturi Assembly - Reassemble

5.2.15.1 Before reassembling, inspect the left hand thread of the Upper Venturi Bottom for damage, clean and insert into the lower end of the Upper Venturi Housing.

5.2.15.2 Clean and check for damage to Upper Venturi Top and teflon support washer.

5.2.15.3 Insert Upper Venturi Top and teflon support washer into the top end of the Upper Venturi Housing and slowly rotate to engage the four barb clips located on the Upper Venturi Bottom.

5.2.15.4 With the four barb clips located correctly, simply push the Upper Venturi Bottom with a hand to snap home and engage the Upper Venturi Bottom to the Upper Venturi Top.

5.2.15.5 Check and inspect to establish that both the Upper Venturi Bottom and the Upper Venturi Top rotate freely within the Upper Venturi Housing.



5.2.16 Upper Venturi Assembly - Reinstall to Dishwasher

Reinstallation of the Upper Venturi Assembly to the Upper Basket Assembly is as follows:

5.2.16.1 From the underside of the Upper Basket Assembly, insert the Upper Venturi Assembly into the central section of the Upper Basket where the rectangular opening locates and retains the Upper Venturi Assembly.

5.2.16.2 Engage the left hand semi circular mount of the Upper Venturi Housing to the cross bar of the Upper Basket and snap securely to the cross bar.

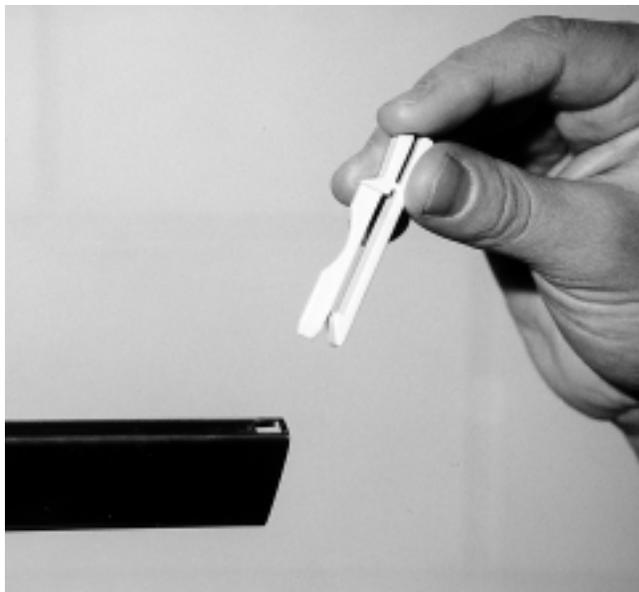
5.2.16.3 With the Upper Venturi Assembly pivoting on the semi circular mount, push the top of the Upper Venturi Assembly towards the left hand side of the dishwasher to the full vertical position. The right hand retaining clamp of the Upper Venturi Housing will engage the cross bar and lock the Upper Venturi Assembly in place.

5.2.16.4 Reinstall the Upper Spray Arm to the Upper Venturi Assembly.

NOTE: The thread is left hand.

5.2.17 Upper Basket Rail and Wheel Guides

As the support plate is attached to the vertical chassis rail it remains captive even if both Wheel Guide Axles are removed together. To remove the Rail and Wheel Guides proceed as follows:



5.2.17.1 Remove both front Rail Guide Pegs by compressing the top sections together and lifting clear from the Rail Guides as above.

5.2.17.2 Slide the Top Basket out and clear of the Rail Guides.

5.2.17.3 Remove both rear Rail Guide Pegs from the Rail Guides and lift clear.

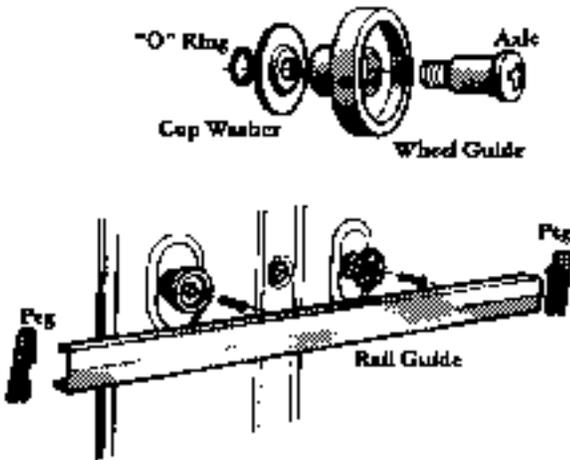
5.2.17.4 Slide the Rail Guides out and clear from the Wheel Guides.

5.2.17.5 Remove the Wheel Guide Axles as shown below.



5.2.17.6 Ensure the stainless steel cup washer, which houses the rubber "O" ring, is identified with the recess side of the washer to the surface of the stainless steel tub.

5.2.17.7 Refer to the illustration below for the correct assembly of the Wheel Guide Axle, Wheel Guide, stainless steel cup washer and rubber "O" ring.



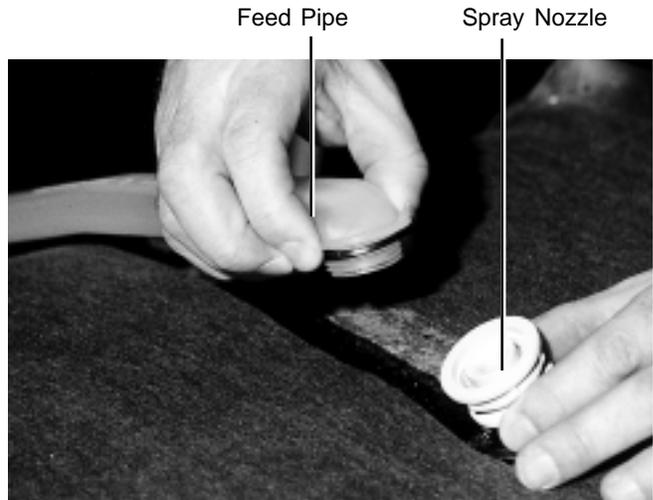
5.2.17.8 Reassemble the dishwasher in reverse order.

5.2.17.9 Operate and test dishwasher before leaving.

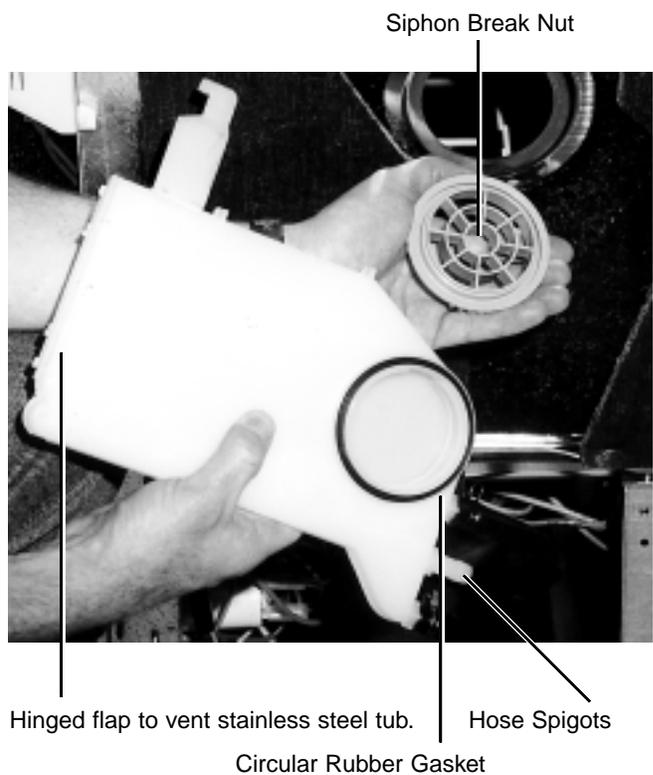
5.2.18 Upper Basket Feed Pipe

The Upper Basket Feed Pipe is a polyethylene blow moulding mounted on the top external surface of the stainless steel tub and is retained in position by the screwed Spray Nozzle which is located on the top internal surface of the stainless steel tub. A neoprene sealing washer is fitted to the threaded and flanged outlet spigot of the Upper Basket Feed Pipe, which is compressed by the threaded spray nozzle and forms an effective seal between the external surface of the stainless steel tub and the flange of the Upper Basket Feed Pipe.

The photo below shows the Upper Basket Feed Pipe and spray nozzle removed from the stainless steel tub.



5.2.19 Siphon Break





CAUTION. Switch off electrical power supply and turn water supply off at main or isolating valve.

The Siphon Break is positioned on the right hand side of the stainless steel tub and provides a water fill into the stainless steel tub via the circular vented Siphon Break Nut. The Siphon Break Nut is threaded into the body of the Siphon Break and fixes the Siphon Break on the exterior surface of the stainless steel tub.

A rubber circular gasket, fitted to an annular recess in the body of the Siphon Break, provides a positive sealing medium between the stainless tub and the Siphon Break. The Siphon Break has three spigots located on the lower section of the Siphon Break body. The Water Inlet Solenoid Valve is connected to the rear spigot

To remove the Siphon Break from the stainless steel tub proceed as follows:

5.2.19.1 Compress the hose clamp fitted to the spigot of the Siphon Break with hose clamp pliers as shown below and slide clamp downward.



5.2.19.2 Grasp the hose and turn and remove from the Siphon Break spigot.

5.2.19.3 Open the dishwasher door to gain access to the Siphon Break Nut located on the internal right hand side surface of the stainless steel tub as shown below. Insert a pair of pointed nose pliers into the open vents of the Siphon Break Nut and unscrew the Siphon Break Nut in a counter clockwise direction approximately one and one half turns and lift clear from the Siphon Break.



Remove Siphon Break Nut with pointed nose pliers.

5.2.19.4 Lift the Siphon Break clear from the dishwasher by tilting the rear of the Siphon Break upwards.

5.2.19.5 Reassemble the dishwasher in reverse order.

5.2.19.6 Operate and test dishwasher before leaving.

5.2.20 Drain Cup Filter

The Drain Cup Filter is located on the left hand side perforated stainless steel Wash Filter, which is retained in the base of the stainless steel tub, by the locking action of the Drain Cup Filter.

5.2.20.1 Twist the two vertical handles in a counter clockwise direction, rotate the Drain Cup Filter and lift to remove.

5.2.20.2 To replace, reverse the procedure making sure the Drain Cup filter locks into position by rotating in a clockwise direction.



Rotate counter clockwise and lift up to remove.

5.2.21 Perforated Stainless Steel LH side Wash Filter

5.2.21.1 To remove the LH side perforated stainless steel Wash Filter first remove the Drain Cup Filter (Section 5.2.17)

5.2.21.2 Lift the LH side perforated stainless steel Wash Filter with the micro-mesh Barrel Filter attached to the underside surface.

5.2.21.3 Replace in reverse order.

5.2.22 Micro-mesh Barrel Wash Filter

The micro-mesh Barrel Wash Filter is located within the sump of the dishwasher and is attached to the LH side perforated stainless steel Wash Filter.

5.2.22.1 To remove the Barrel Wash Filter squeeze the two clips above the surface of the LH side perforated stainless steel Wash Filter and the Barrel Wash Filter can then be separated from the perforated Wash Filter.

5.2.22.2 To reinstall the Barrel Wash Filter, engage the face of the barrel filter with the aperture within the LH side perforated stainless steel Wash Filter and depress the two clips to lock the Barrel Wash Filter in place.

Note: The flat surface on the perforated Wash Filter aperture and the Barrel Wash Filter must be aligned.

LH side perforated stainless steel Wash Filter



Micro-mesh Barrel Wash Filter Locking clips

5.2.23 Recuperative By-pass Filter

This filter operates as a by-pass filter and is self cleaning by two spray jets located on the underside of the Lower Spray Arm. The Recuperative By-pass Filter must be removed to gain access to the RH side perforated stainless steel Wash Filter.

5.2.23.1 To remove the Recuperative By-pass Filter first remove the Lower Spray Arm.

5.2.23.2 Grasp the Recuperative By-pass Filter around the outer edges and pull upward, as shown below, to release the retaining clip.

5.2.23.3 The top face of the filter, which contains the stainless steel super fine mesh, can be removed from the filter housing. Carefully pry off the four barb clips located around the central bore of the filter face and the eight barb clips positioned on the outer diameter of the filter face and lift the filter face clear of the housing.

Note: Normally, this is not required although damage to the stainless steel recuperative mesh could require this action.

5.2.23.4 Reassemble the dishwasher in reverse order.



Recuperative By-Pass Filter - Pull Filter up to remove

5.2.24 Lower Spray Arm Support

The Lower Spray Arm Support positions and retains the Lower Spray Arm via an annular boss which engages two clips on the Lower Spray Arm Venturi.

Note: The top end of the Lower Spray Arm Support, has markings designating the “max” and “min” operating water level. If the Lower Spray Arm Venturi clips cover the markings rotate the Lower Spray Arm by hand to observe and identify both markings. Refer to these markings when adjusting the fill time (section 4.3). The Lower Spray Arm Support is screwed into the Sump by means of a RH buttress thread formed on the lower end of the Lower Spray Arm Support.

5.2.24.1 To remove the Lower Spray Arm Support, first remove the Lower Spray Arm and Recuperative By-pass Filter.

5.2.24.2 Unscrew the Lower Spray Arm Support and lift clear.



Unscrew Lower Spray Arm Support to remove

Note: The RH side perforated stainless steel Wash Filter is retained in position and clamped down by the action of screwing the Lower Spray Arm Support into the threaded socket within the sump.

5.2.24.3 Reassemble the dishwasher in reverse order.

5.2.25 Perforated Stainless Steel RH side Wash Filter

5.2.25.1 To remove the RH side perforated stainless steel Wash Filter first remove the Lower Spray Arm and the recuperative by-pass filter, and then remove the Lower Spray Arm Support (Section 5.2.21).

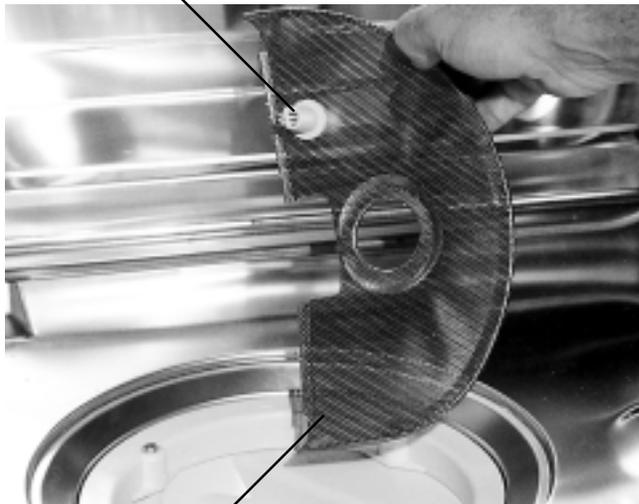
5.2.25.2 The RH side perforated stainless steel Wash Filter can now be lifted out.

NOTE: A breather port positioned at the rear of the perforated wash filter requires to be clear of obstructions. A blockage can cause the pump to cavitate and cause a reduction in the wash performance.

5.2.25.3 To reinstall, replace the RH side perforated stainless steel Wash Filter in position, insert the threaded boss end of

the Lower Spray Arm Support through the 1 3/8" diameter recessed hole in the perforated face of the filter and tighten. Reassemble the dishwasher in reverse order.

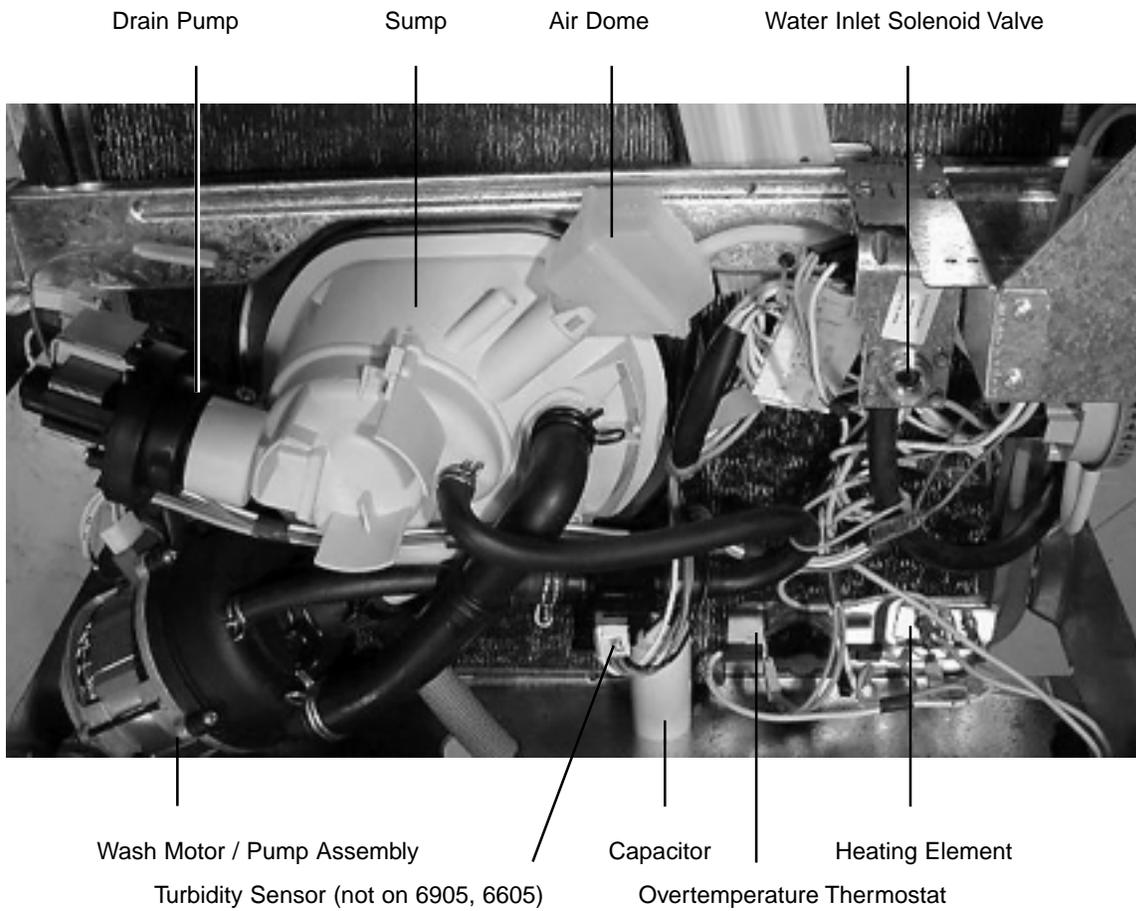
Breather port



RHS Wash Filter

Note: The flange on the Lower Spray Arm Support exerts pressure onto the filter face and retains/locates the RH side perforated stainless steel Wash Filter in position.

5.2.26 General view beneath the cabinet



5.2.27 Pressure Switch

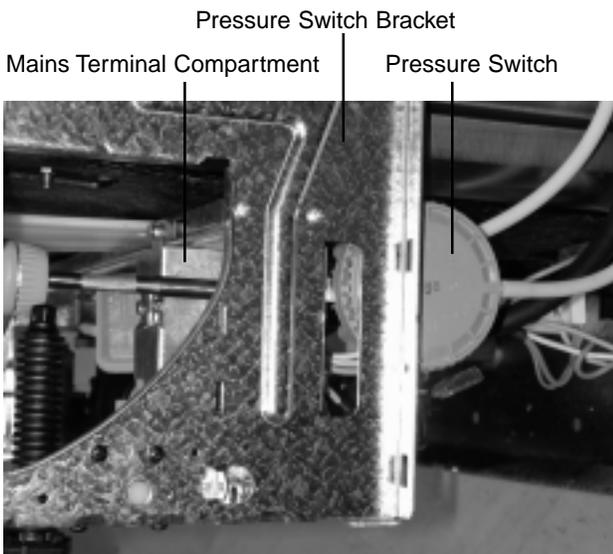


CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.27.1 Refer to section 5.1 for access to the Pressure Switch.

The pressure switch is located on a bracket that is mounted at the rear of the mains terminal compartment. To release the pressure switch and bracket remove the screw holding the bracket to the mains terminal compartment. Access to the screw can be gained through the compartment itself.



Side view of the Mains Terminal Compartment

5.2.27.4 Remove the pressure switch hose and wire connectors.

5.2.27.5 Reassemble the dishwasher in reverse order.

5.2.27.6 Operate and test dishwasher before leaving.

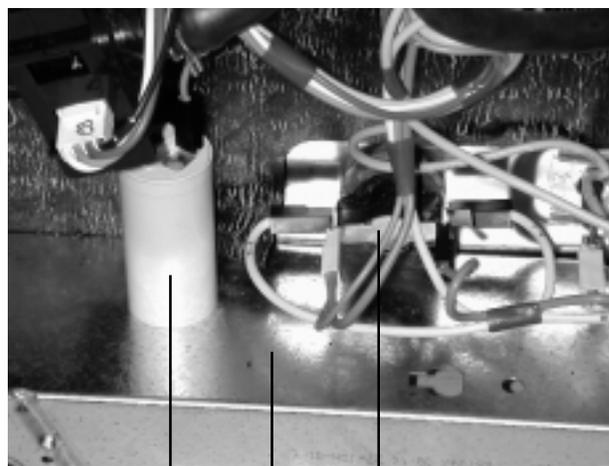
5.2.28 Capacitor - Wash Motor



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



The wash motor capacitor is located on the rear panel support for the tub.



Wash Motor Capacitor Overtemperature Thermostat
Rear Support Panel

5.2.28.1 To release the capacitor compress the detent spring mounting on the back of the rear panel support.



Detent Spring Mounting Back of Rear Panel Support

5.2.28.2 Push the mounting through the square fixing hole in the rear panel support.

5.2.28.3 Remove the two 1/4" terminals and wires from the tab connections of the Capacitor.

5.2.28.4 Reassemble the dishwasher in reverse order.

5.2.28.5 Operate and test dishwasher before leaving.

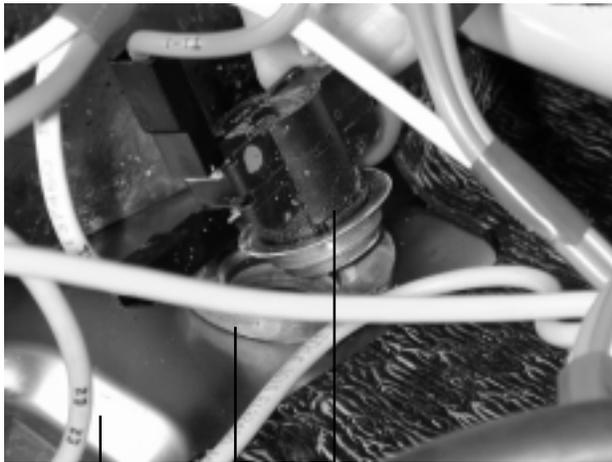
5.2.29 Thermostat - Overtemperature



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.

5.2.29.1 The overtemperature thermostat is located in the base of the tub alongside the wash motor capacitor.

To release the thermostat grasp the plastic body and tilt it to one side, at the same time moving one lip of the rubber gasket it is mounted in to one side. Lift the thermostat clear and remove the two 1/4" terminals and wires from the tub connections.



Tub Base

Overtemperature Thermostat

Rubber Mounting Gasket

Reassemble in reverse order.

Note: Ensure both lips of the gasket capture the metal thermostat flange on reassembly.

5.2.29.2 Operate and test dishwasher before leaving.

5.2.30 Heating Element



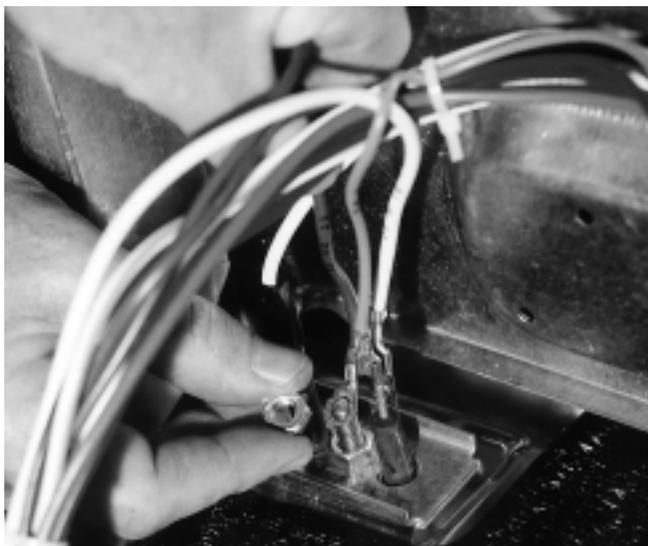
CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.30.1 Refer to section 5.1 for access to the Heating Element.

5.2.30.2 Disconnect the 1/4" terminals connected to the two tab terminals of the Heating Element.

5.2.30.3 Release the mounting stud nut as shown below and remove the lock nut which holds captive the earth (ground) terminal/cable to the single mounting stud and lift clear.



Release Heating Element Mounting Nut.

5.2.30.4 Unscrew the second mounting stud nut.

5.2.30.5 Remove the retaining clamp plate from the mounting stud and the two cold pins of the Heating Element.

5.2.30.6 If for this service procedure, the dishwasher is on its back with the Base Panel removed for access as shown below right, it is recommended, for personal safety reasons, to remove both Door Hinges, Springs and Push Rod Guides before opening the door to remove the Heating Element from the stainless steel tub. Refer to section 5.2.7 for removal of Door Hinges, Springs and Push Rod Guides.

5.2.30.7 Open the Main Door to access the Heating Element. The Heating Element is retained in position by three stainless steel retainers which are spot welded to the inner surface of the base panel of the stainless steel tub as shown top right. Two retainers at the front of the stainless steel tub and one at the rear left hand corner.

5.2.30.8 To remove the Heating Element from the interior of the stainless steel tub, bend the flat surface of the rear left hand stainless steel retainer by approximately 90°, this allows the mounting flange and single stud assembly of the Heating Element to be lifted through the stainless steel tub.

5.2.30.9 Disengage the two stainless steel retainers from the Heating Element.

Bend left rear Element retaining bracket.



Two front Element retaining brackets.

5.2.30.10 Lift the Heating Element clear from the dishwasher.

5.2.30.11 Reassemble the dishwasher in reverse order.

5.2.30.12 Operate and test dishwasher before leaving.

5.2.31 Turbidity Sensor

All models except 6605, 6905, 7005 & 7105



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.31.1 The turbidity sensor is located in-line in the wash pump to bypass filter hose. To remove the turbidity sensor release the two hose clamps (one at each end of the sensor). Slide the hoses off at each end of the sensor. Disconnect the electrical plug and lift the sensor clear.

Turbidity Sensor Hose Clamp



Wash Pump to Bypass Filter Hose

5.2.31.2 Reassemble the dishwasher in reverse order.



CAUTION. Test for water leaks before leaving.

5.2.31.3 Operate and test dishwasher before leaving.

5.2.32 Air dome



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.32.1 The air dome is located in a spigot on the sump at the front of the cabinet. To remove the air dome release the plastic sump clip locking the air dome in position sliding it out of the spigot and lifting it clear, remove the pressure switch air dome hose.

O-ring seal



Sump Spigot Air Dome

5.2.32.2 Reassemble the dishwasher in reverse order.

Note: Ensure when reassembling the air dome that the o-ring seal and sump spigot are smeared with Vaseline jelly to prevent the o-ring from rolling over.



CAUTION. Test for water leaks before leaving.

5.2.32.3 Operate and test dishwasher before leaving.

5.2.33 Water Inlet Solenoid Valve



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



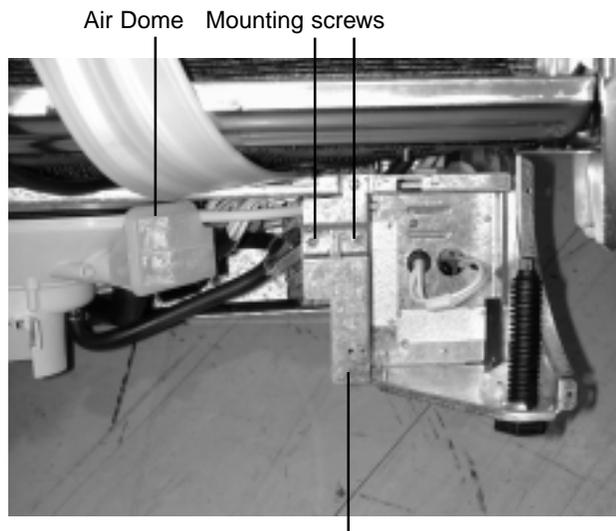
The water inlet solenoid valve is a special purpose component and is NOT to be interchanged with other water inlet solenoid valves.

The delivery of the water inlet solenoid valve is rated at a nominal 1.25 US gallons per minute. Do not use any other type of water inlet solenoid valve.

5.2.33.1 Refer to section 5.1 for access to remove the Water Inlet Solenoid Valve.

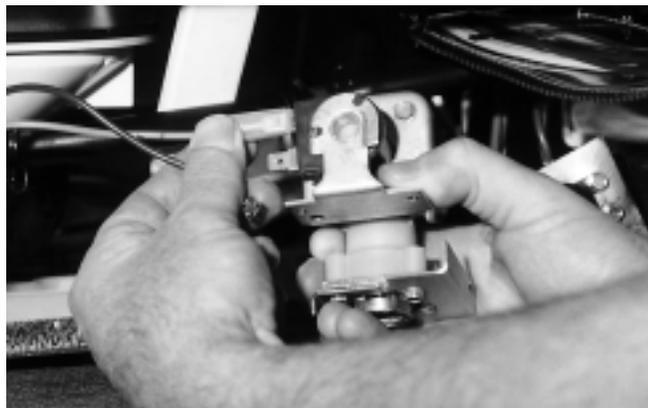
5.2.33.2 From the front of the dishwasher, remove the two mounting screws which retain the Water Inlet Solenoid Valve to the flange on the mains terminal compartment.

Lift the valve clear.



Mains terminal compartment flange

5.2.33.3 Disconnect the two 1/4" terminals as shown below.



5.2.33.4 Compress the hose clamp which retains the connecting hose and slide the clamp from the spigot.

5.2.33.5 Grasp the hose and remove it from the spigot of the Water Inlet Solenoid Valve.

5.2.33.6 Lift the Water Inlet Solenoid Valve clear of the dishwasher.

5.2.33.7 Reassemble the dishwasher in reverse order.



CAUTION. Test for water leaks before leaving.

5.2.33.8 Operate and test dishwasher before leaving.

5.2.34 Drain Pump - Removal

The Drain Pump is a self contained motor and pump assembly mounted directly into the Sump by the induction or inlet spigot equipped with a neoprene multi-lipped cylindrical seal to prevent water leakage. A single Phillips head screw retains the complete motor and pump to the Sump. Removal of the Drain Pump is accomplished by the following procedure:



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.34.1 Refer to section 5.1 to gain access to the Drain Pump.

5.2.34.2 Disconnect the two Quick Connect terminals and wires from the 1/4" tabs marked "L&N" mounted on the encapsulated field windings of the Drain Pump Motor. The tab marked "L" should be connected to the wiring harness wire marked "G2-D" (Drain) which is connected directly to the Overfill Switch. The neutral of the Drain Pump marked "XN-D" should be connected directly to the "N" of the mains terminal block. For rotary models the neutral wire is marked W2-D and connects to the N of the mains terminal block via the Wash Pump Motor plug.

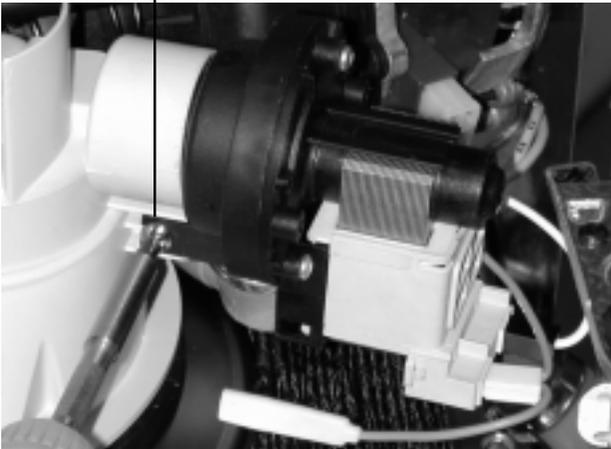
6000 & 7000 Series DISHWASHERS

5.2.34.3 Remove the drain hose double coil hose clamp with a pair of pliers from the pump outlet as shown below and withdraw the molded drain hose elbow from the pump outlet. The molded elbow of the Drain Hose has two offset slots in the end face of the elbow, which engage with the offset lugs on the pump cover/outlet. This feature is to index the drain elbow/hose into the correct angle and position in relation to other internal components.

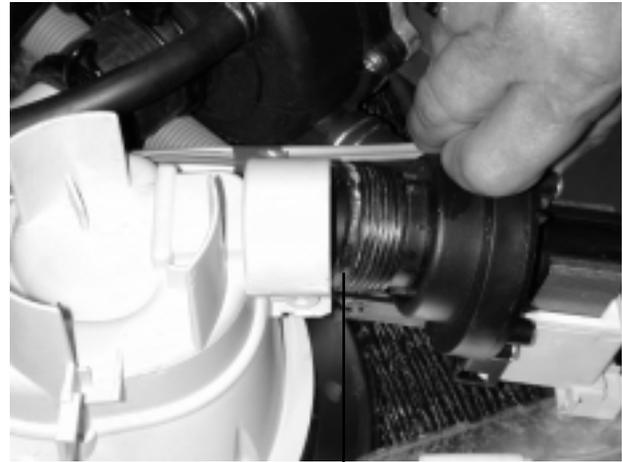


5.2.34.4 Remove single Phillips head screw which retains Drain Pump to the sump socket as shown below.

Remove screw



5.2.34.5 Grasp the Drain Pump and pull the complete motor and pump assembly from the bore of the sump socket, wherein the Drain Pump Spigot and sealing ring is housed as shown below.



Sealing Ring

5.2.34.6 The seal is removed from the pump cover/inlet and discarded. A replacement seal should be used upon reinstallation of the drain pump.

5.2.32.7 Reassemble the dishwasher in reverse order.



CAUTION. Test for water leaks before leaving.

5.2.34.8 Operate and test dishwasher before leaving.

5.2.35 Wash Motor/Pump Assembly - Removal

The Wash Motor/Pump Assembly is a high efficiency compact device horizontally mounted at a 30° angle to the rear rail and located within the rear left hand corner of the dishwasher as shown below. A centrally positioned induction or inlet spigot on the pump cover also provides the front mounting via a short hose connected to the sump outlet with appropriate hose clamps. To remove the Wash Motor/Pump Assembly from the dishwasher proceed as follows:



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.

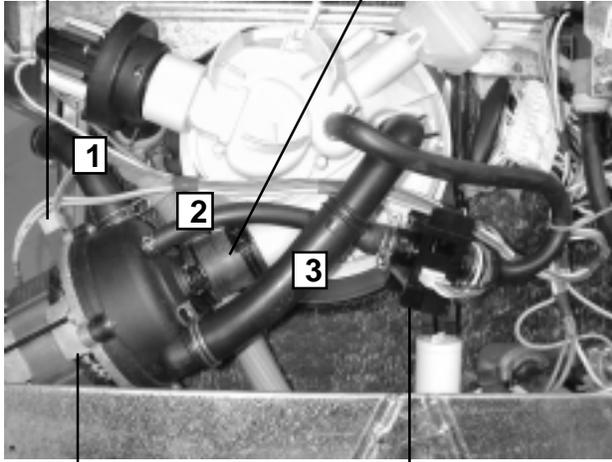


5.2.35.1 Refer to section 5.1 to access the Wash Motor/Pump.

6000 & 7000 Series DISHWASHERS

5.2.35.2 Disconnect the four pin wash motor/ pump receptacle from wiring harness/ plug as shown below.

Disconnect four pin receptacle Short hose connection between pump inlet spigot and sump spigot



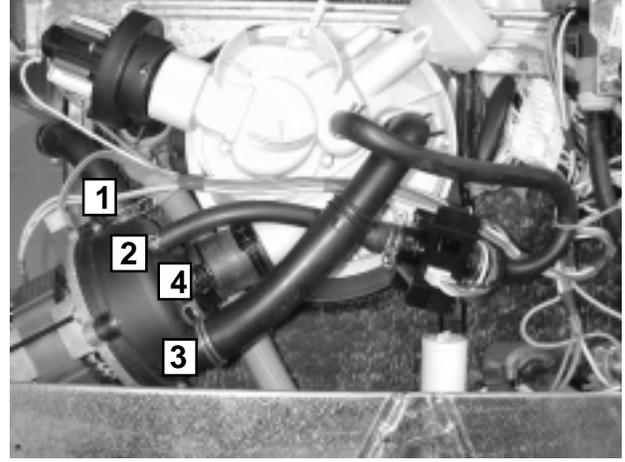
Wash Motor/Pump Assembly Turbidity Sensor

5.2.35.3 Remove the three pump outlet hoses from the pump cover by compressing the double coil hose clamps and sliding the clamps along the hoses away from the pump cover outlets. The three hoses as shown above are identified as follows:

- 1. Upper Hose:** 7/8" diameter pump outlet parallel with the base of the stainless steel tub.
Function: Water supply to Top Spray Arm.
- 2. Center Hose:** 3/8" diameter pump cover outlet - hose connected to sump.
Function: Water supply to Turbidity Sensor and Recuperative By-pass Filter.
- 3. Lower Hose:** 1" diameter pump cover outlet - hose connector.
Function: Water supply to Lower Spray Arm.

5.2.35.4 Grasp each hose in turn and disconnect from the pump cover spigots.

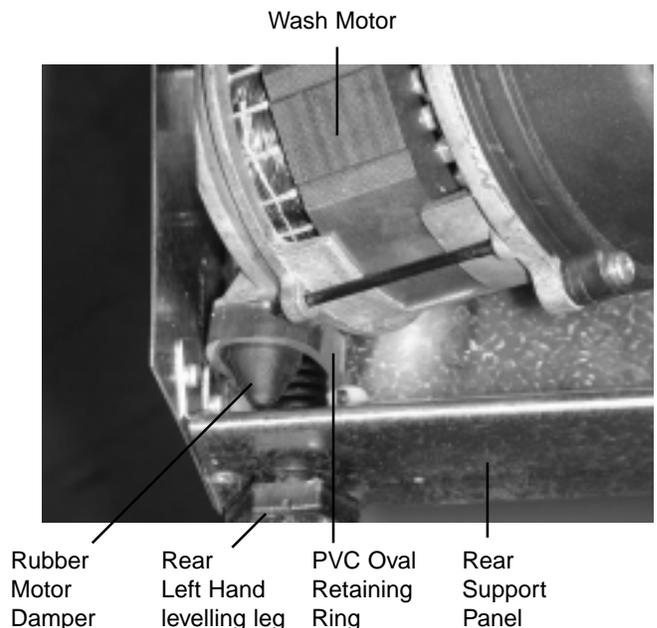
5.2.35.5 Removal of the three outlet hoses now provides access to the centrally mounted induction/inlet spigot of the pump cover. Compress the double coil hose clamp located on the inlet hose and slide clamp from spigot towards the Sump as shown below.



Slide clamps 1, 2, 3, and 4 away from Wash Pump Motor

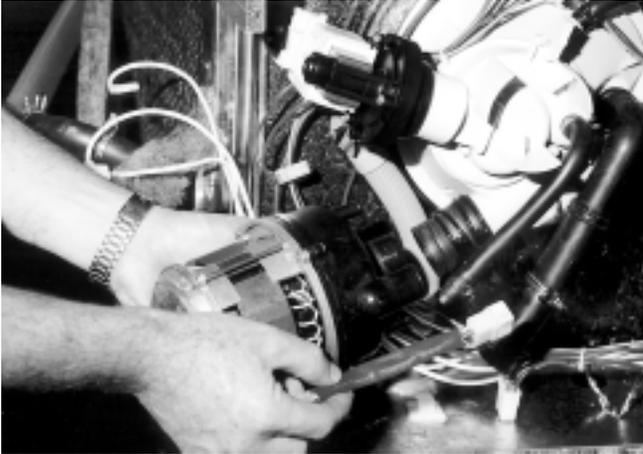
Note: The Wash Motor/Pump is actually supported by the short hose between the Wash Motor/Pump and the corresponding spigot of the Sump.

5.2.35.6 The rear end of the wash motor is supported by a rubber damper that is connected to the motor and sits in a recess in the rear support panel for the tub. The damper is held in position by a PVC oval retaining ring that captures the damper to the rear left hand levelling leg. Removal of the rear left hand levelling leg will allow the motor and damper to lift clear of the rear support panel.



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5.2.35.7 The Wash Motor/Pump can then be withdrawn from the pump cover inlet hose, as shown below, and lifted clear as a complete assembly.



5.2.35.8 Reinstall the Wash Motor/Pump and reassemble the dishwasher in reverse order or refer to section 5.2.34 if the Wash Motor/Pump needs to be dismantled.

Note: On reassembly make certain the hose clamp cut ends are located away from the Turbidity Hose or a leak may occur.



CAUTION. Test for water leaks before leaving.

5.2.35.10 Operate and test dishwasher before leaving.

5.2.36 Sump

5.2.36.1 Refer to section 5.1 to gain access to sump.

5.2.36.2 To remove the Sump, disconnect hoses attached to the Sump Spigots (4 Hoses).

5.2.36.3 Remove Phillips head screw which retains the Drain Pump to the sump socket.

5.2.36.4 Remove the four mounting screws and lift the Sump Retainer clear as shown below.



5.2.36.5 Remove Sump from beneath the stainless steel tub.

5.2.36.6 Remove the Sump Gasket from the flange of the stainless steel tub as shown below.



5.2.36.7 Reassemble the dishwasher in reverse order.

5.2.36.8 Operate and test dishwasher before leaving.

5.2.37 Sump Base Plate/Non-return Flap Valve

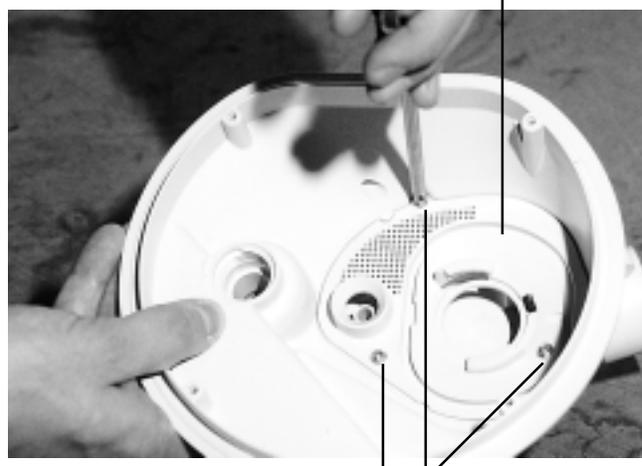
The Sump Base Plate incorporates the Non-return Flap Valve which can be removed and replaced as follows:

Note: This procedure can also be performed while the sump is still fitted to the tub.

5.2.37.1 Remove the Lower Spray Arm and Venturi, Drain Cup Filter, the perforated stainless steel Wash Filters, the Super Fine By-Pass Filter and the Lower Spray Arm Support.

5.2.37.2 Remove the three screws (two start thread) which retain the Sump Base Plate and lift clear.

Sump Base Plate

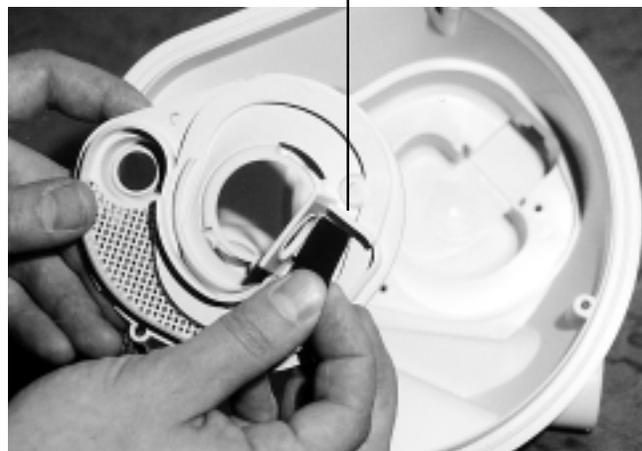


Remove 3 screws to access Non-return Flap Valve.

5.2.37.3 Remove the Non-return Flap Valve which is retained by a hinged shank and barb clip by grasping the Non-return Flap Valve, pressing the tip of the hinged shank into the rectangular recess and drawing the Non-return Flap Valve from the Sump Base Plate as shown below.

Note: The square, flat face of the Non-return Flap Valve must seat upon the annular valve face of the Sump Base Plate.

The Non-return Flap Valve.



5.2.37.4 Reassemble the dishwasher in reverse order.

5.2.37.5 Operate and test dishwasher before leaving.

5.2.38 Interior Light - All models except 6400 and 6500



CAUTION. Switch off electrical power supply and turn off water supply at main or isolating valve.



5.2.38.1 Unscrew the light lens and seal from within the dishwasher tub.

5.2.38.2 To remove the Light Body and Holder, simply unlatch the retaining barb clip with a medium size screwdriver as shown below.



Unlatch barb clip with medium size screwdriver

5.2.38.3 With the barb clip released, slight pressure on the opposite side barb clip will allow the Light Body and Holder to be removed from the stainless steel tub. Shown below.

5.2.38.4 To access the wiring connections to the Light Holder, prize the single barb clip (below) from the terminal cover and lift clear the terminal cover.

Light Body and Holder Terminal Cover barb clip



Light Lens and Seal

5.2.38.5 Remove the two 3/16" Quick Connect terminals from the tab terminals of the light holder.

5.2.38.6 To remove the reflector from the Light Body and Holder, simply prize the reflector retainer clips from the three relative cut outs of the Light Body and Holder.

NOTE: The three reflector retainer clips are positioned with two retainer clips adjacent to each side of the lamp holder, while the third retainer is adjacent to the tip of the glass bulb of the lamp globe.

5.2.38.7 Removal of the Light Body and Holder can be carried out simply by releasing one of the locking nuts and unscrewing the locking nut from the lamp holder body.

Note: The internal locking nut adjacent to the Light Lens has a fixed position of approximately two threads projecting past the face of the locking nut. This relationship should be maintained for ease of removal/ reinstallation of the Light Globe.

5.2.38.8 Reinstallation of the interior lamp assembly is a reversal of removal and dismantling of the lamp body and holder assembly.

5.2.38.10 On reassembly of the light lens to the light housing the service technician is to ensure that the lens is tightened so that it cannot be removed without a tool. Minimum torque 6 lb-ft.

5.2.38.11 Reassemble the dishwasher in reverse order.



CAUTION. Test for water leaks before leaving.

5.2.38.10 Operate and test dishwasher before leaving.

5.2.39 Detergent and Rinse Aid Dispenser



CAUTION. Switch off electrical power supply.

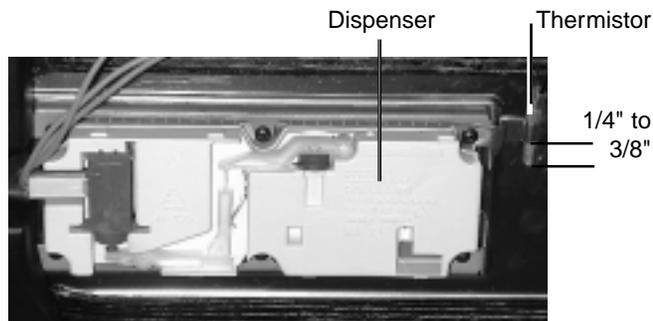
5.2.39.1. Remove the dishwasher outer Door Panel.

5.2.39.2. Remove the six retaining screws which fix the Detergent and Rinse Aid Dispenser to the stainless steel door liner through upper and lower fixing brackets. The Thermistor Retaining Clip is attached to the right hand corner of the upper fixing bracket.

5.2.39.3. Remove the Detergent and Rinse Aid Dispenser from the stainless steel door liner.

5.2.39.4. Upon reinstallation of a Detergent and Rinse Aid Dispenser to the stainless steel door liner ensure the sealing face area is clean and free from damage. To ensure an effective seal between the Dispenser seal and the stainless steel door liner face, alternatively tension the two centre screws through the upper and lower brackets and then the upper and lower corner screws.

NOTE: The right hand upper corner screw also clamps the thermistor retaining clip to the bracket face. Slide the thermistor retaining clip over to the body of the dispenser by means of the slotted mounting hole. Tighten the mounting screw which will cause the thermistor retaining clip to bend and pretension the end of the clip to retain the thermistor. The end of the thermistor protrudes through the mounting clip by 1/4" to 3/8"



5.2.39.5. Reassemble the dishwasher in reverse order.

5.2.39.6. Operate and test dishwasher before leaving.

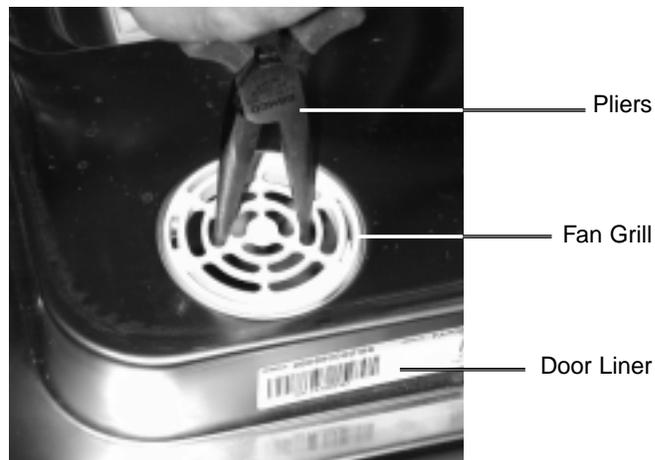
5.2.40 Drying Assist Fan



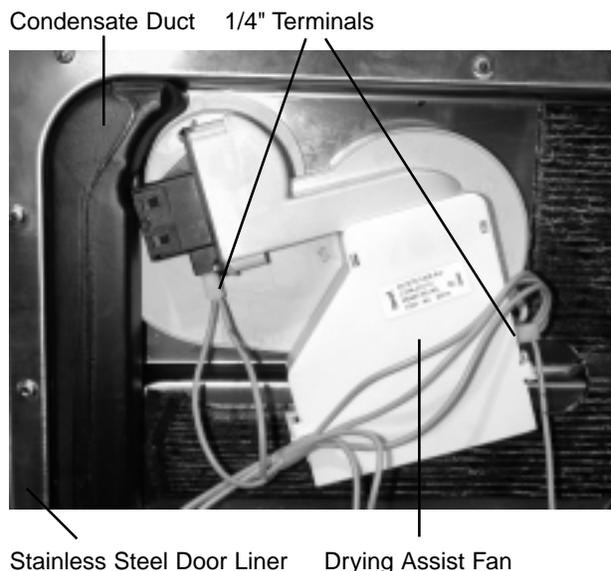
CAUTION. Switch off electrical power supply.

5.2.40.1 The drying assist fan is located in the top left hand corner of the stainless steel door liner. To access the fan remove the outer door panel and the control panel.

5.2.40.2 To remove the fan from the inner door, release the fan grill by using pointed nose pliers (refer to below) to turn it 1/8 of a turn in a counter clockwise direction as shown below.



5.2.40.3 Remove the 1/4" terminals then lift the condensate duct and the drying assist fan clear.



5.2.40.4 Operate and test dishwasher before leaving.

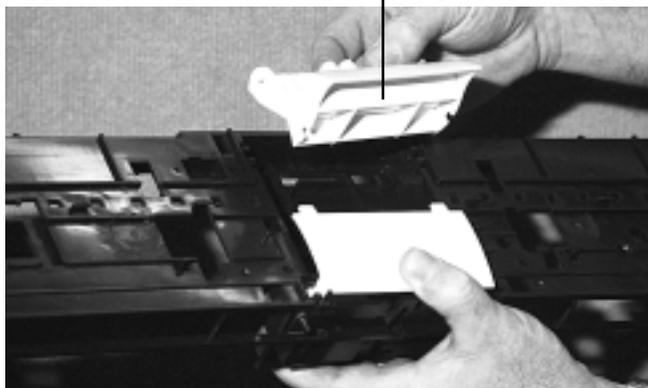
5.2.41 Door Handle - 6400, 6500, 6700, 6900 & 6905 Models



CAUTION. Switch off electrical power supply.

5.2.41.1 For Models 6400 and 6500 remove Control Panel. For Models 6700, 6900 and 6905 remove Door Panel. Remove Dress Panel LH Side and Dress Panel RH Side (Section 5.2.45).

Door Handle.

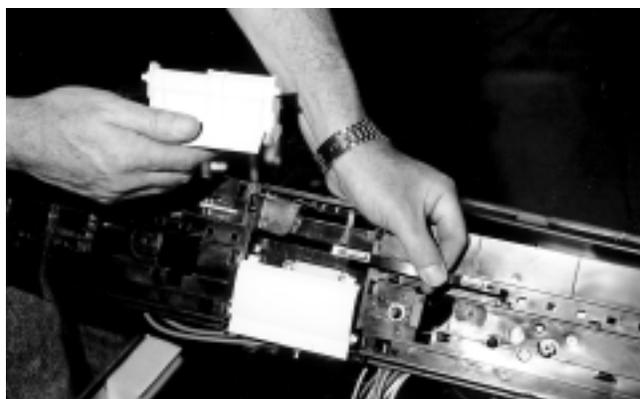


5.2.41.2 Compress the detent clip of the leaf spring on the end adjacent to the Door Lock Micro Switch.

5.2.41.3 Slide the leaf spring through two retaining slots formed in the Control Panel Carrier Frame. It will be required to compress detent clip again in order to pass through opposite side slot. Lift leaf spring clear.



5.2.41.4 Grasp Door Handle on one end and lift outward to unclip spigot from Control Panel Carrier Frame.



5.2.41.5 With one door handle spigot unclipped from the Control Panel carrier frame retainer, exert pressure on to the opposite side to release the Door Handle. Lift the Door Handle clear.

5.2.41.6 Reassemble the dishwasher in reverse order.

5.2.42.7 Operate and test dishwasher before leaving.

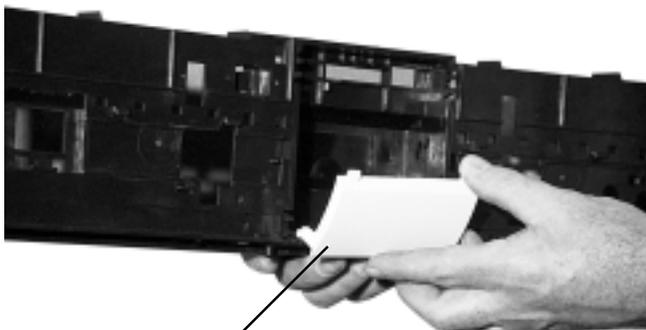
5.2.42 Door Handle Cover Plate - 6400, 6500, 6700, 6900 & 6905 Models



CAUTION. Switch off electrical power supply.

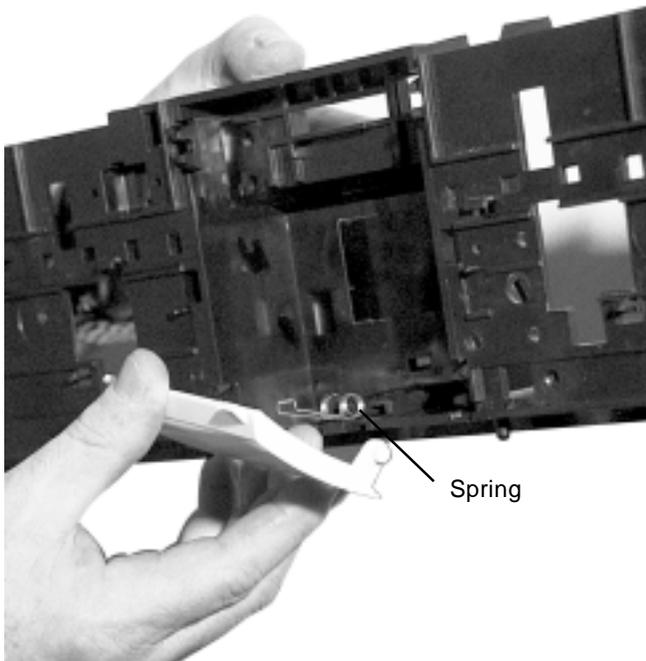
5.2.42.1 Remove the Door Handle.

5.2.42.2 Grasp the flange of the Door Handle Cover Plate which protrudes below the bottom edge of the Carrier Panel and spring both retaining spigots from the Carrier Panel.



Door handle Cover Plate

5.2.42.3 Remove Door Handle Cover Plate spring. Refer to the picture below.



5.2.42.4 Reassemble the dishwasher in reverse order.

5.2.42.5 Operate and test dishwasher before leaving.

5.2.43 Door Lock Microswitch - 6400, 6500, 6700, 6900, 6905, 6600 & 6605 Models



CAUTION. Switch off electrical power supply.

5.2.43.1 Remove both 1/4" terminals and wires from tab terminals of the Microswitch and snip the retaining cable tie from the body of the Microswitch.

5.2.43.2 Slide the tip of a small screw driver between the Microswitch and the surface of the Carrier Panel. With a pair of point-nose pliers, insert a point nose tip of the pliers into the adjacent mounting hole of the Carrier Panel. Position the other point of the pliers on to the Microswitch top retainer clip and carefully release the retainer clip. At the same time, lift the Microswitch, with the small screwdriver, which will assist removal of the Door Lock Microswitch.



5.2.43.3 Repeat procedure with lower retainer clip, although clip will require to be unlatched without the aid of a mounting hole to gain purchase. Carefully lift Microswitch from the two mounting posts and lift clear. Reassemble the dishwasher in reverse order. To reinstall the Microswitch a replacement cable tie is required.

5.2.43.4 Operate and test dishwasher before leaving.

5.2.44 Door Lock Microswitch - 7000, 7005, 7100 & 7105 Models



CAUTION. Switch off electrical power supply.

5.2.44.1 Remove the outer door panel. Undo the single Phillips head screw securing the Microswitch and Latch Housing assembly.



5.2.44.2 Remove both 1/4" terminals and wires from the Microswitch. Pry open the clip holding the Microswitch in the Latch Housing with a small screwdriver, then remove the Microswitch.

5.2.44.3 Reassemble the dishwasher in reverse order.

5.2.44.5 Operate and test dishwasher before leaving.

5.2.45 Door Lock Microswitch Lever - 6400, 6500, 6700, 6900, 6905, 6600 & 6605 Models



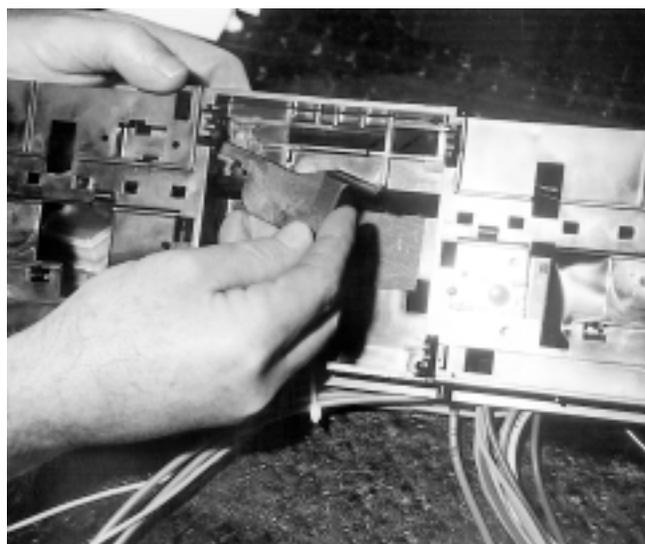
CAUTION. Switch off electrical power supply.

5.2.45.1 To remove the Door Lock Microswitch Lever, first remove the Door Lock Microswitch (Section 5.2.50).

5.2.45.2 Exert pressure against the flanged head of the pivot point of the Microswitch Lever. The pivot point will spring from the Control Panel Carrier Frame.



5.2.45.3 Twist the Microswitch Lever and remove from the front central square aperture of the Control Panel Carrier Frame.



5.2.45.4 Reassemble the dishwasher in reverse order.



CAUTION. Link L and N before testing for live connections to earth (ground) before leaving.

5.2.45.5 Operate and test dishwasher before leaving.

6.1.1 Programs - 6400 & 6500 Models

Wash Program	Temperature Options	Conformance Requirements	Turbidity Response		Prewash		Prewash		Prewash		Prewash		Wash temp		Max Heat Time		Wash Time			Rinse			Rinse Temp		Max Heat time		Rinse Time		Max Cycle time		Ave Cycle time	
			max	min	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
Pots & Pans	Normal		max						11	7	145	50	22	5	5	6	145	29	6	135	106											
			min						7	11	145	50	22	5	5			145	29	6	128	93										
	High		max						11	7	155	50	22	5	5			155	29	6	135	100										
			min						7	11	155	50	22	5	5			155	29	6	128	93										
Normal Wash	Normal	AHAM	max			11	7	10	7	131	40	22	5	7	5	131	23	6	142	105												
			med				11	7	10	131	40	22		7		131	23	6	125	88												
			min						11	131	40	22		7		131	23	6	109	72												
	High	CU	max	3	2	3	7	7	7	135	40	23	5	5		135	23	3	127	96												
China Crystal	Normal		-					78	115	20	6		5		125	20	7	66	41													
Sani Wash	High	NSF	-					10	7	160	50	2220		5		160	29	7	130	120												

Times have been rounded to the nearest minute, and are based on a 50/60Hz. Mains supply frequency. Temperatures are in degrees F.

Assumptions:

- The machine was drained prior to starting the cycle.
- Fill time is set to 30 seconds.
- The time from starting draining until the pressure switch resets is 15 seconds.
- Turbidity steps take the maximum time specified.

6.1.2 Programs - 6600 Rotary Model

Wash Program	Temperature Options	Conformance Requirements	Turbidity Response						Wash temp	Max Heat Time	Wash Time	Rinse	Rinse	Rinse	Rinse Temp	Max Heat time	Rinse Time	Max Cycle time	
			Prewash	Prewash	Prewash	Prewash	Prewash	Prewash											
Pots & Pans	Normal	max					11	77	145	50	22	5	5	145	29	6	135		
									711	145	50	22	5	5	145	29	6	128	
	HighTemp	max					11	7	155	50	22	5	5	155	29	6	135		
									711	155	50	22	5	5	155	29	6	128	
	Sani	max					11	7	171	50	22	5	5	171	29	6	135		
									711	171	50	22	5	5	171	29	6	128	
Normal Wash	Normal	AHAM	max			11	7	10	7	131	40	22	5	7	5	131	23	6	142
		AHAM	med					11	7	10	131	40	22		7	131	23	6	125
		DOE	min							11	131	40	22		7	131	23	6	109
	HighTemp	CU	max	3	2	3	7	7	7	135	40	23	5	5	135	23	3	127	
	Sani	NSF	max					10	7	160	50	22		5	160	29	7	130	
China Crystal	Normal	-							78	115	20	6		5	125	20	7	66	
Speed Wash	Normal	-							78	115	20	6			125	20	7	61	
Rinse Crystal	Normal	-															11	11	

Times have been rounded to the nearest minute, and are based on a 50/60Hz. Mains supply frequency.

Temperatures are in degrees F.

Assumptions:

- The machine was drained prior to starting the cycle.
- Fill time is set to 30 seconds.
- The time from starting draining until the pressure switch resets is 15 seconds.
- Turbidity steps take the maximum time specified.

6.1.3 Programs - 6605 Pots Rotary Model

Wash Program	Temperature Options	Conformance Requirements															
			Prewash	Prewash	Prewash	Prewash	Prewash	Prewash	Wash temp	Max Heat Time	Wash Time	Rinse	Rinse	Rinse	Rinse Temp	Max Heat time	Rinse Time
Heavy Duty	Normal						8	7	155	50	7	5	5	155	29	7	118
	High Temp						8	7	160	50	7	5	5	160	29	7	118
	Sani						8	7	171	50	7	5	5	171	29	7	118
Normal Wash	Normal	AHAM, DOE					8	7	135	50	7	5	5	135	29	7	118
	HighTemp	CU	3	2	3	7	7	7	145	40	23	5	5	160	20	3	127
	Sani						8	7	160	50	7	5	5	171	29	7	118
Light Wash	Normal						78	125	60	7			5	125	35	7	122
	High Temp						78	135	60	7			5	160	35	7	122
	Sani						8	160	60	7	5	5	160	35	7	122	
Speed Wash	Normal						78	115	20	6				125	20	7	61
Rinse Only	Normal															11	11

Times have been rounded to the nearest minute, and are based on a 50/60Hz. Mains supply frequency.

Temperatures are in degrees F.

Assumptions:

- The machine was drained prior to starting the cycle.
- Fill time is set to 30 seconds.
- The time from starting draining until the pressure switch resets is 15 seconds.
- Turbidity steps take the maximum time specified.

6.1.4 Programs - 6700, 6900 & 7000 Models

Wash Program	Temperature Options	Conformance Requirements	Turbidity Response						Wash temp	Max Heat Time	Wash Time	Rinse			Rinse Temp	Max Heat time	Rinse Time	Max Cycle time		
			Prewash	Prewash	Prewash	Prewash	Prewash	Prewash				Rinse	Rinse	Rinse						
Pots & Pans	Normal		max					11	7	145	50	22	5	5	145	29	6	135		
			min					11	7	145	50	22	5	5	145	29	6	128		
	High		max					11	7	155	50	22	5	5	155	29	6	135		
			min					11	7	155	50	22	5	5	155	29	6	128		
	Sani		max					11	7	171	50	22	5	5	171	29	6	135		
			min					11	7	171	50	22	5	5	171	29	6	128		
Normal Wash	Normal	AHAM	max				11	7	10	7	131	40	22	5	7	5	131	23	6	142
			med					11	7	10	131	40	22		7		131	23	6	125
			min							11	131	40	22		7		131	23	6	109
	High	CU	max		3	2	3	7	7	7	135	40	23	5	5	135	23	3	127	
	Sani	NSF	max					10	7	160	50	22		5		160	29	7	130	
China Crystal	Normal							8	115	20	6		5		125	20	7	66		
Rinse Only	N/a																11	11		

Times have been rounded to the nearest minute, and are based on a 50/60Hz. Mains supply frequency. Temperatures are in degrees F.

Assumptions:

- The machine was drained prior to starting the cycle.
- Fill time is set to 30 seconds.
- The time from starting draining until the pressure switch resets is 15 seconds.
- Turbidity steps take the maximum time specified.

6.1.5 Programs - 6905 Model

Wash Program	Temperature Options	Conformance Requirements															
			Prewash	Prewash	Prewash	Prewash	Prewash	Prewash	Wash temp	Max Heat Time	Wash Time	Rinse	Rinse	Rinse	Rinse Temp	Max Heat time	Rinse Time
Heavy Duty	Normal						8	7	155	50	7	5	5	155	29	7	118
	High	NSF					8	7	160	50	7	5	5	160	29	7	118
	Sani						8	7	171	50	7	5	5	171	29	7	118
Normal Wash	Normal	AHAM, DOE					8	7	135	50	7		5	135	29	7	118
	High	CU	3	2	3	7	7	7	145	40	23	5	5	160	20	3	127
	Sani						8	7	160	50	7	5	5	171	29	7	118
Light Wash	Normal						78	125	60	7		5	125	35	7	122	
	High						78	135	60	7		5	160	35	7	122	
	Sani						78	160	60	7		5	160	35	7	122	
Rinse Only	n/a														11	11	

Times have been rounded to the nearest minute, and are based on a 50/60Hz. Mains supply frequency. Temperatures are in degrees F.

Assumptions:

- The machine was drained prior to starting the cycle.
- Fill time is set to 30 seconds.
- The time from starting draining until the pressure switch resets is 15 seconds.
- Turbidity steps take the maximum time specified.

6.2 Circuit Diagram, Electronic Controller

