

**John Tisdel**  
Distributor of Fine Appliances

**ASKO**



3,000 & 5,000 Series Dishwasher Training Manual

# Dishwasher Service Training Manual

## Each section contains:

- Access/Disassembly
- Installation/Reassembly
- Service Tips
- Access to the service menus
- Resistance readings
- Function of components



This manual covers the 3,000 & 5,000 series dishwashers.

There's also helpful serial # label information.

## Distinctive Features & Innovations

### QUALITY:

- 18:9 Stainless Steel Tank, Filter & Spray Arms
- Anti-Jam, Auto-Reversing Pump
- Galvanized Steel Base Pan
- Balanced Door
- Check Valve
- PEX Water Line (rated 90 year life span)



### WARRANTY:

- **Industry Leading** - 2 Plus 1 Year - Parts & Labor Protection

## Distinctive Features & Innovations

### **FLEXIRACKS™:**

- Industry's Only 4 Level Rack System (High end 5,000 series)
- Exclusive Upper Rack - Height Adjustable
- Exclusive Middle Rack with 2 Removable Baskets
- Exclusive Lower Rack
- Adjustable Tines / Upper and Lower Racks
- China Guard
- 2 Adjustable Stemware Shelves
- Wineglass Shelf - Lower Rack
- Knife Rack
- Cutlery Plus Basket
- Knife Guard



# Distinctive Features & Innovations

**CAPACITY:**  
- 17 place settings



## Distinctive Features & Innovations

### **CLEANING SYSTEM:**

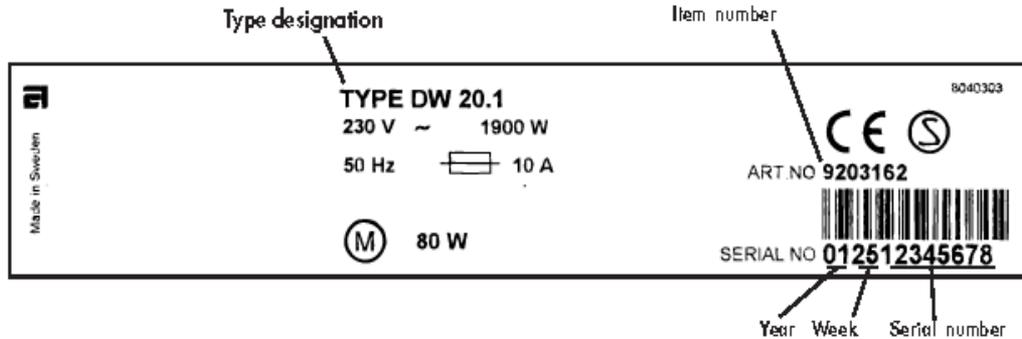
- PowerZone™ Pots-and-Pans
- PowerZone™ Plate
- PowerZone™ Cutlery
- 10Spray™ Wash System
- Self-Cleaning Triple Filtration System (SCS)
- AquaLevel™ Sensor
- SensiClean™ Sensor

### **DRYING SYSTEM:**

- TurboDry™

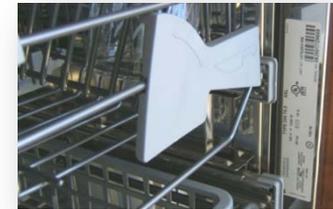


# Warranty Serial # Info



Sometimes a particular model will have 2 different Art #s indicating different part lists. The different Art # indicates a running change

## Understanding Art. #



**The serial label is fastened to the right side of the tank**

## Understanding Serial #

- The first 2 #s represent the year: 09 = 2009
- The next 2 #s represent the week: 25 = 25th week of the year
- The next 8 #s represent the serial #

In the US the model number is located on the front of the control panel, or on the top of the door. The TYPE designation, for example DW 20.1 shown on the data plate above is the Sweden reference or model number. It should be used when consulting the service manual or the service menus.



Please hold all warranty parts for (60) days for possible return for analysis.

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1<sup>st</sup> edition and is intended for service personnel.

# Installation

## Easy Install:

All connections are external. No need to remove kick plates and panels.



Unit has line cord with plug already connected



Drain hose with check valve and multiple connection size options



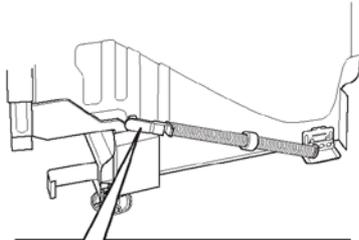
Pex fill hose already attached to unit, and with 3/8" fitting to connect to water supply



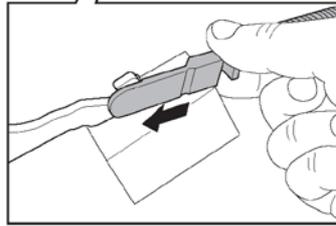
# Installation – adjusting the springs

The door springs are on the sides of the dishwasher. If necessary, pull out the dishwasher and adjust the tension of the door springs. A good idea is to try adjusting one side only first.

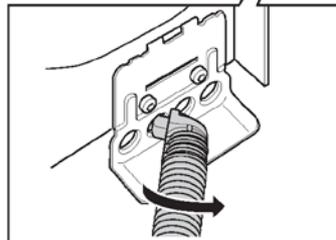
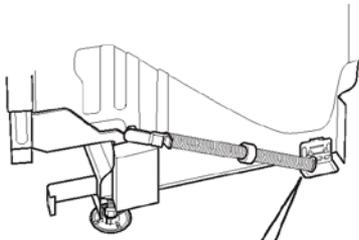
1. Be sure the door is closed.



2. Grab the front end of the spring and pull it up and forward to release it from the forward mount.



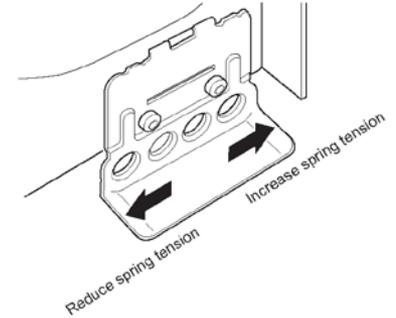
3. Loosen the spring from the rear mount by turning it outwards.



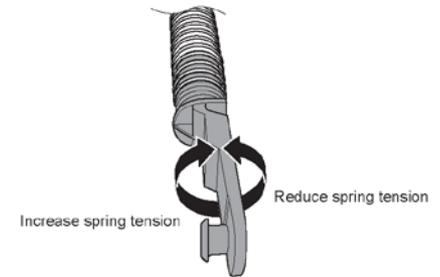
Printed from  
Installation manual

4. Adjust the spring tension using one of the following methods depending on how much adjustment is needed.

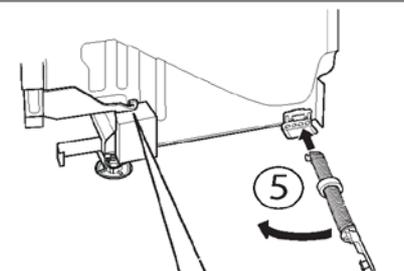
If you need to adjust the spring a lot, place the rear mount in another hole. Place the spring further forward to reduce the tension and further back to increase the tension.



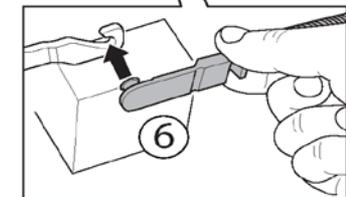
If you want to make small adjustments to the spring, hold the back end with one hand and turn the forward mount clockwise or counterclockwise one or more times. Turn the mount clockwise to increase spring tension and counterclockwise to reduce spring tension.



5. Replace the back end of the spring by holding the spring at a right angle to the side of the dishwasher and pushing the end of the spring into the hole, then turning the spring in toward the dishwasher.



6. Reattach the front end of the spring by pulling it up and forward to fasten it in the mount.

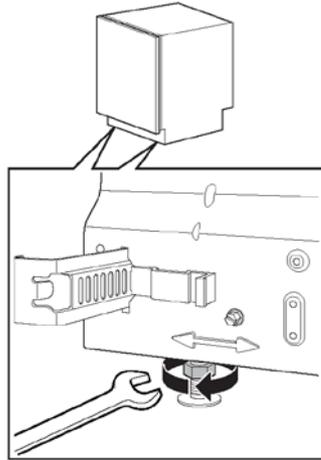


7. Open the door and check the spring tension again. If necessary, make further adjustments as above.

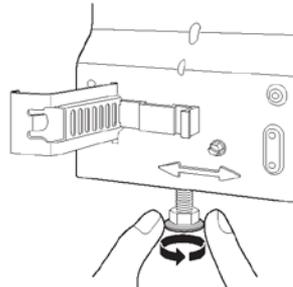
Stronger door springs are available for purchase for dishwashers fitted with a cover door. Springs are available for various weights and sizes of door. Door springs can be purchased from the retailer who sold you the dishwasher.

# Installation – adjusting the feet

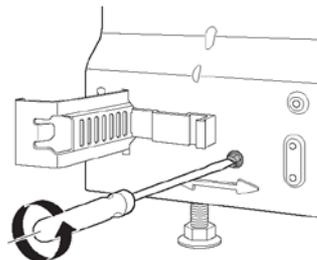
1. Loosen the lock nuts on the dishwasher's two front steel feet using a 5/8 inch (16mm) open-ended wrench. Screw the lock nuts down as close to the floor as possible.



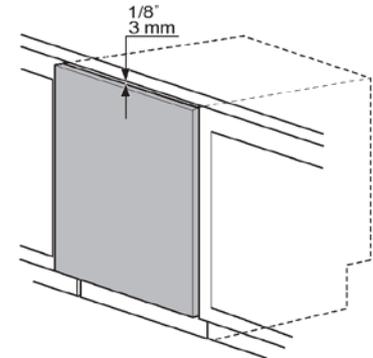
2. Adjust the height of the dishwasher by turning the top of the front steel feet with your hands. Leave enough space to adjust them later.



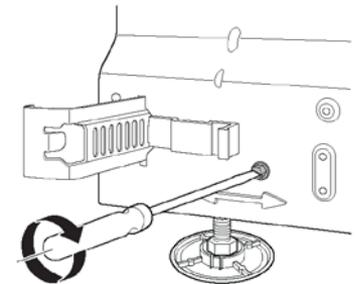
3. Screw in the back foot completely by turning the adjustment screw at the front counterclockwise. Use a flat-bladed or a 1/4 inch nut driver.



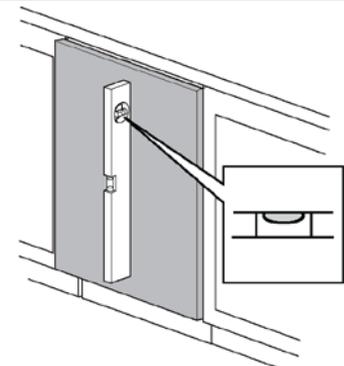
7. Check that there is a 1/8 inch (3mm) space between the top of the dishwasher door and the underside of the counter. Do not attach the mounting screws. This will be done later.



8. Adjust the back foot by turning the adjustment screw at the front clockwise.



9. Place the spirit level on the dishwasher door to check that the machine is level and adjust if necessary. The door must be fully closed!

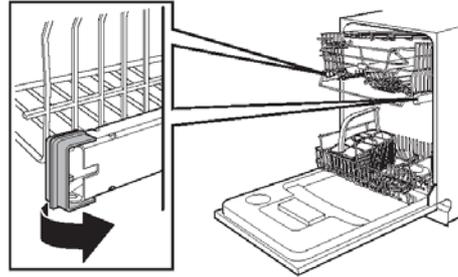


**Note:**

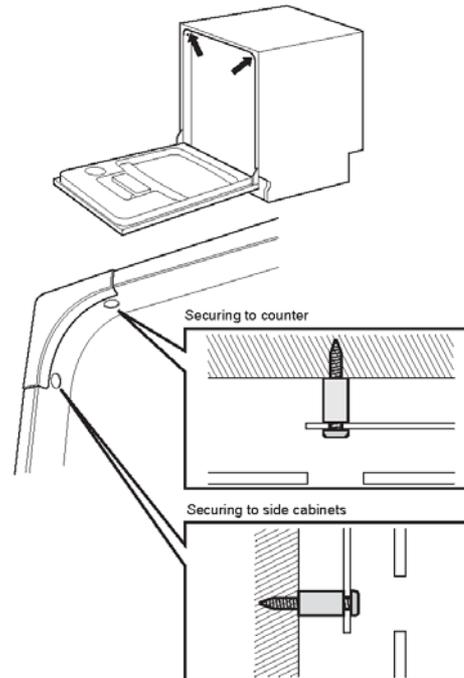
The dishwasher must be level!  
A machine that is not level can affect the amount of water taken in and make the door difficult to close, and the baskets difficult to place securely.

# Installation - securing the dishwasher

1. Pull out the upper basket, and the center basket if present, and turn the basket stop on the runner outward.
2. Remove the upper basket, and the center basket if present, by pulling the basket(s) out as far as possible. This is to make more space available during installation.
3. Remove the lower basket. Otherwise it easily rolls out if you need to adjust the dishwasher during installation.



4. Screw the dishwasher to the counter from the inside or to the cabinets on either side. If the counter is a hard material, such as marble, screw the dishwasher to the side cabinets. Use the supplied plastic spacers when screwing the dishwasher into place!



## How the dishwasher works (overview)

To be able to effectively service the dishwasher it is necessary to understand how it has been designed to operate. The following is an overview of the dishwashers operation:

When checking a program always cancel any previous program by turning the unit on, then holding down the Start/Stop button for three seconds. Then select the program to be checked.

All components are activated from the control unit, however other actions may have to take place first before a component is activated (for example the heater will not come on if there is no water in the machine).

All programs begin with a **25 second drain**. The drain pump is partially self-cleaning due to the fact that the direction of rotation is random. The entire contents of the tub should drain out within that 25 seconds. If not either the filters are not clean, or there is an obstruction in the drain pump, the hose, the disposal or air break. **Note: It is normal to have some water visible beneath the filters.**

The unit **fills with water** via a solenoid operated fill valve controlled by a flow meter or timed fill. The fill is monitored by a pressure switch which will respond if there is not enough water (for example a bowl tips over retaining a good volume of water) or if the machine should overflow, by turning on the drain pump.

The **circulation motor/pump** forces the water into the two (three) spray arms directly, or via the water diverter to each spray arm in turn. The motor is capacitor start.

The **water diverter** has a synchronous motor that drives a disc valve via a gearbox and controls the water to each spray arm.

**The water is heated** via a flow through tubular heater suspended between the sump housing and the Circulation pump. The heater is protected by an auto reset thermal cut-out, and a thermal fuse.

## How the dishwasher works

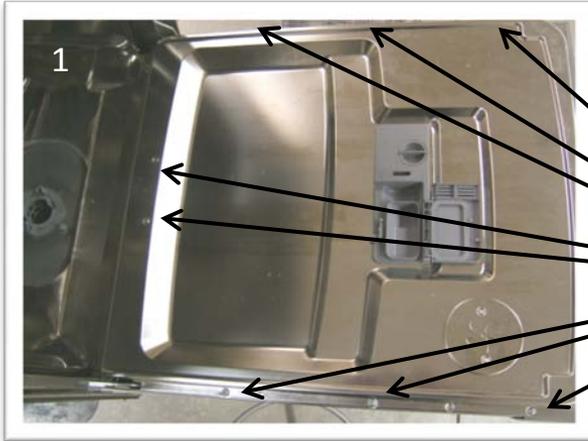
The **temperature** that the heated water reaches is controlled by a **thermistor** (attached to the inner door on 3,000 units and in the sump below the door on 5,00 units).

The **detergent** is dispensed by a **solenoid activated dispenser**. The first activation dispenses the detergent, the second activation dispenses the rinse aid. Some units have a rinse aid level indicator wired to the control unit.

The unit **dries** by heating the final rinse water to 160 degrees F then **dispensing rinse aid** into the water. The injection of the rinse aid gives the water a “sheeting action” off of the dishes and makes it easier for the water to evaporate.

Drying is further aided by a **fan assembly** mounted to the inner door. A wax motor opens the vanes allowing moisture from the tank to pass into the condensation tube. A motor then drives a double sided fan blade which draws the moisture laden air out of the tank.

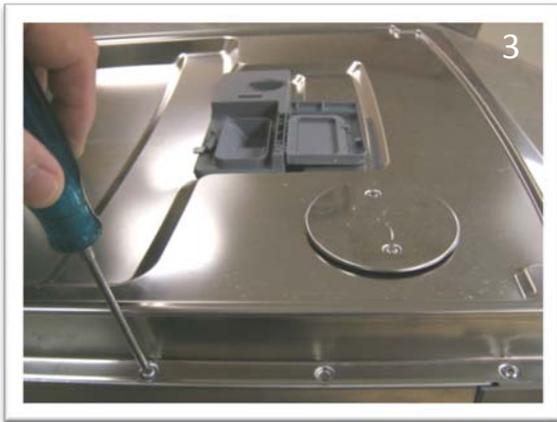
# Outer Door Removal



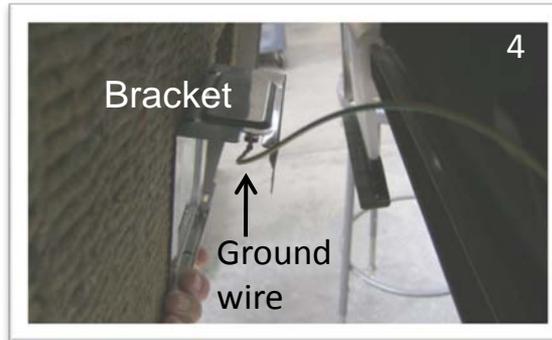
Open the dishwasher door, there are 2 screws at the bottom of the inner door and 3 down each side. 5 or 6 if the unit is an FI model



Remove the 2 bottom screws first



Remove the screws down each side

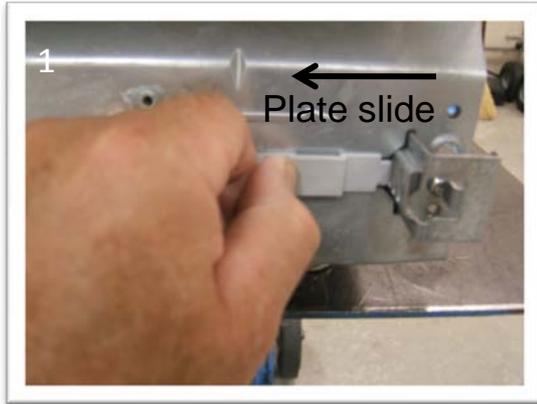


Lift the door up, and support the top of the outer door and ease the bottom of the door out towards you. Reach underneath, disconnect the ground wire from the bracket and lift up on the bracket slightly to clear the rim of the tank.

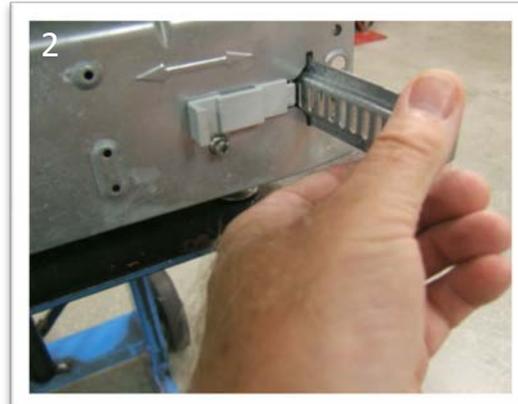


Lift door clear

# Access to lower front components 3,000 series

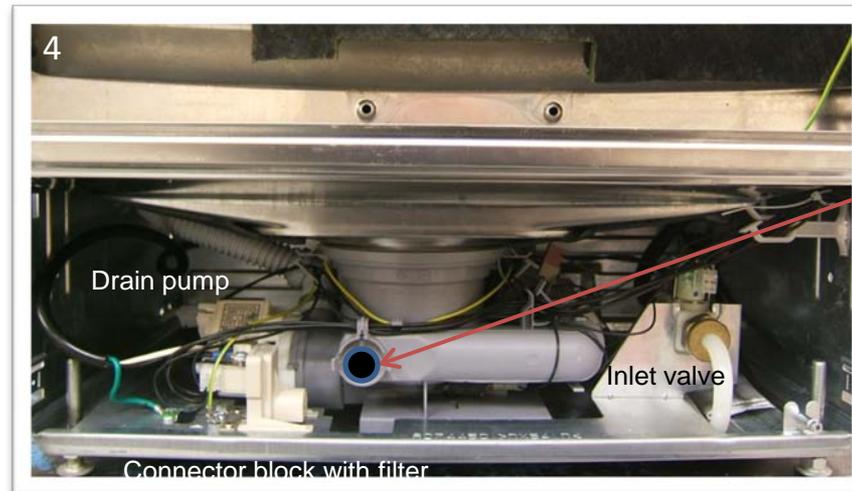


After removing the outer door & toe kick, move the plate slide to the left to release the toe kick bracket



Remove eight screws, four each side (2 are underneath), to release the protection plate

The following components can be accessed from the front: Drain pump, line cord connector block (with radio interference suppression filter), turbidity sensor (not on all models), and water inlet valve.

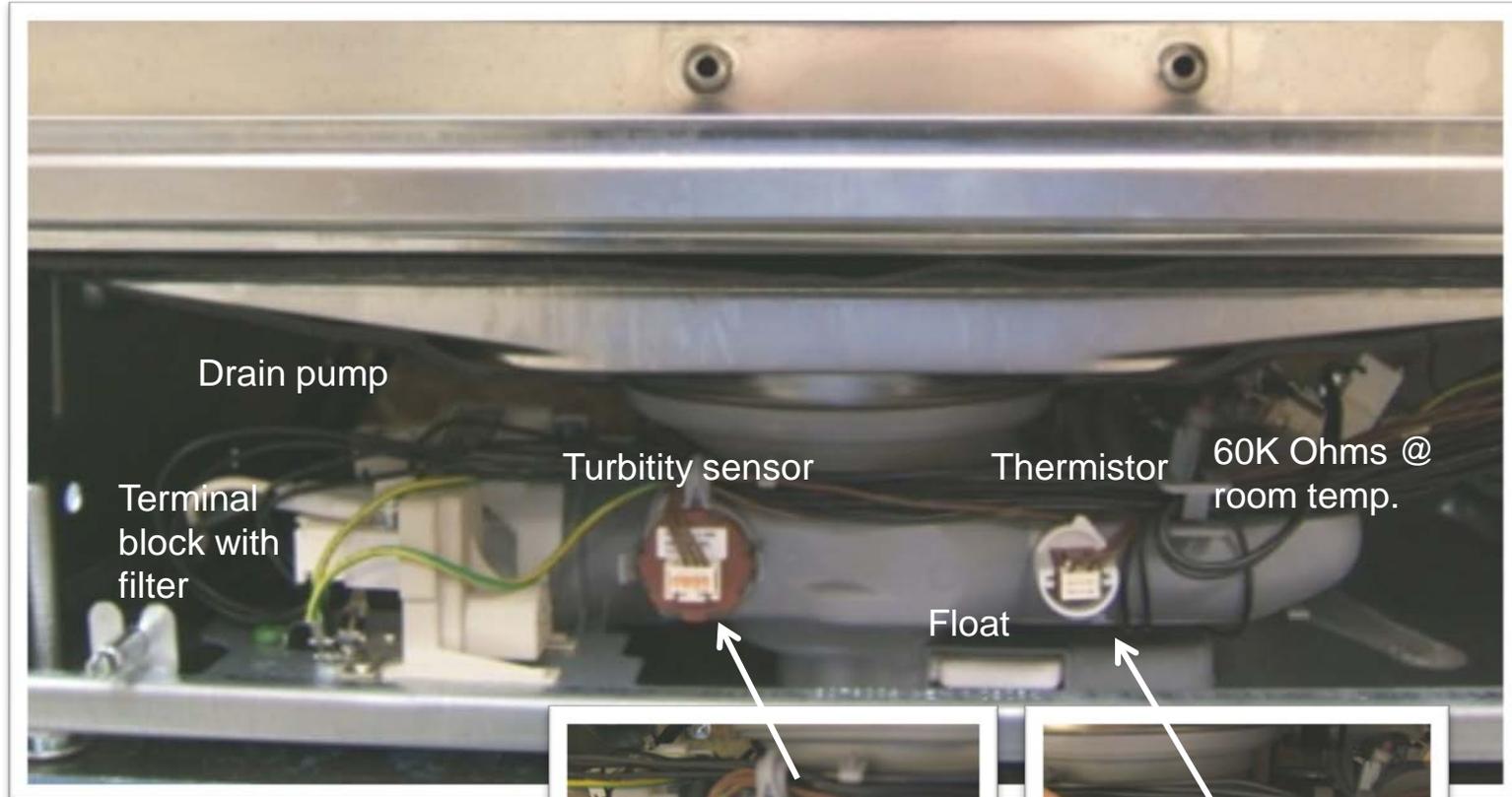


Turbidity Sensor



Samples the clarity of the water, will increase or decrease time, temperature and number of rinses

# Access to lower front components 5,000 series



Access to drain pump, terminal block with filter, turbidity sensor (if applicable) and the thermistor.



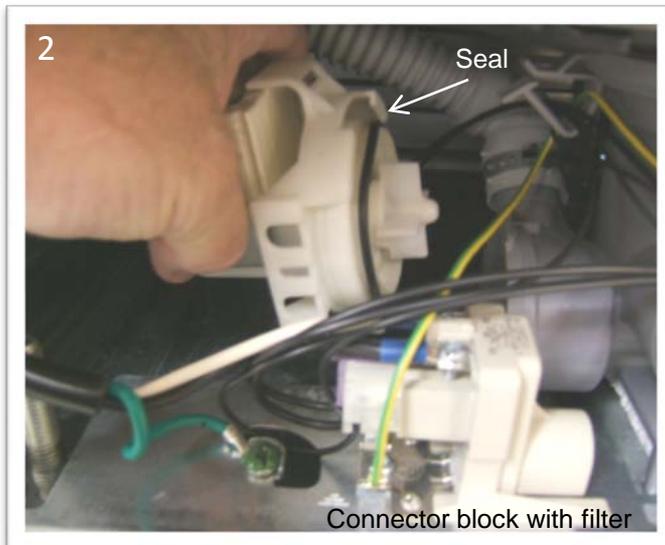
# Drain Pump



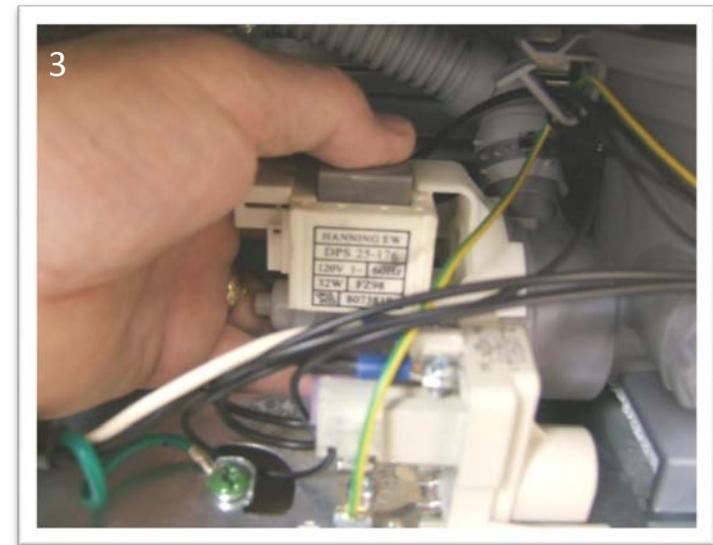
To remove the drain pump first disconnect the Molex connector.

Grasp the motor and twist towards the front (clockwise) to release the motor/impellor from the housing.

To replace, make sure the seal is in place around the pump face then firmly push the motor/impellor and seal into the housing in the vertical position then twist back counterclockwise until it locks in place



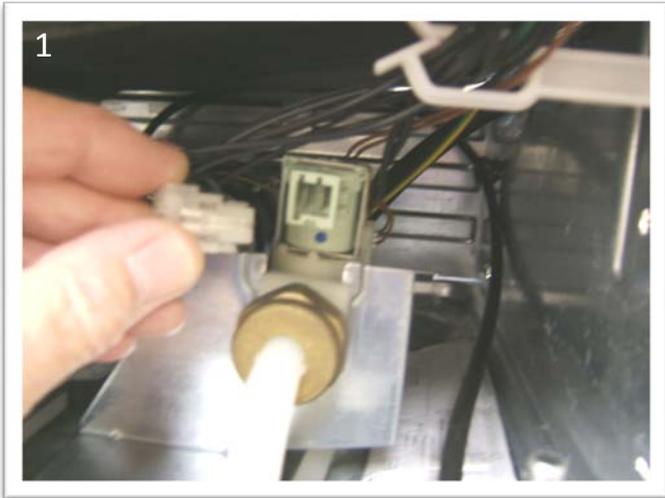
Drain Pump  
**Measures 25 Ohms & uses 32 watts of power.** Self cleaning by virtue of the fact that when turned on it will rotate in either direction



# Water Fill Valve with flow meter (3,000 series)

(front access)

**Note:** If the flow meter should fail it may cause some strange symptoms . For example the machine may fill and then just stop with no water circulation. Try changing the programming to timed fill instead of flow-meter fill. If that solves the problem then either leave the unit in timed fill or replace the flow meter



Remove the Molex connector from valve



Unscrew supply hose fitting (turn off water first)

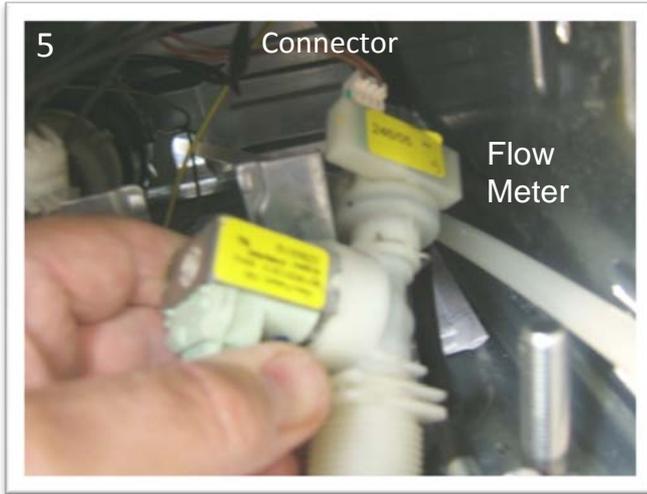


Set hose aside, don't loose the washer.

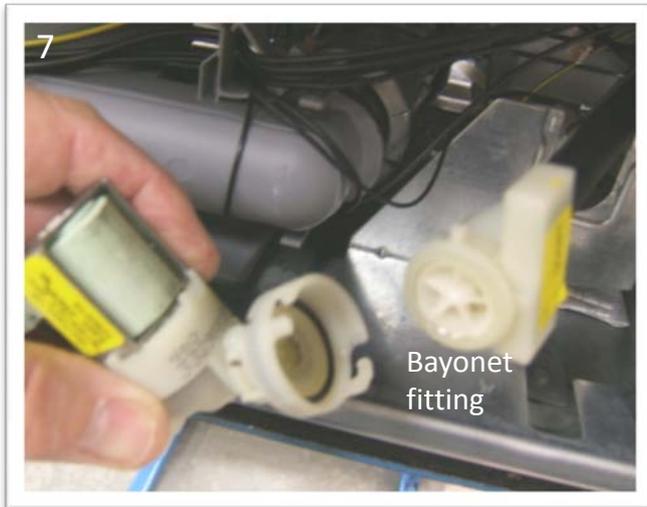


Slide the valve out of the bracket

# Water Fill Valve with flow meter (3,000 series) (front access)



Remove connector from flow meter



Fill valve is connected to flow meter with a push/turn bayonet type fitting

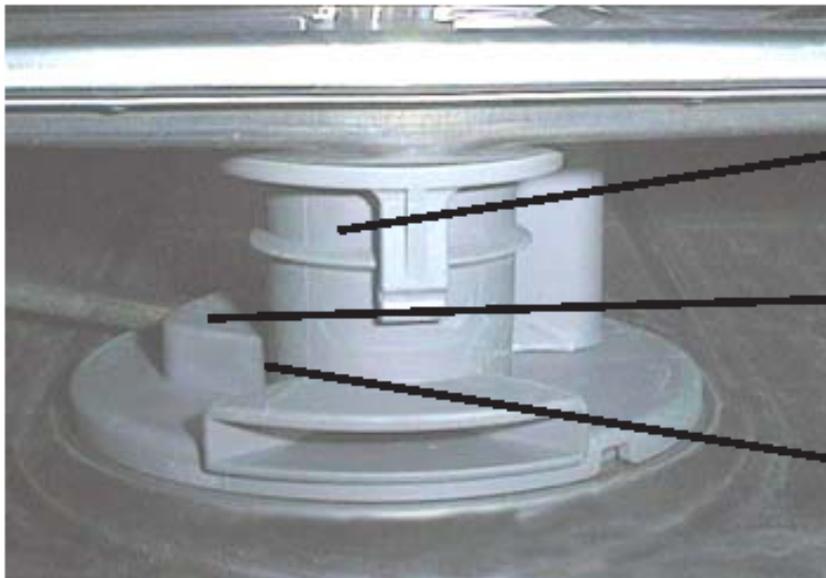


The flow meter is connected to the rear of the fill valve. The whole assembly can be replaced by removing the hose which goes up to the air break. A new hose clamp will then be needed to reconnect the new assembly. Or the flow meter can be disconnected from the fill valve via the retaining clip or with the bayonet fitting

## Water level 3,000 series units

If the control unit is changed from flow meter to timed fill or vice versa, always check the water level at the lower wash tower

Always allow the machine to take in and pump out water a few times before checking the level.



Overflow level = 6.5 litres

Without Spray arm diverter = 3.1 litres (1.5 mm above the level)

With Spray arm diverter = 2.7 litres (0.5 mm below the level)

Check the level at the lower wash tower

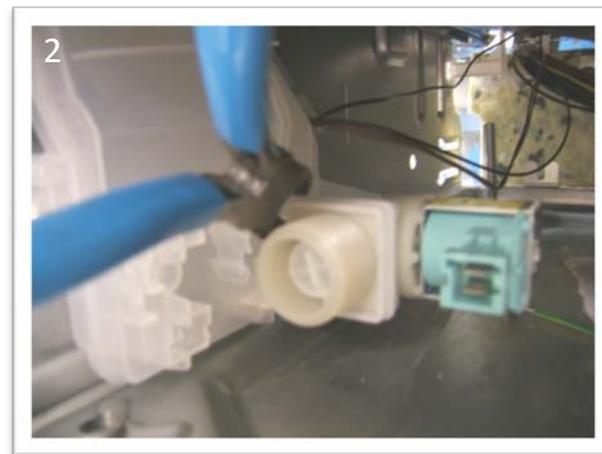
# Water Valve (5,000 series) removal (rear access)



1  
Disconnect pex hose and Molex connector from valve



Retaining clamp



2  
Cut through retaining clamp with cutters



3  
Bend tab at rear of air break

The fill valve on the 5,000 series is attached to the air break and is accessed from the rear of the unit. The only way to remove the valve from the air break is to cut through the retaining clamp (the new valve is a kit and will come with a new clamp). Bend the tab at the rear of the air break away from the valve, then pull on the valve to release from the housing



4  
Pull valve from air break

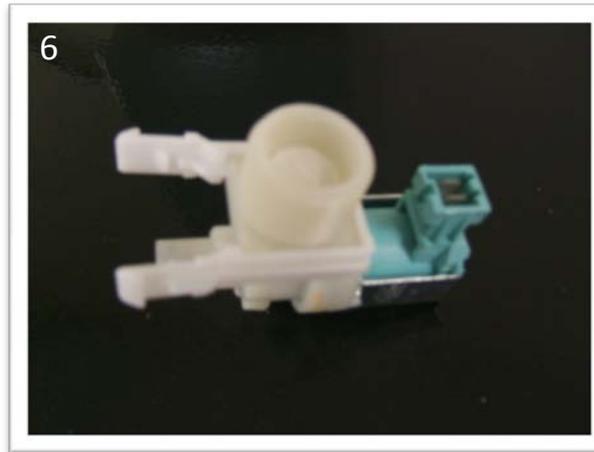
# Water Valve (5,000 series) installation



New valve is a kit consisting of a valve and a clamp

**Note:**

On the 5,000 series the flow meter is not attached to the fill valve it is located in the air break



Attach the clamp to the valve as shown



Push the spigot of valve into housing making sure the seal is in place



Snap clamp into housing to lock in place

## Water level 5,000 series units

If the control unit is changed from flow meter to timed fill or vice versa, always check the water level at the lower wash tower

Always allow the machine to take in and drain the water a few times before checking the level.

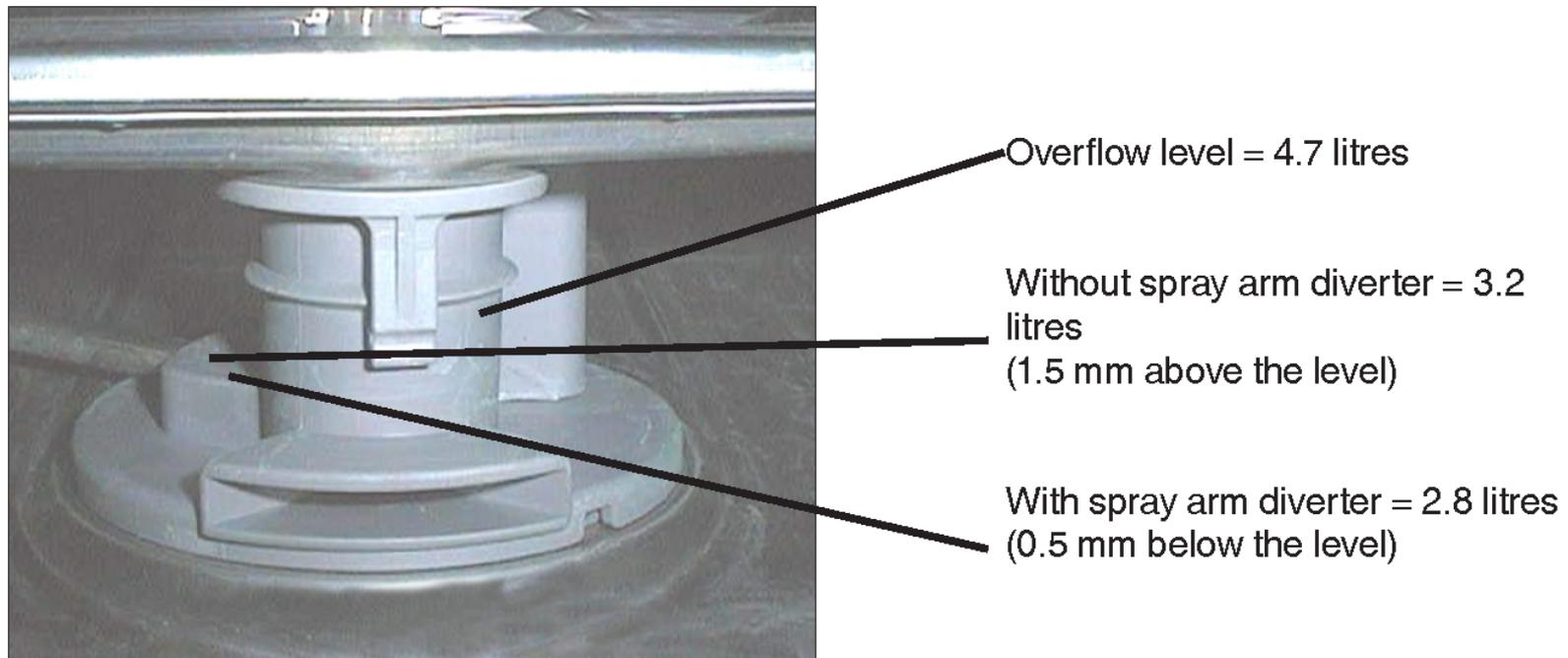
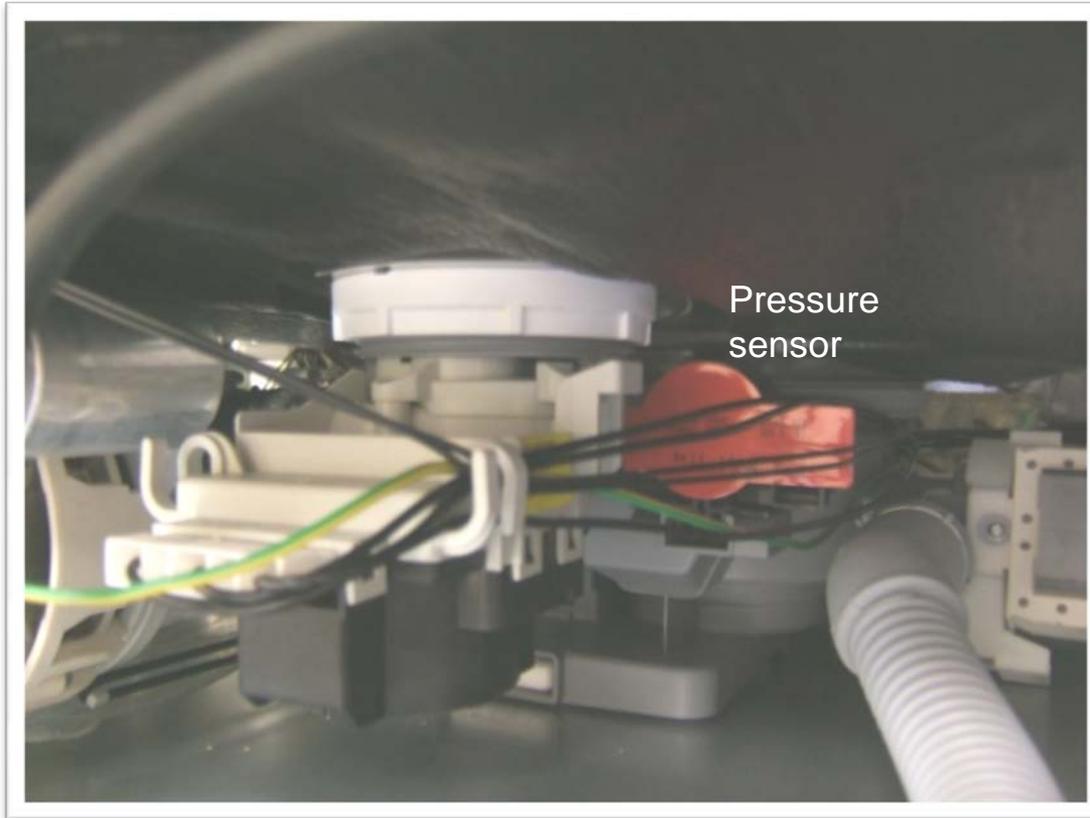


Figure: Check the level against the lower spray arm hub

# Pressure sensor



Sensor is a push fit into housing and is held with a tab fitting



The pressure sensor is connected to the pressure chamber in the sump. It measures the pressure corresponding to the water level in the machine. In the event of an excessively high water level in the machine the drain pump starts and other components are switched off. When the right level is reached, the program will continue. If the level is not reached within one minute, the program stops and the machine will show a fault indication.

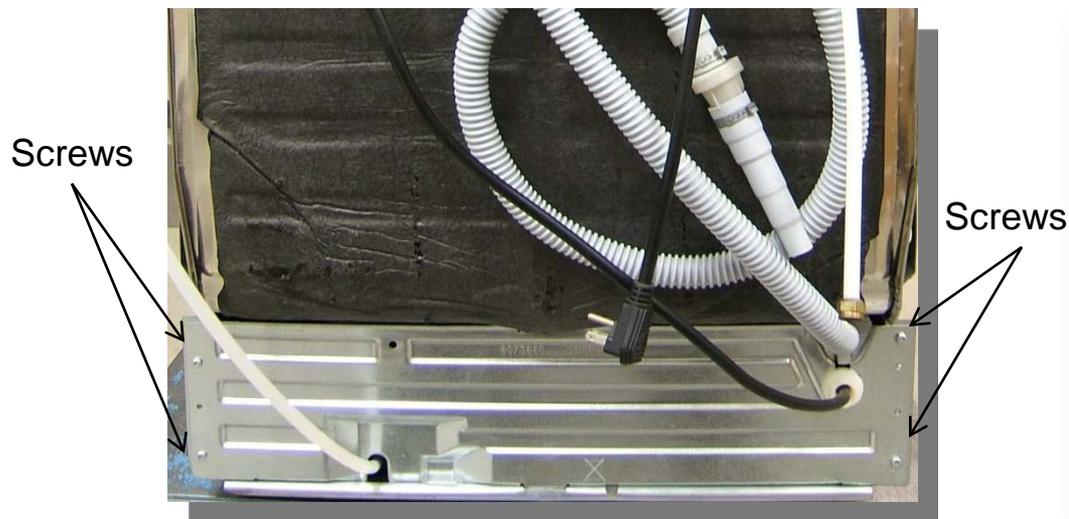
## Circulation Motor / Pump (3,000 series)

The circulation pump & capacitor are accessed from the rear by removing the rear lower panel.

**Before beginning always drain all water from the sump and disconnect power to the unit**

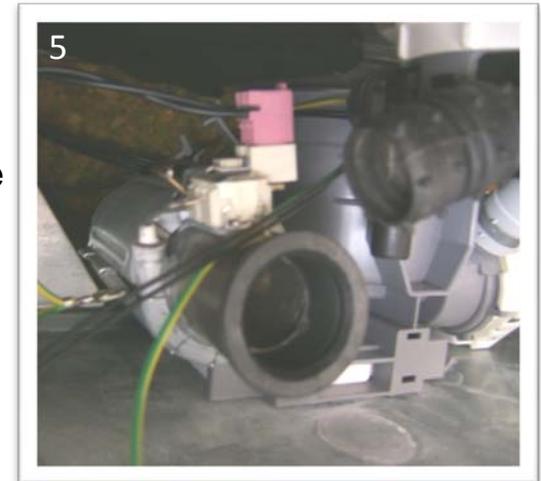
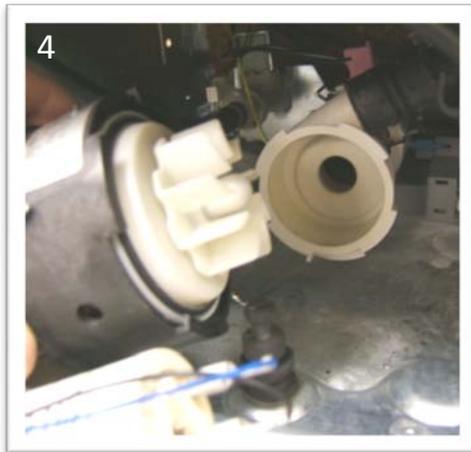
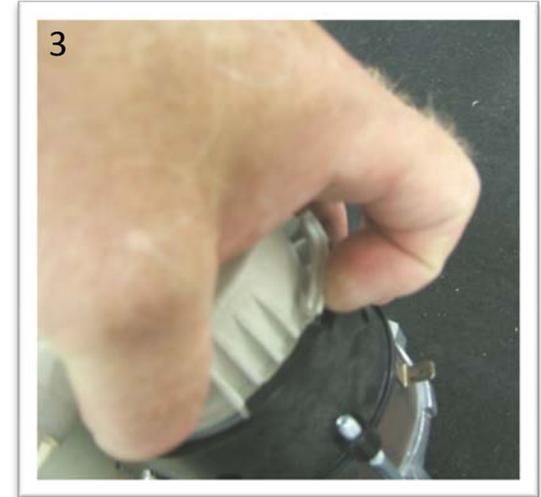
Remove four T-15 Torx screws securing the lower rear panel.

Carefully pull top of panel out first, then release the tab from the slot in the base of the unit.



The circulation Motor has a resistance of **22 ohms** and an attached **16 micro farad capacitor**.  
**The motor uses 95 watts of power when operating.**

## Circulation Motor / Pump (3,000 series)



Remove ground wire from motor. Remove the Molex connector. There are now two ways to remove the motor/pump assembly. (1) disengage the motor/pump from the pump housing by grasping the motor and turning it counter clockwise a tad so that the locking tab can be lifted up, then twist the motor clockwise to remove from the pump housing. (2) Remove the hose clamp (not reusable) which connects the pump to the water diverter valve assembly (or if no diverter the blank housing) then pull the whole unit from the heating element (it is a pressure fit, no clamp)

## Circulation Motor / Pump (5,000 series)



Circulation motor/pump is removed in the same manor as the 3,000 series, however there is less room to maneuver due to the taller tank. It may be easier to remove and replace the motor/pump as a complete assembly.

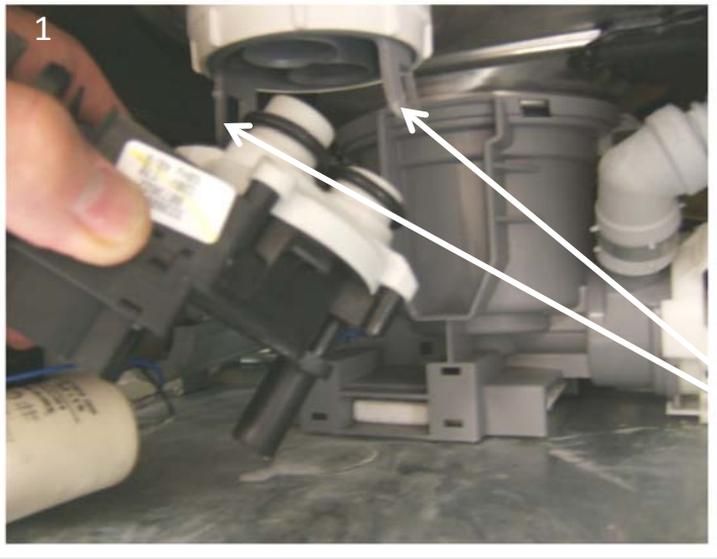
# Heating Element



Access to the heating element is achieved from the rear of the unit in the same manor as the circulation motor/pump. The heating element is suspended between the circulation pump housing and the sump housing and is secured with rubber seal inserts. It is a push fit and there are no clamps. The circulation motor will have to be removed first in order to pull the heating element off of the sump.

Before removing the heating element disconnect the ground wire and the Molex connector. **Caution** Connection rods run from the heater to the Molex on the outside of the casing and are hot all the time so make sure the power is off before removal. Heating Element is **1200 Watts, Resistance 12 Ohms**

# Water Diverter Valve



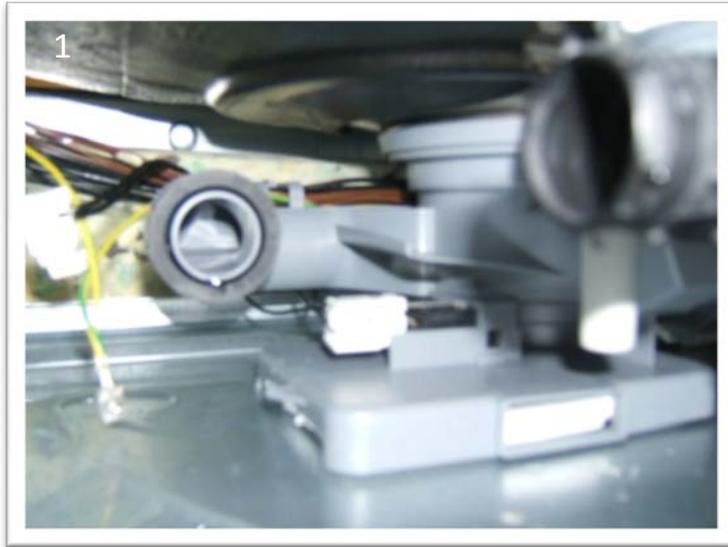
Access to the water diverter valve is achieved from the rear of the unit in the same manner as the circulation motor/pump and heater. Ease the two tabs on both sides, out slightly and pull down on the assembly. Disconnect the three wire connector going to the terminal block of the diverter. Remove short hose which connects diverter to circulation pump. A new hose clamp will be needed to reconnect hose to new diverter.



Before installing the new diverter be sure to install the “O” rings from the old one onto the new one (see illustration) or the new unit will leak.

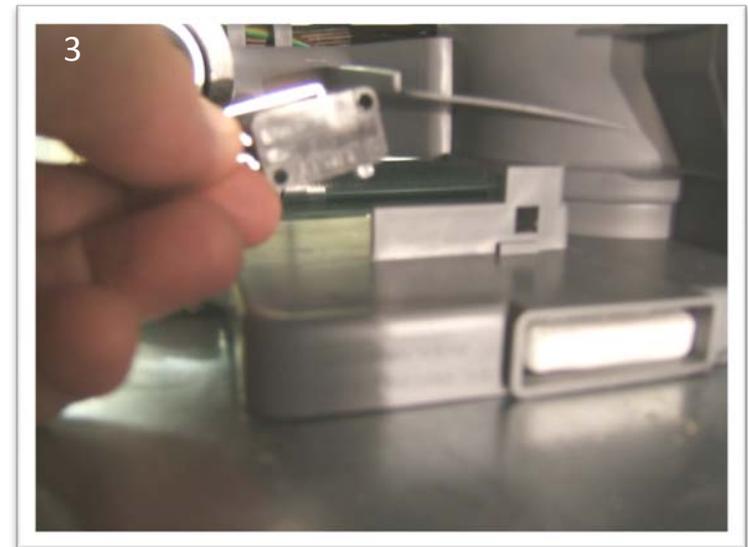
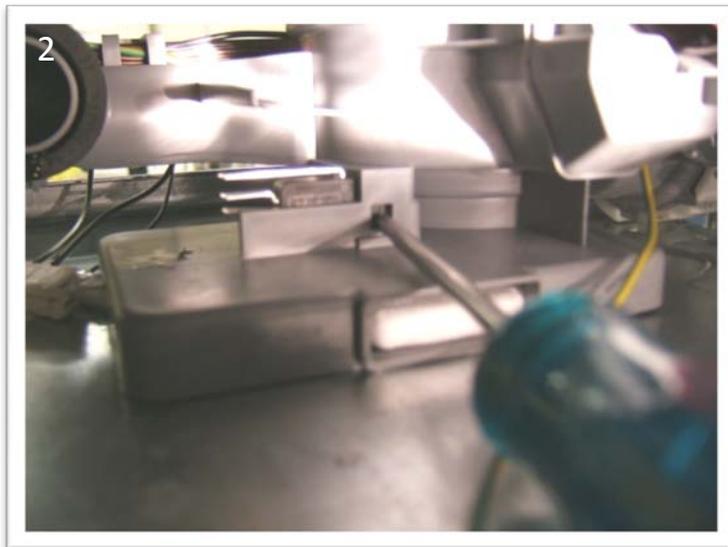
**Resistance reading between terminal 2-3 is 2,600 Ohms**

# Float switch



The float switch is mounted in the sump housing. In the event of water overflowing into the base pan, a Styrofoam float rises up and activates a micro switch turning on the drain pump.

Access to the switch is from the rear and other components may have to be removed to get to the switch. To remove the switch from the housing disconnect the three wires going to the switch. Push a screwdriver through the access hole and ease the switch off the support pegs.



# Detergent/Rinse Aid Dispenser



Detergent & rinse aid dispensers are combined into one assembly & is fastened to the inner door with 2 clamps



Remove thermistor from right side of lower clamp (3,000 series only)



Disconnect Molex to rinse aid sensor (if applicable).



Disconnect Molex to solenoid

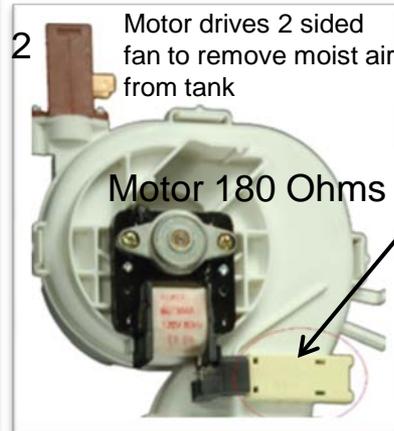
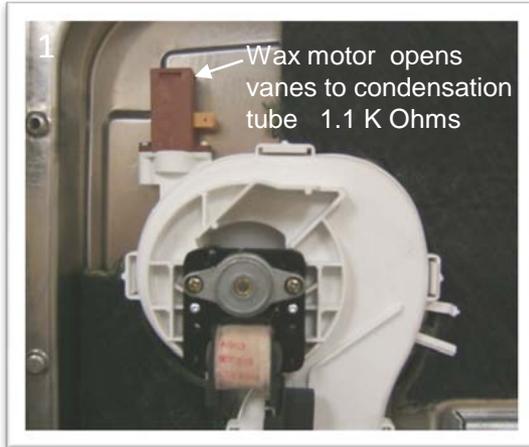


Remove the remaining screws holding the upper and lower clamps.

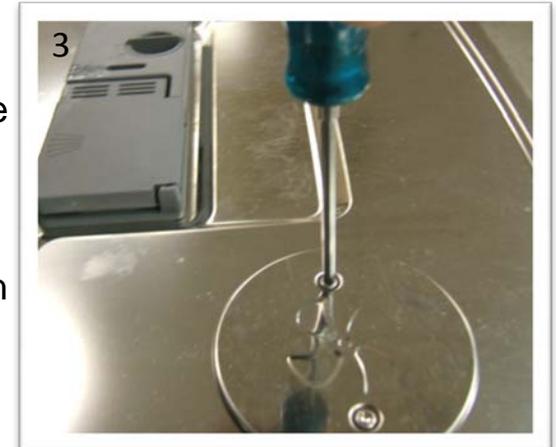


Open the door and lift assembly from inner door

# Fan Assisted Dry Assembly



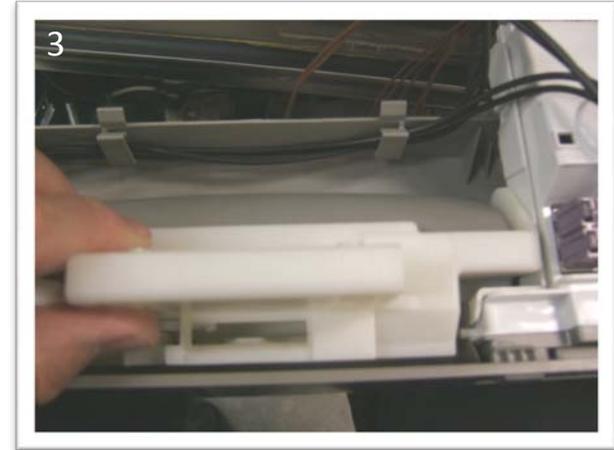
Some units have in addition, a humidity sensor which turns off the fan based on comparison of outside & inside humidity levels



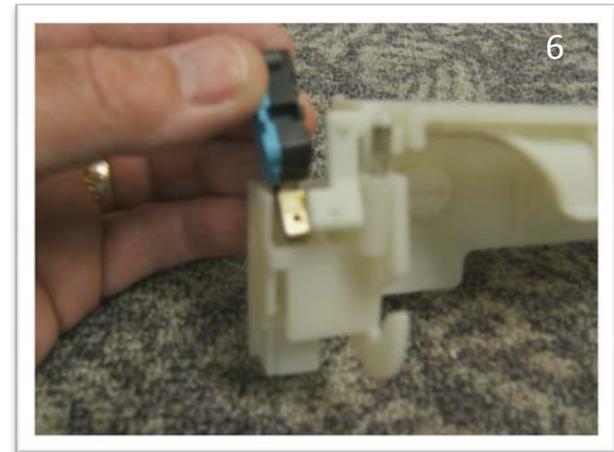
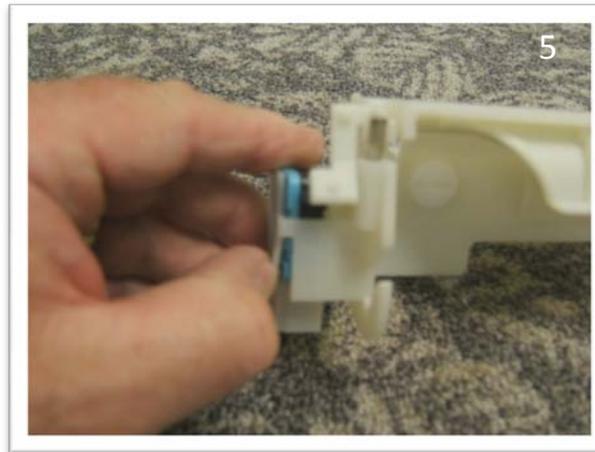
To remove assembly, disconnect Molex connector from wax motor and fan motor. From inside the door remove the two screws holding stainless assembly cover. Grasp the inner black cover and twist counterclockwise. Remove unit from door.



# Door latch/switch assembly



After removing the outer door remove the 2 screws on top of the inner door. Ease the control panel from the tabs in the top of the inner door. Release wiring to door switch and lift latch from cradle.

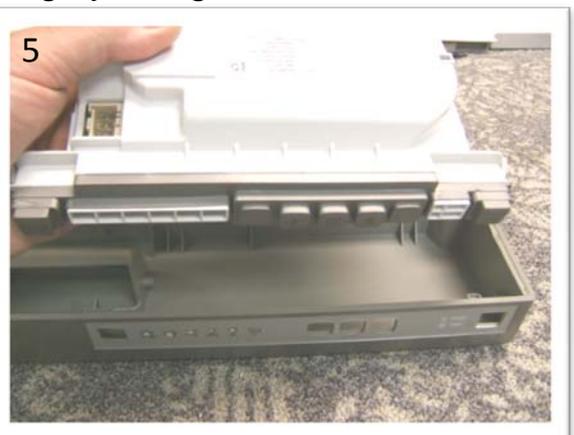


To remove door micro switch, bend tab on switch assembly and slide switch up and out of the housing.

# Control board removal and installation

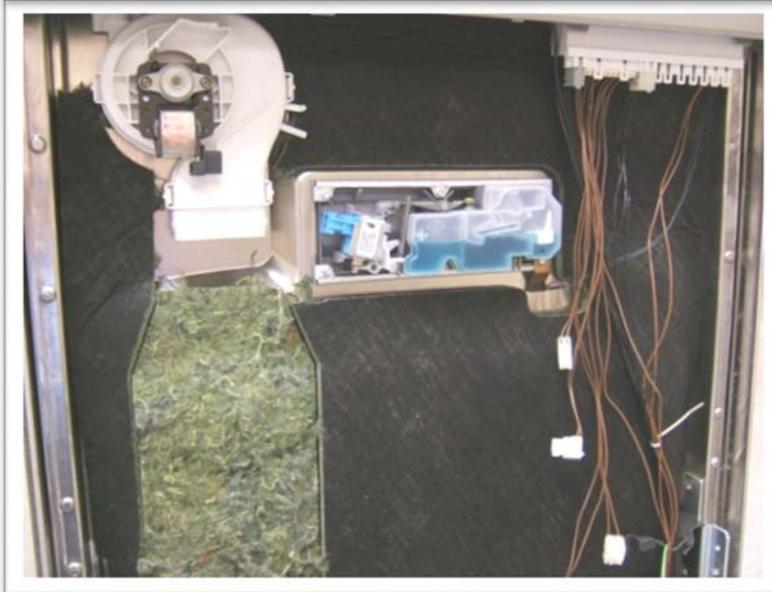
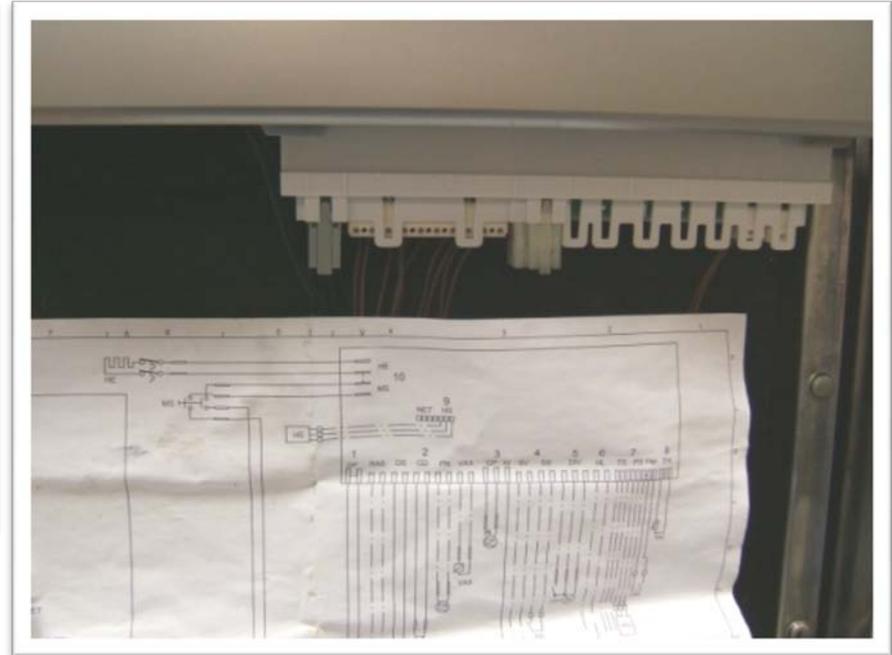


After removing the wire connections and removing control panel from the unit, lay it down on a protected flat surface. Not all control boards can be removed from the panel intact, for example the FI unit shown above. In this case separate the casing by using a flat blade screwdriver and prying the tabs apart see (2)



The new control board will install into the control panel as a complete assembly. Insert the touch pad end into the control panel first then snap the unit into place.

# Rewiring control board



If wiring from a component to the control board or from the control board to a component, check with the wiring diagram for correct location of connectors.

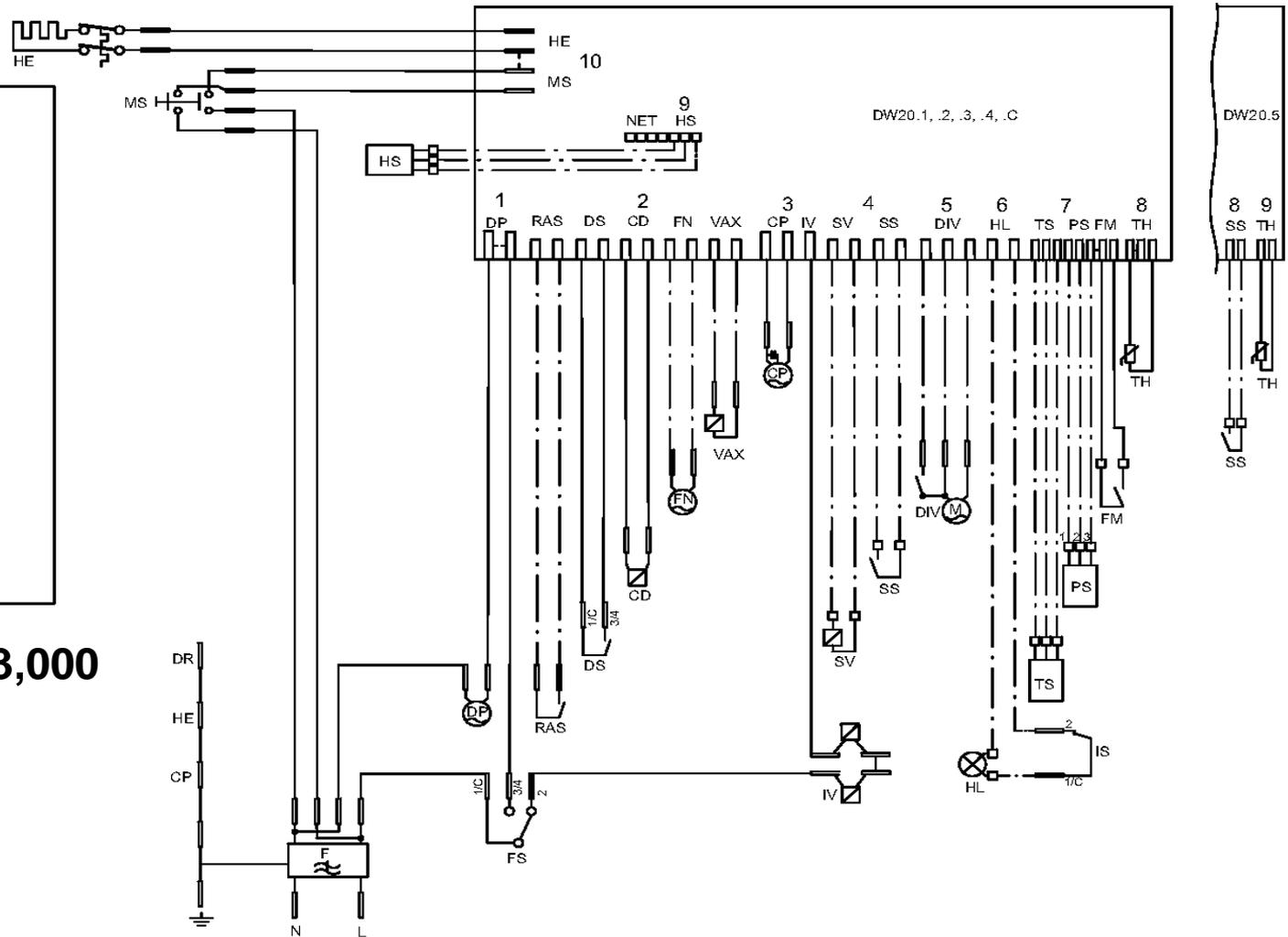
The wiring diagram mirrors the circuit board for easy reference.

**Note:** When replacing a control board check the Wax motor, diverter motor and heater to make sure that a short in one of these components did not cause the control to fail. Otherwise the new board will also fail.

# Control board wiring and component values

CD: COMBI DISPENSER  
 CP: CIRCULATION PUMP  
 DIV: WATER DIVERTER VALVE  
 DP: DRAIN PUMP  
 DR: DOOR  
 DS: DOOR SWITCH  
 F: FILTER  
 FM: FLOW METER  
 FN: FAN  
 FS: FLOAT SWITCH  
 HE: HEATING ELEMENT  
 HL: HALOGEN LAMP  
 HS: HUMIDITY SENSOR  
 IS: ILLUM. SWITCH  
 IV: INLET VALVE  
 MS: MAIN SWITCH  
 PS: PRESSURE SENSOR  
 RAS: RINSE AID SENSOR  
 SS: SALT SENSOR  
 SV: SALT VALVE  
 TH: THERMISTOR  
 TS: TURBIDITY SENSOR  
 VAX: VAX ACTUATOR  
 NET: INTERFACE TO HOME NET  
 COMMUNICATION UNIT

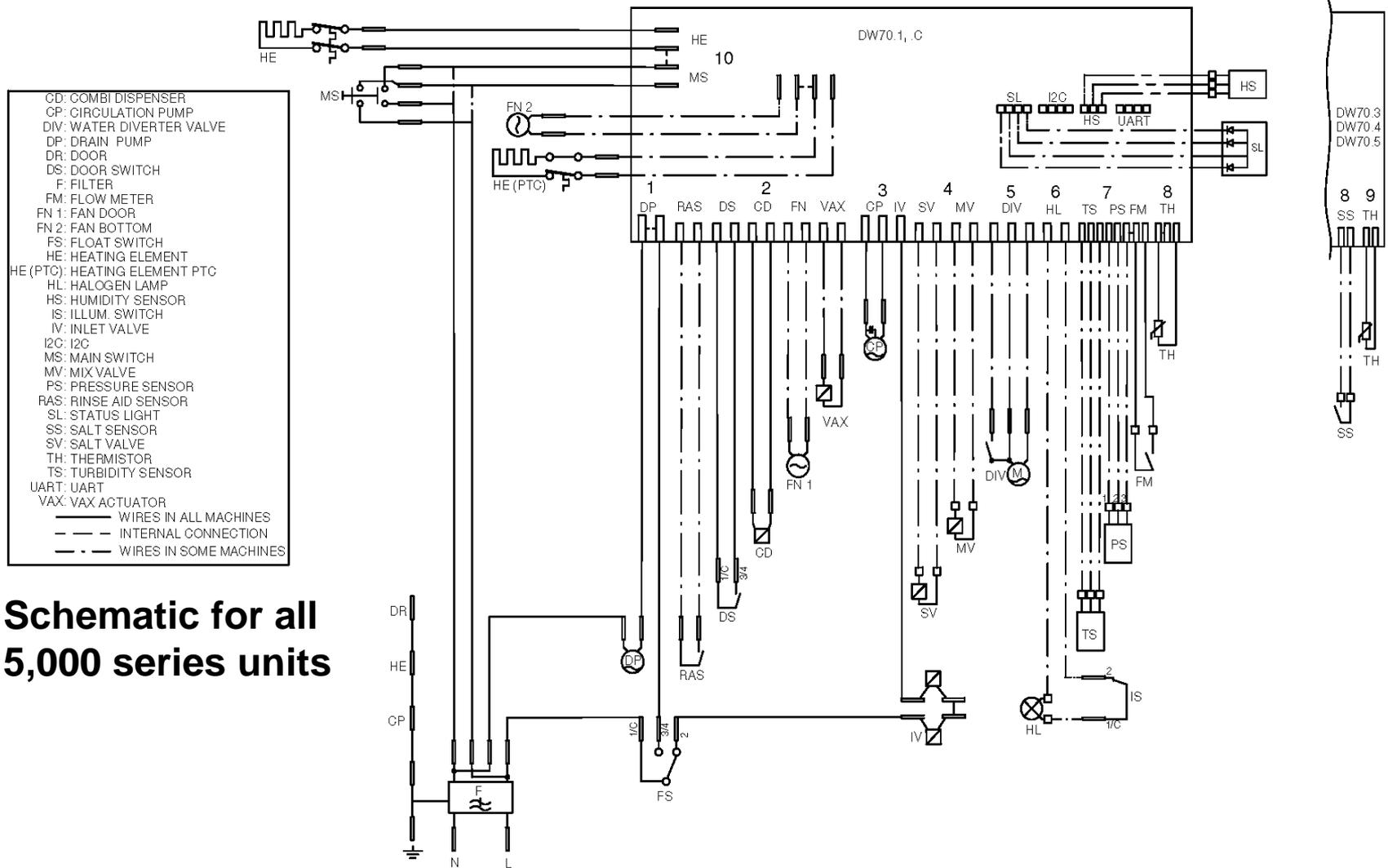
——— WIRES IN ALL MACHINES  
 - - - INTERNAL CONNECTION  
 - · - WIRES IN SOME MACHINES



## Schematic for all 3,000 series units

Dispenser 300 Ohms: Circulation pump 22 Ohms: Water diverter valve 2600 Ohms: Filter 1 mega Ohm: Heating element 12 Ohms: Fill valve 950 Ohms: Thermistor 25,000 Ohms: Wax actuator 1100 Ohms: Fan motor 180 Ohms: Drain pump 25 Ohms

# Control board wiring and component values

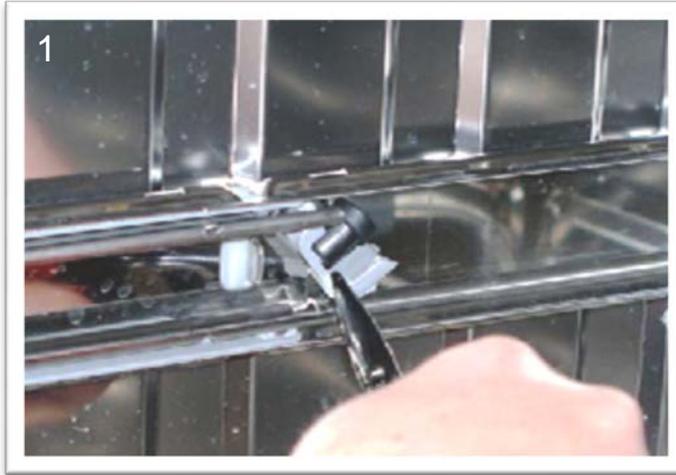


- CD: COMBI DISPENSER
- CP: CIRCULATION PUMP
- DIV: WATER DIVERTER VALVE
- DP: DRAIN PUMP
- DR: DOOR
- DS: DOOR SWITCH
- F: FILTER
- FM: FLOW METER
- FN 1: FAN DOOR
- FN 2: FAN BOTTOM
- FS: FLOAT SWITCH
- HE: HEATING ELEMENT
- HE (PTC): HEATING ELEMENT PTC
- HL: HALOGEN LAMP
- HS: HUMIDITY SENSOR
- IS: ILLUM. SWITCH
- IV: INLET VALVE
- I2C: I2C
- MS: MAIN SWITCH
- MV: MIX VALVE
- PS: PRESSURE SENSOR
- RAS: RINSE AID SENSOR
- SL: STATUS LIGHT
- SS: SALT SENSOR
- SV: SALT VALVE
- TH: THERMISTOR
- TS: TURBIDITY SENSOR
- UART: UART
- VAX: VAX ACTUATOR
- Wires in all machines
- - - Internal connection
- · - Wires in some machines

**Schematic for all 5,000 series units**

Dispenser 300 Ohms: Circulation pump 32 Ohms: Water diverter valve 2600 Ohms: Filter 1 mega Ohm: Heating element 12 Ohms: Fill valve 950 Ohms: Thermistor 60,000 Ohms: Wax actuator 1100 Ohms: Fan motor 180 Ohms: Drain pump 25 Ohms.

# Upper rack rail bearings and holders (removal)



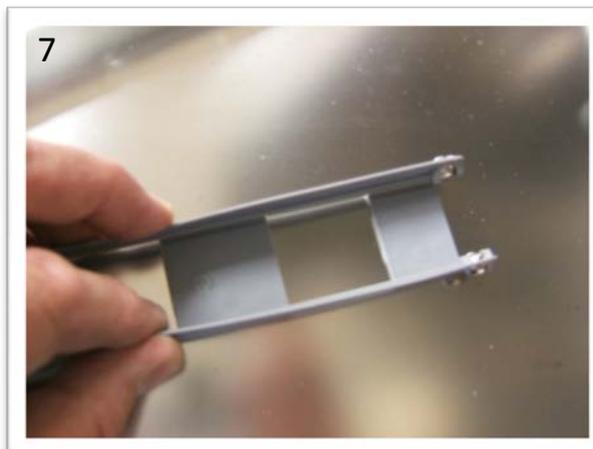
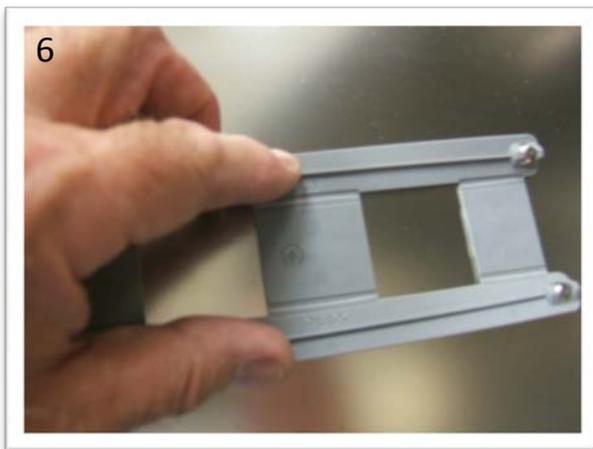
To remove ball bearing holder for upper rack rail, use a flat blade screwdriver or needle nose pliers and remove the rear rail stop by easing the bottom of the stop out of the notch in the rail. Now slide the rail out of the track.



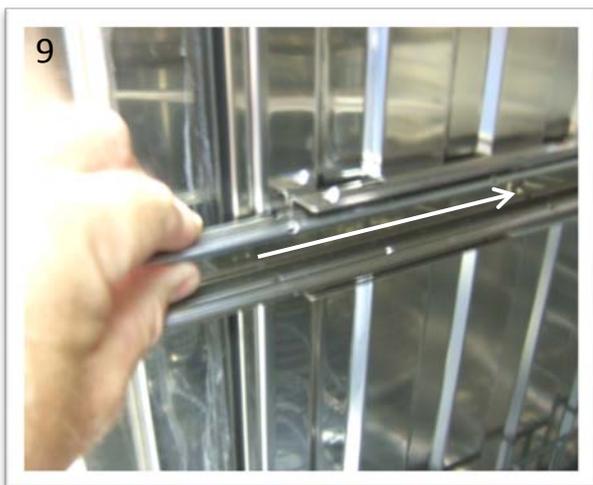
Slide out the ball bearing plastic holder which should contain 4 bearings. Check the bottom of the tank for broken off plastic pieces or ball bearings which may have fallen out.



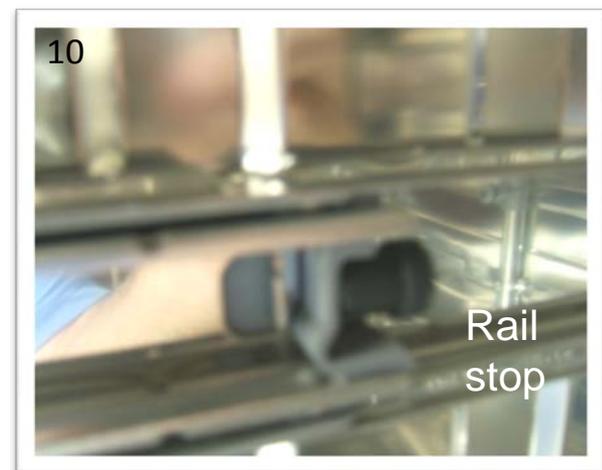
## Upper rack rail bearings and holders (install)



The replacement bearing holders come in a kit with the ball bearings. The bearing holder comes flat, insert the ball bearings into the holder, then bend the holder to form the correct shape (see illustration).



Slide the newly assembled bearing holder into the track, then slide the rack rail into the bearing holder. Finish off by reinstalling the rear rail stop.



# Filters and sump drain cap



1 Remove strainer basket



2 Rotate fine mesh filter counter clockwise .



3 Lift out

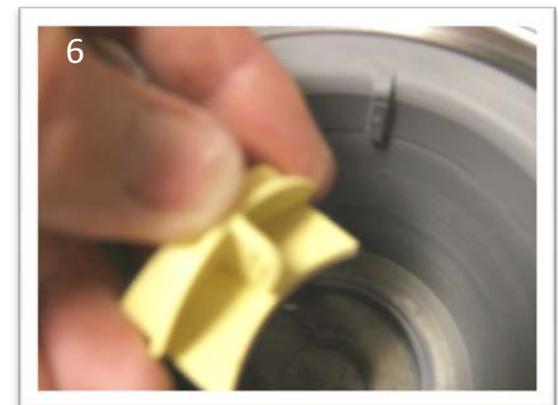
**Strainer and filters must be kept clean to ensure good draining and clean dishes.**



4 Remove strainer: With cap removed from sump there is access to the impellor of the drain pump for clean out



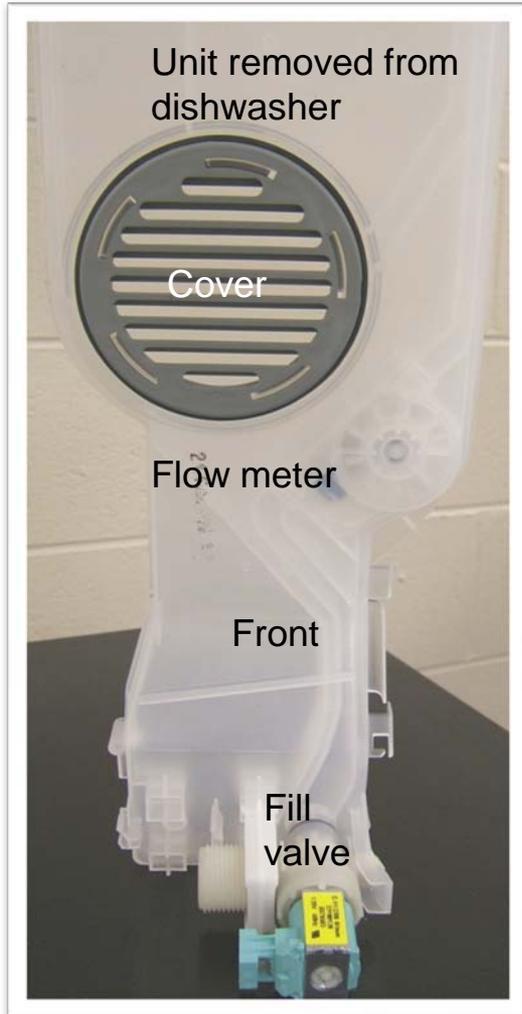
5 Sump drain cap sits down in the sump area inside the outlet to the drain pump



6 This cap must be in place in order for the machine to drain correctly

# Water fill/air break assembly (5,000 series)

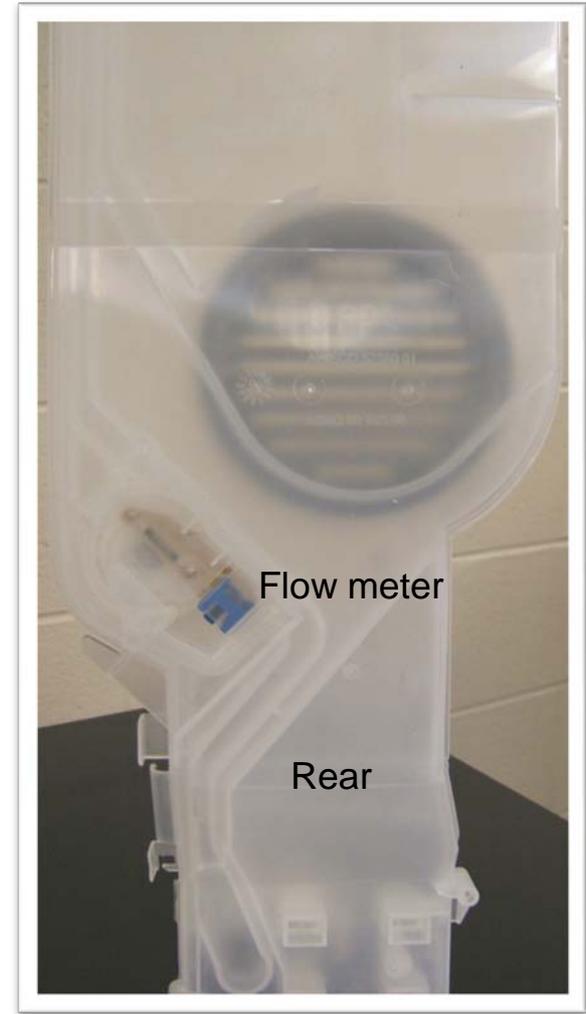
3,000 series is the same but does not have the fill valve & flow meter



The air break contains the fill valve and the flow meter, it is fastened to the side of the tank with the cover (from the inside of the tank) and a single screw on the outside.

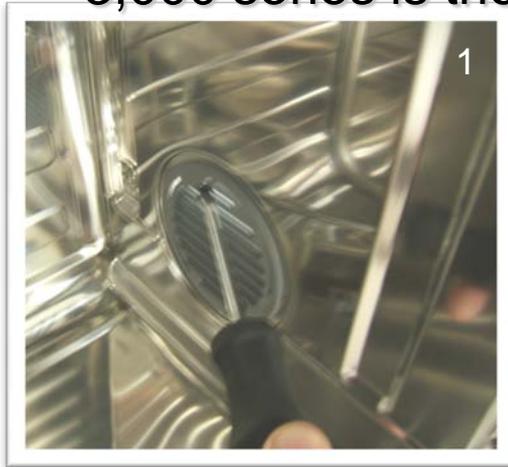
In addition it is held in place on the outside of the tank with the base side supports. There are two large screws which go through the tank wall and into these side supports effectively squeezing it in place.

**Note:** If the flow meter should fail it may cause some strange symptoms . For example the machine may fill and then just stop with no water circulation. Try changing the programming to timed fill instead of flow-meter fill. If that solves the problem then either leave the unit in timed fill or replace the flow meter

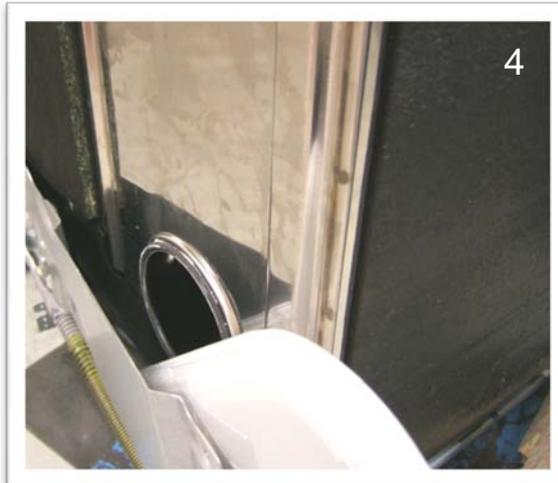


# Water fill/air break assembly (5,000 series)

3,000 series is the same but it does not have the fill valve & flow meter

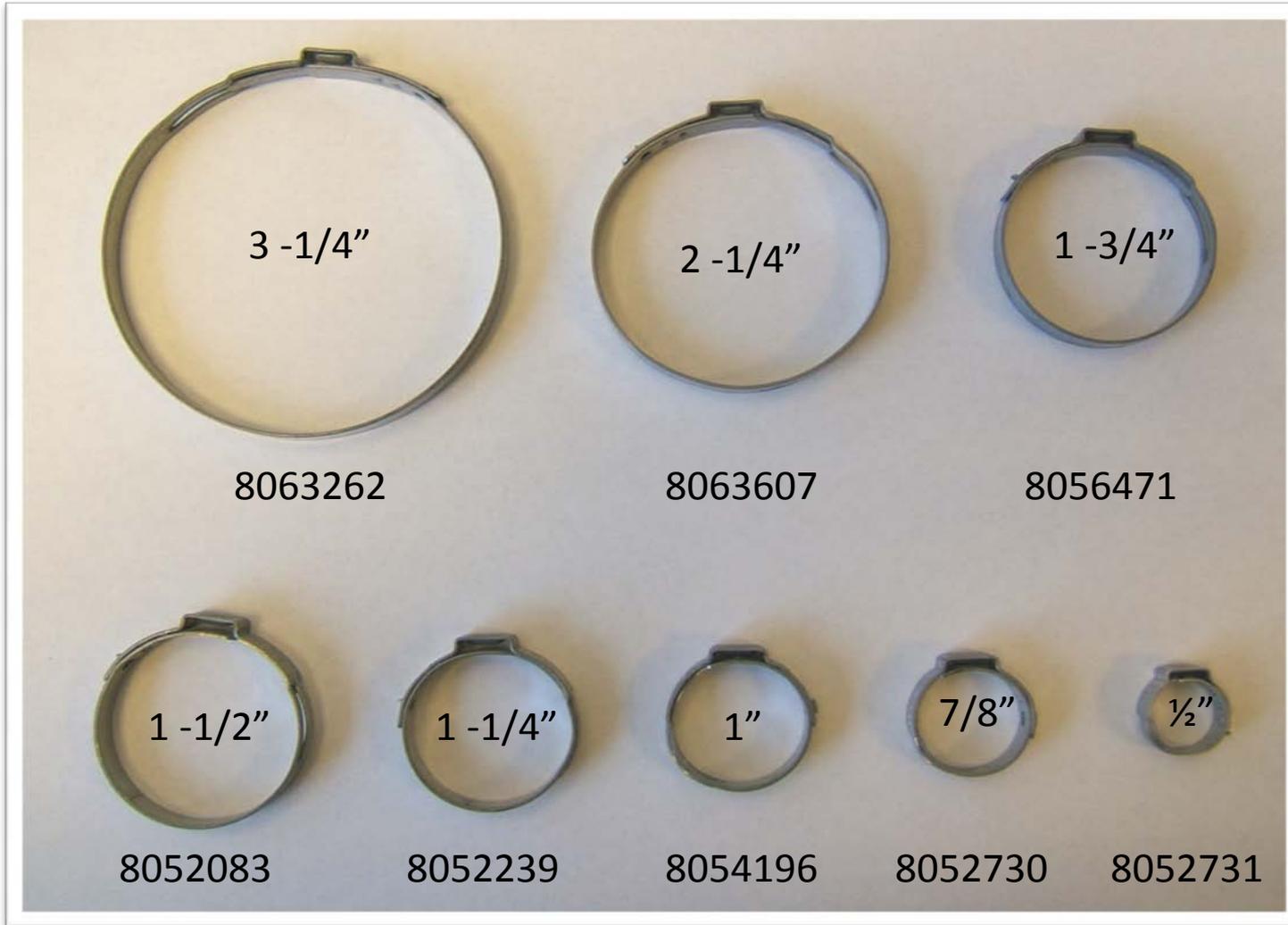


With a straight blade screwdriver rotate cover counter clockwise to remove. Remove single screw on outside and two from the inside of the tank.



Block side wall away from tank, and slide the air break out from its location. When reinstalling make sure the seal is in place and use a clamp to pull side support to tank so that screws will engage.

## Service Tips – Replacing hose clamps



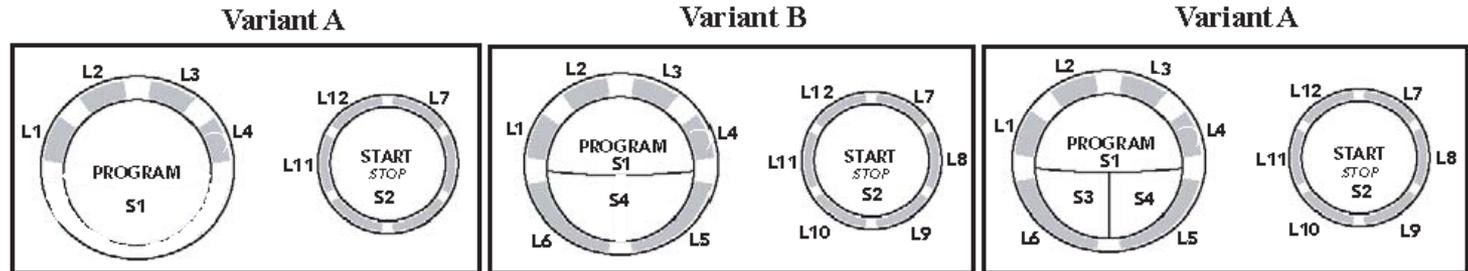
Special  
Hose Clamp  
Pliers  
Part #  
7281370

# Variant menu DW 20.1

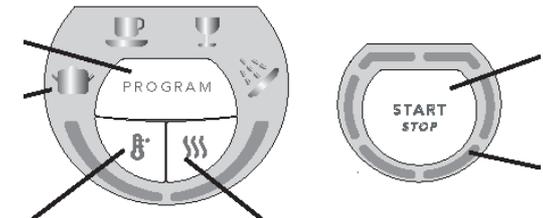
## (D3112, D3120, D3121 & D3122)

Although the controls for each model may be on the front of the machine or on the top of the door. The main power switch is always on the top of the door on the far left side

Main power switch



**Variant 'A' with 2 program options shown as an example. For this control panel configuration choose L1 → flashing, variant 'A'.**

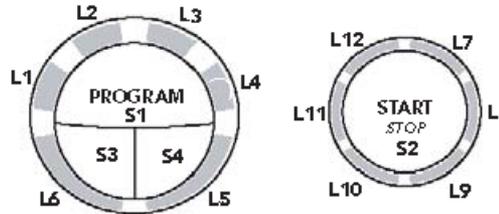


If the control is replaced the machine will automatically be in the variant setting menu when the power is turned on. Press the program button repeatedly, the display will alternate between pan symbol (L1) flashing (variant A), and the shower symbol (L4) flashing (Variant B). Choose the variant, then confirm this selection by pressing the start/stop button. The program will then revert automatically to the main menu.

Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 20.1 (D3112, D3120, D3121 & D3122)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



Although the controls for each model may be on the front of the machine or on the top of the door. The main power switch is always on the top of the door on the far left side

Program button

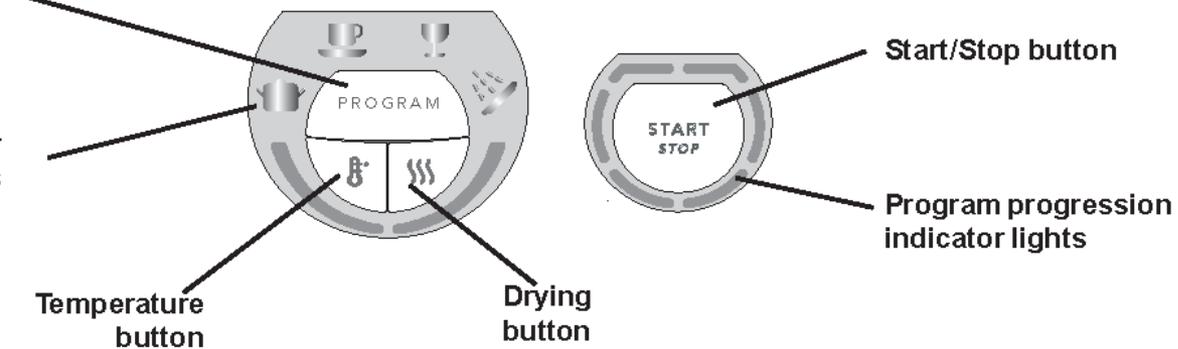
Program indicator lights

Temperature button

Drying button

Start/Stop button

Program progression indicator lights



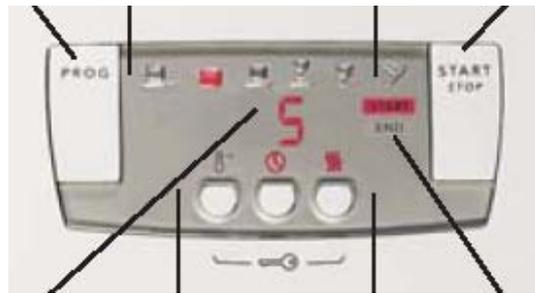
The only thing that can be changed in the service menu of the 20.1 units is the water intake. It can be changed from flow meter fill, to timed fill. To activate the service menu – turn off the main power switch. Wait for at least 5 seconds, keep the program and start buttons depressed, then turn on the main switch, then release the program and start buttons. The program button, the start button and L7 flashes. The water intake can now be adjusted by pressing the program button once again. L7 will be flashing continuously during this operation. If L1 is extinguished the water is controlled by the flow meter, if it is lit the water is controlled by time. Confirm the choice by pressing the start button. The program will return to the main menu.

# Variant menu DW 20.2

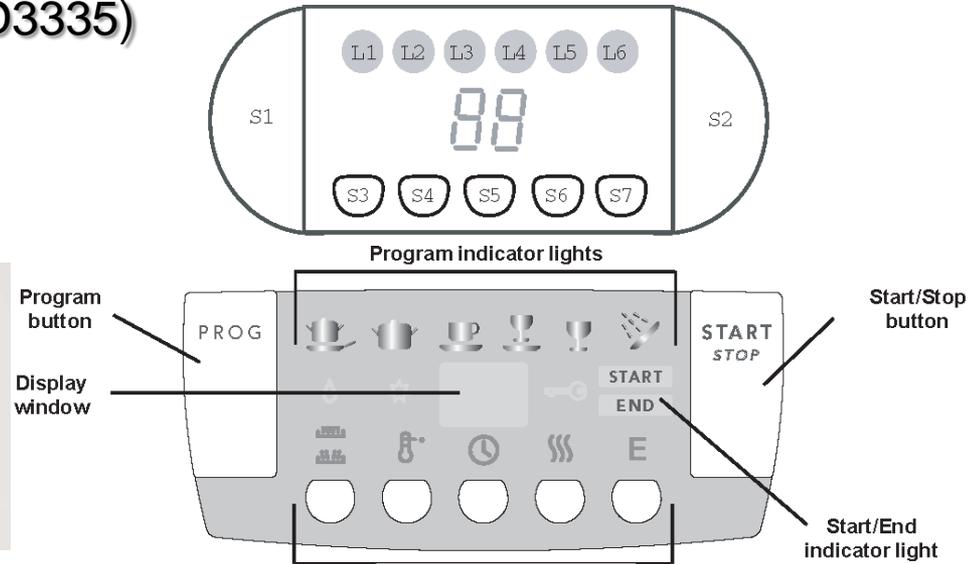
(D3350, D3331 & D3335)

Although the controls for each model may be on the front of the machine or on the top of the door. The main power switch is always on the top of the door on the far left side

Main power switch



3 Button option



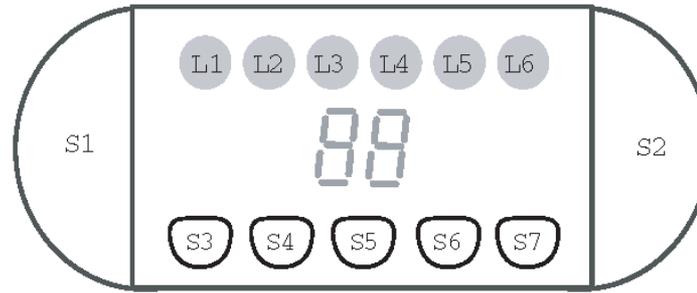
5 Button option

If the control is replaced the machine will automatically be in the variant setting menu when the power is switched on for the first time. Fill the machine with approx. 1 liter of water. Press the program button repeatedly until the desired variant is selected (there are only 2 options. Display shows 1 (variant 1 Express option, also good for 3 button control) or display shows 2 (variant 2 Super rinse option). **Choose 1.** Confirm choice by pressing the start button. The machine will now sense the presence of the turbidity and pressure sensors and the spray arm divider. The program then reverts back to the main menu.

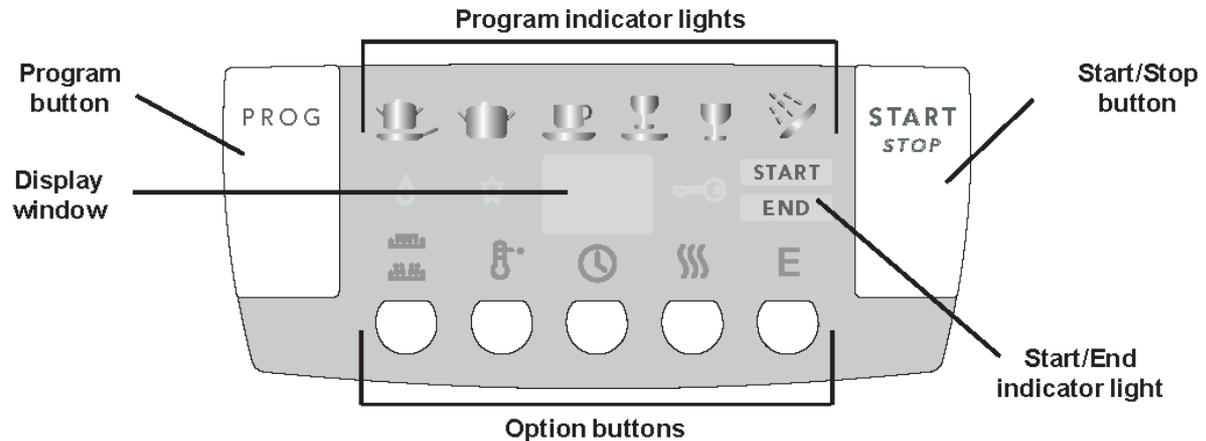
Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 20.2 (D3350, D3331 & D3335)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



Main power switch

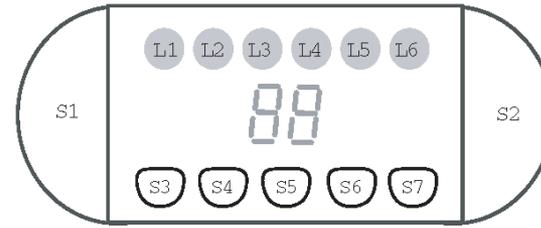


Turn off the main switch, wait for at least 5 seconds. Keep the program and start buttons depressed and turn on the main switch, release the program and start buttons **at once**. The display lights up after 5 seconds. The most recent fault will appear in the display F1, F2, etc.

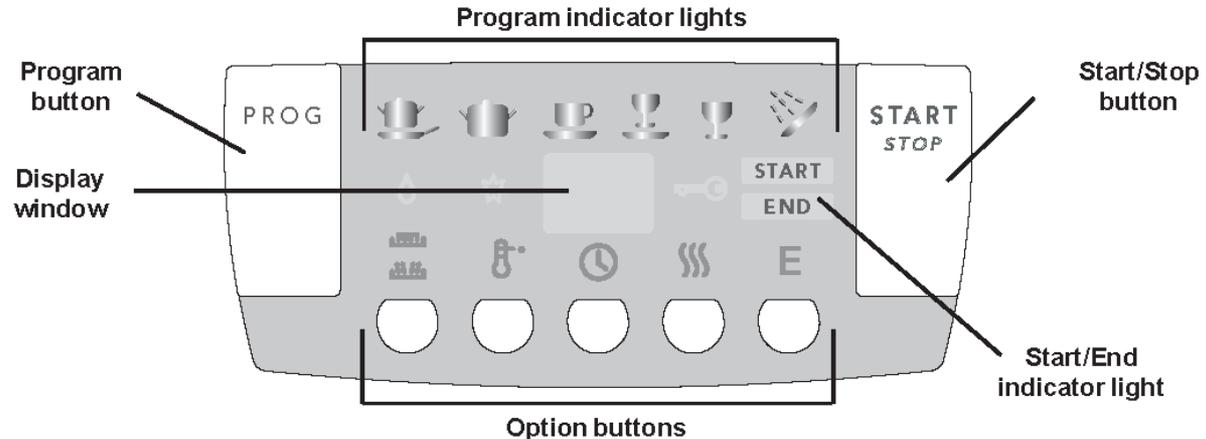
Press the program button and index through the following components: 1. Inlet valve, 2. Salt valve (not applicable), 3. Detergent dispenser, 4. Circulation pump, 5. Heating element & circulation pump (max 167 F), 6. Fan, 7. Drain pump.

# Service menu DW 20.2 (D3350, D3331 & D3335)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



Main power switch

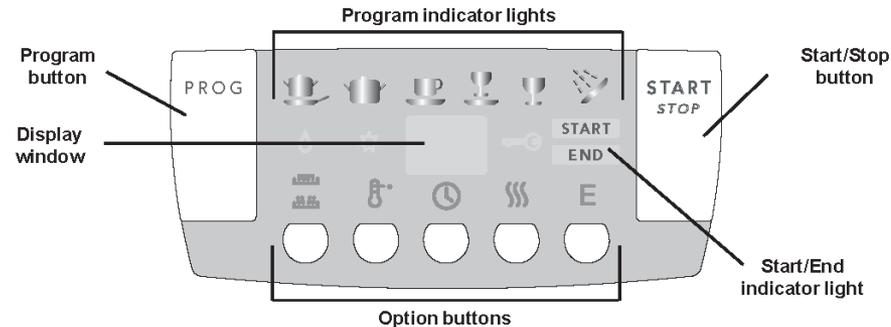


**Water intake adjusting** (after week 16, 2005) Press the program button until “1” appears in the display. Press the program button and index through the following: Display shows **0**: Normal water intake, **1**: increase 5%, **2**: increase 10%, **3**: increase 15%, **4**: Time controlled water intake, **5**: Increase 5% on time control, **6**: Increase 10% on time control, **7**: 15% increase on time control. Confirm choice by pressing start. The program returns to the main menu.

**Prior to week 16, 2005)** **0**: Normal water intake, **1**: water reduced 15%, **2**: water reduced 10%, **3**: water reduced 5%, **4**: Time controlled water intake, **5**: Water increased 5%, **6**: Water increased 10%, **7**: Water increased 15%. Confirm choice by pressing **start**. Program returns to the main menu.

# Fault codes DW 20.2 (D3350, D3331 & D3335)

(the consumer may see)



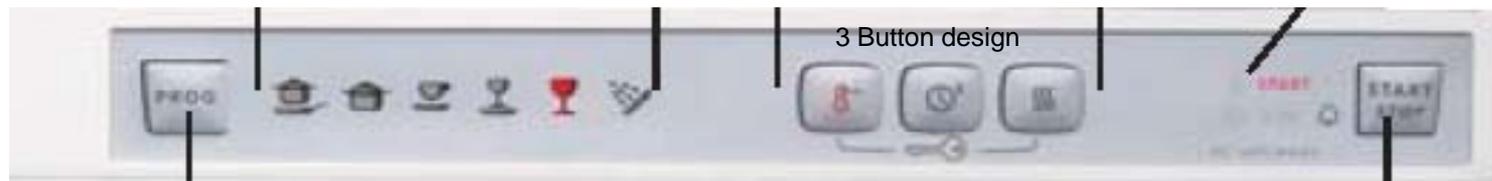
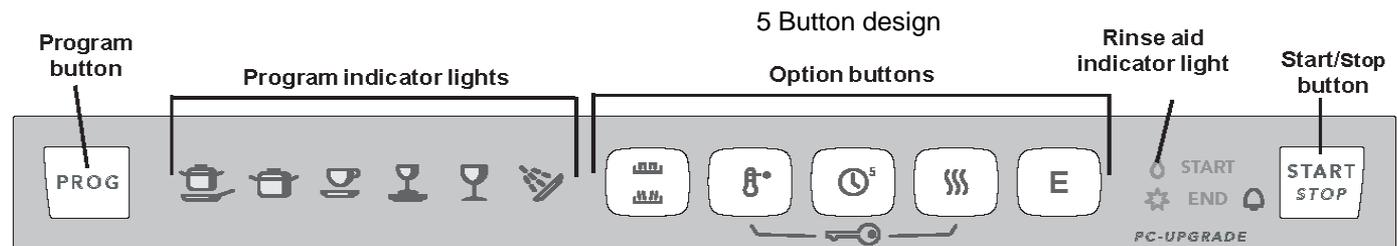
Display	Type of Fault and Recommended Action
<b>F2</b>	Too much water has entered the dishwasher. Call a service technician.
<b>F4</b>	Water inlet fault. Make sure the water supply is open.
<b>F5</b>	Valve leakage. Shut off the water supply and contact a service technician.
<b>F7</b>	The drain is blocked. See "Troubleshooting" on page 12.
<b>F8</b>	The filter is clogged. See "Cleaning the Filters" on page 9.

# Variant menu DW 20.3

(D3232, D3250, D3251, D3252, D3432, D3450 & D3451)



Main power button



If the control is replaced the machine will automatically be in the variant setting menu when the power is switched on for the first time. Fill the machine with approx. 1 liter of water. Press the **program** button repeatedly until the desired variant is selected . **L1 Lit:** Express option and 3 button design. **L2 Lit:** Super rinse option (**Choose L1**), Confirm choice by pressing the **Start** button. The machine will now sense the presence of the turbidity and pressure sensors and the spray arm divider. The program then reverts back to the main menu.

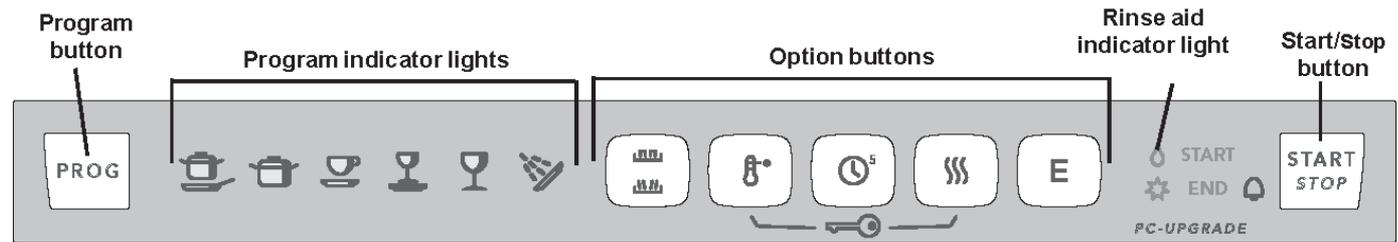
Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 20.3

(D3232, D3250, D3251, D3252, D3432, D3450 & D3451)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



Turn off the main switch, wait for at least 5 seconds. Keep the program and start buttons depressed and turn on the main switch, release the program and start buttons. The most recent fault will be indicated as L1 – L6.

Press the program button and index through the following components: 1. Inlet valve, 2. Salt valve (not applicable), 3. Detergent dispenser, 4. Circulation pump, 5. Heating element & circulation pump (max 167 F), 6. Fan, 7. Drain pump.

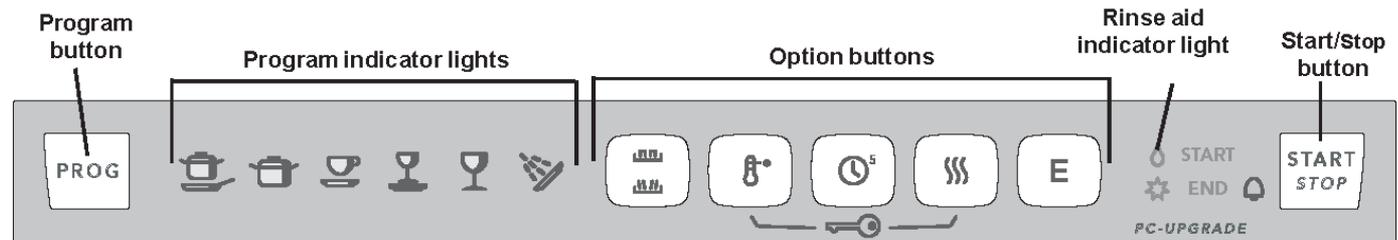
# Service menu DW 20.3

(D3232, D3250, D3251, D3252, D3432, D3450 & D3451)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



Main power switch



## To adjust the water intake.

Keep the program button depressed for three seconds to adjust the water intake. **After week 16, 2005.** Press the program button and index through the following: L1-L6 extinguished normal volume. L1 lit: water increased by 5%, L2 lit: water increased by 10%, L3 lit: Time controlled intake, L4 lit: Increase time control by 5%, L5 lit: Increase time control by 10%, L6 lit: Time control increase by 15%. Confirm choice by pressing Start button. The program returns to the main menu

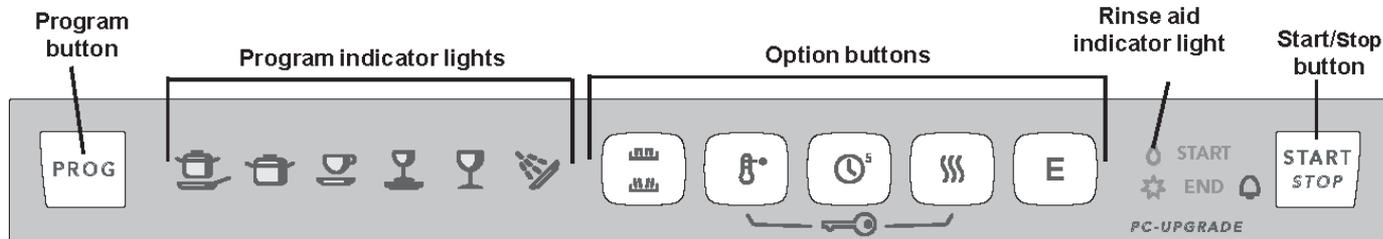
## Before week 16, 2005.

Press the program button and index through the following:

L1-L6 extinguished: Normal volume. L1 lit: Water reduced by 10%, L2 lit: Water reduced by 5%, L3 lit: Time controlled intake, L4 lit: Water increased by 5%, L5 lit: Water increased by 10%, L6 lit: Water increased by 15%. Confirm choice by pressing start button. The program returns to the main menu.

# Fault codes DW 20.3

(D3232, D3250, D3251, D3252, D3432, D3450 & D3451)  
(the consumer may see)



## Flashing Indicator Light(s)

 Heavy Wash

 Delicate Wash

 Quick Wash

 Pots and Pans and Heavy Wash

 Pots and Pans and Normal Wash

## Type of Fault and Recommended Action

Too much water has entered the dishwasher. Call a service technician.

Water inlet fault. Make sure the water supply is open.

Valve leakage. Shut off the water supply and contact a service technician.

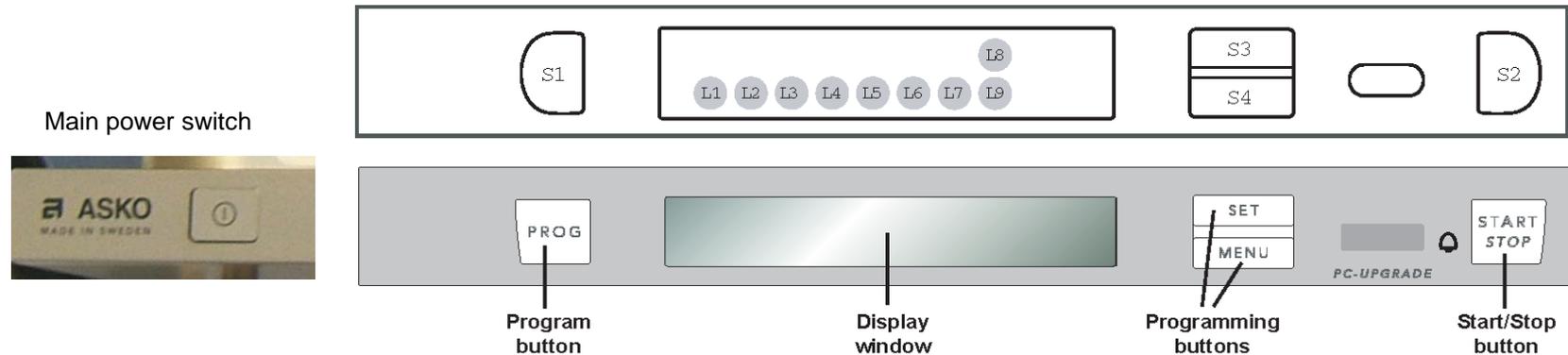
The drain is blocked. See "Troubleshooting" on page 12.

The filter is clogged. See "Cleaning the Filters" on page 9.

**See page 59 for fault codes that may appear in the service menu for the technician to view**

# Variant menu DW 20.4

## (D3530, 3531, 3532 & 3731)



If the control is replaced the machine will automatically be in the variant setting menu when the power is switched on for the first time. Fill the machine with approx. 1 liter of water. Press the program button repeatedly until the desired variant is selected . **Variant 1:** Variant with Menu/Set. **Variant 2:** Variant with Temperature/Drying selection. Choose **Variant 1:** Confirm choice by pressing the start button or the menu button. The machine will now sense the presence of the turbidity and pressure sensors and the spray arm divider. The program then reverts back to the main menu.

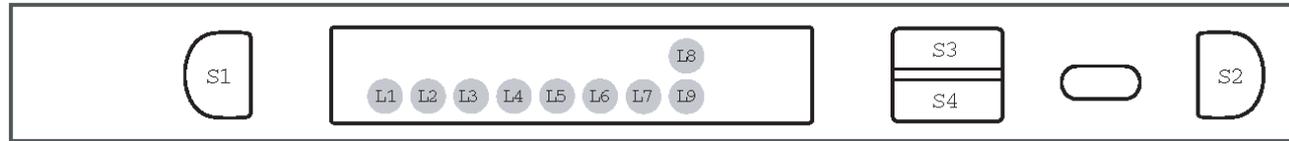
### Access to Special settings menu

Turn off the main switch, wait at least 5 seconds. Keep Set button depressed. Turn on the main switch, then release Set button. Select the status with Set button, proceed with menu button. Language can be changed, child lock, acoustic signal volume etc.

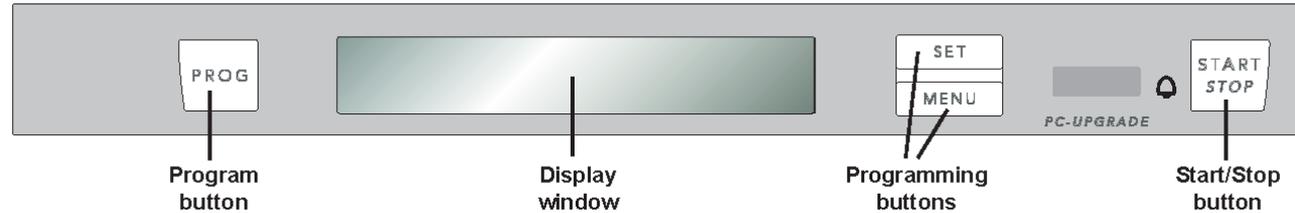
Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 20.4 (D3530, D3531, D3532 & D3731)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



Main power switch



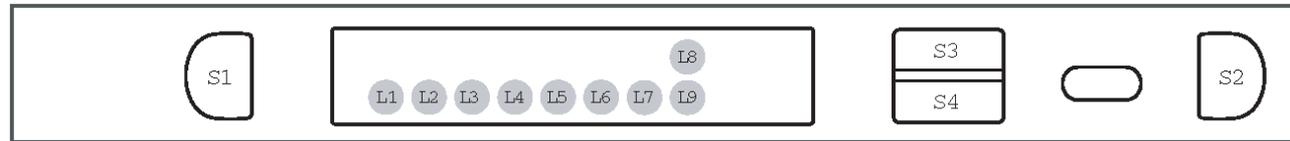
Turn off the main switch, wait for at least 5 seconds. Keep the Set and Menu buttons depressed and turn on the main switch, release the Set and Menu buttons. Press Set for information about: Date code and serial number, control unit date code, software version, most recent fault, next most recent fault.

Press Menu to access component diagnostics.

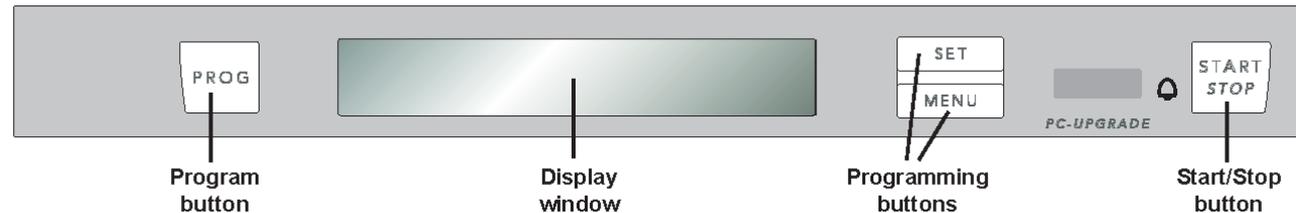
Press Set to activate the following components: 1. Inlet valve (shows water intake volume), 2. Salt valve (not applicable), 3. Detergent dispenser, 4. Circulation pump (displays turbidity in volts), 5. Heating element and circulation pump (max 167 F) shows temperature, 6. Fan. (display shows humidity sensor value), 7. Drain pump. (display shows pressure sensor reading, 0.5-3.5 VDC). **Note:** The door will have to be opened and closed for each component check.

# Service menu DW 20.4 (D3530, D3531, D3532 & D3731)

Before entering the service menu always cancel the currently selected program first, by pressing the power button then holding down the start/stop button for three seconds.



Main power switch



## To adjust the water intake: (machines manufactured week 16, 2005 and later)

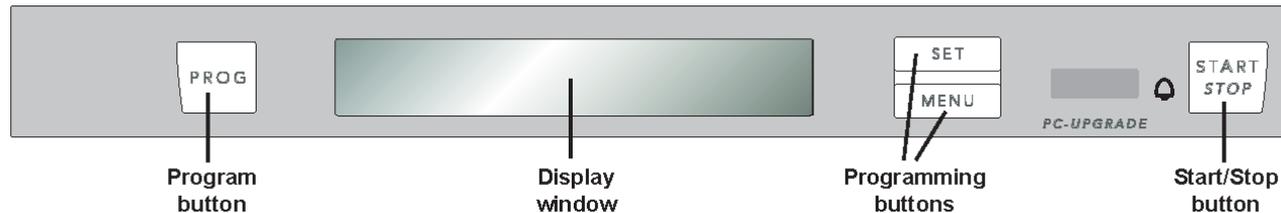
Press menu to access water intake setting, press set to adjust the water intake. Display 0: Normal water intake. Display + 5%: Water intake increased by 5%. Display + 10%: Water increased by 10%. Display + 15%: Water increased by 15%. Display time: Time controlled water intake. Display time + 5%: Time controlled water is increased by 5%. Display Time + 10%: Time controlled water is increased by 10%. Display Time + 15%: Time controlled water is increased by 15%. Press Start to store setting. The program returns to the main menu.

Prior to week 16, 2005: Display 0: Normal. Display -15%. Display -10%. Display -5%. Display Time. Display + 5%. Display + 10%. Display + 15%. Press Start to store the selected setting. The program returns to the main menu

# Fault codes DW 20.4

(the consumer may see)

(D3530, D3531, D3532 & D3731)



## Display

### Overfilling

### Water Inlet Fault

### Inlet Valve Leakage

### Drainage

### Blocked Filter

## Type of Fault and Recommended Action

Too much water has entered the dishwasher. Call a service technician.

Water inlet fault. Make sure the water supply is open.

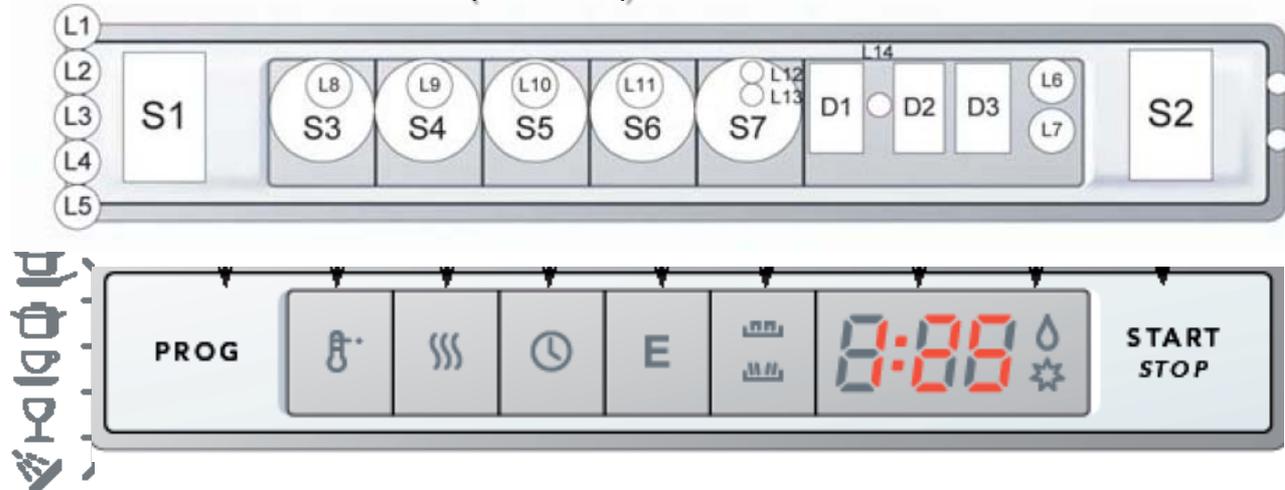
Valve leakage. Shut off the water supply and contact a service technician.

The drain is blocked. See "Troubleshooting" on page 13.

The filter is clogged. See "Cleaning the Filters" on page 10.

See page 59 for fault codes that may appear in the service menu for the technician to view

# Variant menu DW 20.5 (D3152)



Main power switch



If the control unit is replaced, the machine will automatically be in the variant setting menu when the power supply is switched on for the first time.

Fill the machine with approx. 1 liter of water.

Press the program button repeatedly until the desired variant is selected. There are two choices **(1)**: Express option. **(2)**: 3 in 1 option. **Choose 1**. Confirm choice by pressing Start. The machine senses the presence of the turbidity and pressure sensors and the spray arm divider,

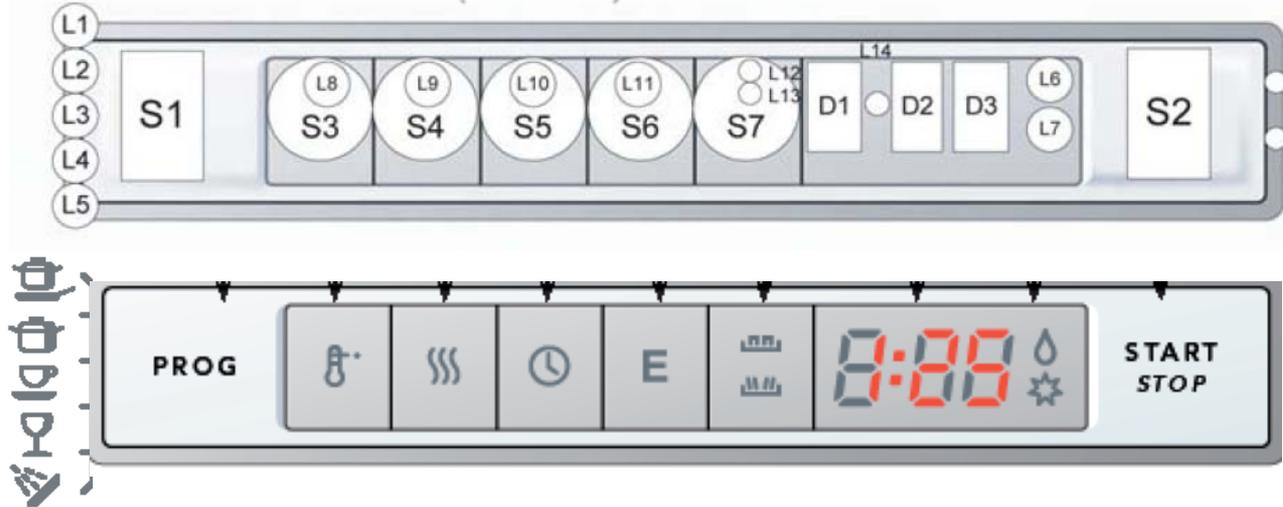
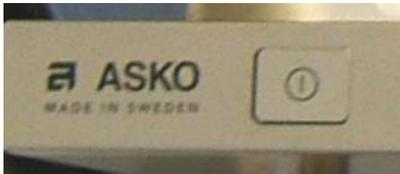
The program then reverts back to the main menu.

Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 20.5 (D3152)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



Turn off the main switch, wait for at least 5 seconds. Keep the Program and Start buttons depressed and turn on the main switch, release the Program and Start buttons. Press Program button to index through the following components.

1. Inlet valve
2. Salt valve (not applicable)
3. Detergent dispenser
4. Circulation pump
5. Heating element and circulation pump (max 167 F)
6. Fan
7. Drain pump.

# Service menu DW 20.5 (D3152)

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



## To adjust the water intake:

Press program selector for 3 seconds to access water intake setting, press program button again to step through. Display 0: Normal water intake. Display shows 1: Water intake increased by 5%. Display shows 2: Water increased by 10%. Display shows 3: Water increased by 15%. Display shows 4: Time controlled water intake. Display shows 5: Time controlled water is increased by 5%. Display shows 6: Time controlled water is increased by 10%. Display shows 7: Time controlled water is increased by 15%. Press Start to store setting. The program returns to the main menu.

## Fault codes DW 20.5 (D3152) (the consumer may see)



Display	Type of fault	Action
<b>F2</b>	Too much water in the machine	Call the Customer Care Center at the number at the bottom of the page
<b>F4</b>	Fault with water inlet	Check that the water faucet is open
<b>F5</b>	Valve leakage	Shut off the water faucet and call the Customer Care Center at the number at the bottom of the page
<b>F7</b>	Blocked drain	See "Possible causes" in the Troubleshooting chapter
<b>F8</b>	Clogged filter	Clean the filters, see the Cleaning chapter

See page 59 for fault codes that may appear in the service menu for the technician to view

# Fault codes DW 20.1, 2, 3, 4 & 5

(fault codes the service technician may see in the service menu)

In the fault codes below, “L” denotes LED and “F” denotes fault code on the display.

## **LED L1/Fault code F1, Temperature stop fault (no indication in DW20.1)**

The temperature rise is less than 5 degrees C in ten minutes. The program exits from the heating stage and continues in the process. This fault code will only show in the service menu.

**Check:** Element, thermistor, water level, circulation pump, control unit and wiring.

## **LED L2/Fault code F2, Overfilling**

Too much water in the machine (pressure sensor) or float activated. If the water has not been evacuated within 60 seconds, the program will be interrupted (the drain pump will be activated).

**Check:** Drain pump (blockage in hoses), flow sensor, inlet valve, leakage, wiring.

## Fault codes DW 20.1, 2, 3, 4 & 5

(fault codes the service technician may see in the service menu)

### **LED L3/Fault code F3, Thermistor fault (no indication in DW20.1)**

Interruption in the heating or temperature more than 80 degrees C. The program exits from the heating stage and continues in the process.

Indication only in the service menu.

**Check:** Thermistor, control unit.

### **LED L4/Fault code F4, Water intake fault (no indication in DW20.1)**

Less than 80 pulses received by flow sensor within 60 seconds, or the correct number of pulses is not achieved within 225 seconds. Program interrupted.

**Check:** Water supply, flow sensor, inlet valve, wiring

## Fault codes DW 20.1, 2, 3, 4 & 5

(fault codes the service technician may see in the service menu)

### **LED L11/Fault code F5, Valve leakage (no indication in DW20.1)**

More than 80 pulses detected when the inlet valve is deactivated. Certain models attempt to remedy the leak first.

Any program in progress is interrupted (drain pump activated).

**Check:** Leakage through inlet valve, flow sensor.

### **LED L12/Fault code F6, Pressure sensor fault**

Output signal more than 4.8 V. The program continues. Indication only in the service menu.

**Check:** Pressure sensor, control unit and wiring

## Fault codes DW 20.1, 2, 3, 4 & 5

(fault codes the service technician may see in the service menu)

### **LED L1+ L2/Fault code F7, Pumping out fault (machines with pressure sensor)**

Water not evacuated after 120 seconds pumping out. Program interrupted.

**Check:** Drain pump, hoses, installation of drain hose, control unit and wiring.

### **LED L1 + L3/Fault code F8, Blocked filter**

The pressure sensor senses excessively low pressure during the final rinse. Indication after the end of the program.

**Check:** Filter, sump (pressure chamber), pressure sensor.

## Fault codes DW 20.1, 2, 3, 4 & 5

(fault codes the service technician may see in the service menu)

### **LED L1 + L4/Fault code F9, Circulation fault**

The pressure sensor senses excessively low pressure (e.g. no water in the machine) or excessively high pressure (e.g. the circulation pump is defective). The program exits from the heating stage and continues in the process. Indication only in the service menu.

**Check:** Circulation pump, filter water level, pressure chamber and pressure sensor.

### **LED L1 + L11/Fault code FA, Turbidity sensor fault**

Indication only in the service menu. The machine assumes high turbidity for “choice of route” in the automatic program.

**Check:** Water quality, filter, turbidity sensor, drain system.

## Fault codes DW 20.1, 2, 3, 4 & 5

(fault codes the service technician may see in the service menu)

### **LED L1 + L12/Fault code FB, Spray arm diverter fault**

Position contact is continuously closed or open. The program proceeds. Indication only in the service menu.

**Check:** Spray arm diverter (function of gearbox, contacts and wiring).

### **LED L6/Rinse aid indication (DW20.5)**

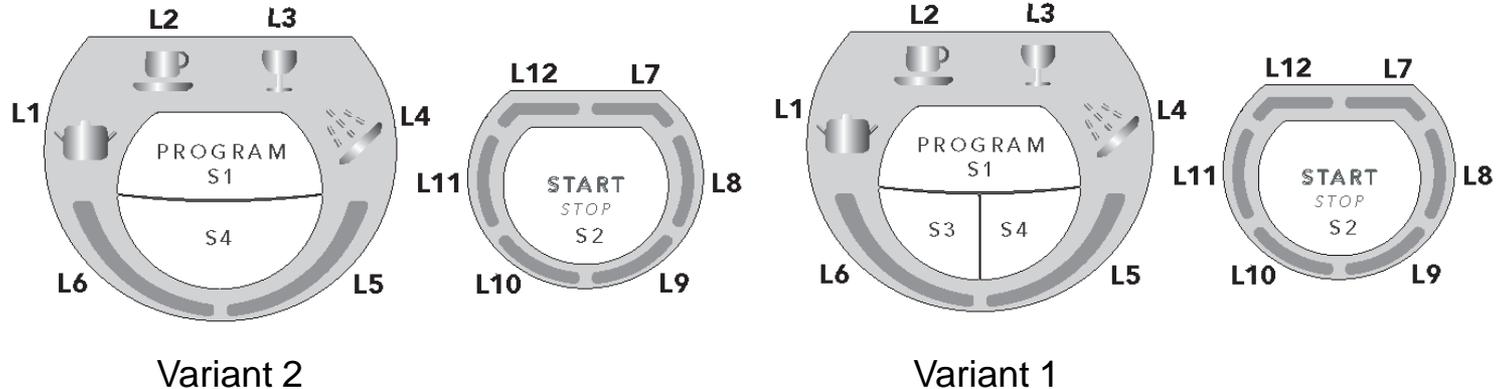
### **LED L7/Fault code, Door open**

### **LED L7/Fault code, Close door**

# Variant menu DW 70.1

D5122 & D5110

Main power switch



If the control is replaced the machine will automatically be in the variant setting menu when the power is turned on. Press the program button repeatedly, the display will alternate between pan symbol (L1) flashing, (variant 1) and the shower symbol (L4) flashing, (variant 2). Choose the variant, then confirm this selection by pressing the start/stop button. The program will then revert automatically to the main menu.

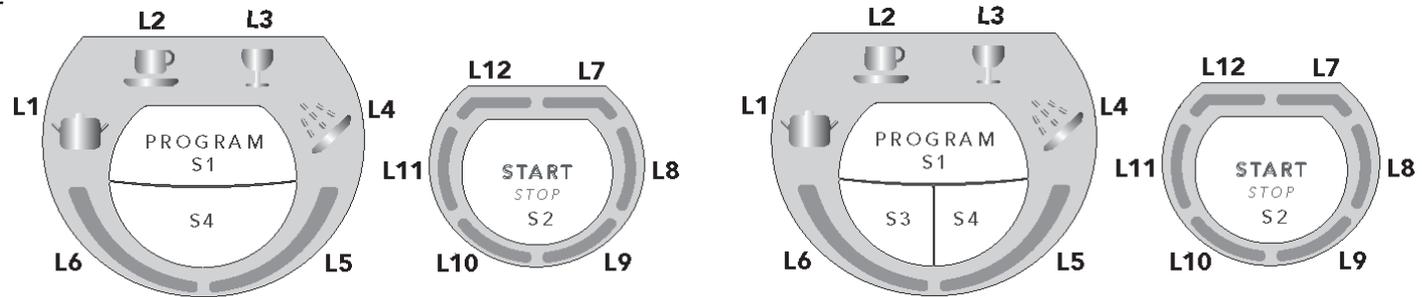
Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 70.1

## D5122 & D5110

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



**To activate the service menu** – turn off the main power switch. Wait for at least 5 seconds, keep the program and start buttons depressed, then turn on the main switch, then release the program and start buttons. L7 flashes. Press the program button to activate the component test. These are activated in order after each button press: 1. Inlet valve, 2. Salt valve (not applicable), 3. Dispenser, 4. Circulation motor, 5, Circulation motor and element (max 167 F), 6. Fan and wax motor, 7. Drain pump.

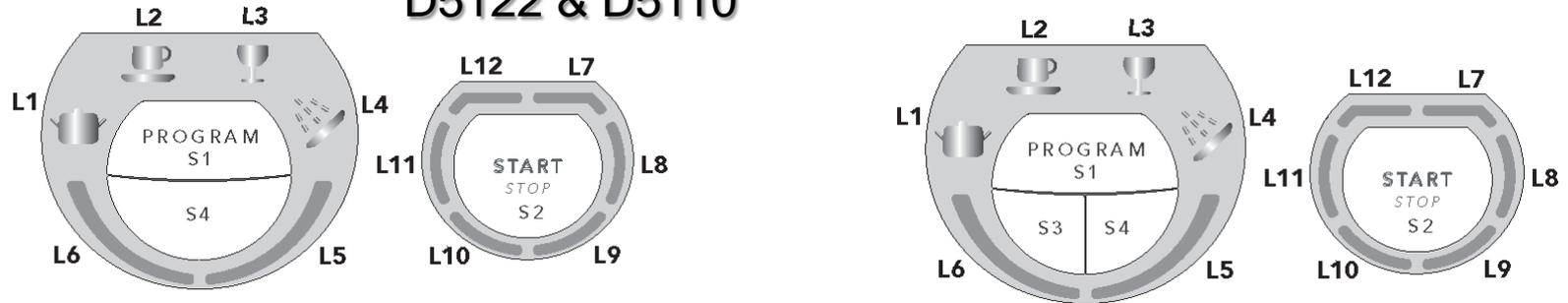
**Adjust water intake** (done in service menu)

Press and hold the program button for three seconds.

L1 unlit: Fill controlled by flow meter. L1 lit: Time controlled fill. Confirm selection by pressing Start. The program returns to the main menu.

# Fault codes DW 70.1 (the consumer may see)

## D5122 & D5110



### Indication

### Type of fault

### Action

#### L2 flashing

Too much water in the dishwasher:  
Pressure sensor or float activated  
If water not evacuated in 60 secs.  
The drain pump will be turned on.

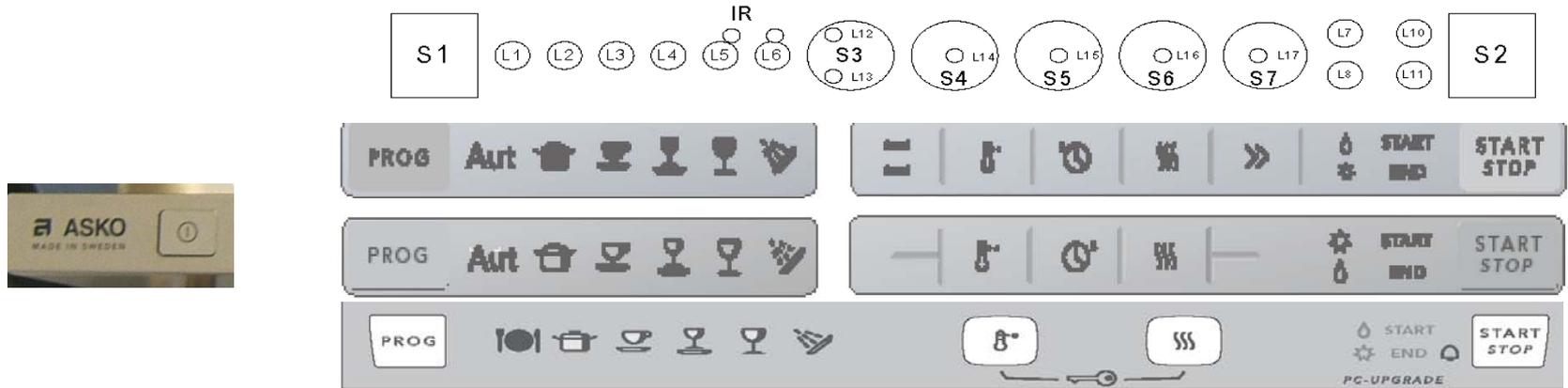
Check drain pump (blockage in hoses),  
flow meter, inlet valve, leakage, wiring

#### L5 flashing

Leaking valve:  
water intake detected when the valve  
is deactivated. Any current program  
stopped and drain pump activated.

Check leak through inlet valve and  
flow meter.

# Variant menu DW 70.3 D5220, D5223, D5233 & D5253



When the power is switched on for the first time after replacing the control unit, the variant settings menu is displayed.

Press the program button until the desired variant is selected:

### L1 flashes:

Variant 1 = Time saver

### L2 flashes:

Variant 2 = Super rinse option

### L3 flashes:

Variant 3 = Tab

Confirm selection by pressing Start. The machine detects the presence of a turbidity sensor, a pressure sensor and a sprat arm divertor. The program returns to the main menu.

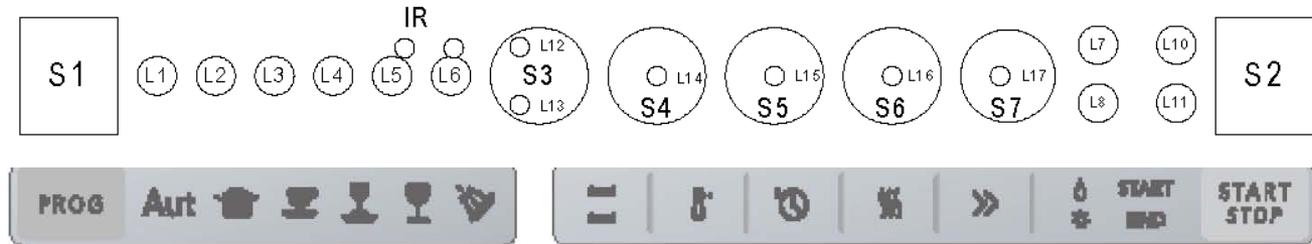
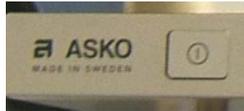
Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. L1, L2, or L3 flashes on the display depending on the previous setting. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 70.3

## D5220, D5223, D5233 & D5253

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



Turn off the main power switch. Wait at least 5 seconds. Press and hold the program and start buttons, turn on the main switch, wait for the teardrop symbol to light on the right side of control, release the program and start buttons. **L10 AND L11** flash.

Most recent fault if there are any is indicated by **L1 – L6**

**Before activating the component test it is necessary to manually activate the door latch so that the door switch will be closed with the door open. Then follow the sequence below**

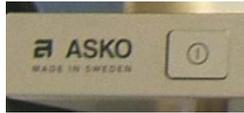
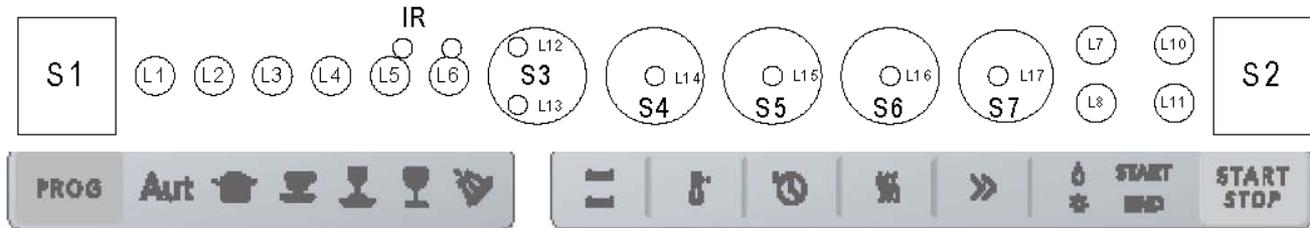
Press program button to activate the component test. These are activated in order after each button press.

1. Inlet valve L1 and L2 lit
2. Salt valve (not applicable).
3. Dispenser. L4 lit
4. Circulation pump. L5 lit
5. Circulation pump and element (max. 167 F) L6 lit
6. Fan and wax motor. L1 and L2 lit
7. Drain pump. L1, L2 and L3 lit

# Service menu DW 70.3

## D5220, D5223, D5233 & D5253

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



### Adjust water Intake (done in service menu)

Press and hold the program button for three seconds. The water can now be adjusted as follows:

Press the program button to step through:

L1-L6 unlit: Normal water volume

L1 lit: Water increase by 5%.

L2 lit: Water increase by 10%

L3 lit: Time controlled water intake

L4 lit: Time controlled water increase by 5%

L5 lit: Time controlled water increase by 10%

L6 lit: Time controlled water increase by 15

Confirm selection by pressing Start. The program returns to the main menu.

# Fault codes DW 70.3 D5220, D5223, D5233 & D5253

(the consumer may see)



Display	Type of fault	Action
 flashes	Too much water in the dishwasher	Phone service
 flashes	Fault with water inlet	Check that the water tap is open
 flashes	Valve leakage	Shut off the water tap and contact service
<b>AUT</b>  flashes	Blocked drain	See 'Possible causes' in chapter Trouble shooting
<b>AUT</b>  flashes	Clogged filter	Clean the filters, see chapter Cleaning

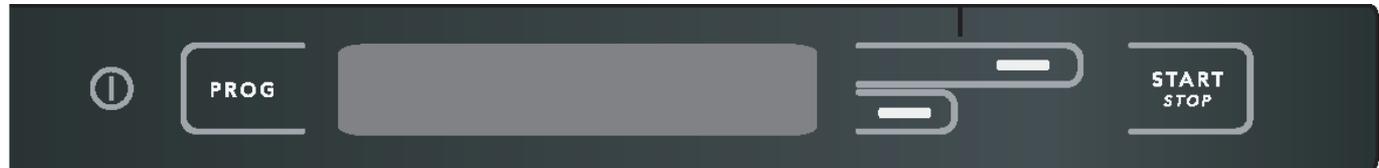
To remove the fault indications from the display, turn off the main switch and then turn it back on again.

# Variant menu DW 70.4

## D5883 & D5893



Main power switch



### Total reset

After replacing the control unit, the machine will automatically perform a total reset, which will detect the presence of the machine's sensors and spray arm diverter.

### Special settings

Turn on the main power switch, press the Menu button (S4) a few times until the special settings are displayed.

The following settings are available:

Language, child safety catch, program end signal, button tones, temperature (C or F), water hardness setting. Press S3 until the desired setting is shown. Confirm with S4. The program stores the settings and returns to the main menu.

**Display mode** Press and hold S4 with the main power switch turned on. Scrolling text is displayed:  
*Turbo Drying...Super Cleaning System...Auto Wash...Flexi Racks...Power Zone...8 Steel...*  
Cancel by pressing the power switch.

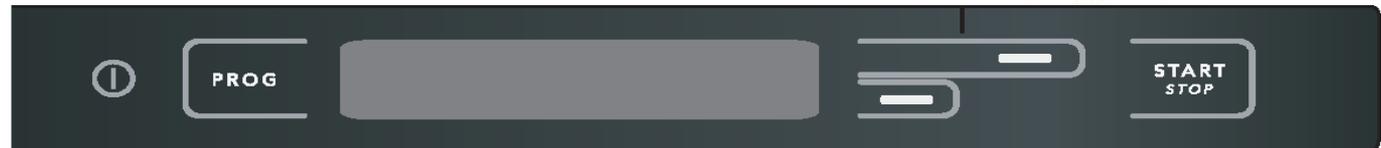
# Service menu DW 70.4

## D5883 & D5893

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



Main power switch



Turn off the main power switch, wait at least 5 seconds. Press and hold the Program and Start buttons then turn on the main power switch. Release the Program and Start buttons.

The service menu has four sub menus: **1.** Machine and fault information. **2.** Component diagnostics. **3.** Adjust water intake. **4.** Adjust LCD contrast. **Press S4** to browse between these menus. Press **S3** to enter the selected sub menu and **S4** to return.

**Machine and fault information displays:** (browse with S3)

1. Date code (year/week) of control unit.
2. Software version.
3. Most recent fault.
4. Second most R, fault.

**Before activating the component test it is necessary to manually activate the door latch so that the door switch will be closed with the door open. Then follow the sequence below**

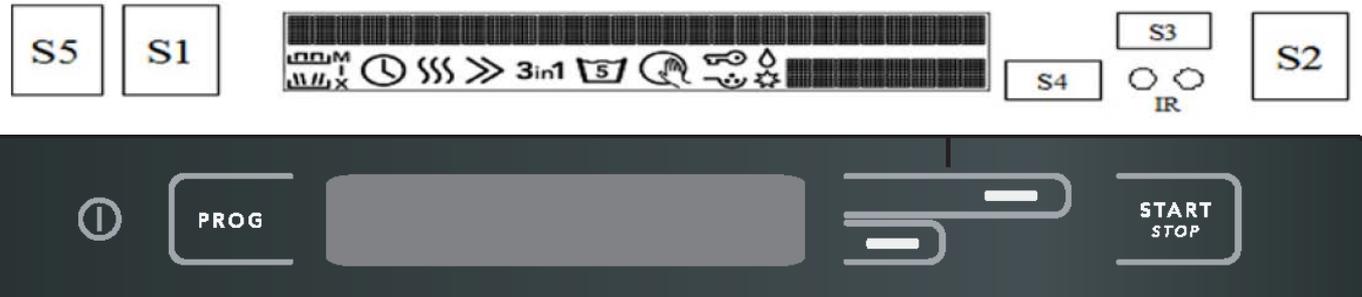
**Activating component diagnostics:** (browse with S3)

1. Inlet valve
2. Salt valve (not applicable)
3. Detergent dispenser
4. Circulation pump
5. Heating element and circulation pump (max 167 F)
6. Fan
7. Drain pump.

# Service menu DW 70.4

## D5883 & D5893

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.



### Adjust water intake (browse with S3)

**Display 0:** Normal water intake volume.

**Display + 5%:** Volume increases by 5%.

**Display + 10%:** Volume increases by 10%.

**Display + 15%:** Volume increases by 15%.

**Display Time:** Time controlled water intake.

**Display + 5%:** Time controlled intake increases by 5%.

**Display +10%:** Time controlled intake increases by 10%.

**Display + 15%:** Time controlled intake increases by 15%

Press **Start** to store settings

# Fault codes DW 70.4 D5883 & D5893

(the consumer may see)

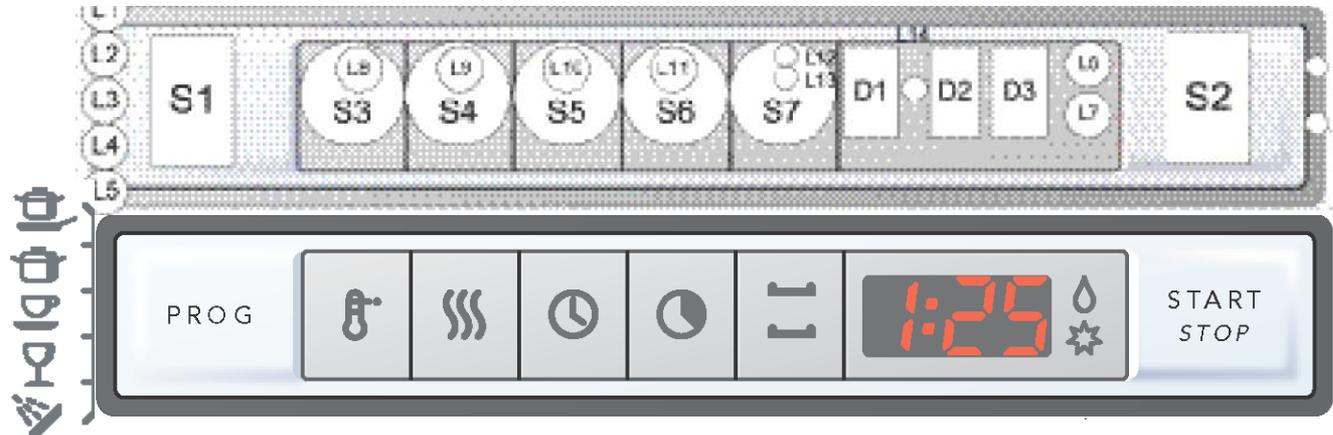


Display	Type of fault	Action
<i>Overfilling</i>	Too much water in the machine	Phone for service
<i>Water inlet fault</i>	Fault in the water inlet	Check that the tap is open
<i>Inlet valve leakage</i>	Inlet valve leakage	Shut off the tap and phone for service
<i>Drainage fault</i>	Blocked drain	See 'Possible causes' in chapter <b>Troubleshooting</b>
<i>Blocked filter</i>	Clogged filter	Clean filters, see chapter <b>Cleaning</b>

To remove the fault indications from the display, turn off the main switch and then turn it back on again.

## Variant menu DW 70.5 D5152

Main power switch



When the main power switch is turned on after replacing the control unit, the variant setting menu is displayed.

Press the program button until the until the desired variant is selected.

The display shows 1 and L1 flashes. Variant 1 = Time saver

The display shows the number 2 and L2 flashes. Variant 2 = with Super rinse

The display shows the number 3 and L3 flashes. Variant 3 = with Tab

The display shows the number 4 and L4 flashes. Variant 4 = with Time program

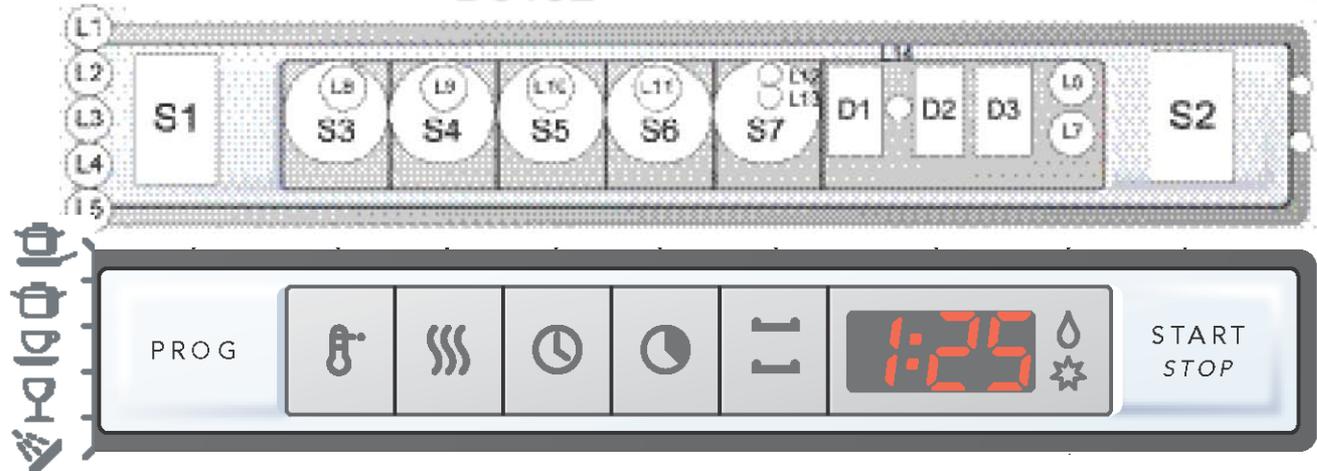
**Choose variant 4.** Confirm selection by pressing Start. The machine detects the presence of a turbidity sensor, a pressure sensor and a spray arm diverter. The program returns to the main menu.

Once the control board variant has been set, it is still possible to return to the variant menu and change it again. (useful if it has been programmed incorrectly). To do so, turn off the main power switch. Wait at least 5 seconds, Press and hold the Program and Start buttons, turn on the main power switch, wait a second then release the Program and Start buttons, then within 5 seconds press the Start button 3 times in quick succession. L1, L2, L3 or L4 flashes on the display depending on the previous setting. Use the Program button to select a different variant. Confirm by pressing the Start button. Program returns to the main menu.

# Service menu DW 70.5 D5152

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



Turn off the **main power switch**, wait at least 5 seconds. Press and hold the **Program** and **Start** buttons. Turn on the **main power switch**, wait until the LEDs have lit, release the **Program** and **Start** buttons. The most recent fault code if there is one will be shown in display **D2 AND D3**.

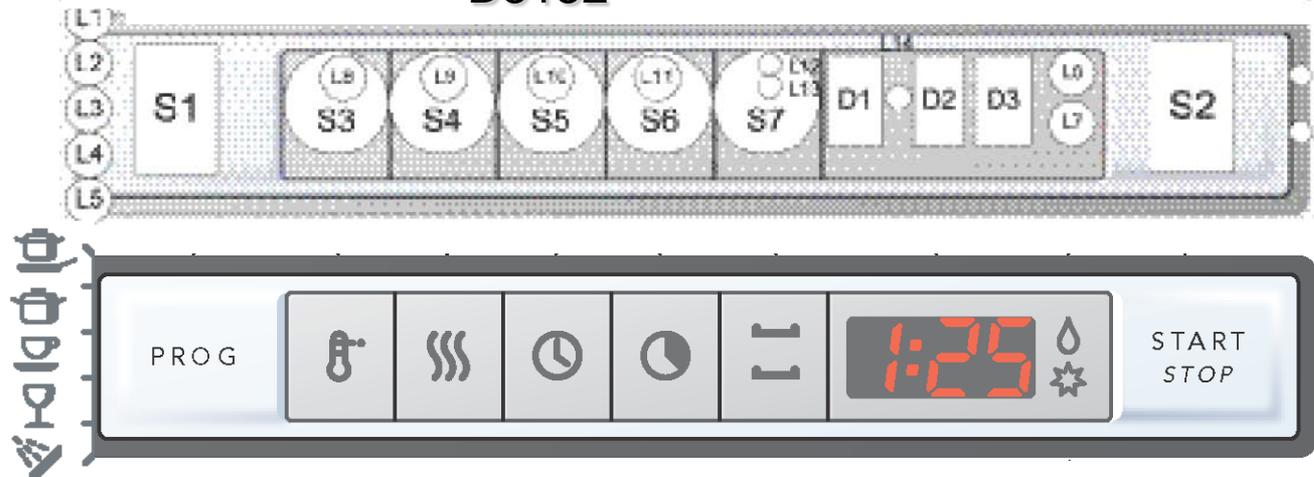
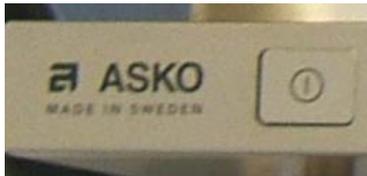
Press the Program button to activate the component test. These are activated in order after each button press and are shown in D3.

1. Fill valve and mixer valve
2. Fill valve only
3. Salt valve (not applicable)
4. Dispenser
5. Circulation pump
6. Circulation pump and element (max 167 F)
7. Fan and Wax motor
8. Drain pump

# Service menu DW 70.5 D5152

Before entering the service menu always cancel the currently selected program first, by pressing the power button to turn the unit on then holding down the start/stop button for three seconds.

Main power switch



## Adjusting the water intake (in service menu)

Press the **Program button** for three seconds to activate the menu for setting the water intake. Then use the **Program button** to step through. The display shows:

**P:0** = Normal water intake volume. **P:5** = Water increases by 5%. **P:10** = Water increases by 10%.

**P:15** = Water increases by 15%. **T:0** = Normal water intake. **T:5** = Water increases 5%. **T:10** = Water increases 10%. **T:15** = Water increase by 15%.

**P** = water intake controlled by flow meter.

**T** = water intake time controlled.

Confirm selection by pressing Start. The program returns to the main menu.

# How the dishwasher works (Quick wash 5,000 series)

If the component test in the service menu is not sufficient to identify a fault, you can run the “Quick Wash” program on any of the 5,000 series units. Compare the results with the flow description on the right, if they are in agreement this indicates a correctly functioning control unit

Component	Time	Comments
<b>Main wash</b>		
Drainage pump	6 sec.	25 sec. if the previous program was cancelled with the Start/Stop button
Inlet valve	40/45 sec.	With/without diverter
Circ. pump	30 sec.	
Circ. pump & Combi dispenser	3 sec.	
Circ. pump	120 sec.	
Circ. pump & Element T-30°/35°		Eco/Normal temp
Circ. pump	180 sec.	
Circ. pump & Element T-30°/60°		Eco/Normal temp
SCS	22 sec.	Super Clean System
Drainage pump	25 sec.	
<b>1st rinse</b>		
Inlet valve	7 sec.	
Circ. pump	2 sec.	
Pause	5 sec.	
Circ. pump	2 sec.	
Drainage pump	6 sec.	
Inlet valve	40/45 sec.	With/without diverter
Circ. pump	90 sec.	
SCS	22 sec.	Super Clean System
Drainage pump	25 sec.	
<b>Final rinse</b>		
Inlet valve	40/45 sec.	With/without diverter
Circ. pump & Element T-0/60°		Eco/Normal drying
Circ. pump & Combi dispenser	3 sec.	None Eco drying
Circ. pump	3 sec.	No Eco drying
Circ. pump & Combi dispenser	60 sec.	No Eco drying
Circ. pump	90/60 sec.	Eco/Normal drying
Pause	60 sec.	
Drainage pump	25 sec.	
Fan	600 sec.	Normal drying

# Fault codes DW 70.5 (the consumer may see)



**See page 81 for fault codes that may appear in the service menu for the technician to view**

**Consumer may see 1 minute shown in display at the end of the cycle. No action is required. The program took longer than estimated. The next time the program is run the corrected time will be shown.**

Display	Type of fault	Action
<b>F2</b>	Too much water in the machine	Call the Customer Care Center at the number at the bottom of the page
<b>F4</b>	Fault with water inlet	Check that the water faucet is open
<b>F5</b>	Valve leakage	Shut off the water faucet and call the Customer Care Center at the number at the bottom of the page
<b>F7</b>	Blocked drain	See "Possible causes" in the Troubleshooting chapter
<b>F8</b>	Clogged filter	Clean the filters, see the Cleaning chapter

To remove fault indications from the display, switch off the main power switch and then turn it back on again.

## Fault codes DW 70.1, 3, 4 & 5

(fault codes the service technician may see in the service menu)

**NB:** Some DW70.3 and DW70.4 models may have a status lamp that always flashes together with the current fault indicator. If the customer has activated the sound option an audible signal is also heard when a fault is indicated.

### Temperature stop fault (DW70.1 no indication)

70.3 L1 flashes

70.4 "Temp. stop fault"

70.5 Fault code "F1"

Temperature increase less than 5°C in ten minutes. Program continues with the process. Only indicated in service menu.

**Check:** Element, thermistor, water level, circulation pump, control unit and cables.

# Fault codes DW 70.1, 3, 4 & 5

(fault codes the service technician may see in the service menu)

## Overfilling

70.1 L2 flashes

70.3 L2 flashes

70.4 “Overfilling”

70.5 Fault code “F2”

Too much water in the machine (pressure sensor) or float activated. If the water has not been emptied within 60 seconds, the program stops (drainage pump activated).

**Check:** Drainage pump (blocked hose), flow meter, inlet valve, leaks and cables.

## Thermistor fault (DW70.1 no indication)

70.3 L3 flashes

70.4 “Thermistor fault”

70.5 Fault code “F3”

Stopped or  $>80^{\circ}\text{C}$ . Program continues with the process. Only indicated in service menu.

**Check:** Thermistor and control unit.

## Fault codes DW 70.1, 3, 4 & 5

(fault codes the service technician may see in the service menu)

### **Water intake fault (DW70.1 no indication)**

70.3 L4 flashes

70.4 "Water inlet fault"

70.5 Fault code "F4"

< 80 pulses within 60 seconds or correct number of pulses not achieved within 255 seconds. Program stops.

**Check:** Water inlet, flow meter, inlet valve and cables.

# Fault codes DW 70.1, 3, 4 & 5

(fault codes the service technician may see in the service menu)

## Leaking valve

70.1 L5 flashes

70.3 L5 flashes

70.4 “Leaking valve”

70.5 Fault code “F5”

Water intake detected when inlet valve deactivated. Any current program stopped (drainage pump activated).

**Check:** Leak through inlet valve and flow meter.

## Pressure sensor fault (DW70.1 no indication)

70.3 L6 flashes

70.4 “Pressure sensor fault”

70.5 Fault code “F5”

Output signal > 4.8 V. The program continues. Only indicated in service menu.

**Check:** Pressure sensor, control unit and cables.

# Fault codes DW 70.1, 3, 4 & 5

(fault codes the service technician may see in the service menu)

## Drainage fault (DW70.1 no indication)

70.3 L1 and L2 flash

70.4 “Drainage error”

70.5 Fault code “F6”

Water not drained after 120 seconds draining. Program stops.

**Check:** Drainage pump, hoses, drainage hose fittings, control unit and cables. Also check whether filter is blocked.

## Turbidity sensor fault (DW70.1 no indication)

70.3 L1 and L5 flash

70.4 “Turbidity sensor fault”

70.5 Fault code “FA”

Only indicated in service menu. The machine assumes high turbidity in case of “uncertainty” in the auto program.

**Check:** Water quality, filters, turbidity sensor and drainage system.

# Service Bulletins

There has been a tendency towards a too low temperature during the main wash when 55° C has been selected on DW20 models. A too low temperature may be the reason behind the build-up of a coating inside the machine.

We have drawn up an instruction for the existing thermistor installation to increase the temperature to the right level.

The measure involves insulating the thermistor and in doing so increase the temperature by 5°C.

Order the spacer article number 80 7 68 39.

1. Remove the outer cover and loosen the thermistor.



2. Remove any grease on the inner cover. Loosen the protective tape from the adhesive side. Secure the bits on the cover.



3. Refit the thermistor. Make sure the thermistor rests against the spacer.



# Service Bulletins

## DW20 Water in the outer bottom

Water in the outer bottom on DW20 dishwashers.

The following applies when servicing due to water in the outer bottom, without establishing a direct reason:

1. Clean the overflow. See the figure.  
Capillary effects can occur with dirt in the overflow resulting in water in bottom.

2. A non established cause should be coded as set out below:

Position = 49 Bottom plate

Cause = 01 Leakage

Action = 04 Cleaning

### Miscellaneous

Position 26 The inlet should only be used when the fault is caused by the inlet system. (Inlet valve, inlet hose, airlock, programming time controlled intake).

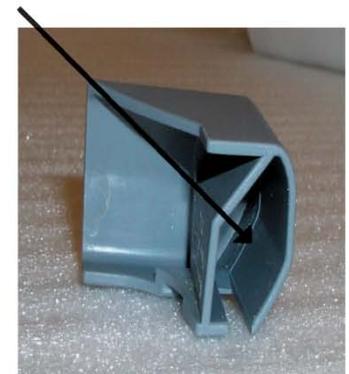
### NOTE!

All machines manufacture in week 42, 2003 or later are programmed for time controlled intake at the factory.

### Lift off the spray arm



### Lift off and clean if necessary

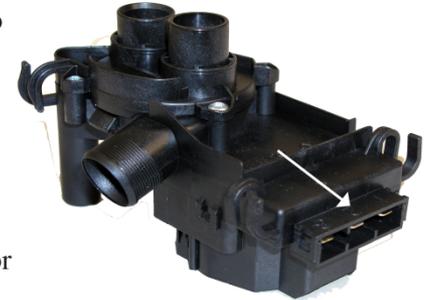


# Service Bulletins

## DW20

This information is intended to provide details on faults that are difficult to trace and may therefore lead to repeated replacement of control cards. Updated information will be issued when further details become available.

Sometimes when a lot of foam forms in machines, this may run down onto the Diverter valve via the overflow. If this happens repeatedly, a capillary effect can cause the foam to ‘travel’ along the joint between the two halves of the Diverter valve housing. As time goes by, this may cause a short circuit between the Diverter valve motor’s connection pins.



## Symptoms

A short circuit affecting the Diverter valve can lead to the controls cutting out. This can result in the machine blowing or certain functions failing.

## Servicing

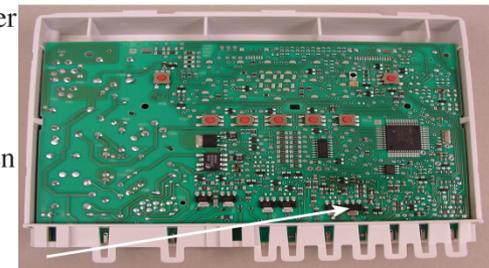
For servicing where the cause of the fault has been traced to the controls, it is important to check first that the fault was not caused by a leak affecting the Diverter valve.

## Action before replacing the controls

Open the plastic box for the controls and check the output for the Diverter valve, marked DIV 5. On the card is a triac, which is often damaged in the event of a short circuit.

If the triac for the Diverter valve is damaged, the Diverter valve itself must always be inspected.

If there are clear indications of prior leaks affecting the diverter valve, this must also be replaced. (A leak will dry quite quickly and the switch will often function when checked, which means it can be difficult to confirm a fault during servicing.)



## Consumer recommendation

Once the service has been completed, the service engineer should inquire about the amount of detergent used by the consumer, provide information on foaming and recommend using a lower dose or the dose specified in the user manual.

# Service Bulletins

**Produkt:** DW20 with Spray arm water diverter valve

**Description**

Water and /or foam can randomly be drained from the tub through the spray tower drain channel, down on the spray arm diverter and the amount of water/foam can in worst case cause a short circuit of electrical part of the diverter, which in turn can cause damage to the control unit. See Service Info Nr. 131

**Measure**

A overflow channel has been added to the system of spray tower and diverter, which will secure any leakage to be drained directly to the base and avoid damage of the spray arm diverter. The spray tower was modified to fit the new overflow channel.

New	Old
Spray tower 8081911-77	Spray tower 8076900-77
Spray tower for spray nozzle 8081911-L-77	Spray tower for spray nozzle 807600-L-77
New parts above are compatible backwards for all DW20	
8080666	Overflow channel, (fits only the new spray towers)

**By service:**

When a spray arm diverter is found to be damaged (see *Description* above) service kit as below shall be used

**Content service kit 8801388 230V**

Spray arm diverter	Art.nr: 8073821
Overflow channel	Art.nr: 8080666
Spray tower	Art.nr: 8081911-L-77
Mounting instruction	Art.nr: 8083918

**Content service kit 8801389 120V**

Spray arm diverter	Art.nr: 8073822
Overflow channel	Art.nr: 8080666
Spray tower	Art.nr: 8081911-L-77
Lockring Spray tower	Art.nr: 8071607
Mounting instruction	Art.nr: 8083918



Parts in production from week 39 2008