TECHNICAL INFORMATION
G 600 and G 800 Dishwashers
(All US Models)

Technical Information

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1.1 Appliance Overview

1.1.1 Typical Integrated Model

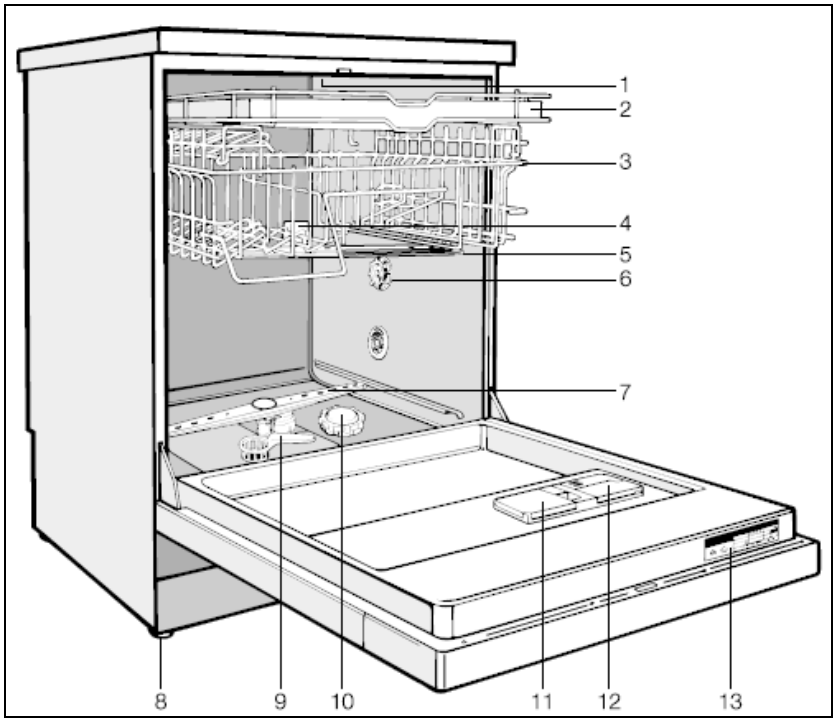


Figure 1-1: Overview of Typical Integrated Model

1 Upper spray arm (not visible)
2 Cutlery tray (model-dependent)
3 Upper basket
4 Water feed for middle spray arm
5 Middle spray arm
6 Water hardness selector (model-dependent)
7 Lower spray arm
8 Four height-adjustable feet
9 Filter combination
10 Salt reservoir (model-dependent)
11 Dual-compartment detergent dispenser
12 Rinse aid reservoir with dosage selector
13 Data tag

1.1.2 Typical Fully Integrated Model

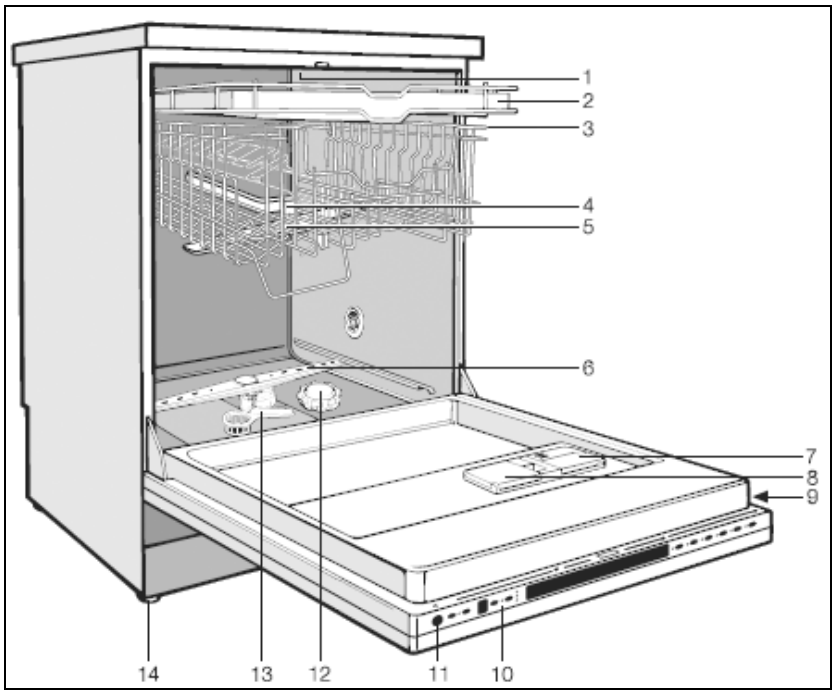


Figure 1-2: Overview of Typical Fully Integrated Model

1	Upper spray arm (not visible)	**8**	Detergent dispenser
2	Cutlery tray (model-dependent)	**9**	Data tag
3	Upper basket	**10**	Control panel
4	Water feed for middle spray arm	**11**	Optical interface
5	Middle spray arm	**12**	Salt reservoir
6	Lower spray arm	**13**	Filter combination
7	Rinse aid reservoir	**14**	Height-adjustable feet

1.2 Control Panels

Miele dishwashers are currently categorized into three (3) product series, based on the type of controls.

1.2.1 Novotronic

Each Novotronic-model dishwasher can be operated with a single knob. Surface-mounted design (SMD) technology allows Miele Novotronic components to be extremely durable and reliable. These controls are capable of performing hundreds of tasks which cannot be handled by mechanical components.

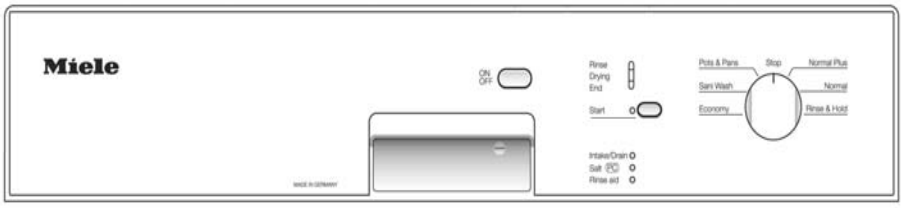


Figure 1-3: Novotronic Control Panel (G 841 Shown)

1.2.2 Touchtronic

This series of Miele dishwashers is operated by pushing a single button – no separate temperature or drying selections – just turn the machine on, select a program and Miele does the rest. All models now include a Pots and Pans program and a Water Management System, designed to maximize cleaning results and optimize water and energy conservation.

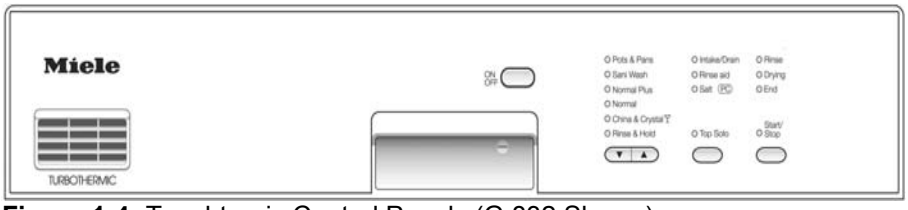


Figure 1-4: Touchtronic Control Panels (G 832 Shown)

1.2.3 Incognito

The Incognito (fully integrated) series dishwashers have the program controls located on the top edge of the door, which can be accessed while the door is open. Neither seen nor heard, the Miele Incognito Series OCI (Optical Cycle Indicator) allows you to see the progress of the dishwasher cycle by way of a red light, which is steady or flashing depending on the status of the cycle.

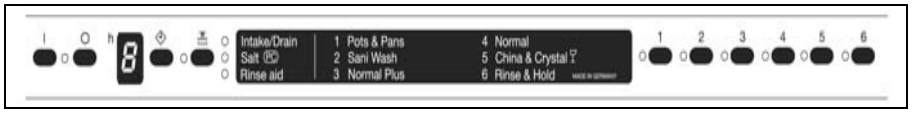


Figure 1-5: Incognito Control Panels (G 818 Shown)

1.3 Types of Dishwashers

1.3.1 Pre-Finished

The pre-finished construction consists of a pre-assembled door panel and control panel, making it an ideal replacement machine. Available in white, black or stainless steel.

Figure 1-6: Pre-Finished Dishwasher

1.3.2 Integrated

This type of dishwasher is shipped with a separate control panel and optional GDU (door) panel. Every integrated dishwasher ships with a bracket for installing a custom cabinet panel. The use of separate components allows for a truly customized installation.

Figure 1-7: Integrated Dishwasher

1.3.3 Fully Integrated

Fully integrated (Incognito) dishwashers are designed to blend into the surrounding cabinetry. The operator controls are only available when the door is opened. Each dishwasher is shipped with a bracket for securing a custom cabinet panel. An optional Miele stainless-steel SCVi panel is also available.

Figure 1-8: Fully Integrated Dishwasher

1.4 Technical Data

1.4.1 Dishwasher Width – Full-Size/Slimline

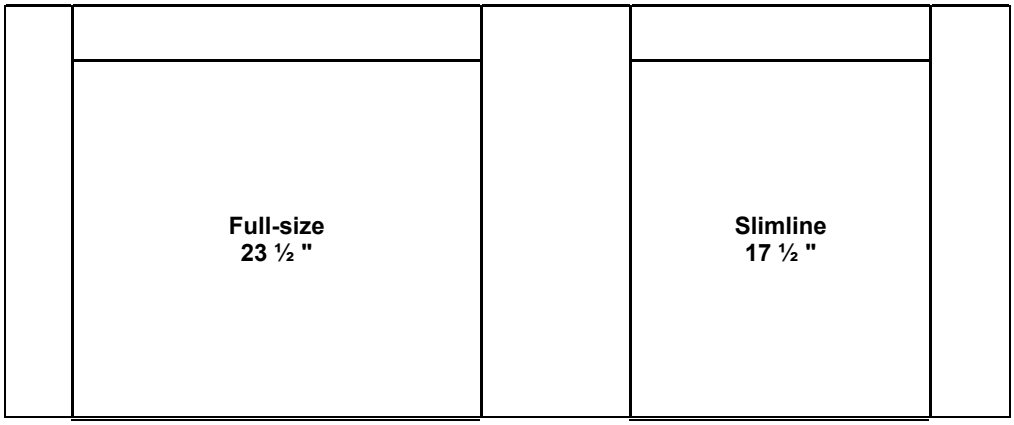


Figure 1-9: Dishwasher Widths

1.4.2 Dishwasher Heights – 600/800 Series

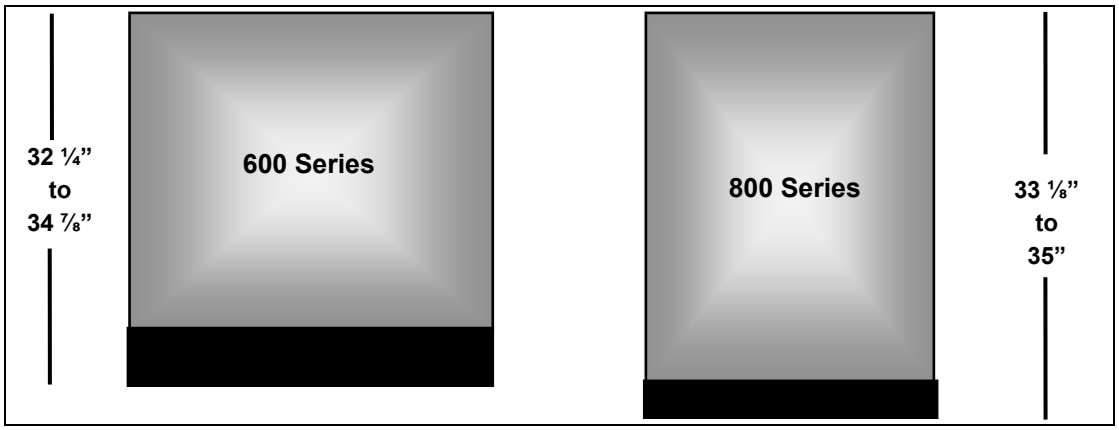


Figure 1-10: Dishwasher Heights

1.4.3 Summary of Dimensions

Full-Size	**G 600 Series**	**G 800 Series**
Height	32 ¼“ to 34 ⅞“	33 ⅛” to 35”
Width of machine	23 ½“	
Width of opening	23 ⅝”	
Depth	22 ½“	
Depth w/door open	45 ½“	47 ½“
Slimline	**G 600 Series**	**G 800 Series**
Height	32 ¼“ to 34 ⅞“	33 ⅛” to 35”
Width of machine	17 ½“	
Width of opening	17 ¾”	
Depth	22 ½“	
Depth w/door open	45 ½“	47 ½“

Table 1-1: Summary of Dimensions

1.4.4 Electrical Information

The appliance is equipped with a 4-foot power cord and molded NEMA 5-15 plug for connection to a NEMA 5-15R receptacle (120VAC, 15-amp, 3-prong, grounded outlet).

It is recommended that the power outlet for the appliance be installed on the wall (within the cabinets), adjacent to under-counter space where the appliance is installed.

Ensure that the cabinets contain no rough edges that could damage the power cord or drain hose. If metal cabinets are used, ensure that a rubber grommet is installed around the opening.

Always exercise caution when sliding the dishwasher in or out, to prevent damaging the power cord and/or hoses.

1.4.5 Hard-Wired Electrical Connection

Connect L1 (black) to L on the terminal block, N (white) to N on the terminal block, and GND to the ground connector.

Note:
Hardwiring the dishwasher should only be done if required by electrical code.

Do not cut the plug off the power supply cord/plug and connect it directly to the house wiring under any circumstances. This voids the warranty.

For hardwiring, the power cord must be removed from the appliance by disconnecting the cord from the terminal block located at the lower left front of the dishwasher, behind the toekick and service panel. Feed the permanent power supply cable through the strain relief and secure it directly to the terminal block.

Note:
The appliance must be grounded.

1.4.6 Plumbing Connections

1.4.6.1 Intake Connection

The appliance is supplied with a 5-foot-long Double WaterProof System intake hose, equipped with a ¾-inch female hose connection for connection to a ¾-inch male hose thread water supply valve.

1.4.6.2 Drain Connection

The appliance is equipped with a 5-foot-long drain hose for connection to a ¾-inch drain nipple.

1.5 Data Tag

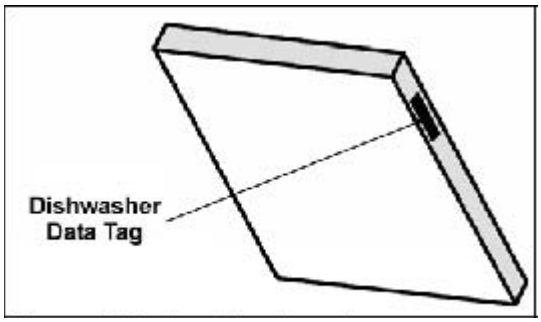


Figure 1-11: Data Tag Location

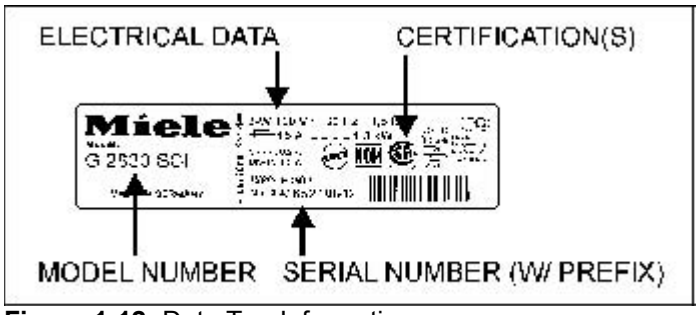


Figure 1-12: Data Tag Information

1.6 Layout of Components

1.6.1 Novotronic and Touchtronic Series

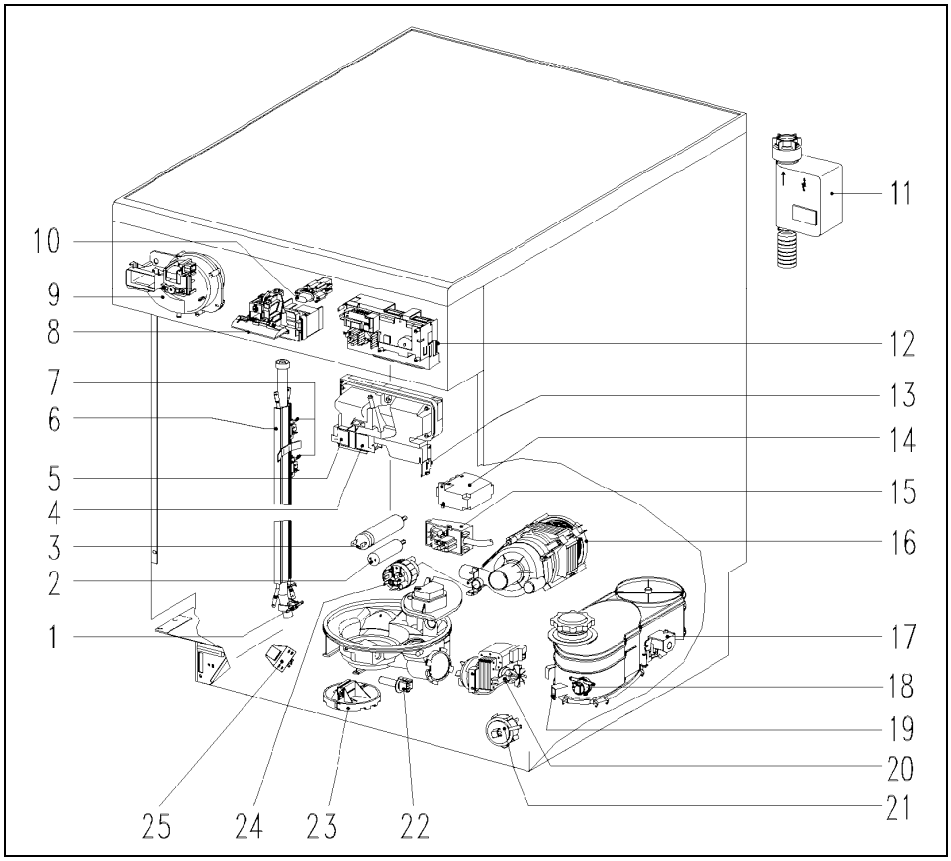


Figure 1-13: Component Overview – Novotronic & Touchtronic Series

1 Temperature limiter 90°C, 3F2 (before 8/99)
2 Interference suppression capacitor, Z2
3 Circulation pump capacitor, C6
4 Rinse aid dispenser, Y50
5 Detergent dispenser, Y51
6 Flow-through heater, R1
7 Temperature limiter 150 °C, 1F2 and 2F2
8 Door switch, S24
9 Fan, M2, & PTC release element, Y56
10 On/off switch, S2
11 WaterProof System (WPS), Y2
12 Electronic
13 Rinse aid reed switch, B8/1
14 Heater relay, 1K1/1
15 Terminal block, X3/1
16 Circulation pump, M6
17 Water softener valve, Y38/1
18 Flow meter, B3/4
19 Salt float switch, B8/2
20 Drain pump, M8
21 Overflow level switch, B1/2
22 Temperature sensor, R30
23 Float switch, B8/3
24 Heater pressure switch, B1/10
25 Transformer, T1

1.6.2 Incognito Series

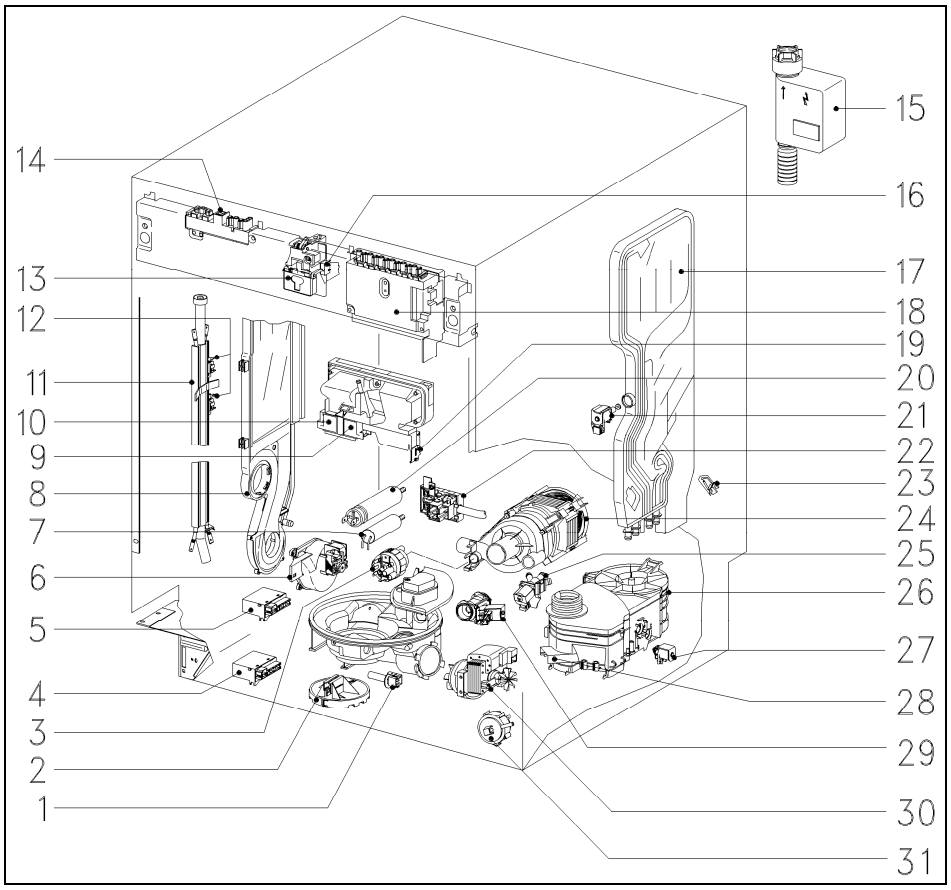


Figure 1-14: Component Overview – Incognito (Vi) Series

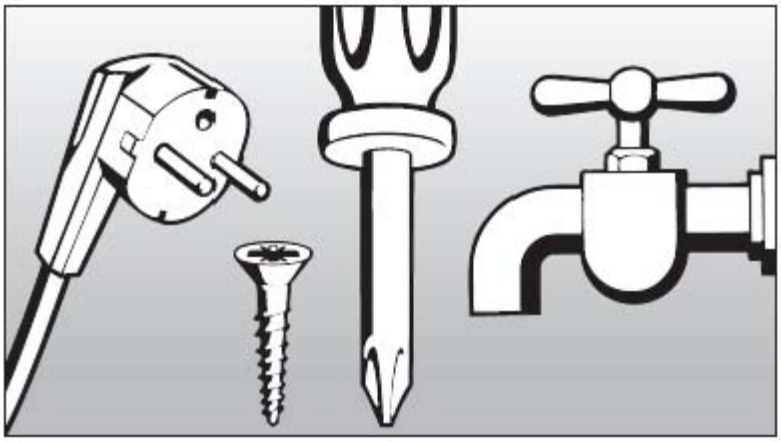
1 Temperature sensor, R30
2 Float switch, B8/3
3 Heater pressure switch, B1/10
4 Power relay, 1K1/6
5 Heater relay, 1K1/1
6 Fan, M2
7 Interference suppression capacitor, Z2
8 Steam condenser (not all models)
9 Rinse aid dispenser, Y50
10 Detergent dispenser, Y51
11 Flow-through heater, R1
12 Temperature limiter, 1F2 and 2F2
13 Door contact switch, S24
14 Electronic
15 WaterProof System (WPS), Y2
16 Door switch, S5
17 Water intake mixer
18 Electronic
19 Rinse aid reed switch, B8/1
20 Circulation pump capacitor, C6
21 Water control valve, Y5
22 Terminal block, X3/1
23 Flow meter, B3/4
24 Circulation pump, M6
25 Condenser control valve, Y6 (if equip. w #8)
26 Water softener (resin tank)
27 Water softener valve, Y38/1
28 Reactivation salt indicator switch, B8/2
29 Circulation valve, Y27
30 Drain pump, M8
31 Overflow level switch, B1/2

2.0 Installation

Refer to the appliance installation manual.

Miele

Installation instructions



Dishwasher

To prevent accidents and machine damage, read these instructions **before** installation or use.

HG01
HG02

USA CDN

M.-Nr. 05 620 922

3.0 Commissioning and Operation

3.1 Door Handle and Door Lock (Novotronic/Touchtronic Series)

Press the release catch inside the door grip.

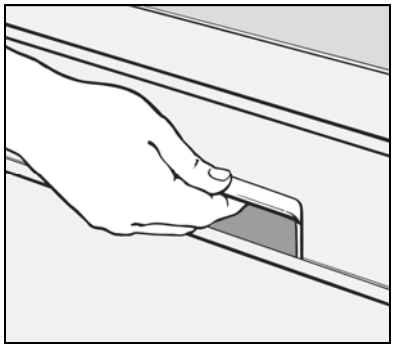


Figure 3-1: Door Handle and Door Lock (Novotronic/Touchtronic)

Note:
If the door is opened during operation, the dishwasher will stop running. Once the door is closed the program will restart.

3.2 Closing the Dishwasher Door

To close the door, push the baskets in, then lift the door and push until it clicks into place.

3.3 Child Safety Lock

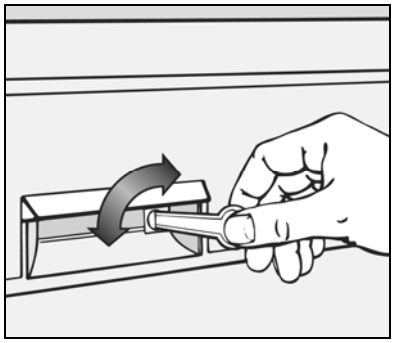


Figure 3-2: Child Safety Lock

Horizontal setting = Door is locked.

Vertical setting = Door can be opened.

3.4 Water Softener

If your tap water hardness is above 8 grains per gallon (140 ppm), the water should be softened.

A water hardness test strip is used to determine the water hardness.

If the water softener is needed:

- The dishwasher must be programmed to “with water softener” (ON).
- The water softener reservoir is filled with softener salt.
- The water hardness level is programmed into the dishwasher electronic.

If the water softener is not needed:

- The dishwasher must be programmed to “without water softener” (OFF); however, the hardness level is not programmed into the electronic.
- Salt is not needed and should not be installed.

3.4.1 Water Softener Salt

Only use water softener salt specially formulated for dishwashers. Other salts may contain insoluble additives which can impair the water softener. The proper salt can be purchased from the Miele Technical Service department.

To add salt:

1. Remove the lower basket and unscrew the salt container cap located on the floor of the wash cabinet.
2. **Before adding salt for the first time**, fill the salt container with 2 quarts (2 liters) of water.
3. Place a funnel over the salt container. Carefully fill with salt. See Figure 3-3. The salt container holds approximately 4.5 pounds (2 kilograms) of salt.
4. Clean any excess salt from the threads of the container opening. Screw the lid on firmly.
5. Run the **Rinse & Hold** program to remove any traces of salt from inside the wash cabinet.

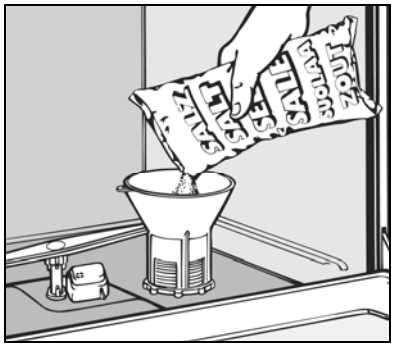


Figure 3-3: Filling the Salt Container

3.5 General Operation

3.5.1 Novotronic Series

1. Make sure that the spray arms are not blocked.
2. Close the door.
3. Turn on the dishwasher. The "Start" indicator will flash.

4. Select a wash program by turning the program selector to the left or right.
5. Press the "Start" button.

3.5.2 Touchtronic Series

1. Make sure that the spray arms are not blocked.
2. Close the door.
3. Turn on the dishwasher. The "Start/Stop" indicator will flash and a program indicator will light.
4. Select a wash program using the program selection buttons. The selected program indicator will light.
5. Select **Top solo**, if desired.
6. Press the "Start/Stop" button.

3.5.3 Incognito Series

1. Open the door.
2. Make sure that the spray arms are not blocked.
3. Turn on the dishwasher using the **On** button.
4. Select a wash program using the program selection buttons.
5. The selected program indicator will light.
6. Close the door. The optical indicator illuminates and the program begins.

Note:
For specific program details and further information on operating the dishwasher, refer to the model-specific operating manual.

4.0 Description of Function

4.1 Cabinet Construction

The inner cabinet is constructed of stainless steel (1.4301) welded onto four (4) vertical U-section sub-frames. The cabinet is sound and heat-insulated with bitumen and/or mineral wool matting.

4.2 Fan Assembly (Machines Equipped w/Turbothermic Fan)

The fan assembly consists of the fan motor (M2) and a PTC release element (Y56), which opens the air outlet flap. The 120VAC fan operates in the drying stage, after a brief delay. The PTC release element is activated, and the air outlet flap is partially opened. A bypass channel behind the air outlet is also opened and ensures that the moist air from the cabinet is mixed with dry air from the door interior. This prevents condensation from developing. After about a minute, the electronic switches off the release element, but the air outlet flap remains partially open. After a few minutes, the release element is activated again, which completely opens the air outlet flap. The fan operates constantly throughout this period until the program ends. The air outlet flap remains open at program end and closes when the dishwasher door is opened.

4.2.1 PTC Release Element (Machines Equipped w/Turbothermic Fan)

When 120VAC is applied to the release element, the PTC resistor heats a small grease-filled capsule. As the grease expands, it pushes a piston upward and slides the air outlet flap to a partially open position. When the release element is activated the second time, the piston slides the air outlet flap to a fully open position.

4.3 Combination Dispenser

4.3.1 Construction

Two individual solenoids control detergent and rinse aid dispensing.

The rinse aid reservoir has a capacity of about 130mL (4.4 fluid ounces). When the rinse aid level drops to about 25mL (0.85 fluid ounces), the magnetic float activates a reed switch on the edge of the dispenser and the rinse aid LED illuminates.

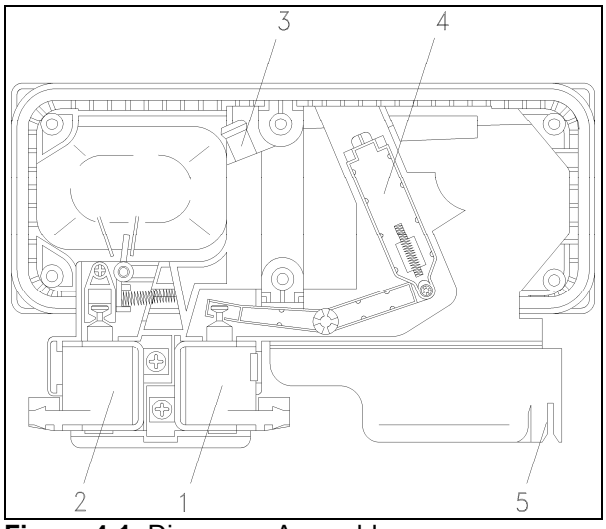


Figure 4-1: Dispenser Assembly

1 Rinse aid solenoid (120VAC), Y50
2 Detergent chamber flap solenoid (120VAC), Y51
3 Hose connection for condensate from fan (fan-equipped models only)
4 Rinse aid dispenser mechanism
5 Reed switch, B8/1

4.3.2 Dispensing

During the main wash, the detergent solenoid (Y51) is energized (120VAC) to open the detergent dispenser flap. The water jet from the middle spray arm flushes detergent out of the dispenser.

Detergent Quantity		
Model	**Pre-Wash Compartment (cm^3)**	**Main Wash Compartment (cm^3)**
C2.06	25	80
C2.09	20	70

Table 4-1: Detergent Quantity in Combination Dispensers C2.06 and C2.09

During the final rinse, the rinse aid solenoid (Y50) is energized (120VAC) to open the

dispenser chamber and allow rinse aid to be dispensed into the cabinet.

Note:
The rinse aid only flows from the reservoir into the dispenser chamber when the front door is fully opened at the end of a program.

The quantity taken into the dispenser chamber depends on the dispenser selector setting.

Rinse Aid Quantity			
Dispenser Selector Setting	**Rated Quantity (mL)**	**Lower Limit (mL)**	**Upper Limit (mL)**
1	1	0.8	1.8
2	2	1.8	2.8
3	3	2.8	3.8
4	4	3.8	4.8
5	5	4.5	5.5
6	6	4.5	7.0

Table 4-2: Rinse Aid Dispensing (Combination Dispensers C2.06 and C2.09)

When the rinse aid light turns on, an additional 2 to 5 dispensings (at setting 2) remain available.

Note:
To allow proper filling of the rinse aid dispenser, rinse aid should only be added with the door in the fully open position.

4.4 Heaters

During the main wash and final rinse portions of a wash cycle, the water is heated to the program's specified temperature before advancing to the next step in the program (e.g., Thermal Stop).

The water is heated using one of two systems (cavity-style or flow-through).

4.4.1 Wash Cavity Heater Element

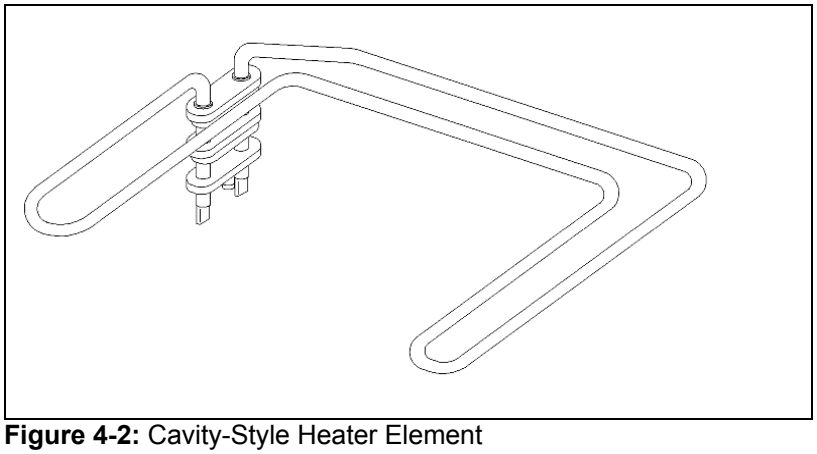


Figure 4-2: Cavity-Style Heater Element

The heater element is mounted just off the floor of the wash cavity. When powered (120VAC), the element radiates heat, thereby heating the surrounding and circulating water. The temperature of the water is monitored by the temperature sensor

mounted in the sump.

Heater element switching is performed by the electronic via a relay. The relay (when energized) closes contacts to provide the heater element with 120VAC. A temperature limiter mounted with the element provides protection by opening up the circuit should the temperature become too high.

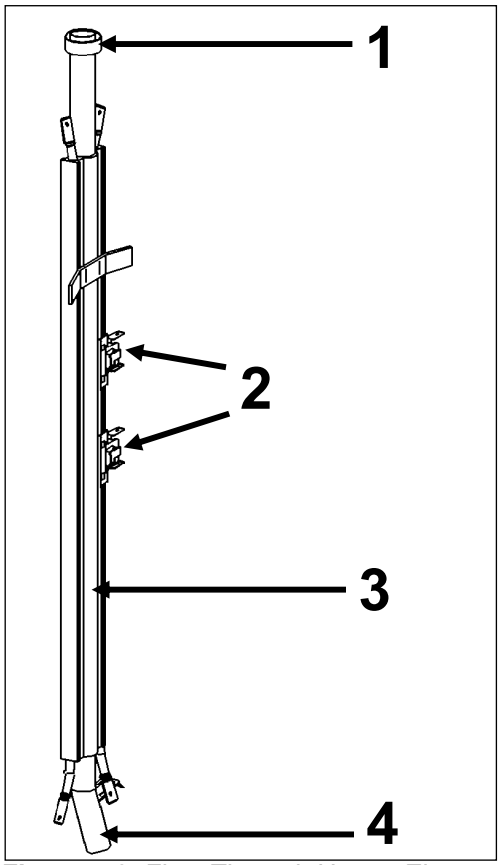
4.4.2 Flow-Through Heater

The flow-through heater assembly is mounted on the (left side) exterior of the wash cabinet. The flow-through heater is plumbed into the water path between the circulation pump output and the middle spray arm.

The flow-through heater consists of a heater element mounted parallel to a metal tube that water passes through when the dishwasher is circulating.

As water flows through the metal tube, the water is heated and exits through the middle spray arm. As the water falls to the bottom of the wash cavity, it passes through the filter and re-enters the circulation pump; the process then repeats. The temperature sensor monitors the water temperature until the program's specified temperature is reached. Generally, the water heats at a rate of about 20 degrees per minute.

Heater element switching is performed by the electronic via a relay. The relay (when energized) closes contacts to provide the heater element with 120VAC. Two temperature limiters are mounted along the element and provide protection by opening up the circuit should the temperature become too high.



1 Water output to middle spray arm
2 Thermal limiters (safety cutouts)
3 Heater element (120VAC)
4 Water intake from circulation pump

Figure 4-3: Flow-Through Heater Element

Voltage	120VAC
Output power	1.5kW
Rated load	9.6kΩ

Table 4-3: Flow-Through Heater Electrical Data

4.5 Heater Circuit Operation

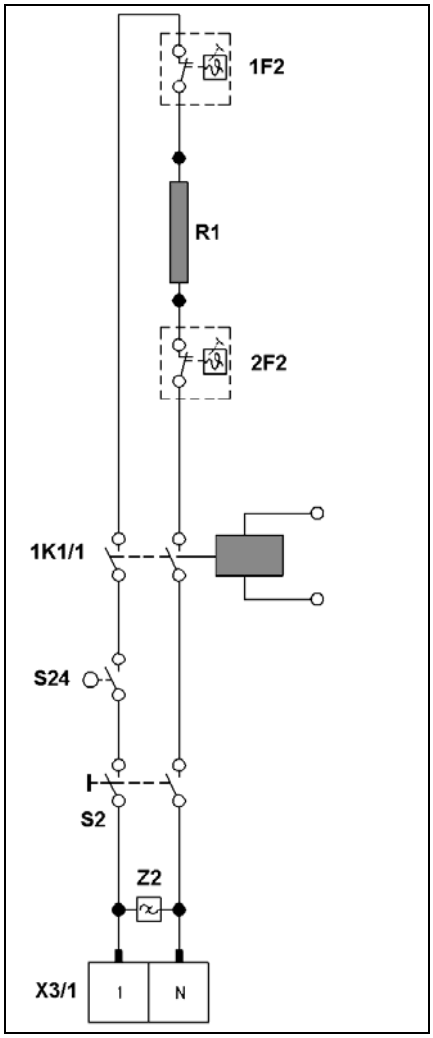


Figure 4-4: Heater Circuit

4.6 Pulsed Heating – Operation

In certain programs, heating may be operated at full power until a water temperature of 77°F is reached, after which power is applied in pulses. This extends the heating time and allows enzyme-containing detergents to develop their full cleaning potential.

Pulsed heating operates as follows:

- 1 minute heater element on.

- 1 minute heater element off.

The number of pulse cycles is limited to a maximum of 11. If the program's specified temperature has not been reached, heating will resume using full power. Once the program's temperature has been reached, the electronic advances to the next step in the program. If the temperature cannot be reached (e.g., heater failure) within a specified time, the program will advance but a heating fault will be stored in the electronic.

4.7 Temperature Protection

The two (2) temperature limiters (1F2 and 2F2) mounted on the body of the flow-through heater are designed to open the heater circuit should the temperature become too high. When the temperature drops back to normal, the temperature limiters will not reset automatically and must be reset manually (via the red button on the back of the heater).

Additional protection is provided by the electronic, which switches the appliance off and stores an F4 fault code should the temperature exceed 194°F (90°C) as determined by the temperature sensor.

4.8 Static Drying

The static drying system uses no electrical or mechanical components to assist in drying. With this system the final rinse water is heated to 154°F (68°C), not the usual 150°F (67°C). The dishwasher cabinet is made of stainless steel and conducts the heat generated during the final rinse. As the final rinse ends, this stored thermal energy radiates and assists in drying.

4.9 Spray Arms

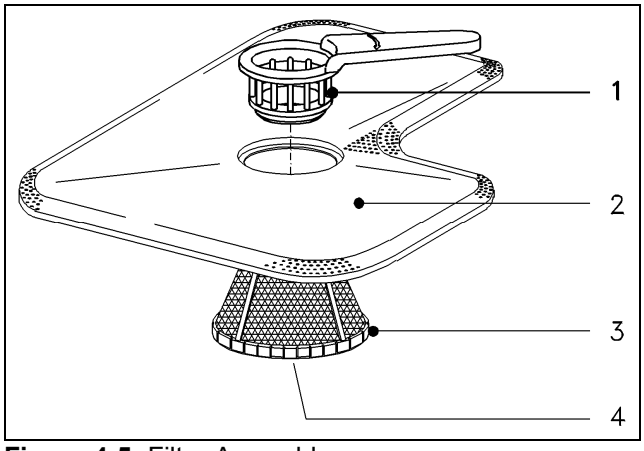
The circulation pump (M6) moves the wash water from the sump through the filter assembly and to the spray arms. The water pressure creates a propulsion effect, which causes the spray arms to rotate.

Top spray arm	30 to 55 rpm
Middle spray arm	16 to 40 rpm
Bottom spray arm	24 to 50 rpm

Table 4-4: Spray Arm Rotation Speeds

4.10 Filter Assembly

Circulating wash water is filtered via 2 parallel paths. A portion of the water flows through the center opening of the coarse filter and passes through the microfine filter. The remaining water passes through the large surface area fine filter. The coarse filter is attached to the filter combination handle. If dispensed powder detergent should fall into the microfine filter, it will remain on the filter cap where it can dissolve, instead of collecting in the drain outlet. Foreign objects which pass the coarse filter to the microfine filter collect on the filter cap so they won't clog the drain outlet.



1 Coarse filter/handle
2 Large surface area fine filter
3 Microfine filter
4 Filter cap

Figure 4-5: Filter Assembly

4.11 Water Intake – Technical Data

Solenoid valve electrical connection	Flow pressure (psi)	Flow rate (gal/min)		Connection lead length[1]	Threaded union	Cutout dimensions for valve assembly housing
		60cm model	45cm model			
120VAC (60Hz)	14.5 - 145	1.3	1.1	5 feet (1.5m)	¾" hose	2" x 4"

Table 4-5: WaterProof System Data

[1] The standard WaterProof system can be exchanged for a 15-foot (4.5m) version. With dishwashers from index 24 (additional seal under both solenoid valves), a 5' (1.5m) metal hose can be connected to the WPS valve as an extension.

Restrictor color	Flow rate
Green	1.1 gal/min (4.1L/min)1
Gray	1.3 gal/min (4.9L/min)2
White	1.4 gal/min (5.25L/min)
Blue	1.6 gal/min (6.0L/min)

Table 4-6: Flow Restrictor Data

[1] Standard with 45cm (Slimline) models
[2] Standard with 60cm (full-size) models

Water Inlet Mixer	
Wash water hardness solenoid valve (Y5)	120VAC 60Hz
Softener reactivation reservoir capacity	13.5 fl.oz. (400mL) for 60cm model
	11.5 fl.oz. (340mL) for 45cm model
Flow meter	Approx. 200-220 pulses/liter

Table 4-7: Water Inlet Mixer Data

4.12 WaterProof System (WPS)

The water inlet valve (Y2) consists of two (2) electromechanical valves mounted within a waterproof box located at the water connection (end of the water intake hose).

The valves are physically and electrically mounted in series to ensure that if one valve should fail (e.g., due to blockage caused by a foreign object) the water flow will still be switched off by the other valve.

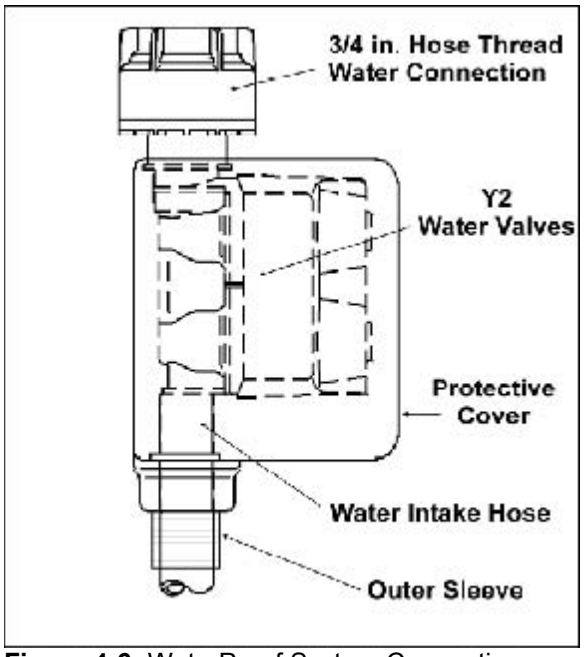


Figure 4-6: WaterProof System Connection

The water inlet system is protected by the WaterProof System (WPS), which uses an outer sleeve to protect the water inlet hose and valves.

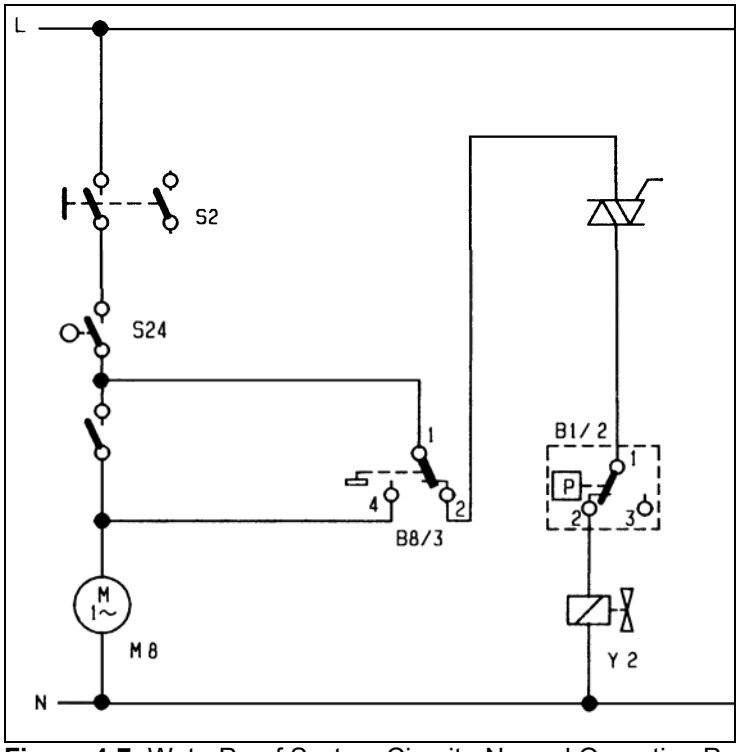
If a valve or the hose should leak, the leaking water will flow along the outer sleeve to the drip pan in the bottom of the appliance. When a certain amount of water collects in the drip pan, the float switch (B8/3) is actuated (see Figure 4-8).

With the float switch actuated, power that is normally distributed throughout the appliance is re-directed to the drain pump. The drain pump will continuously operate when the appliance is turned on and the door is closed. Normal operation and program selection are not possible during this time.

Warning!

- If the WPS is replaced, always ensure that the correct flow restrictor is installed.
- The WaterProof system only operates with the door closed and the dishwasher switched on.
- To ensure optimal protection, the water connection should be at least 8 inches (20cm) higher than the floor on which the dishwasher is standing.
- The connection hose must be routed so that no point is higher than the connection housing.

For further details, refer to the model-specific operating or installation manual.



B1/2 Overflow level switch
B8/3 Overflow float switch
M8 Drain pump
S2 Main switch (pushbutton switch)
S24 Door contact switch
Y2 Water intake solenoid valve (2 off) (WaterProof system)

Figure 4-7: WaterProof System Circuit - Normal Operating Position

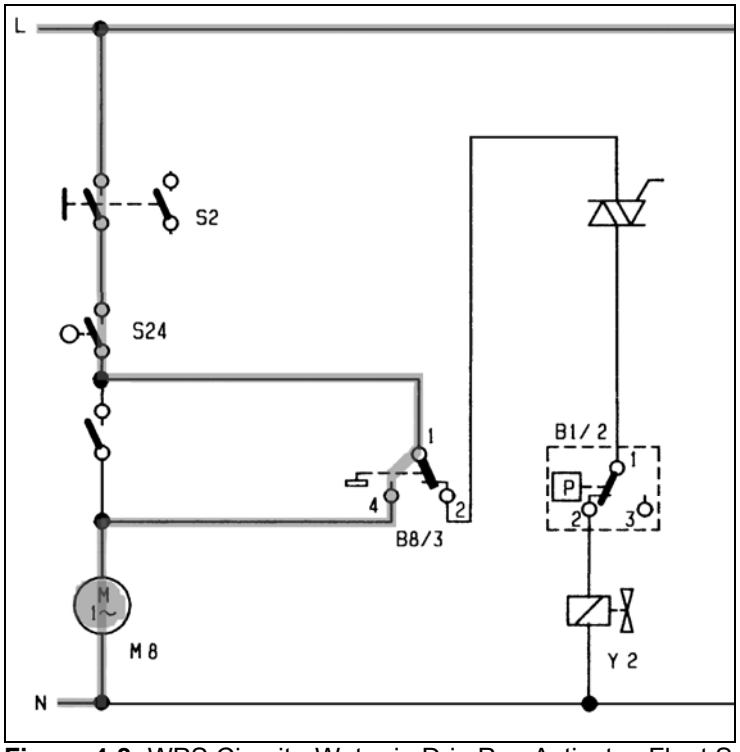
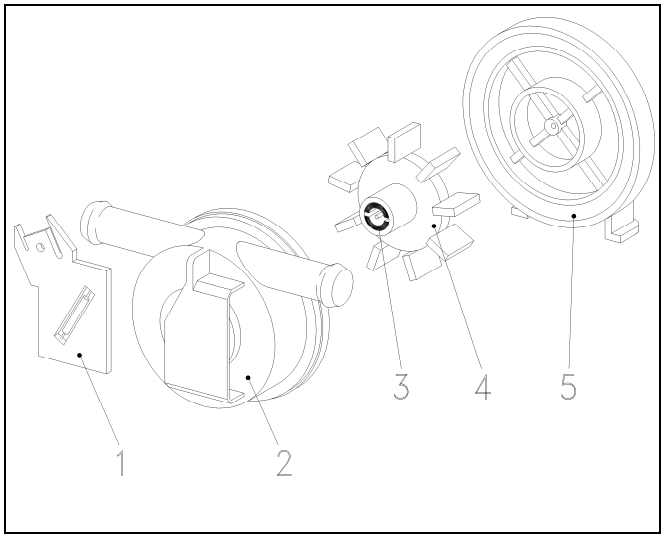


Figure 4-8: WPS Circuit - Water in Drip Pan Activates Float Switch B8/3

4.13 Flow Meter – Operation

The incoming water turns an impeller that contains a magnet located in the flow meter axle. As the axle rotates (impeller turns), an external reed switch is switched on or off by the effect of the magnet. The electronic monitors the number of pulses to determine the volume of incoming water. For each 0.26 gallons (1 liter) of water, approximately 200 pulses should be registered.



1 Reed switch
2 Housing
3 Magnet (could also be mounted directly on an impeller blade)
4 Impeller
5 Housing cap

Figure 4-9: Flow Meter Assembly Components (External Flow Meter Shown)

4.14 Water Intake

If the water pressure is low, the electronic can be programmed to increase the allotted intake duration from 2 minutes to up to 4 minutes.

For further information, refer to Section 6 (“Fault Diagnosis”).

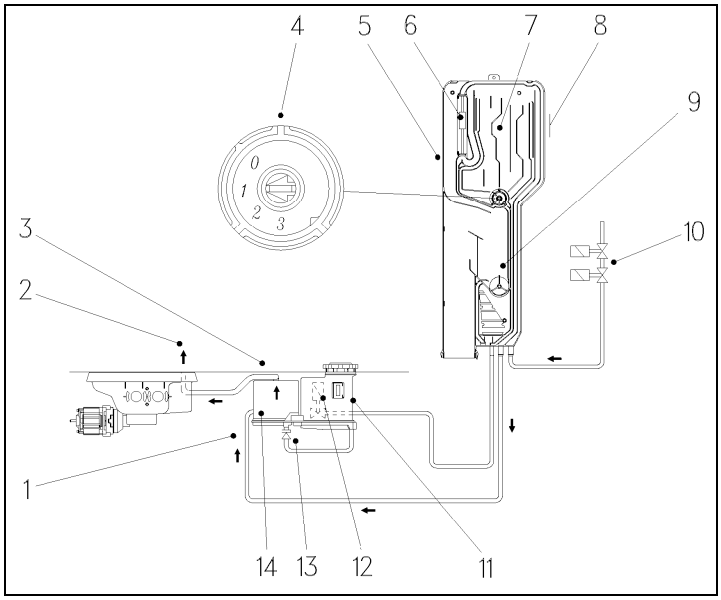
4.15 Water Mixing

4.15.1 External Flow Meter

Refer to Figure 4-10.

The supply water flows into the WaterProof System (Item 10), to the water intake assembly, where it passes a non-return valve (Item 6). The non-return valve prevents a reflux of water from the machine into the supply should a vacuum develop in the system.

The water path is then divided at the bypass (Item 5), and up to 5% of the water flows directly into the cabinet without passing through the water softener. Depending on the water hardness selector setting (Item 4), a proportion of the water flows directly into the cabinet via the cabinet ventilation (Item 9). The remaining water fills the reservoir in the water inlet (Item 7) for later reactivation of the softener. When the reservoir is full, water flows through the ion exchanger (Item 14) and the intake opening in the sump (Item 2) to enter the cabinet.



1 Ion exchanger (softener) input
2 Intake opening in sump
3 Ion exchanger (softener) output
4 Water softener selector
5 Water bypass
6 Non-return device
7 Water reservoir
8 Water intake channel
9 Cabinet ventilation
10 WaterProof system valve Y2
11 Salt container
12 Solenoid valve Y38/1
13 Non-return valve
14 Ion exchanger

Figure 4-10: Water Intake System with Integrated Flow Meter

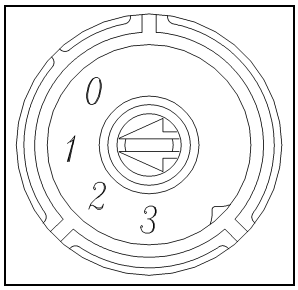
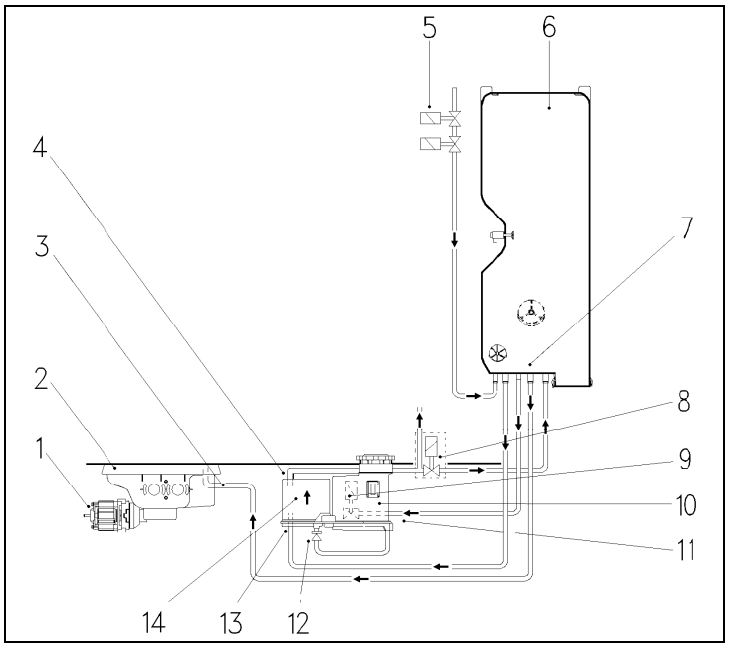


Figure 4-11: Water Hardness Selector

With correct programming and operation, the water softener should supply water with a hardness level < 4° in all wash programs. With certain types of glass it may be necessary to set the wash water hardness individually to avoid possible glass corrosion. Depending on the water hardness, the selector at the water intake must be set to between 0 - 3 (non-Plus models only). This sets the quantity of supply water flowing directly into the cabinet without passing the water softener. For details, see the model-specific operating manual.

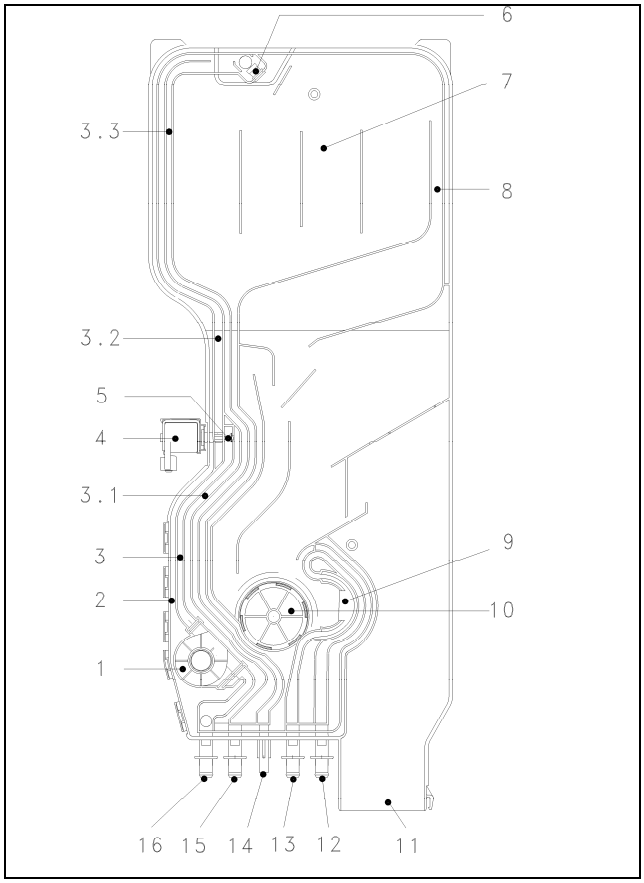
4.15.2 Integrated Flow Meter



1 Drain pump
2 Sump
3 Sump soft water intake
4 Water softener soft water outlet
5 Solenoid valve Y2 (WPS)
6 Water inlet mixer
7 Water inlet mixer intake and outlet
8 Steam condenser control valve Y6
9 Solenoid valve Y38/1 (reactivation)
10 Salt container
11 Salt container intake
12 Non-return device
13 Water softener hard water intake
14 Ion exchanger

Figure 4-12: Water Path with Integrated Flow Meter

The water intake hose from the WaterProof System (WPS) is connected to the water inlet mixer (Figure 4-13, Item 6). Hard water flows through the integrated flow meter (Figure 4-13, Item 1), and into the intake channel (Figure 4-13, Item 3), to solenoid valve Y5 (Figure 4-13, Item 4).



1 Flow meter B3/4
2 Surrounding test channel, for production purposes only
3 Supply water intake channel
4 Wash-water hardness solenoid Y5
5 Valve pin
6 Ball valve
7 Softener reactivation reservoir
8 Overflow
9 Non-return device
10 Cabinet ventilation
11 Vent
12 Soft water intake from water softener
13 Water outlet to sump
14 Water outlet from water reservoir for softener
15 Water outlet to softener
16 Water intake from WaterProof System (WPS)

Figure 4-13: Water Inlet Mixer

4.15.3 Operating Solenoid Valve (Y5) (Plus Models Only)

With no voltage to Y5, the valve pin (Figure 4-14, Item 5) closes the channel for cabinet ventilation. The non-softened water then flows behind the valve pin (Figure 4-14, Item 5.1), through an opening in the water channel (Figure 4-14, Item 3.2). From here it flows upwards to the ball valve (Figure 4-13, Item 6), where a small proportion of the water passes through a small bypass in the ball valve to the water reservoir (Figure 4-13, Item 7), for later use during softener reactivation.

Note:
After softener reactivation, the reservoir is filled again by the time the third water intake has taken place.

The majority of the water, blocked by the ball valve at the water reservoir inlet, flows through the water channel (Figure 4-13, Item 3.3), to the water mixer outlet and then to the water softener (Figure 4-13, Item 5). After passing through the water softener, the now soft water flows via the soft water intake (Figure 4-13, Item 12), back into the water inlet mixer. It then flows past the non-return device (Figure 4-13, Item 9), into the sump (Figure 4-13, Item 13).

With voltage applied to Y5, the valve pin is drawn back and a portion of the hard water flows through the hole into the channel (Figure 4-14, Item 3.1), via the cabinet ventilation port. This mixing of hard water with the soft water allows the wash water hardness to be adjusted more precisely.

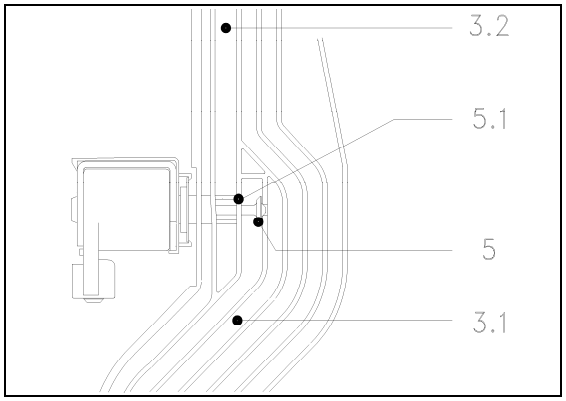


Figure 4-14: Water Hardness Mixer Solenoid

4.16 Electronically Controlled Water Hardness (EGS)

To avoid possible glass corrosion, the wash water hardness level should not exceed or fall below

- 45 ppm in programs with heating
- 71 ppm in programs without heating

With water hardness below 286 ppm (under 232 ppm in heating steps), solenoid valve Y5 is activated to add a proportion of hard water to the cabinet. The proportion added in this way is fixed and depends on the supply water hardness level programmed into the electronic.

The EGS system is not active in all wash programs, but it can be programmed if required. The additional Top solo function has no influence on the EGS system.

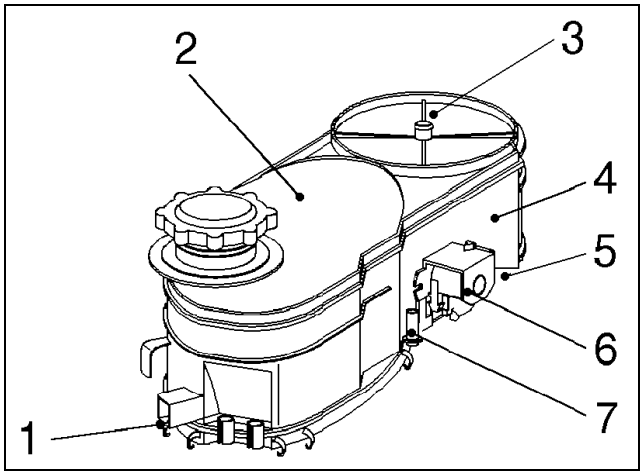
The EGS system is not active in the following cases:

- In programs Universal Plus 55°, Universal Plus 65° or Economy (standard setting).
- If the programmed water hardness is above 286 ppm.
- In the program when the softener is being reactivated.
- When flushing the water softener after reactivation.
- If no water softener is installed.
- If the “Without Softener” function has been programmed.

Note:
If a water softener is installed but has been deactivated (programmed for “without softener”), then the incoming water flows directly into the cabinet via the solenoid valve only. However, a small quantity (approximately 1 liter) of water still flows through the water softener system to prevent mold from forming.

4.17 Water Softener

The water softener consists of 2 compartments - a salt container and an ion chamber. It also has a mechanical non-return valve, a solenoid valve and a reed switch/magnetic float switch.



1 Salt level float switch (reed switch) B8/2
2 Salt container
3 Water exit
4 Ion exchanger
5 Supply water intake on underside
6 Softener solenoid valve Y38/1
7 Intake for water for reactivation from reservoir in water mixer

Figure 4-15: Water Softener

Incoming water flows through the intake assembly and into the ion exchanger. When the water flows through the softener, the calcium and magnesium ions are exchanged for sodium ions, which soften the water. The softened water flows into the cabinet via a port in the sump.

4.17.1 Reactivation

The electronic activates the softener valve (Y38/1) and water from the water intake assembly flows into the salt container, where it dissolves a quantity of salt to become a brine mixture.

The saturation point, above which the water cannot dissolve any more salt, is approximately 40%. The brine then flows past a mechanical non-return valve into the ion exchanger and flushes the existing water into the sump. The built-in non-return valve in the softener prevents the brine from mixing with the incoming water during normal operation.

The brine flushes the resin in the ion exchanger, and replaces the retained calcium and magnesium ions with sodium ions. At the next program start, the incoming water flushes out the remaining brine and hardness minerals before the actual dishwashing program begins.

4.17.2 Reactivation Cycles

The salt in the salt container is sufficient for several reactivation cycles, as it is not dissolved all at once. As the quantity of salt in the salt container drops, the concentration of the brine decreases. When a specific concentration is reached, the float (containing a magnet) activates the float switch. The salt indicator is then illuminated to advise the operator that the softener system needs salt. The dishwasher operates with consumption-linked reactivation. After a certain number of programs, the electronic activates the solenoid valve (Y38/1) at the end of the final rinse cycle and starts the reactivation process. (Refer to Table 4-8.) If **Technical Information** several other programs, such as Economy, are operated between two Universal 65°C programs, the electronic calculates the probable quantity of water used and the approximate number of equivalent Universal 65°C programs. Therefore, the figures provided in Table 4-8 can be considered as a guide only.

Water hardness		Number of program sequences before reactivation (Universal 65°C)	
Parts per million	Grains per gallon	Normal water quantity	Increased water quantity
18 to 71	1 to 4.1	18	12
89 to 107	5.2 to 6.2	13	8
125	7.3	12	8
143 to 179	8.3 to 10.4	7	5
196 to 214	11.4 to 12.4	6	4
232 to 250	13.5 to 14.5	5	3
268 to 304	15.5 to 17.6	4	2
321 to 375	18.6 to 21.8	3	1
394 to 625	22.8 to 36.3	2	1
643 to 1250	37.3 to 72.5	1	1

Table 4-8: Reactivation Cycle Timing

4.18 Condenser Drying (UKT)

Does not apply to all dishwasher models.

4.18.1 Operation

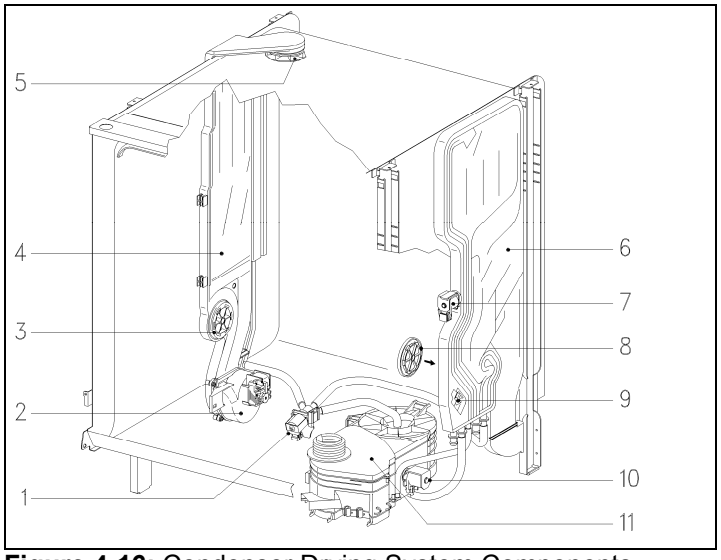
An air inlet port is located on the back/left area of the cavity ceiling. An air duct is installed on the port and attaches to the condenser assembly. During the drying portion of a program, moist air within the cabinet is drawn through the condenser assembly via the condenser fan (M2). As the cabinet air passes the cold-water reservoir (inside the condenser), water vapor forms and exits the condenser (as water) via the port on the left wall of the cabinet. The cooling bank within the condenser assembly utilizes water from the intake/ softening system controlled by the electronic via the condenser control valve (Y6).

4.18.2 Technical Data

Control valve (Y6): 120VAC, 60Hz
Cold-water reservoir: 750mL

4.18.3 Control Valve

The Miele circulation condenser drying system consists of a steam condenser (Figure 4-16, Item 4) with circulation fan. The steam condenser contains a cold-water reservoir over which an air duct passes (moist air from the cabinet is passed through this air duct). The cold water and the air duct are separated by a 0.5mm-thick membrane, which provides the condensing surface. The fan (Figure 4-16, Item 2), takes in moist air from the top of the cabinet (Figure 4-16, Item 5), and passes it over the condensing surface, where it is cooled, then blows it back into the cabinet via the opening in the lower area of the side panel (Figure 4-16, Item 3). The water vapor that is condensed out during cooling flows down and enters the cabinet via the opening in the lower area of the side panel. Some vapor may condense out in the fan; this vapor flows out via a hole in the bottom of the fan housing to the drip pan, where it evaporates.

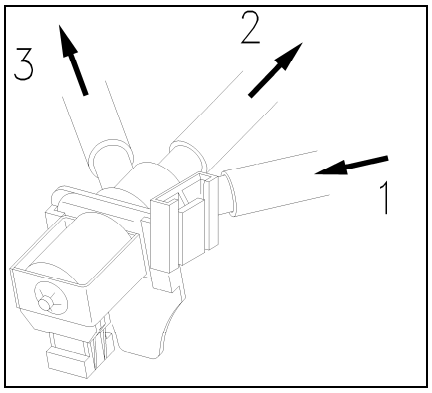


1 Condenser control valve Y6
2 Fan M2
3 Vent/water port from condenser
4 Steam condenser assembly
5 Air duct (condenser intake)
6 Water intake assembly
7 Water hardness solenoid valve Y5
8 Cabinet vent/water port (un-softened)
9 Flow meter B3/4
10 Reactivation valve Y38
11 Softener

Figure 4-16: Condenser Drying System Components

If no voltage is applied to control valve Y6, the path between positions 1 and 3 in Figure 4-17 is always open, so, during every water intake, the cold-water reservoir in the steam condenser is filled with water from the water softener. If the reservoir is full, excess water overflows at its top edge, then flows down and enters the cabinet via the opening in the lower area of the side panel.

If voltage is applied to the control valve during water intake stages, the path between positions 1 and 2 in Figure 4-17 is also open (this is marked with +K in the program timing chart). Soft water will flow into the water mixer and then into the cabinet.



1 Soft water from water softener
2 Soft water to water mixer
3 Soft water to condenser module

Figure 4-17: Control Valve Y6

4.19 Drain Pump, Circulation Pump

The drain pump (M8) is located below the cabinet and connects to the right/front of the sump. The pump removes the wash water through the non-return valve and drain hose to the on-site drain. The drain pump is controlled/powered by the electronic.

Note:
If the on-site drain is below the level of the guides for the bottom basket, the drain must be vented to prevent siphoning. See the appropriate operating/installation instructions or call Technical Support for assistance.

During dishwashing, the circulation pump (M6) takes in the wash water from the side of the sump through the microfine filter and the large surface area filter and pumps it to the spray arms. During drainage, the drain pump removes water out from below the microfine filter. This change of direction in the water flow assists in flushing out any residues that may have been retained within the filter. Water passes through the non-return valve and then to the on-site drain.

A bimetallic switch is integrated into the circulation pump motor windings and serves as a safety cutoff should the temperature exceed 150°C (302°F). After a cooling-down phase, which can be anywhere from 10 minutes to 1 hour, the switch resets automatically. If the switch is faulty, the circulation pump motor assembly must be replaced.

Type	Voltage	Rated power	Pump pressure	Flow rate	Max. head height	Max. hose length
Circulation pump	120VAC	120W	3.6psi	18.2 gal/ min	-	-
Drain pump	120VAC	65W	-	4.2 gal/ min	39 inches	13 feet

Table 4-9: Circulation and Drain Pump Data

4.20 Heater Level Switch (Heater Pressure Switch)

Heater pressure switch B1/10 is located directly on the circulation pump and actuates when water is present and circulating (producing pressure). The switch is monitored by the electronic and is electrically in series with the heater relay.

If sufficient water and circulation is not present the switch is not actuated; this keeps the heater relay circuit interrupted, which causes the appliance to malfunction and a fault to be stored in the electronic.

Should the switch be faulty and remain constantly actuated, the appliance will malfunction and a fault will be stored in the electronic.

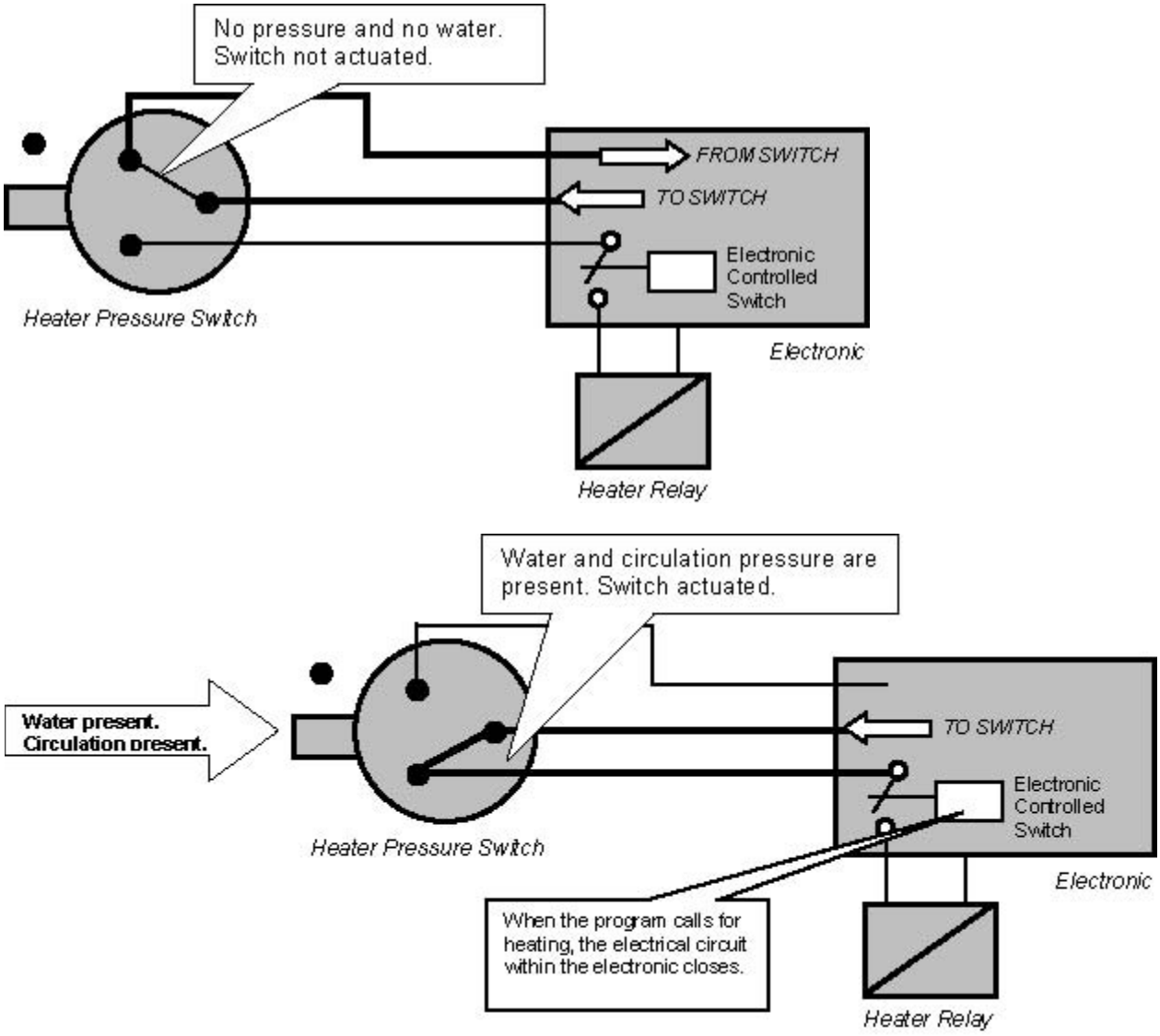


Figure 4-18: Heater Pressure Switch – Contact Positions and Current Paths

4.21 Level Switch (Intake Overflow)

As an additional safety measure, the overflow level switch (B1/2) is electrically in series with the water inlet valves (Y2). The level switch interrupts power if the water level inside the cabinet becomes too high.

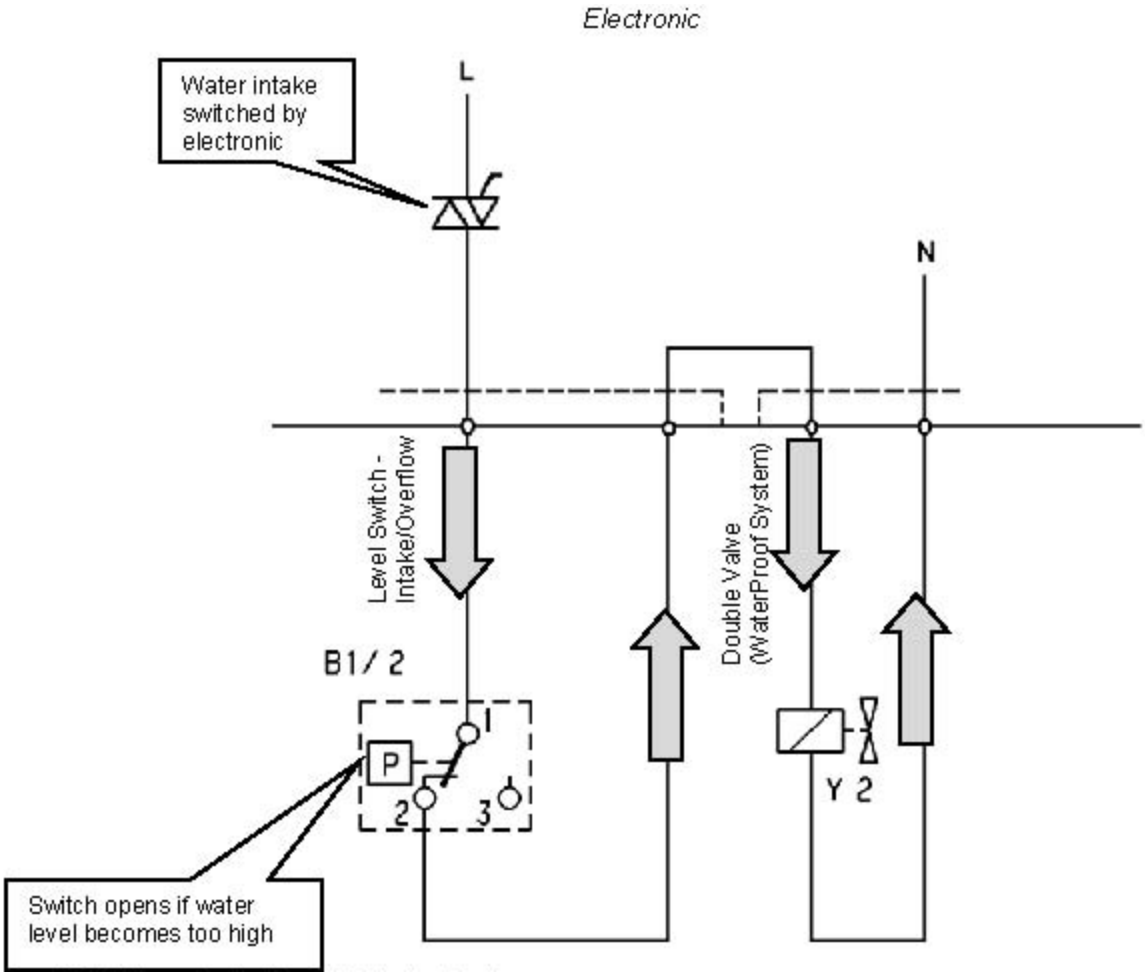


Figure 4-19: Water Intake/Level Switch Circuit

4.22 Temperature Sensor

Temperature sensor R30 (NTC resistor) is located in the bottom area of the sump. The electronic constantly monitors the water temperature using the resistance value of the sensor. If the resistance is less than 14.9kΩ ±750Ω at 68°F, a fault is registered.

Temperature Sensor R30 Resistance Values		
Temperature (°F (°C))	**Resistance (kΩ)**	**Tolerance (Ω) = ±5%**
32 (0)	38.000	±1900
41 (5)	29.700	±1490
50 (10)	23.400	±1170
59 (15)	18.600	±930
68 (20)	14.900	±750
77 (25)	12.000	±600
86 (30)	9.750	±490
95 (35)	7.800	±390

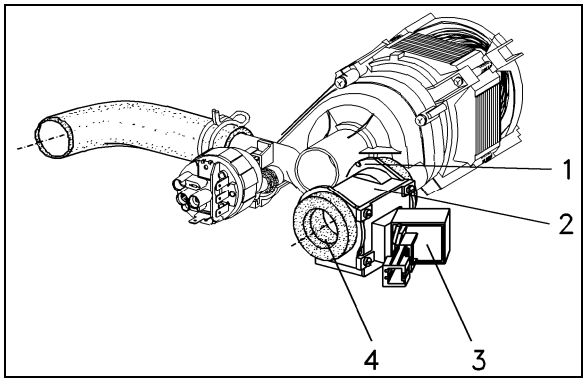
Temperature Sensor R30 Resistance Values		
Temperature (°F (°C))	**Resistance (kΩ)**	**Tolerance (Ω) = ±5%**
104 (40)	6.600	±330
113 (45)	5.400	±270
122 (50)	4.500	±230
131 (55)	3.800	±190
140 (60)	3.200	±160
149 (65)	2.700	±140
158 (70)	2.300	±120
167 (75)	2.000	±100
176 (80)	1.700	±85
185 (85)	1.500	±75
194 (90)	1.300	±65
199 (93)	1.160	±58
203 (95)	1.090	±55

Table 4-10: Temperature Sensor R30 Resistance Values

4.23 Top Solo Valve

The Top solo valve (Y27) is located between the circulation pump and the sump within the plumbing circuit to the bottom spray arm. If the **Top solo** option is selected, water is directed to the top and middle spray arms only. An electromagnet (Figure 4-20, Item 3) releases a plastic ball during the water intake, wash and/or rinse stages into the valve body (Figure 4-20, Item 2). This ball is now unlocked and the water pressure pulls it free of the bottom part of the valve and presses it against the output opening (Figure 4-20, Item 4). This almost completely closes the channel to the bottom spray arm. A bypass opening (a small square cutout in the output opening) allows a minimal quantity of water to flow to the bottom spray arm to keep the jets free of food residue deposits.

Note:
The Top solo valve is activated after 2.5 liters of water is present inside the appliance.



1 Intake opening
2 Valve body
3 Top solo solenoid
4 Output opening

Figure 4-20: Circulation Pump, Highlighting Components for the Top Solo Feature

4.24 Turbidity Sensor (ECO Sensor)

Certain models of dishwashers are equipped with a turbidity (ECO) sensor. The sensor is comprised of a phototransistor that emits a beam of light through the water path. On the opposite side of the sensor is a photoelectric switch (receiver). The amount of light capable of passing through the water is based on the turbidity (transparency) of the water. The amount of light received affects the current flow of the sensor and is used by the electronic to calculate the condition of the water.

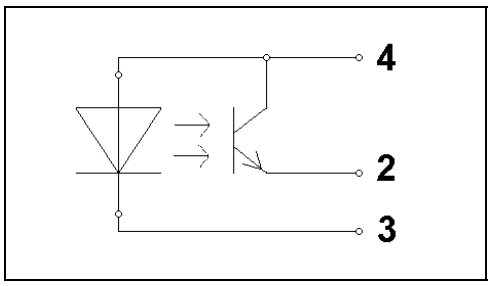
If clean water is present, the light flow is near 100%. As the water becomes dirty, the amount of light received is reduced.

During certain program steps (refer to the model-specific timing chart), the sensor is monitored to determine the condition of the water.

Example:

At the end of the pre-wash, the water is checked via the turbidity sensor. If the water is clean enough, the program will change by eliminating the drain at the end of the pre-wash and the fill at the beginning of the main wash. The same water will continue to be used to reduce water consumption.

If the turbidity sensor and electronic determine the water to be “dirty”, then the program will continue with a drain at the end of the pre-wash, and a fill during the main wash.



2 Photoelectric switch line
3 Phototransistor line
4 5V

Figure 4-21: Turbidity Sensor (ECO Sensor)

The sensor is located within the plumbing connection between the circulation pump and top spray arm. In order to compensate for residues on the sensor and ageing of the optical system, the turbidity sensor is re-calibrated automatically every time the dishwasher runs a program (the steps on the timing chart are marked with a “**T**”). To prevent residues from drying on the sensor surface, the sensor remains in water after the drainage cycle.

4.25 Electronic – Power Outputs

The electronic controls all components within the dishwasher. The activation of components requiring 120VAC power is handled by thyristors and relays within the electronic. The individual components of the electronic are not replaceable. If a component on the electronic requires replacement, the electronic must be replaced as an assembly.

Component Part	Activation
Circulation pump M6	Relay
Drain pump M8	Relay
Heater relay 1K/1 solenoid	Thyristor
Power supply relay 1K/6 solenoid	Via switch S2 (EWZ 548)
WaterProof System solenoid valves	Thyristor
Reactivation solenoid valve	Thyristor
Detergent dispenser Y51 solenoid	Thyristor
Rinse aid dispenser Y50 solenoid	Thyristor

Table 4-11: Activation of Components

4.25.1 Programming after Replacing the Electronic

In addition to intake duration and water softener settings, certain dishwasher electronics need to be programmed for dishwasher width (45cm or 60cm).

For further details, refer to the model-specific programming and service mode information.

4.25.2 Electronic Modes

The electronic modes are divided into 3 levels:

- Programming mode
- Service mode 1
- Service mode 2

Programming mode is intended for user access. Service modes 1 and 2 are designed to be accessed only by qualified service personnel.

Note:
While in service or programming mode, if the dishwasher is switched off or the door is opened, the dishwasher will automatically exit the current mode and return to normal operating mode.

5.0 Service and Maintenance

5.1 Locking Plate Adjustment

1. Loosen the two screws (Figure 5-1, Item 1).
2. Adjust the locking plate in the direction of the arrow as required.
3. Tighten the screws.

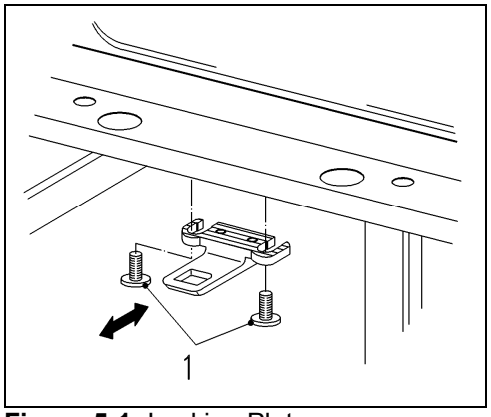


Figure 5-1: Locking Plate

5.2 Door Seal Replacement

1. Open the door.
2. Remove the old seal.
3. Clean the groove around the cabinet.

Note:
Coating the seal with water may simplify installation.

4. Press the new seal in the groove; see Figure 5-2, Item 1. The seal lip should point inwards.
5. Then press the middle of the new seal into the groove under the locking plate; see Figure 5-2, Item 2. At the same time, press the seal into the corners.
6. Now press the remaining seal parts into the groove, working upwards in the direction of the arrows; see Figure 5-2, Item 3.

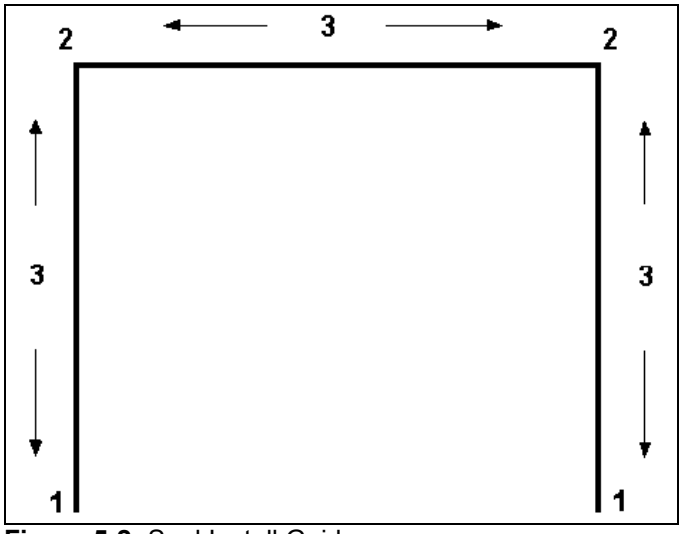


Figure 5-2: Seal Install Guide

5.3 Side Panel Removal

1. Uninstall the appliance.
2. Remove the raised-head screws (Figure 5-3, Items 1 and 3).
3. Open the door.
4. Remove the raised-head screws (Figure 5-3, Item 2).
5. Remove the side panels.

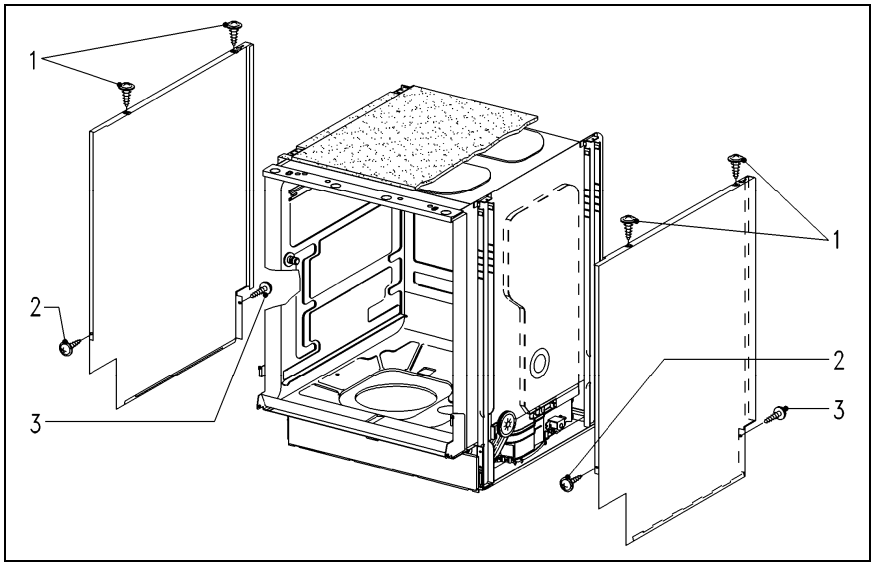


Figure 5-3: Side Panel Removal

Note:
When reinstalling the side panels, install the bottom lip of the panel into the edge of the drip pan.

5.4 Spring Bracket Replacement

1. Remove the side panels; refer to Section 5.3.
2. Fold up the mineral wool matting (depending on model).
3. Hold the spring with one hand and pull it down.
4. Release the cable from the bracket (Figure 5-4, Item 3).
5. Unhook the spring (Figure 5-4, Item 1).
6. Remove the raised-head screws (Figure 5-4, Item 2).
7. Remove the bracket.

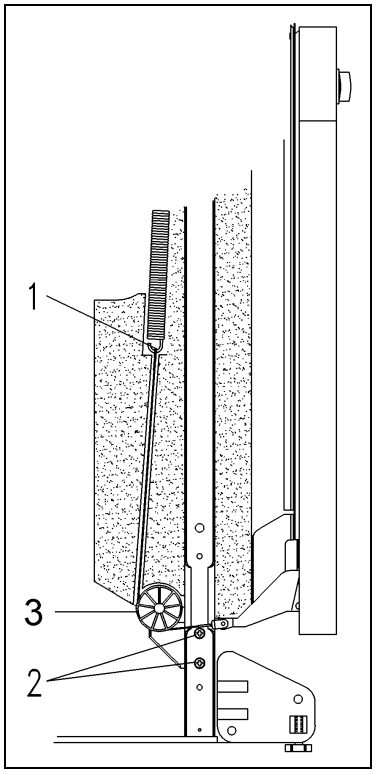


Figure 5-4: Side View, Door with Basket

Caution!
With the springs removed from the door, the door has no tension.

5.5 Cover Plate Removal

1. Remove the two screws and the plinth (toekick).
2. Remove the raised-head screws (Figure 5-5, Item 1).
3. Tilt the cover plate forwards slightly and lift its bottom edge out of the drip pan.
4. Remove the cover plate.

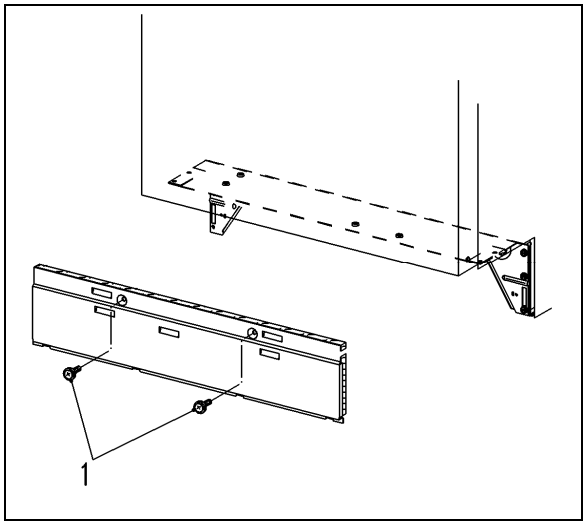


Figure 5-5: Cover Plate

Note:
When reinstalling the side panels, install the bottom lip of the panel into the edge of the drip pan.

5.6 Connecting Strip Removal

1. Remove the cover plate. Refer to Section 5.5.
2. Remove the raised-head and countersunk screws (Figure 5-6, Item 1).
3. Remove all components from the connecting strip.
4. Remove the connecting strip.

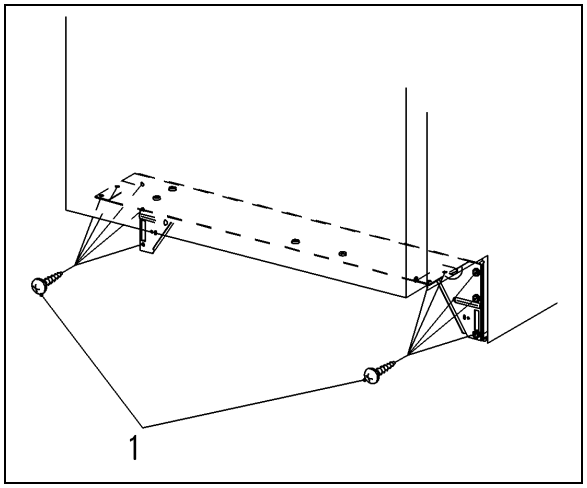


Figure 5-6: Toekick Area with Connecting Strip

5.7 Basket Support Roller Replacement

1. Open the door.
2. Remove the top basket.

Warning!
The basket guide must not be levered off in the area of the bolts (see Figure 5-7). This could result in damage to the cabinet walls.

3. Slide out the basket guide (Figure 5-7, Item 1) until the clip (Figure 5-8, Item 1) between the bolt on the cabinet wall and the basket guide is visible.

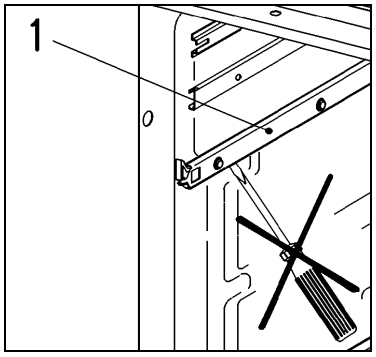


Figure 5-7: Basket Guide

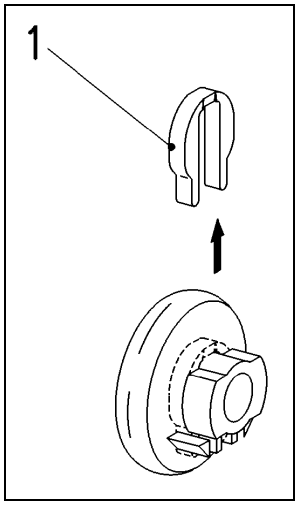


Figure 5-8: Clip with Bolt

4. Insert a small screwdriver under the clip between the bolt on the cabinet wall and the basket guide and remove the clip upwards.
5. Remove the basket guide.

Note:
If the clip is damaged during removal, it must be replaced.

6. Bend open the holder tag for the rear stopper in the direction of the arrow (Figure 5-9, Item 1).

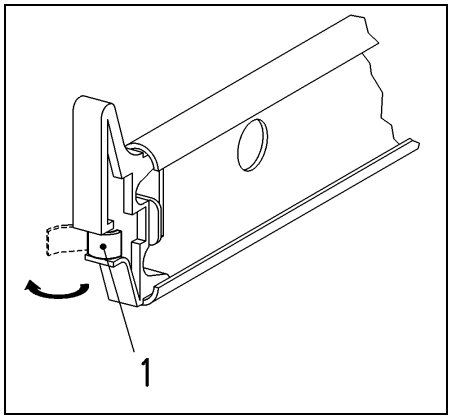


Figure 5-9: Basket Guide Stopper

7. Remove the rear stopper in the direction of the arrow (Figure 5-10, Item 1).
8. Bend the other holder tag in the direction of the arrow (Figure 5-10, Item 2).

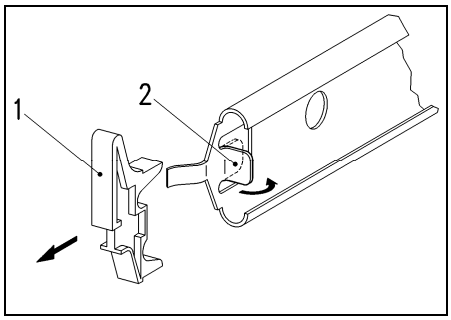


Figure 5-10: Stopper Removal

9. Remove the old support rollers.
10. Slide the clips onto the new support rollers.
11. Insert 2 new support rollers in the basket guide.
12. Reinstall the stopper.
13. Bend the holder tags back into position.
14. Reinstall the clips on the 2 new support rollers. Align the rollers with the bolts. Press the basket guide with the new support rollers firmly onto the bolts until the rollers clip into place.

5.8 Removing the Combination Dispenser

1. Remove the door outer panel. See Section 5.10.
2. Disconnect all electrical connections and the hose (if equipped with a fan) from the dispenser.

Note:
Plug connection leads are different lengths to help avoid incorrect connection.

3. Remove the raised-head screws (Figure 5-11, Item 1).
4. Release the retaining clips downwards in the direction of the arrow (see Figure 5-11) and remove the dispenser assembly.
5. Install a new combination dispenser.
6. On models without a fan, install a stopper in the connection for the condensate

hose.

7. Check for proper operation.

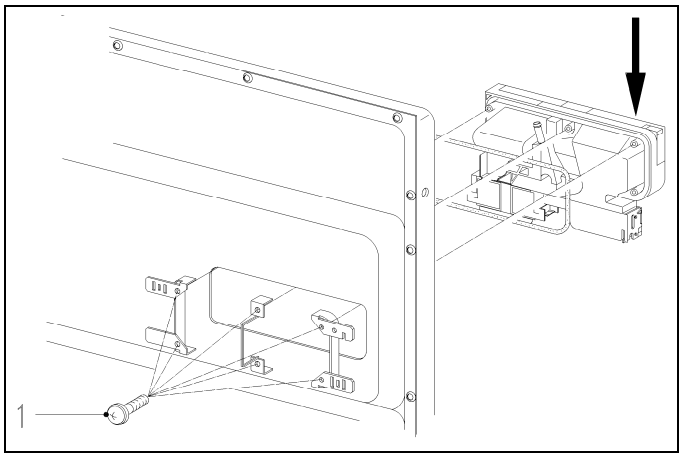


Figure 5-11: Combination Dispenser Removal

5.9 Turbothermic Fan Removal

1. Remove the outer door panel. Refer to Section 5.10.
2. Remove the control panel. Refer to Section 5.47.
3. Remove the mounting bracket. Refer to Section 5.48. Components (e.g., electronic, handle) can remain on the mounting bracket.
4. Disconnect the connection plugs and the hose connection to the combination dispenser (Figure 5-12, Item 2).
5. Open the door.
6. Using needlenose pliers, turn the fan cover (filter) on the door inner panel in the direction of the arrow to release it from the bayonet fitting.
7. Remove the fan and seal.

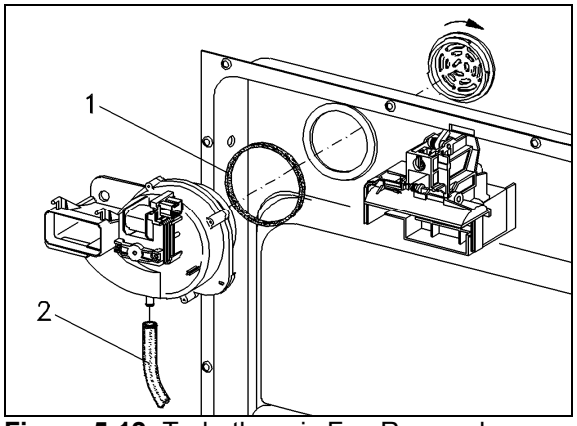


Figure 5-12: Turbothermic Fan Removal

Note:
When re-installing, insert the two lugs on the fan in the holes provided.

5.10 Door Panel (Outer and Inner) Removal

Note:
This procedure does NOT apply to pre-finished models.

Outer door panel:

1. Remove the GDU or custom panel.
2. Open the appliance door.
3. While supporting the outer door panel, remove the six (6) screws from the inside edge of the panel.
4. Lower the panel to remove.

Inner door panel:

1. Remove the control panel. Refer to Section 5.47.
2. Remove the mounting bracket. Refer to Section 5.48. Components (e.g., electronic, handle) can remain on the mounting bracket.
3. Remove the insulated matting between the inner and outer door panels.
4. Remove the combination dispenser. See Section 5.8.
5. Remove the lock assembly. Refer to Section 5.12.
6. Remove the fan (if applicable). See Section 5.9.
7. Disconnect the ground wire.
8. Remove the screws (Figure 5-13, Item 3).
9. Open the door. Remove the raised-head screws (Figure 5-13, Item 4).
10. Remove the inner door panel in an upward direction.

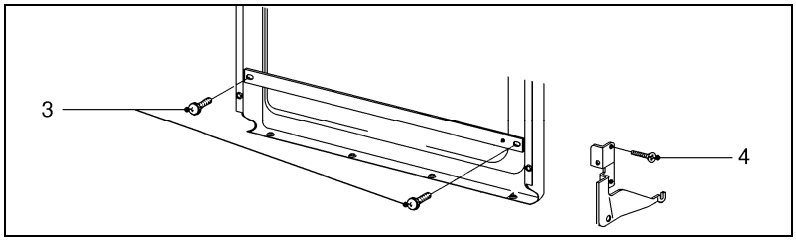


Figure 5-13: Inner Door Panel Removal

5.11 Cable Holder Removal

1. Remove the door outer panel. See Section 5.10.
2. Open the cable holder cover with a screwdriver.
3. Remove the raised-head screw (Figure 5-14, Item 1).
4. Remove the cable holder.

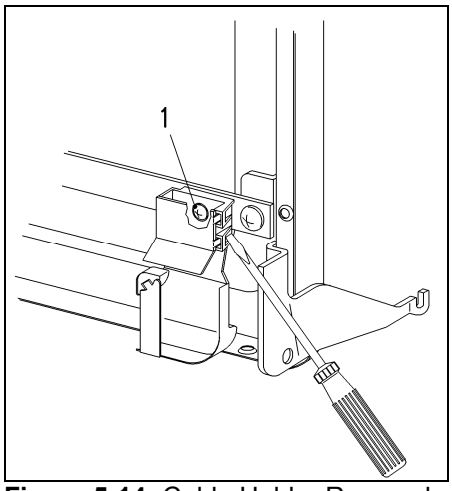


Figure 5-14: Cable Holder Removal

5.12 Lock/Handle Assembly Removal

Caution!
Ensure that power is disconnected at the wall outlet by shutting off the appropriate circuit breaker.

1. Remove the outer door panel. Refer to Section 5.10.
2. Remove the control panel. Refer to Section 5.47.
3. Open the door and remove the screw (Figure 5-15, Item 3).

Note:
A sealing ring is located under the countersunk screw. This sealing ring must be re-installed during reassembly.

4. Remove the lock and cover.
5. Disconnect the plug contacts from the switch.
6. Dismantle the lock and cover.
7. When re-installing, ensure that the two lugs on the switch engage in the holes provided.

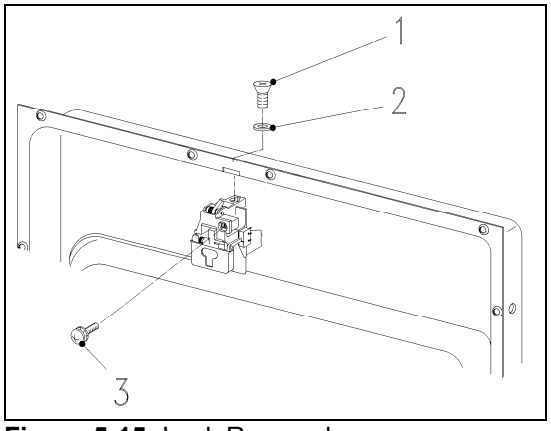


Figure 5-15: Lock Removal

5.13 Door Hinge Removal

1. Remove the side panel. See Section 5.3.
2. Remove the outer door panel. See Section 5.10.
3. Remove the tensioning spring. See Section 5.4.

Warning!
Ensure that the door is held in position and supported while opening it.

4. Open the door. Remove the raised screws (Figure 5-16, Item 1).
5. Close the door. Remove the screw (Figure 5-16, Item 2).
6. Remove the hinge bolt retainer (Figure 5-16, Item 3).
7. Remove the hinge bolt (Figure 5-16, Item 4).
8. Remove the hinge.

Note:
When reassembling, lightly coat all moving parts with acid-free grease.

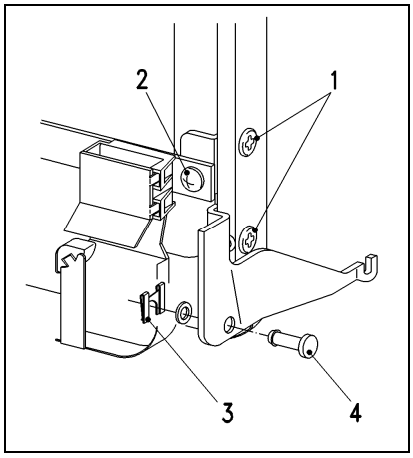


Figure 5-16: Hinge Removal

5.14 Door Tension Adjustment

1. Open the door.
2. Locate the spring adjustment screw on the left side of the dishwasher at the top front edge as shown in Figure 5-17.
3. Use a T-20 screwdriver to adjust the screw as follows:
   - Clockwise – Tighten.
   - Counterclockwise – Loosen.

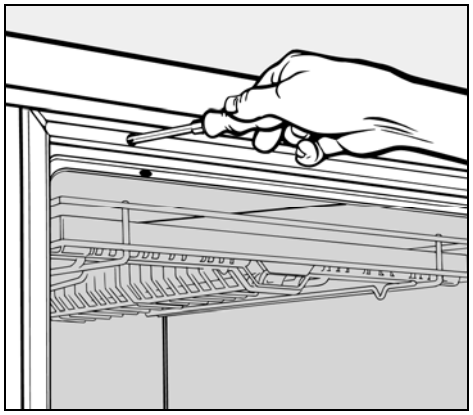


Figure 5-17: Door Tension Adjustment Screw

4. Adjust the door as follows:
   - With the door opened to a 45° position, it should remain stationary (does not continue to open OR close on its own tension).
   - Repeat Step 3 as needed.

Warning!
Replacement of door tension springs and/or the door panel requires readjustment of the door tension.

5.15 Top Spray Arm Removal

1. Open the door.

2. Press the top spray arm upwards to engage it.
3. Unscrew clockwise.

5.16 Middle Spray Arm Removal

1. Open the door.
2. Remove the upper basket.
3. Press the middle spray arm upwards to engage it.
4. Unscrew clockwise.

5.17 Bottom Spray Arm Removal

1. Open the door.
2. Remove the lower basket.
3. Lift up on the spray arm to remove it.

5.18 Top Spray Arm Feed Pipe Removal

1. Remove the left side panel. See Section 5.3.
2. Remove the top spray arm. See Section 5.15.
3. Unscrew the locknut on the spray arm mount.
4. Loosen the bottom hose clip on the feed pipe; pull off the hose.
5. Remove the feed pipe from its mounting bracket by lifting upward.

5.19 Middle Spray Arm Cover Removal

1. Insert a large screwdriver between the cover retainer and the metal holder on the rear of the cabinet wall. See Figure 5-18.
2. Unclip the spray arm cover and slide it upwards.
3. Remove the cover by pulling it downward and outward.

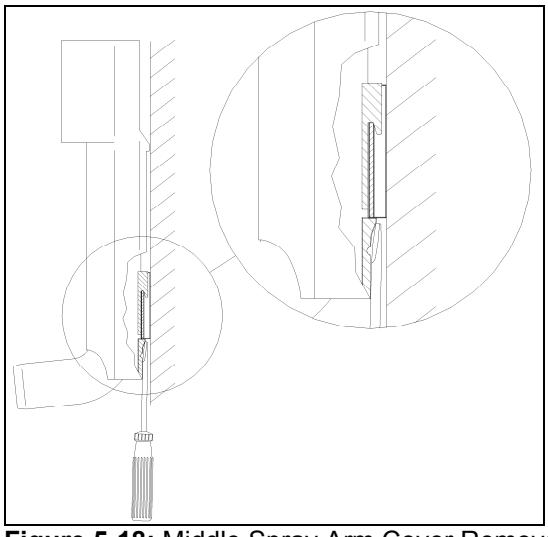


Figure 5-18: Middle Spray Arm Cover Removal

5.20 Middle Spray Arm Feed Pipe Removal

1. Remove the spray arm cover. See Section 5.19.
2. Remove the left side panel. See Section 5.3.
3. Remove the spring clip located at the top of the feed pipe near the flow-through heater.
4. Lift upward on the feed pipe to remove.

Note:
When re-installing, ensure that the seal is installed on the feed pipe before reinstallation.

5.21 Flow-Through Heater Removal

1. Remove the left side panel. See Section 5.3.
2. Fold up the insulation as needed.
3. Disconnect the heater electrical connections.
4. Disconnect the top and bottom hose connections.
5. Lift upwards on the heater assembly (Figure 5-19, Item 2) to release it from the retainer.

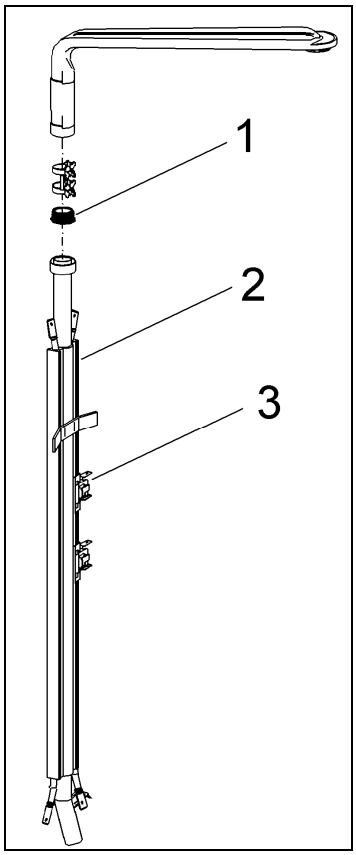


Figure 5-19: Flow-Through Heater Assembly

Note:
When replacing a flow-through heater, the old seal (Figure 5-19, Item 1) should be replaced as well.

5.22 Temperature Limiter Replacement

1. Remove the left side panel. See Section 5.3.
2. Disconnect the temperature limiter electrical connections.
3. Loosen the clamp from the temperature limiter using a screwdriver.
4. Install a new temperature limiter in the same position and secure it with the retaining clamp, ensuring that the retaining clamp is seated correctly.
5. Reconnect the electrical connections.

5.23 Microfine Filter Replacement

1. Open the door.
2. Remove the filter assembly from the dishwasher.
3. Cut the old filter combination apart at the snap fitting between the handle and microfine filter (Figure 5-20, Item 4).
4. Open the filter cap on the new microfine filter.
5. Place the handle and microfine filter together as shown in Figure 5-20.

Note:

- Ensure that the cutout on the handle (Figure 5-20, Item 1) aligns with the cutout on the large surface area fine filter (Figure 5-20, Item 2).
- Ensure that the retaining lug on the new microfine filter (Figure 5-20, Item 3) aligns with the cutout on the handle.

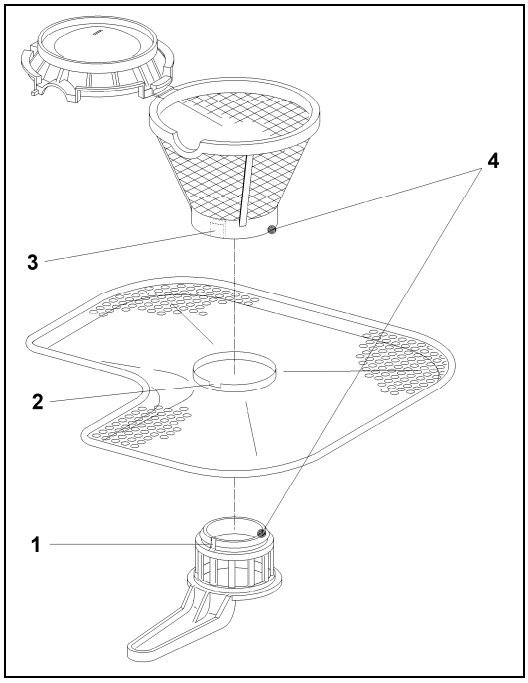


Figure 5-20: Microfine Filter Replacement

6. Apply a small amount of rinse aid to act as a lubricant while snapping the new microfine filter into place.
7. Apply pressure with both thumbs inside the microfine filter and press it onto the handle (see Figure 5-21) so that the parts lock together.

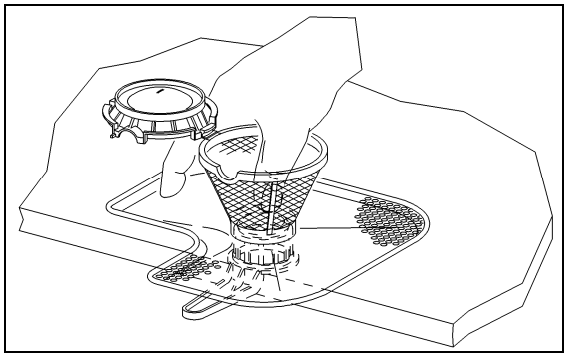


Figure 5-21: Pressing and Locking the Filter Assembly

Note:
Use caution to ensure that the filter is not damaged during re-assembly.

8. Re-install the filter.

5.24 WaterProof System (WPS) Removal

1. Remove the drip pan. See Section 5.29.
2. Release the hose clamp tension and remove the intake hose from the flow meter (or water intake assembly).
3. Disconnect the electrical connection to the solenoid valve (Y2) located near the front of the water softener salt tank.
4. Release the locking collar tension on the back of the dishwasher and remove the WPS by pulling outwards.

Note:
The new WPS is supplied with various flow restrictors. Ensure that the correct flow restrictor (color-coded) is installed.

5.25 WaterProof System (WPS) Restrictor Replacement

1. Shut off the water supply.
2. Disconnect the WPS at the plumbing supply connection.
3. Remove the sealing washer and filter from inside the WPS connection.
4. Using a 5mm nut driver, press and tilt the restrictor to the side (see Figure 5-22).

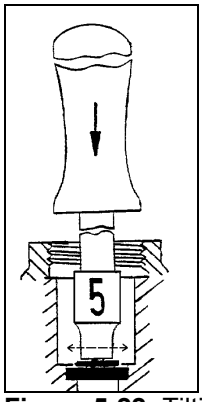


Figure 5-22: Tilting the Flow Restrictor

5. Remove the restrictor with needlenose pliers; see Figure 5-23.

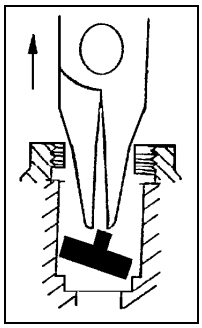


Figure 5-23: Removing the Flow Restrictor

6. Install the new restrictor using a suitable 5mm nut driver.

Note:
Use care when installing a new flow restrictor. A damaged restrictor should never be used.

5.26 Water Inlet (Diverter) Removal

1. Open the door.
2. Unscrew the connections securing the water inlet to the inside of the cabinet; see Figure 5-24.

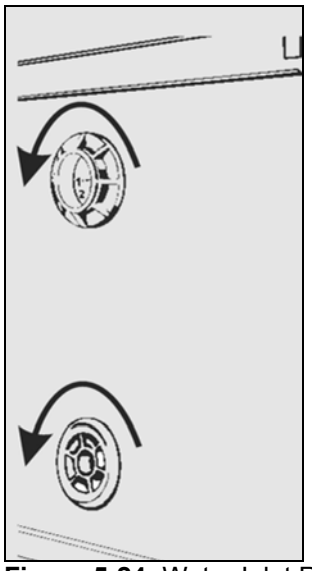


Figure 5-24: Water Inlet Removal

3. Remove the right side panel. See Section 5.3.

Note:
Be prepared, as residual water will remain in the water inlet and will flow out of the inlet once hoses are disconnected.

4. Disconnect all connection hoses.
5. Remove the water inlet.

5.27 Water Softener Operational Check

Note:
Ensure that the electronic is programmed "with water softener" before performing the following procedure.

1. Program the electronic to the "643 – 1,250 ppm" (parts per million) softener setting. Refer to the model-specific operating manual.
2. Remove the filter assembly. See Section 5.23.
3. Access Service Mode 1. See Section 6 for model-specific instructions.
4. Proceed to a water intake step.
5. Proceed to a drain step and drain the appliance.
6. Open the door.
7. "Cheat" the door switch into the "closed" position by using a door switch bypass tool (P/N 05057670).
8. Turn off the water supply to the dishwasher.
9. Access Service Mode 1.
10. Refer to the model-specific timing chart, select a program, and proceed to a step that is marked "E-REG" (softener reactivation).
11. The electronic activates the softener solenoid valve (Y38/1).
12. If water flows through the intake opening in the sump, the water softener is operating correctly.
13. If water does not flow through the intake opening in the sump, check the following:
    a. Activation of solenoid valve Y38/1.
    b. Water softener salt cap for leaks and/or damage.
    c. Water softener hoses and connections.

Note:
The softener solenoid valve (Y38/1) is activated for 2 minutes during reactivation. The water inlet is emptied in approximately 60 seconds.

5.28 Water Softener Assembly Removal

1. Open the door; remove the salt container cap and sealing ring. Remove any excess water/brine as necessary.
2. Remove the right side panel. See Section 5.3.
3. Note the location of the hoses on the water inlet assembly; disconnect the hoses and drain the remaining water.
4. Lay the dishwasher on its back.
5. Remove the drip pan. See Section 5.29.
6. Note the location of the hoses on the water softener; disconnect the hoses and drain remaining water.
7. Unplug the electrical connections and remove the reed switch.
8. Release the wires from their guides on the water softener.
9. Remove the water softener.

5.29 Drip Pan Removal

1. Lay the dishwasher on its back.
2. Remove four (4) screws from the corners of the drip pan.
3. Pull the drip pan from the appliance to remove.

5.30 Float Switch Housing Removal

1. Remove the drip pan. See Section 5.29.
2. Pull the float switch to the front.
3. Disconnect the plug.

5.31 Float Switch (B8/3) Removal

1. Remove the float switch housing. See Section 5.30.
2. Unclip the top and side retainers (Figure 5-25, Items 1 and 2).
3. Open the float switch housing.
4. Remove the switch.

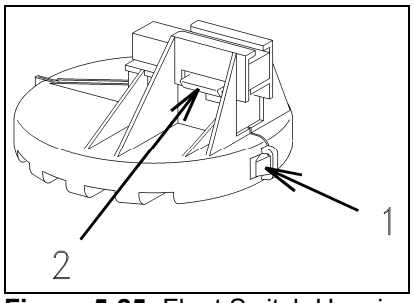
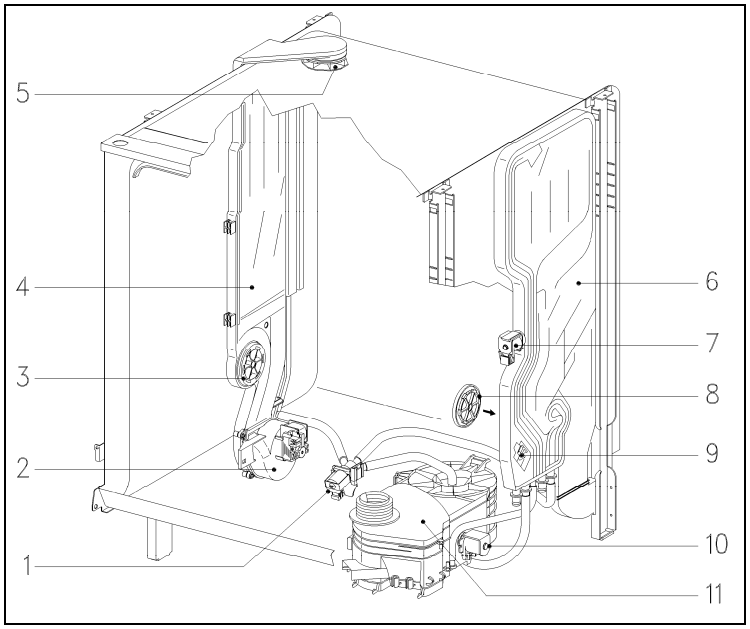


Figure 5-25: Float Switch Housing

5.32 Steam Condenser Removal

1. Remove the left side panel. See Section 5.3.
2. Open the door.
3. Unscrew the top air duct cap (intake connection).
4. Unscrew the bottom air duct cap (bayonet connection) from the steam condenser.
5. Remove the top air duct.
6. Unclip the steam condenser from the frame.
7. Disconnect the hose connections.
8. Disconnect the fan plug.
9. Unscrew the heater relay retaining screw. Remove the heater relay.



1 Water control valve Y6 (for steam condenser)
2 Fan M2
3 Vent/water port from condenser
4 Steam condenser assembly
5 Air duct (condenser intake)
6 Water inlet assembly
7 Solenoid valve Y5 (water hardness)
8 Cabinet vent/water port (un-softened)
9 Flow meter B3/4
10 Reactivation valve Y38
11 Water softener assembly

Figure 5-26: Steam Condenser Components

5.33 Control Valve (Y6) Removal

1. Lay the dishwasher on its back.
2. Remove the drip pan. See Section 5.29.
3. Disconnect the electrical connection to the valve.
4. Note positions of all hoses. Disconnect the hose connections.
5. Remove the control valve.

Warning!
To prevent the possibility of a flooding condition, ensure that all control valve hoses are connected correctly and are not crushed, kinked, or stretched.

5.34 Temperature Sensor (NTC) Removal

1. Remove as much water as possible from the sump.
2. Disconnect the temperature sensor electrical connection.
3. Pull the sensor outward and remove it from the sump.

Note:
During re-installation, the NTC seal should be positioned in the sump assembly before installing the temperature sensor.

5.35 Circulation Pump (M6) Removal

1. Remove all water from the sump.
2. Remove the retaining bolt (Figure 5-27, Item 5) from the casing rear panel (Figure 5-27, Item 4).
3. Lay the dishwasher on its back.
4. Remove the drip pan. See Section 5.30.

5. Disconnect the connection plug (Figure 5-27, Item 7).
6. Remove the heater pressure switch. See Section 5.39.
7. Release the hose clips (Figure 5-27, Items 3 and 8).
8. Press the rear casing out slightly to remove the spacer (Figure 5-27, Item 9).
9. Loosen the circulation pump (Figure 5-27, Item 6), and remove it.
10. When re-installing, ensure that the pump seal (Figure 5-27, Item 2) is seated correctly. Using a small amount of rinse aid may help in getting the seal positioned correctly. Do not use liquid detergent, as this will cause an oversudsing condition.

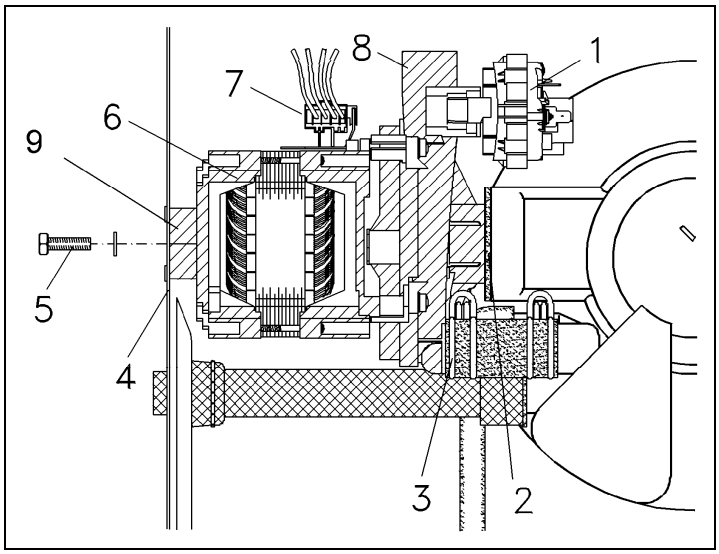


Figure 5-27: Circulation Pump Removal

5.36 Circulation Pump Partition and Impeller Replacement

Warning!
To avoid the risk of leaks, all parts included in the Partition/Impeller Kit should be installed during this procedure.

1. Remove the circulation pump. See Section 5.35.
2. Remove the 4 screws from the pump housing (Figure 5-28, Item 1).
3. Open the pump housing.
4. Use a large screwdriver to block the motor at the cooling vanes at the rear of the motor block (Figure 5-28, Item 3). Take care not to damage the motor winding insulation!
5. Unscrew the impeller (Figure 5-28, Item 2); left-hand thread!
6. Remove the partition (Figure 5-28, Item 4) from the motor block.
7. Install the new partition and impeller.
8. Reassemble the pump housing. Always use a new, unpressed ring.

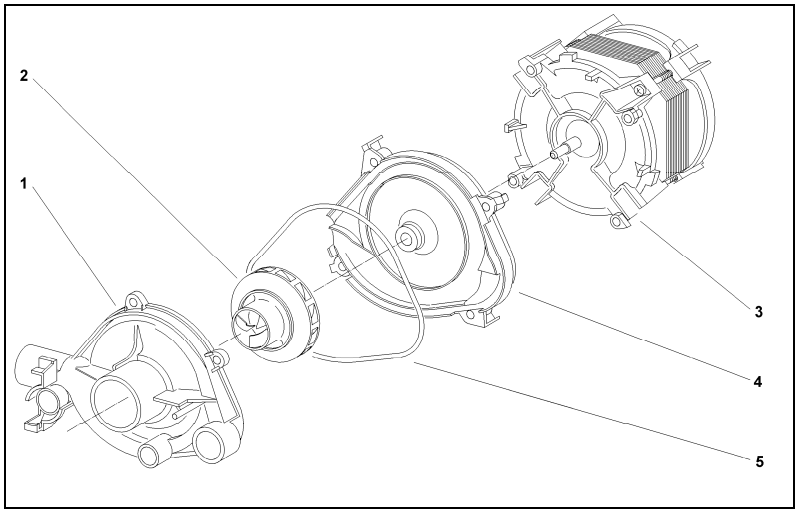


Figure 5-28: Circulation Pump Components

5.37 Circulation Pump Housing Replacement

1. Remove the circulation pump. See Section 5.36.
2. Remove the four (4) screws from the pump housing (Figure 5-28, Item 1).
3. Install the new pump housing and unpressed ring.

5.38 Circulation Pump Release with Tool

1. Open the door.
2. Remove the bottom spray arm and the filter assembly. See Sections 5.17 and 5.23.
3. Slide the releasing tool's prongs horizontally into the circulation pump intake opening as far as possible. See Figure 5-29.

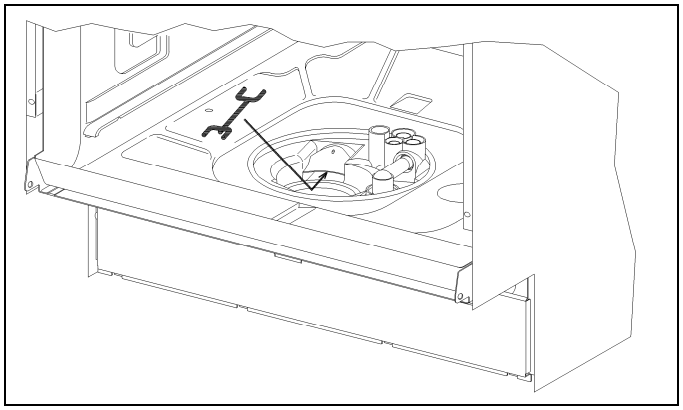


Figure 5-29: Sliding the Circulation Pump Tool into the Circulation Pump Intake Opening

4. Ensure that the prongs engage in the circulation pump impeller. See Figure 5-30.

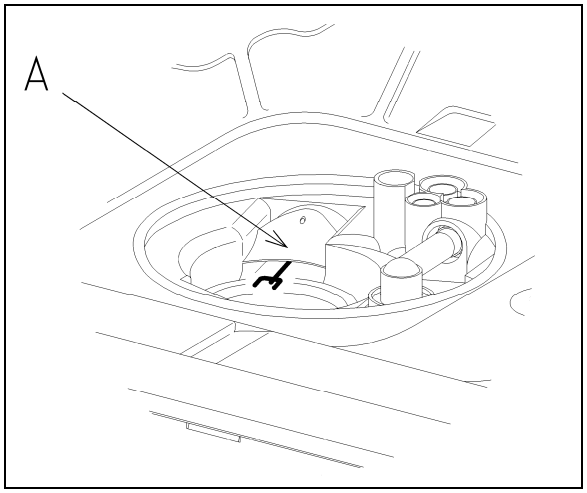


Figure 5-30: Engaging the Prongs in the Circulation Pump Impeller

5. Carefully turn the releasing tool back and forth about its axis to release the pump impeller. See Figure 5-31.

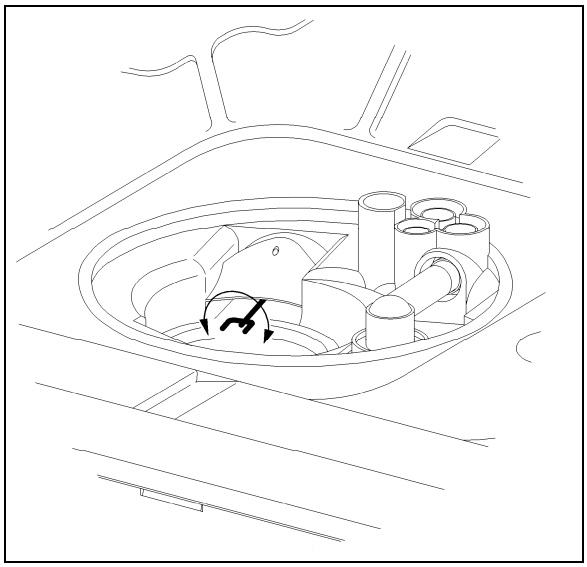


Figure 5-31: Turning the Circulation Pump Tool

Note:
The circulation pump releasing tool (P/N 05585740) can be obtained by contacting the Miele Technical Support Center at (800) 999-1360.

5.39 Heater Pressure Switch (B1/10) Removal

1. Remove as much water as possible from the sump.
2. Lay the dishwasher on its back.
3. Remove the drip pan. See Section 5.29.
4. Disconnect the electrical connection.
5. Unlock the heater pressure switch by turning it approximately 90° counterclockwise (Figure 5-32, Item 1), then remove it (Figure 5-32, Item 2).

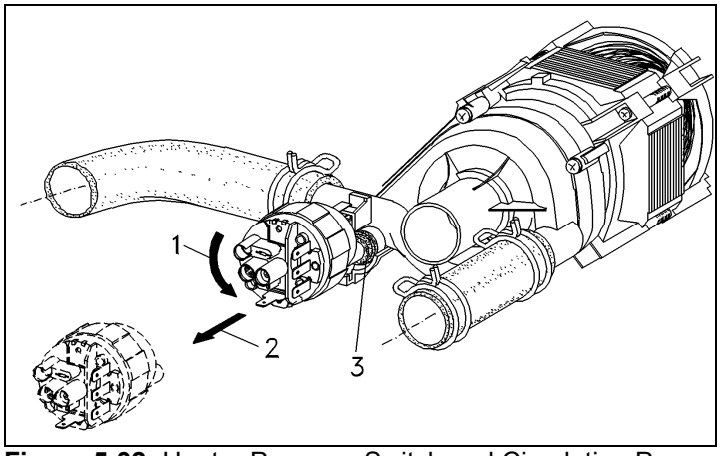


Figure 5-32: Heater Pressure Switch and Circulation Pump

Note:
When re-installing the heater pressure switch, ensure that both tabs on the switch are engaged in the circulation pump housing, and that the seal (Figure 5-32, Item 3) is not pinched or kinked.

5.40 Drain Pump (M8) Removal

1. Remove as much water as possible from the sump.
2. Remove the cover plate. See Section 5.5.
3. Disconnect the pump electrical connection (Figure 5-33, Item 1).
4. Release the locking tab (Figure 5-33, Item 4).
5. Turn the drain pump 90° counterclockwise (Figure 5-33, Item 3) to release it from its mounting.

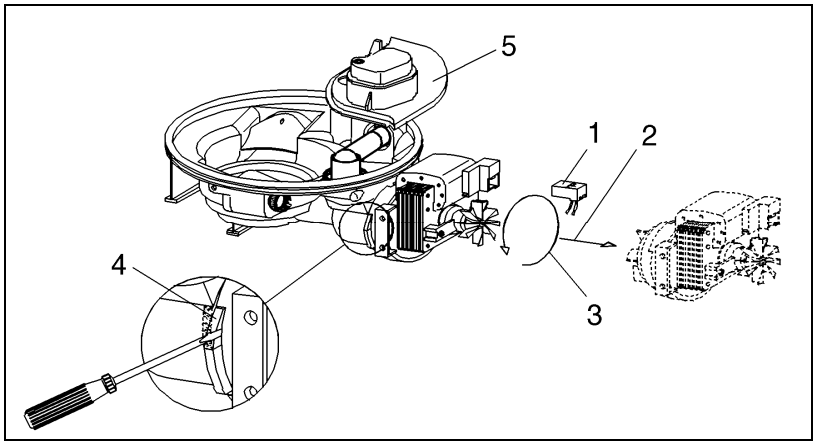


Figure 5-33: Drain Pump Removal

5.41 Top Solo Valve Removal

1. Remove the circulation pump. See Section 5.35.
2. Disconnect the electrical connection.

Warning!
It is essential to note correct position of the valve before removal. (The direction of flow is marked by an arrow on the valve housing.)

3. Pull the valve (Figure 5-34, Item 3) away from the circulation pump.

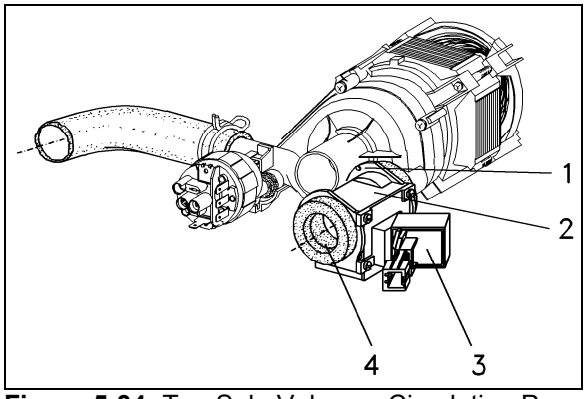


Figure 5-34: Top Solo Valve on Circulation Pump

Note:
During re-installation of the Top solo valve, ensure that the cutout on the valve housing engages with the lug on the circulation pump housing.

5.42 Overflow Level Switch Removal

1. Remove as much water as possible from the sump.
2. Remove the cover plate. See Section 5.5.
3. Locate the overflow level switch mounted on the right/rear side of the connecting strip.
4. Press the retaining clips toward each other (Figure 5-35, Item A); push in to release the switch from the frame (Figure 5-35, Item B).
5. Disconnect the switch electrical connection and hose.

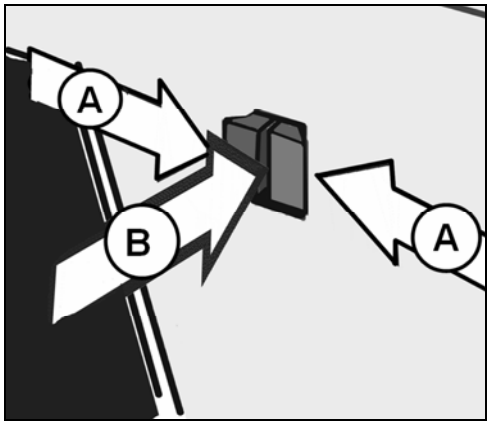


Figure 5-35: Releasing the Overflow Level Switch from the Connecting Strip

5.43 Sump Removal

1. Remove as much water as possible from the sump.
2. Open the door; remove the bottom spray arm and filter assembly.

3. Lay the dishwasher on its back.
4. Remove the drip pan. See Section 5.29.
5. Remove the circulation pump. See Section 5.35.
6. Remove the drain pump. See Section 5.40.
7. Remove the float switch assembly. See Section 5.30.
8. Remove the NTC temperature sensor. See Section 5.34.
9. Disconnect all hoses to and from the sump.
10. Unclip the wiring harness from its retainers.
11. Unscrew and remove the clamp surrounding the sump seal.
12. Lift the sump out of the cabinet.

Re-installation notes:

- Apply rinse aid to the inner surface of the seal.
- Install the sealing ring on the cabinet.
- Align the sump with the drain connection.

Warning!
To avoid leaks on appliances without the self-tensioning clamp, the clamp should be tightened to a gap of approximately 22mm. Refer to Figures 5-36 and 5-37.

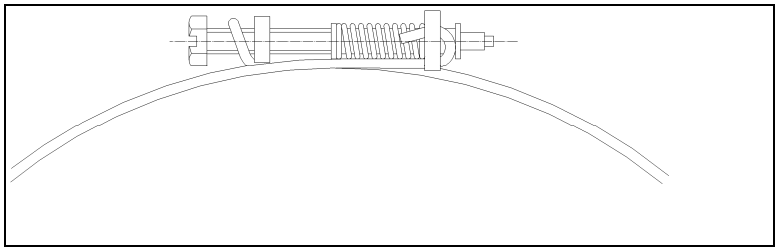


Figure 5-36: Self-Tensioning Sump Clamp

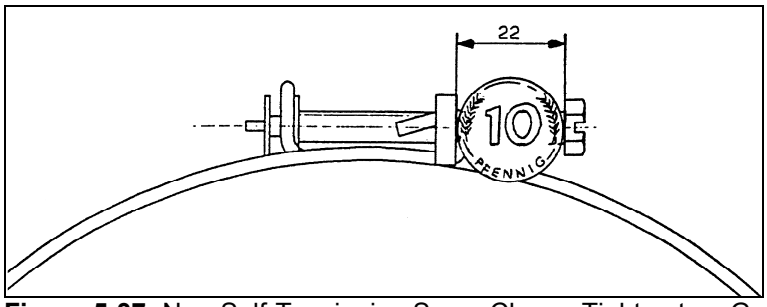


Figure 5-37: Non-Self-Tensioning Sump Clamp; Tighten to a Gap of 22mm

5.44 Turbidity Sensor Calibration

After installing a new electronic and/or turbidity sensor, the dishwasher must be run through a complete program **without any dishes**.

Note:
If the above procedure is carried out with dirty dishes, the ECO (turbidity sensor) system will only be activated after approximately six (6) wash programs are completed.

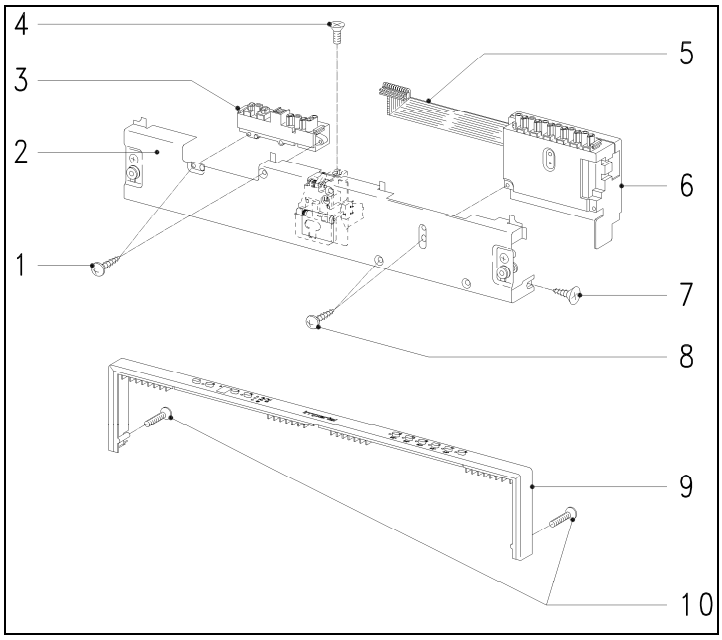
5.45 Turbidity Sensor Removal

1. Remove as much water as possible from the sump.
2. Lay the dishwasher on its back.
3. Remove the drip pan. See Section 5.29.
4. Disconnect the electrical connection to the turbidity sensor.
5. Loosen the hose clips and remove the hoses from the sensor.

Re-installation note:
Ensure that the turbidity sensor is installed with the arrow (on the bottom of the sensor) in the direction of the water flow.

5.46 Fully Integrated (Vi) Control Panel Removal

1. Open the door.
2. Hold the control panel (Figure 5-38, Item 9) while removing the interior screws (Figure 5-38, Item 10).
3. Lift the control panel from the appliance.



1 Screws
2 Mounting bracket
3 Electronic
4 Door closure screw
5 Wiring harness
6 Electronic
7 Screws
8 Screws
9 Control panel
10 Panel screws

Figure 5-38: Fully Integrated (Vi) Control Panel

5.47 Novotronic and Touchtronic Control Panel Removal

Note:
On Novotronic dishwashers, the program knob (Figure 5-39, Item 1) must be removed before the fascia (Figure 5-39, Item 4) and control panel (Figure 5-39, Item 3). Pull the knob outward to remove it from the appliance.

1. Open the door.
2. Hold the fascia (Figure 5-39, Item 4) and control panel (Figure 5-39, Item 3) while removing the interior screws (Figure 5-39, Item 14).

3. Lift the fascia and control panel from the appliance.

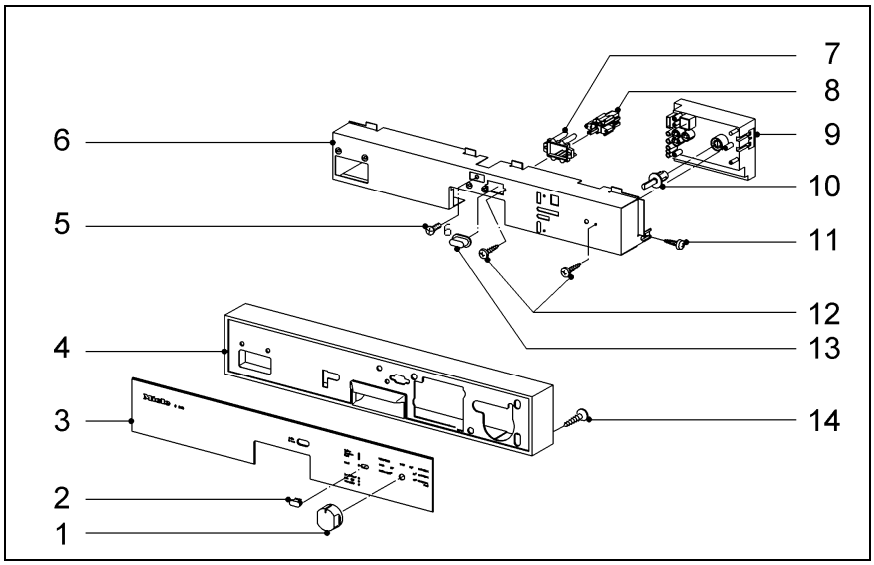


Figure 5-39: Control Panel (Novotronic and Touchtronic)

1 Program selector switch
2 Start button
3 Control panel
4 Fascia panel
5 Door closure screw
6 Mounting bracket
7 Pushbutton switch adapter
8 Pushbutton switch cap
9 Electronic
10 Program selector switch adapter
11 Screw
12 Screws
13 On/off switch cap
14 Screw

5.48 Mounting Bracket Removal

The mounting bracket is removed to access the following components:

- Turbothermic fan/PTC release
- On/off button
- Door handle/lock assembly
- Electronic(s)

1. Remove the control panel. See Section 5.46 or 5.47.
2. Remove one screw from each side of the door (Figure 5-40, Item A).
3. Support the mounting bracket; remove the top screw (Figure 5-40, Item B)
4. Carefully lower the mounting bracket away from the door.

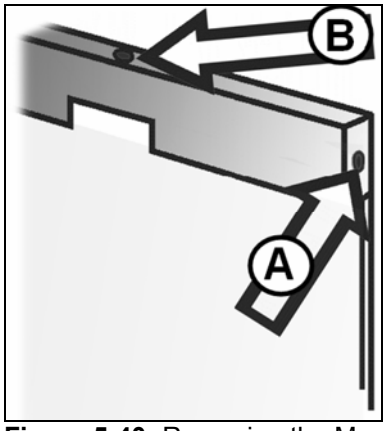


Figure 5-40: Removing the Mounting Bracket

5.49 Heater Relay and Power Relay Removal

Note: Make note of wiring positions for reinstallation.

1. Remove the left side panel. See Section 5.3.
2. Locate the relay (location varies by model).
3. Remove the relay bracket screw and bracket (if applicable).
4. Note and disconnect the electrical connections.
5. Slide the relay out of its bracket.

6.0 Fault Diagnosis

6.1 General Information

Every electronically controlled Miele dishwasher has three accessible modes for service purposes:

- Programming mode
- Service mode 1
- Service mode 2

6.2 Programming and Service Mode Features

6.2.1 Water Hardness Programming

Note:
The water hardness value can only be programmed if the dishwasher is programmed to the “with water softener” setting.

6.2.2 Drying Options (As Applicable)

Accessed by the customer in the programming mode for extending the duration the turbothermic fan is on during drying.

An additional amount of time can also be programmed by a technician using service mode 2. Refer to the model-specific timing chart for details.

6.2.3 Water Intake Duration

This setting adjusts the maximum duration the dishwasher has to fill with the proper amount of water. The default setting is two minutes. An extended value of four minutes can be programmed for low-pressure conditions.

Note:
Since water volume is determined by the flow meter, the dishwasher may fill in less time than the actual programmed duration.

6.2.4 Buzzer (As Applicable)

Applies only to fully integrated (Vi) dishwashers (except Plus series). Can be used to add an audible buzzer at the end of the program.

6.2.5 Fault Code Retrieval

Stores the last fault registered to assist in troubleshooting.

Note:
Any stored fault code must be cleared prior to performing any troubleshooting.

6.2.6 Increase Temperature

Enables a higher temperature setting during heating. Refer to the model-specific timing chart for details.

6.2.7 With or Without Water Softener

Used to enable or disable the water softener system.

- "With water softener" = Water softener is ON
- "Without water softener" = Water softener is OFF

Note:
If the water softener is not needed, the electronic should be programmed to "without water softener." If the electronic is programmed to "with water softener," the hardness value (gpg/ppm) must be programmed. See the model-specific operating manual for further information.

6.2.8 2nd Interim Rinse

An additional rinse between the first rinse and the final rinses can be added. Refer to the model-specific programming/service mode section for further details.

6.2.9 Width of Machine (As Applicable)

Some electronics can be installed in more than one model, and, therefore, require programming the width of the dishwasher (full-size or Slimline) in which they are being installed. Refer to the model-specific programming/service mode section for further details.

6.2.10 Flow Meter Count

Stores the "numeric value" marked on the side of the flow meter to ensure proper operating conditions.

Note:
To ensure proper appliance operation, the flow meter count must be reprogrammed after installation of a new flow meter and/or electronic.

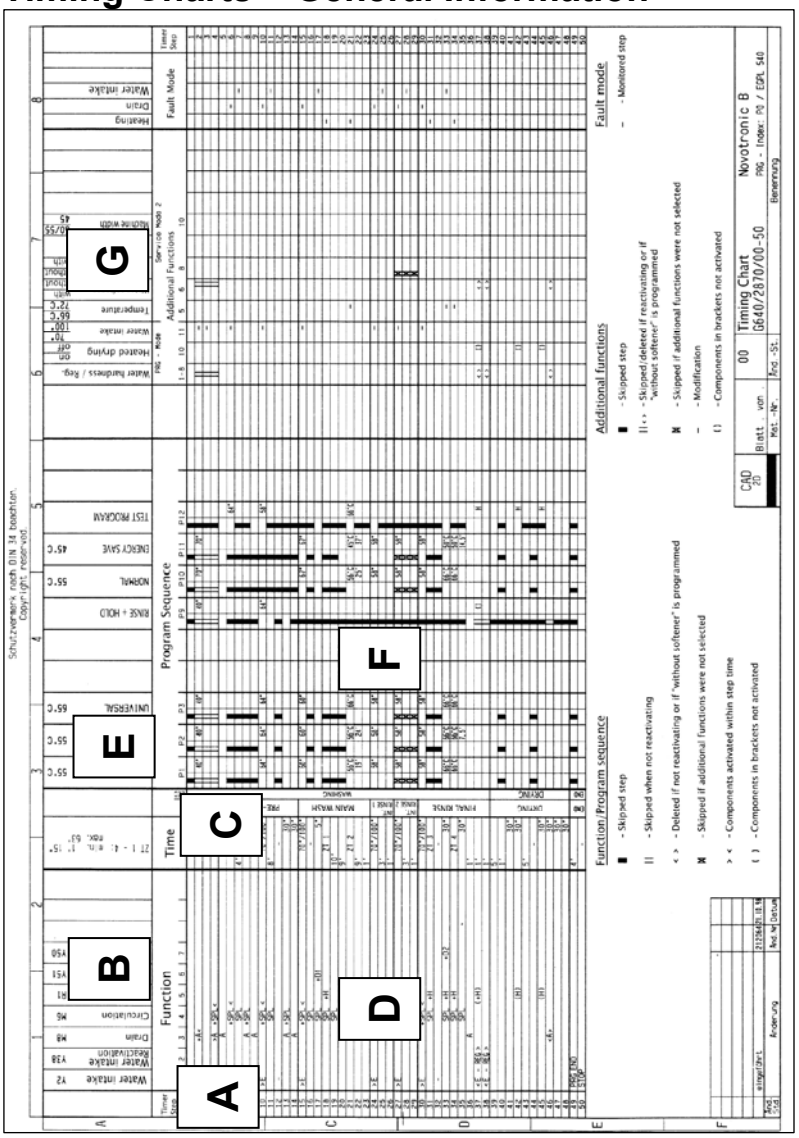
6.2.11 Operating Hours

Records the duration (in hours) the appliance has been operated.

6.3 Programming/Service Mode Access Procedures (Model-Specific)

Refer to the service mode guide located at the end of this section.

6.4 Timing Charts – General Information

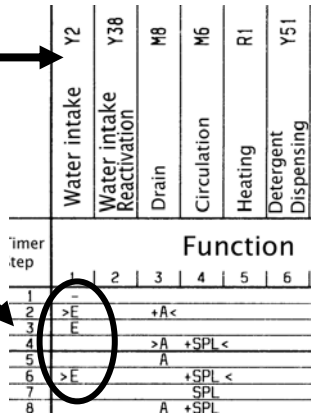


A. **Timer steps** run along the left and right side of the chart, numbered 1-50. All fifty steps do not apply to every program; refer to **E** and **F** for further information.

B. **The component names and wiring diagram legends** are listed here. Below this area, each timer step indicates activation of a component based on the location of the text. Refer to the example below.

Water inlet valves (Y2)
Whenever the Y2 valve is activated, an “E” is present in the column.

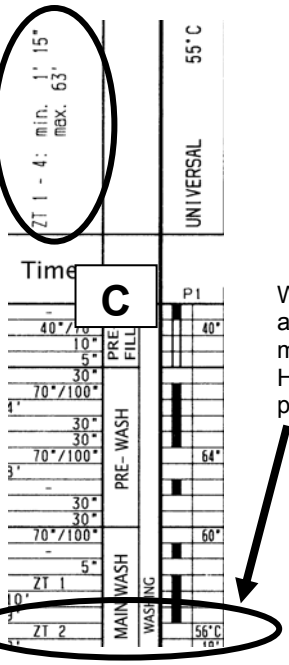
Example: The water inlet valves are activated in Steps 3 and 6.



Note: Refer to the timing chart’s legend for symbol descriptions.

C. Time column; indicates the length in time the step occurs. Minutes are on the left side of the column, while seconds are displayed on the right side of the column. “ZT #” refers to a thermal stop; see details below.

The minimum and maximum amount of time a thermal stop can have.

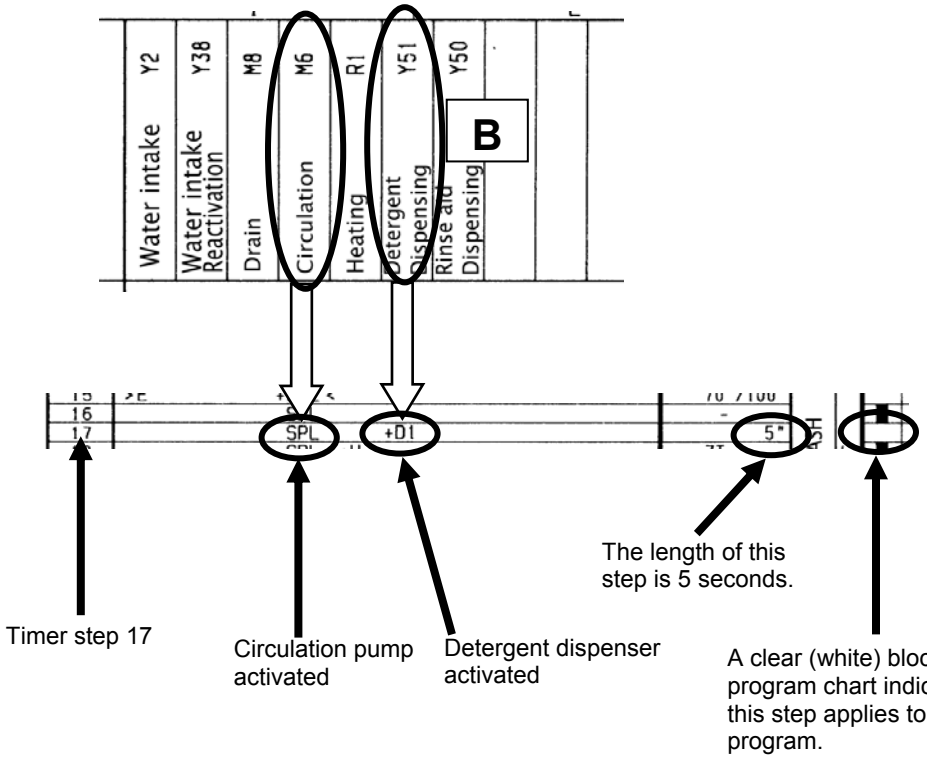


The “ZT” in the time column indicates a thermal stop and is not a specified length of time.

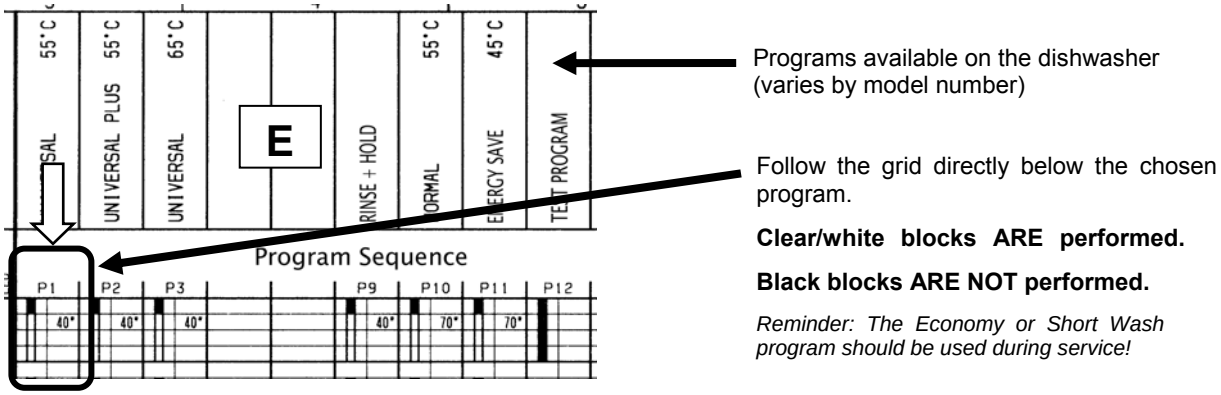
Water continues to circulate and is heated at a rate of about 2 degrees Fahrenheit per minute.
Heating and circulation continue until the program temperature is reached.

Example: In the Universal program, thermal stop (ZT2) needs to reach 56 degrees Celsius.

D. Timer step explained:

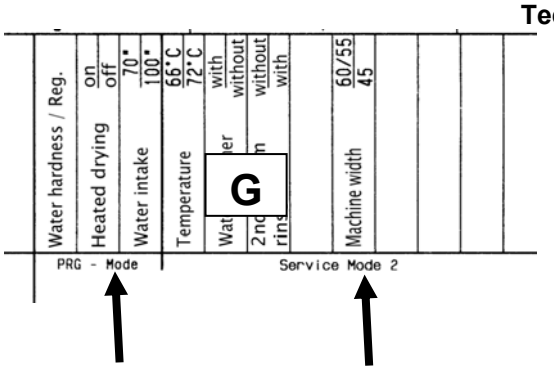


E. Program choices and steps performed:



Additional details on steps can be found at the bottom of the chart under “Additional Functions.”

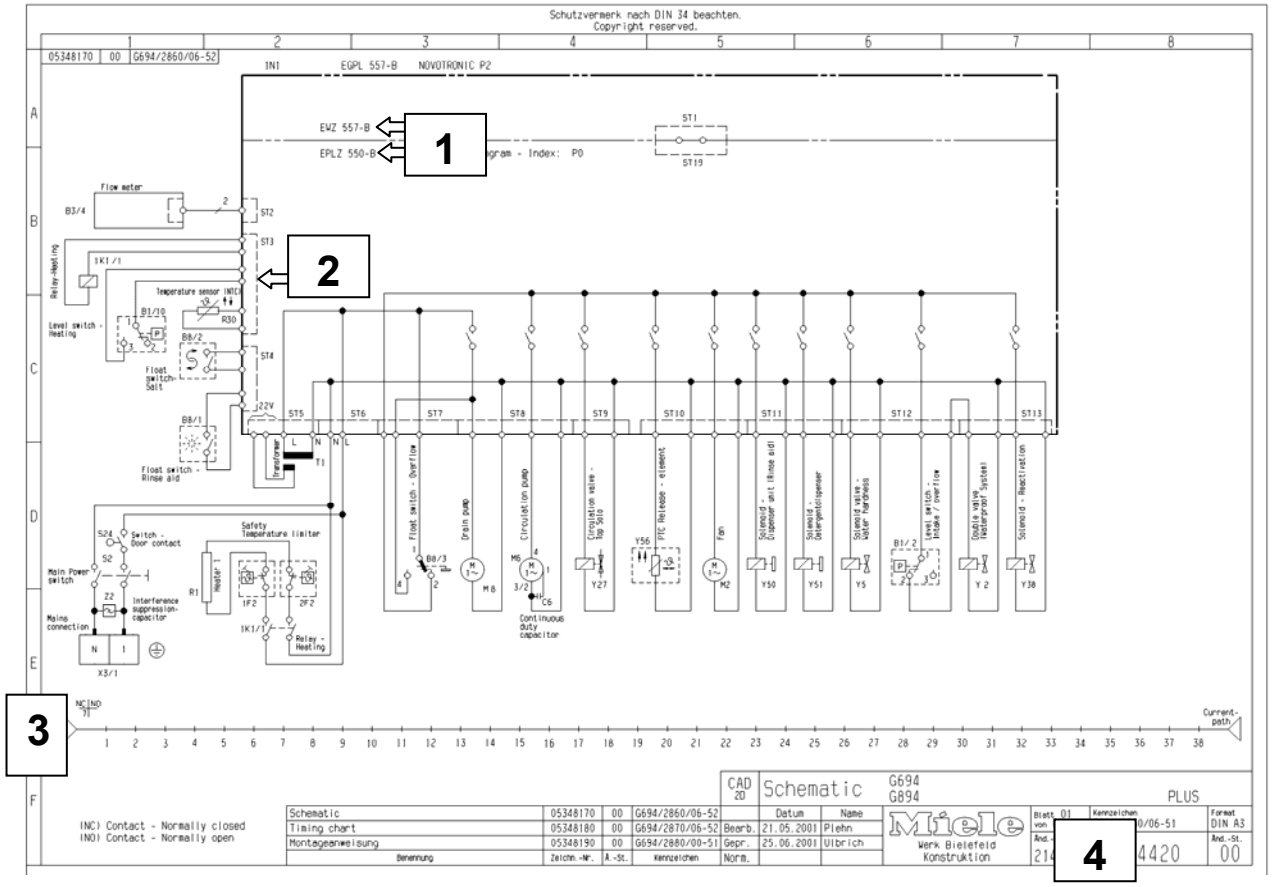
G. Additional functions provides model-specific information on what additional functions are available and under which mode.



Programming mode functions/options

Service mode 2 functions/options

6.5 Wiring Diagrams – General Information



1 Electronic assembly (circuit boards)

2 Molex plug connectors (framed by dotted lines)

3 "Current path"; used to identify the location of the component along a numbered line. (Example: Water inlet valve Y2 is positioned at current path 22.)

4 Wiring diagram number and applicable model number(s)

6.6 Timing Charts and Wiring Diagrams (Model-Specific)

Refer to the timing chart and wiring diagram guide at the end of this section.

6.7 Fault Repair

6.7.1 Door Does Not Close Correctly

- Incorrectly installed stopper at end of top basket guide. Remove the stopper and install it correctly; see Section 5.7.
- Door seal incorrectly installed and protrudes forwards. Remove the door seal and install it correctly; see Section 5.2.
- Damaged door hinges. Inspect and replace hinges, as necessary; see Section 5.13.
- Power relay 1K1/6 not activated (Vi models only). Check the main switch (S2) circuit.

6.7.2 Excess Foaming

- Too much (or improper type of) detergent and/or rinse aid is being used.
  1. Use the correct type and amount of detergent.
  2. Reduce the setting on the rinse aid dispenser.
  3. If rinse aid spills while filling the dispenser, wipe it away.
- Detergent added to rinse aid dispenser. Remove the dispenser (see Section 5.8) and thoroughly flush it out.

Note:
If the dispenser cannot be completely flushed out, replace the dispenser assembly (see Section 5.8).

6.7.3 Detergent Not Released

- Basket incorrectly loaded.
  Load the basket in accordance with the operating instructions.
- Middle spray arm is blocked.
  Inspect the spray arm and check rotation.

6.7.4 Water Leaks from the Turbothermic Fan Grille

- Hose between fan and dispenser is blocked. Inspect hose and replace as necessary (see Section 5.9).
- The PTC flap is not closing correctly. Inspect flap. Replace the turbothermic fan as necessary (see Section 5.9).

6.7.5 Poor Drying Results

- Incorrect dispenser setting.
  Adjust setting as necessary.
- Rinse aid dispenser flap not properly closed. The rinse aid container filled with water during program operation.
  1. Flush the dispenser; refill with new rinse aid.
  2. Replace dispenser assembly as necessary; see Section 5.8.

- Rinse aid not being dispensed/released.
  Ensure that dispenser is operating.

Note:
Rinse aid should only be added with the door fully open so that it can flow properly into the reservoir. Ensure that the flap is closed and locked.

6.7.6 No Drying, or Drying Too Slow

- Fan run-on (cooldown) time too short. Extend the fan run-on time; see Section 6.2.2.
- Fan not functioning. Check circuit; perform service as necessary.
- Air outlet does not open. Check the release element and its related circuit.
- Drying option not enabled. Enable the drying option; see Section 6.2.2.

6.7.7 Water Not Heating

- One of the temperature limiters is not functioning.
  Check the temperature limiters.

Warning!
Before resetting a temperature limiter, it is essential to check **why** it has cut out!

- Flow-through heater not functioning.
  Check the heater's electrical circuit.
- Heater relay 1K1/1 not functioning.
  Check the heater relay electrical circuit.
- Heater pressure switch not functioning. Check the heater pressure switch electrical circuit.

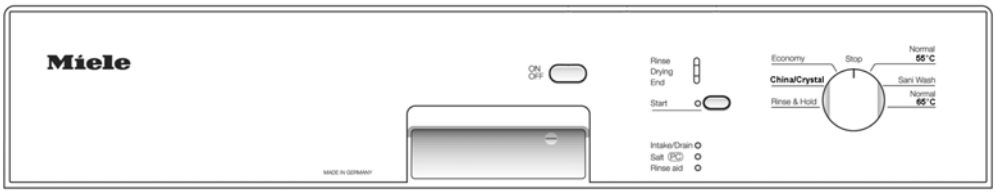
6.7.8 Circulation Pump Does Not Start

- Circulation pump motor winding too hot and the winding protection device has tripped. Foreign objects may be blocking the pump. Check for foreign objects, jammed motor, etc.
- Operating capacitor C6 defective. Check the capacitor and its electrical circuit.
- If the dishwasher has not been used for an extended period of time, the axial face seal of the circulation pump can stick, preventing the circulation pump from starting.
  1. Pour approximately 1 liter of hot water and 3 to 5 drops of rinse aid into the sump and wait for 3 to 5 minutes. Restart the dishwasher.
  2. Use the rinse pump tool to manually turn the circulation pump (see Section 5.38).

6.8 Programming and Service Modes

Novotronic Models

6.8.1 G 841, G 841 Plus, G 842



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Heated drying (G 841, G 842 only) Extended water intake (G 841, G 842 only)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Fault codes Program index Increased water temperature selection Water softener (with/without) Interim rinses Extended water intake (G 841 Plus only) Dishwasher width setting EGS (G 841 Plus only)

Table 6-1: G 841, G 841 Plus, G 842 Programming Flow Chart

6.8.1.1 Programming Mode

1. To access the **programming mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Start** button while turning the dishwasher on. Release the **Start** button within 2 seconds. A blinking **Salt** light indicates successful accessing of the **programming mode**.
3. Turn the program selector switch to the position indicated in Table 6-2 to modify the corresponding function.
4. Use the **Start** button to toggle the functions on or off.
5. After selecting options, turn the program selector switch to **Stop** and turn the dishwasher off.

Selector switch position (o'clock)	Function	Options	Status of Start light
1 to 8	Water hardness	(see Section 6.8.1.1.1)	Light 1 to 8 on[1]
10	Heated drying[2]	On[3] Off	Off On
11	Water intake time[2]	70 seconds[3] 100 seconds	Off = 70 sec On = 100 sec

Table 6-2: G 841, G 841 Plus, G 842 Programming Functions

[1] If no lights light up, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps for Service Mode 2 (Section 6.8.1.3).
[2] G 841 and G 842 only
[3] Factory setting

6.8.1.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Using Table 6-3 below, turn the program selector switch to the corresponding water hardness position, e.g., for water hardness = 10 gpg, turn the program selector switch to the 3 o'clock position.
4. **To save:** Press the **Start** button (**Start** light lights up), turn the program selector switch to **Stop** and turn the dishwasher off.

Water hardness in gpg	Selector switch position (o'clock)
1-4	1
5-7	2
8-10	3
11-14	4
15-17	5
18-21	6
22-35	7
36-70	8

Table 6-3: G 841, G 841 Plus, G 842 Water Hardness Chart

6.8.1.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Turn the program selector switch slowly through the first 8 clock positions.
3. The **Start** light will light up when the programmed water hardness setting is reached.
4. Match the lit light to the water hardness chart in Table 6-3.
5. Turn the dishwasher off.

6.8.1.2 Service Mode 1

1. To access the **Manual Step Mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Start** button while turning the dishwasher on. Hold the **Start** button for at least 2 seconds. A lit **Intake/Drain** light indicates successful accessing of **Service Mode 1.**
3. Select a program and press the **Start** button.
4. Pressing the **Start** button repeatedly will allow the technician to advance through the program manually. If the **Start** button is not pressed, the program steps are carried out automatically, in their normal order.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

5. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.1.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Turn the program selector switch to the 11 o'clock position and press the **Start** button. The test program will start and advance automatically.
3. Pressing the **Start** button repeatedly will allow the technician to advance through the program. If the **Start** button is not pressed, the program will run automatically.

6.8.1.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the machine, to change certain programmed functions and to access fault codes. The programmed functions include increasing the water temperature, turning on or off the water softener, adding an interim rinse, and setting the dishwasher width (18" or 24").

1. To access **Service Mode 2**, close the door and turn the program selector switch to **Stop**.
2. Turn the dishwasher off.
3. Press and hold the **Start** button while turning the dishwasher on. Release the **Start** button and immediately press it 2 more times. Flashing **Intake/Drain** and **Salt** lights indicates successful accessing of **Service Mode 2**.
4. Turn the program selector switch to the appropriate position in Table 6-4 to access the various functions of **Service Mode 2**.

Selector switch position (o'clock)	Function	Options	Start light status
1	Fault codes	See Table 6-5	Flashing
2	Program index	See Table 6-6	Flashing
4	EGS[1]	On	On
		Off	Off
5	Increase temperature	150°F	Off
		160°F	On
6	Water softener	With	Off
		Without	On
7	Increase water intake[1]	On	On
		Off	Off
8	2 interim rinses	Without	Off
		With	On
10	Dishwasher width	24"	Off
		18"	On

Table 6-4: G 841, G 841 Plus, G 842 Service Mode 2 Functions

[1] G 841 Plus only

6.8.1.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 1 o'clock position.
3. Press the **Start** button once, then turn the selector switch slowly clockwise until the **Start** light lights up.
4. Use the fault chart (Table 6-5) to determine which fault has been stored in the dishwasher.
5. Turn the dishwasher off.

Selector switch position	Fault code	Fault
1 o'clock	F00	No error
2 o'clock	F01	NTC or NTC connections open-circuited
3 o'clock	F02	NTC or NTC connections short-circuited
4 o'clock	F03	Electronic failure, selector switch position not found
5 o'clock	F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
6 o'clock	F05	Water drainage failure, heater level switch
7 o'clock	F06	Too few pulses at flow meter / start of water intake
8 o'clock	F07	Too few pulses at flow meter / end of water intake
9 o'clock	F08	Water intake failure, heater level switch
10 o'clock	F09	Heater level switch not switching on at the end of thermal stops

Table 6-5: G 841, G 841 Plus, G 842 Fault Code Chart

6.8.1.3.2 Deleting Stored Fault Codes

Access **Programming Mode** and turn the dishwasher off.

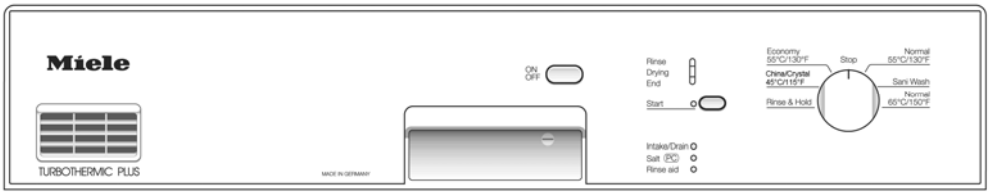
6.8.1.3.3 Program Index

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 2 o'clock position. The **Start** light flashes.
3. Press the **Start** button once, then turn the program selector switch slowly clockwise until the **Start** light lights up. The program selector switch position will determine the corresponding program index, as shown in Table 6-6 below.
4. Turn the dishwasher off.

Program selector position	Program index	Electronic version
1 o'clock	P0	EPLG 540
2 o'clock	P1	For future modifications
3 o'clock	P3	For future modifications

Table 6-6: G 841, G 841 Plus, G 842 Program Indices

6.8.2 G 848



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Extended drying 4.5 - 14 minutes Water intake time
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Program index Increased water temperature selection Water softener (with/without) Interim rinses Extended drying 14 - 45 minutes Dishwasher width setting

Table 6-7: G 848 Programming Flow Chart

6.8.2.1 Programming Mode

1. To access the **programming mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Start** button while turning the dishwasher on. Release the **Start** button within 2 seconds. A blinking **Salt** light indicates successful accessing of the **programming mode**.
3. Turn the program selector switch to the position indicated in Table 6-8 to modify the corresponding function.
4. Use the **Start** button to toggle the functions on or off.
5. After selecting options, turn the program selector switch to **Stop** and turn the dishwasher off.

Selector switch position (o'clock)	Function	Options	Status of Start light
1 to 8	Water hardness	See Section 6.8.2.1.1	Light 1 to 8 on[1]
9	Extended drying	On[2] Off	Off On
11	Water intake time	70 seconds[2] 100 seconds	Off = 70 sec On = 100 sec

Table 6-8: G 848 Programming Functions

[1] If no lights light up, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps in Service Mode 2 (Section 6.8.2.3).

[2] Factory setting

6.8.2.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Using Table 6-9 below, turn the program selector switch to the corresponding water hardness position, e.g., for water hardness = 10 gpg, turn the program selector switch to the 3 o'clock position.
4. **To save:** Press the **Start** button (**Start** light lights up), turn the program selector switch to **Stop** and turn the dishwasher off.

Water hardness in gpg	Selector switch position (o'clock)
1-4	1
5-7	2
8-10	3
11-14	4
15-17	5
18-21	6
22-35	7
36-70	8

Table 6-9: G 848 Water Hardness Chart

6.8.2.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Turn the program selector switch slowly through the first 8 clock positions.
3. The **Start** light will light up when the programmed water hardness setting is reached.
4. Match the lit light to the water hardness chart in Table 6-9.
5. Turn the dishwasher off.

6.8.2.2 Service Mode 1

1. To access the **Manual Step Mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Start** button while turning the dishwasher on. Hold the **Start** button for at least 2 seconds. A lit **Intake/Drain** light indicates successful accessing of **Service Mode 1.**
3. Select a program and press the **Start** button.
4. Pressing the **Start** button repeatedly will allow the technician to advance through the program manually. If the **Start** button is not pressed, the program steps are carried out automatically, in their normal order.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

5. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.2.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Turn the program selector switch to the 11 o'clock position and press the **Start** button. The test program will start and advance automatically.
3. Pressing the **Start** button repeatedly will allow the technician to advance through the program. If the **Start** button is not pressed, the program will run automatically.

6.8.2.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the machine, to change certain programmed functions and to access fault codes. The programmed functions include increasing the water temperature, turning on or off the water softener, adding an interim rinse, and setting the dishwasher width (18" or 24").

1. To access **Service Mode 2**, close the door and turn the program selector switch to **Stop**.
2. Turn the dishwasher off.
3. Press and hold the **Start** button while turning the dishwasher on. Release the **Start** button and immediately press it 2 more times. Flashing **Intake/Drain** and **Salt** lights indicates successful accessing of **Service Mode 2**.
4. Turn the program selector switch to the appropriate position in Table 6-10 to access the various functions of **Service Mode 2**.

Program selector switch position	Function	Options	Start light status
1 o'clock	Fault codes	See Table 6-11	Flashing
2 o'clock	Program index	See Table 6-12	Flashing
4 o'clock	EGS	On	On
		Off	Off
5 o'clock	Increase temperature	150°F	Off
		160°F	On
6 o'clock	Water softener	With	Off
		Without	On
7 o'clock	Increase water intake	On	On
		Off	Off
8 o'clock	2 interim rinses	Without	Off
		With	On
9 o'clock	Extended drying fan time	Off	Off
		On	On
10 o'clock	Dishwasher width	24"	Off
		18"	On

Table 6-10: G 848 Service Mode 2 Functions

6.8.2.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 1 o'clock position.
3. Press the **Start** button once.
4. If the **Start** light is lit, no fault has been stored. If the light is not lit, turn the selector switch slowly clockwise until the **Start** light lights up.
5. Use the fault chart (Table 6-11) to determine which fault has been stored in the dishwasher.
6. Turn the dishwasher off.

Selector switch position	Fault code	Fault
1 o'clock	F00	No error
2 o'clock	F01	NTC or NTC connections open-circuited
3 o'clock	F02	NTC or NTC connections short-circuited
4 o'clock	F03	Electronic failure, selector switch position not found

Selector switch position	Fault code	Fault
5 o'clock	F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
6 o'clock	F05	Water drainage failure, heater pressure switch
7 o'clock	F06	Too few pulses at flow meter / start of water intake
8 o'clock	F07	Too few pulses at flow meter / end of water intake
9 o'clock	F08	Water intake failure, heater level switch
10 o'clock	F09	Heater level switch not switching on at the end of thermal stops

Table 6-11: G 848 Fault Code Chart

6.8.2.3.2 Deleting Stored Fault Codes

Access **Programming Mode** and turn the dishwasher off.

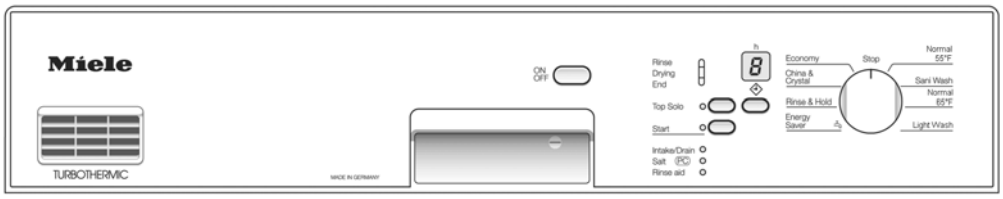
6.8.2.3.3 Program Index

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 2 o'clock position. The **Start** light flashes.
3. Press the **Start** button once, then turn the program selector switch slowly clockwise until the **Start** light lights up. The program selector switch position will determine the corresponding program index, as shown in Table 6-12 below.
4. Turn the dishwasher off.

Selector switch position	Program index	Electronic version
1 o'clock	P0	EPLG 540
2 o'clock	P1	For future modifications
3 o'clock	P3	For future modifications

Table 6-12: G 848 Program Indices

6.8.3 G 811, G 851, G 851 Plus, G 856, G 856 Plus



(G 856 shown)

Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Extended drying 14 minutes Extended water intake
Enter **Service Mode 1**	**To access:** Manual step mode Component test program

Programming Flow Chart	
Enter **Service Mode 2**	**To access:** Fault codes Program index Increased water temperature selection Water softener (with/without) Extended drying 45 minutes Interim rinses Dishwasher width setting EGS (Plus models only)

Table 6-13: G 811, G 851, G 851 Plus, G 856, G 856 Plus Programming Flow Chart

6.8.3.1 Programming Mode

1. To access the **programming mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Top solo** button while turning the dishwasher on. Release the **Top solo** button within 2 seconds. A blinking **Salt** light indicates successful accessing of the **programming mode**.
3. Turn the program selector switch to the position indicated in Table 6-14 to modify the corresponding function.
4. Use the **Top solo** button to toggle the functions on or off.
5. After selecting options, turn the program selector switch to **Stop** and turn the dishwasher off.

Selector switch position (o'clock)	Function	Options	Status of Start light
1 to 8	Water hardness	See Section 6.8.3.1.1	Light 1 to 8 on[1]
9	Extended drying (14 minutes)	On[2] Off	Off On
11	Water intake time	70 seconds[2] 100 seconds	Off = 70 sec On = 100 sec

Table 6-14: G 811, G 851, G 851 Plus, G 856, G 856 Plus Programming Functions

[1] If no lights light up, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps in Service Mode 2 (Section 6.8.3.3).
[2] Factory setting

6.8.3.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Using Table 6-15 below, turn the program selector switch to the corresponding water hardness position, e.g., for water hardness = 10 gpg, turn the program selector switch to the 3 o'clock position.
4. Press the **Top solo** button once. The **Top solo** light will light up.
5. **To save:** Press the **Start** button (**Start** light lights up), turn the program selector switch to **Stop** and turn the dishwasher off.

Water hardness in gpg	Selector switch position (o'clock)
1-4	1
5-7	2
8-10	3
11-14	4
15-17	5

Water hardness in gpg	Selector switch position (o'clock)
18-21	6
22-35	7
36-70	8

Table 6-15: G 811, G 851, G 851 Plus, G 856, G 856 Plus Water Hardness Chart

6.8.3.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Turn the program selector switch slowly through the first 8 clock positions.
3. The **Top solo** light will light up when the programmed water hardness setting is reached.
4. Match the lit light to the water hardness chart in Table 6-15.
5. Turn the dishwasher off.

6.8.3.2 Service Mode 1

1. To access the **Manual Step Mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Top solo** button while turning the dishwasher on. Hold the **Top solo** button for at least 2 seconds. A lit **Intake/Drain** light indicates successful accessing of **Service Mode 1.**
3. Select a program and press the **Start** button.
4. Pressing the **Top solo** button repeatedly will allow the technician to advance through the program manually. If the **Top solo** button is not pressed, the program steps are carried out automatically, in their normal order.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

5. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.3.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Turn the program selector switch to the 11 o'clock position and press the **Top solo** button. The test program will start and advance automatically.
3. Pressing the **Top solo** button repeatedly will allow the technician to advance through the program. If the **Top solo** button is not pressed, the program will run automatically.

6.8.3.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the machine, to change certain programmed functions and to access fault codes. The programmed functions include increasing the water temperature, turning on or off the water softener, extending the circulation fan time, adding an interim rinse, and setting the dishwasher width (18" or 24").

1. To access **Service Mode 2**, close the door and turn the program selector switch to **Stop**.
2. Turn the dishwasher off.

3. Press and hold the **Top solo** button while turning the dishwasher on. Release the **Top solo** button and immediately press it 2 more times. Flashing **Intake/Drain** and **Salt** lights indicates successful accessing of **Service Mode 2**.
4. Turn the program selector switch to the appropriate position in Table 6-16 to access the various functions of **Service Mode 2**. Press the **Top solo** button to toggle functions on or off.

Selector switch position	Function	Options	Start light status
1 o'clock	Fault codes	See Table 6-17	Flashing
2 o'clock	Program index	See Table 6-18	Flashing
4 o'clock	EGS	On	On
		Off	Off
5 o'clock	Increase temperature	150°F	Off
		160°F	On
6 o'clock	Water softener	With	Off
		Without	On
7 o'clock	Increase water intake	On	On
		Off	Off
8 o'clock	2 interim rinses	Without	Off
		With	On
9 o'clock	Extended drying fan time	Off	Off
		On	On
10 o'clock	Dishwasher width	24"	Off
		18"	On

Table 6-16: G 811, G 851, G 851 Plus, G 856, G 856 Plus Service Mode 2 Functions

6.8.3.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 1 o'clock position. The **Top solo** light will flash.
3. Press the **Top solo** button once.
4. If the **Top solo** light is lit, no fault has been stored. If the light is not lit, turn the selector switch slowly clockwise until the **Top solo** light lights up.
5. Use the fault chart (Table 6-17) to determine which fault has been stored in the dishwasher.
6. Turn the dishwasher off.

Selector switch position	Fault code	Fault
1 o'clock	F00	No error
2 o'clock	F01	NTC or NTC connections open-circuited
3 o'clock	F02	NTC or NTC connections short-circuited
4 o'clock	F03	Electronic failure, selector switch position not found
5 o'clock	F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
6 o'clock	F05	Water drainage failure, heater level switch
7 o'clock	F06	Too few pulses at flow meter / start of water intake
8 o'clock	F07	Too few pulses at flow meter / end of water intake
9 o'clock	F08	Water intake failure, heater level switch
10 o'clock	F09	Heater level switch not switching on at the end of thermal stops

Table 6-17: G 811, G 851, G 851 Plus, G 856, G 856 Plus Fault Code Chart

6.8.3.3.2 Deleting Stored Fault Codes

Access **Programming Mode** and turn the dishwasher off.

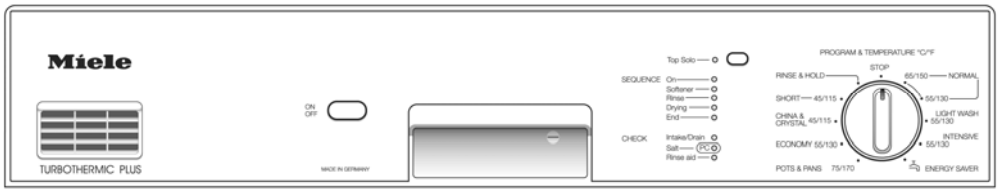
6.8.3.3.3 Program Index

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 2 o'clock position. The **Top solo** light flashes.
3. Press the **Top solo** button once, then turn the program selector switch slowly clockwise until the **Top solo** light lights up. The program selector switch position will determine the corresponding program index, as shown in Table 6-18 below.
4. Turn the dishwasher off.

Program selector position	Program index	Electronic version
1 o'clock	P0	EPLG 542/544
2 o'clock	P1	For future modifications
3 o'clock	P3	For future modifications

Table 6-18: G 811, G 851, G 851 Plus, G 856, G 856 Plus Program Indices

6.8.4 G 680, G 880



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness Drying Plus (EPLZ 501 only) Temperature reduction (EPLZ 501 only)
Enter **Service Mode 1**	**To access:** Switching step check Test program
Enter **Service Mode 2**	**To access:** Fault indication Program index Temperature increase Softener Flow meter Dishwasher width setting Increased water quantity (EPLZ 520 only)

Table 6-19: G 680, G 880 Programming Flow Chart

Note:
Electronics EPLZ 501 and EPLZ 520 differ from each other in housing, plug configuration and software. The designation can be checked in **Service Mode 2**. EPLZ 520 is marked with the program index "P3" or higher.

6.8.4.1 Programming Mode

1. Switch the appliance off at the on/off switch, close the door and turn the program selector switch to **Stop**.

2. Press and hold the **Top solo** button while switching the appliance on at the on/off switch. Release the **Top solo** button within 2 seconds.
3. The **On** LED lights up and the **Softener** LED flashes (if this is not the case, repeat Steps 1 and 2).
4. Set the program selector switch to the desired function (see Table 6-20).
5. Press **Top solo** to toggle between the available options.
6. To save the option: Turn the program selector switch to **Stop** and switch the appliance off.

Selector switch position	Function	Programmable options	Top solo LED
1 o'clock	Drying	Normal[1]	Off
		Drying Plus	On
2 o'clock	Water hardness	-	Off[2]
3 o'clock	Temperature reduction	None[1]	Off
		Reduction of 9°F	On

Table 6-20: G 680, G 880 Programming Functions

[1] Standard setting
[2] Setting not possible; "without softener" is programmed. Modify in service mode 2 (see Section 6.8.4.3), then repeat Steps 1 and 2.

6.8.4.1.1 Setting the Water Hardness

1. Access programming mode.
2. Turn the program selector switch to the 2 o'clock position.
3. Press the **Top solo** button.
4. Turn the program selector switch to the desired water hardness setting (see Table 6-21).
5. To save the setting, press **Top solo**, turn the program selector switch to **Stop** and switch the appliance off.

Appliance width [cm]	Water hardness	Program selector switch position (o'clock)	Water hardness selector in cabinet
45 (Slimline models)	1 - 5	1	6
	6 - 7	2	6
	8	3	6
	9	4	6
	10 - 11	5	6
	12 - 14	6	6
	15 - 16	7	6
	17 - 21	8	6
	22 - 24	9	6
	25 - 31	10	6
	32 - 35	11	3
	36 - 47	11	4
	48 - 64	11	5
	65	11	6

Appliance width [cm]	Water hardness	Program selector switch position (o'clock)	Water hardness selector in cabinet
55/60 (full-size models)	1 - 4	1	6
	5 - 6	2	6
	7	3	6
	8 - 10	4	6
	11 - 12	5	6
	13	6	6
	14 - 16	7	6
	17	8	6
	18 - 22	9	6
	23 - 35	10	6
	36 - 47	11	4
	48 - 65	11	5
	66 - 70	11	6

Table 6-21: G 680, G 880 Water Hardness Settings

6.8.4.1.2 Checking the Water Hardness Setting

1. Access programming mode.
2. The **Top solo** LED will light up when the selector switch is turned to the set water hardness (refer to Table 6-21).
3. Turn the program selector switch to **Stop** and switch the appliance off.

6.8.4.2 Service Mode 1

1. Switch off the appliance, close the door and turn the program selector to **Stop**.
2. Press and hold the **Top solo** button while switching the appliance on at the on/off switch and wait until the **Intake/Drain** LED lights up (if this is not the case, repeat Steps 1 and 2).
3. Select and start a program. The program sequence LEDs will show the program step in binary code (see Table 6-22).
4. By pressing the **Top solo** button as appropriate, it is possible to advance through the program step by step. If **Top solo** is not pressed, the steps will advance automatically.

Note:
The program steps can be followed with a timing chart. The activation of electrical components can be performed as the steps are advanced.
If the main switch or the door is opened, **Service Mode** 1 will be cancelled.

Switching Step Display						
Display LEDs	**Top solo**	**Softener**	**Wash**	**Drying**	**End**	**Intake/Drain**
Binary no.	32	16	8	4	2	1

Table 6-22: G 680, G 880 Program Sequence LEDs

The numbers in the binary row in Table 6-22 show the equivalent value of each LED. The actual step number is indicated by the sum of the values of the lit LEDs.

Example:
"Wash" and "Drying" LEDs are lit: Binary codes 8 + 4 = Switching step 12.

6.8.4.2.1 Starting the Test Program, Program Start with Reactivation

1. Enter **Service Mode 1**.
2. Turn the program selector switch to the 11 o'clock position. The test program starts automatically (for the program sequence, see the switching plan).
3. After a test program interruption or after the end of the test program, the selected program may start with reactivation before the pre-wash. This will be indicated by a lit **Softener** LED.

6.8.4.3 Service Mode 2

1. Switch off the appliance, close the door and turn the program selector to **Stop**.
2. Press and hold the **Top solo** button while switching the appliance on with the on/off switch.
3. Release the **Top solo** button within 1 second, then press and release the **Top solo** button twice.
4. The **On** LED lights up and the **Softener** and **Wash** LEDs flash (if this is not the case, repeat Steps 1 through 3).
5. Turn the program selector switch to the desired setting in accordance with Table 6-23.
6. To save the option: Turn the program selector switch to **Stop** and switch the appliance off.

Program selector switch position (o'clock)	Function	Programmable options	Top solo LED
1	Fault codes	-	Flashes
2	Program index	-	Flashes
4	Flow meter	-	Flashes
5	Temperature increase	150°F[1]	Off
		160°F	On
6	Softener	With[1]	Off
		Without	On
7	Appliance width (water intake)	24"	Off
		18"	On
8	Water quantity (EPLZ 520 only)	Normal[1]	Off
		Increased	On

Table 6-23: G 680, G 880 Service Mode 2 Functions

[1] Standard setting

6.8.4.3.1 Fault Code Display and Deletion

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 1 o'clock position. The **Top solo** LED flashes.
3. Press the **Top solo** button. The **Top solo** LED lights up when the selector switch is turned to the position where a fault is registered. Refer to Table 6-24.
4. Turn the program selector switch to **Stop** and switch the appliance off to delete the fault code.

Program selector switch position (o'clock)	Fault registered		Fault indication
1	F0	No fault registered	--
2	F1	NTC sensor or connections open-circuited	All program sequence LEDs flash
3	F2	NTC sensor or connections short-circuited	All program sequence LEDs flash
4	F3	Pulse failure	All program sequence LEDs flash
5	F4	Heating fault	All program sequence LEDs flash
6	F5	Drainage fault -heater pressure switch	"Intake/Drain" LED flashes
7	F6	Water intake fault - too few pulses at start of step	"Intake/Drain" LED flashes
8	F7	Water intake fault - too few pulses at end of step	"Intake/Drain" LED flashes
9	F8	Water intake fault - heater pressure switch	"Intake/Drain" LED flashes

Table 6-24: G 680, G 880 Fault Codes

6.8.4.3.2 Program Index

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 2 o'clock position. The **Top solo** LED flashes.
3. Press the **Top solo** button.
4. The **Top solo** LED lights up when the selector switch is turned to the position where the program index is registered. See Table 6-25.

Program selector switch position (o'clock)	Program index		Electronic version
1	IP0	Start of series	EPLZ 501
2	P1	Start of series	EPLZ 501
3	P2	With update feature	EPLZ 501
4	P3	New electronic	EPLZ 520
5	P4	-	-
6	P5	New water path	EPLZ 520
7	-	etc.	-

Table 6-25: G 680, G 880 Program Indices

6.8.4.3.3 Setting the Flow Meter

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 4 o'clock position. The **Top solo** LED flashes.
3. Press the **Top solo** button. Turn the program selector switch to the 6 o'clock position and press **Top solo** again.
4. To save the option: Turn the program selector switch to **Stop** and switch the appliance off.

6.8.4.4 Other Fault Indications

6.8.4.4.1 Program Interruption and All Program Sequence LEDs Flash

Program selection is not possible.

The electronic has registered a fault during program operation. This can be checked via **Service Mode 2**.

A program can only be restarted after the fault has been addressed and the fault code has been deleted.

The following faults are possible:
- NTC sensor or its connections short- or open-circuited
- Control module fault
- Heater circuit open-circuited

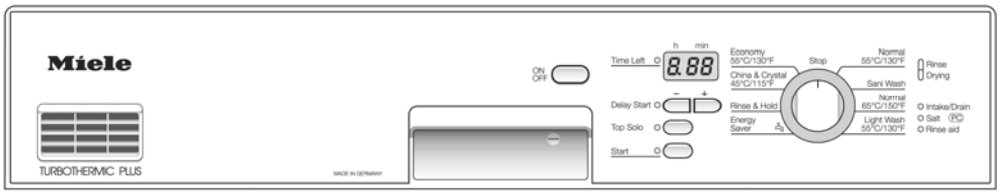
6.8.4.4.2 Program Interruption and Intake/Drain LED Flashes

Program selection is possible.

The electronic has registered a fault during program operation. This can be checked via **Service Mode 2**.

The following faults are possible:
- Water intake or drainage
- Flow meter B3/4 - Heater pressure switch B1/10
- Overflow level switch B1/2

6.8.5 G 681, G 881 Novo Stella, G 886 Novo Stella Plus



(G 681/G 881 shown)

Programming Flow Chart	
Enter **Programming Mode**	**To access:** Program index Water hardness settings Extended drying 14 minutes Extended water intake Buzzer (EGPL 552 only)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Fault codes Operating hours Increased water temperature selection Water softener (with/without) Extended water intake Interim rinses Extended drying 45 minutes

Table 6-26: G 681, G 881 Novo Stella, G 886 Novo Stella Plus Programming Flow Chart

6.8.5.1 Programming Mode

1. To access the **programming mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Delay Start** and **Start** buttons while turning the dishwasher on. A blinking **Salt** light indicates successful accessing of the **programming**

mode. The display will show a program index number of P00 or P01, depending on the software version.

3. Turn the program selector switch to the position indicated in Table 6-27 to modify the corresponding function.
4. Use the **Top solo** button to toggle the functions on or off.
5. After selecting options, press the **Start** button twice, turn the program selector switch to **Stop** and turn the dishwasher off.

Program Function Chart			
Selector switch position (o'clock)	**Function**	**Options**	**Display**
2	Water hardness setting	0 gpg[1] 1 - 36 gpg[2]	1 - 36 gpg
4	Buzzer	On[2] Off	40 41
9	Extended drying (14 minutes)	70 seconds[2] 100 seconds	90 91

Table 6-27: G 681, G 881 Novo Stella, G 886 Novo Stella Plus Programming Functions

[1] If "0" is displayed, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps in Service Mode 2 (Section 6.8.5.3).
[2] Factory setting

6.8.5.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Use the **Top solo** button to toggle through to the desired water hardness amount.
4. **To save:** Press the **Start** button twice, turn the program selector switch to **Stop** and turn the dishwasher off.

6.8.5.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Turn the program selector switch to the 2 o'clock position.
3. The number in the display will indicate the programmed water hardness setting (see Table 6-27).
4. Turn the program selector switch to **Stop** and turn the dishwasher off.

6.8.5.2 Service Mode 1

1. To access the **Manual Step Mode**, close the door and turn the program selector switch to **Stop**. Turn the dishwasher off.
2. Press and hold the **Delay Start** and **Top solo** buttons while turning the dishwasher on. A dot (.) in the display and lit **Intake/Drain** light indicates successful accessing of **Service Mode 1.**
3. Select a program and press the **Start** button. The display will show the current program step.
4. Pressing the **Start** button repeatedly will allow the technician to advance through the program manually. If the **Start** button is not pressed, the program steps are carried out automatically, in their normal order.
5. **Service Mode 1** can be activated at any time during a program wash cycle. When it is activated at any time during a program wash cycle, the display will show the current program step.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

6. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.5.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Turn the program selector switch to the 11 o'clock position and press the **Start** button. The test program will start and advance automatically.
3. Pressing the **Start** button repeatedly will allow the technician to advance through the program. If the **Start** button is not pressed, the program will run automatically.

6.8.5.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the machine, to change certain programmed functions and to access fault codes. The programmed functions include setting the flow meter, increasing the water temperature, turning on or off the water softener, increasing the water level, extending the circulation fan time, adding an interim rinse, and setting the dishwasher width (18" or 24").

1. To access **Service Mode 2**, close the door and turn the selector switch to **Stop**.
2. Turn the dishwasher off.
3. Press and hold the **Top solo** and **Start** buttons while turning the dishwasher on. A dot (.) in the display and a flashing **Intake/Drain** light indicates successful accessing of **Service Mode 2**.
4. Turn the program selector switch to the appropriate position in Table 6-28 to access the various functions of **Service Mode 2**.
5. **To save:** Press the **Top solo** button twice, turn the program selector switch to **Stop** and turn the dishwasher off.

Selector switch position (o'clock)	Function	Options	Display
1	Fault codes	-	F00, F01, etc.
2	Operating hours	-	e.g., 007
3	Operating hours	-	e.g., 127
4	Flow meter	195 to 205	195 to 205
5	Increase temperature	150°F	50
		160°F	51
6	Water softener	With[1]	60
		Without	61
7	Increase water intake	Without	70
		With	71
8	2 interim rinses	Off	80
		On	81
9	Extended drying fan time[2]	Off	90
		On	91

Table 6-28: G 681, G 881 Novo Stella, G 886 Novo Stella Plus Service Mode 2 Functions

[1] Factory setting
[2] Can only be extended if "+14 min" is selected in programming mode. See Section 6.8.5.1.

6.8.5.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Turn the program selector switch to the 1 o'clock position.
3. The fault code will be shown in the display, e.g., F01, F02, etc.
4. Use the fault chart (Table 6-29) to determine which fault has been stored in the dishwasher.
5. Turn the dishwasher off.

Fault code	Fault
F00	No error
F01	NTC or NTC connections open-circuited
F02	NTC or NTC connections short-circuited
F03	Electronic failure, selector switch position not found
F04	Heating failure - heating circuit opened or defective electrical component in heating circuit[1]
F05	Water drainage failure, heater pressure switch
F06	Too few pulses at flow meter / start of water intake
F07	Too few pulses at flow meter / end of water intake
F08	Water intake failure, heater pressure switch
F09	Heater pressure switch not switching on at the end of thermal stops
3 dashes (---) in display	Indicates a F1, F2, F4, or F9 fault is stored in the memory

Table 6-29: G 681, G 881 Novo Stella, G 886 Novo Stella Plus Fault Code Chart

[1] All wash programs can be run, but the heating element will not function during the cycle.

6.8.5.3.2 Deleting Stored Fault Codes

1. Access **Programming Mode**.
2. Press the **Start** button twice and turn the dishwasher off.

6.8.5.3.3 Operating Hours

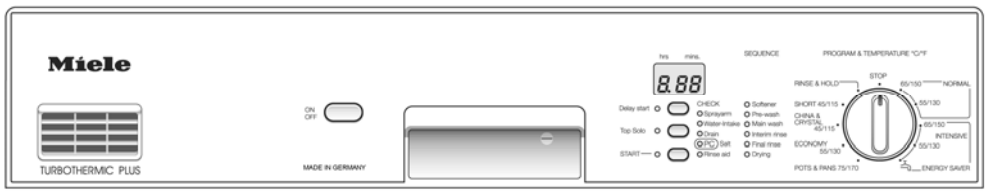
1. Access **Service Mode 2**.
2. Turn the program selector switch as shown in Table 6-30 below.

Selector switch position	Display
2	First 3 digits of total operating hours
3	Last 3 digits of total operating hours

Table 6-30: G 681, G 881 Novo Stella, G 886 Novo Stella Plus Operating Hours

Example:
2 o'clock position: 007
3 o'clock position: 127
Total operating hours: 7.127 hours

6.8.6 G 885



Programming Flow Chart (Electronic EGPL 02)	
Enter **Programming Mode**	**To access:** Program index Water hardness Water intake (with program index **P0**) Drying plus Temperature reduction
Enter **Service Mode 1**	**To access:** Switching step check Test program
Enter **Service Mode 2**	**To access:** Fault codes Operating hours Temperature increase Softener (with program index **P0**) Flow meter

Table 6-31: G 885 Programming Flow Chart

6.8.6.1 Programming Mode

1. Switch off the on/off switch, close the door and turn the program selector switch to **Stop**.
2. Press and hold the **Start** and **Delay Start** buttons together while switching the appliance on with the on/off switch.
3. Successful accessing of the programming mode is indicated by “P0” or “P1” in the display, depending on the software version.
4. Turn the program selector switch to the desired position in accordance with Table 6-32.
5. Press **Top solo** to toggle between the available options.
6. To save the option: Press **Start** twice and switch the appliance off.

Selector switch position	Function	Options	Display
1 o’clock	Water intake	2 minutes[1]	10
		4 minutes	11
2 o’clock	Water hardness	0 (off) to 36	0 - 36

Table 6-32: G 885 Programming Functions

[1] Standard setting

6.8.6.2 Service Mode 1 (Switching Step Check)

1. Switch off the on/off switch, close the door and turn the program selector switch to **Stop**.
2. Press and hold the **Delay Start** and **Top solo** buttons together while switching the appliance on with the on/off switch.
3. Successful accessing of **Service Mode 1** is indicated by a dot (.) in the display and illuminated **Spray arm** and **Intake** LEDs.
4. Turn the program selector switch to the desired program. The program duration is shown in the display.
5. Press **Start**. The digital display changes from a duration display to a program step display.
6. The program advances automatically.
7. Press **Start** to advance the program manually.

Note:
The program steps can be followed with a timing chart. The activation of electrical components can be performed as the steps are advanced.
If the main switch is switched off or the door is opened, **Service Mode 1** will be cancelled.

6.8.6.2.1 Starting the Test Program; Program Start with Reactivation

If the "Cold pre-wash" program is started in Service Mode 1, the test program is activated.

The test program can be used to check and test all individual components and program functions. The test program sequence is included with the wiring diagram.

After the test program has been started, the following program will always begin with reactivation.

6.8.6.3 Service Mode 2

1. Switch off the on/off switch, close the door and turn the program selector switch to **Stop**.
2. Press and hold the **Top solo** and **Start** buttons together while switching the appliance on with the on/off switch.
3. Successful accessing of **Service Mode 2** is indicated by a dot (.) in the display and illuminated **Drain** and **Intake** LEDs.
4. Turn the program selector switch to the desired setting in accordance with Table 6-33.
5. Press **Top solo** to toggle between the available options.
6. To save the option: Press **Start** twice and switch the appliance off.

Selector switch position	Function	Programmable options	Display
1 o'clock	Fault codes	n/a	F00, etc.
2 o'clock	Operating hours	n/a	First 3 digits of total operating hours
3 o'clock	Operating hours	n/a	Last 3 digits of total operating hours
4 o'clock	Flow meter	195 to 205	195 to 205
5 o'clock	Temperature increase	150°F[1]	50
		160°F	51
*From program index **P1***			
6 o'clock	Softener	With[1]	60
		Without	61
*From program index **P5***			
7 o'clock	Water quantity	Normal[1]	70
		Increased	71

Table 6-33: G 885 Service Mode 2 Functions

[1] Standard setting

6.8.6.3.1 Fault Codes - Display and Deletion

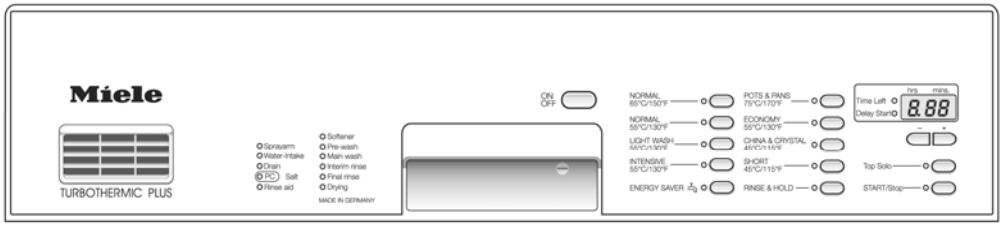
1. Access **Service Mode 2**.
2. Turn the program selector switch to the 1 o'clock position.
3. Check the display against Table 6-34.
4. To delete fault codes, access **Programming Mode**, press **Start** twice and switch the appliance off.

Display	Fault registered
F00	No fault registered
F01	NTC sensor or connections open-circuited
F02	NTC sensor or connections short-circuited
F03	Electronic fault
F04	Heating fault

Table 6-34: G 885 Fault Codes

Touchtronic Models

6.8.7 G 890



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Program index Water hardness settings Buzzer
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Operating hours Flow meter pulses Increased water temperature selection Water softener (with/without) Extended water intake

Table 6-35: G 890 Programming Flow Chart

6.8.7.1 Programming Mode

1. To access the **programming mode**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program.
2. Press and hold the "**+**"and **Start/Stop** buttons while turning the dishwasher off, then on. Successful accessing of the **programming mode** is indicated by a blinking **Salt** light and the display showing **P00, P01**, etc., depending on the electronic version.
3. Press the appropriate program button indicated in Table 6-36 to modify the corresponding function.
4. Use the **Top solo** button to toggle the functions on or off.

5. After selecting options, press the **Start/Stop** button twice and turn the dishwasher off.

Program button	Function	Options	Display
Normal 130	Water hardness setting	0 gpg[1] 1 - 36 gpg[2]	90 91
Normal 150	Buzzer	On Off	40 41

Table 6-36: G 890 Programming Functions

[1] If "0" is displayed, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps in Service Mode 2 (6.8.7.3).
[2] Factory setting

6.8.7.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Press the **Sani Wash** button. Use the **Top solo** button to toggle through to the desired water hardness amount.
4. **To save:** Press the **Start/Stop** button twice and turn the dishwasher off.

6.8.7.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Press the **Sani Wash** button.
3. The number in the display will indicate the programmed water hardness setting.
4. Turn the dishwasher off.

6.8.7.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **"+"**and **Top solo** buttons while turning the dishwasher on. Successful accessing of **Service Mode 1** is indicated by the display showing a dot (.) and a lit **Drain** light.
3. Select a program. The program duration will appear in the display.
4. Press the **Start/Stop** button to start the program. The display will show the current program step.
5. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program steps are carried out automatically, in their normal order.
6. **Service Mode 1** will be canceled if the dishwasher is shut off or the door is opened.
7. **Service Mode 1** can be activated at any time during a wash cycle. When it is activated during a program cycle, the display will show the current program step.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

8. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.7.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Press the **Economy** button then press the **Start/Stop** button. The test program will start and advance automatically.
3. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program will run automatically.

6.8.7.3 Service Mode 2

Service Mode 2 is used to change programmed functions and to access fault codes. Programmed functions include operating hours, setting the flow meter, increasing the water temperature, turning on or off the water softener, increasing water intake, adding an interim rinse, and increasing the circulation fan time.

1. To access **Service Mode 2**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **Top solo** and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of **Service Mode 2** is indicated by a dot (.) in the display and flashing **Drain** and **Salt** lights.
3. Press the appropriate program button indicated in Table 6-37 to modify the corresponding function.
4. Use the **Top solo** button to toggle through the function settings.
5. To save: Press the **Start /Stop** button twice and turn the dishwasher off.

Program button	Function	Options	Display
Normal 150	Fault codes	-	F00, F01, etc.
Normal 130	Operating hours	-	e.g., 001
Light Wash	Operating hours	-	e.g., 127
Intensive	Flow meter	195 to 205	195 to 205
Energy Saver	Increase temperature	150°F	50
		160°F	51
Pots & Pans	Water softener	With[1]	60
		Without	61
Economy	Increase water level	Standard[1]	70
		Increased	71

Table 6-37: G 890 Service Mode 2 Functions

[1] Factory setting

6.8.7.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Press the **Normal 150°** program button.
3. The fault code will be shown in the display, e.g., F01, F02, etc.
4. Use the fault chart (Table 6-38) to determine which fault has been stored in the dishwasher.
5. Turn the dishwasher off.

Fault code	Fault
F00	No error
F01	NTC or NTC connections open-circuited
F02	NTC or NTC connections short-circuited
F03	Electronic failure, selector switch position not found
F04	Heating failure - heating circuit opened or defective electrical component in heating circuit[1]
F05	Water drainage failure, heater level switch
F06	Too few pulses at flow meter / start of water intake
F07	Too few pulses at flow meter / end of water intake
F08	Water intake failure, heater level switch
F09	Heater level switch not switching on at the end of thermal stops
3 dashes (---) in display	Indicates a F1, F2, F4, or F9 fault is stored in the memory

Table 6-38: G 890 Fault Code Chart

[1] All wash programs can be run, but the heating element will not function during the cycle.

6.8.7.3.2 Deleting Stored Fault Codes

Access **Programming Mode** and press **Start/Stop** twice.

6.8.7.3.3 Operating Hours

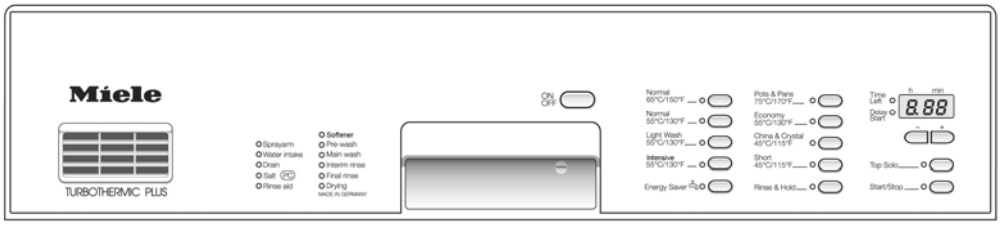
1. Access **Service Mode 2**.
2. Press the appropriate program button indicated in Table 6-39 to display operating hours.

Program button	Display
Sani Wash	First 3 digits of total operating hours
Normal Plus	Last 3 digits of total operating hours

Table 6-39: G 890 Operating Hours

Example:
Sani Wash: 007
Normal Plus: 127
Total operating hours: 7.127 hours

6.8.8 G 891



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Program index Water hardness settings Extended drying fan time (+14 min) Buzzer
Enter **Service Mode 1**	**To access:** Manual step mode Component test program

Programming Flow Chart	
Enter **Service Mode 2**	**To access:** Error messages Operating hours Flow meter pulses Increased water temperature selection Water softener (with/without) Extended water intake Interim rinses Extended fan time (+45 min) EGS

Table 6-40: G 891 Programming Flow Chart

6.8.8.1 Programming Mode

1. To access the **programming mode**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the "**+**"and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of the **programming mode** is indicated by a blinking **Salt** light and the display showing **P00, P01**, etc., depending on the electronic version.
3. Press the appropriate program button indicated in Table 6-41 to modify the corresponding function.
4. Use the **Top solo** button to toggle the functions on or off.
5. After selecting options, press the **Start/Stop** button twice and turn the dishwasher off.

Program button	Function	Options	Display
Sani Wash	Water hardness setting	0 gpg[1] 1 - 36 gpg[2 3]	0[1] 1 - 36 gpg
Rinse & Hold	Extended drying time (+14 min)	4 min[2] 14 min	90 91

Table 6-41: G 891 Programming Functions

[1] If "0" is displayed, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps in Service Mode 2 (Section 6.8.8.3).
[2] Factory setting
[3] Use 36 gpg for setting water hardness of 36 to 70 gpg.

6.8.8.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Press the **Sani Wash** button. Use the **Top solo** button to toggle through to the desired water hardness amount.
4. **To save:** Press the **Start/Stop** button twice and turn the dishwasher off.

6.8.8.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Press the **Sani Wash** button.
3. The number in the display will indicate the programmed water hardness setting.
4. Turn the dishwasher off.

6.8.8.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **"+"**and **Top solo** buttons while turning the dishwasher on. Successful accessing of **Service Mode 1** is indicated by the display showing a dot (.) and a lit **Drain** light.
3. Select a program. The program duration will appear in the display.
4. Press the **Start/Stop** button to start the program. The display will show the current program step.
5. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program steps are carried out automatically, in their normal order.
6. **Service Mode 1** will be canceled if the dishwasher is shut off or the door is opened.
7. **Service Mode 1** can be activated at any time during a wash cycle. When it is activated during a program cycle, the display will show the current program step.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

8. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.8.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Press the **Economy** button then press the **Start/Stop** button. The test program will start and advance automatically.
3. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program will run automatically.

6.8.8.3 Service Mode 2

Service Mode 2 is used to change programmed functions and to access fault codes. Programmed functions include operating hours, setting the flow meter, increasing the water temperature, turning on or off the water softener, increasing water intake, adding an interim rinse, and increasing the circulation fan time.

1. To access **Service Mode 2**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **Top solo** and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of **Service Mode 2** is indicated by a dot (.) in the display and flashing **Drain** and **Salt** lights.
3. Press the appropriate program button indicated in Table 6-42 to modify the corresponding function.
4. Use the **Top solo** button to toggle through the function settings.
5. To save: Press the **Start /Stop** button twice and turn the dishwasher off.

Program button	Function	Options	Display
Normal 130	Fault codes	-	F00, F01, etc.
Sani Wash	Operating hours	-	e.g., 001
Normal 150	Operating hours	-	e.g., 127
Light Wash	Flow meter	195 to 205	195 to 205
Pots & Pans	Increase temperature	150°F	50
		160°F	51
Economy	Water softener	With[1]	60
		Without	61
China/Crystal	Increase water level	Standard[1]	70
		Increased	71

Table 6-42: G 891 Service Mode 2 Functions

[1] Factory setting

6.8.8.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Press the **Normal 130°** program button.
3. The fault code will be shown in the display, e.g., F01, F02, etc.
4. Use the fault chart (Table 6-43) to determine which fault has been stored in the dishwasher.
5. Turn the dishwasher off.

Fault code	Fault
F00	No error
F01	NTC or NTC connections open-circuited
F02	NTC or NTC connections short-circuited
F03	Electronic failure, selector switch position not found
F04	Heating failure - heating circuit opened or defective electrical component in heating circuit[1]
F05	Water drainage failure, heater level switch
F06	Too few pulses at flow meter / start of water intake
F07	Too few pulses at flow meter / end of water intake
F08	Water intake failure, heater level switch
F09	Heater level switch not switching on at the end of thermal stops
3 dashes (---) in display	Indicates a F1, F2, F4, or F9 fault is stored in the memory

Table 6-43: G 891 Fault Code Chart

[1] All wash programs can be run, but the heating element will not function during the cycle.

6.8.8.3.2 Deleting Stored Fault Codes

Access **Programming Mode** and press **Start/Stop** twice.

6.8.8.3.3 Operating Hours

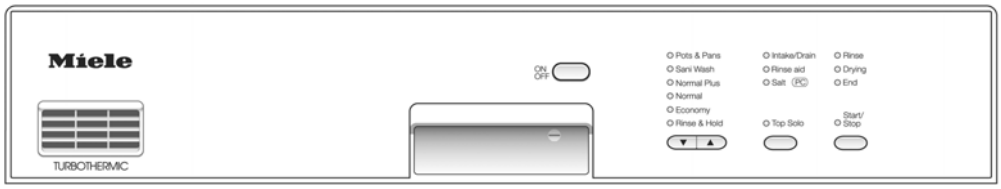
1. Access **Service Mode 2**.
2. Press the appropriate program button indicated in Table 6-44 to display operating hours.

Program button	Display
Sani Wash	First 3 digits of total operating hours
Normal 150	Last 3 digits of total operating hours

Table 6-44: G 891 Operating Hours

Example:
Sani Wash: 007
Normal 150: 127
Total operating hours: 7.127 hours

6.8.9 G 892, G 832



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Heated drying (on/off)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Program index number Increased water temperature selection Water softener (with/without) Extended water intake Extended drying fan time Dishwasher width setting EGS

Table 6-45: G 892, G 832 Programming Flow Chart

6.8.9.1 Programming Mode

1. To access the **programming mode**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is *not* blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Turn the dishwasher off.
3. Press and hold the **Start/Stop** button while turning the dishwasher on. Release the Start/Stop button within 2 seconds. Successful accessing of the **programming mode** is indicated by a blinking **Salt** light and a lit or flashing **Rinse** light.

> **Note:**
> If the **Rinse** light is neither lit nor flashing, the machine has been programmed to “without softener”. See **Service Mode 2** (Section 6.8.9.3) to turn the water softener on or off.

6.8.9.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Using Table 6-46 below, press the down arrow button to choose the corresponding program for setting the correct water hardness (e.g., “Normal Plus” = 8 to 11 gpg).

4. The program light will either flash or stay lit, depending on the selection made (see Table 6-46 below). Note that the **Pots & Pans** and **Sani Wash** programs are used twice.
5. Press the **Top solo** button once to store the water hardness setting.
6. **To save:** Press the **Start/Stop** button twice.

Note: A solid program light will indicate the current water hardness setting.

Grains per Gallon	Program Button Light	Light Solid	Light Flashing
1 – 4	Pots & Pans	X	-
5 – 7	Sani Wash	X	-
8 – 11	Normal Plus	X	-
12 – 16	Normal	X	-
17 – 21[1]	Economy	X	-
22 – 24	Rinse & Hold	X	-
25 – 31	Pots & Pans	-	X
32 - 70	Sani Wash	-	X

Table 6-46: G 892, G 832 Water Hardness Settings

[1] Factory setting

6.8.9.1.2 Extended Drying Fan Time

1. Access **Programming Mode**.
2. Press the **Top solo** button once.
3. Use Table 6-48 below to determine the drying fan time.
4. Press the **Top solo** button to toggle from 4.5 minutes to 14 minutes.
5. To save, press the **Start/Stop** button twice.

Program light	Options	Status of program light
Pots & Pans	4.5 minutes	Flashing
	14 minutes	Lit

Table 6-47: G 892, G 832 Drying Time Settings

6.8.9.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is *not* blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Start/Stop** button while turning the dishwasher on. Hold the **Start/Stop** button for at least 3 seconds. Successful accessing of **Service Mode 1** is indicated by a lit **Intake/Drain** light.
3. Using the arrow buttons, select a program and press the **Start/Stop** button.
4. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program steps are carried out automatically, in their normal order.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

5. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.9.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Using the arrow buttons, select the **Rinse & Hold** program and press the **Start/Stop** button. The test program will start and advance automatically.
3. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program will run automatically.

6.8.9.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the appliance, to change programmed functions and to access fault codes. Programmed functions include increasing the water temperature, turning on or off the water softener, adding an interim rinse, and setting the dishwasher width (24”). **Service Mode 2** is divided into 3 stages.

Stage	Stage function	Illuminated light
Stage 1	Fault codes	Rinse
Stage 2	Program index	Drying
Stage 3	Function programming	End

Table 6-48: G 892, G 832 Service Mode 2 Stages

6.8.9.3.1 Stage 1

1. To access **Stage 1** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Start/Stop** button while turning the dishwasher on. Release the **Start/Stop** button and immediately press it 2 more times. Flashing **Intake/Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Stage 1** of **Service Mode 2**.
3. Use the **fault code chart** (Table 6-49) to determine the stored fault code. Example: A lit **Normal Plus** light and a lit **Rinse** light = NTC or NTC connections short-circuited.
4. To delete stored fault codes, access the **Programming Mode** and press **Start/Stop** twice.

Fault code	Program light and status		Rinse light status	Fault
F00	Pots & Pans	Lit	Lit	No error
F01	Sani Wash	Lit	Lit	NTC or NTC connections open-circuited
F02	Normal Plus	Lit	Lit	NTC or NTC connections short-circuited
F03	Normal	Lit	Lit	Electronic failure, selector switch position not found
F04	Economy	Lit	Lit	Heating failure - heating circuit opened or defective electrical component in heating circuit
F05	Rinse & Hold	Lit	Lit	Water drainage failure, heater level switch
F06	Pots & Pans	Lit	Flashing	Too few pulses at flow meter / start of water intake
F07	Sani Wash	Lit	Flashing	Too few pulses at flow meter / end of water intake

Fault code	Program light and status		Rinse light status	Fault
F08	Normal Plus	Lit	Flashing	Water intake failure, heater level switch
F09	Normal	Lit	Flashing	Heater level switch not switching on at the end of thermal stops

Table 6-49: G 892, G 832 Fault Code Chart

6.8.9.3.2 Stage 2

1. To access **Stage 2** of **Service Mode 2**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Start/Stop** button while turning the dishwasher on. Release the **Start/Stop** button and immediately press it 2 more times. Flashing **Intake/Drain** and **Salt** lights indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button once. Flashing **Intake/Drain** and **Salt** lights and a lit **Drying** light indicate successful accessing of **Stage 2** of **Service Mode 2**.
4. Use the **Program Index** chart (Table 6-50) to determine the electronic version.
5. To save, press the **Top solo** button twice.

Index	Program button	Status
P0	Pots & Pans	Lit
P1	Sani Wash	Lit
P2	Normal Plus	Lit
P3	Normal	Lit

Table 6-50: G 892, G 832 Program Indices

6.8.9.3.3 Stage 3

1. To access **Stage 3** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Start/Stop** button while turning the dishwasher on. Release the **Start/Stop** button and immediately press it 2 more times. Flashing **Intake/Drain** and **Salt** lights indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button twice. Flashing **Intake/Drain** and **Salt** lights and a lit **End** light indicate successful accessing of **Stage 3** of **Service Mode 2.**
4. Use the arrow buttons to scroll to the appropriate program function.
5. Use the **Top solo** button to change the status of the function.
6. To save, press the **Start/Stop** button twice.

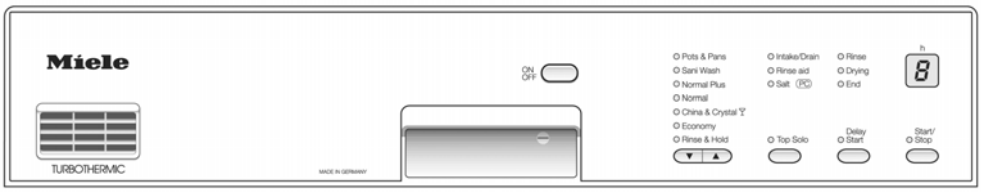
Program	Function	Options	Program light status
Pots & Pans	Increase temperature	66	Flashing
		72	Lit
Sani Wash	Water softener	On	Flashing
		Off	Lit
Normal Plus	Interim rinses	1 rinse	Flashing
		2 rinses	Lit
Normal	Increase water level	Norm	Flashing
		Increase	Lit
Economy	Dishwasher width	24”	Flashing
		18”	Lit

Program	Function	Options	Program light status
Rinse & Hold	Extended drying[1]	Off	Flashing
		On	Lit
Pots & Pans	EGS	On	Flashing
		Off	Lit

Table 6-51: G 892, G 832 Service Mode 2 Functions

[1] Can only be set if "+14 min" is selected in programming mode. See Section 6.8.9.1.2.

6.8.10 G 694, G 894



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Extended drying fan time (+14 minutes)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Program index Increased water temperature selection Water softener (with/without) Interim rinses Extended water intake Extended drying fan time (+ 45 minutes) EGS

Table 6-52: G 694, G 894 Programming Flow Chart

6.8.10.1 Programming Mode

1. To access the **programming mode**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is *not* blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Turn the dishwasher off.
3. Press and hold the **Top solo** and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of the **programming mode** is indicated by a blinking **Salt** light.
4. The display will show the current water hardness setting. The **"A"** indicates **Aqua** and the numbers indicate the hardness setting.

Note:
If the display is blank, the appliance has been programmed for "without softener". See **Service Mode 2** (Section 6.8.10.3) to turn the water softener on or off.

Technical Information

6.8.10.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Using the arrow buttons, enter the correct water hardness setting.
4. **To save:** Press the **Start/Stop** button twice.

6.8.10.1.2 Extended Drying Fan Time

1. Access **Programming Mode**.
2. Press the **Top solo** button once. The **End** light will light up.
3. Use Table 6-53 below to determine the drying fan time.
4. Press the **Top solo** button to toggle from 4.5 minutes to 14 minutes.
5. To save, press the **Start/Stop** button twice.

Program light	Options	Status of program light
Pots & Pans	4.5 minutes	Flashing
	14 minutes	Lit

Table 6-53: G 694, G 894 Drying Time Settings

6.8.10.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is *not* blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press the **Top solo** and **Delay Start** buttons while turning the dishwasher on. Successful accessing of **Service Mode 1** is indicated by a lit **Intake/Drain** light and a flashing **Start/Stop** light.
3. Using the arrow buttons, select a program and press the **Start/Stop** button.
4. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program steps are carried out automatically, in their normal order.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

5. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.10.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Using the arrow buttons, select the **Rinse & Hold** program and press the **Start/Stop** button. The test program will start and advance automatically.
3. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program will run automatically.

6.8.10.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the appliance, to change programmed functions and to access fault codes. Programmed functions include increasing the water temperature, turning on or off the water softener, and adding an interim rinse. **Service Mode 2** is divided into 3 stages.

Stage	Stage function	Illuminated light
Stage 1	Fault codes	Rinse
Stage 2	Program index	Drying
Stage 3	Function programming	End

Table 6-54: G 694, G 894 Service Mode 2 Stages

6.8.10.3.1 Stage 1

1. To access **Stage 1** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Delay Start** and **Start/Stop** buttons while turning the dishwasher on. Flashing **Intake/Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Stage 1** of **Service Mode 2**.
3. The display will indicate the last fault stored.
4. Use the fault code chart (Table 6-55) to determine the stored fault code.
5. To delete stored fault codes, access the **Programming Mode** and press **Start/Stop** twice.

Fault code	Fault
F00	No error
F01	NTC or NTC connections open-circuited
F02	NTC or NTC connections short-circuited
F03	Electronic failure, selector switch position not found
F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
F05	Water drainage failure, heater level switch
F06	Too few pulses at flow meter / start of water intake
F07	Too few pulses at flow meter / end of water intake
F08	Water intake failure, heater level switch
F09	Heater level switch not switching on at the end of thermal stops

Table 6-55: G 694, G 894 Fault Code Chart

6.8.10.3.2 Stage 2

1. To access **Stage 2** of **Service Mode 2**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Delay Start** and **Start/Stop** buttons while turning the dishwasher on. Flashing **Intake/Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button once. Flashing **Intake/Drain** and **Salt** lights and a lit **Drying** light indicate successful accessing of **Stage 2** of **Service Mode 2**.
4. The display will indicate the current electronic version.
5. To save, press the **Start/Stop** button twice.

6.8.10.3.3 Stage 3

1. To access **Stage 3** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.

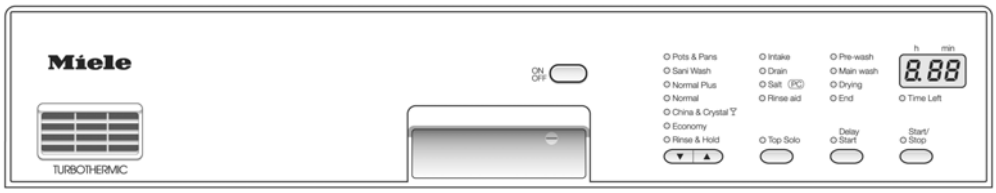
2. Press and hold the **Delay Start** and **Start/Stop** button while turning the dishwasher on. Flashing **Intake/Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button twice. Flashing **Intake/Drain** and **Salt** lights and a lit **End** light indicate successful accessing of **Stage 3** of **Service Mode 2.**
4. Use the arrow buttons to scroll to the appropriate program function.
5. Use the **Top solo** button to change the status of the function.
6. To save, press the **Start/Stop** button twice.

Program	Function	Options	Status of program light
Pots & Pans	Increase temperature	66	Flashing
		72	Lit
Sani Wash	Water softener	On	Flashing
		Off	Lit
Normal Plus	Interim rinses	1 rinse	Flashing
		2 rinses	Lit
Normal	Increase water level	Norm	Flashing
		Increase	Lit
China & Crystal	Extended drying	Off	Flashing
		On[1]	Lit
Economy	EGS	With	Off
		Without	On

Table 6-56: G 694, G 894 Service Mode 2 Functions

[1] Can only be set if "+14 min" is selected in programming mode. See Section 6.8.10.1.2.

6.8.11 G 896



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Extended drying fan time (+14 minutes)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Program index Increased water temperature selection Water softener (with/without) Interim rinses Extended water intake Extended drying fan time (+ 45 minutes) EGS

Table 6-57: G 896 Programming Flow Chart

6.8.11.1 Programming Mode

1. To access the **programming mode**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is *not* blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Turn the dishwasher off.
3. Press and hold the **Top solo** and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of the **programming mode** is indicated by a blinking **Salt** light.
4. The display will show the current water hardness setting. The **"A"** indicates **Aqua** and the numbers indicate the hardness setting.

Note:
If the display is blank, the appliance has been programmed to "without softener". See **Service Mode 2** (Section 6.8.11.3) to turn the water softener on or off.

6.8.11.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Using the arrow buttons, enter the correct water hardness setting.
4. **To save:** Press the **Start/Stop** button twice.

6.8.11.1.2 Extended Drying Fan Time

1. Access **Programming Mode**.
2. Press the **Top solo** button once. The **End** light will light up.
3. Use Table 6-58 below to determine the drying fan time.
4. Press the **Top solo** button to toggle from 4.5 minutes to 14 minutes.
5. To save, press the **Start/Stop** button twice.

Program light	Options	Status of program light
Pots & Pans	4.5 minutes	Flashing
	14 minutes	Lit

Table 6-58: G 896 Drying Time Settings

6.8.11.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is *not* blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press the **Top solo** and **Delay Start** buttons while turning the dishwasher on. Successful accessing of **Service Mode 1** is indicated by lit **Intake** and **Drain** lights and a flashing **Start/Stop** light.
3. Using the arrow buttons, select a program and press the **Start/Stop** button.
4. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program steps are carried out automatically, in their normal order.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

5. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.11.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Using the arrow buttons, select the **Rinse & Hold** program and press the **Start/Stop** button. The test program will start and advance automatically.
3. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program will run automatically.

6.8.11.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the appliance, to change programmed functions and to access fault codes. Programmed functions include increasing the water temperature, turning on or off the water softener, and adding an interim rinse. **Service Mode 2** is divided into 4 stages.

Stage	Stage function	Illuminated light
Stage 1	Fault codes	Rinse
Stage 2	Operating hours	Main wash
Stage 3	Program index	Drying
Stage 4	Function programming	End

Table 6-59: G 896 Service Mode 2 Stages

6.8.11.3.1 Stage 1

1. To access **Stage 1** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Delay Start** and **Start/Stop** buttons while turning the dishwasher on. Flashing **Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Stage 1** of **Service Mode 2**.
3. The display will indicate the last fault stored (F01, F02, etc.).
4. Use the **fault code chart** (Table 6-60) to determine the stored fault code.
5. To delete stored fault codes, access the **programming mode** and press **Start/Stop** twice.

Fault code	Fault
F00	No error
F01	NTC or NTC connections open-circuited
F02	NTC or NTC connections short-circuited
F03	Electronic failure, selector switch position not found
F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
F05	Water drainage failure, heater level switch
F06	Too few pulses at flow meter / start of water intake
F07	Too few pulses at flow meter / end of water intake
F08	Water intake failure, heater level switch
F09	Heater level switch not switching on at the end of thermal stops

Table 6-60: G 896 Fault Code Chart

6.8.11.3.2 Stage 2

1. To access **Stage 2** of **Service Mode 2**, close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Delay Start** and **Start/Stop** buttons while turning the dishwasher on. Flashing **Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button once. Flashing **Drain** and **Salt** lights and a lit **Main wash** light indicate successful accessing of **Stage 2** of **Service Mode 2**.
4. The display will indicate the current operating hours.

6.8.11.3.3 Stage 3

1. To access **Stage 3** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Delay Start** and **Start/Stop** buttons while turning the dishwasher on. Flashing **Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button twice. Flashing **Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Stage 3** of **Service Mode 2.**
4. The display will indicate the current electronic version.
5. To save, press the **Start/Stop** button twice.

6.8.11.3.4 Stage 4

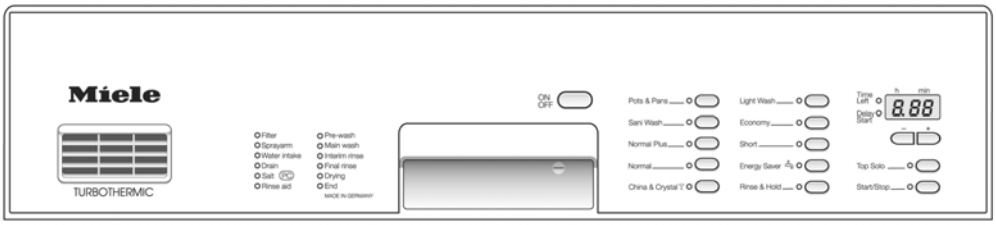
1. To access **Stage 4** of **Service Mode 2,** close the door and turn the dishwasher on. The **Start/Stop** light **must** be blinking. If the **Start/Stop** light is ***not*** blinking, press and hold the **Start/Stop** button for at least 3 seconds to exit the cycle. The **Start/Stop** light should now be blinking.
2. Press and hold the **Delay Start** and **Start/Stop** buttons while turning the dishwasher on. Flashing **Drain** and **Salt** lights and a lit **Rinse** light indicate successful accessing of **Service Mode 2**.
3. Press the **Top solo** button three times. Flashing **Drain** and **Salt** lights and a lit **End** light indicate successful accessing of **Stage 4** of **Service Mode 2.**
4. Use the arrow buttons to scroll to the appropriate program function.
5. Use the **Top solo** button to change the status of the function.
6. To save, press the **Start/Stop** button twice.

Program	Function	Options	Program light status
Pots & Pans	Increase temperature	66	Flashing
		72	Lit
Sani Wash	Water softener	On	Flashing
		Off	Lit
Normal Plus	Interim rinses	1 rinse	Flashing
		2 rinses	Lit
Normal	Increase water level	Norm	Flashing
		Increase	Lit
China & Crystal	Extended drying	Off	Flashing
		On[1]	Lit
Economy	EGS	With	Off
		Without	On

Table 6-61: G 896 Service Mode 2 Functions

[1] Can only be set if “+14 min” is selected in programming mode. See Section 6.8.11.1.2.

6.8.12 G 898



Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Extended drying fan time (+14 minutes)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Program index Increased water temperature selection Water softener (with/without) Interim rinses Extended water intake Extended fan time (+45 minutes) EGS

Table 6-62: G 898 Programming Flow Chart

6.8.12.1 Programming Mode

1. To access the **programming mode**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the "**+**" and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of the **programming mode** is indicated by a blinking **Salt** light and **P00**, **P01**, etc., in the display, depending on the electronic version.
4. Press the appropriate program button indicated in Table 6-63 to modify the corresponding function.
5. Use the **Top solo** button to toggle the functions on or off.
6. After selecting options, press the **Start/Stop** button twice and turn the dishwasher off.

Program button	Function	Options	Display
Sani Wash	Water hardness setting	0 gpg[1] 1 - 36 gpg[2] [3]	0[1] 1 - 36 gpg
Rinse & Hold	Extended drying time (+14 min)	4 min[2] 14 min	90 91

Table 6-63: G 898 Programming Functions

[1] If "0" is displayed, the dishwasher is programmed for "without water softener". To change to "with water softener", follow the steps in Service Mode 2 (Section 6.8.12.3).
[2] Factory setting
[3] Use 36 gpg for setting water hardness of 36 to 70 gpg.

6.8.12.1.1 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Press the **Sani Wash** button. Use the **Top solo** button to toggle through to the desired water hardness amount.
4. **To save**: Press the **Start/Stop** button twice and turn the dishwasher off.

6.8.12.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Press the **Sani Wash** button.
3. The number in the display will indicate the programmed water hardness setting.
4. Turn the dishwasher off.

6.8.12.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **"+"**and **Top solo** buttons while turning the dishwasher on. Successful accessing of **Service Mode 1** is indicated by the display showing a dot (.) and a lit **Drain** light.
3. Select a program. The program duration will appear in the display.
4. Press the **Start/Stop** button to start the program. The display will show the current program step.
5. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program steps are carried out automatically, in their normal order.
6. **Service Mode 1** will be canceled if the dishwasher is shut off or the door is opened.
7. **Service Mode 1** can be activated at any time during a wash cycle. When it is activated during a program cycle, the display will show the current program step.

Note: The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

8. If the dishwasher door is opened and closed or the dishwasher is turned off and on, the service mode will be canceled and the machine will continue to advance normally.

6.8.12.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Press the **Rinse & Hold** button then press the **Start/Stop** button. The test program will start and advance automatically.
3. Pressing the **Start/Stop** button repeatedly will allow the technician to advance through the program. If the **Start/Stop** button is not pressed, the program will run automatically.

6.8.12.3 Service Mode 2

Service Mode 2 is used to change programmed functions and to access fault codes. Programmed functions include operating hours, increasing the water temperature, turning on or off the water softener, increasing water intake, adding an interim rinse, and increasing the circulation fan time.

1. To access **Service Mode 2**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **Top solo** and **Start/Stop** buttons while turning the dishwasher on. Successful accessing of **Service Mode 2** is indicated by a dot (.) in the display and flashing **Drain** and **Salt** lights.
3. Press the appropriate program button indicated in Table 6-64 to modify the corresponding function.
4. Use the **Top solo** button to toggle through the function settings.
5. To save: Press the **Start/Stop** button twice and turn the dishwasher off.

Program button	Function	Options	Display
Pots & Pans	Fault codes	-	F00, F01, etc.
Sani Wash	Operating hours	-	e.g., 001
Normal Plus	Operating hours	-	e.g., 127
Normal	EGS	On	40
		Off	41
China/Crystal	Increase temperature	150°F	50
		160°F	51
Light Wash	Water softener	With[1]	60
		Without	61
Economy	Increase water level	Standard	70
		Increased	71
Short	Interim rinses	1	80
		2	81
Energy saver	Extended drying[1]	14 minutes	90
		45 minutes	91

Table 6-64: G 898 Service Mode 2 Functions

[1] Factory setting

6.8.12.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Press the **Pots & Pans** program button.
3. The fault code will be shown in the display, e.g., F01, F02, etc.
4. Use the fault chart (Table 6-65) to determine which fault has been stored in the dishwasher.
5. Turn the dishwasher off.

Fault code	Fault
F00	No error
F01	NTC or NTC connections open-circuited
F02	NTC or NTC connections short-circuited
F03	Electronic failure, selector switch position not found
F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
F05	Water drainage failure, heater level switch
F06	Too few pulses at flow meter / start of water intake
F07	Too few pulses at flow meter / end of water intake
F08	Water intake failure, heater level switch
F09	Heater level switch not switching on at the end of thermal stops

Table 6-65: G 898 Fault Code Chart

6.8.12.3.2 Deleting Stored Fault Codes

Access **Programming Mode** and press **Start/Stop** twice.

6.8.12.3.3 Operating Hours

1. Access **Service Mode 2**.
2. Press the appropriate program button indicated in Table 6-66 to display operating hours.

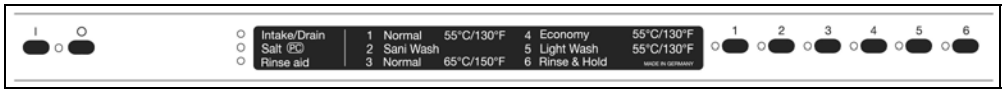
Program button	Display
Sani Wash	First 3 digits of total operating hours
Normal Plus	Last 3 digits of total operating hours

Table 6-66: G 898 Operating Hours

Example:
Sani Wash: 007
Normal Plus: 127
Total operating hours: 7.127 hours

Incognito Models

6.8.13 G 803, G 643, G 843, G 663, G 863



(G 803 shown)

Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Heated drying Increased water intake Buzzer
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Program index Increased water temperature selection Water softener Interim rinses Dishwasher width setting

Table 6-67: G 803, G 643, G 843, G 663, G 863 Programming Flow Chart

6.8.13.1 Programming Mode

1. To access the **Programming Mode** close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold the **1** and **3** buttons while turning the dishwasher on. A blinking **Salt** light indicates successful accessing of the **Programming Mode**.
3. To toggle functions on or off, press the appropriate program button (1 to 4) indicated in Table 6-68 below to modify the corresponding function.
4. **To save**: After selecting options, press program button **6** twice and turn off the dishwasher.

Program button	Function	Options	Button light status
1	Heated drying	On[2]	Off
		Off	On
2	Water hardness setting	See Section 6.8.13.1.1	Flashing = 1 to 70 gpg
3	Water intake time	70 seconds[2]	Off = 70 seconds
		100 seconds	On = 100 seconds
4	Buzzer	On	Off
		Off	On

Table 6-68: G 803, G 643, G 843, G 663, G 863 Programming Mode

[1] If no lights light up, the dishwasher is programmed to "without water softener". To change to "with water softener" follow the steps in Service Mode 2 (6.8.13.3).
[2] Factory setting

6.8.13.1.1 Setting the Water Hardness Level

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**
3. Press program button **2** (should be flashing). If program button **2** is not flashing, **Service Mode 2** must be accessed (Section 6.8.13.3) and the dishwasher programmed to "with water softener".
4. **Models with display:** Press program button 2 repeatedly until the desired water hardness is shown in the display. Display will read "A", followed by one or two digits (e.g., for a water hardness of 22, the display will read "A", "2", "2").
   Models without display: Using Table 6-69 below, press the program button that corresponds to the water hardness (e.g., for a water hardness of 10 gpg, press program button **4**). Once the button is pressed for the selected water hardness setting, program button **2** will flash.
5. **To save:** Press program button **6** twice. A flashing program button **6** indicates successful saving of data.

Water hardness (gpg)	Program button 6	Program button lit
1-5	Not pressed	1
6-7	Not pressed	2
8	Not pressed	3
9-11	Not pressed	4
12-14	Not pressed	5
15-16	Pressed	1
17-21	Pressed	2
22-24	Pressed	3
24-31	Pressed	4
32-70	Pressed	5

Table 6-69: G 803, G 643, G 843, G 663, G 863 Water Hardness Settings

6.8.13.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. **Models with display:** Press program button **2**. The display will indicate the current water hardness level setting ("A", "#", "#").
   Models without display: Press program button **2**. A program button (**1** to **5**) will light, indicating the current water hardness setting. Match the lit button to Table 6-69. If a button does not light, press program button **6.** The program button that lights along with program button **6** will indicate the water hardness level setting.
3. Turn the dishwasher off.

6.8.13.2 Service Mode 1

1. To access **Service Mode 1**, close the door and turn the dishwasher on. All program lights should light. If not, press the **Start/Stop** button to cancel the program. Turn the dishwasher off.
2. Press and hold program buttons **1** and **2** while turning the dishwasher on. Successful accessing of **Service Mode 1** is indicated by a lit **Drain** light.
3. Place the see-through door onto the dishwasher.
4. Select a program and trip the door lock with a screwdriver or Miele tool C6042. The selected program will start
5. Pressing program button **6** repeatedly will allow the technician to advance through the program. If program button **6** is not pressed, the program steps are carried out automatically, in their normal order.

Note:
The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

Note:
If not using the see-through door, access **Service Mode 1** as above. Close the dishwasher door. After the program starts, open the door and use program button **6** to select the appropriate program step. The program step that the dishwasher is currently in will be displayed by the illuminated program button lights. Each light corresponds to a binary number (see the program sequence chart, Table 6-70). Add the numbers represented by the lights to arrive at the program step. When the appropriate step has been reached, the door can be closed and the program will continue.

Program Sequence Chart						
Program button light	1	2	3	4	5	6
Binary number	32	16	8	4	2	1

Table 6-70: G 803, G 643, G 843, G 663, G 863 Program Sequence Chart

Example: Program button lights 2 and 5 are lit.
Program button light **2** = Binary code 16
Program button light **5** = Binary code 2
16 + 2 = Program step 18

Note:
The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program. As long as the dishwasher is in **Service Mode 1**, the program buttons will indicate the program step in binary code.

6.8.13.2.1 Test Program

The **test program** is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Press program button **6**. The test program will start and advance automatically.
3. Pressing program button **6** repeatedly will allow the technician to advance through the program manually. If button **6** is not pressed, the program will run automatically.

6.8.13.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the appliance, to change certain programmed functions and to access fault codes. The programmed functions include increasing the water temperature, turning on or off the water softener, adding an interim rinse, and setting the dishwasher width (18" or 24").

1. To access **Service Mode 2**, open the dishwasher door and turn the dishwasher off.
2. Press and hold program buttons **2** and **3** while turning the dishwasher on. Successful accessing of **Service Mode 2** is indicated by flashing **Salt** and **Intake/Drain** lights.
3. Illuminated program button lights will indicate the current program settings (see Table 6-70).
4. The settings can be changed by using program buttons **1** to **5**. To change the settings, press the corresponding program button indicated in Table 6-70.
5. To save: Press the program button **6** twice.

Program button	Function	Options	Program button light
1	Increase water temperature	150°F	Off
		160°F	On
2	Water softener	With[1]	Off
		Without	On
3	2 interim rinses	With	Off
		Without	On
4	Dishwasher width	24"	Off
		18"	On
5	Program index	-	Off
	Fault codes	-	On

Table 6-71: G 803, G 643, G 843, G 663, G 863 Service Mode 2 Functions

[1] Factory setting

6.8.13.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Press the flashing program button **5**.
3. Press the flashing program button **1.**
4. One of the program button lights (**1** to **5**) will light up, indicating a stored fault code of F0 - F4. If none of the program buttons light, a fault code of F5 - F9 is stored. To display fault codes F5 - F9, press program button **6** once. Program button **6** will light up along with one of the other program buttons (**1** to **5**). See Table 6-72.

Program button 6	Program button light	Fault code and description	
Not pressed	1	F00	No error
Not pressed	2	F01	NTC or NTC connections open-circuited
Not pressed	3	F02	NTC or NTC connections short-circuited
Not pressed	4	F03	Electronic failure, selector switch position not found
Not pressed	5	F04	Heating failure - heating circuit opened or defective electrical component in heating circuit[1]
Pressed	1	F05	Water drainage failure, heater level switch

Program button 6	Program button light	Fault code and description	
Pressed	2	F06	Too few pulses at flow meter/start of water intake
Pressed	3	F07	Too few pulses at flow meter/end of water intake
Pressed	4	F08	Water intake failure, heater level switch
Pressed	5	F09	Heater level switch not switching on at the end of thermal stops

Table 6-72: G 803, G 643, G 843, G 663, G 863 Fault Codes

[1] All wash programs can be run, but the heating element will not function during the cycle.

6.8.13.3.2 Deleting Stored Fault Codes

1. Access **Programming Mode**.
2. Press program button **6** twice.
3. A flashing program button **6** indicates successful fault code deletion.
4. Turn off the dishwasher.

6.8.13.3.3 Program Index

1. Access **Service Mode 2**.
2. Press the flashing program button **5**.
3. Press the flashing program button **2.**
4. The lit program button (**1** to **5**) will determine the corresponding program index, as shown in the program index chart (Table 6-73).
5. Switch the dishwasher off.

Program button 1 - 5	Program index	Electronic version
1	P0	EPLG 546
2	P1	For future modifications
3	P2	For future modifications
4	P3	For future modifications
5	P4	For future modifications

Table 6-73: G 803, G 643, G 843, G 663, G 863 Program Indices

6.8.14 G 818, G 658, G 858

Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Heated drying
Enter **Service Mode 1**	**To access:** Manual step mode Component test program
Enter **Service Mode 2**	**To access:** Error messages Increased water intake Increased water temperature Water softener Interim rinses EGS

Table 6-74: G 818, G 658, G 858 Programming Flow Chart

6.8.14.1 Programming Mode

1. To access the **Programming Mode** open the dishwasher door and turn the dishwasher off.
2. Press and hold program buttons **1** and **3** while turning the dishwasher on. A blinking **Salt** light indicates successful accessing of the **Programming Mode.**
3. Use the program buttons **1** to **3** to toggle the selected function on or off.
4. **To save:** After selecting options, press program button **6** twice and turn off the dishwasher.

Program button	Function	Options	Button light status
1	Heating	On[2]	Off
		Off	On
2	Water hardness setting	See Section 6.8.14.1.1	Flashing = 1 to 70 gpg[1]
3	Water intake time	70 seconds[2]	Off = 70 seconds
		100 seconds	On = 100 seconds

Table 6-75: G 818, G 658, G 858 Programming Functions

[1] If no buttons light up, the dishwasher is programmed for “without water softener”. To change to “with water softener” follow the steps in **Service Mode 2** (Section 6.8.14.3).
[2] Factory setting

6.8.14.1.1 Setting the Water Hardness Level

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Press program button **2** (should be flashing). If program button **2** is not flashing, **Service Mode 2** must be accessed and the dishwasher programmed to “with water softener”.
4. Using Table 6-76 below, press the program button that corresponds to the water hardness (e.g., for a water hardness of 10 gpg, press program button **4**).
5. Once the button is pressed for the selected water hardness setting, program button **2** will flash.
6. **To save:** Press program button **6** twice. Program button **6** flashing indicates successful saving of data.

Water hardness (gpg)	Program button 6	Program button lit
1-5	Not pressed	1
6-7	Not pressed	2
8	Not pressed	3
9-11	Not pressed	4
12-14	Not pressed	5
15-16	Pressed	1
17-21	Pressed	2
22-24	Pressed	3
24-31	Pressed	4
32-70	Pressed	5

Table 6-76: G 818, G 658, G 858 Water Hardness Settings

6.8.14.1.2 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Press program button **2**. A program button (**1** to **5**) will light, indicating the current water hardness setting. Match the lit button to Table 6-76. If a button does not light, press

program button **6.** The program button that lights along with program button **6** will indicate the water hardness level setting.

3. Turn the dishwasher off.

6.8.14.2 Service Mode 1

1. To access **Service Mode 1**, open the dishwasher door and turn the dishwasher off.
2. Press and hold program buttons **1** and **2** while turning the dishwasher on. A lit **Drain** light indicates successful accessing of **Service Mode 1.**
3. Place the see-through door onto the dishwasher.
4. Select a program and trip the door lock with a screwdriver or Miele tool C6042. The selected program will start.
5. Pressing program button **6** repeatedly will allow the technician to advance through the program. If program button **6** is not pressed, the program steps are carried out automatically, in their normal order.

Note:
The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

Note:
If not using the see-through door, access **Service Mode 1** as above. Close the dishwasher door. After the program starts, open the door and use program button **6** to select the appropriate program step. The illuminated program button lights will display the program step that the dishwasher is in. Each light corresponds to a binary number. See the program sequence chart (Table 6-77). Add the numbers represented by the lights to arrive at the program step. When the appropriate step has been reached, the door can be closed and the program will continue.

Program Sequence Chart						
Program button light	1	2	3	4	5	6
Binary number	32	16	8	4	2	1

Table 6-77: G 818, G 658, G 858 Program Sequence Chart

Example: Program button lights 2 and 5 are lit.
Program button light **2** = Binary code 16
Program button light **5** = Binary code 2
16 + 2 = Program step 18

Note:
The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program. As long as the dishwasher is in **Service Mode 1**, the program buttons will indicate the program step in binary code.

6.8.14.2.1 Test Program

The **test program** is a program that allows the technician to check all of the major functions of the dishwasher.

1. Place the see-through door onto the dishwasher.
2. Access **Service Mode 1**.
3. Trip the door lock with a screwdriver or Miele tool C6042. To start the test program, press program button **5**. The test program will start and advance automatically.

4. Pressing program button **6** repeatedly will allow the technician to advance through the test program. If program button **6** is not pressed, the program steps are carried out automatically, in their normal order.

6.8.14.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the appliance, to change certain programmed functions and to access fault codes. The programmed functions include increasing the water temperature, turning on or off the water softener, adding an interim rinse, and setting the dishwasher width (18" or 24").

1. Press and hold program buttons **2** and **3** while turning the dishwasher on. Successful accessing of **Service Mode 2** is indicated by flashing **Salt** and **Intake/Drain** lights.
2. Illuminated program button lights will indicate the current program settings (see Table 6-78).
3. The settings can be changed by using program buttons **1** to **5**. To change the settings, press the corresponding program button as shown in Table 6-78.
4. To save: Press program button **6** twice.

Program button	Function	Options	Program light
1	Increase water temperature	150°F	Off
		160°F	On
2	Water softener	With[1]	Off
		Without	On
3	2 interim rinses	With	Off
		Without	On
4	Dishwasher width	18"	Off
		24"	On
5	Program index	-	Off
	Fault codes	-	On

Table 6-78: G 818, G 658, G 858 Service Mode 2 Functions

[1] Factory setting

6.8.14.3.1 Accessing Fault Codes

1. Access **Service Mode 2**.
2. Press the flashing program button **5**.
3. Press the flashing program button **1**.
4. One of the program button lights (**1** to **5**) will light up, indicating a stored fault code of F0 - F4. If none of the program buttons light up, a fault code of F5 - F9 is stored. To display fault codes F5 - F9, press program button **6** once. Program button **6** will light along with one of the other program buttons (**1** to **5**), indicating a fault code of F5 - F9.

Program button 6	Program button light	Fault code and description	
Not pressed	1	F00	No error
Not pressed	2	F01	NTC or NTC connections open-circuited
Not pressed	3	F02	NTC or NTC connections short-circuited
Not pressed	4	F03	Electronic failure, selector switch position not found
Not pressed	5	F04	Heating failure - heating circuit opened or defective electrical component in heating circuit[1]

Program button 6	Program button light	Fault code and description	
Pressed	1	F05	Water drainage failure, heater level switch
Pressed	2	F06	Too few pulses at flow meter / start of water intake
Pressed	3	F07	Too few pulses at flow meter / end of water intake
Pressed	4	F08	Water intake failure, heater level switch
Pressed	5	F09	Heater level switch not switching on at the end of thermal stops

Table 6-79: G 818, G 658, G 858 Fault Codes

[1] All wash programs can be run, but the heating element will not function during the cycle.

6.8.14.3.2 Deleting Stored Fault Codes

1. Access **Programming Mode**.
2. Press program button **6** twice.
3. A flashing program button **6** indicates successful fault code deletion.
4. Turn off the dishwasher.

6.8.14.3.3 Program Index

1. Access **Service Mode 2**.
2. Press the flashing program button **5**.
3. Press the flashing program button **2**.
4. The lit program button (**1** to **5**) will determine the corresponding program index, as shown in the program index chart (Table 6-80).
5. Switch the dishwasher off.

Program button 1 - 5	Program index	Electronic version
1	P0	EPLG 546
2	P1	For future modifications
3	P2	For future modifications
4	P3	For future modifications
5	P4	For future modifications

Table 6-80: G 818, G 658, G 858 Program Indices

6.8.15 G 879

Programming Flow Chart	
Enter **Programming Mode**	**To access:** Water hardness settings Heated drying Temperature reduction (EPLG 501A only) Extended water intake (EPLZ 530 only) Buzzer (EPLZ 530 only)
Enter **Service Mode 1**	**To access:** Manual step mode Component test program

Programming Flow Chart	
Enter **Service Mode 2**	**To access:** Fault codes Program index Increased water temperature selection Water softener (with/without) Flow meter Dishwasher width setting (18”/24”)

Table 6-81: G 879 Programming Flow Chart

Note:
The EPLG 501A and the EPLZ 530 differ from each other in the plug, the housing, and the software. The EPLZ 530 is marked with the program index “P2” or higher.

6.8.15.1 Programming Mode

6.8.15.1.1 EPLG 501A (Program Index P1)

1. Open the dishwasher door and turn the dishwasher off.
2. Press and hold program buttons **1** and **3** while turning the dishwasher on. A blinking **Salt** light indicates successful accessing of the **Programming Mode.**
3. Use program buttons 1 to 5 to select a function. See Table 6-82.
4. **To save:** Once options have been selected, press the **Top solo** button twice and turn off the dishwasher.

Program button	Function	Options	Program button light
1	Heated drying	On[2]	Off
		Off	On
2	Water hardness setting	See Section 6.8.15.1.3[1]	Flashing = 1 to 70 gpg
			Off = 0 gpg
3	Temperature reduction	None[2]	Off
		Reduction of 41°F	On

Table 6-82: G 879 Programming Functions for EPLG 501A

[1] If no lights light up, the dishwasher is programmed to “without water softener”. To change to “with water softener” follow the steps in **Service Mode 2** (Section 6.8.15.3).
[2] Factory setting

6.8.15.1.2 EPLZ 530 (Program Index P2 or Higher)

1. Open the dishwasher door and turn the dishwasher off.
2. Press and hold program buttons **1** and **3** while turning the dishwasher on. A blinking **Salt** light indicates successful accessing of the **Programming Mode.**
3. Use program buttons 1 to 5 to select a function. See Table 6-83.
4. **To save:** Once options have been selected, press the **Top solo** button twice and turn off the dishwasher.

Program button	Function	Options	Button light status
1	Heated drying	On[2]	Off
		Off	On
2	Water hardness setting	See Section 6.8.15.1.3[1]	Flashing = 1 to 70 gpg
			Off = 0 gpg
4	Buzzer	On[2]	Off
		Off	On
5	Water quantity	Normal[2]	Off
		Increased	On

Table 6-83: G 879 Programming Functions for EPLZ 530

[1] If no lights light up, the dishwasher is programmed to “without water softener”. To change to “with water softener” follow the steps in **Service Mode 2** (Section 6.8.15.3).

[2] Factory setting

6.8.15.1.3 Setting the Water Hardness

1. Measure the water hardness in grains per gallon (gpg).
2. Access **Programming Mode**.
3. Press program button **2** (should be flashing). If program button **2** is not flashing, **Service Mode 2** must be accessed and the dishwasher programmed to “with water softener”.
4. Using the water hardness chart (Table 6-84), press the program button that corresponds to the water hardness measured in Step 1, e.g., for a water hardness of 10 gpg, press program button **4**.
5. Once the button is pressed for the selected water hardness setting, program button **2** will flash.
6. **To save**: Press the **Top solo** button twice. A flashing **Top solo** button indicates successful saving of data.
7. Turn off the dishwasher.

Water hardness (gpg)	Top solo button	Program button pressed
1 - 4	Not pressed	1
5 - 6	Not pressed	2
7	Not pressed	3
8 - 10	Not pressed	4
11 - 12	Not pressed	5
13 - 14	Pressed	1
15 - 17	Pressed	2
18 - 21	Pressed	3
22 - 35	Pressed	4
36 - 70	Pressed	5

Table 6-84: G 879 Water Hardness Settings

6.8.15.1.4 Checking the Water Hardness Level

1. Access **Programming Mode**.
2. Press program button **2**. A program button (**1** to **5**) will light up, indicating the water hardness setting. Match the illuminated light to the water hardness chart (Table 6-84).
3. If a button does not light, press the **Top solo** button. The program button that lights up along with the **Top solo** button will indicate the water hardness level setting.
4. Turn the dishwasher off.

6.8.15.2 Service Mode 1

1. To access the **Manual Step Mode,** open the dishwasher door and turn the dishwasher off.

2. Press and hold program buttons **1** and **2** while turning the dishwasher on. A flashing **On/Off** light indicates successful accessing of **Service Mode 1.**
3. Place the see-through door onto the dishwasher.
4. Select a program and trip the door lock with a screwdriver or Miele tool C6042. The selected program will start.
5. Pressing the **Top solo** button repeatedly will allow the technician to advance through the program. If the **Top solo** button is not pressed, the program steps are carried out automatically, in their normal order.

Note:
The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program.

Note:
If not using the see-through door, access **Service Mode 1** as above. Close the dishwasher door. After the program starts, open the door and use program button **6** to select the appropriate program step. The program step that the dishwasher is currently in will be displayed by the illuminated program button lights. Each light corresponds to a binary number (see the program sequence chart, Table 6-85). Add the numbers represented by the lights to arrive at the program step. When the appropriate step has been reached, the door can be closed and the program will continue.

Program Sequence Chart						
Program button light	1	2	3	4	5	6
Binary number	32	16	8	4	2	1

Table 6-85: G 879 Program Sequence Chart

Example: Program button lights 2 and 5 are lit.
Program button light **2** = Binary code 16
Program button light **5** = Binary code 2
16 + 2 = Program step 18

Note:
The program chart in the wiring diagram should be used to follow the machine functions when stepping through a program. As long as the dishwasher is in **Service Mode 1**, the program buttons will indicate the program step in binary code.

6.8.15.2.1 Test Program

The test program is a program that allows the technician to check all of the major functions of the dishwasher.

1. Access **Service Mode 1**.
2. Press program button **5**; the test program will start and advance automatically.
3. Pressing the **Top solo** button repeatedly will allow the technician to advance through the program.
4. If the **Top solo** button is not pressed, the program will run automatically.

6.8.15.3 Service Mode 2

Service Mode 2 is used to determine which upper electronic is in the appliance, to change certain programmed functions and to access fault codes. The programmed

functions include increasing the water temperature, turning on or off the water softener, adding an interim rinse, and setting the dishwasher width.

1. To access **Service Mode 2**, open the dishwasher door and turn the dishwasher off.
2. Press and hold program buttons **2** and **3** while turning the dishwasher on. Successful accessing of **Service Mode 2** is indicated by flashing **Salt** and **On/Off** lights.
3. The illuminated program button lights will indicate the current program settings (see Table 6-85).
4. The settings can be changed by using program buttons 1 to 5. To change a setting, press the corresponding program button as indicated in Table 6-86.

Program button	Function	Options	Program light
2	Increase water temperature	150ºF	Off
		160ºF	On
3	Water softener	With	Off
		Without	On
4	Width of dishwasher	24”	Off
		18”	On
5	Program index	-	Flashing
	Fault codes	-	Flashing

Table 6-86: G 879 Service Mode 2 Functions

6.8.15.3.1 Fault Code Access

1. Access **Service Mode 2**.
2. Press the flashing program button **5.**
3. Press the flashing program button **1**.
4. One of the program button lights (**1** to **5**) will light up, indicating a stored fault code of F0 - F4. If none of the program buttons light, a fault code of F5 - F8 is stored. To display fault codes F5 - F8, press the **Top solo** button once. The **Top solo** button will light, along with one of the program buttons **1** to **5**. See Table 6-87.

Program button 6	Program button light	Fault code and description	
Not pressed	1	F00	No error
Not pressed	2	F01	NTC or NTC connections open-circuited
Not pressed	3	F02	NTC or NTC connections short-circuited
Not pressed	4	F03	Electronic failure, selector switch position not found
Not pressed	5	F04	Heating failure - heating circuit opened or defective electrical component in heating circuit
Pressed	1	F05	Water drainage failure, heater level switch
Pressed	2	F06	Too few pulses at flow meter / start of water intake
Pressed	3	F07	Too few pulses at flow meter / end of water intake
Pressed	4	F08	Water intake failure, heater level switch

Table 6-87: G 879 Fault Codes

6.8.15.3.2 Deleting Stored Fault Codes

1. Access **Service Mode 2**.
2. Press the **Top solo** button twice.
3. A flashing **Top solo** light indicates successful deletion of the fault codes.
4. Turn off the dishwasher.

6.8.15.3.3 Program Index

1. Access **Service Mode 2**.

2. Press the flashing program button **5**.
3. Press the flashing program button **2**.
4. The lit program button (**1** to **5**) will determine the corresponding program index, as shown in Table 6-88 below.
5. Switch the dishwasher off.

Top solo	Program button 1 - 5	Program index	Electronic version
Not pressed	1	P0	EPLZ501AZ
Not pressed	2	P1	EPLZ530
Not pressed	3	P2	EPLZ530
Not pressed	4	P3	EPLZ530
Not pressed	5	P4	EPLZ530
Pressed	1		EPLZ530
Pressed	2		

Table 6-88: G 879 Program Indices