⚠WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

SPECIFICATIONS

Electrical Supply:
(Under load) 60 Hz, 120 VAC.

Supply Water Flow Rate:
To fill 1.9 L (2 qt) in 27 seconds, 120 psi maximum, 20 psi minimum.

Supply Water Temperature:
49°C (120°F) (Before starting a cycle, run water from sink faucet until hot.)

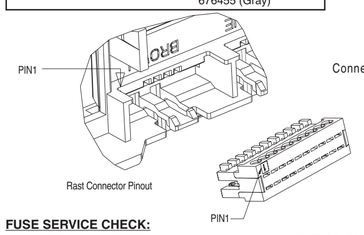
Water Charge:
3.5 L (0.9 gal.) approximate

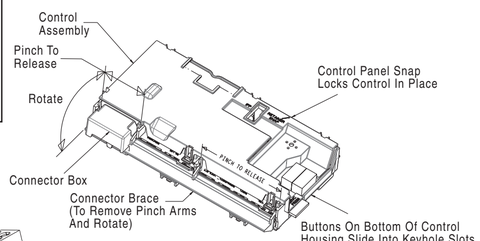
Lower Spray Arm Rotation:
12 to 40 rpm

Upper Spray Arm Rotation:
12 to 30 rpm

REPAIR KITS

Vinyl Touch-Up Kits:
675576 (Blue)
676453 (White)
676455 (Gray)



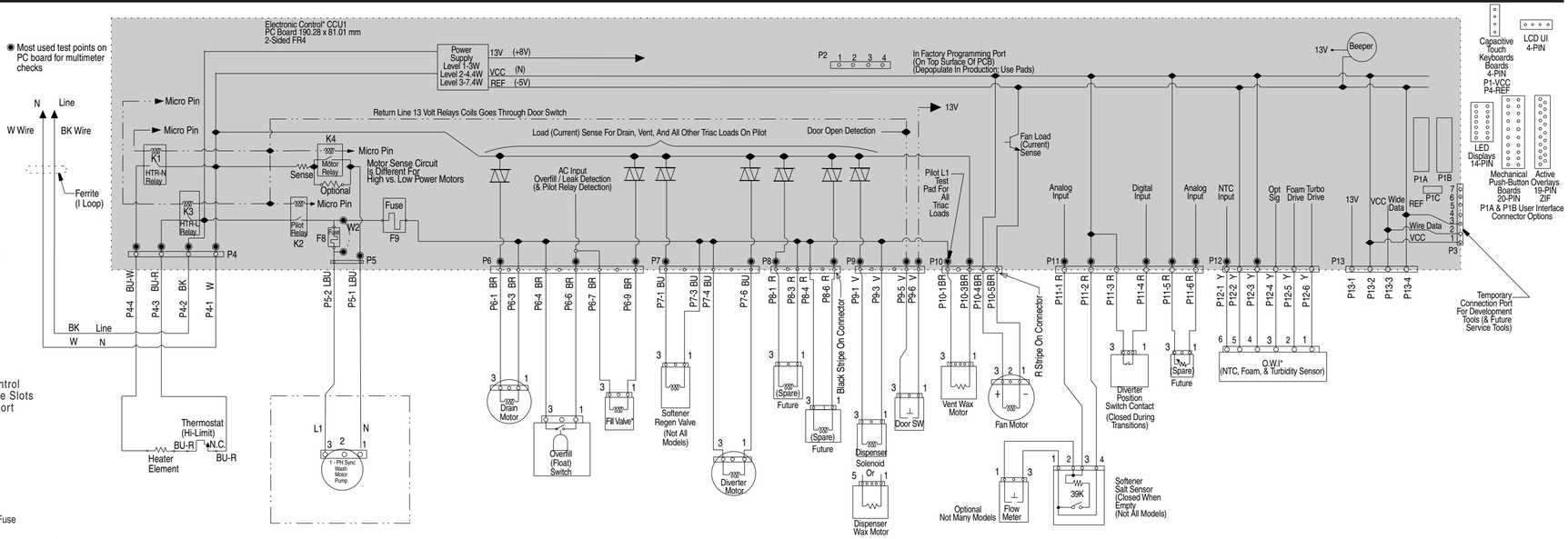


NOTE: Reinstall brace and box after service if removed.

WIRING DIAGRAM

Schematic Shown With Door Switch And All Other Normally Open Contacts Open.

*Denotes Energy Efficient Components. Do Not Substitute.



FUSE SERVICE CHECK:

F8 = Motor Fuse
F9 = Small/Triac Load Fuse

Check operation of loads during Service Diagnostics Cycle.

- If any of the triac loads work, then F9 Fuse is OK. If all triac loads fail to work, then F9 Fuse could be open. See Resistance Check.
- If Wash Motor does not work, then F8 Fuse could be open. See Resistance Check.

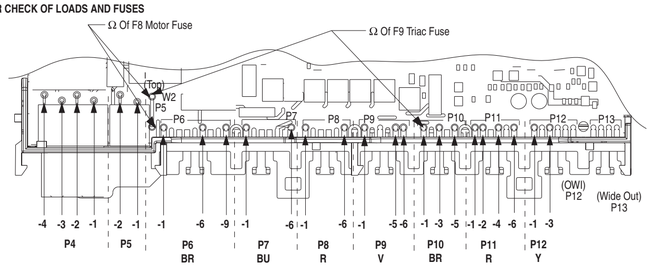
FUSE RESISTANCE CHECK:

1. Unplug dishwasher or disconnect power.
2. Measure resistance of fuse F8 and/or F9. Fuses are on bottom of control board, but can be checked from top side (see Meter Check diagram).
   - If < 3 ohms, then fuse OK.
   - If > 3 ohms, then fuse open.

WHAT TO DO IF FUSE IS OPEN:

Inspect and check resistance of all loads on fuse. If any loads are open, shorted, or have evidence of overheating or pinched wires, then replace them.

METER CHECK OF LOADS AND FUSES



SERVICE DIAGNOSTICS CYCLE

INTERVAL	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
CYCLE, OPTION AND STATUS LEDS																										
1 HR WASH			1HR		1HR		1HR		1HR		1HR		1HR		1HR		1HR		1HR		1HR		1HR		1HR	S
NORMAL	NRM	NRM		NRM		NRM		NRM		NRM		NRM		NRM		NRM		NRM		NRM		NRM		NRM		T
START/RESUME	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	A
RUNNING	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	RUN	N
HI TEMP			HIT			HIT	HIT	HIT		HIT		HIT		HIT		HIT		HIT		HIT				HIT		D
DRY OPTION	DRY	DRY		DRY				DRY		DRY		DRY		DRY		DRY		DRY		DRY		DRY		DRY		B
SANITIZED NOTE 5	SAN								SAN														SAN			Y
CLEAN NOTES 4,5,6	CLN	CLN	CLN	CLN	CLN				CLN		(CLN)			CLN							CLN			CLN	CLN	
ALL OTHER CYCLE, OPTION AND STATUS LEDS	ALL																									
INTERVAL TIME (min:sec) TOTAL TIME (MAX.): 22:57	0:06	1:21	1:21	1:21	1:21	0:10	0:45	0:05	0:23	0:05	1:00	2:00	0:30	1:00	0:30	4:00	0:01	0:01	0:01	0:01	1:52	0:06	2:30	1:21	1:21	
SOIL SENSING INTERVALS AND SENSOR CHECKS																										
THERMISTOR (temperature sensor) CHECK INTERVAL NOTE 5								THR																		
O.W.I. (soil sensor) CHECK INTERVALS NOTE 6									OWI			OWI									OWI					
NOTE: OWI has thermistor built in - see check above																										
DIVERTER POSITION SENSOR CHECK NOTE 3											DIV															
SALT LEVEL REED SWITCH / FLOWMETER INPUT TEST NOTE 8																							SFM			
LOADS																										
PILOT RELAY																										
VENT																										S
FILL																										T
WASH MOTOR																										A
DISPENSER (DETERGENT RINSE AID)																										N
DIVERTER																										D
DIVERTER POSITION																										B
DRAIN MOTOR																										Y
HEATER																										
DC FAN MOTOR (if present) NOTE 7																										
REGEN (if present)																										
	Customer Error 1	Customer Error 2	Customer Error 3	Customer Error 4																			Service Error 1	Service Error 2		
	2	1	1	1	1	3						3	3		3	3							1	1		
					4			5		6	6		6									6	6	7			
																							8			

SERVICE DIAGNOSTICS NOTES

1 To invoke the Diagnostics Cycle, perform the following while in standby:
- Press any 3 keys in the sequence 1-2-3-1-2-3-1-2-3 with no more than 1 second between keys.
- The Service Diagnostics Cycle will start when the door is closed.
- To rapid advance 1 interval at a time, press the Start/Resume key. Rapid advancing may skip sensor checks as some checks require 2 complete intervals.

NOTE: While in the Diagnostics Cycle, the Start/Resume feature is turned off (for example, Auto Resume after door interrupts) and the Start/Resume key becomes an interval advance key.
- Invoking Service Diagnostics clears all status and last run information from memory and restores defaults. It also forces the next cycle to be a sensor calibration cycle.
- Last run cycles and options returned to default (Normal cycle with Heated Dry option).
- Last run delay returns to the lowest delay increment.
- Calibration cycle may force an extra rinse to occur prior to Final Rinse (to assure clear water), then calibrates the OWI and the fill amount during the final rinse.
- Operating state returns to Standby upon completing or terminating the Service Diagnostics Cycle.

2 Turn on all LEDs immediately upon receiving the entry sequence (even if the door is open) and throughout this first interval as a display test.

3 Diverter will be on continuously in interval 14. In all other diverter intervals, diverter will only be on until it reaches the intended position for that interval.

4 Press Hi Temp key in this interval to clear customer error history.

5 Thermistor (temperature sensor) checks - turn clean LED on if thermistor is in its normal temperature range (32°F to 167°F). Turn sanitized LED on if fill temperature is above 85°F.

6 OWI (optical soil sensor) checks:
- Check OWI sensor for the presence of water during the 5 sec. pause in interval 16 and turn on the Clean LED in interval 15 if water detected.
- Check OWI sensor for presence of bulk soil during pause interval 13 and turn on the Clean LED in interval 12 if bulk soil detected.
- Drain until OWI sensor sees the presence of air or a max. of 1:52 during interval 5 and turn on the Clean LED in interval 4 if air detected.

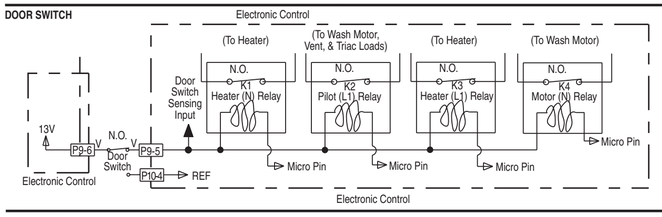
7 DC Fan Motor is on during upper rack washing intervals.

8 Turn on Sanitized LED in this interval to indicate that the salt level reed switch is closed

DISHWASHER STRIP CIRCUITS

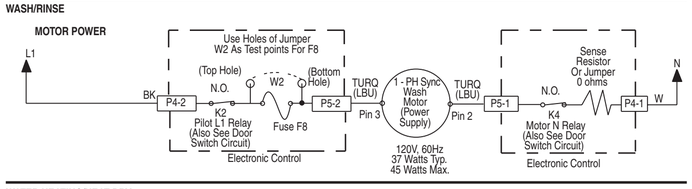
The following individual circuits are for use in diagnoses. Do not continue with the diagnosis of the appliance if a fuse is blown, a circuit breaker is tripped, or if there is less than a 120-volt power supply at the wall outlet.
- Unplug dishwasher or disconnect power.
- Perform resistance checks. To check resistance of a component, disconnect harness leads first.

DOOR SWITCH



WASH/RINSE

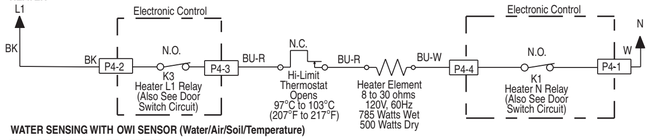
MOTOR POWER



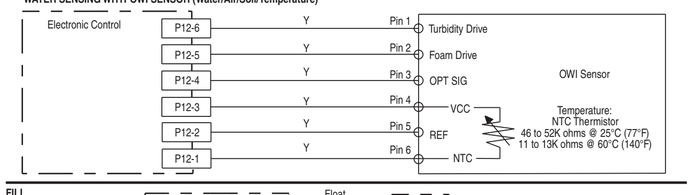
WATER HEATING/HEAT DRY

Pump Is Washing and Control Monitors Temperature During Water Heating Periods (see Wash/Rinse and Soil/Temperature Sensing Circuits).

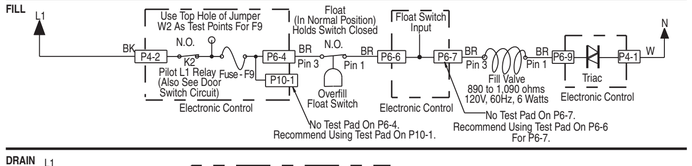
HEATER



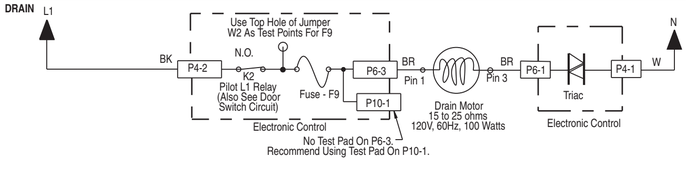
WATER SENSING WITH OWI SENSOR (Water/Air/Soil/Temperature)



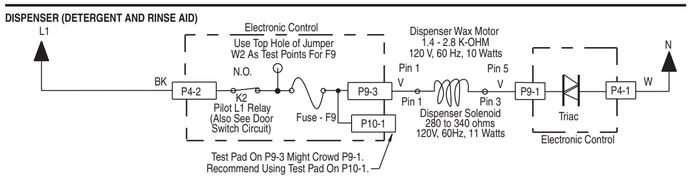
FILL



DRAIN

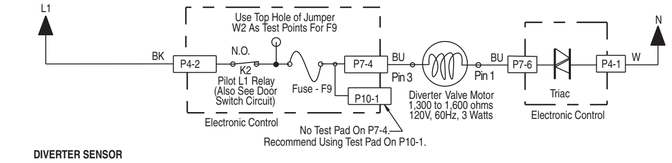


DISPENSER (DETERGENT AND RINSE AID)

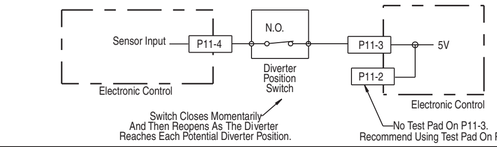


DIVERTER VALVE

DIVERTER MOTOR

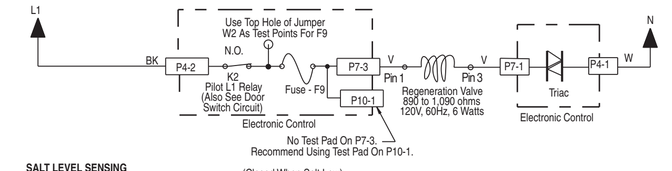


DIVERTER SENSOR

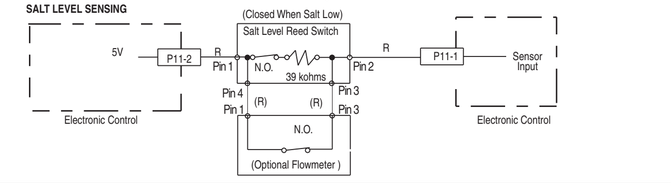


WATER SOFTENER

REGENERATION VALVE



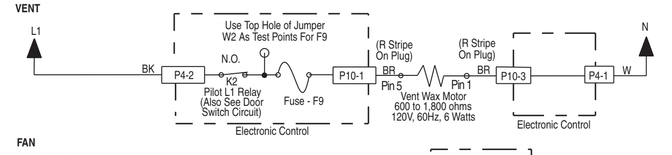
SALT LEVEL SENSING



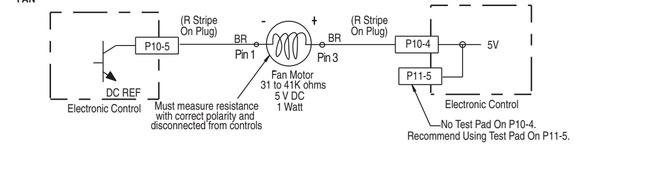
DRYING

For Heated Dry, Heater Also Running...See "Heater Circuit" Under "Water Heating/Heat Dry."

VENT



FAN



CYCLE OPERATION

NOTE: Cycles shown depict typical low soil version. Cycles will vary based on sensor inputs and options selected. All washes alternate spray arms and vary motor speed. To invoke Rapid Advance Mode, press HI TEMP - HEATED DRY - HI TEMP - HEATED DRY with door open or closed after starting cycle. Press START/RESUME to advance cycle interval. Each sequence box below contains multiple intervals.

ONE HOUR WASH	DRAIN 0 MIN 50 MAX	FILL 1:02	HEATED WASH*2 3:00	DRAIN SEQUENCE 1:44	FILL 0:59	HEATED WASH*2 3:00	DRAIN SEQUENCE 1:44	FILL 0:59	DETER-GENT DISPENSE	HEATED WASH*2 15:00	DRAIN SEQUENCE 1:44	FILL 0:54	HEATED WASH*2 3:00	DRAIN SEQUENCE 1:44	FILL 0:54	HEATED WASH*2 15:00	RINSE AID DISPENSE	WASH 3:00	RINSE AID DISPENSE	WASH 3:30	DRAIN SEQUENCE 1:39	PAUSE3 6:00	DRY*2,3 13:00 PT* 28:30 ST**			
NORMAL	DRAIN 0 MIN 50 MAX	FILL 1:02	WASH 6:50	DETER-GENT DISPENSE	WASH 2:30	THERMAL HOLD*1,2 41°C (105°F) OR 40:00	WASH 25:00	DRAIN SEQUENCE 1:44 MAX	FILL 0:20 PT* FILL 0:34 ST**	WASH 5:00- 7:39	DRAIN SEQUENCE 0:40 PT* DRAIN SEQUENCE 0:50 ST**	FOR PT* ONLY FILL 0:20	FOR PT* ONLY WASH 5:00- 7:25	FOR PT* ONLY DRAIN SEQUENCE 0:40	FILL 0:54 PT* FILL 1:00 ST**	HEATED WASH*2 15:00	THERMAL HOLD*1,2 58.5 - 60°C (137 - 140°F) OR 45:00	RINSE AID DISPENSE	WASH 3:00	RINSE AID DISPENSE	HEATED WASH 3:00	DRAIN SEQUENCE 1:39	PAUSE 6 MIN	DRY*2,3 26:00 PT* 45:30 ST**			
POTS & PANS	DRAIN 0 MIN 50 MAX	FILL 1:02	WASH 3:40	DRAIN SEQUENCE 1:44	FILL 0:15	WASH SEQUENCE 0:54 - 1:39	DRAIN SEQUENCE 0:34	FILL 0:59	WASH 3:40	DRAIN SEQUENCE 1:44	FILL 0:15	WASH SEQUENCE 0:54 - 1:39	DRAIN SEQUENCE 0:34	FILL 0:59	WASH 3:40	DRAIN SEQUENCE 1:44	FILL 0:59	DETERGENT DISPENSE	WASH 2:30	THERMAL HOLD*1 54°C (130°F) OR 60:00	WASH 40:00	DRAIN SEQUENCE 1:44	FILL 0:54	WASH 6:00	DRAIN SEQUENCE 1:44	FILL 0:54	WASH 6:00	DRAIN SEQUENCE 1:44	FILL 0:54	HEATED WASH 15:00	THERMAL HOLD*1 60°C (140°F) OR 45:00	RINSE AID DISPENSE	WASH 3:00	RINSE AID DISPENSE	HEATED WASH 3:00	DRAIN SEQUENCE 1:39	PAUSE 6 MIN	DRY*2,3 26:00 PT* 45:30 ST**

*1: Thermal hold = heated wash until temperature reached or maximum time. *2: Heater not on for entire dry period. *3: If Heated Dry or Smart Dry selected.
PT* - Plastic tub ST** - Stainless tub

SERVICE DIAGNOSTICS WITH ERROR CODES

Entry sequence: Press and 3 keys in the sequence 1-2-3-1-2-3-1-2-3 with no more than 1 second between key presses.

NOTE: Some models have replaced the "Clean" LED with "Completed."

DISPLAY TEST - ALL LEDS ON — INTERVAL 25

ERROR 1 - MOST RECENT — INTERVAL 24

ERROR 2 — INTERVAL 23

ERROR 3 — INTERVAL 22

ERROR 4 - OLDEST — INTERVAL 21

Clean LED will flash FUNCTION code CLEAN	Pause 2 seconds	Clean LED will flash PROBLEM code CLEAN	Pause 5 seconds	Repeat 3 times unless advanced by Start key
If no error, Clean LED will stay on solid for 5 seconds		If no error, Clean LED will stay on solid for 5 seconds		

10 seconds pause Hi Temp LED will be on
Press Hi Temp key to clear errors
Hi Temp LED will blink twice to indicate errors have been cleared — INTERVAL 20

Service Diagnostics Cycle
Turns on loads and checks sensors — INTERVALS 19-3

SERVICE CYCLE ERROR 1 — INTERVAL 2

SERVICE CYCLE ERROR 2 — INTERVAL 1

TROUBLESHOOTING GUIDE

NOTES:
- For resistance checks, refer to "Dishwasher Strip Circuits" section.
- For checking operation with diagnostics, refer to "Service Diagnostics Cycle" section.
- For information on normal cycle and options, see "Normal Cycle Operation" section.

CUSTOMER DESCRIPTION	POTENTIAL CAUSES	CHECK	RELATED ERROR CODE(S)
Clean LED Flashes	Control programmed with self diagnostics.	Read error code from the dishwasher and refer to "Service Error Codes" table. Run service diagnostics test cycle to read full history of error codes.	
Won't Run or Power Up ("Dead" Keypad/ Console) ■ **No operation** ■ **No keypad response** ■ **No LEDs or display**	No power to unit or bad connection.	Check fuses, circuit breakers, and junction box connections.	
	Loose connections in dishwasher power up circuit or between keypad(s) and control.	1. Unplug dishwasher or disconnect power. 2. Check continuity of power connections to control and connections between keypad(s) and control.	
	Model has an LCD display and the control has been exchanged for one that is not compatible with the LCD display module.	Verify correct control is installed. Control should have no 4-pin user interface connector present at P1B if it is configured for an LCD model. Replace control.	
	Faulty user interface or control.	Replace UI/console and/or control.	
Won't Run and LED for Start/Resume Key is Blinking Slowly	By design, if the door is opened for more than 5 seconds or power is interrupted during a cycle, the user must press the Start/Resume key to resume operation.	Instruct customer. Refer to Use and Care Guide.	
	Start/Resume key not responding.	See "One or More Keys Won't Respond."	
	Control detected door switch problem.	Refer to "Service Error Codes" table.	**5-1**
Won't Run and LED Above Key is Flashing Rapidly and Continuously.	Stuck key or short circuit(s) in keypad, or in control's input lines that read the keys.	Refer to "Service Error Codes" table.	**2-1**
Won't Run and All LEDs On	Software or hardware incompatibility problem with control.	Refer to "Service Error Codes" table.	**1-2**
Won't Start and Start/Resume key LED Flashes 3 Times When Start/Resume Key is Pressed	Control looks for switch to open between cycles. ■ Customer has not opened door since last cycle. ■ Door switch contacts stuck closed.	Refer to "Service Error Codes" table.	**5-2**
Won't Accept Key Presses and Control Lock LED On	Control Lockout feature accidentally turned on by customer.	Instruct customer. Refer to Use and Care Guide (press and hold Control Lock key 5 seconds to turn On/Off).	
One or More Keys Won't Respond Or Unusual LED/ Display/Key Behavior	Stuck key or short circuit(s) in keypad or in control's input lines that read the keys.	Refer to "Service Error Codes" table.	**2-1**
	Capacitive touch keypad adhesive coming loose from console.	1. Unplug dishwasher or disconnect power. 2. Inspect keypad board for separation from console. Replace keypad and console if separation is seen.	
	Loose connections between keypad and control and/or bent or contaminated connector pins.	1. Unplug dishwasher or disconnect power. 2. Inspect connections in user interface circuits. Reconnect loose connections. Replace part(s) if pins are damaged or contaminated.	
	Excessive condensation on user interface parts due to vent and/or fan problem	Check error history for 10-2 vent error or 10-3 fan error. Refer to "Service Error Codes" table.	**10-2, 10-3**
	Defective user interface.	1. Unplug dishwasher or disconnect power. 2. Replace user interface console assembly.	
Dishwasher Beeps Constantly (for Models with Beepers)	User opened door during cycle and closed door without pressing Start/Resume to resume cycle.	Instruct customer. Dishwasher control is designed to beep if dishwasher is in "Cycle Interrupt" mode with door latched. Control will stop beeping when door is opened and/or Start/Resume key is pressed to resume cycle.	
	Normal beeper operation is excessive to customer.	Instruct customer how to turn beeper off and on. Press and hold Hi Temp key for 3 seconds (tone sounds).	
Long Cycles and/or Stuck in Certain Part of Cycle	As part of normal operation, the dishwasher pauses 2 or 3 times during the cycle for thermal holds and advances once temperature is met.	Instruct customer. Explain thermal holds and how the cycle pauses when they occur.	
	OWI soil sensor picking high soil cycle too often.	1. Run Service Diagnostics cycle to check if OWI is showing high soil with clear water. 2. Check lens surface. Clean if needed. 3. Unplug dishwasher or disconnect power. 4. Replace OWI and run Diagnostics after installing new OWI to force calibration on next wash cycle.	
	Diverter problem prevented water from heating (plastic tub models only).	Refer to "Service Error Codes" table.	**9-1, 9-2**
	A water heating problem could cause long cycles but will typically cause a "water heating fault."	Refer to "Service Error Codes" table.	**7-1**
	Heater takes a long time to heat water with low voltage.	Check for at least 100 VAC at power source.	
	Incoming water too cold.	Refer to "Service Error Codes" table.	**6-6**
	Suds or air in pump requires repeated wash periods.	Refer to "Service Error Codes" table.	**6-3**
	Motor problems force cycle to start and stop repeatedly.	Refer to "Service Error Codes" table.	
	OWI or NTC sensor problem.	Refer to "Service Error Codes" table.	**3-1, 3-3**

CUSTOMER DESCRIPTION	POTENTIAL CAUSES	CHECK	RELATED ERROR CODE(S)
LEDs or Displays Run for Short Time (but No Loads Running) and then Shuts Off	Unit is in Sales Demo mode.	Check operation of Cancel key. If no Cancel LED response to multiple Cancel key presses, the control is likely in Sales Demo Mode. Run Service Diagnostics Cycle to clear Demo mode.	
	Open F8 (Wash motor) fuse or F9 (Triac load fuse) on control disabled loads.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check Diagram).	
Can Start a Cycle, but Only Runs for a Short Time - Cycle Does Not Complete (Clean LED or Completed May Blink)	Control canceled cycle due to error detected with wash motor.	Refer to "Service Error Codes" table.	**4-3**
	Unit in Sales Demo mode.	Run Service Diagnostics cycle to clear Demo mode.	
Will Not Drain, or Excess Water Left in Dishwasher. NOTE: Check Error History. If No Error Codes for Electrical Problems, Problem is Mechanical. Do Not Replace Control.	Drain loop check valve not sealing.	1. Disconnect drain hose at plumbing connection. 2. Elevate hose above dishwasher and fill with water. If water flows into dishwasher, replace entire drain loop (install as high as possible).	
	Customer misunderstands water level after drain.	Instruct customer. Sump will normally have about 1" (2.5 cm) of water remaining in filter cup hole after cycle.	
	Draining problem.	Refer to "Service Error Codes" table.	**8-1, 8-2**
Detergent Not Dispensing or Detergent Left in Dispenser NOTE: Check Error History. If No Error Codes for Electrical Problems, Problem is Mechanical. Do Not Replace Control.	Item in lower rack blocked lid or blocked spray of water to dispenser.	Instruct customer on proper dish loading.	
	Mechanical binding of dispenser lid.	1. Unplug dishwasher or disconnect power. 2. Check/replace dispenser.	
	Lid latch binding due to excess detergent in mechanism.	Instruct customer on proper dispenser filling.	
	Dispenser electrical problem.	Refer to "Service Error Codes" table.	**10-1**
	Control canceled cycle before dispensing due to error detected with wash motor.	Refer to "Service Error Codes" table.	**4-3**
Poor Wash	Cycle selection of customer not appropriate for dish load.	Instruct customer on cycle selection. Recommend "High Temp" option for wash performance boost.	
	Plugged or damaged screens.	Inspect following 3 screens. ■ Filter cup coarse screen ■ Filter cup fine screen ■ Sump fine screen	
	Spray arms not rotating or plugged.	1. Check arm rotation. If arms are blocked by dish item, instruct customer. Also check for correct upper spray arm alignment with docking station located on feed tube at back tub wall. 2. Check nozzles. If plugged, clean nozzles and confirm filters installed properly.	
	Poor wash due to draining, dispensing, and/or temperature problem.	See "Will Not Drain or Excess Water Left in Unit," or "Detergent Not Dispensing or Detergent Left in Dispenser," or details on temperature sensing in "Long Cycles and/or Stuck in Certain Part Of Cycle."	
	Control canceled cycle due to error detected with wash motor.	Refer to "Service Error Codes" table.	**4-3**
	Soil sensor problem.	Refer to "Service Error Codes" table. **NOTE:** Even if no error code recorded, confirm OWI passes all OWI checks in Service Diagnostics cycle and see checks for Error 3-3.	**3-2, 3-3**
	Diverter problem.	Refer to "Service Error Codes" table.	**9-1, 9-2**
	Diverter disc missing.	Remove outlet cover and inspect for red plastic disc through holes in outlet. Install new disc if missing.	
	Heating problem.	Refer to "Service Error Codes" table.	**7-1**
	Softener problem (on some models).	Refer to "Service Error Codes" table.	**6-8**
Film or Spots on Glasses and/or Dishes	Customer not using rinse aid and/or heated dry.	Check rinse aid gauge level on dispenser; Instruct customer how to fill and monitor, add or use rinse aid.	
	Rinse aid dispenser problem.	Refer to "Service Error Codes" table.	**10-1**
	Hard water leaving film on dishes.	Check water hardness. If hard, instruct customer to use maximum detergent or try pouring ¼ cup (60 mL) of Glass Magic into bottom of dishwasher. Also recommend the 1 HR Wash cycle.	
		For models with water softener: Check for "Add Salt" LED at the end of cycle; If on, add salt and Instruct customer.	
		For models with water softener: Regen valve electrical problem. Refer to "Service Error Codes" table.	**6-8**
	Detergent carryover or over sudsing.	Check water hardness. If below 10 grains, then instruct customer to use less detergent and recommend the 1 HR Wash cycle.	6-3
	Etching of glass from too much detergent at too high of temperature.	Check water hardness. If below 10 grains, then instruct customer to use less detergent and recommend the 1 HR Wash cycle.	
	Diverter problems.	Refer to "Service Error Codes" table.	**9-1, 9-2**
	Drain loop check valve not sealing.	1. Disconnect drain hose at plumbing connection. 2. Elevate hose above dishwasher and fill with water. If water flows into dishwasher, replace entire drain loop (install as high as possible and attach to underside of countertop if possible).	
Poor Dry	Customer not using rinse aid or dispenser is empty.	Check rinse aid gauge level on dispenser. Instruct customer how to fill and monitor, add or use rinse aid.	
	Customer not using Heated Dry option.	Recommend the use of Heated Dry or Smart Dry to customer.	
	Rinse Aid dispenser problem.	Refer to "Service Error Codes" table.	**10-1**
	Vent stuck closed due to pilot relay stuck on.	Refer to "Service Error Codes" table.	**1-1**
	Diverter problem prevented water from heating in final rinse (plastic tub models only).	Refer to "Service Error Codes" table.	**9-1, 9-2**
	Fan problem (on models with fan).	Refer to "Service Error Codes" table.	**10-3**
	Control canceled cycle due to error detected with wash motor.	Refer to "Service Error Codes" table.	**4-3**
	Heating problem.	Refer to "Service Error Codes" table.	**7-1**
Sanitized LED Blinks or Incomplete Sanitization Message at the End of a Cycle (Control Could Not Confirm Sanitization Achieved)	Door opened during final rinse or dry.	Instruct customer.	
	Incoming water too cold.	Refer to "Service Error Codes" table.	**6-6**
	Heating problem.	Refer to "Service Error Codes" table.	**7-1**
	Thermistor/OWI sensor problem.	Refer to "Service Error Codes" table.	**3-1, 3-2**
	Intermittent door switch/ latch connection.	See the same checks as for 5-1 Error. Refer to "Service Error Codes" table.	
	Diverter problem prevented water from heating in final rinse (plastic tub models only).	Refer to "Service Error Codes" table.	**9-1, 9-2**
	Line voltage too low to heat fast enough.	Check power source. Confirm at least 100 VAC.	
	Air pressure surges in dishwasher due to washing with high suds causes brief opening of door switch contacts during final rinse.	Refer to "Service Error Codes" table.	**6-3**
Melted Dishware and/or Spray Arm and/or Dishwasher Always Hot	Customer uses non-dishwasher safe dishes or loads plastic dishes directly over heater.	Instruct customer.	
	Temperature sensing problem.	Refer to "Service Error Codes" table.	**3-1**
	Water heating problem. Heater stuck on.	Refer to "Service Error Codes" table.	**7-2**
	Water heater displaced from mounting clip and/or pulled off center.	Inspect heater. Adjust back into position as needed.	
Noisy Operation	Spray arm stalled or blocked and spraying on the door.	■ Instruct customer if blocked. ■ Check spray arm rotation and inspect for plugged nozzles. If plugged, clean nozzles and confirm filters installed properly.	
	Diverter problem.	Refer to "Service Error Codes" table.	**9-1, 9-2, 9-3**
	Motor problems force cycle to start and stop repeatedly.	Refer to "Service Error Codes" table.	
	No or low water.	Refer to "Service Error Codes" table.	**6-1, 6-2, 6-3, 6-4**
	Drains too long.	1. Long drain due to OWI sensor problem - Refer to "Service Error Codes" table for 3-3. 2. Slow drain problem - Refer to "Service Error Codes" table for 8-1.	**3-3, 8-1**
	Vent stuck open.	Refer to "Service Error Codes" table.	**10-2**

CUSTOMER DESCRIPTION	POTENTIAL CAUSES	CHECK	RELATED ERROR CODE(S)
Noisy Operation (cont.)	Fan runs (makes noise) after cycle completed (on models with fan).	Dishwasher is designed to keep fan running after cycle to avoid moisture buildup in dishwasher. Fan will turn off if door is opened longer than 5 seconds. Instruct customer.	
	Excessive fan noise due to faulty fan.	1. Check fan operation during Service Diagnostics test cycle. 2. Unplug dishwasher or disconnect power. 3. Replace fan if fan does not spin freely.	
Leaks or Drips on Cabinet or Floor	Vent wax motor problem.	Refer to "Service Error Codes" table.	**10-2**
	Fan problem (on models with fan).	Refer to "Service Error Codes" table.	**10-3**
	Too many suds.	Refer to "Service Error Codes" table.	**6-3, 6-4**
	Leaking dishwasher	Check door/tub gasket and all water connections under dishwasher. Refer to "Service Error Codes" table.	**6-1, 6-3**
	Unit not level (leaning forward) and water surges over front lip during cycle.	Check error history for Float Error 6-4. Error 6-4 is likely to occur if unit is significantly out of level and leaning forward. Refer to "Service Error Codes" table.	**6-4**
	Air pressure surge when door is opened and immediately closed while dishwasher is hot can force droplets out of the vent duct.	Instruct customer to leave door open a few minutes before re-closing, if opened while dishwasher is hot.	

SERVICE ERROR CODES TABLE

Example: 6-1 means "Inlet Water" function, "Low Water/Air in Pump" problem.

FUNCTION CODE	PROBLEM CODE	CAUSES	WHAT TO CHECK
1- CONTROL	**1- Pilot Stuck On**	Control detected K2 pilot relay stuck closed.	1. Unplug dishwasher or disconnect power. 2. Check all loads on k2 pilot relay for shorts. 3. Replace control and all shorted components.
	2- Control Software Issue	Damaged or corrupted memory on control board. Incompatible software components inside micro.	1. Unplug dishwasher or disconnect power. 2. Replace control board.
2- USER INTERFACE	**1- Stuck Key**	Control detected stuck key(s) in keypad or keypad connection. **NOTE:** Control only alerts customer if Start/Resume or Cancel key is stuck. If any other keys are stuck, the stuck key(s) will be ignored and an error recorded to service history, but no alert to customer.	Check responsiveness of each key. 1. If some keys do not respond, then: ■ Unplug dishwasher or disconnect power. ■ Disassemble door and disconnect keypad connection from control or LCD display module. ■ Verify all other connections to control are made. ■ Reassemble door but do not close door. ■ Plug in dishwasher or reconnect power. ■ Wait at least 7 seconds for control to power up completely. ■ Close dishwasher door and monitor control response: A. If control is OK (no longer sees stuck keys with keypad unplugged), it will respond by turning on the drain motor for 2 minutes. Replace keypad and console. B. If control is not OK (still sees stuck keys with keypad unplugged), it will not turn on drain motor. Wait for at least 10 seconds. If still no drain response, then replace control or LCD display module (whichever one the keypad was connected to). 2. If all keys appear OK or intermittent, and keypad is capacitive touch type, then: ■ Verify tub brackets are screwed to underside of countertop and not hanging over keys (if screw head too close, relocate screw to alternate hole). ■ Check for evidence of moisture or debris on the surface of the keys. If evident, clean and instruct customer about keeping surface clean. Check error code history for Vent Error 10-2 and/or Fan Error 10-3 as potential cause of condensation on user interface.
3- THERMISTOR/ OWI	**1- Open**	■ Open connector or component in Temperature Sensing Circuit. ■ Open or faulty temperature sensor. ■ Faulty temperature sensor input on control.	1. Check operation of temperature sensor in Service Diagnostic Cycle. 2. Unplug dishwasher or disconnect power. 3. Check all components and connections in the Temperature Sensing Circuit with meter. Fix/replace open connection/part.
	2- Shorted	■ Incoming water temperature above 75°C (167°F). ■ Shorted connection or component in Temperature Sensing Circuit. ■ Shorted or faulty temperature sensor. ■ Faulty temperature sensor input on control.	1. Check Incoming water temperature. 2. Check operation of temperature sensor in Service Diagnostic cycle. 3. Unplug dishwasher or disconnect power. 4. Check all components and connections in the Temperature Sensing Circuit with meter. Fix/replace shorted wires/part. (See OWI Sensor strip circuit.)
	3- Failed Calibration	OWI failure.	1. Run Service Diagnostics to check OWI operation. OWI should see low soil with clear water. 2. Check OWI lens surface. Clean if needed. 3. Unplug dishwasher or disconnect power. 4. Check all connections in Soil Sensing Circuit with meter. Fix/replace bad connection/part. **NOTE:** Run Diagnostics after replacing new OWI to force calibration on next wash cycle.
		Drain hose check valve not sealing.	Dirty water backs into dishwasher after draining. 1. Disconnect drain hose at plumbing connection. 2. Elevate hose above dishwasher and fill with water. If water flows into dishwasher, replace entire drain loop (install as high as possible and attach to underside of countertop if possible).
4- WASH MOTOR	**3- Motor Not Running**	Loose connection in Motor Circuit, and/or faulty wash motor.	1. Check operation of wash motor during diagnostics. 2. Unplug dishwasher or disconnect power. 3. Check resistances of connections in the wash circuit. ■ Check for loose connections or replace wash motor.
		Faulty control motor drive circuit or sense circuit.	1. Unplug dishwasher or disconnect power. 2. If meter check of wash motor circuit shows normal resistance and still not getting power to the wash motor, then replace control.
5- DOOR SWITCH	**1- Door Stuck Open**	Door was not latched within 3 seconds of pressing the Start/ Resume key.	Instruct customer. Refer to Use and Care Guide.
		Loose connection in door switch circuit and/or door switch contacts stuck open and/or Door switch not making contact: ■ Faulty or sloppy door latch assembly (which can be aggravated by high door closure force, keeping strike plate from fully seating). ■ Faulty door switch (high resistance).	1. Check strike plate and door closure force. Verify door seal is seated properly. Check for interference between dish racks and door. Try bending strike plate down for better engagement. 2. Unplug dishwasher or disconnect power. 3. Check door switch contacts and all connections in the door switch circuit with meter while opening and closing the door latch. ■ If high resistance with door closed, check/fix loose connections. 4. Measure resistance of door switch contacts while checking mechanical operation of latch assembly. Check for broken plastic pieces on latch assembly. Replace latch if faulty.
		Faulty control.	1. With door open, verify 13 VDC present across P9-5 and P9-6 2. If no voltage present, unplug dishwasher or disconnect power and replace control.
	2- Door Stuck Closed	Control programmed to not start if it suspects the door switch is stuck closed. Control looks for the door switch to open between cycles. ■ Customer didn't open the door between cycles or door switch contacts stuck closed.	1. Open and close door and then press Start/Resume key. If works now, instruct customer to open door between cycles. 2. Unplug dishwasher or disconnect power. 3. Measure resistance of door switch contacts while checking mechanical operation of latch assembly.
6- INLET WATER	**1- Low/No Water (Mechanical Problem)**	No water to dishwasher.	Verify water supply is turned on and supply line adequate.
		Bowls or pots loaded or flipped upside down and captured wash water.	Instruct customer on loading. Refer to Use and Care Guide.
		Drain loop detached from tub and/or improper drain connection.	Check for water siphoning out of unit: 1. Allow dishwasher to complete normal fill. 2. Drain for 5-10 seconds by pressing CANCEL/DRAIN. 3. Open door and confirm water does not siphon out of unit. If it does, confirm drain loop is attached to side of dishwasher and drain hose is connected to a drain at least 20" (50.8 cm) off the floor.
		Water leaking from dishwasher.	Check for leaks under dishwasher.
		Fill valve or water line plugged with debris.	Turn off water supply to dishwasher, disconnect water line to inlet valve, inspect/clean the inlet screen of fill valve, and reconnect water.
	1- Low/No Water (Mechanical Problem) (cont.)	Overfill switch stuck in "Overfill" position and/or dishwasher not level.	Check other error codes to see if 6-4 also occurred. See 6-4 Error Code below.
		Fill valve electrical problem.	Check other error codes to see if 6-2 also occurred. See 6-2 Error Code below.
	2- Fill Valve (Electrical Problem)	Loose connection in the fill valve circuit, and/or open fill valve solenoid.	Unplug dishwasher or disconnect power and check resistances of fill valve solenoid and all connections in the Fill Circuit with meter. Fix/replace open connection/part.
		Open fuse on control to fill valve.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
		Faulty fill valve drive circuit on the control.	Unplug dishwasher or disconnect power and replace control.

FUNCTION CODE	PROBLEM CODE	CAUSES	WHAT TO CHECK
7- HEATING	**3- Suds/Air in Pump**	Too many suds.	1. Allow unit to fill and wash for 1 minute. Open door and check for excessive sudsing. 2. Confirm using proper dishwasher detergent, not hand detergent. 3. Check for excessive rinse aid leakage.
		Bowls or pots loaded or flipped upside down and captured wash water.	Instruct customer on loading. Refer to Use and Care Guide.
		Water leaking from dishwasher.	Check for leaks under dishwasher.
		Diverter disk in sump is missing.	Remove lower spray arm, turbo zone assembly, rear feedtube and outlet cover and verify whether the red diverter disk is installed.
	4- Float Switch Open	Overfill switch stuck in "Overfill" position and/or dishwasher not level.	Remove any items stuck under float. Verify that the float moves freely and you hear the "click" of the switch contacts. Check leveliness of dishwasher.
		Drain hose check valve not sealing.	Water backs into dishwasher after draining and elevates water level. 1. Disconnect drain hose at plumbing connection. 2. Elevate hose above dishwasher and fill with water. If water flows into dishwasher, replace entire drain loop (install as high as possible).
		Fill valve Triac on control shorted.	If still filling while door is open, fill valve is mechanically stuck open (see below). If no fill with the door open, check operation in Service Diagnostics Test Cycle. Advance Service Cycle until detergent dispenser opens. Fill valve should be off. Listen to see if dishwasher is still filling. If still filling, then unplug dishwasher or disconnect power and replace control.
		Fill valve mechanically stuck open.	Confirm dishwasher fills while the door is open. If yes, then unplug dishwasher or disconnect power, turn off water to dishwasher, replace fill valve, and turn water back on.
		Too many suds.	1. Allow unit to fill and wash for 1 minute. Open door and check for excessive sudsing. 2. Instruct customer if using improper dishwasher detergent (hand detergent). 3. Disconnect power and replace dispenser if see excessive rinse aid leakage.
		Open fuse F9 to fill valve and other triac loads	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
	6- Cool Water	Incoming water under 29°C (84°F).	1. Be sure dishwasher is connected to the hot water supply. 2. Confirm temperature at sink (recommend 49°C/120°F). Instruct customer to run water at sink before running dishwasher. 3. Unplug dishwasher or disconnect power and check all connections and measure resistance in "Temperature Sensing Circuit." Replace OWI if resistance is high.
	7- Flow Meter	Disconnected or damaged flowmeter	1. Disconnect power or unplug unit. 2. Check connections at salt level sensor and at flowmeter. 3. Use meter to check for flowmeter switch closed. Use meter to check salt level sensor. Switch is open when salt reservoir is filled and closed when salt reservoir is low/empty. 4. Disconnect flowmeter and leave salt sensor connected. Apply a magnet to side of salt tank near the sensor connection to force the switch closed. 5. With magnet in place, run the complete service diagnostics cycle. If the sanitized LED turns on in interval 3, the control is good; replace the flowmeter assembly. If the sanitized LED does not turn on, the control input has failed; replace the control.
	8- Regen Valve Electrical Problem	Loose connection in Regen valve circuit, and/or open Regen valve solenoid.	Unplug dishwasher or disconnect power and check resistances of Regen valve solenoid and all connections in the Regeneration Valve Circuit. Fix/replace open connection/part.
		Open fuse on control to Regen valve.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
		Faulty Regen valve drive circuit on the control.	Unplug dishwasher or disconnect power and replace control.
	1- No Heat	Control is programmed to disable heater, but continue running cycles if it detects a water heating problem.	Running diagnostics clears the control, allows the heater to turn on again. Water heating problem must be corrected, or the control will disable the heater again. See heater circuit problem below.
		Heater Circuit problem: ■ Open in heater. ■ Open connection or component in Heater Circuit.	1. Unplug dishwasher or disconnect power. 2. Measure resistance of heater and all components and connections in Water Heating Circuit/Heat Dry Circuit. Fix/replace open connection/part.
		Faulty Heater Drive Circuit on the control.	Unplug dishwasher or disconnect power and replace control.
	2- Heater Stuck On	Faulty Heater Drive Circuit on the control.	1. Unplug dishwasher or disconnect power and replace control. 2. Inspect heater and connections for overheating/shorting. If evidence of overheating or shorts exists, replace.
8- DRAINING	**1- Slow Drain**	Obstructed drain hose or path.	1. Unplug dishwasher or disconnect power. 2. Check for blockages from sump check valve to customer's plumbing. Potential items: plugged garbage disposal or plug not knocked out, drain loop check valve stuck and/or plugged hoses.
		Drain pump impeller fractured.	1. Unplug dishwasher or disconnect power. 2. Remove drain pump and check impeller (normally there is some uneven resistance). If it is stripped, replace drain pump.
	2- Drain Motor Electrical Problem	Loose connection in drain motor circuit, and/or open drain motor winding.	Unplug dishwasher or disconnect power and check resistances of drain motor winding and all connections in the drain motor circuit. Fix/replace open connection/part.
		Open fuse on control to drain motor.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
		Faulty drain motor drive circuit on the control.	Unplug dishwasher or disconnect power and replace control.
	3- Drain Stuck On	Faulty drain motor drive circuit on the control.	1. Unplug dishwasher or disconnect power and replace control. 2. Inspect drain motor and connections for overheating/shorting. If evidence of overheating/shorting exists, replace.
9- DIVERTER	**1- Can't Find Position**	Corroded or loose connection in diverter sensor/motor circuit, or open/shorted sensor/motor.	1. Check operation in Service Diagnostics Cycle. Listen for CAM clicking as it rotates or inspect shaft with mirror to see if rotating during diverter interval. If rotating, then likely the sensor circuit. 2. Unplug dishwasher and parts disconnect power and check connections in Diverter Sensor and Motor Circuit with meter. Fix/replace open connections/parts. 3. Inspect diverter sensor for evidence of water or contaminants. If yes, replace.
		Mechanical binding of diverter shaft/disc.	Check operation of diverter motor during diagnostics. Inspect diverter shaft with mirror. If motor appears to be on (vibrates, hums), but you see limited rotation, then replace diverter and seal.
		Open fuse on control to diverter motor.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
		Faulty Diverter Motor Drive Circuit on the control.	Unplug dishwasher or disconnect power and replace control.
	2- Stuck On	Faulty Diverter Drive Circuit on the control.	1. Unplug dishwasher or disconnect power and replace control. 2. Inspect diverter motor and connections for overheating/ shorting. If evidence of overheating/shorting exists, replace.
	3- Disk Missing	Control detected diverter disk in sump is missing.	Remove lower spray arm, turbo zone assembly, rear feed tube and outlet cover; and verify the round diverter disk is installed.
10- OTHER	**1- Dispenser Electrical Problem**	Loose connection in dispenser circuit and/or open dispenser solenoid.	Unplug dishwasher or disconnect power and check resistances of dispenser solenoid and all connections in the dispenser circuit. Fix/replace open connection/part.
		Open fuse on control to dispenser.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
		Faulty dispenser drive circuit on the control.	Unplug dishwasher or disconnect power and replace control.
	2- Vent Wax Motor Electrical Problem	Loose connection in vent circuit and/or open vent wax motor.	Unplug dishwasher or disconnect power and check resistances of vent wax motor and all connections in the vent circuit. Fix/replace open connection/part.
		Open fuse on control to vent.	Refer to Fuse Service and Resistance Checks on Page 1 (next to Meter Check diagram).
		Faulty vent drive circuit on the control.	Unplug dishwasher or disconnect power and replace control.
	3- Drying Fan Error	Loose connection in fan circuit, and/or open fan motor.	Unplug dishwasher or disconnect power and check resistances of fan motor and all connections in the fan circuit. Fix/replace open connections or fan.
		Faulty fan drive circuit on the control.	Unplug dishwasher or disconnect power and replace control.