

Figure 1: Schematic diagram of the test circuit for the P-4 relay. The circuit shows a power source L1 connected to a BK terminal, which goes through a Non-Resettable Bi-Metal switch (87°C to 93°C) to another BK terminal. This terminal connects to P4-2, which is also connected to P4-1. P4-1 is connected to K1, which is connected to P5-2. P5-2 is connected to P9-3, which is connected to P7-3. P7-3 is connected to P9-1. P9-1 is connected to a Triac, which is connected to P4-1. P4-1 is connected to W. The circuit is labeled 'Electronic Control' and includes a Fuse - F1. A note indicates that P5-2 can be used as a test point for F1, and P9-3 may crowd P9-1, recommending the use of test hole P7-3.

SERVICE DIAGNOSTICS WITH ERROR CODES

Entry sequence: Press any 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 18

ERROR 1 - MOST RECENT				
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/ Resume key
If no error, Clean LED will stay on solid for 5 seconds				

INTERVAL 17

ERROR 2				
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/ Resume key
If no error, Clean LED will stay on solid for 5 seconds				

INTERVAL 16

ERROR 3				
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/ Resume key
If no error, Clean LED will stay on solid for 5 seconds				

INTERVAL 15

ERROR 4 - OLDEST				
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/ Resume key
If no error, Clean LED will stay on solid for 5 seconds				

INTERVAL 14

10 seconds pause Hi Temp LED will be on

INTERVAL 13

Press Cycle Select key to clear errors
Cycle will advance to next interval
automatically when errors cleared.

Service Diagnostics Cycle
Turns on loads and checks sensors

INTERVALS 12-3

SERVICE CYCLE ERROR 1				
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/ Resume key
If no error, Clean LED will stay on solid for 5 seconds				

INTERVAL 2

SERVICE CYCLE ERROR 2				
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/ Resume key
If no error, Clean LED will stay on solid for 5 seconds				

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 "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 power to unit or bad connection.	Check fuses, circuit breakers and junction box connections.	
Won't Run and LED Above Key is Flashing Rapidly and Continuously	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.	
	Opened bi-metal attached to control.	1. Unplug dishwasher or disconnect power. 2. Measure resistance of bi-metal. If open, replace bi-metal and harness terminals with kit. 3. Inspect all other components (especially control board), and replace if evidence of overheating.	
Won't Run and LED for Start/Resume Key is Blinking Slowly	Faulty user interface or control.	If none of the above, then check/replace control.	
	By design, if the door is opened or power is interrupted during a cycle, the user must press the Start/Resume key to resume operation.	Instruct customer. Refer to Use & Care Guide.	
Won't Run and LED Above Key is Flashing Rapidly and Continuously	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 door to open between cycles.	Refer to "Service Error Codes" table.	
	■ Customer didn't open door between cycles. ■ Door switch contacts stuck closed.		5-2
Won't Accept Key Presses and Control Lock LED On	Control Lockout feature accidentally turned on by customer.	Instruct customer. Press and hold the Control Lock key (or key with control lock symbol next to it) for 5 seconds to turn off (or on) the Control Lock feature.	
No Key and/or LED Functionality	Control not properly installed in console preventing button actuation.	1. Unplug dishwasher or disconnect power. 2. Disassemble console and check that control housing is fully attached to console and aligned properly. 3. Adjust control or replace missing parts as needed.	
	Missing button tree or light pipes.	1. Unplug dishwasher or disconnect power. 2. Disassemble console and check for presence of light pipe and button tree plastic parts. 3. Verify that light pipe and button tree are not broken and that they are aligned correctly. 4. Replace missing parts as needed.	
Some Keys Work but One or More Keys Won't Respond	Stuck key or short circuit(s) in keys or in control's input lines that read the keys.	Refer to "Service Error Codes" table.	2-1
Unusual Key or LED Behavior or LEDs Do Not Turn On Correctly When Keys Are Pressed.	Control software does not match hardware or panel.	Check function of all keys and LEDs in the UI. If no evidence of stuck keys (see above), replace control.	
LEDs and/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 F1 (Triac Load Fuse) on control disabled loads.	Refer to "Fuse Check" on Page 1.	

CUSTOMER DESCRIPTION	POTENTIAL CAUSES	CHECK	RELATED ERROR CODE(S)
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.	
	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.	4-3
	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
Can Start a Cycle, but Cycle Does Not Complete (and Clean LED or Completed May Blink)	NTC Sensor problem.	Refer to "Service Error Codes" table.	3-1
	Control canceled cycle due to error detected with wash motor, float switch, low water or suds.	Refer to "Service Error Codes" table.	4-3, 6-1 6-2, 6-3 6-4, 8-3
	Unit is in Sales Demo mode.	Run Service Diagnostics cycle to clear Demo mode.	
	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 2.4 cm (1") of water remaining after cycle.	
	Draining problem.	Refer to "Service Error Codes" table.	8-1 8-2
Will Not Drain, or Excess Water Left in Unit NOTE: Check error history. If no error codes for electrical problems, then problem is mechanical. Do not replace controls.	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 cancelled cycle before dispensing due to error detected with wash motor, float switch, low water or suds.	Refer to "Service Error Codes" table.	4-3, 6-1 6-2, 6-3 6-4, 8-3
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 the following 3 screens. ■ Filter cup coarse screen ■ Filter cup fine screen ■ Sump fine screen	
	Spray arms not rotating.	1. Check if arms are blocked by dish item, instruct customer. May also have restricted movement due to misalignment of the upper spray arm water delivery system. 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, float switch, low water or suds.	Refer to "Service Error Codes" table.	4-3, 6-1 6-2, 6-3 6-4, 8-3
	Heating problem.	Refer to "Service Error Codes" table.	7-1
Film or Spots on Glasses and/or Dishes	Customer not using rinse aid or dispenser is empty.	Check rinse aid gauge level on dispenser. Instruct customer how to fill and monitor, add and 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 of Glass Magic into bottom of dishwasher. Also recommend 1 HR Wash Cycle. To clean the dishwasher, recommend running with 1 cup of white vinegar sitting upright in upper rack.	
	Detergent carryover.	Check water hardness. If below 10 grains, then instruct customer to use less detergent and recommend the 1 HR Wash cycle	
	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 problem.	Refer to "Service Error Codes" table.	9-1, 9-2
Poor Dry	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 not using rinse aid and/or dispenser is empty.	Check rinse aid gauge level on dispenser. Instruct customer how to fill and monitor, add and use rinse aid.	
	Customer not using Heated Dry option.	Recommend use of Heated Dry to customer.	
	Heating problems.	Refer to "Service Error Codes" table.	7-1
	Rinse aid dispenser problem.	Refer to "Service Error Codes" table.	10-1
	Control canceled cycle due to error detected with wash motor, float switch, low water or suds.	Refer to "Service Error Codes" table.	4-3, 6-1 6-2, 6-3 6-4, 8-3
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
	Line voltage too low to heat fast enough.	Check power source. Confirm at least 100 VAC.	
	Heating problem.	Refer to "Service Error Codes" table.	7-1
	Intermittent door switch or latch connection.	See same checks as for 5-1 error. Refer to "Service Error Codes" table.	
	Thermistor/OWI problem.	Refer to "Service Error Codes" table.	3-1, 3-2
Melted Dishware and/or Spray Arm and/or Dishwasher Always Hot	Customer uses non-dishwasher safe dishes or loads directly over heater.	Instruct customer.	
	Water heater displaced from mounting clip and/or pulled off center.	Inspect heater. Adjust back into position, if needed.	
	Water heating problem. Heater stuck on.	Refer to "Service Error Codes" table.	7-2
	Temperature sensing problem.	Refer to "Service Error Codes" table.	3-1
	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.	
	Motor problems force cycle to start and stop repeatedly.	Refer to "Service Error Codes" table.	4-3
Noisy Operation	No or low water.	Refer to "Service Error Codes" table.	6-1, 6-2 6-3, 6-4

CUSTOMER DESCRIPTION	POTENTIAL CAUSES	CHECK	RELATED ERROR CODE(S)
Leaks or Drips on Cabinet or Floor	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.	6-3 6-4
	Leaking dishwasher.	Check door/tub gasket and all water connections under dishwasher. If leak triggers a low water error, then the leak is probably not from water inlet connection. 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 open door and immediately re-close it 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 door while dishwasher is hot.	

SERVICE ERROR CODES TABLE

Example: 6-1 means "Inlet Water" function, "Low/No Water" problem.

FUNCTION CODE	PROBLEM CODE	CAUSES	WHAT TO CHECK
1-CONTROL	1-Pilot Stuck On	Control detected K1 relay stuck closed.	1. Unplug dishwasher or disconnect power. 2. Check all loads for shorts on K1 pilot relay. 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 will be ignored and an error recorded to the service history, but no alert to customer.	Check responsiveness of each key. If some keys do not respond, then: ■ Unplug dishwasher or disconnect power. ■ Disassemble door and inspect for correct assembly of control, console and button tree. ■ Adjust assembly to eliminate stuck keys. Reassemble door and test each key. ■ If key(s) still stuck/unresponsive, replace control.
	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.
3-THERMISTOR/OWI	2-Shorted	■ Incoming water temperature above 75°C (167°F). ■ Shorted connection or component in Temperature Sensing Circuit. ■ Stuck 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.
	3-Failed Calibration	OWI failure.	1. Check all connections in soil sensing circuit. 2. Check OWI lens surface. Clean if needed. 3. Run Service Diagnostics to check OWI operation. OWI should see low soil with clear water. Replace OWI or control if needed. NOTE: Run Diagnostics after installing new OWI to force calibration on next regular 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 wash motor and all connections in the wash circuit. ■ If high resistance, check/fix 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 no power getting 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 resistances of door switch contacts and all connections in the Door Switch Circuit, 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.
	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 if door switch contacts stuck closed.	1. Open and close door and then press Start/Resume key. Instruct customer. 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 to 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 50.8 cm (20") off the floor.

FUNCTION CODE	PROBLEM CODE	CAUSES	WHAT TO CHECK
6-INLET WATER (cont.)	1-Low/No Water (Mechanical Problem) (cont.)	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 and inspect/clean the inlet screen of fill valve.
		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.
	2-Fill Valve Electrical Problem	Fill valve electrical problem.	Check other error codes to see if 6-2 also occurred. See 6-2 Error Code below.
		Loose connection in 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 Check" on Page 1.
6-INLET WATER (cont.)	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.
	4-Float Switch Open	Overfill switch stuck in "overfill" position and/or dishwasher is not level.	Remove any items stuck under float. Verify that the float moves freely and hear "click" of the switch contacts Check/adjust levelness of the 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 the door is open, the fill valve is mechanically stuck open (see below). If no fill with 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, unplug dishwasher or disconnect power and replace control.
6-Cool Water	5-Float Switch Open	Fill valve mechanically stuck open.	Confirm dishwasher fills while door is open. If yes, then unplug dishwasher or disconnect power, turn off water to dishwasher, replace fill valve, and reconnect water supply and turn water supply back on.
		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.
		Open Fuse F1 to fill valve and other Triac loads.	Check other error codes to see if 6-2 also occurred. See 6-2 error code previously in this chart for open fuse checks.
	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.
		Control programmed to disable the heater, but continue running cycles, if it detects a water heating problem.	Running Diagnostics clears the control and allows the heater to turn on again, but must also correct the water heating problem 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. Check operation of heater in Service Diagnostics cycle. 2. Unplug dishwasher or disconnect power. 3. Measure resistance of heater and all components and connections in Water Heater Circuit/Heat Dry Circuit.
7-HEATING	1-No Heat	Faulty Heater Drive Circuit on the control.	Unplug dishwasher or disconnect power and replace control.
		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/shorts exists, replace.
	2-Heater Stuck On	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.
	8-DRAINING	Loose connection in Drain Motor Circuit and/or open drain motor winding.	1. Check operation of drain motor during diagnostics. 2. Unplug dishwasher or disconnect power. 3. Check resistances of Drain Motor Winding and all connections in the drain circuit. ■ If high resistance, check/fix loose connections or replace drain motor.
		Open fuse on control to drain motor.	Refer to "Fuse Check" on Page 1.
10-OTHER	1-Dispenser Electrical Problem	Faulty Drain Motor Drive Circuit on the control.	Unplug dishwasher or disconnect power and replace control.
		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.
	2-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 Check" on Page 1.
	3-Dispenser Electrical Problem	Faulty Dispenser Drive Circuit on the control.	Unplug dishwasher or disconnect power and replace control.