Errors description and troubleshooting (actions)						
Function	Problem	Failure	Description	How is detected by software	When is detected by software	Control actions and notes for error
1	1	Pilot relay stuck closed	Pilot relay is mechanically stuck closed.	Turn on drain motor triac at least 10s after pilot opens at end of cycle and check for current flow. If current is present, pilot relay is stuck.	Detect during Standby or End of Cycle when door is closed. Perform one check per customer cycle that is completed.	none
1	2	Parameter Read Failure	Either the APL image, UI configuration image, or both is missing from the software that was flashed to the control.	CRC error on control	Check for valid APL and UI configuration images during power up and upon entering any diagnostics test cycle.	If the UI configuration is invalid or corrupted, it will not be possible to display the error code, because no LED map will be readable. In this case, the control shall turn on all LEDs in the matrix as a signal that this error has occurred.
2	1	Stuck key(s) in user interface	A key in the user interface is held down for >30s.	Key switch stuck closed on UI for >30s	Anytime the control is powered, except during the Factory Diagnostics passive test when all LEDs are forced on.	Customer operation: If Start/Resume and/or Cancel key are stuck, flash LED (1/6s on, 1/6 off) of stuck key(s). If Start/Resume or Cancel is stuck, do not allow another cycle to be started until key(s) are unstuck. If keys besides Start/Resume or Cancel are stuck, allow normal operation (ignoring the stuck key(s)), but record error for service. Test cycle operation: Flash LED of any stuck key (1/6s on, 1/6s, off).
2	2	Not valid for WER				
3	1	Thermistor open or unplugged	Control sees a thermistor reading below the valid range.	Thermistor is out of range (reading is <0°C) - temperature reading is cold	Check thermistor in fill intervals. If thermistor reading is out of range for the entire fill, record error.	none
3	2	Thermistor shorted	Control sees a thermistor reading above the valid range.	Thermistor is out of range (reading is >75°C) - temperature reading is hot	Check thermistor in fill intervals. If thermistor reading is out of range for the entire fill, record error.	none
3	3	OWI calibration failure	OWI detected, but calibration unsuccessful.	Foam and/or Turbidity reading can't be adjusted to get within the valid ranges specified.	After calibration attempt fails in 3 consecutive cycles	Sensor cycles will switch to non-sensor mode
3	4	OWI failure	OWI is not detecting water	OWI is not able to distinguish between water and air	If air is detected before water fill but water is not detected after (correct) water fill	Dishwasher will stop the cycle, drain out the water and show the error
4 (N/A for Odra)	1	No communication from motor control (variable speed motor models)	Motor does not respond to CCU communication on the WIDE bus.	Motor does not respond to CCU communication on the WIDE bus	Anytime motor is powered.	During customer cycles that are not in Rapid Advance, initiate relay cycling sequence to attempt to revive MCU when communication is lost. If MCU is revived during this sequence, no error is recorded.

				Errors description and troubleshooting (actions)		
Function	Problem	Failure	Description	How is detected by software	When is detected by software	Control actions and notes for error
4 (N/A for Odra)	2	MCU status indicates "Communication Error" (variable speed motor models)	MCU is not able to communicate properly with CCU.	Motor status bit 6 set to 1 indicates a motor communication error (only applies to BLDC motor).	Anytime motor is powered.	During customer cycles that are not in Rapid Advance, initiate relay cycling sequence to attempt to revive MCU. If MCU is revived during this sequence, no error is recorded. During test cycles, the relay cycling sequence is not used, and the error is recorded immediately when the MCU indicates the error to the CCU.
4 (N/A for Odra)	3	Wash motor not functioning (single speed motor models)	Wash motor is not working.	Motor sensing circuit indicates that the motor is not drawing current.	During all washing intervals.	During customer cycles that are not in Rapid Advance, attempt to restart motor 5 times before recording error.
4	4	Wash motor not functioning (Variable Speed Motor)	Wash motor is not working.	Motor sensing circuit indicates that the motor is not drawing current.	During all washing intervals.	During customer cycles that are not in Rapid Advance, attempt to restart motor 5 times before recording error.
5	1	Door switch stuck open	The door switch or latch is not functioning properly, so the control sees the door as always being open.	Door is not closed within 3 seconds of Start key press.	Anytime Start key has been pressed with door open. Record error code to history if door is not closed within 3 seconds of Start key press - 3 times in a row (without a valid start to a cycle).	Go to Paused state until door is closed within 3s of Start key press.
5	2	Door switch stuck closed	The door switch or latch is not functioning properly, so the control sees the door as always being closed.	Door is not opened between cycles.	Check for door opening (or power loss) after cycle is complete.	Flash Start LED invalid if it is pressed and no door opening or power loss has been detected since the last cycle.
6	1	No Water	Water is not present in the machine when it should be. The most common causes of this are if the water line is disconnected or turned off or if the drain line set up is causing siphoning.	Two methods to detect depending on the model's water indicator: 1) Wash motor current sensing indicates no water or 2) OWI foam input indicates no water	Check for presence of water during fills and/or throughout heated wash intervals depending on model characteristics (see detailed failure table). Control shall wait for debounce time (defined in APL) before ending cycle due to this error. Default debounce time is 30s.	If no water is present turn off the heater immediately when the "No water" condition is detected with the VWI or OWI.
6	2	No Water (Fill Valve Problem)	Current sensing circuit does not detect current flowing to the fill valve during filling intervals. This could be caused by a faulty control, fill valve, or wiring.	Current sensing circuit does not detect current flowing to the fill valve during filling intervals.	Check 10s after the start of all filling intervals.	none

				Errors description and troubleshooting (actions)		
Function	Problem	Failure	Description	How is detected by software	When is detected by software	Control actions and notes for error
6	3	Low water / Suds	This error occurs when suds or a low water condition cause surging in the wash pump. Several things could cause this to happen, including excessive detergent or rinse aid in the water, dishware collecting water during the cycle, slow siphoning, or low fill amounts on units without a flow meter.	Motor won't stop surging	Check for surging during any wash interval in customer cycles.	Before recording the error, wash phase will be repeated. Turn off heater when surging is first detected. Add water when surging is detected. If water has been added to the maximum fill level possible and surging has not stopped, fully drain, refill, and restart the cycle phase. If surging continues and water has been added to the maximum fill level possible again, then the error is recorded and cycle ended with error.
6	4	Overfill / Float switch actuated	Some models have a float assembly below the unit to detect if water from the tub has overflowed into the dip tray below. This error occurs if the float switch is tripped when the control is monitoring for a possible overfill situation.	Overfill/float switch input opens, indicating a leak or too much water in the tub.	Monitor this input anytime the pilot relay is on (door must be closed).	none
6	5	Fill Valve Stuck On	Flow meter pulses are detected when the fill valve is turned off.	When fill valve is off, flow meter reading shows > 17 pulses/10s.	Check any time machine is powered and fill valve is supposed to be off.	When error is detected, perform drain sequence (drain motor ON for 30s, then OFF for 30s) until flow meter pulses are no longer detected. This sequence shall always end after a 30s drain period, regardless of when the flow meter pulses stop being detected. Note: This state must be saved to memory so the control can resume the drain sequence after a full power loss.
6	7	Flow meter failure (flow meter models only)	Flow meter does not generate pulses during filling intervals, but water is entering the machine. This could be caused by a faulty flow meter, control, or wiring.	Flow meter does not generate pulses during filling intervals and current sense circuit indicates that fill valve is turning on.	Detect during fill intervals.	none
6	8	Regen valve not functioning	Load sensing circuit indicates that the regen valve is not operational. This could be caused by a faulty control, valve, or wiring.	Load sensing circuit indicates that the regen valve is not operational.	Monitor load sensing circuit for correct current increase anytime when Regen valve is supposed to be on.	none
6	9	Water tank valve not functioning (WER models)	Load sensing circuit indicates that the water tank valve is not operational. This could be caused by a faulty control, valve, or wiring.	Load sensing circuit indicates that the water tank valve is not operational while it should be on.	Monitor load sensing circuit for correct current increase anytime when water tank valve is supposed to be on.	Cycles adjusted when this error occurs. Water tank is not used in cycle in which error occurred.

				Errors description and troubleshooting (actions)		
Function	Problem	Failure	Description	How is detected by software	When is detected by software	Control actions and notes for error
6	10 disp: "A"	Water tank valve stuck (WER models)	Water tank valve is permanently stuck and its not operating. This could be caused by particle stuck inside valve.	Water is not in DW during PW phase after opening water tank valve or amount of water is too low due to partial valve stuck.	During wash intervals using water tank valve	Cycles adjusted when this error occurs. Water tank is not used in cycle in which error occurred.
7	1	Heater Stuck Off	Heater is not functioning (water	Heater is not functioning (water temperature does not rise when heater is powered)	Check for minimum temperature rise during defined time.	Error not displayed to the customer. Error stored in history (displayed at th ebeginning of STC) only after 3rd occurance in the long cycle (at least one heating during the cycle to temperature above 65 C), running complete STC will show the failure.
7	2	Heating element stuck on	The heater is always on due to mechanically stuck relays	Temperature rise is detected when heater is switched off	Check for minimum temperature rise during defined time.	Error is displayed to the customer. Cycle interrupted machine is locked
8	1	Slow/No Draining	temperature does not rise when	Water indicator (OWI or VWI) does not see air within max drain time	Check during drain out of any phase. Do not check during any mid-phase drains, such as those done line purging or filter cleaning (Sieve&Sump)	none
8	2	Drain motor not functioning	heater is powered)	Load sensing circuit indicates that drain motor is not operational.	Check during any drain period in the cycle.	Cancel/Drain periods are not cycles and should not be included in this check
8	3	Drain motor stuck on	Load sensing circuit indicates that the drain motor is always on. This is most likely caused by a faulty control board.	Load sensing circuit indicates that drain motor is on during nondraining intervals.	Check during nondraining intervals in cycles.	None
8	4	Drain motor (Variable Speed) not functioning	Load sensing circuit indicates that the drain motor is not operational. This could be caused by a faulty control, drain motor, or wiring	Load sensing circuit indicates that drain motor is not operational.	Check during any drain period in the cycle.	Cancel/Drain periods are not cycles and should not be included in this check
9	1	Diverter position sensor or motor failure	Diverter motor is on, but no valid positions can be found. This error only applies to alternating wash models that include a diverter with position feedback. This could be caused by a faulty control, diverter motor, diverter position sensor, or wiring.	Diverter motor is on, but no valid positions can be found.	During any diverter transition in cycles.	Record error if valid position cannot be found in any 120s period. Error shall be recorded no more than one time per cycle. Diverter continues to search for a valid position throughout the cycle when a position is specified in the cycle design.

			Errors description and troubleshooting (actions)			
Function	**Problem**	**Failure**	**Description**	**How is detected by software**	**When is detected by software**	**Control actions and notes for error**
9	2	Diverter motor stuck on	Diverter position sensor detects that the diverter motor is turning when it should be stationary. This is most likely caused by a faulty control board.	Diverter position sensor detects that the diverter motor is turning when it should be stationary.	During cycles when diverter transitions should not be taking place	None
10 disp: "A"	1	Dispenser not functioning	Load sensing circuit indicates that the dispenser is not operational. This could be caused by a faulty control, dispenser, or wiring.	Load sensing circuit indicates that the dispenser is not operational	Monitor load sensing circuit for correct current increase during dispensing intervals	Cycles may be adjusted when this error occurs
10 disp: "A"	2	Vent not functioning (some models)	On models with an active vent, this error is detected if the load sensing circuit indicates that the vent wax motor is not operational. This could be caused by a faulty control, vent wax motor, or wiring.	Load sensing circuit indicates that the vent is not operational.	Check during End of Cycle when the vent is closed, but no other loads are on.	Cycles may be adjusted when this error occurs
10 disp: "A"	3	Active Drying fan not functioning	Load sensing circuit indicates that the drying fan is not operational. This could be caused by a faulty control, fan motor, or wiring.	Load sensing circuit indicates that the fan is not operational.	Monitor load sensing circuit for fan during active drying intervals.	Cycles may be adjusted when this error occurs.