

# **SERIES**



## **X-Series Series Vended Standard and Large Chassis Washers Express (200G) & Non-Express (100G) Troubleshooting Guide**



**DEXTER<sup>®</sup>**  
**LAUNDRY**

# Common Troubleshooting Solutions

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

If any of the following symptoms occur on this washer, check the suggested remedies listed below. If all probable causes have been eliminated and the symptom still exists, contact your local Dexter agent for further troubleshooting assistance.

Symptom	Probable Cause	Suggested Remedy
Machine does not start	Power supply	Check these areas: Circuit breakers, Voltage, Power leads, Power connections. Is front display LED showing a dollar amount?
	Door Switch	Check for continuity through door switch when door is closed. If no continuity, adjust or replace door switch.
	Control breaker or Fuse	60 Hz: Check 2.0 amp breaker or fuse (50 Hz: 7 amp) for continuity. If no continuity, replace breaker or fuse.
	Control Transformer	Check voltage output from control transformer for 120VAC and 24VAC (60 Hz) or 24VAC (50 Hz). If voltage is incorrect, replace transformer.
	Coin Acceptor	Check coin acceptor switch for any type of blockage or damage. Clean, adjust or replace the acceptor.
	Check PCB board	Check all wire connections for loose contacts.
	Check wiring between PCB	Check data cable. This is the cable with the phone type connectors on the main PCB control and the VFD. With the power removed, unplug and check for damage, replug and retry washer.
	Check Relay PCB	Check all wire connections for sure contact.
	Check Door Locking Motor	Check that 120 VAC (60 Hz) or 24 VAC (50 Hz) power is at motor after start button is selected.
Machine will not accept and count coins	Coin Acceptor	Check coin acceptor switch for any type of blockage or damage. Clean, adjust or replace the acceptor.
	Power Supply	Check these areas: Circuit breakers, Voltage, Power leads, Power connection
	Door Closed Safety Switch	Check door closed switch at door hinge for proper operation.
	Door Handle Closed Switch	Check single door closed switch at left side of door handle to close when handle is vertical.
	Control Breaker or fuse	Check breaker or fuse for continuity. If no continuity, replace breaker or fuse. For 60 Hz, check 2.0 amp breaker or fuse. (For 50 Hz, all use 7 amp)
	Graphics Board	Replace
Door does not lock	Check display for fault code	Does "DOOR SHUT NOT LOCKED " show on the front of display? If yes, follow tests described in fault code section.
	Door locking motor	Check to ensure that motor is receiving 120 VAC (60 Hz) or 24 VAC (50 Hz) from main relay PCB. If it is, replace motor.
	Door Switch	Check for continuity through door latch switch when door closed. If no continuity, adjust or replace door switch.

# Common Troubleshooting Solutions

Symptom	Probable Cause	Suggested Remedy
Door will not open Door will not open	Thermoactuator	Check to see if thermoactuator and its mechanism are stuck or binding and not allowing the door lock motor to open. Check to be sure that the locking thermoactuator is not receiving 24 VAC (50 Hz and 60 Hz) during the last 1 1/2 minutes of the cycle. Also, check to see that the unlocking thermoactuator is receiving 24 VAC (50 Hz and 60 Hz) during the last minute of the cycle. If the thermoactuators do not receive voltage at the correct times, change the PCB control board. If the timing and voltage are correct, replace the thermoactuator.
	Door Locking Motor	Check the door lock motor. Make sure the main is not stuck or in a bind. If motor does not move freely, replace locking motor.
	Door Rod	Check to see that door rod from locking motor to lock assy is long enough to allow lock assy to disengage. If not, adjust rod.
No hot water in detergent dispenser	Water Valve Coil	Check coil continuity at terminals and replace if no continuity. 120 VAC (60 Hz) or 24 VAC (50 Hz) power only on for 20 seconds in wash bath.
	Water Inlet	Check water inlet screens for blockage and clean screens if necessary.
	Water	Check to ensure that water is turned on and operating.
	J1 Wire Harness	Check orange & blue wires in relay harness.
Hot water does not enter tub in wash	Water Valve Coil	Check coil continuity at terminals and replace if no continuity. Check for 120 VAC (60 Hz) or 24 VAC (50 Hz) power from main relay PCB.
	Water Inlet	Check water inlet screens for blockage and clean if necessary.
	Water	Check to ensure that water is turned on and operating.
	Orange or blue wire at controller & main relay PCB	Check orange and blue wire on main PCB controller J1 connection and at PCB relay board J2 connection.
	Pressure Switch	Check pressure switch continuity between terminal contacts. If no continuity, check pressure switch hose for obstruction. If the hose is okay, then change pressure switch.
No cold water to tub in wash	Water Valve Coil	Check coil continuity at terminals and replace if no continuity. Check for 120 VAC (60 Hz) or 24 VAC (50 Hz) power from main relay PCB.
	Water Inlet Screens	Check water inlet screens for blockage and clean if necessary.
	Water	Check to ensure that water is turned on and operating.
	Orange or blue wire at controller & main relay PCB	Check orange and blue wire on main PCB controller J1 connection and at PCB relay board J2 connection.
	Pressure Switch	Check pressure switch continuity between terminal contacts. If no continuity, check pressure switch hose for obstruction. If the hose is okay, then change pressure switch.

# Common Troubleshooting Solutions

Symptom	Probable Cause	Suggested Remedy
Water comes in but level does not rise	Drain Valve (open)	Check these areas: <ul style="list-style-type: none"> <li>• Drain valve blockage.</li> <li>• Drain valve motor and gear train. If there is power to the valve but drain valve does not close, replace drain valve and motor.</li> <li>• Power to the drain valve. If no power to drain valve, check (red/white) wire on J4-4 on PCB relay board. If there is no power on the (red/white) wire when the washer is in a wash cycle, replace relay board.</li> </ul>
	Orange or blue wire at controller & main relay PCB	Check orange and blue wire on main PCB controller J1 connection and at PCB relay board J2 connection.
Water does not flush softener compartment	Water Valve Coil	Check coil continuity at terminals and replace if no continuity.
	Water Inlet Screens	Check water inlet screens for blockage and clean if necessary.
	Water	Check to ensure that water is turned on and operating.
Water level too high	Pressure Switch	Check for blockage in pressure switch hose. Check for pressure switch opening circuit across terminals. Replace switch if contacts do not open. Check the Molex connector and that there is 24VAC at the orange and white/orange wires on the Water Pressure Sensor.
Water drains slowly	Drain System	Check hoses and drain valve for blockage. Check to make sure building drain is of adequate size. Check building drains for blockage.
Machine does not turn	VFD	Check VFD by removing top panel. If no display, turn power off to machine at breaker for 2 minutes and turn power back on to reset. If still no display, replace VFD.
Machine tumbles in one direction	VFD	See DISPLAYED WASHER MESSAGES section for more info.
	VFD	Inspect yellow and white/yellow enable wires from main control PCB and at VFD
Excessive vibration	Mounting System	Check these areas: <ul style="list-style-type: none"> <li>• Strength of mounting structure, concrete or base.</li> <li>• Mounting bolts may be loose and need tightening.</li> </ul>
	Drive Belt	Worn drive belt can cause vibration and noise.
	Loading	Small loads contribute to out of balance loading and increase vibration.
Machine does not spin	VFD	Check VFD by removing top panel. If no display, turn power off to machine at breaker for 2 minutes and turn power back on to reset. If still no display, replace VFD.
Machine starts and does not operate	VFD	Check yellow and white/yellow wires from main control PCB connection J14 to the VFD.

## Common Troubleshooting Solutions

Symptom	Probable Cause	Suggested Remedy
Machine does not stop	Main PCB	Main PCB controls time cycle at end of cycle
	Braking Resistors	Check braking resistors for continuity. Verify ohms resistance at braking resistors.
Water leakage around loading door	Door Adjustment	Door may need adjustment due to abuse or wear. Check tightness around perimeter using a dollar bill. Adjust left to right tightness by shims at door lock or hinge side. It is important to center gasket to tub opening before tightening door to hinge bolts. Chalk may be used on tub front to show point of contact with tub. If gasket is deformed, worn, or damaged, replace. Refer to parts section for door gasket expander kit.
Signs of a damaged E-Stop button.	Stop button	Machine accepts coins, When machines starts, the buzzer will sound, and then the machine stops. The display will then show "OPEN DOOR". Replace stop button.
Soft reset procedure		<ol style="list-style-type: none"> <li>1) Locate the SW1 and SW2 switches on the back of the main control board.</li> <li>2) Press and hold button for 3 seconds.</li> <li>3) Release the SW1 switch and continue holding SW2 until the Dexter Laundry logo appears.</li> <li>4) Release all buttons. This completes the soft reset.</li> </ol>

# Common Troubleshooting Fault Codes

The washer control reacts to various abnormal conditions by displaying an Error message. These messages usually contain the "Error" text, and then a general description of the message. Below is a listing of Error messages separated by each potential displayed message in bold face. Each is followed by:

- Condition that creates the displayed message on the control
- Action that the control takes responding to the condition
- Exit is the method the user (or the control) should use to bring the machine back to normal operation.

The actual displayed message on the control may contain the general description listed below and additional details (such as number or additional text). However, the condition, action or exit qualities of the error message should be the same for all variations.

Note: Whenever power is turned off to the washer, it must remain off for one minute. The washer will not operate properly if this is not done.

<b>OPERATION IN PROGRESS</b>	
<b>Condition</b>	This error occurs when the user is attempting to start a machine operation while another operation is ending.
<b>Action</b>	When detected, the control does not respond to user input. There is no delay in the action once the criteria are met. The control will finish the current operation while displaying "OPERATION IN PROGRESS". Once the operation is complete, the error will no longer be displayed, and the control will respond to user input normally.
<b>Exit</b>	The error will be reset automatically once the current operation is complete.

<b>POWER LOSS</b>	
<b>Condition</b>	This error occurs when the Main Control Board detects a total loss of 24VAC power (usually accompanied by loss of power to the complete machine).
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed for 10 seconds. After 10 seconds, the Error code should automatically reset and the cycle should be ready to re-start or the control should be in Idle mode (depending on the time period of the power loss).
<b>Customer Action</b>	1) Verify both 120V and 24V fuses are functioning properly. 2) Test for incoming power.

## Common Troubleshooting Fault Codes

<b>BROWN OUT</b>	
<b>Condition</b>	This error occurs when the Main Control Board detects less than 21VAC at the 24VAC input.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed for 10 seconds. After 10 seconds, the Error code should automatically reset and the cycle should be ready to re-start or the control should be in Idle mode (depending on the time period of the power loss).
<b>Customer Action</b>	<p>1) Measure the supply voltage to the VFD on the L1, L2 (or N), and L3 (if connected to 3-Phase power). They supply voltage should be from 200-245VAC or 110-130VAC for a 120VAC VFD. Also, make sure the supply wires on L1, L2 (or N), and L3 (if connected to 3-phase power) are securely connected.</p> <p>2) Verify the Control Transformer is set correctly. The Control Transformer is located inside the control trough and steps a range of 208-240V down to 115V. There are two terminals on the Control Transformer for the primary (incoming) power. Use the terminal marked "208V" for power supplies between 208-219V. Use terminal marked "240V" for power supplies between 220-240V.</p>

<b>CONTROL FIRMWARE ERROR</b>	
<b>Condition</b>	This error occurs when the Main Control Board cannot command the input and outputs of the control system as required by the cycle programming.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<p>1) Power cycle machine.</p> <p>2) Inspect all harness connections for loose or damaged wires.</p>

# Common Troubleshooting Fault Codes

<b>DOOR SHUT, NOT LOCKED</b>	
<b>Condition</b>	This error occurs after 3 attempts of starting the cycle when the Door Locked signal is not received within 1 second. It will also occur at any other point in the Washer cycle if the Door Lock signal is lost while a Wash cycle is in-progress. A self-check door lock test is performed two minutes into the first full bath. During this test the machine is verifying the thermoactuator has expanded and holding the locking arm in place- this is a normal check.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Note timing of error in the cycle; 2) Power cycle machine; 3) Verify correct thermoactuators (Black 24VAC) are installed and wired properly; 4) If issue occurs 2 minutes into cycle, test voltage (24VAC) at thermoactuators; 5) Verify there is no voltage at the door lock motor; 6) Check pin connections at door lock assembly- this will require the front panel and masking ring to be removed.

<b>SLOW FILL</b>	
<b>Condition</b>	This error occurs when the programmed water level is not reached within 7 minutes.
<b>Action</b>	When detected at 7 minutes into the stage, the control will display the "SLOW FILL ERROR" prompt, alternating with the normal Cycle Progress screen at a rate of 5 seconds on, 5 seconds off. Otherwise the cycle will continue normally.
<b>Exit</b>	The Error Code will continue to be displayed until the in-progress cycle is stopped and the control is returned to Idle Mode. It will then reset automatically and the next washer cycle can be started normally.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Check to see if the machine is filling.</li> <li>2) Test water supply.</li> <li>3) Inspect drain valve for blockage.</li> <li>4) Test for voltage on appropriate water valve to see filling.</li> <li>5) Check to see if machine is overfilling.</li> <li>6) Clean pressure switch tube and inspect for dry rot or holes.</li> <li>7) Possibly need to replace pressure switch.</li> </ol>

## Common Troubleshooting Fault Codes

### WATER LEAK DETECTED

<b>Condition</b>	This error occurs when the programmed water level has been met and the water valve continue to actuate during the same washer stage
<b>Action</b>	When detected, the control will display the "WATER LEAK DETECTED" prompt, alternating with the normal Cycle Progress screen at a rate of 5 seconds on, 5 seconds off. Otherwise the cycle will continue normally.
<b>Exit</b>	The Error Code will continue to be displayed until the in-progress cycle is stopped and the control is returned to Idle Mode. It will then reset automatically and the next washer cycle can be started normally.
<b>Customer Action</b>	1) Inspect drain valve or drain for blockage and check that drain valve is closed; 2) Check for leaks while in cycle under or in the back of the machine; 3) Clean pressure switch tube and inspect for dry rot or holes; 4) Verify pressure switch tube routing has a continuous slope and no sagging areas.

### WATER PRESSURE SENSOR NOT DETECTED

<b>Condition</b>	This error occurs when the control doesn't detect the water pressure sensor upon bootup.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met. This check is only performed upon control bootup.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Power cycle machine; 2) Inspect for the power light on the pressure sensor; 3) Verify 24VAC to pressure sensor- perform check at ORG and WHT/ORG wire at terminal block (just in front of pressure sensor).

### SLOW SPIN

<b>Condition</b>	This error occurs when the motor does not reach a target frequency while accelerating, within a specified time.
<b>Action</b>	When detected, the control turns off the motor and machine motion stops.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Power cycle machine; 2) Check for items restricting drum/basket movement; 3) Verify belt is installed and at correct tension - no more than 1" deflection at center; 4) Verify enable circuit is complete, harness connections are solid, white and yellow wires; 5) Verify harness connections at E-stop and control board.

## Common Troubleshooting Fault Codes

<b>SPIN TIME</b>	
<b>Condition</b>	This error occurs when the motor does not reach a target frequency while decelerating, within a specified time.
<b>Action</b>	When detected, the control turns off the motor and machine motion stops.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	Check VFD fault light before turning off power. Inspect the braking resistors and measure the resistance. Check connecting wiring from braking resistor to the drive mounted in the top of the washer. Test incoming Power, If 3 phase power does it have a High leg. If power has a high leg, cap off an run machine on single phase power on L1 & L2 Connections. Reset the drive and try again. Possibly incorrectly programmed drive.

<b>SLOW DRAIN</b>	
<b>Condition</b>	This error occurs when an empty water level is not reached within 5 minutes.
<b>Action</b>	When water pressure is detected at the beginning of the drain operation, the prompt "SLOW DRAIN ERROR" is displayed, alternating with the normal Cycle Progress screen at a rate of 5 seconds on, 5 seconds off. The washing (agitating) continues for an additional 5 minutes. If water pressure is still present after 5 minutes, the Spin portion of the stage is skipped. Also, if water pressure is detected during a Spin portion of a stage, the control will command deceleration to occur. Agitation will then be used to continue during the remaining stage time.
<b>Exit</b>	The Error Code will continue to be displayed until the in-progress cycle is stopped and the control is returned to Idle Mode. It will then reset automatically and the next washer cycle can be started normally.
<b>Customer Action</b>	1) Inspect Drain valve or drain for blockage; 2) Clean Pressure switch tube; 3) Inspect pressure sensor.

# Common Troubleshooting Fault Codes

## GRAPHICS SOFTWARE ERROR

<b>Condition</b>	This error occurs when the Graphics Board cannot command the Main Control board as required by the cycle programming.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Power cycle machine; 2) Inspect and replace if needed harness between graphics board and control board; 3) Check and update firmware if needed.

## MODEL JUMPER MISSING

<b>Condition</b>	This error occurs when there is no connection to Ground (Pin 7) on the Model Jumper Header.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met. The machine control checks for this condition when power is cycled and before starting every machine cycle.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Inspect model connector on the control board, verify connection, and is correct for model of machine; 2) If VFD has been replaced, verify that it is correct for the model of machine; 3) Complete soft reset.

## MODEL JUMPER CHANGED

<b>Condition</b>	This error occurs when the jumper connections to Ground (Pin 7) on the Model Jumper Header have changed since the last control check.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met. The machine control checks for this condition when power is cycled and before starting every machine cycle.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Inspect model connector on the control board, verify connection, and is correct for model of machine; 2) If VFD has been replaced, verify that it is correct for the model of machine; 3) Complete soft reset.

## Common Troubleshooting Fault Codes

### MODEL JUMPER DRIVE SIZE MISMATCH

<b>Condition</b>	This error occurs when the jumper connections to Ground (Pin 7) on the Model Jumper Header do not match the VFD size code.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met. The machine control checks for this condition when power is cycled.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"><li>1) Inspect model connector on the control board, verify connection, and is correct for model of machine.</li><li>2) If VFD has been replaced, verify that it is correct for the model of machine.</li><li>3) Complete soft reset.</li></ol>

### MODEL JUMPER/ DRIVE PARAMETER

<b>Condition</b>	This error occurs when the jumper connections to Ground (Pin 7) on the Model Jumper Header do not match the VFD parameters being used.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met. The machine control checks for this condition when power is cycled.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"><li>1) Inspect model connector on the control board, verify connection, and is correct for model of machine.</li><li>2) If VFD has been replaced, verify that it is correct for the model of machine.</li><li>3) Complete soft reset.</li></ol>

## Common Troubleshooting Fault Codes

<b>NON-DEXTER DRIVE</b>	
<b>Condition</b>	This error occurs when a non-Dexter VFD is installed in the machine.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met. The machine control checks for this condition when power is cycled and before starting every machine cycle.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	VFD has been replaced, disconnected, or removed. VFD Drive is not the correct Dexter version of the VFD. Replace VFD drive with Dexter VFD drive.

  

<b>DRIVE OVERCURRENT</b>	
<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced an over current condition.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Power cycle machine</li> <li>2) Check to make sure the washer cylinder turns freely by hand. If it turns freely, continue to step 3. If it does not, remove the belt and see if the motor turns freely by hand. If the motor turns freely, then check for obstructions in the cylinder or check the bearings. If the motor does not turn freely without the belt, replace the motor.</li> <li>3) Check the motor wires for a short circuit between leads. If there are motor leads that have conductors touching, separate them and insulate them. If the wires are broken, repair as needed.</li> <li>4) Check braking resistors to see if they measure the correct resistance. If a resistor does not measure the proper value, replace.</li> </ol>

# Common Troubleshooting Fault Codes

## DRIVE OVERVOLTAGE

<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced an over voltage condition.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Power cycle machine</li> <li>2) Measure the supply voltage to the VFD on the L1, L2 (or N), and L3 (if connected to three phase power). The supply voltage should be from 200 to 245 VAC or 110 to 130 VAC for a 120 VAC VFD. Also make sure the supply wires on L1, L2 (or N) and L3 (if connected to three phase power) are securely connected.</li> <li>3) Check the braking resistor connections at the VFD. The terminal screws should be tight. Once of the braking resistor wires should be connected to terminal B2.</li> <li>4) Measure each braking resistor separately to make sure they are the correct resistance. (200 for T-350/T-450 and 160 for 3 Hp for T-650 and above).</li> <li>5) If this is a 3-Phase, high leg location, disconnect the high leg, verify approximately 120VAC on each L1 and L2. Retest with just L1 and L2 connected. If this resolves the issue, leave the high leg disconnected and cap off.</li> </ol>

## DRIVE OVERHEAT

<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced an overheat condition. Note: The cooling fan will turn on when the internal temperature of the VFD reaches 140° F (60° C) and will shut off when the internal temperature drops to 104° F (40° C).
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Power cycle machine;</li> <li>2) Make sure the cooling fins on the VFD heatsink and the ventilation louvers on the VFD cooling fan cover are clean;</li> <li>3) Start a washer cycle and make sure the VFD cooling fan operates after the cylinder starts turning.</li> </ol>

## Common Troubleshooting Fault Codes

<b>DRIVE OVERLOAD</b>	
<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced an overload condition.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Check drive fault code/light before powering down machine.</li> <li>2) Verify tub is draining completely.</li> <li>3) Check belt tension and adjust to 1" deflection max at center.</li> <li>4) Verify washer basket spins freely. If not, check basket for obstruction.</li> <li>5) Remove belt and verify motor spins freely.</li> <li>6) Check for loose wiring connections at drive and motor.</li> <li>7) Check for damaged wires.</li> <li>8) Measure each braking resistor separately to make sure they are the correct resistance. (200 for 1 and 2 Hp VFD and 160 for 3 Hp VFD).</li> </ol>

<b>DRIVE GROUND FAULT</b>	
<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced a ground fault condition.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Check drive fault code/light before powering down machine.</li> <li>2) Check for loose wiring connections at the drive and motor.</li> <li>3) Check for damaged wires.</li> <li>4) Check the ground wiring of the drive, motor and incoming connection to ensure a proper ground is present.</li> <li>5) Verify connections on both ends of the enable wires on the drive (VFD) and control board - yellow and white wires.</li> <li>6) Verify connections at E-Stop switch.</li> </ol>

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## Common Troubleshooting Fault Codes

### DRIVE LOW VOLTAGE

<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced a low voltage condition.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	Check VFD light code before turning off power. Turn the power off to the washer. Check the wiring connections to the drive and motor. If no problem is observed, turn on power to the washer and test. Measure the incoming line voltage.

### DRIVE INTERNAL ERROR

<b>Condition</b>	This error occurs when the control receives a message that the drive has experienced an internal error.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	Check VFD fault light before turning off power. Turn the power off to the washer. Wait one minute. Turn the power on to the washer. If problem reappears, contact your Dexter representative.

## Common Troubleshooting Fault Codes

### DRIVE EXCEPTION ERROR

<b>Condition</b>	This error occurs when the control receives a message that the drive has logged an exception code.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	Check VFD fault light before turning off power. Turn the power off to the washer. Wait one minute. Turn the power on to the washer. If problem reappears, contact your Dexter representative.

### DRIVE COMMUNICATION ERROR

<b>Condition</b>	This error occurs the control cannot communicate with the VFD.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Power cycle machine 2) Check wire connections and communication cable between the VFD and the control board.

### DRIVE ENABLE ERROR

<b>Condition</b>	This error occurs when the control sees a message that the VFD Enable circuit is not closed.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until the condition is no longer present. Once the condition is removed, the machine still will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	1) Power cycle machine; 2) Verify wire connections on both ends of the enable wires on the drive (VFD) and the control board - yellow and white wires; 3) Verify connection on data cable; 4) Verify door lock thermoactuators and door lock motor are functioning properly.

# Common Troubleshooting Fault Codes

## OUT OF SERVICE

<b>Condition</b>	This error occurs when the user has designated that the machine control should be made inoperable.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed the user changes the Out of Service state.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Check status in manual programming.</li> <li>2) Check status in DexterLive.</li> <li>3) Remove from out of service state.</li> </ol>

## CYCLE UNEXPECTEDLY STOPPED

<b>Condition</b>	This error occurs when the information received from the Main Control board arrives in an unexpected order.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	The machine will not start, and the Error Code will continue to be displayed until power is cycled to the machine, or the control is Reset to return it to Idle Mode.
<b>Customer Action</b>	<ol style="list-style-type: none"> <li>1) Power cycle machine</li> <li>2) Check incoming power supply</li> <li>3) Check wire connections to control board.</li> </ol>

## MAX PAUSE TIME EXCEEDED

<b>Condition</b>	This error occurs when a power loss or a brown out event causes an in-progress cycle to stop. If the cycle is not resumed after 1 hour, this error will be thrown.
<b>Action</b>	When detected, the control turns off the motor and all other outputs. There is no delay in the action once the criteria are met.
<b>Exit</b>	No action required. Error will be displayed for 5 seconds and then return to Idle screen.

Note: Whenever power is turned off to the washer, it must remain off for one minute. The washer will not operate properly if this is not done.