



DEXTER
LAUNDRY

Dexter A-Series Washer

Troubleshooting Machine Fault Errors

The following pages are a description of fault codes that will appear on the front of the washer. There is a chart format that shows what fault code that will be displayed at washer front. These codes displayed may stop machine operation or may not stop machine Please check chart before removing power to reset. **PLEASE NOTE: CHECK DRIVE FAULT CODE BEFORE POWERING MACHINE DOWN!**

Fault#	Description	Customer Action
F1	The door failed to close and lock or The door failed to remain locked during the cycle.	Check VFD fault code before turning off. Check to hear if door solenoid engaged. Turn off the power to the washer. Check wire connections to door /lock switches. Check wire connections from switches to controller. Check P-4 wire connections at PCB controller. Adjust the door lock mechanism. (See service manual)
F2	The washer tub does not fill with water within 7 minutes. The wash cycle will continue. The F 2 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Turn off the power to the washer. Check the operation of the water valves. Check the incoming water pressure. Check for blocked or restricted water flow. Check to ensure the drain valve is functioning properly. This error will occur on 18# washers when water level is set for high (the pressure switch in 18# washer is only one level).
F3	Memory error in controller The memory checksum is wrong.	Check VFD fault code before turning off power. Try to clear the fault with the Palm. Try a soft Reset of the controller with the white button. If problem. Replace PCB controller.
F4	Washer controller communication error	Check VFD fault code before turning off power Try the data cable first. Move around cable and remove any side loading tension from data cable connector ends. Check connection P25/24/23 to P15. Turn power back on to the washer. If the problem returns, replace the PCB washer controller.
F5	Pressure Switch error (only OPL) - when the high level sensor indicates full but the lower one indicates empty. The wash cycle will continue. The F 5 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Check VFD fault code before turning off power. Check the pressure switch. (<u>Ohm out contacts</u>). Check pressure switch connections to ensure they are all making good contact. Check the Molex type harness connector to ensure no wire been pushed out of the Molex type housing that it is shorting or not connecting.

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Fault#	Description	Customer Action
F6	Wrong washer size for drive type.	Check VFD fault code before turning off power. If the controller was installed in a different size machine before being installed in this machine, a problem can occur. If someone has been doing repairs on the washer, check for the correct size drive. It can also be caused by pressure switch harness. Check to ensure the correct harness is installed. The control can be reset by holding program button on controller during startup (soft reset). Check orange wire at Molex connector on controller coming from pressure switch or replace pressure switch harness.
F7	Wrong size drive installed	Check VFD fault code before turning off power. Check to ensure all the harnesses are properly connected to the controller. Check to ensure the VFD drive horsepower is proper for this size of washer. The control can be reset by holding program button on controller during startup (soft reset) Check orange wires at molex connector on controller coming from pressure switch.
F8	The washer tub does not empty within 7 minutes. The wash cycle will continue. The F 8 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Check VFD fault code before turning off power. Check to ensure the drain valve is operating properly (slow drain has potential to cause this code). Check to ensure the pressure switch tube is clear of any blockage, and the pressure switch is operating properly. Check the pressure switch harness.
F9	The washer tub does not reach the spin target frequency within 150 seconds. The wash cycle will continue. The F9 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Check VFD fault code before turning off power. Inspect the washer to ensure the tub spins freely. If restricted, then clear the blockage. Check to ensure the enable signal to the drive is present. Reset drive and try again. (Door switch issue could cause this code) If tub spins freely, the drive needs replaced. Check braking resistors and measure resistance.
F10	After a spin the washer tub does not stop within 150 seconds.	Check VFD fault code 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. Reset the drive and try again. Possibly incorrectly programmed drive.

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Fault#	Description	Customer Action
F11	The drive size setting has changed.	Check VFD fault code before turning off power. Check to ensure all the harnesses are properly connected to the controller. Check to ensure the drive horsepower is proper for this size of washer. If no one has worked on machine very recently then PCB controller or VFD may need to be replaced. Do a soft reset before and after either VFD replaced.
F12	Washer controller internal error	Check VFD fault code before turning off power. Turn off the power to the washer. Wait one to two minute. Turn on the power to the washer. If problem reappears, contact your Dexter Authorized Representative.
F13	The variable frequency drive (VFD) and the washer computer are not communicating.	<p>Check the data communication cable between the washer computer and the variable frequency drive (VFD).</p> <p>Step 1: Make sure the cable did not become unplugged during operation.</p> <p>Step 2: Make sure that the cable is not being pulled sideways at either the washer controller, or the VFD, plug end. If both ends of the communications cable are plugged in the washer computer and VFD and there is no tension on the communications cable pulling it from side to side, then replace the cable.</p> <p>Step 3: Inspect both female connection points at PCB controller and at VFD. These may need replacement if they cannot be reset.</p>
F14	Over-current on the drive or motor.	<p>Step 1: Check to make sure the washer cylinder turns freely by hand. If it turns freely, continue to step 2. 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, replace the motor.</p> <p>Step 2: 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, splice them together or replace the motor.</p> <p>Step 3: Check braking resistors to see if they measure the correct resistance. If a resistor does not measure the proper value, replace it.</p>

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Fault#	Description	Customer Action
F15	<p>The variable frequency drive (VFD) senses that the internal voltage is too high. The source of the problem can originate from two different areas.</p> <p>Area 1: The input voltage can be too high, or there may be a high level of electrical noise.</p> <p>Area 2: The motor can be generating a voltage that is acting like an input to the VFD output motor terminals.</p>	<p>Step 1: 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 187 to 264 VAC or 108 to 132 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.</p> <p>Step 2: Check the braking resistor connections at the VFD. The terminal screws should be tight. One of the braking resistor wires should be connected to terminal B2.</p> <p>Step 3: 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).</p> <p>Step 4: If you have a 240 VAC, high leg voltage supply, try disconnecting the high leg. If this cures the problem, either leave the high leg disconnected, connect a transient voltage surge suppressor (with some form of filtering) at the voltage supply panel, connect a line choke on the high leg or install a VFD filter.</p>
F16	<p>The temperature sensor inside of the variable frequency drive detects that the internal temperature is too high.</p>	<p>Step 1: Make sure the cooling fins on the VFD heatsink and the ventilation louvers on the VFD cooling fan cover are clean.</p> <p>Step 2: Start a washer cycle and make sure the VFD cooling fan operates after the cylinder starts turning.</p>
F17	<p>Overload of the drive or motor</p>	<p>(Check drive fault code before powering down). Check the washer motor to ensure it turns freely. Check the wiring for loose connections to the drive and motor. Measure the braking resistor values. Check for damaged motor wires. Check V-Belt tension and adjust to 1" deflection at center.</p>
F18	<p>Ground Fault to the drive</p>	<p>Check VFD fault code before turning off power. Check the wiring connections to the drive and motor. Check the ground wiring of the drive, motor and incoming connection to ensure a proper ground is present. Check for damaged motor wires.</p>

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Fault#	Description	Customer Action
F19	Low Voltage to the drive	Check VFD fault 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. (See Note) Measure the incoming line voltage.
F20	Internal drive error	Check VFD fault code 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.
F21	Data error on communications between the controller and drive Internal drive error # 32. This error also has CEXX errors associated with it that are presented on the drive display.	The CE errors are communications errors. Data Cable noise can cause the majority of these errors. Check VFD fault code before turning off power. Check the data cable between the controller and the drive. Replace data cable if it appears damaged and fault appears again. Please note that this fault will occur if you turned main power off and on to quickly. (See Note below)

Warning codes F22 - F28: These codes indicate that a component (VFD, relay PCB, injection relay PCB, water valve) has been replaced, added, or removed and you will need to **soft reset** the PCB controller board to reset the main controller to operate properly.

F22	Future use	No action required
F23	VFD has been replaced, disconnected, or removed.	Soft reset drive.
F24	Injection relay PCB has been removed or loose connection.	Soft reset drive.
F25	Optional water valve PCB removed or water valve has been replaced .	Soft reset drive.
F26	VFD unit has been added or loose connection.	Soft reset drive.
F27	Injection relay PCB has been added to machine or loose connection.	Soft reset drive.
F28	Optional water valve PCB has been added or loose connection	Soft reset drive.

Note: Whenever power is turned off to the washer, it must remain off for three minutes for drive to reset. The washer will not operate correctly if this is done improperly. This will allow most fault codes to reset that are displayed at washer front. A fault code F-13 or F-21 will appear on front display if this procedure has not been reset correctly. Note: Should a power loss occur during cycle and then power returns, P U S H will be displayed and customer must push a temperature selection button to continue the cycle.