Wet Dog Glass Troubleshooting – Error Codes on Eclipse T600 and Dungs MPA Flame Safeguard Systems. Rev2 2025

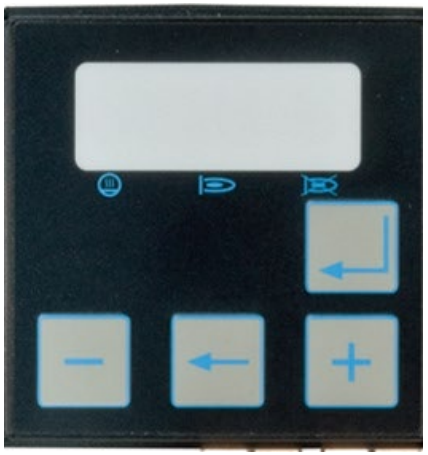
Fxx Designates an error code. Be aware that not all digits shown on the display are clear. FA b is often misinterpreted as FA 6. An important part of troubleshooting combustions systems is to note the exact error code every time it appears and when in the startup sequence the error code appeared.

When an error has occurred during operation, note the code (Take a picture) and reset the equipment. Observe if the same error occurs, a different code, and at what point in startup it occurs. Try to deduce what the equipment was doing when the original error occurred. Ex. Was it when the furnace was going up to or coming down from charge? Did it happen when the glory hole was coming up to temperature or after it had been at temperature for some time?

In the charts below, error codes are split up into multiple rows. Many error codes have more specific meanings and solutions depending on when they occur. For the best troubleshooting experience, note down exactly what errors occurred and at what point in startup or operation.

Standard Codes, indicate which "State" the system is in.

Display Code	Definition	Description
0	Standby Mode	Waiting for "Burner On" switch. Only present when "Burner On/Off" Switch is present, 2020 and newer.
1	Startup	Checks of switches and UV for proper off state. Then Blower Purge and check for air pressure.
2	Trial for Ignition	Gas valves open, sparkplug sparks, UV scanner checks for Flame.
3	Operation	Spark plug stops sparking, flame is established. Startup and ignition is fully completed. The MPA will stay in State 3 until an error occurs or it is turned off.



Release button
RESET function and confirmation of the entry

LED:
Blue: Heat request
Yellow: Flame quality (flashes if the flame quality is poor)
Red: Fault

Display Code	Technical Cause	State occurring/Specific occurrence	Possible cause	Solution
FA2	The MPA sends out voltage from terminal 9 through the safety chain (Interlocks). If the voltage does not reach terminal 10, the FA2 error occurs. The safety chain always has three switches in it: High Limit, Low Gas Pressure, and High Gas Pressure. Some equipment may have additional gas pressure switches. Customers may also add to the safety chain with switches such as CO, Fire alarm, Estop, etc. FA2 does not indicated which switch of the safety chain is tripped. Depending at what stage it occurs, the problem can be narrowed down.	Occurs immediately upon Reset. Blower may start spinning, and then turn back off within 1-2 seconds.	Check Watlow for Error Code (Er.i2, Li.ll, Li.lH, etc) If present, refer to Watlow troubleshooting. It's probably the thermocouple.	Check and tighten thermocouple connections at the head of the thermocouple where it goes into the furnace, and at any other connections points. Check continuity of the thermocouple, it may be broken and need replaced.
			If there is no error on the Watlow, then it is likely the low gas pressure switch is not seeing enough gas pressure.	Are all valves on the gas line to the furnace open? Is the propane tank empty? Has your gas pressure been lowered? The adjustment dial on the low pressure switch can be turned as low as 2 to see if your gas pressure dropped, but there is still some gas available. If all above options have been checked, there may be deeper issues.
		Occurs in State 2, immediately after gas valves open. You will hear the click of the valves opening, and the "Trial For Ignition" light will turn on (If present). Then the system will immediately shut down and show FA2.	Gas pressure may be too high. The High Gas Pressure switch only sees and reacts to the pressure once the valves open. Or the gas pressure may be just barely too low. When the valves open the pressure at the Low gas pressure switch drops slightly. If it is only just enough, the low pressure switch may trigger when the valves open.	Ideal gas pressure is 20"w.c. for WDG equipment. Recommended between 12"-28". Absolute minimum is 2", maximum is 60". Increase the High Pressure switch to maximum and low to minimum. If the equipment can start after these changes, slowly decrease the high and increase the low until the equipment turns off with FA2 error. The setting of the dial when the equipment failed is your approximate gas pressure. The Low switch should be set 25% below the actual pressure, and the High switch 25% above the actual pressure.
		Occurs in State 3, when the furnace has been running normally for some time (1 Minute or 1 year)	Check Watlow for Error Code (Er.i2, Li.ll, Li.lH, etc) If present refer to Watlow troubleshooting. Its probably the thermocouple. If there is no error on the Watlow,	See above FA2 Solutions.

			then it is the gas pressure switches. Possibly a drop in supplied pressure, empty propane tank, clog in lines or filter	
		During any step	Other customer supplied switches are in error. This could be Fire Alarm, CO Monitor, Ventilation Interlock, Emergency shutoff, etc.	Investigate the other switches, and connections.
FA6 or FbA	UV scanner is detecting flame before it reaches the "Trial for Ignition" stage.	State 1, during startup but before "Trial for Ignition".	UV scanner is detecting flame before it reaches the "Trial for Ignition" stage.	Ensure UV scanner can't see flame from another piece of equipment or a bright light bulb. Some large equipment with large gas line may have a small flame remaining after gas valves close as the remaining gas in the line makes its way to the burner. Check to see the flame has gone out before restarting.
			Torch or lighting flame is inserted too earlier.	Wait until the blue "Trial for Ignition" light comes on, or blue light or red indicator on Valve appear before inserting torch.
			UV scanner is defective. The UV scanner can fail in a way that it continues to tell the MPA that it is seeing a flame when there isn't one. The flame light on the MPA is lit even when the UV scanner can see no flame or light.	Replace UV Scanner.
FA7	UV Scanner does not detect flame during "Trial for Ignition". Will occur if there is no flame at all, or if the flame lights but is unstable and goes out too quickly.	Flame does not light at all.	Gas safety shutoff valves did not open. Check Visual Indicators on valves, they should show that the valve opened when "Trial for Ignition" begins. Do you smell any gas in the equipment?	Gas valves may be wired incorrectly or be faulty. If there are manual valves between the safety valves and the burner ensure they are open.
			Ignition spark plug dirty or has faulty wiring	Remove spark plug and clean gently with paper towel or green scrubby pad. Check spark gap spacing.

			Gas/Air mix is very bad.	Adjust gas/air mixture
		Flame lights but is unstable.	Mixture too lean or rich to establish flame.	Adjust gas/air mixture
		Flame lights and looks stable, but then shuts down with FA7.	Failure to detect established flame.	-Clean lens of UV scanner. -Ensure UV scanner has clear line of sight to flame. You can remove the UV scanner and look through its lens during startup to confirm the flame should be visible. -On Furnaces, lower the set point or % so that the blower is going at lower speeds during startup. -Replace UV scanner.
FA8	UV scanner stops detecting the flame after it was fully established in state 3. Could occur 1 minute after startup, or 1 year. Will occur if the flame goes totally out, if the flame is very unstable, or if the UV scanner can no longer detect the flame.	Can the system be restarted and goes back into normal operation?	Flame went out due to bad gas/air mixture at a certain blower speed, or an interruption in gas or air.	Check for leaks in the flexible air line and other air lines. Clean the Blower Filter. Check gas/air tuning of furnace at all blower speeds to ensure a certain speed isn't very lean or very gasy.
		When trying to restart does the system show a different error code?	→	See that error codes section for details. It is likely the flame going out was just the first symptom of a different problem.
FA9	Flame goes out during stabilization	"Stabilization" is a short period during the startup sequence. See FA7 for all equipment except for Glory holes equipped with Auto Ignition	On Glory Holes with auto ignition, the stabilization period is when the spark plugs stops sparking, and only the pilot flame is lit, before the main burners get gas.	Adjust gas and air mixture of the pilot flame.
F13	Voltage on the safety chain when there should not be.	System shuts down or doesn't start up	Low gas pressure switch trips when gas valves open. Valves close, Switch untrips, valves open. Repeats. Valves	Increase gas pressure to the equipment. Decrease setting of low pressure switch.

			flicker open and closed until F13 appears.	
F04	Reset Lockout	System locked out, pressing reset causes screen to flash then go back to F04.	MPA has been reset too many times in too little time	Hold reset button down until screen blinks, about 5 seconds. The reset button is the top right button on the screen of the MPA. You must hold this reset button on the MPA, and not the reset button on the outside of the control panel.
Fd2	Reset lockout	System locked out, the remote reset (Reset button on outside of control panel) will no longer function. Occurs when trying to reset from other error codes.	V2.0 MPA's that begun to be used in 2024 now have this "feature". It will only appear when using the remote reset button to try and clear certain other codes.	Press the physical reset button on the MPA itself. The reset button is the top right button on the screen of the MPA.
FAA	Air pressure switch triggered out of sequence.	Occurs and the blower is **not** on	Air pressure switch may be stuck or wired incorrectly	Tap the air pressure switch several times to unstuck it. Remove and clean of and debris buildup from the air line overtime. Check wiring.
		Occurs and the blower **is** on while FA7 or any other Fxx code is showing	The blower is on when it should not be.	Check your control panel for CR1. Some generations of equipment have a CR1 parts that is green with a small white cube on top. Can get stuck in the on position. Disconnect all power to the unit, remove the white cube from CR1, tap it several times, and put back in place. If this does not solve the issue CR1 may need replaced.
Fab or Fb4	No air pressure when there should be.	Blower does **not** turn on. MPA shows 1 for 45+ seconds, and then shows FAb	Blower fuse may have blown	Blower Fuse is usually F2 on equipment 2016 and newer, check schematic. Disconnect all power from unit, remove fuse holder and check continuity of fuse. Replace if blown.
			Blower wiring harness loose	Disconnect all power from unit. Open blower enclosure and ensure wiring to blower is in place and snug.
			Blower failed	Replace blower. Electrician can confirm blower is receiving the correct power: 1.6-10VDC on black and red pair of wires, 120V or 240V on black and white pair of wires. See wiring schematic for non Ametek blowers.

		Blower **does** turn on. MPA shows 1 for 45+ seconds, and then shows FAb	Blower Filter is clogged Air piping has major leak	Check and clean blower filter. Check and repair/replace leaks in air line
			Drain valve is in incorrect position.	Three way Black and Yellow valve below blower: Turn the yellow handle so that the right angle arrow symbol points towards the blower and towards the flex line. For older units with gray and blue two way drain valve, it should be closed so no air comes out during operation.
			Blower is going too slow and not providing enough air pressure.	If FAB only occurs when blower is at or near minimum, and the above two options have already been checked. The signal from the Watlow to the Blower may be too low making the blower go too slow, or the air pressure switch may be set too high. Increase S.Lo of the watlow by .1 until issue is resolved, and/or decrease the setting of the air pressure switch to .16"
			Air pressure switch is very clogged or faulty.	Remove and clean air pressure switch, or replace.
Fb6	Proof of Closure switch (Also called Closed Position Indicator, POC, CPI) is not showing the correct position at the correct time.	Occurs immediately upon reset	Proof of closure switch shows valves open when they should be closed, may be loose or need adjusted. On Dung's Brand POC light should be green when valve is closed and burner is off, orange when valve is open and burner is on (Or trying to turn on)	On Dungs brand: Ensure POC is snugly attached, It can rotate slightly but should not wiggle towards and away from the valve body. Tighten set screw if loose.
				On Dungs brand: After ensuring switch is snugly attached, adjust yellow dial under the cover so that light is green when valve is closed. Turn dial just until light turns green, and continue turning just a tiny bit past (5 degrees).
		Occurs during startup, when the gas valves first open	Proof of closure switch shows valves closed when they should be open, may be loose or need adjusted. On Dung's Brand POC light should be green when	On Dungs brand: Ensure POC is snugly attached, It can rotate slightly but should not wiggle towards and away from the valve body. Tighten set screw if loose.

			valve is closed and burner is off, orange when valve is open and burner is on (Or trying to turn on)	On Dungs brand: After ensuring switch is snugly attached, adjust yellow dial under the cover so that light is green when valve is closed. Turn dial just until light turns green, and continue turning just a tiny bit past (5 degrees).