



CS3000 Irrigation Controller Basic Troubleshooting

For additional questions or comments, please contact Calsense customer service at (760) 438-0525. Hours are Monday- Friday 8am-5pm PST.



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Problem	Description	Possible Causes	Solution
2-Wire Cable Excessive Electrical Current	2-wire cable exceeded the electrical threshold	Blue and red wires are improperly installed	Correct wire installation
		Nicked wire	Check wiring and replace or fix wires
		Shorted 2-wire path or decoder	Correct wire installation
		Failed solenoid	Replace solenoid
2-Wire Terminal Overheated	2-wire terminal overheated due to excessive heat	Temperature exceeded maximum threshold	Call Calsense customer service or local field service representative
Electrical short: Pump	An electrical short was detected on pump output.	Wires are not properly installed	Correct wire installation
		Bad coil	Replace coil
		Wires are crossed	Adjust wire placement
		Wire splices are not watertight	Locate wire splices and adjust according
Electrical short: Lights Output <num>	An electrical short was detected on lights output.	Wires are not properly installed	Correct wire installation
		Wires are crossed or disconnected	Adjust wire placement
		Wire splices are not watertight	Locate wire splices and adjust according
Electrical Short: Unknown Output	An electrical short was detected from an unknown output.	Power surge	
		Wires are crossed	Adjust wire placement
		Wire splices are not watertight	Locate wire splices and adjust according
		Damaged wires	Check wiring and replace or fix wires



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Problem	Description	Possible Causes	Solution
No Electrical Current: Master Value	No electrical current was measured from master valve.	Broken Wire	Locate and fix the wire connection
		Burnt out solenoid	Replace solenoid
		Disconnected wires	Locate and fix the wire connection
No Electrical Current: Lights Output <num>	No electrical current was measured from lights output.	Wires are not properly installed	Locate and fix the wire connection
No Electrical Current: Station <num>	No electrical current was measured on an indicated station.	Wires are not properly installed	Locate and fix the wire connection
ET Gage- 0 Pulses	Zero pulses are being measured from ET gage.	Weather conditions	Adjust for weather conditions
		No power connected	Check power to gage
		ET gage is out of water	Check water level
FLOWSENSE Communication Down- Irrigation will not run	FLOWSENSE is unable to connect	Communication cable is not properly installed	Check wiring
		Incorrect control setting	Adjust control settings
		Improper radio coverage	Conduct radio survey to confirm proper radio coverage



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Problem	Description	Possible Causes	Solution
Fuse Blown	The controller detected that the fuse is blown.	Bad solenoid	Replace the solenoid
		Shorted 24 VAC output	Check if incoming power is 120 VAC
High Flow: Station <num>: saw <num> gpm, expected <num> gpm	An increased amount of water flow was found.	Broken head or lateral	Repair the broken head or lateral
		Slow closing valve	Repair or replace slow closing valve, or Enable delay between valves
		Stuck valve	Repair or replace stuck valve
		Incorrect expected flow rate	Adjust station's expected flow rates
Low Flow: Station <num>: saw <num> gpm, expected <num> gpm	A decreased amount of water flow was found.	Clogged head(s)	Clear clogged head(s)
		Flow control turned down	Check flow control on valve
		Incorrect expected flow	Adjust or reacquire the expected flow rate
No Flow Detected by Flow Meter: Station <num>	No water flow found.	Valve did not open	Locate valve and check wire connections and splices
		Master valve did not open	Locate master valve and check wire connections and splices
		Problem with flow meter	Locate flow sensor and check wire connections and splices
		Clogged head(s)	Clear clogged heads



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Problem	Description	Possible Causes	Solution
Mainline Break: <name> while irrigating	A mainline break was detected while irrigating.	Broken head	Locate the break and then fix or replace part
		To many valves are in use at one time	Adjust number of valves in use
		Broken laterals, fittings	Locate and fix laterals and fittings
		System capacity and MLB settings need to be adjusted	Adjust data accordingly
Mainline Break: <name> while not irrigating	A mainline break was detected while not irrigating.	Leak in mainline	Locate leak and fix the problem
		Broken fitting or pipe	Replace or patch fitting or pipe
		Master Valve not closing on normally closed system	Replace master valve
		Employees manually operating valves in field without telling system.	Review system protocols
Mainline Break: <name> while MV override	A mainline break was detected while master valve was in override.	Leak in mainline	Locate leak and fix the problem
		Broken fitting or pipe	Replace or patch fitting or pipe
		System capacity and MLB settings need to be adjusted	Adjust data accordingly
		To many valves are in use at one time	Adjust number of valves in use
POC Decoder Voltage Too Low: Decoder S/N <num>	The voltage measured is too low on identified decoder.	Damaged wires	Check wiring and replace or fix wires
		Bad splices	Check splices



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Problem	Description	Possible Causes	Solution
POC Decoder Not Responding: Decoder <Serial Number>	The decoder is not responding.	Power disruption	Locate and fix the wire connection
		Damaged wires	Check wiring and replace or fix wires
		Bad splice	Check splices
Power Fail (Brown Out)	Voltage to the controller dropped which resulted in a restart.	Damaged wires	If the problem is persistent, check the power connections
		Low/intermittent line voltage source	
		Bad splices	
Power Fail	The controller lost power.	Power outage	If the problem is persistent, check the GFI and power connections. Replace the GFI if required.
		GFI tripped	
		Power removed from controller	
Solenoid Short: Master Valve	An electrical short was detected from master valve.	Solenoid is shorted out	Replace solenoid
		Bad splices	Repair splices
		Valve box full of water	Remove water and fix accordingly
		Wires shorted together	Replace wires and adjust positioning
Solenoid Short: Station <num>	An electrical short was detected on indicated station.	Solenoid is shorted out	Replace solenoid
		Bad splices	Repair splices
		Valve box full of water	Remove water and fix accordingly
		Wires shorted together	Replace wires and adjust positioning



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Problem	Description	Possible Causes	Solution
STATION DECODER NOT RESPONDING: Decoder	The identified decoder is not responding.	Decoder is not connected	Check all wiring connections
		Damaged wires	Replace damaged wires
		Bad splices	Repair splices
STATION DECODER VOLTAGE TOO LOW: Decoder S/N <num> (Station <num>):	The voltage measured was too low when the indicated decoder was energized.	Solenoid not operating properly	Replace solenoid
		Solenoid burnt out	Replace solenoid
		Wrong solenoid used	Replace with suggested solenoid
		Damage to 2-wire path	Repair connections along 2-wire path
		Bad wire splices	Repair splices