

# Electric Reactors - Troubleshooting - Hose Heat

## Hose Heat System



Before performing any troubleshooting procedures:

1. Relieve pressure, page 26.

2. Turn main power OFF



3. Allow equipment to cool.



### Problems

Try the recommended solutions in the order given for each problem, to avoid unnecessary repairs. Also, determine that all circuit breakers, switches, and controls are properly set and wiring is correct before assuming there is a problem.

PROBLEM	CAUSE	SOLUTION
Hose heats but heats slower than usual or it does not reach temperature.	Ambient temperature is too cold.	Use auxiliary hose heat system.
	FTS failed or not installed correctly.	Check FTS, page 13.
	Low supply voltage.	Verify line voltage. Low line voltage significantly reduces power available to hose heat system, affecting longer hose lengths.
Hose does not maintain temperature while spraying.	A and B setpoints too low.	Increase A and B setpoints. Hose is designed to maintain temperature, not to increase it.
	Ambient temperature is too cold.	Increase A and B setpoints to increase fluid temperature and keep it steady.
	Flow too high.	Use smaller mix chamber. Decrease pressure.
	Hose was not fully preheated.	Wait for hose to heat to correct temperature before spraying.
	Low supply voltage.	Verify line voltage. Low line voltage significantly reduces power available to hose heat system, affecting longer hose lengths.
Hose temperature exceeds setpoint.	A and/or B heaters are overheating material.	Check primary heaters for either a thermocouple problem or a failed element attached to thermocouple, page 13.
	Faulty thermocouple connections.	Verify that all FTS connections are snug and that pins of connectors are clean. Examine connection of thermocouples to long green plug on heater control board. Unplug and re-plug thermocouple wires, cleaning off any debris. Unplug and re-plug long green connector on heater control board.
	Missing/damaged insulation around FTS, causing the hose heat to be ON constantly.	Ensure hose bundle has adequate insulation evenly covering the entire length and connection joints.

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Troubleshooting

PROBLEM	CAUSE	SOLUTION
Erratic hose temperature.	Faulty thermocouple connections.	Verify that all FTS connections are snug and that pins of connectors are clean. Examine connection of thermocouples to long green plug on heater control board. Unplug and re-plug thermocouple wires, cleaning off any debris. Unplug and re-plug long green connector.
	FTS not installed correctly.	FTS should be installed close to end of hose in same environment as gun. Verify FTS installation, page 47.
	Missing/damaged insulation around FTS, causing the hose heat to be ON constantly.	Ensure hose bundle has adequate insulation evenly covering the entire length and connection joints.
Hose does not heat.	FTS failed or is not contacting correctly.	Check FTS, page 47.
	FTS not installed correctly.	FTS should be installed close to end of hose in same environment as gun. Verify FTS installation, page 47.
	Temperature control alarm.	Check temperature display or diagnostic code, page 47.
Hoses near Reactor are warm, but hoses downstream are cold.	Shorted connection or failed hose heating element.	With hose heat on and temperature setpoint above displayed hose zone temperature, verify voltage between connectors at each section of hose.  Voltage should drop incrementally for each section of hose further from Reactor. Use safety precautions when hose heat is turned on.
No hose heat.          Low hose heat.	Loose hose electrical connections.	Check connections. Repair as necessary.
	Circuit breakers tripped.	Reset breakers (CB1 or CB2), page 35.
	Hose zone not turned on.	Press  zone  key.
	A and B temperature setpoints too low.	Check. Increase if necessary.
	Failed temperature control board.	Open cabinet. Check if board LED is blinking. If not, check power wiring connections to ensure board has power. If board has power and LED is not blinking, replace board, page 40.
	A and B temperature setpoints too low.	Increase A and B setpoints. Hose designed to maintain temperature, not increase temperature.
	Hose temperature setpoint too low.	Check. Increase if necessary to maintain heat.
	Flow too high.	Use smaller mix chamber. Decrease pressure.
	Low current; FTS not installed.	Install FTS, see operation manual.
	Hose heat zone not turned on long enough.	Allow hose to heat up, or preheat fluid.
Loose hose electrical connections.	Check connections. Repair as necessary.	