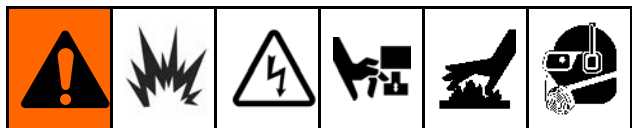





Troubleshooting



Troubleshoot Errors

There are three types of errors that can occur. Errors are indicated on the display as well as by the light tower (optional).

Error	Description
Alarms 	A parameter critical to the process has reached a level requiring the system to stop. The alarm needs to be addressed immediately.
Deviations 	A parameter critical to the process has reached a level requiring attention, but not sufficient enough to stop the system at this time.
Advisories 	A parameter that is not immediately critical to the process. The advisory needs attention to prevent more serious issues in the future.

See [Error Codes, page 13](#) for causes and solutions to each error code.

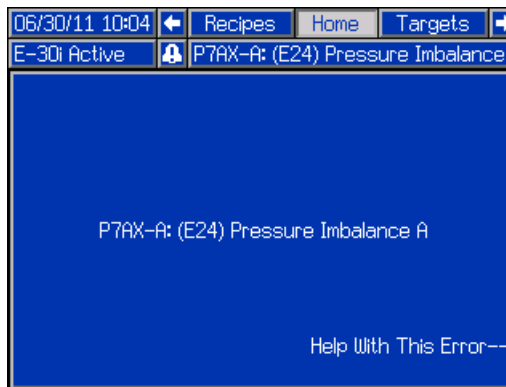
To troubleshoot the error:

Error Codes

Note

When an error occurs be sure to determine the code before resetting it. If you forget which error code occurred, see the Errors screen to view the last 200 errors, with date, time, and description.

1. Press the soft key for help with the active error.



Note

Press  or  to return to the previously displayed screen.





2. The QR code screen will be displayed. Scan the QR code with your smartphone to be sent directly to online troubleshooting for the active error code. Otherwise, manually navigate to <http://help.graco.com> and search for the active error.



3. If no internet connection is available, see [Error Codes, page 13](#) for causes and solutions for each error code.





Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
A1NM	MCM		Low Motor Current	Loose/broken connection.	Check for loose wire terminations at MCM motor connector.
				Bad Motor.	Disconnect motor output connector from MCM. Confirm less than 8 ohms resistance between each pair of motor power leads (M1 to M2, M1 to M3, M2 to M3). If any readings greater than 8 ohms, check motor wiring for damage and/or loose terminations.
A4DA	Heater A		High Current A	Short circuit in heater wiring.	Check wiring for touching wires.
				Bad Heater.	Confirm resistance of heater. Heater resistance should be 18–21 Ω for each heater element, 9–12 Ω combined for 10 kW systems, and 6-8 Ω for 15 kW systems. If out of tolerance, replace heater element.
A4DB	Heater B		High Current B	Short circuit in heater wiring.	Check wiring for touching wires.
				Bad Heater.	Confirm resistance of heater. Heater resistance should be 9-12 Ω for 10 kW systems and 6-8 Ω for 15 kW systems. If out of tolerance, replace heater.
A4DH	Hose		High Current Hose	Short circuit in hose wiring.	Check continuity of transformer windings. Normal readings are about 0.2Ω on both primary and secondary. If reading is 0Ω replace transformer.
					Check for shorts between the primary winding and the support frame or enclosure.





Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
A4NM	MCM		High Motor Current	Short circuit of motor wiring.	Check wiring to the motor to ensure no bare wires are touching and that no wires are shorted to ground.
				Motor will not rotate.	Remove pump gear housings from motor and check that motor shaft rotates freely in direction indicated on motor housing.
				Damaged gear train.	Check pump gear trains for damage and repair or replace as necessary.
				Chemical pump is stuck.	Repair or replace chemical pump.
A7DA	Heater A		Unexpected Current A	Shorted TCM	If error cannot be cleared or regenerates consistently, replace module.
A7DB	Heater B		Unexpected Current B	Shorted TCM	If error cannot be cleared or regenerates consistently, replace module.
A7DH	Hose		Unexpected Current Hose	Shorted TCM	If error cannot be cleared or regenerates consistently, replace module.



Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
A8DA	Heater A		No Current A	Tripped circuit breaker.	Visually check circuit breaker for a tripped condition.
				Loose/broken connection.	Check heater wiring for loose wires.
A8DB	Heater B		No Current B	Tripped circuit breaker.	Visually check circuit breaker for a tripped condition.
				Loose/broken connection.	Check heater wiring for loose wires.
A8DH	Hose		No Current Hose	Tripped circuit breaker.	Visually check circuit breaker for a tripped condition.
				Loose/broken connection.	Check heater wiring for loose wires.
CACM	MCM		MCM Communication Error	Module does not have software.	Insert a system token into the ADM module and cycle the power. Wait until the upload is complete before removing the token.
				Dial set to wrong position.	Ensure the MCM dial is set to the correct position: 2 for E-30, 3 for E-XP2
				No 24 VDC supply to module.	Green light on each module should be lit. If green light is not lit, check to make sure each CAN cable connection is tight. Verify the power supply is outputting 24 VDC. If not, check power supply wiring. If wiring is okay, replace the power supply.
				Loose or broken CAN cable.	Check the CAN cables running between GCA modules and tighten if needed. If the problem still persists move each cable around the connector and watch the flashing yellow light on the GCA modules. If the yellow light stops flashing, replace the CAN cable.


Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
CACT	TCM		TCM Communication Error	Module does not have software.	Insert a system token into the ADM module and cycle the power. Wait until the upload is complete before removing the token.
				No 24 VDC supply to module.	Green light on each module should be lit. If green light is not lit, check to make sure each CAN cable connection is tight. Verify the power supply is outputting 24 VDC. If not, check power supply wiring. If wiring is okay, replace the power supply.
				Loose or broken CAN cable.	Check the CAN cables running between GCA modules and tighten if needed. If the problem still persists move each cable around the connector and watch the flashing yellow light on the GCA modules. If the yellow light stops flashing, replace the CAN cable.
DADX	MCM		Pump Runaway	Flow rate is too large.	Mix chamber too large for system selected. Use mix chamber rated for system.
					Ensure the system has chemical and the feed pumps are operating correctly.
					No material in pumps. Verify pumps are supplying chemical. If necessary, replace or refill drums.
					Inlet ball valves are closed. Open ball valves.












Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
DE0X	MCM		Cycle Switch Error	Faulty or missing cycle switch.	Check wiring between cycle switch and MCM, Port 12.
				Switch disconnected	Measure resistance between pin 3 and 4 at connector. Normal resistance is 0.10 ohms.
				Missing or out of place cycle switch magnet.	Check presence and position of cycle switch magnet on output crank arm.





Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
EVCH	ADM		Manual Hose Mode Enabled	Manual hose mode has been enabled in System Setup screen.	Install a functioning fluid temperature sensor (FTS) on the hose. Manual hose mode will automatically turn off.
EAUX	ADM		USB Busy	USB drive has been inserted to the ADM.	Do not remove USB drive until download/upload is complete.
EVUX	ADM		USB disabled	USB download/uploads are disabled.	Enable USB download/uploads on the Advanced Setup screen before inserting a USB drive.
F9DX	MCM		High Pressure/Flow Cutback	Mix chamber is too large for set pressure.	Reference the pressure flow curves and select a tip size that is the correct size for the set pressure.
H2MA	Heater A		Low Frequency A	Line frequency is below 45 Hz	Ensure line frequency of incoming power is between 45 and 65 Hz.
H2MB	Heater B		Low Frequency B	Line frequency is below 45 Hz	Ensure line frequency of incoming power is between 45 and 65 Hz.
H2MH	Hose		Low Frequency Hose	Line frequency is below 45 Hz	Ensure line frequency of incoming power is between 45 and 65 Hz.
H3MA	Heater A		High Frequency A	Line frequency is above 65 Hz	Ensure line frequency of incoming power is between 45 and 65 Hz.
H3MB	Heater B		High Frequency B	Line frequency is above 65 Hz	Ensure line frequency of incoming power is between 45 and 65 Hz.
H3MH	Hose		High Frequency Hose	Line frequency is above 65 Hz	Ensure line frequency of incoming power is between 45 and 65 Hz.
K8NM	MCM		Locked Rotor Motor	Motor will not rotate.	Remove pump gear housings from motor and check that motor shaft rotates freely in direction indicated on motor housing.
				Damaged gear train.	Check motor/pump gear trains for damage and repair or replace as necessary.
				Chemical pump is stuck.	Repair or replace chemical pump.





Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
L1AX	ADM		Low Chemical Level A	Low material level.	Refill material and update drum level on ADM Maintenance screen. Alarm can be disabled on the System Setup screen.
L1BX	ADM		Low Chemical Level B	Low material level.	Refill material and update drum level on ADM Maintenance screen. Alarm can be disabled on the System Setup screen.
MMUX	USB		Maintenance Due - USB	USB logs have reached a level where data loss will occur if logs are not downloaded.	Insert a USB drive into the ADM and download all logs.
P0AX	MCM		Pressure Imbalance A High	Pressure difference between A and B material is greater than the defined value.	Ensure material flow is equally restricted on both material lines.
				Pressure imbalance is defined too low.	Ensure that the pressure imbalance value, on the System Setup screen, is at an acceptable maximum pressure to prevent unnecessary alarms and abort dispenses.
				Out of material.	Fill tanks with material
				Fluid leaking from heater inlet rupture disk.	Check if heater and PRESSURE RELIEF/SPRAY valve are plugged. Clear. Replace rupture disk. Do not replace with a pipe plug.
				Feed system defective.	Check feed pump and hoses for blockage. Check that feed pumps have correct air pressure.




Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
P0BX	MCM		Pressure Imbalance B High	Pressure difference between A and B material is greater than the defined value.	Ensure material flow is equally restricted on both material lines.
				Pressure imbalance is defined too low.	Ensure that the pressure imbalance value, on the System Setup screen, is at an acceptable maximum pressure to prevent unnecessary alarms and abort dispenses.
				Out of material.	Fill tanks with material
				Fluid leaking from heater inlet rupture disk.	Check if heater and PRESSURE RELIEF/SPRAY valve are plugged. Clear. Replace rupture disk. Do not replace with a pipe plug.
				Feed system defective.	Check feed pump and hoses for blockage. Check that feed pumps have correct air pressure.
P1FA	MCM		Low Inlet Pressure A	Inlet pressure lower than defined value.	Ensure that inlet pressure to the pump is sufficient.
				Value defined too high.	Ensure that the low pressure alarm level defined on the System Setup screen is acceptable.
P1FB	MCM		Low Inlet Pressure B	Inlet pressure lower than defined value.	Ensure that inlet pressure to the pump is sufficient.
				Value defined too high.	Ensure that the low pressure alarm level defined on the System Setup screen is acceptable.
P2FA	MCM		Low Inlet Pressure A	Inlet pressure lower than defined value.	Ensure that inlet pressure to the pump is sufficient.
				Value defined too high.	Ensure that the low pressure alarm level defined on the System Setup screen is acceptable.




Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
P2FB	MCM		Low Inlet Pressure B	Inlet pressure lower than defined value.	Ensure that inlet pressure to the pump is sufficient.
				Value defined too high.	Ensure that the low pressure alarm level defined on the System Setup screen is acceptable.
P4AX	MCM		High Pressure A	System pressurized before allowing heat to reach setpoint.	Pressure in the hose and pumps will increase as the system heats up. Turn on heat and allow all zones to reach the temperature setpoint before turning on the pumps.
				Bad pressure transducer.	Verify the ADM pressure reading and the analog gauges at the manifold.
				E-XP2 system configured as E-30.	Alarm level is lower for E-30 than for E-XP2. Ensure dial on MCM is set to position "3" for E-XP2.
P4BX	MCM		High Pressure B	System pressurized before allowing heat to reach setpoint.	Pressure in the hose and pumps will increase as the system heats up. Turn on heat and allow all zones to reach the temperature setpoint before turning on the pumps.
				Bad pressure transducer.	Verify the ADM pressure reading and the analog gauges at the manifold.
				E-XP2 system configured as E-30.	Alarm level is lower for E-30 than for E-XP2. Ensure dial on MCM is set to position "3" for E-XP2.



Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
P6AX	MCM		Pressure Sensor Error A	Loose/bad connection.	Check to ensure the pressure transducer is properly installed and all wires are properly connected.
				Bad sensor.	Check if the error follows the transducer. Disconnect transducer cables from the MCM (connectors 6 and 7). Reverse A and B connections and check if the errors follows. If the error follows the transducer, replace the pressure transducer.
P6BX	MCM		Pressure Sensor Error B	Loose/bad connection.	Check to ensure the pressure transducer is properly installed and all wires are properly connected.
				Bad sensor.	Check if the error follows the transducer. Disconnect transducer cables from the MCM (connectors 6 and 7). Reverse A and B connections and check if the errors follows. If the error follows the transducer, replace the pressure transducer.
P6FA	MCM		Pressure Sensor Error Inlet A	Inlet sensors not installed.	If inlet sensors are not installed, inlet sensors should be disabled on the System Setup screen.
				Loose/bad connection.	Check to ensure inlet sensor is properly installed and all wires are properly connected.
				Bad sensor.	Check if the error follows the inlet sensor. Disconnect inlet sensor cables from the MCM (connectors 8 and 9). Reverse A and B connections and check if the errors follows. If the error follows the sensor, replace the inlet sensor.



Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
P6FB	MCM		Pressure Sensor Error Inlet B	Inlet sensors not installed.	If inlet sensors are not installed, inlet sensors should be disabled on the System Setup screen.
				Loose/bad connection.	Check to ensure inlet sensor is properly installed and all wires are properly connected.
				Bad sensor.	Check if the error follows the inlet sensor. Disconnect inlet sensor cables from the MCM (connectors 8 and 9). Reverse A and B connections and check if the errors follows. If the error follows the sensor, replace the inlet sensor.
P7AX	MCM		Pressure Imbalance A High	Pressure difference between A and B material is greater than the defined value.	Ensure material flow is equally restricted on both material lines.
				Pressure imbalance is defined too low.	Ensure that the pressure imbalance value, on the System Setup screen, is at an acceptable maximum pressure to prevent unnecessary alarms and abort dispenses.
				Out of material.	Fill tanks with material
				Fluid leaking from heater inlet rupture disk.	Check if heater and PRESSURE RELIEF/SPRAY valve are plugged. Clear. Replace rupture disk. Do not replace with a pipe plug.
				Feed system defective.	Check feed pump and hoses for blockage. Check that feed pumps have correct air pressure.





Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
P7BX	MCM		Pressure Imbalance B High	Pressure difference between A and B material is greater than the defined value.	Ensure material flow is equally restricted on both material lines.
				Pressure imbalance is defined too low.	Ensure that the pressure imbalance value, on the System Setup screen, is at an acceptable maximum pressure to prevent unnecessary alarms and abort dispenses.
				Out of material.	Fill tanks with material
				Fluid leaking from heater inlet rupture disk.	Check if heater and PRESSURE RELIEF/SPRAY valve are plugged. Clear. Replace rupture disk. Do not replace with a pipe plug.
				Feed system defective.	Check feed pump and hoses for blockage. Check that feed pumps have correct air pressure.
T2DA	Heater A		Low Temperature A	Flow is too high at current setpoint.	Use a smaller mix chamber that is rated for the unit in use. If recirculating, decrease flow or decrease temperature setpoint.
				Bad RTD or bad RTD placement against heater.	Swap A and B heater output cables and RTD cables and see if issue follows. If so, replace RTD.
				Bad heater rod or loose heater wire.	Confirm resistance of heater. Heater resistance should be 9-12 Ω for 10 kW systems and 6-8 Ω for 15 kW systems. If out of tolerance, check for loose heater rod wire(s). Reconnect wires or replace heater rod if necessary.






Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T2DB	Heater B		Low Temperature B	Flow is too high at current setpoint.	Use a smaller mix chamber that is rated for the unit in use. If recirculating, decrease flow or decrease temperature setpoint.
				Bad RTD or bad RTD placement against heater.	Swap A and B heater output cables and RTD cables and see if issue follows. If so, replace RTD.
				Bad heater rod or loose heater wire.	Confirm resistance of heater. Heater resistance should be 9-12 Ω for 10 kW systems and 6-8 Ω for 15 kW systems. If out of tolerance, check for loose heater rod wire(s). Reconnect wires or replace heater rod if necessary.
T2DH	Hose		Low Temperature Hose	Flow is too high at current setpoint.	Use a smaller mix chamber that is rated for the unit in use. If recirculating, decrease flow or decrease temperature setpoint.
				Cold chemical in unheated portion of system passed hose FTS at startup.	Recirculate heated chemical back to drum in cold conditions before startup.
T2FA	MCM		Low Temperature Inlet A	Inlet fluid temperature is below the defined level.	Recirculate fluid through heaters until inlet fluid temperature is above defined error level.
					Increase the low temperature deviation level on the System Setup screen.
T2FB	MCM		Low Temperature Inlet B	Inlet fluid temperature is below the defined level.	Recirculate fluid through heaters until inlet fluid temperature is above defined error level.
					Increase the low temperature deviation level on the System Setup screen.




Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T3CH	Hose		Hose Cutback	Hose current has been reduced because hose has been drawing current for an extended period.	Hose setpoint higher than A and B setpoints. Decrease hose setpoint.
					Hose FTS is in a colder environment than the rest of the hose. Expose FTS to the same environment as the rest of the hose.
T3CT	TCM		TCM Cutback	High ambient temperature.	Ensure ambient temperature is below 120°F(48°C) before using the system.
				Enclosure fan not operating.	Ensure fan in electrical enclosure is spinning. If it is not, check fan wiring or replace fan.
				Module fan not operating.	If a TCM fan error (WMIO) has occurred, fan inside the module is not working properly. Check TCM fan for debris and clear with forced air if necessary.
T3NM	MCM		Motor Temperature Cutback	Motor is operating outside of the pressure flow curve.	The system is running at a lower setpoint to preserve motor life. Run the system at a lower duty cycle or with a smaller mix chamber.
				High ambient temperature	Ensure ambient temperature is below 120° F (48° C) before using the system.
T3CM	MCM		MCM Temperature Cutback	Motor control temperature is too high.	Ensure ambient temperature is below 120°F(48°C). Verify that all fans are working.
T4CM	MCM		High Temperature MCM	High ambient temperature.	Ensure ambient temperature is below 120°F(48°C) before using the system.
				Enclosure fan not operating.	Ensure fan in electrical enclosure is spinning. If it is not, check fan wiring or replace fan.



Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T4CT	TCM		High Temperature TCM	High ambient temperature.	Ensure ambient temperature is below 120°F(48°C) before using the system.
				Enclosure fan not operating.	Ensure fan in electrical enclosure is spinning. If it is not, check fan wiring or replace fan.
				Module fan not operating.	If a TCM fan error (WMIO) has occurred, fan inside the module is not working properly. Check TCM fan for debris and clear with forced air if necessary.
T4DA	Heater A		High Temperature A	Bad RTD or bad RTD placement against heater.	Swap A and B heater output cables and RTD cables and see if issue follows. If so, replace RTD.
				Flow too high for temperature setpoint, causing temperature overshoots when gun is de-triggered.	Use a smaller mix chamber that is rated for the unit in use.
T4DB	Heater B		High Temperature B	Bad RTD or bad RTD placement against heater.	Swap A and B heater output cables and RTD cables and see if issue follows. If so, replace RTD.
				Flow too high for temperature setpoint, causing temperature overshoots when gun is de-triggered.	Use a smaller mix chamber that is rated for the unit in use.



Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T4DH	Hose		High Temperature Hose	Hose portion exposed to an excessive heat source, like hot sun or coiled hose, can pass fluid more than 27°F (15°C) over hose temperature setting to the FTS.	Shade exposed hose from hot sun or expose FTS to same environment when at rest. Uncoil entire hose before heating to avoid self-heating.
				Setting the A or B setpoint much higher than hose setpoint can cause fluid more than 27°F (15°C) over hose temperature setting to reach the FTS.	Increase hose setpoint so it is closer to A and B setpoints.
T4EA	Heater A		High Temperature Switch A	Overtemperature switch sensed a fluid temperature above 230°F (110°C).	Heater was delivered too much power, causing the overtemperature switch to open. RTD is not reading properly. After the heater cools down, replace RTD. Switch closes and the error can be cleared when the heater temperature falls below 190°F (87°C).
				Disconnected or loose overtemperature switch cable/connection.	If heater is not actually over temperature, check all wiring and connections between the TCM and the overtemperature switches.
				Overtemperature switch failed in the open position.	Replace overtemperature switch.


Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T4EB	Heater B		High Temperature Switch B	Overtemperature switch sensed a fluid temperature above 230°F (110°C).	Heater was delivered too much power, causing the overtemperature switch to open. RTD is not reading properly. After the heater cools down, replace RTD. Switch closes and the error can be cleared when the heater temperature falls below 190°F (87°C).
				Disconnected or loose overtemperature switch cable/connection.	If heater is not actually over temperature, check all wiring and connections between the TCM and the overtemperature switches.
				Overtemperature switch failed in the open position.	Replace overtemperature switch.
T4NM	MCM		High Temperature Motor	Cooling fan is not operating properly.	Check to see that the motor fan is moving. Measure voltage to fan. There should be 24 VDC. If no voltage is measured, check fan wiring. If the fan has voltage but is not moving, replace fan. If necessary use an air hose to blow out around the fan housings and remove any built-up debris.
				High ambient temperature.	Ensure ambient temperature is below 120°F(48°C) before using the system.
				Motor is operating outside of the pressure flow curve	Run the system at a lower duty cycle or with a smaller mix chamber.
				Motor temperature sensor wires are shorted together	Measure resistance between pins 2 and 4 on motor temperature cable connector at MCM, port 2. A reading below 75 ohms indicates a wire short. Replace motor.




Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T6DA	Heater A		Sensor Error A	Disconnected or loose RTD cable or connection.	Check all wiring and connection to RTD.
				Bad RTD.	Switch the RTD with another and see if the error message follows the RTD. Replace RTD if the error follows the RTD.


Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T6DB	Heater B		Sensor Error B	Disconnected or loose RTD cable or connection.	Check all wiring and connection to RTD.
				Bad RTD.	Switch the RTD with another and see if the error message follows the RTD. Replace RTD if the error follows the RTD.
T6DH	Hose		Sensor Error Hose	Disconnected or shorted RTD cable in hose or bad FTS.	Expose each hose RTD connection to check and retighten any loose connector. Measure hose RTD cable and FTS continuity. See Repair Heated Hose, page 66 . Order RTD Test kit 24N365 for measurement. Disconnect hose RTD and use manual hose mode to finish job until repair can be completed.
T6DT	TCM		Sensor Error TCM	Shorted RTD cable in hose or FTS.	Expose each hose RTD connection to check for exposed and shorted RTD wires. Measure hose RTD cable and FTS continuity. See Repair Heated Hose, page 66 . Order RTD Test kit 24N365 for measurement. Disconnect hose RTD and use manual hose mode to finish job until repair can be completed.
				Shorted A or B Heater RTD	If the error still occurs with the hose FTS unplugged, one of the heater RTDs is bad. Unplug the A or B RTD from the TCM. If unplugging an RTD fixes the T6DT error, replace the RTD.





Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T6NM	MCM		Sensor Error Motor	Disconnected or loose motor temperature cable connector	Verify proper cable connection at MCM, port 2. Measure resistance between pins 2 and 4 on motor temperature cable connector. A correct ohm reading will vary greatly with temperature. An open circuit reading indicates a wire break. Replace motor.








Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
T8DA	Heater A		No Temperature Rise A	Bad RTD or bad RTD placement against heater.	Swap A and B heater output cables and RTD cables and see if issue follows. If so, replace RTD.
				Bad heater rod or loose heater wire.	Confirm resistance of heater. Heater resistance should be 9-12 Ω for 10 kW systems and 6-8 Ω for 15 kW systems. If out of tolerance, check for loose heater rod wire(s). Reconnect wires or replace heater rod if necessary.
				Started spraying before heater reached operating temperature.	Wait until operating temperature has been reached before spraying or recirculating.
T8DB	Heater B		No Temperature Rise B	Bad RTD or bad RTD placement against heater.	Swap A and B heater output cables and RTD cables and see if issue follows. If so, replace RTD.
				Bad heater rod or loose heater wire.	Confirm resistance of heater. Heater resistance should be 9-12 Ω for 10 kW systems and 6-8 Ω for 15 kW systems. If out of tolerance, check for loose heater rod wire(s). Reconnect wires or replace heater rod if necessary.
				Started spraying before heater reached operating temperature.	Wait until operating temperature has been reached before spraying or recirculating.
T8DH	Hose		No Temperature Rise Hose	Started spraying before heater reached operating temperature.	Wait until operating temperature has been reached before spraying or recirculating.
V1CM	MCM		Low Voltage MCM	Loose/bad connection or tripped circuit breaker.	Check wiring for loose connection or tripped circuit breaker.
				Low incoming line voltage.	Measure voltage at circuit breaker and ensure voltage is greater than 195 VAC.








Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
V1IT	TCM		Low Voltage CAN	Bad 24 VDC power supply.	Check voltage of power supply. Voltage should be 23-25 VDC. If out of tolerance, replace power supply.
V2IT	TCM		Low Voltage CAN	Bad 24 VDC power supply.	Check voltage of power supply. Voltage should be 23-25 VDC. If out of tolerance, replace power supply.
V2MA	TCM		Low Voltage A	Loose connection or tripped circuit breaker.	Check wiring for loose connection or tripped circuit breaker.
				Low incoming line voltage.	Measure voltage at circuit breaker and ensure voltage is greater than 195 VAC.
V2MB	TCM		Low Voltage B	Loose connection or tripped circuit breaker.	Check wiring for loose connection or tripped circuit breaker.
				Low incoming line voltage.	Measure voltage at circuit breaker and ensure voltage is greater than 195 VAC.
V2MH	TCM		Low Voltage Hose	Loose connection or tripped circuit breaker.	Check wiring for loose connection or tripped circuit breaker.
				Low incoming line voltage.	Measure voltage at circuit breaker and ensure voltage is greater than 195 VAC.
V3IT	TCM		High Voltage CAN	Bad 24 VDC power supply.	Check voltage of power supply. Voltage should be 23-25 VDC. If out of tolerance, replace power supply.
V3MA	TCM		High Voltage A	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.






Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
V3MB	TCM		High Voltage B	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.
V3MH	TCM		High Voltage Hose	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.
V4CM	MCM		High Voltage MCM	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.
V4IT	TCM		High Voltage CAN	Bad 24 VDC power supply.	Check voltage of power supply. Voltage should be 23-25 VDC. If out of tolerance, replace power supply.
V4MA	TCM		High Voltage A	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.
V4MB	TCM		High Voltage B	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.
V4MH	TCM		High Voltage Hose	Incoming line voltage is too high.	Ensure incoming system power is wired properly. Verify voltage at each circuit breaker is between 195 and 264 VAC.

Reactor 2 Electric - Troubleshooting - Error Codes

Troubleshooting

Error	Location	Type	Description	Cause	Solution
WBC0	MCM		Software Version Error	Incorrect software version.	Insert a system token into the ADM module and cycle the power. Wait until the upload is complete before removing the token.
				MCM does not have line voltage.	If V1CM also exists, see troubleshooting for V1CM. The software version cannot be read if the MCM does not have line voltage.
WM10	TCM		TCM Fan Error	Fan inside TCM is not operating properly.	Check for debris in the TCM fan and clear with forced air if necessary.
WSUX	USB		Configuration Error USB	A valid configuration file can't be found for the USB.	Inset a system token into the ADM and cycle power. Wait until the lights on the USB port stop flashing before removing token.
WXUD	ADM		USB Download Error	Log download failed.	Backup and reformat the USB drive. Retry download.
WXUU	ADM		USB Upload Error	Custom language file failed to upload.	Perform normal USB download and use the new disptext.txt file to upload the custom language.