



Trouble Shooting Guide

RWA, 3-phase
(D3630)



Trouble Shooting Guide

Problem	Possible Cause	Possible Remedy
Unit does not start	No power to unit, breaker tripped	Verify supply power to unit is on, close breaker after correcting fault
	Low voltage	Check electrical service to unit
	Refrigeration high pressure cut-out tripped	Manually reset button on pressure switch, correct fault
	Loose wire	Check wiring after disconnecting power
	Defective contactor or coil	Repair or replace contactor or coil
	Loss of refrigerant	Locate and repair leak, recharge with type and amount of refrigerant specified on serial tag
	Compressor damaged	Replace compressor - Call Lydall
Unit does not cool	Compressor internal thermostat tripped	Allow time for compressor to cool and automatically reset
	Compressor damaged	Replace compressor - Call Lydall
	Facility Water control valve set too low	Reset valve - Call Lydall
	Facility Water too warm	Provide cooler Facility Water
	Insufficient flow of Facility Water	Increase Facility Water flow
	Evaporator damaged	Call Lydall
	Microprocessor programmed incorrectly	Reprogram microprocessor - Call Lydall
	Microprocessor failure	Replace microprocessor
	Cooling load exceeds capacity of unit	Reduce cooling load
Loss of refrigerant	Locate and repair leak, recharge with type and amount of refrigerant specified on serial tag	

Problem	Possible Cause	Possible Remedy
Unit does not cool (continued)	Refrigeration solenoid coil failure Solid State Relay failure Solenoid valve stuck shut Defective refrigeration low pressure cut-out Malfunctioning thermal expansion valve Pump damaged, loss of flow Hot gas bypass valve setting too high Hot gas bypass valve stuck open	Replace solenoid coil Replace Solid State Relay Repair or replace solenoid valve Repair or replace low pressure cut-out Replace thermal expansion valve Replace pump Call Lydall Repair or replace valve
Pump leaks	Faulty pump casing Shaft seal damaged Pump housing O-Ring damaged Improper fluid	Replace pump assembly Replace shaft seal Remove pump and rebuild Call Lydall
Excessive noise on Start-Up	Low voltage Wrong voltage taps used on transformer Contactor or coil failure	Check electrical service to unit Connect to proper taps Replace contactor or coil
Pump motor overheats	Pump overload protection set too high Improper voltage supplied	Reset pump thermal overload relay, replace if faulty Correct voltage
Noisy compressor	Flooding of refrigerant into crankcase	Warm crankcase if unit has been off for a long period or has been left in a cool ambient for more than a few hours

Problem	Possible Cause	Possible Remedy
Noisy compressor (continued)	Worn compressor Refrigeration high pressure cut-out set too high Refrigeration low pressure cut-out set too low	Replace compressor - Call Lydall Adjust setting Adjust setting
Level light remains on	Low coolant level in reservoir Reservoir level switch float stuck Time delay relay malfunction (when used) Level switch failure	Check for leaks, then fill reservoir Clean reservoir and level switch Replace time delay relay Replace level switch
Level light does not work	Time delay relay has not timed out (when used) Lamp burned out Level switch failure	Wait for time delay relay to time out Replace lamp Replace level switch
Temperature display reads incorrectly	Loose wire Broken RTD Microprocessor failure	Check wiring after disconnecting power Replace RTD Replace microprocessor
Too much recirculating pressure to process	Flow control valve set too high Pressure relief valve set too high (unless not adjustable)	Throttle flow control valve Adjust pressure relief valve
Fault light remains on	Low coolant flow No coolant flow Flow switch sticking	See Problem; Low coolant flow See Problem; No coolant flow Disassemble flow switch, clean and reinstall or replace

Problem	Possible Cause	Possible Remedy
Low coolant flow	<p>Pump suction strainer clogged</p> <p>Flow control valve not fully open</p> <p>Pressure relief valve set too low (unless not adjustable)</p> <p>Low coolant level in reservoir</p> <p>Restriction in coolant lines external to chiller</p> <p>Frozen evaporator</p> <p>Flow switch clogged</p>	<p>Remove strainer, clean and reinstall or replace</p> <p>Open flow control valve</p> <p>Adjust pressure relief valve to meet specification</p> <p>Fill reservoir to proper level</p> <p>Eliminate restrictions in coolant lines external to chiller</p> <p>Call Lydall</p> <p>Disassemble flow switch, clean and reinstall or replace</p>
No coolant flow	<p>Pump not primed</p> <p>Pump suction strainer clogged</p> <p>No coolant in reservoir</p> <p>Pump overload tripped</p> <p>Pump motor shaft bound to seal</p> <p>Pump housing improperly torqued</p> <p>Damaged pump</p> <p>Frozen evaporator</p> <p>Clogged line or closed valve in external piping</p> <p>Leak(s) in external piping</p>	<p>Prime pump</p> <p>Remove and clean strainer, then reinstall</p> <p>Check for leaks, then fill reservoir</p> <p>Wait 5 minutes for overload to reset</p> <p>Replace pump or renew seal</p> <p>Remove pump, torque to specifications, test, and reinstall</p> <p>Replace pump</p> <p>Call Lydall</p> <p>Check external piping for dirt or closed valve</p> <p>Check for leaks and repair if necessary</p>

Problem	Possible Cause	Possible Remedy
Chiller shuts down during operation	Refrigeration high pressure cut-out set too low Refrigeration low pressure cut-out set too high Water modulating valve set too high Excess refrigerant charge Pump overload setting too low Facility Water too warm Pump overload tripped Low voltage	Adjust and reset refrigeration high pressure cut-out Adjust and reset refrigeration low pressure cut-out Adjust water modulating valve Remove excess refrigerant, then charge to specifications on serial tag Adjust and reset pump thermal overload relay to specifications, replace if faulty Provide cooler Facility Water Determine reason for trip, if pump is damaged, repair or replace Check electrical service to chiller
Compressor turns on and off automatically	Discharge pressure too high Refrigeration high pressure cut-out set to automatic	Check Facility Water for blockage Check settings
Compressor does not run	Compressor internal thermostat tripped Motor burned out	Allow time for compressor to automatically reset Replace - Call Lydall
Chiller cools well below the desired Set-Point	Microprocessor programmed incorrectly Malfunctioning solenoid valve Solid State Relay failure Microprocessor failure	Reprogram microprocessor - Call Lydall Repair or replace solenoid valve Replace Solid State Relay Replace microprocessor

Problem	Possible Cause	Possible Remedy
Microprocessor does not work	5 second delay has not timed out	Wait at least 5 seconds after turning on
	Microprocessor programmed incorrectly	Reprogram microprocessor, call Lydall
	Microprocessor failure	Replace microprocessor