



Trouble Shooting Guide

PWG, 1-phase

(D10582)



Trouble Shooting Guide

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

Problem	Possible Cause	Possible Remedy
Unit does not cool (continued)	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	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
Noisy compressor	Flooding of refrigerant into crankcase Worn compressor Refrigeration high pressure cut-out set too high Refrigeration low pressure cut-out set too low	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 Replace compressor - Call Lydall Adjust setting Adjust setting
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

Problem	Possible Cause	Possible Remedy
Pump motor overheats	Pump overload protection set too high Improper voltage supplied	Reset pump thermal overload relay, or replace if faulty Correct voltage
Level light remains on	Low coolant level 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
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
Low coolant flow	Pump suction strainer clogged Flow control valve not fully open Pressure relief valve set too low (unless not adjustable) Low coolant level in reservoir Restriction in coolant lines external to chiller Frozen evaporator Flow switch clogged	Remove strainer, clean and reinstall or replace Open flow control valve Adjust pressure relief valve to specification Fill reservoir to proper level Eliminate restrictions in coolant lines external to chiller Call Lydall Disassemble flow switch, clean and reinstall, or replace
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

Problem	Possible Cause	Possible Remedy
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
Compressor turns on and off automatically	Discharge pressure too high Condenser fan(s) not on Refrigeration high pressure cut-out set to automatic	Check Facility Water for blockage Check motor(s) and wiring Check settings
Compressor does not run	Compressor internal thermostat tripped Defective Solid State Motor Overload Motor burned out	Allow time for compressor to cool and automatically reset Replace module Replace - Call Lydall
No coolant flow	Pump not primed Pump suction strainer clogged No coolant in reservoir Pump overload tripped Pump motor shaft bound to seal Pump housing improperly torqued Damaged pump Frozen evaporator Clogged line or closed valve in external piping Leak(s) in external piping	Prime pump Remove and clean strainer, then reinstall Repair any leaks, then fill reservoir Wait 5 minutes for overload to reset Replace pump or renew seal Remove pump, torque to specifications, test, and reinstall Replace pump Call Lydall Check external piping for dirt or closed valve Repair leaks as needed

Problem	Possible Cause	Possible Remedy
Chiller cools well below the desired Set-Point	Microprocessor programmed incorrectly	Reprogram microprocessor - Call Lydall
	Malfunctioning solenoid valve	Repair or replace solenoid valve
	Solid State Relay failure	Replace Solid State Relay
	Microprocessor failure	Replace microprocessor
Chiller shuts down during operation	Refrigeration high pressure cut-out set too low	Adjust and reset refrigeration high pressure cut-out
	Refrigeration low pressure cut-out set too high	Adjust and reset refrigeration low pressure cut-out
	Water modulating valve set too high	Adjust water modulating valve
	Excess refrigerant charge	Remove excess refrigerant, then charge with type and amount of refrigerated listed on serial tag
	Pump overload setting too low	Adjust and reset pump thermal overload relay to specifications, or replace if faulty
	Pump overload tripped	Determine cause, if pump is damaged, repair or replace
Temperature display reads incorrectly	Loose wire	Disconnect power to unit, then check wiring
	Broken RTD	Replace RTD
	Microprocessor failure	Replace microprocessor
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