



# 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 Lytron Affinity</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 Lytron Affinity</p> <p>Call Lytron Affinity</p> <p>Replace microprocessor</p> <p>Reset Facility Water control valve - Call Lytron Affinity</p> <p>Reprogram microprocessor - Call Lytron Affinity</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>

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Remedy</b>
Unit does not cool (continued)	<p>Solenoid valve stuck shut</p> <p>Defective refrigeration low pressure cut-out</p> <p>Malfunctioning thermal expansion valve</p> <p>Pump damaged, loss of flow</p> <p>Hot gas bypass valve setting too high</p> <p>Hot gas bypass valve stuck open</p>	<p>Repair or replace solenoid valve</p> <p>Repair or replace low pressure cut-out</p> <p>Replace thermal expansion valve</p> <p>Replace pump</p> <p>Call Lytron Affinity</p> <p>Repair or replace valve</p>
Pump leaks	<p>Faulty pump casing</p> <p>Shaft seal damaged</p> <p>Pump housing O-Ring damaged</p> <p>Improper fluid</p>	<p>Replace pump assembly</p> <p>Replace shaft seal</p> <p>Remove pump and rebuild</p> <p>Call Lytron Affinity</p>
Noisy compressor	<p>Flooding of refrigerant into crankcase</p> <p>Worn compressor</p> <p>Refrigeration high pressure cut-out set too high</p> <p>Refrigeration low pressure cut-out set too low</p>	<p>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</p> <p>Replace compressor - Call Lytron Affinity</p> <p>Adjust setting</p> <p>Adjust setting</p>
Excessive noise on Start-Up	<p>Low voltage</p> <p>Wrong voltage taps used on transformer</p> <p>Contact or coil failure</p>	<p>Check electrical service to unit</p> <p>Connect to proper taps</p> <p>Replace contactor or coil</p>

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Remedy</b>
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 Lytron Affinity  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

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Remedy</b>
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 Lytron Affinity
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 Lytron Affinity  Check external piping for dirt or closed valve  Repair leaks as needed

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Remedy</b>
Chiller cools well below the desired Set-Point	Microprocessor programmed incorrectly Malfunctioning solenoid valve Solid State Relay failure Microprocessor failure	Reprogram microprocessor - Call Lytron Affinity Repair or replace solenoid valve Replace Solid State Relay Replace microprocessor
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 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 with type and amount of refrigerated listed on serial tag Adjust and reset pump thermal overload relay to specifications, or replace if faulty Determine cause, if pump is damaged, repair or replace Check electrical service to chiller
Temperature display reads incorrectly	Loose wire Broken RTD Microprocessor failure	Disconnect power to unit, then check wiring Replace RTD Replace microprocessor
Microprocessor does not work	5 second delay has not timed out Microprocessor programmed incorrectly Microprocessor failure	Wait at least 5 seconds after turning on Reprogram microprocessor - Call Lytron Affinity Replace microprocessor