Troubleshooting

Problem	Possible Cause	Remedy
Compressor will not start	Compressor overload	Check supply voltage, start components (single phase), and wiring
	Run capacitor (single phase units only)	Measure capacitance and replace if faulty
	Start capacitor (single phase units only)	Measure capacitance and replace if faulty
	Start relay (single phase units only)	Check for contiuity between 2,5 and 1,2. Replace if no continuity
	Compressor contactor	Replace if faulty
	Microprocessor control board	Replace if faulty
	Compressor failure	Contact Customer Service Department for assistance
Pump will not start	Pump overload	Check supply voltage, wiring, overload set point (external overload)
	Pump contactor	Replace if faulty
	Microprocessor control board	Replace if faulty
	Pump motor failure	Check motor windings and replace if faulty
Low refrigerant pressure	Low refrigerant charge	Contact refrigeration service technician
	Refrigerant leak	Contact refrigeration service technician
	Low refrigeration pressure sensor	Check for proper range, replace if faulty
	Microprocessor control board	Replace if faulty
High refrigerant pressure	Dirty air filters (air cooled units only)	Clean filters
	Air flow obstruction (air cooled units only)	Make sure chiller is installed in accordance with recommendations in this manual
	High ambient air temperature (air cooled units only)	Ambient temperature must be reduced below 105°F (40.5°C)
	Condenser fan motor (air cooled units only)	Check start compents and motor windings for failure and replace if faulty
	Condenser fan cycling control (air cooled units only)	Confirm proper operation, replace if faulty
	Plugged condenser (water cooled units only)	Clean out tubes
	Insufficient condenser water flow (water cooled units only)	Make sure chiller is installed in accordance with the recommendations of this manual
	High condenser water temperature (water cooled units only)	Condenser water temperature must be reduced below 90°F (38°C)
	Condenser water regulating valve	Check setting, replace if faulty
	Refrigerant circuit overcharged	Contact refrigeration service technician
	High refrigerant pressure sensor	Replace if faulty
	Microprocessor control board	Replace if faulty

Problem	Possible Cause	Remedy
Freezestat	Low flow through evaporator	Adjust flow to proper level
	Freezestat control module	Check for proper setting, replace if faulty
	Microprocessor control board	Replace if faulty
	Freezestat sensor	Replace if faulty
Low pump discharge pressure	Pump running backwards (three-phase pumps only)	Switch two legs of the incoming power
	Pump pressure gauge	Replace if faulty
	Pump failure	Replace if faulty
	Excessive flow	Reduce flow
High pump discharge pressure	Closed valves in process piping	Open valves
	Obstruction in piping or process	Remove obstruction
	Clogged Y-strainer	Clean strainer
	Pressure gauge	Replace if faulty
Erratic temperature control	Low coolant flow through evaporator	Adjust flow to proper level
	Intermittent overloading of chiller capacity	Check to make sure chiller is properly sized for process load
	Hot gas bypass valve	Contact refrigeration service technician
	Microprocessor control board	Replace if faulty
	Thermocouple	Replace if faulty
Insufficient cooling (temperature continues to rise above set point)	Process load too high	Check to make sure chiller is properly sized for process load
	Coolant flow through evaporator too high or too low	Adjust flow to proper level
	Insufficient condenser cooling	See “High Refrigerant Pressure”
	Hot gas bypass valve stuck open	Contact refrigeration service technician
	Refrigeration circuit problem	Contact refrigeration service technician
	Microprocessor control board	Replace if faulty
	Thermocouple	Replace if faulty