

## GENERAL TROUBLESHOOTING PROCEDURES

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Compressor will not run	Conditioning system OFF	Turn ON conditioning system
	No electrical power	Check facility circuit breaker
	Wrong voltage applied to unit	Check voltage and correct
	Compressor internal overload tripped	Will automatically reset when cooled
	High/Low Limit tripped	Correct cause of limit condition, repair and reset
	Control alarm energized	
	Motor failure	Check winding resistance and lead to ground resistance
	Motor shorted	Replace compressor
	Circuit breaker may be tripped	Refer to section on Resetting a Circuit Breaker
Unit short cycles continuously	Gain setting too high	Decrease gain setting
	Proportional band setting to low	Increase proportional band setting
	Compressor low on refrigerant	Check refrigerant and charge if necessary
Compressor difficult to start	Wrong voltage applied to unit	Connect correct voltage
	Defective run/start capacitor(s)	Replace capacitor(s)
	Defective start relay	Replace start relay
	Refrigeration overcharge	Recover and recharge
High load amps	Low voltage	Check supply circuit
	Electrical malfunctions	Check for proper wiring and correct compressor capacitor  Check for grounds and measure winding resistance
	Defective start relay	Check and replace
Low Amps	Low refrigerant	Check for leaks; charge system
Insufficient cooling effect	Refrigerant shortage	Repair leak and recharge
	Frosted coil	Defrost and dry coil
	Low air circulation	Check fan blade and shaft. Blade may have come off
	Exceeding rated live load capacity (See data sheets)	Reduce live load
	Cooling coils obstructed	Remove obstruction or defrost
	TXV defective	Replace valve
	Solenoid coil burned out	Replace coil
	Solenoid valve bad	Replace valve
	Dirty condenser	Clean condenser
	R-404A/R-449A compressor frosting	Possible leak in R-508B/R-23. Check ambient pressures
R-508B/R-23 Head Pressure too high	Refrigerant overcharge	Recover excess refrigerant
	Exceeding rated live load capacity (See data sheets)	Reduce live load
	Air in system	Recover, evacuate, and recharge.
	R-404A/R-449A system short of gas	Repair leak and recharge

<b>PROBLEM</b>	<b>PROBABLE CAUSE</b>	<b>CORRECTIVE ACTION</b>
R-508B/R-23 head pressure too low	Refrigerant shortage	Repair leak and recharge
R-404A/R-449A head pressure too high	Condensing air too warm	Maximum condenser inlet air = 80°F
	Restricted air cooled condenser	Clean condenser
	Air in system	Recover, evacuate, and recharge
R-404A/R-449A head pressure too low	Condensing air too cold	Location may need to be changed
	Low refrigerant charge	Repair leak and recharge
Noisy unit	Insufficient compressor oil	Consult Cincinnati Sub Zero
	Fan	Check blades
	Tubing rattle	Bend tubes away from contact
	Compressor mounting loose	Tighten