
TROUBLE SHOOTING SERVICE GUIDE

<u>SYMPTOMS</u>	<u>POSSIBLE CAUSE</u>
Selector switch is in the "ON" position and the pump will not start.	<ol style="list-style-type: none">1. Open disconnect switch.2. Blown fuse3. Tripped starter overloads.
Pump is rotating but no pressure is established.	<ol style="list-style-type: none">1. Improper rotation.2. No water in the reservoir.3. Valves not open.4. No back pressure.5. Pump suction blocked.6. Pump seal leaking.
Pump runs properly, temperature rises, but compressor does not start.	<ol style="list-style-type: none">1. Compressor is not being energized. (Refer to COMPRESSOR SYMPTOMS.)2. Flow switch (if equipped) not activated.
Fluid flow fault (if equipped)	<ol style="list-style-type: none">1. Pump not working (refer to PUMP SYMPTOMS).2. System not completely filled.3. Air in the system.4. Flow switch paddle struck.
Temperature controller is indicating a fault or has no indication at all.	<ol style="list-style-type: none">1. Faulty contacts on the relays.2. Sensor problem.3. Supply voltage missing.
Thermostat (if equipped) will not call for cooling.	<ol style="list-style-type: none">1. Out of calibration.2. Defective.
Compressor hums, but will not start.	<ol style="list-style-type: none">1. Low line voltage.2. Shorted or grounded motor windings.3. Internal compressor damage.4. Improperly wired.
Compressor will not run, does not try to start (no hum).	<ol style="list-style-type: none">1. Power circuit open due to blown fuse, tripped overload circuit or open disconnect.2. Compressor motor protector open.3. Open thermostat or temperature control.4. Burned motor windings – open circuit.5. Loss of refrigerant charge.6. Refrigerant liquid solenoid valve (if equipped) not working.

SYMPTOMS

Compressor starts, but trips on overload protector.

Unit short cycles.

High refrigerant pressure fault.

Low refrigerant pressure fault.

Lube protector fault (if equipped).

Fluid temperature too cold or tripped out on freezestat (if equipped).

POSSIBLE CAUSE

1. Excessive suction or discharge pressure.
2. Low line voltage.
3. Defective overload protector.
4. Tight bearings or mechanical damage in compressor.
5. Shorted or grounded motor windings.

1. Shortage of refrigerant.
2. Refrigerant liquid solenoid valve (if equipped) leaking.
3. Discharge valve leaking.
4. Defective expansion valve.

1. Refrigerant overcharge.
2. Dirty condenser.
3. Malfunction of condenser fan (air-cooled).
4. Excessive air temperature entering condenser.

1. Low ambient temperatures (air cooled).
2. Refrigerant leak.
3. Lack of coolant flow through the heat exchanger.
4. Liquid line solenoid valve not opening (if equipped)
5. Expansion valve stuck or lost bulbwell charge (check cap tube).

1. Low of oil from compressor due to:
 - (a) Oil trapping in system.
 - (b) Compressor short cycling.
 - (c) Insufficient oil in system.
 - (d) Operation at excessively low suction pressure.
2. Excessive liquid refrigerant.
3. Malfunctioning oil pump.

1. Operating temperature setting is too low.
2. Faulty temperature controller.
3. Defective temperature controller sensor.
4. Refrigerant liquid solenoid valve (if equipped) leaking.

THIS GUIDE SERVES AS A GENERIC OUTLINE IN PROBLEM SOLVING WITH ALL KOOLANT KOOLER BRAND CHILLERS