## AIR CONDITIONING TROUBLE SHOOTING GUIDE FOR EVANS TEMPCON HEATER – A/C SYSTEMS

## PROBLEM

1. Inadequate Cooling (Discharge air from A/C vents is only slightly cool.

### **POSSIBLE CAUSES**

- Misadjusted or leaking valve (Cooling may be diminished at engine idle. Increased engine and compressor speed will improve A/C cooling).
- Condenser clogged with road debris or Condenser Fan inoperative.
- Incorrect refrigerant charge in system. If charge is excessively low or high, the compressor clutch will not engage, or remain engaged.
- Moisture or air present in system.
- Restriction in receiver-drier or liquid line resulting in a starved evaporator.

• Defective expansion valve restricting flow.

#### REMEDY

- For electronic valves see: ELECTRONIC COOLANT VALVE Or EVANS NEW ELECTRONIC VALVE
- Examine fin region of the condenser for debris and bent fins. Clean and straighten as required. Repair and/or replace the condenser fan components as required.
- Install manifold gage set onto high side and low side service ports and operate A/C. Observe for low pressures. If low pressures are observed, leak check all A/C components as required. If excessive oil loss is suspected, check oil level in compressor, evacuate, and recharge.
- Discharge and recover refrigerant. Replace receiverdrier. Add 2 ounces of oil, to replace oil removed with the old receiver-drier, evacuate and recharge.
- If low and high side readings are excessively low and/or the liquid line at the expansion valve is cool to the touch and showing signs of sweating or frosting, discharge and recover the refrigerant. Replace the receiver-drier, liquid lines or any other defective parts. Add 2 ounces of oil, to replace oil removed with the old receiverdrier, evacuate and recharge.
- Symptoms are the same as receiver-drier restriction. Discharge and recover refrigerant. Remove and replace expansion valve. Check oil level

# AIR CONDITIONING TROUBLE SHOOTING GUIDE FOR EVANS TEMPCON HEATER – A/C SYSTEMS

	PROBLEM		POSSIBLE CAUSES		REMEDY
1.	Inadequate Cooling (Discharge air from A/C vents is only slightly cool. (Continued)	•	Defective, worn or leaking compressor.	•	in the compressor, evacuate and recharge. Low side gauge reading too high and high side gauge reading too low. Discharge and recover refrigerant. Remove and replace new or rebuilt compressor and replace receiver-drier. Add 2 ounces of oil, to replace oil removed with the old receiver- drier, evacuate and recharge.
2.	Inadequate cooling during hot part of the day.	•	Excessive moisture in system freezing in expansion valve and restricting refrigerant flow.	•	Discharge and recover refrigerant. Replace receiver- drier, check oil level in compressor, evacuate and recharge.
3.	Gradual loss over time of cooling and air flow during A/C operation.	•	Defective thermostat, causing continuous operation of the compressor thereby freezing condensate within the evaporator core.	•	Examine capillary tube of thermostat to ensure that it is inserted into the evaporator fins. If the core still freezes and the compressor clutch doesn't cycle off, replace the thermostat.
4.	Compressor clutch cycles too rapidly or discharge air warms excessively during compressor clutch "OFF" cycle.	•	Defective thermostat	•	Replace thermostat