# Compressor Function Test

**A/C COMPRESSOR OPERATION:**

The A/C compressor is the heart of the system since it produces the refrigerant flow. Check to see if the compressor's clutch is engaged or rotating and the compressor is operating by producing low and high side pressure ratios listed in the **"Estimated A/C Performance Chart".** Compressor and engine fan belts should be in good condition and tightened to the correct tension. Check the belts when the engine is off and the belt is still warm. Do not replace the compressor unless its function has been properly tested.

These are general guidelines to check the compressor function as part of the AC system, consult the chassis manufacturer or the compressor supplier before any repair or replacements to the compressor. Evans does not supply the compressor for RV A/C systems.

**A/C COMPRESSOR FUNCTION TEST:**

**1)** Restrict inlet air flow to the condenser with a piece of cardboard to increase the high side refrigerant pressure.

**2)** Monitor high side pressure gauge to see if the pressure rises to ~ 300-350 Psig. If the pressure does rise to this level then remove the cardboard.

**3)** This is a quick and simple test to see if the compressor has the capacity to build pressure and pump refrigerant. If it does not achieve that high pressure range then check the items below:

1) Low refrigerant charge.
2) High side refrigerant blockage.
3) Ambient temperature is below 50°F.
4) Clutch slippage or low voltage.
5) Inspect compressor front seal and pressure relief valve for leaks.
6) Clutch voltage should be ±11.5 Vdc. Clutch coil resistance between 2.2 and 4.4 ohms.
7) Check compressor rotation for smoothness.