



TRANSPORT AIR CONDITIONING

AC unit "Quick Checks"

This is a list of some quick checks that was created to aid in the trouble shooting of Carrier's roof top ac unit. Please check these items before you call for technical support.

Unit Does Not Operate

- 1) Check for 110 VAC at the main power wires (white, black, and ground) going to the unit. The return air grill in the ceiling will have to be removed to access the wiring. *Also, make sure that unit has a good ground!*
- 2) Check for 12 VDC (ducted ceiling units only). This unit requires 12 VDC for the controls to operate. If the unit is receiving 12 VDC, a flashing red LED can be seen on the ceiling unit control board.

Unit Operates, But Doesn't Cool

- 1) Verify that the unit is being operated in the Cool mode, and not in the "Fan" or "Heat" mode. On the ducted ceiling unit, the modes are changed out the remote control.
- 2) Verify that the freeze probe is inserted in to the indoor coil of the roof unit. Remove the ceiling unit return air grill. Locate the two thin (brown) wires, and follow them to the probe on the end of the wires. The probe should be securely inserted between the fins of the indoor (or evaporator coil).
- 3) With the unit in cool mode and fan in high speed, measure the amp draw of the unit at one of the main power wires going to the unit. An amp draw reading of about 13 amps is normal. Anything below 9 or 10 amps indicates that there could be a problem with the ac roof unit.

Continued

Unit Blows Cold Air, But It Doesn't Seem To Be Sufficient

- 1) Check the cleanliness of the return air filter in the ceiling grill. These filters should be kept clean, and can be rinsed off with water.
- 2) Using a digital thermometer, measure the temperature of the air being drawn in to the ceiling unit return air grill. Then measure the air coming out of the closet ceiling supply vent. Subtract the supply vent temperature from the return air grill temperature. A difference of 20°F, or greater is normal. If a difference less than 15°F or 16°F is read, than there is probably a problem with the ac roof unit.
- 3) Verify that the return air plenum is sealed from the rest of the roof cavity. Remove the ceiling unit grill, and verify that the ac airflow is not allowed to travel down the roof cavity, and is forced to travel down the ceiling ducts.
- 4) Check all ceiling supply vents for adequate airflow. Using your hand, go from vent to vent; making sure that there is no noticeable drop in airflow. If a vent seems to have a drop in airflow, remove the vent and inspect the opening for restrictions.