

BlueCool Truck System – Malfunctions Caused By Radio Frequency Interference (RFI) from CB Radios and Electrical Noise.

Issue:

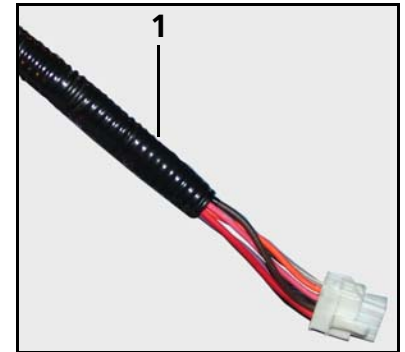
The shielded core temperature signal cable has been found to pick up radio frequency interference (RFI) from CB radios installed in vehicles with BlueCool Truck Systems as well as vehicles with powerful CB transmitters in the general vicinity. The RFI signal can cause the control unit of the BlueCool System to operate erratically causing a system malfunction.

Corrective Action:

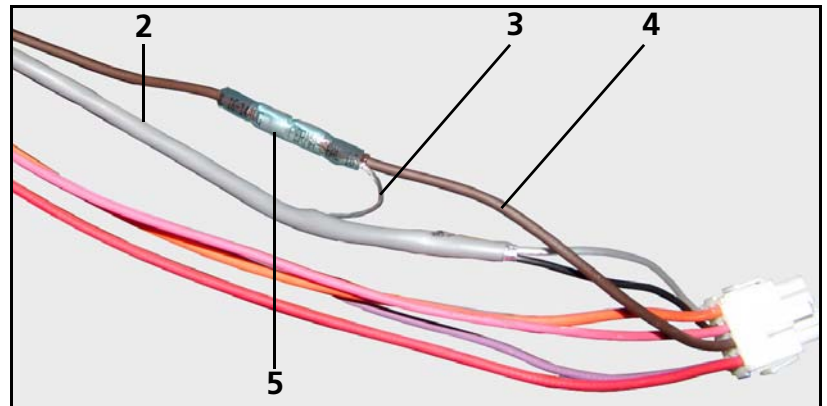
A simple modification to the core temperature signal cable by grounding the cable shield to a ground point near the control unit connector is required. An upgrade kit is available under part number BCT010240A.

Procedure:

1. Make sure the BlueCool System is turned off. Switch off the power inverter. Turn the control knobs to the off position.
2. Remove the air handler cover and carefully unplug the control unit harness.
3. With the control harness disconnected, remove the electrical tape (1) holding the split-loom closed.



4. Pull the split-loom off several inches to expose the harness wires.
5. Locate the grey (or beige) core temperature signal cable (2) as shown in the illustration.
6. Carefully slice the grey (or beige) plastic covering to expose the shield wire (item 3).
7. Locate the brown system ground wire (4) and cut as shown.

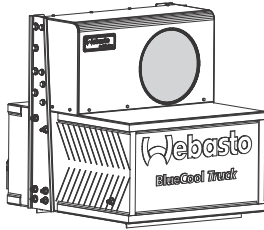


8. Strip about 1/4" of insulation off of both cut ends of the ground wire.
9. Twist one end together with the shield conductor and crimp together in the self-sealing butt-splice (5) provided.
10. Crimp the other end of the brown ground wire into the self-sealing butt-splice and seal with a heat gun.
11. The completed splice should look similar to the one shown in the illustration above.

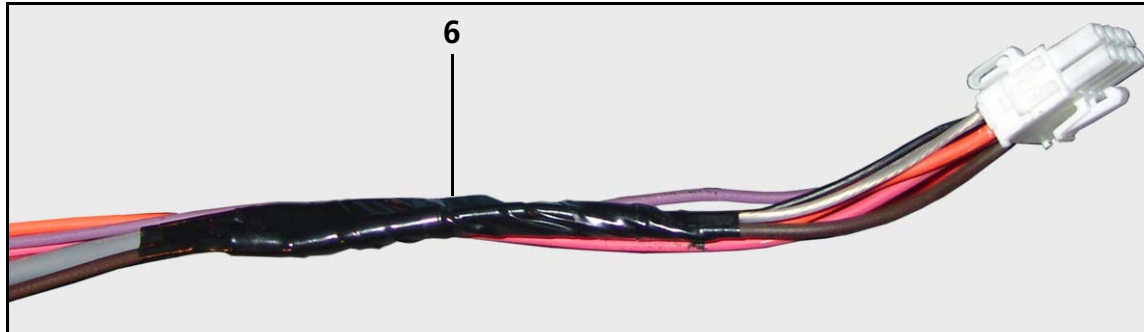


ATTENTION

Ensure that the wires are securely crimped into the butt-splice!



12. Wrap the splice and wires with electrical tape (6) as shown in the illustration below.



13. Slip split-loom back over wires and rewrap with electrical tape.

14. Carefully connect harness to the control unit.

15. Install the air handler cover, switch on the inverter and perform a system performance check.

Verifying System Performance:



For optimum system performance, the inverter DC power input cables should span one battery only. The positive cable of the inverter should be connected to the same post as the starter / charging system cable(s).

1. Switch on the vehicle ignition switch or start the engine and allow to run. This will energize the Key On Signal Wire (pink wire) circuit. Once the ignition switch is turned on or the engine is running, the 1/2 hr. timer sequence will be engaged.
2. After 1/2 hour has elapsed, the inverter will be switched on as indicated by the green LED. The A/C compressor and the condenser fan will begin operation as well at this time.



ATTENTION

If the compressor fails to start, check the green LED indicator on the power inverter. If not illuminated, turn inverter OFF and allow batteries to recharge for a short period of time. Ensure ALL battery connections are clean and tight.

3. Run the refrigeration unit for 15 minutes (minimum cycle) or longer before switching the ignition key off.

To determine if the system is chilling properly, the condenser fan will be pushing air that is several degrees above ambient temperature. Also, the refrigeration lines at the expansion valve will begin to cool down.