



SERVICE BULLETIN

Number: 09-002

Date: 9/18/09

EC Series Electrical System Mandatory Product Improvement

Based on information gathered from the field, Trans/Air Manufacturing has learned of poor installation practices from aftermarket installers. The issues that we have found are directly related to the EC series electrical system only.

Trans/Air has concluded that if installers fail to follow Trans/Air installation instructions and/or comply with accepted good installation practices, the EC boards present a risk of overheating under any of the following three conditions: loose screws due to improper torquing; poor wire connections due to improperly crimped terminals; or debris deposited on the EC board. These improper installation practices can result in electrical arcing and overheating of the EC board. In the worst case scenario, such arcing and overheating can result in a fire.

Trans/Air Manufacturing maintains a policy of continuous improvement of our products and services. In keeping with this philosophy, Trans/Air is issuing Mandatory Product Improvement 09-002, to address the following key areas of concerns in the aftermarket installation of Trans/Air EC series electrical Climate Control Systems.

Trans/Air has developed a product improvement kit p/n 5031234 for EC2.0 & EC2.5 and kit p/n 5031233 for EC3.0

If you have a vehicle with an EC series electrical system, an inspection of the EC2.0/2.5 relay board(s), the replacement of EC3.0 relay boards, and the addition of the product improvement kit should be conducted as follows:

1. Crimps on the wires going to the terminal strip of the relay board should be uniform and tight. There should be no bare wire visible between the wire insulation and the terminal, and strands flush with terminal barrel. (Fig 1 & Fig 2)
2. All terminals attached to the terminal strip on the relay board should be a ring type terminal. Spade or other type terminals should not be present.
3. All screws on the terminal strip should be replaced with the Torx type screw, supplied in the product improvement kits for EC2.0, EC2.5 & EC3.0, and ***MUST BE*** torqued to 18 in/lbs. (a torque screwdriver is available on a loan basis, from Trans/Air) (Fig 3)
4. EC2.0/2.5 - Inspect the board overall. Look for any discoloration or evidence of heat. Inspect the area in front of, and above the EC2.0/2.5 relay board. If there are any refrigerant hoses laying against the board or directly above the board, please contact Trans/Air for a relay board cover to eliminate any chance of condensate contacting the relay board. Hoses that may be near the board must be secured properly, to eliminate movement toward the relay board.

5. EC3.0 - To provide additional protection from high resistance shorts caused by conductive material on the EC3.0 relay board, Trans/Air has developed a product improvement kit (p/n 5031233) that includes all components of the EC2.0/2.5 kit plus a diode, and protective cover assembly. Replace board with board provided in kit. **Old Board Must Be Returned.** (Call 800-673-2446 Ext268 for RMA #) RMA number must be written on outside of box. Send UPS or Fed Ex ground, and add shipping to your claim/invoice. Send to: Trans/Air Mfg, 480 E. Locust St., Dallastown, PA 17313
6. Inspect the wiring harness going to the relay board. Is it secured properly? It should not be pulling on the terminals, but should be supported enough so that it does not
7. Some aftermarket installers have used the relay board assembly as a template to drill the mounting holes for that board. This could result in metal chips or shavings falling on the board and causing a high resistance short. Inspect the board for any conductive debris that may have fallen on the board. Blow the board off using compressed air to eliminate any debris that may have been missed.
8. The kit includes a terminal strip cover with an affixed warning label. Install the terminal strip cover onto the terminal strip.

Trans/Air Product:

All EC2.0/2.5/3.0 electrical systems shipped between 5/2/06 and 7/1/09

Symptoms:

High resistance short. Overheat condition, smoke, possible ignition source.

Probable Cause:

Conductive material on relay board. (Metal shaving etc.) Loose wire terminal screws at the relay board, or improper crimps

Corrective Action:

Execute items 1 – 8 contained in Service Bulletin 09-002, utilizing kit # 5031234 for EC2.0/2.5, or kit # 5031233 for EC3.0

NOTE: EC3.0 BOARD MUST BE RETURNED TO TRANS/AIR.

(Call 800-673-2446 for RMA number)

Compensation:

Special authorization code:

EC2.0/2.5

E-09-A flat rate 45 minutes per board.

EC3.0

E-09-B flat rate 75 minutes per board.

Authorization:

Lin Staley, Technical Services Manager

Distribution:

E – All

After retrofit is completed, please submit claim (detailed invoice) including VIN to:

Trans/Air Mfg
Warranty Department
480 E. Locust St. PO Box 70
Dallastown, PA 17313

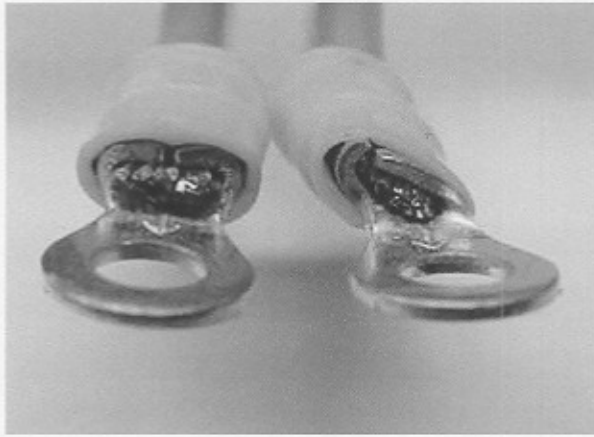
Claim must be submitted (and old EC3.0 board returned, if applicable) within 30 days of repair.

OR

Claim can be submitted within 30 days on-line, at the Trans/Air website: ***transairmfg.com***
(board must still be sent to Trans/Air within 30 days)

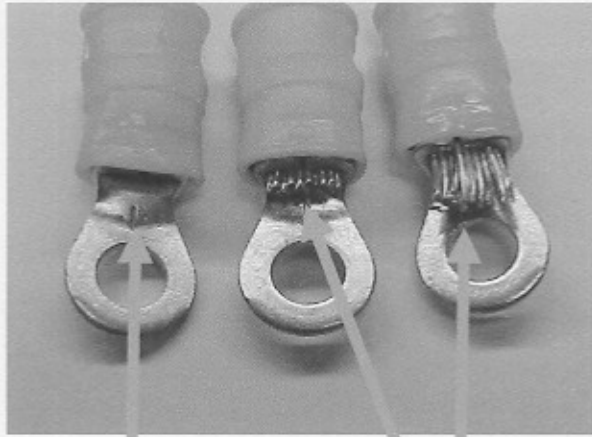
For questions, please call Trans/Air Mfg. at 800-673-2446

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Correct Position

Poor Position In Crimper



Correct

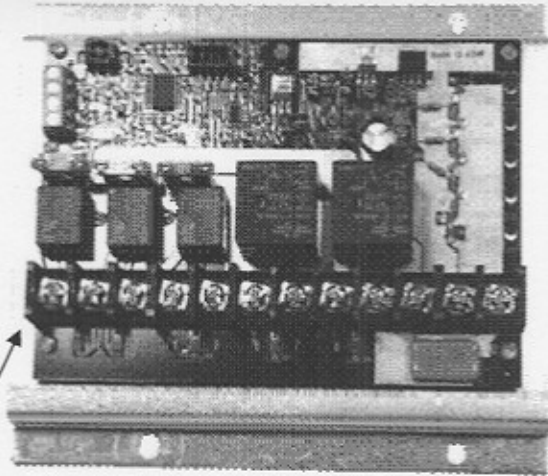
Poor Wire strands Too long

Fig 1



Poor Crimp

Fig 2



Torque all Torx type screws to 18 in/lbs

Fig 3



Fig 4

Heat discoloration of a poor (loose) crimp