



PROTERRA



TECHNICAL SERVICE BULLETIN

ISSUE DATE:	7/13/2022
SERVICE BULLETIN SUBJECT:	Rooftop Radiator Fan Connector Replacement
VINs or MODELS AFFECTED:	Service Specified Buses
COMPLETE BY:	Next Service Opportunity
SERVICE BULLETIN #:	SC-22-88
LABOR OPERATION CODE:	CC59Z

NOTICE! It is expected that this process may require up to one hour per bus. Please schedule appropriately to minimize vehicle downtime.

ROOFTOP RADIATOR FAN CONNECTOR REPLACEMENT

Description

This procedure describes the process of updating the Radiator Fan Connectors with an improved version to prevent UV degradation.



Tools/Parts Required

Tools and Supplies Required:

- Side Cutting Pliers
- Wire Strippers
- Delphi Crimp Tool
- Scissors
- Heat Gun

Parts Required:

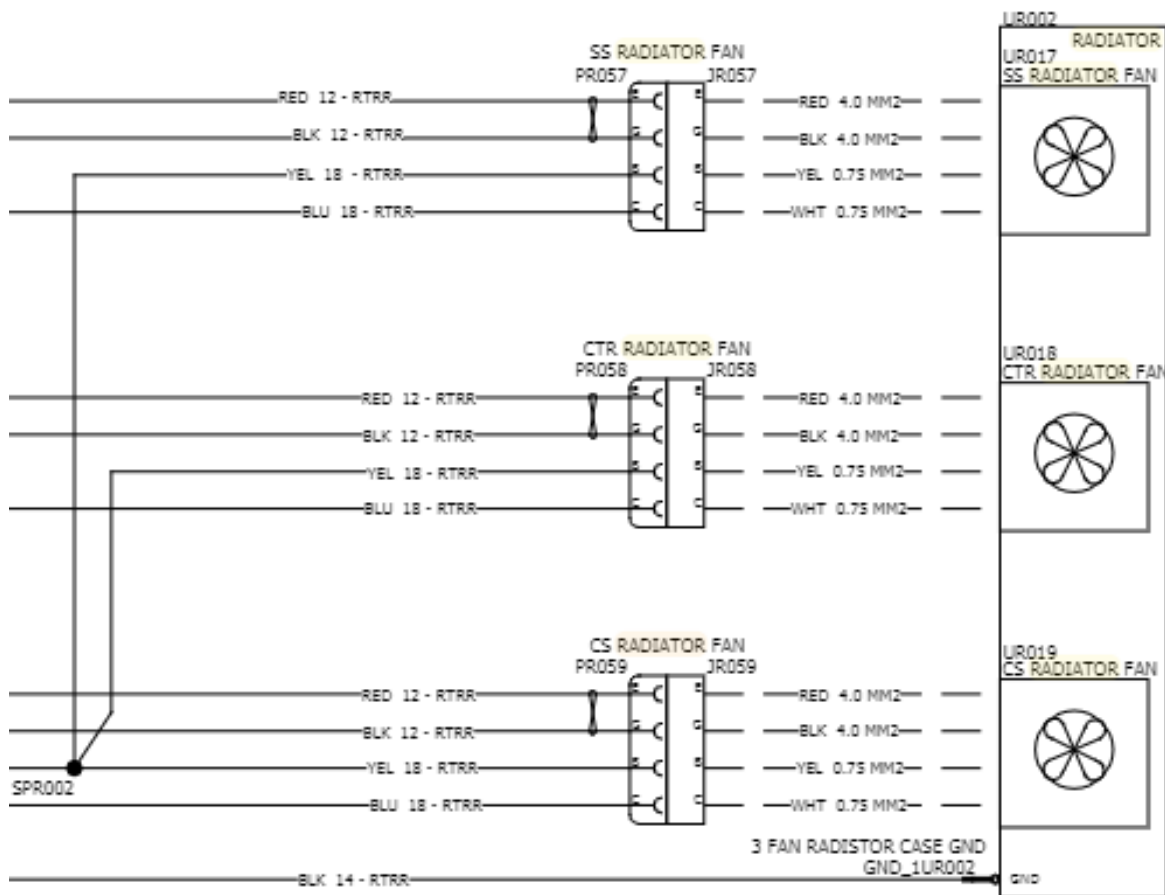
- 061919 SERVICE KIT, RADIATOR FAN CONNECTOR (Consisting of)
 - 174-4270 CONNECTOR, MALE, 480 SERIES 6 EA
 - 044346 METRI-PACK 150-480 7 WAY MALE 3 EA
 - 044724 PLUG, SECONDARY LOCK 3 EA
 - 012284 SEAL: WIRE #20 AWG: WHT: M-PAK SER 150 #15324976 12 EA
 - 015516 CAVITY SEAL, L, MP480CD, 2.81-3.76, RED 12 EA
 - 027626 TERMINAL MALE 150 SERIES TIN CBL RNG 2.78-1.69MM 9 EA
 - 015512 LOCK, SCNDARY, GRAY PA66 HS IM, 7 POS 6 EA
 - 015517 CAVITY PLUG, MP150, OD5.75, DARK RED 15 EA
 - 015478 METRI PACK 150-480, 7 WAY FEMALE 3 EA
 - 175-9711 HEAT SHRINK, 1.5" ID, 2:1 24 IN
 - 001186 CONTACT, SOCKET, SIGNAL, #16-20, MP 150S 6 EA
 - 015808 FML, MP480, S, T, TP, CR3-5, IR, 3.49-5.24 6 EA

Procedure:

1. Perform the Proterra approved Lockout/Tagout procedures to make the bus safe for work.
2. Following the safety procedures approved by Proterra and the Transit Agency where the work is to be performed, safely access the rooftop of the bus and the Three-Fan Radiator shown in the following photograph.



3. This procedure will update connectors **PR057, JR057, PR058, JR058, PR059, and JR059** shown in the following schematic diagram excerpt.



4. Locate the connector pair labeled **PR057** and **JR057** shown in the following photograph. **JR057** may not be labeled but is connected to PR057.



5. Using Side-Cutting Pliers, remove any cable ties necessary to disconnect **PR057** from **JR057**.
6. Disconnect **PR057** from **JR057**.
7. Take photograph and/or notes to assist in rewiring connectors **PR057** and **JR057**.
8. Using a Pin-Extractor Tool, remove the pins and sockets from connectors **PR057** and **JR057**.
9. Using Side-Cutting Pliers, cut the pins and sockets from each of the wires. Cut them off as close as possible to the wire ends.
10. Using Wire Strippers, prepare each wire to receive a terminal.
11. Using the following table as a guide, populate a Female Connector (**015478**) using the parts and locations shown. Secure the parts with Lock (**015512**). The parts are crimped using a Delphi Crimp Tool.

Cavity	Wire Color	Wire Seal	Terminal or Cavity Plug
A	N/A	N/A	015517
B	YEL	012284	001186
C	BLU	012284	001186
D	N/A	N/A	015517
E	RED	015516	015808
F	N/A	N/A	015517
G	BLK	015516	015808

12. Using the following table as a guide populate a Male Connector **(044346)** using the parts and locations shown. using the parts and locations shown. **(044724)**.

Cavity	Wire Color	Wire Seal	Terminal or Cavity Plug
A	N/A	N/A	015517
B	YEL	012284	027626
C	BLU	012284	027626
D	N/A	015517	015517
E	RED	015516	174-4270
F	N/A	012284	027626
G	WHT	015516	174-4270

13. Using Scissors, cut an eight inch piece of Heat Shrink **(175-9711)**.
14. Slip the Heat Shrink **(175-9711)** over one of the connectors and down onto the harness.
15. Reconnect **PR057** to **JR057**.
16. Using a Heat Gun, apply heat to the Heat Shrink **(175-9711)** to seal the connection.



17. Repeat the process to replace the other two connector pairs.
18. Remove the Lockout/Tagout devices and return the bus to service.