



SP 3-873-005

SERVICE PROGRAM

November, 2017

ATTENTION:

Service Managers / Parts Managers

SUBJECT:

Replacement of a RH head lamp circuit which can overheat and cause the diode to fail open, causing the head lamp to lose power.

DESCRIPTION OF WORK:

This Service Program provides instructions to remove the connector from the RH head lamp circuit and install a diode harness with two diodes in parallel on certain model year 2014-2017 Xpert vehicles.

PROGRAM EXPIRES:

November 30, 2018

VEHICLES AFFECTED:

There are 325 vehicles affected manufactured after July 11, 2013. To determine if a vehicle is affected by this Service Program. To determine if a vehicle is affected by this Service Program, log in to the Autocar Warranty Management System at www.autocartruck.com. Click on the blue "Warranty Management" diamond on the right hand side of the page. From the main menu, select "Service Programs" and look for the Autocar recall number above. An excel file will be accessible with the VIN list of affected vehicles. Alternatively, to determine if a single vehicle is affected, select "VIN Profile" from the main menu. In the "Chassis Number" field, enter the last 6 of the VIN. Once the VIN profile is displayed, scroll down to the "Service Program Information" section.

SERVICE RESPONSIBILITY:

Service Programs are performed on eligible vehicles at no charge to the owner until the expiration date listed above.

SERVICE PROGRAM INFORMATION:

Service Programs are product modifications and/or product improvements that Autocar has determined will enhance the operation of the truck. In a continuing effort to inform our customers of potential service issues and avoid unnecessary down time, Autocar has identified the following operation as recommended preventive maintenance.

This Service Program should be added to your preventive maintenance and service manuals.

While being committed to continuous product improvement, Autocar is not liable for updating existing chassis after they have been placed in service.

Questions regarding this Service Program should be directed to Autocar Technical Support at 888-218-3611.

TO OBTAIN PARTS:

DO NOT submit a Solutions ticket. Ensure that you have authorization from the customer to perform this work, and send an e-mail to: warranty@autocartruck.com

Include:

1. VIN(s) (or) (last 6 digits of the VIN(s))
2. Attention To Name
3. Ship To Address.



SP 3-873-005

SERVICE PROGRAM

November, 2017

REQUIRED PARTS:

S8734001K003 Service kit
(1) A8590013-002 Diode harness

CLAIMS FOR REIMBURSEMENT:

Submit a claim for reimbursement in accordance with Autocar's Warranty Administration Manual.

CLAIM CODING INFORMATION:

Repair Number (Op Code)	Time Allowance (SRT)	Description
36406-2-02	1.0 HR	Install new diode harness

TOOLS REQUIRED:

3/8" Drive ratchet
3/8" Drive 13mm socket
3/8" Drive 6" extension
Standard screwdriver
2 Phillips screwdriver
Wire stripping/crimping pliers
3/8" Drive torque wrench
capable of 16 Lb./ft. (22 Nm.)
Heat gun

SAFETY NOTICES:



WARNING

Allow the vehicle's engine and cooling system to cool to ambient temperature before performing the repair procedure. A hot engine or cooling assembly may cause burns or other personal injury.



WARNING

Never rely on the hydraulic pressure to hold the cab in an open position. Always use the safety pin in the cab tilt lock tube to prevent serious personal injury or death.



WARNING

To prevent eye injury, always wear eye protection when performing vehicle maintenance, service or inspection.



WARNING

Before working on a vehicle, set the parking brake, place the transmission in neutral and block the wheels. Failure to do so can result in unexpected vehicle movement and can cause serious personal injury or death.



SP 3-873-005

SERVICE PROGRAM

November, 2017

Working on CNG/LNG Trucks

SAFETY INSTRUCTIONS

If you store or dispense Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG), or if you work on CNG or LNG trucks, your location must be fully compliant with applicable codes, regulations and standards, including National Fire Protection Associate (NFPA) codes, Society of Automotive Engineers (SAE) standards, American National Standards Institute (ANSI) Natural Gas Vehicle (NGV) standards, the United States Code of Federal Regulations (CFR) and your state and local fire and other applicable codes (including, for example, the California Code of Regulations and the Texas Administrative Code).

Contact your local fire department for guidance and additional compliance information.

Technicians working on Autocar trucks with CNG or LNG engines must be trained in the proper repair of CNG and LNG trucks and engines and the safe storage and dispensing of CNG and LNG.

Working on CNG Fuel Systems



WARNING

CNG fuel systems include a high pressure (3600 psi) system for fuel storage and a low pressure system (125 psi) for consumption by the engine. Understanding the characteristics of CNG and how the fuel system works will prevent injury and damage to persons and property.

Attempting to operate or maintain any CNG fuel system without proper training is dangerous. Complete training and consult instructional bulletins from the CNG system suppliers, such as Agility Fuel Systems' Field Service Bulletin, Safely Working on CNG Fuel Systems.

Welding and Hot Work Near CNG and LNG Trucks



WARNING

Welding, grinding and other "hot work" can be safely performed on or near a CNG or LNG vehicle, but certain precautions must be followed. Understand and perform the necessary precautions provided by the CNG system suppliers, such as Agility Fuel Systems' Field Service Bulletin, Welding and Hot Work Precautions Near CNG and LNG Vehicles.

SP 3-873-005

SERVICE PROGRAM

November, 2017

CNG Cylinders



WARNING

CNG fuel containers must meet Federal Motor Vehicle Safety Standard (FMVSS) 304 (Compressed Natural Gas Fuel Container Integrity) and/or ANSI/CSA NGV2 (Basic Requirements for Compressed Natural Gas Vehicle Fuel Containers). Both standards specify a detailed visual examination every three years.

Ensure that every truck owner completes the required inspections, in accordance with the applicable standards and other resources, such as the Clean Vehicle Education Foundation and NGV America's Compressed Natural Gas (CNG) Container Visual Inspection Advisory.

FMVSS 304 also requires that cylinders not be used after the end of life (EOL) date provided on the tank label. The EOL date is also displayed in the engine compartment and at the fueling connection of each truck. If there is any question as to proper decommissioning of a cylinder, contact the manufacturer, whose name and address is also required to be on the label.

CNG Fuel Container Pressure Relief Devices (PRDs)



WARNING

PRDs must be properly maintained and positioned for safe operation of a CNG fuel system. Missing vent caps can allow moisture into PRDs and vent lines, which can freeze and damage these safety components. Debris which clogs the PRDs and/or vent lines can prevent proper function.

PRDs must be positioned to vent upward, not outward, from a vehicle.

Ensure that every truck owner completes periodic inspections of the PRDs and vent lines and systems, in accordance with guidance provided by the system component suppliers.

Alert First Responders to CNG and LNG



DANGER

In the event of a fire or other emergency, alert first responders to the presence and location of CNG fuel systems, tanks and dispensers. Ensure that emergency personnel are aware of proper precautions, such as those provided in Agility's *First Responder Guide: CNG and LNG Vehicle Fuel Systems*.

SP 3-873-005

SERVICE PROGRAM

November, 2017



CAUTION

LOCKOUT/TAGOUT PROCEDURES

Before entering the vehicle or vehicle body, read and follow OSHA regulations concerning entry and working in "CONFINED SPACE" OSHA 1910.146 and "LOCKOUT/TAGOUT" OSHA 1910.147. Follow OSHA regulations while performing any work on the vehicle. The vehicle must be disabled by the following steps before performing any work on the vehicle:

1. Place the transmission in NEUTRAL.
2. Set the parking brake.
3. Shut the engine OFF.
4. Lock cab doors, keep the key in your pocket. Block the wheels before entering the body or performing any work on the vehicle.
5. Turn the battery disconnect switch OFF, if equipped.
6. Completely drain the air from the primary/A system and secondary/B system by opening the drain valves on the air tanks themselves or by using the drain manifold if supplied. When draining the air tanks, do not look into the area where air is draining. Dirt or sludge particles may be expelled in the air stream and can cause eye injury.
7. Place magnetic "DANGER" signs on both cab doors before entering the body or performing any work on the vehicle.
8. Take proper precautions before working under the vehicle. Use ramps approved for the weight of your vehicle, or use floor jacks and stands. Never work under a vehicle supported by jacks alone. Always use jack stands to support the vehicle.

INSTALLATION OF NEW DIODE HARNESS:

1. Disconnect all battery terminals, negative first and then positive.
2. Open the left side door and tilt the seat forward (see Figure 1).



Figure 1

SP 3-873-005

SERVICE PROGRAM

November, 2017

3. Locate the fuse box directly behind the left side seat (see *Figure 2*).



Figure 2

4. Open the fuse box for access to the fuse panel (see *Figure 3*).



Figure 3

5. Disconnect the wiring harness connectors from the fuse panel (see *Figure 4*).

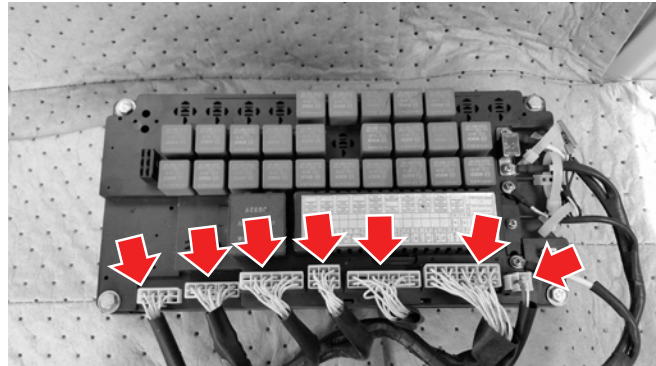


Figure 4

6. Locate the ring terminals and the circuit breaker (see *Figure 5*).

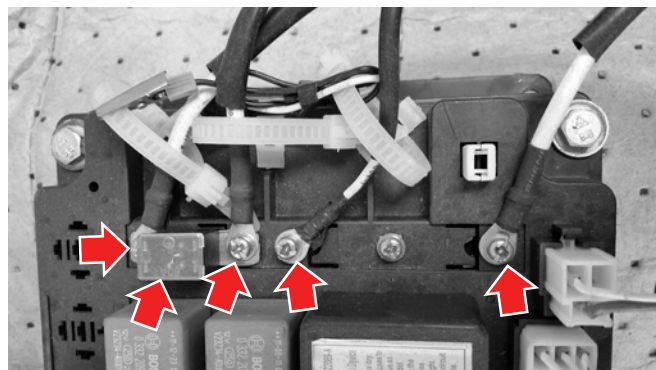


Figure 5

7. Make note of the wire numbers and their locations and the orientation of the circuit breaker for reinstallation.

SP 3-873-005 SERVICE PROGRAM

November, 2017

8. Remove the four screws and four washers retaining the ring terminals and set the screws, washers and the circuit breaker aside for reinstallation (see Figure 6).

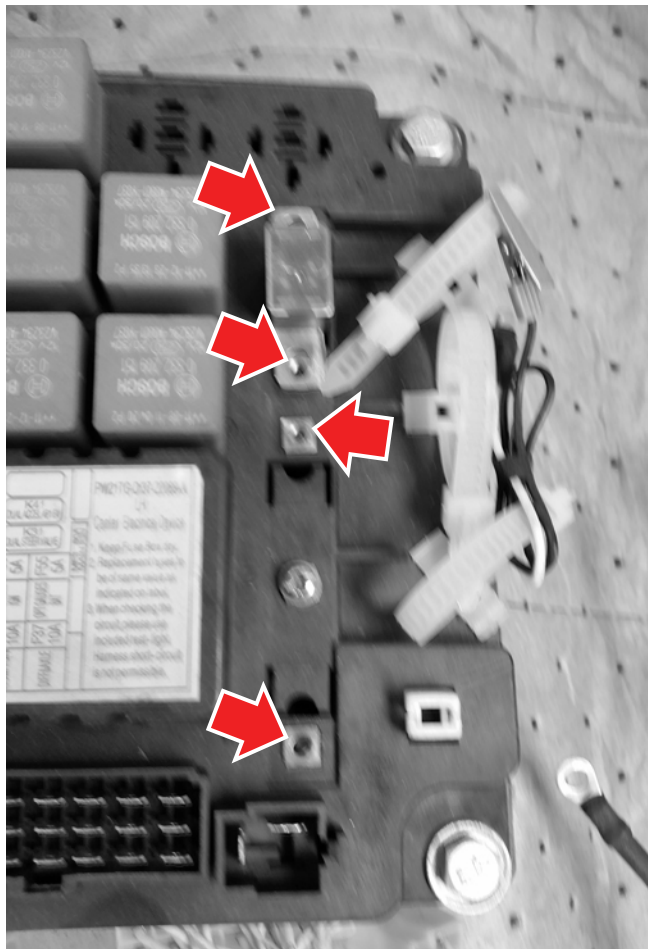


Figure 6

9. Remove the four fuse panel mounting bolts and four washers and set aside for reinstallation (see Figure 7).

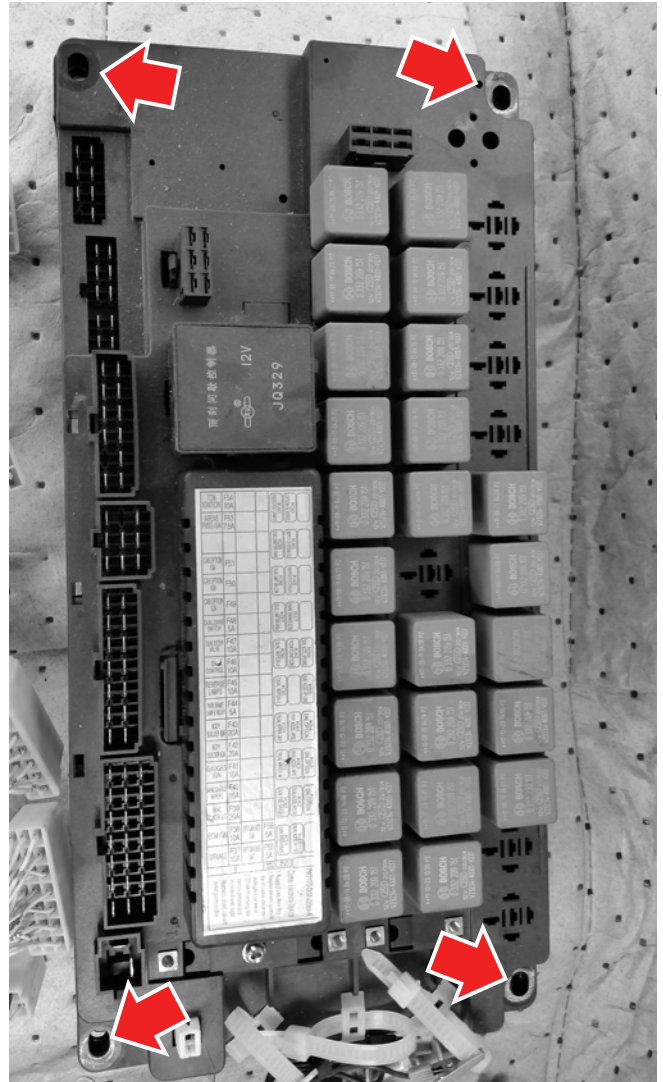


Figure 7

SP 3-873-005

SERVICE PROGRAM

November, 2017

10. Remove the fuse panel from the fuse box and place the fuse panel on a work table face down (see Figure 8).



Figure 8

11. Remove or peel back the center decal to access one of eighteen fuse panel access cover screws (see Figure 9).

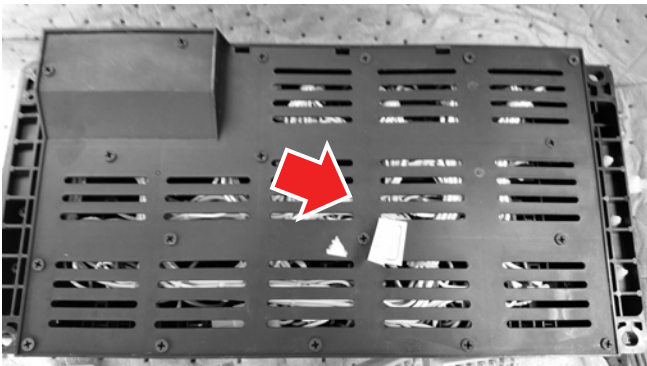


Figure 9

12. Remove all eighteen fuse panel access cover screws and set aside for reinstallation.

13. Remove the fuse panel access cover and set aside for reinstallation.
14. There are two diodes contained in the fuse panel. Locate the diode and wiring marked with circuit numbers 41B and 41B-1. Cut wire 41B and wire 41B-1 and discard the diode and connector (see Figure 10 and Figure 11).

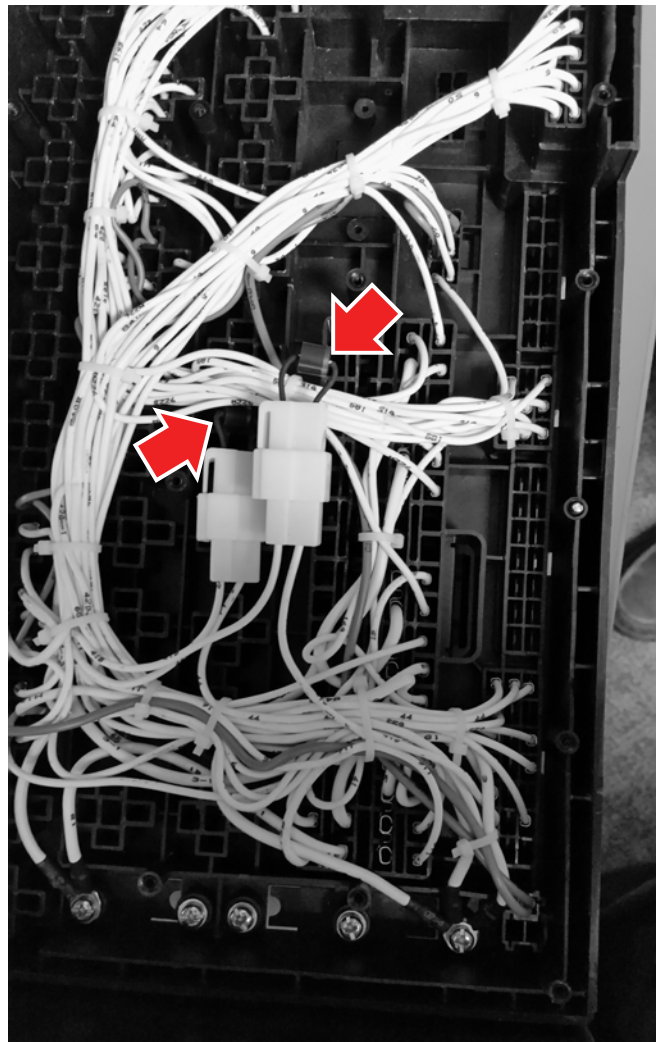


Figure 10

SP 3-873-005

SERVICE PROGRAM

November, 2017



Figure 11

15. Strip 1/4" (6.35 mm) of insulation from wires 41B and 41B-1.

16. Match the wire numbers 41B of the new diode harness (A8590013-002) to the wire 41B of the fuse panel and the wire 41B-1 of the new diode harness to wire 41B-1 of the fuse panel and crimp the wires in place
(see *Figure 12* and *Figure 13*).



Figure 12

SP 3-873-005

SERVICE PROGRAM

November, 2017

17. Heat seal the connections installed in Step 15.



Figure 13

18. Reinstall the fuse panel access cover onto the fuse panel and secure with eighteen screws that were set aside in steps 11 and 12.
19. Reinstall the fuse panel into the fuse box and secure with the four mounting bolts and four washers that were set aside in step 9, and tighten to 16 Lb./ft. (22 Nm.) of torque.
20. Reinstall the ring terminals and circuit breaker into their original orientation and secure with four screws and four washers that were set aside in step 8.
21. Plug in the wiring harness connectors that were disconnected in step 5.
22. Close the fuse box.
23. Connect the battery terminals that were disconnected in step 1, positive first and then negative.
24. Perform a functional test of the head lamps and verify proper operation.
- Note:** If you have any questions regarding this Service Program, please call Autocar technical support at 888-218-3611.
25. Repairs are complete.