



Recall Service Bulletin



**Recall Service Bulletin
RSB22-520-001**

DATE: 9/12/2022

APPLIES TO: This service bulletin applies to certain 2020 through 2021 model year, Gladiator and Metro Star model emergency response vehicles built between May 2020 and May 2022.

NHTSA/TC Id: 22V539 / TC2022-414

CONDITION: Certain Schneider Electric QO Plug-On Neutral Load Centers may possess a loose neutral screw connection within the QO Plug-On Neutral Load Center. If that connection is loose, the affected load center can overheat, posing thermal burn and fire hazards.

CORRECTION: Inspect load center plant and manufacturer's date codes to determine if affected. If affected, repair load center per instructions below.

LABOR ALLOCATION: 1 hour

CLASSIFICATION: V3

GENERAL INSTRUCTIONS:

Thoroughly review entire service bulletin before starting work. If there are questions or concerns with steps defined in this service bulletin, contact Spartan Fire, LLC. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin
RSB22-520-001

Instruction Bulletin

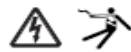
Rev. 01, GEX49540, 06/2022
Replaces GEX49450, 04/2022

QO™ Plug-On Neutral Connector Clamping Screws— Field Inspection and Remediation

Retain for future use.

Safety Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this bulletin or on the equipment to warn of hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of either symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol is not used with this signal word.

Please Note

Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

It is the responsibility of the qualified person performing this work to determine and acquire permits and inspections according to local code requirements.



© 2022 Schneider Electric All Rights Reserved



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Introduction

This bulletin contains instructions for evaluation and potential remediation of QO plug-on neutral (PoN) interiors used in Square D™ brand or Schneider Electric™ 100 through 225 A QO main lugs and main circuit breaker indoor and outdoor load centers with UL® or CSA® markings. Manufacturing date codes are December 1, 2019, through January 12, 2022, using date codes YYWWDS where YY = year, WW = week, D = day, and S = shift. 194871 through 221343 with Plant Code 15 are affected.

The date and plant codes can be found on the interior assembly label or box label (see Figure 1). The interior assembly label is located on the top of the plastic mains base inside of the enclosure as shown in Figure 2. The box label is located on one of the enclosure interior side walls, as shown in Figure 3.

Figure 1 – Interior Assembly Labels

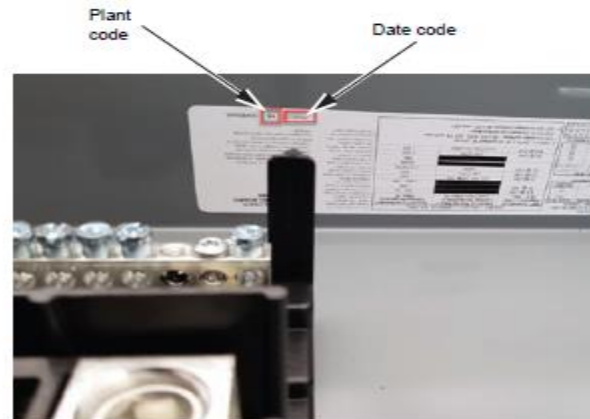
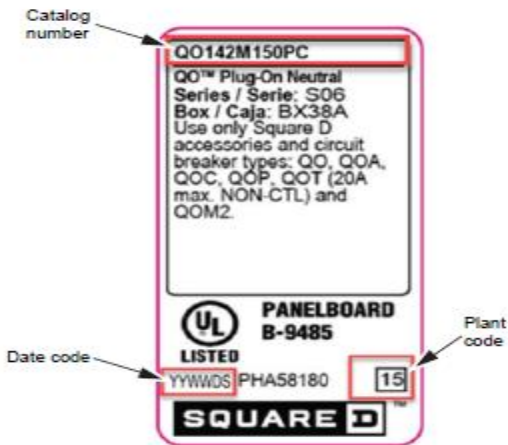
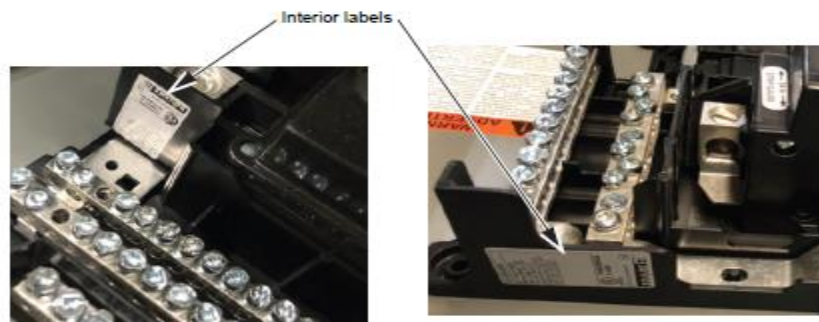


Figure 2 – Common Locations for Interior Label



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin
RSB22-520-001

Typical Locations of Load Center in Body



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



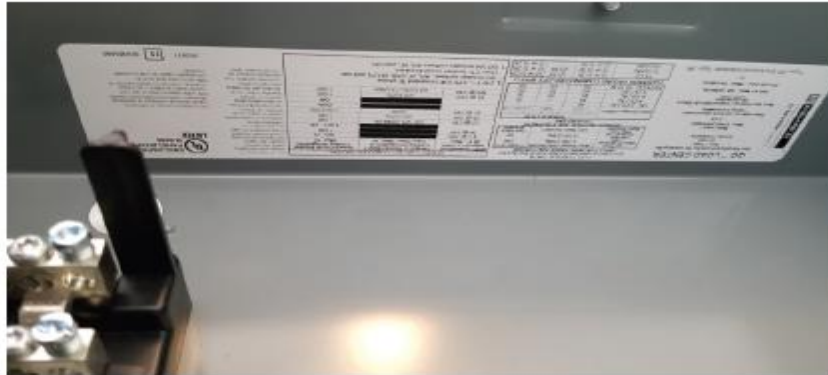
Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Figure 3 – Box Label Common Location



Tools Required

- Properly rated voltage sensing device
- #2 square head Robertson® screwdriver
- Magnetic T-20 Torx® screwdriver
- Torque wrench calibrated to 25 lb-in. (2.8 N•m) with T-20 Torx screwdriver tip
- Two green dot sticker labels with legend “Inspected PRB-236759”, provided. Alternate black permanent marker, if label is not available.

Inspection and Remediation of Plug-on Neutral Connector Joints

Precautions

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E, CSA Z462, or NOM-029-STPS.
- This equipment must only be installed and serviced by qualified electrical personnel.
- Turn off all power supplying this equipment before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace all devices, doors and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING: This product can expose you to chemicals including Lead and lead compounds, which are known by the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.co.gov

Rev. 01, GEX49540

© 2022 Schneider Electric All Rights Reserved

3

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

Step by Step Instructions

- Ensure power is disconnected from load center and verify with DVOM or appropriate circuit testing device before proceeding.
- Remove 4 panel screws and remove the load center cover.



- Do not use the plant and/or date codes on the load center door for identification. The door and the load center panel are purchased separately, therefore the codes on the door will not be accurate.



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

- Reference the codes on the inside of the load panel



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin
RSB22-520-001

ATTENTION!

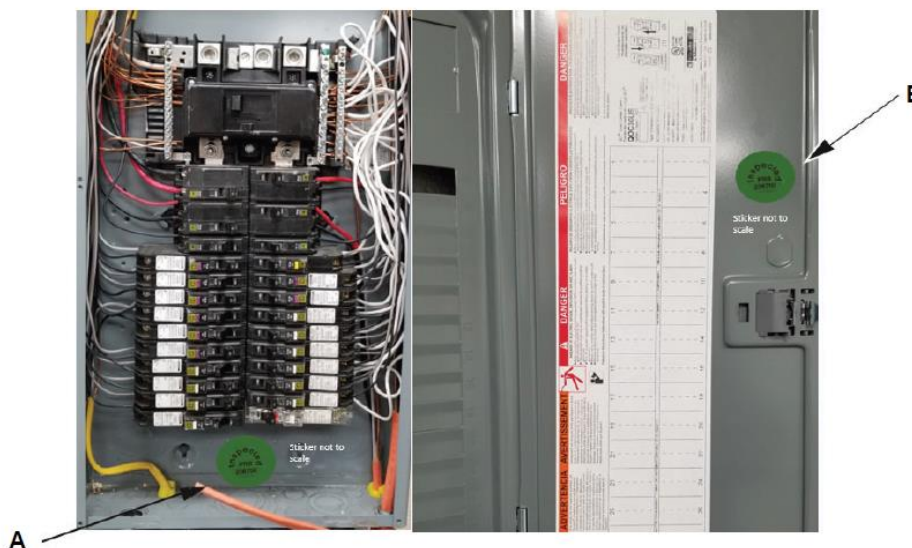
Photos will be required at the end of the procedure.

- 1. If date code and plant number are in the affected range, perform repair, install inspection stickers and supply photo of inspection stickers as shown below.**
- 2. If date code and plant number are not in the affected range, capture photo of data label with date code and plant number. No need to apply inspection stickers.**

Please email photos with the VIN in the title to andrew.haigh@spartanmotors.com. Receipt of photos will be necessary before payment can be issued for the claim.

After completing inspection and/or remediation of both connectors, use the provided green dot sticker labels “Inspected PRB-236759” and place them in both locations inside the box (A) and on the back of the cover door (B). Alternate: If the green dot labels are not available, use a black permanent marker and write the legend “Inspected PRB-236759”. If the permanent marker is used during remediation, the contractor is to return at the earliest possible date to place a green dot at location (B) only.

– Inspected PRB-236759 Identification Mark



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

1. Turn off all power supplying the load center.
2. Remove screws securing the load center cover (indoor load center, see Figure 4, A) or trim (outdoor load center, see Figure 4, B) and retain screws and cover for re-assembly. Remove load center cover or trim.

Figure 4 – Indoor and Outdoor Load Centers (Examples)



3. Using a properly rated voltage sensing device, verify the absence of voltage.
4. Verify if manufacturing plant code is 15, that the catalog number is on the affected list (see Annex) and the date code is between 194871 and 221343 (December 1, 2019 — January 12, 2022). See Figures 1–3.

NOTE: If the plant code, catalog number, and date code are not inside this scope, no remediation is necessary; re-install cover (indoor) or trim (outdoor) using screws removed in step 2 and proceed to step 9.

5. Locate the plug-on neutral (PoN) connector clamping screws securing the connector to the PoN bars on the mains base of the load center. Mains bases will have two PoN connector clamping screws. These screws are silver colored, Torx head screws. See Figure 5.

Figure 5 – Neutral Connector Clamping Screw Locations



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

6. Check the joints of the neutral connectors for evidence of degradation due to overheating (burns or plating discoloration) or evidence of plastic base overheating (melting).

Evaluation:

If there is evidence of degradation on neutral connector joints, the full interior must be replaced. Identify the catalog number shown in the interior label (Figure 1) and contact Schneider Electric Technical Support: 1-888-778-2733, options 2, 1, and 4. It is important to continue with the process in step 7 to secure neutral connections until interior is replaced.

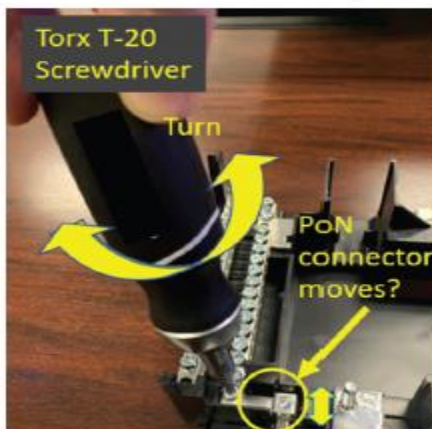
7. Loosen left bottom neutral bar screw.
 - a. Use a T-20 screwdriver to loosen the left bottom neutral bar screw one full turn counterclockwise (see Figure 6).

Figure 6 – Left Bottom Neutral Bar Screw



- b. Use the screwdriver to turn the left neutral bar screw alternating clockwise and counterclockwise, while inspecting for movement on the PoN connector. See Figure 7.

Figure 7 – Inspect for Movement on the Left PoN Connector



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Evaluation:

If the PoN connector **DOES NOT MOVE**, the clamping screw has proper clamping force. **DO NOT** tighten the clamping screw, as it may damage the connector.

USING THE TORQUE WRENCH tighten the left bottom neutral bar screw to 25 lb-in. (2.8 N·m) and add a mark with the black permanent marker. See Figure 8.

Go to step 8.

Figure 8 – Apply Mark after Tightening Left Bottom Neutral Bar Screw



If the PoN connector **DOES MOVE**, the clamping screw in the PoN connector must be tightened.

- a. Loosen the left PoN clamping screw by turning it 1/4 turn, counterclockwise. See Figure 9.

Figure 9 – Left PoN Clamping Screw



- b. Tighten the clamping screw 1/4 turn at a time, verifying for movement after each 1/4 turn, until the connector does not move anymore. When the connector will not move anymore, apply a mark with the black permanent marker, between the connector and clamping screw. See Figure 10.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Figure 10 – Tighten Clamping Screw: Apply Mark after Movement Stops



- c. USING THE TORQUE WRENCH, RE-TIGHTEN the left bottom neutral bar screw to 25 lb-in. (2.8 N•m). Add mark to the left bottom neutral bar screw with black permanent marker. See Figure 11.

Figure 11 – Apply Marking



NOTICE

HAZARD OF EQUIPMENT DAMAGE

Do not overtighten clamping screws. After the clamping screw has made contact with the plug-on neutral bar, do not tighten the screws to more than 25 lb-in. (2.8 N•m), if using a torque wrench.

Failure to follow these instructions can result in equipment damage.

- d. Use the mark on the clamping screw as a reference to tighten an additional 1/4 turn clockwise (see Figure 12). Alternate: use torque wrench to torque clamping screw to 25 lb-in. (2.8 N•m).

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Figure 12 – Tighten Additional 1/4 Turn after Connector does Not Move

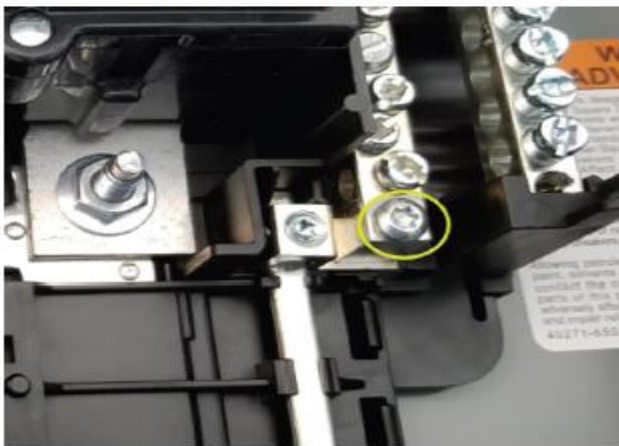


Remediation is complete for the left connector.

REPEAT steps to determine if the right clamping screw is loose and must be tightened.

8. Loosen right bottom neutral bar screw.
 - a. Use a T-20 screwdriver to loosen the right bottom neutral bar screw one full turn counterclockwise (see Figure 13).

Figure 13 – Right Bottom Neutral Bar Screw



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin

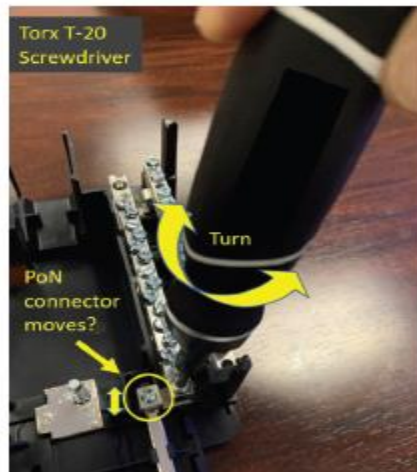


Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

- b. Use the screwdriver to turn the right neutral bar screw alternating clockwise and counterclockwise, while inspecting for movement on the PoN connector. See Figure 14.

Figure 14 – Inspect for Movement on the Right PoN Connector



Evaluation:

If the PoN connector **DOES NOT MOVE**, the clamping screw has proper clamping force. **DO NOT** tighten the clamping screw, as it may damage the connector.

USING THE TORQUE WRENCH tighten the right bottom neutral bar screw to 25 lb-in. (2.8 N·m) and add a mark with the black permanent marker. See Figure 15.

Go to step 9.

Figure 15 – Apply Mark after Tightening Right Bottom Neutral Bar Screw



If the PoN connector **DOES MOVE**, the clamping screw in the PoN connector must be tightened.

- a. Loosen the right PoN clamping screw by turning it 1/4 turn, counterclockwise. See Figure 16.

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



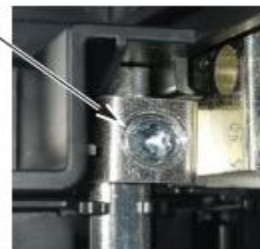
Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Figure 16 – Right PoN Clamping Screw



- b. Tighten the clamping screw 1/4 turn at a time, verifying for movement after each 1/4 turn, until the connector does not move anymore. When the connector will not move anymore, apply a mark with the black permanent marker, between the connector and clamping screw. See Figure 17.

Figure 17 – Apply Marking



- c. USING THE TORQUE WRENCH, RE-TIGHTEN the right bottom neutral bar screw to 25 lb-in. (2.8 N•m). Add mark to the right bottom neutral bar screw with black permanent marker. See Figure 18.

Figure 18 – Apply Marking



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



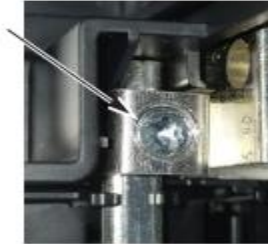
Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Figure 16 – Right PoN Clamping Screw



- b. Tighten the clamping screw 1/4 turn at a time, verifying for movement after each 1/4 turn, until the connector does not move anymore. When the connector will not move anymore, apply a mark with the black permanent marker, between the connector and clamping screw. See Figure 17.

Figure 17 – Apply Marking



- c. USING THE TORQUE WRENCH, RE-TIGHTEN the right bottom neutral bar screw to 25 lb-in. (2.8 N·m). Add mark to the right bottom neutral bar screw with black permanent marker. See Figure 18.

Figure 18 – Apply Marking



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QO™ Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

NOTICE

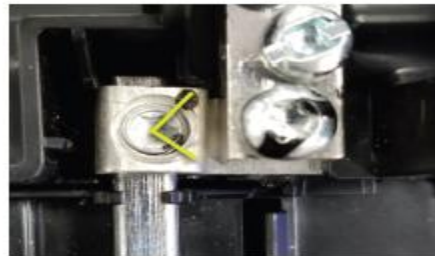
HAZARD OF EQUIPMENT DAMAGE

Do not overtighten clamping screws. After the clamping screw has made contact with the plug-on neutral bar, do not tighten the screws to more than 25 lb-in. (2.8 N•m), if using a torque wrench.

Failure to follow these instructions can result in equipment damage.

- d. Use the mark on the clamping screw as a reference to tighten an additional 1/4 turn clockwise (see Figure 19). Alternate: use torque wrench to torque clamping screw to 25 lb-in. (2.8 N•m).

Figure 19 – Tighten Additional 1/4 Turn after Connector does Not Move



Remediation is complete for the right connector.

9. After completing inspection and/or remediation of both connectors, use the provided green dot sticker labels “Inspected PRB-236759” and place them in both locations inside the box (A) and on the back of the cover door (B). Alternate: If the green dot labels are not available, use a black permanent marker and write the legend “Inspected PRB-236759”. If the permanent marker is used during remediation, the contractor is to return at the earliest possible date to place a green dot at location (B) only.

Figure 20 – Inspected PRB-236759 Identification Mark



Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.



Recall Service Bulletin



Recall Service Bulletin RSB22-520-001

QOTM Plug-On Neutral Connector Clamping Screws—Field Inspection and Remediation

Rev. 01, GEX49540

10. Re-install the load center cover (indoor) or trim (outdoor) using screws retained in step 2. Torque screws to 20 lb-in. (2.3 N•m).

⚠ WARNING

HAZARD OF OVERHEATING OR FIRE

Do not energize the equipment if damaged during service. If during the remediation service any of the parts are damaged (cracked, deformed, stripped, or other), the full interior must be replaced. Identify the catalog number shown in the interior label (Figure 1) and contact Schneider Electric Technical Support: 1-888-778-2733, options 2, 1, and 4.

Failure to follow these instructions could result in death or serious injury.

11. Re-energize the load center.

Schneider Electric USA, Inc.
800 Federal Street
Andover, MA 01810 USA
888-778-2733
www.se.com/us

Electrical equipment must be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

Schneider Electric and Square D are trademarks and the property of Schneider Electric SE, its subsidiaries, and affiliated companies. All other trademarks are the property of their respective owners.

© 2022 Schneider Electric All Rights Reserved

Notice!

Photos will be required at the end of the procedure.

- 1. If date code and plant number are in the affected range, perform repair, install inspection stickers, and supply photo of inspection stickers as shown below.**
- 2. If date code and plant number are not in the affected range, capture photo of data label with date code and plant number. No need to apply inspection stickers.**

**Please email photos with the VIN in the title to andrew.haigh@spartanmotors.com.
Receipt of photos will be necessary before payment can be issued for the claim.**

Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have the tools and equipment to perform procedures safely and properly.