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| **ISSUE DATE:** | 11/10/2021 |
| **SERVICE BULLETIN SUBJECT:** | Door Portal Seal Inserts Retrofit |
| **VINs or MODELS AFFECTED:** | Service Specified Buses |
| **COMPLETE BY:** | Next Service Opportunity |
| **SERVICE BULLETIN #:** | SC-21-161 |
| **LABOR OPERATION CODE:** | WD48Z |

**NOTICE! It is expected that this process may require up to one (1) hour per bus. Please schedule appropriately to minimize vehicle downtime.**

# DOOR PORTAL SEAL INSERTS RETROFIT

## Description

The procedure describes the process of removing the Self-Tapping screws that secure the Door Seal to the bus and replacing them with inserts and machine screws for improved reliability.



PROTERRA
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East Coast Manufacturing: 1 Whitlee Court, Greenville, SC 29607
West Coast Manufacturing: 383 Cheryl Lane, City of Industry, CA 91789

## Tools/Parts Required

Tools and Supplies Required:

- T-30 Torx Driver
- Power Drill
- 8mm Drill Bit
- 10mm Drill Bit
- 12mm x 1.75 Tap
- Mixing Cup
- Cotton Swabs
- Insert Installation Bit https://www.mcmaster.com/94110A140/
- Calibrated Torque Wrench
- T-30 Torx Socket

Kit Parts Required:

- 059691 SERVICE KIT, DOOR PORTAL INSERTS (Consisting of)
  - 147-6252 INSERT, TAPPING, M6, STAINLESS STEEL 49 EA
  - 019493-004 SCREW,BUTTON,FLG,TORX,SS,EPOXY BLACK, M6-1.0X20X20 49 EA
  - 009479 RESIN, EPOXY, WEST SYSTEMS 1 GL
  - 009499 HARDENER, EPOXY, FAST, WEST SYSTEMS 1 EA



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## Procedure

1. Complete the Proterra approved Lockout/Tagout procedure to make the bus safe for work.

2. Using a T-30 Torx Driver, remove the 24 Self-Tapping Screws that secure the Door Portal Seal and Door Portal Strips from the entrance door. There are 24 screws as shown by the red circles in the following photographs.


3. Remove the Door Portal Seal and Door Portal Strips and set them aside for reuse.

4. Using a Power Drill with an 8mm Drill Bit, enlarge each of the 24 holes to a depth of 15mm. Use tape on the Drill bit to limit the depth. Ensure that the Drill Bit is perpendicular to the surface of the bus.

5. Using a Power Drill with an 10mm Drill Bit, enlarge each of the 24 holes to their final size and depth of 15mm. Use tape on the Drill Bit to limit the depth. Ensure that the Drill Bit is perpendicular to the surface of the bus.

6. Using a 12mm Tap, thread each of the 24 holes to make installation of the inserts easier.

7. Using Compressed Air, clean the holes to remove any dust and debris.

8. Using a Mixing Cup, mix the Resin (009479) and Hardener (009499) according to the label instructions.



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9. Using a Cotton Swab, apply a small amount of the Epoxy Mixture to the inside surface of each hole to seal the Balsa surface against water intrusion.

10. Using a Cotton Swab, apply a small amount of the Epoxy Mixture to one of the Inserts (147-6252).

11. Using the Insert Installation Bit, install the Insert (147-6252) into one of the 24 holes. Ensure that the top of the Insert is flush with the surface of the bus.

12. Repeat the process to install the remaining Inserts (147-6252) into the holes.

13. Using a T-30 Torx Driver, install the Door Portal Seal and Door Portal Strips using 24 M6 Screws (019493-004). Do not torque the Screws. Only install them finger tight.

14. Allow 24 hours for the Epoxy Mixture to cure.

15. Using a Calibrated Torque Wrench with a T-30 Torx Socket, **torque the Screws (019493-004) to 77 inch-pounds.**

16. Repeat the process to install 25 Inserts (147-6265) into the Rear Door.

17. Remove the Lockout/Tagout devices and return the bus to service after ensuring proper operation of the entrance door.



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