



PROTERRA



IMPROVEMENT OFFERING

ISSUE DATE:	2-24-2021
SERVICE BULLETIN SUBJECT:	Rear Door Dowel Pin Retrofit
VINs or MODELS AFFECTED:	Service Specified Buses
COMPLETE BY:	Next Service Opportunity
SERVICE BULLETIN #:	SC-21-27
Labor Operation Code:	N/A

NOTICE! It is expected that this process will require 2 hours per bus. Please schedule appropriately to minimize vehicle downtime.

REAR DOOR DOWEL PIN RETROFIT

Retrofit Description:

This procedure adds a dowel pin to the rear door as requested by the customer.

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Tools/Parts Required

Tools and Supplies Required:

- Ratchet
- 10mm Socket
- Calibrated Torque Wrench

Kit Parts Required:

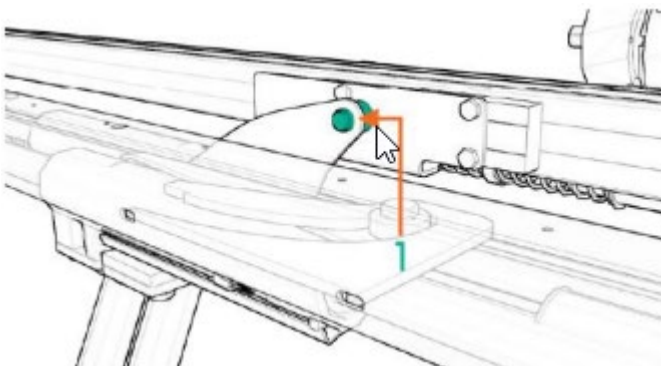
- 056752 KIT, RETROFIT, RETAINING BOLT, PLUG-SLIDE, DOORS (Consisting of)
 - 129-1578 BOLT, RETAINING, DOORS 1 EA

Procedure

1. Perform the Proterra approved Lockout/Tagout procedure to make the bus safe for work.
2. Before beginning the Rear Door Dowel Pin retrofit, verify that the door mechanism is level as shown in the following photograph.



3. Also verify that the pin shown below extends out 1 to 2mm through the drive plate as shown below.



4. Perform the OEM procedure that is attached in its entirety to the end of this document.
5. Remove the Lockout/Tagout devices and return the bus to service.



Ventura Securement Bolt VA 7119

Disclaimer

This bolt was designed for securement of the drive pin bracket so that when the door leaf is replaced at any point within the doors lifespan then the drive pin bracket will not fall off of the drive pin. This bolt was not designed for keeping the drive pin bracket on the pin while opening and closing. The correct procedure for properly making sure the drive pin bracket does not fall off the drive pin is by leveling the mechanisms properly to insure there is 1mm of protrusion of the drive pin through the drive pin bracket bracket.

Purpose

This document outlines the proper installation and usage of our VA 7119 Securement bolt. Pictures with Captions will help illustrate this.

Shipment

All PSE mechanisms are shipped to OEM's with a white zip tie to hold the brackets on the dowel pins until the point in which the doors can be hung, at that time the weight of the door is what holds the doors in place and the white zip tie can be cut.



Securement Bolt



This securement bolt is Ventura part VA7119. It is a M6x30 Steel Zinc flake coating hex head bolt. Has 16 mm of slide space in the channel but once the bolts installed it only allows the bracket to be no more than 20mm from the actuator.

Installment

The first thing that needs to be checked and/or corrected is the levelness of the Mechanism to allow the correct protrusion of the drive pin in open position. In full open we need to check for 1mm of protrusion of the drive pin through the drive pin bracket.

5 Commissioning

5.1 Check pin drive bracket

- Check if the pin drive bracket (1) extends at least 1mm from the drive bracket bush to ensure the connection between the cylinder/actuator and the door leaf won't disconnect during operation.

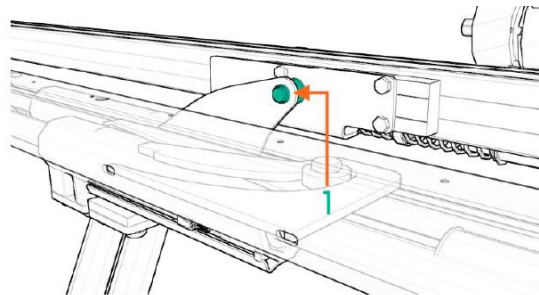


Figure 8: Pin Drive Bracket

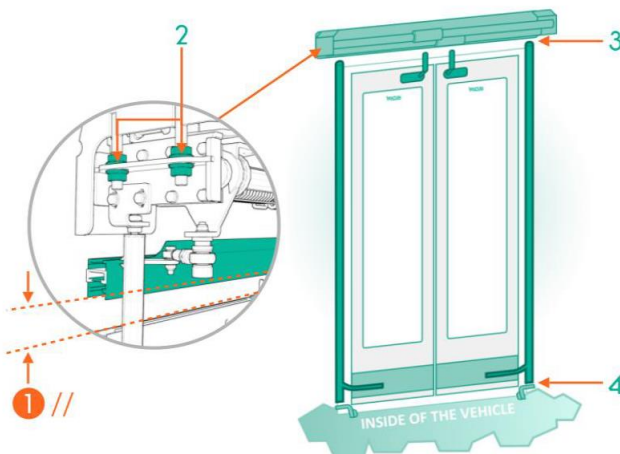


Figure 27: Door leaves height adjustment

If the mechanisms are not level and showing a 1mm of protrusion of the drive pin thru the drive pin bracket then we need to level the mechanisms. To level the mechanisms we have loosen these nuts at point 2 on both sides of the mechanism and level until the mech is level and showing the protrusion of the drive plate.

Once we know that the mechanism is level and we have the correct protrusion of the drive pin through the drive pin plate then we can go ahead and install the securement plate.



Remove the already installed M6 bolt on the top. Take the VA 7119 and with Blue Loctite 242 (Ventura Recommendation), place a couple drops on the threads and then insert into the same opening as where you removed the previous bolt. The torqueing value on this M6 bolt is 12 nm.



This bolt is now holding the bracket in place. As remove the right door leaf or as the doors open and close the bracket will now not fall off the dowel pin.



The amount of space from actuator to bolt head is 20mm.



Conclusion

This securement bolt was created to hold the bracket in place for the removal and reinstallation of a door Panel for the right leafs. To keep the brackets from slipping off the dowel pins then the doors must be properly level in accordance with our Commissioning Manual assuring there is 1mm of space drive pin protruding through the leaf bracket. The use of the bolt to help securement of the bracket on the drive pin has been used at other OEM's.