

DATE:

01/25/2018

APPLIES TO:

This service bulletin applies to the Emergency Response chassis cabs listed below by Model and Model Year, built between March 26, 2004 to August 8, 2016.

Model	Model Year
Advantage	<u>2005 – 2009</u>
Diamond	<u>2004 – 2008</u>
Gladiator	<u>2004 – 2017</u>
MetroStar	<u>2006 – 2017</u>
MetroStar R/T	<u>2010 - 2014</u>

Bulletins TSB17-110-001 and TSB17-110-002 are superseded by bulletins TSB17-110-001A and TSB17-110-002A in order to accommodate S-2680-001 and S-2680-002 Electrical Instruction Addendum and the removal of polyurea coating such as Line-X<sup>®</sup> Any vehicle repaired under these bulletin #'s will not require any additional work.

**<u>CONDITION:</u>** Door hinge may deform causing door to sag.

**<u>CORRECTION:</u>** Replace door hinges, door latches, strikers and door seals.

**LABOR ALLOCATION:** Max 2.5 Hrs. per door or Pre-approved estimate.

CLASSIFICATION: E1



### PARTS NEEDED:

With # C 20	<u>QTY</u> 1	<u>Part Number</u> S-2587-001D	<u>Description</u> KIT-SERVICE DOOR HINGE, MFD + FLAT ROOF
KIT # 5-25	87-001D Contains:		
	QTY	Part Number	<u>Description</u>
	2	67201212	FRONT DOOR HINGE
	2	67201213	REAR DOOR HINGE
	4	17200723	REINFORCEMENT PLATE
	84	61200596	WASHER
	2	0533-EE3-001	ASM-LATCH LH
	2	0533-EE3-002	ASM-LATCH RH
	4	0550-EE3-001	STRIKER-DOOR LATCH
	1	0764-EE3	INSTL-DOOR LATCH, FRONT DOORS
	1	0253-ZZ4	STRIKER/LATCH PROCESS
	48 FT	1249-RR1	D-SEAL
	16	0202-BB1-017	SCREW-M6-1.0X16MM TORX DR
			PAN HD MACH,ZINC,W/THD LOCK
	8	M06100FNZ	NUT-FLANGE 6MM X 1.0 ZINC
	1	TSB17-110-001A	<b>INSTRUCTION DOCUMENT - ENGLISH</b>
	1	TSB17-110-002A	<b>INSTRUCTION DOCUMENT - FRENCH</b>
	1	S-2680-001	ELECTRICAL INSTRUCTION
			ADDENDUM - ENGLISH
	1	S-2680-002	ELECTRICAL INSTRUCTION
			ADDENDUM - FRENCH
ΟΤΥ Γ	Part Number	Description	

<u>QTY</u>	<u>Part Number</u>	<b>Description</b>			
	1	S-2588-001D	KIT-SERVICE DOOR HINGE, MFD + 10" RAISED ROOF		
Kit # S-	Kit # S-2588-001D Contains:				
	<u>QTY</u>	<u>Part Number</u>	Description		
	2	67201212	FRONT DOOR HINGE		
	2	67201214	REAR DOOR HINGE		
a					



4	17200723	REINFORCEMENT PLATE
84	61200596	WASHER
2	0533-EE3-001	ASM-LATCH LH
2	0533-EE3-002	ASM-LATCH RH
4	0550-EE3-001	STRIKER-DOOR LATCH
1	0764-EE3	INSTL-DOOR LATCH, FRONT DOORS
1	0253-ZZ4	STRIKER/LATCH PROCESS
48 FT	1249-RR1	D-SEAL
16	0202-BB1-017	SCREW-M6-1.0X16MM TORX DR
		PAN HD MACH,ZINC,W/THD LOCK
8	M06100FNZ	NUT-FLANGE 6MM X 1.0 ZINC
1	TSB17-110-001A	INSTRUCTION DOCUMENT
1	TSB17-110-002A	INSTRUCTION DOCUMENT
1	S-2680-001	ELECTRICAL INSTRUCTION
		ADDENDUM - ENGLISH
1	S-2680-002	ELECTRICAL INSTRUCTION
		ADDENDUM - FRENCH

<u>QTY</u> 1	<u>Part Number</u> S-2589-001D	<u>Description</u> KIT-SERVICE DOOR HINGE, MFD + 20" RAISED ROOF
Kit # S-2589-001D Contains:		
QTY	Part Number	Description
2	67201212	FRONT DOOR HINGE
2	67201215	REAR DOOR HINGE
4	17200723	REINFORCEMENT PLATE
90	61200596	WASHER
2	0533-EE3-001	ASM-LATCH LH
2	0533-EE3-002	ASM-LATCH RH
4	0550-EE3-001	STRIKER-DOOR LATCH
1	0764-EE3	INSTL-DOOR LATCH, FRONT DOORS
1	0253-ZZ4	STRIKER/LATCH PROCESS
48 FT	1249-RR1	D-SEAL
16	0202-BB1-017	SCREW-M6-1.0X16MM TORX DR
		PAN HD MACH,ZINC,W/THD LOCK
8	M06100FNZ	NUT-FLANGE 6MM X 1.0 ZINC



1 1 1	TSB17-110-001A TSB17-110-002A S-2680-001 S-2680-002	INSTRUCTION DOCUMENT INSTRUCTION DOCUMENT ELECTRICAL INSTRUCTION ADDENDUM - ENGLISH ELECTRICAL INSTRUCTION ADDENDUM - FRENCH	
<u></u>	<u>Part Number</u> S-2590-001D	<u>Description</u> KIT-SERVICE DOOR HINGE, SMFD	
Kit # S-2590-001D Contains:		FLAT ROOF	
QTY	Part Number	<u>Description</u>	
2	67201212	FRONT DOOR HINGE	
2	67201224	REAR DOOR HINGE	
4	17200723	REINFORCEMENT PLATE	
84	61200596	WASHER	
2	0533-EE3-001	ASM-LATCH LH	
2	0533-EE3-002	ASM-LATCH RH	
4	0550-EE3-001	STRIKER-DOOR LATCH	
1	0764-EE3	INSTL-DOOR LATCH, FRONT DOORS	
1	0253-ZZ4	STRIKER/LATCH PROCESS	
48 FT	1249-RR1	D-SEAL	
16	0202-BB1-017	SCREW-M6-1.0X16MM TORX DR PAN HD MACH,ZINC,W/THD LOCK	
8	M06100FNZ	NUT-FLANGE 6MM X 1.0 ZINC	
1	TSB17-110-001A	INSTRUCTION DOCUMENT	
1	TSB17-110-002A	INSTRUCTION DOCUMENT	
1	S-2680-001	ELECTRICAL INSTRUCTION ADDENDUM - ENGLISH	
1	S-2680-002	ELECTRICAL INSTRUCTION ADDENDUM - FRENCH	





<u>QT</u>Y Part Number Description 1 S-2594-001D **KIT-SERVICE DOOR HINGE 2 DOOR** CAB Kit # S-2594-001D Contains: QTY Part Number Description 67201212 FRONT DOOR HINGE 2 4 17200723 **REINFORCEMENT PLATE** 42 61200596 WASHER 1 0533-EE3-001 ASM-LATCH LH 1 0533-EE3-002 ASM-LATCH RH 2 0550-EE3-001 STRIKER-DOOR LATCH 1 0764-EE3 INSTL-DOOR LATCH, FRONT DOORS

-	0/01 220	
1	0253-ZZ4	STRIKER/LATCH PROCESS
12 FT	1249-RR1	D-SEAL
8	0202-BB1-017	SCREW-M6-1.0X16MM TORX DR
		PAN HD MACH,ZINC,W/THD LOCK
4	M06100FNZ	NUT-FLANGE 6MM X 1.0 ZINC
1	TSB17-110-001A	INSTRUCTION DOCUMENT
1	TSB17-110-002A	INSTRUCTION DOCUMENT
1	S-2680-001	ELECTRICAL INSTRUCTION
		ADDENDUM - ENGLISH
1	S-2680-002	ELECTRICAL INSTRUCTION
		ADDENDUM - FRENCH

#### **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 Motors USA, Inc. Customer & Product Support Group.

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

NOTE: This bulletin applies to all cab doors.

#### **STEP-BY-STEP INSTRUCTIONS:**

1. Remove door check strap from door. Take care not to allow the door to swing open and hit / damage side of cab. Refer to FIG. 6-1.



 Examine check strap for signs of elongation. If the leading edge of the door skin contacts the side of cab when the door is fully opened with light forward pressure, the check strap should be replaced to prevent damage. Replacement part number for door check strap is 0697-EE3-001.

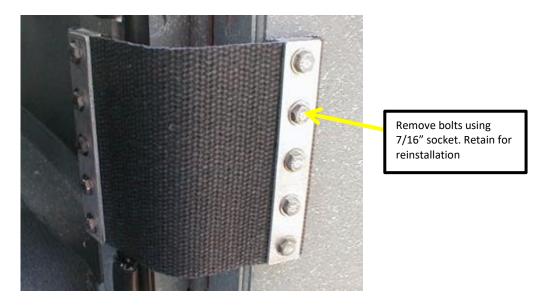
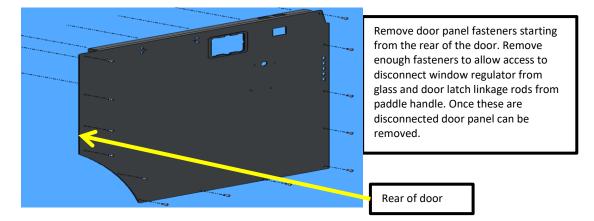


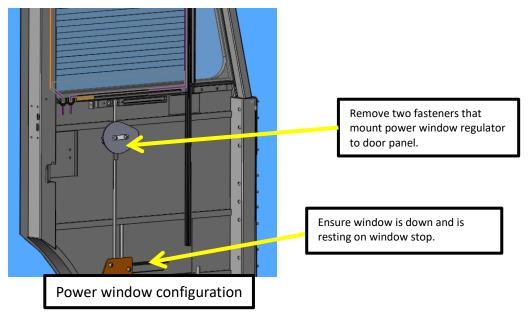
FIG 6-1

- 3. Roll window all the way down to prevent glass from falling when un-hooked from door panel.
- 4. Remove door panels. While removing the door panels the window regulator will need to be disconnected from the door glass. Refer to FIG. 7-1, FIG. 7-2 and FIG. 8-1.



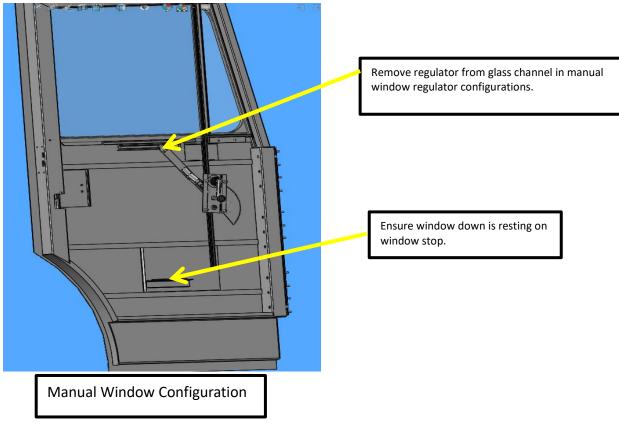






<u>FIG. 7-2</u>





<u>FIG. 8-1</u>

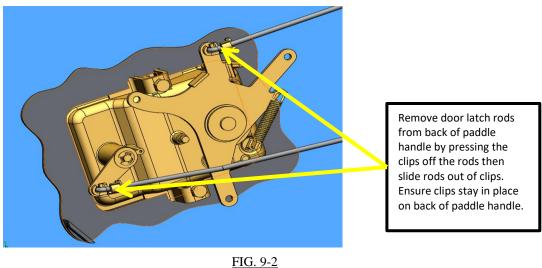


5. For view showing front door with door panel removed. Refer to FIG. 9-1.





6. While removing the door panels the door latch rods will need to be disconnected. Refer to FIG. 9-2.



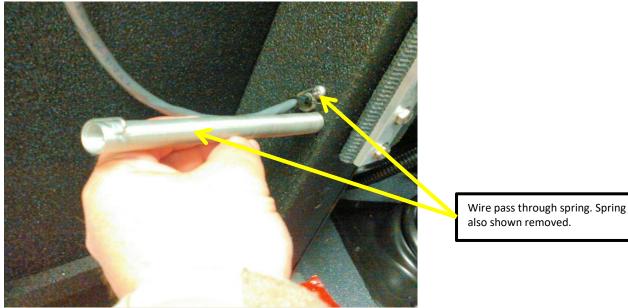
Service Bulletins are intended for use by Professional Technicians only. They are written to guide Professional Technicians in performing service to vehicles of specific nature in conjunction with industry standards. Professional Technicians should be appropriately trained on industry standards and have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

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## Spartan Motors USA, Inc. Technical Service Bulletin



- 7. While removing the door panels any electrical wires connected to the door panels such as power window switches or door lights will need to be disconnected. Reference S-2680-001 Electrical Instruction Addendum.
- 8. Disconnect all wiring that may go through the door hinge for items such as power mirrors (removal of mirror may be necessary to access connector for de-pinning), door lights and power windows. Wire pass through spring(s) will need to be removed and retained for reuse. Refer to FIG. 10-1. Reference S-2680-001 Electrical Instruction Addendum.



also shown removed.

FIG. 10-1

- 9. Inspect wires for chaffing and repair/replace any wires where the insulation is worn or not present. Reference S-2680-001 Electrical Instruction Addendum.
- 10. Remove and discard the door latch and fasteners. NOTE: two fasteners toward outside of door utilize nuts to secure the latch to the door frame. Ensure these do not fall into the doorframe when removing or installing parts. Refer to FIG. 11-1.



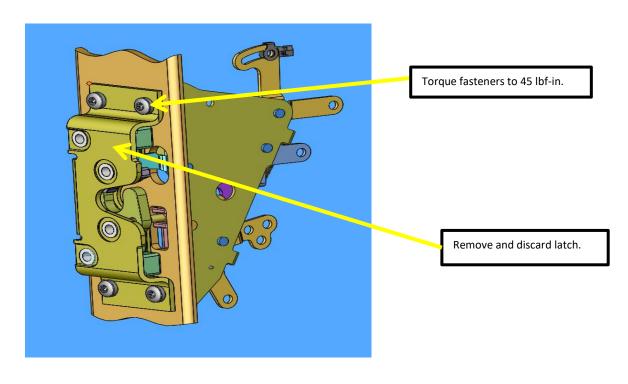


FIG. 11-1

11. Inspect the area beneath the latch for a polyurea coating such as Line-X<sup>®</sup>. Refer to FIG. 12-1. If such a coating is present beneath the latch, it must be removed prior to installing the new latch. To remove the coating, mark the area to be removed as shown in figure 12-2. Score the coating along the boundary with a utility knife. Use a scraper to remove the coating from the area. Paint may be applied to the area to enhance appearance. Refer to FIG. 12-2





POLYUREA COATING (Line-X)

<u>FIG. 12-1</u>

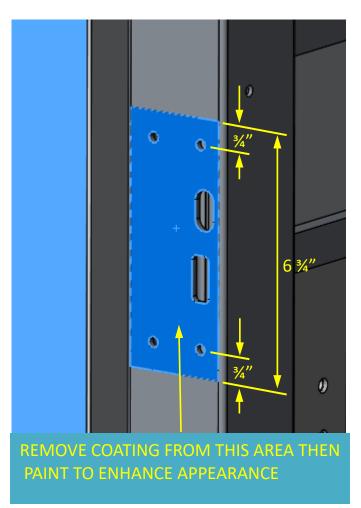
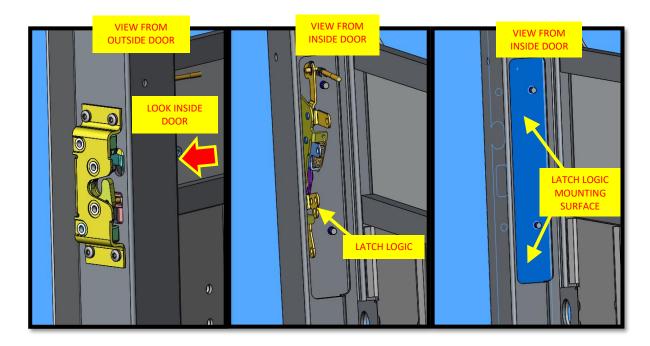


FIG. 12-2



12. Inspect the area beneath the latch logic on the inside of the door frame for a polyurea coating such as Line-X<sup>®</sup>. Refer to FIG. 13-1. If a coating is present beneath the latch logic (Latch logic mounting surface), it must be removed prior to installing the new latch. Use a scraper or similar tool to remove the coating from the area.



<u>FIG. 13-1</u>

13. Inspect threaded mounting holes in latch logic for damage. Refer to FIG. 14-1. Replace latch logic (P/N 0557-EE3-001 LH, 0534-EE3-001 RH) if thread damage is present.



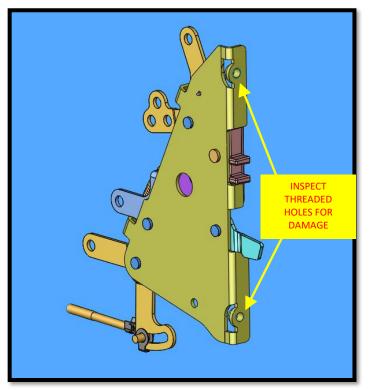


FIG. 14-1

 Install new door latches and fasteners: P.N. 0533-EE3-001, 0533-EE3-002, 0202-BB1-017 and M06100FNZ. NOTE: two fasteners toward outside of door utilize nuts for mounting. Ensure these do not fall into the door frame when removing or installing parts. Torque fasteners to 45 lbf-in. Refer to FIG. 15-1, FIG. 15-2 and FIG. 16-1.



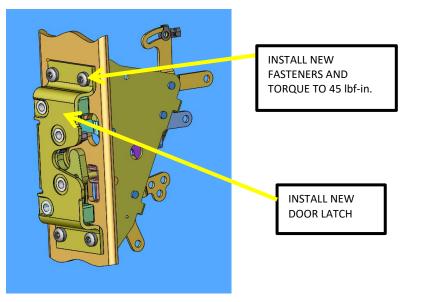


FIG. 15-1



FIG. 15-2



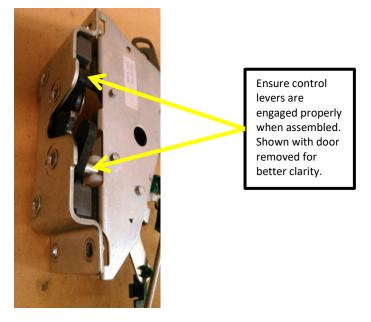
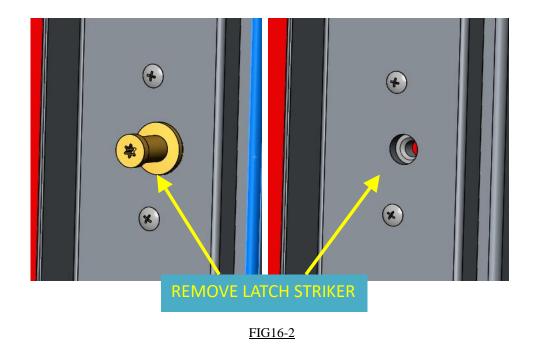


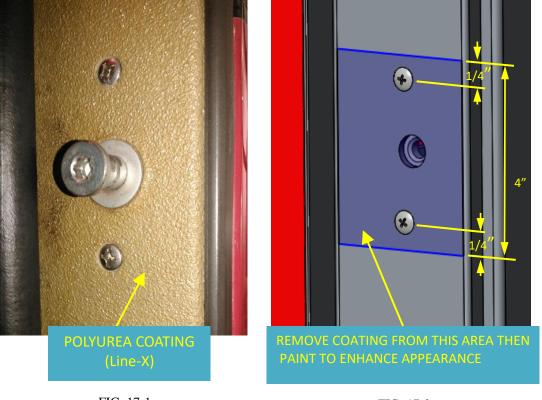
FIG.16-1

15. Remove the door latch striker: P.N. 0550-EE3-001. Refer to FIG. 16-2





16. Inspect the area beneath the latch striker for a polyurea coating such as Line-X<sup>®</sup>. Refer to FIG. 17-1. If such a coating is present beneath the latch striker, it must be removed prior to installing the new latch striker. To remove the coating, mark the area to be removed as shown in figure 17-2. Score the coating along the boundary with a utility knife. Use a scraper to remove the coating from the area. Paint may be applied to the area to enhance appearance. Refer to FIG. 17-2



<u>FIG. 17-1</u>

FIG. 17-2

17. Replace the door latch striker with P.N. 0550-EE3-001. Install striker snug tight. Final adjustments will be made after hinge replacement and door positioning. Refer to FIG. 18-1



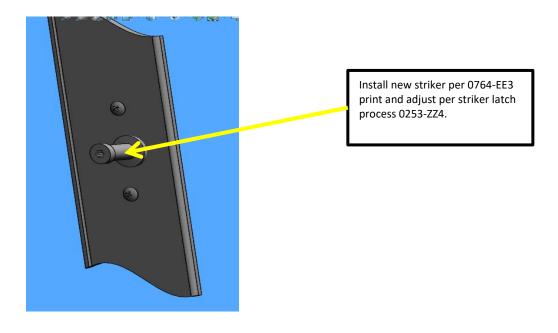


FIG. 18-1

- 18. Support the weight of the door in an opened position in preparation for removing the door hinge. Door weights approximately 150-200 lbs.
- 19. Once door is supported remove door hinge fasteners. Retain for re-use. Properly dispose of old hinge and washers. Refer to FIG. 18-2.

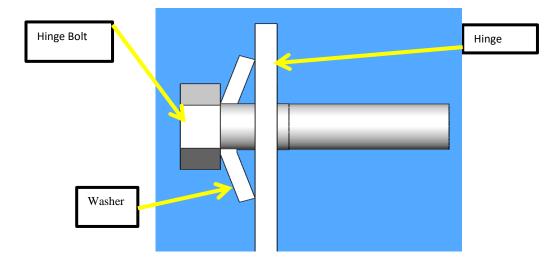


FIG.18-2

# 20. Ensure that bolts and washers are clean and dry then reinstall new door hinge using retained bolts, new washers, (P.N. 61200596) and (2) reinforcement plates (P.N. 17200723) at each



front door. No reinforcement plates required for the rear doors. For proper washer installation Refer to FIG. 19-1, 19-2 and FIG. 20-1.





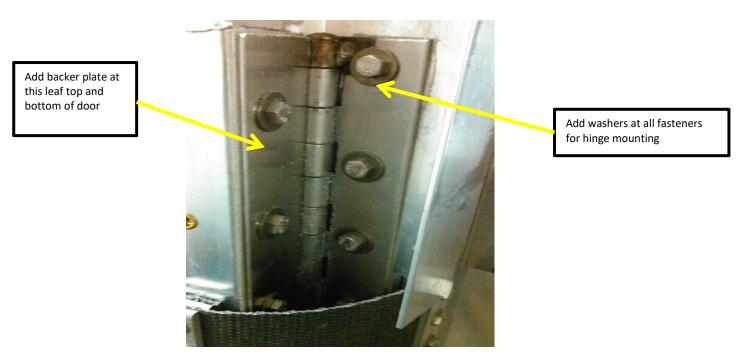


FIG. 19-2



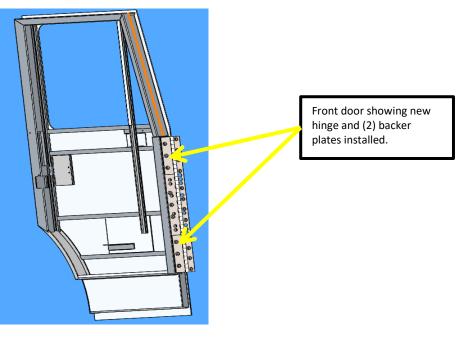


FIG.20-1

21. Once the hinge is properly aligned the hinge mounting fasteners **must** be torqued to 11-13 lbf-ft. Refer to FIG. 20-2.



FIG.20-2



- 22. Once hinge is changed and door is aligned, any electrical items in the door that were removed can be re-connected and secured. Reinstall retained wire pass through spring (s) and secure them. Reference S-2680-001 Electrical Instruction Addendum.
- 23. Reinstall retained door panels. During door panel re-installation, window regulator and door latch rods **must** be re-connected. Ensure rod clips are clipped onto rods securely. Refer to FIG. 21-1.

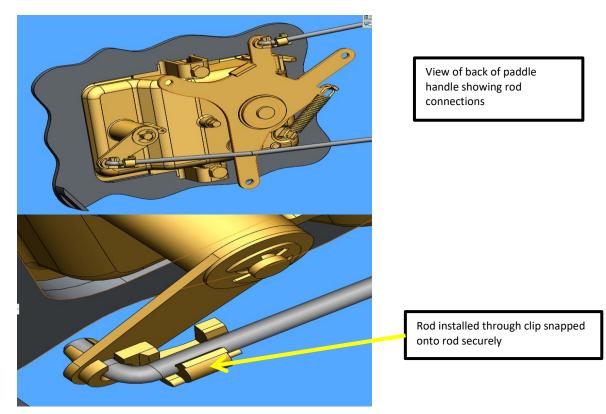
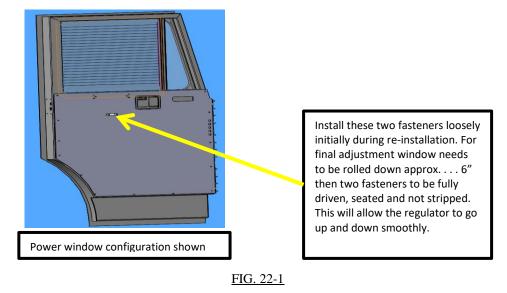


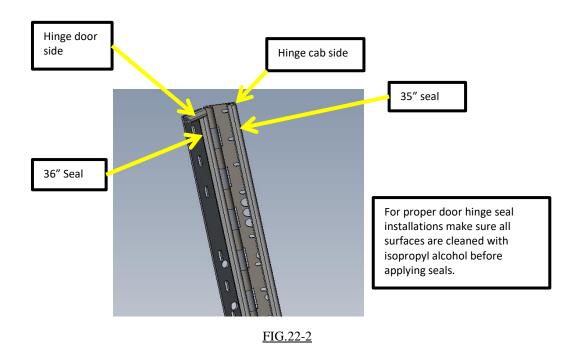
FIG. 21-1

#### 24. For power window regulator alignment Refer to FIG 22.1.





25. New door seals will need to be applied to new door hinges. Refer to FIG. 22-1, FIG. 23-1, FIG. 23-2, FIG. 24-1 and FIG. 24-2.

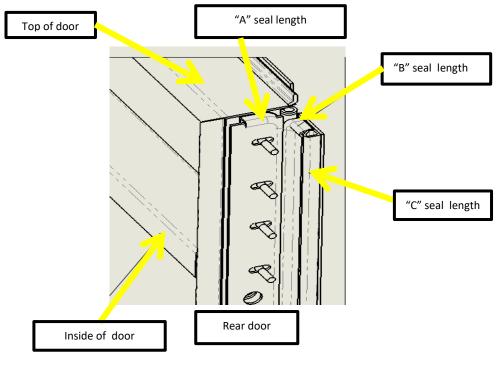






Front door seals



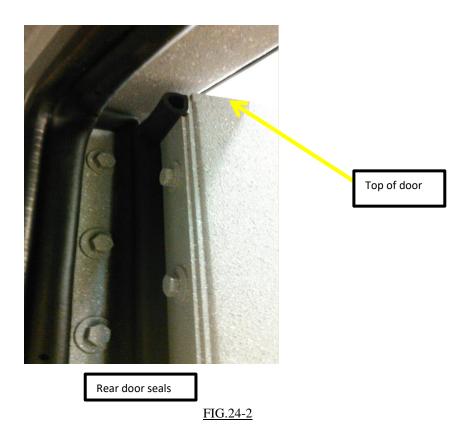






Cab roof type	"A"	"B"	"C"
Flat roof cab	51"	53"	51"
10" raised roof cab	61"	63"	61"
20" raised roof cab	71"	73"	71"

FIG.24-1



- 26. Once door panel is re-installed and all fasteners are tightened the door check strap can be re-installed. Door check strap fasteners to be torqued to 80-90 lbf-in.
- 27. At this time final adjustments to door latch striker can be made per striker/latch process 0253-ZZ4.

#### 28. END