

INSTRUCTION, GPC FLIP-UP DOOR KIT

KIT P/N 229728-01 (42"H X 102"W DOOR)

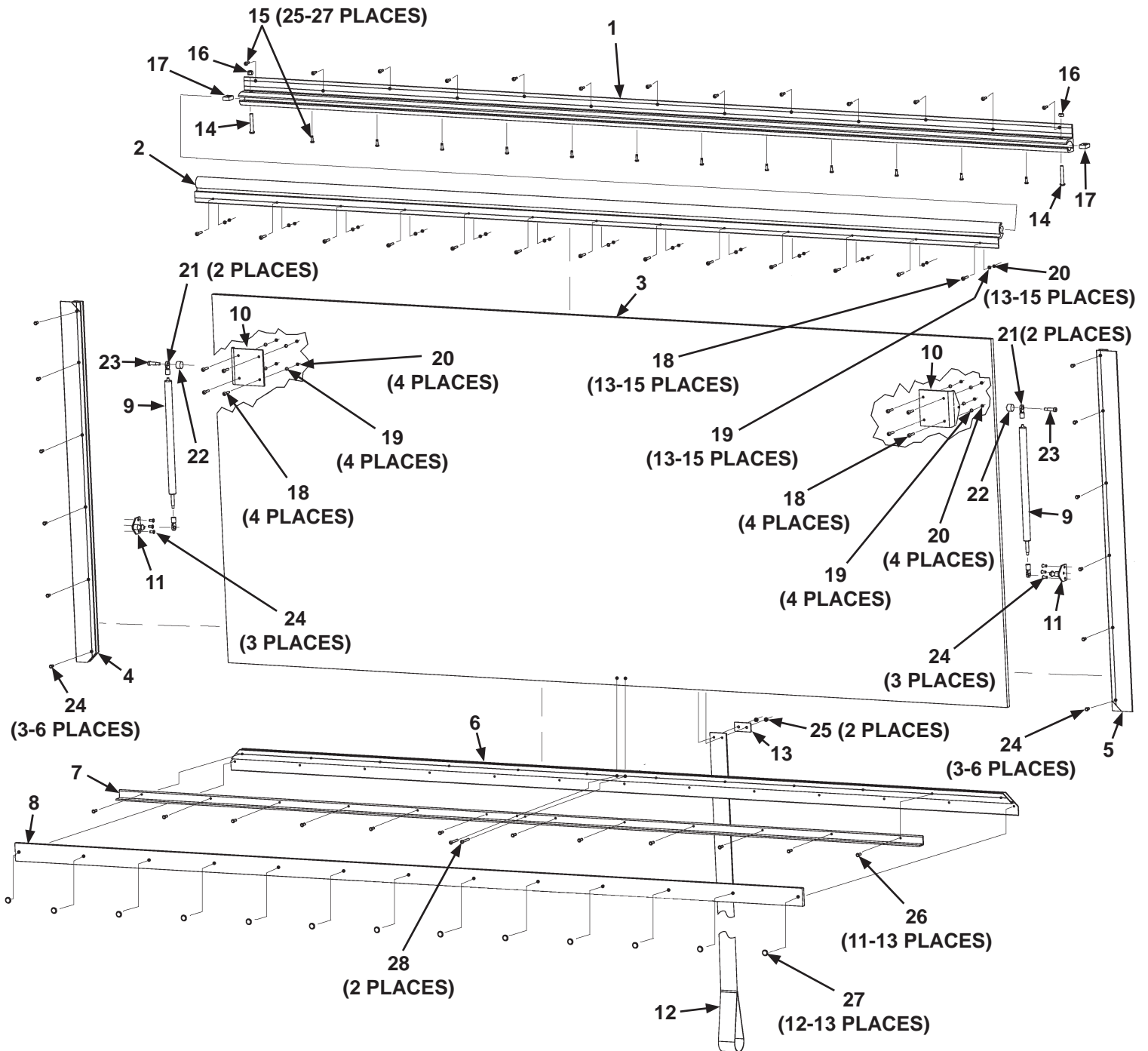
KIT P/N 229728-02 (42"H X 96"W DOOR)

KIT P/N 229728-03 (31"H X 102"W DOOR)

KIT P/N 229728-04 (31"H X 96"W DOOR)

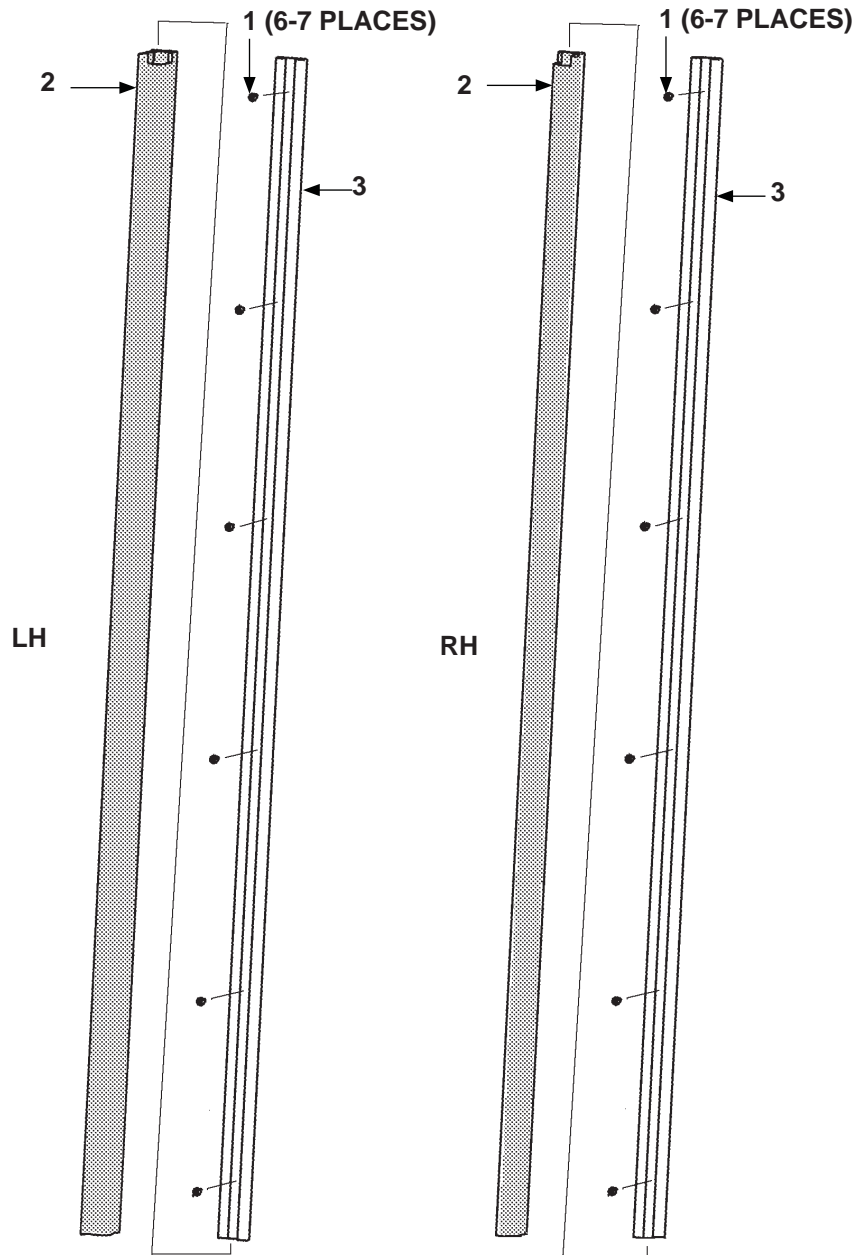
KIT P/N 229728-05 (19"H X 102"W DOOR)

KIT P/N 229728-06 (19"H X 96"W DOOR)



ITEM	QTY.	PART NO.	DESCRIPTION
1	1	284434-01	OUTER HINGE EXTRUSION (102" W DOORS)
		284434-02	OUTER HINGE EXTRUSION (96" W DOORS)
2	1	284435-01	INNER HINGE EXTRUSION (102" W DOORS)
		284435-02	INNER HINGE EXTRUSION (96" W DOORS)
3	1	284508-01	DOOR PANEL (42" H X 102" W DOORS)
		284508-02	DOOR PANEL (42" H X 96" W DOORS)
		284508-03	DOOR PANEL (31" H X 102" W DOORS)
		284508-04	DOOR PANEL (31" H X 96" W DOORS)
		284508-05	DOOR PANEL (19" H X 102" W DOORS)
		284508-06	DOOR PANEL (19" H X 96" W DOORS)
4	1	284218-01	ALUM EXTRUSION, LH DOOR FRAME (42" H DOORS)
		284218-03	ALUM EXTRUSION, LH DOOR FRAME (31" H DOORS)
		284218-05	ALUM EXTRUSION, LH DOOR FRAME (19" H DOORS)
5	1	284218-02	ALUM EXTRUSION, RH DOOR FRAME (42" H DOORS)
		284218-04	ALUM EXTRUSION, RH DOOR FRAME (31" H DOORS)
		284218-06	ALUM EXTRUSION, RH DOOR FRAME (19" H DOORS)
6	1	284217-01	ALUM EXTRUSION, BOTTOM FRAME (102" W DOORS)
		284217-02	ALUM EXTRUSION, BOTTOM FRAME (96" W DOORS)
7	1	285134-01	WATER GUARD ANGLE (102" W DOORS)
		285134-02	WATER GUARD ANGLE (96" W DOORS)
8	1	284509-01	RUBBER SEAL (102" W DOOR)
		284509-02	RUBBER SEAL (96" W DOOR)
9	2	908183-01	GAS SPRING (30 LB, 19" H DOORS)
		908183-02	GAS SPRING (60 LB, 31" H DOORS)
		908183-03	GAS SPRING (120 LB, 42" H DOORS)
10	2	284230-01	UPPER GAS SPRING MOUNTING BRACKET
11	2	908185-01	LOWER GAS SPRING MOUNTING BRACKET
12	1	228904	PULL STRAP, 72" LG
13	1	284219-01	HOLDER PLATE BRACKET
14	2	900001-7	BUTTON SCREW, 5/16-18 X 2" LG
15	53	900057-3	PAN HEAD SELF-TAPPING SCREW, #10-24 X 5/8" LG (KITS 229728,-03 & -05)
	51		PAN HEAD SELF-TAPPING SCREW, #10-24 X 5/8" LG (KITS 229728-02, -04 & -06)
16	2	901001	LOCK NUT, 5/16-18

ITEM	QTY.	PART NO.	DESCRIPTION
17	2	284736-01	SPACER BLOCK
18	20	030609	PAN HEAD MACHINE SCREW, #10-32 X 1" LG (KITS 229728-02, -04 & -06)
	21		PAN HEAD MACHINE SCREW, #10-32 X 1" LG (KITS 229728-03 & -05)
19	21	902011-1	LOCK WASHER #10 (KITS 229728, -03 & -05)
	20		LOCK WASHER #10 (KITS 229728, -02, -04 & -06)
20	21	030344	HEX NUT #10-32 (KITS 229728, -03 & -05)
	20		HEX NUT #10-32 (KITS 229728-02, -04 & -06)
21	4	908184-01	GAS SPRING EYELET
22	2	908186-01	ROUND SPACER, BRACKET
23	2	900062-5	SHOULDER SCREW, 5/16 X 3/4" LG
24	17	207644	BLIND RIVET, .19 X .58 DOME (KIT 229728)
	18		BLIND RIVET, .19 X .58 DOME (KIT 229728-02)
	15		BLIND RIVET, .19 X .58 DOME (KIT 229728-03)
	16		BLIND RIVET, .19 X .58 DOME (KIT 229728-04)
	12		BLIND RIVET, .19 X .58 DOME (KIT 229728-05)
	13		BLIND RIVET, .19 X .58 DOME (KIT 229728-06)
25	2	903129-01	LOCK NUT, THIN HEAD, #10-24
26	13	207644-03	BLIND RIVET, .19 X .83 DOME (KITS 229728 & -03)
	12		BLIND RIVET, .19 X .83 DOME (KITS 229728-02, -04 & -05)
	11		BLIND RIVET, .19 X .83 DOME (KITS 229728-06)
27	13	903703-02	RIVET, ALUMINUM (KITS 229728, -03 & -05)
	12		RIVET, ALUMINUM (KITS 229728-02, -04 & -06)
28	2	900722-09	BUTTON HEAD SCREW, #10-24 X 1-1/2" LG.

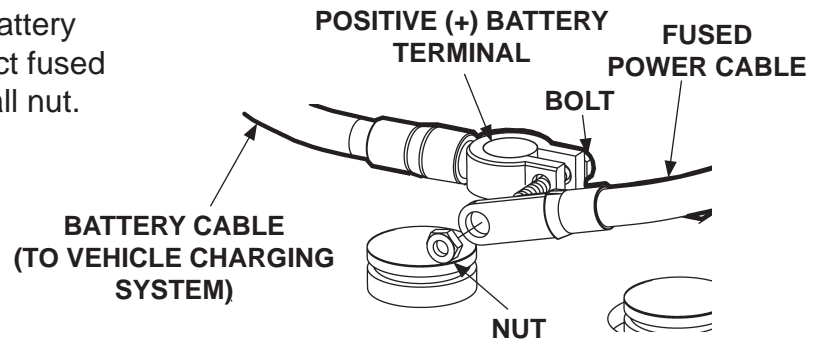


ITEM	QTY.	PART NO.	DESCRIPTION
1	53	900057-3	PAN HEAD SELF-TAPPING SCREW, #10-24 X 5/8" LG (KITS 229728,-03 & -05)
	51		PAN HEAD SELF-TAPPING SCREW, #10-24 X 5/8" LG (KITS 229728-02, -04 & -06)
2	2	227761	RUBBER JAM SEAL, 120"
3	2	227764	EXTERNAL DOOR SEAL ALUMINUM EXTRUSION

⚠ WARNING

To prevent personal injury and equipment damage, make sure power is disconnected from Liftgate while installing components.

1. Remove nut from positive (+) battery terminal connector to disconnect fused power cable (**FIG. 5-1**). Reinstall nut.



**DISCONNECTING FUSED POWER CABLE
FIG. 5-1**

NOTE: Finished door height (FDH) is the height of assembled flip-up door required to cover the opening between top of vehicle door and tip of folded platform.

After completing steps 2 and 3, ensure the door panel provided with kit is the correct height and width for vehicle.

2. Measure vehicle door height (VDH) and platform height (PH) as shown in **FIG. 6-1**. Then, calculate finished door height (FDH) required for the assembled flip-up door (**FIG. 6-1**).

Formula $FDH = VDH - (PH - HS)$

Example calculation with vehicle door (opening) of 95" height and platform height of 82":

$FDH = 95" - (82" - 3.38") = 95" - 78.62" \quad FDH = 16.38"$

- VDH** = Vehicle Door Height
- DPH** = Door Panel Height
- FDH** = Finished Door Height
- HC** = Hinge Clearance
- PC** = Platform Clearance
- PH** = Platform Height
- HS** = Heel-to-Sill (distance)

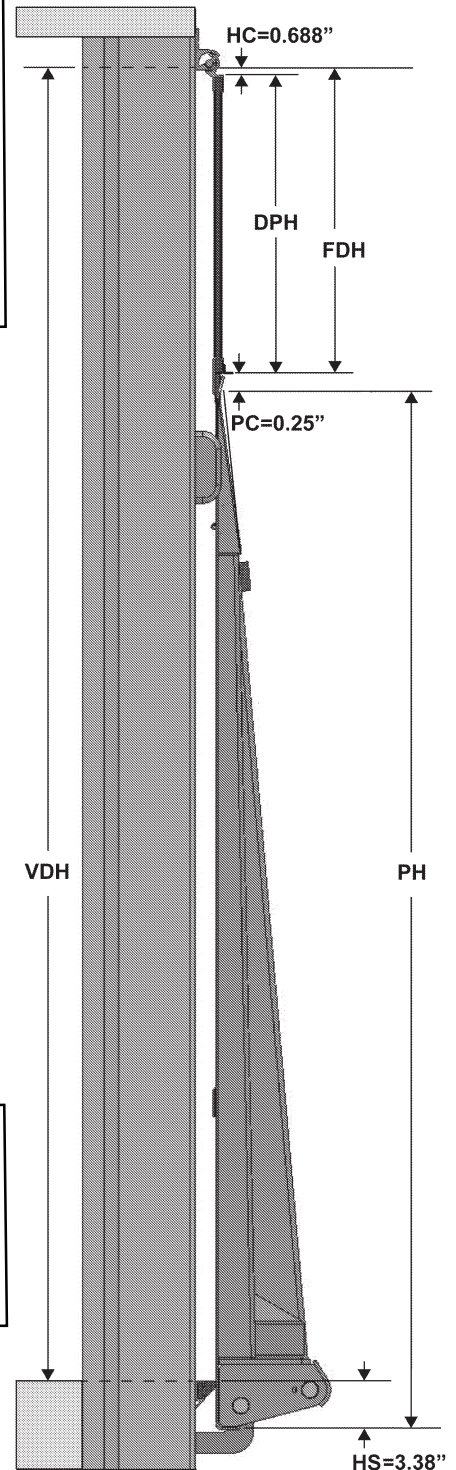
NOTE: Door panel height (DPH) is the correct height of the unassembled door panel required for the finished flip-up door assembly. It may be necessary to cut door panel (kit item) to the dimension of DPH.

3. Calculate required door panel height (DPH) (**FIG. 6-1**).

Formula: $DPH = FDH - (HC + PC)$

Example calculation with finished door height (FDH) of 16.38" (Step 2):

$DPH = 16.38" - (.688" + .25") = 16.38" - 0.938$
 $DPH = 15.442"$



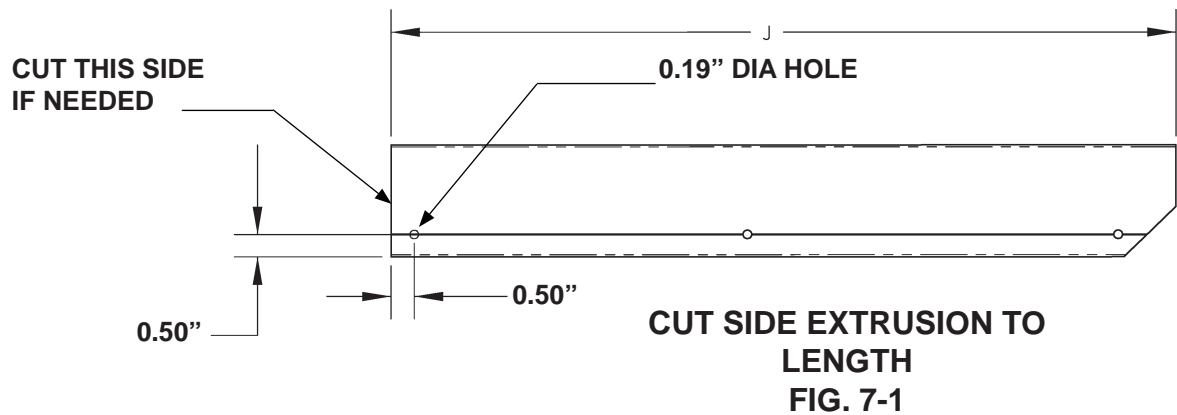
DETERMINE CORRECT DOOR AND PANEL HEIGHT
FIG. 6-1

NOTE: Before drilling holes in door panel, check if side extrusions and bottom extrusion fit correctly.

4. Cut door panel (kit item) to DPH dimension calculated in step 3.
5. Calculate required length (J) for RH and LH side extrusions.

Formula: $J = DPH - .875"$

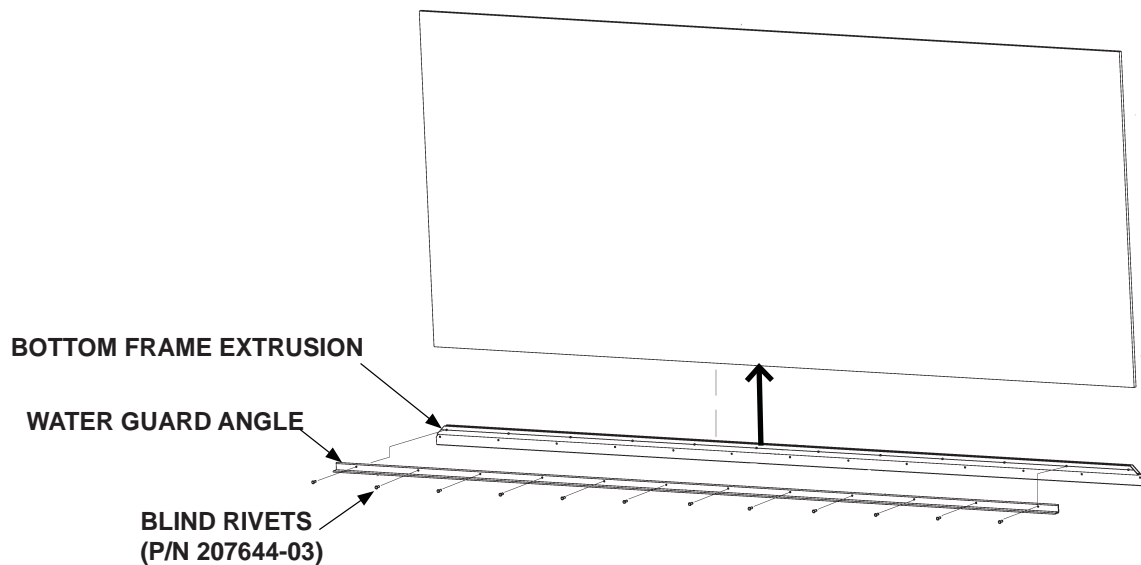
Example calculation: When door panel height (DPH) is 15.442" (Step 3) $J = 15.442" - .875" J = 14.567"$. In this case, 14.567" is the required length of side extrusions (**FIG. 7-1**).



NOTE: Cut side extrusion to length before drilling 0.19" hole.

6. Cut side extrusions to length calculated in step 5 (**FIG. 7-1**). Then, drill 0.19" diameter hole as shown in **FIG. 7-1**.

- Center bottom frame extrusion on bottom door panel. Butt channel in extrusion against edge of panel (**FIG. 8-1**).

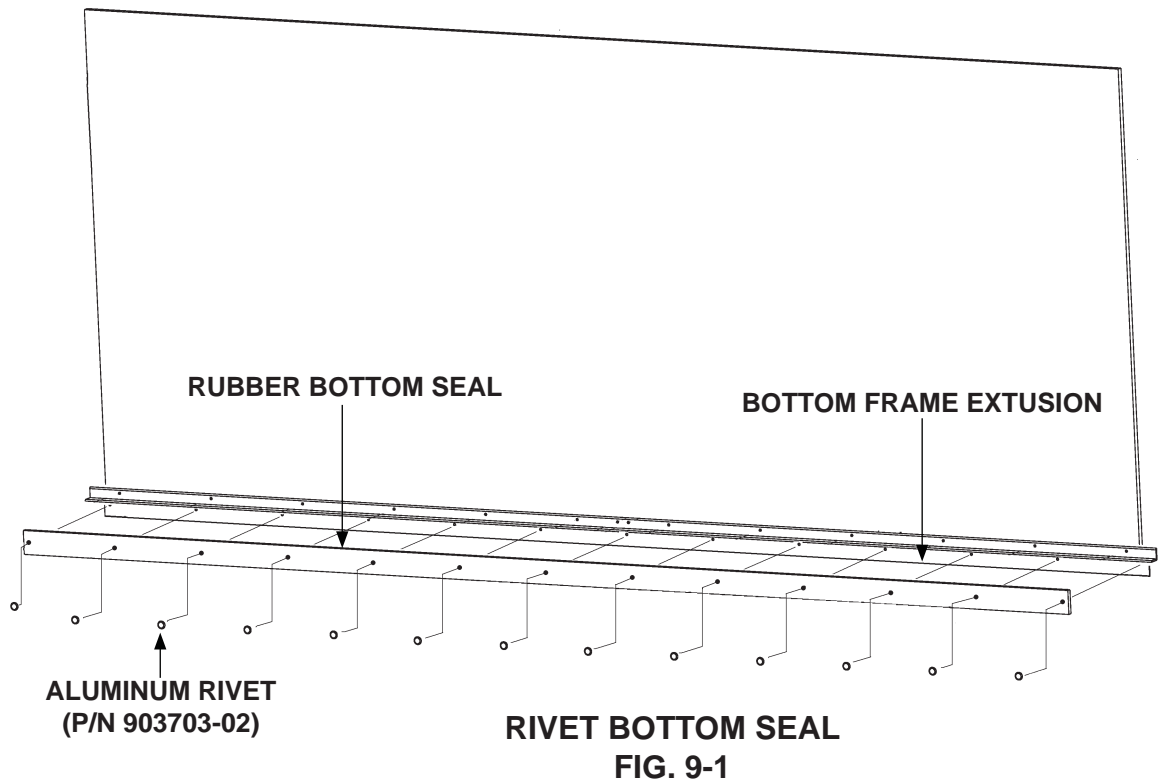


**RIVET BOTTOM FRAME
AND WATER GUARD ANGLE TO DOOR PANEL
FIG. 8-1**

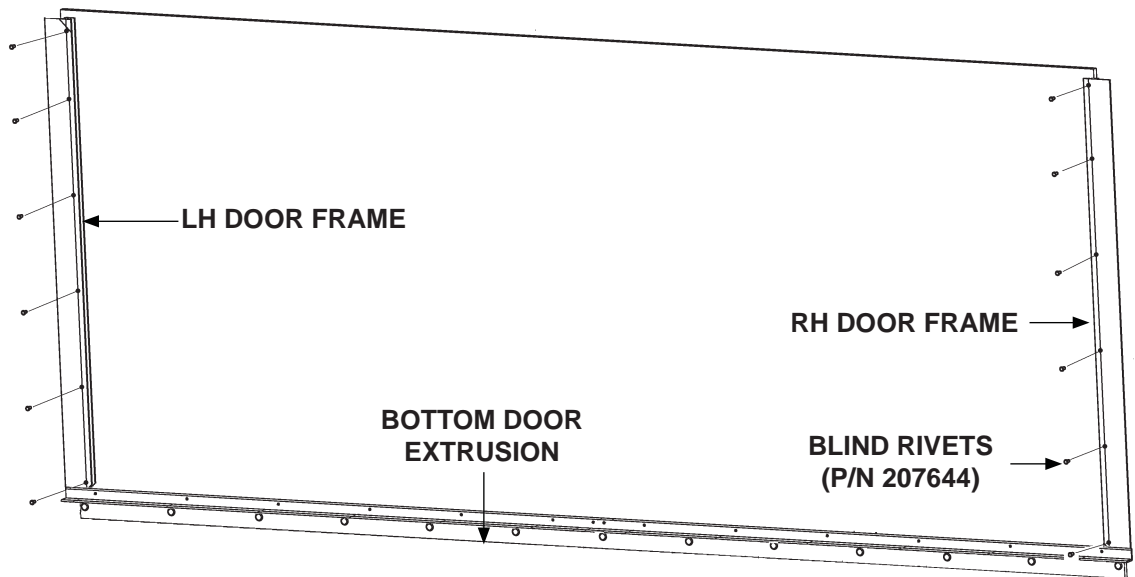
- Drill holes in front (laminated) surface of door panel (**FIG. 8-1**).
- Match drill holes (0.19") and rivet bottom frame extrusion and water guard angle to bottom of door panel (**FIG. 8-1**).

NOTE: To prevent water leaks, it is important to cut the bottom seal to fit the inside dimension of the side seals.

10. Drill holes (0.19") in bottom frame extrusion and rubber bottom seal. Rivet rubber bottom seal to bottom frame extrusion (**FIG. 9-1**).



11. Position angled edge of aluminum LH and RH door frames to angled edge of bottom door extrusion (**FIG. 10-1**). Butt channel in door frames against edge of door panel.

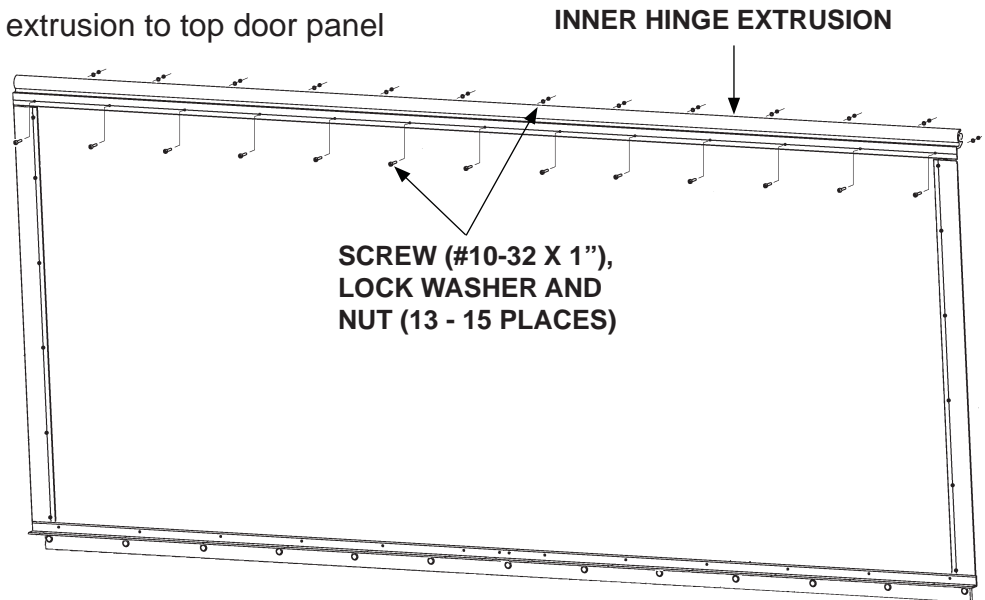


**RIVET RH AND LH DOOR FRAMES
FIG. 10-1**

12. Match drill holes through LH and RH extrusions. Rivet RH and LH door frame extrusions to door panel (**FIG. 10-1**).

13. Position inner hinge extrusion on top edge of door. Match drill 3/16" diameter holes in door panel (FIG. 11-1).

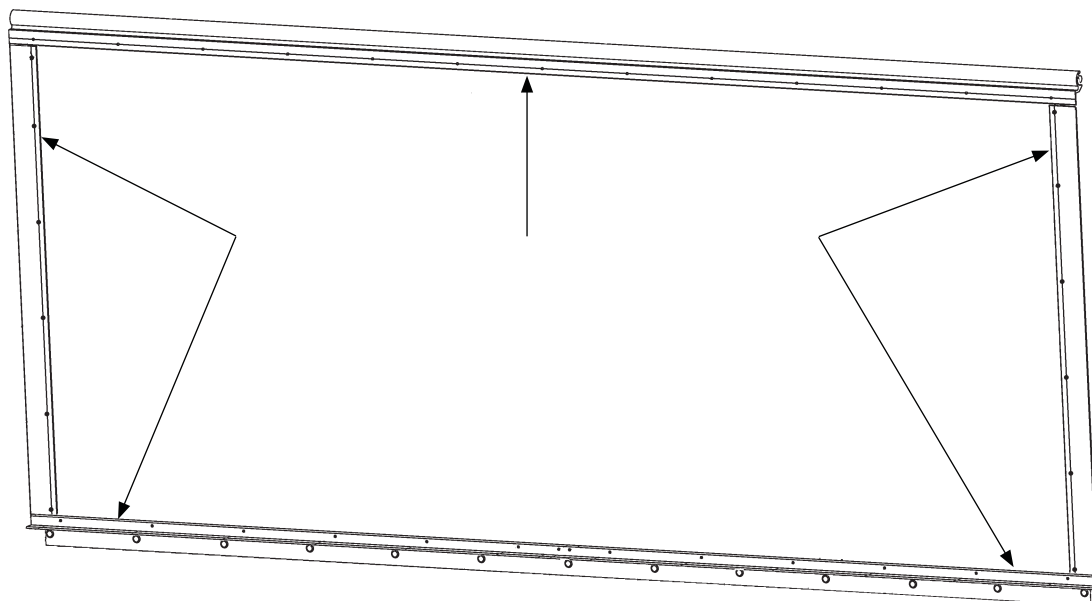
14. Screw inner hinge extrusion to top door panel (FIG. 11-1).



ATTACH INNER HINGE EXTRUSION
FIG. 11-1

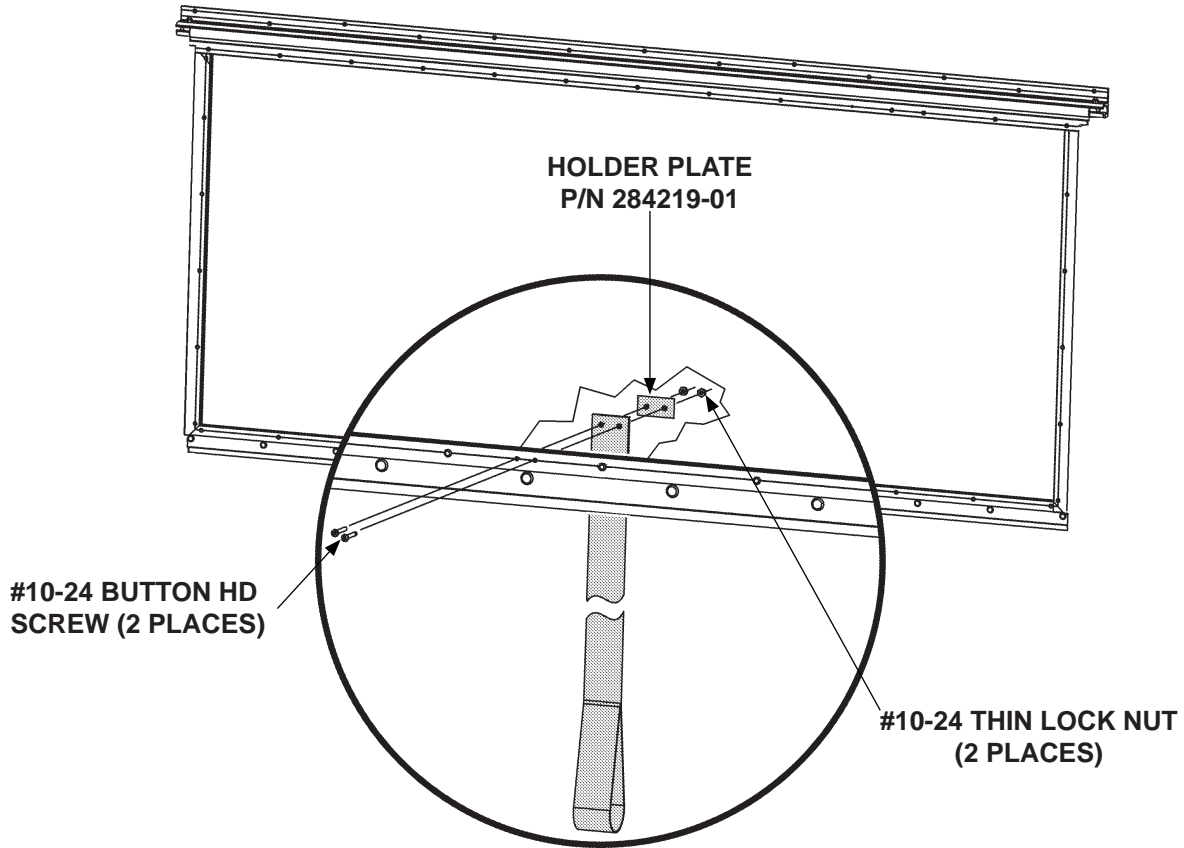
NOTE: Sealant is not supplied with kit.

15. Seal all extrusion and panel joints with silicon sealant or equivalent (FIG. 11-2).



APPLY SEALANT
FIG. 11-2

16. Position pull strap to front of bottom door extrusion and match holes (2) (FIG. 12-1). Mark strap hole positions.



**INSTALL PULL STRAP
FIG. 12-1**

17. Burn two 3/16" holes in pull strap with hot nail (FIG. 12-1).
18. Drill two 3/16" holes in reverse side of door panel, position holder plate and screw pull strap to door (FIG. 12-1).

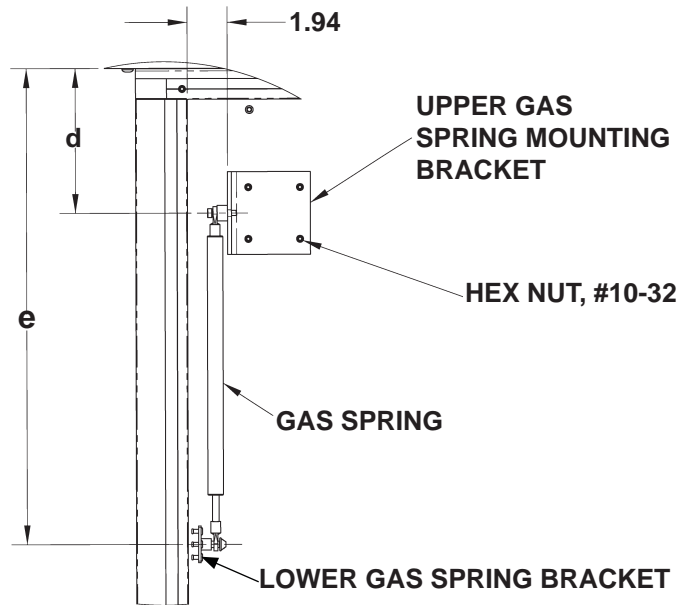
NOTE: Refer to **TABLE 13-1** for positioning upper and lower gas spring brackets.

PART NUMBER	DOOR HEIGHT	DIMENSION d (in)	DIMENSION e (in)
229728 & 229728-02	37.1" - 42"	5.00	23.63
	34.1" - 37"	4.00	23.94
	31.1-34	6.50	23.00
229728-03 & 229728-04	28.1-31	6.00	23.19
	25.1-28	5.00	23.63
	22.1" - 25"	4.00	23.94
229728-05 & 229728-06	19.1" - 22"	3.50	24.13
	16.1" - 19"	6.50	23.00
	15.1" - 16	6.00	23.19
	13.1" - 15"	5.00	23.63
	11.1" - 13"	4.00	23.94
	8" - 11"	3.00	24.25

**POSITIONING GAS SHOCKS
TABLE 13-1**

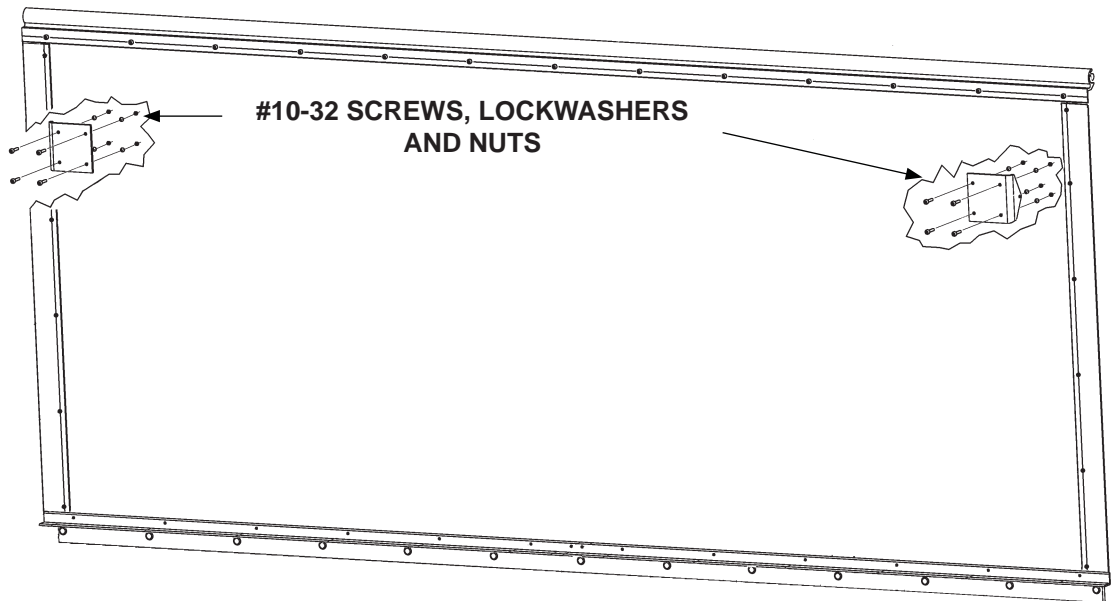
NOTE: Refer to **TABLE 13-1** for dimensions "d" and "e".

19. Measure & drill four 3/16" holes in door panel for each upper gas spring mounting bracket (2) (**FIG. 13-2**).



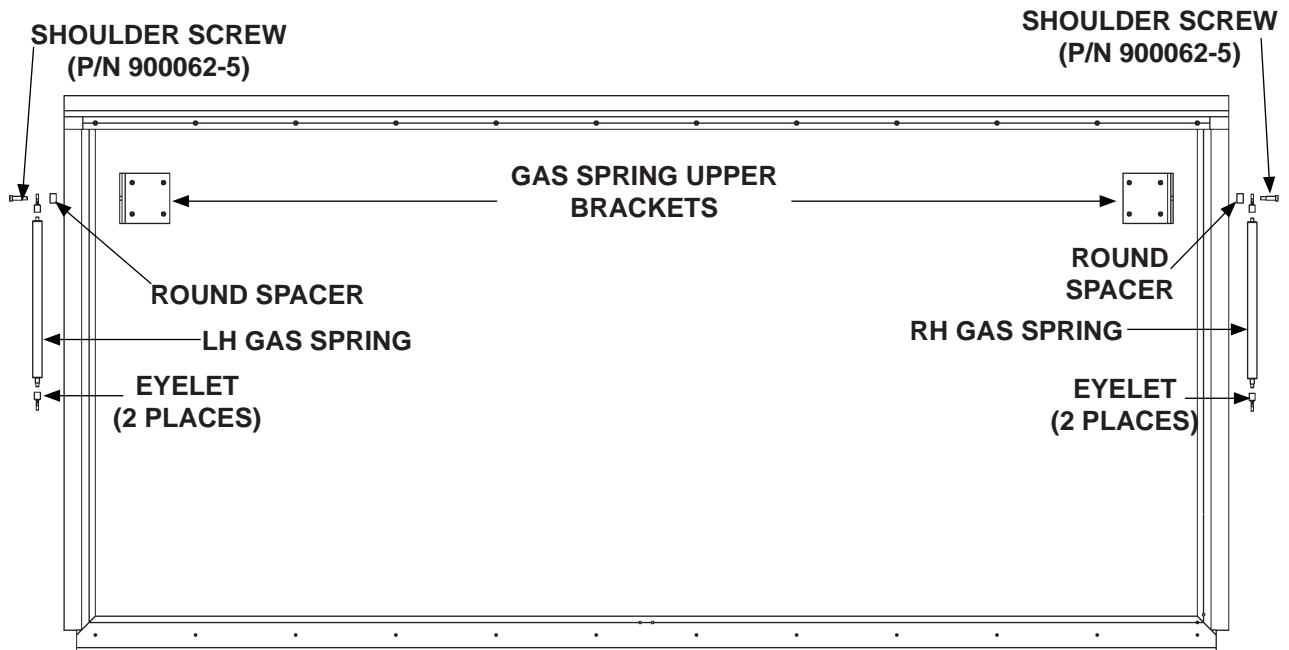
**GAS SPRING MOUNTING BRACKETS
FIG. 13-2**

20. Attach upper gas spring brackets to door panel (FIG. 14-1).



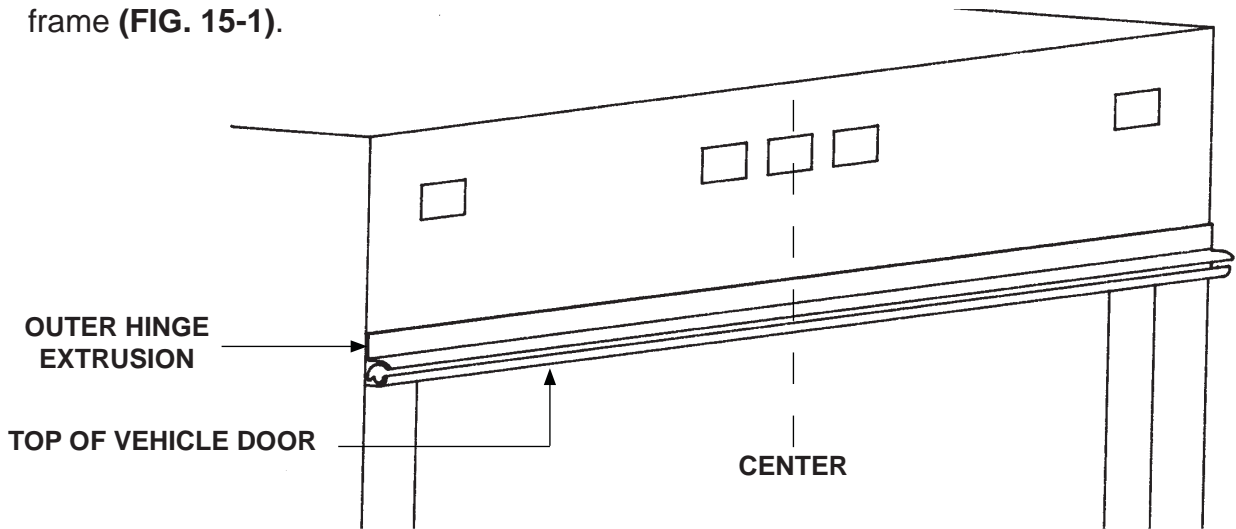
MOUNT UPPER GAS SPRING BRACKETS
FIG. 14-1

21. Attach upper and lower eyelets to gas springs (RH, LH). Screw upper eyelets to upper mounting brackets (FIG.14-2).



ATTACHING GAS SPRING TO
UPPER BRACKET
FIG. 14-2

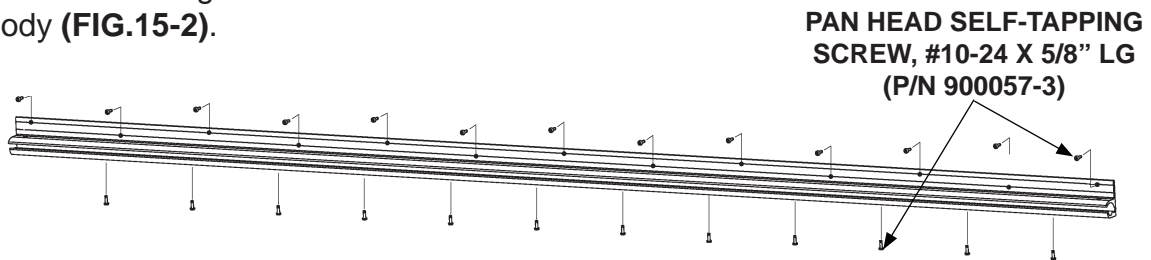
22. Center outer hinge extrusion across the top of the vehicle door frame (**FIG. 15-1**).



POSITION OUTER HINGE EXTRUSION
FIG. 15-1

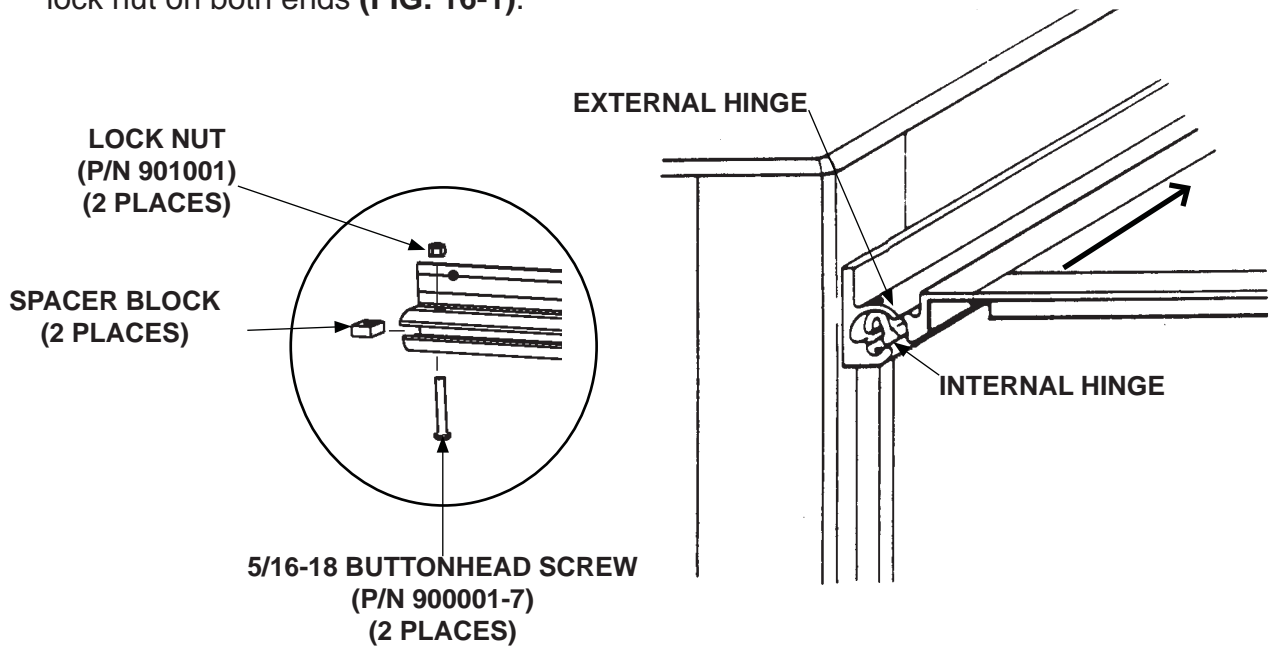
23. Match holes in external door hinge and drill 3/16" diameter holes in vehicle frame (**FIG.15-2**).

24. Screw door hinge to vehicle body (**FIG.15-2**).



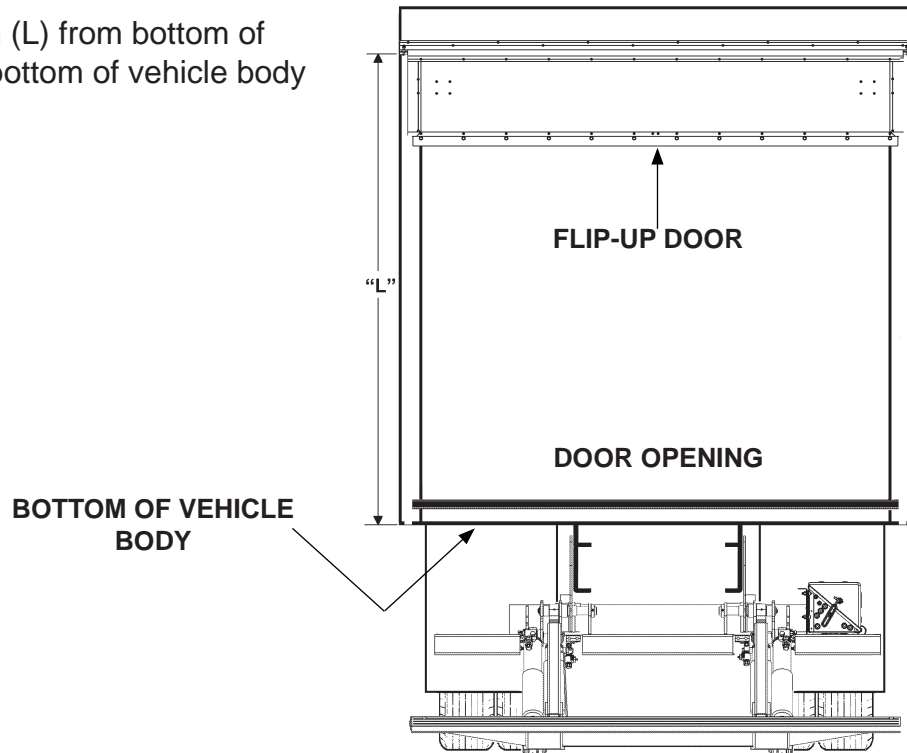
ATTACH OUTER HINGE EXTRUSION
FIG. 15-2

25. Attach completed door to vehicle by sliding internal hinge into external hinge (**FIG. 16-1**). Secure internal hinge with screw, spacer block and lock nut on both ends (**FIG. 16-1**).



ATTACH DOOR TO VEHICLE
FIG. 16-1

26. Measure length (L) from bottom of outer hinge to bottom of vehicle body (FIG. 17-1).

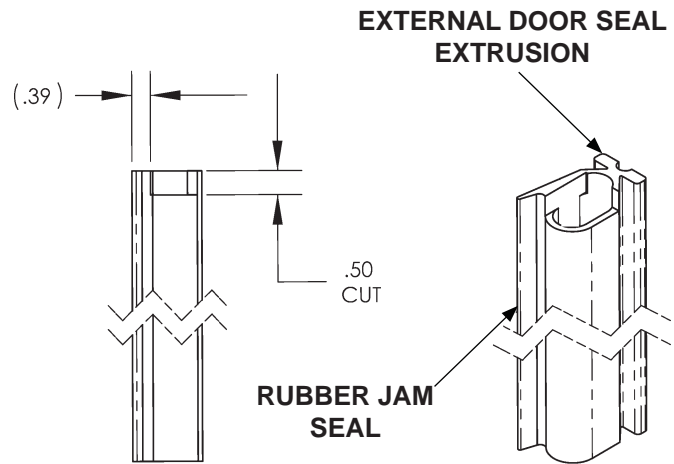


MEASURING EXTERNAL DOOR SEAL EXTRUSION LENGTH (PLATFORM ON THE GROUND)

FIG. 17-1

NOTE: To prevent water leaks, cut the external door seal extrusions from bottom of body to top of door opening and cut L/H and R/H rubber jam seals as shown.

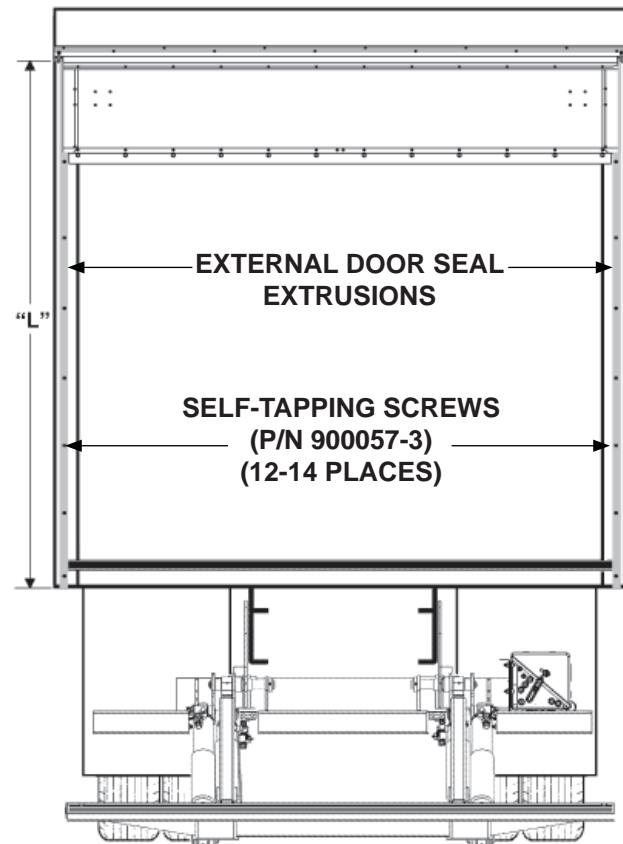
27. Cut two rubber jam seals and external door seal extrusions (FIG. 17-2) to measured length (L). Cut notch as shown for RH and LH rubber jam seals (FIG. 17-2).



CUTTING EXTERNAL DOOR SEAL EXTRUSIONS AND RUBBER JAM SEALS

FIG. 17-2

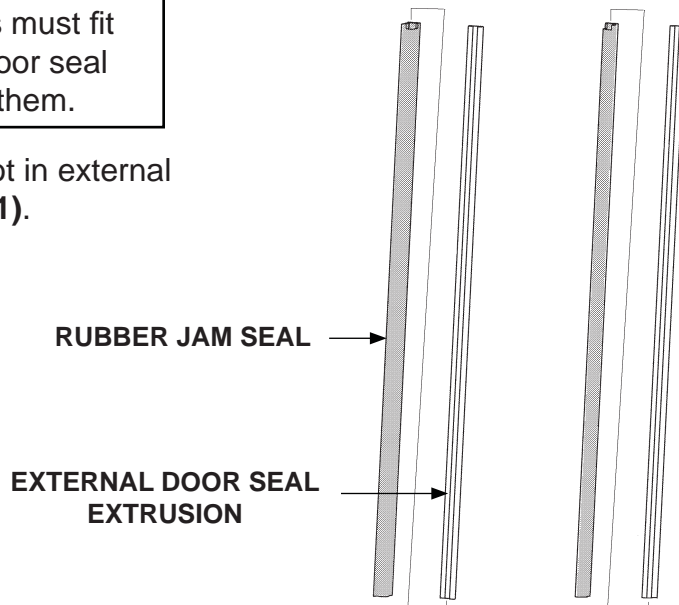
28. Place external door seal extrusions in position on LH and RH side of door opening (**FIG.18-1**).
29. Drill 3/16" holes in external door seal extrusions and vehicle body (**FIG.18-1**).
30. Screw external door seal extrusions to vehicle body (**FIG. 18-1**).



**ATTACHING EXTERNAL DOOR
SEAL EXTRUSIONS
FIG. 18-1**

NOTE: The rubber jam seals must fit inside the external door seal extrusions, not over them.

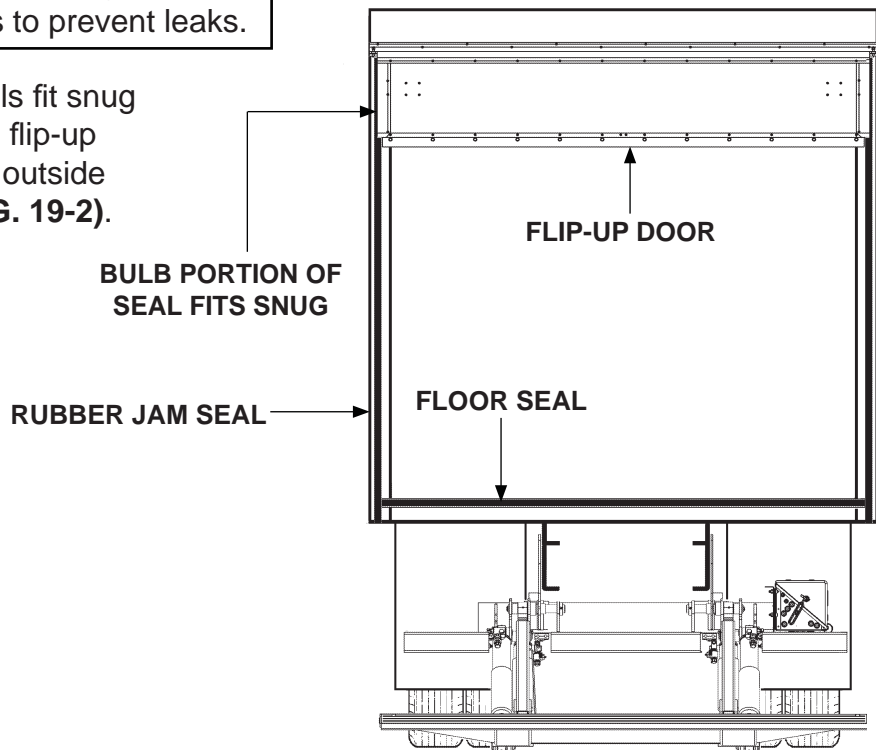
31. Insert rubber jam seals into slot in external door seal extrusions (**FIG. 19-1**).



**ATTACHING RUBBER JAM SEALS
FIG. 19-1**

NOTE: The floor seal must fit snug against the inside edges of the side seals to prevent leaks.

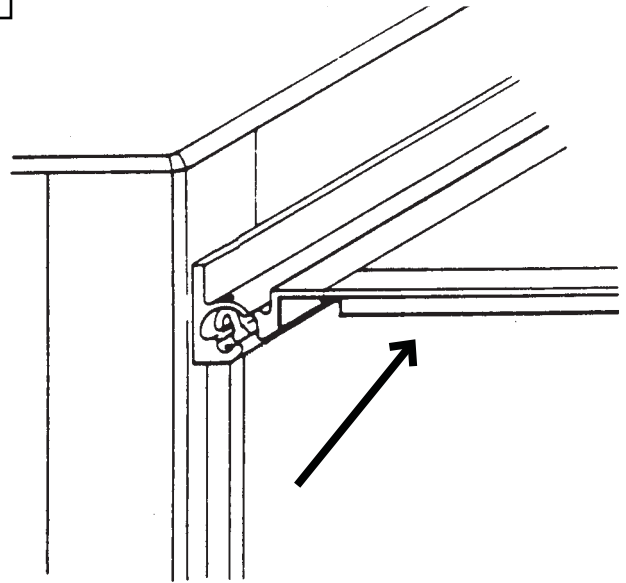
32. Ensure rubber jam seals fit snug against sides of closed flip-up door and snug against outside edges of floor seal (**FIG. 19-2**).



**ENSURE RUBBER JAM SEALS FIT
FIG. 19-2**

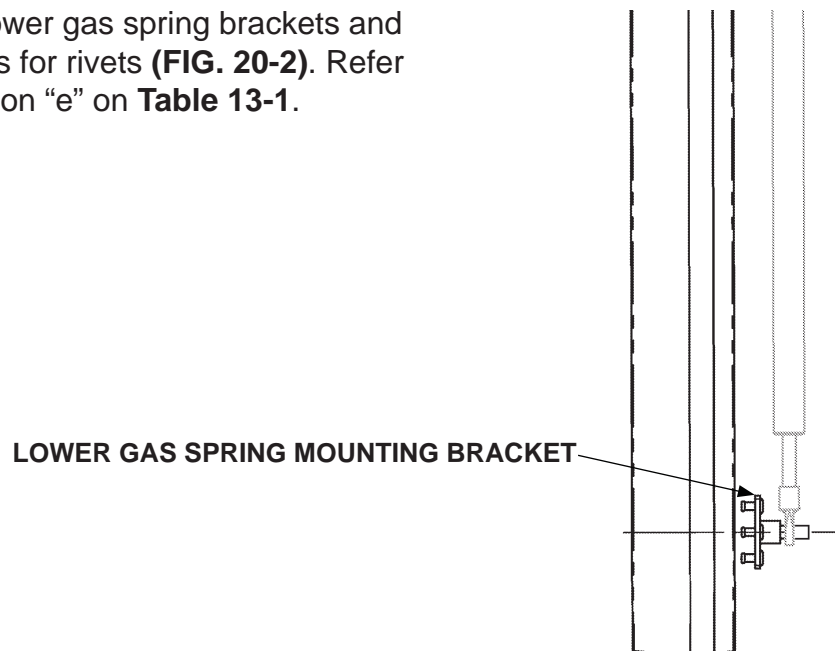
NOTE: Gas springs are fully extended.

33. Open flip-up door to horizontal position (FIG. 20-1).



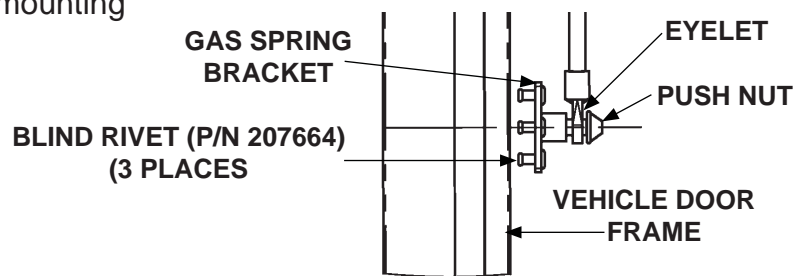
**HORIZONTAL DOOR POSITION
FIG. 20-1**

34. Position lower gas spring brackets and mark holes for rivets (FIG. 20-2). Refer to dimension "e" on Table 13-1.



**POSITIONING LOWER GAS SPRING
BRACKET
FIG. 20-2**

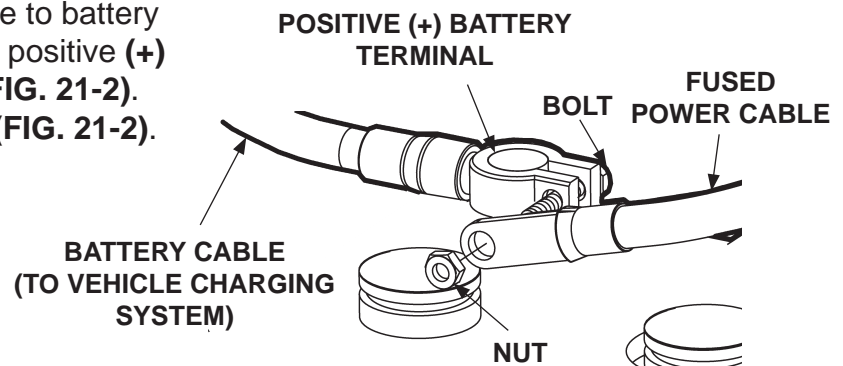
35. Drill holes (0.19") in vehicle door frame for attaching lower gas spring mounting brackets (**FIG. 21-1**).



**DRILL LOWER GAS SPRING MOUNTING
BRACKET HOLES
FIG. 21-1**

36. Rivet lower gas spring brackets to vehicle door frame (**FIG. 21-1**).
37. Attach lower end of gas spring to lower mounting bracket (**FIG. 21-1**).

38. Reconnect fused power cable to battery as follows. Remove nut from positive (+) battery terminal connector (**FIG. 21-2**). Connect fused power cable (**FIG. 21-2**). Reinstall nut.



**RECONNECTING FUSED POWER CABLE
FIG. 21-2**