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GROUP: Body

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 23-020-07, DATED JUNE 2, 2007, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS**** AND INCLUDE AN ELECTRICAL DIAGNOSIS AID.**

SUBJECT:

Power Sliding Door Adjustment And Diagnosis Aid

OVERVIEW:

This bulletin involves specific procedures for checking sliding door alignment and adjustment ****and checking for correct states of Power Sliding Door Module (PSDM) inputs.**** These Repair Procedures should be followed prior to replacement of any parts.

MODELS:

2001 - 2007	RG	Chrysler Voyager (International Markets)
2001 - 2007	RS	Town & Country/Caravan/Voyager

NOTE: This bulletin applies to RG/RS vehicles equipped with Power Sliding Door(s) (Sales code JRA or JRB)

****SPECIAL TOOLS/EQUIPMENT REQUIRED:****

CH6000A	Scan Tool (DRBIII®)
CH7000A/7001A	J1962 Cable with red DRBIII® connector

SYMPTOM/CONDITION:

Power Sliding Door(s) out of adjustment ****and addition of an electrical diagnostic chart****.

DISCUSSION:

This Service Bulletin is being released because accurate sliding door adjustment procedures are not currently available in DealerCONNECT > TechCONNECT at this time. The service information will be updated soon.

****This bulletin also provides additional information and tips to assist technicians with electrically diagnosing the Power Sliding Door.****

NOTE: **Door adjustment should be checked and corrected first then diagnose electrical issues concerning the Power Sliding Door.******

ADJUSTMENT REPAIR PROCEDURE:

1. Before replacing any parts, check and adjust sliding door to vehicle body side aperture, (spacing), margins, flushness and seal gap. Recommended tolerances to be followed:
 - a. Check door height using body character lines as an up/down reference. Also use roof contour as a reference factor. (This may vary slightly for proper striker alignment).
 - b. Check C-pillar and B-pillar for door spacing from door to door and door to glass or rear quarter panel. All spacing should be 5 mm, +/- 1 mm (0.200 in +/- .040 in) and uniform top to bottom at each pillar.
 - c. Sliding door at B-pillar, (to front door); sliding door sheet metal, (below glass), should be flush to 1.5 mm, (.060 in) **inboard** of front door sheet metal.
 - d. Sliding door at C-pillar, (to rear quarter panel sheet metal); sliding door sheet metal, (below glass), should be flush to 1.5 mm, (.060 in) **outboard** of rear quarter panel sheet metal.
 - e. Visually inspect the sliding door C-pillar striker alignment to latch. Striker **MUST** go straight into the latching mechanism.
 - f. On the left door, check the fuel door blocker striker entry into latch. Striker at this point must not affect alignment.
2. ****Does the power sliding door require adjustment?**
 - a. Yes >>> Proceed to [Step #3](#)
 - b. No >>> Proceed to POWER SLIDING DOOR ELECTRICAL DIAGNOSIS.**

NOTE: For the purpose of this document, the lower roller and “L” bracket assembly, (located at the lower front corner of the sliding door), will be referenced as the lower hinge.

NOTE: If adjustments are required, both Male Stabilizers on the front of the sliding door and Upper Guide Roller should be loosened and remain loose during the adjustment process so they do not influence door position, (Fig. 1).

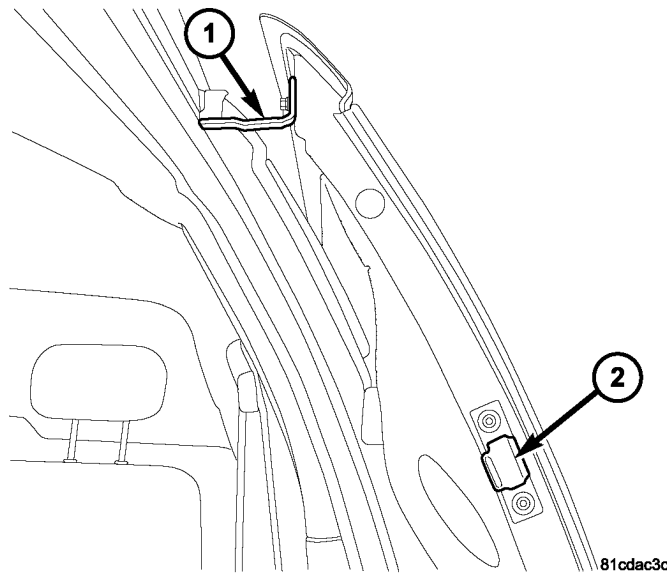


Fig. 1 UPPER ROLLER AND FRONT STABILIZER

1 - Upper Guide Roller

2 - Front Stabilizer, Upper Shown, Lower Similar

NOTE: If the vehicle has a fault code 1B, ignore this until after the Repair Procedure is completed. If the vehicle has a fault code 1C, and the sliding door is functioning, ignore this until after the Repair Procedure is completed. If the door is not functioning, check door alignment and fit as described below before performing diagnosis procedure for fault code.

NOTE: IF A DOOR WILL NOT OPEN: Hold handle out, (release position) for 30 seconds. Listen for mechanism attempting to release, then push in on rear of sliding door to unload latch. Door should open.

3. Preliminary Striker Adjustment

4. This is a preliminary adjustment of the striker. This preliminary adjustment should be performed if the striker is influencing the door position. Final adjustment will be made later in the Repair Procedure. Mark current location of striker perimeter, (Fig. 2), then loosen both bolts of striker assembly, remove only 1 bolt at a time, (so that inner threaded plate will not fall between inner and outer panels). Rotate striker out of the way, (then snug remaining bolt). The plate with the nuts attached inside the post have ample room to grind or file without rotating plate out of the way. Elongate the hole(s) by grinding or filing the sheet metal and painting the raw edge to prevent rusting. Repeat this procedure for the other striker mounting bolt hole as required. Install striker to desired position and recheck flushness, (Fig. 3). Rear of the sliding door should be flush to 1.5 mm, (.060 in) outboard of rear quarter panel sheet metal.

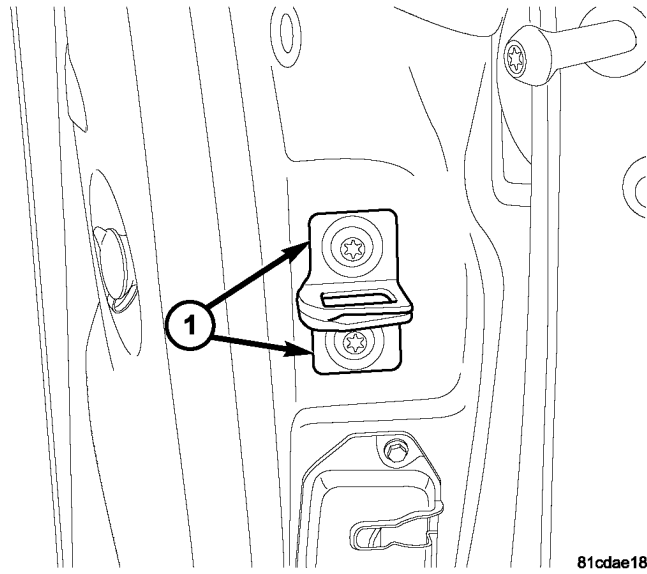


Fig. 2 STRIKER, MARKED AROUND OUTSIDE

1 - Mark Perimeter of Striker for Adjustment Reference

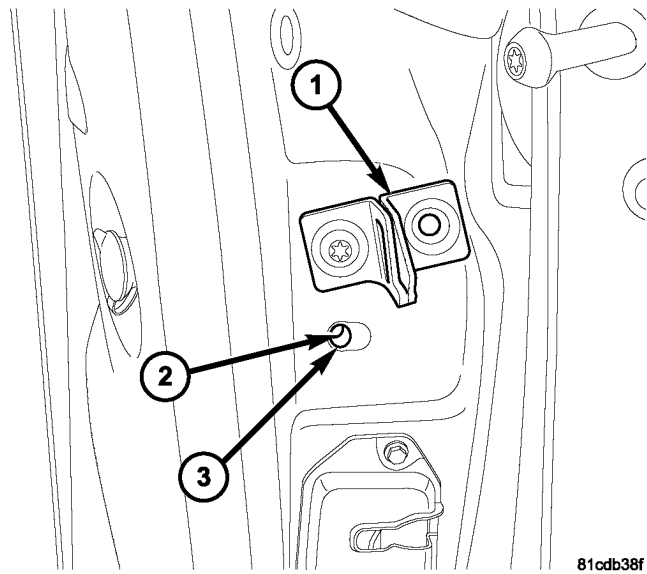


Fig. 3 STRIKER ROTATED

- 1 - Striker Rotated
- 2 - Threaded Plate Does Not to be Rotated For Grinding Procedure.
- 3 - Elongate Body Sheet Metal to Position Striker as Desired.
-

5. Door Gap Adjustment — UP/DOWN:

NOTE: Adjust Lower Hinge for up and down adjustment. Adjust center hinge to adjust fore and aft adjustment. Be aware that adjusting either hinge will cause the door to rotate about the other hinges load roller.

6. Visually inspect the sliding door height by checking the alignment of the character lines to the quarter panel and front door (Fig. 4).
 - a. If the sliding door height is correct, proceed to >>> [Step #19](#).
 - b. If the sliding door height is incorrect at the C-pillar, proceed to >>> [Step #7](#).
 - c. If the sliding door height is incorrect at B-pillar, proceed to >>> [Step #10](#).

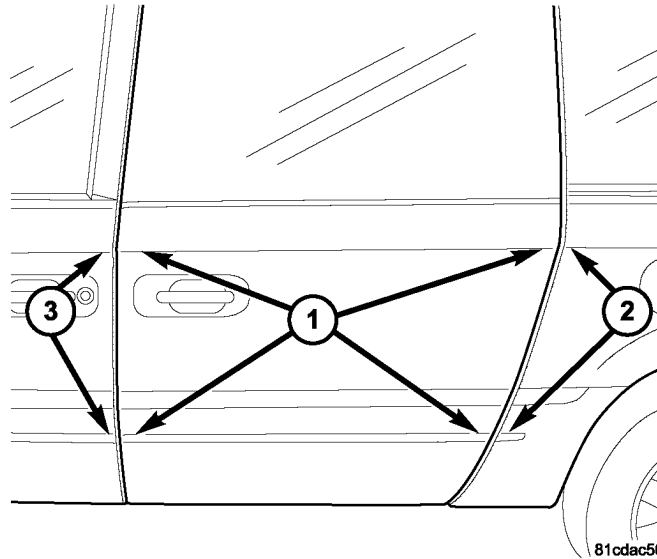


Fig. 4 BODY CHARACTER LINES

- 1 - Sliding Door Character Lines
 - 2 - Rear Quarter Panel Character Lines
 - 3 - Front Door Character Lines
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7. Open door to mid-point of travel. Note the vertical jack screw as shown in (Fig. 5).

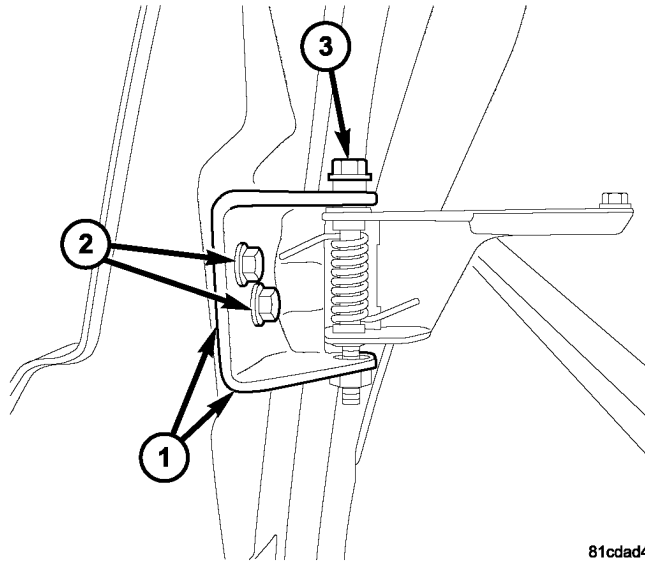


Fig. 5 CENTER HINGE AND ADJUSTER

- 1 - Center Hinge On Sliding Door
2 - Hinge Mounting Bolts
3 - Center Hinge Jack Screw

-
8. Adjustments of the sliding door height at the C-pillar can be accomplished by turning the center hinge jack screw. Turn the bolt clockwise to raise door and counterclockwise to lower door (Fig. 5).
9. Verify alignment, readjust if necessary.
10. Does the sliding door height require adjustment at B-pillar?
- Yes, proceed to >>> [Step #11](#).
 - No, proceed to >>> [Step #19](#)

11. Remove access plug in the sliding door trim panel, (lower front corner) ([Fig. 6](#)).

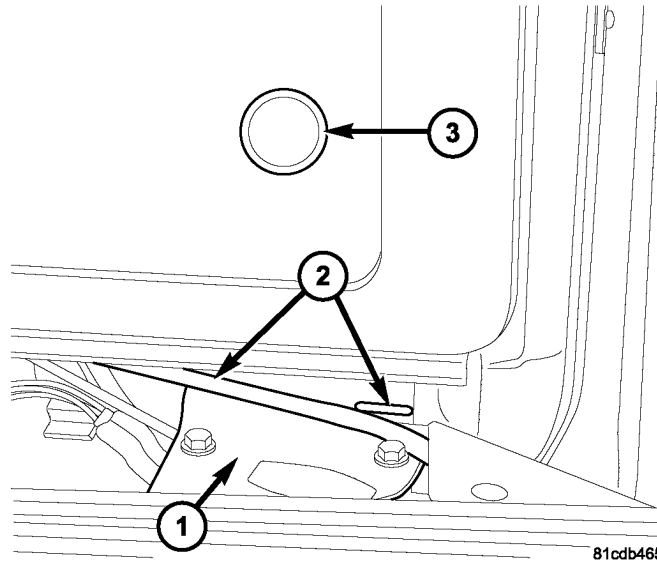


Fig. 6 LOWER HINGE

- 1 - Lower Hinge Assembly
 2 - Hinge Lower Mounting Bolts are Accessible Under Door Panel
 3 - Remove Access Plug to Loosen Upper Mounting Bolt

CAUTION: Do not loosen the bolts attaching the L bracket to the roller arm on the lower hinge assembly.

12. Open door to mid-point of travel.
13. Mark outline of lower hinge arm bracket on sliding door to assist in making adjustments.
14. Support sliding door at the bottom with protected floor jack.
15. Loosen lower hinge arm bracket bolts.
16. Move lower hinge arm up to lower door and down to raise door.
17. Tighten lower hinge arm bracket bolts to 13 Nm, (115 in-lbs) torque.
18. Verify alignment, readjust if necessary.
19. **Door Gap Adjustment - FORE/AFT:**
20. Check B-pillar and C-pillar for door aperture, (spacing), gaps and door to door gaps. All spacing should be 5 mm, +/- 1 mm (0.200 in +/- .040 in) and uniform top to bottom. Do sliding door gaps require adjustment?
 - a. Yes >> go to next step.
 - b. No >> go to [Step #35](#)
21. If adjustment is required, mark the outline of the center hinge bracket on the door. Loosen center hinge bolts as necessary to move center hinge forward or rearward. Moving the hinge rearward on the door increases the gap at the C-pillar and decreases the gap at the B-pillar. Moving the hinge forward on the door decreases the gap at the C-pillar and increases the gap at the B-pillar.
22. Snug center hinge bolts.
23. Close door and check door alignment.

24. Verify alignment, readjust if necessary.
25. Tighten center hinge bolts to 13 Nm, (115 in-lbs) torque.
26. **Door Flushness:**
27. Loosen both male stabilizers on the front of the sliding door and upper guide roller.
28. Check flushness of sliding door at C-pillar, (rear quarter panel sheet metal to sliding door sheet metal); sliding door should be flush to 1.5 mm, (.060 in) **outboard** of rear quarter panel. Check flushness of sliding door at B-pillar; (to front door sheet metal and sliding door sheet metal). Sliding door should be flush to 1.5 mm, (.060 in) **inboard** of front door. Which adjustment is required?
 - a. If the rear of the sliding door needs to be adjusted for flushness at C-pillar, go to >> [Step #33](#)
 - b. If the front of the sliding door needs to be adjusted for flushness at B-pillar, go to >> [Step #30](#).
 - c. If the sliding door does **NOT** need to be adjusted for flushness, go to >> [Step #33](#).
29. Check the upper front corner of sliding door of sliding door sheet metal, (above glass), (B-pillar) flushness to sheet metal (above front door glass). Check the upper rear corner of sliding door of sliding door sheet metal, (above glass), (C-pillar) flushness to sheet metal (above rear quarter glass).

NOTE: Protect surface of door as needed while making this adjustment.

30. To adjust the upper part of the sliding door at B-pillar, (above glass), use a heavy rubber mallet on the door assembly, lightly tapping door top in or out as necessary.
31. To adjust the upper rear corner, (above glass), of the sliding door at C-pillar inboard or outboard, use a heavy rubber mallet on the door assembly, lightly tapping door top in or out as necessary.

NOTE: Correctly adjusting door flushness should correct Door Seal Compression. Refer to [Step #38](#) for procedure to check door seal compression WHILE MAKING door adjustments.

32. **Final Striker Adjustment**

33. Remark current location of striker perimeter, ([Fig. 2](#)) above, then loosen both bolts of striker assembly, remove only 1 bolt at a time, (so that inner threaded plate will not fall between inner and outer panels). Rotate striker plate out of the way, (then snug remaining bolt). Elongate the hole(s) by grinding or filing the sheet metal and painting the raw edge to prevent rusting. The plate with the nuts attached inside the post have ample room to grind or file without rotating plate out of the way. Repeat this procedure for the other striker mounting bolt hole as required. Install striker to desired position and recheck flushness, ([Fig. 3](#)) above. Back of sliding door should be flush to 1.5 mm, (.060 in) outboard of rear quarter panel sheet metal.
34. Verify alignment, readjust if necessary.
35. **Door Seal Compression:**
36. After flush and gap adjustments have been made, door seal compression should be correct. The only variable that can be adjusted is the top of the sliding door at B-pillar. This can be adjusted slightly using the upper roller arm to set the top of sliding door seal compression.
37. Snug the upper roller bolts loosened in step #1.

NOTE: If other areas of the sliding door need adjustment for door seal compression, refer back to sliding door flushness adjustments to correct, [Step #28](#).

38. To check the Door Seal Compression, place a piece of paper across door seal and close door. Pull paper out of door opening. If paper tears, setting is too tight. If paper slides through too easily, the compression is insufficient and needs to be adjusted. Check seal compression around sliding door perimeter in the following 10 areas:
 - a. Mid point of upper header.
 - b. Top third of B-pillar, (mid way between character line and header).
 - c. Top third of C-pillar, (mid way between character line and header).
 - d. Bottom third of B-pillar, (mid way between character line and rocker panel).
 - e. Bottom third of C-pillar, (mid way between character line and rocker panel).
 - f. All 4 corners.
 - g. Mid point of rocker panel, bottom, center of sliding door.
39. Does the seal compression at the top of B-pillar require adjustment?
 - a. Yes >> go to next step.
 - b. No >> go to [Step #45](#)
 - c. If seal compression is incorrect anywhere else on the sliding door, adjustments must be made using procedures starting at [Step #28](#) above.
40. To adjust for less seal compression at the top of the B-pillar seal, first open door to mid-point of travel.
41. Loosen bolts attaching upper roller arm to door.
42. Install necessary 1 mm shim(s), p/n 04894494AA, to move upper corner of sliding door at B-pillar for less seal compression.
43. Tighten upper roller bracket. Tighten bolts to 13 Nm, (115 in-lbs) torque.
44. Perform paper test in [Step #38](#) to verify proper adjustment.
45. **Stabilizer Adjustment — UPPER/LOWER:**
46. Open sliding door.
47. **Finger** tighten the bolts, (loosened in [Step #1](#)), holding the upper and lower male stabilizer to the front of the sliding door only enough so that the stabilizers can move, but not too freely. Be sure compressed washer(s) are out of dimples.
48. Open and close sliding door 3 times.
49. Open sliding door just enough to reach in and hold lower stabilizer in place.
50. Tighten lower stabilizer bolts.
51. Open and close sliding door 3 times.
52. Open sliding door just enough to reach in and hold upper stabilizer in place.
53. Tighten upper stabilizer bolts.

54. After all adjustments are complete, double check alignment of the fuel door striker into the blocker latch on the left sliding door, and the latch to striker alignment at the rear of both sliding doors. These **MUST** go straight into the latching mechanisms (Fig. 7) and (Fig. 8).

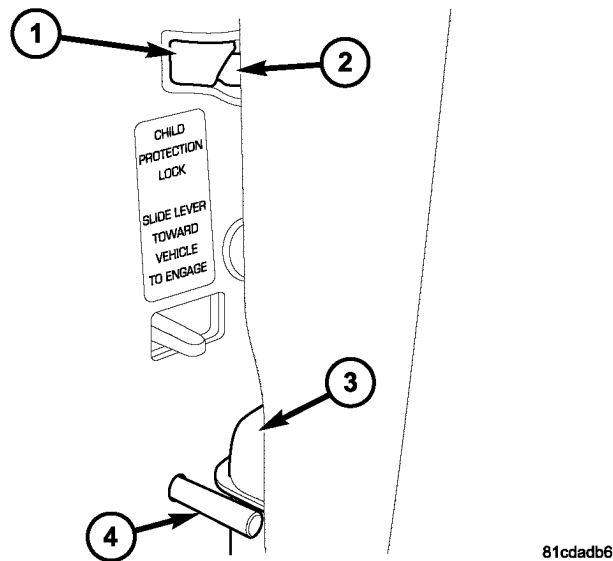


Fig. 7 LEFT LATCH AND FUEL DOOR BLOCKER

- 1 - Sliding Door Latch Mechanism
 - 2 - Sliding Door Striker
 - 3 - Fuel Door Blocker Latch Mechanism, LH Door Only
 - 4 - Fuel Door Blocker Striker, LH Door Only
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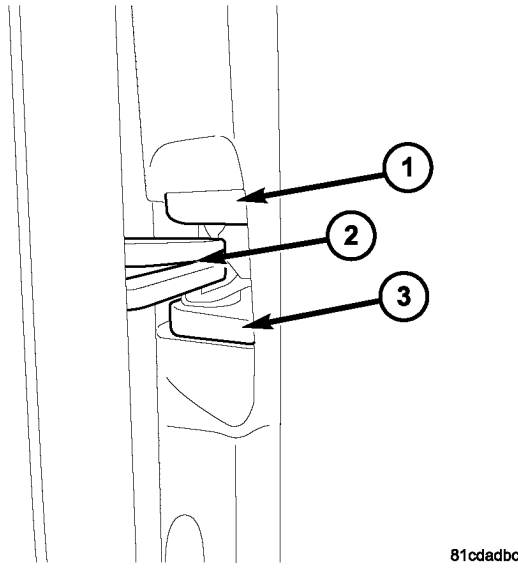


Fig. 8 LEFT REAR LATCH, VIEW FROM INSIDE VEHICLE

- 1 - Upper Portion of Latch Mechanism, (on Sliding Door)
 - 2 - Striker, (on Body of Vehicle)
 - 3 - Lower Portion of Latch Mechanism, (on Sliding Door)
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****POWER SLIDING DOOR ELECTRICAL DIAGNOSIS:**

The Power Sliding Door (PSD) may not power open **OR** will power open but will not power close when utilizing the Remote Keyless Entry (RKE) transmitter **OR** switches located inside the vehicle.

NOTE: The following table provides information about normal switch states that can be read with the DRBIII®. This information will be valuable when making diagnostic decisions.

Input	Normal FULL CLOSED & LATCHED Readings	Normal FULLY OPEN Readings	Normal BETWEEN FULL OPEN AND CLOSED Readings	Description
Ratchet Primary /Ajar	Open	Closed	Closed	Primary/Ajar switch, internal to the latch. Open when latch is in primary, Closed when latch is out of primary.
Pawl Switch (see Additional Information below)	Open	Closed	Closed	Internal to the latch. Indicates when the latch pawl has secured the latch in primary or secondary. Goes Open when entering secondary latch position. Closed when out of secondary and primary.
Full Open Switch (see Additional Information below)	Open	Closed	Open	Located on lower roller. Indicates when the door is in the hold open latch position. Closed when full open. Open otherwise.

Input	Normal/Not Pressed	Pressed	Description
Handle Switch	Open	Closed	Located in latch. Normally Open. Closed to ground when inside or outside handle are activated. Also closes to ground when the latch is in the process of a power release.
Lock Switch	Unlocked = Closed	Locked = Open	Located in latch. Indicates lock status for the sliding door. Used to inhibit power open.

Additional Information:

Pawl Switch - The pawl switch may behave differently depending on how hard the door is closed. Check the switch reading by closing the latch just to the secondary position, with a moderate slam to full closed (primary), and an aggressive slam to primary. If slamming of the door to primary causes the pawl switch to remain closed when the latch is in primary, Replace the latch.

Full Open Switch - If the full open switch always reads open, check the hold open latch cable to make sure it isn't preventing the hold open latch from contacting the switch. An easy way to check is to remove the hold open cable and then read the switch status with the door fully open. If the cable is impacting the switch status, replace the hold open cable.

Latch Hesitating or Pausing During Cinch - Place the door in the mid point of travel. Use a screwdriver to place the latch in the secondary position. If the latch still hesitates or pauses during cinch, replace the latch.**

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
23-00-11-95	Door, Sliding/Side - Adjust/Align	A/T

FAILURE CODE:

ZZ	Service Action
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