



A Textron Company

TECHNICAL BULLETIN

429-11-21  
14 December 2011

**MODEL AFFECTED:** 429

**SUBJECT:** **SLIDING DOOR SWITCH IMPROVEMENT AND RELOCATION OF**

**HELICOPTERS AFFECTED:** **Serial numbers 57001 through 57059.**

Serial numbers 57012, 57036 and 57060 and subsequent will have the intent of this bulletin accomplished prior to delivery.

**COMPLIANCE:** At customer's option but recommended before 30 July 2012.

**DESCRIPTION:**

Damaged door switches have been reported due to build tolerances and movement of the door which results in misalignment of the striker pad on the switch. This may cause warnings to the pilot that the door is open, when actually it is not.

This bulletin introduces new door switches including new door strikers and striker pads. The new striker brackets are stiffer, designed to provide more adjustment with improved angle relative to the door. The bracket is now installed with screws in lieu of rivets for added adjustment capability. We have also created a new striker pad with increased surface area.

Applicability of this bulletin to any spare part shall be determined prior to its installation on an affected aircraft.

**APPROVAL:**

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

## CONTACT INFO:

For any questions regarding this bulletin, please contact:

Bell Helicopter Product Support Engineering - Intermediate Helicopters  
Tel: 450-437-2077 / 1-800-463-3036 / pseinter@bellhelicopter.textron.com

## MANPOWER:

Approximately 8.0 man-hours are required to complete this bulletin. This estimate is based on hands-on time, and may vary with personnel and facilities available.

## WARRANTY:

Owners / Operators of Bell helicopters who comply with the instructions in this Technical Bulletin will be eligible to receive a credit for the replacement CT-429-11-21.

To receive this credit:

- Comply with the instructions contained in this bulletin no later than the applicable date in the "compliance section" of this TB.
- Purchase replacement parts as required in the materials section of this bulletin from a Bell approved source.
- Submit an MMIR to the Bell Warranty Department.

Customers who fail to comply with the instructions in this bulletin before 30 July 2012 are not eligible for the special warranty credit listed above. There is no labor associated with this bulletin.

## MATERIAL:

### Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

The following material can be produced under Kit # CT-429-11-21

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty</u>
429-704-004-105	Bracket Assy L/H	1
429-704-004-106	Bracket Assy R/H	1
429-075-537-107	Door Switch Bracket L/H	1
429-075-537-108	Door Switch Bracket R/H	1
90-104A3-1	Click Bond Nutplate	4
MS21919WDG4	Clamp	2
MS25036-103	Terminal Lug	2
M81824/1-1	Splice	2
NAS1149D0332K	Washer	4

NAS1149E0332P	Washer	4
NAS1801-3-8	Screw	4
NAS5319V3A6	Screw	4
31-065-5270S3	Decal	1
31-065-5270S4	Decal	1
429-075-537-105	Striker Door Switch	1
429-075-537-106	Striker Door Switch	1
P6-380001	Switch	2
30-266-1	Wire Cap	8

**Consumable Material:**

The following material is required to accomplish this bulletin, but may not require ordering, depending on the operator's consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Qty</u>	<u>Reference *</u>
299-947-125, TY I	Adhesive	50grams	C-331
MIL-PRF-81733	Sealant	2.5oz	C-251
MIL-PRF-23377T1,CLC	Primer	1PT	C-204

\* C-XXX numbers refer to the consumables list in BHT-ALL-SPM Standard Practices Manual

**SPECIAL TOOLS:**

None required.

**WEIGHT AND BALANCE:**

Not affected.

**ELECTRICAL LOAD DATA:**

Not affected.

**REFERENCES:**

BHT-429-IPB Illustrated Parts Breakdown  
 BHT-429-MM Maintenance Manual

**PUBLICATIONS AFFECTED:**

BHT-429-IPB Illustrated Parts Breakdown  
 BHT-429-MM Maintenance Manual

## ACCOMPLISHMENT INSTRUCTIONS:

-NOTE-

The procedure is provided for the sliding door retrofit kit switch upgrade on the left side. The procedure is the same for the sliding door retrofit kit switch upgrade on the right side.

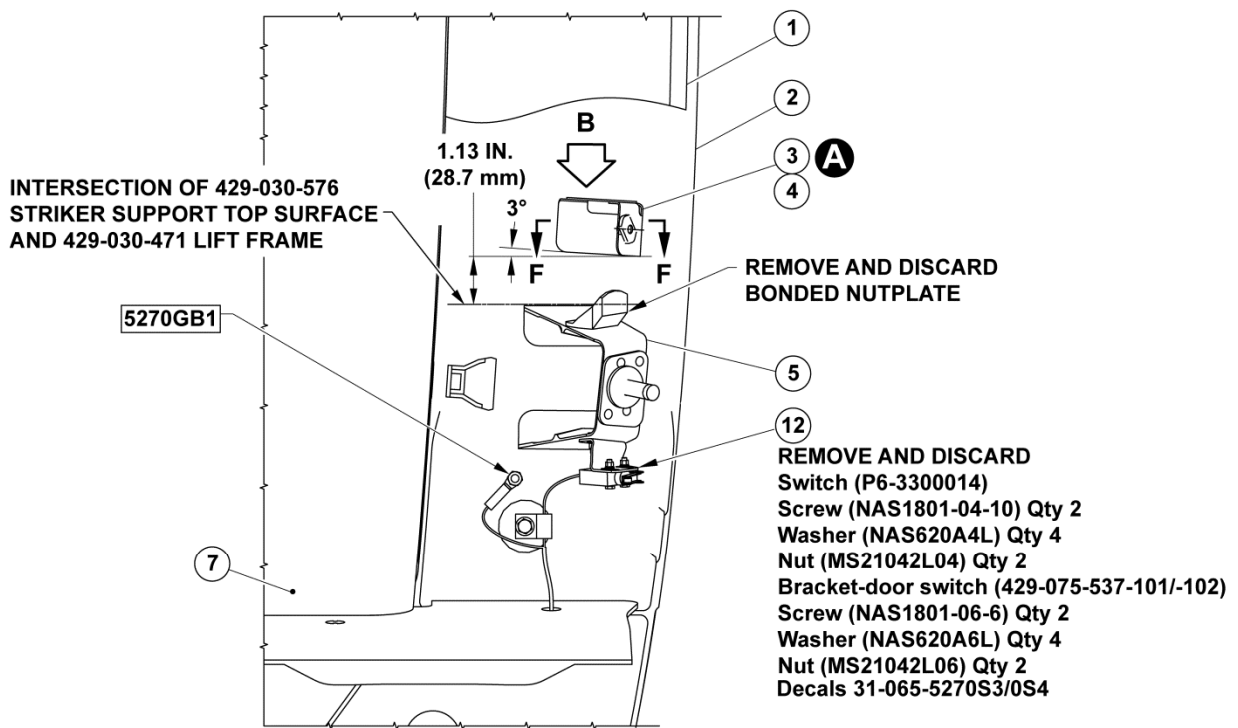
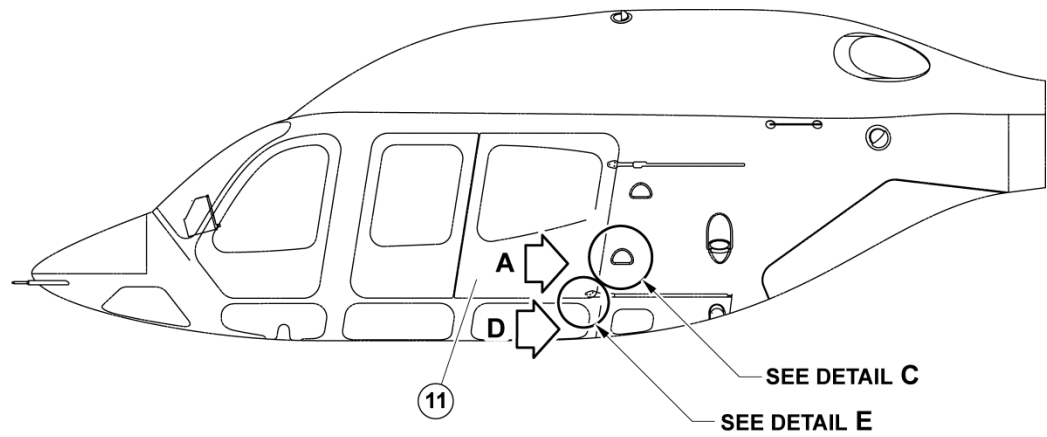
1. Prepare helicopter for maintenance.

**CAUTION**

AVOID DAMAGE TO PAINTED SURFACE OF SLIDING PASSENGER DOOR, WINDOWS AND DOOR HANDLES.

- a. Gain access to frame cover (1, Figure 1 view A). Remove and retain frame cover and screws.
  - b. Gain access to striker support (5, Figure 1 view A). Remove old switch (12), door switch bracket 429-075-537-101, decal 31-065-5270S3 and all hardware.
  - c. Refinish qty (2) redundant holes in striker support (5, Figure 1) as per BHT-ALL-SRM, Chapter 3, section 3-2-14, brush chemical film application with 2 coats of primer.
  - d. Locate, remove and discard bonded nutplate (Figure 1 view A) as per BHT-ALL-SRM, Chapter 3, section 3-2-22. Refinish reworked area as per BHT-ALL-SRM, Chapter 3, section 3-2-14, brush chemical film application with 2 coats of primer.
  - e. Locate and drill holes in striker support (5, Figure 2 Striker support modification).
  - f. Install qty (2) nutplates 90-104A3-1 as per BHT-ALL-SRM, Chapter 3, section 3-2-21.
  - g. Install door switch bracket (6) and all hardware as per (Figure 2 view B).
  - h. Install new door switch (8) and decal 31-065-5270S3 to door switch bracket (6) as per (Figure 2 view B).
2. Re-route and re-wire new door switch (8) as per (Figure 3 view D and wiring diagram, Figure 4).
    - a. Disconnect ground wire from ground stud and retain hardware.

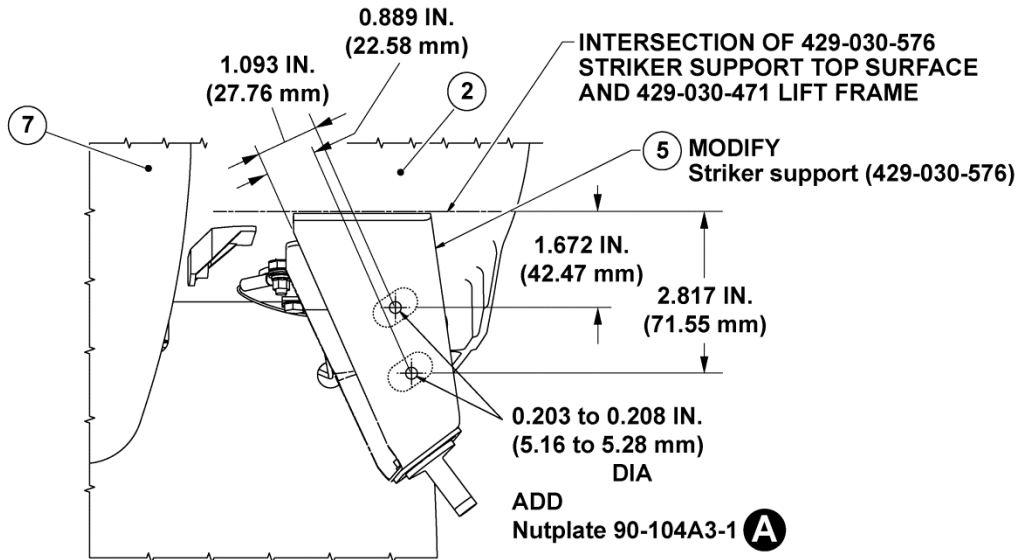
- b. Cut wire from old switch (12) at splice. Discard switch.
  - c. Replace existing clamp with new clamp MS21919WDG4 retain hardware.
  - d. Install terminal lug MS25036-103 on NO2-20 wire and install on ground stud.
  - e. Install splice M81824/1-1 to switch wire COM2-20 and connect to aircraft wire W186B24.
  - f. Install stow caps 30-266-1 on unused wires and secure with lacing cord.
3. Locate and mark position of bracket (3, Figure 1 view A and section F-F). Measurement of 1.19 inch (30.2mm) is taken from inside of side body.
  4. Bond new bracket (3) on to frame (2) as per BHT-ALL-SPM, Chapter 7.
  5. Locate lower aft door latch (Figure 3 detail E). Remove and discard screws NAS 5319V3A5 and washers NAS1149DO332K.
    - a. Install new striker (10) and all hardware as per (Figure 3 detail E).
  6. Modify frame cover (1) as per Figure 3, detail C.
  7. Reinstall frame cover (1) with screws PS10F8DS35GY.
  8. Adjust door striker (10) as per BHT-429-MM, Chapter 52.
  9. Adjust new door switch (8) as per BHT-429-MM, Chapter 96.
  10. Complete installation/modification on opposite side of helicopter.
  11. Make an entry in helicopter historical service records indicating compliance with this Technical Bulletin.



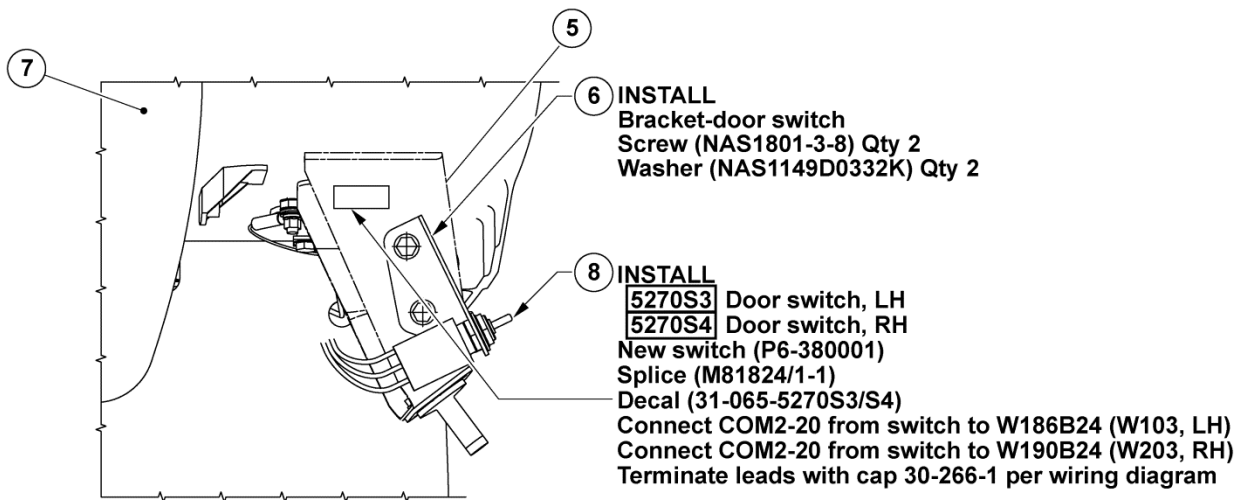
**VIEW A**  
**FRAME COVER PARTIALLY REMOVED FOR CLARITY**  
**VIEW LOOKING AFT NORMAL**  
**TO LIFT FRAME**  
**VIEW LOOKING AFT**

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**Figure 1 Sliding Door Retrofit Kit**



**STRIKER SUPPORT MODIFICATION**



**VIEW B**

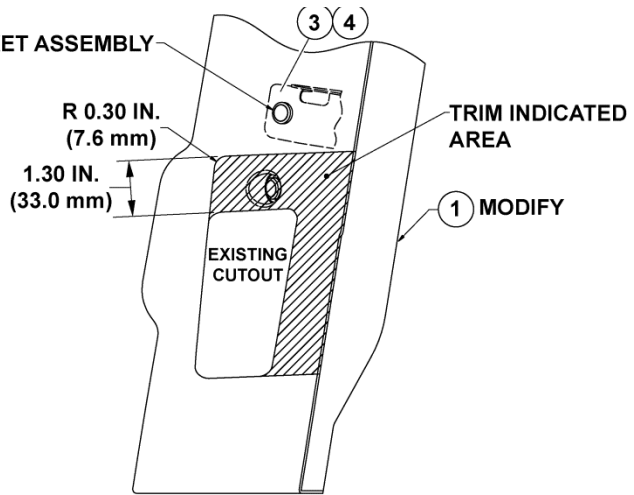
**VIEW LOOKING NORMAL TO STRIKER SUPPORT,  
FRAME COVER REMOVED FOR CLARITY**

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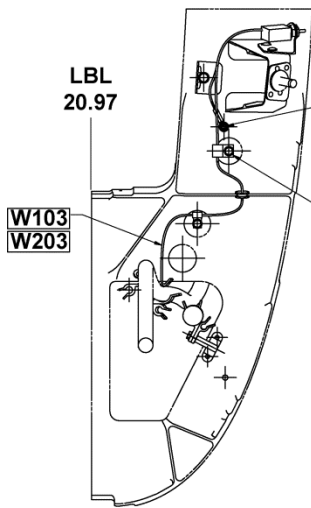
**Figure 2 Sliding Door Retrofit Kit**

0.198 IN. (5.03 mm) DIA IN FRAME COVER  
 COORDINATE HOLE LOCATION WITH BRACKET ASSEMBLY

RE-INSTALL  
 Screw (PS10F8DS35GY) 5 PL



**DETAIL C**  
 VIEW SHOWING FRAME COVER MODIFICATION  
 VIEW LOOKING AFT



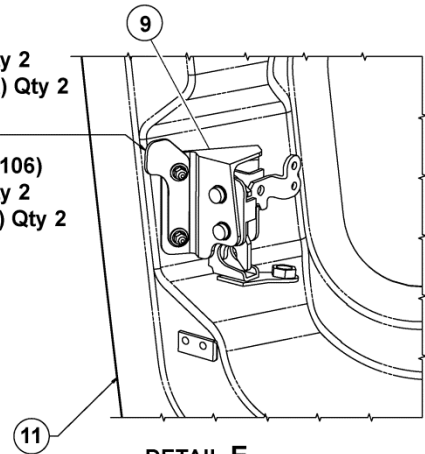
**VIEW D**  
 LOOKING AFT

5270GB1, LH  
 5270GB2, RH  
 MS25036-103 TERMINAL CONNECT  
 NO2-20 LEAD FROM SWITCH

REPLACE EXISTING CLAMP WITH  
 Clamp (MS21919WDG4)  
 Screw (NAS1801-3-7)  
 Washer (NAS1149D0316J)

REMOVE AND DISCARD  
 Screw (NAS5319V3A5) Qty 2  
 Washer (NAS1149D0332K) Qty 2

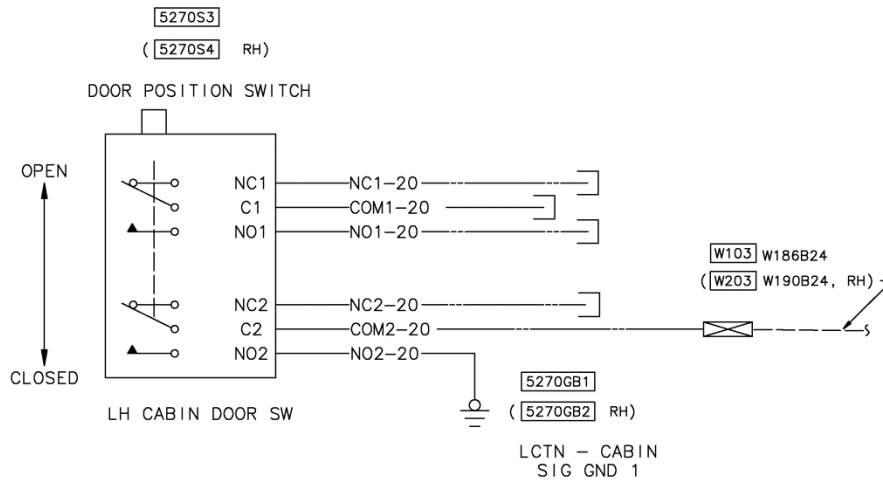
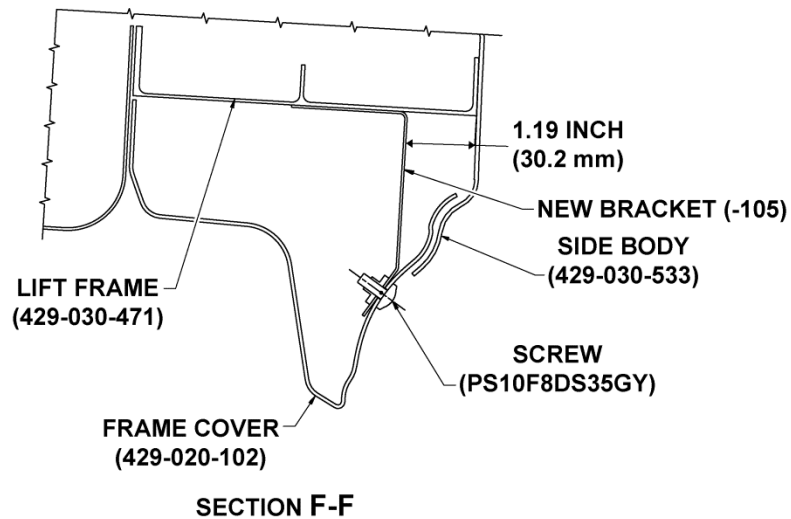
ADD 10  
 Striker (429-075-537-105/-106)  
 Screw (NAS5319V3A6) Qty 2  
 Washer (NAS1149E0332P) Qty 2  
 REINSTALL  
 Nut (MS21043-3) Qty 2



**DETAIL E**  
 VIEW LOOKING OUTBOARD  
 AT LOWER AFT DOOR LATCH  
 (LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE)

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**Figure 3 Sliding Door Retrofit Kit**



- |   |   |
|---|---|
| 1. Frame cover (429-020-102)                  | 7. Lower panel assembly (429-030-061)   |
| 2. Lift frame (429-030-471)                   | 8. New door switch (P6-380001)          |
| 3. Bracket assembly (429-704-004-105)         | 9. Aft door latch (NAS1801-3-5)         |
| 4. Bracket assembly (429-704-004-106)         | 10. Striker (429-075-537-105/-106)      |
| 5. Striker support (429-030-576)              | 11. Sliding door assembly (429-030-851) |
| 6. Bracket door switch (429-075-537-107/-108) | 12. Switch (P6-3300014)                 |

**A** ADHESIVE (C-331)

**S** SEALANT (C-251)

**NOTE**

- 1 Seal mating surfaces with sealant and add sealant to overcoat nuts.

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**Figure 4 Sliding Door Retrofit Kit**