

# TO 1300i-2-27JG-20-3

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## TECHNICAL MANUAL

### JOB GUIDE

### ORGANIZATIONAL MAINTENANCE

## FLIGHT CONTROLS RUDDER (27-20-00 AND 27-21-15 THROUGH 27-21-18)

### USAF SERIES

### 300i AIRCRAFT

MCDONNELL DOUGLAS CORPORATION

MILITARY TRANSPORT AIRCRAFT

F33657-81-C-2108

FA8526-21-D-0001

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**T-2**

**1 JUNE 2023**

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## LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands.

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TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 160 CONSISTING OF THE FOLLOWING:

Page No.	* Change No.	Page No.	* Change No.
Title thru T-2 . . . . .	0	2-115 thru 2-116 . . . . .	0
A. . . . .	0	2-117 blank. . . . .	0
B blank . . . . .	0	2-118 thru 2-127. . . . .	0
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\*Zero in this column indicates an original page.



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# INTRODUCTION

## **SCOPE.**

This job guide provides maintenance procedures for the removal, installation, and repair of rudder system components.

## **MODEL(S) COVERED.**

All

## **ABBREVIATIONS.**

The following is a list of non-standard abbreviations used throughout this manual:

EPC                                      Electrical Power Center

PLCS                                      Places

## **CHANGE REQUEST.**

Recommended changes to this manual shall be submitted in accordance with TO 00-5-1.

## **300i TO INFORMATION.**

General 300i TO/eTO, TO Manager, Supplement and finalized Recommended Change (RC) information can be found in the Enhanced Technical Information Management System (ETIMS), System of Record.

## ➤ LIST OF TIME COMPLIANCE TECHNICAL ORDERS (TCTO).

This list of TCTO's contains all current TCTO's that affect the technical content of text or illustrations found in this manual.

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY



## SECTION 1

### GENERAL INFORMATION (27-20-00)

#### 1-1. GENERAL INFORMATION.

1-2. This section provides general information that is essential for ensuring complete and safe maintenance procedures contained throughout this manual.

1-3. All adhesive sealants, sealants, and compounds used in this manual are listed with a primary part number and/or primary specification number. Any suitable substitutes and/or interchangeable adhesive sealants, sealants, and compounds may be used unless otherwise specified. Suitable substitutes and/or interchangeable adhesive sealants, sealants, and compounds are listed in the system peculiar corrosion control manual (Refer to TO 1300i-23, Chapter 1, Section III).

#### 1-4. GENERAL WARNINGS, CAUTIONS, AND

#### NOTES.

#### **WARNING**

All flight control surfaces and engine thrust reverser areas must be cleared of personnel and equipment prior to application of hydraulic power. Failure to comply may cause injury to personnel and damage to equipment.

#### **CAUTION**

Air in a hydraulic system may cause numerous malfunctions, from a total system failure to a minor indication problem. When you suspect air has been inducted into a system by removing a hydraulic component or a line, refer to the hydraulic system bleed procedure (12-29-08). Failure to comply may cause damage to aircraft.



## **SECTION 2**

# **RUDDER TRIM AND SIMULATED LOAD FEEL CONTROL ASSEMBLY (27-21-15)**

### **MASTER INPUT CONDITIONS:**

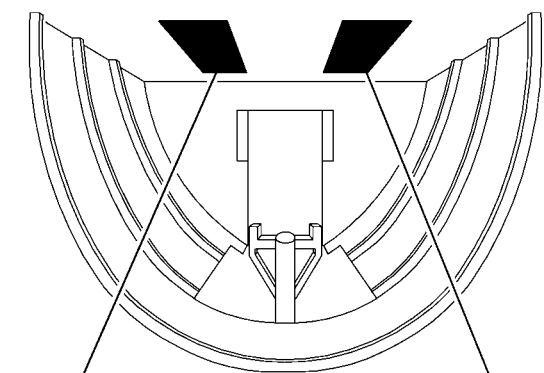
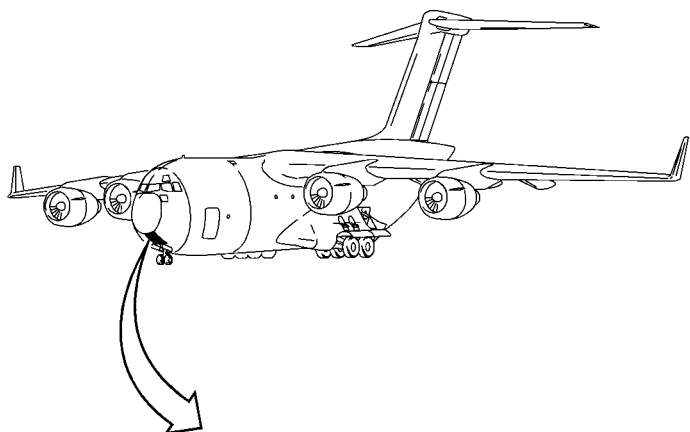
#### **Reference designators:**

2721AA022	Rudder Trim and Simulated Load Feel Control Assembly
-----------	--

#### **Applicable functions:**

- 2 Removal.
- 3 Installation.
- 4 Repair.

Access data:



PRESSURE PANEL  
(112BZP)

PRESSURE PANEL  
(112AZP)

ICN-88277-G2721111-004-01

# RUDDER TRIM AND SIMULATED LOAD FEEL CONTROL ASSEMBLY REMOVAL (27-21-15-2)

## FUNCTIONAL INPUT CONDITIONS:

### Applicability:

All

### Task

All

### Additional information:

This procedure consists of the following tasks:

- 2-1. Preparation.
- 2-2. Removal.

### Additional data:

TO 1300i-2-05JG-10-1

TO 1300i-2-25JG-10-1

TO 1300i-2-53JG-10-1

### Task

2-1

2-1

2-1

### Personnel recommended:

Two

### Task

All

Person (A) performs task.

Person (B) assists person (A).

**Safety conditions:**

**Task**

**WARNING**

The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All

### Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

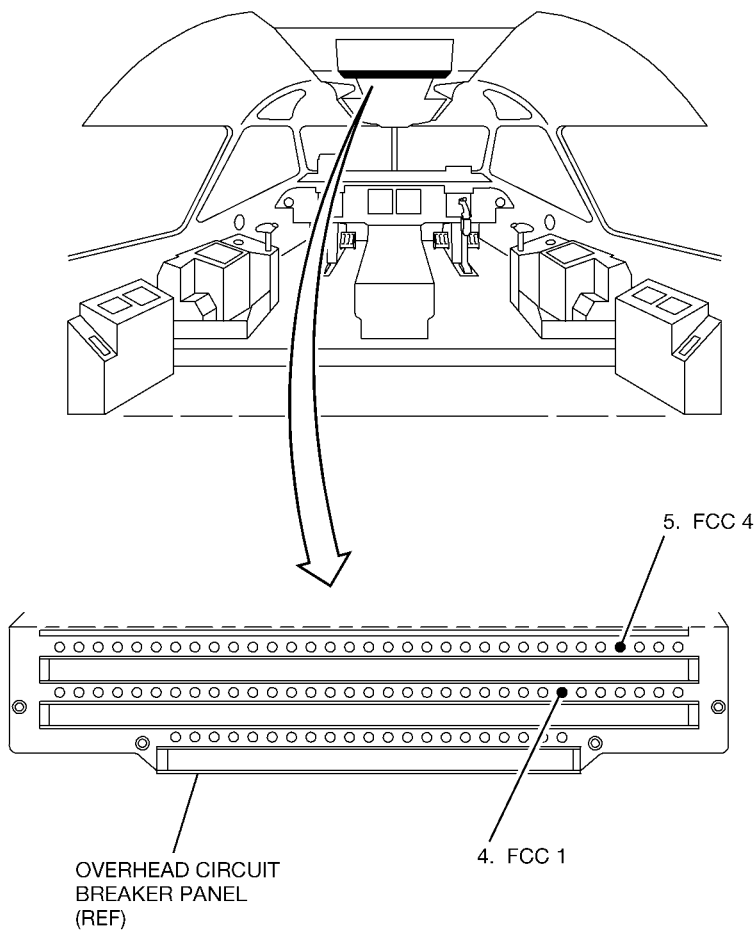
### Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Tag, Warning	--	--	4	2-1

## **2-1. PREPARATION.**

1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Install rudder aircraft ground safety lock (05-10-01, task 01-1).
4. (A) Open **FCC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **27**, and attach warning tag.
5. (A) Open **FCC 4** circuit breaker on overhead circuit breaker panel, row **G**, column **30**, and attach warning tag.

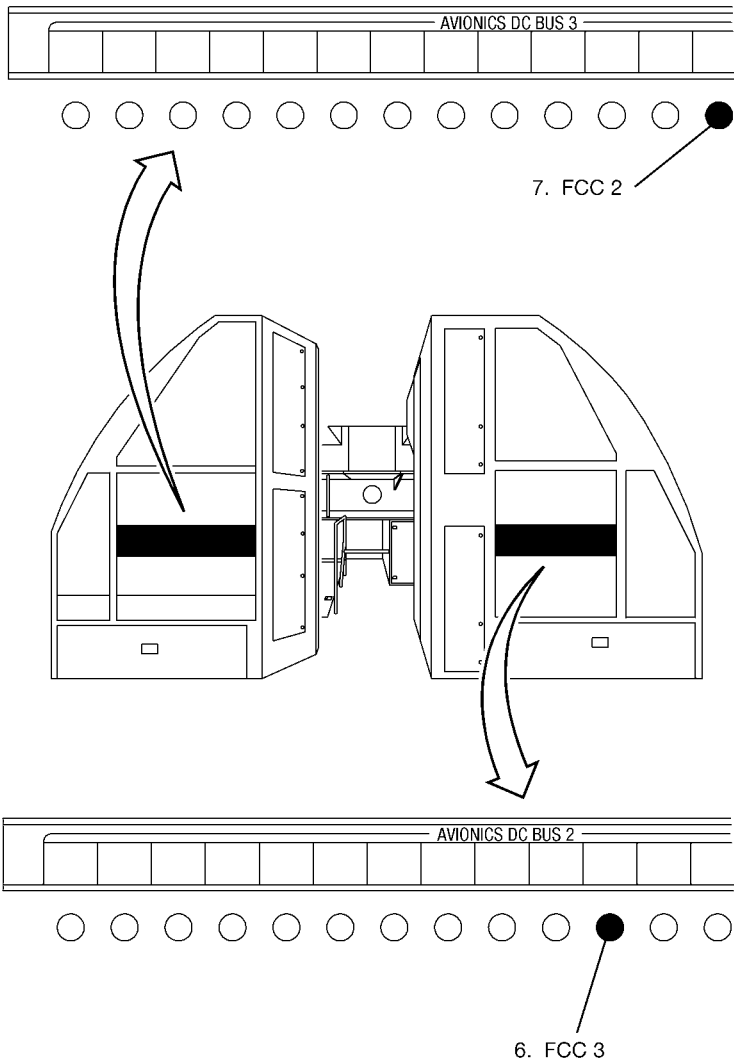




ICN-88277-G2721112-003-01

## **TO 1300i-2-27JG-20-3**

6. (A) Open **FCC 3** circuit breaker on Electrical Power Center (EPC), row **T**, column **24**, and attach warning tag.
7. (A) Open **FCC 2** circuit breaker on EPC, row **T**, column **50**, and attach warning tag.



ICN-88277-G2721113-004-01

## TO 1300i-2-27JG-20-3

8. Remove horizontal pressure panel access cover assemblies (53-12-10).

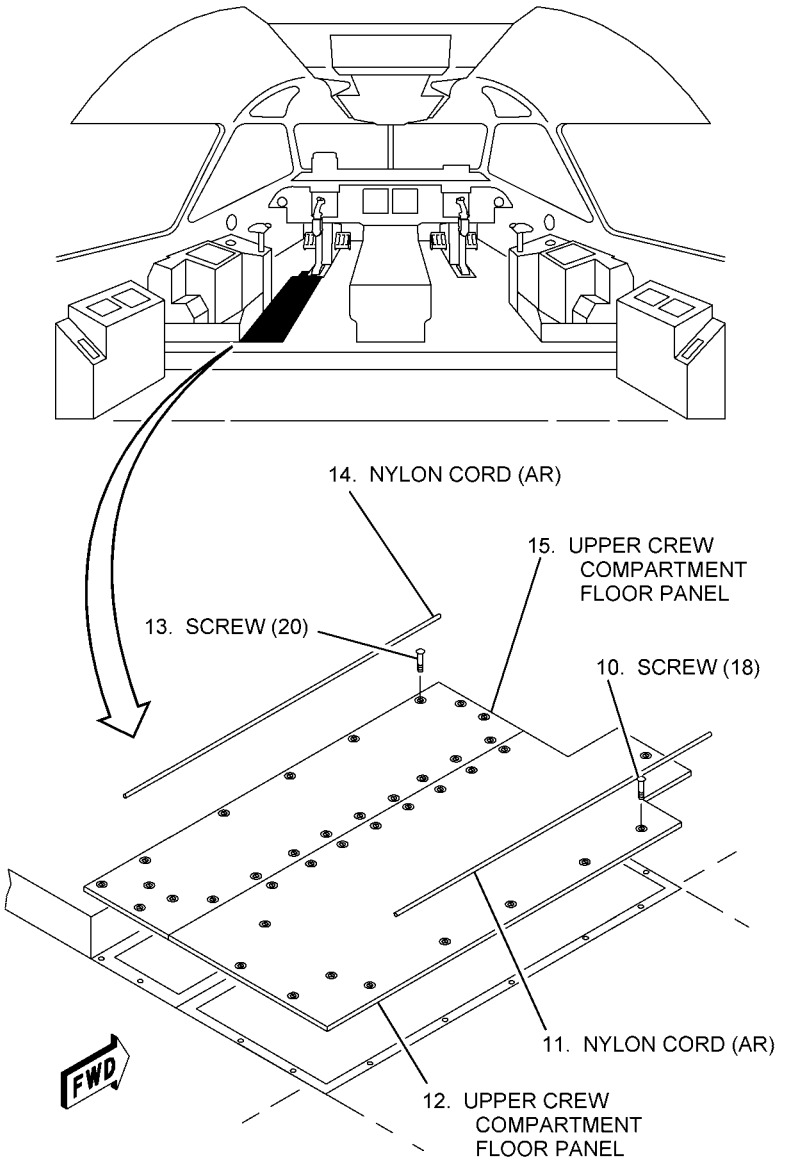
PANEL NO.	PANEL REF DES
112AZP	5312CA001
112BZP	5312CA002

9. Remove pilot aircraft seat (25-11-10).
10. (A,B) Identify and remove screws from upper crew compartment floor panel (213BZY).

### NOTE

Nylon cords are being eliminated by attrition, not all floor panels will have nylon cords.

11. (A,B) Remove and discard nylon cords.
12. (A,B) Remove upper crew compartment floor panel.
13. (A,B) Identify and remove screws from upper crew compartment floor panel (213CZY).
14. (A,B) Remove and discard nylon cords.
15. (A,B) Remove upper crew compartment floor panel.



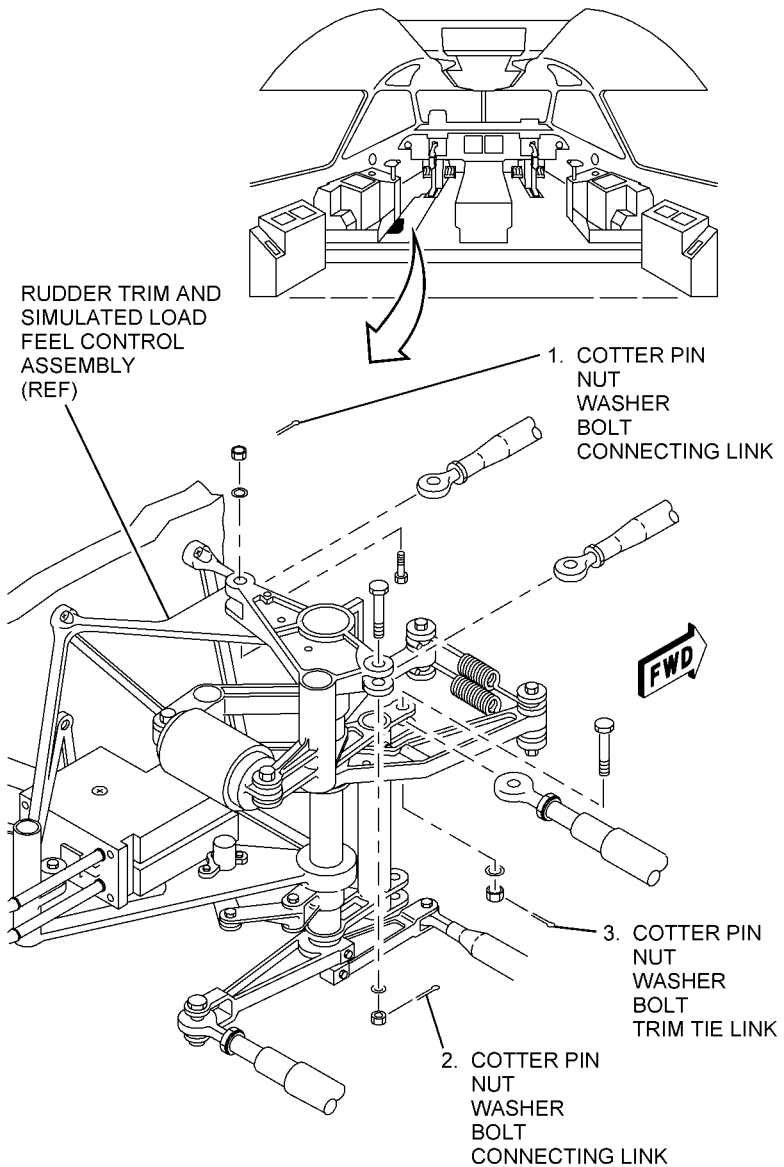
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## **2-2. REMOVAL.**

### **NOTE**

Prior to removing any hardware, the orientation of safety wire shall be noted to aid during installation.

1. (A,B) Remove safety wire, cotter pin, nut, washer, bolt, and disconnect connecting link.
2. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect connecting link.
3. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect trim tie link.

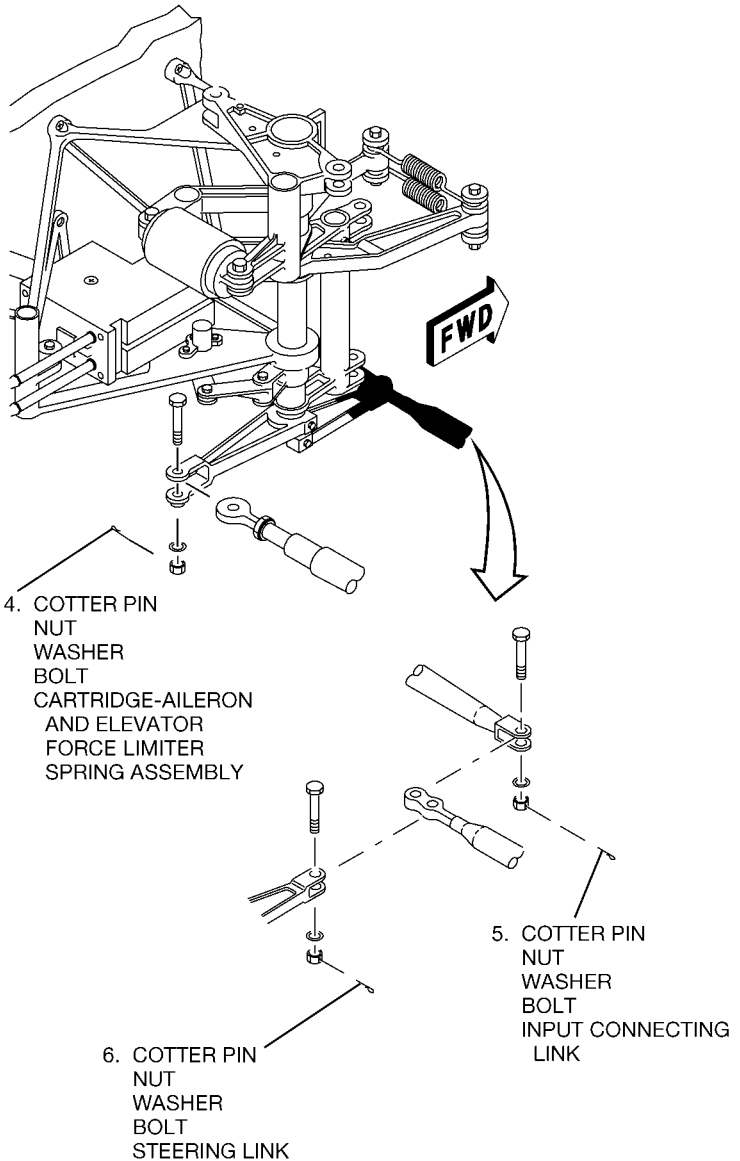


ICN-88277-G2721117-006-01

## **TO 1300i-2-27JG-20-3**

4. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect cartridge-aileron and elevator force limiter spring assembly.
5. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect input connecting link.
6. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect steering link.

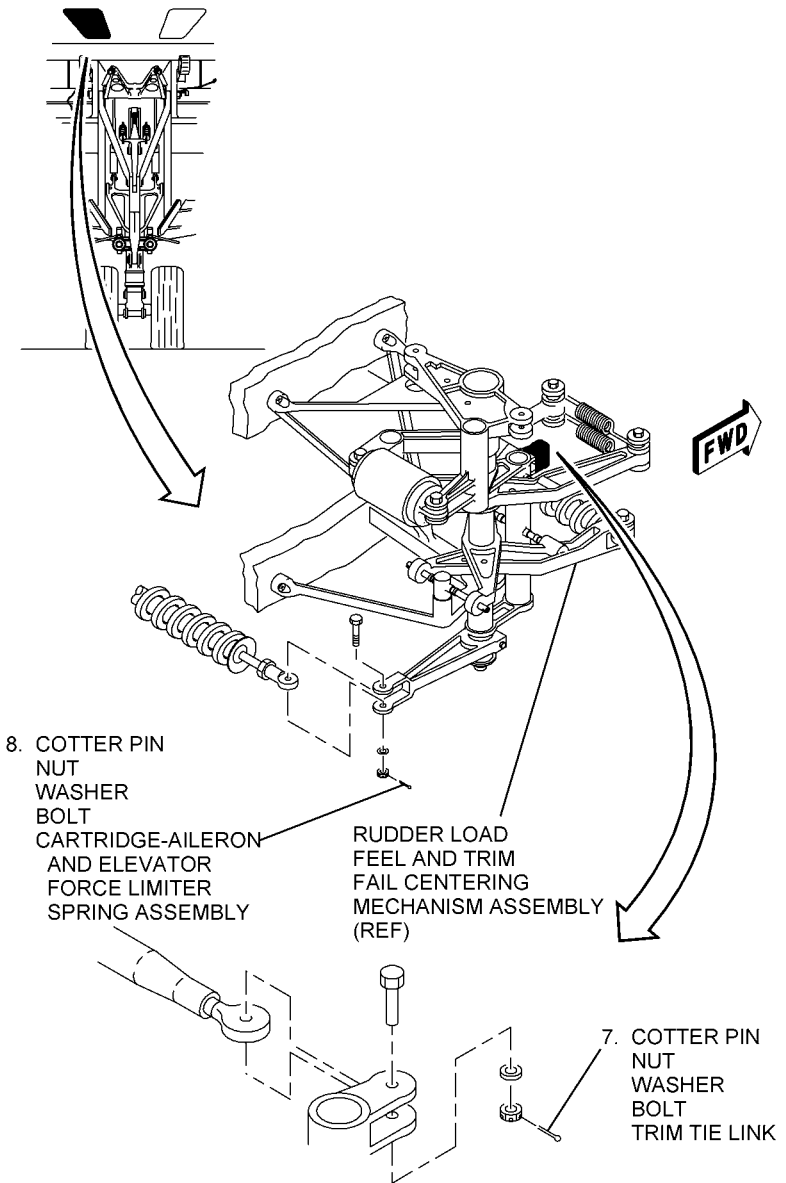




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## **TO 1300i-2-27JG-20-3**

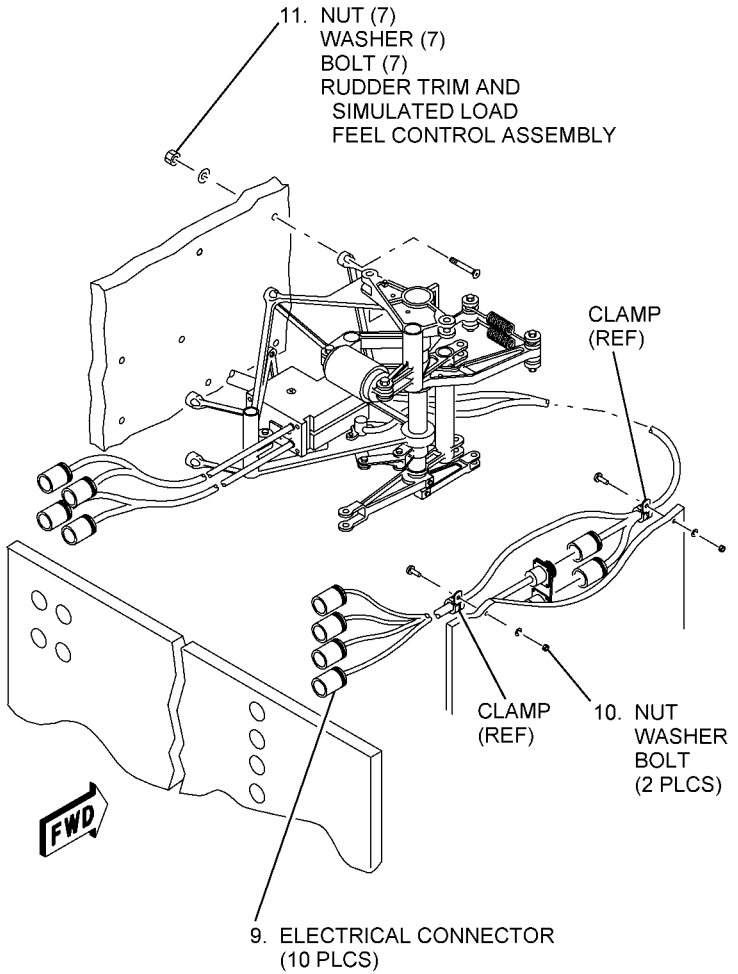
7. (A,B) Remove cotter pin, nut, washer, bolt, and remove trim tie link from rudder load feel and trim fail centering mechanism assembly.
8. (A,B) Remove cotter pin, nut, washer, bolt, and remove cartridge-aileron and elevator force limiter spring assembly from rudder load feel and trim fail centering mechanism assembly.



ICN-88277-G2721357-005-01

## **TO 1300i-2-27JG-20-3**

9. (A,B) Disconnect electrical connectors.
10. (A,B) Remove nuts, washers, and bolts from clamps.
11. (A,B) Remove nuts, washers, bolts, and rudder trim and simulated load feel control assembly.



ICN-88277-G2721118-005-01



# RUDDER TRIM AND SIMULATED LOAD FEEL CONTROL ASSEMBLY INSTALLATION (27-21-15-3)

## FUNCTIONAL INPUT CONDITIONS:

### Applicability:

All

### Task

All

### Additional information:

This procedure consists of the following tasks:

- 3-1. Installation.
- 3-2. Follow-on maintenance.

### Additional data:

TO 1300i-2-05JG-10-1

TO 1300i-2-22JG-10-2

TO 1300i-2-25JG-10-1

TO 1300i-2-27JG-20-1

TO 1300i-2-27JG-20-6

TO 1300i-2-53JG-10-1

TO 1300i-23

### Task

3-1

3-2

3-2

3-1,  
3-2

3-2

3-2

All

### Personnel recommended:

Two

### Task

All

Person (A) performs task.

Person (B) assists person (A).

Safety conditions:

Task



The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All



## Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

## Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Pin, Cotter	MS24665-151	--	4	3-1
Sealant	PR-1775 B-2	AMS 3265	AR	All
Tape, Sealing	GSC-21-80902-00	--	AR	3-2
Wire, Safety	MS20995C20	--	AR	3-1

3-1. INSTALLATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
- 4. (A,B) Position rudder trim and simulated load feel control assembly and install bolts, washers, and nuts.
- 5. (A,B) Connect electrical connectors as follows:

CONNECTOR	JUNCTION
P1	2213JE001
P2	2213JE002
P3	2213JE003
P4	2213JE004

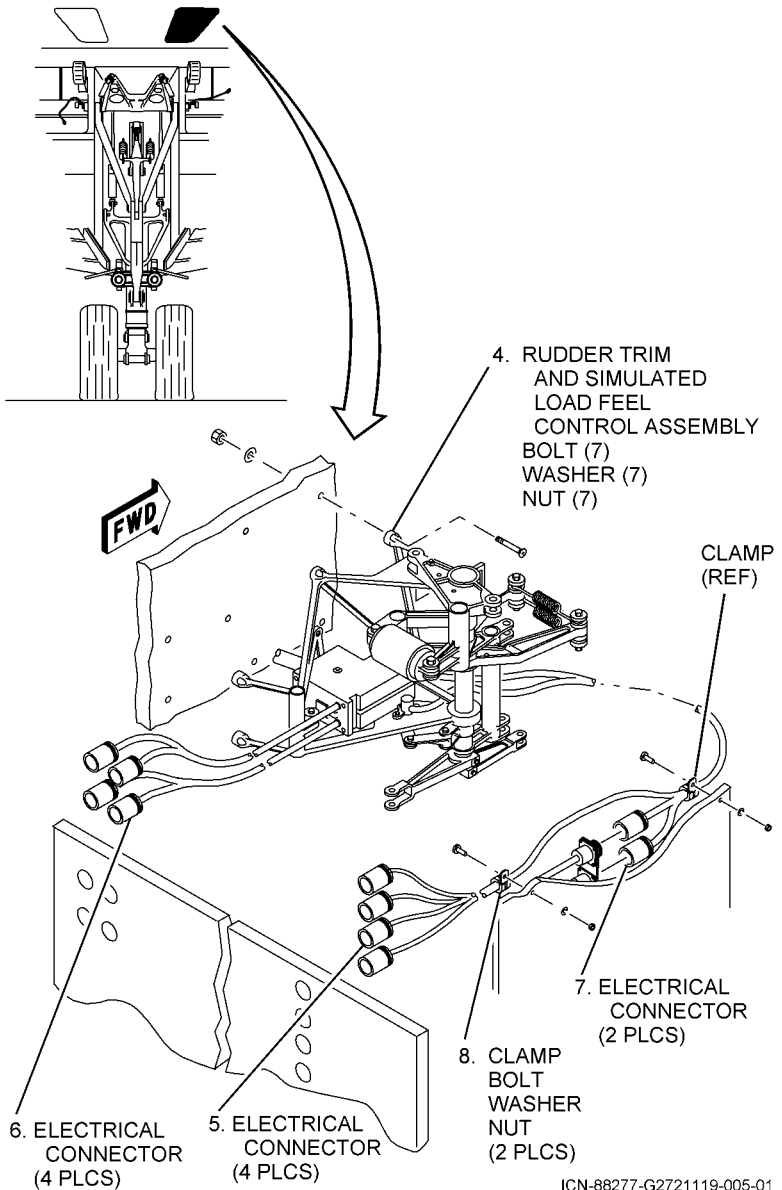
- 6. (A,B) Connect electrical connectors as follows:

CONNECTOR	JUNCTION
P1	2213JE001
P2	2213JE002
P3	2213JE003
P4	2213JE004

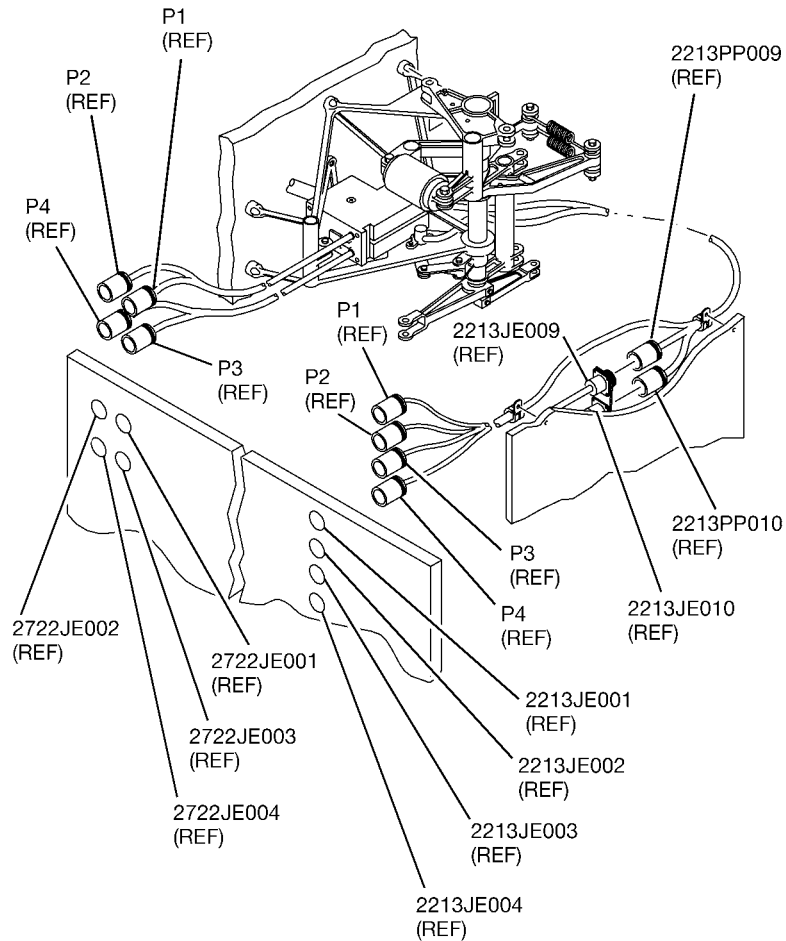
- 7. (A,B) Connect electrical connectors as follows:

CONNECTOR	JUNCTION
2213PP009	2213JE009
2213PP010	2213JE010

- 8. (A,B) Position clamps and install bolts, washers, and nuts.



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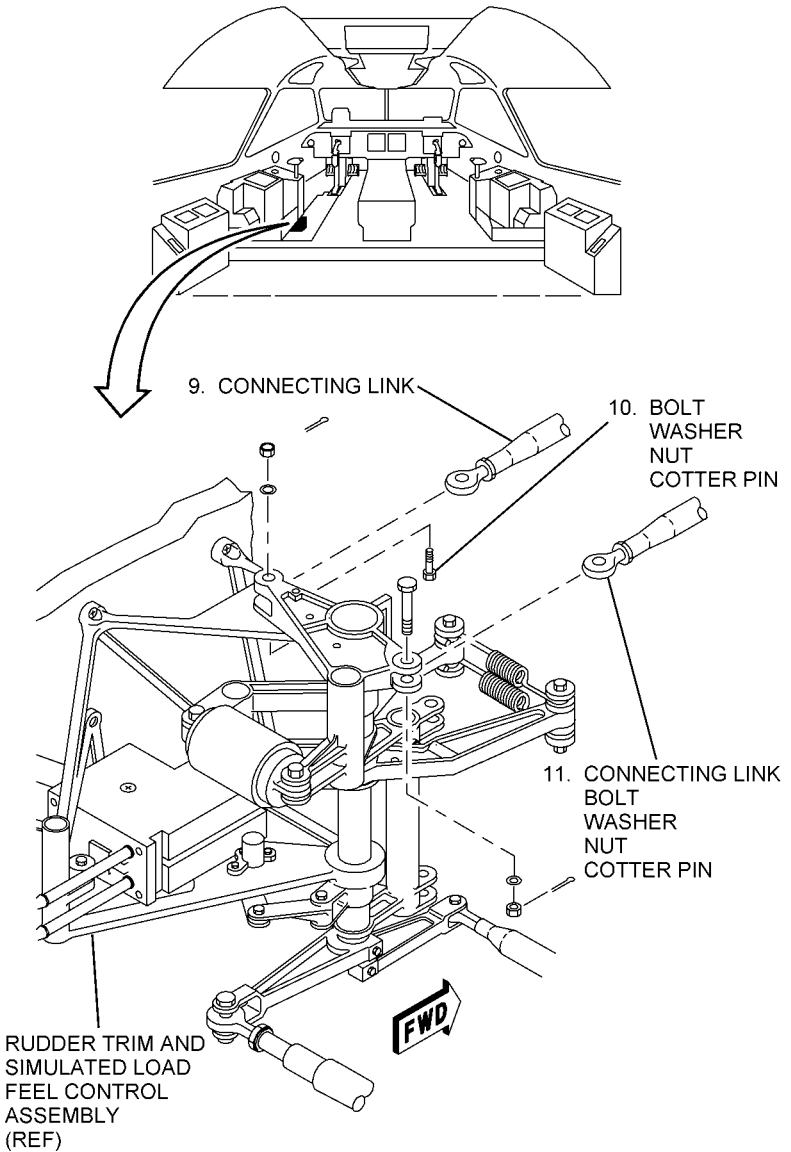
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Bolt head shall be safety wired attaching wire to crank assembly as noted during removal. Safety wire pigtail shall not make contact with support frame. Failure to comply may cause damage to aircraft.

9. (A,B) Position connecting link on rudder trim and simulated load feel control assembly.
10. (A) Install bolt, washer, nut, and cotter pin; secure with safety wire.
11. (A) Position connecting link; install bolt, washer, nut, and cotter pin.

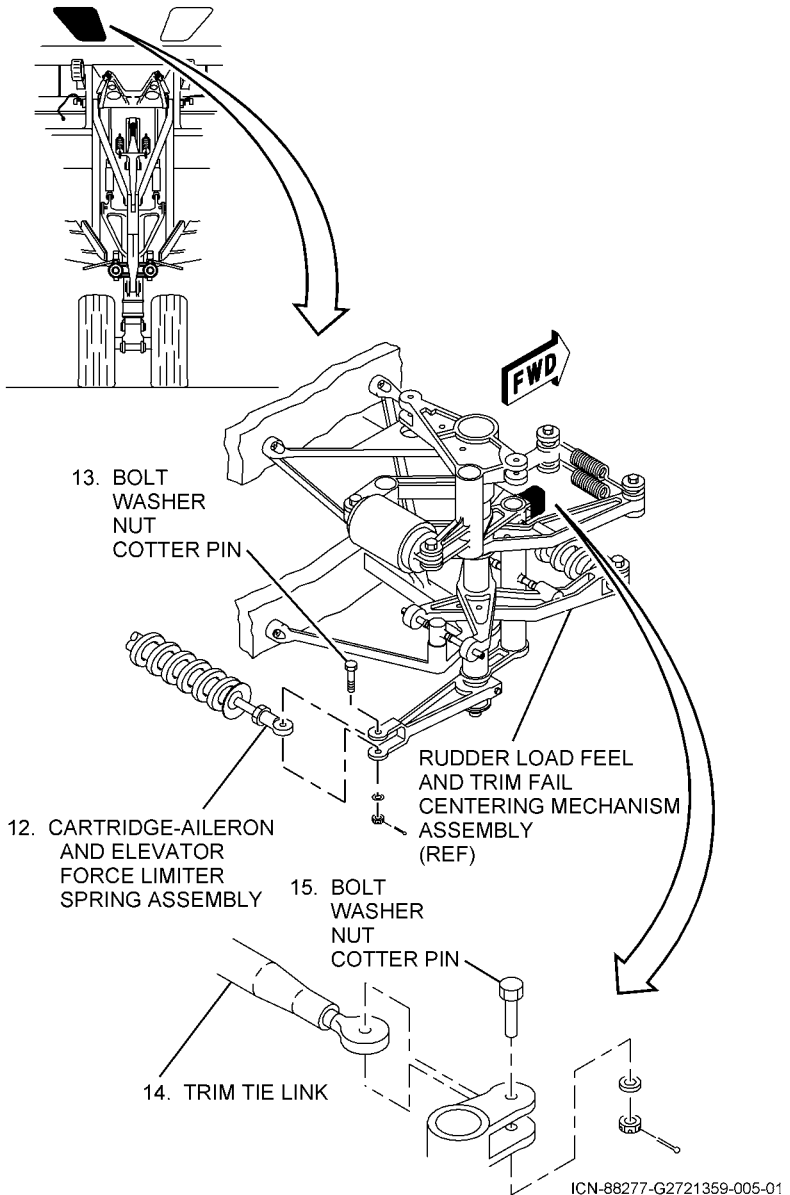


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## **TO 1300i-2-27JG-20-3**

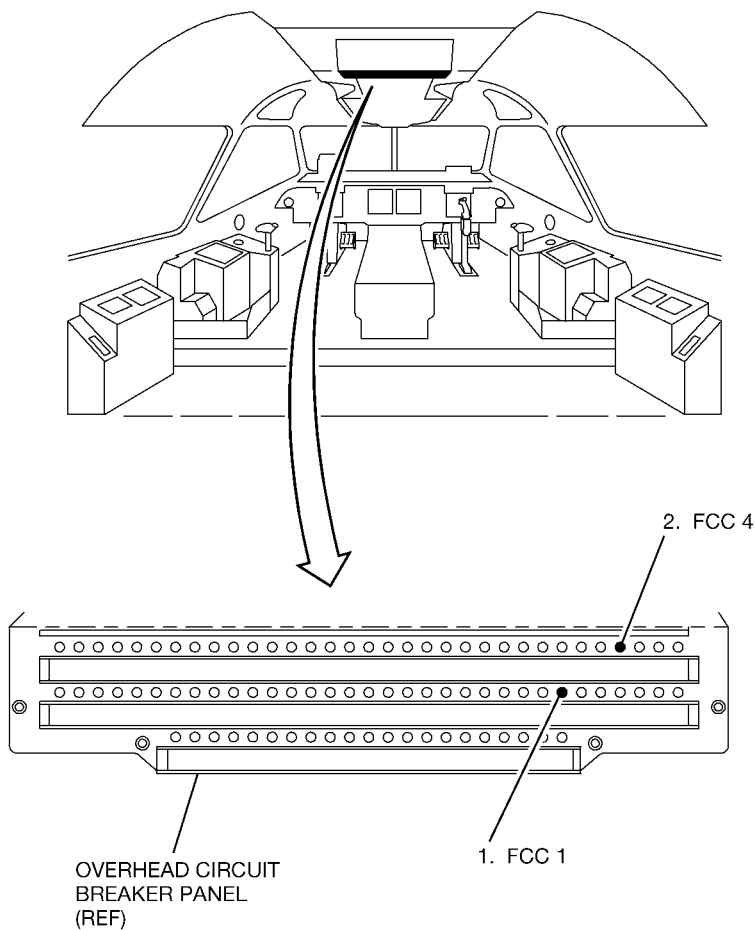
12. (A,B) Position cartridge-aileron and elevator force limiter spring assembly on rudder load feel and trim fail centering mechanism assembly.
13. (A,B) Install bolt, washer, nut, and cotter pin.
14. (A,B) Position trim tie link on rudder load feel and trim fail centering mechanism assembly.
15. (A,B) Install bolt, washer, nut, and cotter pin.
16. Remove rudder aircraft ground safety lock (05-10-01, task 01-2).
17. Perform rudder mechanical controls and surfaces system adjustment (27-21-02, task 02-2).





## **3-2. FOLLOW-ON MAINTENANCE.**

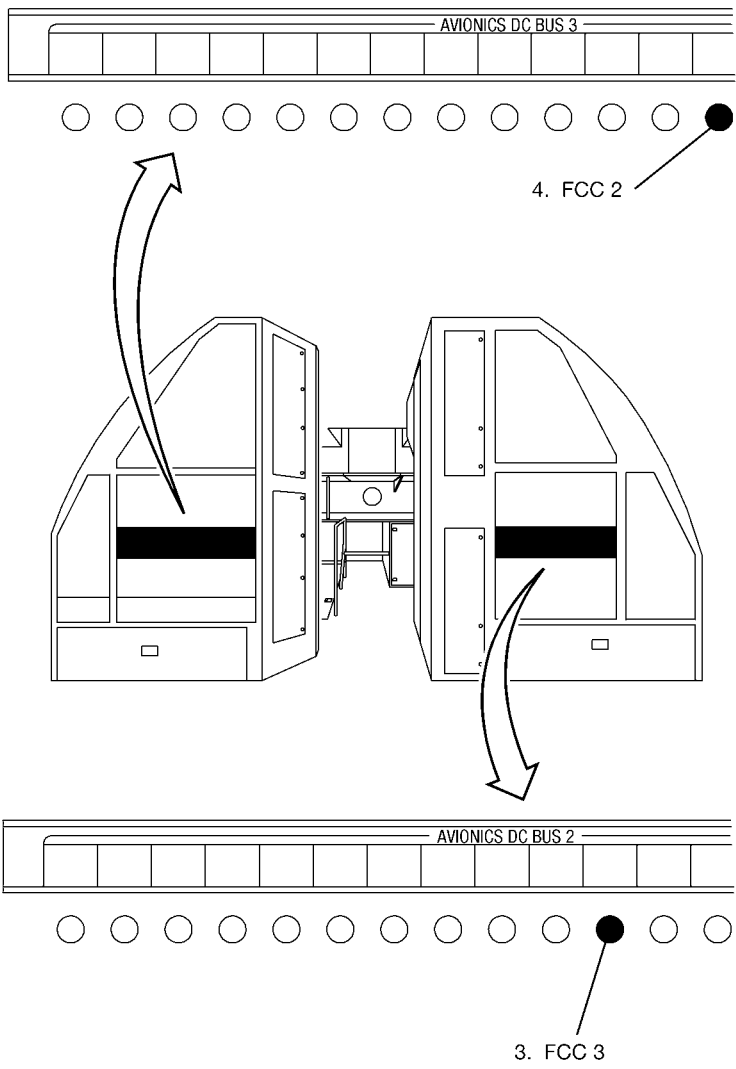
1. (A) Remove warning tag and close **FCC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **27**.
2. (A) Remove warning tag and close **FCC 4** circuit breaker on overhead circuit breaker panel, row **G**, column **30**.



ICN-88277-G2721120-003-01

## **TO 1300i-2-27JG-20-3**

3. (A) Remove warning tag and close **FCC 3** circuit breaker on Electrical Power Center (EPC), row **T**, column **24**.
4. (A) Remove warning tag and close **FCC 2** circuit breaker on EPC, row **T**, column **50**.
5. Perform rudder system operational checkout (27-20-01).
6. Perform rudder mechanical controls and surface system operational checkout (27-21-01).
7. Perform rudder trim follow-up actuator maintenance built-in test (27-22-10, task 1-1).
8. Perform yaw system operational checkout (22-13-01).

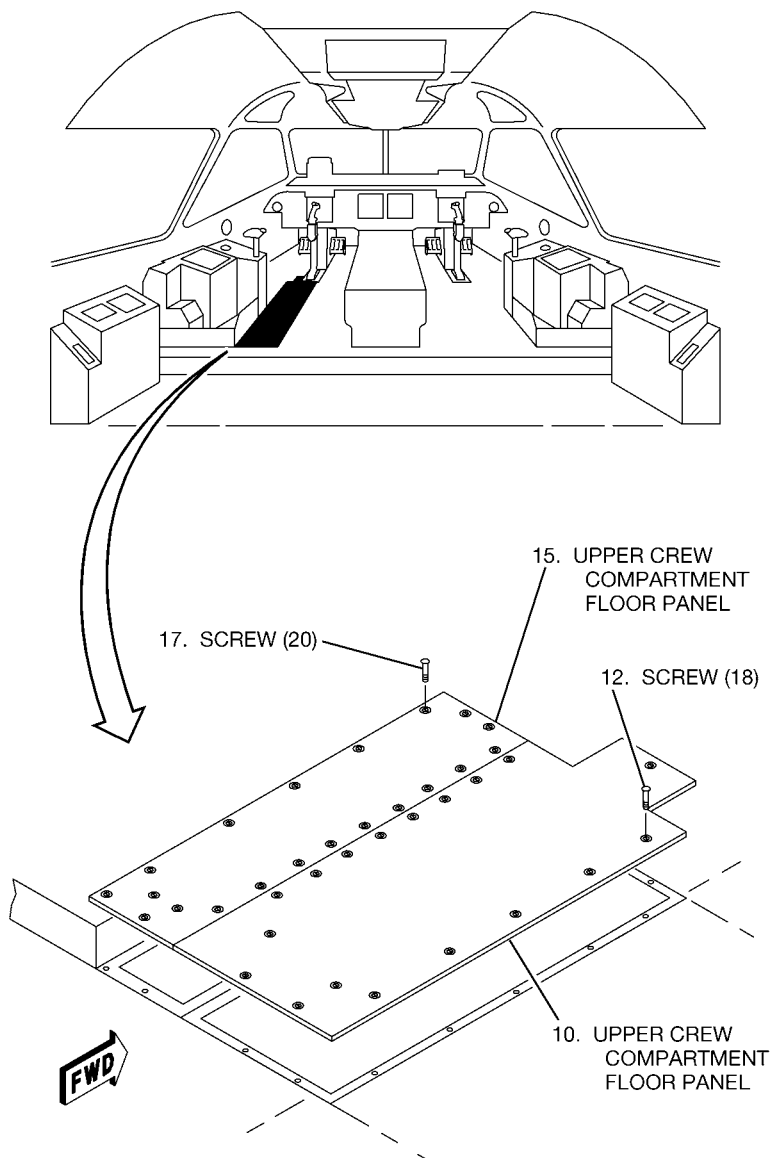


ICN-88277-G2721121-005-01

## TO 1300i-2-27JG-20-3

9. Perform tape type sealing (TO 1300i-23, Chapter 1, Section III).
10. (A,B) Position upper crew compartment floor panel (213BZY).
11. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
12. (A,B) Install screws as identified.
13. Perform floor panel sealing (TO 1300i-23, Chapter 1, Section III).
14. Perform tape type sealing (TO 1300i-23, Chapter 1, Section III).
15. (A,B) Position upper crew compartment floor panel (213CZY).
16. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
17. (A,B) Install screws as identified.
18. Perform floor panel sealing (TO 1300i-23, Chapter 1, Section III).
19. Install pilot aircraft seat (25-11-10).
20. Install horizontal pressure panel access cover assemblies (53-12-10).

PANEL NO.	PANEL REF DES
112AZP	5312CA001
112BZP	5312CA002



ICN-88277-G2721458-001-01





# RUDDER TRIM AND SIMULATED LOAD FEEL CONTROL ASSEMBLY REPAIR (27-21-15-4)

## FUNCTIONAL INPUT CONDITIONS:

### Applicability:

All

### Task

All

### Additional information:

This procedure consists of the following task:

- 4-1. Repair rudder trim and simulated load feel control assembly by replacing both springs.

### Additional data:

TO 1300i-2-05JG-10-1

TO 1300i-2-27JG-20-1

TO 1300i-2-53JG-10-1

### Task

All

All

All

### Personnel recommended:

One

### Task

All

Safety conditions:

Task



The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All

### Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

### Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

4-1. REPAIR RUDDER TRIM AND SIMULATED  
LOAD FEEL CONTROL ASSEMBLY BY  
REPLACING BOTH SPRINGS.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Install rudder aircraft ground safety lock (05-10-01, task 01-1).
- 4. Remove horizontal pressure panel access cover assembly (53-12-10).

PANEL NO.	PANEL REF DES
112AZP	5312CA001

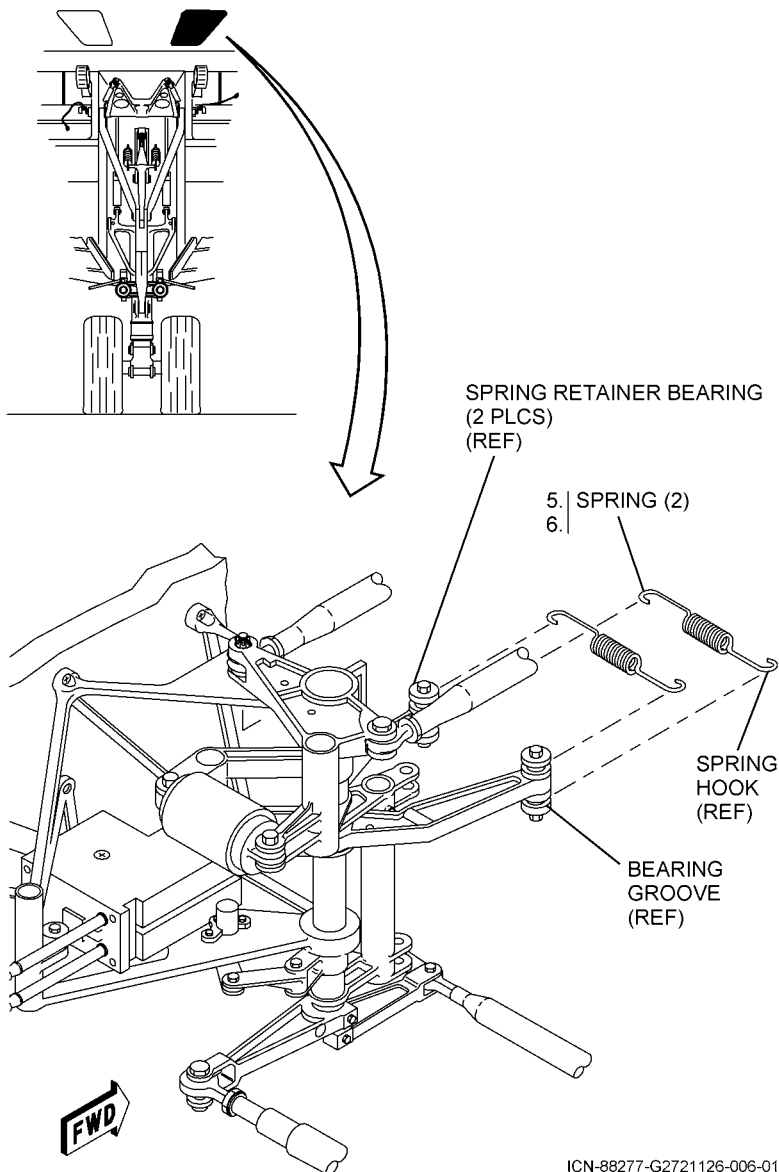
- 5. Remove springs from spring retainer bearings.

NOTE

- When installing spring, the springs hook shall be properly installed in the bearing groove.
- Rudder load feel springs shall always be replaced in pairs with matching part and dash number.

- 6. Install both springs on bearings.
- 7. Perform rudder system operational checkout (27-20-01).
- 8. Install horizontal pressure panel access cover assembly (53-12-10).

PANEL NO.	PANEL REF DES
112AZP	5312CA001



ICN-88277-G2721126-006-01



# **RUDDER LOAD FEEL AND TRIM FAIL CENTERING MECHANISM ASSEMBLY (27-21-16)**

## **MASTER INPUT CONDITIONS:**

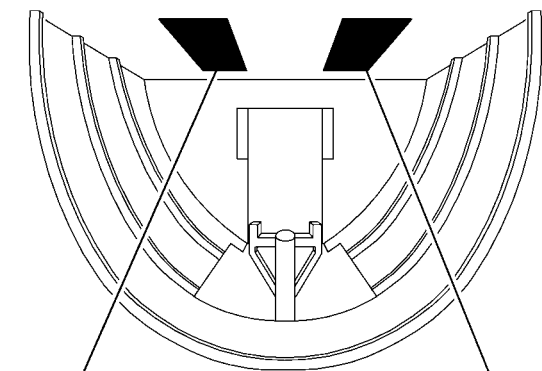
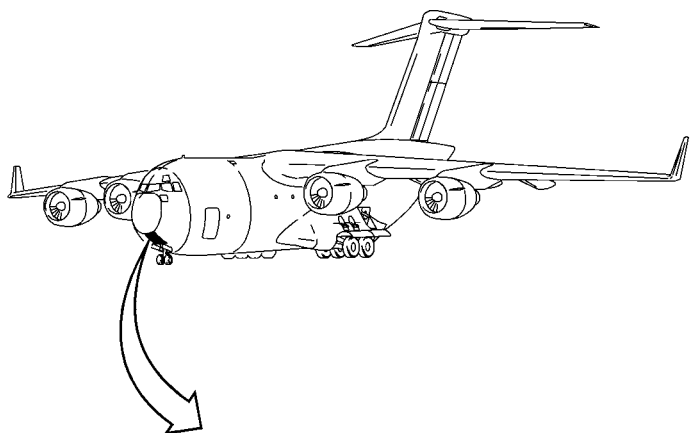
### **Reference designators:**

2721AA021	Rudder Load Feel and Trim Fail Centering Mechanism Assembly
-----------	--

### **Applicable functions:**

- 2 Removal.
- 3 Installation.
- 4 Repair.

Access data:



PRESSURE PANEL  
(112BZP)

PRESSURE PANEL  
(112AZP)

ICN-88277-G2721131-002-01



# **RUDDER LOAD FEEL AND TRIM FAIL CENTERING MECHANISM ASSEMBLY REMOVAL (27-21-16-2)**

## **FUNCTIONAL INPUT CONDITIONS:**

### **Applicability:**

	<b>Task</b>
All	All

### **Additional information:**

This procedure consists of the following tasks:

- 2-1. Preparation.
- 2-2. Removal.

### **Additional data:**

	<b>Task</b>
TO 1300i-2-05JG-10-1	2-1
TO 1300i-2-25JG-10-1	2-1
TO 1300i-2-53JG-10-1	2-1

### **Personnel recommended:**

	<b>Task</b>
Two	All
Person (A) performs task.	
Person (B) assists person (A).	

**Safety conditions:**

**Task**

**WARNING**

The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All

### Support equipment:

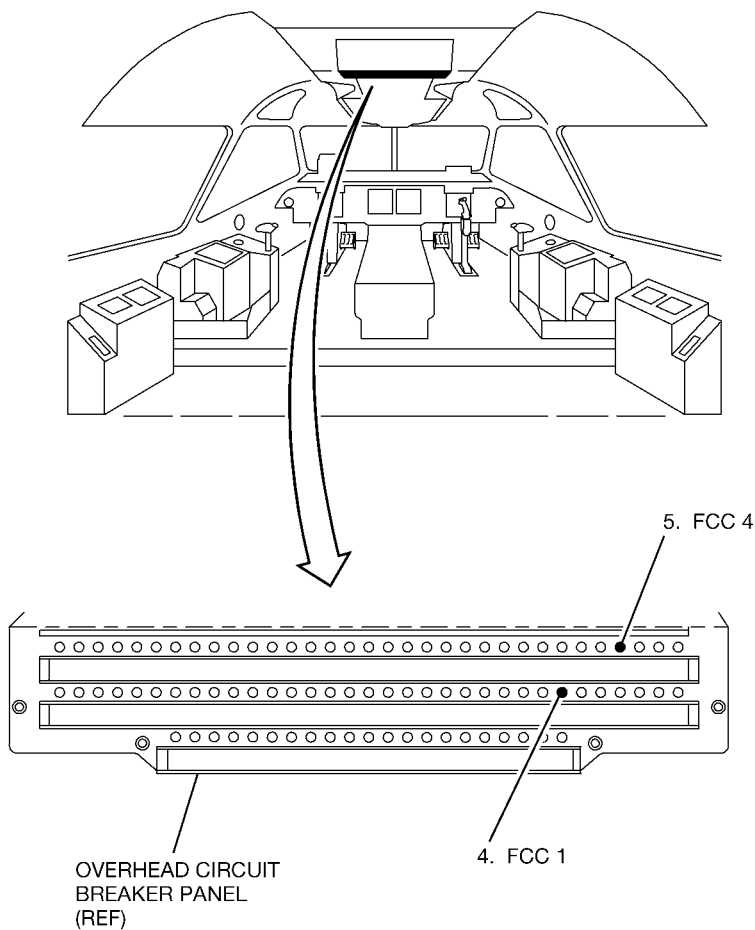
<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

### Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Tag, Warning	--	--	4	2-1

## **2-1. PREPARATION.**

1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Install rudder aircraft ground safety lock (05-10-01, task 01-1).
4. (A) Open **FCC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **27**, and attach warning tag.
5. (A) Open **FCC 4** circuit breaker on overhead circuit breaker panel, row **G**, column **30**, and attach warning tag.

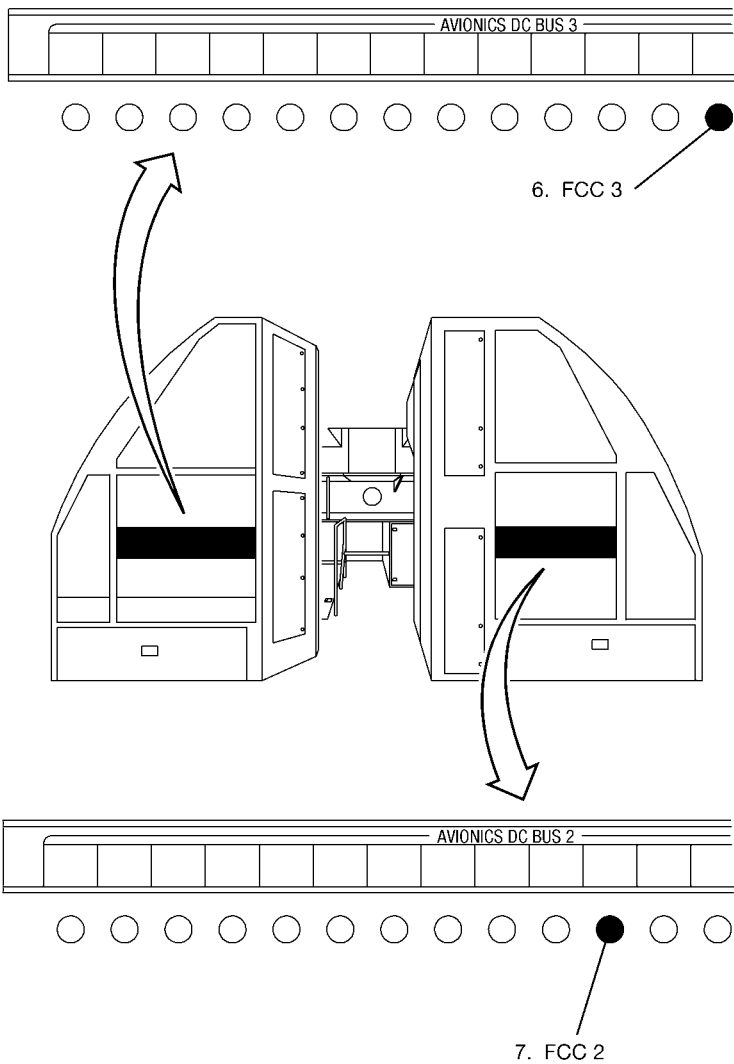


ICN-88277-G2721132-003-01

**TO 1300i-2-27JG-20-3**

- 6. (A) Open **FCC 3** circuit breaker on Electrical Power Center (EPC), row **T**, column **24**, and attach warning tag.
- 7. (A) Open **FCC 2** circuit breaker on EPC, row **T**, column **50**, and attach warning tag.
- 8. Remove horizontal pressure panel access cover assemblies (53-12-10).

PANEL NO.	PANEL REF DES
112AZP	5312CA001
112BZP	5312CA002



ICN-88277-G2721133-002-01

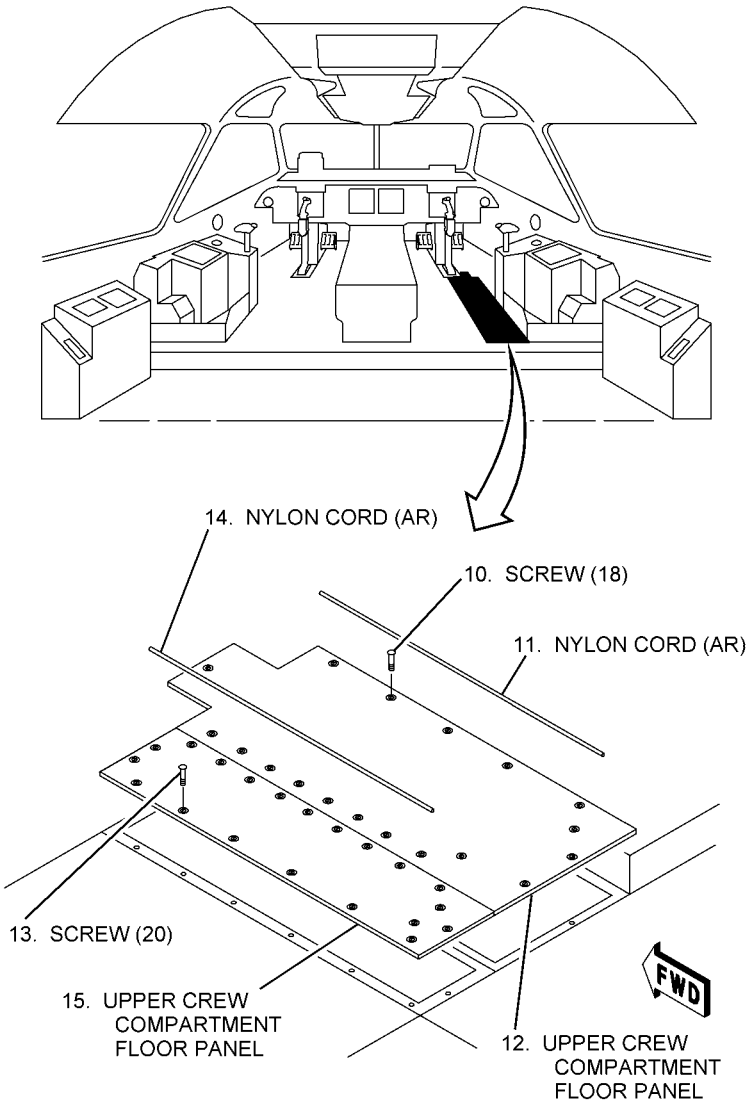
9. Remove pilot/copilot seat assembly (25-11-10).
10. (A,B) Identify and remove screws from upper crew compartment floor panel (214BZY).

**NOTE**

Nylon cords are being eliminated by attrition, not all floor panels will have nylon cords.

11. (A,B) Remove and discard nylon cords.
12. (A,B) Remove upper crew compartment floor panel.
13. (A,B) Identify and remove screws from upper crew compartment floor panel (212DZY).
14. (A,B) Remove and discard nylon cords.
15. (A,B) Remove upper crew compartment floor panel.





ICN-88277-G2721136-005-01

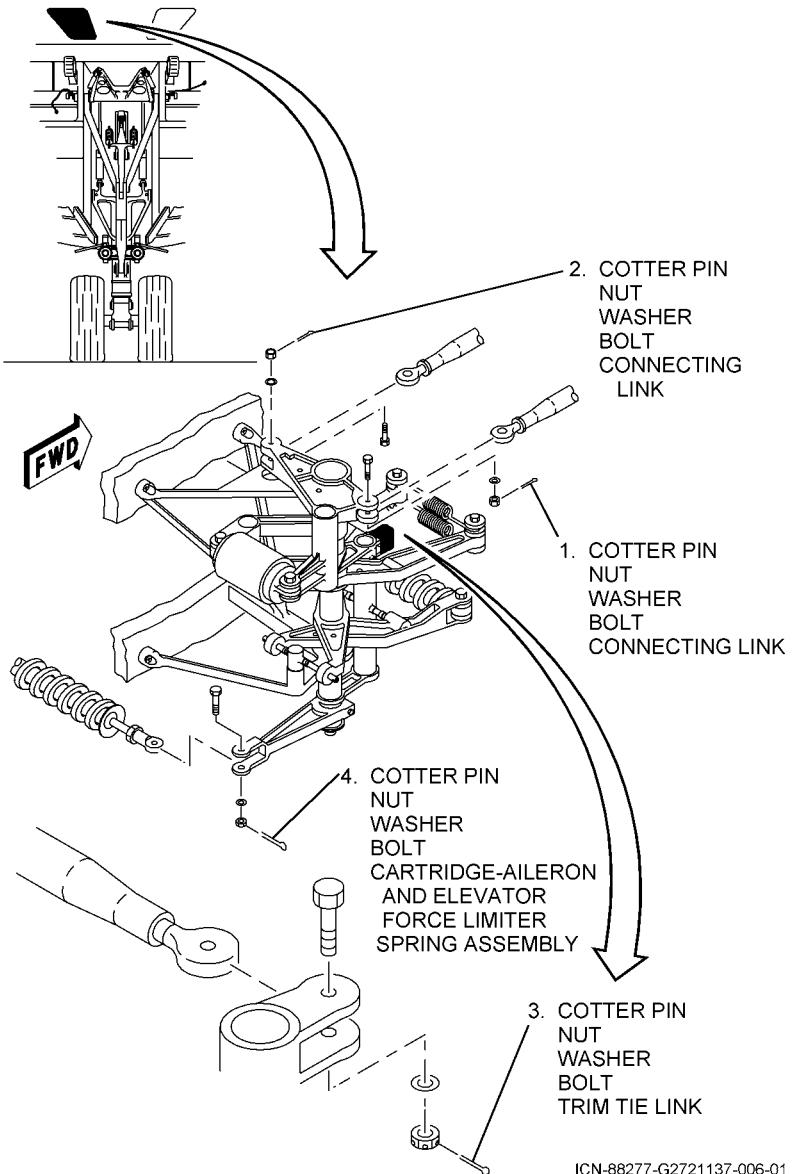
## **2-2. REMOVAL.**

1. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect connecting link.

### **NOTE**

Prior to removing any hardware, the orientation of safety wire shall be noted to aid during installation.

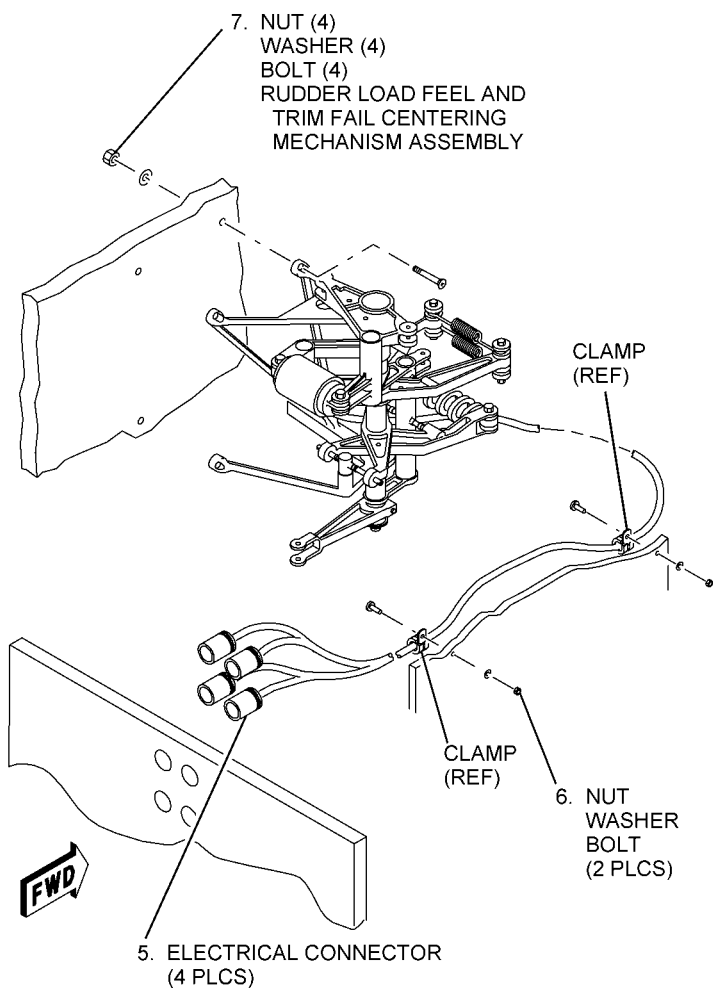
2. (A,B) Remove safety wire, cotter pin, nut, washer, bolt, and disconnect connecting link.
3. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect trim tie link.
4. (A,B) Remove cotter pin, nut, washer, bolt, and disconnect cartridge-aileron and elevator force limiter spring assembly.



ICN-88277-G2721137-006-01

## **TO 1300i-2-27JG-20-3**

5. (A,B) Disconnect electrical connectors.
6. (A,B) Remove nuts, washers, and bolts from clamps.
7. (A,B) Remove nuts, washers, bolts and rudder load feel and trim fail centering mechanism assembly.



ICN-88277-G2721138-005-01



# RUDDER LOAD FEEL AND TRIM FAIL CENTERING MECHANISM ASSEMBLY INSTALLATION (27-21-16-3)

## FUNCTIONAL INPUT CONDITIONS:

### Applicability:

All

### Task

All

### Additional information:

This procedure consists of the following tasks:

- 3-1. Installation.
- 3-2. Follow-on maintenance.

### Additional data:

TO 1300i-2-05JG-10-1

3-1

TO 1300i-2-22JG-10-2

3-2

TO 1300i-2-25JG-10-1

3-2

TO 1300i-2-27JG-20-1

3-1,  
3-2

TO 1300i-2-53JG-10-1

3-2

TO 1300i-23

All

### Personnel recommended:

Two

### Task

All

Person (A) performs task.

Person (B) assists person (A).

Safety conditions:

Task



The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All



## Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

## Supplies:

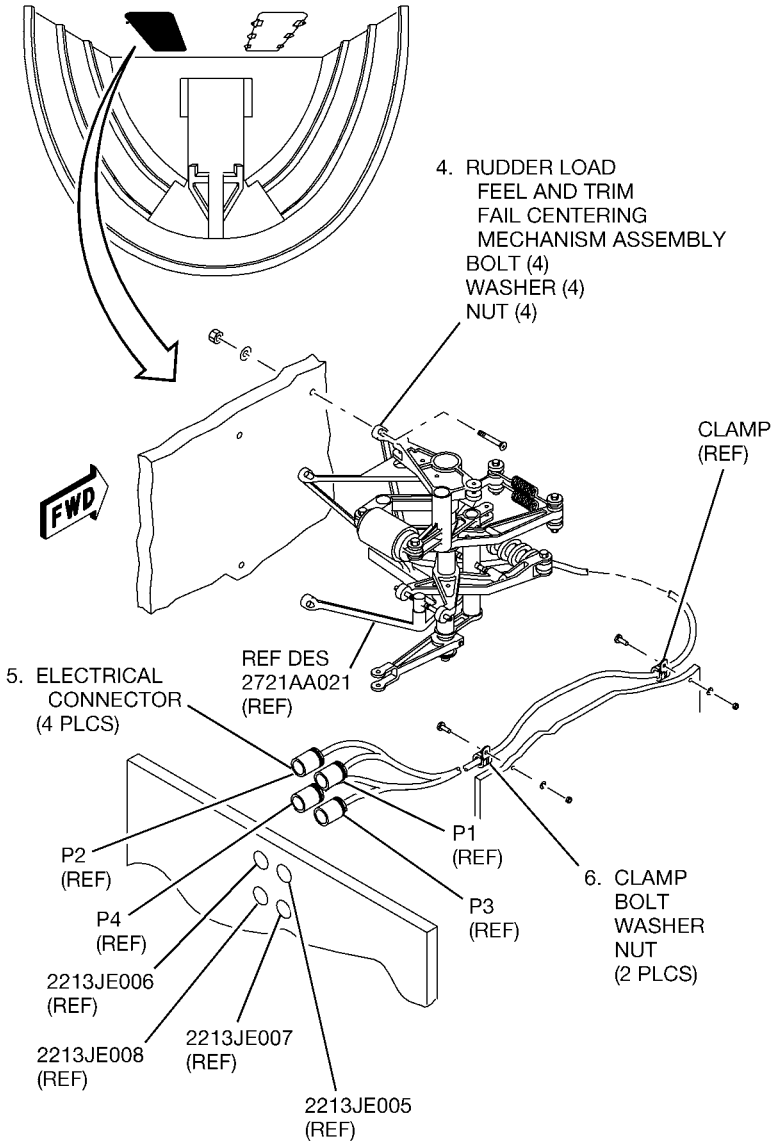
<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Pin, Cotter	MS24665-151	--	AR	3-1
Sealant	PR-1775 B-2	AMS 3265	AR	All
Tape, Sealing	GSC-21-80902-00	--	AR	3-2
Wire, Safety	MS20995C20	--	AR	3-1

3-1. INSTALLATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
- 4. (A,B) Position rudder load feel and trim fail centering mechanism assembly and install bolts, washers, and nuts.
- 5. (A,B) Connect electrical connectors as follows:

CONNECTOR	JUNCTION
P1	2213JE005
P2	2213JE006
P3	2213JE007
P4	2213JE008

- 6. (A,B) Position clamps and install bolts, washers, and nuts.

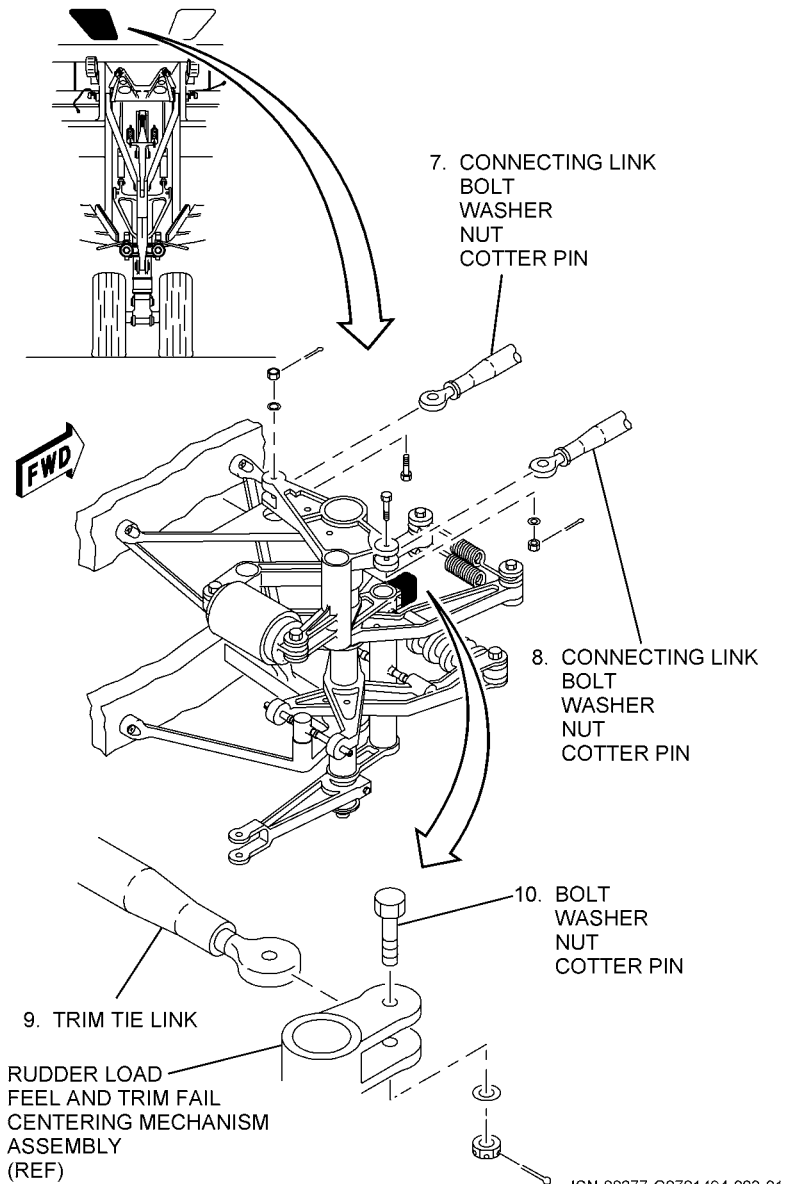


ICN-88277-G2721139-004-01



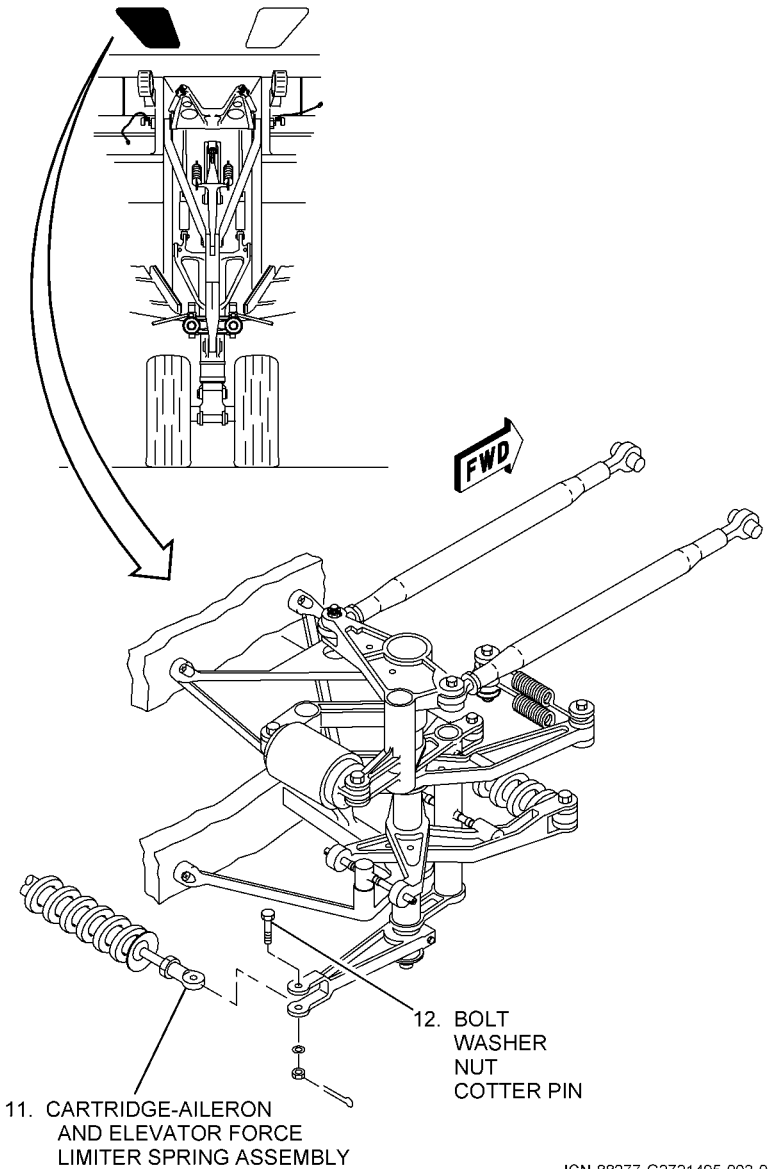
Bolt head shall be safety wired attaching wire to crank assembly as noted during removal. Safety wire pigtail shall not make contact with support frame. Failure to comply may cause damage to aircraft.

7. (A,B) Position connecting link; install bolt, washer, nut, cotter pin and safety wire.
8. (A,B) Position connecting link; install bolt, washer, nut, and cotter pin and safety wire.
9. (A,B) Position trim tie link on rudder load feel and trim fail centering mechanism assembly.
10. (A,B) Install bolt, washer, nut, and cotter pin.



## **TO 1300i-2-27JG-20-3**

11. (A,B) Position cartridge-aileron and elevator force limiter spring assembly on rudder load feel and trim centering mechanism assembly.
12. (A,B) Install bolt, washer, nut, and cotter pin.
13. Remove rudder aircraft ground safety lock (05-10-01, task 01-2).
14. Perform rudder mechanical controls and surfaces system adjustment (27-21-02, task 02-2).

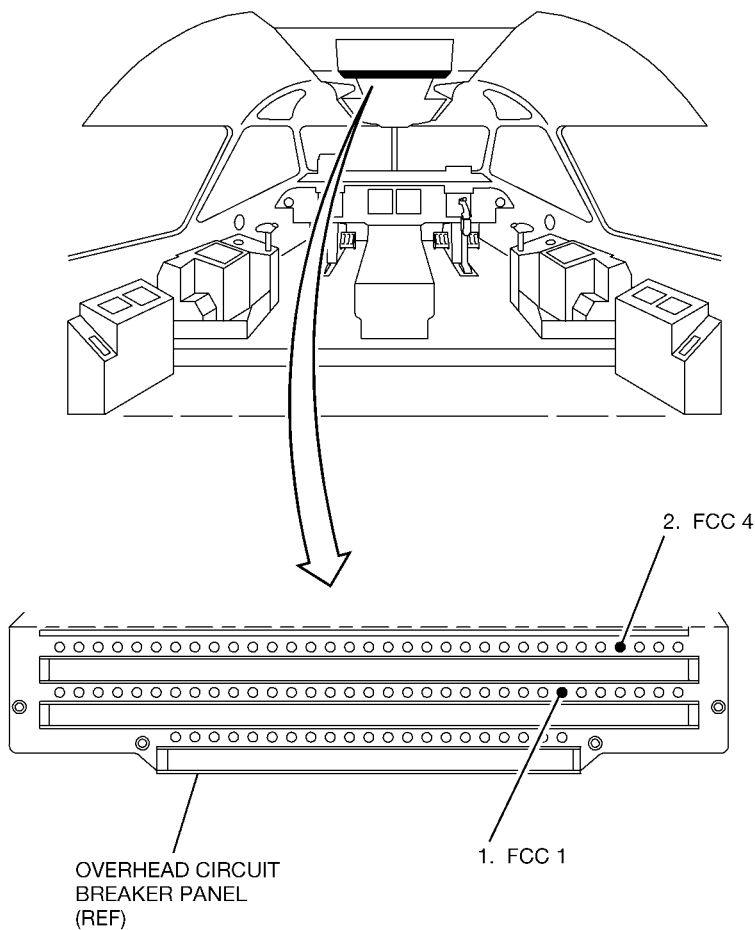


ICN-88277-G2721495-003-01

## **3-2. FOLLOW-ON MAINTENANCE.**

1. (A) Remove warning tag and close **FCC 1** circuit breaker on overhead circuit breaker panel, row **H**, column **27**.
2. (A) Remove warning tag and close **FCC 4** circuit breaker on overhead circuit breaker panel, row **G**, column **30**.

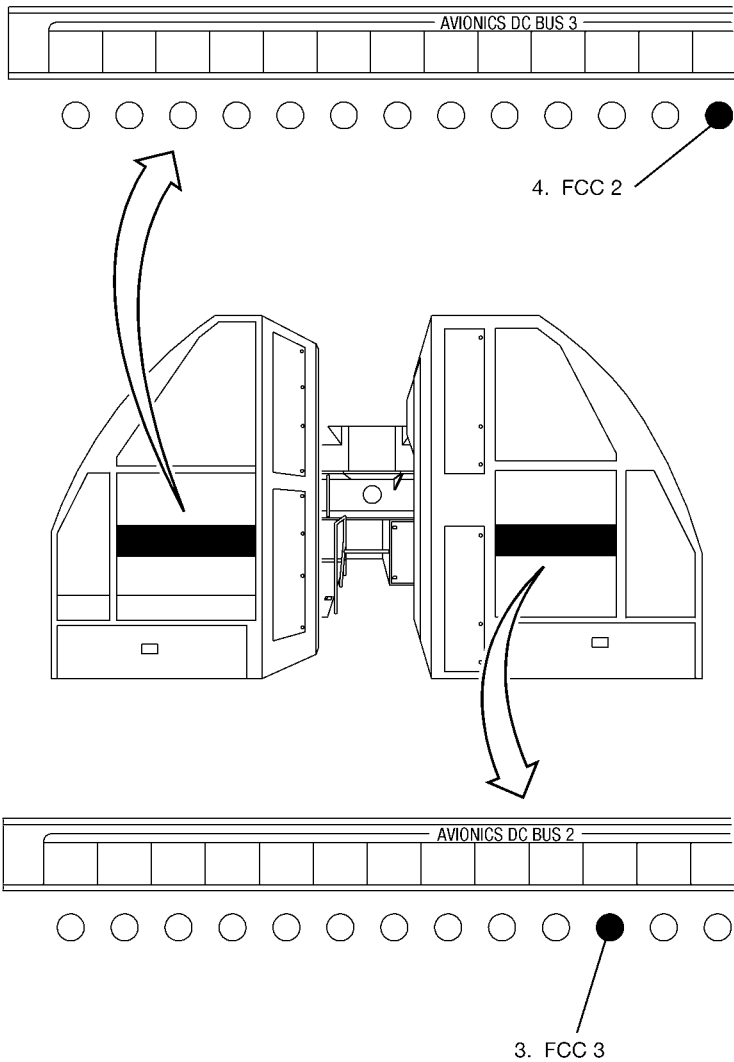




ICN-88277-G2721140-003-01

## **TO 1300i-2-27JG-20-3**

3. (A) Remove warning tag and close **FCC 3** circuit breaker on Electrical Power Center (EPC), row **T**, column **24**.
4. (A) Remove warning tag and close **FCC 2** circuit breaker on EPC, row **T**, column **50**.
5. Perform yaw system operational checkout (22-13-01).
6. Perform rudder system operational checkout (27-20-01).

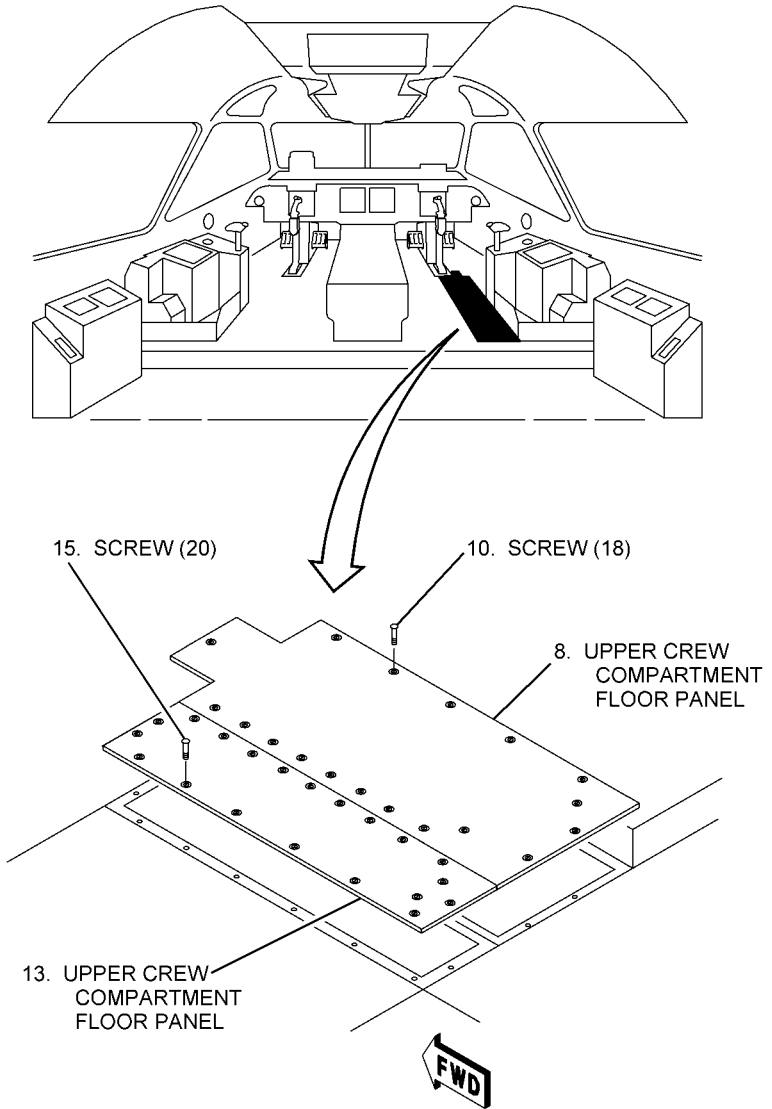


ICN-88277-G2721141-004-01

## TO 1300i-2-27JG-20-3

7. Perform tape type sealing (TO 1300i-23, Chapter 1, Section III).
8. (A,B) Position upper crew compartment floor panel (214BZY).
9. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
10. (A,B) Install screws as identified.
11. Perform floor panel sealing (TO 1300i-23, Chapter 1, Section III).
12. Perform tape type sealing (TO 1300i-23, Chapter 1, Section III).
13. (A,B) Position upper crew compartment floor panel (212DZY).
14. Perform fastener head sealing (TO 1300i-23, Chapter 1, Section III).
15. (A,B) Install screws as identified.
16. Perform floor panel sealing (TO 1300i-23, Chapter 1, Section III).
17. Install pilot/copilot seat assembly (25-11-10).
18. Install horizontal pressure panel access cover assemblies (53-12-10).

PANEL NO.	PANEL REF DES
112AZP	5312CA001
112BZP	5312CA002



ICN-88277-G2721459-003-01



# **RUDDER LOAD FEEL AND TRIM FAIL CENTERING MECHANISM ASSEMBLY REPAIR (27-21-16-4)**

## **FUNCTIONAL INPUT CONDITIONS:**

### **Applicability:**

	<b>Task</b>
All	All

### **Additional information:**

This procedure consists of the following task:

- 4-1. Repair rudder load feel and trim fail centering mechanism assembly by replacing both springs.

### **Additional data:**

	<b>Task</b>
TO 1300i-2-05JG-10-1	All
TO 1300i-2-27JG-20-1	All
TO 1300i-2-53JG-10-1	All

### **Personnel recommended:**

	<b>Task</b>
One	All

**Safety conditions:**

**Task**

**WARNING**

The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All



### Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

### Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

4-1. REPAIR RUDDER LOAD FEEL AND TRIM FAIL  
CENTERING MECHANISM ASSEMBLY BY  
REPLACING BOTH SPRINGS.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Install rudder aircraft ground safety lock (05-10-01, task 01-1).
- 4. Remove horizontal pressure panel access cover assembly (53-12-10).

PANEL NO.	PANEL REF DES
112BZP	5312CA002

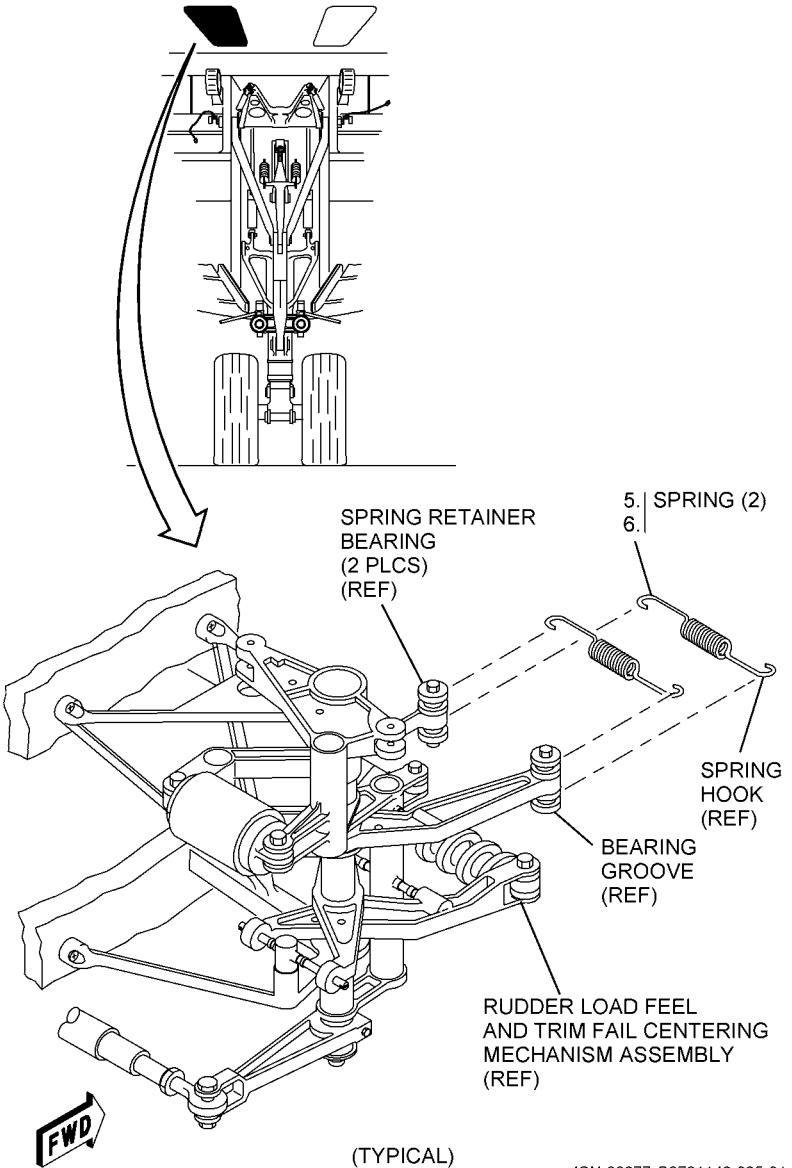
- 5. Remove springs from spring retainer bearings.

NOTE

- When installing spring, the spring hook shall be properly installed in the bearing groove.
- Rudder load feel springs shall always be replaced in pairs with matching part and dash number.

- 6. Install springs on bearings.
- 7. Perform rudder system operational checkout (27-21-01, task 01-1).
- 8. Install horizontal pressure panel access cover assembly (53-12-10).

PANEL NO.	PANEL REF DES
112BZP	5312CA002



ICN-88277-G2721146-005-01



# **FORWARD RUDDER MECHANISM ASSEMBLY (27-21-17)**

## **MASTER INPUT CONDITIONS:**

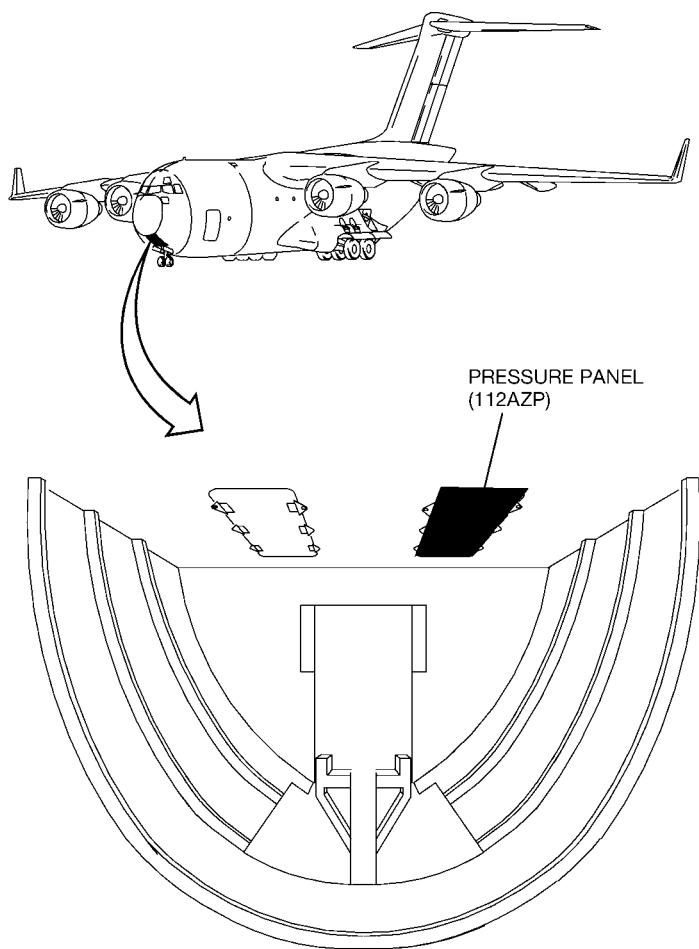
### **Reference designators:**

2721AA024                      Forward Rudder Mechanism Assembly

### **Applicable functions:**

- 2 Removal.
- 3 Installation.

Access data:



ICN-88277-G2721129-002-01

# FORWARD RUDDER MECHANISM ASSEMBLY REMOVAL (27-21-17-2)

## FUNCTIONAL INPUT CONDITIONS:

### Applicability:

All

### Task

All

### Additional information:

This procedure consists of the following tasks:

- 2-1. Preparation.
- 2-2. Removal.

### Additional data:

TO 1300i-2-05JG-10-1

TO 1300i-2-25JG-10-1

TO 1300i-2-53JG-10-1

### Task

2-1

2-1

2-1

### Personnel recommended:

One

Two

Person (A) performs task.

Person (B) assists person (A).

### Task

2-1

2-2

**Safety conditions:**

**Task**

**WARNING**

The horizontal pressure panel access cover(s) are removed in these tasks to gain access to the cavity above. When rudder, aileron, and elevator aircraft ground safety locks are not installed, care shall be taken working around rudder, aileron, and elevator cables, pulleys, and linkage due to possible moving parts. Failure to comply may cause injury to personnel.

All



## Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Kit, Rig Pin	17G140015-1	--	--	--
Assembly, Clamp	17G140015-7	--	1	2-1
Tool, Turnbuckle Adjustment	17G140019-1	--	1	2-1

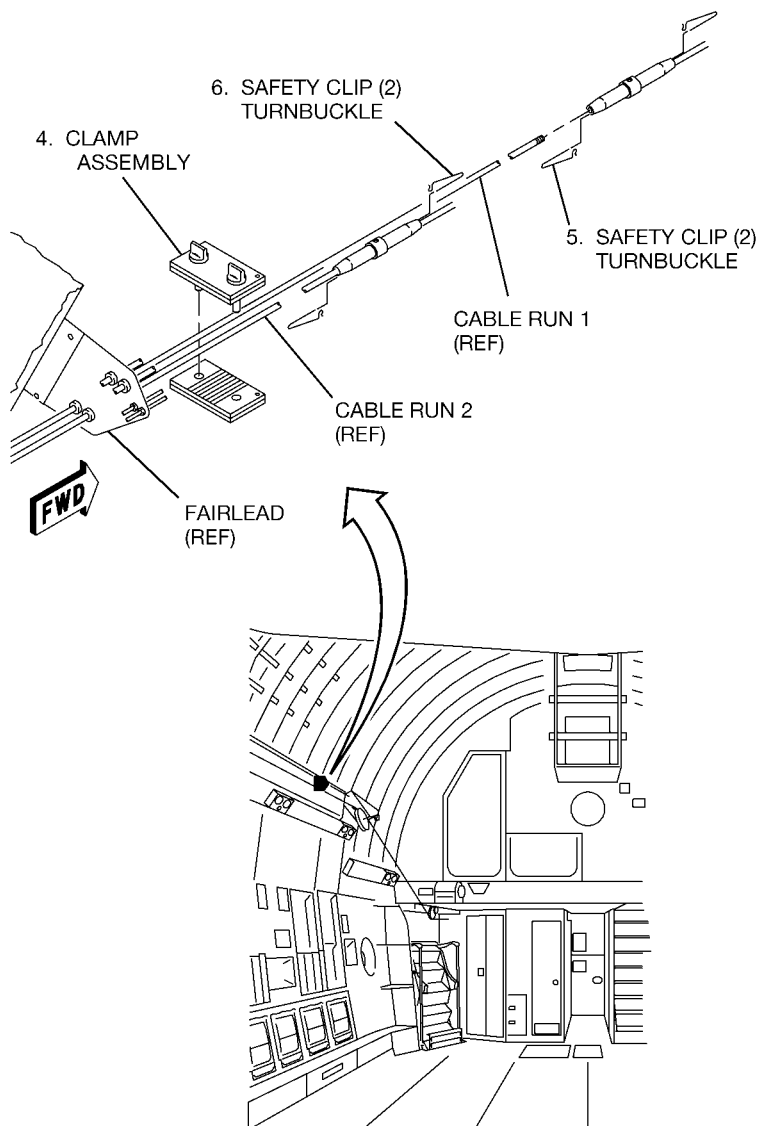
## Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

2-1. PREPARATION.

- 1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
- 2. Review task "Functional Input Conditions" page for task specific safety conditions.
- 3. Install rudder aircraft ground safety lock (05-10-01, task 01-1).
- 4. Install clamp assembly on cable runs 1 and 2 forward of fairlead at Station (STA) 511.
- 5. Remove and discard safety clips; loosen turnbuckle on cable run 1 at STA 485.
- 6. Remove and discard safety clips; loosen turnbuckle on cable run 2 at STA 444.
- 7. Remove horizontal pressure panel access cover assembly (53-12-10).

PANEL NO.	PANEL REF DES
112AZP	5312CA001



ICN-88277-G2721130-003-01

## **TO 1300i-2-27JG-20-3**

8. Remove pilot seat assembly (25-11-10).
9. Identify and remove screws from upper crew compartment floor panel (211AZY).

### **NOTE**

Nylon cords are being eliminated by attrition, not all floor panels will have nylon cords.

10. Remove and discard nylon cords.
11. Remove upper crew compartment floor panel (211AZY).
12. Identify and remove screws from upper crew compartment floor panel (213CZY).
13. Remove and discard nylon cords.
14. Remove upper crew compartment floor panel (213CZY).