

TO 1300i-2-27JG-10-3

TECHNICAL MANUAL

JOB GUIDE

ORGANIZATIONAL MAINTENANCE

FLIGHT CONTROLS AILERON (27-10-00 AND 27-11-10)

USAF SERIES

300i AIRCRAFT

MCDONNELL DOUGLAS CORPORATION

MILITARY TRANSPORT AIRCRAFT

F33657-81-C-2108

FA8526-21-D-0001

THIS MANUAL SUPERSEDES TO 1300i-2-27JG-10-3 DATED 1 SEPTEMBER 2023.

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T-2

1 JANUARY 2024

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

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.

Dates of issue for original and changed pages are:

Original 0 1 Jan 24

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 154 CONSISTING OF THE FOLLOWING:

Page No.	* Change No.	Page No.	* Change No.
Title thru T-2	0		
A.	0		
B blank	0		
i	0		
ii blank	0		
iii thru iv	0		
1-1 thru 1-2	0		
2-1 thru 2-4	0		
2-5 blank	0		
2-6 thru 2-11	0		
2-12 blank	0		
2-13 thru 2-49	0		
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2-51 thru 2-79	0		
2-80 blank	0		
2-81 thru 2-84	0		
2-85 blank	0		
2-86	0		
2-87 blank	0		
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2-127 blank	0		
2-128 thru 2-130.	0		
2-131 blank	0		
2-132 thru 2-143.	0		
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INTRODUCTION

SCOPE.

This manual contains maintenance procedures for the operational checkout, removal, installation, repair, and adjustment of aileron system components.

MODEL(S) COVERED.

All

ABBREVIATIONS.

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

HSR	Hydraulic System Reservoir
-----	----------------------------

PLCS	Places
------	--------

CHANGE REQUEST.

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

C-17 TO INFORMATION.

General C-17 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 (27-10-00)

1-1. GENERAL INFORMATION.

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

1-3. When operating an auxiliary motor pump below 15 degrees Fahrenheit a 30 seconds on/30 seconds off duty cycle for a maximum 10 cycles may be required to reach full hydraulic pressure of 3800 to 4200 psi. Allow ten minutes for cooling and repeat cycles.

1-4. Hydraulic system No. 2 may require 45 seconds before reaching full hydraulic pressure of 3800 to 4200 psi.

1-5. Flight control surfaces are to be cleared prior to turning off hydraulic auxiliary pumps from the loadmaster control panels. Flight control surface movement may occur.

1-6. 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).

1-7. GENERAL WARNINGS, CAUTIONS, AND NOTES.

WARNING

All flight control surfaces and thrust reversers shall be clear of personnel and equipment prior to applying or removing hydraulic power. Failure to comply may cause injury to personnel or damage to aircraft.

CAUTION

Air in a hydraulic system can 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.

NOTE

When installing or removing rig pins during the rigging of cables, the pins shall move freely in rig pin holes.

SECTION 2

CONTROL STICK ASSEMBLY (27-11-10)

MASTER INPUT CONDITIONS:

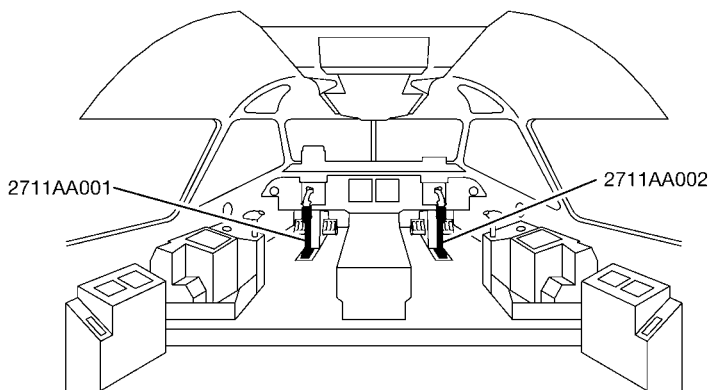
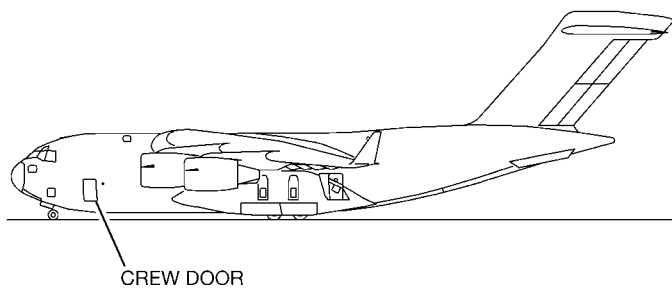
Reference designators:

2711AA001	Control Stick Assembly
2711AA002	Control Stick Assembly

Applicable functions:

- 1 Operational Checkout.
- 2 Removal.
- 3 Installation.
- 4 Repair.
- 5 Adjustment.

Access data:



ICN-88277-G2711280-002-01

**CONTROL STICK ASSEMBLY
OPERATIONAL CHECKOUT
(27-11-10-1)**

FUNCTIONAL INPUT CONDITIONS:

Applicability:	Task
All	All

Additional information:

This procedure consists of the following tasks:

- 1-1. Roll operational checkout.
- 1-2. Pitch operational checkout.

Additional data:	Task
TO 1300i-2-27FI-00-1	All

Personnel recommended:	Task
One	All

Safety conditions:	Task
NA	--

Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Tensiometer, Dial	L10M	(0-10 lb)	1	1-1

Supplies:

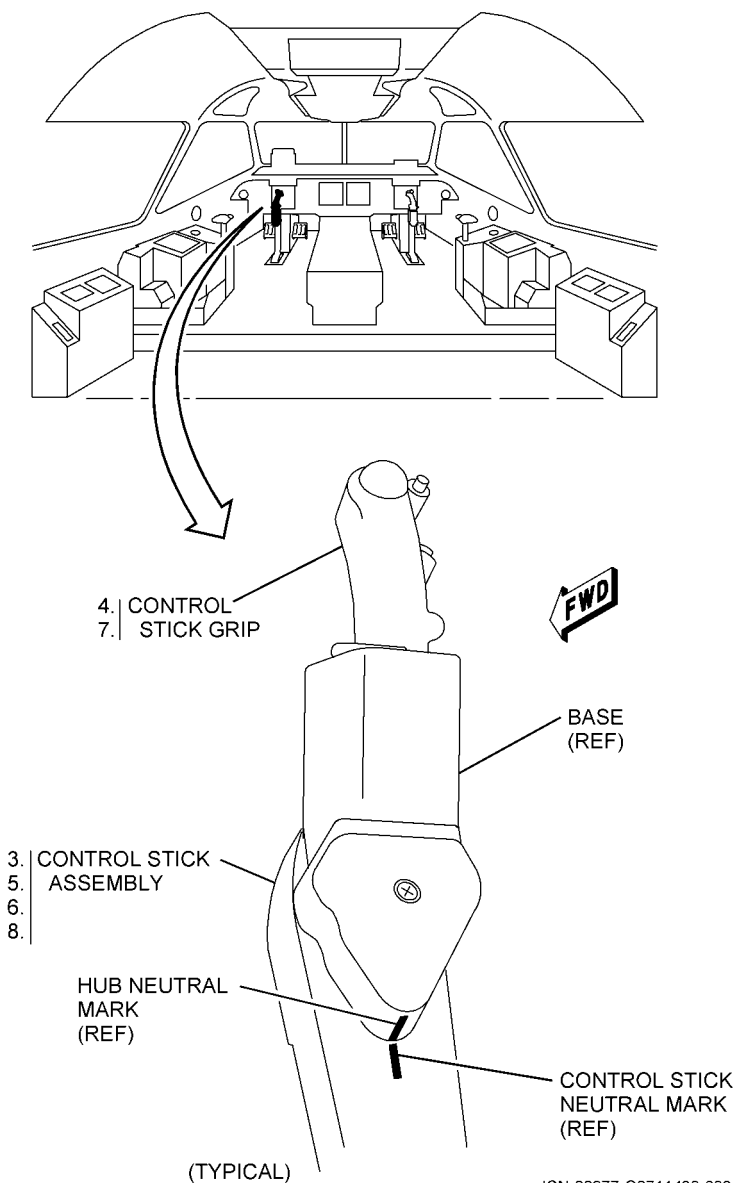
<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

1-1. ROLL OPERATIONAL CHECKOUT.

NOTE

This is a typical roll operational checkout task for all control stick assemblies.

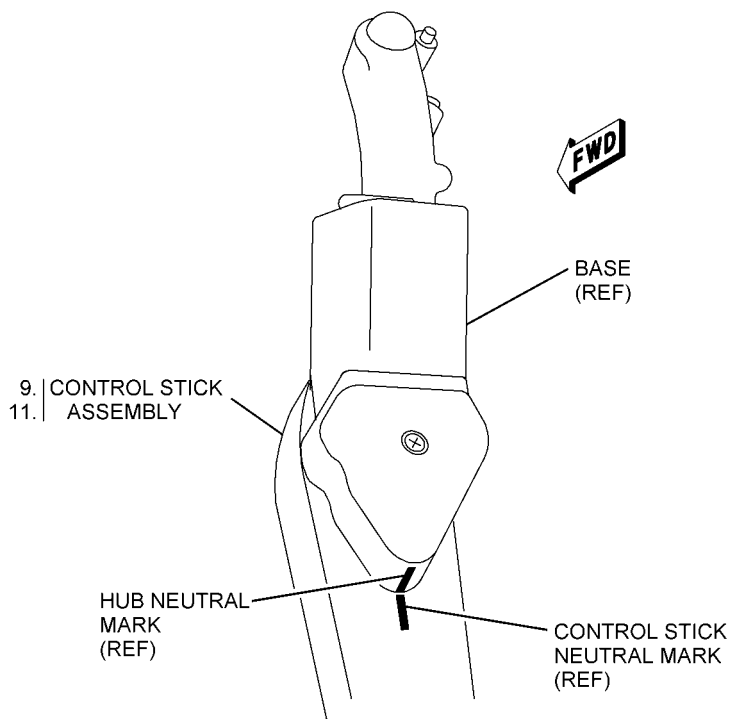
1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Move control stick assembly full left wing down, full right wing down, and release.
4. Set dial tensiometer to read 0 lbs and position probe 2.13 to 2.63 inches above base of control stick grip.
5. Using tensiometer, move control stick assembly to align neutral mark on hub with neutral mark on control stick. Release tensiometer.
 - Force shall not exceed 0.50 lbs (27-11-AS-00).
6. Move control stick assembly full left wing down and hold.
7. Set tensiometer to read 0 lbs and position probe 2.13 to 2.63 inches above base of grip.
8. Release control stick assembly. Using tensiometer, hold control stick assembly full left wing down, but not in contact with the stop. Release tensiometer.
 - Force shall not exceed 1.00 lbs (27-11-AS-00).



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TO 1300i-2-27JG-10-3

9. Move control stick assembly full right wing down and hold.
10. Set tensiometer to read 0 lbs and position probe 2.13 to 2.63 inches above base of grip.
11. Release control stick assembly. Using tensiometer, hold control stick assembly full right wing down, but not in contact with the stop. Release tensiometer.
 - Force shall not exceed 1.00 lbs (27-11-AS-00).



(TYPICAL)

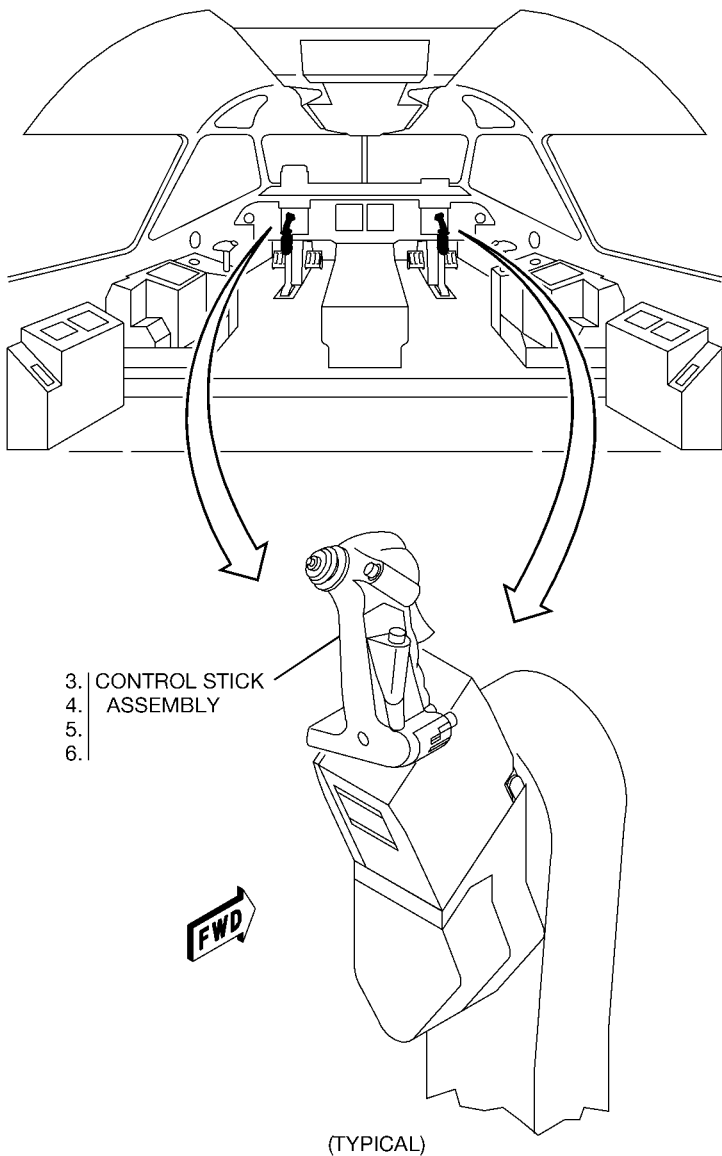
ICN-88277-G2711526-002-01

1-2. PITCH OPERATIONAL CHECKOUT.

NOTE

This is a typical pitch operational checkout task for all control stick assemblies isolated from the rest of the control system.

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. Move control stick assembly full nose down and release.
 - Control stick assembly remains stationary (27-31-AR-00).
4. Move control stick assembly full nose up and release.
 - Control stick assembly remains stationary (27-31-AR-00).
5. Move control stick assembly between full nose down and neutral; release.
 - Control stick assembly remains stationary (27-31-AR-00).
6. Move control stick assembly between full nose up and neutral; release.
 - Control stick assembly remains stationary (27-31-AR-00).



ICN-88277-G2711282-003-01

**CONTROL STICK ASSEMBLY REMOVAL
(27-11-10-2)**

FUNCTIONAL INPUT CONDITIONS:

Applicability:	Task
All	All

Additional information:

This procedure consists of the following tasks:

- 2-1. Preparation.
- 2-2. Removal for 2711AA001.
- 2-3. Removal for 2711AA002.
- 2-4. Follow-on maintenance for 2711AA001.
- 2-5. Follow-on maintenance for 2711AA002.

Additional data:	Task
TO 1300i-2-05JG-10-1	2-1
TO 1300i-2-22JG-10-4	2-4, 2-5
TO 1300i-2-22JG-10-5	2-1
TO 1300i-2-25JG-10-1	2-1

Personnel recommended:	Task
One	2-1, 2-4, 2-5
Two	2-2, 2-3
Person (A) performs task.	
Person (B) assists person (A).	

Safety conditions:

NA

Task

--

Support equipment:

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

Supplies:

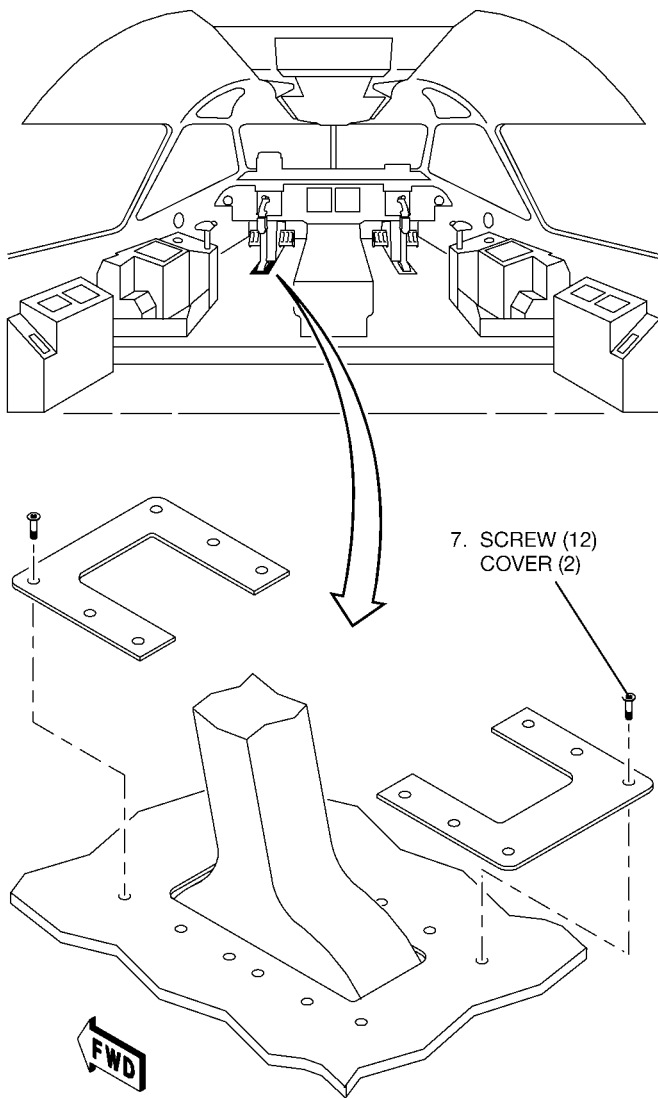
<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

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 aileron aircraft ground safety lock (05-10-01, task 01-3).
- 5. Install elevator aircraft ground safety lock (05-10-01, task 01-5).
- 6. Remove pilot/copilot aircraft seat (25-11-10) as follows:

STICK REF DES	SEAT REF DES
2711AA001	2511AA001
2711AA002	2511AA002

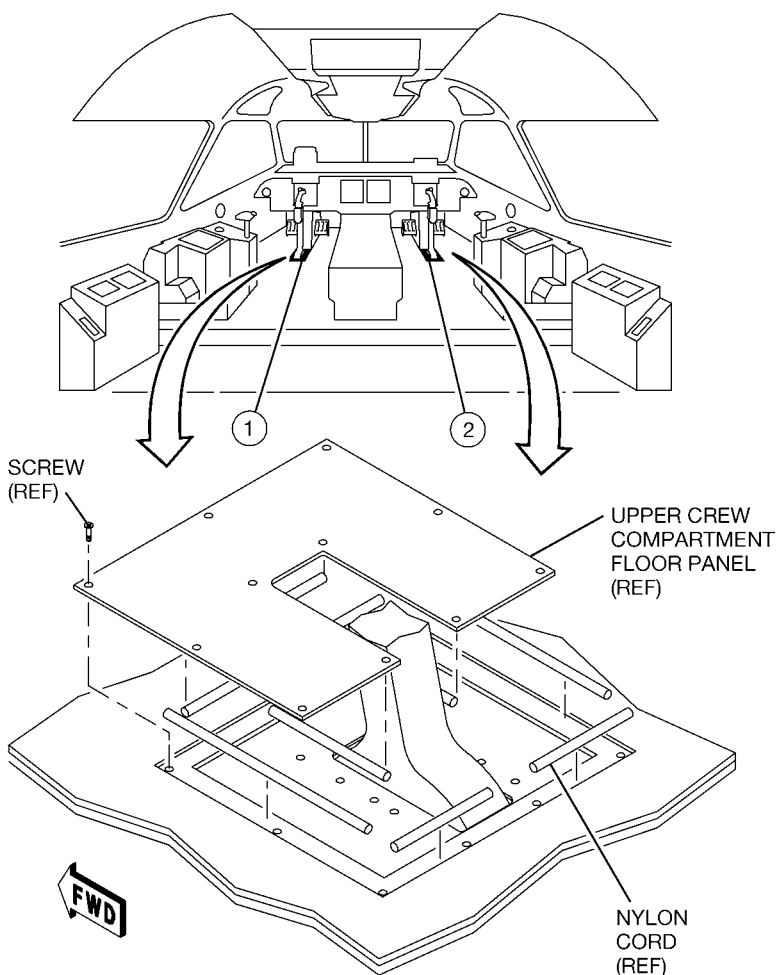
- 7. Remove screws and covers.



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TO 1300i-2-27JG-10-3

8. Identify and remove screws from upper crew compartment floor panel.
9. Remove and discard nylon cords.
10. Remove upper crew compartment floor panel.

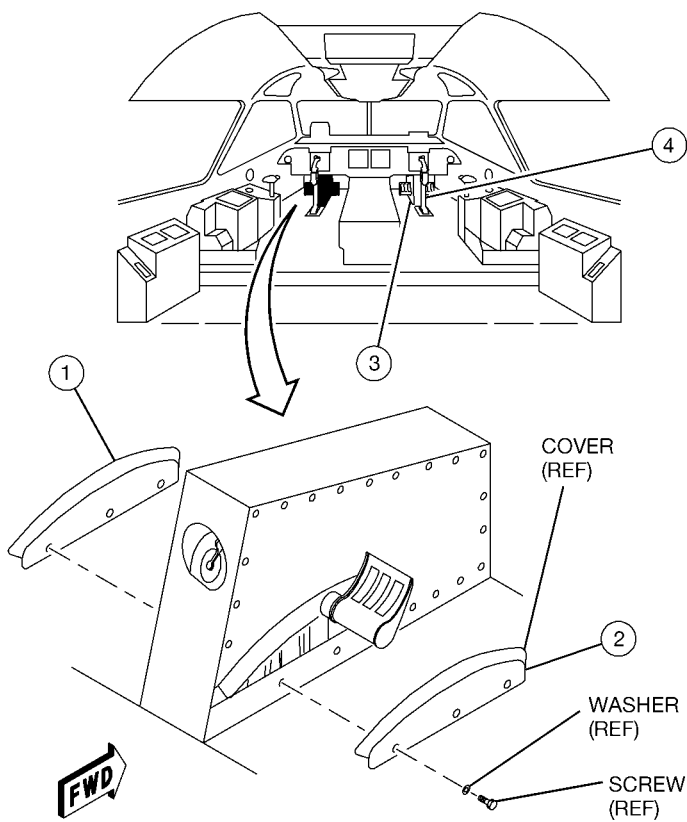


8.	STICK	INDEX	PANEL	SCREW	NYLON
9.	REF DES	NO.	NO.	QTY	CORD QTY
10.	2711AA001	1	213AZY	11	8
	2711AA002	2	214AZY	11	8

(TYPICAL)

ICN-88277-G2711284-003-01

11. Remove screws, washers, and cover.



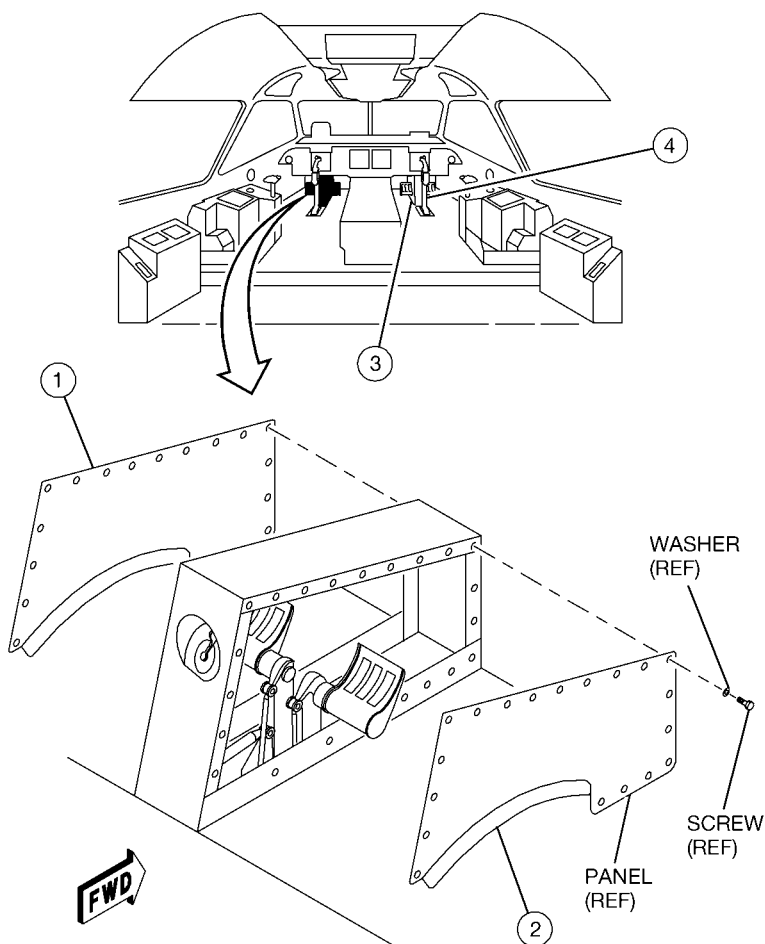
11.—

STICK REF DES	INDEX NO	PANEL NO	SCREW/ WASHER QTY
2711AA001	1	211GZM	3
	2	211HZM	3
2711AA002	3	211KZM	3
	4	211NZM	3

(TYPICAL)

ICN-88277-G2711400-003-01

12. Remove screws, washers, and panel.



12.

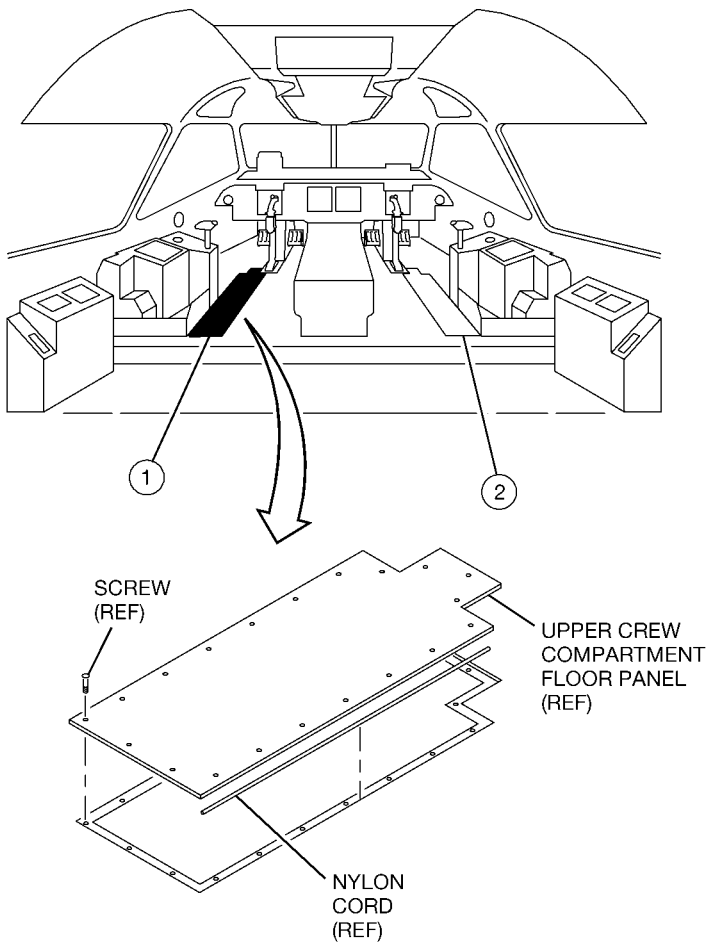
STICK REF DES	INDEX NO	PANEL NO	SCREW/ WASHER QTY
2711AA001	1	211FZM	19
	2	211JZM	19
2711AA002	3	211LZM	19
	4	211MZM	19

(TYPICAL)

ICN-88277-G2711404-003-01

TO 1300i-2-27JG-10-3

13. Identify and remove screws from upper crew compartment floor panel.
14. Remove and discard nylon cords.
15. Remove upper crew compartment floor panel.



13.	STICK	INDEX	PANEL	SCREW	NYLON CORD
14.	REF DES	NO	NO	QTY	QTY
15.	2711AA001	1	213BZY	20	AR
	2711AA002	2	214BZY	20	AR

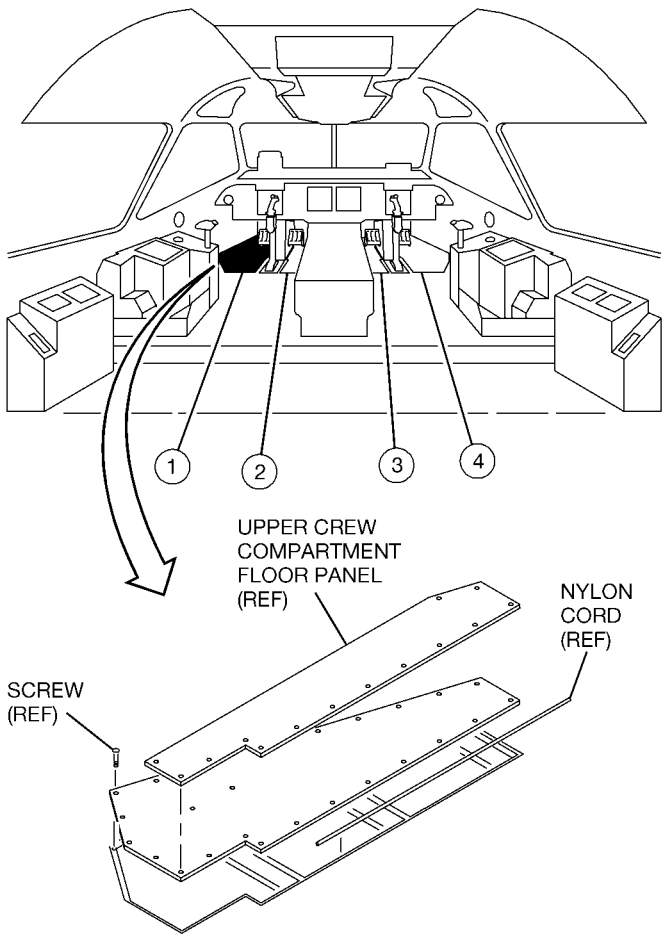
(TYPICAL)

ICN-88277-G2711401-003-01

TO 1300i-2-27JG-10-3

- 16. Identify and remove screws from upper crew compartment floor panels.
- 17. Remove and discard nylon cords.
- 18. Remove upper crew compartment floor panels.
- 19. Remove stick shaker (22-18-12) as follows:

STICK REF DES	SHAKER REF DES
2711AA001	2218BB001
2711AA002	2218BB002



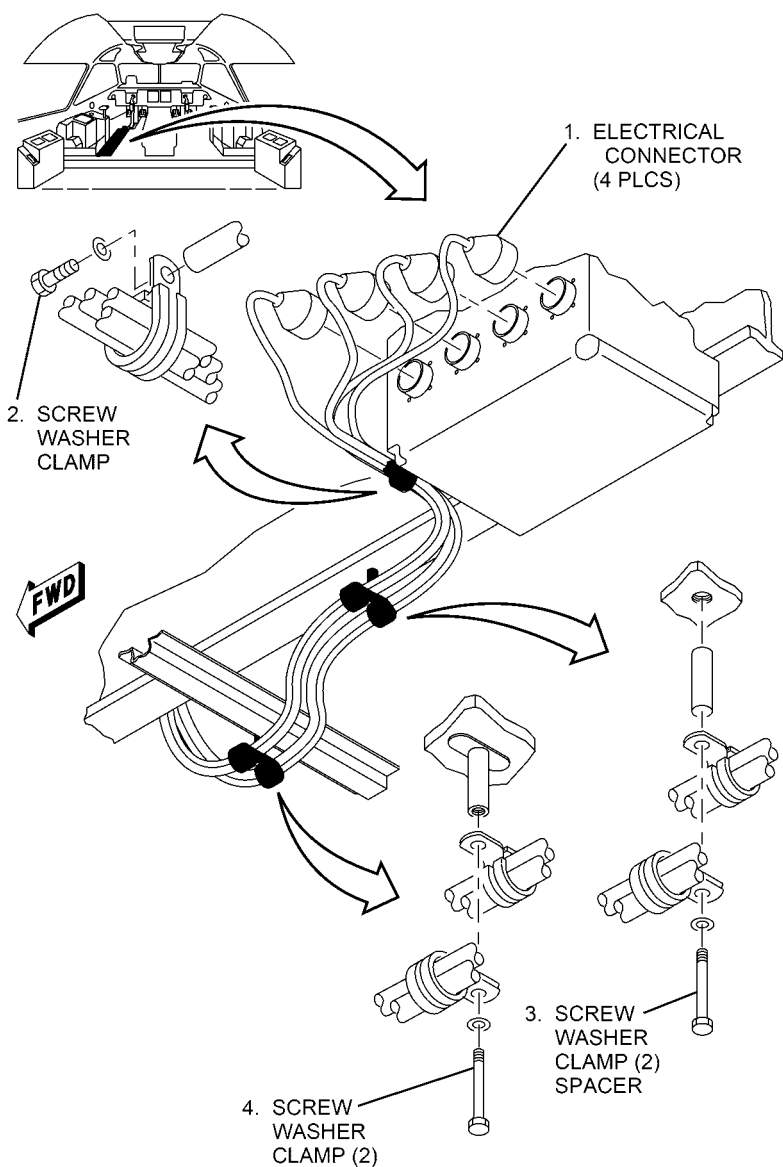
16.	STICK	INDEX	PANEL	SCREW	NYLON CORD
17.	REF DES	NO	NO	QTY	QTY
18.	2711AA001	1	211AZY	28	AR
		2	211BZY	21	AR
	2711AA002	3	211CZY	28	AR
		4	211DZY	21	AR

(TYPICAL)

ICN-88277-G2711402-004-01

2-2. REMOVAL FOR 2711AA001.

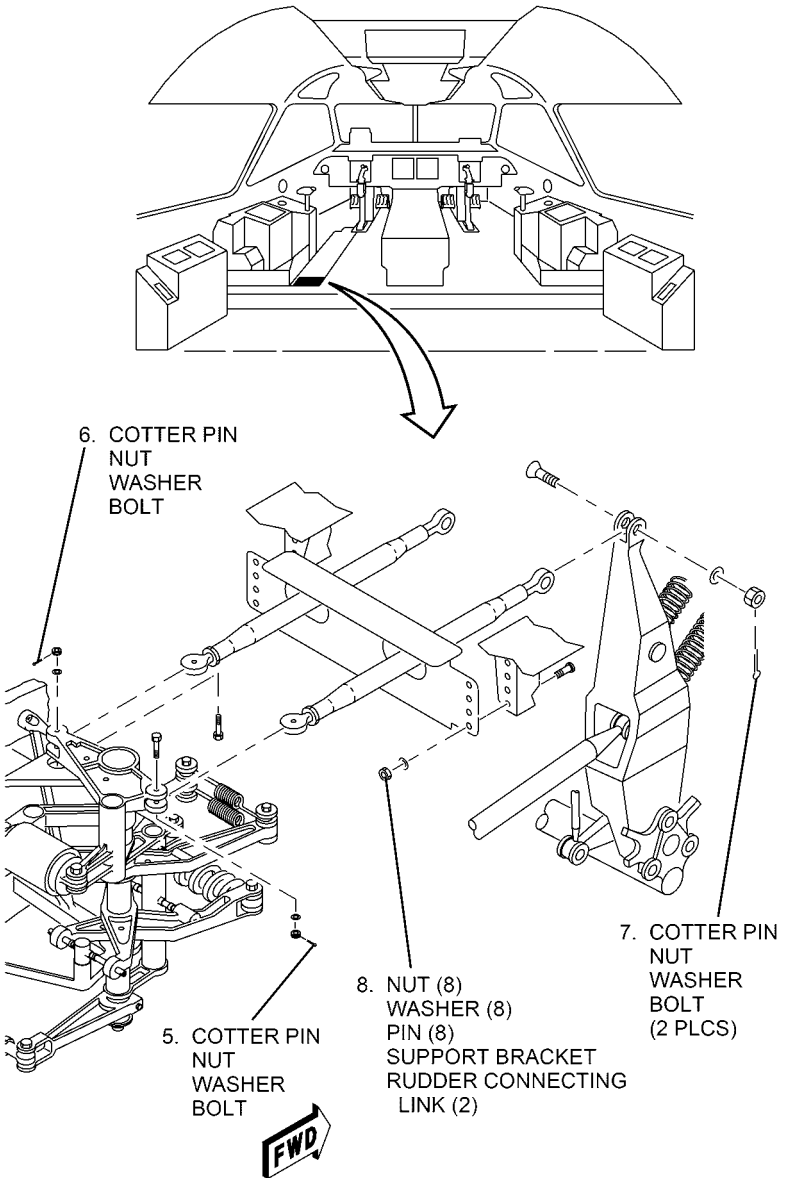
1. (A) Disconnect electrical connectors.
2. (A) Remove screw, washer, and clamp.
3. (A) Remove screw, washer, clamps, and spacer.
4. (A) Remove screw, washer, and clamps.



ICN-88277-G2711579-001-01

TO 1300i-2-27JG-10-3

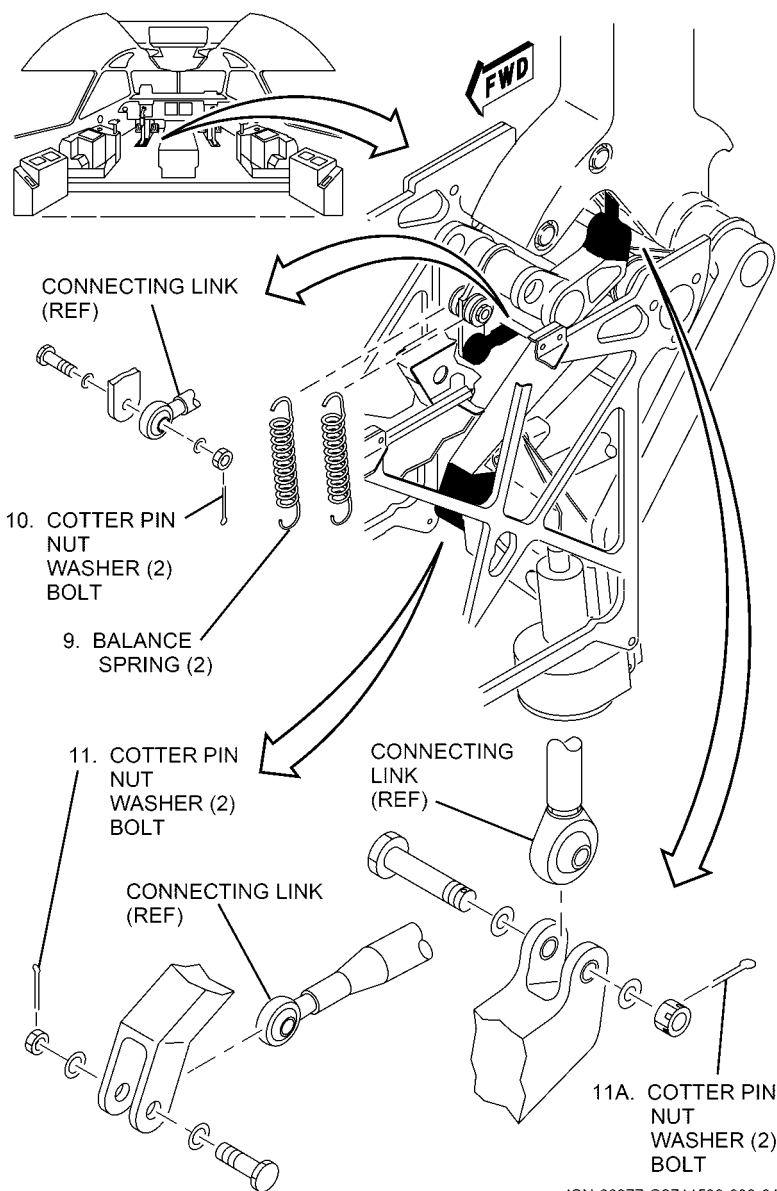
5. (A) Remove cotter pin, nut, washer, and bolt.
6. (A) Remove safety wire, cotter pin, nut, washer, and bolt.
7. (A) Remove cotter pins, nuts, washers, and bolts.
8. (A,B) Remove nuts, washers, pins, support bracket, and rudder connecting links.



ICN-88277-G2711386-006-01

TO 1300i-2-27JG-10-3

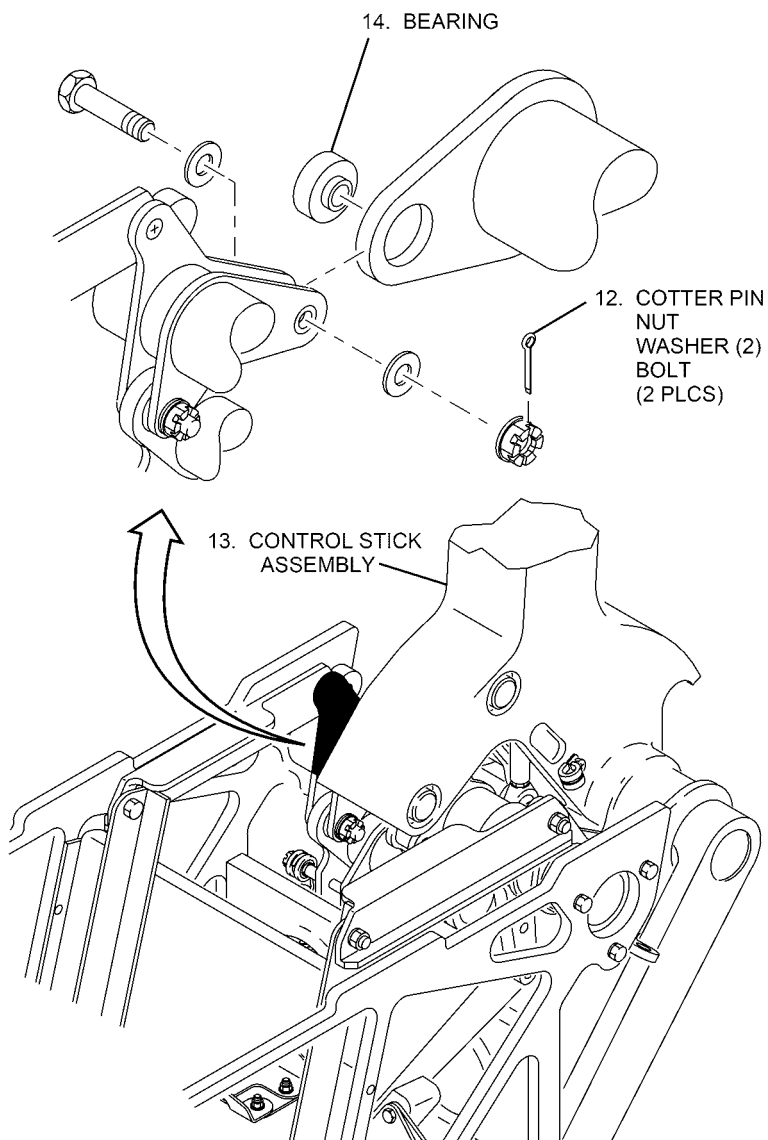
9. (A) Remove balance springs.
10. (A) Remove cotter pin, nut, washers, and bolt from connecting link.
11. (A) Remove cotter pin, nut, washers, and bolt from connecting link.
- 11A. (A) Remove cotter pin, nut, washers, and bolt from connecting link.



ICN-88277-G2711592-002-01

TO 1300i-2-27JG-10-3

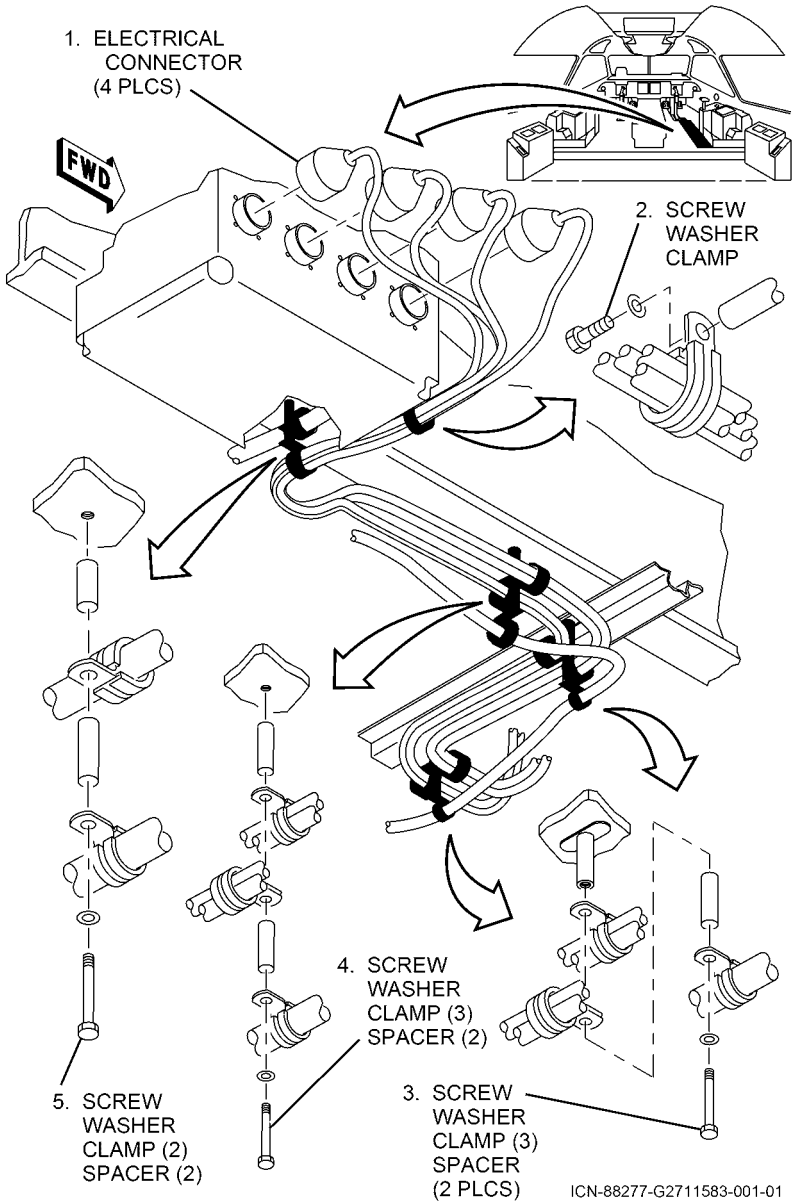
12. (A) Remove cotter pins, nuts, washers, and bolts.
13. (A,B) Remove control stick assembly.
14. (A) Remove bearing.



ICN-88277-G2711383-009-01

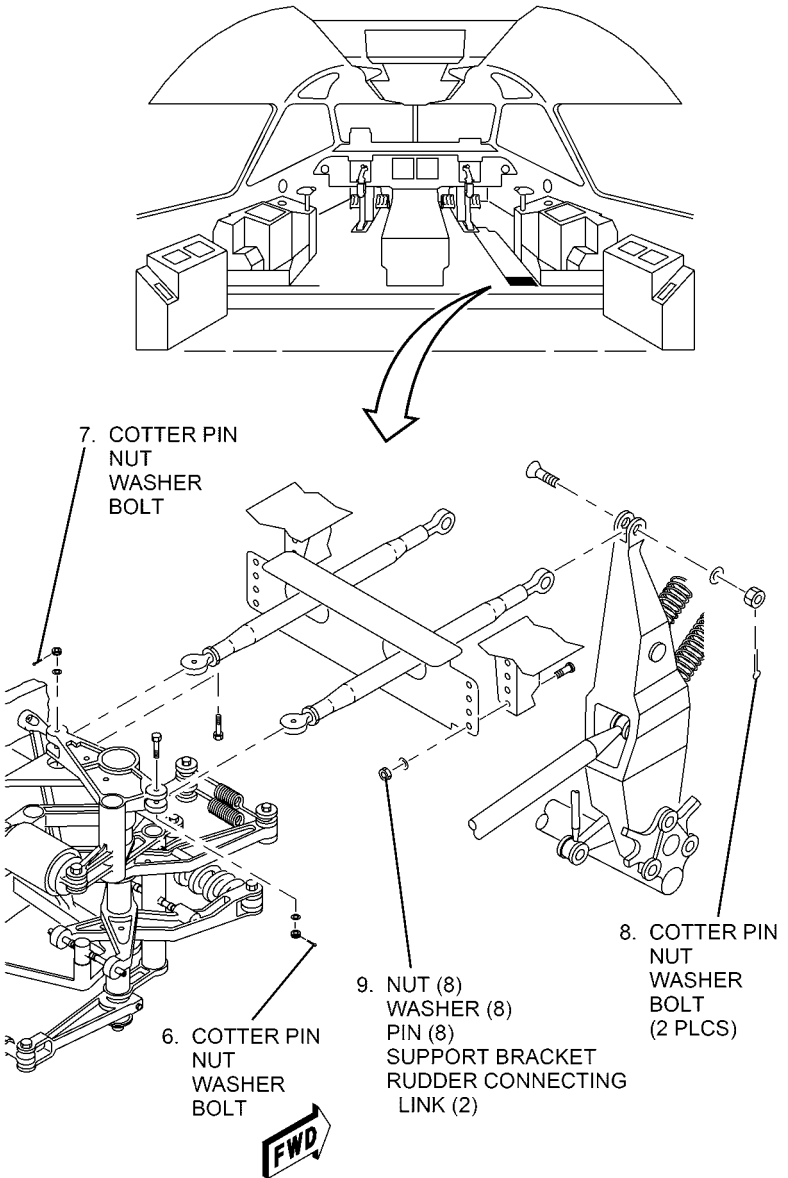
2-3. REMOVAL FOR 2711AA002.

1. (A) Disconnect electrical connectors.
2. (A) Remove screw, washer, and clamp.
3. (A) Remove screws, washers, clamps, and spacers.
4. (A) Remove screw, washer, clamps, and spacers.
5. (A) Remove screw, washer, clamps, and spacers.



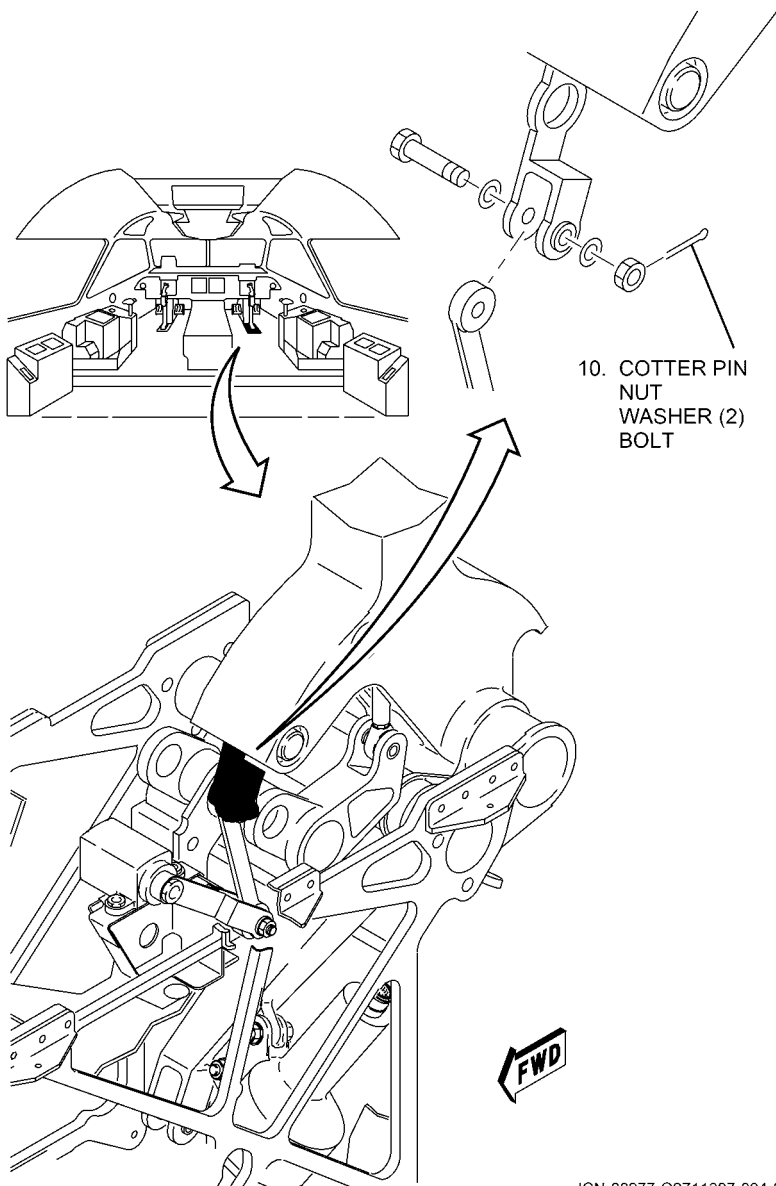
TO 1300i-2-27JG-10-3

6. (A) Remove cotter pin, nut, washer, and bolt.
7. (A) Remove safety wire, cotter pin, nut, washer, and bolt.
8. (A) Remove cotter pins, nuts, washers, and bolts.
9. (A,B) Remove nuts, washers, pins, support bracket, and rudder connecting links.



ICN-88277-G2711440-005-01

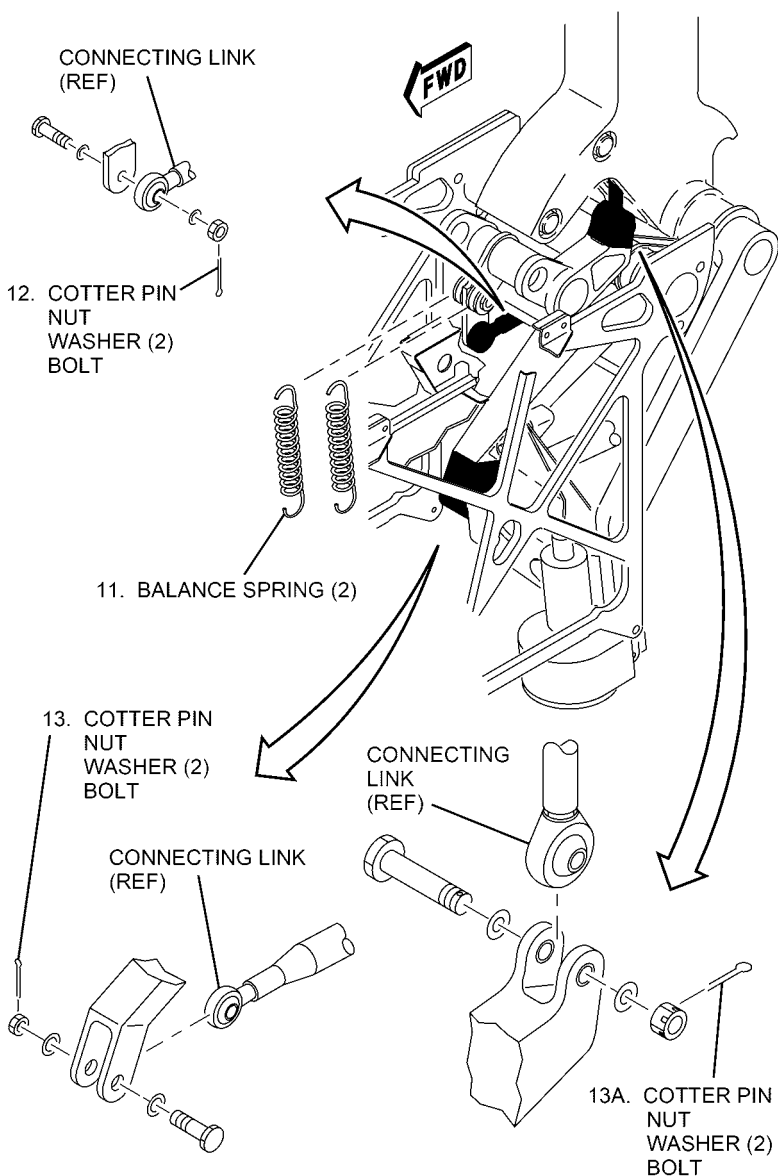
10. (A) Remove cotter pin, nut, washers, and bolt.



ICN-88277-G2711387-004-01

TO 1300i-2-27JG-10-3

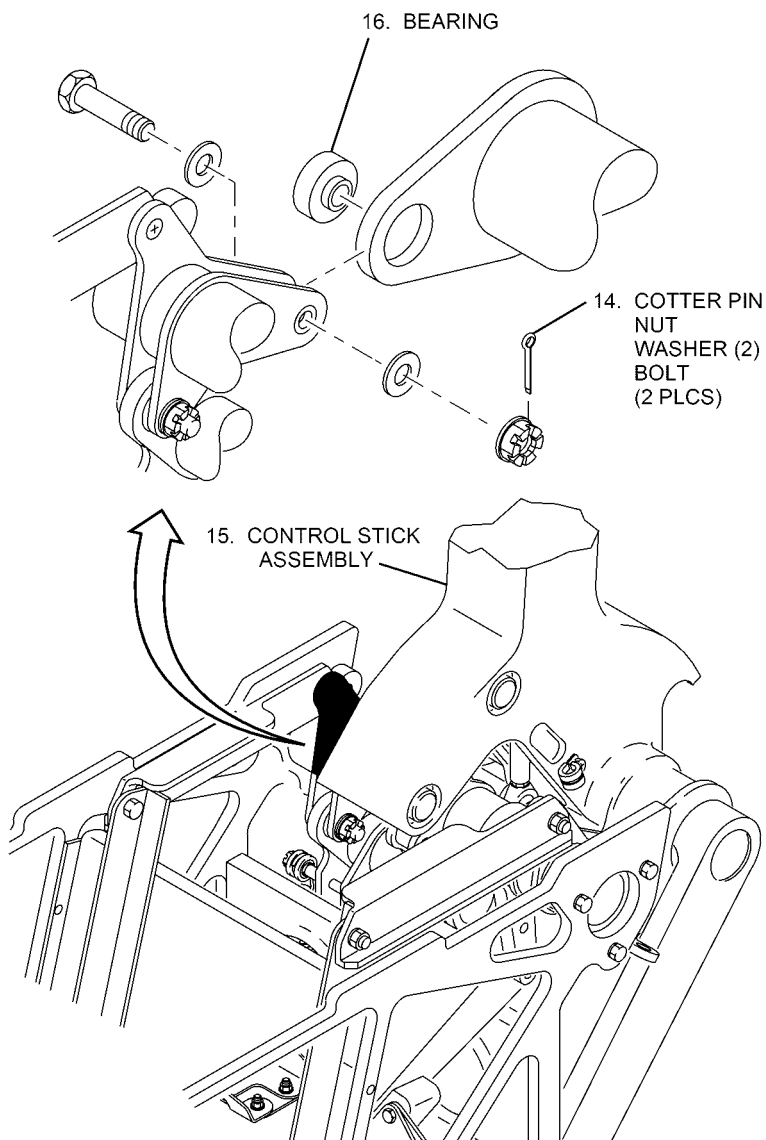
11. (A) Remove balance springs.
12. (A) Remove cotter pin, nut, washers, and bolt from connecting link.
13. (A) Remove cotter pin, nut, washers, and bolt from connecting link.
- 13A. (A) Remove cotter pin, nut, washers, and bolt from connecting link.



ICN-88277-G2711422-006-01

TO 1300i-2-27JG-10-3

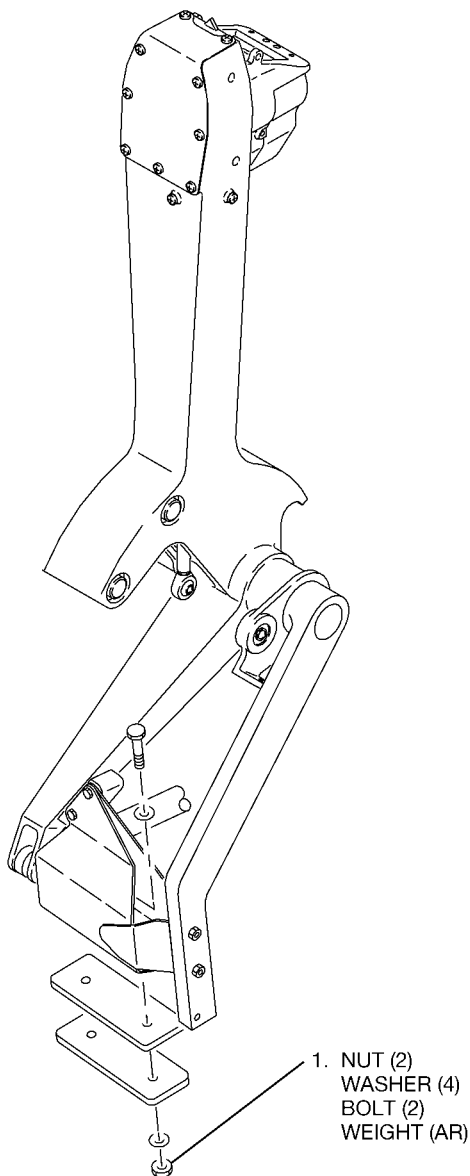
14. (A) Remove cotter pins, nuts, washers, and bolts.
15. (A,B) Remove control stick assembly.
- 16. (A) Remove and inspect bearing. Replace as necessary.



ICN-88277-G2711389-009-01

**2-4. FOLLOW-ON MAINTENANCE FOR
2711AA001.**

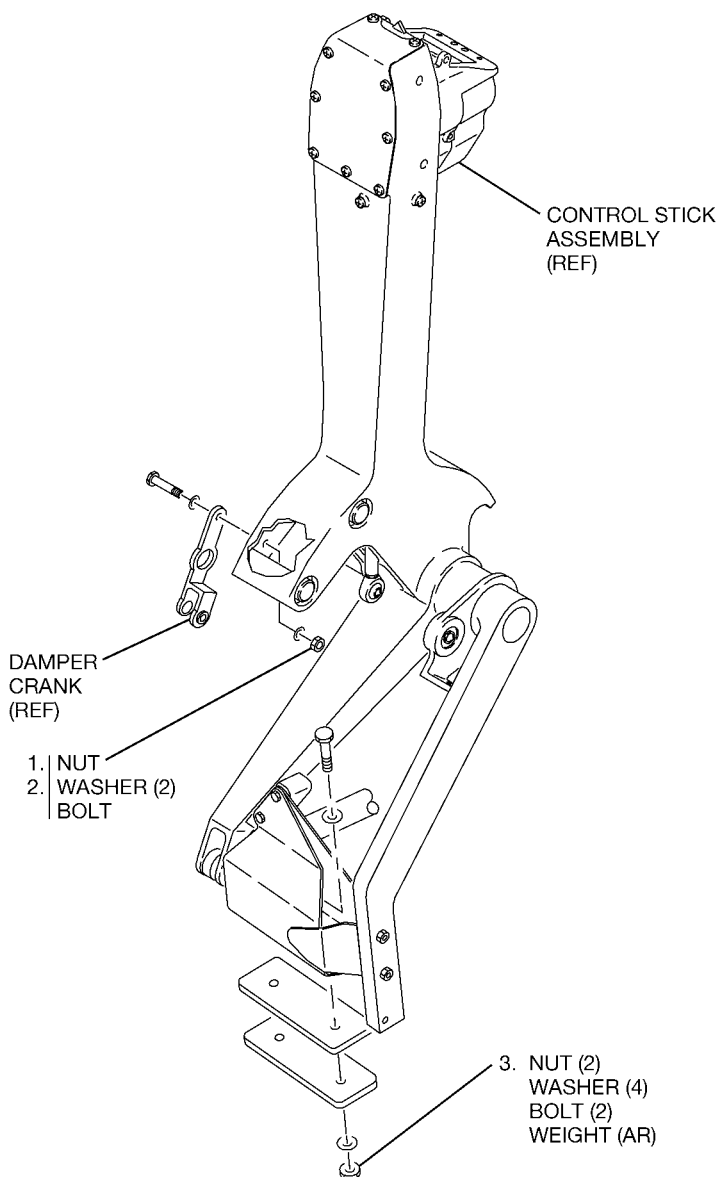
1. Identify and remove nuts, washers, bolts, and weights.
2. Remove control stick sensor assembly (22-15-13, task 2-1 and 2-2).



ICN-88277-G2711423-002-01

**2-5. FOLLOW-ON MAINTENANCE FOR
2711AA002.**

1. Remove nut, washers, and bolt from damper crank.
2. Install bolt, washers, and nut in control stick assembly.
3. Identify and remove nuts, washers, bolts, and weights.
4. Remove control stick sensor assembly (22-15-13, task 2-1 and 2-2).



ICN-88277-G2711424-003-01

**CONTROL STICK ASSEMBLY
INSTALLATION
(27-11-10-3)**

FUNCTIONAL INPUT CONDITIONS:

Applicability:	Task
All	All

Additional information:

This procedure consists of the following tasks:

- 3-1. Preparation for 2711AA001.
- 3-2. Preparation for 2711AA002.
- 3-3. Installation for 2711AA001.
- 3-4. Installation for 2711AA002.
- 3-5. Follow-on maintenance.

Additional data:	Task
TO 1300i-2-05JG-10-1	3-5
TO 1300i-2-22JG-10-1	3-5
TO 1300i-2-22JG-10-4	3-1, 3-2
TO 1300i-2-22JG-10-5	3-5
TO 1300i-2-40JG-00-1	3-5
TO 1300i-2-53JG-20-1	3-5

Personnel recommended:	Task
One	3-1, 3-2, 3-5
Two	3-3, 3-4

	Task
Person (A) performs task.	
Person (B) assists person (A).	

Safety conditions:

	Task
NA	--

Support equipment:

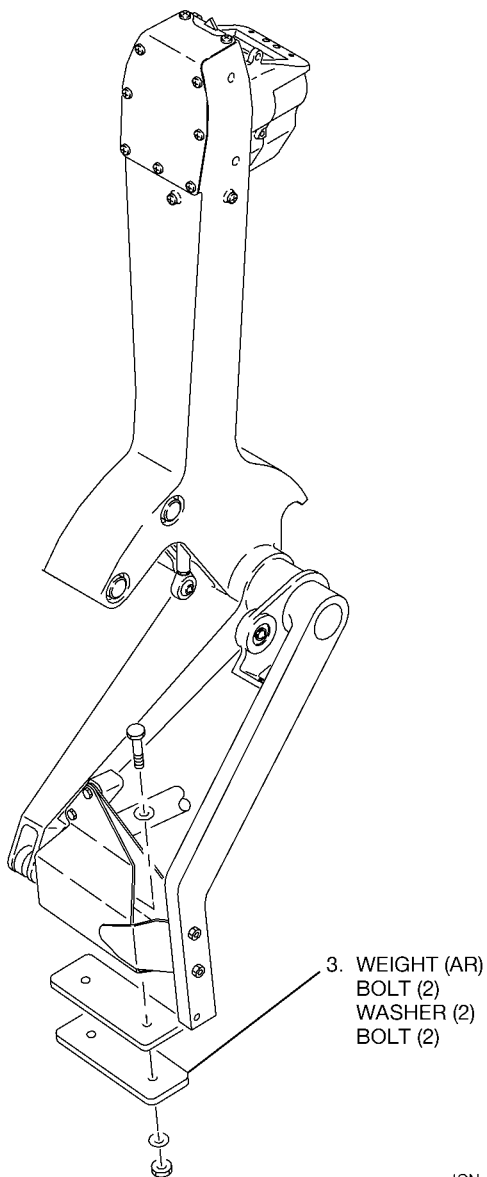
<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
NA	--	--	--	--

Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Pin, Cotter	MS24665-151	--	6	3-3, 3-4

3-1. PREPARATION FOR 2711AA001.

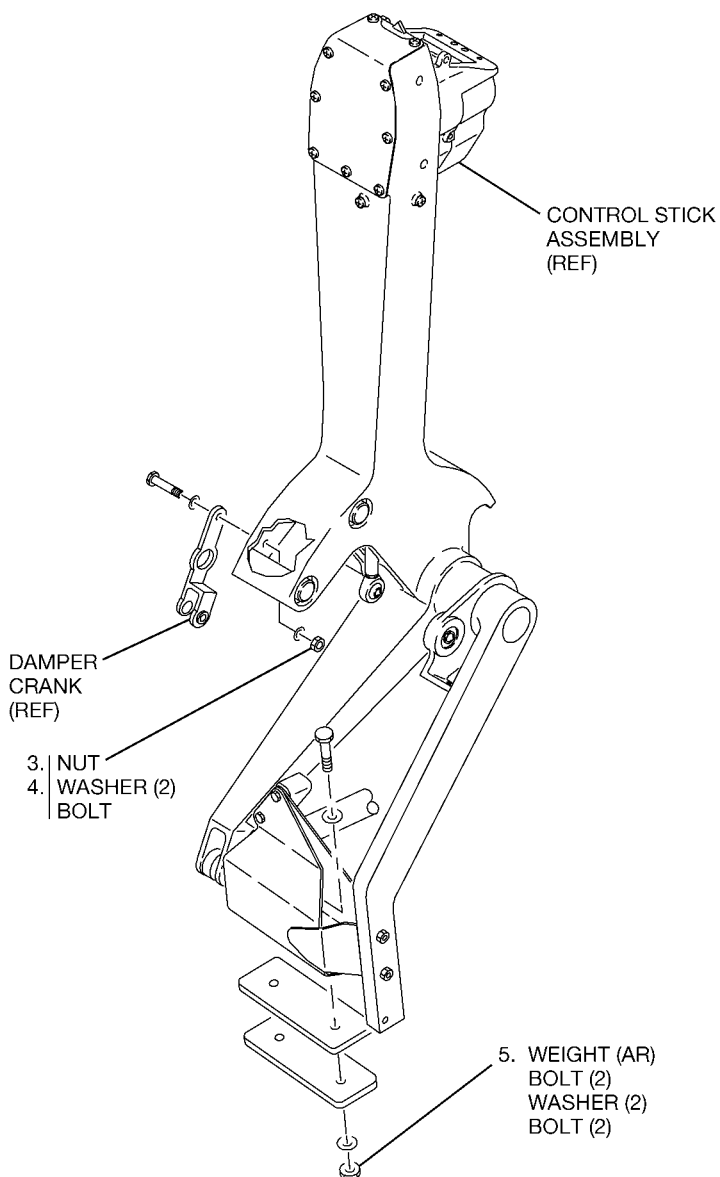
1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Position weights; install bolts, washers, and nuts as identified.
4. Install control stick sensor assembly (22-15-13, task 3-1).



ICN-88277-G2711425-002-01

3-2. PREPARATION FOR 2711AA002.

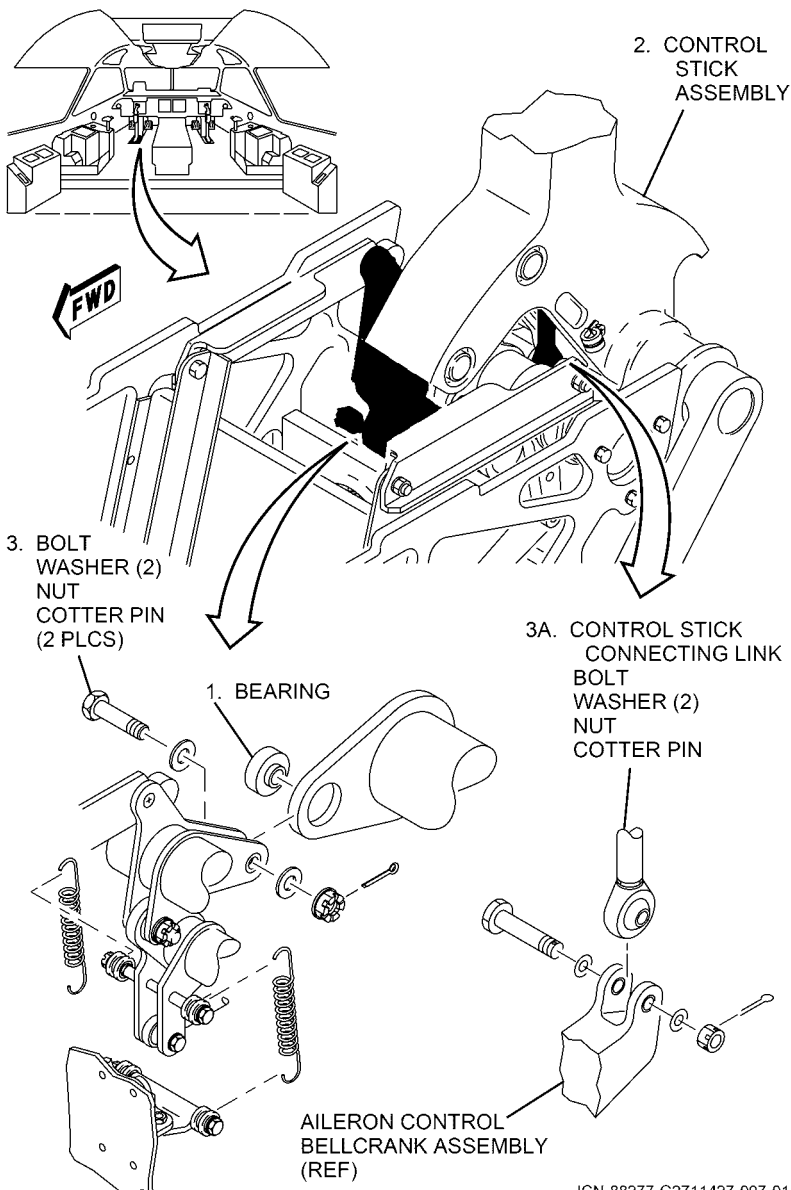
1. Review "Section 1 (General Information)" of this TO for system general warnings, cautions, and notes.
2. Review task "Functional Input Conditions" page for task specific safety conditions.
3. Remove nut, washers, and bolt from control stick assembly.
4. Position damper crank; install bolt, washers, and nut.
5. Position weights; install bolt, washers, and nuts as identified.
6. Install control stick sensor assembly (22-15-13, task 3-1).



ICN-88277-G2711426-002-01

3-3. INSTALLATION FOR 2711AA001.

1. (A) Install bearing.
2. (A,B) Position control stick assembly.
3. (A) Install bolts, washers, nuts, and cotter pins.
- 3A. (A) Position control stick connecting link into aileron control bellcrank assembly and install bolt, washers, nut, and cotter pin.



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TO 1300i-2-27JG-10-3

4. (A) Install balance springs.
5. Perform control stick assembly operational checkout (tasks 1-1 and 1-2).
- 5A. (A) Position aileron pilot input connecting link into aileron control bellcrank assembly and install bolt, washers, nut, and cotter pin.
- 5B. (A) Position elevator connecting link into control column and install bolt, washers, nut, and cotter pin.

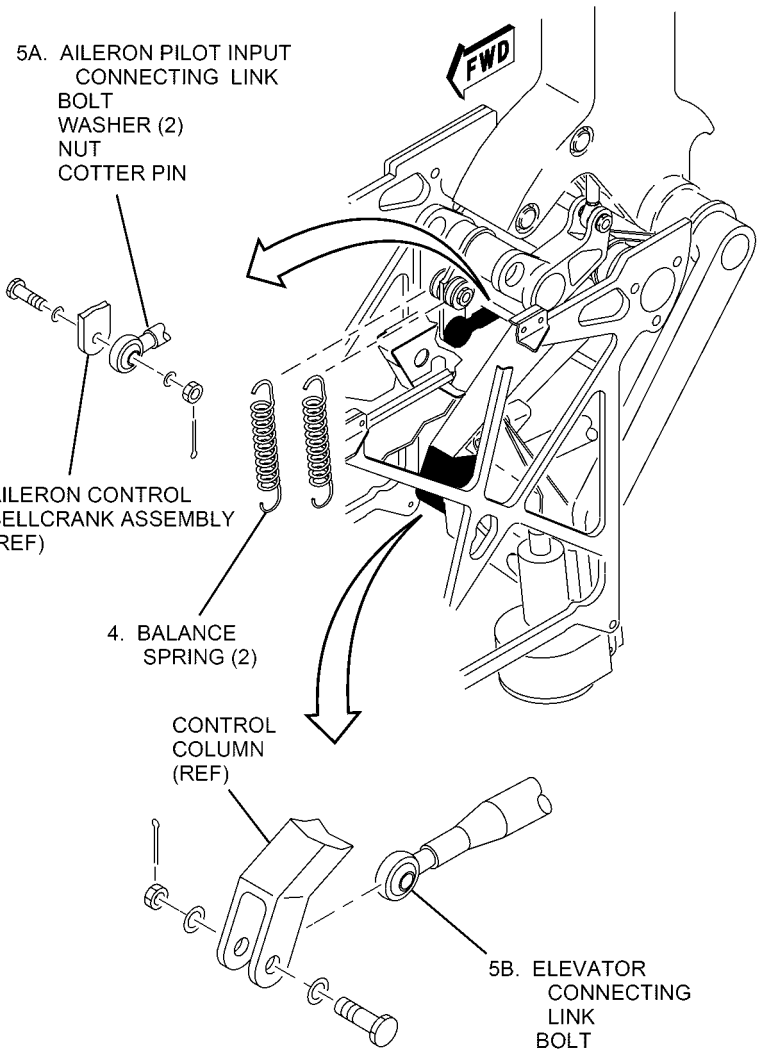
5A. AILERON PILOT INPUT
CONNECTING LINK
BOLT
WASHER (2)
NUT
COTTER PIN

AILERON CONTROL
BELLCRANK ASSEMBLY
(REF)

4. BALANCE
SPRING (2)

CONTROL
COLUMN
(REF)

5B. ELEVATOR
CONNECTING
LINK
BOLT
WASHER (2)
NUT
COTTER PIN



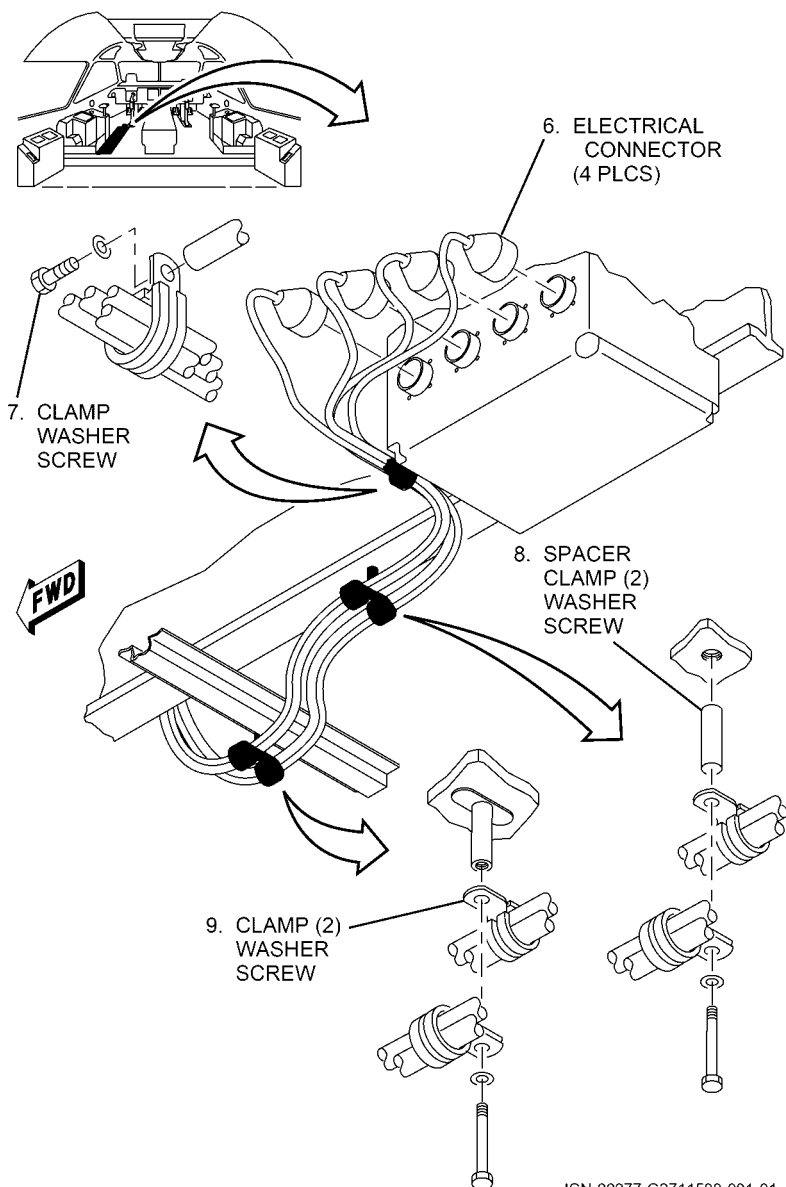
ICN-88277-G2711595-002-01

TO 1300i-2-27JG-10-3

6. (A) Connect electrical connectors as follows:

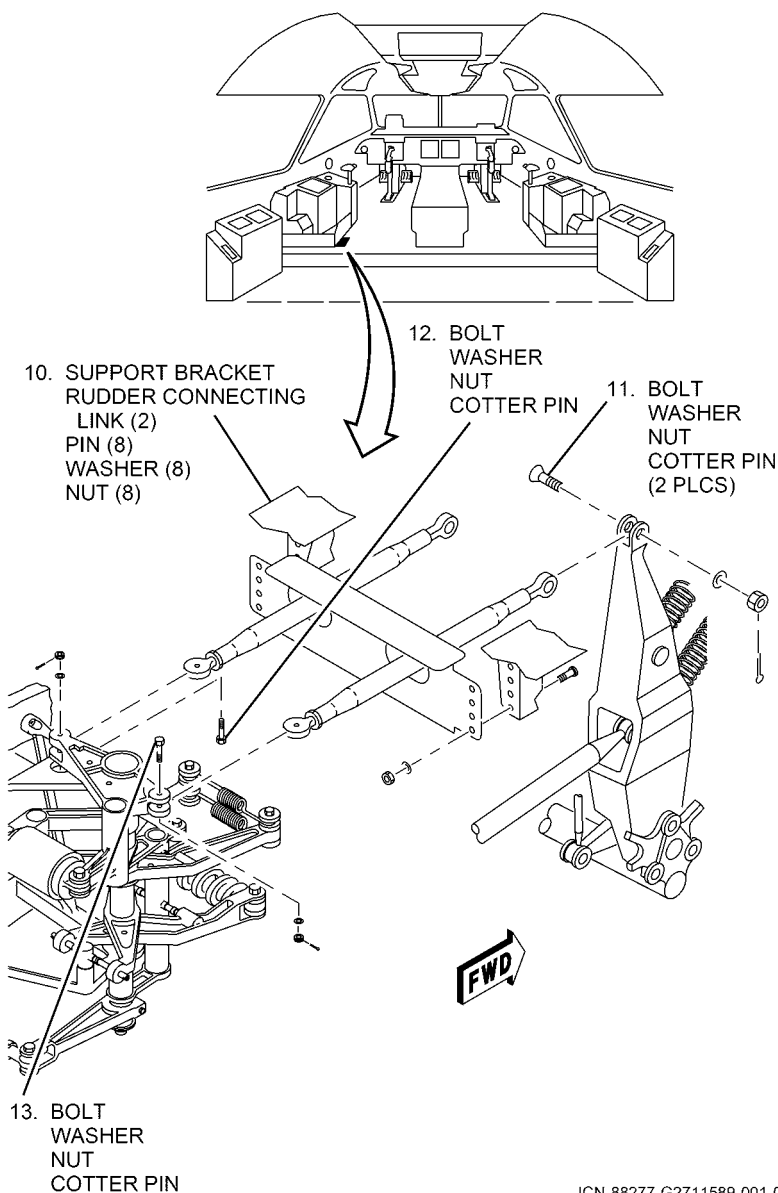
CONNECTOR REF DES	JUNCTION REF DES
3912PP230	3912JE230
3912PP231	3912JE231
3912PP234	3912JE234
3912PP235	3912JE235

7. (A) Install clamp, washer, and screw.
8. (A) Install spacer, clamps, washer, and screw.
9. (A) Install clamps, washer, and screw.



TO 1300i-2-27JG-10-3

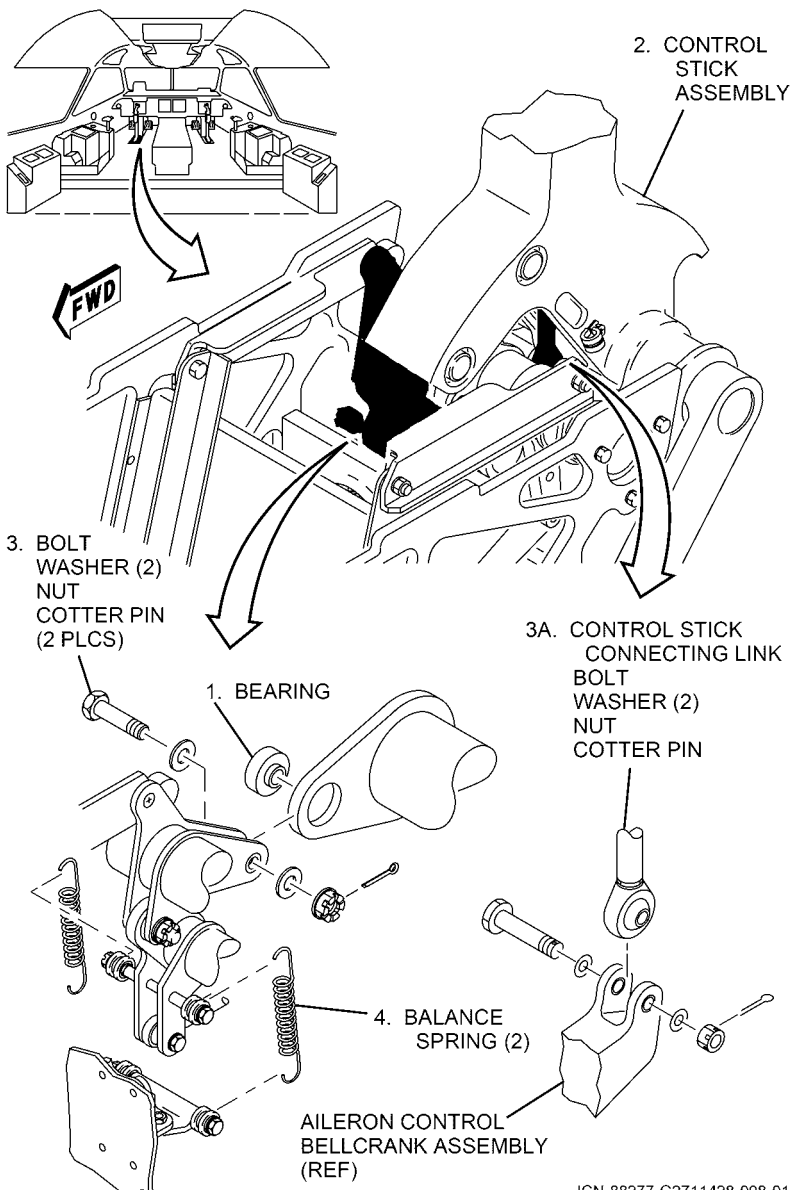
10. (A,B) Position support bracket and rudder connecting links; install pins, washers, and nuts.
11. (A) Install bolts, washers, nuts, and cotter pins.
12. (A) Install bolt, washer, nut, and cotter pin.
13. (A) Install bolt, washer, nut, and cotter pin.



ICN-88277-G2711589-001-01

3-4. INSTALLATION FOR 2711AA002.

1. (A) Install bearing.
2. (A,B) Position control stick assembly.
3. (A) Install bolts, washers, nuts, and cotter pins.
- 3A. (A) Position control stick connecting link into aileron control bellcrank assembly and install bolt, washers, nut, and cotter pin.
4. (A) Install balance springs.
5. Perform control stick assembly operational checkout (tasks 1-1 and 1-2).



ICN-88277-G2711428-008-01

- 5A. (A) Install cotter pin, nut, washers, and bolt.
- 5B. (A) Position aileron pilot input connecting link into aileron control bellcrank assembly and install bolt, washers, nut, and cotter pin.
- 5C. (A) Position elevator connecting link into control column and install bolt, washers, nut, and cotter pin.

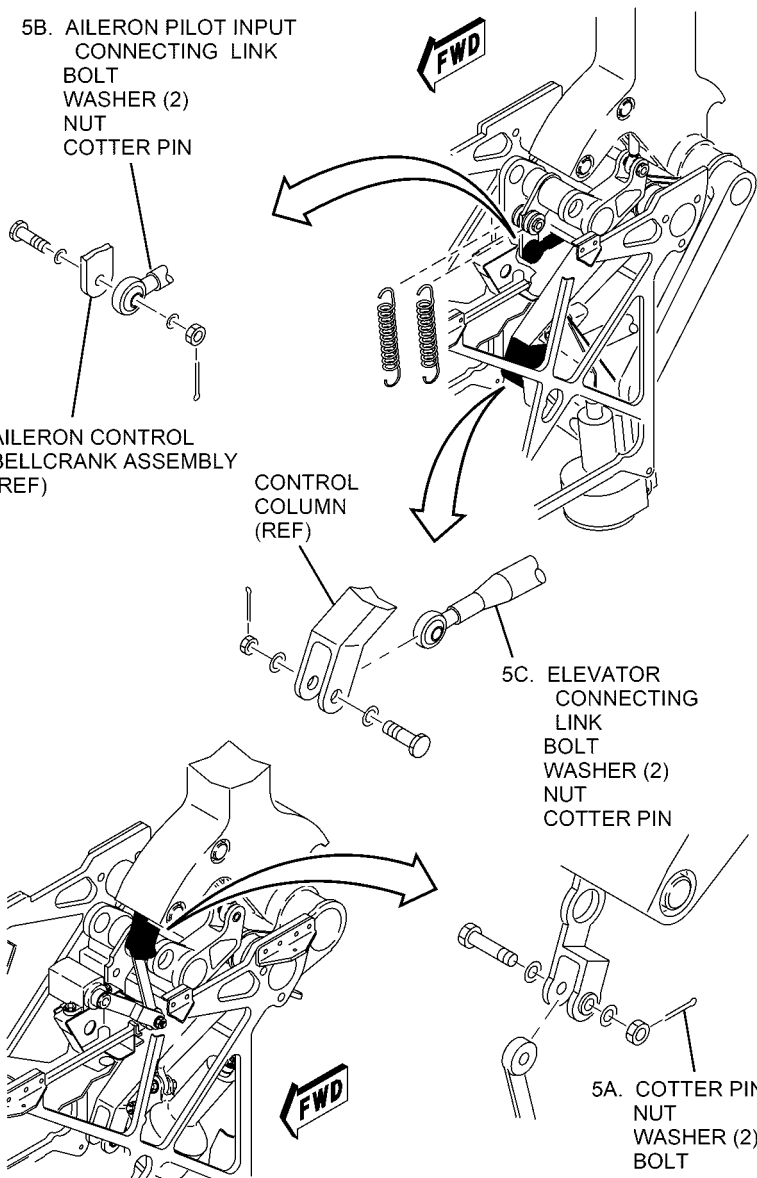
5B. AILERON PILOT INPUT
CONNECTING LINK
BOLT
WASHER (2)
NUT
COTTER PIN

AILERON CONTROL
BELLCRANK ASSEMBLY
(REF)

CONTROL
COLUMN
(REF)

5C. ELEVATOR
CONNECTING LINK
BOLT
WASHER (2)
NUT
COTTER PIN

5A. COTTER PIN
NUT
WASHER (2)
BOLT



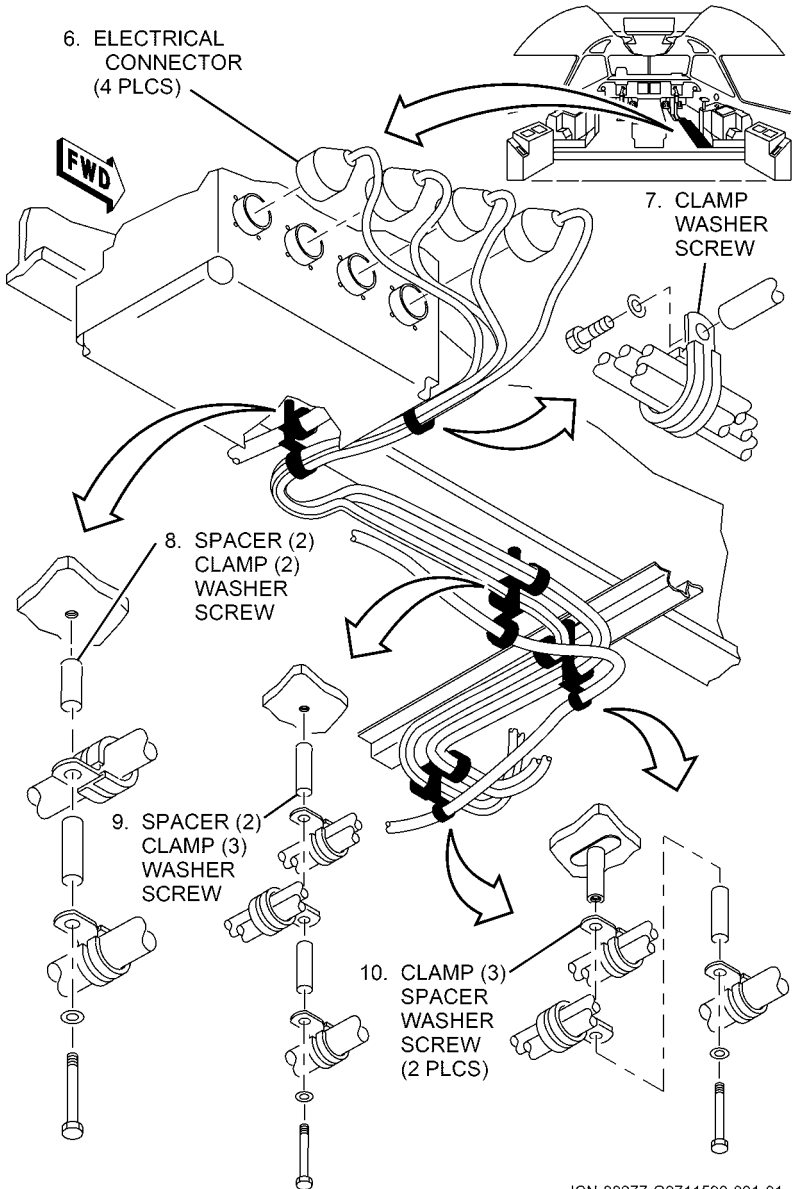
ICN-88277-G2711601-002-01

TO 1300i-2-27JG-10-3

6. (A) Connect electrical connectors as follows:

CONNECTOR REF DES	JUNCTION REF DES
3912PP232	3912JE232
3912PP233	3912JE233
3912PP236	3912JE236
3912PP237	3912JE237

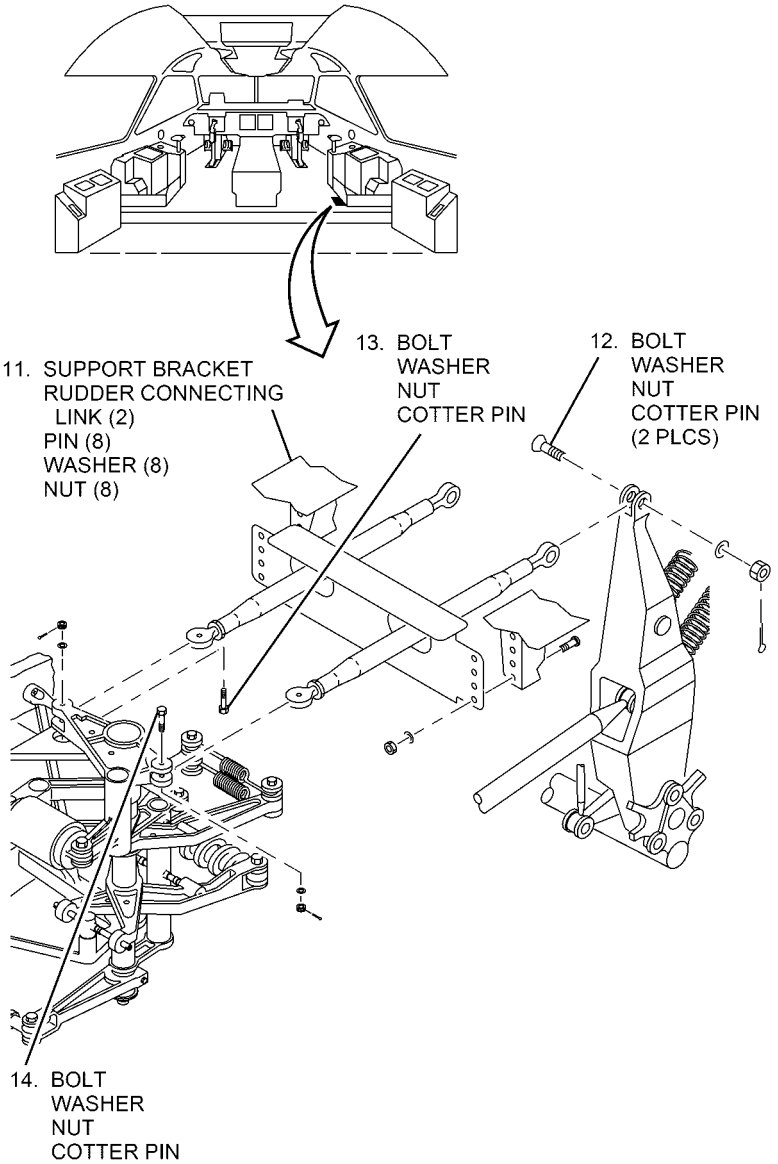
7. (A) Install clamp, washer, and screw.
8. (A) Install spacers, clamps, washer, and screw.
9. (A) Install spacers, clamps, washer, and screw.
10. (A) Install clamps, spacer, washer, and screw.



ICN-88277-G2711590-001-01

TO 1300i-2-27JG-10-3

11. (A,B) Position support bracket and rudder connecting links; install pins, washers, and nuts.
12. (A) Install bolts, washers, nuts and cotter pins.
13. (A) Install bolt, washer, nut, and cotter pin.
14. (A) Install bolt, washer, nut, and cotter pin.



ICN-88277-G2711399-006-01

3-5. FOLLOW-ON MAINTENANCE.

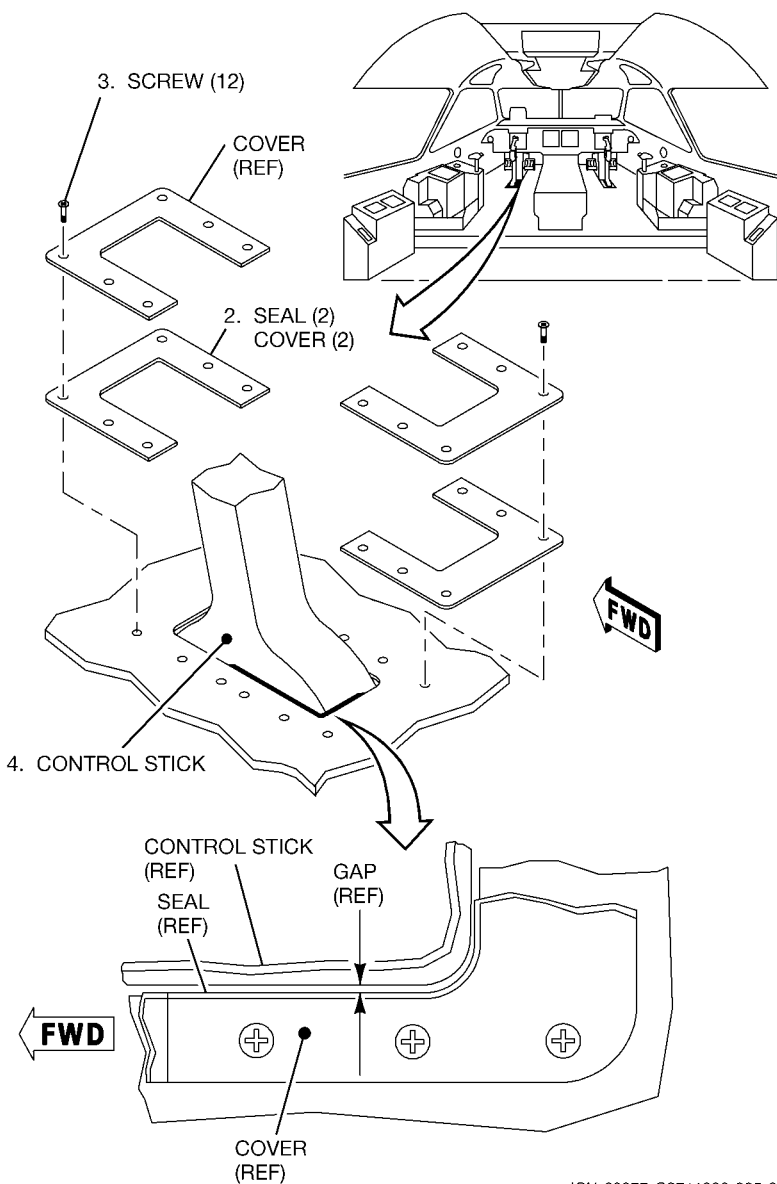
1. Install upper crew compartment floor panel (53-21-10) as follows:

STICK REF DES	PANEL NO.
2711AA001	211AZY, 211BZY, 213AZY, 213BZY
2711AA002	211CZY, 211DZY, 214AZY, 214BZY

WARNING

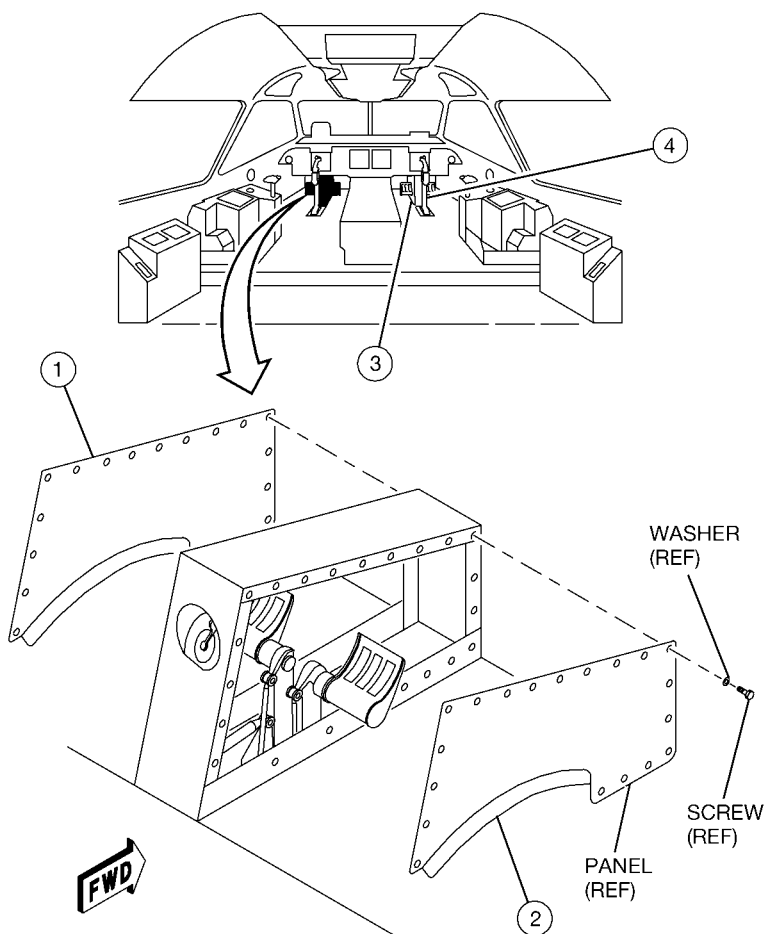
Control stick shield seals and covers must be properly aligned around control stick before securing cover assembly. Failure to comply may cause injury to personnel or damage to aircraft

2. Position seals and covers around control stick.
- Ensure bolt holes are properly aligned and a consistent gap exists between cover assembly and control stick.
3. Install and tighten screws.
- Consistent gap of 0.01 to 0.100 in. between cover assembly and control stick is maintained.
4. Move control stick fully forward and fully aft.
- No binding occurs.



ICN-88277-G2711298-005-01

5. Install panel, washers, and screws.



5.—

STICK REF DES	INDEX NO	PANEL NO	SCREW/ WASHER QTY
2711AA001	1	211FZM	19
	2	211JZM	19
2711AA002	3	211LZM	19
	4	211MZM	19

(TYPICAL)

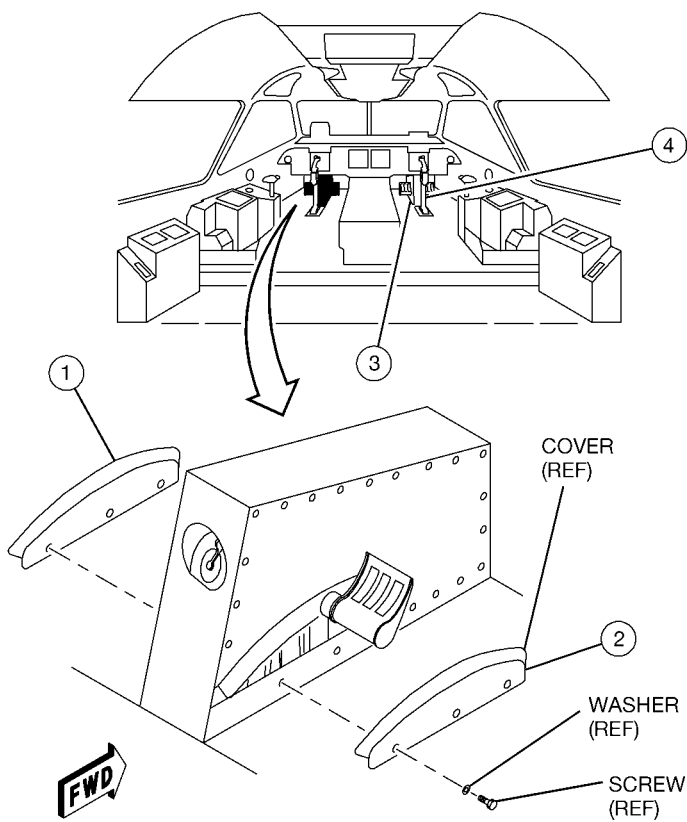
ICN-88277-G2711405-005-01

TO 1300i-2-27JG-10-3

- 6. Install cover, washers, and screws.
- 7. Install stick shaker (22-18-12) as follows:

STICK REF DES	SHAKER REF DES
2711AA001	2218BB001
2711AA002	2218BB002

- 8. Remove rudder aircraft ground safety lock (05-10-01, task 01-2).
- 9. Remove aileron aircraft ground safety lock (05-10-01, task 01-4).
- 10. Remove elevator aircraft ground safety lock (05-10-01, task 01-6).
- 11. Perform control stick sensor assembly follow-on maintenance (22-15-13, task 3-2).
- 12. Perform electronic flight control system maintenance built-in-test (40-00-02).



6.

STICK REF DES	INDEX NO	PANEL NO	SCREW/ WASHER QTY
2711AA001	1	211GZM	3
	2	211HZM	3
2711AA002	3	211KZM	3
	4	211NZM	3

(TYPICAL)

ICN-88277-G2711403-004-01

CONTROL STICK ASSEMBLY REPAIR (27-11-10-4)

FUNCTIONAL INPUT CONDITIONS:

Applicability:

All

Task

All

Additional information:

This procedure consists of the following tasks:

- 4-1. Preparation.
- 4-2. Repair control stick assembly by replacing connecting link.
- 4-3. Repair control stick assembly by replacing balance spring.
- 4-4. Repair control stick assembly by replacing roll damper.
- 4-5. Repair of control stick by lubricating bearing.
- 4-5A. Repair of control stick by tightening hub nut.
- 4-6. Follow-on maintenance.

Additional data:

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

Task

4-1,
4-4,
4-6

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

4-4

TO 1300i-2-27FI-00-1

4-4

TO 1300i-23

4-4

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

4-1,
4-6

Personnel recommended:

	Task
One	4-1, 4-2, 4-3, 4-5, 4-5A, 4-6
Two	4-4
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.



To prevent clevis and bearing rod ends from binding, ensure that the clevis and bearing rod ends are centered vertically and in plane with the bell and dampener crank assembly clevis ends. Failure to comply may cause damage to aircraft, and may also result in mechanical contact and/or bearing binding near full stick deflection which may result in full alternate stick feel characteristic and possible reversion to **ROLL FORCE MODE**.

Support equipment:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Wrench, Torque	--	(150-750 in-lb)	1	4-5, 4-5A

Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Antiseize Compound	C5-A	--	AR	4-5
Compound, Sealing	Loctite 222	--	AR	4-5
Lubricant	884-4 OLUBE	--	AR	4-5
Pin, Cotter	MS24665-151	--	2	4-2, 4-4
Protractor, Pro 360 Digital or Equivalent	J-38460-A	(Full 360° circle range)	1	4-5
Sealant	PR-1775 B-2	AMS 3265	AR	4-4

27-11-10-4
2-84/(2-85 blank)

Nomenclature

Wire, Safety

PN

MS20995F32

Specification

--

Qty

AR

Task

4-5,
4-5A

TO 1300i-2-27JG-10-3

4-1. PREPARATION.

NOTE

This is a typical preparation task for all control stick assemblies.

- 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 aileron aircraft ground safety lock (05-10-01, task 01-3).
- 4. Install elevator aircraft ground safety lock (05-10-01, task 01-5).
- 5. Remove horizontal pressure panel access cover assembly (53-12-10).

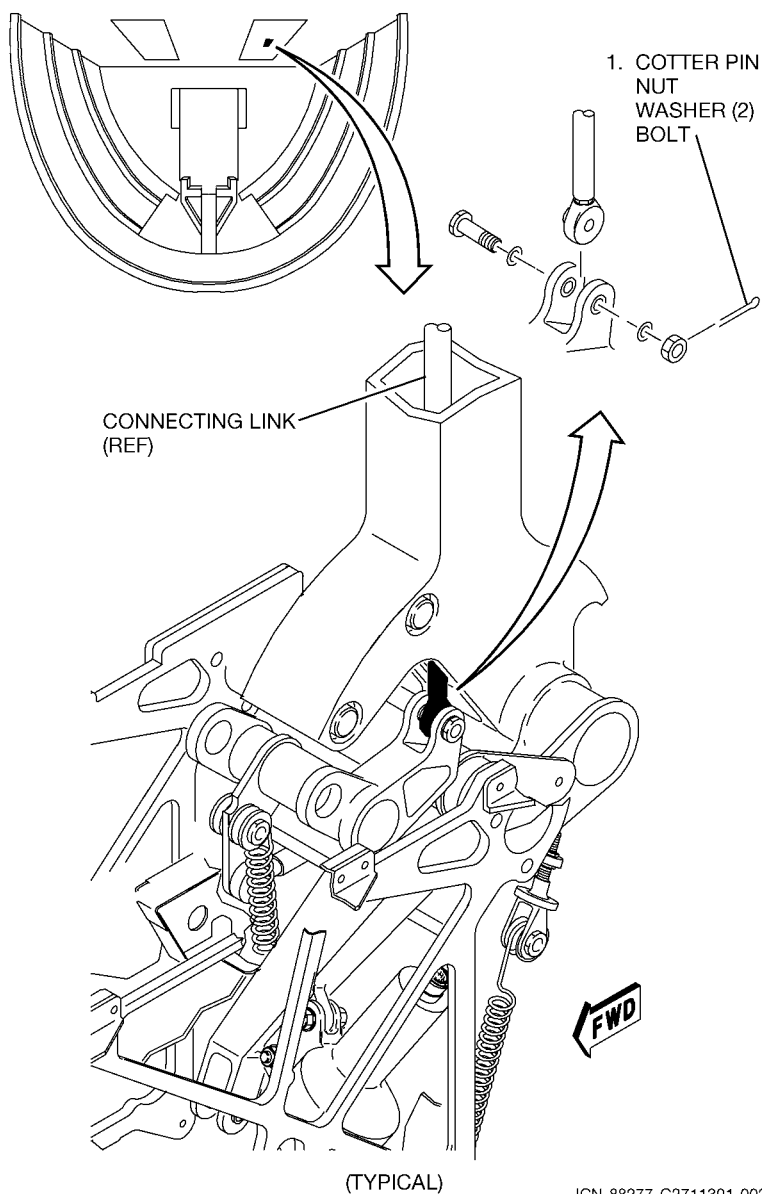
STICK REF DES	PANEL NO.	PANEL REF DES
2711AA001	112AZP	5312CA001
2711AA002	112BZP	5312CA002

4-2. REPAIR CONTROL STICK ASSEMBLY BY REPLACING CONNECTING LINK.

NOTE

This is a typical repair task for all control stick assembly connecting links.

1. Remove cotter pin, nut, washers, and bolt from connecting link.



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TO 1300i-2-27JG-10-3

2. Remove screws and plate.
3. Position control stick; remove retaining ring and plug.
4. Remove cotter pin, nut, washer, bolt, and connecting link.
5. Position connecting link; install bolt, washer, nut, and cotter pin.
6. Install plug and retaining ring.
7. Install plate and screws.