

TO 1300i-2-27JG-40-3

TECHNICAL MANUAL

JOB GUIDE ORGANIZATIONAL MAINTENANCE

FLIGHT CONTROLS HORIZONTAL STABILIZER

(27-40-00 AND 27-42-13)

USAF SERIES **300i** AIRCRAFT

MCDONNELL DOUGLAS CORPORATION
MILITARY TRANSPORT AIRCRAFT
F33657-81-C-2108
FA8526-21-D-0001

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1 JULY 2022

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T-2

1 JULY 2022

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 DESTROY SUPERSEDED PAGES.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 Jul 22

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 212 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.	0		
1-2 blank	0		
2-1 thru 2-108	0		
2-109 blank	0		
2-110 thru 2-122.	0		
2-123 blank	0		
2-124 thru 2-136.	0		
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2-138 thru 2-150.	0		
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2-202 blank	0		

*Zero in this column indicates an original page.

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INTRODUCTION

SCOPE.

This job guide provides maintenance procedures for the removal of horizontal stabilizer components.

MODEL(S) COVERED.

All

ABBREVIATIONS.

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

STA

Station

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 (27-40-00)

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

1-5. 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 and damage to aircraft.

SECTION 2

CABLE ASSEMBLY (27-42-13)

MASTER INPUT CONDITIONS:

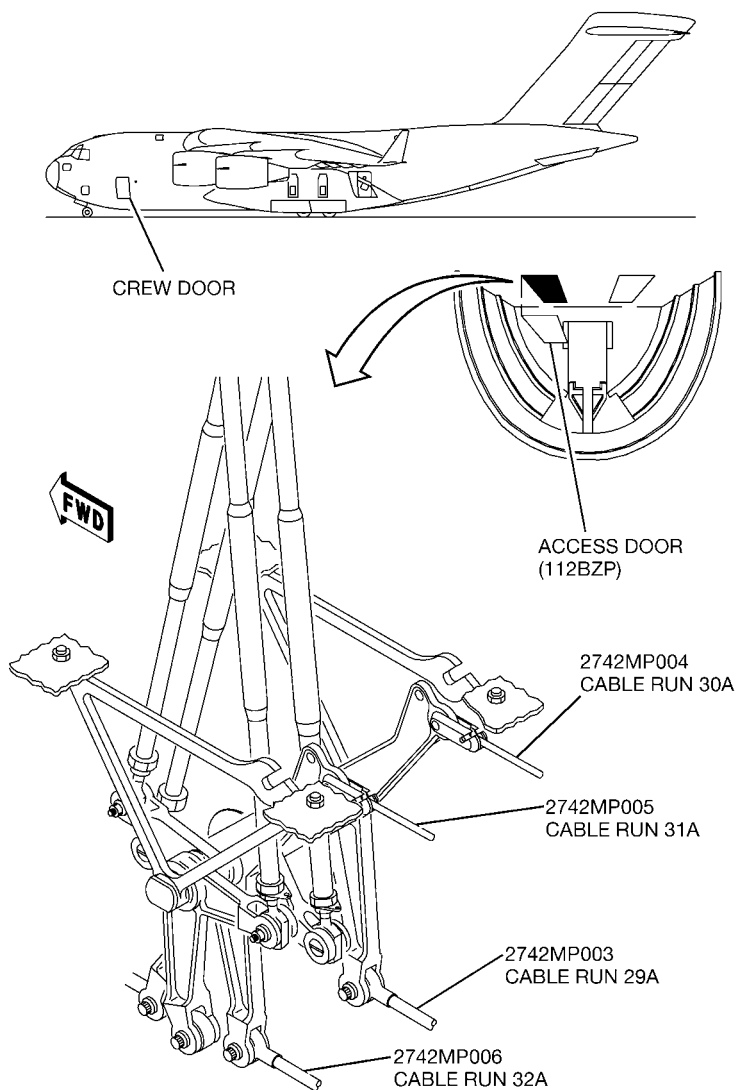
Reference designators:

2742MP003	Cable Assembly
2742MP004	Cable Assembly
2742MP005	Cable Assembly
2742MP006	Cable Assembly
2742MP007	Cable Assembly
2742MP008	Cable Assembly
2742MP009	Cable Assembly
2742MP010	Cable Assembly
2742MP011	Cable Assembly
2742MP012	Cable Assembly
2742MP013	Cable Assembly
2742MP014	Cable Assembly

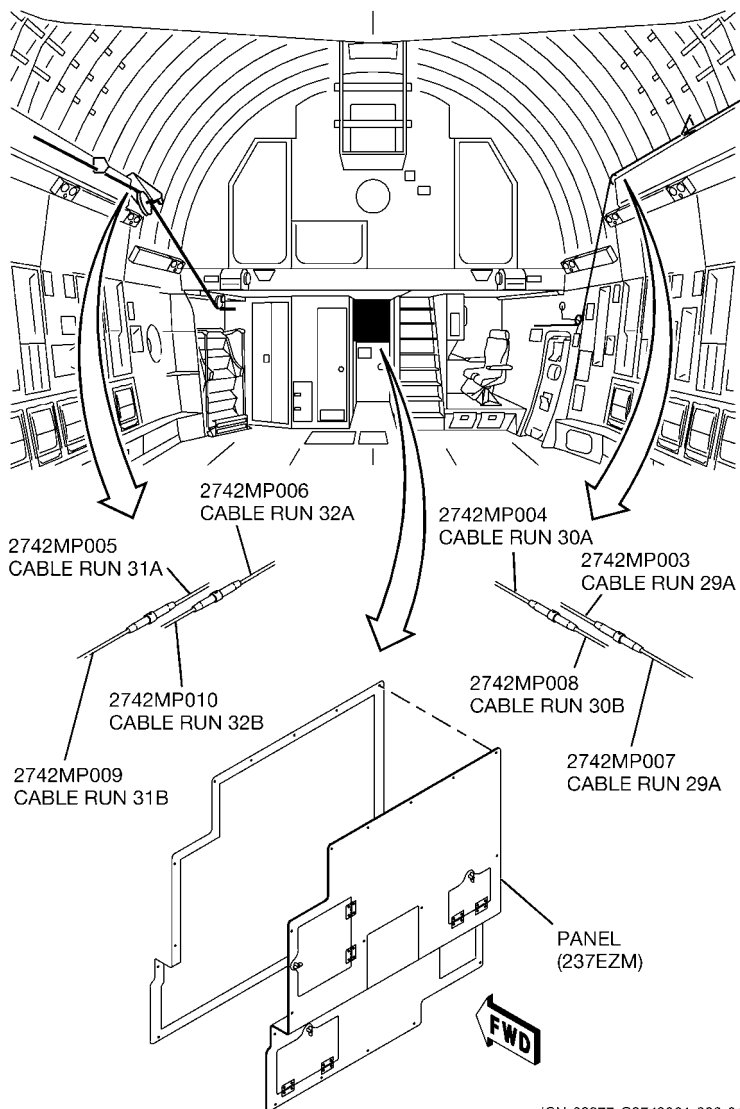
Applicable functions:

-2 Removal.

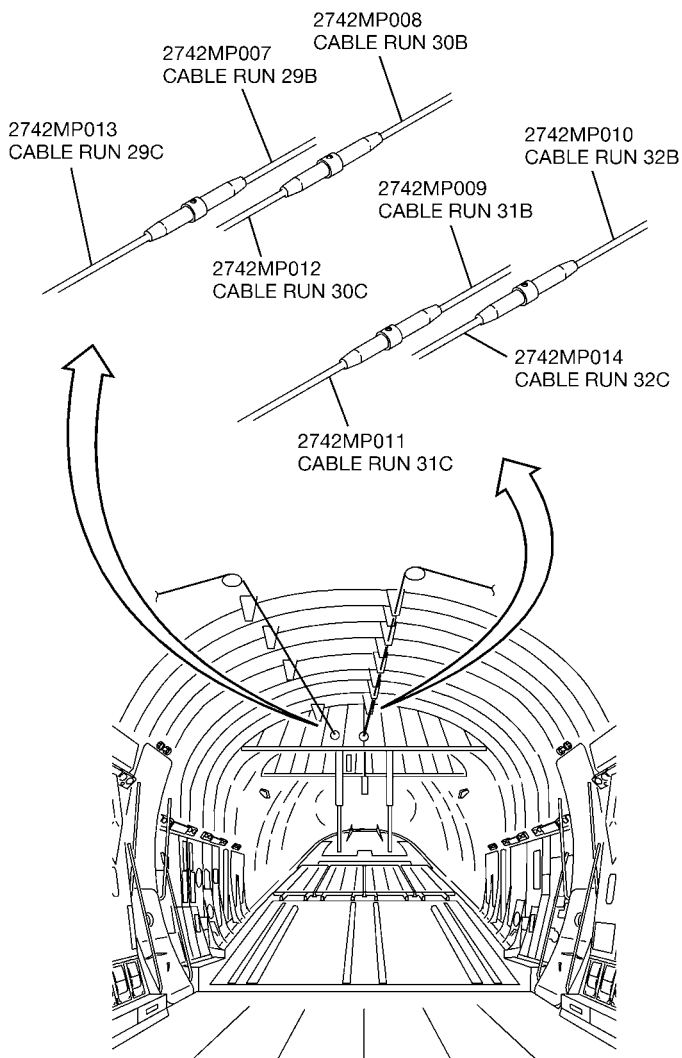
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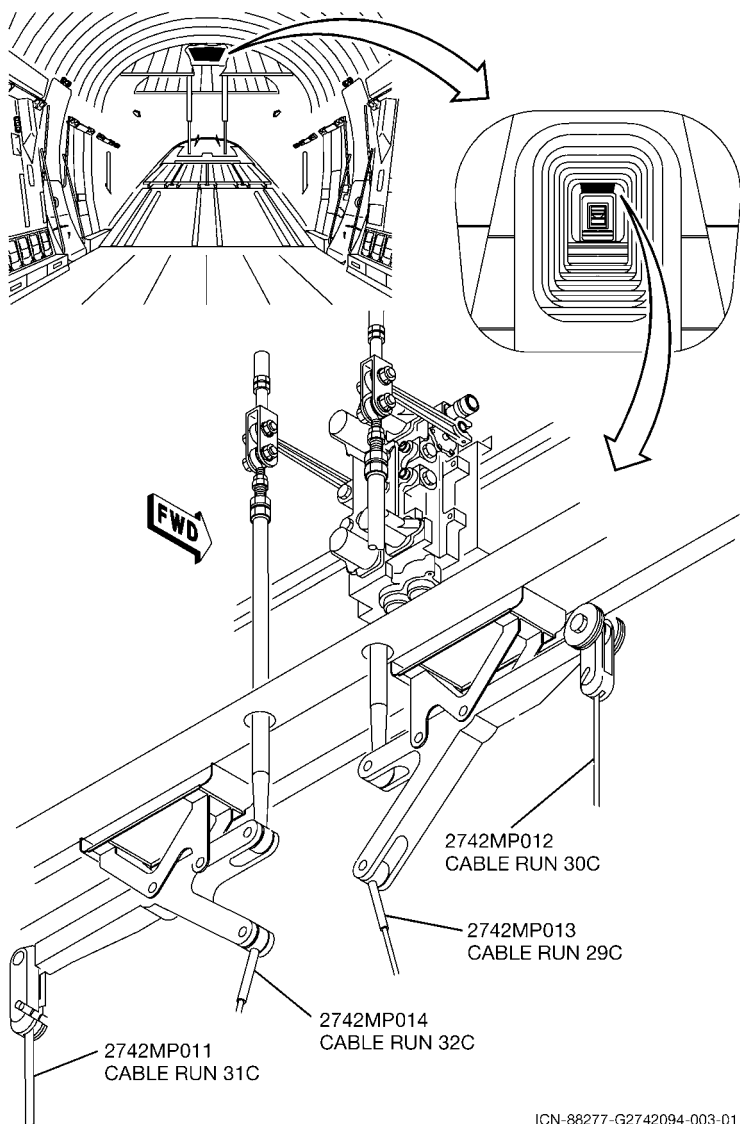
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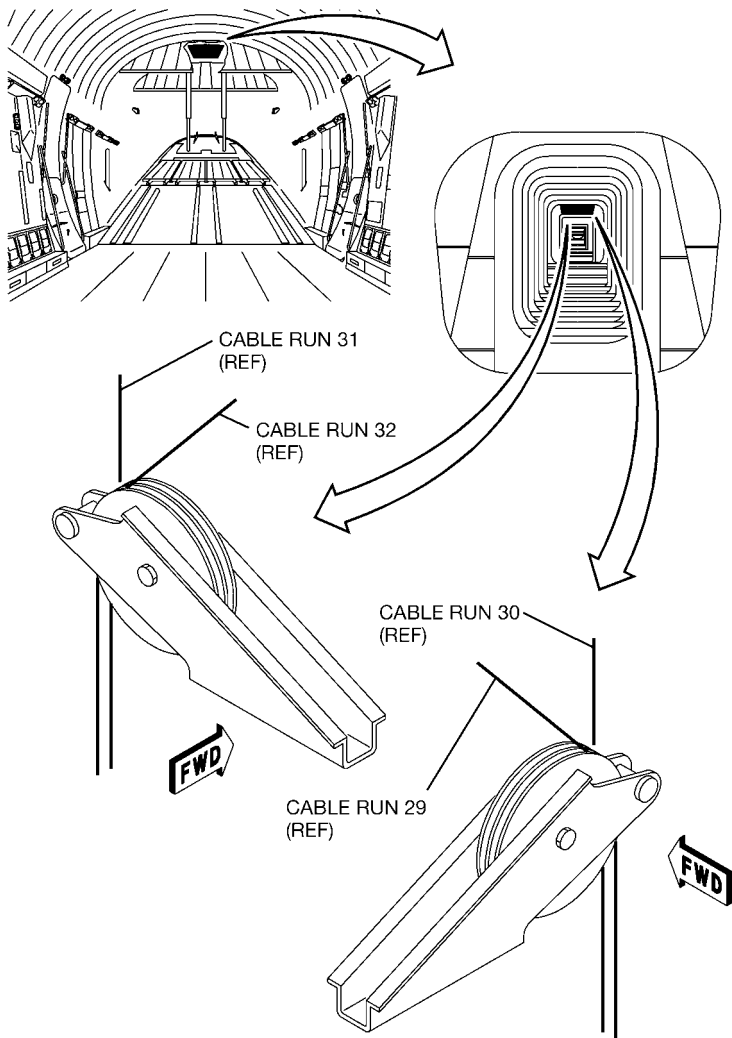
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ICN-88277-G2742062-003-01



ICN-88277-G2742094-003-01



ICN-88277-G2742433-001-01

CABLE ASSEMBLY REMOVAL (27-42-13-2)

FUNCTIONAL INPUT CONDITIONS:

Applicability:

All

Task

All

Additional information:

This procedure consists of the following tasks:

- 2-1. Preparation for cable run 29A, REF DES 2742MP003, and cable run 30A, REF DES 2742MP004.
- 2-2. Preparation for cable run 31A, REF DES 2742MP005, and cable run 32A, REF DES 2742MP006.
- 2-3. Preparation for cable run 29B, REF DES 2742MP007, cable run 30B, REF DES 2742MP008, cable run 31B, REF DES 2742MP009, cable run 32B, REF DES 2742MP010, cable run 31C, REF DES 2742MP011, cable run 30C, REF DES 2742MP012, cable run 29C, REF DES 2742MP013, and cable run 32C, REF DES 2742MP014.
- 2-4. Removal for cable run 29A, REF DES 2742MP003.
- 2-5. Removal for cable run 30A, REF DES 2742MP004.
- 2-6. Removal for cable run 31A, REF DES 2742MP005.
- 2-7. Removal for cable run 32A, REF DES 2742MP006.
- 2-8. Removal for cable run 29B, REF DES 2742MP007.
- 2-9. Removal for cable run 30B, REF DES 2742MP008.
- 2-10. Removal for cable run 31B, REF DES 2742MP009.
- 2-11. Removal for cable run 32B, REF DES 2742MP010.
- 2-12. Removal for cable run 29C, REF DES 2742MP013.
- 2-13. Removal for cable run 30C, REF DES 2742MP012.
- 2-14. Removal for cable run 31C, REF DES 2742MP011.
- 2-15. Removal for cable run 32C, REF DES 2742MP014.

Additional data:

TO 1300i-2-00JG-00-1

Task

2-1,
2-2,
2-3

Personnel recommended:

- Two
- Person (A) performs task.
- Person (B) assists person (A).

Task

All

Safety conditions:

NA

Task

--

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	2-4, 2-5, 2-6, 2-7, 2-12, 2-13, 2-14, 2-15
Assembly, Clamp	17G140015-7	--	2	2-8, 2-9, 2-10, 2-11
Pin 5-3, Rig	17G140015-31	--	2	2-1, 2-2, 2-3
Pin 5-8, Rig	17G140015-15	--	1	2-1, 2-2

TO 1300i-2-27JG-40-3

27-42-13-2
2-10

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Tool, Turnbuckle Adjustment	17G140019-1	--	1	2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14

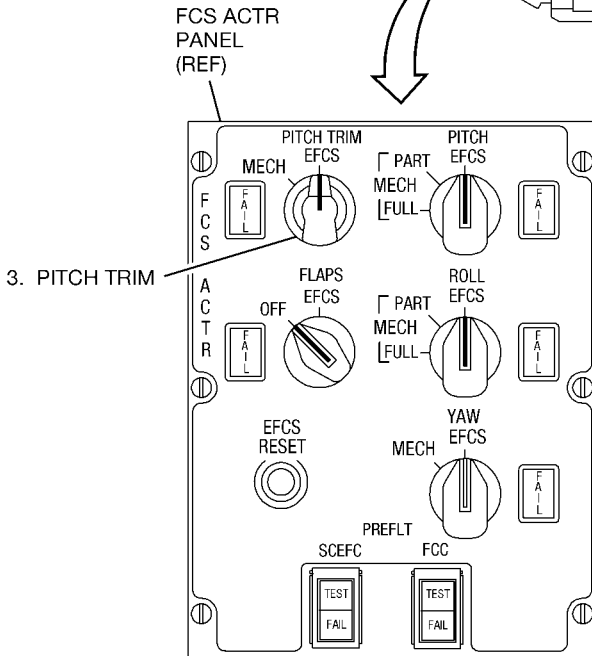
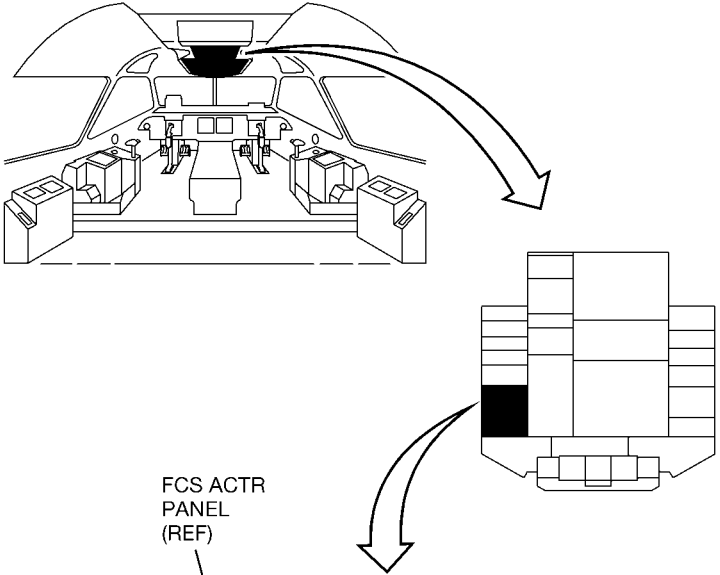
TO 1300i-2-27JG-40-3

Supplies:

<u>Nomenclature</u>	<u>PN</u>	<u>Specification</u>	<u>Qty</u>	<u>Task</u>
Cord, Nylon Utility	300NOR17NAT	--	50 ft	2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14
Tag, Warning	--	--	2	2-1, 2-2, 2-3

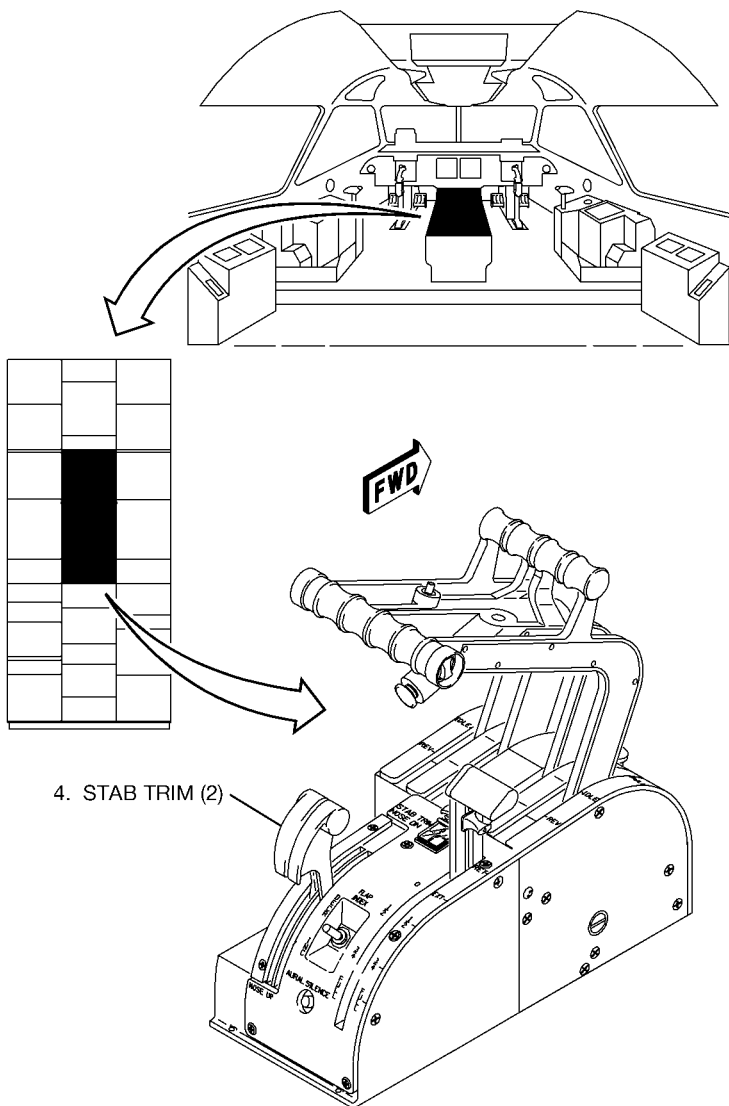
2-1. PREPARATION FOR CABLE RUN 29A, REF DES 2742MP003, AND CABLE RUN 30A, REF DES 2742MP004.

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. (A) Set **PITCH TRIM** switch on **FCS ACTR** panel to **MECH** and attach warning tag.



ICN-88277-G2742063-003-01

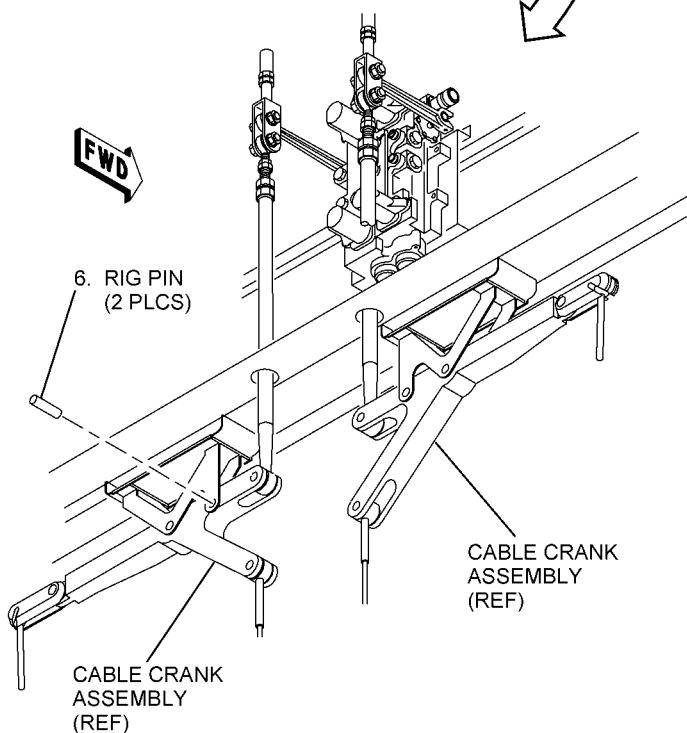
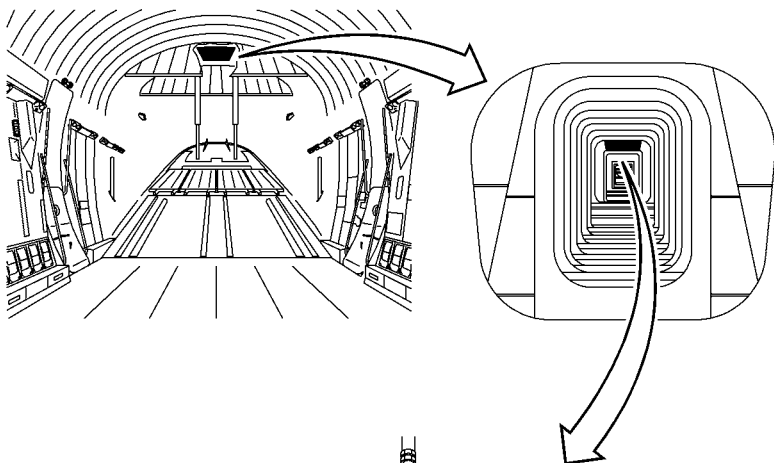
4. (A) Attach warning tag to **STAB TRIM** handles.



ICN-88277-G2742064-003-01

TO 1300i-2-27JG-40-3

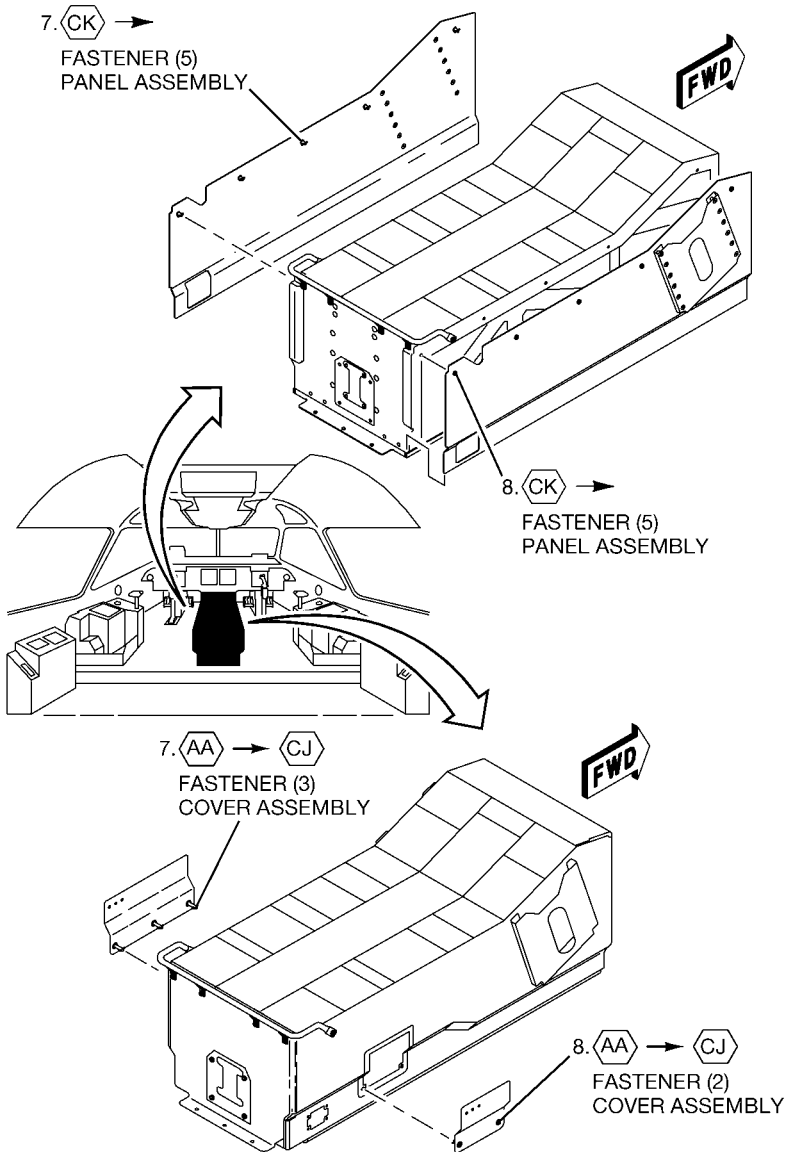
5. Enter vertical stabilizer (00-00-02, task 02-1).
6. (A) Install rig pins 5-3 in cable crank assemblies.



ICN-88277-G2742065-005-01

TO 1300i-2-27JG-40-3

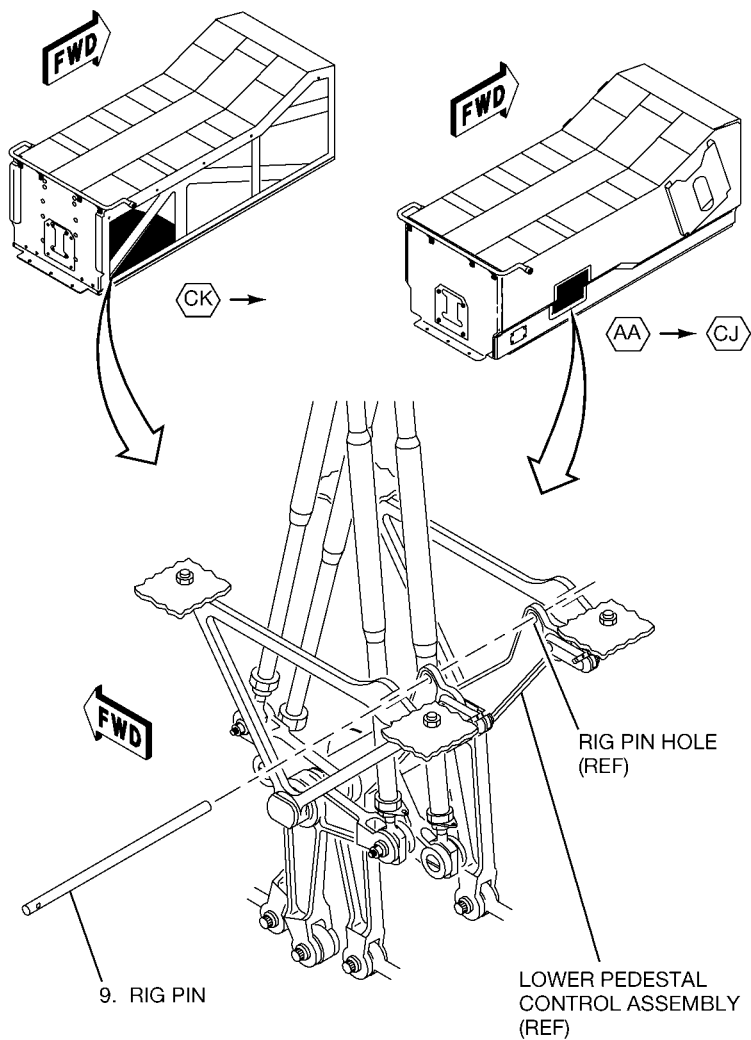
7. $\langle \text{AA} \rangle \rightarrow \langle \text{CJ} \rangle$ (A) Loosen fasteners and remove cover assembly (212AZC).
7. $\langle \text{CK} \rangle \rightarrow$ (A) Loosen fasteners and remove panel assembly (212AZP).
8. $\langle \text{AA} \rangle \rightarrow \langle \text{CJ} \rangle$ (A) Loosen fasteners and remove cover assembly (212BZC).
8. $\langle \text{CK} \rangle \rightarrow$ (A) Loosen fasteners and remove panel assembly (212BZP).



ICN-88277-G2742409-002-01

TO 1300i-2-27JG-40-3

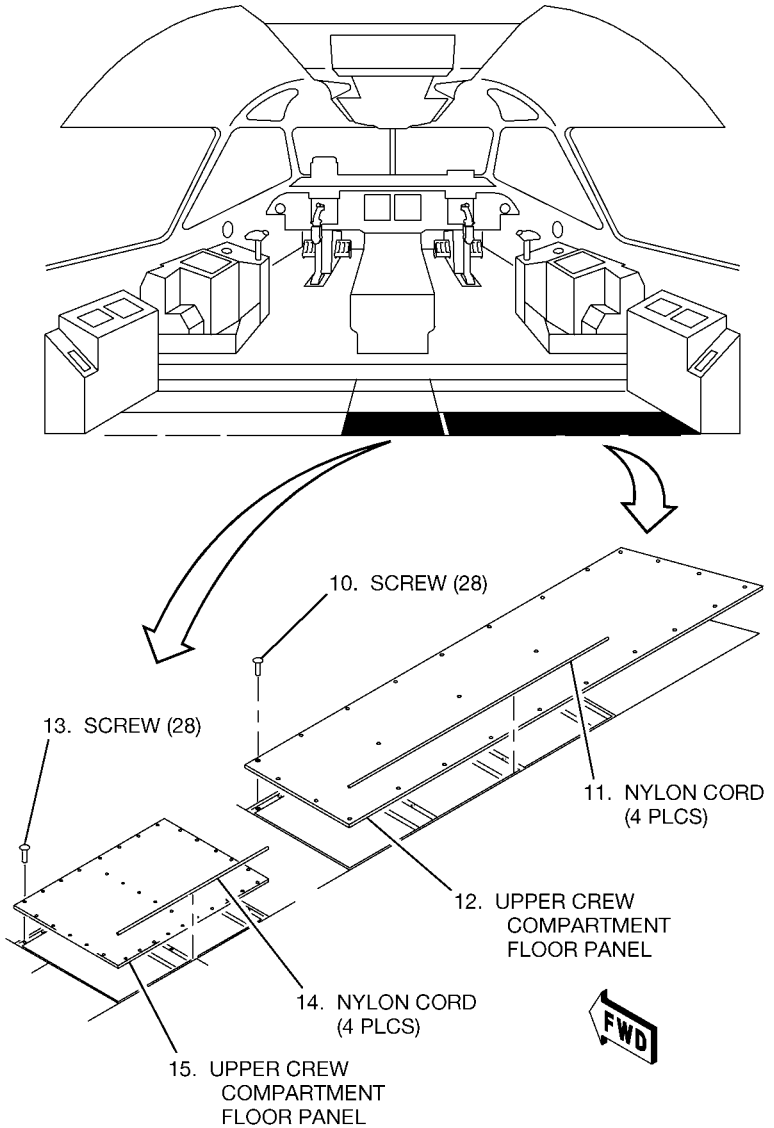
9. (A) Install rig pin 5-8 through both rig pin holes of the lower pedestal control assembly.



ICN-88277-G2742067-005-01

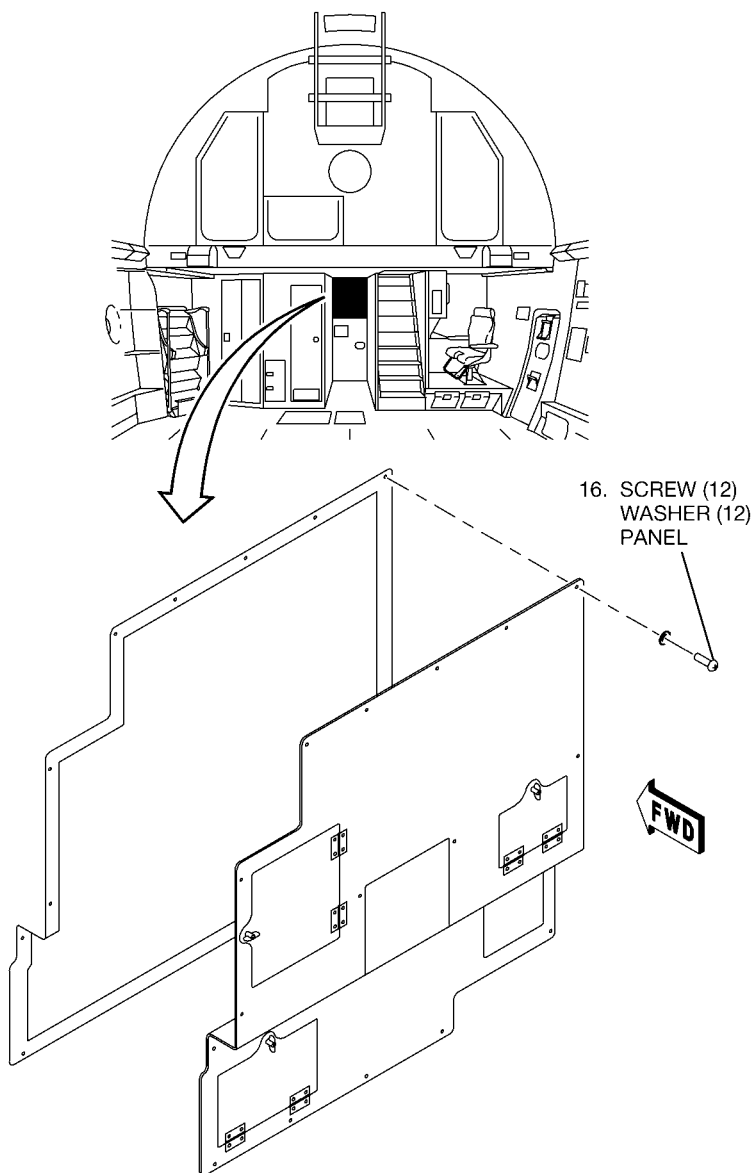
TO 1300i-2-27JG-40-3

10. (A) Remove screws from upper crew compartment floor panel (216EZY).
11. (A) Remove and discard nylon cords.
12. (A) Remove panel.
13. (A) Remove screws from upper crew compartment floor panel (217BZY).
14. (A) Remove and discard nylon cords.
15. (A) Remove panel.



ICN-88277-G2742068-004-01

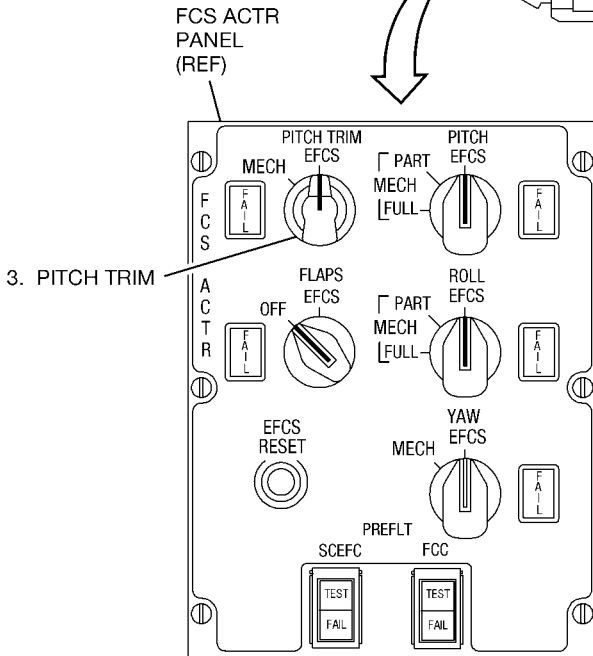
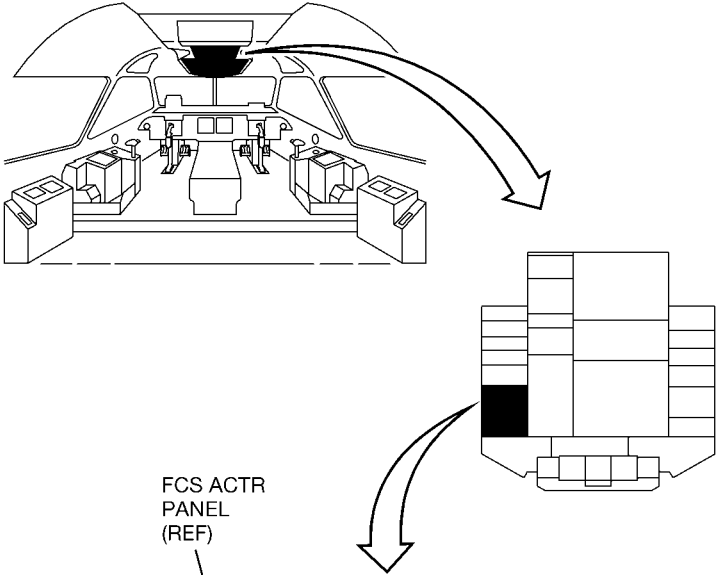
16. (A,B) Identify and remove screws, washers, and panel (237EZM).



ICN-88277-G2742069-003-01

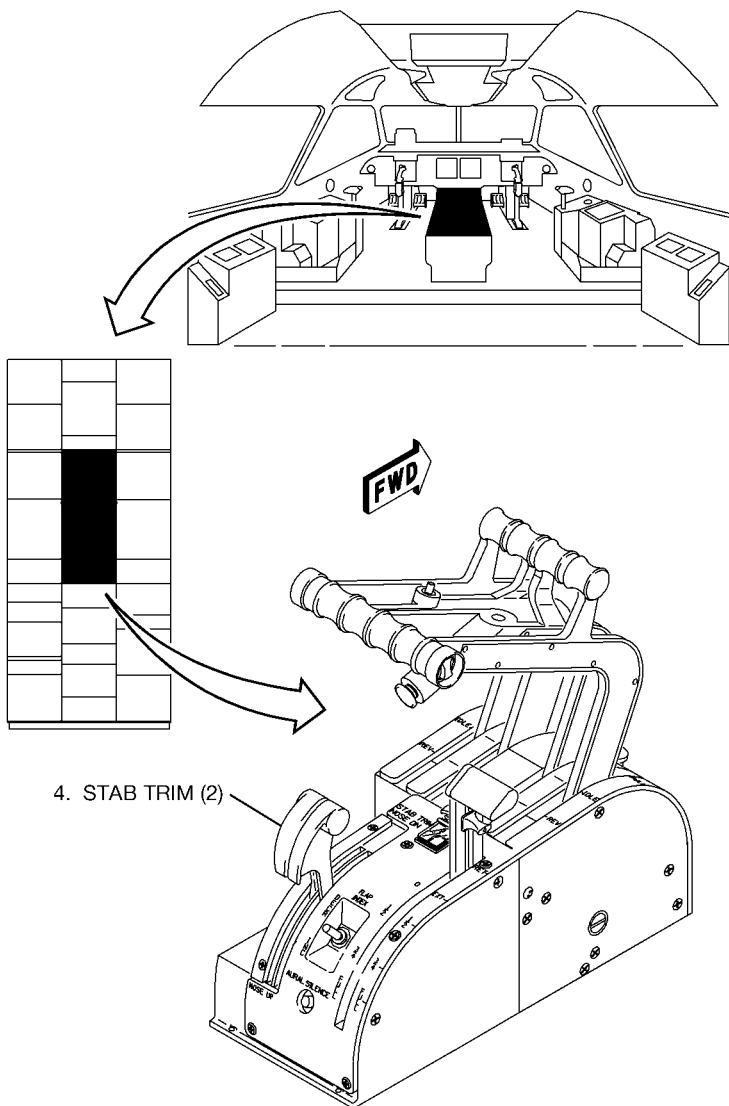
2-2. PREPARATION FOR CABLE RUN 31A, REF DES 2742MP005, AND CABLE RUN 32A, REF DES 2742MP006.

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. (A) Set **PITCH TRIM** switch on **FCS ACTR** panel to **MECH** and attach warning tag.



ICN-88277-G2742070-003-01

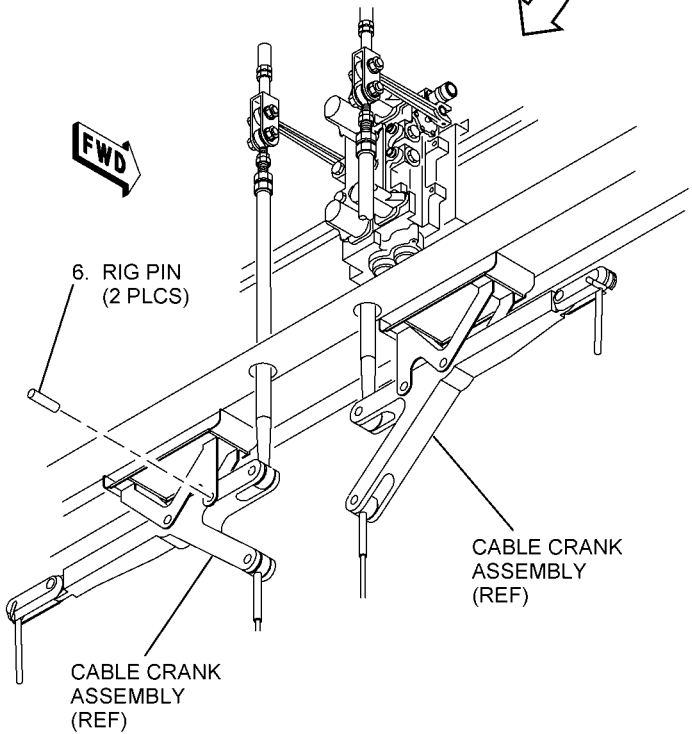
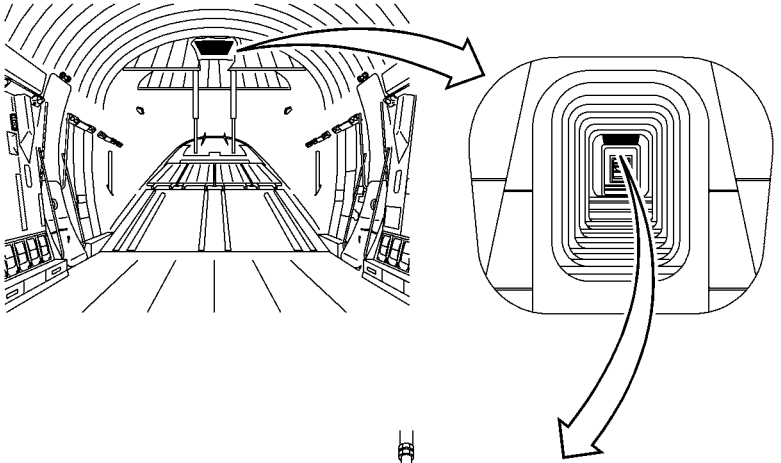
4. (A) Attach warning tag to **STAB TRIM** handles.



ICN-88277-G2742071-003-01

TO 1300i-2-27JG-40-3

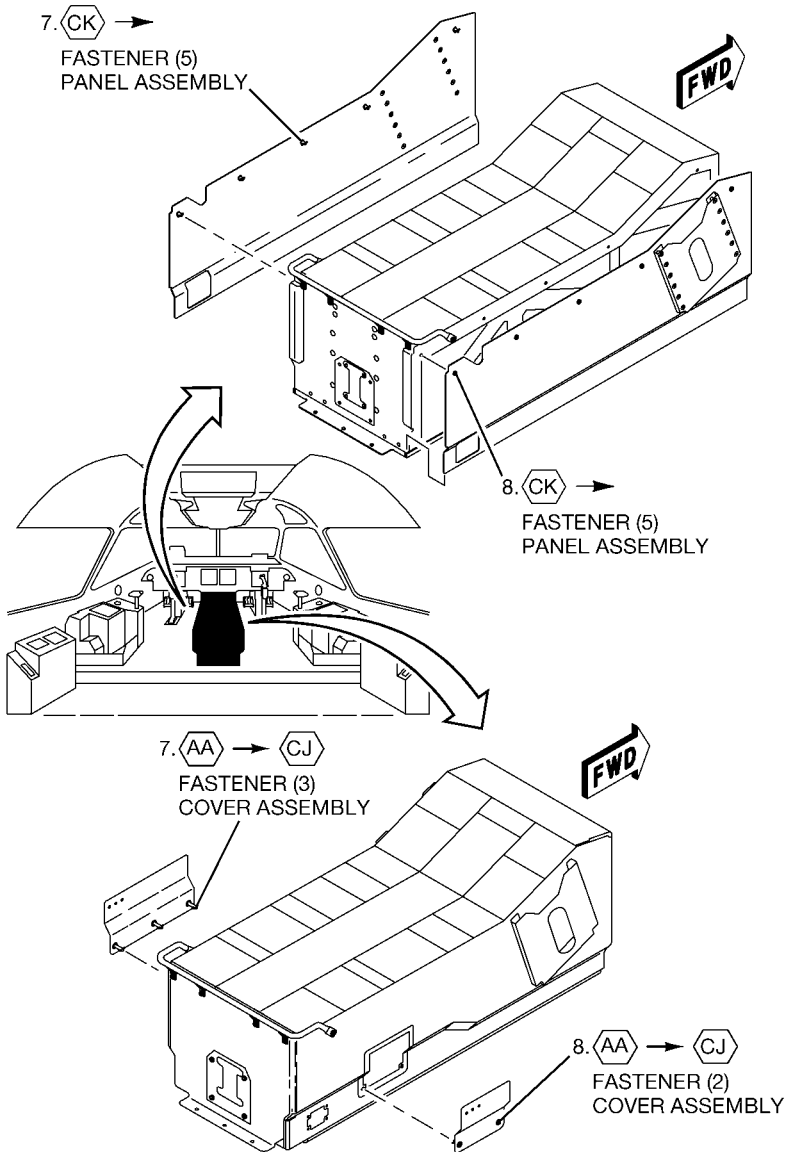
5. Enter vertical stabilizer (00-00-02, task 02-1).
6. (A) Install rig pins 5-3 in cable crank assemblies.



ICN-88277-G2742072-005-01

TO 1300i-2-27JG-40-3

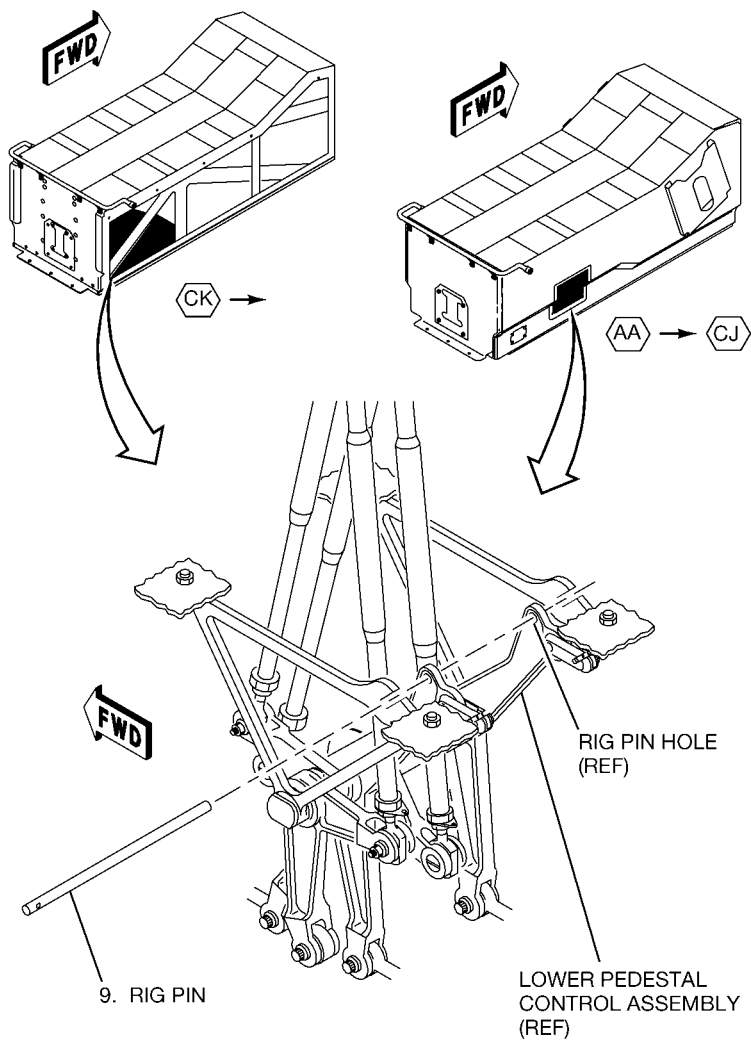
7. $\langle \text{AA} \rangle \rightarrow \langle \text{CJ} \rangle$ (A) Loosen fasteners and remove cover assembly (212AZC).
7. $\langle \text{CK} \rangle \rightarrow$ (A) Loosen fasteners and remove panel assembly (212AZP).
8. $\langle \text{AA} \rangle \rightarrow \langle \text{CJ} \rangle$ (A) Loosen fasteners and remove cover assembly (212BZC).
8. $\langle \text{CK} \rangle \rightarrow$ (A) Loosen fasteners and remove panel assembly (212BZP).



ICN-88277-G2742411-002-01

TO 1300i-2-27JG-40-3

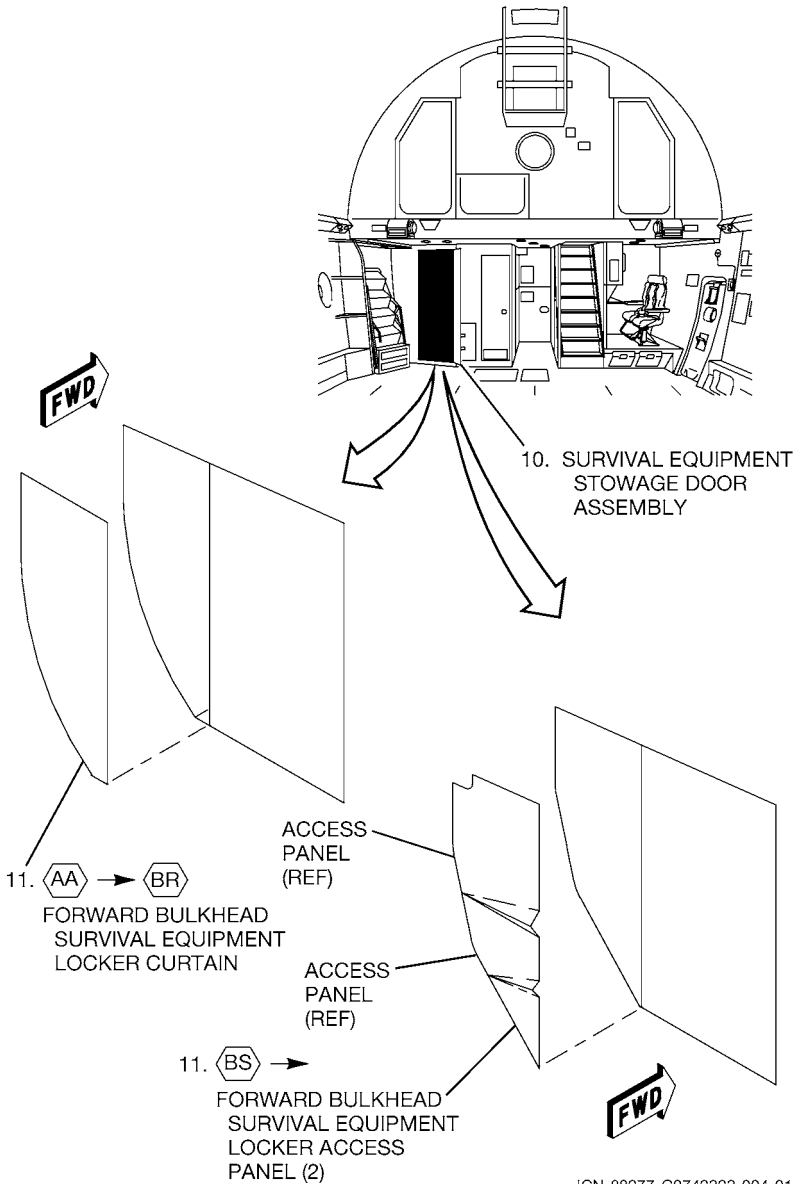
9. (A) Install rig pin 5-8 through both rig pin holes of the lower pedestal control assembly.



ICN-88277-G2742074-005-01

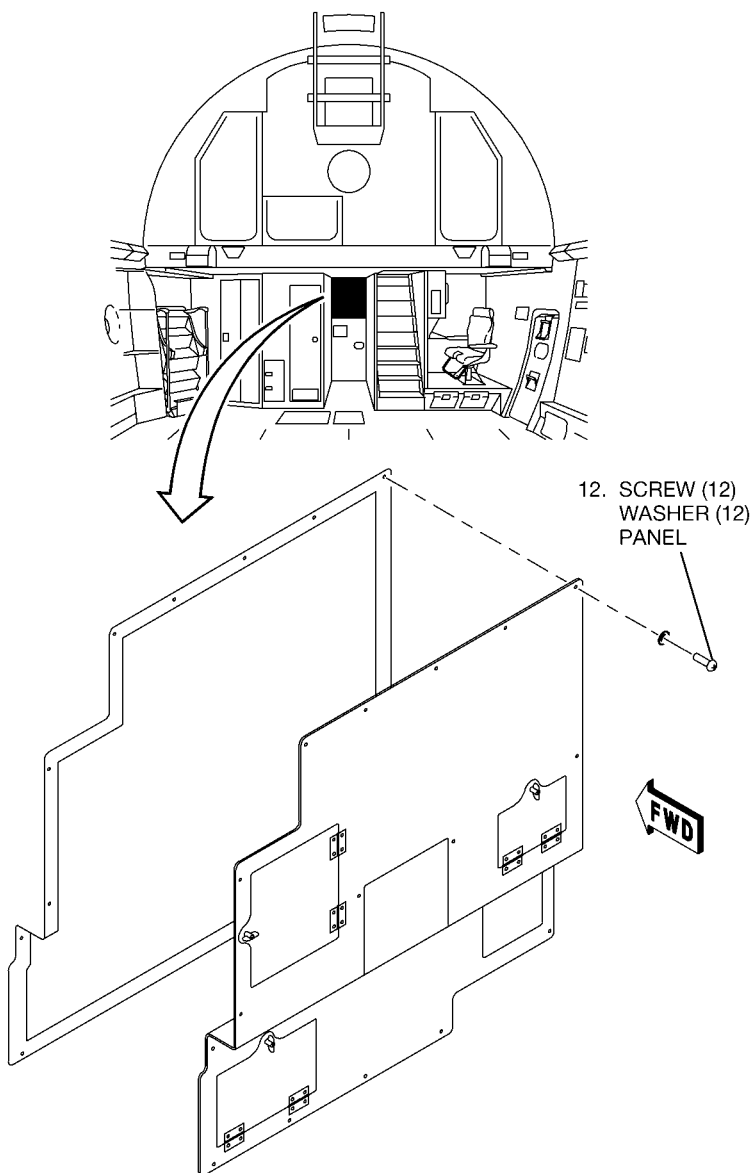
TO 1300i-2-27JG-40-3

10. (A) Unlatch and open survival equipment stowage door assembly (235EZD).
11. AA → BR (A) Remove forward bulkhead survival equipment locker curtain.
11. BS → (A) Remove forward bulkhead survival equipment locker access panels.



ICN-88277-G2742323-004-01

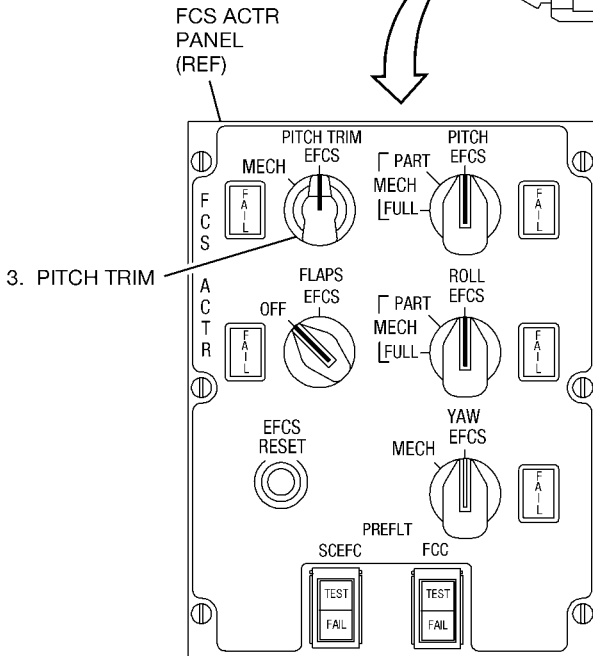
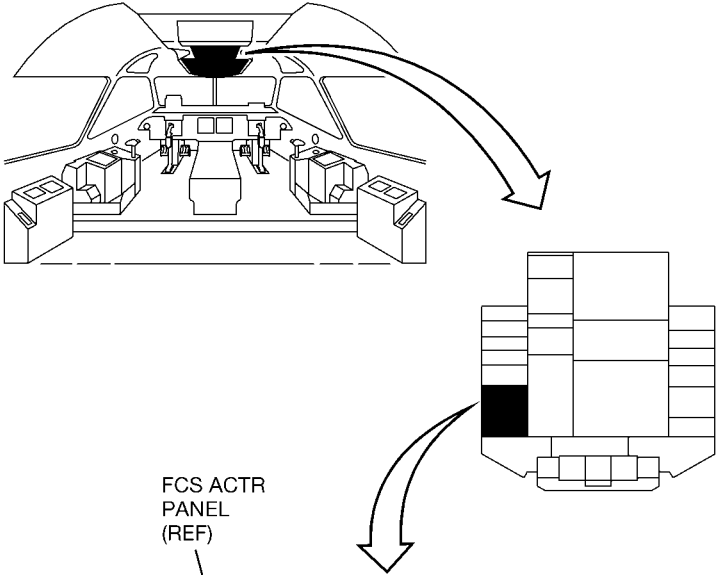
12. (A,B) Identify and remove screws, washers, and panel (237EZM).



ICN-88277-G2742076-003-01

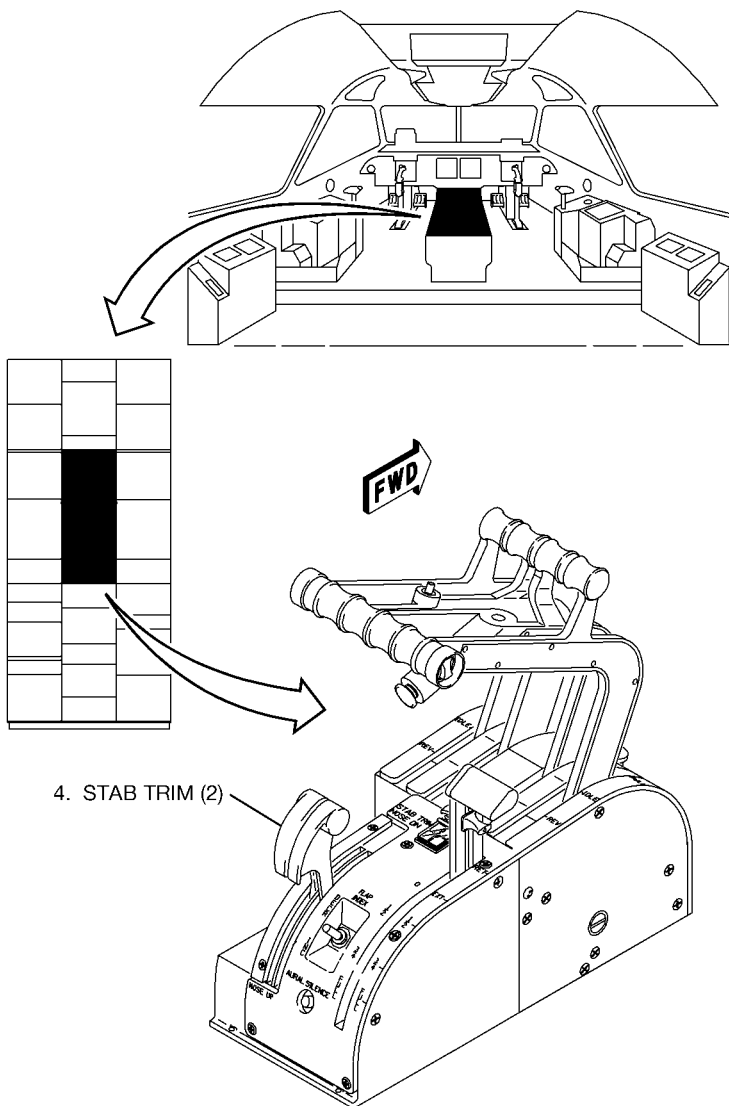
2-3. PREPARATION FOR CABLE RUN 29B, REF DES 2742MP007, CABLE RUN 30B, REF DES 2742MP008, CABLE RUN 31B, REF DES 2742MP009, CABLE RUN 32B, REF DES 2742MP010, CABLE RUN 31C, REF DES 2742MP011, CABLE RUN 30C, REF DES 2742MP012, CABLE RUN 29C, REF DES 2742MP013, AND CABLE RUN 32C, REF DES 2742MP014.

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. (A) Set **PITCH TRIM** switch on **FCS ACTR** panel to **MECH** and attach warning tag.



ICN-88277-G2742077-003-01

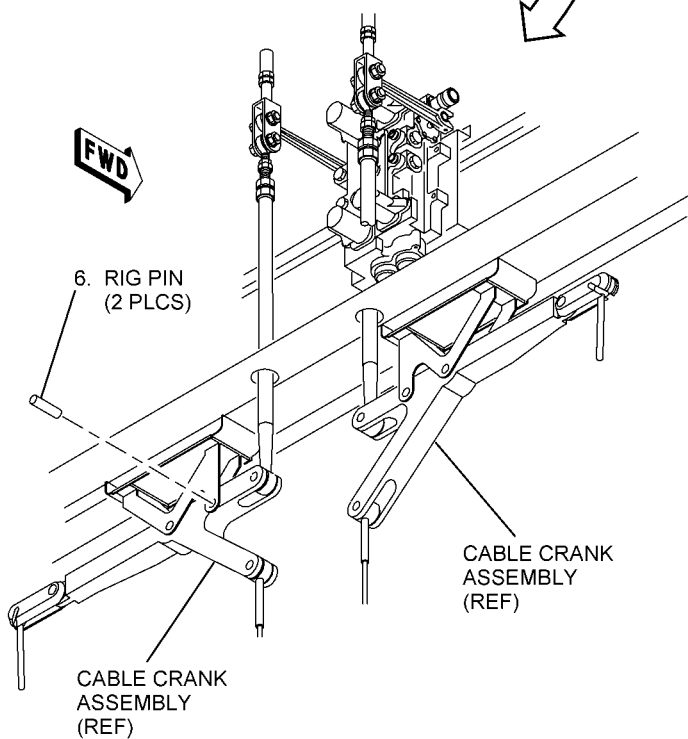
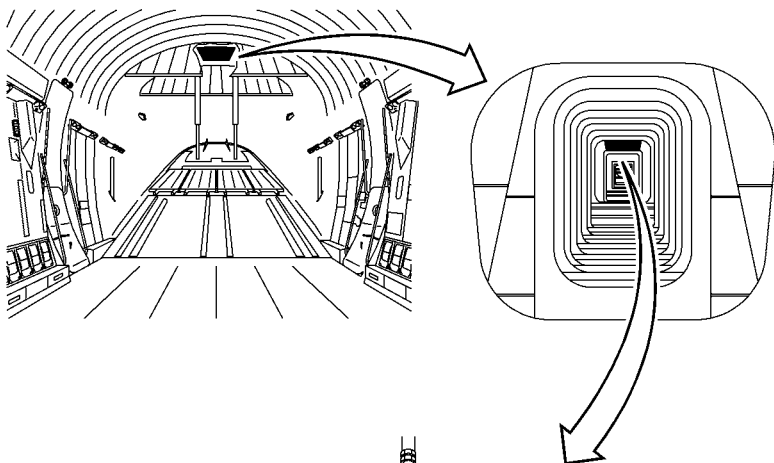
4. (A) Attach warning tag to **STAB TRIM** handles.



ICN-88277-G2742078-003-01

TO 1300i-2-27JG-40-3

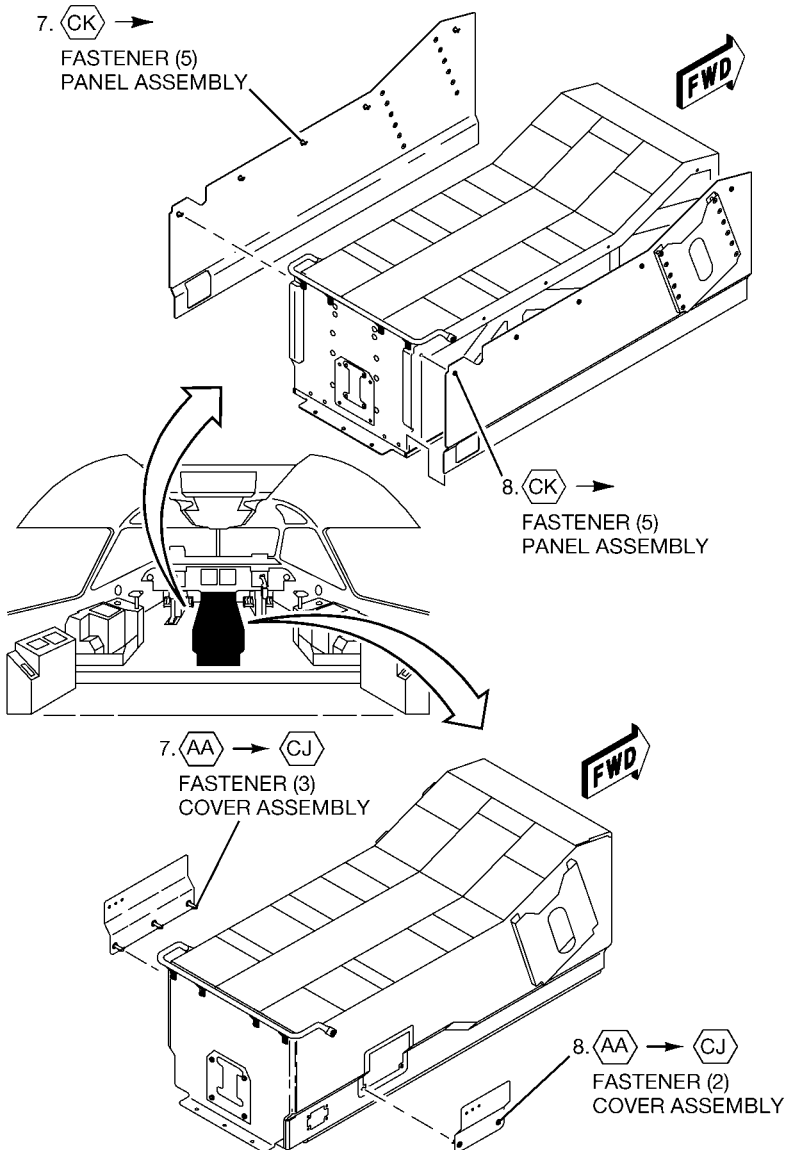
5. Enter vertical stabilizer (00-00-02, task 02-1).
6. (A) Install rig pins 5-3 in cable crank assemblies.



ICN-88277-G2742079-005-01

TO 1300i-2-27JG-40-3

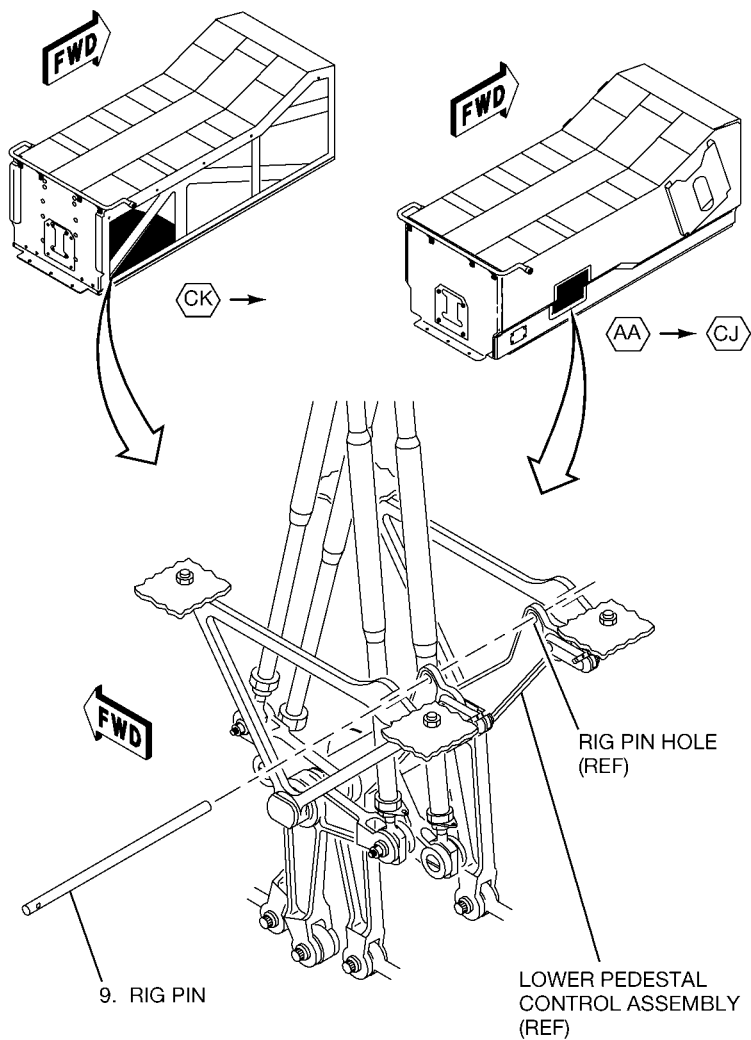
7. $\langle \text{AA} \rangle \rightarrow \langle \text{CJ} \rangle$ (A) Loosen fasteners and remove cover assembly (212AZC).
7. $\langle \text{CK} \rangle \rightarrow$ (A) Loosen fasteners and remove panel assembly (212AZP).
8. $\langle \text{AA} \rangle \rightarrow \langle \text{CJ} \rangle$ (A) Loosen fasteners and remove cover assembly (212BZC).
8. $\langle \text{CK} \rangle \rightarrow$ (A) Loosen fasteners and remove panel assembly (212BZP).



ICN-88277-G2742413-002-01

TO 1300i-2-27JG-40-3

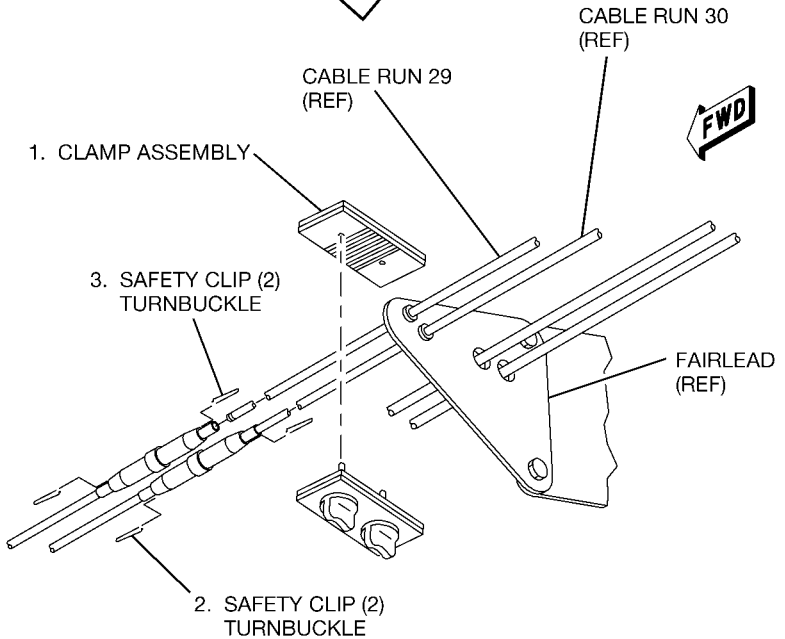
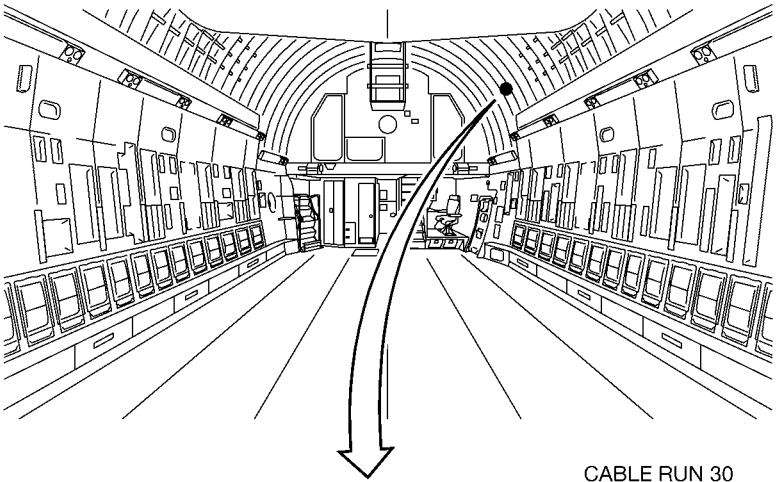
9. (A) Install rig pin 5-8 through both rig pin holes of the lower pedestal control assembly.



ICN-88277-G2742399-004-01

**2-4. REMOVAL FOR CABLE RUN 29A, REF DES
2742MP003.**

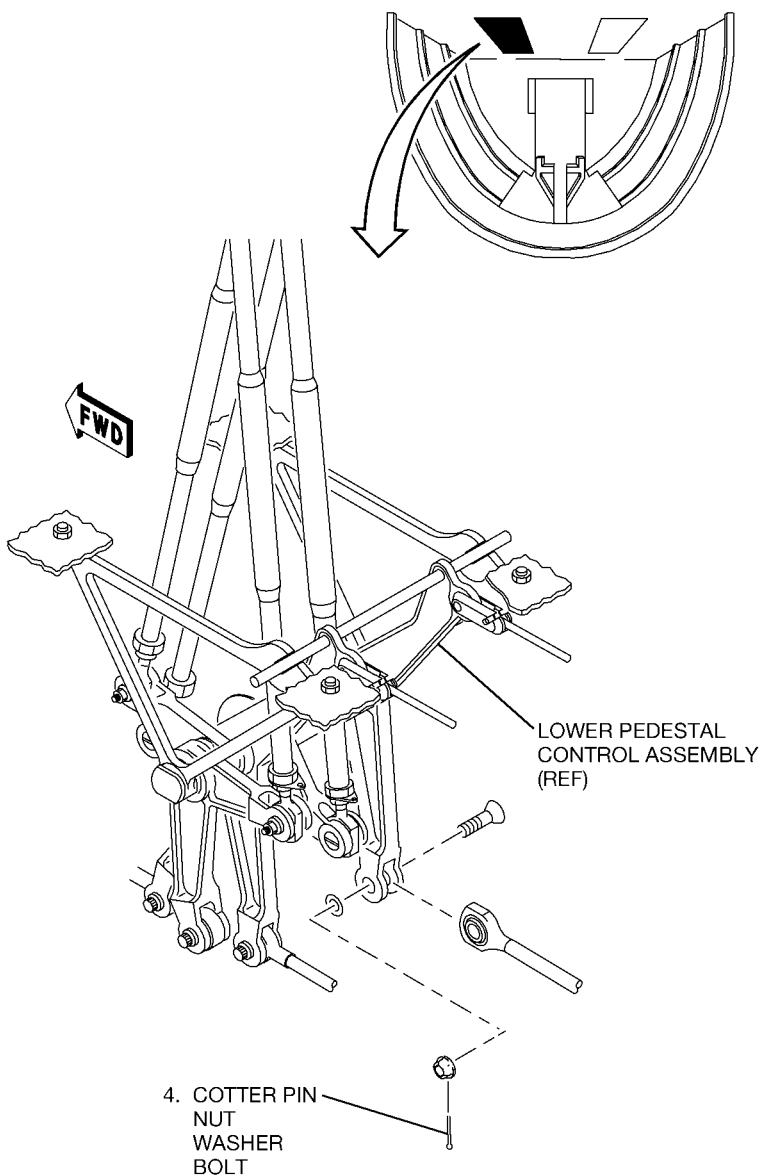
1. (A) Install clamp assembly on cable runs 29 and 30 forward of fairlead at Station (STA) 511.
2. (A) Remove and discard safety clips; loosen turnbuckle on cable run 30 at STA 450.
3. (A) Remove and discard safety clips; remove turnbuckle from cable run 29 at STA 432.



ICN-88277-G2742082-003-01

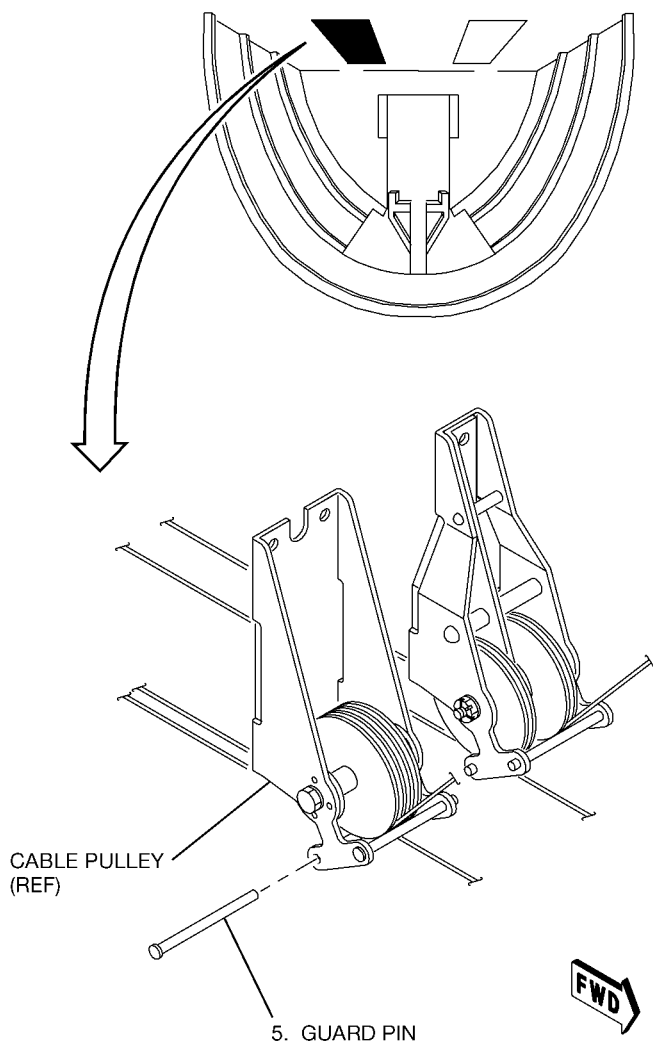
TO 1300i-2-27JG-40-3

4. (A) Remove cotter pin, nut, washer, and bolt from lower pedestal control assembly.



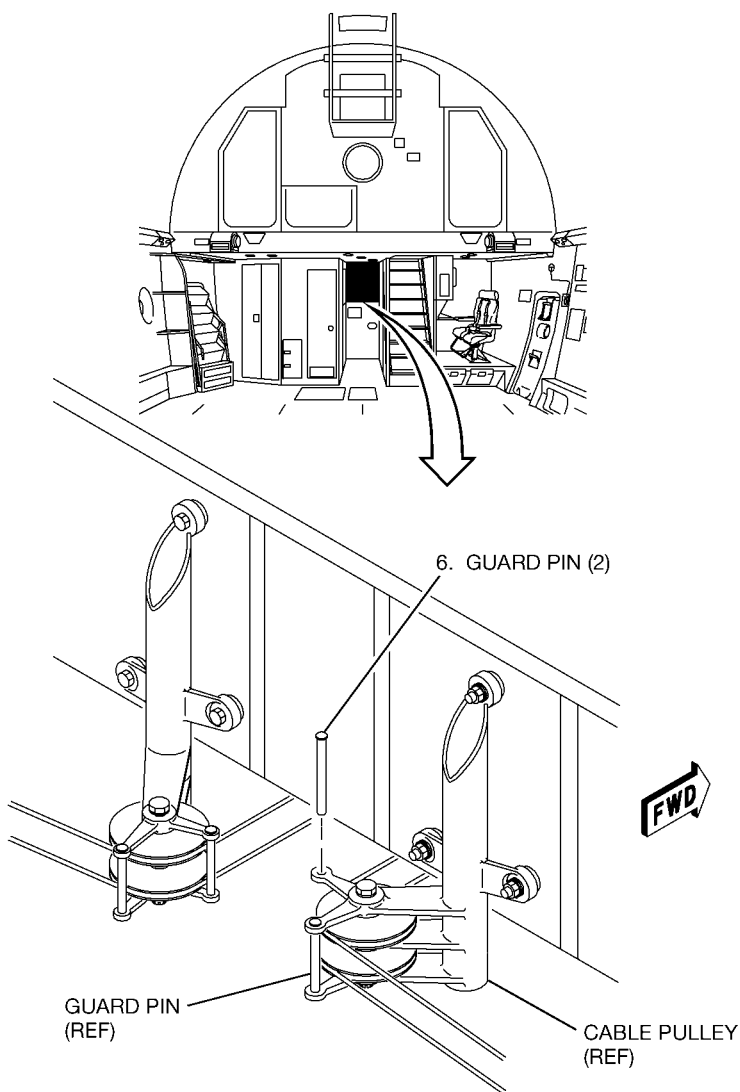
ICN-88277-G2742083-004-01

5. (A) Remove guard pin from cable pulley at STA 191.



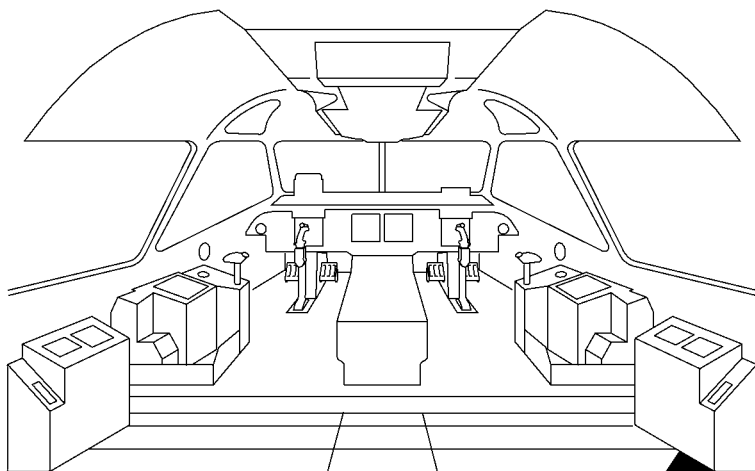
ICN-88277-G2742084-003-01

6. (A) Remove guard pins from cable pulley at STA 227.



ICN-88277-G2742085-003-01

7. (A) Remove guard pins from cable pulley at STA 240.



7. GUARD PIN (2)

GUARD PIN
(REF)

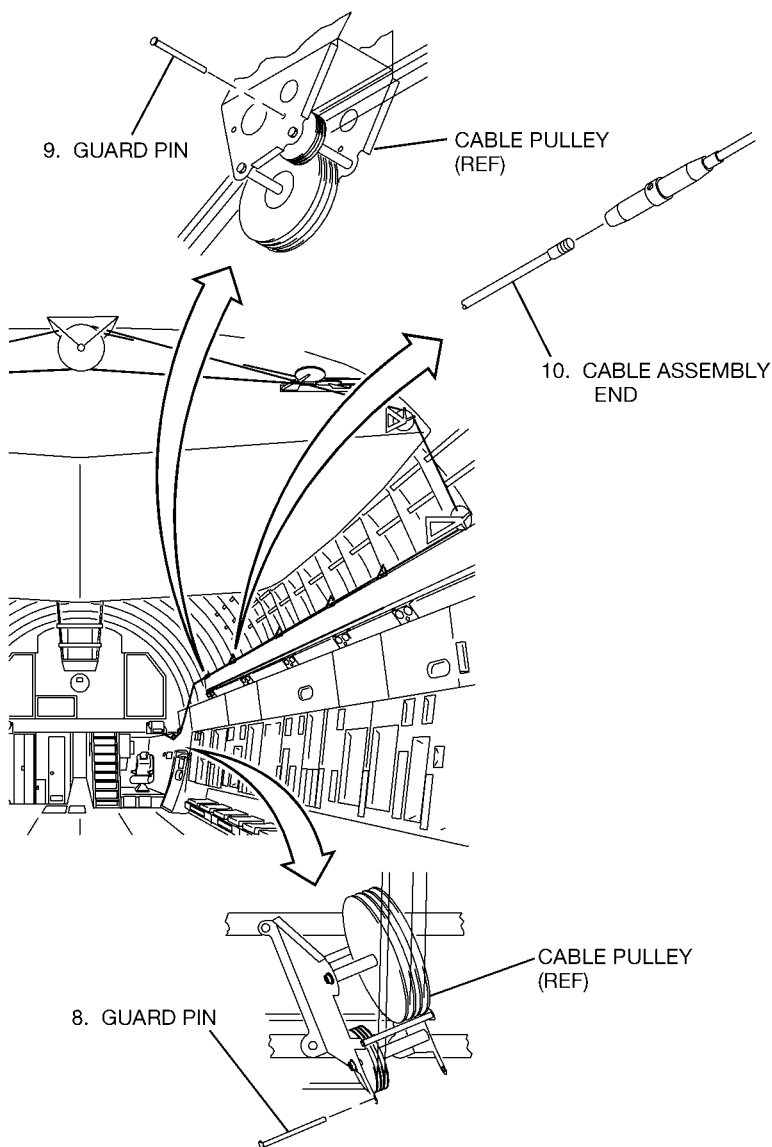
CABLE PULLEY
(REF)



ICN-88277-G2742086-003-01

TO 1300i-2-27JG-40-3

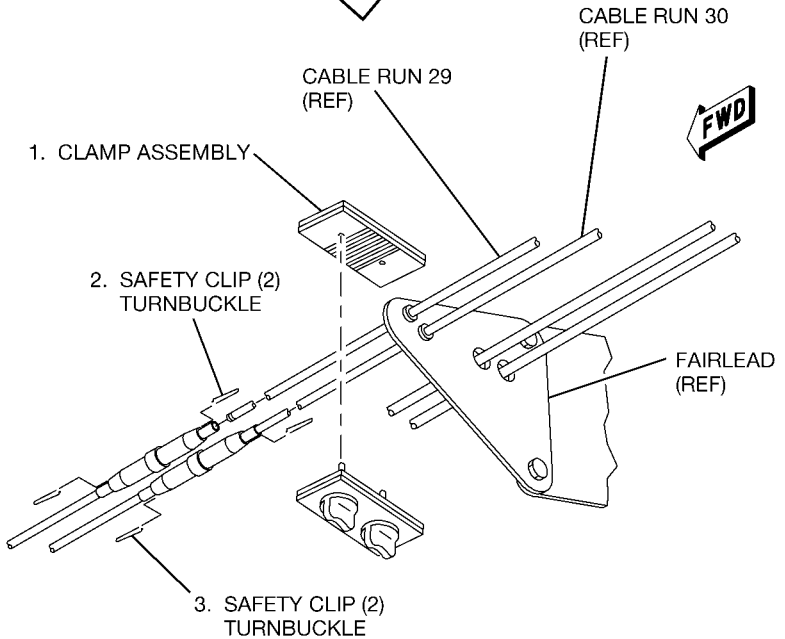
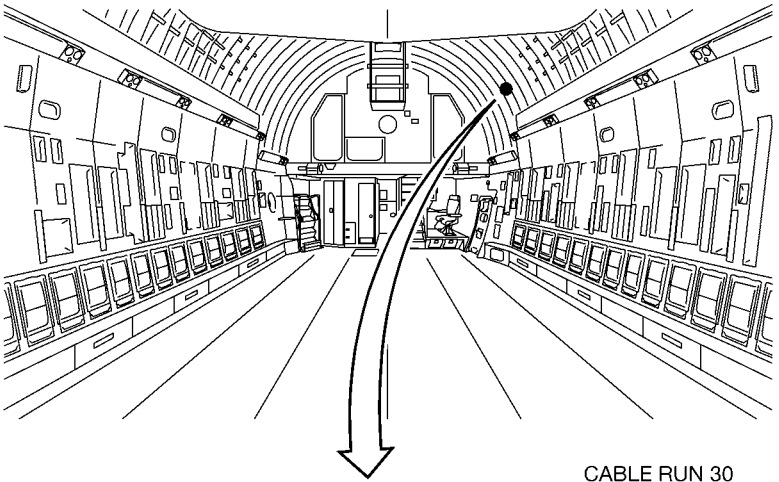
8. (A) Remove guard pin from cable pulley at STA 340.
9. (A) Remove guard pin from cable pulley at STA 413.
10. (A,B) Attach nylon utility cord on cable assembly end; remove cable and untie cord.



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**2-5. REMOVAL FOR CABLE RUN 30A, REF DES
2742MP004.**

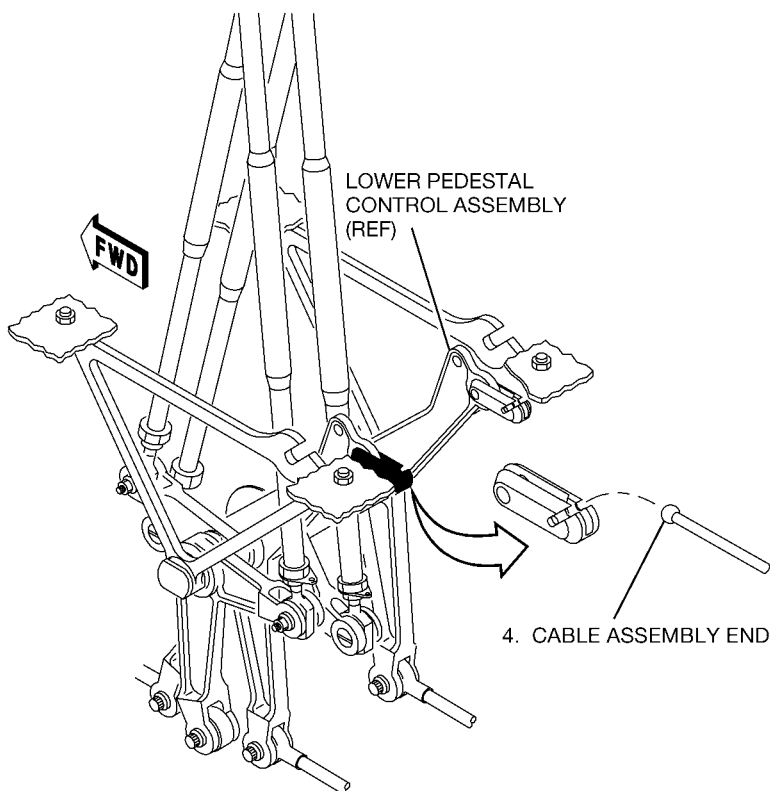
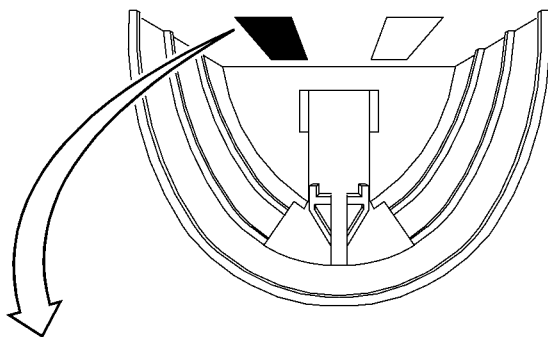
1. (A) Install clamp assembly on cable runs 29 and 30 forward of fairlead at Station (STA) 511.
2. (A) Remove and discard safety clips; loosen turnbuckle on cable run 29 at STA 432.
3. (A) Remove and discard safety clips; remove turnbuckle from cable run 30 at STA 450.



ICN-88277-G2742088-003-01

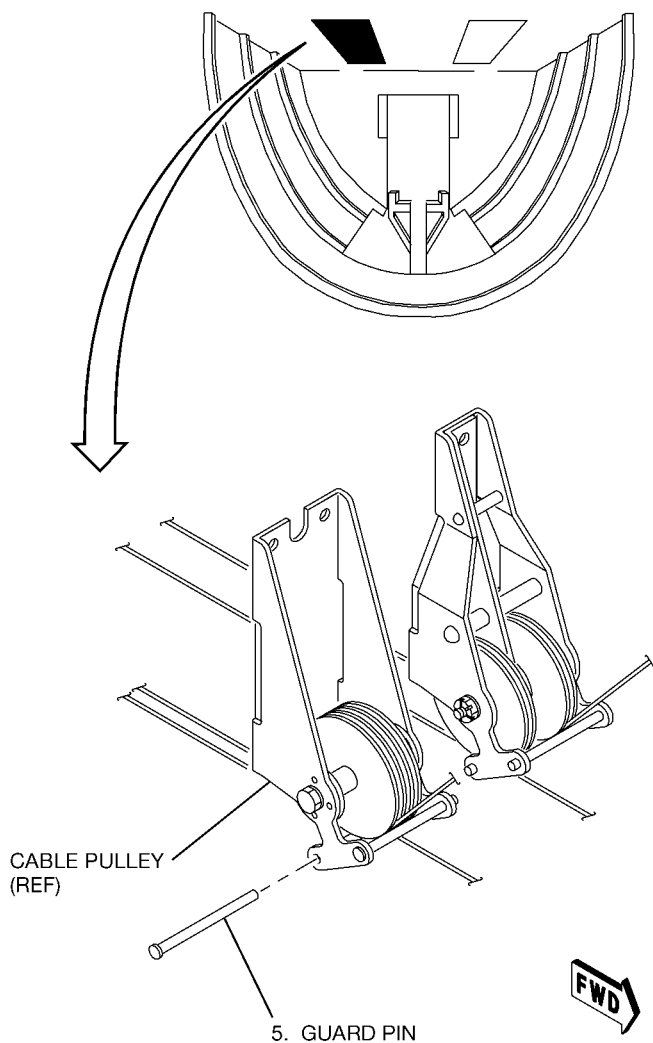
TO 1300i-2-27JG-40-3

4. (A) Remove safety wire and cable assembly end from lower pedestal control assembly.



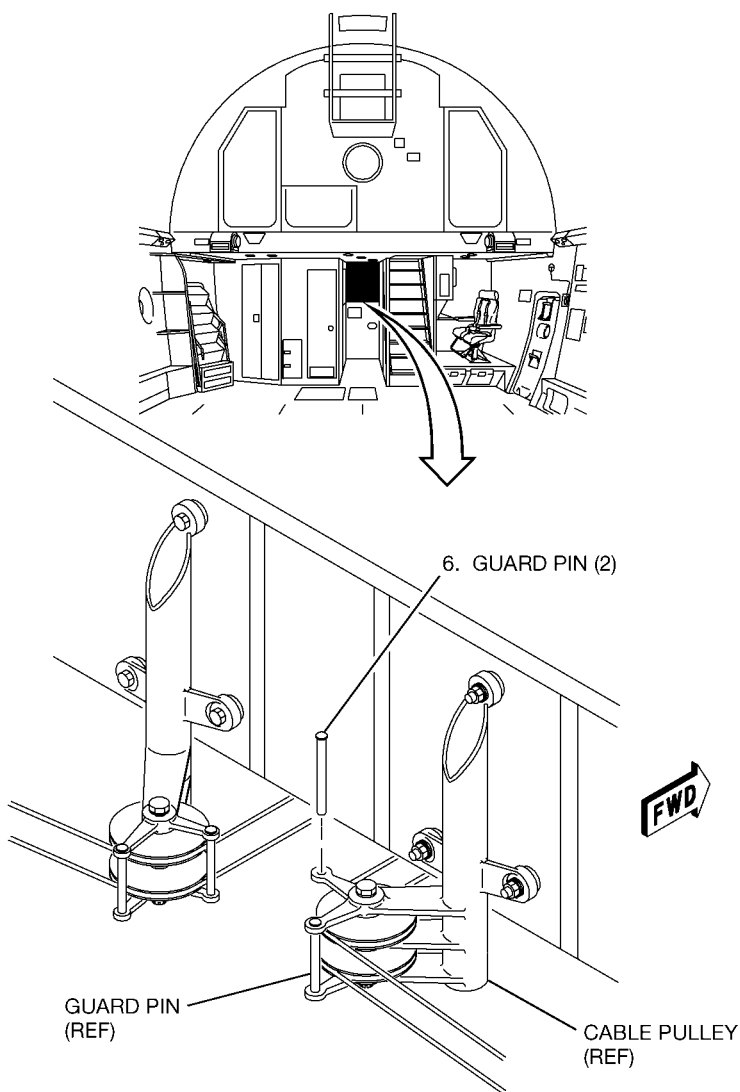
ICN-88277-G2742089-007-01

5. (A) Remove guard pin from cable pulley at STA 191.



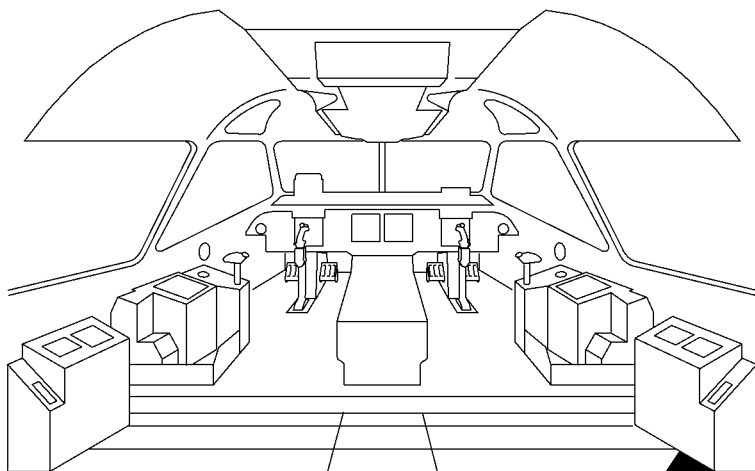
ICN-88277-G2742090-003-01

6. (A) Remove guard pins from cable pulley at STA 227.



ICN-88277-G2742091-003-01

7. (A) Remove guard pins from cable pulley at STA 240.



7. GUARD PIN (2)

GUARD PIN
(REF)

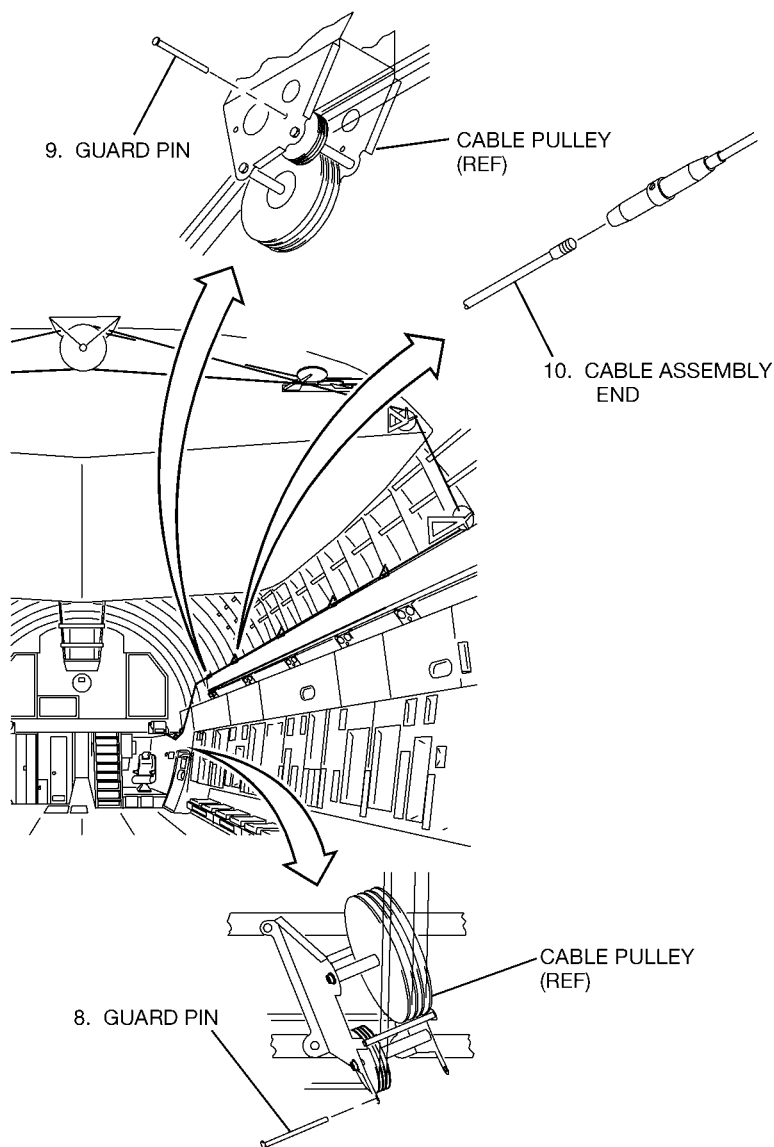
CABLE PULLEY
(REF)



ICN-88277-G2742092-003-01

TO 1300i-2-27JG-40-3

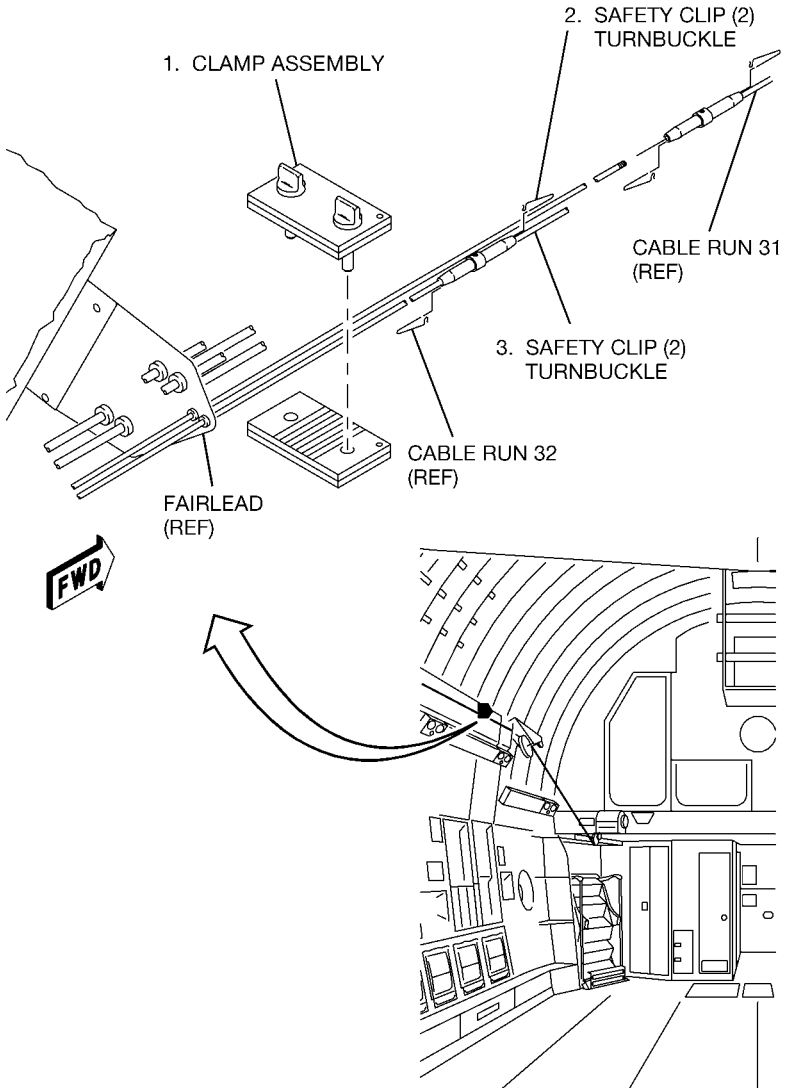
8. (A) Remove guard pin from cable pulley at STA 340.
9. (A) Remove guard pin from cable pulley at STA 413.
10. (A,B) Attach nylon utility cord on cable assembly end; remove cable and untie cord.



ICN-88277-G2742093-003-01

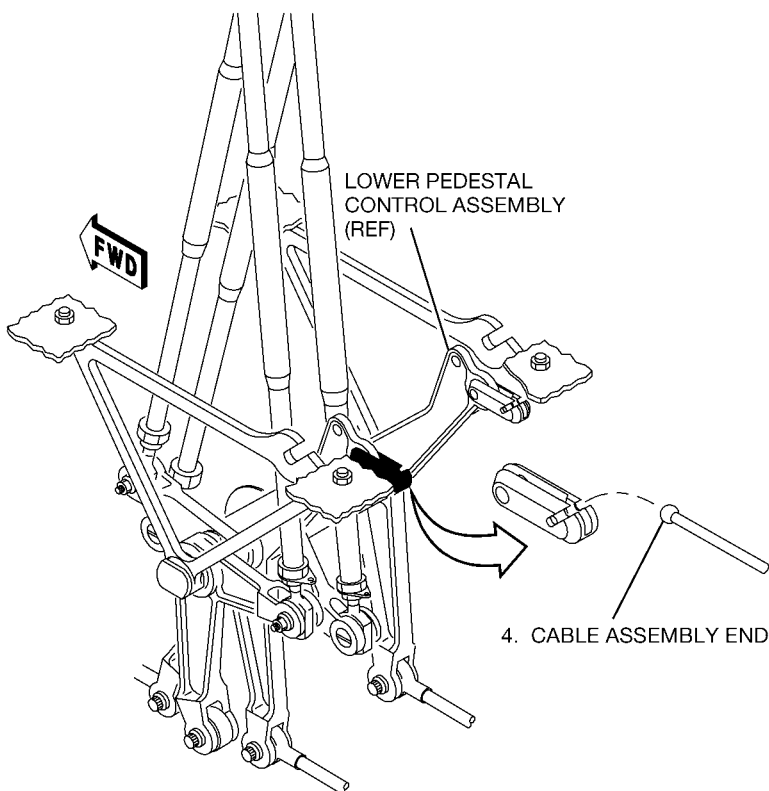
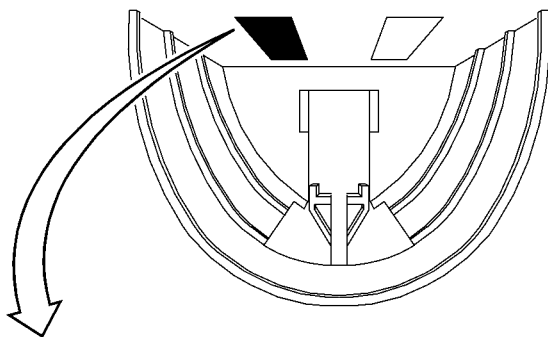
**2-6. REMOVAL FOR CABLE RUN 31A, REF DES
2742MP005.**

1. (A) Install clamp assembly on cable runs 31 and 32 forward of fairlead at Station (STA) 511.
2. (A) Remove and discard safety clips; loosen turnbuckle on cable run 32 at STA 478.
3. (A) Remove and discard safety clips; remove turnbuckle from cable run 31 at STA 446.



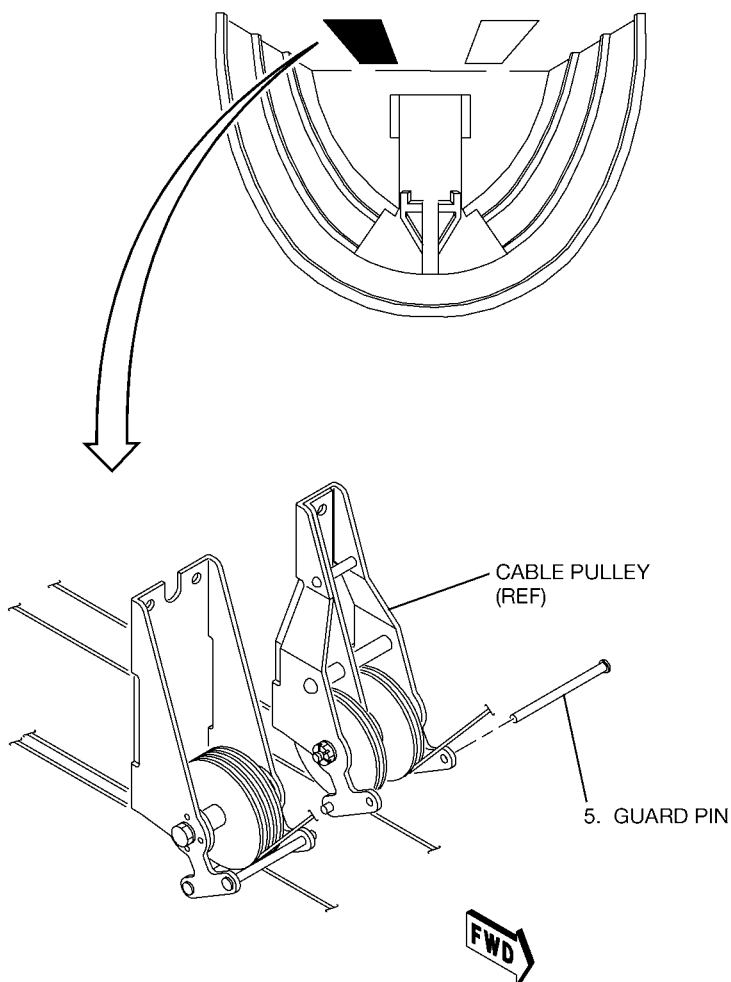
ICN-88277-G2742096-002-01

4. (A) Remove safety wire and cable assembly end from lower pedestal control assembly.



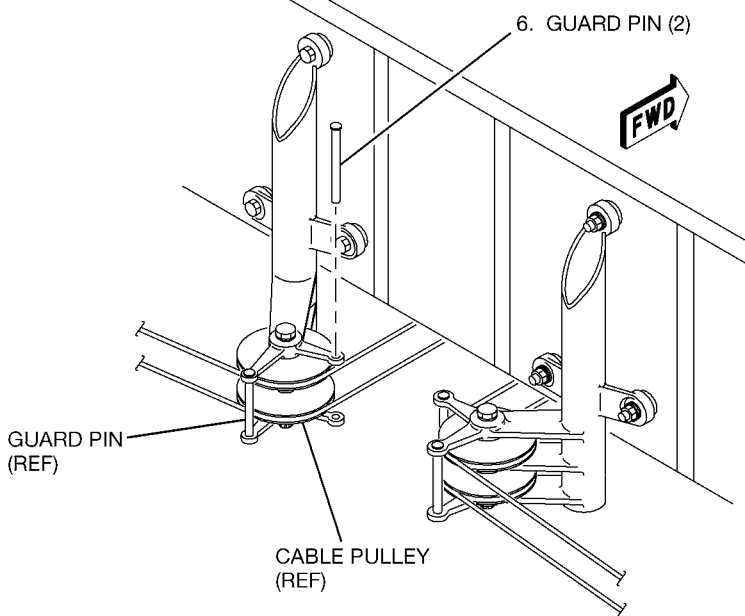
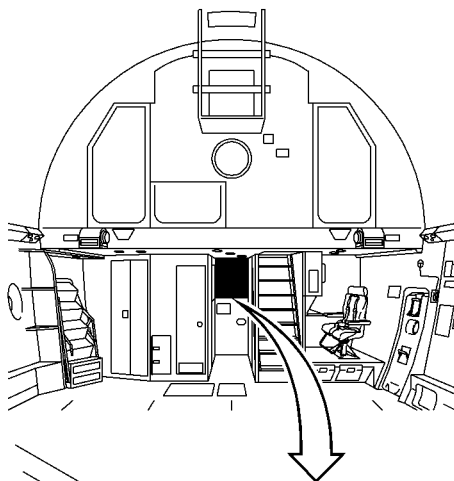
ICN-88277-G2742095-007-01

5. (A) Remove guard pin from cable pulley at STA 191.



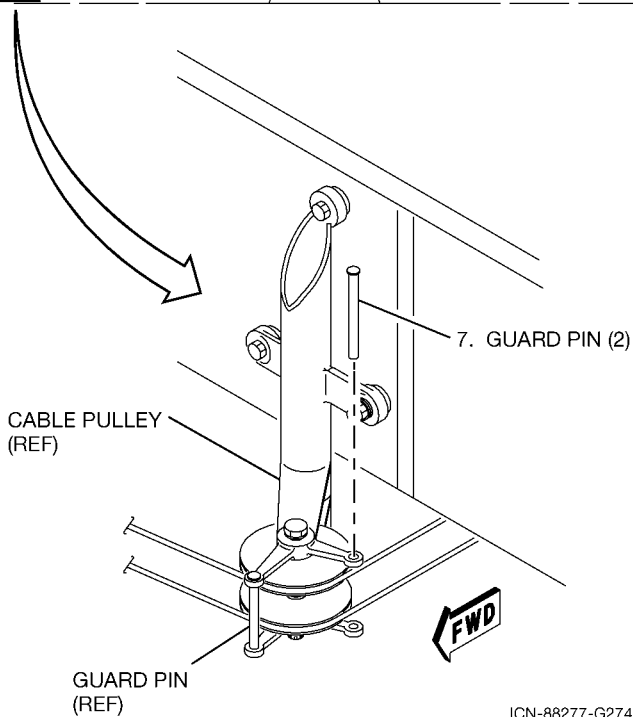
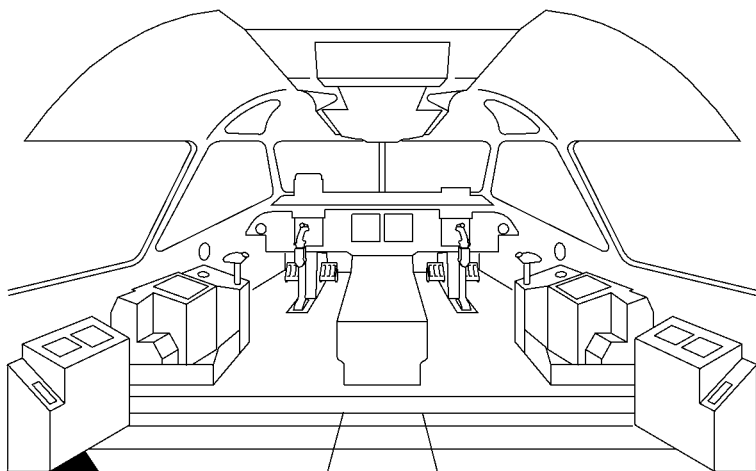
ICN-88277-G2742097-003-01

6. (A) Remove guard pins from cable pulley at STA 227.



ICN-88277-G2742098-003-01

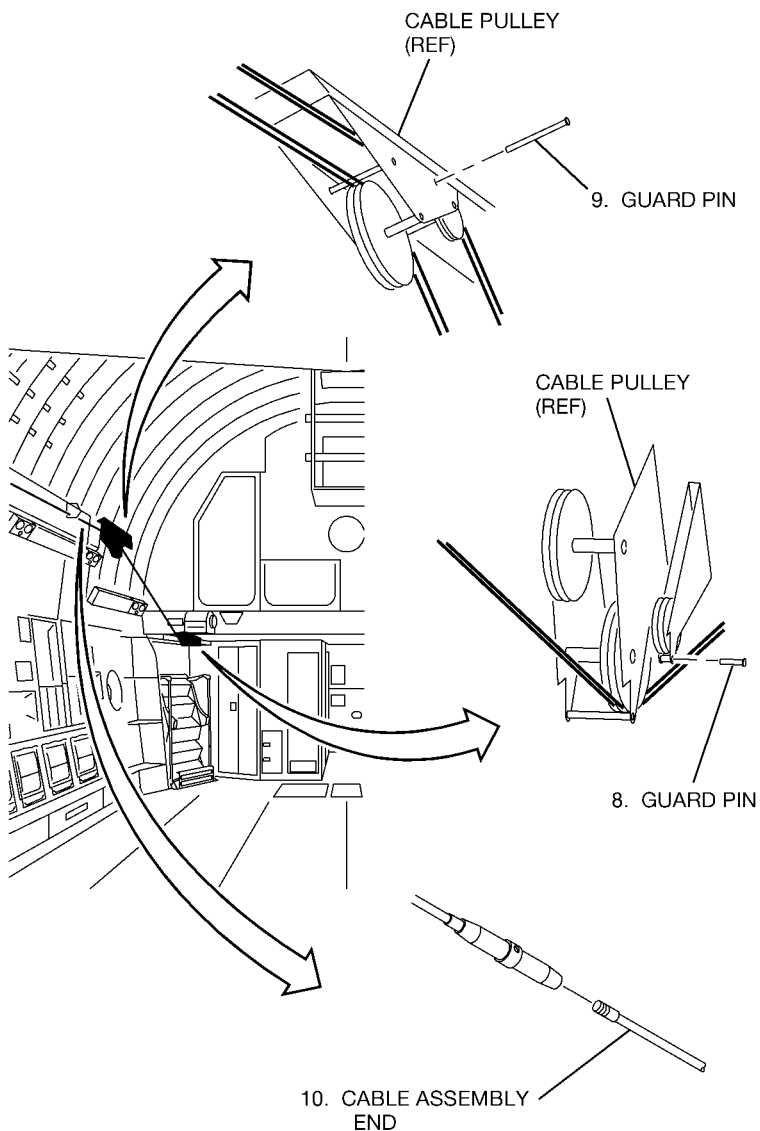
7. (A) Remove guard pins from cable pulley at STA 240.



ICN-88277-G2742099-003-01

TO 1300i-2-27JG-40-3

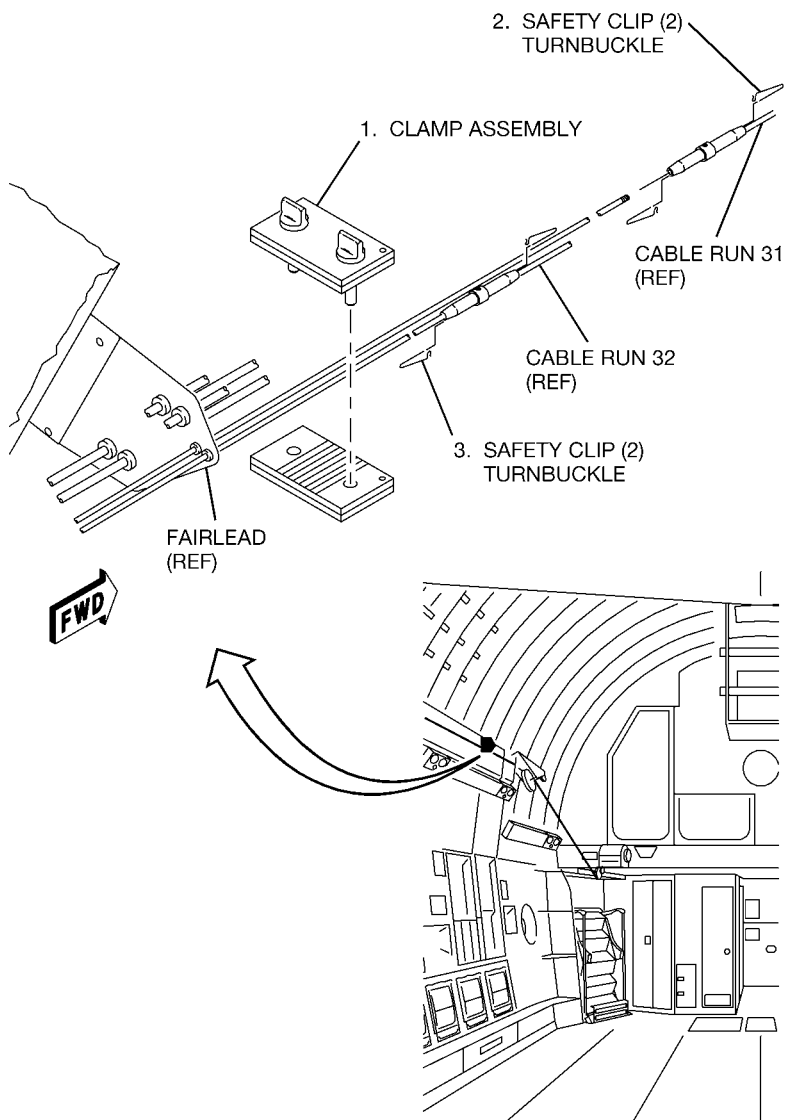
8. (A) Remove guard pin from cable pulley at STA 340.
9. (A) Remove guard pin from cable pulley at STA 413.
10. (A,B) Attach nylon utility cord on cable assembly end; remove cable and untie cord.



ICN-88277-G2742100-003-01

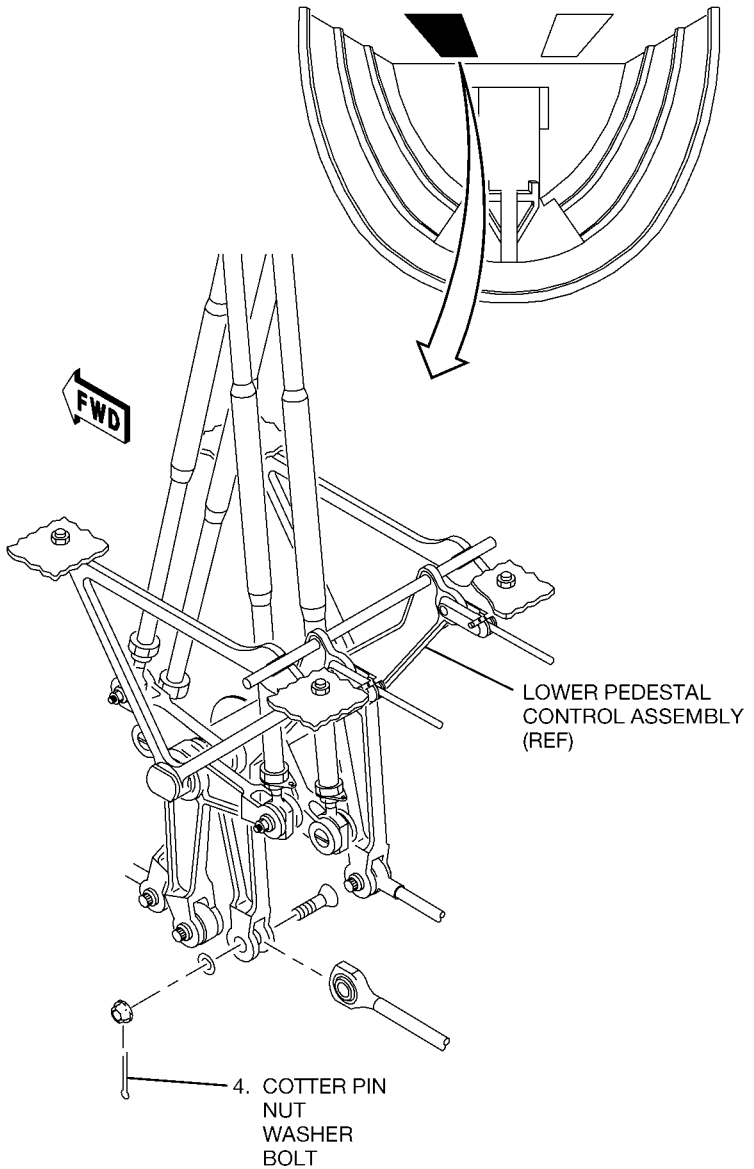
**2-7. REMOVAL FOR CABLE RUN 32A, REF DES
2742MP006.**

1. (A) Install clamp assembly on cable runs 31 and 32 forward of fairlead at Station (STA) 511.
2. (A) Remove and discard safety clips; loosen turnbuckle on cable run 31 at STA 446.
3. (A) Remove and discard safety clips; remove turnbuckle from cable run 32 at STA 478.



ICN-88277-G2742103-003-01

4. (A) Remove cotter pin, nut, washer, and bolt from lower pedestal control assembly.



ICN-88277-G2742101-004-01

5. (A) Remove guard pin from cable pulley at STA 191.