

A1-AV8BB-120-350

15 January 1995

Change 3 - 1 August 1998

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
(SHOP MAINTENANCE)

FEB 11 1998

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AIRCRAFT EJECTION SEAT
SJU-4/A

PART NUMBERS 14020-7, 14020-9, AND 14020-11

SJU-13/A
PART NUMBER 14620-1

SJU-14/A
PART NUMBER 14620-3

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Original.....0.....15 Jan 95 Change.....1.....1 Sep 97 Change.....2.....1 Nov 97 Change.....3.....1 Aug 98

Only those work packages/pages assigned to the manual are listed in this index. Insert Change 3, dated 1 August 1998. Dispose of superseded work packages/pages. Superseded classified work packages/pages shall be destroyed in accordance with applicable security regulations. If changed pages are issued to a work package, insert the changed pages in the applicable work package. The portion of text affected in a change or revision is indicated by change bars or the change symbol "R" in the outer margin of each column of text. Changes to illustrations are indicated by pointing hands, change bars, or MAJOR CHANGE symbols. Changes to diagrams may be indicated by shaded borders.

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002 00		6 blank	0	8.....	0	4.....	0
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6.....	1	3.....	0	3.....	0	6.....	0
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6.....	0	009 00		9.....	0	017 00	
7.....	0	1.....	0	10.....	0	1.....	1
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10A.....	2	5.....	0	14.....	0	5.....	0
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5.....	0	2.....	0	3.....	3	1.....	0
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9.....	0	6.....	0	029 00		5.....	0
10.....	0	7.....	0	1.....	0	6.....	0
11.....	0	8.....	0	2.....	0	035 00	
12.....	0	024 00		3.....	0	1.....	0
13.....	0	1.....	0	4.....	0	2.....	0
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019 00		3.....	0	6.....	0	4.....	0
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2.....	0	5.....	0	1.....	0	6.....	0
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3.....	0	10.....	0	12.....	0	1.....	0
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6.....	0	026 00		15.....	0	4.....	0
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1.....	0						
2.....	0						
3.....	0						
4 blank	0						

LIST OF TECHNICAL PUBLICATION DEFICIENCY REPORTS INCORPORATED**ORGANIZATIONAL MAINTENANCE****SYSTEM MAINTENANCE WITH IPB****AIRCRAFT EJECTION SEAT****This WP supersedes TPDR WP, dated 1 November 1997.**

1. Deficiencies identified in this Technical Manual shall be submitted via OPNAV Form 4790/66 and forwarded to Defense Contract Management Command/Central Technical Manual Control Unit (DCMC/CTMCU), McDonnell Douglas Corporation, P.O. Box 516, St. Louis, MO 63166-0516.

2. The TPDRs listed below have been incorporated in this issue.

IDENTIFICATION NUMBER/ QA SEQUENCE NUMBER	LOCATION
None	

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INTRODUCTION**ORGANIZATIONAL MAINTENANCE****SYSTEM MAINTENANCE WITH IPB****AIRCRAFT EJECTION SEAT****1. PURPOSE.**

2. This manual provides the technician with the data required for removing, cleaning, inspecting, repairing, installing, adjusting, and aligning system components. Illustrated parts breakdown and extreme environmental maintenance data are provided where applicable.

3. REQUISITIONING AND AUTOMATIC DISTRIBUTION OF NAVAIR TECHNICAL PUBLICATIONS.

4. Procedures to be used by naval activities and other Department of Defense activities requiring NAVAIR technical manuals are defined in NAVAIR 00-25-100 and NAVAIRINST 5605.5.

5. To automatically receive future changes and revisions to NAVAIR technical manuals, an activity must be established on the Automatic Distribution Requirements List (ADRL) maintained by the Naval Air Technical Services Facility (NAVAIRTECHSERVFAC). To become established on the ADRL, notify your activity central technical publications librarian. If your activity does not have a library, you may establish your automatic distribution requirements by contacting the Commanding Officer, NAVAIRTECHSERVFAC, Attn: Code 321, 700 Robbins Avenue, Philadelphia, PA 19111-5097. Annual reconfirmation of these requirements is necessary to remain on automatic distribution. Please use your NAVAIRTECHSERVFAC assigned account number whenever referring to automatic distribution requirements.

6. If additional or replacement copies of this manual are required with no attendant changes in the ADRL, they may be ordered by submitting

requisitions directly to the Commanding Officer, Navy Aviation Supply Office, Naval Publications and Forms Directorate, 5801 Tabor Avenue, Philadelphia, PA 19120-5099.

7. MANUAL ISSUE DATE.

8. The manual issue date on the title page is the copy freeze date. No additions, deletions, or changes are made after the manual issue date, except last minute safety of flight or required maintenance changes. Data collected after the manual issue date will be included in later changes or revisions of the manual.

9. EFFECTIVITIES.

10. Effectivity notes on manual title pages, work package title pages, and within a work package indicate the aircraft or software program to which the data applies. If no effectivity note appears on the work package title page, the work package has the same effectivity as shown on the manual title page. The effectivity notes may use:

a. Type, model, and series

b. Bureau Number (tail number)

c. Combination of type, model, series, and bureau numbers

d. Part number or serial number

e. Technical directive number

f. Configuration/identification number

11. The table below shows examples of effectivity notes and their meanings:

Effectivity Note Examples

Effectivity Note	Definition
AV-8B 162942 AND UP, TAV-8B 162963 AND UP	Applicable to all AV-8B and TAV-8B for bureau numbers listed.
AV-8B	Applicable to all AV-8B, but not TAV-8B.
TAV-8B	Applicable to all TAV-8B, but not AV-8B.
AV-8B 161573 THRU 162745	Only applicable to some bureau numbers of AV-8B. Not applicable to any TAV-8B, even if a TAV-8B is within the numbers listed.
TAV-8B 162963 AND UP	Only applicable to some bureau numbers of TAV-8B. Not applicable to any AV-8B, even if an AV-8B is within the numbers listed.
AV-8B 161573 THRU 162973, TAV-8B 162747 THRU 162971 BEFORE AV8AFC-772	Applicable to aircraft before modification by technical directive.
AV-8B 163176 AND UP, TAV-8B 163180 AND UP; ALSO AV-8B 161573 THRU 162973, TAV-8B 162747 THRU 162971 AFTER AV8AFC-772	Applicable to aircraft modified during production; also applicable when affected aircraft have been modified by technical directive.
AV-8B 165384 AND UP; ALSO AV-8B 163853 THRU 164547 AFTER AV8AFC-354, AV-8B 164549 THRU 165383 AFTER AV8AFC-354 PART 2.	Applicable to aircraft modified during production; also applicable when affected aircraft have been modified by two or more technical directives that accomplish the same task on different blocks of aircraft.
AV-8B 161573 THRU 162746 WHEN NO. 2 CONTROL PANEL P/N XXXX-X IS IN- STALLED	Applicable to aircraft if panel P/N XXXX-X is installed (Configuration before AVC).
AV-8B 162942 AND UP, TAV-8B; ALSO AV-8B 161573 THRU 162746 WHEN NO. 2 CONTROL PANEL P/N XXXX-Y (AVC-102) IS INSTALLED	Applicable to aircraft modified during production; also applicable to aircraft components modified to production configuration by technical directive (configuration after AVC).
P/N 65101-9, 65101-10 & 65105-3	Applicable to assemblies which are interchangeable between aircraft.
F402-RR-406A, F402-RR-406B, F402-RR-408 & F402-RR-408A	Applicable to engine models which are interchangeable between aircraft.
CONFIG/IDENT NUMBER 88-D (DAY AND TAV-8B) 89-N (NIGHT ATTACK) 93-R (RADAR) 96-C (COMBINED NIGHT ATTACK AND RADAR)	The CONFIG/IDENT number is the first 4 characters of the operational flight program (OFP) identification. The number relates to the software program in a programmable assembly. A1-AV8BB-SCM-000, WP003 00 lists the use and applicability of software programs by OFP IDENT/program load identification (PLI) number.

12. DEFERRED SPECIFICATION COMPLIANCE CHANGES (DSCC). DSCC control design modifications on aircraft TAV-8B 162747. Until the aircraft is modified, before and after DSCC configurations exist in the manual. Aircraft effectivity may include reference to McDonnell Aircraft Engineering Job Sheet (EJS) and blueprint Engineering Order (EO). Examples of DSCC effectivities are shown below:

- a. Before and after configurations for DSCC EJS:

TAV-8B 162747 BEFORE DSCC EJS
75-0014

TAV-8B 162963 AND UP; ALSO TAV-8B
162747 AFTER DSCC EJS 75-0014

- b. Before and after configuration for DSCC EO when no EJS is assigned:

TAV-8B 162747 BEFORE DSCC EO
047626/75A787012

TAV-8B 162963 AND UP; ALSO TAV-8B
162747 AFTER DSCC EO 047626/75A787012

13. TECHNICAL DIRECTIVES.

14. Technical directives are documents which direct the accomplishment, and recording of a retrofit configuration or inspection to delivered aircraft, or aircraft components.

15. AIRFRAME CHANGE (AFC) AND AIRBORNE TACTICAL SOFTWARE CHANGE (ASC). Technical directives which change configuration of aircraft structure or equipment installation, i.e. AFC, will list aircraft bureau numbers in effectivity notes and show before and after the AFC. Technical directives which change configuration of operational flight programs (OFP), i.e. ASC, will list the OFP CONFIG/IDENT NUMBER in effectivity notes and show the latest two authorized OFP programs. See AFC and ASC effectivity examples in Effectivity Note Example Table.

16. AIRCRAFT COMPONENT CHANGES. Technical directives which change configuration of aircraft components, i.e. AAC, ACC, AVC, AYC, and PPC will list part numbers in the effectivities. See AVC effectivity examples in Effectivity Note Examples table.

17. RECORD OF APPLICABLE TECHNICAL DIRECTIVES.

18. The technical directives affecting this manual are listed in the Record of Applicable Technical Directives of each affected work package. Because an ASC directs all aircraft be modified within 30 days, ASC's are not listed. When all affected aircraft are modified, the before configuration is removed from the manual, and the technical directive entry is removed from the Record of Applicable Technical Directives.

19. COCKPIT REFERENCE.

20. In this manual, when referring to the AV-8B cockpit or TAV-8B forward cockpit, cockpit will be used. When referring to the TAV-8B rear cockpit, rear cockpit will be used.

21. TECHNICAL PUBLICATIONS DEFICIENCY REPORT (TPDR).

22. The TPDR (OPNAV FORM 4790/66) is the form for reporting errors and suspected omissions in the technical manuals. Reporting procedures are in OPNAVINST 4790.2 SERIES.

23. QUALITY ASSURANCE PROCEDURES.

24. Procedures or parts of procedures which require quality assurance inspection are identified by the letters (QA) after the applicable steps. When (QA) is assigned to a heading or a step which is immediately followed by steps or substeps, the inspection requirement is applicable to all steps or substeps.

25. When doing maintenance in any area, a visual inspection of the area will be made for cracks, corrosion, and security of component installation before securing area for flight.

26. ILLUSTRATED PARTS BREAKDOWN.

27. Each illustrated parts breakdown (IPB) in this manual has a parts list and illustration for the requisition, storage, authority for use and identification of parts. The illustration is integrated with, and supports, both the maintenance procedure and the parts list within each work package.

28. INDEX NUMBER. The index numbers assigned in this column are the same as assigned to that item on the illustration exploded view.

29. PART NUMBER COLUMN. This column lists the prime contractor part number, government standard part number, or other vendor part number. Footnote symbols in the Part Number column are defined following the last part listed in each parts list.

30. DESCRIPTION COLUMN. This column lists the nomenclature plus those modifiers required to identify the item.

31. INDENTION. The first entry in the Description column of each parts list is the figure title. This figure title identifies the parts list with the related maintenance procedure and is shown in the first indent. All parts data required to support the specific maintenance procedure is below the figure title in the second indent.

32. COMMON NAMES. The official nomenclature in the Description column may not be the name commonly used for an item. If different from the official nomenclature, the common name is shown in parentheses in the Description column immediately following the official nomenclature.

33. COMMERCIAL AND GOVERNMENT ENTITY CODES. Entity code or manufacturer's name and address are shown in the Description column in parentheses after the nomenclature for the item. These codes are per the Commercial and Government Entity (CAGE) Handbook H4/H8 Series. No code or name indicates the item is a government standard part.

34. ATTACHING PARTS. Attaching parts are identified by (AP) or (use with index xxx) after the nomenclature of the item in the Description column. Attaching parts are listed immediately following the part they attach.

35. SPECIAL HANDLING. Items requiring special handling such as liquid oxygen components, magnetic control items, or on-board liquid oxygen generating system (OBOGS) are identified by the acronyms LOX for liquid oxygen, MAG for magnetic control items, and OXYGEN for on-board oxygen generating system (OBOGS) in the Description column, at the extreme right side.

36. CONVERTED PART NUMBERS. Some part numbers appear in the Part Number column which are different than the manufacturer's part number. These are converted part numbers. The

unconverted manufacturer's part number is shown in the Description column following the manufacturer's code. Always use the part number in the Part Number column when ordering parts. If an item is not available under the listing in the Part Number column, it may be ordered using the unconverted part number found in the Description column or by using the number found on the part. Examples of special characters as they may appear in the Part Number and Description columns are shown below:

Description Column	Part Number Column
PORM	± (Plus or Minus)
DEG	° (Degree)
E	e (Lower case letter)
2	II (Roman Numeral)
0.001	.001 (Decimal)

37. SUPERSEDED PARTS. Superseded part numbers have been removed from the Part Number column and placed in the Description column of the superseding part (for example - supersedes 75A582090-1003). This indicates that the superseded part is usable if available through salvage, but should not be requisitioned or made.

38. REDESIGNED PARTS. When the design of a part is changed to the extent that interchangeability is affected, the new part number will state in the description column, Replaces 75AXXXXX-XXXX. If the old part has continued application it will remain in the part number column following the new part. Usable on codes will be used to show usability. In addition the explanatory notes ("Use until exhausted") for procurable parts and (Replaced by XXXXX) for nonprocurable parts will be in the description column of the old part.

39. NEXT HIGHER ASSEMBLY. Next higher assembly (NHA) data is not shown using indentation. Next higher procurable assembly (NHPA) data is shown for part numbers that have a procurable NHA. The NHPA and assigned Source Maintenance and Recoverability (SM&R) code are in parentheses as the last entry in the Description column. Requisition the NHPA when the part listed in the Part Number column is not available from supply. The components of assemblies that require

disassembly during removal from aircraft, are footnoted in the Part Number column.

40. UNITS PER ASSEMBLY (UPA) COLUMN. This column lists the total number of each part required per assembly or subassembly and are not necessarily the total number used in the end item of equipment. The letters AR (As Required) are used for items such as shims, when the requirement may vary.

41. USABLE-ON CODES. Applicable usable-on codes are identified on the final sheet of each parts list. No entry in the Use On column indicates parts are applicable to all configurations supported by this parts list.

42. ALTERNATE OR EQUIVALENT PARTS. An asterisk (*), in the Use On column, identifies alternate parts or equivalent parts that are interchangeable. When a letter code is followed by an asterisk in the Use On column, only the parts with the same letter code are interchangeable. An alternate part may be used when preferred part is not available. The asterisk is omitted for the preferred part(s). Equivalent parts are fully interchangeable. No equivalent part is preferred over another. All equivalent parts are identified by asterisks.

43. SOURCE, MAINTENANCE AND RECOVERABILITY (SM&R) CODE COLUMN. The codes used in this column are assigned per

NAVAIRINST 4423.11 SERIES and NAVSUPINST 4423.14 SERIES which contain definitions. A dash (-) is shown in the SM&R code column when no code has been assigned. The Aviation Supply Office P2300 series publication is to be used for the most current SM&R code assignment information if doubt exists as to the validity of any SM&R code listed in an IPB. Refer to figure 1 for SM&R code explanations.

44. PARTS LIST INDEX MANUAL, A1-AV8BB-IPB-450. This manual has a numerical index of part numbers and a reference designation index for use with aircraft organizational maintenance manuals. When reference designations or part numbers are known, the index locates specific maintenance instructions and parts data.

45. NAVY (AN) STANDARD/COMMON NAME NOMENCLATURE.

46. When an item has both Navy (AN) standard and common name nomenclature assigned, the common name nomenclature will be used in text and on illustrations. Full Navy (AN) standard nomenclature will be used in the Illustrated Parts Breakdown (IPB).

SOURCE				MAINTENANCE			
1st POSITION		2nd POSITION		REMOVE/REPLACE		REPAIR	
				3rd POSITION		4th POSITION	
P	PROCURE	A	STOCKED	O	REPLACE OR USE AT ORGANIZATIONAL LEVEL	Z	NO REPAIR (CONSUMABLE)
		B	INSURANCE BUY	F	REPLACE OR USE AT IMA LEVEL	B	RECONDITION BY ADJUSTMENT, CALIBRATION, LUBRICATION, PLATING, ETC.
		C	CURE-DATED ITEM	H	INTERMEDIATE AFLOAT		INTERMEDIATE ASHORE
		D	INITIAL OUTFITTING	G	INTERMEDIATE ASHORE		INTERMEDIATE AFLOAT/ASHORE
		E	GSE/STOCKED			O	REPAIR AT ORGANIZATIONAL LEVEL
		F	GSE/NOT STOCKED				REPAIR AT IMA LEVEL
		G	SUSTAINED SUPPORT				
K	REPAIR KIT COMPONENT	D	DEPOT	D	REPLACE OR USE AT DEPOT	F	INTERMEDIATE AFLOAT
		F	ORGANIZATIONAL/IMA			H	INTERMEDIATE ASHORE
		B	BOTH KITS			G	INTERMEDIATE AFLOAT/ASHORE
M	MANUFACTURE	O	ORGANIZATIONAL	L	SPECIALIZED IMA REPAIR SITE	D	REPAIR AT DEPOT OR COMMERCIAL
A	ASSEMBLE	F	INTERMEDIATE AFLOAT				
		H	INTERMEDIATE ASHORE				
X	MISCELLANEOUS	G	INTERMEDIATE AFLOAT/ASHORE				
		D	DEPOT	Z	NOT AUTHORIZED TO BE REMOVED OR REPLACED	L	REPAIR AT SPECIALIZED IMA SITE
		A	USE NEXT HIGHER ASSEMBLY				
		B	OBTAIN FROM SALVAGE OR ONE TIME BUY				
		C	DIAGRAM-SCHEMATICS, INSTALLATION DRAWINGS				

RECOVERABILITY		SERVICE OPTION	
5th POSITION		6th POSITION	
Z	NON-REPAIRABLE ITEM. CONDEMN AND DISPOSE AT LEVEL INDICATED IN 3rd POSITION.	1 2 3	APPLIES TO ENGINES ONLY. IDENTIFIES THE HIGHEST (1) TO LOWEST (3) LEVEL OF MAINTENANCE WHICH CAN REPLACE (3rd POSITION OF SMR CODE) THE ITEM.
O	REPAIRABLE ITEM. CONDEMN AND DISPOSE AT ORGANIZATIONAL LEVEL.	6	NORMALLY PROCURED COMMERCIAL BUT ORGANIC CAPABILITY EXISTS AT NARF FOR EMERGENCY STOP GAP REQUIREMENTS.
F	REPAIRABLE ITEM. CONDEMN AND DISPOSE AT IMA LEVEL INDICATED	E	“I” LEVEL REPAIR NOT AUTHORIZED BUT “I” LEVEL MUST VALIDATE FAILURE PRIOR TO BCM TO DEPOT.
	INTERMEDIATE AFLOAT	J	DESIGNATES INTER-SERVICE DLR, PER NAVY MP CONSIDERED COMPLETELY REPAIRABLE BELOW DEPOT LEVEL.
	INTERMEDIATE ASHORE	8	SAME AS “J” ABOVE EXCEPT USED FOR ENGINES ONLY. APPLIES TO 2nd DEGREE ENG. MAINTENANCE LEVEL.
D	REPAIRABLE ITEM. CONDEMN AND DISPOSE AT DEPOT OR CONTRACTOR FACILITY.	9	SAME AS “J” ABOVE EXCEPT USED FOR ENGINES ONLY. APPLIES TO 3rd DEGREE ENG. MAINTENANCE LEVEL.
L	REPAIRABLE ITEM. CONDEMN AND DISPOSE AT SPECIALIZED IMA REPAIR SITE.	P	DENOTES ITEMS WHICH ARE PROGRESSIVELY REPAIRED AT ORG, INT, AND DEPOT LEVELS. BLANK IF NO INT. REPAIR IS AUTHORIZED BETWEEN O & D LEVEL.
		N	ASSIGNED TO XB SOURCE CODE AND INDICATES ITEM IS PROCURED LOCALLY. NOT STOCKED IN THE SUPPLY SYSTEM.
A	SPECIAL HANDLING REQUIRED. CONTACT ITEM MANAGER FOR DISPOSAL INSTRUCTIONS.	T	ASSIGNED TO TRAINING DEVICES WITH SOURCE CODE OF “PD.” INDICATES ITEM IS NOT A PROCURABLE SPARE. WSN IS ASSIGNED ONLY TO PERMIT VISIBILITY OF REPAIR PART RELATIONSHIP.

Figure 1. SM&R Code Explanation

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****DROGUE/CONTAINER ASSEMBLY****HEADREST ASSEMBLY****AIRCRAFT EJECTION SEAT**

This WP supersedes WP003 00, dated 15 January 1995.

Reference Material

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

1. DROGUE/CONTAINER ASSEMBLY.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0 to 200 Inch-Pounds

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MS24665-283	Cotter Pin
TT-P-1757 Comp L Color T (CAGE 81348)	Primer Coating
-	Nylon Cord

2. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- b. Pull left WORD release (9, figure 1) to release strap assembly (10).
- c. Remove pin (8), washer, spacer, and cotter pin.

WARNING

To prevent death or injury to personnel, WORD motor must be secured to bracket after drogue bridle has been disconnected.

- d. Position WORD motor/drogue release assembly (MG67) against WORD motor bracket.
- e. Insert strap assembly (10) in WORD motor bracket.
- f. Lock strap assembly (10) in position with WORD release (9).
- g. Disconnect velcro attachment holding drogue bridle to inner right trombone assembly.

WARNING

To prevent death or injury to aircrew member by shearing drogue gun wire, downward pressure must not be applied to drogue/container assembly attachment screws.

- h. Remove screws (4) and washers.
- i. While holding underside of drogue/container assembly (3) to retain drogue parachute, remove drogue bridle keeper from parachute container opener assembly. Remove container and retain contents with nylon cord.

3. INSTALLATION.

- a. Position drogue bridle keeper over parachute container opener assembly (figure 1, sheet 3).
- b. Position drogue/container assembly (3) on top of catapult tube assemblies.

WARNING

To prevent death or injury to aircrew member by shearing drogue gun wire, downward pressure must not be applied to drogue/container attachment screws.

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

c. Coat screws (4) with primer coating.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

d. Install drogue/container assembly (3) with screws (4) and washers. Torque screws 90 to 100 inch-pounds. Using sealing compound, apply tamper dots. (QA)

e. Remove nylon cord retaining drogue/container assembly contents.

f. Connect drogue bridle per substeps below:

WARNING

To prevent death or injury to aircrew member, drogue bridle must be routed over all other lines or system will not operate correctly.

(1) Insert pin (8) spacer in loop of drogue bridle. Make sure drogue bridle is routed correctly.

WARNING

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

(2) Pull left WORD release (9) to release strap assembly (10).

(3) Position drogue bridle loop in WORD motor.

NOTE

With WORD motor in the extended (up) position, cotter pin in pin (8) must be installed facing out.

(4) Install pin (8) and washer and safety with cotter pin. (QA)

(5) Position WORD motor against WORD motor bracket.

(6) Insert strap assembly (10) in WORD motor bracket.

(7) Lock strap assembly (10) in position with WORD release (9).

(8) Secure velcro attachment to inner right trombone assembly.

4. HEADREST ASSEMBLY.

Support Equipment Required

Part Number or Type Designation	Nomenclature
472P950D053-1	Headrest Safety Pin Assembly
472P950E057-1	Height Adjustment Actuator Control Assembly
-	Torque Wrench, 0 to 200 Inch-Pounds

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
F42NKE054 42NKE054	Nut, Nylon Cap Hex (4)
MIL-S-46163 TYPE 2 GRADE N (CAGE 81349)	Sealing Compound
MS24665-134	Cotter Pin (2)
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer Coating

5. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Using height adjustment actuator control assembly, position seat bucket to full down position.

- c. Install headrest safety pin assembly (figure 1).
- d. Remove drogue/container assembly, this WP.
- e. On ejection seat SJU-13/A or SJU-14/A, remove riser stowage pouch assembly flaps from sleeve assemblies on left and right riser assemblies.
- f. Open velcro flaps on riser stowage pouch assembly.
- g. Unsnap riser assemblies from riser stowage pouch assembly.
- h. Disconnect riser assemblies from connector link assemblies by removing bolts (1) and nuts.
- i. Remove sealing compound (tamper dots) from center of bolts (1) heads.
- j. Remove sleeves from riser assembly loops.
- k. Unsnap riser stowage pouch assembly and remove from headrest assembly (2).

WARNING

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- l. Pull left WORD release (9) to release strap assembly (10).
- m. Disconnect WORD bridle by removing cotter pins (11) and pins (7).

WARNING

To prevent death or injury to personnel, WORD motor must be secured to bracket after WORD bridle has been disconnected.

- n. Position WORD motor against WORD motor bracket.
- o. Insert strap assembly (10) in WORD motor bracket.

- p. Lock strap assembly (10) in position with WORD release (9).



To prevent damage to components, headrest assembly must be supported during bolt removal.

- q. Support headrest assembly (2) and remove bolts (5) and washers.
r. Remove bolt (6) and washer and remove headrest assembly (2).

6. INSTALLATION.

- a. Using height adjustment actuator control assembly, position seat bucket to full down position.



To prevent damage to headrest assembly, only hand pressure must be used to snap headrest assembly in position.

To prevent damage to WORD bridle, bridle must not be pinched or trapped between headrest assembly and parachute container opener assembly.

- b. Position headrest assembly (2, figure 1) between catapult tube assemblies.
c. Using only hand pressure, snap headrest assembly (2) in position. Make sure WORD bridle is not pinched or trapped between headrest assembly and parachute container opener assembly. (QA)



To prevent damage to equipment use of NAS623-3-6 screws is mandatory on SJU-13/A and SJU-14/A seats and preferred on SJU-4/A seats.

- d. Install bolts (5) and washers.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- e. Coat bolt (6) with primer coating.

WARNING

MIL-S-46163 Type 2 Grade N sealing compound is harmful if swallowed. May cause eye and skin irritation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- f. Apply MIL-S-46163 Type 2 Grade N sealing compound to threads of bolt (6).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- g. Install bolt (6) and washer. Torque bolt 100 to 140 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- h. Pull left WORD release (9) to release strap assembly (10).

NOTE

With WORD motor in the extended (up) position, cotter pins must be installed from bottom of WORD motor.

- i. Secure WORD bridle to WORD motor with pins (7) and safety with cotter pins (11). (QA)
- j. Position WORD motor against WORD motor bracket.
- k. Insert strap assembly (10) in WORD motor bracket.
- l. Lock strap assembly (10) in position with WORD release (9).
- m. Position riser stowage pouch assembly on headrest assembly (2) and secure.
- n. Install sleeves in riser assembly loops.
- o. Position short riser assembly strap in forward connector link assembly and long riser assembly strap in aft connector link assembly.

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

NOTE

Bolts will rotate in connector link assemblies. To provide visual indication for inspection, tamper dots are applied to center of bolts heads after torquing.

- p. Secure riser assemblies on connector links assemblies with bolts (1), washers, and new nuts.

Torque nuts 70 to 90 inch-pounds. Using EC1252 sealing compound, apply tamper dot to center of bolt heads. (QA)

q. Snap riser assemblies to riser stowage pouch assembly.

r. Stow riser assemblies and secure velcro flaps on riser stowage pouch assembly.

NOTE

Flaps should be stowed tight across sleeve assemblies.

s. On ejection seat SJU-13/A or SJU-14/A, stow pouch assembly flaps into aft end of sleeve assemblies on left and right riser assemblies.

t. Install drogue/container assembly, this WP.

u. Remove headrest safety pin assembly.

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

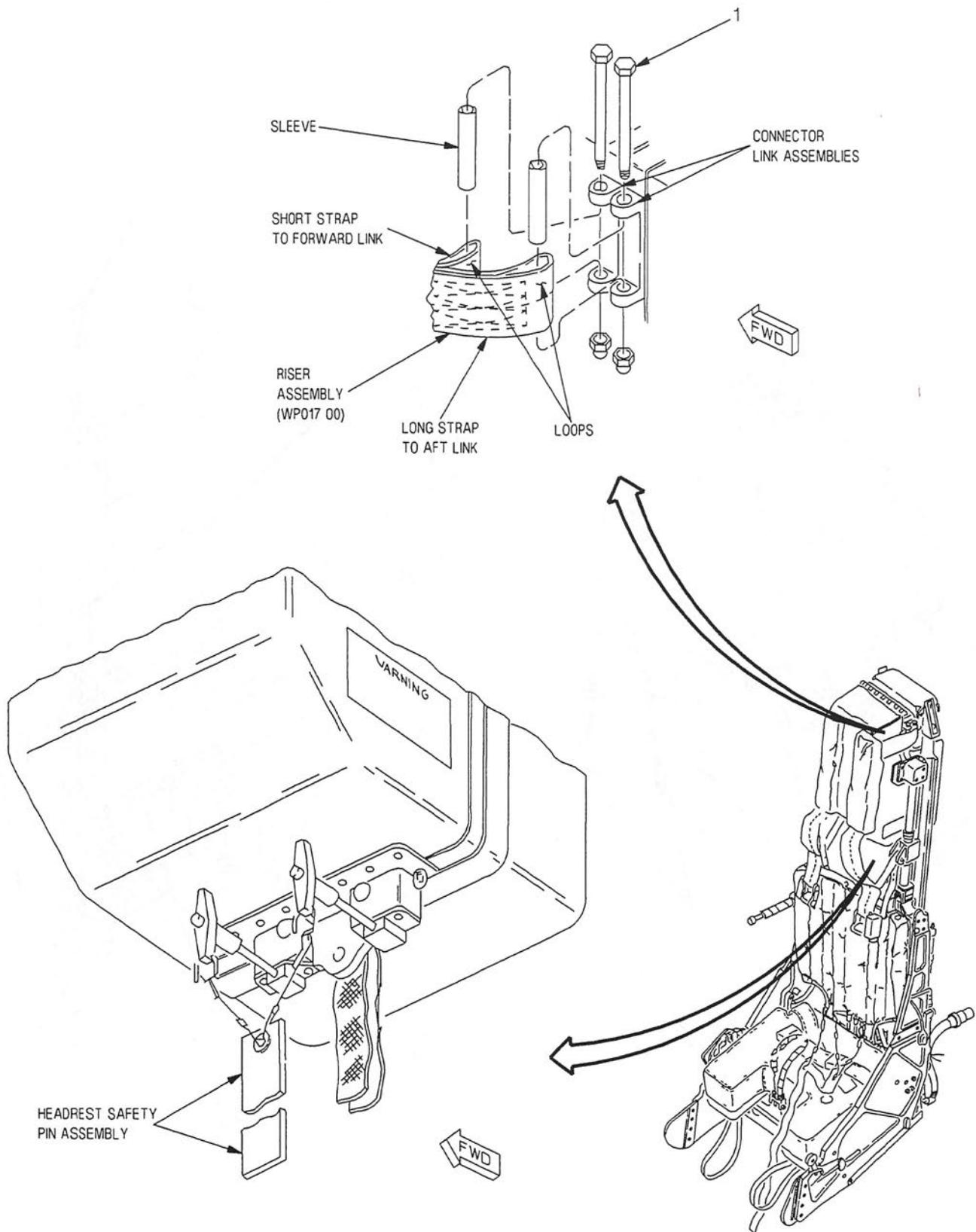


Figure 1. Drogue/Container Assembly and Headrest Assembly (Sheet 1)

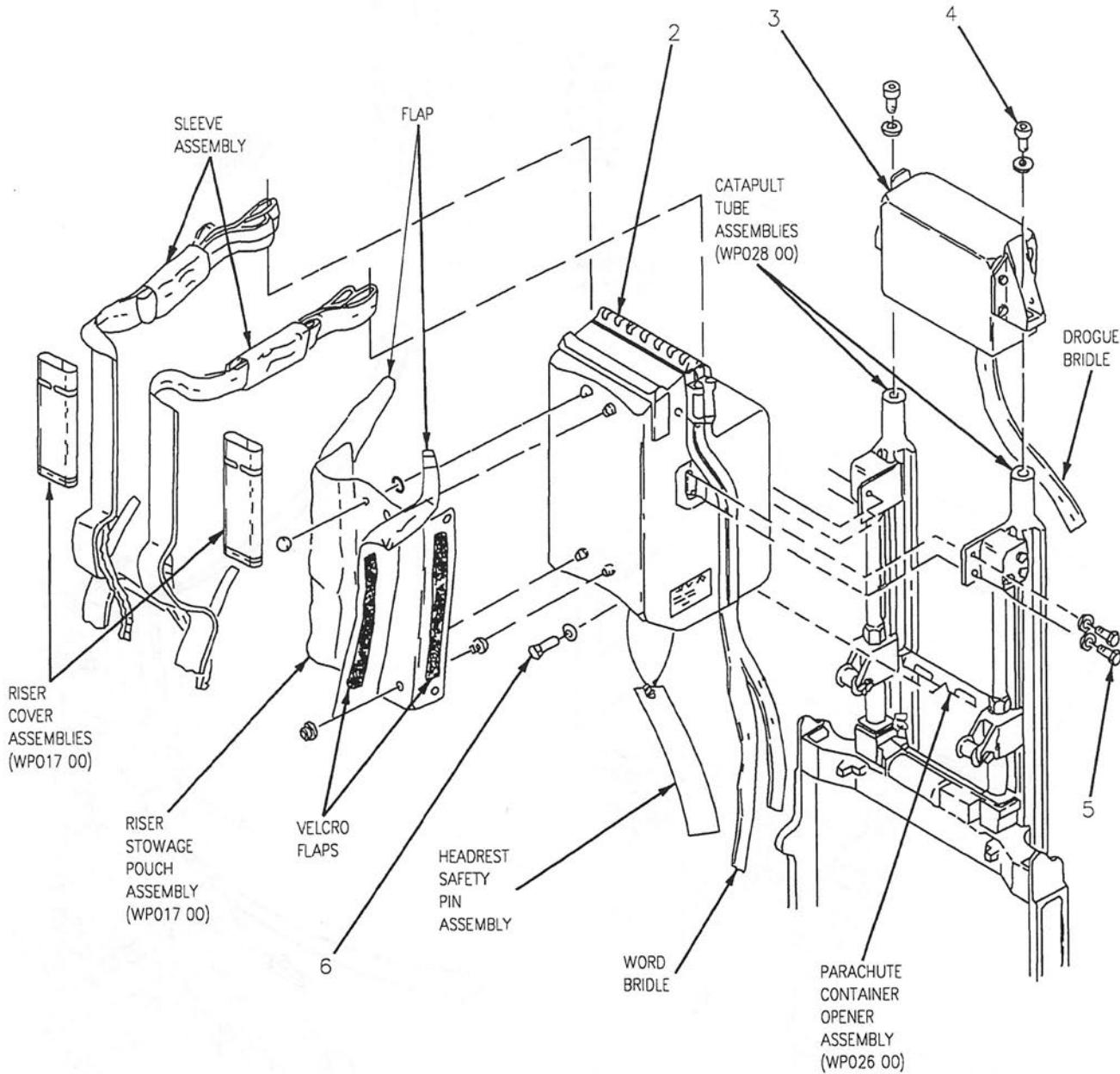


Figure 1. Drogue/Container Assembly and Headrest Assembly (Sheet 2)

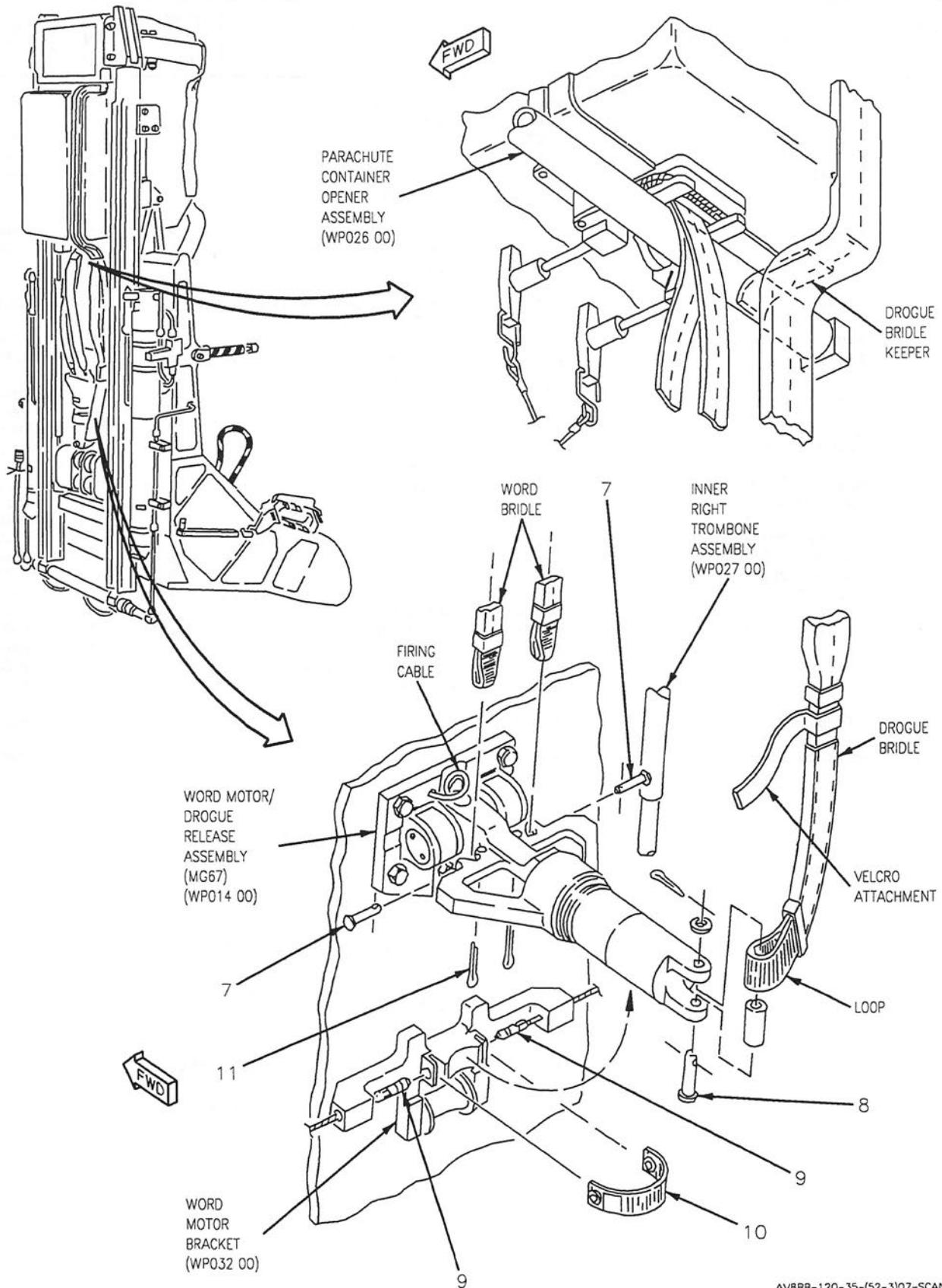


Figure 1. Drogue/Container Assembly and Headrest Assembly (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
DROGUE/CONTAINER ASSEMBLY AND					
		HEADREST ASSEMBLY			
1	NAS6205-38	. BOLT (SUPERSEDES NAS464P5A38)	4	*	PAOZZ
	NAS1105-38	. SEE ABOVE	4	*	PAOZZ
	F42NKE054	. NUT, NYLON CAP HEX (22599)	4	*	PAOZZ
		(USE WITH INDEX 1) (UPCO SPEC 12484-019)			
	42NKE054	. SEE ABOVE (72962)	4	*	PAOZZ
2	14090-9	. HEADREST ASSEMBLY, EJECTION	1	A	AGOGG
		SEAT ASSEMBLY (A/P 28S-28) (24632)			
	14690-1	. HEADREST ASSEMBLY, EJECTION	1	B	AGOGG
		SEAT ASSEMBLY (24632)			
	14090-15	. SEE ABOVE	1	C	AGOGG
3	14210-9	. DROGUE/CONTAINER ASSEMBLY	1		AGOGG
		(PCU-29/A) (24632)			
4	MS21262-25	. SCREW	2		PAOZZ
	NAS1149D0663K	. WASHER (USE WITH INDEX 4)	2	*	PAOZZ
	AN960KD616	. SEE ABOVE	2	*	PAOZZ
5	NAS623-3-6	. SCREW, PAN HEAD , PHILLIPS	4		PAOZZ
		RECESS (SUPERSEDES NAS6203-6)			
	NAS1149D0332K	. WASHER (USE WITH INDEX 5)	4	*	PAOZZ
	AN960KD10L	. SEE ABOVE	4	*	PAOZZ
6	NAS1225-3L	. BOLT	1		PAOZZ
	NAS1149D0516K	. WASHER (USE WITH INDEX 6)	1	*	PAOZZ
	AN960KD516L	. SEE ABOVE	1	*	PAOZZ
7	MS20392-2C21	. PIN	2		PAOZZ
8	MS20392-5C51	. PIN	1		PAOZZ
	NAS42HT12-66	. SPACER (USE WITH INDEX 8)	1		PAOZZ
	NAS1149D0616K	. WASHER (USE WITH INDEX 8)	1	*	PAOZZ
	AN960KD616L	. SEE ABOVE	1	*	PAOZZ
	MS24665-283	. PIN, COTTER (USE WITH INDEX 8)	1		PAOZZ
9	472V400D126-3	. WORD RELEASE - WITHDRAWAL	2		PAOZZ
		LINE (51998)			
10	779P420D075-1	. STRAP ASSEMBLY - WORD MOTOR	1		PAOZZ
		(24632)			
11	MS24665-134	. PIN, COTTER	2		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

CODE	USABLE ON	MODEL
A	P/N 14020-7 P/N 14020-9 P/N 14020-11	SJU-4/A
B	P/N 14620-1	SJU-13/A
C	P/N 14620-3	SJU-14/A

Figure 1. Drogue/Container Assembly and Headrest Assembly (Sheet 4)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****SURVIVAL KIT ASSEMBLY (SKU-6/A)****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

1. SURVIVAL KIT ASSEMBLY (SKU-6/A).

Support Equipment Required

Part Number or Type Designation	Nomenclature	NOTE
DPPH-100	Spring Resiliency Tester	Leg restraint straps will release from ratchets when emergency release handle assembly is raised.

Materials Required

Specification or Part Number	Nomenclature	
-	Nylon Cord	c. Squeeze and raise emergency release handle assembly to full up position.

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Disconnect emergency oxygen and radio beacon lanyards from lanyard assembly snaphook. Stow lanyard assembly snaphook to leg restraint ratchet (figure 1).



To prevent damage to ejection control cable assembly when removing survival kit assembly, the ejection control cable assembly must be bent forward and down to bottom of forward panel.

- d. Grasp lap belt assemblies (5).

WARNING

To prevent ejection seat failure and loss of crewmember, make sure survival kit does not snag or break spring retainer in initiation subsystem assembly during removal.

NOTE

If survival kit assembly is difficult to remove, bolts securing forward hooks may be loosened.

- e. Pull up and rotate survival kit assembly (1) forward to release forward hooks from retainers.
- f. Remove survival kit assembly (1).

3. INSTALLATION.**CAUTION**

To prevent damage to ejection seat or survival kit assembly, maintenance safety streamer must be clear of aft hooks when installing survival kit assembly.

- a. Make sure maintenance safety streamers are clear of aft hooks of survival kit assembly (1, figure 1).

CAUTION

To prevent damage to ejection control cable assembly when installing survival kit assembly, ejection control cable assembly must be bent forward and down to extreme bottom of forward panel.

- b. Grasp lap belt assemblies (5).
- c. Position forward hooks of survival kit assembly (1) on forward hook retainers of ejection seat.

WARNING

Ejection seat failure and loss of crew may result from incorrect position or packing of survival kit, make sure water container does not crush or bind firing control cable conduit.

To prevent ejection seat failure and loss of crewmember, make sure survival kit does not snag or break spring retainer in initiation subsystem assembly during installation.

- d. Lower survival kit assembly (1) into locking position.

CAUTION

To prevent shearing of bellcrank on seat release shaft, make sure no binding occurs when lowering emergency release handle.

NOTE

If survival kit assembly is difficult to install, forward hooks may be adjusted.

- e. While applying force on aft end of survival kit assembly (1), press plunger spring and lower emergency release handle to down and locked position. Observe T-bar interim stop plunger to move to down (armed) position as handle is lowered.

- f. Grasp lap belt assemblies (5) and pull up to make sure aft hooks of survival kit assembly (1) are locked.

- g. Do survival kit assembly release check per substeps below:

- (1) Tie lap belt assembly straps together at loops with nylon cord.

- (2) Attach spring resiliency tester to joined lap belt assembly straps.

- (3) Squeeze and raise emergency release handle assembly to full up position.

NOTE

Survival kit assembly shall release completely from ejection seat with a force of 40 pounds maximum. If survival kit assembly is difficult to remove, forward hooks may be adjusted.

(4) Pull upward on spring resiliency tester until survival kit assembly (1) releases completely from ejection seat making sure force required is 40 pounds maximum. (QA)

(5) Disconnect spring resiliency tester and remove nylon cord.

WARNING

Ejection seat failure and loss of crew may result from incorrect position or packing of survival kit, make sure water container does not crush or bind firing control cable conduit.

To prevent ejection seat failure and loss of crewmember, make sure survival kit does not snag or break spring retainer in initiation subsystem assembly during installation.

(6) Grasp lap belt assemblies (5) and position forward hooks of survival kit assembly (1) on forward hook retainers of seat and lower survival kit assembly into locking position.

(7) While applying force on aft end of survival kit assembly (1), press plunger spring and lower emergency release handle to down and locked position.

(8) Grasp lap belt assemblies (5) and pull up to make sure aft hooks of survival kit assembly (1) are locked.

h. Make sure spring retainer and yellow pin in initiation subsystem assembly are not broken or missing and that T-bar interim stop plunger is in the full down position. (QA)

i. Insert FOD flap between front panel of ejection seat and survival kit assembly (1) behind ejection control cable assembly.

j. Connect lanyard assembly snaphook to emergency oxygen and radio beacon lanyards.

k. Make sure garter rings are on leg restraint straps and insert leg restraint strap release pins into ratchets.

l. Pull on leg restraint straps to make sure release pins are engaged.

4. BOTTOM CUSHION ASSEMBLY.**Support Equipment Required**

None

Materials Required

None

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Lift up on bottom cushion assembly (2, figure 1), detaching velcro strips at forward edge of survival kit assembly (1).

c. Unsnap buttons on back of bottom cushion assembly (2) from survival kit assembly (1).

d. If cover assembly (6) or pad assembly (7) are to be replaced, open velcro flaps and remove cover assembly from pad assembly.

6. INSTALLATION.**NOTE**

To ease installation if required, warm pad assembly (not exceeding 150°F).

a. To replace cover assembly (6 figure 1) or pad assembly (7), do substeps below:

- (1) Insert pad assembly (7) into cover assembly (6).
- (2) Make sure cover assembly (6) is formed correctly around oxygen gage viewing hole in pad assembly (7).
 - b. Secure velcro flaps.
 - c. Attach bottom cushion assembly (2) to survival kit assembly (1) with buttons.
 - d. Push bottom cushion assembly (2) down, securing two velcro strips at forward edge of survival kit assembly (1).

e. Insert FOD flap between front panel of ejection seat and survival kit assembly (1), behind ejection control cable assembly.

7. RADIO BEACON SET AN/URT-33A.**Support Equipment Required**

None

Materials Required

None

8. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety stisher (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Raise bottom cushion assembly (2, figure 1) to gain access to beacon set (4).
- c. Disconnect emergency oxygen and radio beacon lanyards from lanyard assembly snaphook. Stow lanyard assembly snaphook to leg restraint ratchet.
- d. Loosen velcro tape.
- e. Remove beacon set (4) with flexible antenna.
- f. Set beacon set (4) slide switch to OFF.

9. INSTALLATION.

- a. Make sure beacon set (4, figure 1) lanyard assembly is folded on top of beacon set and secured with rubberbands.

NOTE

Slide switch is in ON position when word ON is visible.

- b. Set beacon set (4) slide switch to ON. (QA)
- c. Position beacon set (4) in bracket. Make sure slide switch is under L-shaped bracket.
- d. Secure beacon set (4) with velcro tape. (QA)
- e. Position flexible antenna under straps of survival kit assembly.
- f. Push bottom cushion assembly (2) down, securing two velcro strips at forward edge of survival kit assembly (1).
- g. Connect lanyard assembly snaphook to emergency oxygen and radio beacon lanyards.

- h. Insert FOD flap between front panel of ejection seat and survival kit assembly (1) behind ejection control cable assembly.

10. OXYGEN AND COMMUNICATIONS HOSE ASSEMBLY.

Support Equipment Required

Part Number or Type Designation	Nomenclature
—	Torque Wrench, 0 to 200 Inch-Pounds

Materials Required

None

11. REMOVAL.

- a. Remove survival kit assembly, this WP.
- b. Remove bottom cushion assembly, this WP.
- c. Disconnect oxygen and communication hose assembly (3, figure 1) from manifold assembly.
- d. Install protective caps on manifold assembly.
- e. If hose sub-assembly (8 or 11) are to be replaced, separate hose sub-assembly (8) from keepers.

12. INSTALLATION.

WARNING

Oxygen hose sub-assembly (11) must be installed in the forward position. Hose sub-assembly (8) in aft position of the manifold. If hoses are reversed emergency oxygen will not function.

- a. Connect hose sub-assembly (11, figure 1, detail C) to manifold assembly. Torque nut 110 to 130 inch-pounds. (QA)
- b. Connect hose sub-assembly (8) to manifold assembly and torque nut 70 to 90 inch-pounds. (QA)
- c. If hose sub-assembly (8 or 11) were replaced, connect keepers over hose sub-assembly (8).

- d. Install bottom cushion assembly, this WP.
- e. Install survival kit assembly, this WP.

13. LAP BELT ASSEMBLIES.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MIL-S-22473	Sealing Compound
GRADE A	
(CAGE 81349)	
MS24665-285	Cotter Pin (2)
V-T-295, Type 1, SIZE B, COLOR 66022	Thread, Nylon
(CAGE 81348)	

14. REMOVAL.

- a. Remove survival kit assembly, this WP.
- b. Remove bottom cushion assembly, this WP.

NOTE

Survival kit static line must be disconnected from left lap belt assembly.

- c. Disconnect lap belt assemblies (5, figure 1) from survival kit assembly (1) by removing attaching parts.

15. DISASSEMBLY.

- a. Remove release assembly (12, figure 1) by removing two shoulder screws. Pull release assembly away from belt, and slide pin out of belt loop.
- b. Remove four screws (two on each side) from cover of adjuster assembly (13).
- c. Remove cover from adjuster housing and slide pull tab through cover slot.
- d. Slide upper housing pins out of housing.

NOTE

Slides are held to guide plates by pins. Slide must be pulled up so guide plates are above edge of housing, and slide rotated out of guide plates.

- e. Remove upper slide with attached pull tab.
- f. Lift free end of belt, and remove lower slide.
- g. Position guide plates up and out of way. Remove two lower housing pins and belt roller retaining pin. Belt roller will fall away.
- h. Pull free end of belt through slot in housing. Remove pin retaining belt attachment loop roller. Housing will fall away.

16. ASSEMBLY.

NOTE

The adjuster assembly six pins (two retaining and four housing) are interchangeable, and the two rollers are interchangeable.

- a. If required, slide guide plate springs onto guide pin; ensure that guide plates are positioned correctly. Install assembly into adjuster housing guide pin mounting holes.
- b. Insert roller into belt loop. Place adjuster housing on top of free end of belt so that aft end of housing faces belt loop.
- c. Position housing onto belt loop and roller. Align hole through roller with aftmost holes in housing, and install retaining pin.
- d. Fold free end of belt back toward housing and insert end through slot in housing to form loop in belt forward of housing. Guide plates may be positioned up and back to avoid any interference.
- e. Install roller into housing on top of belt. Position roller to align with proper holes in housing, and insert retaining pin.
- f. Insert lower housing pins, making sure pins are resting on top of belt.
- g. Position guide plates into housing on top of lower housing pins and install lower slide rubber

face up. Make sure that slide pin is correctly positioned into lower slots of guide plates.

h. Position belt free end under tabs of guide plates, and lay belt down over lower slide.

i. Install upper slide, rubber face down. Make sure that slide does not come out of place and that slide pins sit securely in slots of guide plates. (QA)

j. Install upper housing pins. Make sure that slides operate correctly by pulling on pull tab to check simultaneous movement of slides. Belt shall slide with ease through adjuster in either direction. (QA)

WARNING

Sealing compound is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

k. Insert pull tab from inside out through slot in cover and position cover on housing. Apply sealing compound to threads of four screws and secure cover to housing. Check adjuster assembly (13) for proper operation.

WARNING

l. Install pin in belt loop and align release assembly (12). Apply sealing compound to two shoulder screws and install release assembly.

17. INSTALLATION.**NOTE**

Survival kit static line must be connected to left lap belt assembly.

a. Connect lap belt assembly (5, figure 1) to survival kit assembly (1) with pin. Safety pin with cotter pin. (QA)

b. Route static line loop through lap belt assembly (5) end fitting and over release assembly (12) and adjuster assembly (13).

c. Continue passing static line loop over lap belt assembly (5) forming a lark's head knot at end fitting.

d. Stitch with single nylon thread, one turn. Tie ends with a surgeon's knot followed by a square (binder's) knot.

e. Install bottom cushion assembly, this WP.

f. Install survival kit assembly, this WP.

18. LAP BELT ADJUSTER CLEANING.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
P-D-1747	General Purpose Detergent
NIIN-00-926-5280	Cloth, Cleaning
MIL-C-85043 TYPE 2 (81349)	

19. PROCEDURE.

a. Remove survival kit assembly, this WP.

b. Disassemble lap belt assembly to expose upper and lower slide rubber surfaces, this WP.

c. Clean upper and lower slide rubber surfaces thoroughly with cleaning cloth moistened with general purpose detergent.

d. Assemble lap belt assembly, this WP.

e. Install survival kit assembly, this WP.

20. EMERGENCY OXYGEN SYSTEM SERVICING.

Support Equipment Required

Part Number or Type Designation	Nomenclature
---------------------------------	--------------

T186C100-1 144194	Adapter, Filler Valve Trailer, Gaseous Oxygen
----------------------	--

Materials Required

None

21. PROCEDURE.

NOTE

If emergency oxygen pressure gage indicates empty, refer to NAVAIR 13-1-6.3 for purging and charging of the emergency oxygen system.

This procedure is only for charging of the emergency oxygen system where it has been determined to have a low emergency oxygen gage reading.

- a. Remove survival kit assembly, this WP.
- b. Remove bottom cushion assembly, this WP.
- c. Remove emergency oxygen filler valve (figure 1) cap and connect filler valve adapter to emergency oxygen filler valve.
- d. Connect gaseous oxygen trailer servicing hose to filler valve adapter.

WARNING

Filling stages must be observed as rapid application of oxygen pressure creates heat which may result in fire or explosion.

Allow no less than 3 minutes for each filling stage and 2 minute intervals for cooling between stages.

- e. Charge emergency oxygen system in stages in accordance with table 1 until pressure gage indicates correct pressure for existing ambient temperature. See table 2.

Table 1. Charging Stages

Stage	PSI
1	500
2	1000
3	1500
4	1800
5	2000

Table 2. Ambient Air Temperature vs Charging Pressures

Ambient Air Temperature		Charging Pressure
°F	°C	PSI
0	-18	1550-1750
10	-12	1600-1775
20	-7	1625-1800
30	-1	1675-1850
40	5	1700-1875
50	10	1725-1925
60	16	1775-1975
70	21	1800-2000
80	27	1825-2050

Table 2. Ambient Air Temperature vs Charging Pressures (Continued)

Ambient Air Temperature		Charging Pressure
°F	°C	PSI
90	32	1875-2075
100	38	1900-2125
110	43	1925-2150
120	49	1975-2200
130	54	2000-2225

f. Disconnect gaseous oxygen trailer servicing hose from filler valve adapter.

g. Remove filler valve adapter from emergency oxygen filler valve and install oxygen filler valve cap.

h. Install bottom cushion assembly, this WP.

i. Install survival kit assembly, this WP.

22. ILLUSTRATED PARTS BREAKDOWN.

23. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

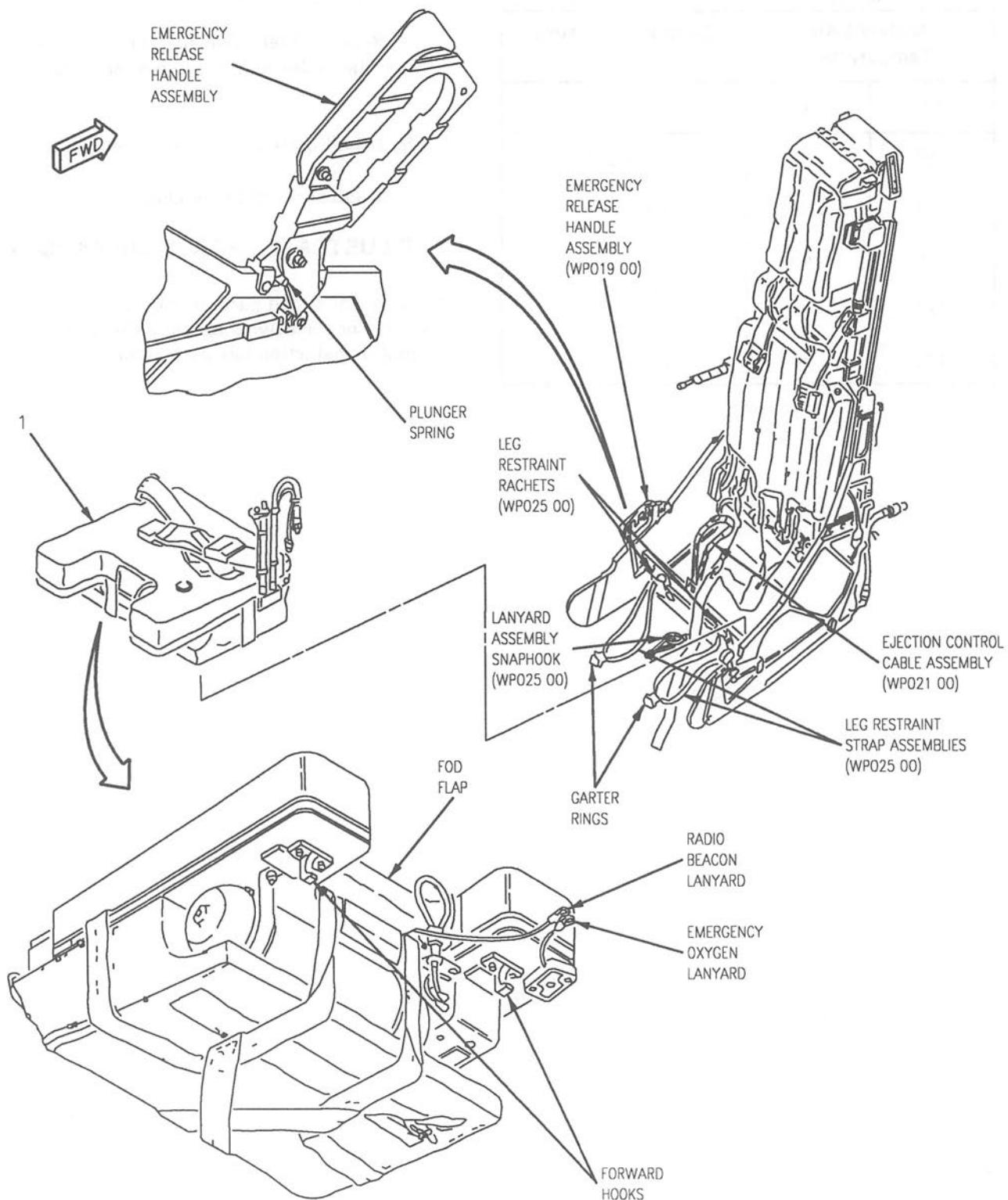
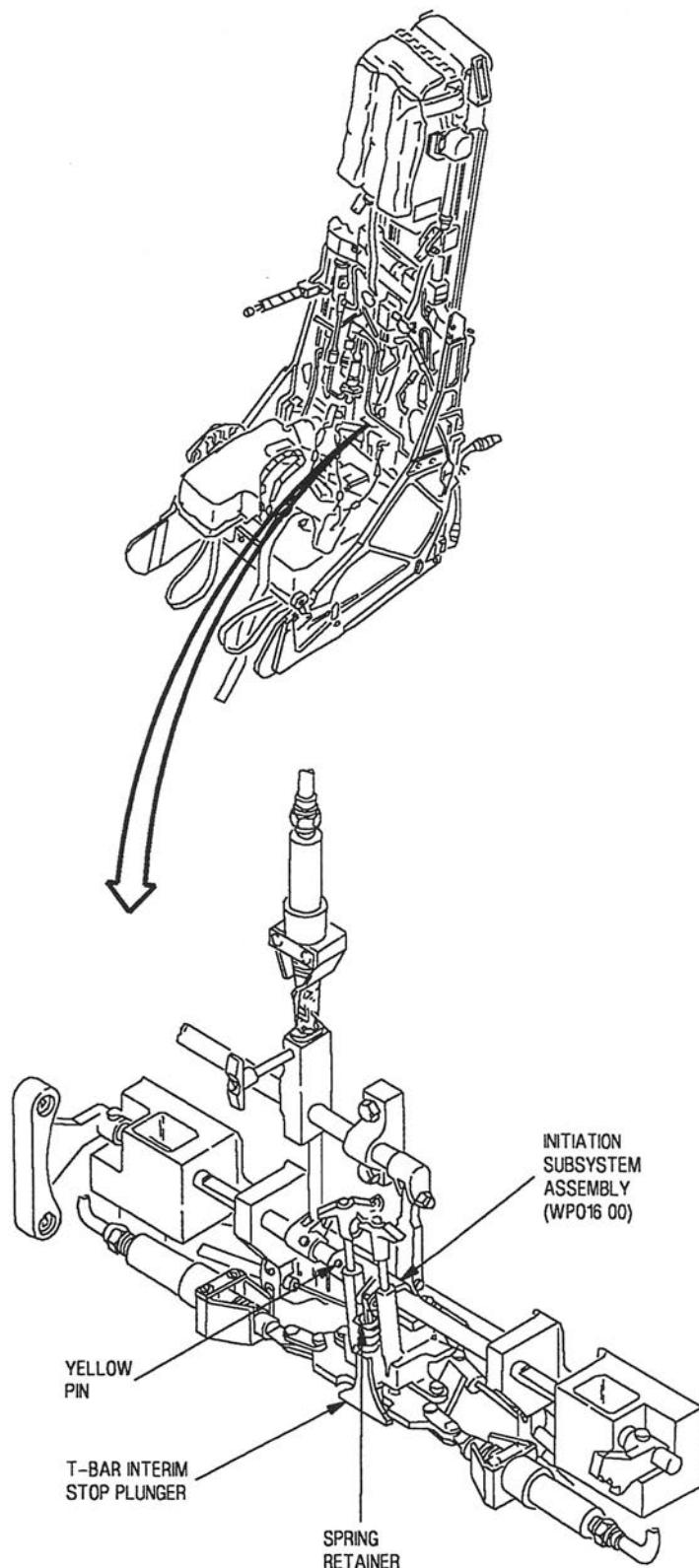


Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 1)

**MAJOR CHANGE**

AHR722-53-1-1-12

Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 1A)

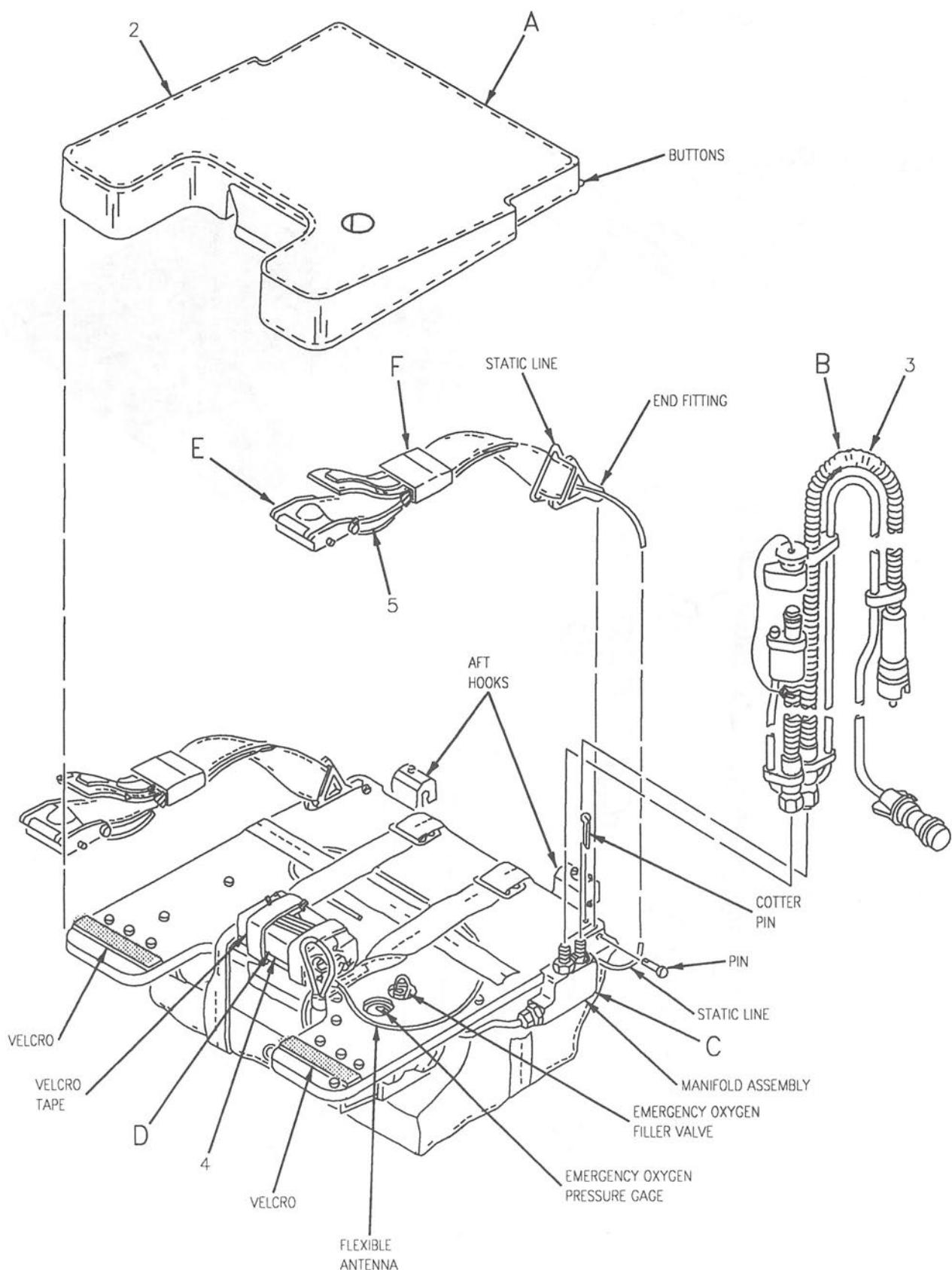


Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 2)

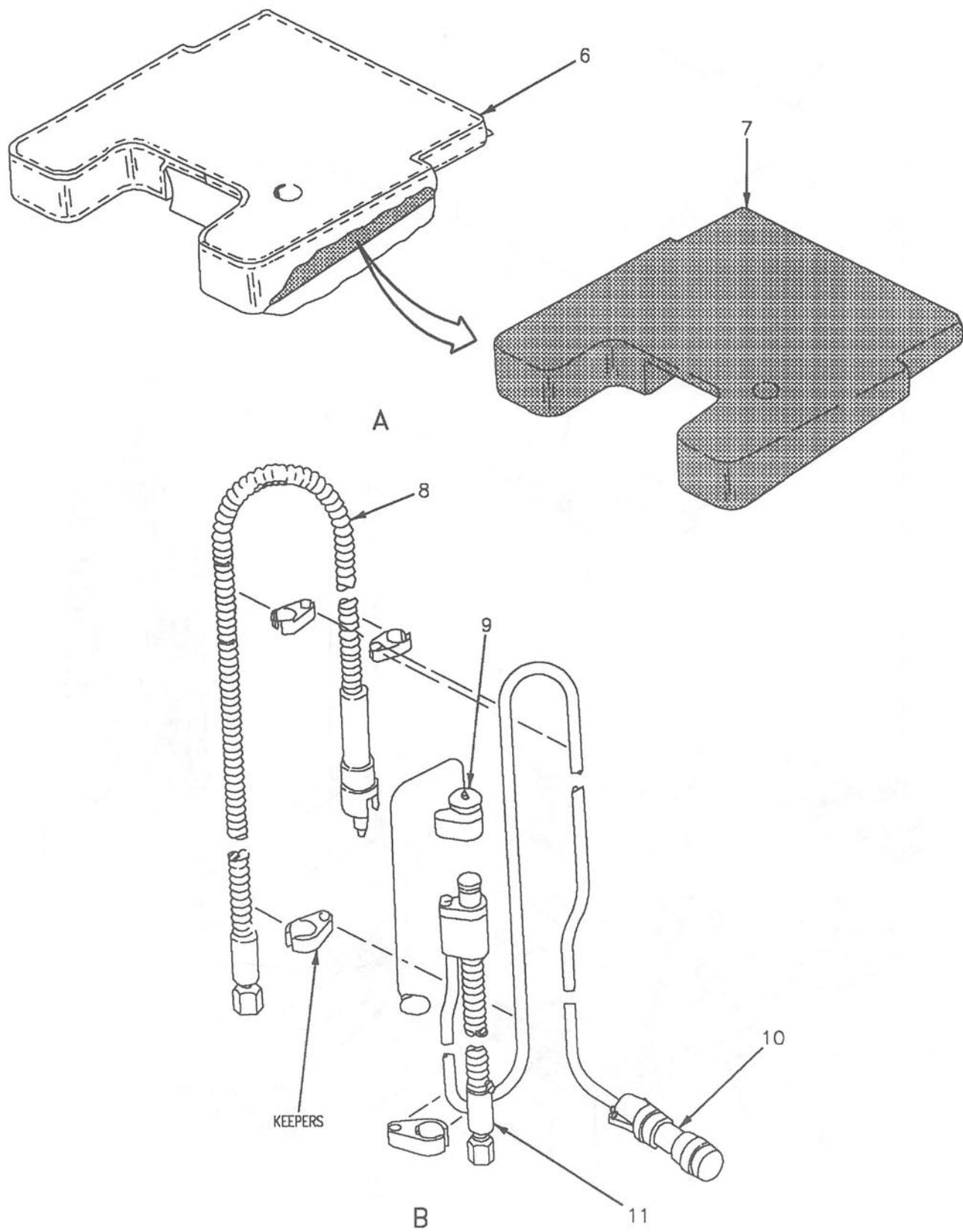
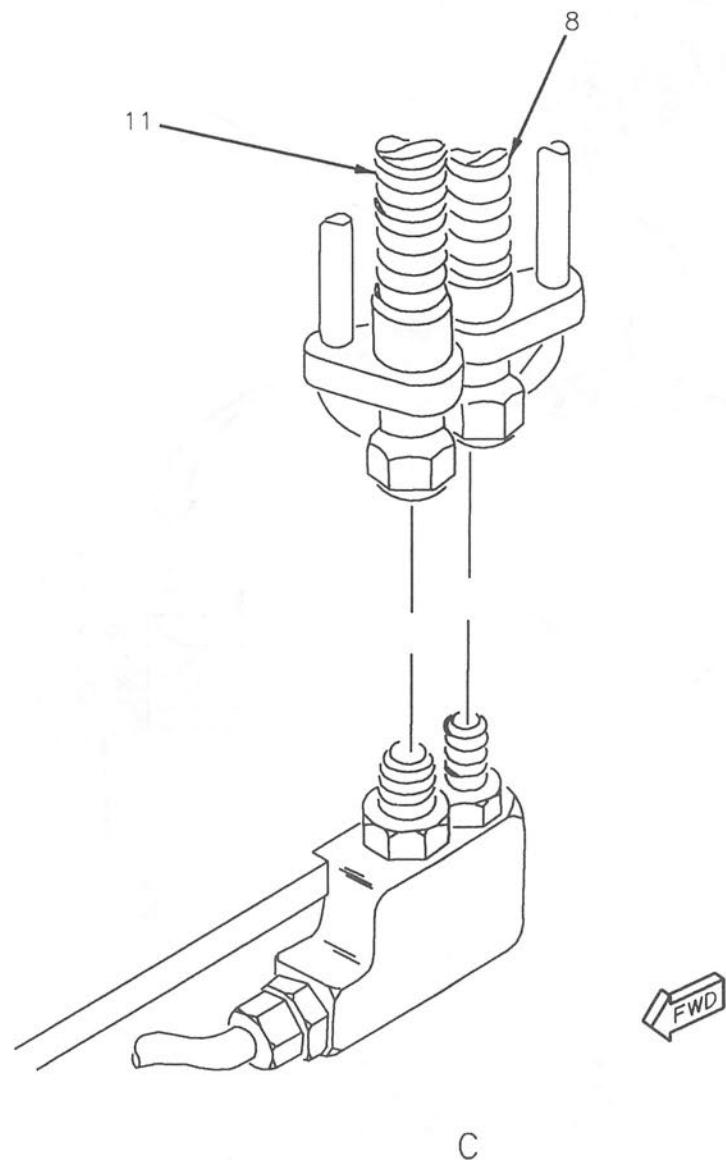


Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 3)



C

HOSE SUBASSEMBLIES MUST
BE INSTALLED IN POSITION
SHOWN ON MANIFOLD.

Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 4)

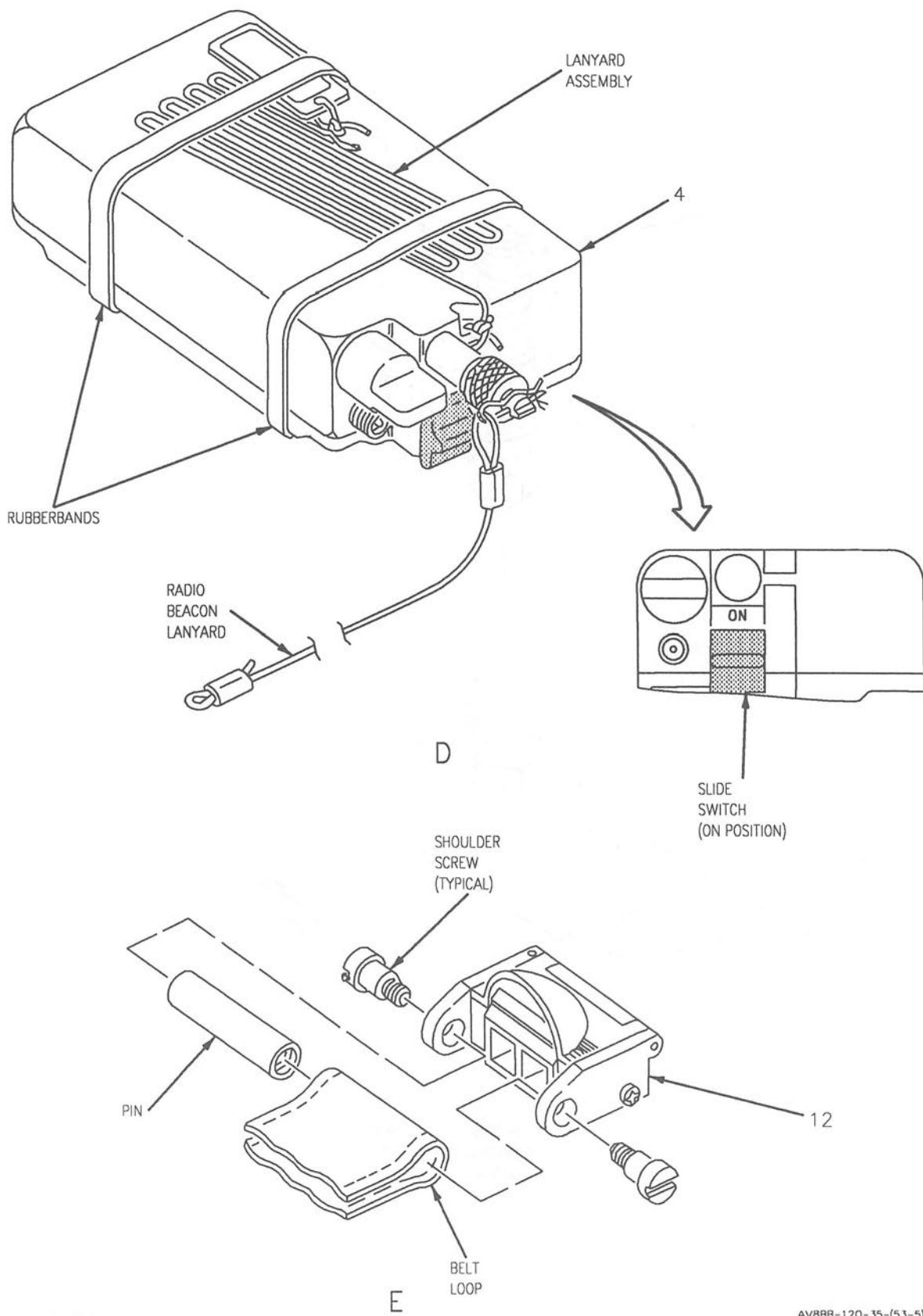
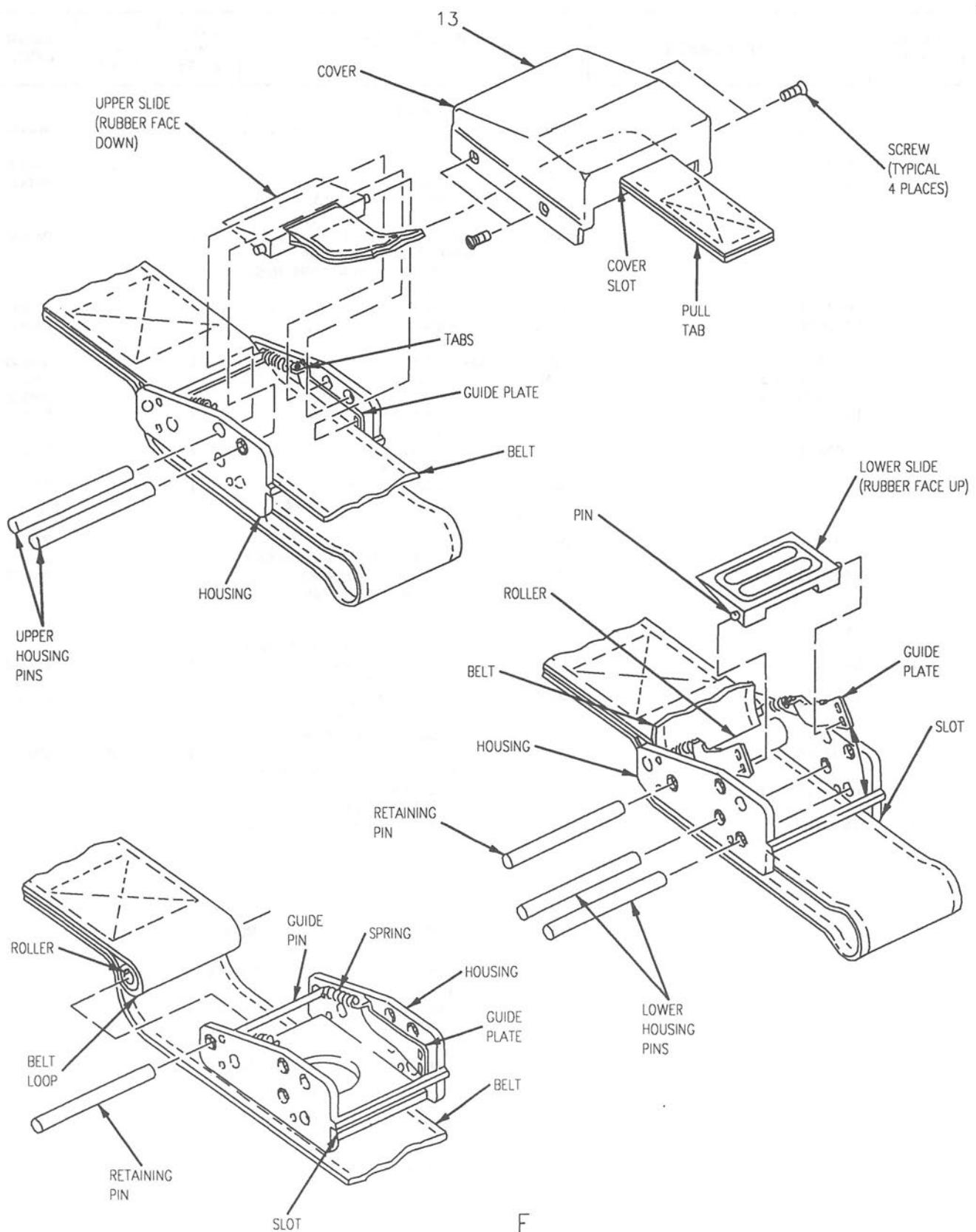


Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 5)



F

Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14070-7	SURVIVAL KIT ASSEMBLY (SKU-6/A) SURVIVAL KIT ASSEMBLY (SKU-6/A) (51998)	1	A	AGOOG
2	14070-3 14075-5	. SEE ABOVE CUSHION, SEAT, AIRCRAFT (BOTTOM CUSHION ASSEMBLY) (51998)	1 1	B	AGOOG PAOOO
3	14073-19	. HOSE ASSEMBLY, SURVIVAL KIT, OXYGEN AND COMMUNICATIONS (OXYGEN AND COMMUNICATIONS HOSE ASSEMBLY) (86197)	1	C	PAOOG
4	14073-1 7037618-10	. SEE ABOVE (51998) BEACON SET, RADIO, AN/URT-33A (98750)	1 1	D	PAOOG PAOOG
5	12072-1 MS20392-4C25 MS24665-285	. BELT ASSEMBLY, LAP (51998) PIN (AP) PIN, COTTER (AP)	2 2 2		AOOOO PAOZZ PAOZZ
6	14075-7	. COVER ASSEMBLY (51998) (NHPA 14075-5, SM&R CODE PAOOO)	1		PAOZZ
7	14078-5	. PAD ASSEMBLY (51998) (NHPA 14075-5, SM&R CODE PAOOO)	1		PAOZZ
8	14073-23	. HOSE SUB-ASSEMBLY, BREAKAWAY (51998) (NHPA 14073-19, SM&R CODE PAOOG)	1	E	PAOZZ
	14073-7	. SEE ABOVE (NHPA 14073-1, SM&R CODE PAOOG)	1	F	PAOZZ
9	14073-27	. CAP, PROTECTIVE, DUST (51998) (NHPA 14073-19, SM&R CODE PAOOG)	1	E	PAOZZ
	14073-13	. SEE ABOVE (NHPA 14073-1, SM&R CODE PAOOG)	1	F	PAOZZ
10	GA-132	. CONNECTOR, ELECTRICAL (06324) (SAEC SPEC 14073-15)	1		PAOZZ
11	14073-21	. HOSE SUB-ASSEMBLY, QUICK DISCONNECT (51998) (NHPA 14073-19, SM&R CODE PAOOG)	1	E	PAOZZ
	14073-5	. SEE ABOVE (NHPA 14073-1, SM&R CODE PAOOG)	1	F	PAOZZ
12	015-11365-1	. RELEASE ASSEMBLY (99449) (SAEC SPEC 25037-11)	1		-
13	184C100-1	. ADJUSTER ASSEMBLY (30941) (SAEC SPEC 25026-1)	1		-

CODE	USABLE ON	MODEL
A	P/N 14020-9 P/N 14020-11 P/N 14620-1 P/N 14620-3	SJU-4/A
		SJU-13/A
		SJU-14/A
B	P/N 14020-7	SJU-4/A
C	P/N 14070-5 P/N 14070-7	
D	P/N 14070-3	
E	P/N 14073-19	
F	P/N 14073-1	

Figure 1. Survival Kit Assembly 1-(SKU-6/A) (Sheet 7)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****SEAT BACK CUSHION****SEAT WEDGE ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

1. SEAT BACK CUSHION.**Support Equipment Required**

None

Materials Required

None

3. INSTALLATION.**WARNING**

To prevent death or injury to personnel safe/arm control handle assembly must be in the safe (full up) position with maintenance safety streamer (3 pins) removed.

- a. Remove maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to personnel, safe/arm control handle assembly must be in the safe (full up) position with maintenance safety streamer (3 pins) removed.

- b. Remove maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).

- c. Unsnap seat back cushion (1, figure 1) and pull, detaching velcro from wedge assembly (4).

- d. Install maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to aircrew member, riser assembly seat release lanyards must be routed between wedge assembly and seat back cushion.

- b. Position seat back cushion (1, figure 1) on wedge assembly (4), making sure both riser assembly seat release lanyards are routed between wedge assembly and seat back cushion.

- c. Snap seat back cushion (1) to wedge assembly (4) and secure velcro.

- d. Install maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).

4. SEAT WEDGE ASSEMBLY.**Support Equipment Required**

None

Materials Required

None

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove seat back cushion, this WP.

WARNING

To prevent death or injury to personnel, safe/arm control handle assembly must be in the safe (full up) position with maintenance safety streamer (3 pins) removed.

- c. Remove maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).
- d. Unlatch stud assembly (11, figure 1).
- e. Unlatch four stud assemblies (7).
- f. Remove wedge assembly (4).
- g. Install maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).

6. INSTALLATION.**WARNING**

To prevent death or injury to personnel, safe/arm control handle assembly must be in the safe (full up) position with maintenance safety streamer (3 pins) removed.

- a. Remove maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to aircrew member, riser assembly seat release lanyards must be routed between wedge assembly and seat back cushion. Seat release lanyards must not be routed behind wedge assembly.

- b. Position wedge assembly (4, figure 1).
- c. Latch stud assembly (11).
- d. Latch four stud assemblies (7).
- e. Install maintenance safety streamer (A1-AV8BB-GAI-500, WP004 00).
- f. Install seat back cushion, this WP.

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

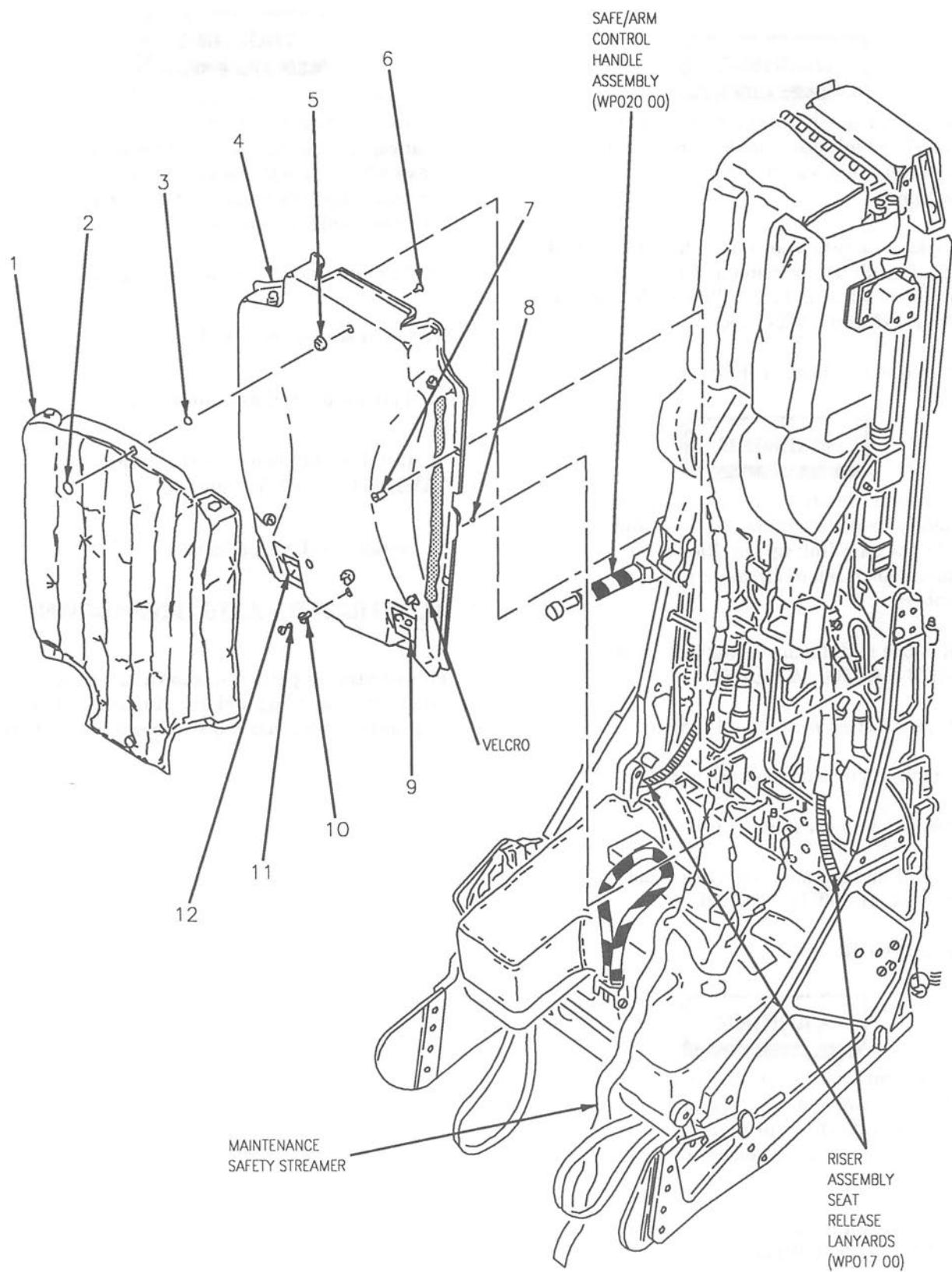


Figure 1. Seat Back Cushion and Seat Wedge Assembly (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
SEAT BACK CUSHION AND SEAT WEDGE ASSEMBLY					
1	14076-3	. CUSHION, SEAT BACK, AIRCRAFT (SEAT BACK CUSHION) (51998) (NHPA 14020-107, 14020-109, 14620-101, 14620-103, SM&R CODE PBOOD)	1		PA000
2	MS27983-1 +	. BUTTON	1		PAOZZ
3	MS27983-2 +	. SOCKET	1		PAOZZ
4	14124-3	. WEDGE ASSEMBLY, SEAT (51998) (NHPA 14020-107, 14020-109, 14620-101, 14620-103, SM&R CODE PBOOD)	1		PB000
5	MS27980-8 #	. EYELET (NHPA 14124-3, SM&R CODE PB000)	6		PAOZZ
6	MS27983-3 #	. STUD (NHPA 14124-3, SM&R CODE PB000)	6		PAOZZ
7	2600-3 #	. STUD ASSEMBLY (71286) (UPCO SPEC 25001-5) (NHPA 14124-3, SM&R CODE PB000)	4		PAOZZ
8	R4G #	. SNAP RING (71286) (UPCO SPEC 12636-13) (NHPA 14124-3, SM&R CODE PB000)	1		PAOZZ
9	12225-13 #	. LABEL, WARNING-M-99 INITIATOR (51998)	1		MDOZZ
10	4002-N #	. GROMMET (71286) (UPCO SPEC 12636-11) (NHPA 14124-3, SM&R CODE PB000)	1		PAOZZ
11	4002-4 #	. STUD ASSEMBLY (71286) (UPCO SPEC 25033-1) (NHPA 14124-3, SM&R CODE PB000)	1		PAOZZ
12	12225-11 #	. LABEL, WARNING-M-99 INITIATOR (51998)	1		MDOZZ

+ INDICATES COMPONENT PART OF SEAT BACK CUSHION.

INDICATES COMPONENT PART OF SEAT WEDGE ASSEMBLY.

Figure 1. Seat Back Cushion and Seat Wedge Assembly (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****SEAT/MAN SEPARATION INITIATOR (M688)****AIRCRAFT EJECTION SEAT****Reference Material**

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0 to 200 Inch-Pounds
111T900C240-11	Torque Wrench Adapter
472P950C120-1	Initiator Maintenance Safety Pin

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MS24665-132	Cotter Pin
TT-P-1757, COMP L COLOR T (CAGE 81348)	Primer Coating

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove seat wedge assembly (WP005 00).

WARNING

To prevent death or injury to personnel from firing initiator, care must be taken when handling seat/man separation initiator (M688). Initiator contains explosives which could detonate if mishandled.

To prevent death or injury to personnel from firing initiator, initiator maintenance safety pin must be installed in seat/man separation initiator (M688).

- c. Install initiator maintenance safety pin in initiator (4, figure 1).
- d. Using open end wrench, hold seat/man separation initiator bracket.
- e. Disconnect tube assembly (5) from initiator (4).
- f. Remove pin (3), washer, and cotter pin.
- g. Remove screws (1) and plate (2).

WARNING

To prevent death or injury to personnel, care must be taken when handling seat/man separation initiator (M688). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

- h. Carefully lift initiator (4) from seat/man separation initiator bracket.
- i. Store or dispose of initiator (4) per NAVAIR 11-100-1.

2. INSTALLATION.

WARNING

To prevent death or injury to personnel, care must be taken when handling seat/man separation initiator (M688). Initiator contains explosives that could detonate if mishandled.

To prevent death or injury to personnel, do not drop seat/man separation initiator (M688). If initiator is dropped, do not handle. Notify explosives ordnance disposal.

- a. If initiator (4, figure 1) is to be replaced, do substeps below:

NOTE

Seat/man separation initiator (M688) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

(1) Using indelible ink, mark initiator (4) with container open date, date of installation and expiration date (NAVAIR 11-100-1).

(2) Make log book entry for initiator (4) propellant manufacture date, lot number, serial number, container open date, date of installation and expiration date (NAVAIR 11-100-1).

WARNING

To prevent death or injury to personnel from firing initiator, extreme caution must be used when removing shipping safety pin and installing initiator maintenance safety pin.

With shipping safety pin removed and before initiator maintenance safety pin is installed, seat/man separation initiator (M688) is armed.

NOTE

To allow correct position of seat/man separation initiator (M688) in seat/man separation initiator bracket, initiator maintenance safety pin must be installed parallel to mounting flats of seat/man separation initiator (M688).

(3) Carefully remove shipping safety pin and install initiator maintenance safety pin. Make sure initiator maintenance safety pin is installed parallel to mounting flats on initiator (4).

b. Position initiator (4) in seat/man separation initiator bracket. Make sure hole in initiator pin aligns with clevis. Make sure there is no preload on initiator.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- c. Coat screws (1) with primer coating.
- d. Position plate (2) and install screws (1).
- e. Install pin (3) and washer, and safety with cotter pin. (QA)
- f. Measure and record distance between top of connect/disconnect assembly and bottom of nut (dimension A, detail A).
- g. If dimension recorded in step f is 0.35 to 0.39 inch, go to step h. If dimension is not 0.35 to 0.39 inch, do connect/disconnect assembly adjustment (WP022 00). (QA)
- h. Measure and record gap between spring pin and bottom of connect/disconnect assembly (dimension B).
- i. If dimension recorded in step h is 0.06 inch or less, go to step j. If dimension is more than 0.06 inch, do connect/disconnect assembly adjustment (WP022 00). (QA)

- j. Loosely install tube assembly (5) on initiator (4).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- k. While holding seat/man separation initiator bracket with open end wrench, torque tube assembly (5) 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- l. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

WARNING

To prevent death or injury to aircrew member, make sure initiator maintenance safety pin is removed from initiator.

- m. Remove initiator maintenance safety pin from initiator (4). (QA)

- n. Install seat wedge assembly (WP005 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

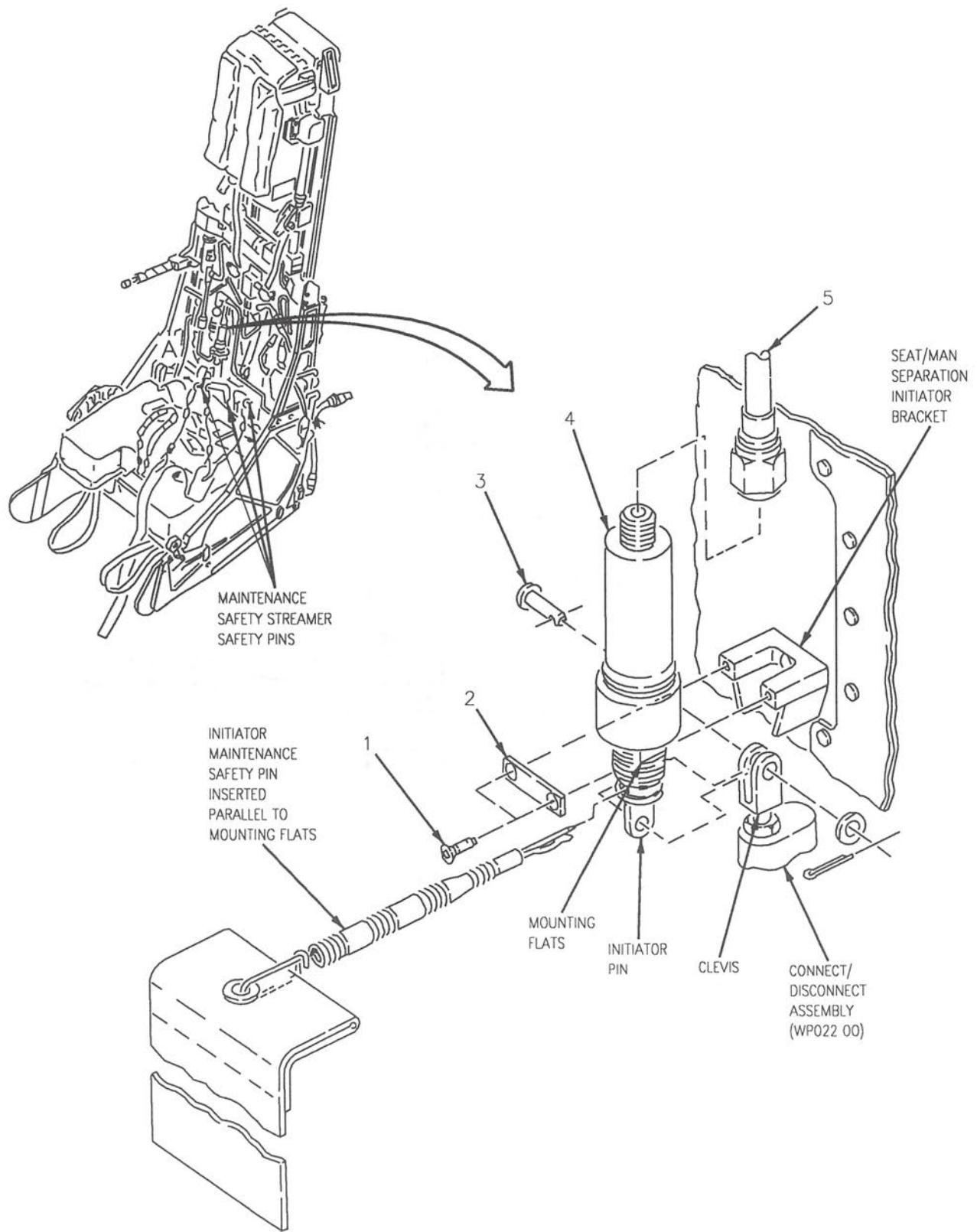
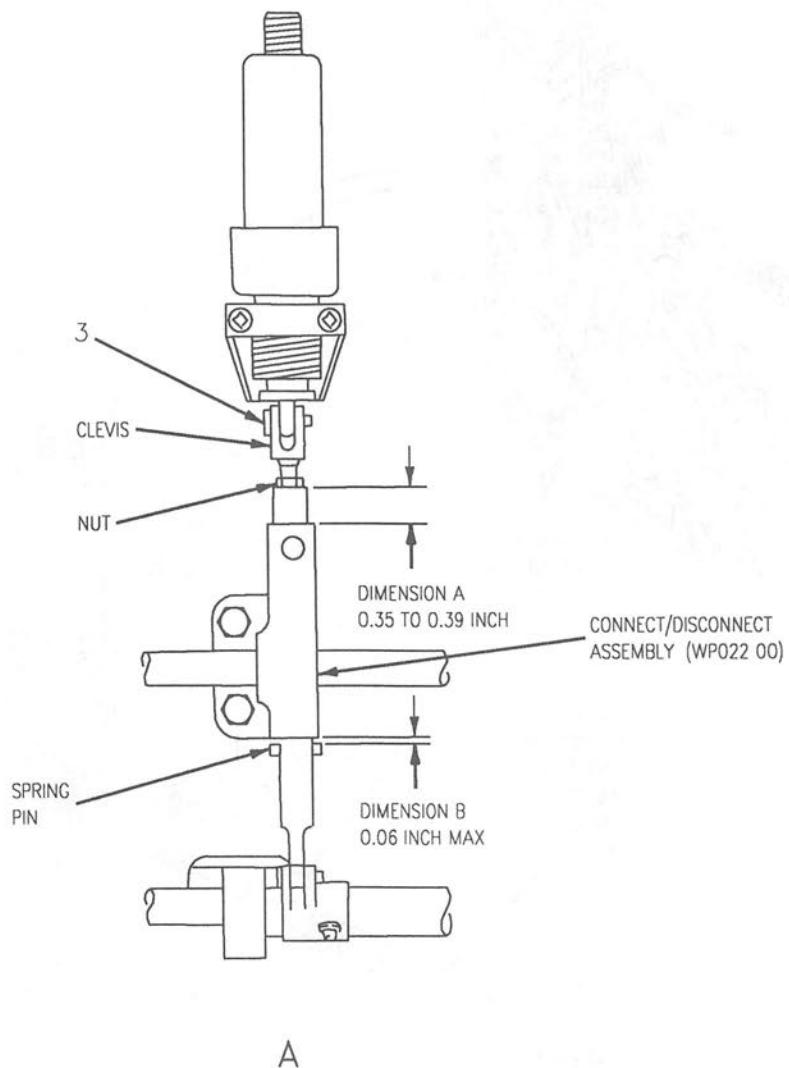


Figure 1. Seat/Man Separation Initiator (M688) (Sheet 1)



A

Figure 1. Seat/Man Separation Initiator (M688) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
SEAT/MAN SEPARATION INITIATOR (M688)					
1	NAS1189-08P8L	. SCREW	2		PAOZZ
2	12126-13	. PLATE, M99 BRACKET (51998)	1		MDOZZ
3	MS20392-2C11	. PIN	1		PAOZZ
	NAS620A10L	. WASHER (USE WITH INDEX 3)	1		PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 3)	1		PAOZZ
4	10520405	. INITIATOR, CARTRIDGE ACTUATED,..... M99 (M688) (SEAT/MAN SEPARATION INITIATOR (M688)) (51998)	1	*	PCOZA
		. SEE ABOVE (19200)	1	*	PCOZA
5	M99 12290-1	. TUBE ASSEMBLY - M99 TO GUILLOTINE (51998)	1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Seat/Man Separation Initiator (M688) (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EJECTION INITIATORS (M688)****AIRCRAFT EJECTION SEAT****Reference Material**

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly (SKU-6/A)	WP004 00
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00
Initiation Subsystem Cover Assembly, Seat Release Shaft, Initiation Subsystem Assembly.....	WP016 00
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench 0 to 200 Inch-Pounds
111T900C240-11	Torque Wrench Adapter
472P950C120-1	Initiator Maintenance Safety Pin (2)

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MS24665-132	Cotter Pin
TT-P-1757, COMP L COLOR T (CAGE 81348)	Primer Coating

NOTE

The procedure is identical for both ejection initiators.

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove survival kit assembly (SKU-6/A) (WP004 00).

c. Remove seat wedge assembly (WP005 00).

d. Remove initiation subsystem cover assembly (WP016 00).

WARNING

To prevent death or injury to personnel care must be taken when handling ejection initiator (M688). Initiator contains explosives that could detonate if mishandled.

To prevent death or injury to personnel from firing initiator, initiator maintenance safety pin must be installed in ejection initiator (M688).

e. Install initiator maintenance safety pin in initiator (2, figure 1).

f. Hold ejection initiator bracket with open end wrench and loosen hose assembly (1 or 3).

g. Remove pin (5), washer and cotter pin.

h. Move links (4) to clear initiator (2).

i. Remove screws (6) and plate (7).

WARNING

To prevent death or injury to personnel, care must be taken when handling ejection initiator (M688). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

j. Carefully lift initiator (2) and disconnect hose assembly (1 or 3).

k. Remove initiator (2).

l. Store or dispose of initiator (2) per NAVAIR 11-100-1.

2. INSTALLATION.

WARNING

To prevent death or injury to personnel care must be taken when handling ejection initiator (M688). Initiator contains explosives that could detonate if mishandled.

To prevent death or injury to personnel, do not drop ejection initiator (M688). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

- a. If initiator (2, figure 1) is being replaced, do substeps below:

NOTE

Ejection initiator (M688) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

- (1) Using indelible ink, mark initiator (2) with container open date, date of installation, and expiration date (NAVAIR 11-100-1).
- (2) Make log book entry for initiator (2) propellant manufacture date, lot number, serial number, container open date, date of installation and expiration date (NAVAIR 11-100-1).

WARNING

To prevent death or injury to personnel from firing initiator, extreme caution must be used when removing shipping safety pin and installing initiator maintenance safety pin.

With shipping safety pin removed and before initiator maintenance safety pin is installed, ejection initiator (M688) is armed.

NOTE

To allow correct position of ejection initiator (M688) in ejection initiator bracket, initiator maintenance safety pin must be installed parallel to mounting flats of ejection initiator (M688).

- (3) Carefully remove shipping safety pin and install initiator maintenance safety pin. Make sure initiator maintenance safety pin is installed parallel to mounting flats on initiator (2).
- b. Loosely connect hose assembly (1 or 3) to initiator (2).
- c. Carefully position initiator (2) in ejection initiator bracket. Make sure hole in initiator aligns with links (4). Make sure there is no preload on initiator (2).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- d. Coat screws (6) with primer coating.
- e. Position plate (7) and install screws (6).
- f. Position links (4) and install pin (5), washer and cotter pin.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- g. While holding ejection initiator bracket with open end wrench, torque hose assembly (1 or 3) 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Hose assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- h. Inspect full length of installed hose assemblies for 0.03 inch minimum clearance between hoses and other surfaces. (QA)

WARNING

To prevent death or injury to aircrew member, make sure initiator maintenance safety pin is removed from ejection initiator (M688).

- i. Remove initiator maintenance safety pin from initiator (2). (QA)

j. Install initiation subsystem cover assembly (WP016 00).

k. Install seat wedge assembly (WP005 00).

l. Install survival kit assembly (SKU-6/A) (WP004 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

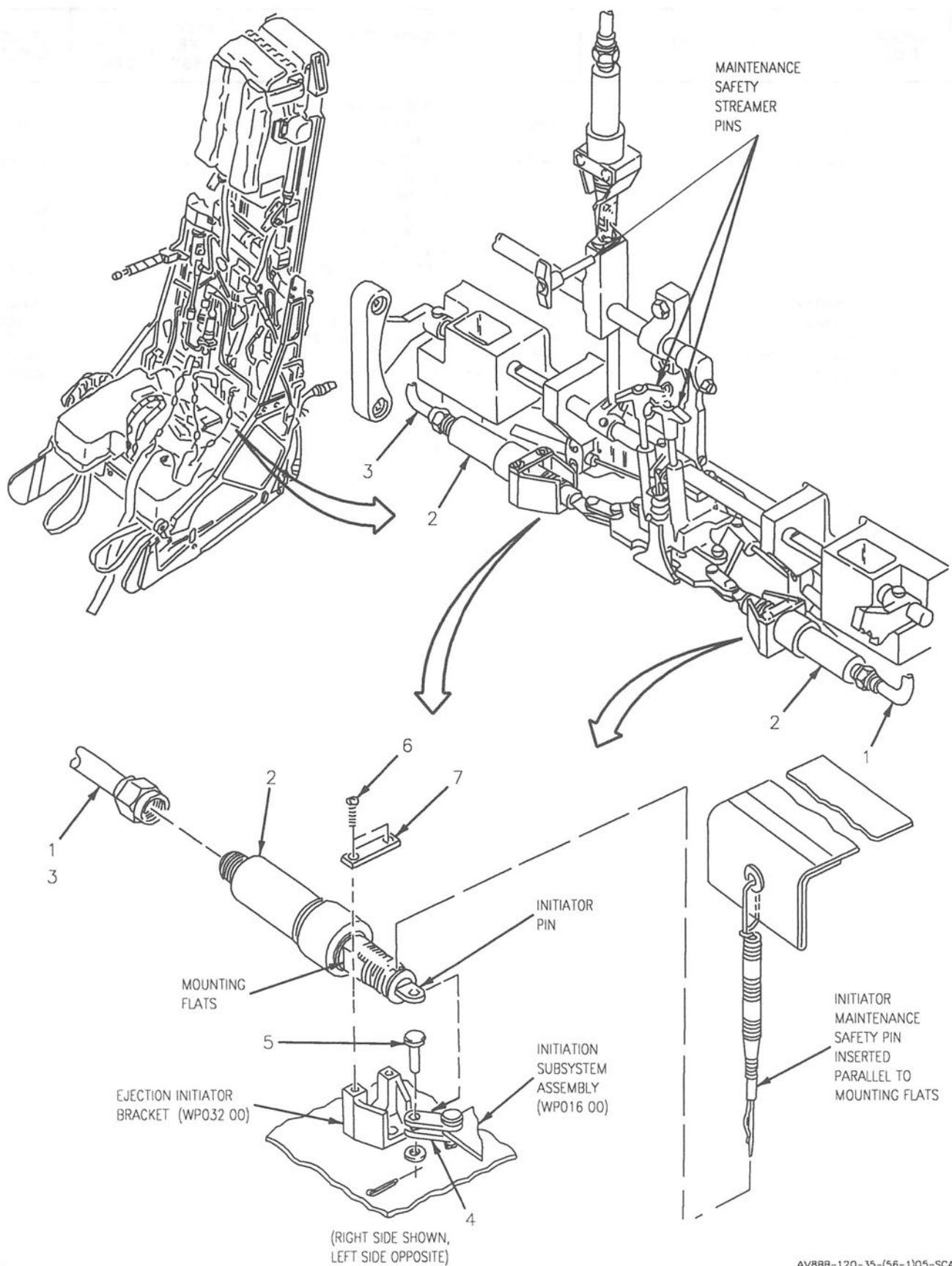


Figure 1. Ejection Initiators (M688) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS	USE	SM&R
			PER ASSY	ON CODE	CODE
1	14425-1	EJECTION INITIATORS (M688)			
		. HOSE ASSEMBLY - M99 TO LH TROMBONE (51998)	1		PAOZZ
2	10520405	. INITIATOR, CARTRIDGE ACTUATED, M99 (M688) (EJECTION INITIATOR (M688)) (51998)	2	*	PCOZA
M99		. SEE ABOVE (19200)	2	*	PCOZA
3	12491-1	. HOSE ASSEMBLY - M99 TO GAS GENERATOR (51998)	1		PAOZZ
4	12142-11	. LINK, INITIATION SUBSYSTEM (51998)	4		PAOZZ
5	MS20392-2C11 NAS620A10L MS24665-132	. PIN	2		PAOZZ
6	NAS1189-08P8L	. WASHER (USE WITH INDEX 5)	2		PAOZZ
7	12126-13	. PIN, COTTER (USE WITH INDEX 5)	2		PAOZZ
		. SCREW	4		PAOZZ
		. PLATE, M99 BRACKET (51998)	2		MDOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Ejection Initiators (M688) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****7,000 FOOT ANEROID ACTUATED INITIATOR****ANEROID ACTUATED INITIATOR CARTRIDGE (M647)****AIRCRAFT EJECTION SEAT****Reference Material**

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00
Periodic Maintenance Information Cards.....	A1-AV8BB-MRC-000
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00

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Record of Applicable Technical Directives

None

1. 7000 FOOT ANEROID ACTUATED INITIATOR.

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter
30001-1	Self-Illuminated Magnifier, 5X

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
TT-P-1757 Comp L Color T (CAGE 81348)	Primer Coating
3-903	Packing

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) are installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove seat wedge assembly (WP005 00).

WARNING

To prevent death or injury to personnel, care must be taken when handling 7,000 foot aneroid actuated initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- c. While holding inlet flange with open end wrench, disconnect tube assembly (7, figure 1) from fitting (8).
- d. Disconnect tube assembly (5) from initiator (1).
- e. Remove bolt (3), washer, and spacer.
- f. Remove nut (2) and washer.

WARNING

To prevent death or injury to personnel, do not drop 7000 foot aneroid actuated initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 7000 foot aneroid actuated initiator. If initiator is dropped or damaged, it shall not be used.

- g. Remove initiator (1).
- h. If initiator (1) is to be replaced, do substeps below:
 - (1) Remove clamp (6) from initiator (1).
 - (2) Remove fitting (8) and packing.
 - (3) Dispose of initiator (1) per NAVAIR 11-100-1.

3. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling 7000 foot aneroid actuated initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter inlet port.

To prevent death or injury to personnel, do not drop 7000 foot aneroid actuated initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 7000 foot aneroid actuated initiator. If initiator is dropped or damaged, it shall not be used.

CAUTION

The 7000 foot aneroid actuated initiator, part number 21240-1 together with the 14000 foot aneroid actuated initiator, part number 21240-3 make up a matched set of preferred spares which replace the 472V470E005-1 and 472V470E005-3 matched set. Do not mix the matched sets.

- a. If initiator (1, figure 1) part number 21240-1 is to be installed, make sure 14,000 foot aneroid actuated initiator part number 21240-3 is installed (WP009 00).
- b. If initiator (1) part number 472V470E005-1 is to be installed, make sure 14,000 foot aneroid actuated initiator part number 472V470E005-3 is installed (WP009 00).
- c. If initiator (1) is being replaced, do substeps below:

NOTE

7000 foot aneroid actuated initiator is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book.

For expiration date of 7000 foot aneroid actuated initiator, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark initiator (1) with date of installation and expiration date (NAVAIR 11-100-1).

(2) Make log book entry for initiator (1) to include date of manufacture, lot number, serial number, date of installation and expiration date (NAVAIR 11-100-1).

(3) Install aneroid actuated initiator cartridge (M647), this WP.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(4) Lubricate new packing used with fitting (8) with silicone compound.

(5) Position packing on fitting (8) and install fitting on initiator (1).

(6) Position clamp (6) on initiator (1).

(d. If initiator (1) part number 472V470E005-1 is to be installed, use a self-illuminated magnifier, viewing perpendicular to the leak indicator window, and verify that yellow indicator line is not in red area (detail B). If yellow indicator line is in red area, replace initiator (1).

e. Position initiator (1) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- f. Coat nut (2) and bolt (3) with primer coating.
- g. Install nut (2) and washer.
- h. Install bolt (3), washer, spacer and clamps (4 and 6).
- i. Loosely connect tube assembly (7) to fitting (8).
- j. Loosely connect tube assembly (5) to initiator (1).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- k. While holding inlet flange with open end wrench, torque tube assemblies (5 and 7) 90 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- l. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

- m. Install seat wedge assembly (WP005 00).

4. ANEROID ACTUATED INITIATOR CARTRIDGE (M647).

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0-600 Inch-Pounds
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS20995NC32 (CAGE 96906)	Lockwire
MS9068-116	Packing
MS9068-014	Packing

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) are installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Remove 7000 foot aneroid actuated initiator, this WP.

WARNING

To prevent death or injury to personnel, care must be taken when handling 7000 foot aneroid actuated initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- c. Cut and remove lockwire securing upper and lower chambers of initiator (1, figure 1, detail A).

WARNING

To prevent death or injury to personnel, do not drop 7000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). If initiator with cartridge installed or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 7000 foot aneroid actuated initiator. If initiator is damaged or dropped, it shall not be used.

- d. Hold initiator by inlet flange. Keeping lower chamber pointing up, remove lower chamber and cartridge (11).

- e. Dispose of cartridge (11) per NAVAIR 11-100-1.

- f. Remove packings (10 and 12).

6. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling aneroid actuated initiator cartridge (M647). Cartridge contains explosives that could detonate if mishandled.

To prevent death or injury to personnel, do not drop 7000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). If initiator with cartridge installed or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 7000 foot aneroid actuated initiator. If initiator is damaged or dropped, it shall not be used.

- a. If cartridge (11, figure 1) is being replaced, do substeps below:

NOTE

Aneroid actuated initiator cartridge (M647) is a scheduled removal component. Cartridge must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

- (1) Using indelible ink, mark cartridge (11) with container open date, installation date and expiration date (NAVAIR 11-100-1).

- (2) Make log book entry for cartridge (11) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

WARNING

To prevent injury or death to personnel, ensure the firing pin does not protrude into upper chamber.

- b. Verify that firing pin is not protruding into upper chamber. If firing pin is protruding into upper chamber, dispose of initiator (1). (QA)

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- c. Lubricate new packings (10 and 12) with silicone compound.
- d. Install packing (12) in lower chamber.
- e. Install packing (10) inside upper chamber.
- f. Carefully install cartridge (11).
- g. Install lower chamber in upper chamber.

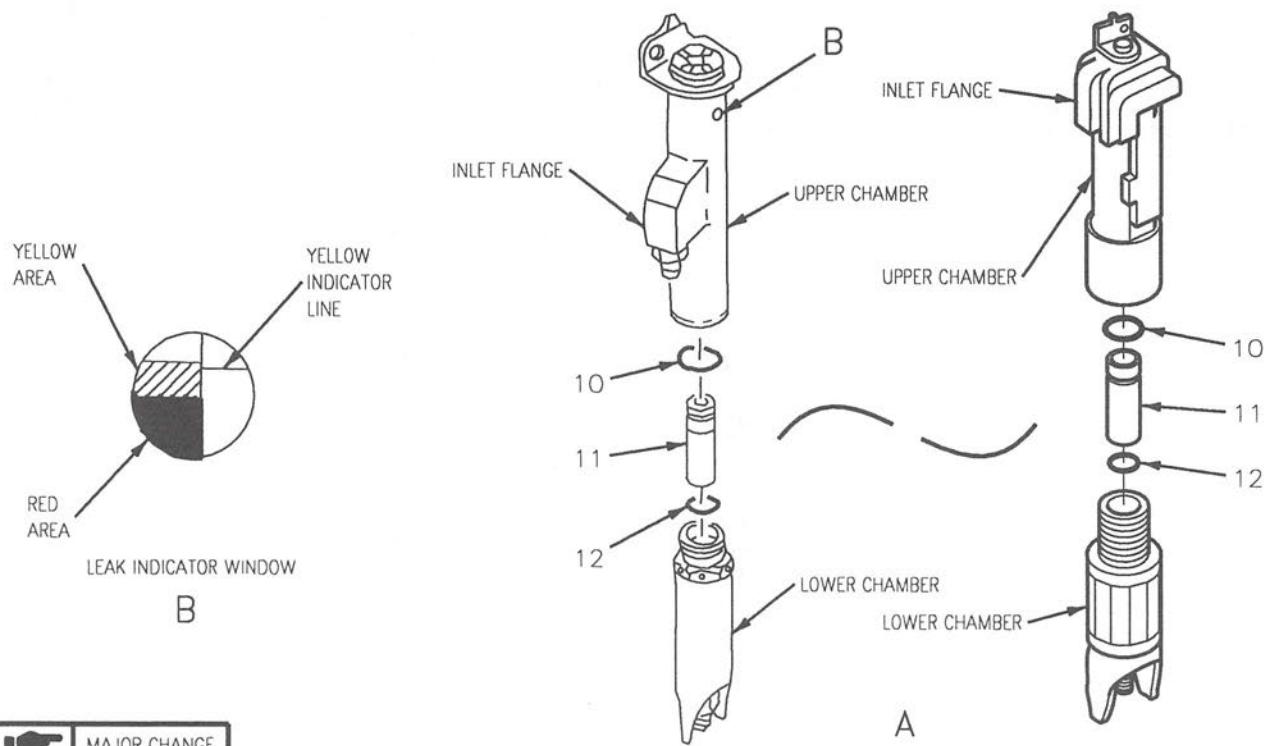
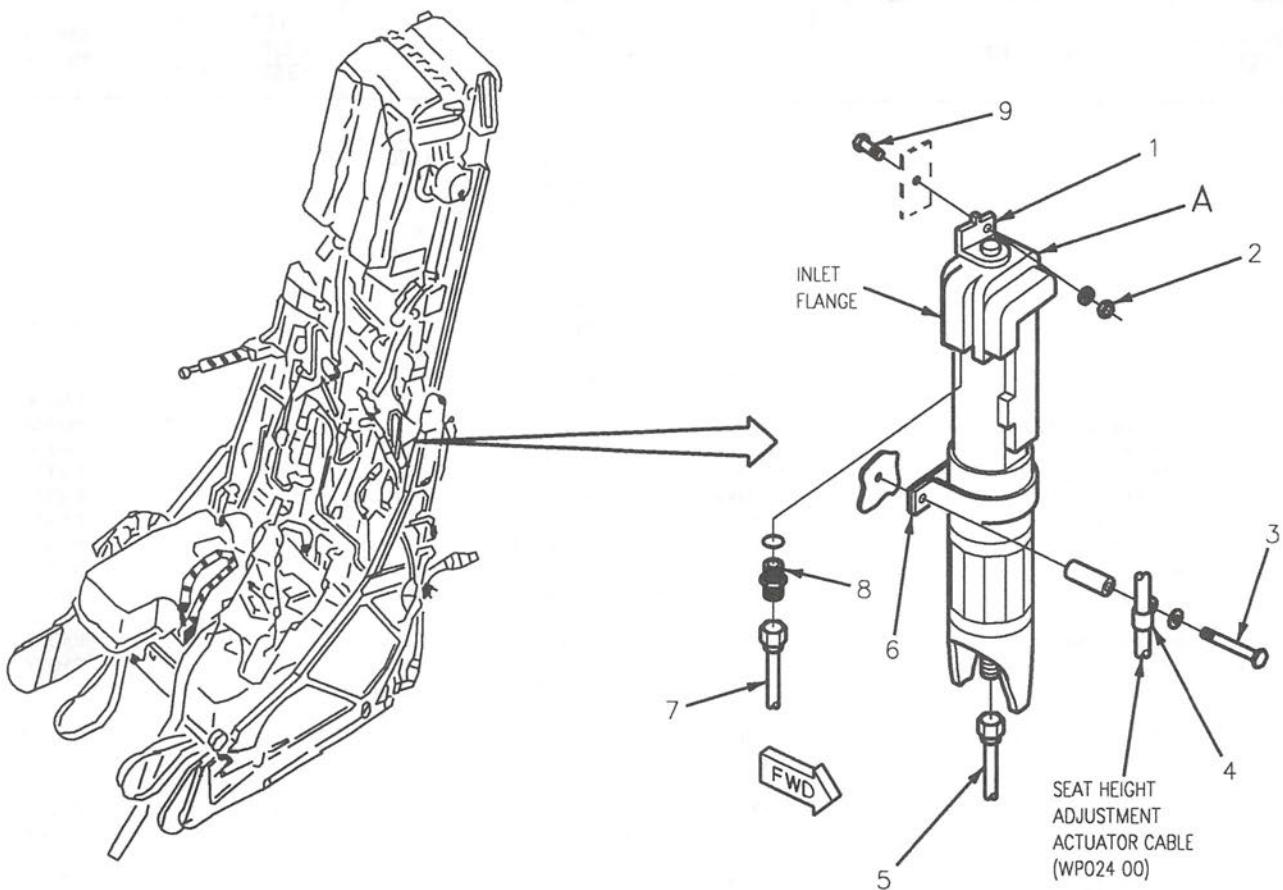
CAUTION

To prevent damage to initiator 21240-1, place lower chamber in suitable protected holding device. Do not clamp or apply pressure to cover assembly. Do not overtighten.

- h. On initiator (1) part number 472V470E005-1, hold upper chamber by inlet flange and torque lower chamber 85 to 90 inch-pounds. (QA)
- i. On initiator (1) part number 21240-1, hold upper chamber by inlet flange and torque lower chamber 300 to 330 inch-pounds. (QA)
- j. Safety lower chamber to upper chamber with lockwire. (QA)
- k. Install initiator (1), this WP.

7. ILLUSTRATED PARTS BREAKDOWN.

- 8. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.



MAJOR CHANGE

Figure 1. 7000 Foot Aneriod Actuated Initiator and Aneriod Actuated Initiator Cartridge (M647) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
		1 2 3 4 5 6 7			
1	21240-1 †	7000 FOOT ANERIOD ACTUATED INITIATOR AND ANERIOD ACTUATED INITIATOR CARTRIDGE (M647) . INITIATOR, ANERIOD ACTUATED (7000 FOOT ANEROID ACTUATED INITIATOR) (51998) (REPLACES 472V470E005-1) (REPLACE ONLY WITH 21240-1)	1		PAOGD
	472V470E005-1 +	. SEE ABOVE (24632) (REPLACED BY 21240-1) (USE UNTIL EXHAUSTED)	1	*	PAODD
2	MS21042L3 NAS1149D0332J AN960JD10L	. NUT WASHER (USE WITH INDEX 2) SEE ABOVE	1 1 1	*	PAOZZ
3	NAS6203-22 NAS1149D0332J AN960JD10L NAS43DD3-72	. BOLT WASHER (USE WITH INDEX 3) SEE ABOVE	1 1 1	*	PAOZZ
4	MS21919WDG4	. SPACER (USE WITH INDEX 3)	1		PAOZZ
5	14430-1	. CLAMP TUBE ASSEMBLY - 7000 FOOT ANEROID . . . TO TROMBONE (51998)	1 1		PAOZZ
6	MS21919DWG15	. CLAMP	1		PAOZZ
7	14431-1	. TUBE ASSEMBLY - 1.2 SECOND TIME DELAY TO 7000 FT ANEROID (51998)	1		PAOZZ
8	MS51525-3BS †† 3-903 †† AN919-2J ++ MS9068-012 ++	. FITTING PACKING (02697) (USE WITH INDEX 8) . FITTING PACKING (02697) (USE WITH INDEX 8)	1 1 1 1		PAOZZ
9	12485-11 M7885/6-4-02	. PLATE, BOLT ANEROID (51998) RIVET (USE WITH INDEX 9) (HEAD AFT)	1 2		MDOZZ
10	25017-1	. CARTRIDGE, IMPULSE (M647) (ANEROID ACTUATED INITIATOR CARTRIDGE (M647)) (51998) . SEE ABOVE (30003)	1 1	*	PCOZA
11	M647 MS9068-016	. PACKING PACKING	1 1		PAOZZ
12	MS9068-014		1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

† USE IN MATCHED SET WITH 21240-3
(14000 FOOT ANEROID ACTUATED
INITIATOR).

+ USE IN MATCHED SET WITH
472V470E005-3 (14000 FOOT ANEROID
ACTUATED INITIATOR).

†† INDICATES COMPONENT PART OF
ANEROID ACTUATED INITIATOR PN
21240-1.

++ INDICATES COMPONENT PART OF
ANEROID ACTUATED INITIATOR PN
472V470E005-1.

Figure 1. 7000 Foot Aneriod Actuated Initiator and Aneriod Actuated Initiator Cartridge (M647) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****14,000 FOOT ANEROID ACTUATED INITIATOR****ANEROID ACTUATED INITIATOR CARTRIDGE (M647)****AIRCRAFT EJECTION SEAT****Reference Material**

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00
Periodic Maintenance Information Cards.....	A1-AV8BB-MRC-000
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00

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Record of Applicable Technical Directives

None

1. 14,000 FOOT ANEROID ACTUATED INITIATOR.

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter
30001-1	Self-Illuminated Magnifier, 5X

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
TT-P-1757COMPL-COLORT (CAGE 81348) 3-903	Primer Coating Packing

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove seat wedge assembly (WP005 00).

WARNING

To prevent death or injury to personnel, care must be taken when handling 14,000 foot aneroid actuated initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- c. Disconnect tube assembly from tee (4, figure 1).
- d. Hold inlet flange of initiator (1) with open end wrench and disconnect tee (4) from fitting (3).
- e. Disconnect tube assembly from 3.0 second delay initiator JAU-14/A (M597).
- f. Remove bolt (5), washer and spacer. Remove tube assembly and tee (4) as an assembly.
- g. Disconnect tube assembly from initiator (1).
- h. Remove screw (7) and washer.
- i. Remove nut (9) and washer.

WARNING

To prevent death or injury to personnel, care must be taken when handling 14,000 foot aneroid actuated initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 14,000 foot aneroid actuated initiator. If initiator is damaged or dropped, it shall not be used.

- j. Remove initiator (1).
- k. If initiator (1) is to be replaced, do substeps below:
 - (1) Remove clamp (8) from initiator (1).
 - (2) Remove fitting (3) and packing.
 - (3) Dispose of initiator (1) per NAVAIR 11-100-1.

3. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling 14,000 foot aneroid actuated initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop 14,000 foot aneroid actuated initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 14,000 foot aneroid actuated initiator. If initiator is dropped or damaged, it shall not be used.

CAUTION

The 14,000 foot aneroid actuated initiator, part number 21240-3 together with the 7,000 foot aneroid actuated initiator, part number 21240-1 make up a matched set of preferred spares which replace the 472V470E005-3 and 472V470E005-1 matched set. Do not mix the matched sets.

- a. If initiator (1, figure 1) part number 21240-3 is to be installed, make sure 7,000 foot aneroid actuated initiator part number 21240-1 is installed (WP008 00).
- b. If initiator (1) part number 472V470E005-3 is to be installed, make sure 7,000 foot aneroid actuated initiator part number 472V470E005-1 is installed (WP008 00).
- c. If initiator (1) is to be replaced, do substeps below:

NOTE

14,000 foot aneroid actuated initiator is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book.

For expiration date of 14,000 foot aneroid actuated initiator, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark initiator (1) with date of installation and expiration date.

(2) Make log book entry for initiator (1) to include date of manufacture, lot number, serial number, date of installation and expiration date.

(3) Install aneroid actuated initiator cartridge (M647), this WP.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(4) Lubricate new packing used with fitting (3) with silicone compound.

(5) Position packing on fitting (3) and install fitting on initiator (1).

(6) Position clamp (8) on initiator (1).

d. If initiator (1) part number 472V470E005-3 is to be installed, use self-illuminated magnifier to view perpendicular to the leak indicator window. Verify that yellow indicator line is not in red area (detail B). If yellow indicator line is in red area, replace initiator (1).

e. Position initiator (1) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- f. Coat screw (7) and nut (9) with primer coating.
- g. Install nut (9) and washer.
- h. Install screw (7), washer, and clamp (8).
- i. Loosely connect tube assembly to initiator (1).
- j. Loosely connect as an assembly tee (4) to fitting (3) and tube assembly to 3.0 second delay initiator JAU-14/A (M597).
- k. Loosely connect tube assembly to tee (4).
- l. Position clamp (6).

WARNING

m. Coat bolt (5) with primer coating.

n. Install bolt (5), washer, and spacer.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- o. Torque tube assembly to 3.0 second delay initiator JAU-14/A (M597) 95 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

- p. While holding inlet flange of initiator (1) with open end wrench, torque tee (4) to fitting (3) 90 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

- q. Torque tube assembly to tee (4) 95 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

- r. Torque tube assembly to initiator (1) 90 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- s. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

- t. Install seat wedge assembly (WP005 00).

4. ANEROID ACTUATED INITIATOR CARTRIDGE (M647).

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0-600 Inch-Pounds
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS20995NC32 (CAGE 96906)	Lockwire
MS9068-116	Packing
MS9068-014	Packing

5. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed (A1-AV8BB-GAI-500, WP004 00).

b. Remove 14,000 foot aneroid actuated initiator, this WP.

WARNING

To prevent death or injury to personnel, care must be taken when handling 14,000 foot aneroid actuated initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter inlet ports.

c. Cut and remove lockwire securing upper and lower chambers of initiator (1, figure 1, detail A).

WARNING

To prevent death or injury to personnel, do not drop 14,000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). If initiator with cartridge installed or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 14,000 foot aneroid actuated initiator. If initiator is damaged or dropped, it shall not be used.

d. Hold initiator (1) by inlet flange. Keeping lower chamber pointing up, remove lower chamber and cartridge (10).

e. Dispose of cartridge (11) per NAVAIR 11-100-1.

f. Remove packings (10 and 12).

6. INSTALLATION.

WARNING

To prevent death or injury to personnel, care must be taken when handling aneroid actuated initiator cartridge (M647). Cartridge contains explosives that could detonate if mishandled.

To prevent death or injury to personnel, do not drop 14,000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). If initiator with cartridge installed or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 14,000 foot aneroid actuated initiator. If initiator is damaged or dropped, it shall not be used.

- a. If cartridge (11, figure 1) is being replaced, do substeps below:

NOTE

Aneroid actuated initiator cartridge (M647) is a scheduled removal component. Cartridge must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

(1) Using indelible ink, mark cartridge (11) with container open date, installation date and expiration date (NAVAIR 11-100-1).

(2) Make log book entry for cartridge (11) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

WARNING

To prevent injury or death to personnel, ensure the firing pin does not protrude into upper chamber.

- b. Verify that firing pin is not protruding into upper chamber. If firing pin is protruding into upper chamber, dispose of initiator (1). (QA)

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- c. Coat new packings (10 and 12) with silicone compound.
- d. Install packing (10) in lower chamber.
- e. Install packing (12) inside upper chamber.
- f. Carefully install cartridge (11).
- g. Install lower chamber in upper chamber.

- h. On initiator (1) part number 472V470E005-3, hold upper chamber by inlet flange and torque lower chamber 85 to 90 inch-pounds. (QA)

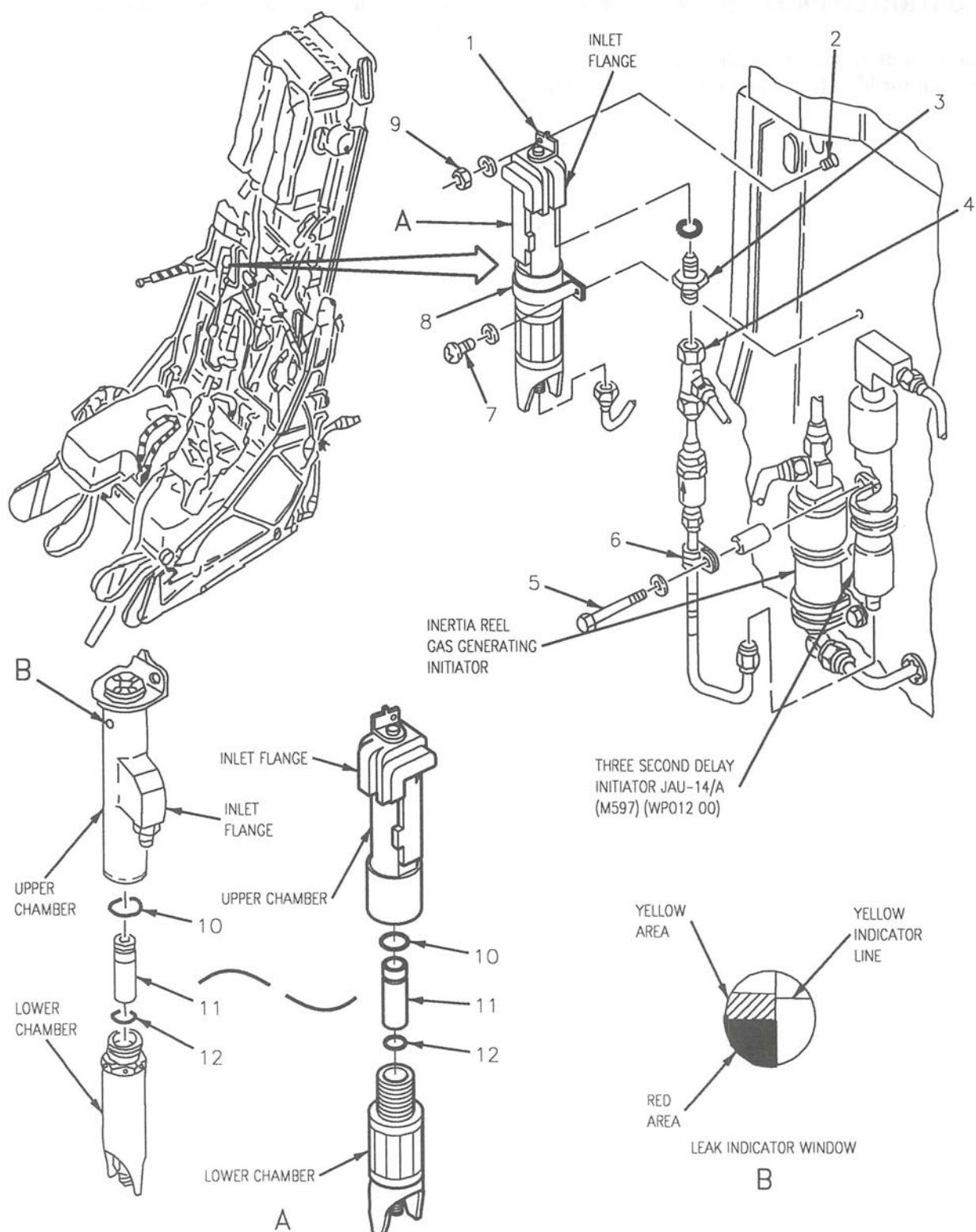
CAUTION

To prevent damage to initiator 21240-3, place lower chamber in suitable protected holding device. Do not clamp or apply pressure to cover assembly. Do not overtighten.

- i. On initiator (1) part number 21240-3, hold upper chamber by inlet flange and torque lower chamber 300 to 330 inch-pounds. (QA)
- j. Safety lower chamber to upper chamber with lockwire. (QA)
- k. Install 14,000 foot aneroid actuated initiator, this WP.

7. **ILLUSTRATED PARTS BREAKDOWN.**
8. This illustrated parts breakdown contains information for identifying and ordering parts. The

manual introduction has more information on IPB data.



MAJOR CHANGE

AV888-120-35-(32-1)10-SCAN

Figure 1. 14,000 Foot Aneriod Actuated Initiator and Aneriod Actuated Initiator Cartridge (M647) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	21240-3 †	14000 FOOT ANERIOD ACTUATED INITIATOR, ANERIOD ACTUATED INITIATOR CARTRIDGE (M647) . INITIATOR, ANEROID ACTUATED (14000 FOOT ANERIOD ACTUATED INITIATOR) (51998) (REPLACES 472V470E005-3) (REPLACE ONLY WITH 21240-3)	1		PAOGD
	472V470E005-3 +	. SEE ABOVE (24632) (REPLACED BY 21240-3) (USE UNTIL EXHAUSTED)	1	*	PAODD
2	14112-12 M7885/6-4-02	. PLATE, BOLT ANEROID (51998) RIVET (USE WITH INDEX 2) (HEAD AFT)	1 2		MDOZZ
3	MS51525-B3S ‡‡ 3-903 ‡‡ AN815-3J ++ MS9068-011 ++	. FITTING PACKING (02697) (USE WITH INDEX 3) . . FITTING PACKING (02697) (USE WITH INDEX 8)	1 1 1 1		PAOZZ
4	MS51523B3S	. TEE	1		PAOZZ
5	NAS6203-25 NAS1149D0332J AN960JD10L NAS43DD-82	. BOLT WASHER (USE WITH INDEX 5) SEE ABOVE SPACER (USE WITH INDEX 5)	1 1 1 1	*	PAOZZ
6	MS21919WDG3	. CLAMP	1		PAOZZ
7	MS27039-1-07 NAS1149D0332J AN960JD10L	. SCREW WASHER (USE WITH INDEX 7) SEE ABOVE	1 1 1	*	PAOZZ
8	MS21919WDG15	. CLAMP	1		PAOZZ
9	MS21042L3 NAS1149D0332J AN960JD10L	. NUT WASHER (USE WITH INDEX 9) SEE ABOVE	1 1 1	*	PAOZZ
10	25017-1	. CARTRIDGE, IMPULSE (M647) (ANEROID ACTUATED INITIATOR CARTRIDGE (M647)) (51998)	1	*	PCOZA
10	M647	. SEE ABOVE (30003)	1	*	PCOZA
11	MS9068-116	. PACKING	1		PAOZZ
12	MS9068-014	. PACKING	1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

† USE IN MATCHED SET WITH 21240-1
(7000 FOOT ANEROID ACTUATED
INITIATOR).

+ USE IN MATCHED SET WITH
472V470E005-1 (7000 FOOT ANEROID
ACTUATED INITIATOR).

‡‡ INDICATES COMPONENT PART OF
ANEROID ACTUATED INITIATOR PN
21240-3.

++ INDICATES COMPONENT PART OF
ANEROID ACTUATED INITIATOR PN
472V470E005-3.

Figure 1. 14,000 Foot Aneriod Actuated Initiator and Aneriod Actuated Initiator Cartridge (M647) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****INERTIA REEL GAS GENERATING INITIATOR**

**INERTIA REEL GAS GENERATING INITIATOR CARTRIDGE CCU-69/A (MF66)
OR
CCU-69A/A (MG59)**

AIRCRAFT EJECTION SEAT**Reference Material**

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Back Cushion Assembly; Wedge Assembly.....	WP005 00
3.0 Second Delay Initiator JAU-14/A (M597)	WP012 00

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Record of Applicable Technical Directives

None

1. INERTIA REEL GAS GENERATING INITIATOR.

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench
111T900C240-9	Torque Wrench Adapter
111T900C240-11	Torque Wrench, Adapter

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-011	Packing
MS9068-012	Packing
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) are installed (A1-AV8BB-GAI-500, WP004 00).

b. Remove wedge assembly (WP005 00).

c. Remove 3.0 second delay initiator JAU-14/A (M597) (WP012 00).

WARNING

To prevent death or injury to personnel, care must be taken when handling inertia reel gas generating initiator. Initiator contain explosives that could detonate if mishandled or if pressure is allowed to enter ports.

d. Disconnect tube assembly (2, figure 1, detail A) from check valve.

NOTE

To correctly position elbow and manifold at installation, position of elbow and manifold must be recorded before removal.

e. Record position of elbow (5, detail B) and manifold (9).

f. Disconnect tube assembly from manifold (9).

g. Disconnect hose assembly from manifold (9).

h. Disconnect tube assembly from elbow (5).

WARNING

To prevent death or injury to personnel, do not drop inertia reel gas generating initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

i. Remove bolts (6) and washers. Remove initiator assembly (8) and clamps (7).

j. If replacing initiator assembly (8), do substeps below:

(1) Remove clamps (7) from initiator assembly (8).

(2) Remove manifold (9) and packing.

(3) Remove elbow (5) and packing.

(4) Remove inertia reel gas generating initiator cartridge CCU-69/A (MF66) or CCU-69A/A (MG59), this WP.

- k. Store or dispose of initiator assembly (8) in accordance with NAVAIR 11-100-1.

3. INSTALLATION.

WARNING

To prevent death or injury to personnel, care must be taken when handling inertia reel gas generating initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel do not drop inertia reel gas generating initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

- a. Make sure inertia reel gas generating initiator cartridge CCU-69/A (MF66) or CCU-69A/A (MF59) is installed, this WP.
- b. If manifold (9, figure 1, detail B) was removed, do the substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- (1) Lubricate new packing with silicone compound.
- (2) Position packing on manifold (9).
- (3) Install manifold (9) in upper port of initiator assembly (8). Make sure manifold is positioned as recorded during removal.
- c. If elbow (5) was removed, do the substeps below:

WARNING

- (1) Lubricate new packing with silicone compound.

- (2) Position packing on elbow (5).

- (3) Install elbow (5) in lower port of initiator assembly (8). Make sure elbow is aligned with tube assembly.

- d. If removed, position clamps (7) on initiator assembly (8).

- e. Position initiator assembly (8) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- f. Coat bolts (6) with coating primer.

- g. Install bolts (6) and washers.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- h. Install tube assembly on manifold (9). Torque tube assembly 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- i. Install hose assembly on manifold (9). Torque hose assembly 135 to 150 inch-pounds. Using sealing compound, apply tamper dot.(QA)

- j. Loosely install tube assembly on elbow (5).

- k. Tighten jamnut on elbow (5).

WARNING

- l. Torque tube assembly to elbow 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

- m. Position clamp (4, detail A) on tube assembly (2).

- n. Loosely connect tube assembly (2) to check valve.

- o. Install 3.0 second delay initiator JAU-14/A (M597) (WP012 00).

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- p. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA).

- q. Install wedge assembly (WP005 00).

4. INERTIA REEL GAS GENERATING INITIATOR CARTRIDGE CCU-69/A (MF66) OR CCU-69A/A (MG59).

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0 to 200 Inch-Pounds
SK3584	Gas Generating Initiator Cartridge Removal Tool

Materials Required

Specification or Part Number	Nomenclature
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS28774-017	Retainer
ARP568-017	Packing
ARP568-021	Packing

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) are installed (A1-AV8BB-GAI-500, WP004 00).

- b. Remove inertia reel gas generating initiator, this WP.

WARNING

To prevent death or injury to personnel, care must be taken when handling inertia reel gas generating initiator. Initiator contains explosive that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop inertia reel gas generating initiator or inertia reel gas generating initiator cartridge. If initiator or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

c. For removal of inertia reel gas generating initiator cartridge CCU-69/A (MF66), do substeps below:

- (1) Remove cap (15, figure 1, detail C) and packing (14).
- (2) Install cartridge removal tool a maximum of three turns in cartridge (18).
- (3) Carefully pull cartridge (18) from housing (13).
- (4) Remove packing (17) and retainer (16).
- (5) Store or dispose of cartridge (18) per NAVAIR 11-100-1.

d. For removal of inertia reel gas generating initiator cartridge CCU-69A/A (MG59), do substeps below:

- (1) Remove cap (15, figure 1, detail C) and packing (14).
- (2) Carefully pull cartridge (12) from housing (13).
- (3) Remove packings (10 and 11) from cartridge (12).
- (4) Store or dispose of cartridge (12) per NAVAIR 11-100-1.

6. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling inertia reel gas generating initiator cartridge. Cartridge contains explosive that could detonate if mishandled.

To prevent death or injury to personnel, do not drop inertia reel gas generating initiator or inertia reel gas generating initiator cartridge. If initiator or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

a. If cartridge (12 or 18, figure 1) is being replaced, do substeps below:

NOTE

Inertia reel gas generating initiator cartridge CCU-69/A (MF66) or CCU-69A/A (MG59) is a scheduled removal component. Cartridge must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

(1) Using indelible ink, mark cartridge (12 or 18) with container open date, installation date and expiration date (NAVAIR 11-100-1).

(2) Make log book entry for cartridge (12 or 18) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

b. For installation of inertia reel gas generating initiator cartridge CCU-69/A (MF66), do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- (1) Lubricate new packings (14 and 17) and retainer (16) with silicone compound.
- (2) Install packing (17) and retainer (16) on cartridge (18).
- (3) Install cartridge removal tool a maximum of three turns in cartridge (18).
- (4) Install cartridge (18) in housing (13). Remove cartridge removal tool.
 - c. For installation of inertia reel gas generating initiator cartridge CCU-69A/A (MG59), do substeps below:

WARNING

- (1) Lubricate new packings (10, 11 and 14) with silicone compound.

(2) Install packing (10 and 11) on cartridge (12).

(3) Install cartridge (12) in housing (13).

d. Install packing (14) in cap (15).

e. Install cap (15) and torque 90 to 100 inch-pounds. (QA)

f. Install inertia reel gas generating initiator, this WP.

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

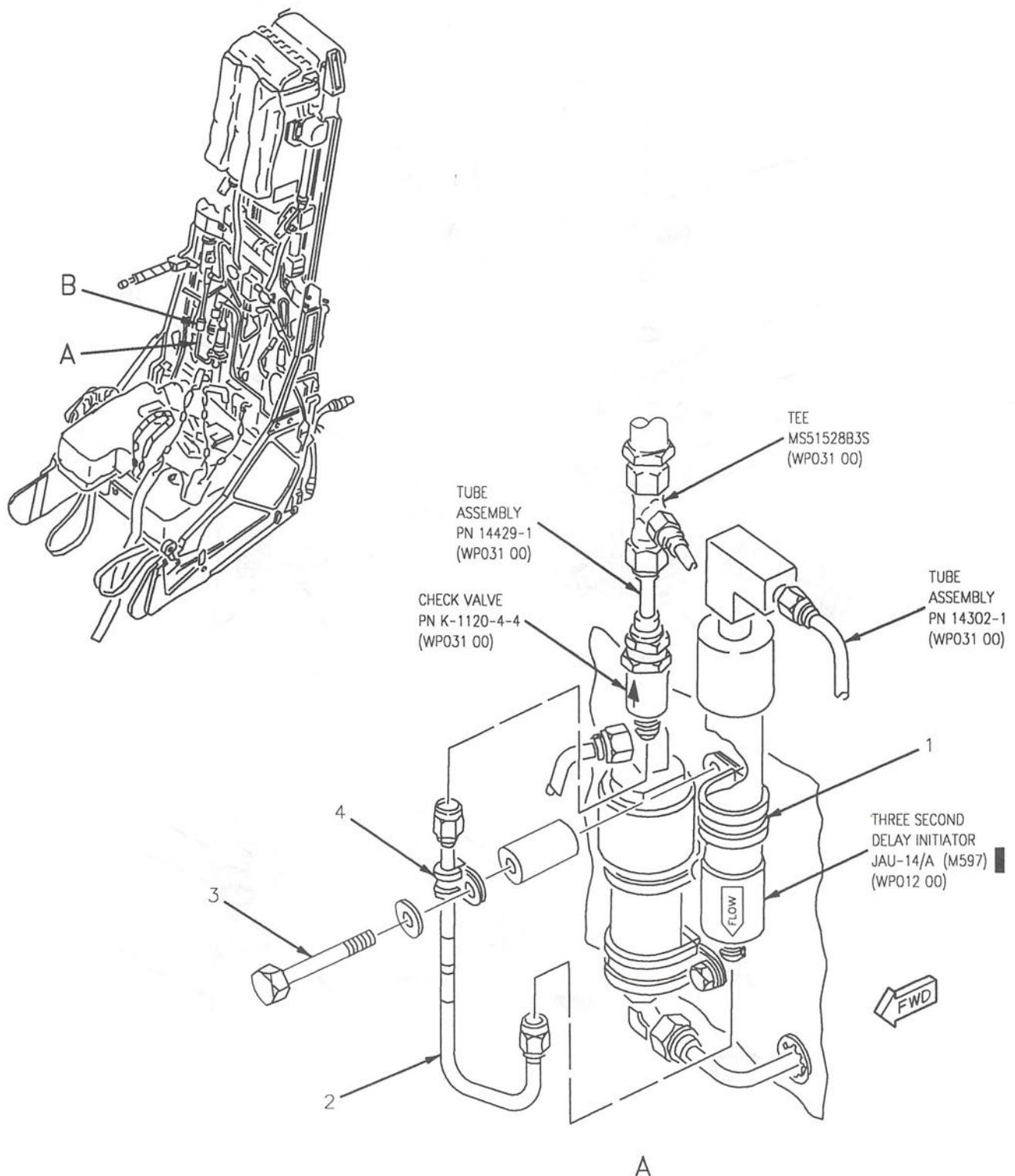


Figure 1. Intertia Reel Gas Generating Initiator and Intertia Reel Gas Generating Initiator Cartridge CCU-69/A (MF66) or CCU-69A/A (MG59) (Sheet 1)

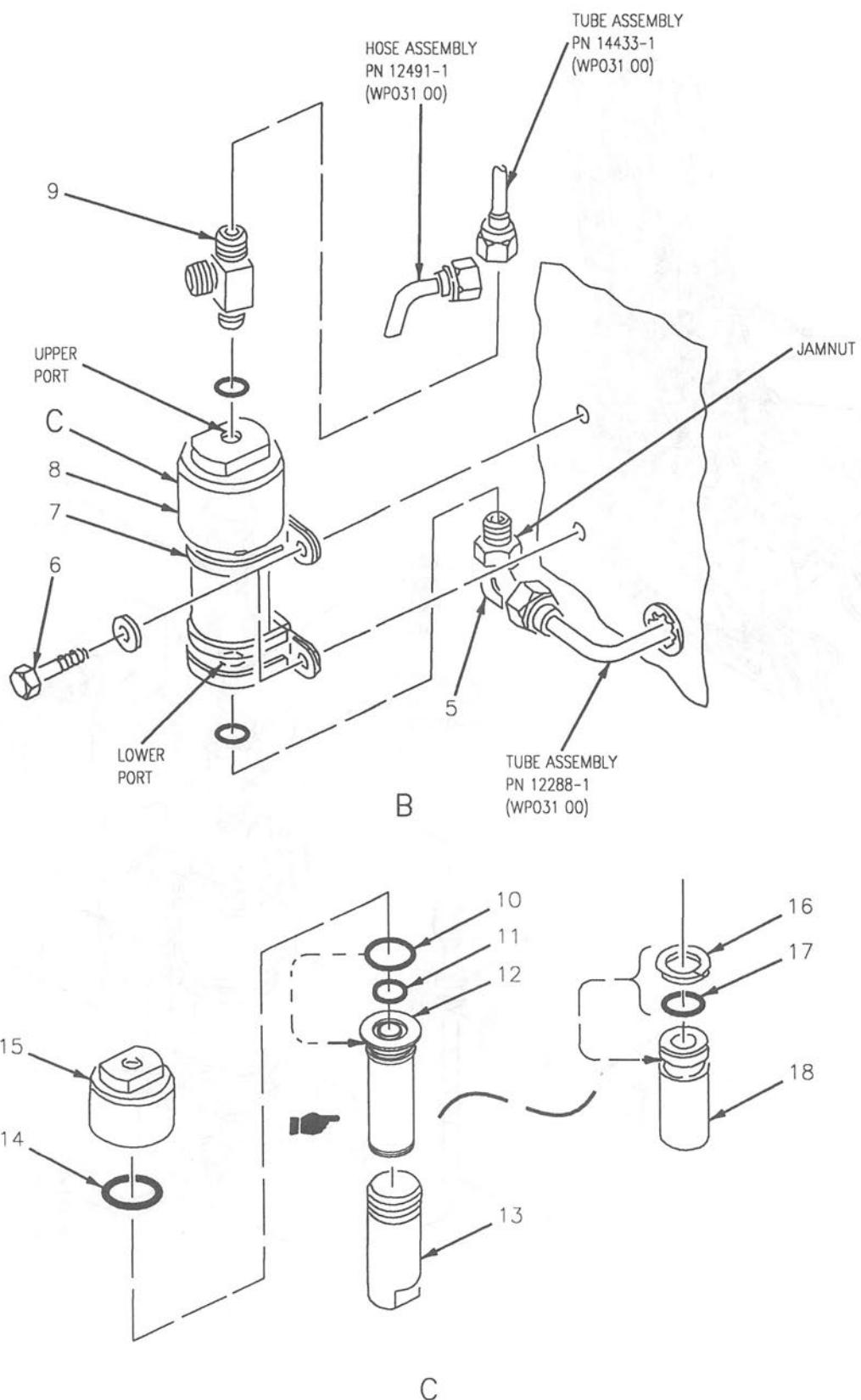


Figure 1. Intertia Reel Gas Generating Initiator and Intertia Reel Gas Generating Initiator Cartridge CCU-69/A (MF66) or CCU-69A/A (MG59) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE									
INERTIA REEL GAS GENERATING														
INITIATOR AND INITIATOR REEL GAS GENERATING INITIATOR CARTRIDGE CCU-69/A (MF66) OR CCU-69A/A (MG59)														
1	MS21919DG13	. CLAMP	1						PAOZZ					
2	14428-1	. TUBE ASSEMBLY (51998)	1						PAOZZ					
3	NAS6203-25	. BOLT	1						PAOZZ					
	NAS1149D0332K	. WASHER (USE WITH INDEX 3)	1	*					PAOZZ					
	AN960KD10L	. SEE ABOVE	1	*					PAOZZ					
	NAS43DD-82	. SPACER (USE WITH INDEX 3)	1						PAOZZ					
4	MS21919DG3	. CLAMP	1						PAOZZ					
5	MS51527B4S	. ELBOW	1						PAOZZ					
	MS9068-012	. PACKING (USE WITH INDEX 5)	1						PAGZZ					
6	NAS6203-4	. BOLT	2						PAOZZ					
	NAS1149D0332K	. WASHER (USE WITH INDEX 6)	2	*					PAOZZ					
	AN960KD10L	. SEE ABOVE	2	*					PAOZZ					
7	MS21919DG17	. CLAMP	2						PAOZZ					
8	0113226-13	. INITIATOR ASSEMBLY, GAS GENERATOR . . . (INERTIA REEL GAS GENERATING INITIATOR) (45402) (UPCO SPEC 472V440D001-3)	1						AOOOD					
9	12238-13	. MANIFOLD, GAS GENERATOR (51988) . . .	1						PAOZZ					
	MS9068-011	. PACKING (USE WITH INDEX 9)	1						PAOZZ					
10	ARP568-017 +	. PACKING	1						PAOZZ					
11	726AS404-4 +	. PACKING	1						-					
12	847AS115	. CARTRIDGE, IMPULSE, CCU-69A/A (MG59) (INERTIA REEL GAS GENERATING INITIATOR CARTRIDGE CCU-69A/A (MG59)) (31276) (REPLACES 726AS425)	1						PCOZA					
13	013965-3 + +	. HOUSING, GAS GENERATING INITIATOR (45402)	1						-					
14	ARP568-021 + +	. PACKING	1						-					
15	0103966-5 + +	. CAP, GENERATOR HOUSING (45402) . . .	1						-					
16	MS28774-017 +	. RETAINER (USE 726A5425)	1						PAOZZ					
17	ARP568-017 +	. PACKING (USE 726A5425)	1						PAOZZ					
18	726AS425	. CARTRIDGE, IMPULSE, CCU-69/A (MF66) (INERTIA REEL GAS GENERATING INITIATOR CARTRIDGE CCU-69/A, (MF66)) (31276) (REPLACED BY 847AS115) (USE UNTIL EXHAUSTED)	1						PCOZA					

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

+ INDICATES COMPONENT PART OF
INERTIA REEL GAS GENERATING
INITIATOR CARTRIDGE CCU-69/A
(MF66).

++ INDICATES COMPONENT PART OF
INERTIA REEL GAS GENERATING
INITIATOR.

Figure 1. Intertia Reel Gas Generating Initiator and Inertia Reel Gas Generating Initiator Cartridge CCU-69/A (MF66) or CCU-69A/A (MG59) (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****MULTI NON-DIVERGENCE TIME DELAY JAU-13/A (M596)****AIRCRAFT EJECTION SEAT**

This WP supersedes WP011 00, dated 15 January 1995.

Reference Material

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00

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Record Of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150 111T900C240-9	Wrench, Torque Adapter, Torque Wrench
111T900C240-11	Adapter, Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
TT-P-1757, COMP L COLOR T (CAGE 81348)	Primer Coating

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- Remove seat wedge assembly (WP005 00).

WARNING

To prevent death or injury to personnel, care must be taken when handling multi non-divergence time delay JAU-13/A . Time delay contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- Disconnect tube assemblies (1, 2, 3 and 8, figure 1) from multi non-divergence time delay JAU-13/A (5).

- Remove screws (6).

- Remove bolt (7) and washer.

WARNING

To prevent death or injury to personnel, do not drop multi non-divergence time delay JAU-13/A. If time delay is dropped, do not handle. Notify explosive ordnance disposal.

- Remove multi non-divergence time delay JAU-13/A (5).

- Remove clamp (4).

2. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling multi non-divergence time delay JAU-13/A. Time delay contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop multi non-divergence time delay JAU-13/A. If time delay is dropped, do not handle. Notify explosive ordnance disposal.

- If multi non-divergence time delay JAU-13/A (5, figure 1) is being replaced, do substeps below:

NOTE

Multi non-divergence time delay JAU-13/A is a scheduled removal component. Time delay must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

- Using indelible ink, mark multi non-divergence time delay JAU-13/A (5, figure 1) with container open date, installation date and expiration date (NAVAIR 11-100-1).

- Make log book entry for multi non-divergence time delay JAU-13/A (5) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

- b. Position clamp (4) on multi non-divergence time delay JAU-13/A (5).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- c. Coat screws (6) and bolt (7) with primer coating.
d. Position multi non-divergence time delay JAU-13/A (5) on ejection seat.
e. Loosely install screws (6).

NOTE

Rubber may be trimmed off outside surface of clamp if necessary. Trimming shall be to a depth no deeper than the outside surface of the metal band and only in the area necessary to provide clearance with the nut on multi non-divergence time delay JAU-13/A.

- f. Install clamp (4) with bolt (7) and washer.
g. Connect tube assemblies (1, 2, 3 and 8) loosely to multi non-divergence time delay JAU-13/A (5).
h. Tighten screws (6).
i. Using torque wrench and adapter 111T900C240-9, torque tube assemblies (1, 3, and 8) 95 to 105 inch-pounds. (QA)

- j. Using torque wrench and adapter 111T900C240-11, torque tube assembly (2) 135 to 150 inch-pounds. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- k. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

WARNING

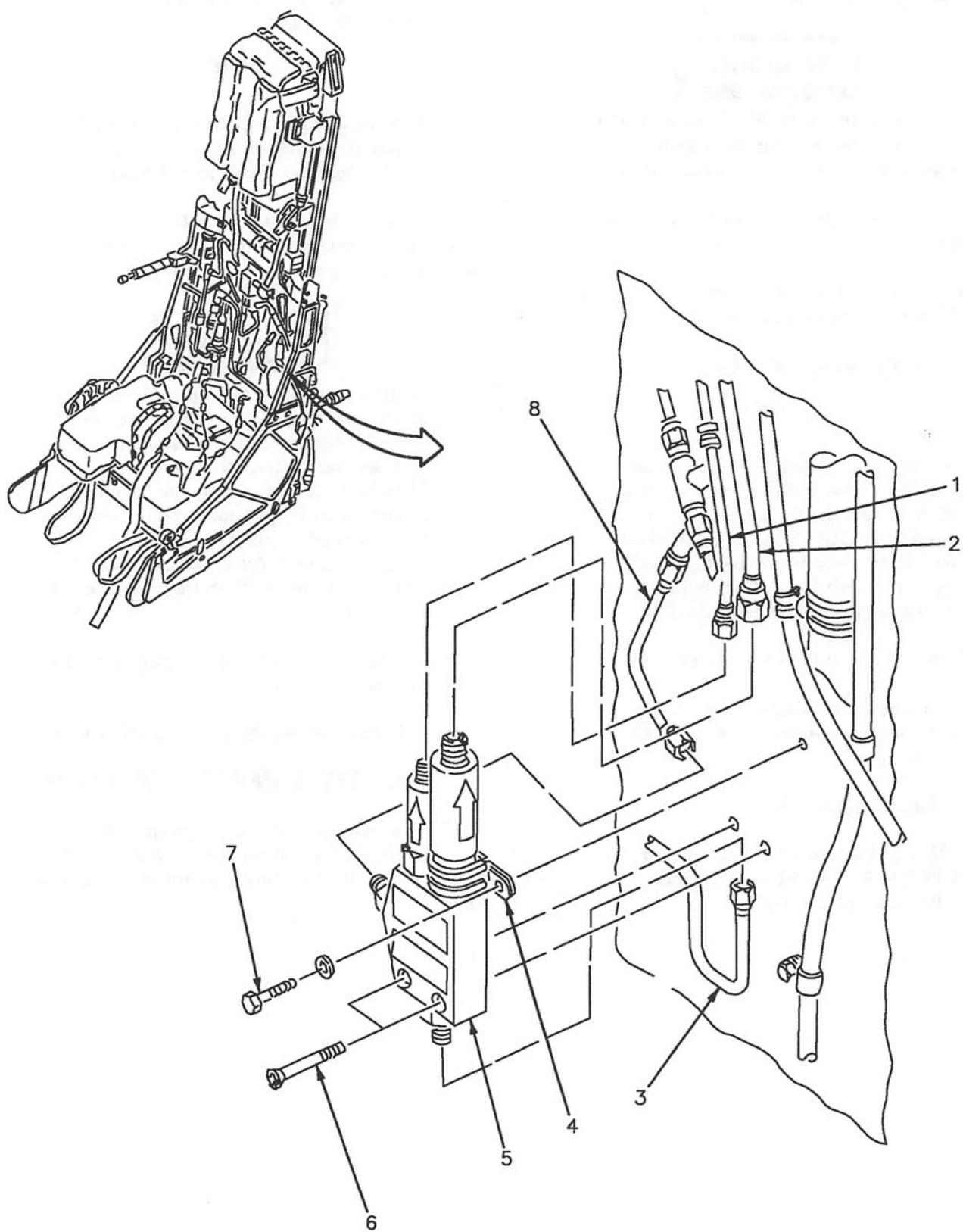
Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- l. Using sealing compound, apply tamper dot to torqued fittings. (QA)

- m. Install seat wedge assembly (WP005 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

**Figure 1. Multi Non-Divergence Time Delay JAU-13/A (M596) (Sheet 1)**

AV8BB-120-35-(34-1)05-SCAN

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE				
MULTI NON-DIVERGENCE TIME DELAY									
1	14431-1	JAU-13/A (M596) . TUBE ASSEMBLY - 1.2 SECOND	1		PAOZZ				
		TIME DELAY TO 7000 FT ANEROID (51998)							
2	14432-1	. TUBE ASSEMBLY - .10 SECOND	1		PAOZZ				
		TIME DELAY TO L.S.S.V. (51998)							
3	14302-1	. TUBE ASSEMBLY - MANIFOLD TO	1		PAOZZ				
		JAU-13/A (51998)							
4	MS21919DG13	. CLAMP	1		PAOZZ				
5	834AS100	. INITIATOR CARTRIDGE ACTUATED,	1	*	PCOZA				
		JAU-13/A (M596) (MULTI NON-DIVERGENCE TIME DELAY JAU-13/A) (30003)							
	JAU-13/A	. SEE ABOVE (80058)	1	*	PCOZA				
6	MS24694-S67	. SCREW	2		PAOZZ				
7	NAS6203-2	. BOLT	1		PAOZZ				
	NAS1149D0332K	. WASHER (USE WITH INDEX 7)	1	*	PAOZZ				
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ				
8	14308-1	. TUBE ASSEMBLY - LH TROMBONE TO	1		PAOZZ				
		MULTIPLE TIME DELAY (51998)							

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Multi Non-Divergence Time Delay JAU-13/A (M596) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****3.0 SECOND DELAY INITIATOR JAU-14/A (M597)****AIRCRAFT EJECTION SEAT****Reference Material**

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-012	Packing
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove seat wedge assembly (WP005 00).
- c. Loosen tube assembly (4, figure 1) from check valve.
- d. Disconnect tube assembly (4) from initiator (3).
- e. Remove bolt (5), washer, and spacer.
- f. Remove clamp (2).

WARNING

To prevent death or injury to personnel, care must be taken when handling 3.0 second delay initiator JAU-14/A (M597). Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop 3.0 second delay initiator JAU-14/A (M597). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

g. Remove initiator (3) from manifold (1). Remove packing (7).

h. Store or dispose of initiator (3) per NAVAIR 11-100-1.

2. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling 3.0 second delay initiator JAU-14/A (M597). Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop 3.0 second delay initiator JAU-14/A (M597). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

a. If initiator (3, figure 1) is being replaced, do substeps below:

NOTE

3.0 second delay initiator JAU-14/A (M597) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

(1) Using indelible ink, mark initiator (3) with installation date and expiration date (NAVAIR 11-100-1).

- (2) Make log book entry for initiator (3) propellant manufacture date, container open date, lot number, installation date and expiration date (NAVAIR 11-100-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- b. Lubricate new packing (7) with silicone compound.
- c. Position packing (7) on initiator (3).
- d. Position clamp (2) on initiator (3).
- e. Install initiator (3) in manifold (1). Make sure flow arrow is pointing down.
- f. Connect tube assembly (4) to initiator (3), loosely.
- g. Position clamp (6).

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- h. Coat bolt (5) with primer.
- i. Install bolt (5), washer and spacer.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- j. Torque tube assembly (4) 95 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- k. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)
 - l. Install seat wedge assembly (WP005 00).
3. **ILLUSTRATED PARTS BREAKDOWN.**
4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

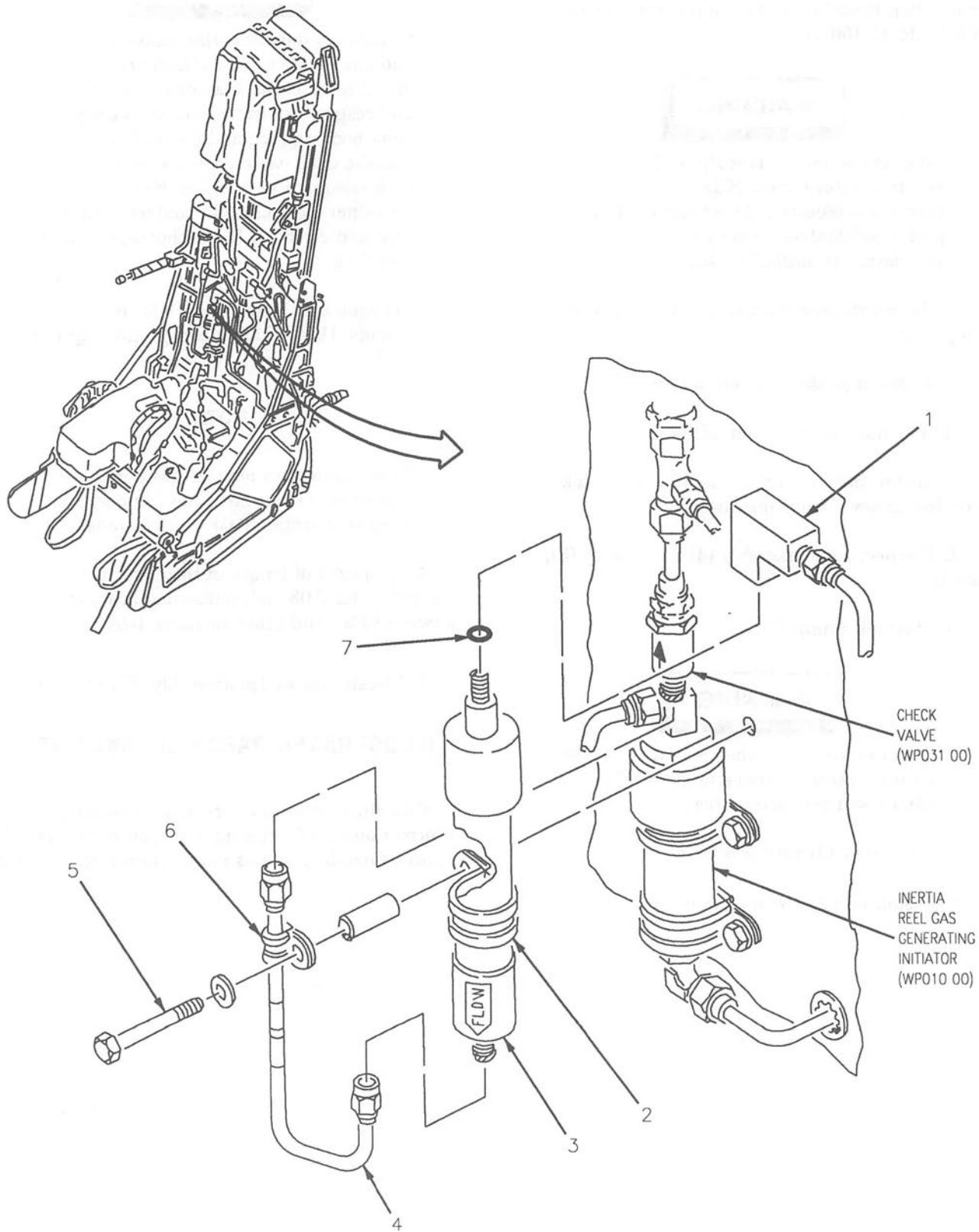


Figure 1. 3.0 Second Delay Initiator JAU-14/A (M597) (Sheet 1)

INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
			3.0 SECOND DELAY INITIATOR			
1	14976-13		JAU-14/A (M597) . MANIFOLD - JAU-14/A TIME DELAY	1		PAOZZ
			(51998)			
2	MS21919WDG13		. CLAMP	1		PAOZZ
3	834AS150		. INITIATOR, CARTRIDGE ACTUATED	1	*	PCOZA
			JAU-14/A (M597) (3.0 SECOND DELAY INITIATOR JAU-14/A) (30003)			
4	14428-1		. TUBE ASSEMBLY - TIME DELAY	1		PAOZZ
			TO CHECK VALVE (51998)			
5	NAS6203-25		. BOLT	1		PAOZZ
	NAS1149D0332K		. WASHER (USE WITH INDEX 5)	1	*	PAOZZ
	AN960KD10L		. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-82		. SPACER (USE WITH INDEX 5)	1		PAOZZ
6	MS21919WDG3		. CLAMP	1		PAOZZ
7	MS9068-012		. PACKING	1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. 3.0 Second Delay Initiator JAU-14/A (M597) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****CATAPULT CARTRIDGE (XW36)****AIRCRAFT EJECTION SEAT****Reference Material**

Aircrew Escape Propulsion System (AEPS) Devices	NAVAIR 11-85-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP or RAMEC No.	Date Incorp.	Remarks
AV8ACC-533	15 Nov 90	SJU-4/A Ejection Seat - Dual Airspeed Thruster Arming (ECP UPCO-AV8B-155C1)	1 Jan 95	-

Support Equipment Required

Part Number or Type Designation	Nomenclature
111T900C051-1	Spanner Wrench
472P950E057-1	Height Adjustment Actuator Control Assembly
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-014	Packing (2)
MS9068-026	Packing (2)
MS9068-027	Packing (2)
MS9068-012	Packing (2)

1. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
 - b. On ejection seat SJU-4/A PART NUMBER 14020-7 AND 14020-9 BEFORE AV8ACC-533, do substeps below:

WARNING

To prevent injury or death to personnel, care must be taken when handling catapult cartridge (XW36). Catapult cartridge (XW36) contains explosives that could detonate if mishandled, or if pressure is allowed to enter ports.

- (1) Disconnect hose assembly (17, figure 1, detail C) from elbow (16).
 - (2) Using height adjustment actuator control assembly, position seat bucket in full up position.
 - (3) Disconnect outer right trombone assembly from elbow (9).
 - (4) Loosen nut (10). Remove elbow (9), nut, and packing (11).
 - (5) Disconnect outer left trombone assembly from fitting (1).
 - (6) Loosen nut (2). Remove fitting (1), nut, and packing (3).
 - (7) If elbow (16) or fitting (1) is to be replaced, remove elbow and packing (15) from fitting.

c. On ejection seat SJU-4/A PART NUMBER 14020-11; ALSO 14020-7 AND 14020-9 AFTER AV8ACC-533, do substeps below:

WARNING

To prevent injury or death to personnel, care must be taken when handling catapult cartridge (XW36). Catapult cartridge (XW36) contains explosives that could detonate if mishandled, or if pressure is allowed to enter ports.

- (1) Disconnect hose assembly (17, figure 1, detail C) from elbow (16).
 - (2) Disconnect hose assembly (5) from elbow (6).
 - (3) Using height adjustment actuator control assembly, position seat bucket in full up position.

(4) Disconnect outer right trombone assembly from fitting (8).

(5) Disconnect outer left trombone assembly from fitting (1).

(6) Loosen nut (10). Remove fitting (8), nut, and packing (11).

(7) Loosen nut (2). Remove fitting (1), nut, and packing (3).

(8) If elbows (6 or 16) or fittings (1 or 8) are to be replaced, remove elbows and packings (15 or 20).

d. On ejection seat SJU-13/A, do substeps below:

WARNING

To prevent injury or death to personnel, care must be taken when handling 0.4 second delay initiators (MT05) and catapult cartridge (XW36). Initiators and catapult cartridge (XW36) contain explosives that could detonate if mishandled, or if pressure is allowed to enter ports.

(1) Disconnect hose assembly (18, figure 1, detail C) from outer left trombone assembly.

(2) Disconnect hose assembly (19) from outer right trombone assembly.

(3) Using height adjustment actuator control assembly, position seat bucket in full up position.

(4) Disconnect outer left trombone assembly from initiator (21).

(5) Disconnect outer right trombone assembly from initiator (20).

WARNING

To prevent death or injury to personnel, do not drop 0.4 second delay initiator (MT05). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

(6) Loosen nut (10). Remove initiator (20), nut, and packing (11).

(7) Loosen nut (2). Remove initiator (21), nut, and packing (3).

e. On ejection seat SJU-14/A, do substeps below:

WARNING

To prevent injury or death to personnel, care must be taken when handling catapult cartridge (XW36). Catapult cartridge (XW36) contains explosives that could detonate if mishandled, or if pressure is allowed to enter ports.

(1) Disconnect hose assembly (22, figure 1, detail C) from elbow (6).

(2) Disconnect hose assembly (23) from elbow (16).

(3) Using height adjustment actuator control assembly, position seat bucket in full up position.

(4) Disconnect outer right trombone assembly from fitting (8).

(5) Disconnect outer left trombone assembly from fitting (1).

(6) Loosen nut (10). Remove fitting (8), nut, and packing (11).

(7) Loosen nut (2) and remove fitting (1), nut, and packing (3).

(8) If elbows (6 or 16) or fittings (1 or 8) are to be replaced, remove elbows and packings (7 or 15).

CAUTION

To prevent damage to catapult cartridge (XW36), make sure spanner wrench does not engage catapult cartridge flats when removing or installing nut.

- f. Hold igniter with wrench.
- g. Using spanner wrench, remove nut (4).

WARNING

To prevent death or injury, be careful when handling catapult cartridge (XW36). Catapult cartridge (XW36) contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop catapult cartridge (XW36). If catapult cartridge (XW36) is dropped, do not handle. Notify explosive ordnance disposal.

- h. Remove cartridge (14) and packings (12 and 13).
- i. Store or dispose of cartridge (14) in accordance with NAVAIR 11-85-1.

2. INSTALLATION.**WARNING**

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- a. Lubricate new packings (12 and 13, figure 1, detail C) with silicone compound.
- b. Install packings (12) in right catapult tube assembly.
- c. Install packings (13) in left catapult tube assembly.

WARNING

To prevent death or injury to personnel, care must be taken when handling catapult cartridge (XW36). Catapult cartridge (XW36) contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop catapult cartridge (XW36). If catapult cartridge (XW36) is dropped, do not handle. Notify explosive ordnance disposal.

- d. If cartridge (14) is being replaced, do substeps below:

NOTE

Catapult cartridge (XW36) is a scheduled removal component. Catapult cartridge (XW36) must be marked with required data and entry must be made log book (NAVAIR 11-85-1).

(1) Using indelible ink, mark cartridge (14) with installation date and expiration date (NAVAIR 11-85-1).

(2) Make log book entry for cartridge (14) propellant manufacture date, container open date, lot number, manufacture date, installation date and expiration date (NAVAIR 11-85-1).

WARNING

To prevent death or injury to aircrew member, metal shipping label over outlet ports must be removed before installation of catapult cartridge (XW36).

- e. Using fingers, remove metal shipping labels from outlet ports of cartridge (14). (QA)
- f. Remove tape residue from cartridge (14).
- g. Remove shipping plugs from inlet ports.
- h. Inspect foil seals on inlet ports of cartridge (14) for perforation or damage. If foil seals are perforated or damaged, dispose of cartridge per NAVAIR 11-85-1.

i. Inspect inlet ports for blockage. If inlet ports are blocked, dispose of cartridge (14) per NAVAIR 11-85-1. (QA)

j. Install cartridge (14) in catapult tubes, making sure locking pin (detail B) is engaged in locking groove. (QA)

CAUTION

To prevent damage to catapult cartridge (XW36), make sure spanner wrench does not engage catapult cartridge flats when removing or installing nut.

k. Install nut (4). Holding igniter with wrench, tighten nut with spanner wrench.

l. Make sure distance between outer edges of catapult tube assemblies is 10.97 to 11.03 inches (detail A). If distance is incorrect, remove and reinstall catapult tube assemblies (WP028 00). (QA)

m. On ejection seat SJU-4/A PART NUMBER 14020-7 AND 14020-9 BEFORE AV8ACC-533, do the substeps below:

(1) Install nut (10) on elbow (9).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(2) Lubricate new packing (11) with silicone compound.

(3) Position packing (11) on elbow (9).

(4) Install elbow (9) into cartridge (14) until elbow aligns with outer right trombone assembly and packing (11) is seated.

(5) Tighten nut (10) against cartridge (14).

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(6) Connect outer right trombone assembly to elbow (9). Torque trombone assembly 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(7) Install nut (2) on fitting (1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(8) Lubricate new packing (3) with silicone compound.

(9) Position packing (3) on fitting (1).

(10) Install fitting (1) in cartridge (14) until fitting aligns with outer left trombone assembly and packing (3) is seated.

(11) Tighten nut (2) against cartridge (14).

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(12) Connect outer left trombone assembly to fitting (1). Torque trombone assembly 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(13) If elbow (16) is being replaced, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(a) Lubricate new packing (15) with silicone compound.

(b) Install elbow (16) in fitting (1) until elbow (16) is parallel to trombone assembly and packing (15) is seated.

(c) Tighten nut on elbow (16) against fitting (1).

(14) Connect hose assembly (17) to elbow (16) and tighten hose assembly. (QA)

n. On ejection seat SJU-4/A PART 14020-11; ALSO 14020-7 AND 14020-9 AFTER AV8ACC-533, do substeps below:

(1) Install nut (10) on fitting (8).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(2) Lubricate new packing (11) with silicone compound.

(3) Position packing (11) on fitting (8).

(4) Install fitting (8) into cartridge (14) until fitting aligns with outer right trombone assembly and packing (11) is seated.

(5) Tighten nut (10) against cartridge (14).

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(6) Connect outer right trombone assembly fitting (8). Torque trombone assembly 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(7) Install nut (2) on fitting (1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(8) Lubricate new packing (3) with silicone compound.

(9) Position packing (3) on fitting (1).

(10) Install fitting (1) in cartridge (14) until fitting aligns with outer left trombone assembly and packing (3) is seated.

(11) Tighten nut (2) against cartridge (14).

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(12) Connect outer left trombone assembly to fitting (1). Torque trombone assembly 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(13) If elbows (6 or 16) are being replaced, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(a) Lubricate new packing (7 or 15) with silicone compound.

(b) Install elbow (6 or 16) in fitting (1 or 8) until elbow is parallel to trombone assembly.

(c) Tighten nut on elbow (6 or 16) against fitting (1 or 8).

(14) Connect hose assembly (5) to elbow (6) and tighten hose assembly. (QA)

(15) Connect hose assembly (17) to elbow (16) and tighten hose assembly. (QA)

o. On ejection seat SJU-13/A, do substeps below:

WARNING

To prevent death or injury to personnel, care must be taken when handling 0.4 second delay initiator. 0.4 second delay initiator (MT05) contains explosives that could detonate if mishandled or if pressure is allowed to enter ports. To prevent death or injury to personnel, do not drop 0.4 second delay initiator (MT05). If 0.4 second delay initiator (MT05) is dropped, do not handle. Notify explosive ordnance disposal.

(1) Install nut (10, figure 1) on initiator (20).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(2) Lubricate new packing (11) with silicone compound.

(3) Position packing (11) on initiator (20).

(4) Install initiator (20) into cartridge (14) until initiator aligns with outer right trombone assembly and packing (11) is seated.

(5) Tighten nut (10) against cartridge (14).

(6) Connect outer right trombone assembly to initiator (20), handtight.

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(7) Position outer right trombone assembly fitting approximately 37° outboard of aft (detail D), and torque trombone assembly to initiator (20) 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(8) Connect hose assembly (19) to outer right trombone assembly fitting and tighten hose assembly. (QA)

(9) Install nut (2) on initiator (21).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(10) Lubricate new packing (3) with silicone compound.

(11) Position packing (3) on initiator (21).

(12) Install initiator (21) in cartridge (14) until initiator (21) aligns with outer left trombone assembly and packing (3) is seated.

(13) Tighten nut (2) against cartridge (14).

(14) Connect outer left trombone assembly to initiator (21), handtight.

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(15) Position outer left trombone assembly fitting outboard, and torque trombone assembly to initiator (21) 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(16) Connect hose assembly (18) to outer left trombone assembly fitting and tighten hose assembly. (QA)

p. On ejection seat SJU-14/A, do substeps below:

(1) Install nut (10) on fitting (8).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(2) Lubricate new packing (11) with silicone compound.

(3) Position packing (11) on fitting (8).

(4) Install fitting (8) into cartridge (14) until fitting aligns with outer right trombone assembly and packing (11) is seated.

(5) Tighten nut (10) against cartridge (14).

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(6) Connect outer right trombone assembly to fitting (8). Torque trombone assembly 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(7) Install nut (2) on fitting (1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(8) Lubricate new packing (3) with silicone compound.

(9) Position packing (3) on fitting (1).

(10) Install fitting (1) in cartridge (14) until fitting (1) aligns with outer left trombone assembly and packing (3) is seated.

(11) Tighten nut (2) against cartridge (14).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(12) Connect outer left trombone assembly to fitting (1). Torque trombone assembly 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(13) If elbows (6 or 16) are being replaced, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(a) Lubricate new packing (7 or 15) with silicone compound.

(b) Install elbow (6 or 16) in fitting (1 or 8) until elbow is parallel to trombone assembly.

(c) Tighten nut on elbow (6 or 16) against fitting (1 or 8).

(14) Connect hose assembly (22) to elbow (6) and tighten hose assembly. (QA)

(15) Connect hose assembly (23) to elbow (16) and tighten hose assembly. (QA)

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

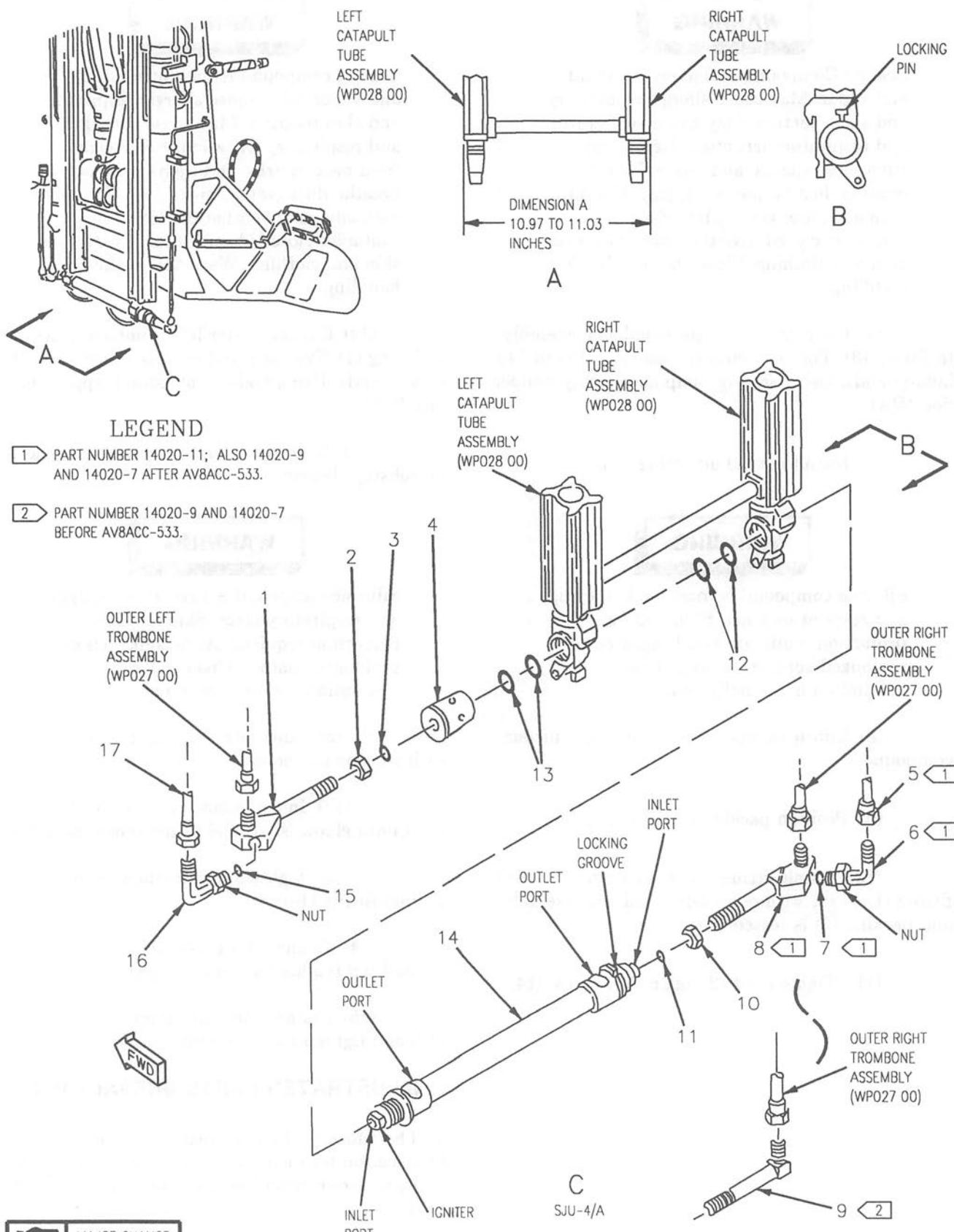
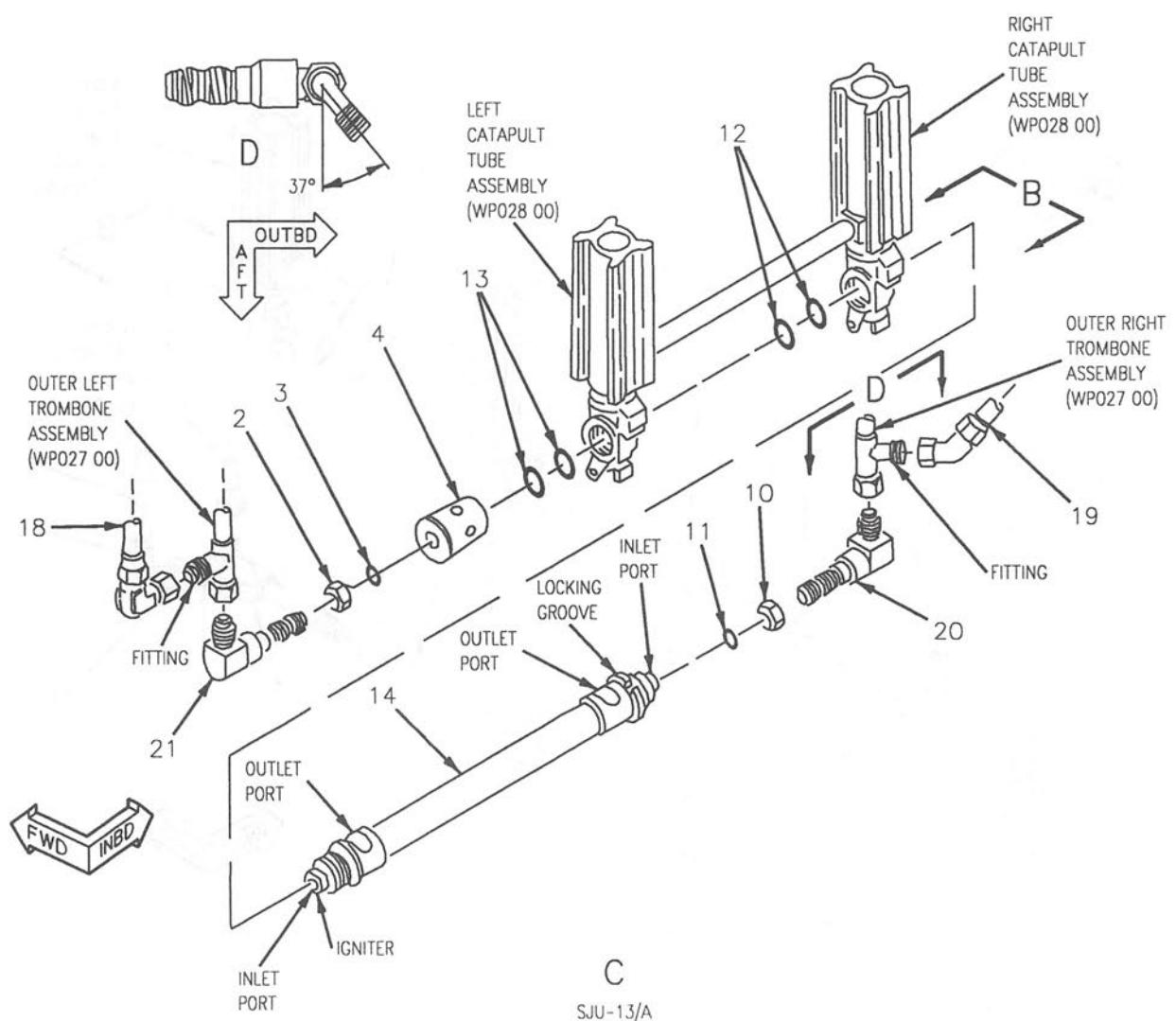
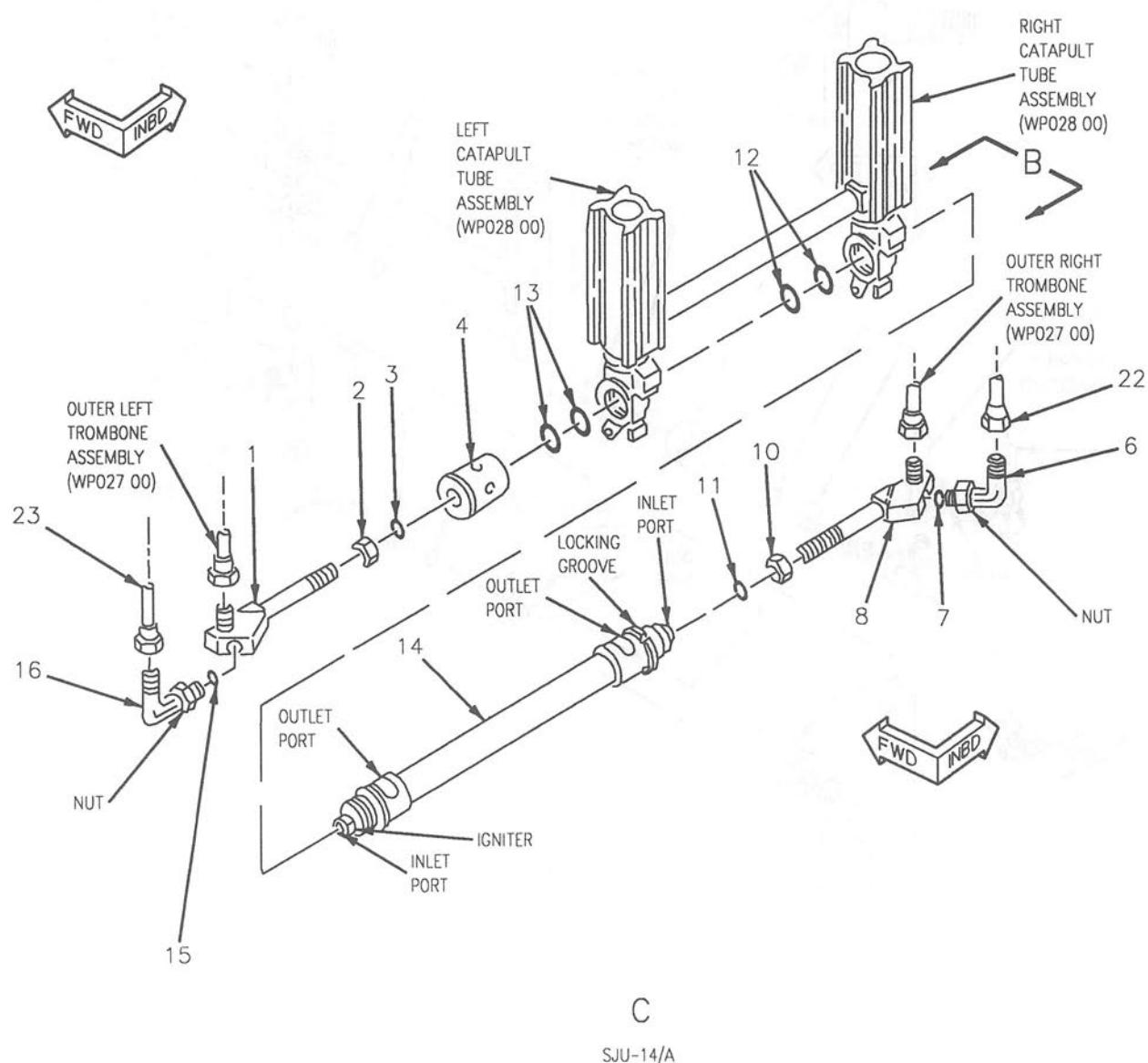


Figure 1. Catapult Cartridge (XW36) (Sheet 1)





MAJOR CHANGE

Figure 1. Catapult Cartridge (XW36) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14275-11	CATAPULT CARTRIDGE (XW36) FITTING, MANIFOLD - CATAPULT CARTRIDGE (51998)	1	A	-
2	AN924-6J	. NUT	1		PAOZZ
3	MS9068-014	. PACKING	1		PAOZZ
4	12237-11	. NUT, PLAIN, ROUND (51998)	1		PAOZZ
5	AE705783-3	. HOSE ASSEMBLY, NONMETALLIC (00624) (LOWER HOSE ASSEMBLY) (MCDONNELL SPEC 75B800066-105)	1	B	PAOZZ
6	MS51527B4S	. ELBOW	1	G	PAOZZ
7	MS9068-012	. PACKING	1	G	PAOZZ
8	14275-12	. FITTING, MANIFOLD - CATAPULT CARTRIDGE (51988)	1	G	-
9	14276-11	. ELBOW, TUBE (51988)	1	C	PAOZZ
10	AN924-6J	. NUT	1		PAOZZ
11	MS9068-014	. PACKING	1		PAOZZ
12	MS9068-027	. PACKING	2		PAOZZ
13	MS9068-026	. PACKING	2		PAOZZ
14	772AS400	. CARTRIDGE, CATAPULT (MARK 205 MOD 1) (XW36) (51988) (CATAPULT CARTRIDGE) (UPCO SPEC 12642-1)	1		PCOZA
15	MS9068-012	. PACKING	1	A	PAOZZ
16	MS51527B4S	. ELBOW	1	A	PAOZZ
17	AE705783-3	. HOSE ASSEMBLY, NONMETALLIC (00624) (LOWER HOSE ASSEMBLY) (MCDONNELL SPEC 75B800066-105)	1	D	PAOZZ
18	AE705783-12	. HOSE ASSEMBLY, NONMETALLIC BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-123)	1	E	PAOZZ
19	AE707744-129	. HOSE ASSEMBLY, NONMETALLIC BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-129)	1	E	PAOZZ
20	1203-5	. INITIATOR, CARTRIDGE ACTUATED JAU-58/A (MT05) (51998) (0.4 SECOND DELAY INITIATOR) (UPCO SPEC 24428-1)	1	E	PCOZA
21	1203-5	. INITIATOR, CARTRIDGE ACTUATED JAU-58/A (MT05) (51998) (0.4 SECOND DELAY INITIATOR) (UPCO SPEC 24428-1)	1	E	PCOZA
22	AE707744-133	. HOSE ASSEMBLY, NONMETALLIC BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-133)	1	F	PAOZZ
23	AE705783-6	. HOSE ASSEMBLY, NONMETALLIC BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-111)	1	F	PAOZZ

CODE	USABLE ON	MODEL
A	P/N 14020-7, 14020-9 AND 14020-11 P/N 14620-3	SJU-4/A SJU-14/A
B	P/N 14020-11; ALSO 14020-7 AND 14020-9 AFTER AV8ACC-533	SJU-4/A

Figure 1. Catapult Cartridge (XW36) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
			SJU-4/A	SJU-13/A	SJU-14/A
C		P/N 14020-7 AND 14020-9 BEFORE AV8ACC-533	SJU-4/A		
D		P/N 14020-11, 14020-9 AND 14020-7	SJU-4/A		
E		P/N 14620-1	SJU-13/A		
F		P/N 14620-3	SJU-14/A		
G		P/N 14020-11; ALSO 14020-7 AND 14020-9 AFTER AV8ACC-533 P/N 14620-3	SJU-4/A		SJU-14/A

Figure 1. Catapult Cartridge (XW36) (Sheet 5)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****WORD MOTOR/DROGUE RELEASE ASSEMBLY (MG67)****AIRCRAFT EJECTION SEAT****Reference Material**

Aircrew Escape Propulsion System (AEPS) Devices	NAVAIR 11-85-1
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly.....	WP004 00
Back Cushion Assembly, Wedge Assembly.....	WP005 00
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-011	Packings (3)
MS24665-134	Cotter pin (2)
MS24665-283	Cotter pin
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer Coating

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove survival kit assembly (WP004 00).
- c. Remove wedge assembly (WP005 00).

WARNING

To prevent death or injury to personnel, care must be taken when handling WORD motor/drogue release assembly (MG67). The WORD motor contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

d. Pull left WORD release (4, figure 1) to release strap assembly (5).

e. Remove cotter pins (6) and pins (2).

f. Remove pin (3), washer, spacer, and cotter pin.

g. Position WORD motor/drogue release assembly (8) against back of seat.

h. Insert strap assembly (5) in WORD motor bracket.

i. Lock strap assembly (5) and WORD motor in position with left WORD release (4).

j. Remove tube assembly (9).

k. Remove tube assembly (10).

l. Remove tube assembly (11).

m. Remove valve (12) from guillotine assembly.

n. Loosen nut and remove elbow (15) and packing.

o. Remove tee (14), nut and packing.

WARNING

To prevent death or injury to personnel, WORD motor/drogue release assembly (MG67) must be supported when bolts are removed. The WORD motor/drogue release assembly (MG67) contains explosives that could detonate if dropped.

To prevent death or injury to personnel, do not drop WORD motor/drogue release assembly (MG67). If WORD motor/drogue release assembly (MG67) is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- p. Pull left WORD release (4) to release strap assembly (5).
- q. Make sure WORD motor/drogue release assembly (8) is supported.
- r. Remove bolts (1 and 7), washers, and nuts.
- s. Remove WORD motor/drogue release assembly (8). Store or dispose of in accordance with NAVAIR 11-85-1.

2. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling WORD motor/drogue release assembly (MG67). The WORD motor/drogue release assembly (MG67) contains explosives that could detonate if mishandled or if pressure is allowed to enter port.

To prevent death or injury to personnel, do not drop WORD motor/drogue release assembly (MG67). If WORD motor/drogue release assembly (MG67) is dropped, do no handle. Notify explosive ordnance disposal.

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- a. If WORD motor/drogue release assembly (8, figure 1) is being replaced, do substeps below:

NOTE

WORD motor/drogue release assembly (MG67) is a scheduled removal component. WORD motor/drogue release assembly (MG67) must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

(1) Using indelible ink, mark WORD motor/drogue release assembly (8) with container open date, installation date, and expiration date (NAVAIR 11-85-1).

(2) Make log book entry for WORD motor/drogue release assembly (8) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Coat bolts (1 and 7) with primer coating.
- c. Position and support WORD motor/drogue release assembly (8) on ejection seat.
- d. Install bolt (7) (from aft side of ejection seat), washers, and nut.
- e. Install bolts (1) (from forward side of ejection seat), washers, and nuts.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- f. Torque nuts on bolts (1 and 7) 90 to 100 inch-pounds. Using sealing compound, apply tamper dots. (QA)
- g. Position WORD motor against back of seat.
- h. Insert strap assembly (5) in WORD motor bracket.
- i. Lock strap assembly (5) in position with left WORD release (4).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- j. Lubricate new packings used with elbow (15) and tee (14) with silicone compound.

k. Position packing on elbow (15).

- l. Install elbow (15) in WORD motor/drogue release assembly (8) until packing is seated. Do not tighten nut.
- m. Loosely install tube assembly (9).
- n. Position packing and nut on tee (14).
- o. Install tee (14) in WORD motor/drogue release assembly (8) until packing is seated. Do not tighten nut.

WARNING

p. Lubricate packing (13) with silicone compound.

- q. Position packing (13) on valve (12).
- r. Install valve (12) in guillotine assembly.
- s. Loosely install tube assembly (10).
- t. Loosely install tube assembly (11).
- u. Tighten nut on tee (14).
- v. Tighten nut on elbow (15).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- w. Torque tube assemblies (9, 10 and 11) 95 to 105 inch pounds. Using sealing compound, apply tamper dots. (QA)

NOTE

Tube assemblies may be twisted 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- x. Inspect full length of tube assemblies (9, 10 and 11) for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

WARNING

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- y. Pull left WORD release (4) to release strap assembly (5).
- z. Position ends of WORD bridle on WORD motor/drogue release assembly (8).
- aa. Install pins (2).

ab. With WORD motor/drogue release in the extended (up) position, install cotter pins (6). Cotter pins must be installed from bottom of WORD motor/drogue release.

- ac. Insert spacer used with pin (3) in loop of drogue bridle.

WARNING

To prevent death or injury to aircrew member, drogue bridle must be routed over all other lines or system will not operate correctly.

- ad. Make sure drogue bridle is routed over all other lines. (QA)

ae. Install pin (3), spacer, washer, and cotter pin.

af. Position WORD motor against back of seat.

ag. Insert strap assembly (5) in WORD motor bracket.

ah. Lock strap assembly (5) in position with left WORD release (4).

ai. Secure drogue bridle by positioning velcro attachment around inner right trombone assembly.

aj. Install survival kit assembly (WP004 00).

ak. Install wedge assembly (WP005 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

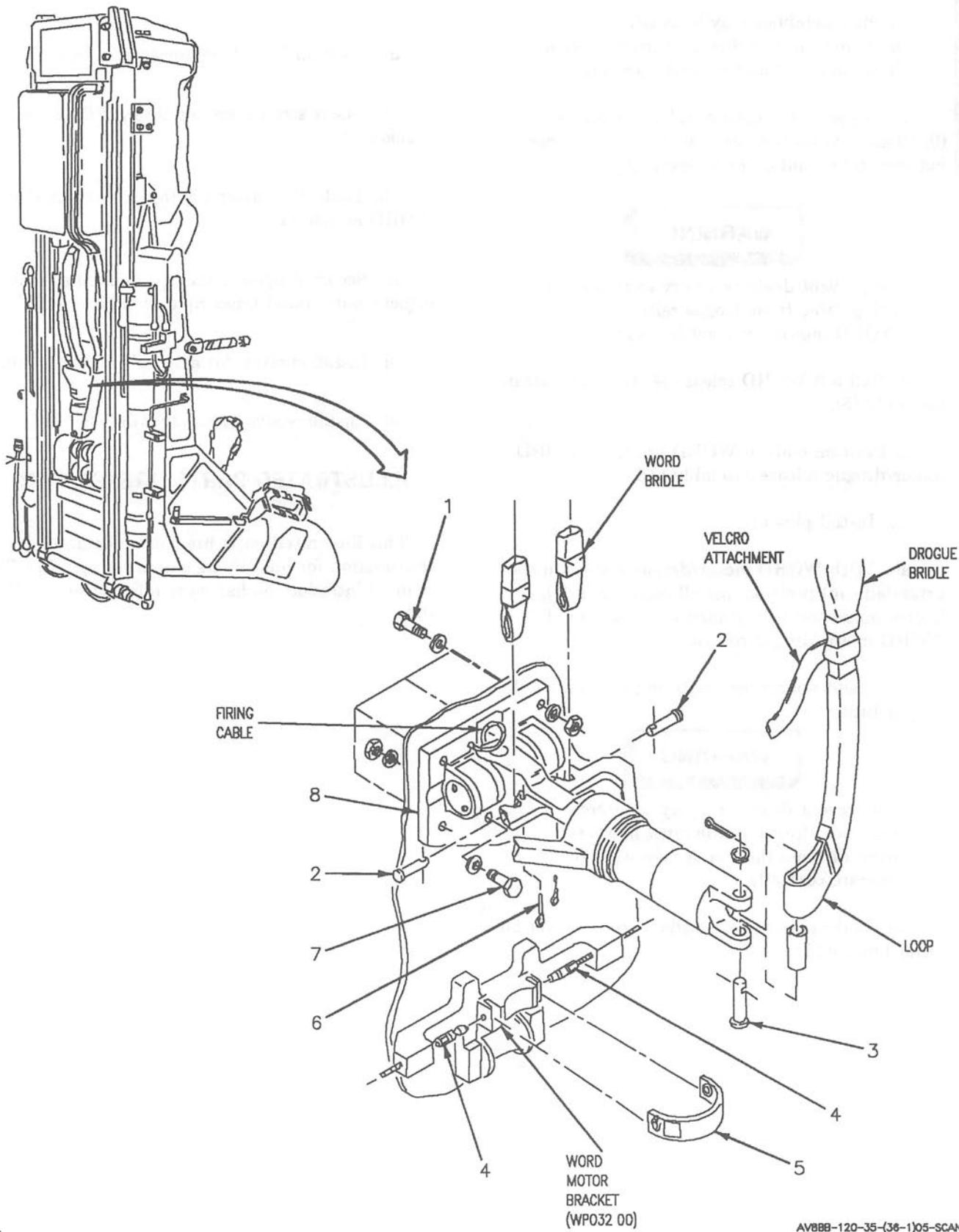


Figure 1. WORD Motor/ Drogue Release Assembly (MG67) (Sheet 1)

AV8BB-120-35-(36-1)05-SCAN

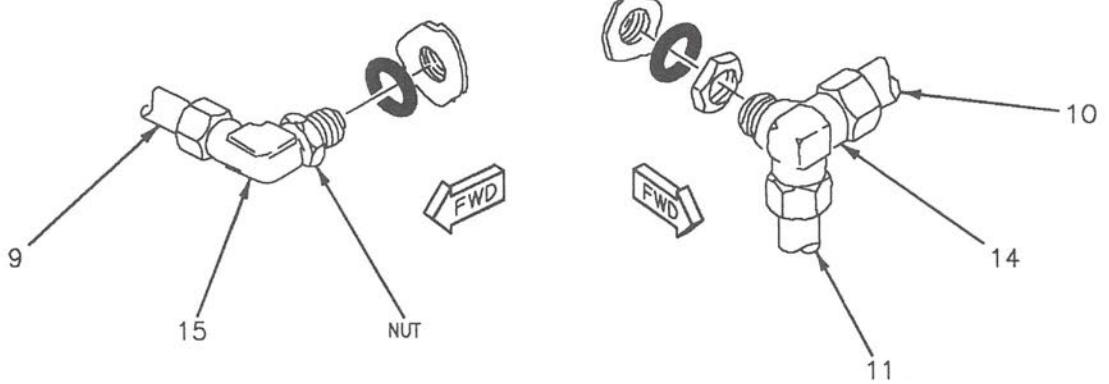
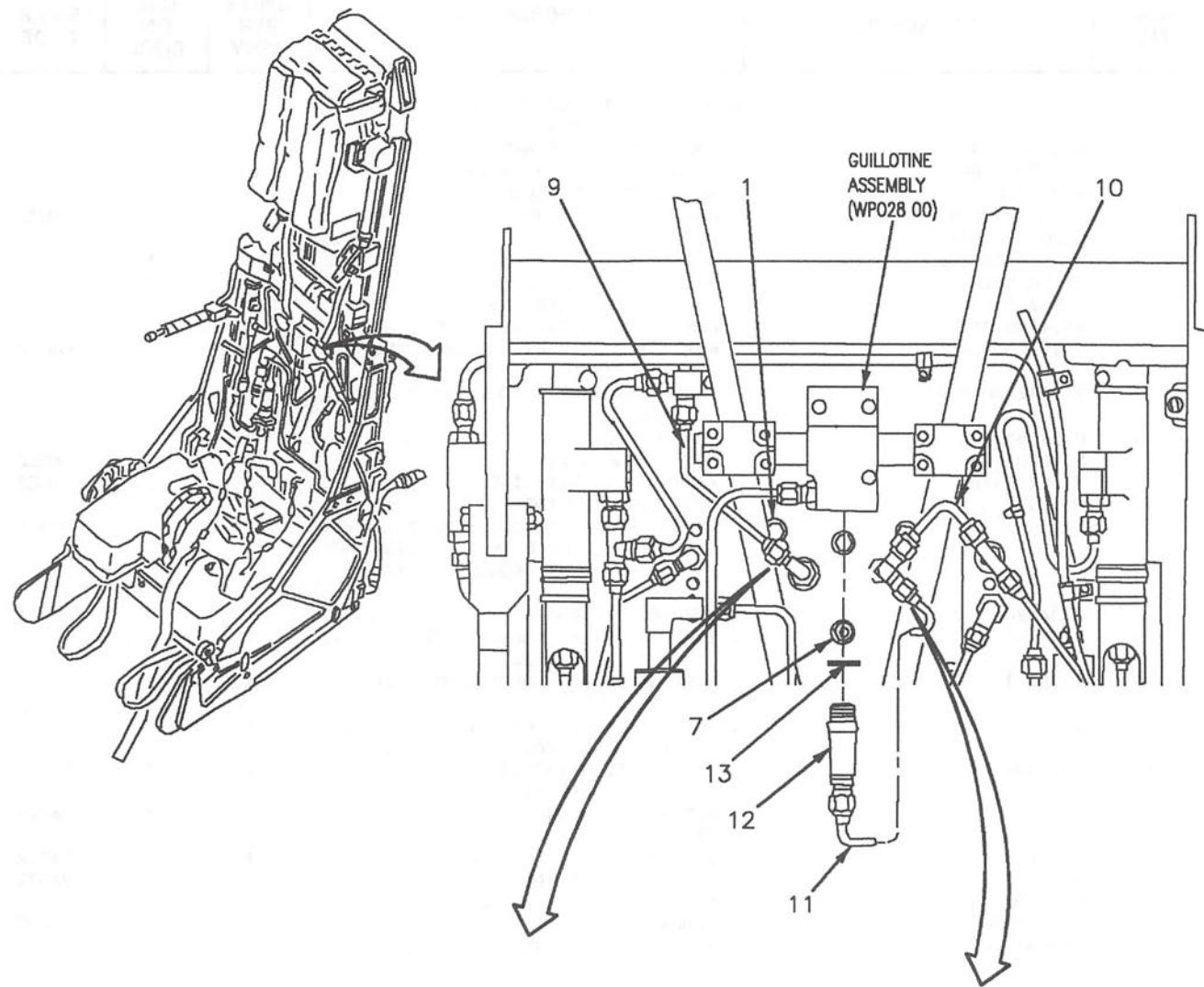


Figure 1. WORD Motor/ Drogue Release Assembly (MG67) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
		WORD MOTOR/DROGUE RELEASE ASSEMBLY (MG67)			
1	NAS6204-25 NAS620C416L MS21042L4	. BOLT (HEADS FORWARD) WASHER (USE WITH INDEX 1) NUT (USE WITH INDEX 1)	5 10 5		-
2	MS20392-2C21	. PIN (HEADS OUTBOARD)	2		PAOZZ
3	MS20392-5C51 NAS1149D0616K AN960KD616L NAS42HT12-66 MS24665-283	. PIN WASHER (USE WITH INDEX 3) SEE ABOVE SPACER (USE WITH INDEX 3) PIN, COTTER (USE WITH INDEX 3)	1 1 1 1 1	*	-
4	472V400D126-3	. WORD RELEASE - WITHDRAWAL LINE (24632)	2		PAOZZ
5	779P420D075-1	. STRAP ASSEMBLY - WORD MOTOR (24632)	1		-
6	MS24665-134	. PIN, COTTER	2		-
7	NAS6204-25 NAS620C416L MS21042L4	. BOLT (HEAD AFT) WASHER (USE WITH INDEX 7) NUT (USE WITH INDEX 7)	1 2 1		PAOZZ PAOZZ
8	12240-5	. ROCKET MOTOR -WORD,ASSEMBLY MARK113 MOD O (MG67) (24632) (WORD MOTOR/DROGUE RELEASE ASSEMBLY)	1	*	PCOZA
9	673AS200 14283-1	. SEE ABOVE (30003) TUBE ASSEMBLY, MANIFOLD TO FITTING (24632)	1 1	*	PCOZA
10	12291-1	. TUBE ASSEMBLY - DROGUE RELEASE TO TROMBONE	1		-
11	12289-1	. TUBE ASSEMBLY - GUILLOTINE TO TO DROGUE RELEASE (24632)	1		-
12	K-1120-4-4 1C1196	. VALVE, CHECK (83533) (UPCO SPEC 12361-1) . SEE ABOVE (99240)	1 1	*	PAOZZ
13	MS9068-011	. PACKING	1		PAOZZ
14	12236-11 AN924-3J	. TEE (24632)	1		PAOZZ
	MS9068-011	. NUT (USE WITH INDEX 14)	1		PAOZZ
15	MS51527B3S MS9068-011	. PACKING (USE WITH INDEX 14)	1		-
		. ELBOW	1		PAOZZ
		. PACKING (USE WITH INDEX 15)	1		-

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. WORD Motor/ Drogue Release Assembly (MG67) (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****SEAT BACK ROCKET MOTORS (MF21)****AIRCRAFT EJECTION SEAT****Reference Material**

Aircrew Escape Propulsion System (AEPS) Devices	NAVAIR 11-85-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Divergence Rocket Motors (MT28).....	WP033 00

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Record of Applicable Technical Directives

None

Support Equipment Required		Materials Required	
Part Number or Type Designation	Nomenclature	Specification or Part Number	Nomenclature
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter	EC1252 (CAGE 04963) MIL-S-8660 (CAGE 81349)	Sealing Compound Silicone Compound

Materials Required (Continued)**Specification
or Part Number****Nomenclature**

MS9068-012
TT-P-1757
COMP L COLOR T
(CAGE 81348)

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. On election seat SJU-4/A, do substeps below:

WARNING

To prevent death or injury to personnel, care must be taken when handling seat back rocket motor (MF21). Rocket motor contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop seat back rocket motor (MF21). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.

(1) If removing left rocket motor (5), disconnect tube assemblies (9 and 10) from elbows (4).

(2) If removing right rocket motor (5), disconnect tube assemblies (7 and 8) from elbows (4).

(3) Remove bolts (1) and washers.

(4) While supporting rocket motor (5), remove bolts (6) and washers.

(5) Carefully remove rocket motor (5).

(6) If rocket motor (5) is to be replaced, loosen nuts (3) and remove elbows (4).

(7) Store or dispose of rocket motor (5) in accordance with NAVAIR 11-85-1.

c. On ejection seat SJU-13/A, do substeps below:

(1) If removing left rocket motor (5), remove divergence rocket motor (MT28) (WP033 00).

(2) If removing left rocket motor (5), disconnect tube assemblies (9 and 10) from tees (12).

(3) If removing right rocket motor (5), disconnect tube assemblies (7 and 8) from elbows (4).

(4) Remove bolts (11) and washers.

(5) While supporting rocket motor (5), remove bolts (13) and washers.

(6) Carefully remove rocket motor (5).

(7) If left rocket motor (5) is to be replaced, loosen nuts (3) and remove tees (12).

(8) If right rocket motor (5) is to be replaced, loosen nuts (3) and remove elbows (4).

(9) Store or dispose of rocket motor (5) in accordance with NAVAIR 1-85-1.

d. On ejection seat SJU-14/A, do substeps below:

(1) If removing right rocket motor (5), remove divergence rocket motors (MT28) (WP033 00).

(2) If removing right rocket motor (5), disconnect tube assemblies (7 and 8) from tees (12).

(3) If removing left rocket motor (5), disconnect tube assemblies (9 and 10) from elbows (4).

(4) Remove bolts (11) and washers.

(5) While supporting rocket motor (5), remove bolts (13) and washers.

(6) Carefully remove rocket motor (5).

(7) If left rocket motor (5) is to be replaced, loosen nuts (3) and remove elbows (4).

(8) If right rocket motor (5) is to be replaced, loosen nuts (3) and remove tee's (12).

(9) Store or dispose of rocket motor (5) in accordance with NAVAIR 11-85-1.

2. INSTALLATION.

WARNING

To prevent death or injury to personnel, care must be taken when handling seat back rocket motor (MF21). Rocket motor contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop seat back rocket motor (MF21). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.

a. If rocket motor (5, figure 1) is being replaced, do substeps below:

NOTE

Seat back rocket motor (MF21) is a scheduled removal component. Rocket motor must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

(1) Using indelible ink, mark rocket motor (5) with container open date, installation date and expiration date (NAVAIR 11-85-1).

(2) Make log book entry for rocket motor (5) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

b. On ejection seat SJU-4/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(1) Lubricate new packings (2) with silicone compound.

(2) Position packings (2) on elbows (4) and install elbows until packings are seated. Do not tighten nuts (3).

(3) Loosen mounting bracket screws.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(4) Coat bolts (1 and 6) with coating primer.

(5) Position rocket motor (5) on ejection seat.

(6) Loosely install bolts (6) and washers.

(7) Rotate rocket motor mounting bracket to align with mounting holes in upper lateral beam.

(8) Loosely install bolts (1) and washers.

(9) Torque mounting bracket screws 75 to 125 inch-pounds. (QA)

(10) Tighten bolts (1 and 6).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (11) If installing left rocket motor (5), connect tube assemblies (9 and 10) to elbows (4). Torque tube assemblies 95 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

- (12) If installing right rocket motor (5), connect tube assemblies (7 and 8) to elbows (4). Torque tube assemblies 95 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

- (13) Tighten nuts (3) against boss of rocket motor (5). (QA)

- c. On ejection seat SJU-13/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- (1) Lubricate new packings (2) with silicone compound.

- (2) If installing left rocket motor (5), position packings (2) on tees (12) and install tee's until packings are seated. Do not tighten nuts (3).

- (3) If installing right rocket motor (5), position packings (2) on elbows (4) and install elbows until packings are seated. Do not tighten nuts (3).

- (4) Loosen mounting bracket screws.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (5) Coat bolts (11 and 13) with coating primer.

- (6) Position rocket motor (5) on ejection seat.

- (7) Loosely install bolts (13) and washers.

- (8) Rotate rocket motor mounting bracket to align with holes in murphy plate.

- (9) Loosely install bolts (11) and washers.

- (10) Torque mounting bracket screws 75 to 125 inch-pounds. (QA)

- (11) Tighten bolts (11 and 13).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (12) If installing left rocket motor (5), connect tube assemblies (9 and 10) to tees (12). Torque tube assemblies 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

WARNING

- (13) If installing right rocket motor (5), connect tube assemblies (7 and 8) to elbows (4). Torque tube assemblies 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

(14) If installing left rocket motor (5), install divergence rocket motors (MT28) (WP033 00).

(15) Tighten nuts (3) against boss of rocket motor (5). (QA)

d. On ejection seat SJU-14/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(1) Lubricate new packings (2) with silicone compound.

(2) If installing left rocket motor (5), position packings (2) on elbows (4) and install elbows until packings are seated. Do not tighten nuts (3).

(3) If installing right rocket motor (5), position packings (2) on tees (12) and install tees until packings are seated. Do not tighten nuts (3).

(4) Loosen mounting bracket screws.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(5) Coat bolts (11 and 13) with coating primer.

(6) Position rocket motor (5) on ejection seat.

(7) Loosely install bolts (13) and washers.

(8) Rotate rocket motor mounting bracket to align with holes in murphy plate.

(9) Loosely install bolts (11) and washers.

(10) Torque mounting bracket screws 75 to 125 inch-pounds. (QA)

(11) Tighten bolts (11 and 13).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(12) If installing left rocket motor (5), connect tube assemblies (9 and 10) to elbows (4). Torque tube assemblies 95 to 125 inch-pounds. Using sealing compound, apply tamper dots. (QA)

WARNING

(13) If installing right rocket motor (5), connect tube assemblies (7 and 8) to tee's (12). Torque tube assemblies 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

(14) If installing right rocket motor (5), install divergence rocket motors (MT28) (WP033 00).

(15) Tighten nuts (3) against boss of rocket motor (5). (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

e. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

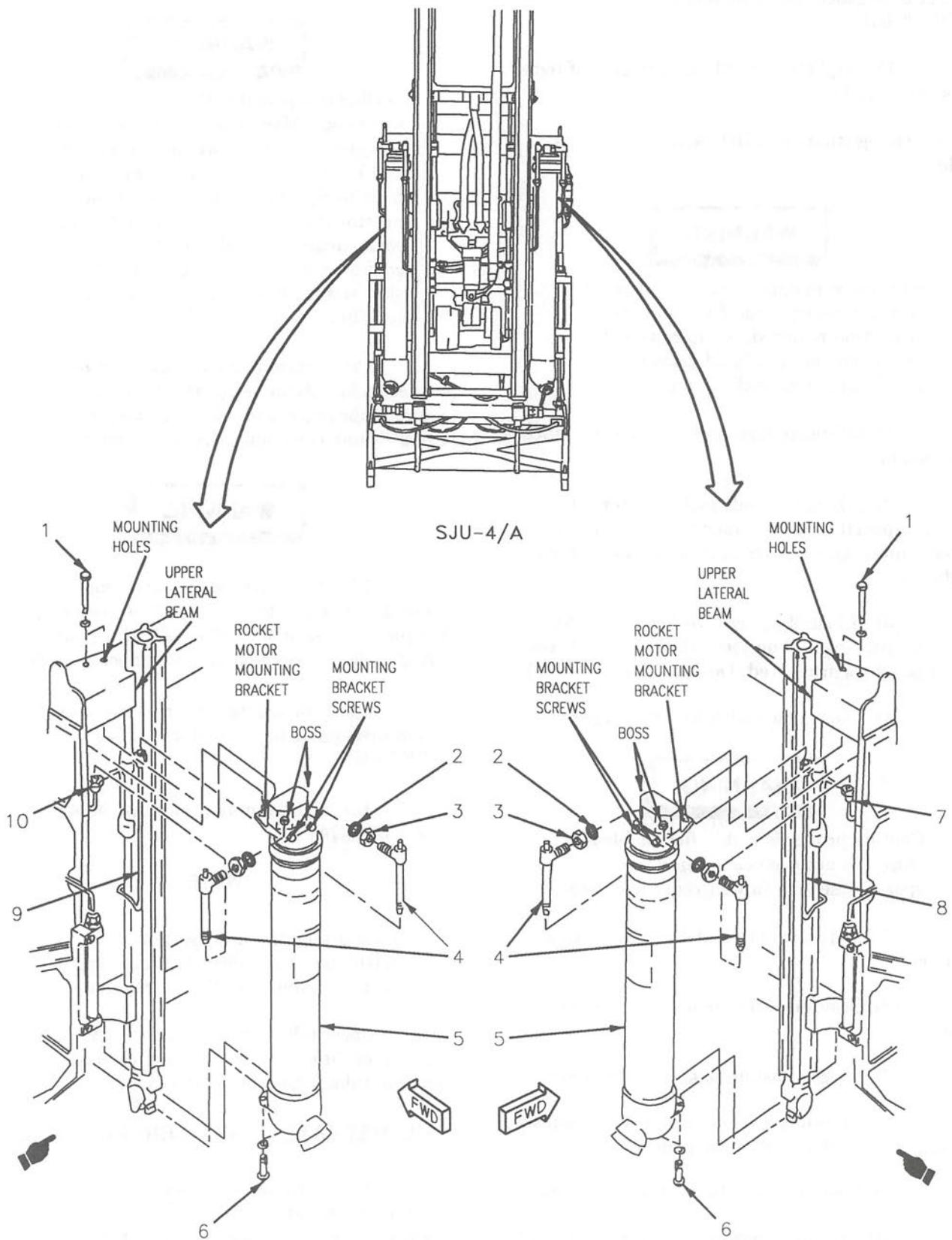


Figure 1. Seat Back Rocket Motors (MF21) (Sheet 1)

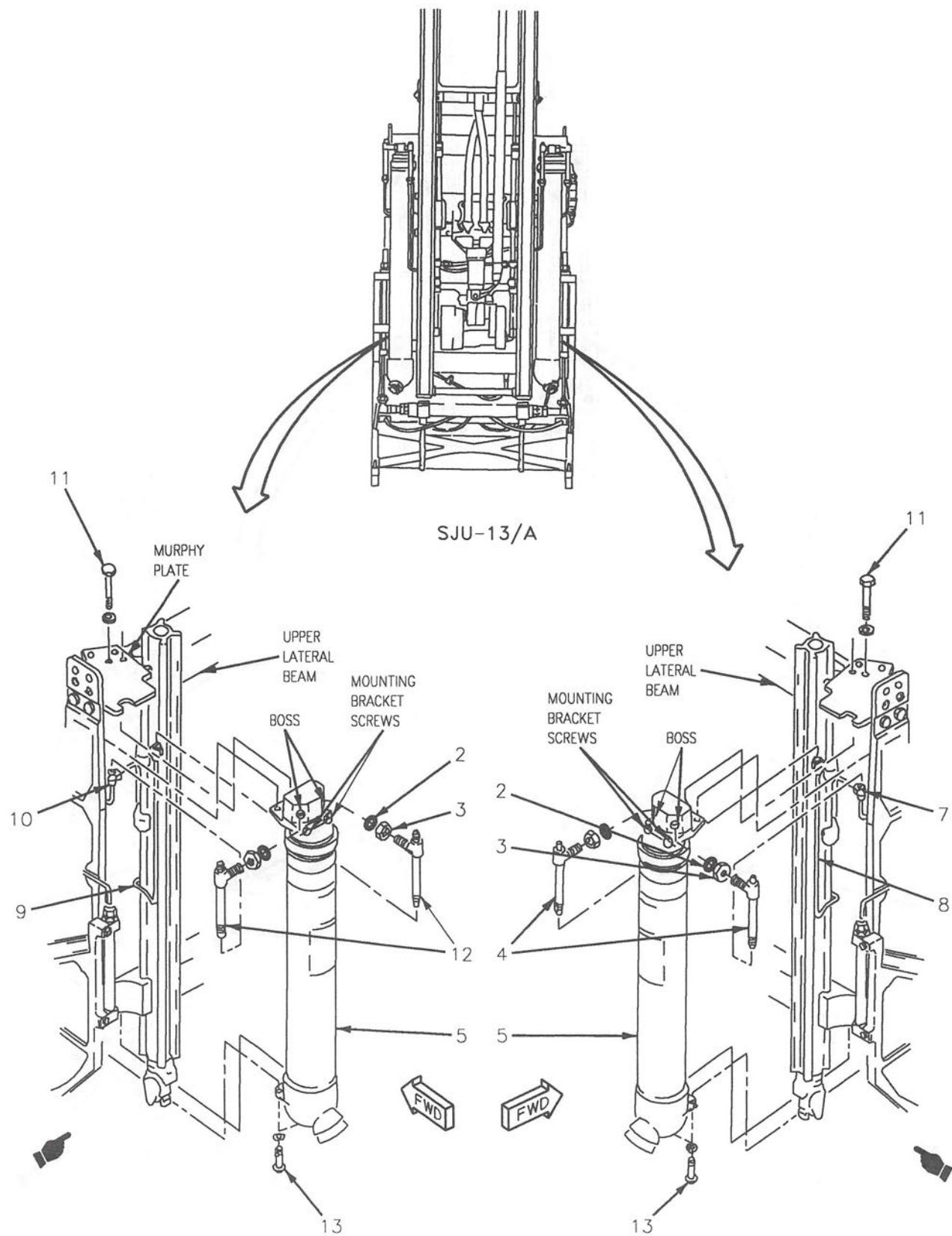


Figure 1. Seat Back Rocket Motors (MF21) (Sheet 2)

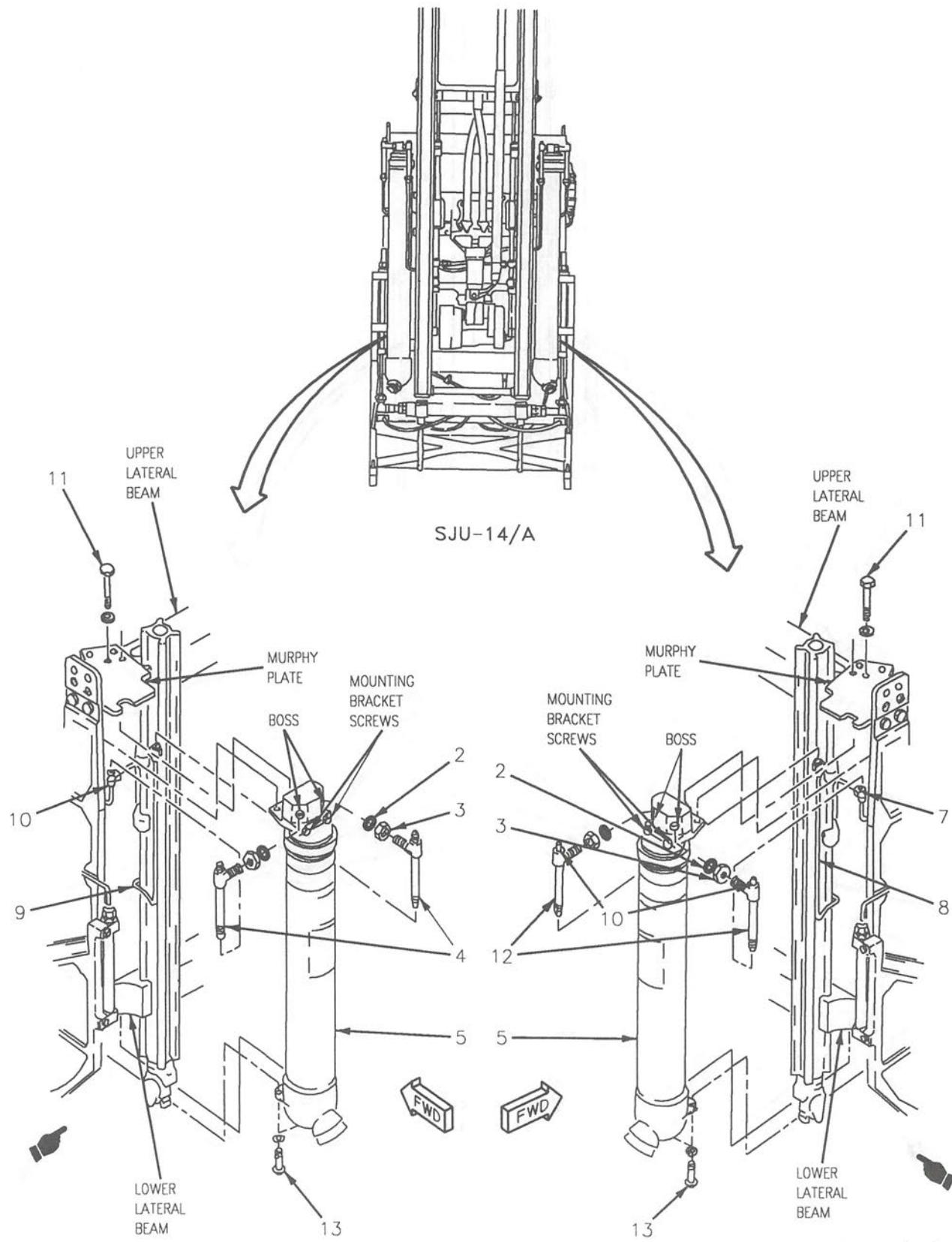


Figure 1. Seat Back Rocket Motors (MF21) (Sheet 3)

AV8BB-120-35-(37-3)10-SCAN

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
		SEAT BACK ROCKET MOTORS			
		(MF21)			
1	NAS6203-36 NAS1149D0332K AN960KD10L	. BOLT WASHER (USE WITH INDEX 1) SEE ABOVE	2 2 2	A A* A*	- PAOZZ PAOZZ
2	MS9068-012	. PACKING	2	-	
3	AN924-4J	. NUT	2		PAOZZ
4	12301-11	. ELBOW - TUBE (24632)	2	-	
		(BOTH SIDES ON SJU-4/A, RIGHT SIDE ON SJU-13/A, LEFT SIDE ON SJU-14/A)			
5	672AS200	. ROCKET MOTOR, MARK 79 MOD 1	1		PCOZA
		(MF21) (30003) (SEATBACK ROCKET MOTOR) (SAEC SPEC 472V495D001-7)			
6	NAS6203-2 NAS1149D0332K AN960KD10L	. BOLT WASHER (USE WITH INDEX 6) SEE ABOVE	2 2 2	A A* A*	PAOZZ PAOZZ PAOZZ
7	12381-2	. TUBE ASSEMBLY - METAL (24632)	1	-	
8	12295-1	. TUBE ASSEMBLY - METAL (24632)	1	-	
9	12297-1	. TUBE ASSEMBLY - METAL (24632)	1	-	
10	12381-1	. TUBE ASSEMBLY - METAL (24632)	1	-	
11	NAS653V40 NAS1149D0363K AN960KD10	. BOLT WASHER (USE WITH INDEX 11)	2 2	B B*	PAOZZ PAOZZ
12	14697-11	. SEE ABOVE	2	B*	PAOZZ
		. TEE (51998) (LEFT SIDE ON SJU-13/A, RIGHT SIDE ON SJU-14/A)			
13	NAS6203-6 NAS1149D0332K AN960KD10L	. BOLT WASHER (USE WITH INDEX 13)	2 2	B B*	PAOZZ PAOZZ
		. SEE ABOVE	2	B*	PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

CODE	USABLE ON	MODEL
A	P/N 14020-7 P/N 14020-9 P/N 14020-11	SJU-4/A
B	P/N 14620-1 P/N 14620-3	SJU-13/A SJU-14/A

Figure 1. Seat Back Rocket Motors (MF21) (Sheet 4)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****INITIATION SUBSYSTEM COVER ASSEMBLY****SEAT RELEASE SHAFT****INITIATION SUBSYSTEM ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly.....	WP004 00
Seat/Man Separation Initiator (M688).....	WP006 00
Ejection Initiators (M688)	WP007 00
Emergency Release Handle Link Assembly, Emergency Release Handle Assembly	WP019 00
Safe/Arm Control Handle Link, Safe/Arm Control Handle Assembly.....	WP020 00

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Record of Applicable Technical Directives

None

1. INITIATION SUBSYSTEM COVER ASSEMBLY.**2. REMOVAL.****Support Equipment Required**

None

Materials Required

None

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove survival kit assembly (WP004 00).
- c. Unlock stud assemblies (2, figure 1).
- d. Remove cover assembly (1).

3. INSTALLATION.

- a. Position cover assembly (1, figure 1) on ejection seat.
- b. Lock stud assemblies (2).
- c. Install survival kit assembly (WP004 00).

4. SEAT RELEASE SHAFT.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating
MS24665-5	Cotter Pin
MS24665-132	Cotter Pin

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove ejection initiators (M688) (WP007 00).
- c. Remove seat/man separation initiator (M688) (WP006 00).

- d. Remove bolt (5, figure 2) and washer. Disconnect bellcrank from shaft (1).
- e. Remove upper screws (3) and washers from retainer assemblies (2).
- f. Loosen lower screws (3) and rotate retainer assemblies (2) forward.
- g. Remove seat release lanyards from bellcranks (4).

NOTE

Seat release shaft may be rotated as required to remove pins, washers, screws, and cotter pins.

- h. Remove screw (6), washer and pin.
- i. Remove screw (11), washer and pin.
- j. Remove pin (8), washer, and cotter pin.
- k. Remove pin (9), washer, and cotter pin.

NOTE

With safe/arm control handle assembly in the safe (full up) position, connect/disconnect assembly lower seal will fall out of connect/disconnect assembly when seat release shaft is removed.

- l. Set safe/arm control handle assembly to the armed (full down) position.
- m. Remove shaft (1) through right seat panel. Remove washers (7 and 10).

6. INSTALLATION.

- a. Insert shaft (1, figure 2) by doing substeps below:
 - (1) Align washer (10) with shaft (1).
 - (2) Insert shaft (1) into washer (10) and right seat panel with locking flats facing up.

- (3) Position right bellcrank (4) on shaft (1) with shoulder facing inboard.

WARNING

Make sure lower sear bellcrank and lower sear of connect/disconnect assembly are installed correctly or system will not operate.

- (4) Position lower sear bellcrank on shaft (1). Make sure shoulder faces inboard and lower sear is positioned correctly in connect/disconnect assembly.

- (5) Position initiation subsystem assembly bellcrank on shaft (1).

- (6) Position left bellcrank (4) on shaft (1). Make sure shoulder faces inboard.

- (7) Align washer (7) and insert shaft (1) through washer and into seat structure.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Coat screws (6 and 11) with coating primer.

NOTE

Bellcranks lock in full up position. Plunger spring must be pressed to position bellcranks to down position.

Seat release shaft may be rotated as required to install pins, washers, screws, and cotter pins in bellcranks. After installation of bellcranks, locking flats must face up.

- c. Align holes in bellcranks (4) with holes in shaft (1).

- d. Install screws (6 and 11), washers, and pins.

- e. Make sure locking flats are facing up.

- f. Align hole in initiation subsystem assembly bellcrank with hole in shaft (1).

WARNING

To prevent death or injury to aircrew member, correct pin must be installed in initiation subsystem assembly bellcrank.

NOTE

Correct pin is painted yellow.

- g. Install pin (8), washer, and cotter pin in initiation subsystem bellcrank and shaft (1).

- h. Set safe/arm control handle assembly to the safe (full up) position.

- i. Make sure lower sear is correctly positioned in connect/disconnect assembly.

- j. Align hole in lower sear bellcrank with hole in shaft (1).

- k. Install pin (9), washer, and cotter pin through lower sear bellcrank and shaft (1).

WARNING

To prevent death or injury to aircrew member, tabs on seat release lanyard bellcranks must be positioned below shear pins on lanyard retainer assemblies.

- l. Position seat release lanyards on bellcranks (4).

- m. Rotate retainer assemblies (2) into position.

- n. Make sure tabs of bellcranks (4) are below shear pins.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

o. Coat upper screws (3) with coating primer.

p. Install upper screws (3) and washers.

q. Tighten lower screws (3).

WARNING

r. Coat bolt (5) with coating primer.

s. Install bellcrank in keyway on shaft (1) with bellcrank facing up.

WARNING

Sealing Compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

t. Install bolt (5) and washer. Torque bolts 85 to 95 inch-pounds. Using sealing compound, apply tamper dot. (QA)

u. Do emergency release handle test (WP019 00).

v. Do safe/arm control handle assembly test (WP020 00).

w. Install ejection initiators (M688) (WP007 00).

x. Install seat/man separation initiator (M688) (WP006 00).

7. INITIATION SUBSYSTEM ASSEMBLY.**8. REMOVAL AND INSTALLATION.****Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin
MS24665-69	Cotter Pin (2)
TT-P-1757, Comp L Color T (CAGE 81348)	Primer, Coating

9. Removal.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove seat release shaft, this WP.

c. Remove bolts (1, figure 3) and washers from mounting bracket.

d. Slide mounting bracket toward connect/disconnect assembly.

e. Remove pin (2), washer, and cotter pin.

f. Remove screws (5) and washers.

g. Move initiation subsystem assembly rotors to access screws (4).

h. Remove screws (4).

i. Remove pins (3), washers, and cotter pins.

j. Remove initiation subsystem assembly (6) from ejection seat.

10. Installation.

- a. Connect ejection control cable assembly terminal ends to initiation subsystem rotors with pins (3, figure 3), washers, and cotter pins.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Coat screws (4 and 5) with coating primer.
- c. Position initiation subsystem assembly (6) on ejection seat.
- d. Install screws (4).
- e. Install screws (5) and washers.
- f. Align link and bellcrank.
- g. Install pin (2) (head toward mounting bracket), washer and cotter pin.

WARNING

- h. Coat bolts (1) with coating primer.
- i. Position mounting bracket and install bolts (1) and washers.
- j. Install seat release shaft, this WP.
- k. Do initiation subsystem assembly test, this WP.

11. REPAIR.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin (2)
MS24665-69	Cotter Pin (2)
MS24665-13	Cotter Pin

12. Procedure.

- a. Remove initiation subsystem assembly, this WP.

- b. Repair initiation subsystem assembly by replacement of any of the items listed below:

- (1) Initiation subsystem assembly rotor (p/n 12143-15).
- (2) Initiation subsystem link (p/n 12142-11 or 12328-11).
- (3) Interim stop t-bar plunger (p/n 12327-11).
- (4) Initiation subsystem base (p/n 12325-3).
- (5) T-bar bellcrank (p/n 12148-19).
- (6) Initiation subsystem spring retainer (p/n 12498-15).
- (7) Initiation subsystem safety plunger (p/n 12326-15).

- c. Do initiation subsystem assembly test, this WP.

13. TEST.

14. The initiation subsystem assembly is tested per table 1.

Table 1. Initiation Subsystem Assembly Test

Procedure	Normal Indication	Remedy for Abnormal Indication
Support Equipment Required		
Part Number or Type Designation		Nomenclature
NOTE		
Alternate item type designations or part numbers are listed in parenthesis.		
DPPH-100	Spring Resilience Tester	
472P950C090-3 (1723AS103)	Initiation Pull Test Tool	
Materials Required		
None		
WARNING		
To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.		
a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB- GAI-500, WP004 00).		
b. If installed, remove seat/man separation initiator (M688) (WP006 00).		
c. If installed, remove ejection initiators (M688) (WP007 00).		
d. Position initiation pull test tools in ejection initiator brackets. Install plate with screws (fig 4).		
e. Position initiation subsystem assembly links on initiation pull test tools. Install pins. Do not install washers and cotter pins.		

Table 1. Initiation Subsystem Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>f. Position initiation pull test tool in seat/man separation initiator bracket. Install plate with screws.</p> <p>g. Position upper sear and install pin. Do not install washer and cotter pin.</p> <p>h. Remove maintenance safety streamer.</p> <p>i. Make sure initiation pull test tools are not preloaded.</p> <p>j. Attach spring resiliency tester to ejection control cable assembly (detail A).</p> <p>k. With safe/arm control handle assembly in the safe (full up) position, pull up on ejection control cable assembly. Record force required to remove ejection control cable assembly from front panel. (QA)</p> <p>l. Set safe/arm control handle assembly to armed (full down) position.</p> <p>m. Pull up on ejection control cable. Record force required to extend initiation pull test tools. (QA)</p>	<p>Required force shall be 15 to 25 pounds.</p> <p>1. Required force shall be 15 to 40 pounds.</p> <p>2. Initiation subsystem assembly rotors rotate past initiation subsystem safety plunger.</p>	<p>Do ejection control cable assembly adjustment (WP021 00).</p> <p>1. Make sure emergency release handle is full down.</p> <p>2. Inspect ejection control cable assembly for binding. If cable is binding replace ejection control cable assembly (WP021 00).</p> <p>Do emergency release handle functional test (WP019 00).</p>

Table 1. Initiation Subsystem Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>n. Stow ejection control handle assembly. Return initiation subsystem assembly rotors to armed position.</p> <p>o. Set emergency release handle assembly to full up position.</p> <p>p. Set emergency release handle assembly to the full down position.</p> <p>q. Set safe/arm control handle assembly to safe (full up) position.</p> <p>r. Remove plate and screws. Remove initiation pull test tool from seat/man separation initiator bracket.</p> <p>s. Remove plates and screws. Remove initiation pull test tools from ejection initiator brackets.</p> <p>t. Install seat/man separation initiator (M688) (WP006 00).</p> <p>u. Install ejection initiators (M688) (WP007 00).</p>	<p>Stop plunger is in the full up position, blocking initiation subsystem assembly rotors.</p>	<p>1. Inspect rotors and stop plunger for binding. If binding occurs, replace initiation subsystem assembly, this WP.</p> <p>2. Do emergency release handle assembly test (WP019 00).</p>

15. ILLUSTRATED PARTS BREAKDOWN.

16. This illustrated parts breakdown contains information for identifying and ordering parts. The

manual introduction has more information on IPB data.

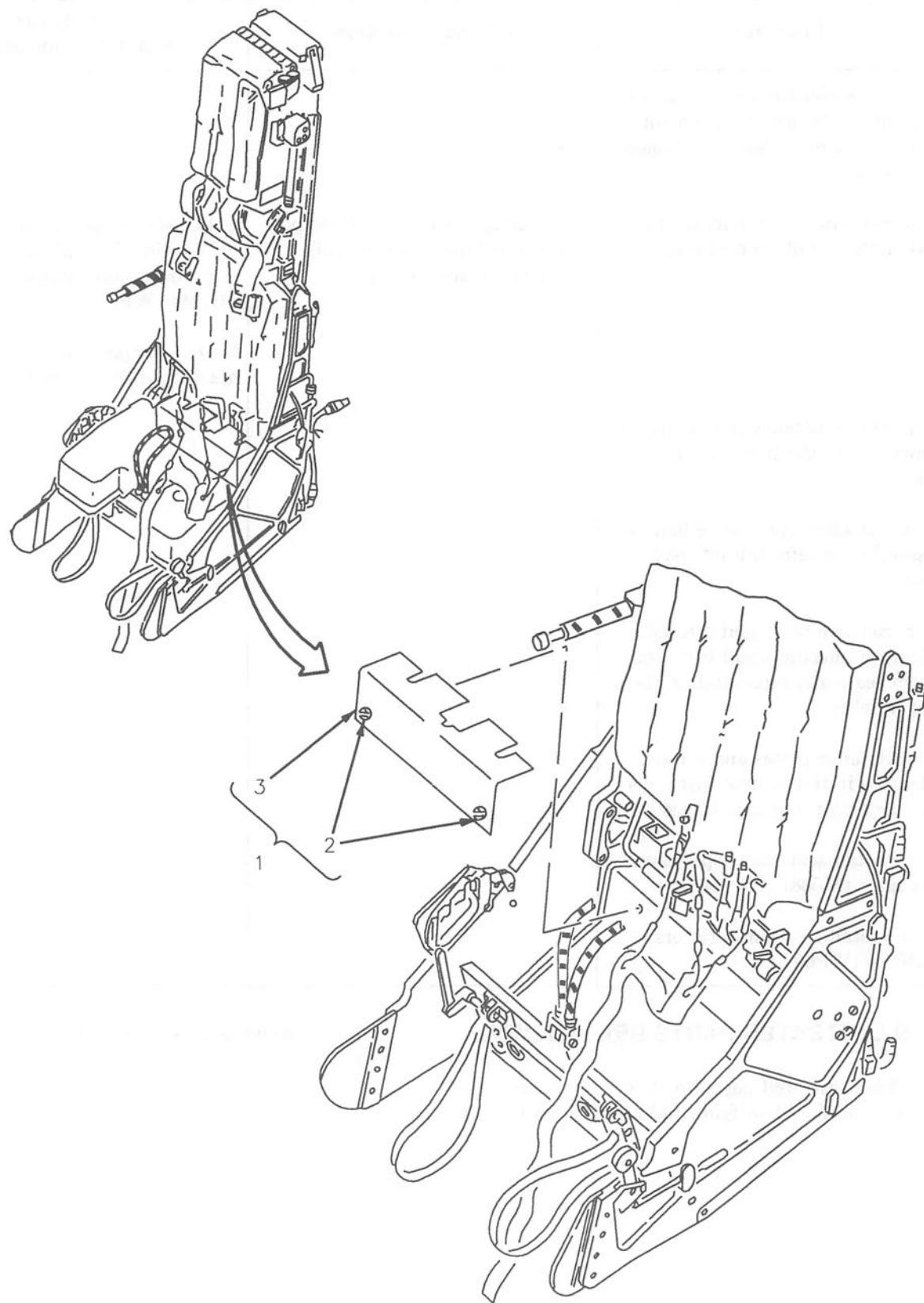


Figure 1. Initiation Subsystem Cover Assembly (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE	
1	12314-1	INITIATION SUBSYSTEM COVER	ASSEMBLY		ADOOO	
2	2600-2 +	. COVER ASSEMBLY - INITIATION		1	PAOZZ	
3	12314-11 +	. STUD ASSEMBLY (71286) (SAEC		1	PAOZZ	
		. COVER (51998)				

+ INDICATES COMPONENT PART OF
INITIATION SUBSYSTEM COVER
ASSEMBLY.

Figure 1. Initiation Subsystem Cover Assembly (Sheet 2)

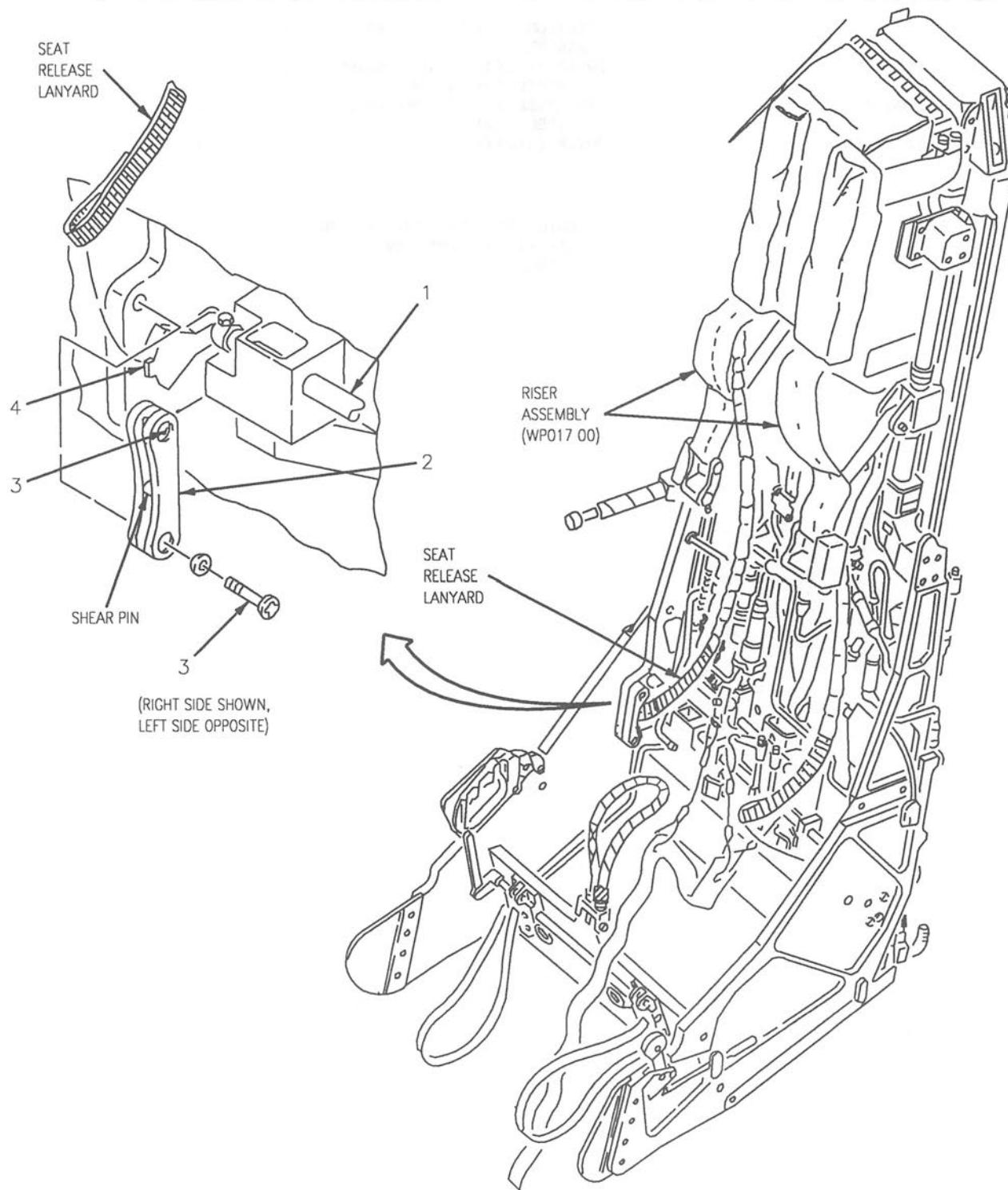


Figure 2. Seat Release Shaft (Sheet 1)

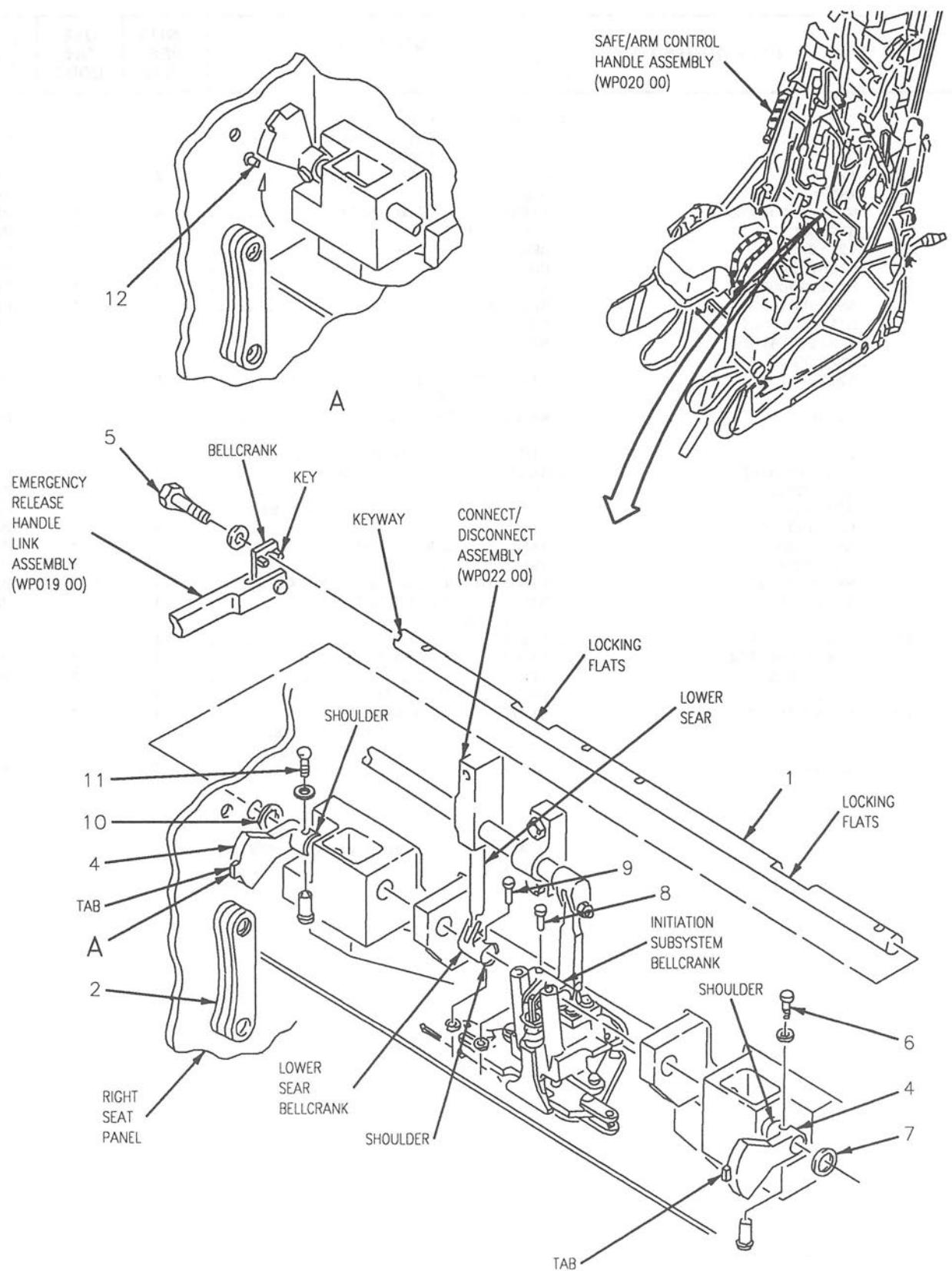


Figure 2. Seat Release Shaft (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	12127-21	SEAT RELEASE SHAFT SHAFT, STRAIGHT (51998) (SEAT RELEASE SHAFT)	1		PAOZZ
2	12185-1	. RETAINER ASSEMBLY (51998)	2		PAOZZ
3	MS27039-1-14 NAS1149D0332K AN960KD10L	. SCREW WASHER (USE WITH INDEX 3) SEE ABOVE	4 4 4	* *	PAOZZ
4	12119-11	. BELLCRANK (51998)	2		PAOZZ
5	NAS6203L5 NAS1149D0332K AN960KD10L	. BOLT WASHER (USE WITH INDEX 5) SEE ABOVE	1 4 1	*	PAOZZ
6	NAS1190-06P4 NAS1149N416K AN960KD4L 12322-11	. SCREW WASHER (USE WITH INDEX 6) SEE ABOVE PIN - STRAIGHT (51998) (USE WITH INDEX 6)	1 1 1 1	*	PAOZZ
7	12226-11	. WASHER - SEAT RELEASE SHAFT (51998)	1		PAOZZ
8	12459-11 NAS1149N316K AN960KD3L MS24665-5	. PIN, STRAIGHT (51998) WASHER (USE WITH INDEX 8) SEE ABOVE	1 1 1	*	PAOZZ
9	MS20392-2C21 NAS1149D0332K AN960KD10L MS24665-132	. PIN, COTTER (USE WITH INDEX 8) PIN WASHER (USE WITH INDEX 9) SEE ABOVE	1 1 1 1	*	PAOZZ
10	12226-11	. PIN, COTTER (USE WITH INDEX 9) WASHER - SEAT RELEASE SHAFT (51998)	1		PAOZZ
11	NAS1190-06P4 NAS1149DN416K AN960KD4L 12322-11	. SCREW WASHER (USE WITH INDEX 11) SEE ABOVE PIN - STRAIGHT (51998)	1 1 1 1	*	PAOZZ
12	M59N-019-03 12048-1	. SPRING PLUNGER ASSEMBLY - EMERGENCY RELEASE CONTROL (01226) (SAEC SPEC 12048-1) . SEE ABOVE (96027)	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 2. Seat Release Shaft (Sheet 3)

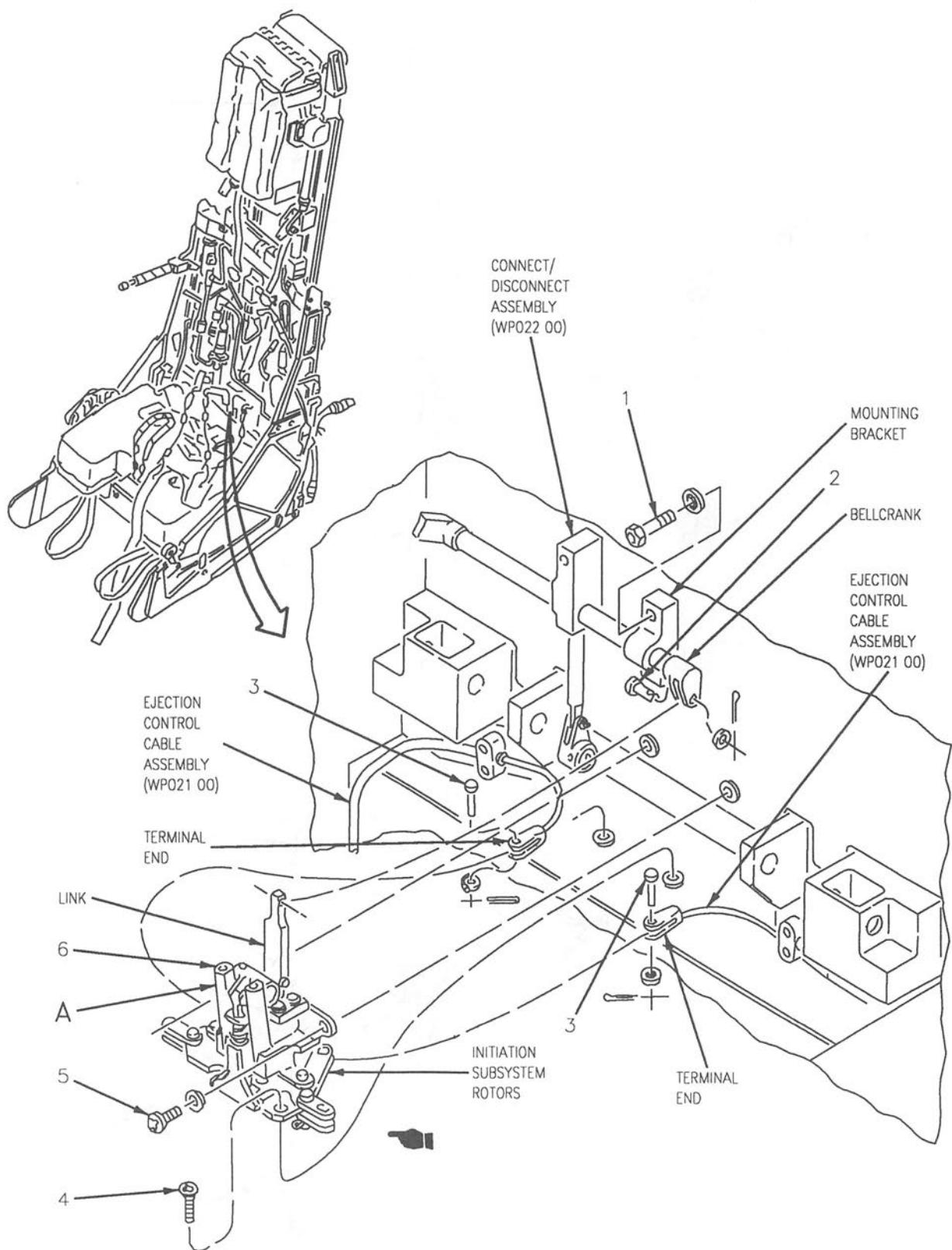
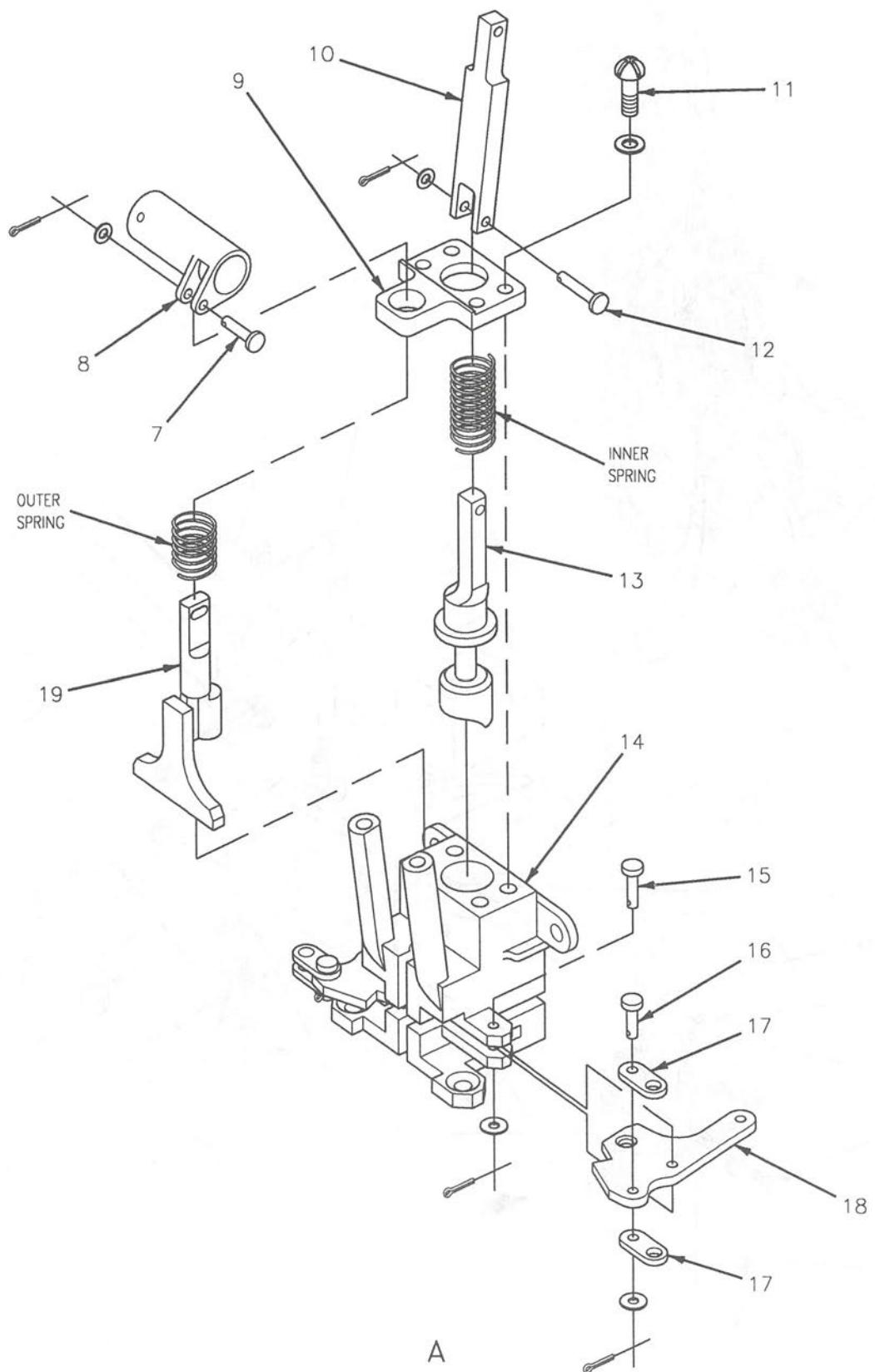


Figure 3. Initiation Subsystem Assembly (Sheet 1)



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Figure 3. Initiation Subsystem Assembly (Sheet 2)

AV8BB-120-35-(42-2)10-CATI

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	NAS6203L10	. BOLT	2	*	PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 1)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
2	MS20392-1C17	. PIN	1	*	PAOZZ
	NAS1149N416K	. WASHER (USE WITH INDEX 2)	1	*	PAOZZ
	AN960KD4L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 3)	1	*	PAOZZ
3	MS20392-1C11	. PIN	2	*	PAOZZ
	NAS620A5L	. WASHER (USE WITH INDEX 3)	2	*	PAOZZ
	MS24665-69	. PIN, COTTER (USE WITH INDEX 3)	2	*	PAOZZ
4	MS24694-S49	. SCREW	2	*	PAOZZ
5	MS35207-265	. SCREW	2	*	PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 5)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
6	12324-13	. INITIATION SUBSYSTEM ASSEMBLY	1	*	PAOOO
		(51998)			
7	MS20392-1C13 +	. PIN	1	*	PAOZZ
	NAS1149DN416K +	. WASHER (USE WITH INDEX 7)	1	*	PAOZZ
	AN960KD4L +	. SEE ABOVE	1	*	PAOZZ
	MS24665-69 +	. PIN, COTTER (USE WITH INDEX 7)	1	*	PAOZZ
8	12148-19 +	. BELLCRANK, T-BAR (51998)	1	*	PAOZZ
9	12498-15 +	. RETAINER, SPRING, INITIATION	1	*	PAOZZ
		SUBSYSTEM (51998)			
10	12328-11 +	. LINK, INITIATION SUBSYSTEM	1	*	PAOZZ
		(51998)			
11	MS35206-244 +	. SCREW	4	*	PAOZZ
	NAS620A8L +	. WASHER (USE WITH INDEX 11)	4	*	PAOZZ
12	MS20392-1C17 +	. PIN	1	*	PAOZZ
	NAS1149DN616K +	. WASHER (USE WITH INDEX 12)	1	*	PAOZZ
	AN960KD6L +	. SEE ABOVE	1	*	PAOZZ
	MS24665-13 +	. PIN, COTTER (USE WITH INDEX 12)	1	*	PAOZZ
13	12326-15 +	. PLUNGER, SAFETY, INITIATION	1	*	PAOZZ
		SUBSYSTEM (51998)			
14	12325-3 +	. BASE - INITIATION SUBSYSTEM	1	*	PAOZZ
		(51998)			
15	MS20392-1C15 +	. PIN	2	*	PAOZZ
	NAS1149DN616K +	. WASHER (USE WITH INDEX 15)	2	*	PAOZZ
	AN960KD6L +	. SEE ABOVE	2	*	PAOZZ
	MS24665-132 +	. PIN, COTTER (USE WITH INDEX 15)	2	*	PAOZZ
16	MS20392-1C11 +	. PIN	2	*	PAOZZ
	NAS1149DN616L +	. WASHER (USE WITH INDEX 16)	2	*	PAOZZ
	AN960KD6L +	. SEE ABOVE	2	*	PAOZZ
	MS24665-132 +	. PIN, COTTER (USE WITH INDEX 16)	2	*	PAOZZ
17	12142-11 +	. LINK, INITIATION SUBSYSTEM	2	*	PAOZZ
		(51998)			
18	12143-15 +	. ROTOR, INITIATION SUBSYSTEM	2	*	PAOZZ
		ASSEMBLY (51998)			
19	12327-11 +	. PLUNGER, T-BAR INTERIM STOP	1	*	PAOZZ
		(51998)			

+ INDICATES COMPONENT PART OF
INITIATION SUBSYSTEM ASSEMBLY.

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 3. Initiation Subsystem Assembly (Sheet 3)

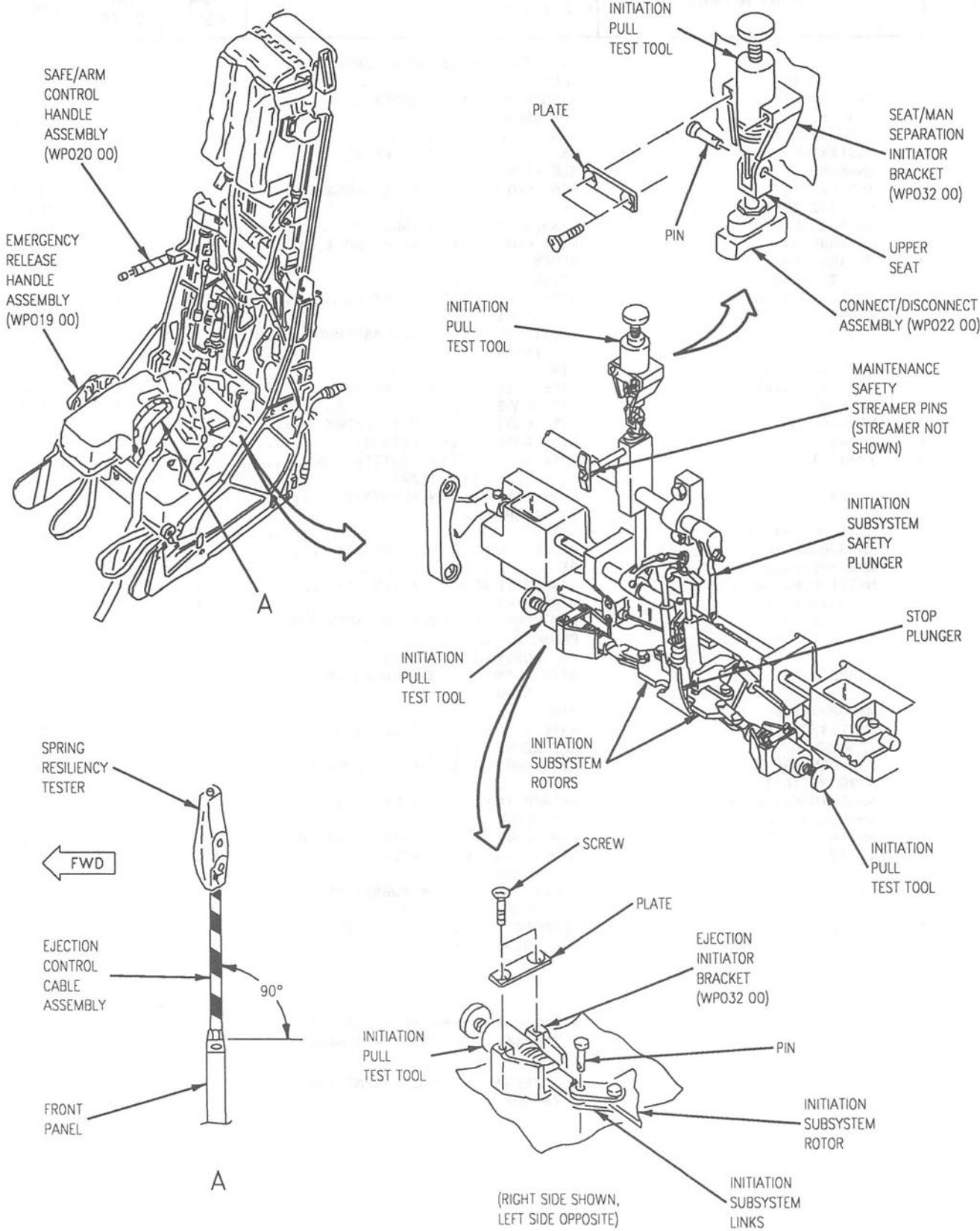


Figure 4. Initiation Subsystem Assembly Test

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****RISER STOWAGE POUCH ASSEMBLY****RISER ASSEMBLIES****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly.....	WP004 00
Back Cushion Assembly, Wedge Assembly.....	WP005 00
Periodic Maintenance Information Cards	A1-AV8BB-MRC-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP NO.	Date Incorp.	Remarks
AV8ACC-547	6 Sep 89	Protective Covers To Parachute Risers To Prevent Fraying. (RAMEC 27-88)	15 Jul 90	-
AV8ACC-574	-	Incorp of Common Risers & Riser Stowage Pouches Into SJU-4/A, SJU-13/A & SJU-14/A Ejection Seats. (51998 Universal)	15 Jan 96	-

1. RISER STOWAGE POUCH ASSEMBLY.**Support Equipment Required**

None

Materials Required

None

2. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. On ejection seat SJU-4/A 307 AND UP; ALSO SJU-4/A 25 THRU 306 AFTER AV8ACC-574, SJU-13/A OR SJU-14/A, remove pouch assembly (4, figure 1) flaps from sleeve assemblies on left and right riser assemblies (1).

c. Open flaps (3 and 7) on pouch assembly (4).

d. Unsnap left and right riser assemblies (1) from pouch assembly (4) and position risers clear of pouch.

e. Unsnap pouch assembly (4) and remove from headrest assembly.

3. INSTALLATION.

a. Position pouch assembly (4, figure 1) on headrest assembly and secure.

b. Install riser cover assemblies (8 and 12) on riser assemblies (1).

c. Stow riser cover assemblies (8 and 12) and riser assemblies (1) in pouch assembly (4) and tightly secure flaps (3 and 7) on pouch assembly.

d. On ejection seat SJU-4/A 307 AND UP; ALSO SJU-4/A 25 THRU 306 AFTER AV8ACC-574, SJU-13/A or SJU-14/A, stow pouch assembly (4) flaps into aft end of sleeve assemblies on left and right riser assemblies (1).

4. RISER ASSEMBLIES.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
---------------------------------	--------------

CH150	Torque Wrench
-------	---------------

Materials Required

Specification or Part Number	Nomenclature
-	Drill Rod (0.0625 Inch Diameter)
EC1252 (CAGE 04963)	Sealing Compound
F42NKE-054	Nylon Cap Hex Nut (2)
MS20995N51	Lockwire

Materials Required (Continued)

Specification or Part Number	Nomenclature
---	---------------------

TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating
---	-----------------

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, ejection seat safety devices must be correctly positioned and installed.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove survival kit assembly (WP004 00).
- c. Remove wedge assembly (WP005 00).
- d. Disconnect riser assembly (1, figure 1) inertia reel strap per substeps below:

CAUTION

To prevent damage to inertia reel assembly, inertia reel must not be allowed to rewind freely under its own spring tension.

- (1) Set inertia reel control assembly to UNLOCK.
- (2) Fully extend inertia reel straps.
- (3) Lock inertia reel by inserting two lengths of 0.0625 inch drill rod or lockwire into locking pin holes in inertia reel assembly.
- (4) Push inertia reel strap through inertia reel assembly spool.
- (5) Remove retainer from inertia reel strap loop. Save retainer for reinstallation.
- (6) Pull inertia reel strap through inertia reel assembly spool from forward side of seat.

e. Pull inertia reel strap through guillotine assembly and yoke.

f. Disconnect seat release lanyards (10) from riser assemblies (1) per substeps below:

(1) Remove upper screw (16) and washer from retainer assembly (14).

(2) Loosen lower screw (15) and rotate retainer assembly (14) forward.

(3) Remove seat release lanyard (10) from bellcrank (17).

g. On ejection seat SJU-4/A 307 AND UP; ALSO SJU-4/A 25 THRU 306 AFTER AV8ACC-574, SJU-13/A OR SJU-14/A, remove pouch assembly (4) flaps from sleeve assemblies on left and right riser assemblies (1).

h. Open flaps (3 and 7) on pouch assembly (4).

i. Unsnap riser assemblies (1) from pouch assembly (4).

j. Disconnect riser assemblies (1) from connector link assemblies by removing bolts (13) and nuts.

k. Remove sealing compound (tamper dots) from center of bolts (13) heads.

l. Remove sleeves from riser assembly (1) loops.

m. Unsnap retainer strap assembly (11) and remove riser assemblies (1) and riser cover assemblies (8 and 12).

6. INSTALLATION.

a. Prepare riser assemblies (1, figure 1) per substeps below:

(1) Route inertia reel strap through tape.

(2) On ejection seat SJU-4/A 307 AND UP; ALSO SJU-4/A 25 THRU 306 AFTER AV8ACC-574, SJU-13/A OR SJU-14/A 80 AND UP; ALSO SJU-13/A OR SJU-14/A 1 THRU 79 AFTER AV8ACC-574, tie seat release lanyards (10) to riser assemblies (1) using larks head knots.

(3) On ejection seat SJU-4/A 25 THRU 306 BEFORE AV8ACC-574, SJU-13/A OR SJU-14/A 1 THRU 79 BEFORE AV8ACC-574, route seat release lanyards (10) through grommets.

- b. Install sleeves in riser assembly (1) loops.
- c. Position short riser assembly (1) strap in forward connector link assembly and long riser assembly strap in aft connector link assembly.
- d. Deleted.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

NOTE

Bolts will rotate in connector link assemblies. To provide visual indication for inspection, tamper dots are applied to center of bolt heads after torquing.

- e. Secure riser assemblies (1) on connector links with bolts (13) and new nuts. Torque nuts 70 to 90 inch-pounds. Using sealing compound, apply tamper dots to center of bolt heads. (QA)

- f. Install inertia reel straps per substeps below:

WARNING

To prevent death or injury to aircrew member, make sure inertia reel strap is not twisted or routed behind tubing and is free of obstructions.

(1) Route inertia reel strap through yoke.

(2) Route inertia reel strap through guillotine assembly.

(3) Route inertia reel strap through inertia reel assembly spool.

(4) Insert retainer into inertia reel strap loop.

- (5) Pull inertia reel strap from forward side of seat to position strap loop and retainer in inertia reel assembly spool.

CAUTION

To prevent damage to inertia reel assembly, spool must rewind slowly.

- (6) While holding inertia reel straps from forward side of seat, remove two drill rods from locking pin holes in inertia reel assembly and slowly allow straps to rewind on spool.

- (g) Install riser assembly (1) seat release lanyard (10) per substeps below:

(1) Route seat release lanyard (10) inboard of inertia reel strap.

(2) Position seat release lanyard (10) on bellcrank (17).

(3) Rotate retainer assembly (14) into position.

WARNING

To prevent death or injury to aircrew member, tab on seat release lanyard bellcrank must be positioned below shear pin in lanyard retainer assembly.

(4) Make sure tab of bellcrank (17) is below shear pin.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(5) Coat upper screw (16) with coating primer.

(6) Install upper screw (16) with washer.

- (7) Tighten lower screw (15).
 - h. Attach retainer strap assembly (11) to riser assemblies (1) and secure snap.
 - i. If riser assembly (1) is being replaced, do substeps below:
 - (1) Using indelible ink, mark riser assemblies (1) with date of installation and expiration date.
 - (2) Make log book entry for riser assemblies to include date of manufacture, date of installation and expiration date (A1-AV8BB-MRC-000).
 - j. Install riser cover assemblies (8 and 12) on riser assemblies (1).
 - k. Snap riser assemblies (1) to pouch assembly (4).
 - l. Stow riser assemblies (1) and secure velcro flaps (3 and 7) on pouch assembly (4).
- NOTE**
- Flaps should be stowed tight across sleeve assemblies.
- m. On ejection seat SJU-4/A 307 AND UP; ALSO SJU-4/A 25 THRU 306 AFTER AV8ACC-574, SJU-13/A OR SJU-14/A, stow pouch assembly (4) flaps into aft end of sleeve assemblies on left and right riser assemblies (1).
- n. Install wedge assembly (WP005 00).
- o. Install survival kit assembly (WP004 00).

7. RISER STOWAGE POUCH ASSEMBLY REPAIR.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
V-T-295 Type II, Class A Size F NIIN 00-273-1906	Thread, Nylon

NOTE

Repair of riser stowage pouch assemblies consists of replacing defective PULL-THE-DOT snaps, riser suspension snaps and damaged (worn/frayed/torn) riser cover flaps. Replacement PULL-THE-DOT snaps must be orientated with dots on top edge of button.

- a. For stowage pouch part number 14189-3 (4, figure 1), replace damaged riser cover flaps 14189-13 and 14189-14 in sets by doing substeps below:

(1) When replacing flaps (3 and 7) on pouch assembly (4), make sure that new flaps are positioned in the same direction as flaps removed. (QA)

(2) Break stitching and remove damaged flaps (3 and 7) from pouch assembly (4).

NOTE

Stitching shall be Type 301 of Federal Standard M751, at 8 to 11 stitches per inch and shall be a DOUBLE row. Backstitch 0.50 inch minimum.

- (3) Before sewing flaps (3 and 7) to pouch assembly (4), make sure velcro closure pile tape on flap will face aft when flap is closed and the diagonal corner is at the top.

(4) Sew flaps (3 and 7) to pouch assembly (4) along original seam using nylon thread.

b. For stowage pouch part number 14689-1 (4, figure 1), replace damaged riser cover flaps 14689-13 and 14689-14 in sets by doing substeps below:

(1) When replacing flaps (3 and 7) on pouch assembly (4), make sure that new flaps are positioned in the same direction as flaps removed. (QA)

(2) Break stitching and remove damaged flaps (3 and 7) from pouch assembly (4).

NOTE

Stitching shall be Type 301 of Federal Standard M751, at 8 to 11 stitches per inch and shall be a DOUBLE row. Backstitch 0.50 inch minimum.

(3) Before sewing flaps (3 and 7) to pouch assembly (4), make sure velcro closure pile tape on flap will face aft when flap is closed and extended leg on flap is at the top.

(4) Sew flaps (3 and 7) to pouch assembly (4) along original seam using nylon thread.

8. RISER COVERS, AFTER AV8ACC-547.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MIL-C-81395 Sage Green (CAGE 81349)	Cloth, Rubber Coated
V-T-295 Type 1, Class A Olive Green (CAGE 81349)	Thread, Nylon, Size E
MIL-F-21840 Type II, Class 1 Olive Green (CAGE 81349)	Hook Tape, 1.00 Inch

Materials Required (Continued)

Specification or Part Number	Nomenclature
MIL-F-21840 Type II, Class 1 Olive Green (CAGE 81349)	Pile Tape, 1.00 Inch
MIL-W-4088 Olive Green (CAGE 81348)	Nylon Tape, 1.00 Inch

9. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, ejection seat safety devices must be correctly positioned and installed.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 Pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove riser cover assemblies (8 and 12, figure 1) by peeling velcro closure open.

10. FABRICATION.

NOTE

All machine stitching shall be in accordance with Federal Standard 751, stitch type 301, 4 to 6 stitches per inch. Stitching line shall be 0.125 inch from the cutting edge.

a. Locally manufacture riser cover assemblies (figure 2).

11. INSTALLATION.

a. Position riser cover assemblies (8 and 12, figure 1) on left and right risers (1) and secure velcro fastener seams along aft sides.

12. ILLUSTRATED PARTS BREAKDOWN.

13. This illustrated parts breakdown has data required for identifying and ordering parts. The

A1-AV8BB-120-350

017 00

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manual introduction has more information on IPB
data.

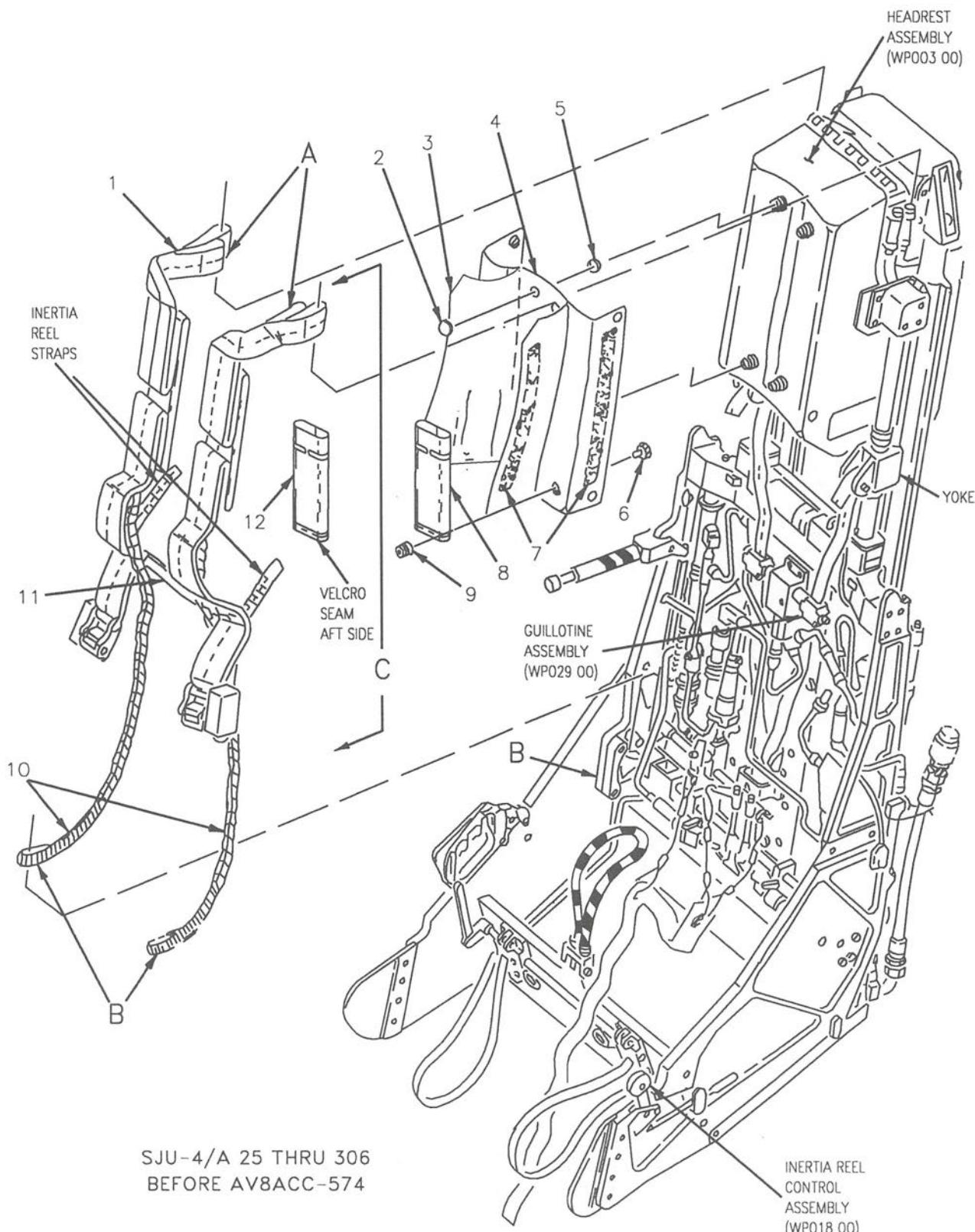


Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 1)

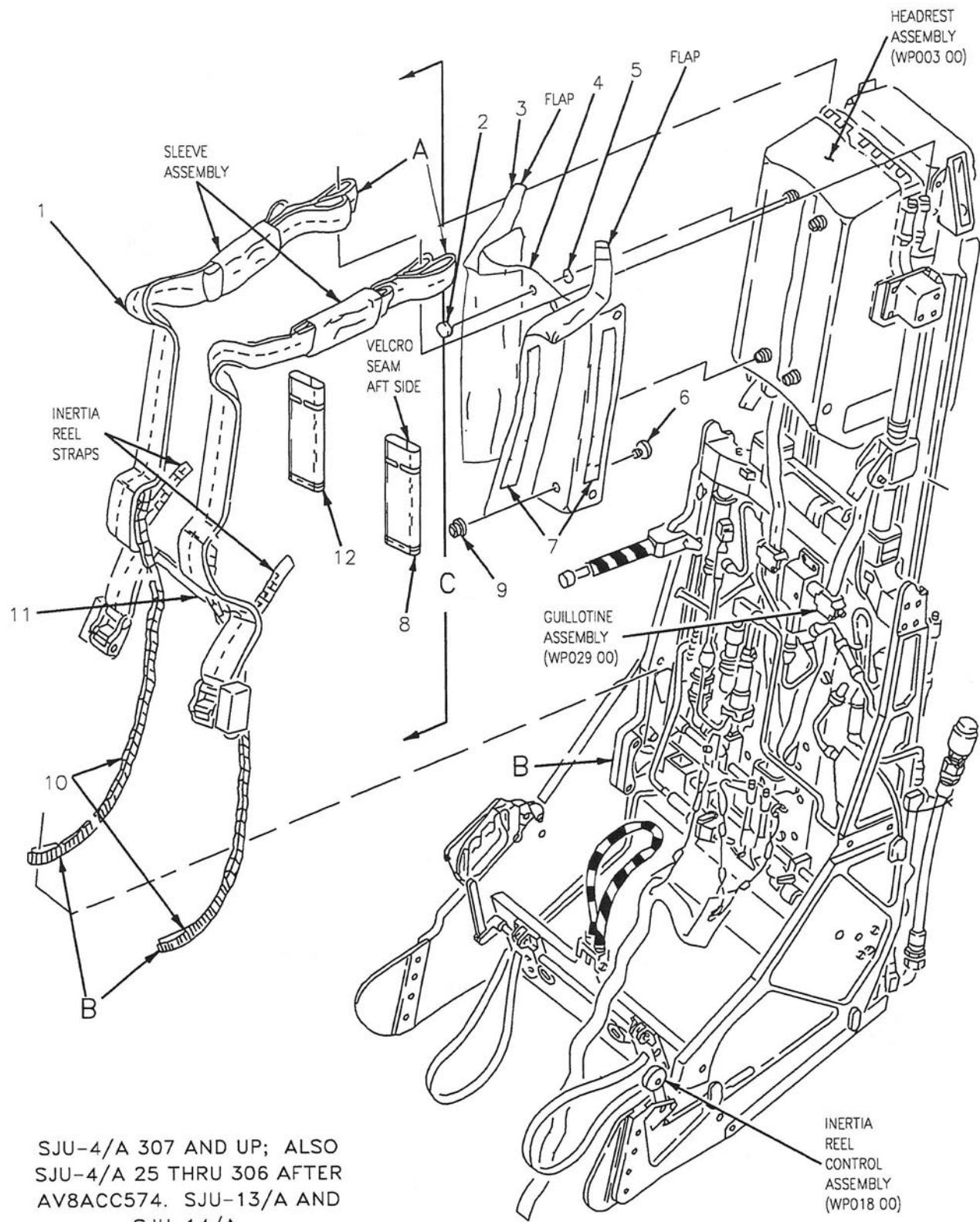
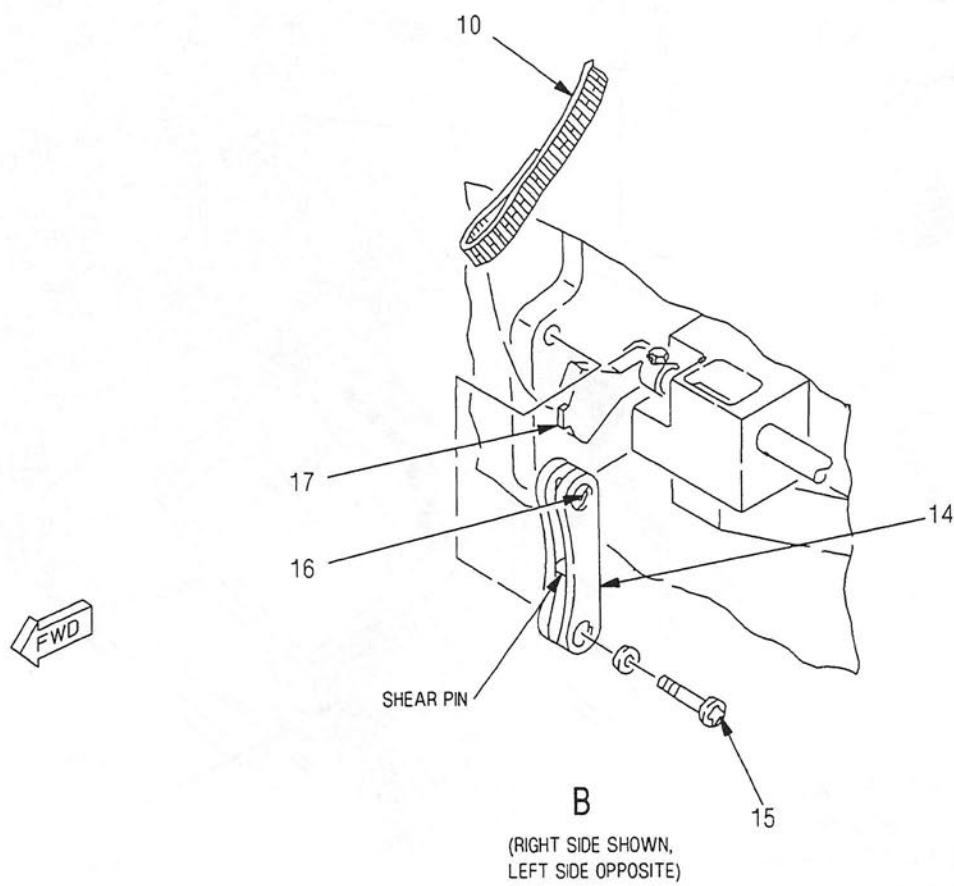
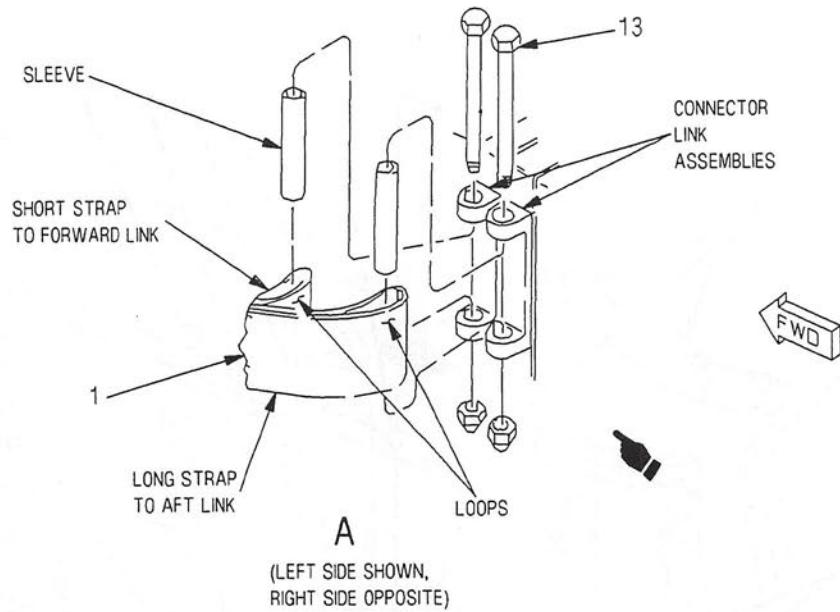
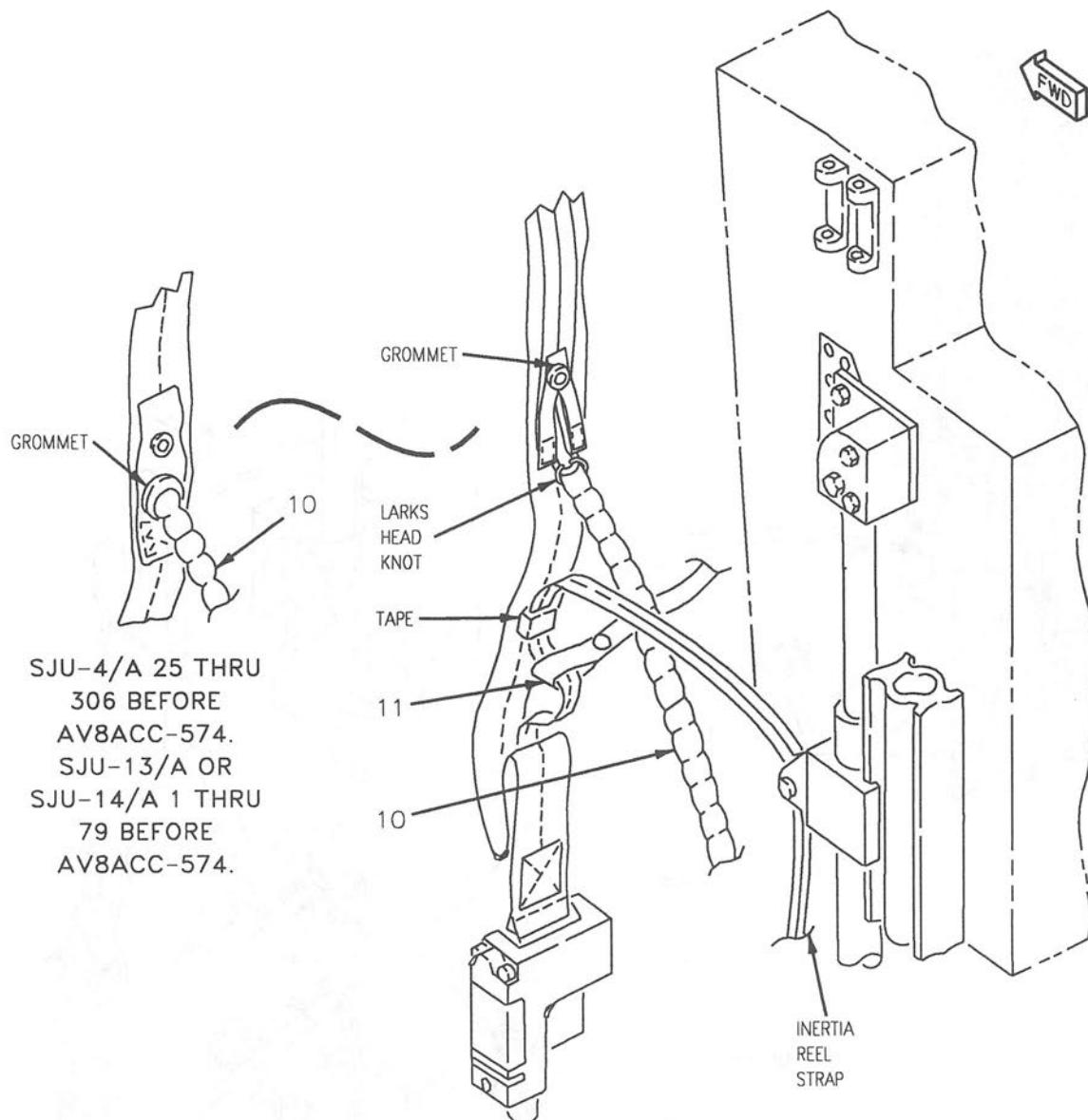


Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 2)

**Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 3)**



SJU-4/A 307 AND UP; ALSO SJU-4/A
25 THRU 306 AFTER AV8ACC-574.
SJU-13/A OR SJU-14/A 80 AND UP;
ALSO SJU-13/A OR SJU-14/A 1 THRU
79 AFTER AV8ACC-574.



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Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 4)

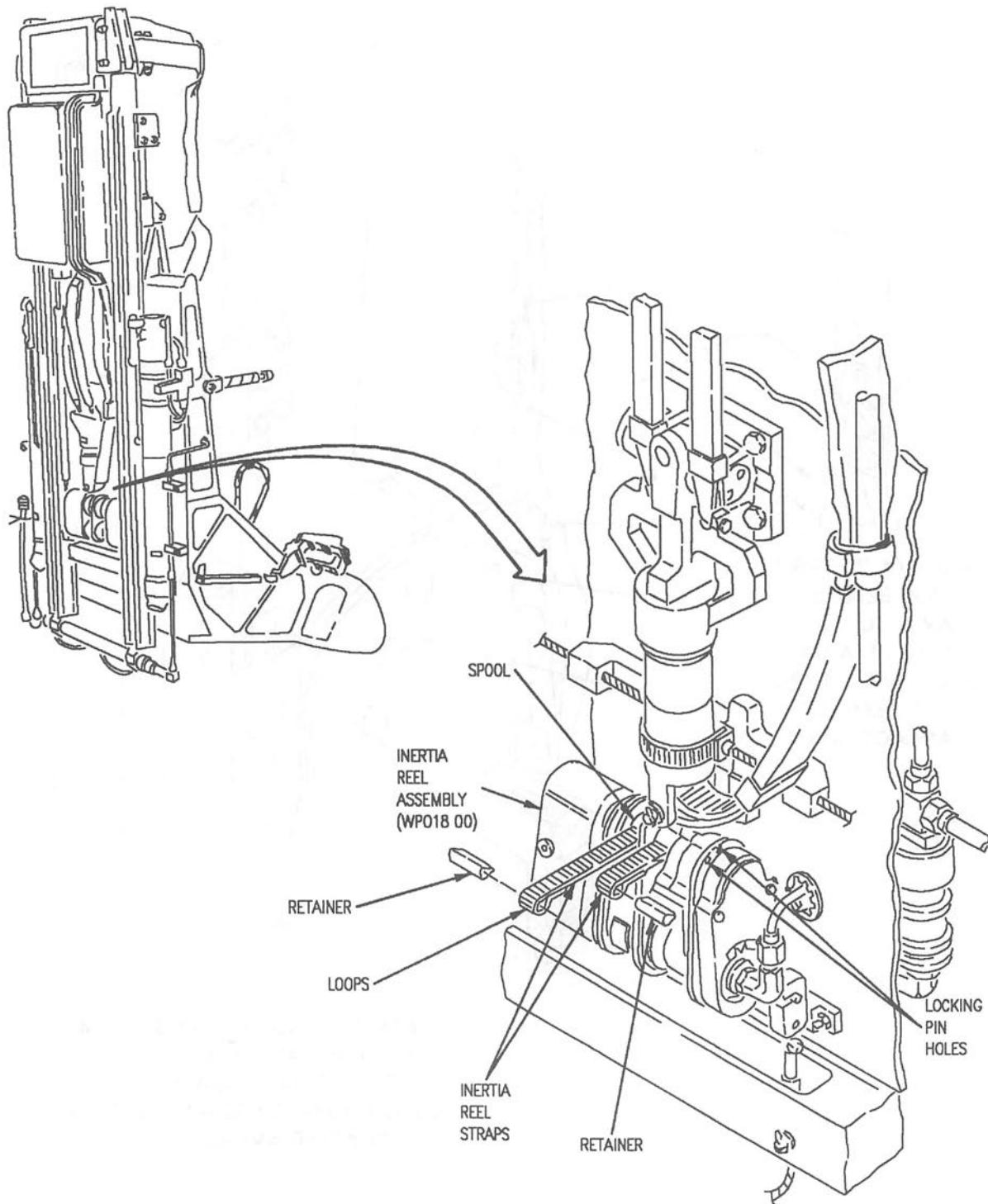


Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 5)

Change 1

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE					
RISER STOWAGE POUCH ASSEMBLY AND RISER ASSEMBLIES										
. RISER ASSEMBLY, EJECTION SEAT ASSEMBLY (24632)										
1	14650-3	. SEE ABOVE	2	B	PCOZZ					
	12349-9	. SEE ABOVE	2	C	PCOZZ					
	14650-1	. CAP	8		PAOZZ					
2	MS27983-1	. FLAP, RISER COVER, RH (24632)	1	B	MDOZZ					
3	14189-14 +	. SEE ABOVE	1	D	MDOZZ					
	14689-14 ++	. POUCH ASSEMBLY, RISER STOWAGE (24632)	1	B	PAOZZ					
4	14189-3	. SEE ABOVE (24632)	1	D	PAOZZ					
	14689-1	. SOCKET	8		PAOZZ					
5	MS27983-2	. STUD	2		PAOZZ					
6	MS27983-4	. FLAP, RISER COVER, LH (24632)	1	B	MDOZZ					
7	14189-13 +	. SEE ABOVE	1	D	MDOZZ					
	14689-13 ++	. RISER COVER ASSEMBLY, LH (96916)	1	E	MOOZZ					
8	17D1285-1	. SEE ABOVE	1	F	MOOZZ					
	17D1285-3	. POST	2		PAOZZ					
9	MS27983-3	. SEAT RELEASE LANYARD (51998)	2	A	PCOZZ					
10	1615-030	. SEE ABOVE	2	C	PCOZZ					
	14650-19	. SEE ABOVE	2	B	PCOZZ					
	12349-3	. RETAINER STRAP ASSEMBLY-RISER ASSEMBLY (24632)	1		PAOZZ					
11	14110-1	. RISER COVER ASSEMBLY, RH (96916)	1	E	MOOZZ					
	17D1285-2	. SEE ABOVE (96916)	1	F	MOOZZ					
12	17D1285-4	. BOLT	4		PAOZZ					
13	NAS6205-38	. SEE ABOVE	4	*	PAOZZ					
	NAS1105-38	. SEE ABOVE	4	*	PAOZZ					
	NAS464P5A38	. SEE ABOVE	4	*	PAOZZ					
	F42NKE054	. NUT, NYLON CAP HEX (22599) (USE WITH INDEX 13) (UPCO SPEC 12484-019)	4	*	PAOZZ					
	42NKE054	. SEE ABOVE (72962)	4	*	PAOZZ					
14	12185-1	. RETAINER ASSEMBLY-LANYARD (24632) . . .	2		PAOZZ					
15	MS27039-1-14	. SCREW	2		PAOZZ					
	NAS1149D0332K	. WASHER (USE WITH INDEX 15)	2	*	PAOZZ					
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ					
16	MS27039-1-14	. SCREW	2		PAOZZ					
	NAS1149D0332K	. WASHER (USE WITH INDEX 16)	2	*	PAOZZ					
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ					
17	12119-11	. BELLCRANK-SEAT RELEASE LANYARD (24632)	2		PAOZZ					

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

+ COMPONENT PART OF 14189-3

++ COMPONENT PART OF 14689-1

Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 6)

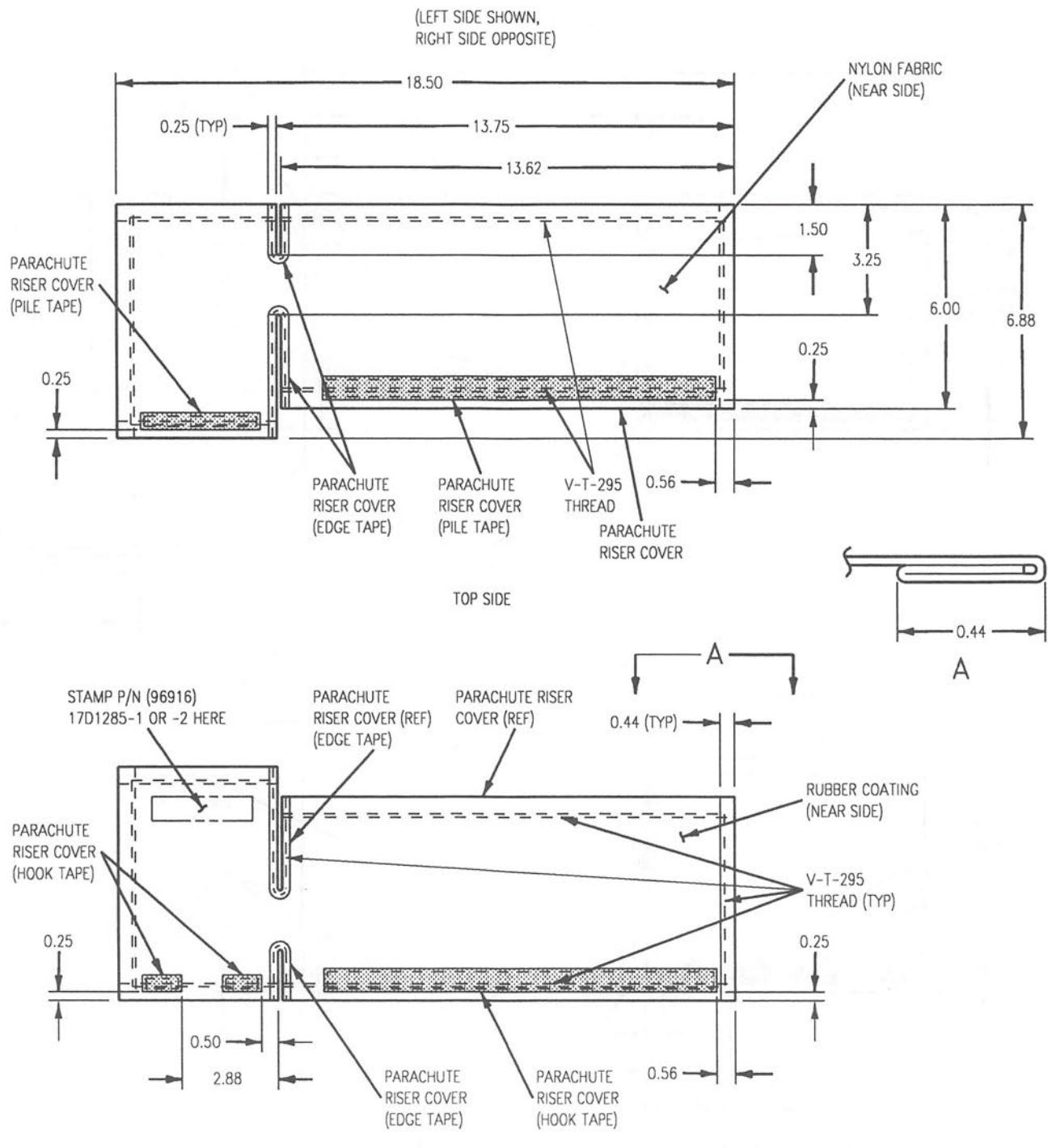
A1-AV8BB-120-350**017 00**

Change 1

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INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		CODE	USABLE ON						MODEL		
		A	307 AND UP; ALSO 25 THRU 306 AFTER AV8ACC-574						SJU-4/A		
			80 AND UP; ALSO 1 THRU 79 AFTER AV8ACC-574						SJU-13/A OR SJU-14/A		
		B	25 THRU 306 BEFORE AV8ACC-574						SJU-4/A		
		C	1 THRU 79 BEFORE AV8ACC-574						SJU-13/A OR SJU-14/A		
		D	307 AND UP; ALSO 25 THRU 306 AFTER AV8ACC-574						SJU-4/A		
			1 AND UP						SJU-13/A OR SJU-14/A		
		E	1 AND UP						SJU-4/A		
			80 AND UP; ALSO 1 THRU 79 AFTER AV8ACC-574						SJU-13/A OR SJU-14/A		
		F	1 THRU 79 BEFORE AV8ACC-574						SJU-13/A OR SJU-14/A		

Figure 1. Riser Stowage Pouch Assembly and Riser Assemblies (Sheet 7)



LOCAL MANUFACTURE USING
RUBBER COATED NYLON CLOTH,
SAGE GREEN, NSN-8305-00

SJU-4A. SJU-13A OR SJU-14/A 80 AND UP; ALSO
SJU-13/A OR SJU-14/A 1 THRU 79 AFTER AV8ACC-574.

AV8BB-120-35-(75-1)10-CATI

Figure 2. Parachute Riser Cover Assembly (Sheet 1)

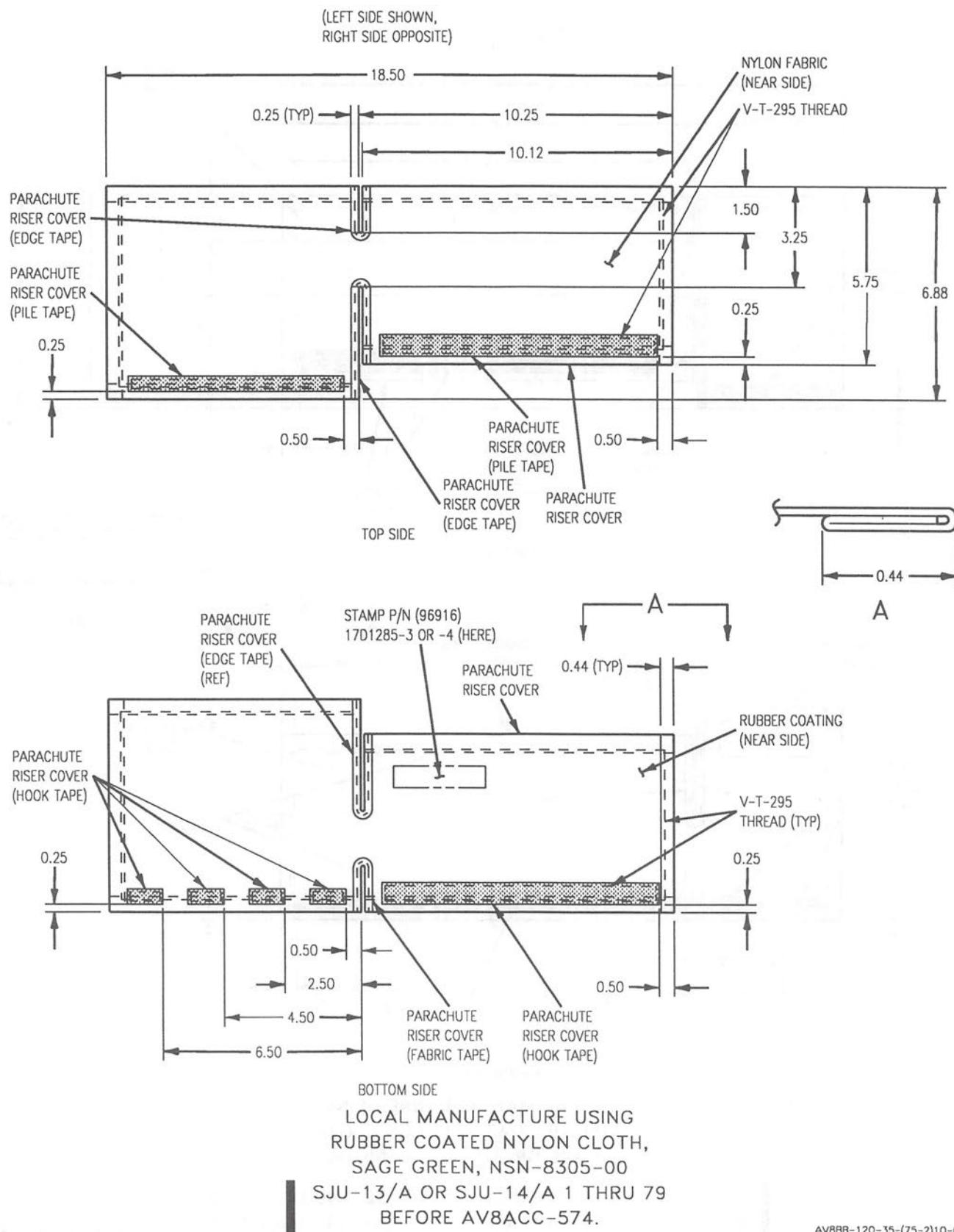


Figure 2. Parachute Riser Cover Assembly (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****INERTIA REEL CONTROL ASSEMBLY****INERTIA REEL CONTROL CABLE****INERTIA REEL ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly.....	WP004 00
Back Cushion Assembly, Wedge Assembly.....	WP005 00
DART Assembly	WP023 00

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Record of Applicable Technical Directives

None

1. INERTIA REEL CONTROL ASSEMBLY.

- e. Remove control assembly (1).

Support Equipment Required

None

3. INSTALLATION.**NOTE**

Inertia reel control lever must be in A (Automatic) position before installing inertia reel control assembly.

- a. Position handle in terminal (7, figure 1).
- b. Install pin (8), washer, and cotter pin.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- c. Coat screws (3) with coating primer.
- d. Set control assembly (1) to LOCK.
- e. Position control assembly (1) on seat.
- f. Install spacers (2), screws (3), washers, and nuts.
- g. Do inertia reel assembly test, this WP.

2. REMOVAL.**WARNING**

MS24665-132
TT-P-1757
COMP L COLOR T
(CAGE 81348)

Materials Required**Nomenclature**

Cotter Pin
Primer, Coating

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Set control assembly (1, figure 1) to LOCK.

c. Remove screws (3), washers, nuts, and spacers (2).

d. Remove pin (8), washer, and cotter pin.

4. INERTIA REEL CONTROL CABLE.**5. REMOVAL AND INSTALLATION.****Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	
MS20995NC32	Lockwire

6. Removal.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove survival kit assembly (WP004 00).
- c. Remove inertia reel control assembly, this WP.
- d. Lower DART assembly (WP023 00).
- e. Remove terminal (7, figure 1) from cable assembly (4). Save terminal for installation.
- f. Remove screws (6) and retainer (5).
- g. Remove screw (16), washer, nut, and clamp (15).
- h. Remove pin (11), washers, and cotter pin.
- i. Route cable assembly (4) through left hand lower panel assembly and remove cable assembly from fitting (10).

- j. Remove nut (12) and cable assembly (4).

7. Installation.

- a. Insert cable assembly (4, figure 1) through lower lateral beam assembly below reel (17).
- b. Install nut (12) on cable assembly (4).
- c. Turn cable assembly (4) into fitting (10) until 0.032 inch lockwire cannot be inserted into inspection hole in fitting.
- d. Tighten nut (12) against fitting (10).

NOTE

Washers may be added under head of pin (11) as required to obtain proper length.

- e. Secure cable assembly (4) into lower lateral beam assembly with pin (11), washers, and cotter pin.
- f. Route cable assembly (4), through slot in bottom closure, and through hole in left hand lower panel assembly.
- g. Install terminal (7) on cable assembly (4).
- h. Adjust terminal (7) until 0.032 inch lockwire cannot be inserted into inspection hole.
- i. Adjust terminal (7) to line up with handle.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- j. Coat screws (6 and 16) with coating primer.
- k. Install retainer (5) with screws (6).
- l. Install clamp (15) with screw (16), washer, and nut.
- m. Install inertia reel control assembly, this WP.
- n. Do inertia reel assembly test, this WP.
- o. Raise DART assembly (WP023 00).

- p. Install survival kit assembly (WP004 00).

8. ADJUSTMENT.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature	
MS20995NC32	Lockwire	

9. Procedure.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Inspect for proper cable assembly (4, figure 1) adjustment at reel (17) by inserting 0.032 lockwire into inspection hole in fitting (10).

- c. If lockwire can be inserted into inspection hole, adjust cable assembly (4) per substeps below:

- (1) Remove inertia reel control assembly, this WP.

- (2) Loosen nut (12).

- (3) Turn cable assembly (4) into fitting (10) until lockwire cannot be inserted into inspection hole in fitting.

- (4) Tighten nut (12).

- (5) Install inertia reel control assembly, this WP.

- d. Inspect for proper cable assembly (4) adjustment at control assembly (1) by inserting lockwire into inspection hole in terminal (7).

- e. If lockwire can be inserted into inspection hole, adjust terminal (7) per substeps below:

- (1) Remove inertia reel control assembly, this WP.

- (2) Adjust terminal (7) until lockwire cannot be inserted into inspection hole in terminal.

- (3) Install inertia reel control assembly, this WP.

- f. Do inertia reel assembly test, this WP.

10. INERTIA REEL ASSEMBLY.

11. REMOVAL AND INSTALLATION.

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-012 TT-P-1757 Comp L, Color T (CAGE 81348)	Packing Primer, Coating
MS20995N51	Drill Rod (0.0625 Inch Diameter) Lock Wire (0.05 inch diameter)

12. Removal.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove survival kit assembly (WP004 00).
- c. Remove wedge assembly (WP005 00).
- d. On front of seat, disconnect tube assembly PN 12288-1 from inertia reel gas generating initiator (figure 1).
- e. Disconnect inertia reel straps by doing the substeps below:

CAUTION

To prevent damage to inertia reel assembly, inertia reel must not be allowed to rewind freely under its own spring tension.

- (1) Set control assembly (1) to UNLOCK.
- (2) Fully extend inertia reel straps.
- (3) Lock inertia reel by inserting two lengths of 0.0625 inch drill rod or 0.05 inch lockwire into locking pin holes in reel (17).
- (4) Push inertia reel straps through inertia reel spool one at a time.
- (5) Remove retainers (18) from inertia reel strap loops. Save retainers for installation.
- (6) Pull inertia reel straps through reel (17) spool from forward side of seat, one at a time.
- f. Remove bolts (9) and washers.
- g. Remove reel (17) and tube assembly PN 12288-1 from ejection seat.

- h. Remove elbow (13), packing (14), and tube assembly from reel (17). Save tube assembly and elbow for installation.

13. Installation.**WARNING**

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- a. Lubricate new packing (14, figure 1) with silicone compound.
- b. Install packing (14) on elbow (13).
- c. Install elbow (13) and tube assembly on reel (17) with port positioned up. Do not tighten.
- d. Set control assembly (1) to LOCK.
- e. Set inertia reel control lever to M (Manual) position.
- f. Install inertia reel straps per substeps below:

WARNING

To prevent death or injury to aircrew member, make sure inertia reel straps are not twisted.

Make sure inertia reel straps are routed behind all tubing and are free of obstructions.

- (1) Route inertia reel straps through reel (17) spool one at a time.
- (2) Insert retainers (18) into inertia reel strap loops.
- (3) Pull inertia reel straps from forward side of seat to position strap loops and retainers in reel (17) spool.
- g. Position reel (17) on ejection seat. Make sure inertia reel control lever engages fitting (10).

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- h. Coat bolts (9) with coating primer.
- i. Install bolts (9) and washers.

CAUTION

To prevent damage to inertia reel assembly, spool must rewind slowly.

- j. While holding inertia reel straps from forward side of seat, remove two drill rods or lockwire from locking pin holes in reel (17) and slowly allow straps to rewind on spool.
- k. Tighten jamnut on elbow (13).
- l. Connect tube assembly PN 12288-1 to inertia reel gas generating initiator.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- m. Torque tube assembly PN 12288-1 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- n. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)
 - o. Do inertia reel assembly test, this WP.
 - p. Install wedge assembly (WP005 00).
 - q. Install survival kit assembly (WP004 00).
14. **TEST.**
15. The inertia reel assembly is tested per table 1.

Table 1. Inertia Reel Assembly Test

Procedure	Normal Indication	Remedy for Abnormal Indication
Support Equipment Required		
Part Number or Type Designation		Nomenclature
DPPH-100		Spring Resiliency Tester
DPPH-50		Spring Resiliency Tester
Materials Required		
Specification or Part Number		Nomenclature
—		Rod (0.25 inch diameter 14 inches long)
—		Nylon Cord
<div style="background-color: black; color: white; padding: 2px 10px; border-radius: 5px; display: inline-block;"> WARNING </div>		
<p>To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.</p> <p>a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB- GAI-500, WP004 00).</p> <p>b. Remove survival kit assembly (WP004 00).</p> <p>c. Remove wedge assembly (WP005 00).</p> <p>d. Insert a rod through both riser assembly loops (fig. 2).</p> <p>e. Set inertia reel control assembly to UNLOCK position.</p>		

Table 1. Inertia Reel Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
f. Grasp center of rod, pull straight out, and extend riser assemblies approximately 5 inches. Hold riser assemblies extended. (QA)	Riser assemblies extend.	Cycle inertia reel control assembly several times and repeat test.
g. Set inertia reel control assembly to LOCK position. Pull straight out firmly on center of rod. (QA)	Riser assemblies do not extend.	<ol style="list-style-type: none"> 1. Disconnect inertia reel control cable from inertia reel. Move inertia reel control lever to M (Manual) position. Pull firmly on riser assemblies.
h. Slowly allow riser assemblies to retract. (QA)	Riser assemblies retract in approximately 1/2-inch increments. Ratchet action shall be audible during retraction.	<ol style="list-style-type: none"> 2. If riser assemblies extend, replace inertia reel assembly, this WP. 3. Cycle inertia reel control assembly several times and repeat test. 4. If riser assemblies do not retract, disconnect inertia reel control cable from inertia reel. Move inertia reel control lever to M (Manual) position. Slowly allow riser assemblies to retract. 5. If riser assemblies do not retract, replace inertia reel assembly, this WP. 6. If riser assemblies retract, connect inertia reel control cable and set inertia reel control assembly to LOCK position. Adjust terminal on cable for maximum forward throw of handle in inertia reel control cable adjustment, this WP.

Table 1. Inertia Reel Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
CAUTION		
	<p>Make sure inertia reel control assembly does not snap into position or test results will not be valid.</p>	
<p>i. Slowly set inertia reel control assembly to UNLOCK position.</p> <p>j. Grip center of rod, pull straight out and extend both riser assemblies approximately 5 inches. Exert a sharp pull on rod. (QA)</p>	<p>Riser assemblies do not extend when firm pull is applied.</p>	<p>1. Cycle inertia reel control assembly several times and repeat test.</p> <p>2. If riser assemblies extend, disconnect inertia reel control cable from inertia reel. Move inertia reel control lever to A (Automatic) position. Repeat test.</p>
		<p>3. If riser assemblies extend, replace inertia reel assembly, this WP.</p> <p>4. If riser assemblies do not extend, connect cable and set inertia reel control assembly to UNLOCK position.</p>
<p>k. Slowly allow riser assemblies to retract, then pull riser assemblies. (QA)</p>	<p>Riser assemblies retract in approximately 1/2-inch increments. Ratchet action shall be audible during retraction. Riser assemblies do not extend.</p>	<p>1. Disconnect inertia reel control cable from inertia reel. Move inertia reel control lever to A (Automatic) position. Pull firmly on riser assemblies.</p> <p>2. If riser assemblies extend, replace inertia reel assembly, this WP.</p>
<p>l. Set inertia reel control assembly to LOCK then UNLOCK positions, and extend and retract riser assemblies. (QA)</p> <p>m. Attach DPPH-50 spring resiliency tester to rod with nylon cord.</p>	<p>Riser assemblies extend and retract freely.</p>	<p>Replace inertia reel assembly, this WP.</p>

Table 1. Inertia Reel Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>n. Pull tester straight out and extend riser assemblies, recording force required. Repeat step several times. (QA)</p> <p>o. Allow riser assemblies to retract slowly.</p> <p>p. Position 24 inch steel rule against forward edge of either yoke, perpendicular to catapult tubes. Pull rod straight out until forward edge of riser material is extended a minimum of 18 inches. (QA)</p> <p>q. Set inertia reel control assembly to LOCK position.</p> <p>r. Allow riser assemblies to retract slowly.</p> <p>s. Position second spring resiliency tester against forward edge of inertia reel control assembly handle parallel to seat side panel.</p> <p>t. Apply 50-pound pull to rod. Maintain this tension and apply push force to control handle. (QA)</p> <p>u. Allow riser assemblies to retract completely. Remove testers and rod.</p> <p>v. Install wedge assembly (WP005 00).</p> <p>w. Install survival kit (WP004 00).</p>	<p>Riser assemblies extend with an applied force of 5 to 15 pounds.</p> <p>Riser assemblies extend 18 inches from yoke to rod.</p> <p>Control handle moves to UN-LOCK position with an applied force of 25 pounds maximum.</p>	<p>Replace inertia reel assembly, this WP.</p> <p>Replace inertia reel assembly, this WP.</p> <p>Replace the inertia reel control assembly, this WP.</p>

16. ILLUSTRATED PARTS BREAKDOWN.

17. This illustrated parts breakdown has data required for identifying and ordering parts. The

manual introduction has more information on IPB data.

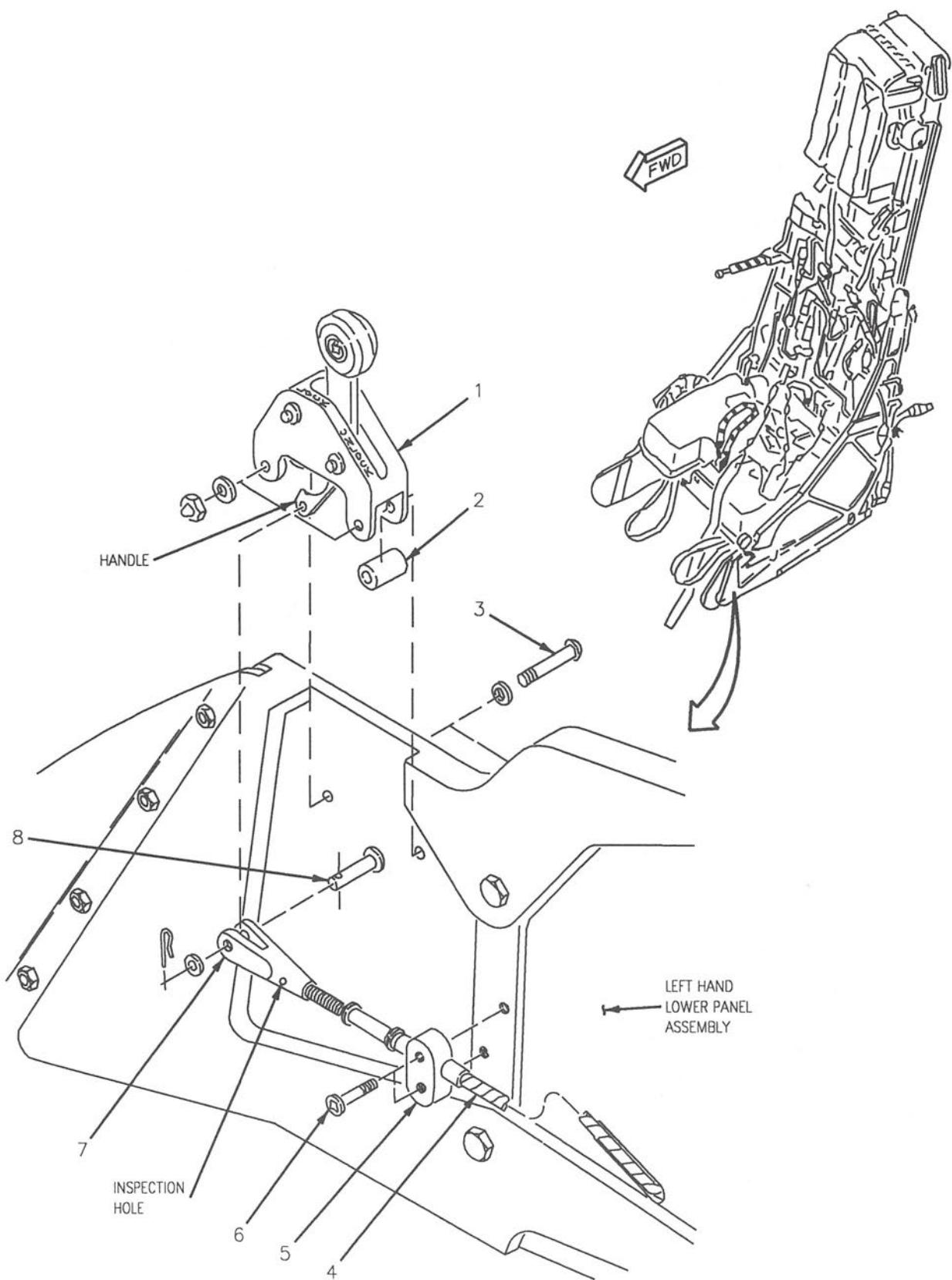


Figure 1. Inertia Reel Control Assembly, Inertia Reel Control Cable and Inertia Reel Assembly (Sheet 1)

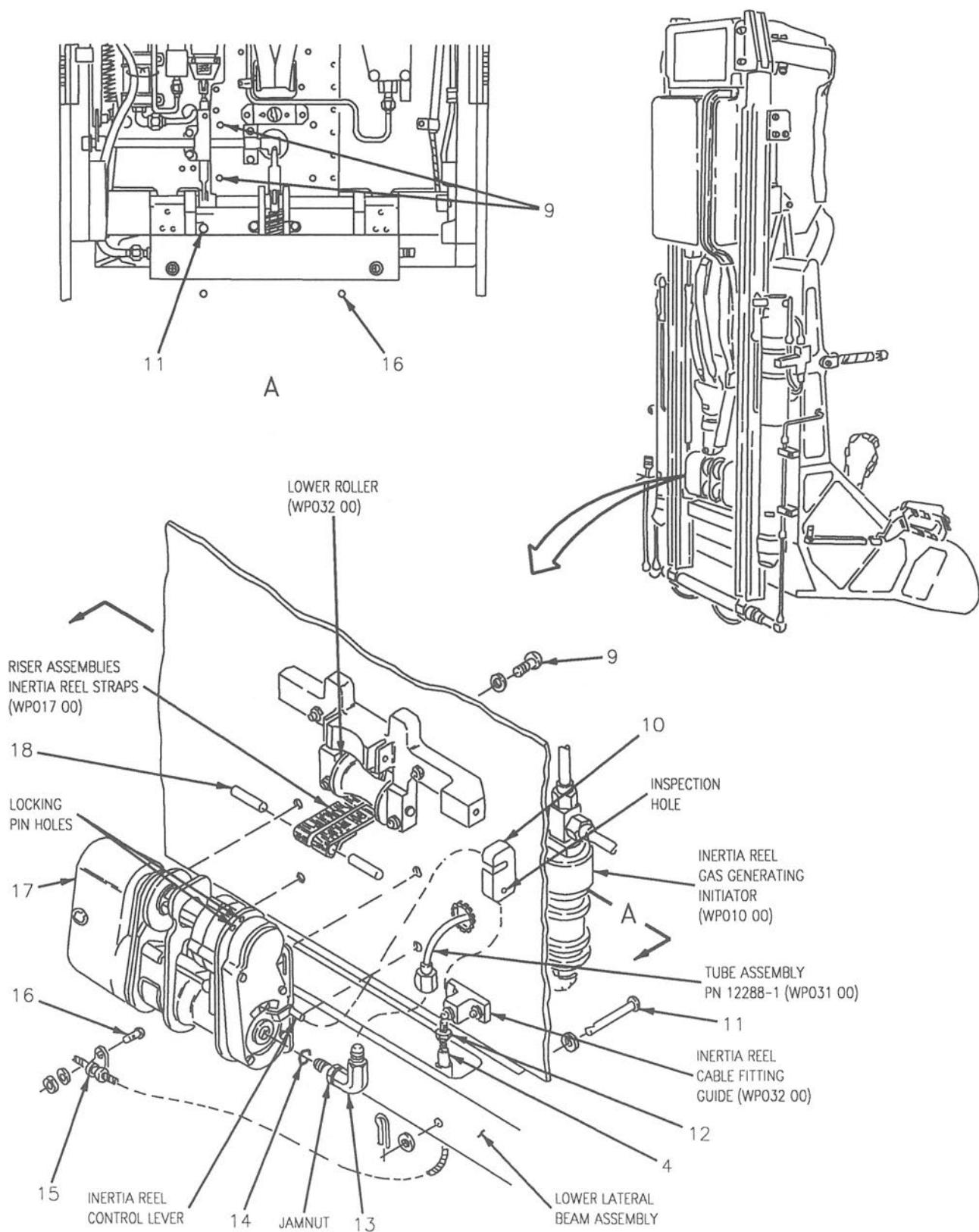


Figure 1. Inertia Reel Control Assembly, Inertia Reel Control Cable and Inertia Reel Assembly (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
		INERTIA REEL CONTROL ASSEMBLY			
		INERTIA REEL CONTROL CABLE AND			
		INERTIA REEL ASSEMBLY			
1	12190-5	. CONTROL ASSEMBLY, INERTIA REEL	1		PAOZZ
		(51998)			
2	NAS43DD3-32	. SPACER	2		PAOZZ
3	MS27039-0817	. SCREWR	2		PAOZZ
	NAS1149DN816K	. WASHER (USE WITH INDEX 3)	4	*	PAOZZ
	AN960KD8L	. SEE ABOVE	4	*	PAOZZ
	22NKTM-82	. NUT - HEX, NYLON CAP (51998)	2		PAOZZ
		(UPCO SPEC 12484-006) (USE WITH			
		INDEX 3)			
4	55-44-11-2030	. CABLE ASSEMBLY, INERTIA REEL	1		PAOZZ
		MANUAL CONTROL (INERTIA REEL			
		CONTROL CABLE) (80523) (UPCO			
		SPEC 12196-3)			
5	12269-11	. RETAINER - CABLE (51998)	1		PAOZZ
6	MS24694-S8	. SCREW	2		PAOZZ
7	AN665-10R	. TERMINAL	1		PAOZZ
8	MS20392-2C9	. PIN	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 8)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 8)	1		PAOZZ
9	NAS6203-5	. BOLT	4		PAOZZ
	NAS1149D0363K	. WASHER (USE WITH INDEX 9)	4	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
10	12195-11	. FITTING, INERTIAL REEL CABLE	1		PAOZZ
		(51998)			
11	MS20392-1C47	. PIN	1		PAOZZ
	NAS620A5L	. WASHER (UNDER HEAD) (USE	AR		PAOZZ
		WITH INDEX 11)			
	NAS1149DN416L	. WASHER (USE WITH INDEX 11)	1	*	PAOZZ
	AN960KD4L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH	1		PAOZZ
		INDEX 11)			
12	MS35650-362	. NUT	1		PAOZZ
13	14113-11	. ELBOW (51998)	1		PAOZZ
14	MS9068-012	. PACKING	1		PAOZZ
15	MS21919DG3	. CLAMP	1		PAOZZ
16	MS27039-1-06	. SCREW	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 16)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	MS21042L3	. NUT (NEAR SIDE) (USE WITH	1		PAOZZ
		INDEX 16)			
17	0113700-03	. REEL, SHOULDER HARNESS INERTIA	1		PAODD
		(INERTIA REEL ASSEMBLY) (45402)			
18	0113466-01	. RETAINER, STRAP (45402)	2		-

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

+ INDICATES COMPONENT PART OF
SHOULDER HARNESS INERTIA REEL.

Figure 1. Inertia Reel Control Assembly, Inertia Reel Control Cable and Inertia Reel Assembly (Sheet 3)

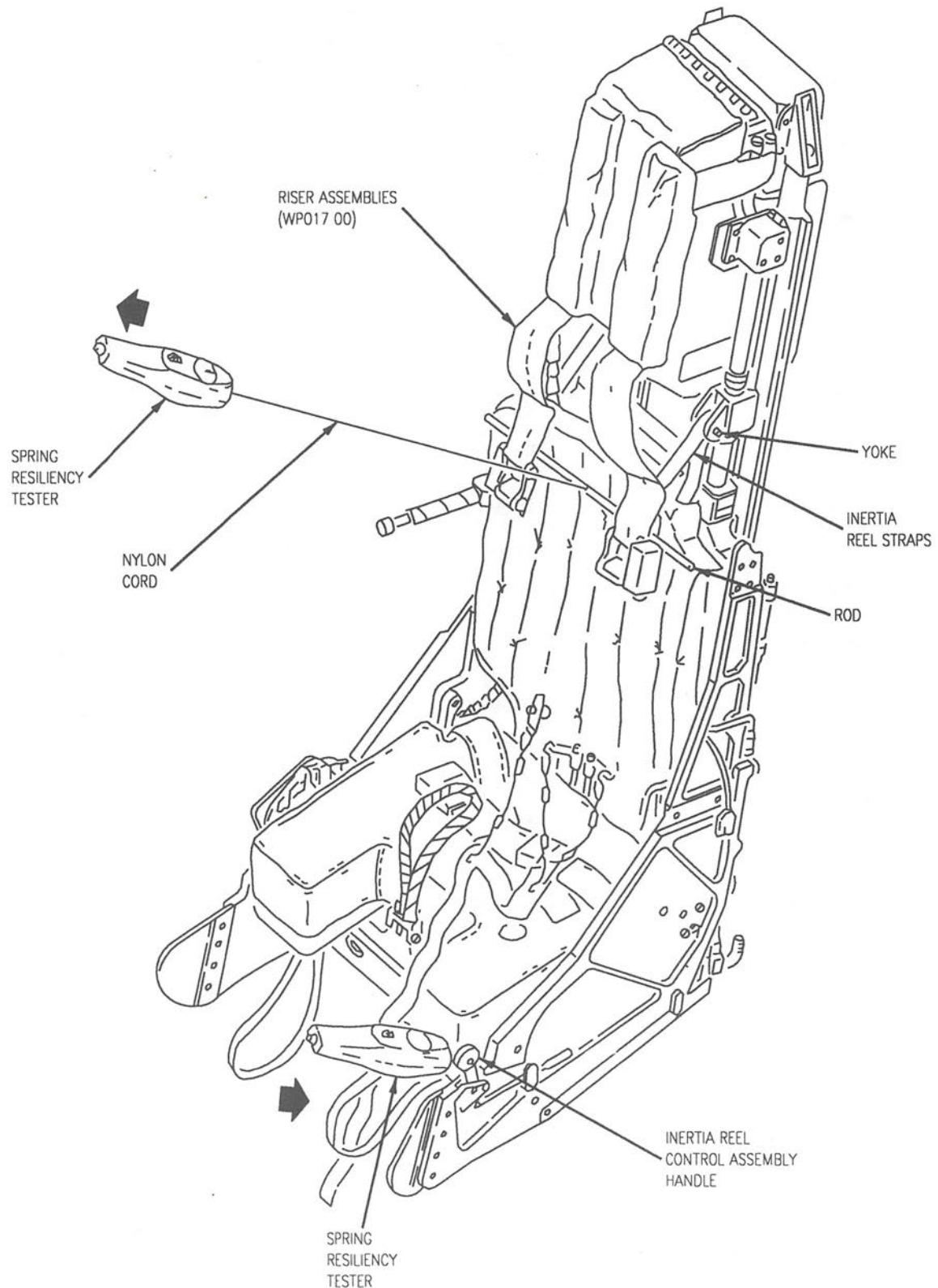


Figure 2. Inertia Reel Assembly Test

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EMERGENCY RELEASE HANDLE LINK ASSEMBLY****EMERGENCY RELEASE HANDLE ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly.....	WP004 00
Seat/Man Separation Initiator (M688).....	WP006 00
Ejection Initiator (M688).....	WP007 00
Connect/Disconnect Assembly.....	WP022 00

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Record of Applicable Technical Directives

None

1. EMERGENCY RELEASE HANDLE LINK ASSEMBLY.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MS24665-132	Cotter Pin (2)
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

2. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Remove survival kit assembly (WP004 00).

NOTE

Emergency release handle assembly locks in full up position. Plunger spring must be pressed to set handle assembly to the down position.

- c. Press spring (4, figure 1) and position handle tang to align with access hole.

- d. Remove pin (7), washer, and cotter pin.
- e. Remove bolt (12) and washer.
- f. Remove pin (10), washer, and cotter pin from bellcrank (11).
- g. If link (9) or clevis (8) is to be replaced, do substeps below:

NOTE

Adjustment of rod end clevis should be observed by thread count or measurement.

- (1) Observe and record adjustment of clevis (8) by counting exposed threads or by measurement.
- (2) Remove clevis (8).

3. INSTALLATION.

- a. If link (9, figure 1) or clevis (8) was replaced, do substeps below:

- (1) Install clevis (8) on link (9).
- (2) Adjust clevis (8) to length recorded during removal.
- b. Position link (9) on bellcrank (11).
- c. Install pin (10), washer, and cotter pin.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- d. Coat bolt (12) with coating primer.
- e. Align key on bellcrank (11) with keyway on seat release shaft.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- f. Install bolt (12) and washer in seat release shaft. Torque bolt 80 to 95 inch-pounds. Using sealing compound, apply tamper dot. (QA).
- g. Position link (9) on handle assembly (1).

NOTE

Emergency release handle assembly locks in full up position. Plunger spring must be pressed to set handle assembly to the down position.

- h. Press spring (4) and position handle assembly (1) to align handle tang with access hole.
- i. Install pin (7), washer, and cotter pin.
- j. Do connect/disconnect assembly adjustment (WP022 00).
- k. Do emergency release handle assembly test, this WP.

4. EMERGENCY RELEASE HANDLE ASSEMBLY.**5. REMOVAL AND INSTALLATION.****Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin (3)
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

6. Removal.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove survival kit assembly (WP004 00).
- c. Remove pin (3, figure 1), washers, and cotter pin.

NOTE

Emergency release handle assembly locks in full up position. Plunger spring must be pressed to set handle assembly to the down position.

- d. Press spring (4) and position handle assembly (1) to align handle tang with access hole.
- e. Remove pin (7), washer, and cotter pin.
- f. Remove pin (2), washer, and cotter pin.
- g. Remove screws (6) and nuts.

h. Squeeze handle assembly (1). Remove handle assembly and bracket (5) from ejection seat.

i. Remove spring (4), if required.

7. Installation.

a. If spring (4, figure 1) was removed, install spring from inside of seat panel.

b. Position bracket (5) and handle assembly (1) on ejection seat.

c. Install pin (2), washer, and cotter pin.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

d. Coat screws (6) with coating primer.

e. Secure bracket (5) with screws (6) (heads outboard) and nuts.

f. Position leg restraint link and install pin (3), washer and cotter pin.

NOTE

Emergency release handle assembly locks in the up position. Plunger spring must be pressed to set handle assembly to the down position.

g. Press spring (4) and position handle tang to align with access hole.

h. Position clevis (8) and install pin (7), washer and cotter pin.

i. Do connect/disconnect assembly adjustment (WP022 00).

j. Do emergency release handle assembly test, this WP.

8. TEST.

9. The emergency release handle assembly is tested per table 1.

Table 1. Emergency Release Handle Assembly Test

Procedure	Normal Indication	Remedy for Abnormal Indication
Support Equipment Required		
Part Number or Type Designation		Nomenclature
NOTE		
DPPH-100		Spring Resilience Tester
472P950C090-3 (1723AS103)		Initiation Pull Test Tool
Materials Required		
	None	

Table 1. Emergency Release Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
WARNING		
<p>To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.</p> <ul style="list-style-type: none"> a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00). b. Remove ejection initiators (M688) (WP007 00). c. Remove seat/man separation initiator (M688) (WP006 00). d. Position initiator pull test tools in ejection initiator brackets. Install plates with screws (detail A, fig 2). e. Position initiation subsystem links on initiation pull test tools. Install pins. Do not install washers and cotter pins. f. Position initiation pull test tool in seat/man separation initiator bracket. Install plate with screws. g. Position upper sear and install pin. Do not install washer or cotter pin. h. Remove maintenance safety streamer. i. Make sure initiation pull test tools are not preloaded. j. Position survival kit assembly on ejection seat. Lower survival kit into locking position. 		

Table 1. Emergency Release Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
NOTE		
k. Press plunger spring and lower emergency release handle assembly to down and locked position.		
l. Pull up on lap belt to make sure survival kit is locked in position.		
m. Install leg restraint straps into leg restraint ratchets. Pull on straps to make sure they are firmly engaged (detail D).		
n. Move safe/arm control handle assembly to down position.		
o. Position spring resiliency tester against top of emergency release handle assembly and press down on latch (detail C).	Latch retracts at maximum of 15 pounds force.	Replace emergency release handle assembly, this WP.
p. Attach spring resiliency tester to emergency release handle assembly. Release locking latch and pull up and aft with tester.	Handle rotates fully with a force of 15 to 40 pounds.	Check seat release shaft and connecting links for binding.
q. Pull lap belt and remove survival kit assembly from ejection seat.	1. Leg restraint straps pull away from leg restraint ratchets.	Check leg restraint shaft linkages.
	2. Connect/disconnect assembly upper sear is in actuated position and initiation pull test tool is extended.	Do connect/disconnect assembly adjustment (WP022 00).
	3. Stop plunger is full up and blocking initiation subsystem rotor movement.	1. Check for binding in linkages assembly. 2. Replace initiation subsystem assembly (WP016 00).

Table 1. Emergency Release Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>r. Press plunger spring and lower emergency release handle assembly to full down position.</p> <p>s. Move safe/arm control handle assembly control to safe (full up) position.</p> <p>t. Reset initiation pull test tool in seat/man separation initiator bracket.</p> <p>u. Squeeze emergency release handle assembly and slowly pull up and aft.</p> <p>v. Press plunger spring and slowly lower emergency release handle assembly to full down and locked position.</p> <p>w. Grip emergency release handle assembly, and without squeezing handle, pull up on handle.</p> <p>x. Remove top screws (1, detail B) and loosen bottom screws (1) on retainer assemblies (2).</p> <p>y. Rotate retainer assemblies (2) forward.</p> <p>z. Rotate bellcranks upward above shear pins in retainer assemblies (2), making sure seat release lanyards remain attached to bellcranks.</p>	<p>4. Emergency release handle handle assembly locks in up position.</p> <p>1. Connect/disconnect assembly upper sear returns to armed position.</p> <p>2. Stop plunger disengages initiation subsystem rotors.</p> <p>Connect/disconnect assembly upper sear shall not move.</p> <p>Handle moves to full down and locked position with no binding.</p> <p>Emergency release handle assembly will not move to up position.</p>	<p>1. Do connect/disconnect assembly adjustment (WP022 00).</p> <p>2. Replace plunger spring, this WP.</p> <p>Check seat release shaft and connecting links for binding.</p> <p>Check seat release shaft and connecting links for binding.</p> <p>Do connect/disconnect assembly adjustment (WP022 00).</p> <p>Replace emergency release handle assembly, this WP.</p> <p>Replace emergency release handle assembly, this WP.</p>

Table 1. Emergency Release Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
WARNING		
<p>To prevent injury or death to aircrew member seat release lanyards must not be pinched between bellcranks and retainer assemblies.</p> <p>aa. Rotate retainer assemblies (2) up and aft. Make sure seat release lanyards are not pinched between bellcranks and retainer assemblies.</p> <p>ab. Install top screws (1) and washers and tighten bottom screws (1) in retainer assemblies (2).</p> <p>ac. Move safe/arm control handle assembly to armed (full down) position.</p> <p>ad. Squeeze emergency release handle assembly and release from locked position.</p> <p>ae. Simulate seat/man separation by pulling up on seat release lanyards.</p> <p>af. Remove top screws (1) and loosen bottom screws (1) on retainer assemblies (2).</p> <p>ag. Rotate retainer assemblies (2) forward.</p> <p>ah. Press plunger spring and rotate bellcranks down.</p> <p>ai. Press plunger spring and lower emergency release handle assembly to down and locked position.</p> <p>aj. Position seat release lanyards over bellcranks.</p>	<p>Seat release lanyards release from bellcranks.</p>	<p>Check seat release shaft and bellcranks for binding.</p>

Table 1. Emergency Release Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
WARNING		
<p>To prevent injury or death to aircrew member seat release lanyards must not be pinched between bellcranks and retainer assemblies.</p> <p>ak. Rotate retainer assemblies (2) up and aft. Make sure seat release lanyards are not pinched between bellcranks and retainer assemblies.</p> <p>al. Install top screws (1) and washers. Tighten bottom screws (1) in retainer assemblies (2).</p> <p>am. Remove screws and plate from seat/man separation initiator bracket. Remove initiation pull test tool.</p> <p>an. Remove screws and plates from ejection initiator brackets. Remove initiation pull test tools.</p> <p>ao. Install ejection initiators (M688) (WP007 00).</p> <p>ap. Install seat/man separation initiator (M688) (WP006 00).</p> <p>aq. Install maintenance safety streamer (3 pins) (A1-AV8BB-GAI-500, WP004 00).</p>		

10. ILLUSTRATED PARTS BREAKDOWN.

11. This illustrated parts breakdown contains information for identifying and ordering parts. The

manual introduction has more information on IPB data.

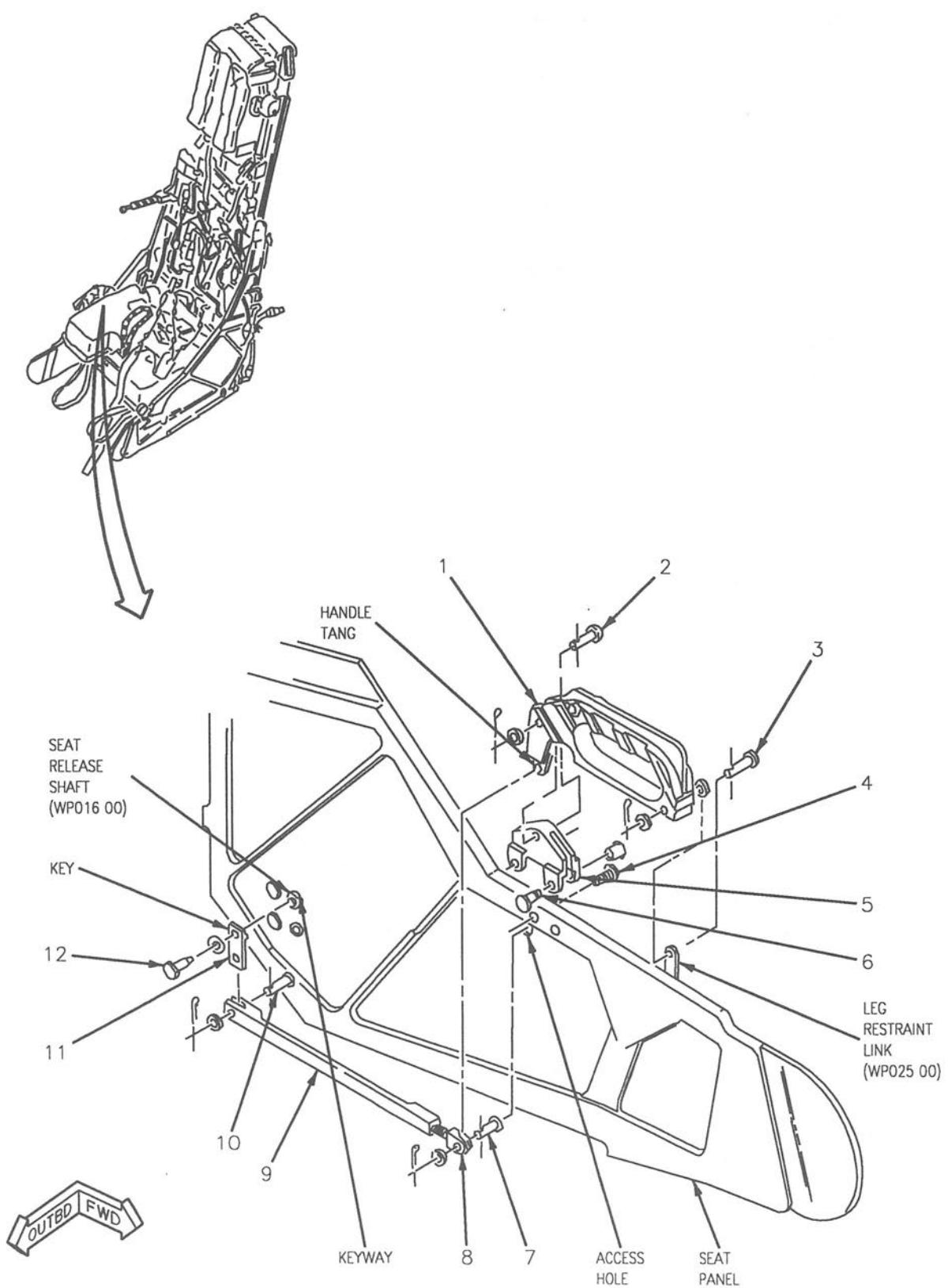


Figure 1. Emergency Release Handle Assembly, Emergency Release Handle Link Assembly (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
		EMERGENCY RELEASE HANDLE			
		ASSEMBLY, EMERGENCY RELEASE			
		HANDLE LINK ASSEMBLY			
1	12150-7	. HANDLE ASSEMBLY (51998)	1		PAOZZ
		(EMERGENCY RELEASE HANDLE			
		ASSEMBLY)			
2	MS20392-3C27	. PIN	1	*	PAOZZ
	NAS1149D0416K	. WASHER (USE WITH INDEX 2)	1	*	PAOZZ
	AN960KD416L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 2)	1		PAOZZ
3	MS20392-2C27	. PIN	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 3)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 3)	1		PAOZZ
4	12048-1	. SPRING, PLUNGER (51998)	1		PAOZZ
5	12154-15	. BRACKET, EMERGENCY RELEASE	1		PAOZZ
		(51998)			
6	NAS1189-08P10	. SCREW	1		PAOZZ
	12437-11	. NUT, SLEEVE (51998)	1		PAOZZ
		(USE WITH INDEX 6)			
7	MS20392-2C9	. PIN	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 7)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 7)	1		PAOZZ
8	12157-11	. CLEVIS, ROD END (51998)	1		PAOZZ
9	12156-11	. LINK, RELEASE HANDLE (51998)	1		PAOZZ
		(EMERGENCY RELEASE HANDLE LINK			
		ASSEMBLY)			
10	MS20392-2C9	. PIN	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 10)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 10)	1		PAOZZ
11	12158-13	. BELLCRANK, EMERGENCY RELEASE	1		PAOZZ
		HANDLE (51998)			
12	NAS6203L5	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 12)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Emergency Release Handle Assembly, Emergency Release Handle Link Assembly (Sheet 2)

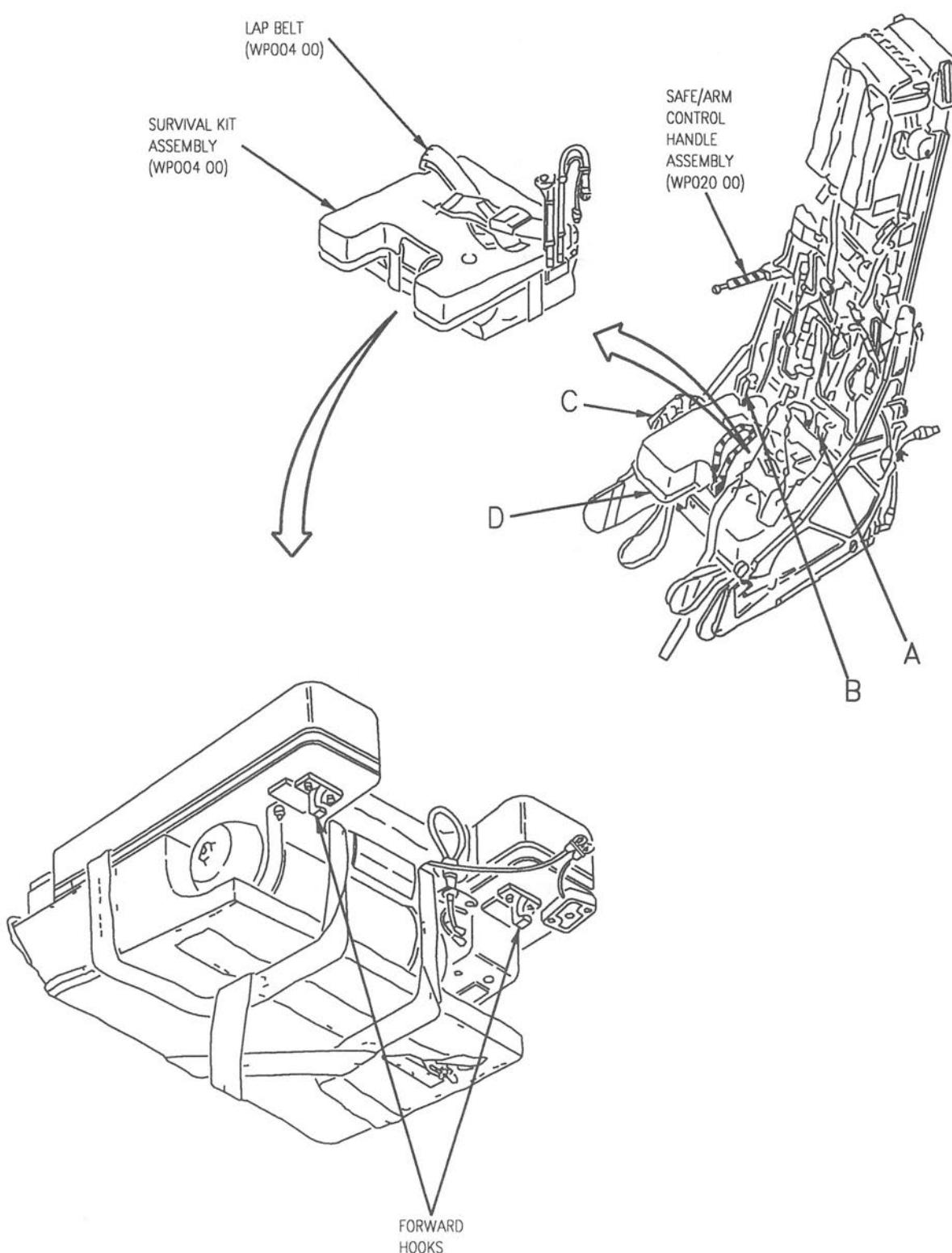


Figure 2. Emergency Release Handle Assembly Test (Sheet 1)

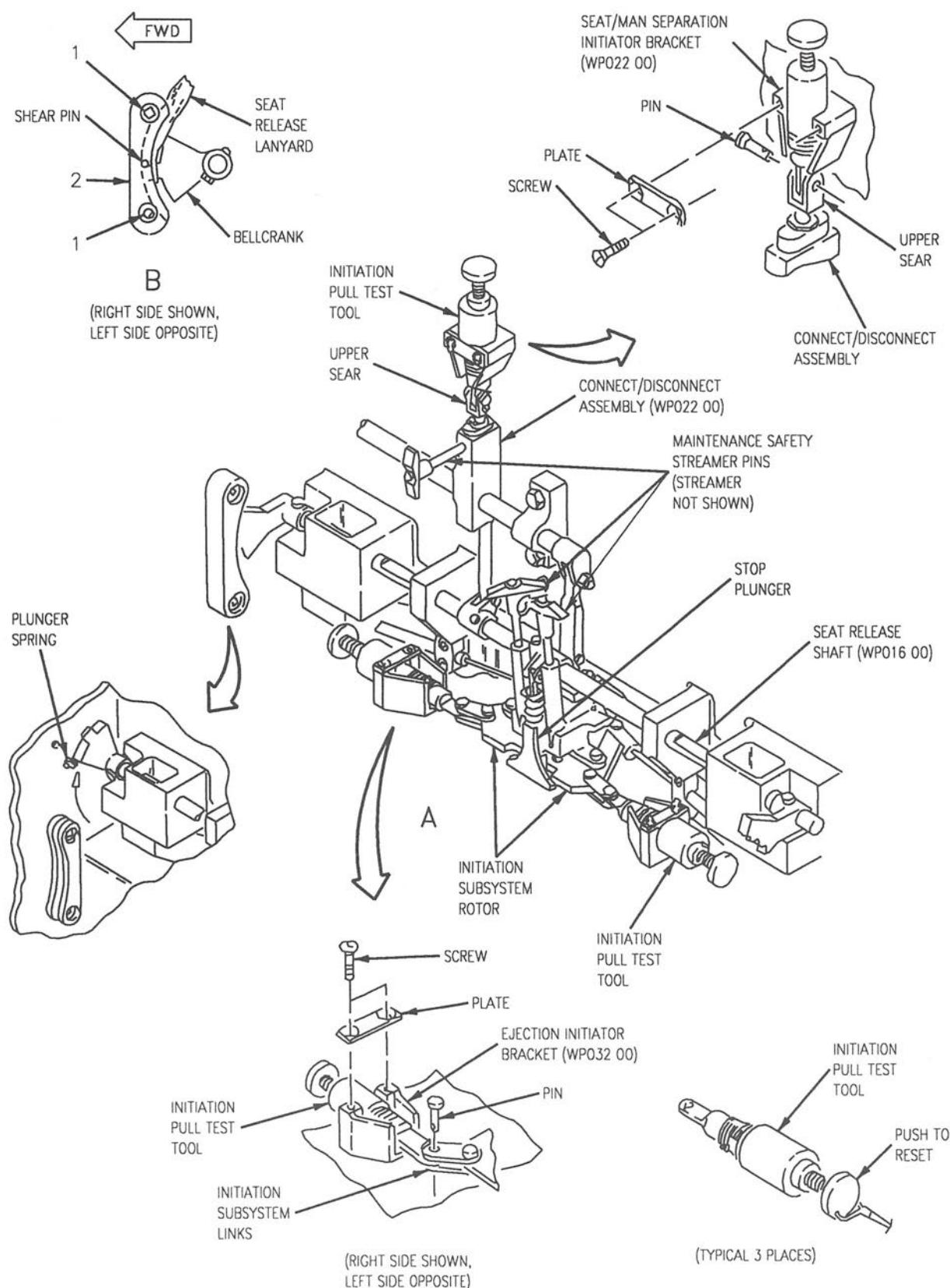
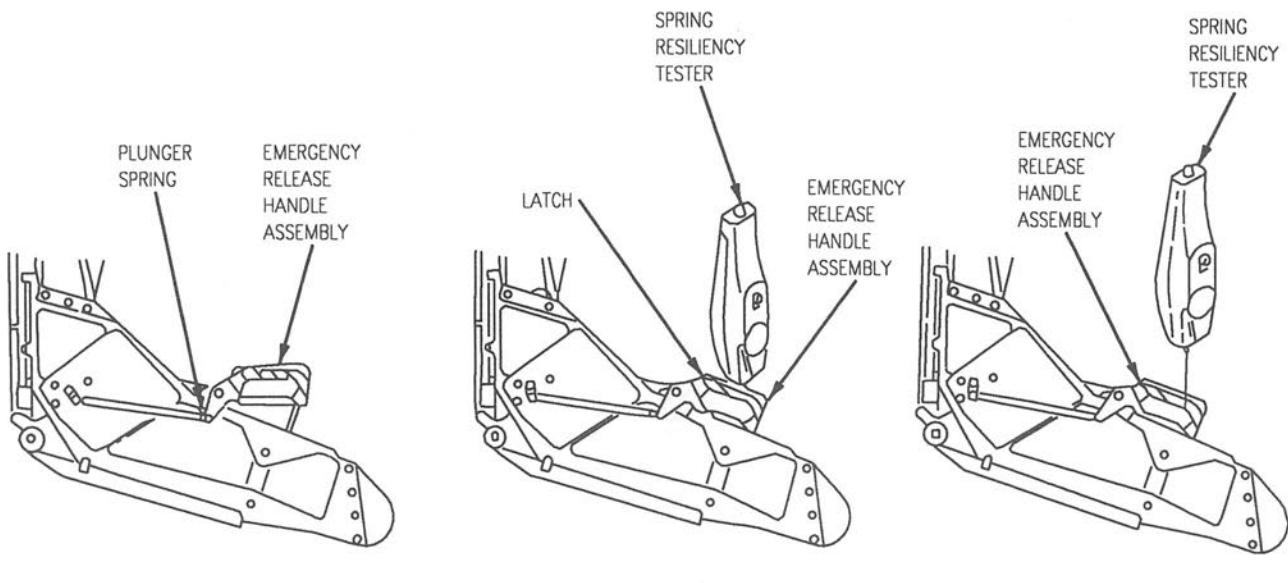
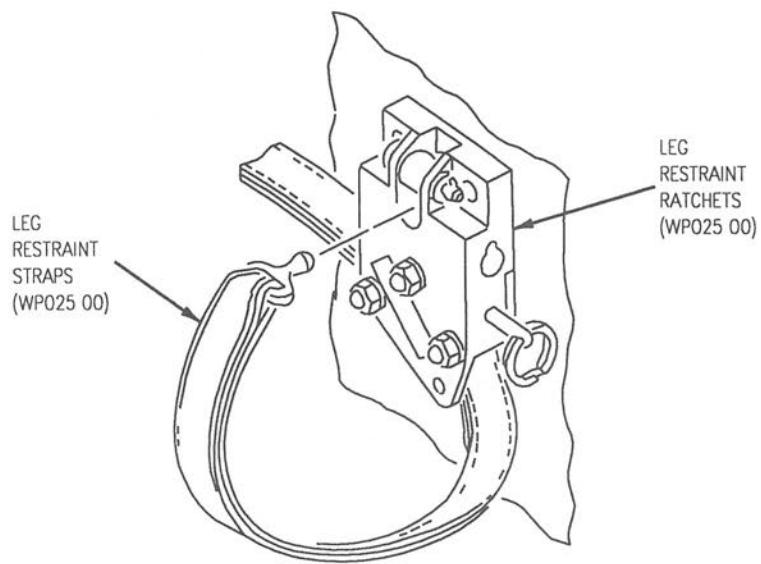


Figure 2. Emergency Release Handle Assembly Test (Sheet 2)



C



D

(RIGHT SIDE SHOWN,
LEFT SIDE OPPOSITE)

Figure 2. Emergency Release Handle Assembly Test (Sheet 3)

A1-AV8BB-120-350

019 00

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INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
1	MS27039-1-14 NAS1149D0332K AN960KD10L	EMERGENCY RELEASE HANDLE	ASSEMBLY TEST						4	*	PAOZZ
		. SCREW							4	*	PAOZZ
		. WASHER (USE WITH INDEX 1)							4	*	PAOZZ
		. SEE ABOVE							4	*	PAOZZ
2	12185-1	. RETAINER ASSEMBLY (51998)							2		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 2. Emergency Release Handle Assembly Test (Sheet 4)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****SAFE/ARM CONTROL HANDLE LINK****SAFE/ARM CONTROL HANDLE ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Back Cushion Assembly, Wedge Assembly.....	WP005 00
Seat/Man Separation Initiator (M688).....	WP006 00
Ejection Initiator (M688).....	WP007 00
Connect/Disconnect Assembly.....	WP022 00

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Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MS24665-132	Cotter Pin

2. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove wedge assembly (WP005 00).
- c. Disconnect tube assembly (1, figure 1) from right outer trombone assembly.
- d. Disconnect tube assembly (1) from inertia reel gas generating intiator. Remove tube assembly.
- e. Remove screw (2), washers, and nut.

NOTE

When safe/arm control handle assembly is removed, insert will fall out.

- f. Pull control assembly (9) forward to clear side panel.
- g. Remove insert (4).
- h. Remove pin (8), washer, and cotter pin.

- i. Remove control assembly (9).

- j. If connecting link (3) is to be replaced, remove connect/disconnect assembly (WP022 00).

3. INSTALLATION.

- a. If connecting link (3, figure 1) was removed, install connect/disconnect assembly (WP022 00).
- b. Position control assembly (9) on connecting link (3).
- c. Install pin (8), washer, and cotter pin.
- d. Position insert (4).
- e. Position control assembly (9). Install screw (2), washers, and nut.
- f. Position tube assembly (1). Loosely connect tube assembly to right outer trombone assembly.
- g. Loosely connect tube assembly (1) to inertia reel gas generating initiator.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- h. Torque tube assembly (1) 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- i. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)
- j. Do safe/arm control handle assembly test, this WP.

4. TEST.

5. The safe/arm control handle assembly is tested per table 1.

Table 1. Safe/Arm Control Handle Assembly Test

Procedure	Normal Indication	Remedy for Abnormal Indication
Support Equipment Required		
Part Number or Type Designation		Nomenclature
NOTE		
Alternate item type designations or part numbers are listed in parenthesis.		
DPPH-100		Spring Resilience Tester
472P950C090-3 (1723AS103)		Initiation Pull Test Tool
Materials Required		
None		
WARNING		
To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.		
a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).		
b. Remove ejection initiators (M688) (WP007 00).		
c. Remove seat/man separation initiator (M688) (WP006 00).		
d. Remove maintenance safety streamer (3 pins).		

Table 1. Safe/Arm Control Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>e. Position initiation pull test tools in ejection initiator brackets (fig 2). Install plates with screws.</p> <p>f. Position initiation subsystem links on initiation pull test tools. Install pins. Do not install washers and cotter pins.</p> <p>g. Position initiation pull test tool in seat/man separation initiator bracket. Install plate with screws.</p> <p>h. Position upper sear and install pin. Do not install washer and cotter pin.</p> <p>i. Make sure initiation pull test tools are not preloaded.</p> <p>j. Position safe/arm control handle assembly to full down position.</p> <p>k. Pull release knob, slightly raise safe/arm control handle assembly and hold.</p> <p>l. Attach spring resiliency tester to release knob and slowly move safe/arm control handle assembly upward.</p>	<p>Spring tension exists and no evidence of binding in release knob movement.</p> <p>1. Safe/arm control handle assembly moves upward and locks in the safe (full up) position with maximum of 10 pounds force and no evidence of binding.</p> <p>2. Connect/disconnect assembly bellcrank rotates upward.</p> <p>3. Initiation subsystem safety plunger moves upward, fully engaging initiation subsystem rotors.</p>	<p>Replace safe/arm control handle assembly, this WP.</p> <p>Replace safe/arm control handle assembly, this WP.</p> <p>1. Inspect connect/ disconnect assembly bellcrank for sheared rivets. 2. Replace connect/ disconnect assembly (WP022 00).</p> <p>1. Inspect connect/ disconnect bellcrank for sheared rivets. 2. Replace initiation subsystem assembly (WP016 00).</p>

Table 1. Safe/Arm Control Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
m. Squeeze and move emergency release handle assembly to full up position.	<p>1. Connect/disconnect assembly upper sear does not move.</p> <p>2. Stop plunger moves up and engages initiation subsystem rotors.</p>	<p>Replace connect/ disconnect assembly (WP022 00).</p> <p>1. Inspect initiation subsystem bellcrank for sheared rivets.</p> <p>2. Replace initiation subsystem assembly (WP016 00).</p>
n. Press plunger spring and move emergency release handle assembly to full down position.	<p>1. Connect/disconnect assembly lower sear moves up.</p> <p>2. Stop plunger moves down, disengaging initiation subsystem rotors.</p>	<p>Replace connect/ disconnect assembly (WP022 00).</p> <p>Replace initiation subsystem assembly (WP016 00).</p>
o. Pull ejection control cable assembly up.	<p>1. Ejection control cable assembly releases from front panel.</p> <p>2. Initiation subsystem rotors do not move.</p>	<p>Do ejection control cable assembly test (WP021 00).</p> <p>Replace initiation subsystem assembly (WP016 00).</p>
p. Stow ejection control cable assembly in front panel by pressing into place.		
q. Move safe/arm control handle assembly to armed (full down) position.	<p>1. Safe/arm control handle assembly locks in down position with no evidence of binding.</p> <p>2. Initiation subsystem safety plunger moves down and disengages initiation subsystem rotors.</p>	<p>Replace safe/arm control handle assembly, this WP.</p> <p>1. Inspect connect/ disconnect bellcrank for sheared rivets.</p> <p>2. Replace initiation subsystem assembly (WP016 00).</p>
r. Raise emergency release handle assembly to up position.	1. Connect/disconnect assembly upper sear moves down extending initiation pull test tool.	Replace connect/ disconnect assembly (WP022 00).

NOTE

Emergency release handle assembly locks in the full up position. Plunger spring must be pressed to set handle assembly to the down position.

Table 1. Safe/Arm Control Handle Assembly Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>s. Press plunger spring and lower emergency release handle assembly to down position.</p> <p>t. Pull ejection control cable assembly up.</p> <p>u. Stow ejection control cable assembly in front panel by pressing into position. Reset initiation subsystem rotors.</p> <p>v. Set safe/arm control handle assembly to up (safe) position.</p> <p>w. Remove screws and plate from seat/man separation initiator bracket. Remove initiation pull test tool.</p> <p>x. Remove screw and plates from ejection initiator brackets. Remove initiation pull test tools.</p> <p>y. Install ejection initiators (M688) (WP007 00).</p> <p>z. Install seat/man separation initiator (M688) (WP006 00).</p> <p>aa. Install maintenance safety streamer (3 pins) (A1-AV8BB-GAI-500, WP004 00).</p>	<p>2. Stop plunger moves up and engages initiation subsystem rotors.</p> <p>The initiation subsystem rotors move extending initiator pull test tools.</p>	<p>Replace initiation subsystem assembly (WP016 00).</p> <p>Do ejection control cable assembly test (WP021 00).</p>

6. ILLUSTRATED PARTS BREAKDOWN.

7. This illustrated parts breakdown contains information for identifying and ordering parts. The

manual introduction has more information on IPB data.

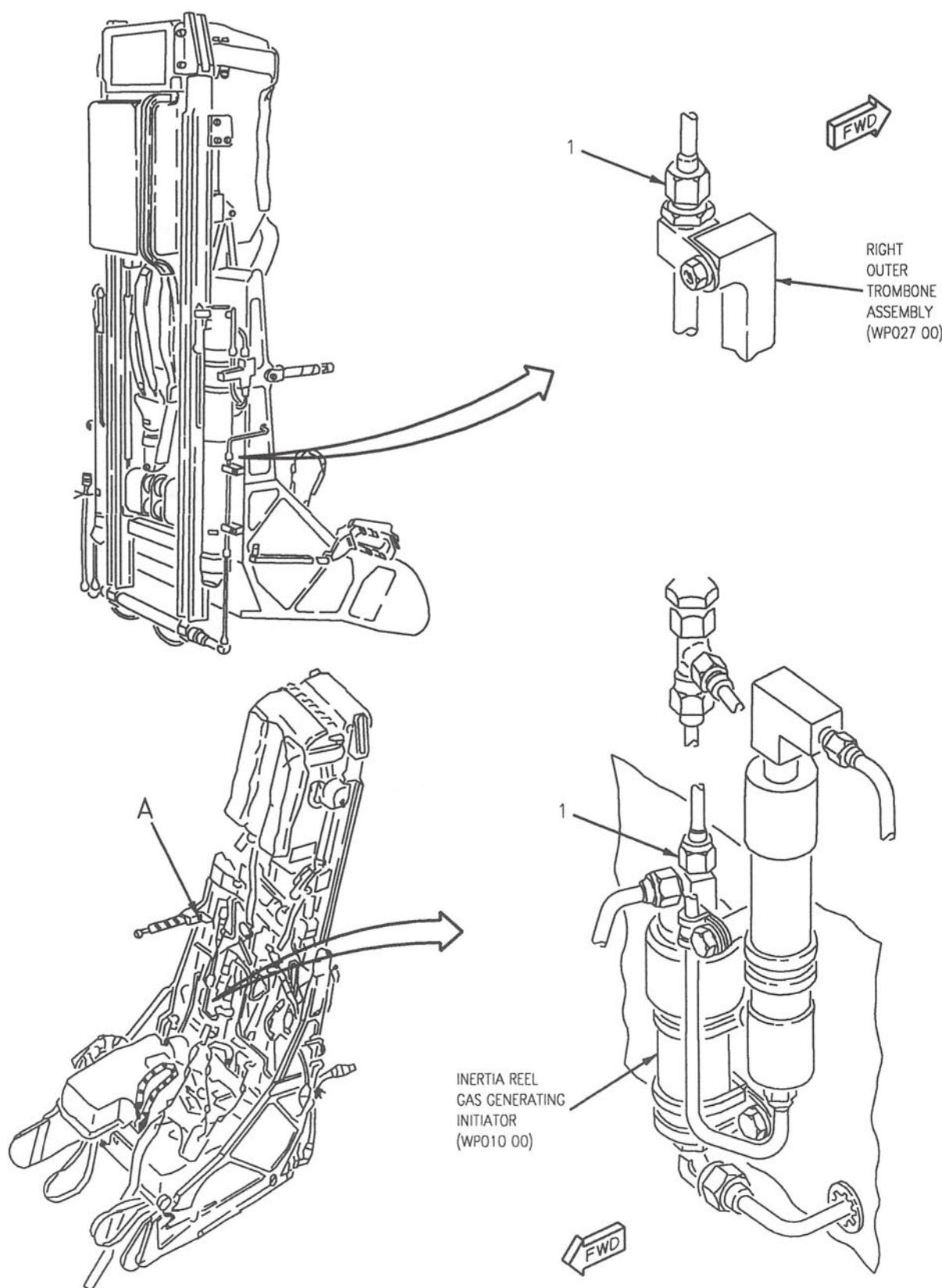
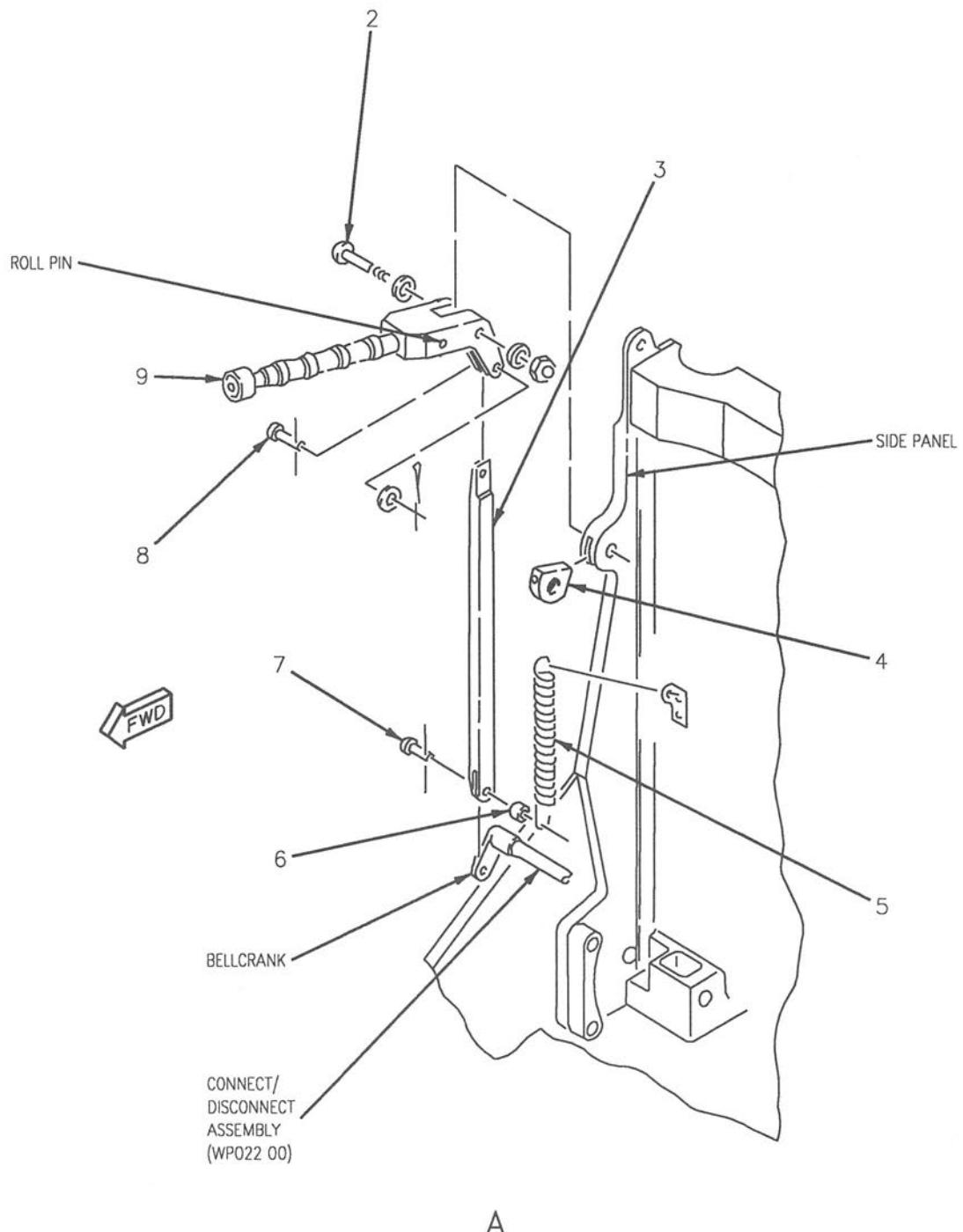


Figure 1. Safe/Arm Control Handle Link, Safe/Arm Control Handle Assembly (Sheet 1)



A

Figure 1. Safe/Arm Control Handle Link, Safe/Arm Control Handle Assembly (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14433-1	SAFE/ARM CONTROL HANDLE LINK, SAFE/ARM CONTROL HANDLE ASSEMBLY			-
		. TUBE ASSEMBLY - GAS GENERATOR MANIFOLD TO TROMBONE (51998)	1		
2	MS27039-4-26	. SCREW	1	*	PAOZZ
	NAS1149D0416K	. WASHER (USE WITH INDEX 2)	2	*	PAOZZ
	AN960KD416L	. SEE ABOVE	2	*	PAOZZ
	MS51865-8	. NUT (USE WITH INDEX 2)	1		PAOZZ
3	12184-13	. CONNECTING LINK (51998) (SAFE/ARM CONTROL HANDLE LINK)	1		PAOZZ
4	12228-15	. INSERT, BOSS (51998)	1		PAOZZ
5	MS24586-615	. SPRING	1		PAOZZ
6	NAS43DD3-16	. SPACER	1		PAOZZ
7	MS20392-2C19	. PIN	1		PAOZZ
8	MS20392-2C13	. PIN	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 8)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 8)	1		PAOZZ
9	12180-3	. CONTROL ASSEMBLY (51998) (SAFE/ARM CONTROL HANDLE ASSEMBLY)	1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS
(WP002 00)

Figure 1. Safe/Arm Control Handle Link, Safe/Arm Control Handle Assembly (Sheet 3)

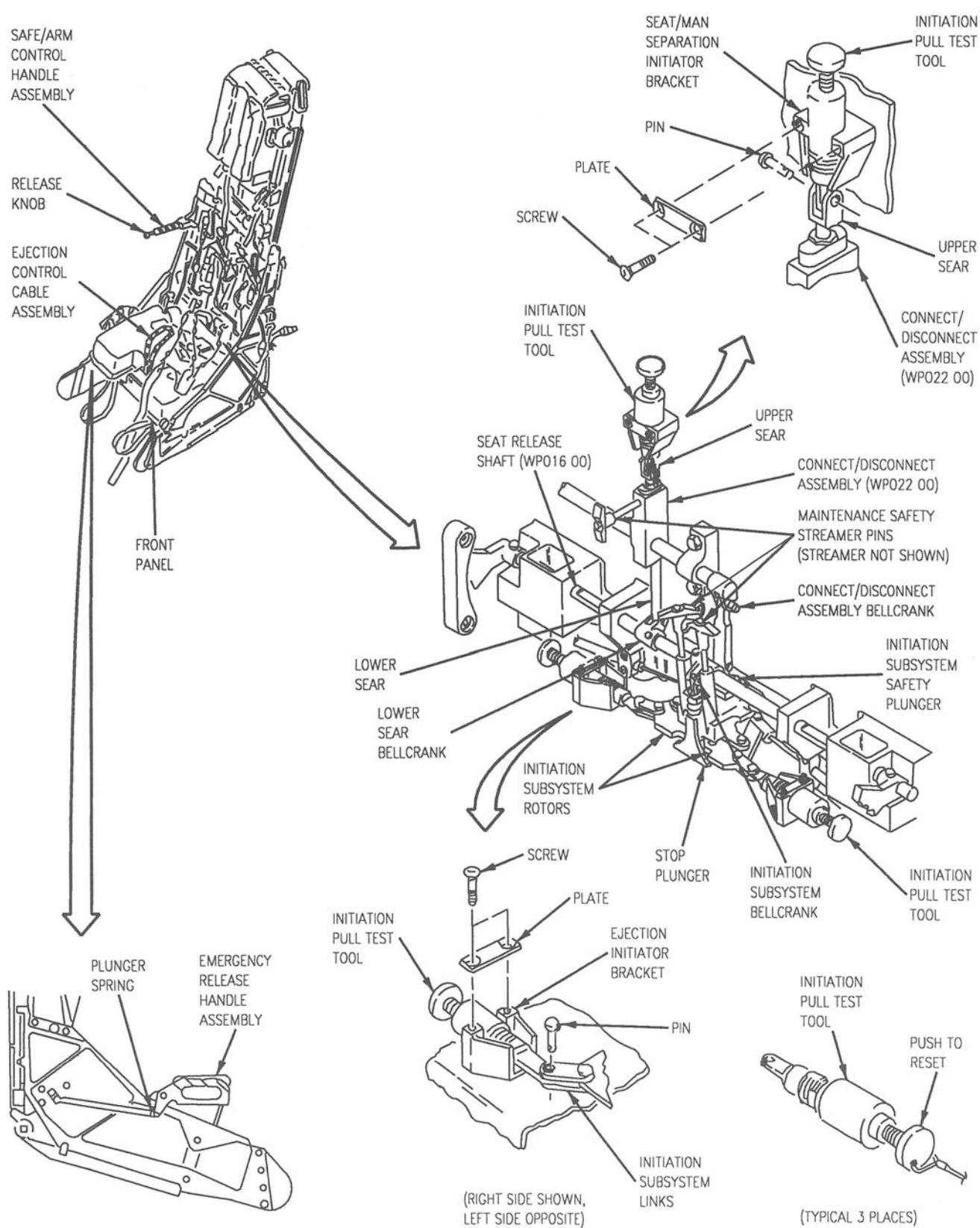


Figure 2. Safe/Arm Control Handle Assembly Test

**ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EJECTION CONTROL CABLE ASSEMBLY
AIRCRAFT EJECTION SEAT**

Reference Material

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Ejection Initiators (M688)	WP007 00
Seat/Man Separation Initiator (M688).....	WP006 00

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Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MS25665-69	Cotter Pin (2)
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Remove ejection initiators (M688) (WP007 00).

NOTE

Emergency release handle assembly locks in full up position. Plunger spring must be pressed to set handle assembly to the down position.

- c. Press plunger spring (figure 1) and lower emergency release handle assembly.

- d. Lower safe/arm control handle assembly.

- e. Pull up on cable assembly (2).

- f. Remove pins (1), washers, and cotter pins.

- g. Remove screws (4) and retainers (3).

- h. Remove clamps (8), bolts, washers, and nuts.

- i. Remove screws (7, detail A), washers, and cover (6).

- j. Loosen plungers (5).

- k. Release cable fittings from slots.

- l. Pull cable assembly (2) through top of front panel.

3. INSTALLATION.

NOTE

Ejection control cable assembly must be installed to permit aircrew member viewing PULL TO EJECT.

- a. Route cable assembly (2, figure 1) through top of front panel. Make sure cable assembly is not twisted. Make sure cable fittings are secured in slots (detail A).

- b. Position cable assembly (2) flush with top of front panel.

- c. Tighten plungers (5) to hold cable assembly (2) in position.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- d. Coat screws (7) with primer.
- e. Install cover (6) with screws (7) and washers.

WARNING

- f. Coat bolts used with clamps (8) with primer.

WARNING

To prevent injury or death to aircrew member, ejection control cable assembly and clamps must be positioned as shown.

- g. Position cable assembly (2) along sides of bottom panel.

NOTE

Bolts must be installed with heads under bottom panel.

- h. Install clamps (8), bolts, washers, and nuts.
- i. Make sure cable assembly (2) is not twisted and align terminal ends of cable assembly with initiator subsystem rotors.
- j. Install pins (1), washers, and cotter pins.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- k. Coat screws (4) with primer.

WARNING

To prevent death or injury to aircrew member, ejection control cable assembly and retainers must be correctly aligned.

- l. Position cable assembly (2) in retainers (3).
- m. Install retainers (3) with screws (4).

n. Do ejection control cable assembly adjustment, this WP.

4. ADJUSTMENT.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
DPPH-100	Spring Resiliency Tester

Materials Required

Specification or Part Number	Nomenclature
MIL-S-46163TY3GRR (CAGE 81349)	Sealing Compound

5. PROCEDURE.**WARNING**

To prevent death or injury to personnel, this procedure is to be done only when directed by ejection control handle assembly installation or ejection control handle assembly functional test (this WP).

NOTE

Ejection control cable assembly release force must be approximately equal for both sides of cable assembly.

- a. Using spring resiliency tester determine force required to release ejection control cable assembly (2, figure 1) from front panel.

b. Adjust ejection control cable assembly release force by turning internal slots on plungers (5) until cable assembly (2) pulls out of front panel at 15 to 25 pounds. Make sure cable assembly release force is approximately equal on both sides of cable assembly.

c. If ejection control cable assembly release force cannot be adjusted to correct force, do substeps below:

- (1) Remove and dispose of plungers (5).

WARNING

Sealing compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

- (2) Coat threads of new plungers (5) with sealing compound.

(3) Install new plungers (5).

(4) Repeat step b.

d. Do functional test, this WP.

6. TEST.

7. Ejection control cable assembly is tested per table 1.

Table 1. Functional Test

Procedure	Normal Indication	Remedy for Abnormal Indication
Support Equipment Required		
Part Number or Type Designation	Nomenclature	
DPPH-100	Spring Resiliency Tester	
472P950C090-3	Initiation Pull Test Tool	
WARNING		
<p>To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.</p> <p>a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).</p> <p>b. Remove ejection initiators (M688) (WP007 00).</p>		

Table 1. Functional Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>c. Remove seat/man separation initiator (M688) (WP006 00).</p> <p>d. Position initiation pull test tools in ejection initiator brackets. Install plates with screws (fig 2).</p> <p>e. Position initiation subsystem links on initiation pull test tools. Install pins. Do not install washers and cotter pins.</p> <p>f. Remove maintenance safety streamer.</p> <p>g. Make sure initiation pull test tools are not preloaded.</p>		
<p>h. Press plunger spring and set emergency release handle to down position.</p> <p>i. Attach spring resiliency tester to ejection control cable assembly. Pull upward at 90° angle to top surface of front panel. Record force required to remove ejection control cable assembly from front panel.</p> <p>j. Move safe/arm control handle assembly to full down position.</p> <p>k. Continue pulling upward on ejection control cable assembly until pull test tools in ejection initiator brackets are extended.</p>	<p>Breakout force is 15 to 25 pounds.</p> <p>Force is 15 to 40 pounds.</p>	<p>Do ejection control cable assembly adjustment, this WP.</p> <p>1. Inspect ejection control cable assembly for damage. 2. Replace ejection control cable assembly, this WP.</p>

Table 1. Functional Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
CAUTION		
<p>Make sure ejection initiation pull test tools are not preloaded.</p> <p>l. Stow ejection control cable assembly in front panel by pressing into position.</p> <p>m. Make sure initiation subsystem rotors return to armed position.</p> <p>n. Set safe/arm control handle assembly to safe (full up) position.</p> <p>o. Remove screws and plates from ejection initiator brackets. Remove initiation pull test tools.</p> <p>p. Install ejection initiators (M688) (WP007 00).</p> <p>q. Install seat/man separation initiator (M688) (WP006 00).</p> <p>r. Install maintenance safety streamer (3 pins) (A1-AV8BB-GAI-500, WP004 00).</p>		

8. ILLUSTRATED PARTS BREAKDOWN.

manual introduction has more information on IPB data.

9. This illustrated parts breakdown contains information for identifying and ordering parts. The

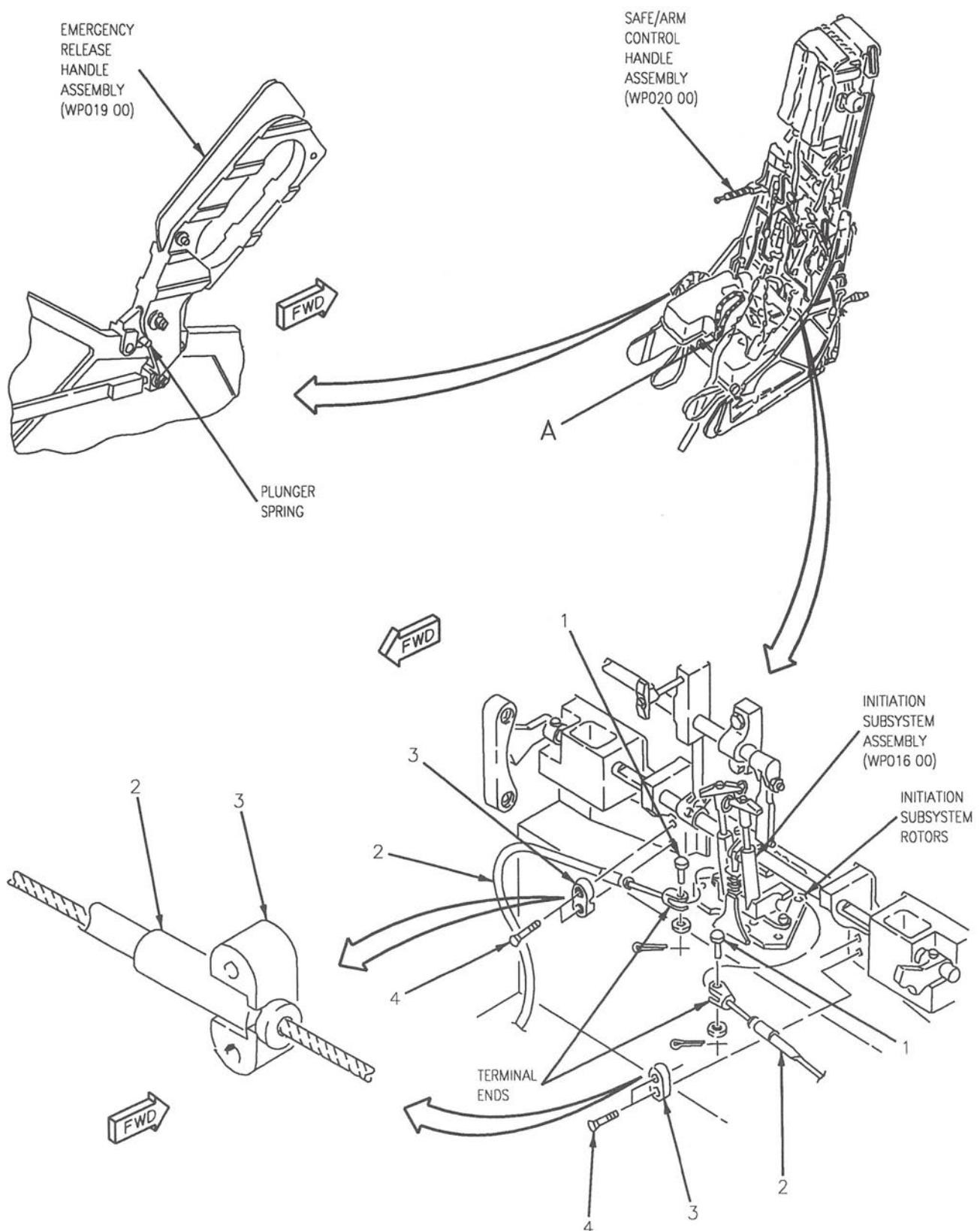


Figure 1. Ejection Control Cable Assembly (Sheet 1)

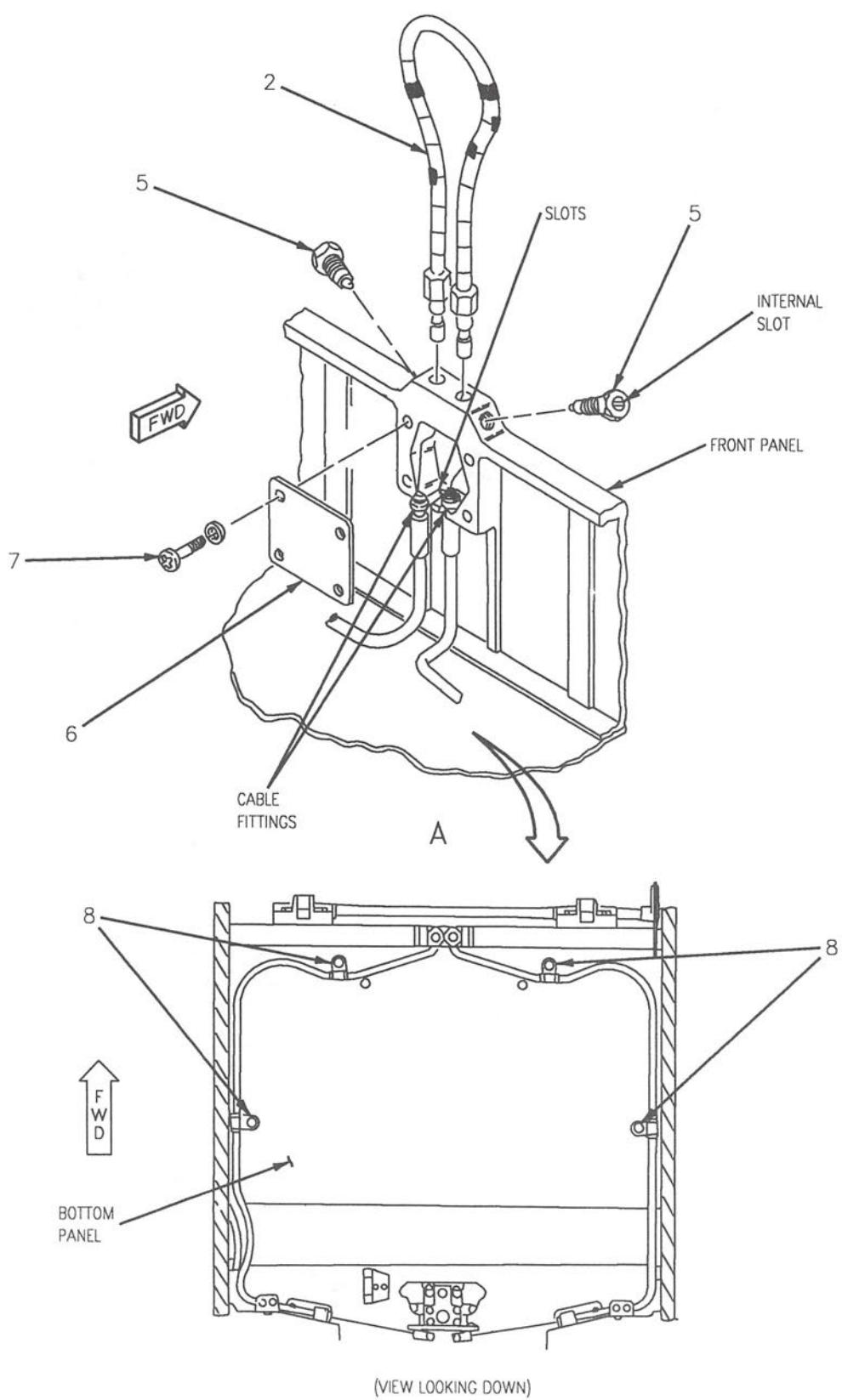


Figure 1. Ejection Control Cable Assembly (Sheet 2)

INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	MS20392-1C11 NAS620A5L MS24665-69		EJECTION CONTROL CABLE ASSEMBLY			
			. PIN	2		PAOZZ
			. WASHER (USE WITH INDEX 1)	2		PAOZZ
			. PIN, COTTER (USE WITH INDEX 1)	2		PAOZZ
2	12450-13		. CABLE ASSEMBLY, FIRING	1		PAOZZ
			CONTROL (24632) (EJECTION CONTROL CABLE ASSEMBLY)			
3	12269-11		. RETAINER - CABLE (24632)	2		PAOZZ
4	MS24694-S9		. SCREW	4		PAOZZ
5	12670-1		. PLUNGER, QUICK RELEASE (24632)	2		PAOZZ
6	12197-11		. COVER - FRONT BEAM (24632)	1		MDOZZ
7	MS27039-1-05 NAS1149D0332K AN960KD10L		. SCREW	4		PAOZZ
			. WASHER (USE WITH INDEX 7)	4	*	PAOZZ
8	MS21919DG4 NAS6203-1 NAS1149D0332K AN960KD10L 22NKTM-02		. SEE ABOVE	4	*	PAOZZ
			. CLAMP	4		PAOZZ
			. BOLT (AP) (HEADS DOWN)	4		PAOZZ
			. WASHER (AP)	4	*	PAOZZ
			. SEE ABOVE	8		PAOZZ
			. NUT (72962) (SAEC SPEC	4		PAOZZ
			12484-009) (AP)			

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Ejection Control Cable Assembly (Sheet 3)

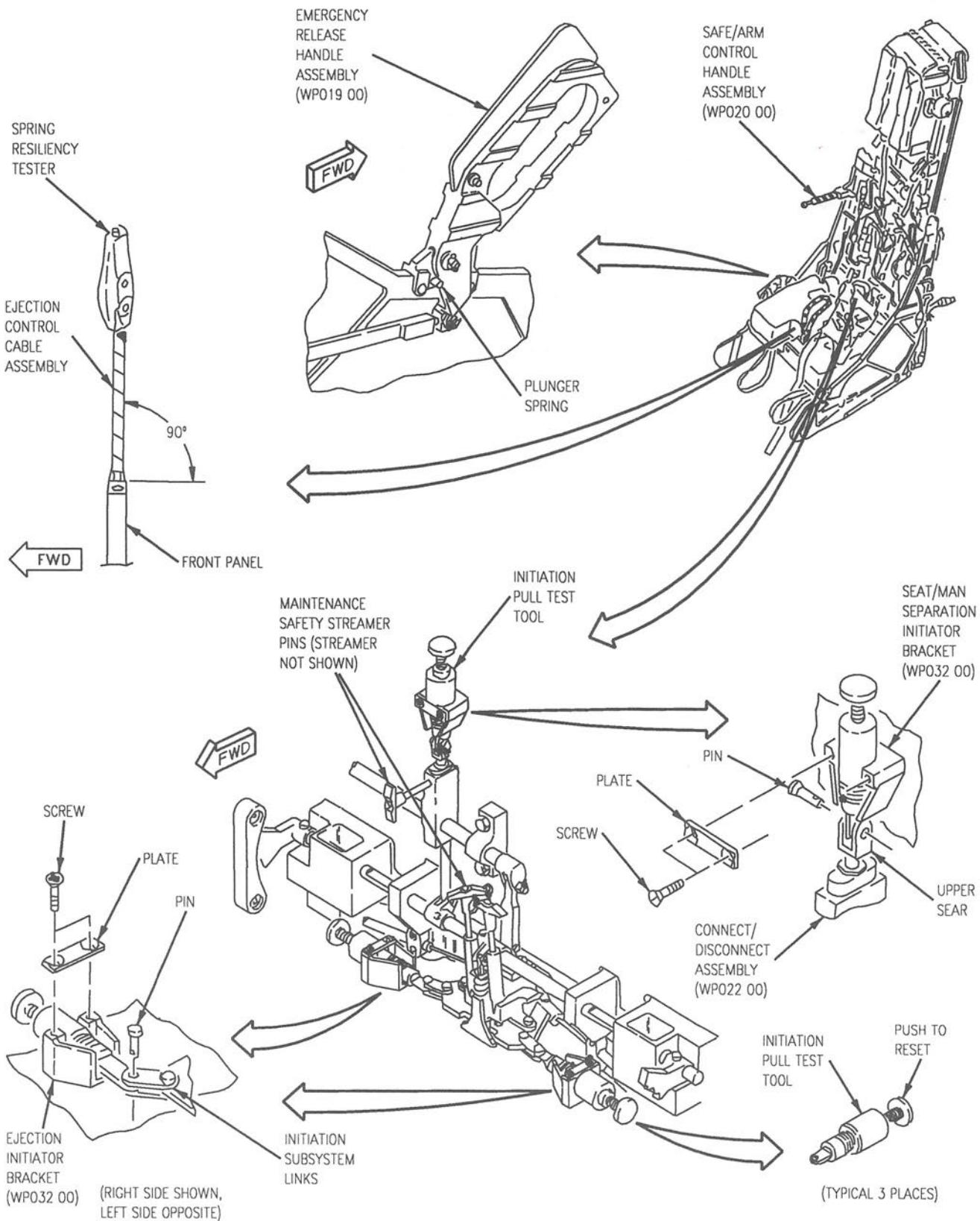


Figure 2. Ejection Control Cable Assembly Test

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****CONNECT/DISCONNECT ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat/Man Separation Initiator (M688).....	WP006 00
Emergency Release Handle Link, Emergency Release Handle Assembly.....	WP019 00
Safe/Arm Control Handle Link, Safe/Arm Control Handle Assembly.....	WP020 00

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Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin
MS24665-69	Cotter Pin (2)
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove seat/man separation initiator (M688) (WP006 00).
- c. Remove safe/arm control handle assembly (WP020 00).
- d. Remove bolts (8, figure 1) and washers.
- e. Slide mounting bracket toward connect/disconnect assembly (10).
- f. Disconnect spring (1) and remove spacer (14).
- g. Remove pin (6), washer, and cotter pin.
- h. Remove pin (5), washer, and cotter pin.
- i. Remove bolts (9) and washers.
- j. Slide connect/disconnect assembly (10) and bellcrank (4) along seat release shaft until bearing (2) and pin (3) can be removed. Remove bearing.

k. Remove pin (3), washer, and cotter pin.

l. Remove connect/disconnect (10) from ejection seat.

m. Remove pin (15) from safe/arm control handle link.

3. INSTALLATION.

a. Position right bellcrank in safe/arm control handle link (figure 1).

b. Position pin (15).

c. Position lower sear assembly (7) and upper sear (11) with clevis (13) and nut (12) in connect/disconnect assembly (10).

d. Align lower sear assembly (7) with bellcrank (4).

e. Install pin (3), washer and cotter pin. Make sure head of pin (3) is toward right side panel.

f. Position bearing (2) in right side panel.

g. Slide connect/disconnect assembly (10) along seat release shaft until connect/disconnect assembly is seated in bearing (2).

h. Align hole in bellcrank (4) with hole in seat release shaft.

i. Install pin (5), washer, and cotter pin.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- j. Coat bolts (9) with coating primer.
- k. Install bolts (9) and washers.
- l. Install spacer (14) and connect spring (1) to pin (15).
- m. Align left bellcrank with link.
- n. Install pin (6), washer, and cotter pin.
- o. Slide mounting bracket to align with mounting bracket holes.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- p. Coat bolts (8) with coating primer.
- q. Install bolts (8) and washers.
- r. Do connect/disconnect assembly adjustment, this WP.
- s. Install safe/arm control handle assembly (WP020 00).
- t. Do emergency release handle test (WP019 00).
- u. Install seat/man separation initiator (M688) (WP006 00).

4. ADJUSTMENT.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
--	---------------------

NOTE

Alternate item type designations or part numbers are listed in parenthesis.

472P950C090-3 (1723AS103)	Initiation Pull Test Tool Set
------------------------------	-------------------------------

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin

5. PROCEDURE.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. If installed, remove seat/man separation initiator (M688) (WP006 00).
- c. Make sure emergency release handle assembly is in full down position (figure 2).
- d. Position initiation pull test tool in seat/man separation initiator bracket. Install plate with screws.
- e. Position clevis on initiation pull test tool. Install pin. Do not install washer or cotter pin.
- f. Make sure initiation pull test tool is not preloaded.
- g. Measure and record distance between top of connect/disconnect assembly and bottom of nut (dimension A).
- h. If dimension recorded in step g is 0.35 to 0.39 inch, go to step i. If dimension is not 0.35 to 0.39 inch, do substeps below: (QA)
 - (1) Remove pin from clevis.
 - (2) Remove screws, plate, and initiation pull test tool.
 - (3) Loosen nut.
 - (4) Adjust clevis to get correct dimension. (QA)
 - (5) Tighten nut.
 - (6) Position initiation pull test tool and install plate with screws.
 - (7) Install pin in clevis.

(8) Repeat steps g and h.

i. Measure and record gap between spring pin and bottom of connect/disconnect assembly (dimension B).

j. If dimension recorded in step i is 0.06 inch maximum, go to step k. If dimension exceeds 0.06 inch, do substeps below: (QA)

(1) Set emergency release handle assembly to the up position.

(2) Remove pin (1), washer, and cotter pin.

NOTE

Emergency release handle assembly locks in the full up position. Plunger spring must be pressed to set handle assembly to the down position.

(3) Press plunger spring and set emergency release handle assembly to down position.

(4) Adjust clevis on emergency release handle link assembly to get correct dimension with emergency release handle assembly in down position and pin (1) installed. (QA)

(5) Set emergency release handle assembly to up position.

(6) Install pin (1), washer, and cotter pin.

(7) Press plunger spring and lower emergency release handle assembly to down position.

(8) Repeat steps i and j.

k. Remove screws and plate from seat/man separation initiator bracket. Remove initiation pull test tool.

l. Install seat/man separation initiator (M688) (WP006 00).

6. ILLUSTRATED PARTS BREAKDOWN.

7. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

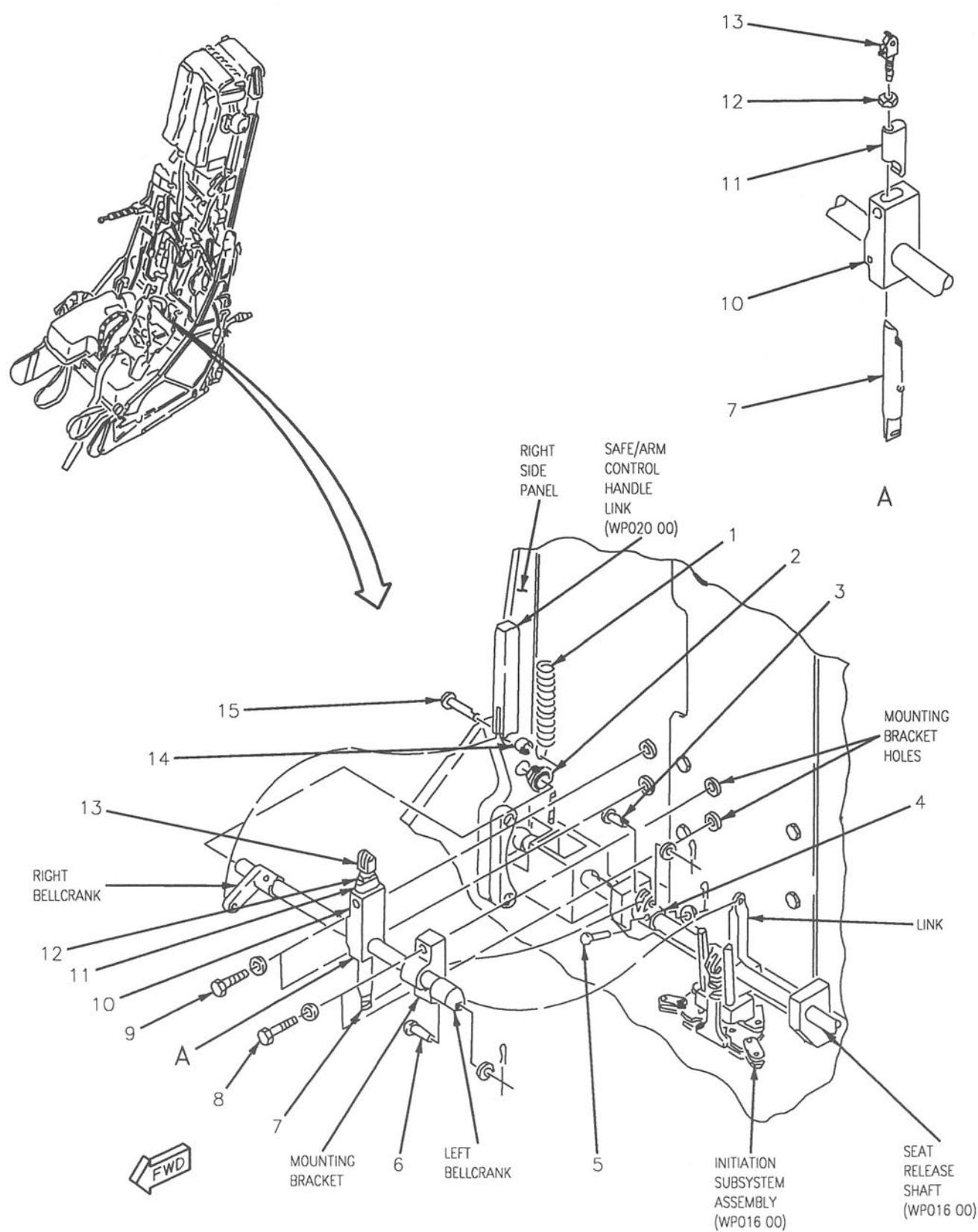


Figure 1. Connect/Disconnect Assembly (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
CONNECT/DISCONNECT ASSEMBLY					
1	MS24586-615	. SPRING	1		PAOZZ
2	25008-11	. BEARING, FLANGED (51998)	1		PAOZZ
3	MS20392-1C13 NAS1149DN416K AN960KD4L MS24665-69	. PIN	1		PAOZZ
	12178-15	. WASHER (USE WITH INDEX 3)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
		. PIN, COTTER (USE WITH INDEX 3)	1		PAOZZ
		. BELLCRANK (51998) (LOWER SEAR	1		PAOZZ
5	MS20392-2C21 NAS1149D0332K AN960KD10L MS24665-132	. PIN	1		PAOZZ
		. WASHER (USE WITH INDEX 5)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
6	MS20392-1C17 NAS1149N416K AN960KD4L MS24665-132	. PIN	1		PAOZZ
		. WASHER (USE WITH INDEX 6)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
7	12177-1	. PIN, COTTER (USE WITH INDEX 6)	1		PAOZZ
		. SEAR ASSEMBLY (51998)	1		PAOZZ
		(LOWER SEAR)			
8	NAS6203L10 NAS11490332K AN960KD10L	. BOLT	2		PAOZZ
		. WASHER (USE WITH INDEX 8)	2	*	PAOZZ
		. SEE ABOVE	2	*	PAOZZ
9	NAS6203-4 NAS11490332K AN960KD10L	. BOLT	2		PAOZZ
		. WASHER (USE WITH INDEX 9)	2	*	PAOZZ
		. SEE ABOVE	2	*	PAOZZ
10	12170-3	. CONNECT/DISCONNECT ASSEMBLY	1		PAOZZ
		(51998)			
11	12176-11	. SEAR, CONNECT/DISCONNECT	1		PAOZZ
		(51998) (UPPER SEAR)			
12	MS21042L3	. NUT	1		PAOZZ
13	12157-11	. CLEVIS, ROD END (51998)	1		PAOZZ
14	NAS43DD3-16	. SPACER	1		PAOZZ
15	MS20392-2C19	. PIN	1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Connect/Disconnect Assembly (Sheet 2)

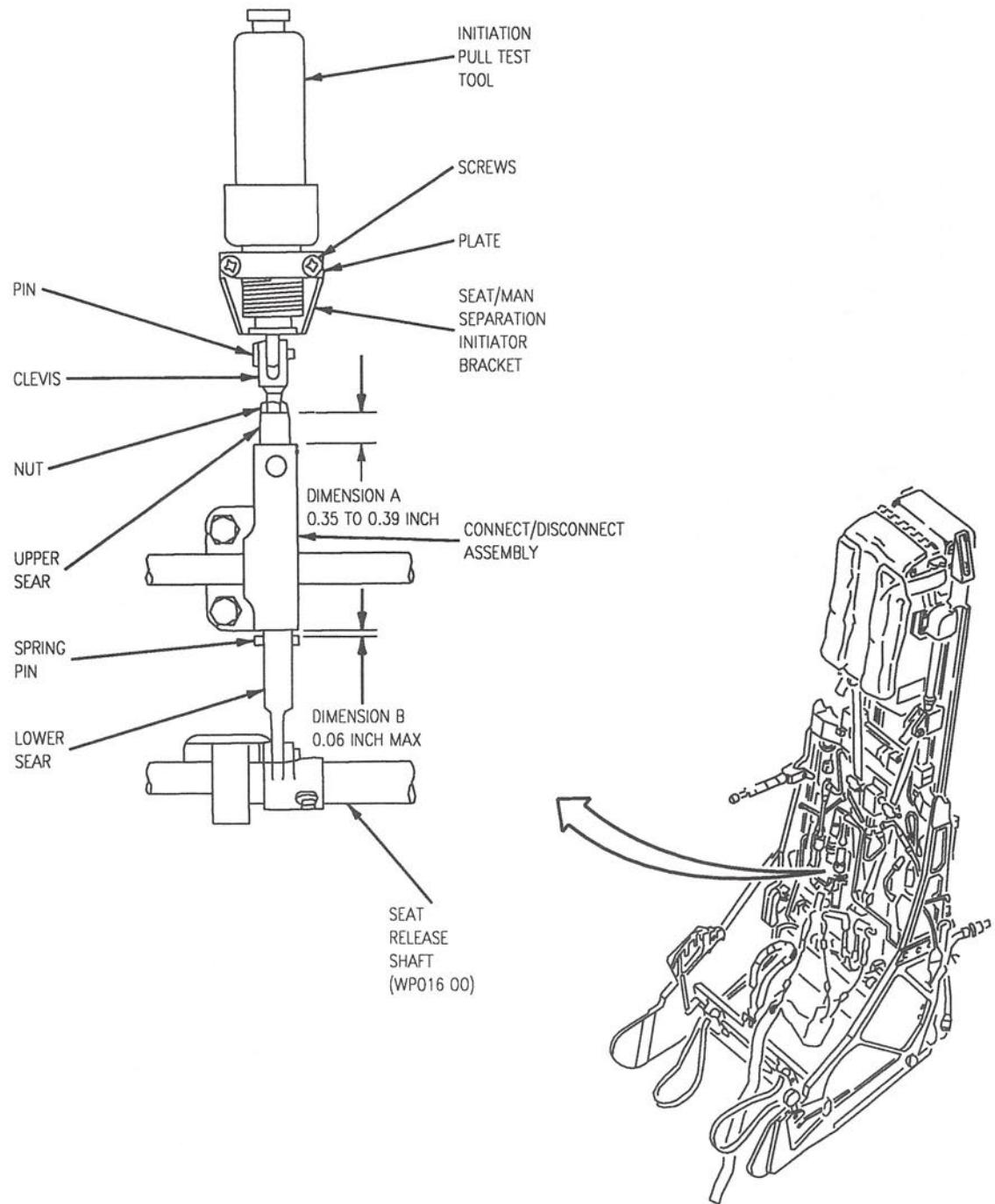


Figure 2. Connect/Disconnect Assembly Adjustment (Sheet 1)

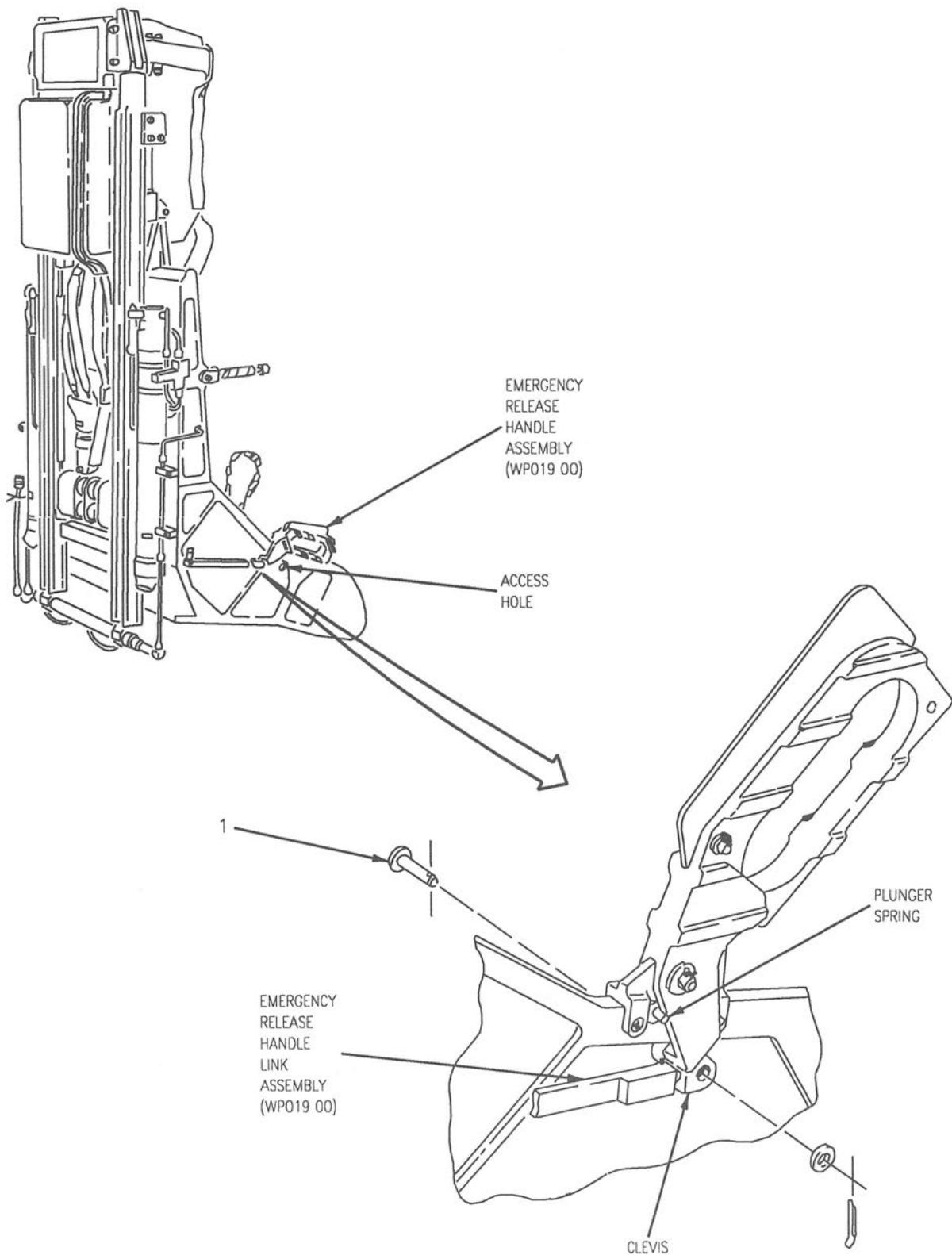


Figure 2. Connect/Disconnect Assembly Adjustment (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
CONNECT/DISCONNECT ASSEMBLY											
1	MS20392-2C9 NAS11490332K AN960KD10L MS24665-132	. ADJUSTMENT	. PIN						1	*	PAOZZ
			. WASHER (USE WITH INDEX 1)						1	*	PAOZZ
			. SEE ABOVE						1	*	PAOZZ
			. PIN, COTTER (USE WITH INDEX 1)						1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 2. Connect/Disconnect Assembly Adjustment (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****DART ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Periodic Maintenance Information Cards	A1-AV8BB-MRC-000
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operation.....	WP004 00

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Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Support Equipment Required

Part Number or Type Designation	Nomenclature
472P950E057-1	Height Adjustment Actuator Control Assembly

Materials Required

Specification or Part Number	Nomenclature
MIL-S-46163, TYPE 2, GRADE M (CAGE 81349)	Sealing Compound
MS24665-132 12216-11	Cotter Pin (10) Shear Pin (4)

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove pin (1, figure 1), washer, and cotter pin.
- c. Remove pin (3) washer, and cotter pin.

WARNING

To prevent death or injury to personnel, do not pull WORD releases while disconnecting DART assembly.

- d. Remove pins (4), washers, and cotter pins, making sure not to pull WORD releases (5).

WARNING

To prevent death or injury to personnel, WORD releases must be stowed where they cannot be inadvertently pulled while disconnected from DART assembly.

- e. Stow WORD releases (5).
- f. Remove screws (10) and washers.
- g. Remove pins (9), washers, and cotter pins.
- h. Remove bolts (6), washers, nuts, and cotter pins.
- i. Remove DART assembly (13).

3. INSTALLATION.

- a. If DART assembly (13, figure 1) is being replaced, do substeps below:

NOTE

DART assembly is scheduled removal component. DART assembly must be marked with required data and entry must be made in log book.

For expiration date of DART assembly, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark DART assembly (13) with date of installation and date of expiration.

(2) Make log book entry for DART assembly (13) to include date of manufacture, overhaul lot number, serial number, date of installation, and expiration date.

- b. Inspect DART assembly (13) for correct number (6 each) and placement of straps (12). If straps are missing or broken, replace.
- c. Position DART assembly (13) on ejection seat.
- d. Install bolts (6), washers, nuts, and cotter pins.

- e. Position plates (7 and 8).

WARNING

To prevent death or injury to aircrew member, correct pins must be installed.

NOTE

New pins must be used when installing DART assembly.

- f. Install pins (9), washers, and cotter pins.

WARNING

Sealing compound is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

- g. Coat screws (10) with sealing compound.
- h. Position cable assemblies (11) and install screws (10) and washers.
 - i. Measure gap between cable assemblies (11) end fittings and seat frame (dimensions A, detail A). If gap is not 0.06 inch minimum, do substeps below: (QA)
 - (1) Loosen screw (10).
 - (2) Position cable assembly (11) to get gap of 0.06 inch minimum.
 - (3) Tighten screw (10).
 - (4) Repeat step i.

WARNING

To prevent death or injury to personnel do not pull WORD releases while connecting DART assembly.

- j. Position WORD releases (5) and install pins (4), washers, and cotter pins.

WARNING

To prevent death or injury to aircrew member, left DART brake cord must be attached to left catapult tube assembly.

- k. Position left DART brake cord, leg restraint strap assembly and lanyard assembly (2) on left catapult tube assembly.

- l. Install pin (1), washer, and cotter pin.

WARNING

To prevent death or injury to aircrew member, right DART brake cord must be attached to right catapult tube assembly.

- m. Position right DART brake cord and leg restraint strap assembly on right catapult tube assembly.

- n. Install pin (3), washer, and cotter pin.

- o. Using height adjustment actuator control assembly, fully raise and lower seat bucket. Inspect for the following:

- (1) Left/right DART brake cords flex and do not become trapped or pinched when the seat bucket is full down.
- (2) WORD release withdrawal lines remain stowed as seat bucket moves.

4. LOWERING AND RAISING.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MIL-S-46163, TYPE 2, GRADE M (CAGE 81349)	Sealing Compound
MS24665-132	Cotter Pin (8)

Materials Required (Continued)

Specification or Part Number	Nomenclature
------------------------------	--------------

12216-11	Shear Pin (4)
----------	---------------

5. LOWERING.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove pin (1, figure 1), washer, and cotter pin.

c. Remove pin (3), washer, and cotter pin.

WARNING

To prevent death or injury to personnel, do not pull WORD releases while disconnecting DART assembly.

d. Remove pins (4), washers, and cotter pins, making sure not to pull WORD releases (5).

WARNING

To prevent death or injury to personnel, WORD releases must be stowed where they cannot be inadvertently pulled while disconnected from DART assembly.

e. Stow WORD releases (5).

f. Remove screws (10) and washers.

g. Remove pins (9), washers, and cotter pins.

h. Support and lower DART assembly (13).

6. RAISING.

a. Raise and position DART assembly (13, figure 1).

b. Position plates (7 and 8).

WARNING

To prevent death or injury to aircrew member, correct pins must be installed.

NOTE

New pins must be used when installing DART assembly.

c. Install pins (9), washers, and cotter pins.

WARNING

Sealing compound is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

d. Coat screws (10) with sealing compound.

e. Position cable assemblies (11) and install screws (10) and washers.

f. Measure gap between cable assemblies (11) end fittings and seat frame (dimensions A, detail A). If gap is not 0.06 inch minimum, do substeps below: (QA)

(1) Loosen screw (10).

(2) Position cable assembly (11) to get gap of 0.06 inch minimum.

(3) Tighten screw (10).

(4) Repeat step f.

WARNING

To prevent death or injury to personnel do not pull WORD releases while connecting DART assembly.

- g. Position WORD releases (5) and install pins (4), washers, and cotter pins.

WARNING

To prevent death or injury to aircrew member, left DART brake cord must be attached to left catapult tube assembly.

- h. Position left DART brake cord, leg restraint strap assembly and lanyard assembly (2) on left catapult tube assembly.
- i. Install pin (1), washer, and cotter pin.

WARNING

To prevent death or injury to aircrew member, right DART brake cord must be attached to right catapult tube assembly.

- j. Position right DART brake cord and leg restraint strap assembly on right catapult tube assembly.

- k. Install pin (3), washer, and cotter pin.

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

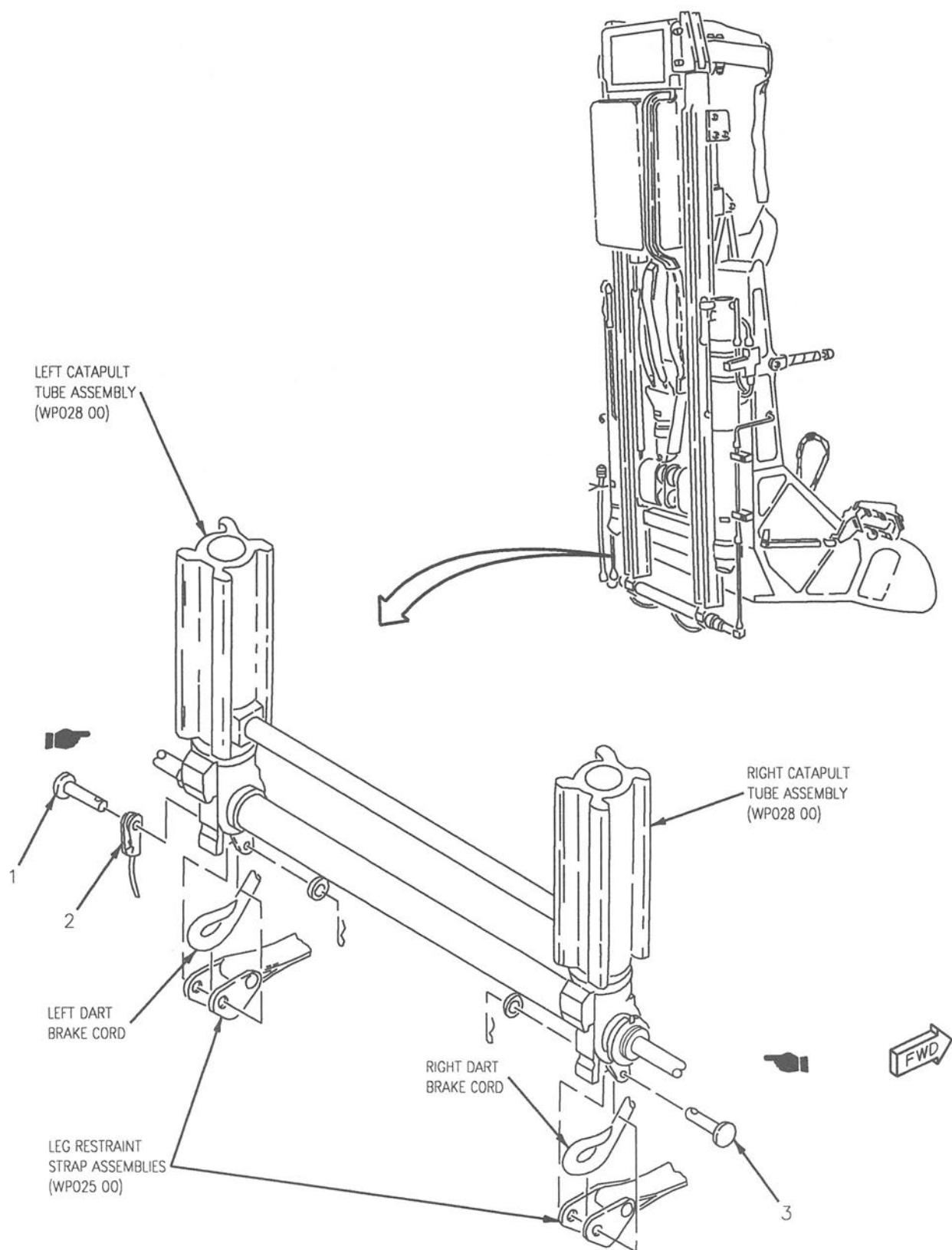


Figure 1. DART Assembly (Sheet 1)

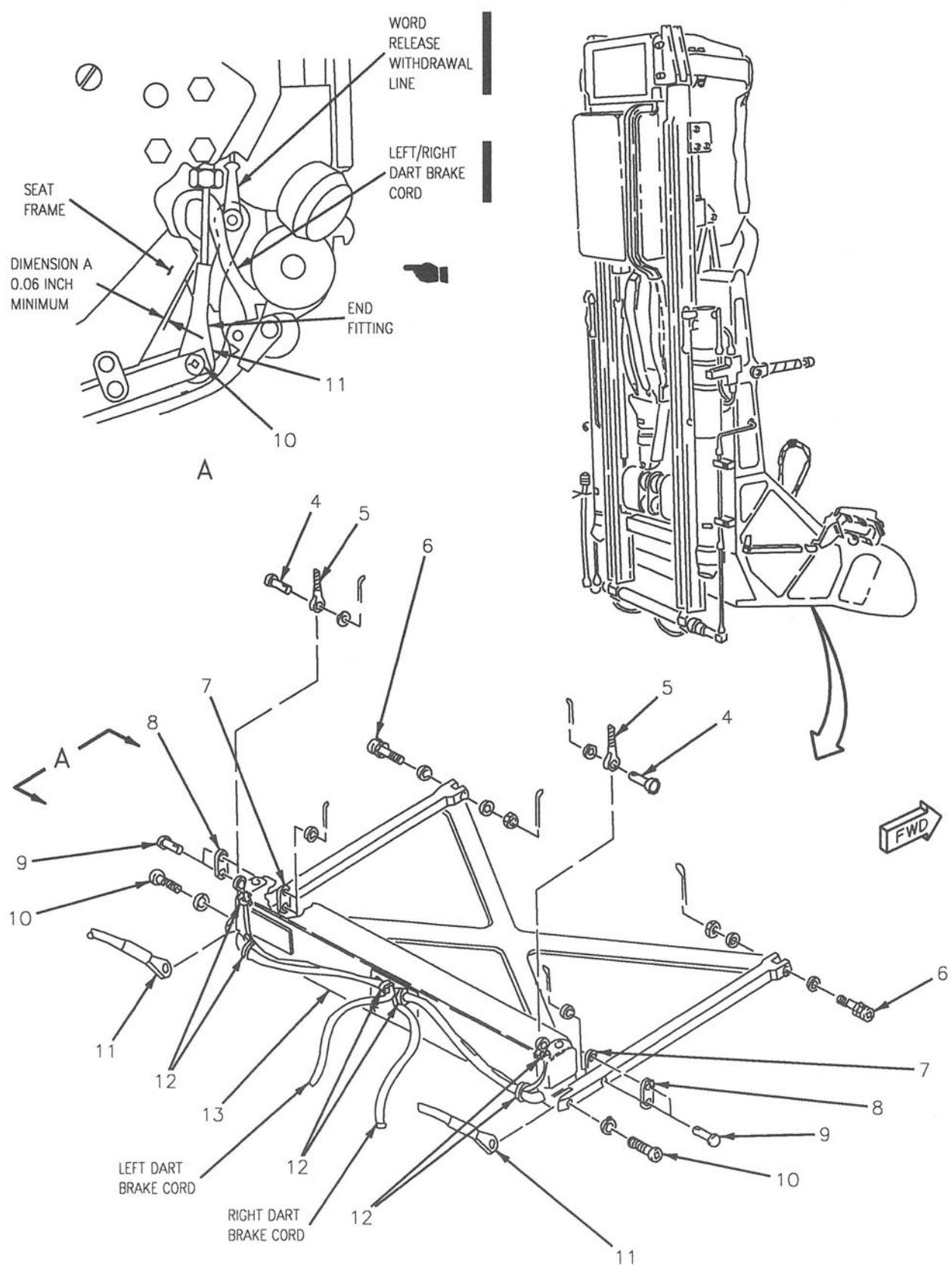


Figure 1. DART Assembly (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE				
DART ASSEMBLY									
1	MS20392-3C31 NAS1149D0416K AN960KD416L MS24665-132	. PIN	1	*	PAOZZ				
2	472P100C014-1	. WASHER (USE WITH INDEX 1)	1	*	PAOZZ				
		. SEE ABOVE	1	*	PAOZZ				
		. PIN, COTTER (USE WITH INDEX 1)	1	*	PAOZZ				
		. WIRE ROPE ASSEMBLY (51998)	1	*	PAOZZ				
		(LANYARD ASSEMBLY)							
3	MS20392-3C27 NAS1149D0332K AN960KD416L MS24665-132	. PIN	1	*	PAOZZ				
		. WASHER (USE WITH INDEX 3)	1	*	PAOZZ				
		. SEE ABOVE	1	*	PAOZZ				
4	MS20392-2C9 NAS1149D0332K AN960KD10L MS24665-132	. PIN	2	*	PAOZZ				
		. WASHER (USE WITH INDEX 4)	2	*	PAOZZ				
		. SEE ABOVE	2	*	PAOZZ				
5	472V400D126-3	. PIN, COTTER (USE WITH INDEX 4)	2	*	PAOZZ				
		. WORD RELEASE - WITHDRAWAL LINE	2	*	PAOZZ				
		(51998)							
6	NAS1303-14D NAS1149D0332K AN960KD10L AN320-3 MS24665-132	. BOLT	2	*	PAOZZ				
		. WASHER (USE WITH INDEX 6)	4	*	PAOZZ				
		. SEE ABOVE	4	*	PAOZZ				
		. NUT (USE WITH INDEX 6)	2	*	PAOZZ				
		. PIN, COTTER (USE WITH INDEX 6)	2	*	PAOZZ				
7	12209-13	. PLATE - DART ATTACHMENT (OUTER)	2	*	PAOZZ				
		(51998)							
8	12209-11	. PLATE - DART ATTACHMENT (INNER)	2	*	PAOZZ				
		(51998)							
9	12216-11 NAS1149DN816K AN960KD8L MS24665-132	. PIN, STRAIGHT (51998)	4	*	PAOZZ				
		. WASHER (USE WITH INDEX 9)	4	*	PAOZZ				
		. SEE ABOVE	4	*	PAOZZ				
		. PIN, COTTER (USE WITH INDEX 9)	4	*	PAOZZ				
10	NAS623-3-7 NAS1149D0332K AN960KD10L	. SCREW	2	*	PAOZZ				
		. WASHER (USE WITH INDEX 10)	2	*	PAOZZ				
		. SEE ABOVE	2	*	PAOZZ				
11	12206-3	. CABLE ASSEMBLY, DART BRIDLE	2	*	PAOZZ				
		(51998)							
12	MS3367-4-9	. STRAP	AR	*	PAOZZ				
13	14200-1	. DART ASSEMBLY (51998)	1	*	PCODD				

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. DART Assembly (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****HEIGHT ADJUSTMENT ACTUATOR****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Back Cushion Assembly, Wedge Assembly.....	WP005 00

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Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Support Equipment Required

Part Number or Type Designation	Nomenclature
472P950E057-1	Height Adjustment Actuator Control Assembly
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-46163 TY 2 GR M (CAGE 81349)	Sealing Compound

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. Remove wedge assembly (WP005 00).

CAUTION

To prevent damage to height adjustment actuator motor due to overheating, operating time must be limited to 30 seconds on, 1 minute off.

c. Using height adjustment actuator control assembly, raise ejection seat as far as possible.

NOTE

If height adjustment actuator is operable, or inoperable but extended less than 2 inches, height adjustment actuator may be removed separately.

If height adjustment actuator is inoperable and extended more than 2 inches, upper seat components must be removed.

d. To determine if upper seat components must be removed, measure and record distance between top of nut (figure 1, detail A) and bottom of bracket assembly (1) (dimension A).

e. If distance recorded in step d is 3.2 inches or more, go to step f. If distance recorded in step d is 3.2 inches or less, remove height adjustment actuator by doing substeps below:

(1) Remove screws (6, detail B) and washers.

(2) Disconnect hose assembly (14) from outer left trombone assembly. Pull hose assembly through hole in side panel.

(3) Remove clamp (4), bolt, washers, and spacer.

(4) Remove clamp (7), bolt, washer, and spacer.

(5) Pull cable assembly and pocket through hole in side panel.

(6) Rotate ejection seat so catapult tube assemblies are horizontal and ejection seat is facing up.

CAUTION

To prevent damage to ejection seat, caution must be used when removing bolts. With bolts removed, catapult tube assemblies are free to slide in ejection seat.

- (7) Remove bolts (3) and washers.
 - (8) Loosen nuts on actuator (10).
 - (9) Remove bolts (9), washers, and pin assemblies (8).
 - (10) On ejection seat SJU-4/A, slide nuts and yokes (12) up to bracket assemblies (1). Remove nuts.
 - (11) On ejection seat SJU-13/A or SJU-14/A, slide washers (13), nuts, and yokes (12) up to bracket assemblies (1). Remove washers and nuts.
 - (12) Remove actuator (10).
- f. If distance recorded in step d is 3.2 inches or more, remove height adjustment actuator by doing substeps below:
- (1) Remove drogue/container assembly (WP003 00).
 - (2) Remove headrest assembly (WP003 00).
 - (3) Remove screws (6, detail B) and washers.
 - (4) Disconnect hose assembly (13) from outer left trombone assembly. Pull hose assembly through hole in side panel.
 - (5) Remove clamp (4), bolt, washers, and spacer.
 - (6) Remove clamp (7), bolt, washer, and spacer.
 - (7) Pull cable assembly and pocket through hole in side panel.
 - (8) Remove rollers assemblies (11), bolts, washers, and nuts.
 - (9) Rotate ejection seat so catapult tube assemblies are horizontal and ejection seat is facing up.

WARNING

To prevent death or injury to personnel, caution must be used when removing bracket assemblies. With bracket assemblies removed, catapult tube assemblies are free to slide out of ejection seat.

- (10) Remove screws (2), washers, and nuts.
 - (11) Remove bolts (3) and washers.
 - (12) Remove bracket assemblies (1).
 - (13) Loosen nuts on actuator (10).
 - (14) On ejection seat SJU-4/A, slide nuts and yokes (12) off catapult tube assemblies.
 - (15) On ejection seat SJU-13/A or SJU-14/A, slide washers (13), nuts, and yokes (12) off catapult tube assemblies.
 - (16) Remove bolts (9) and washers and pin assemblies (8).
 - (17) Remove actuator (10).
- g. If actuator (10) is to be replaced, install nuts on actuator (10).
- ### 3. INSTALLATION.
- a. If yokes (12, figure 1) are removed, do substeps below:
 - (1) Slide yokes (12) over catapult tube assemblies.
 - (2) Position inertia reel straps in yokes (12).
 - (3) Install roller assemblies (11), bolts, washers, and nuts.
 - b. If bracket assemblies (1) are removed, do substeps below:
 - (1) Position bracket assemblies (1) on catapult tube assemblies.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (2) Coat screws (2) with primer.

NOTE

Washers may be added or removed under nut to get correct grip length.

- (3) Install screws (2), washers, and nuts.



To prevent damage to height adjustment actuator due to overheating, operating time must be limited to 30 seconds on, 1 minute off.

- c. Using height adjustment actuator control assembly, fully retract height adjustment actuator (10).
- d. Remove nuts from actuator (10).

e. Slide actuator (10) through yokes (12) and position on upper lateral beam with motor facing forward.

WARNING

- f. Coat threads of bolts (9) with primer.

g. Install pin assemblies (8), bolts (9), and washers.

h. Route cable assembly (detail B) through hole in side panel.

WARNING

- i. Coat threads of screws (6) with primer.

j. Attach pocket to side panel with screws (6) and washers.

- k. Pull hose assembly (14) through hole in side panel.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- l. Connect hose assembly (14) to outer left trombone assembly. Torque hose assembly 135 to 150 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- m. Coat threads of bolt used with clamp (4) with primer.
- n. Install clamp (4), bolt, washers, and spacer.

WARNING

- o. Coat threads of bolt used with clamp (7) with primer.

p. Install clamp (7), bolt, washer, and spacer.

- q. On ejection seat SJU-13/A or SJU-14/A, install washers (13) on acuator (10).

WARNING

Sealing compound is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

- r. Coat threads of nuts with MIL-S-46163 TY 2 GR M sealing compound.
- s. Position nuts and tighten onto actuator (10).
- t. Using height adjustment actuator control assembly, fully extend actuator (10).
- u. Align actuator (10) with bracket assemblies (1).

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- v. Coat bolts (3) with primer.

w. Install bolts (3) and washers.

x. Do height adjustment actuator test, this WP.

y. If removed, install headrest assembly (WP003 00).

z. If removed, install drogue/container assembly (WP003 00).

aa. Install wedge assembly (WP005 00).

4. TEST.

5. The height adjustment actuator is tested per table 1.

Table 1. Height Adjustment Actuator Test

Procedure	Normal Indication	Remedy for Abnormal Indication
Support Equipment Required		
Part Number or Type Designation		Nomenclature
472P950E005-7		Height Adjustment Actuator Control Assembly
Materials Required		
None		

Table 1. Height Adjustment Actuator Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
WARNING		
To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.		
a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB- GAI-500, WP004 00).		
b. Attach height adjustment actuator control assembly to pocket (fig 2).		
c. Connect height adjustment actuator control assembly to 115 vac power source.		
d. Set height adjustment actuator control assembly power switch to ON.		
CAUTION		
To prevent damage to height adjustment actuator motor due to overheating, observe operating time limit of 30 seconds on, 1 minute off.		
e. Using RAISE/LOWER switch, fully raise and lower ejection seat.	Height adjustment actuator runs smoothly without binding, and motor stops when ejection seat reaches full up and full down position.	Replace height adjustment actuator, this WP.
f. Set and hold RAISE/LOWER switch to RAISE until ejection seat is in full up position.		
g. Using grease pencil, mark shaft at top of nut (detail A).		

Table 1. Height Adjustment Actuator Test (Continued)

Procedure	Normal Indication	Remedy for Abnormal Indication
<p>h. Set and hold RAISE/LOWER switch to LOWER until ejection seat is in full down position.</p> <p>i. Measure and record distance between top of nut and mark made in step g (dimension A).</p> <p>j. Set height adjustment actuator control assembly power switch to OFF.</p> <p>k. Disconnect height adjustment actuator control assembly from plocket.</p>	Total actuator travel is 5.75 to 5.87 inches.	Replace height adjustment actuator, this WP.

6. ILLUSTRATED PARTS BREAKDOWN.

manual introduction has more information on IPB data.

7. This illustrated parts breakdown contains information for identifying and ordering parts. The

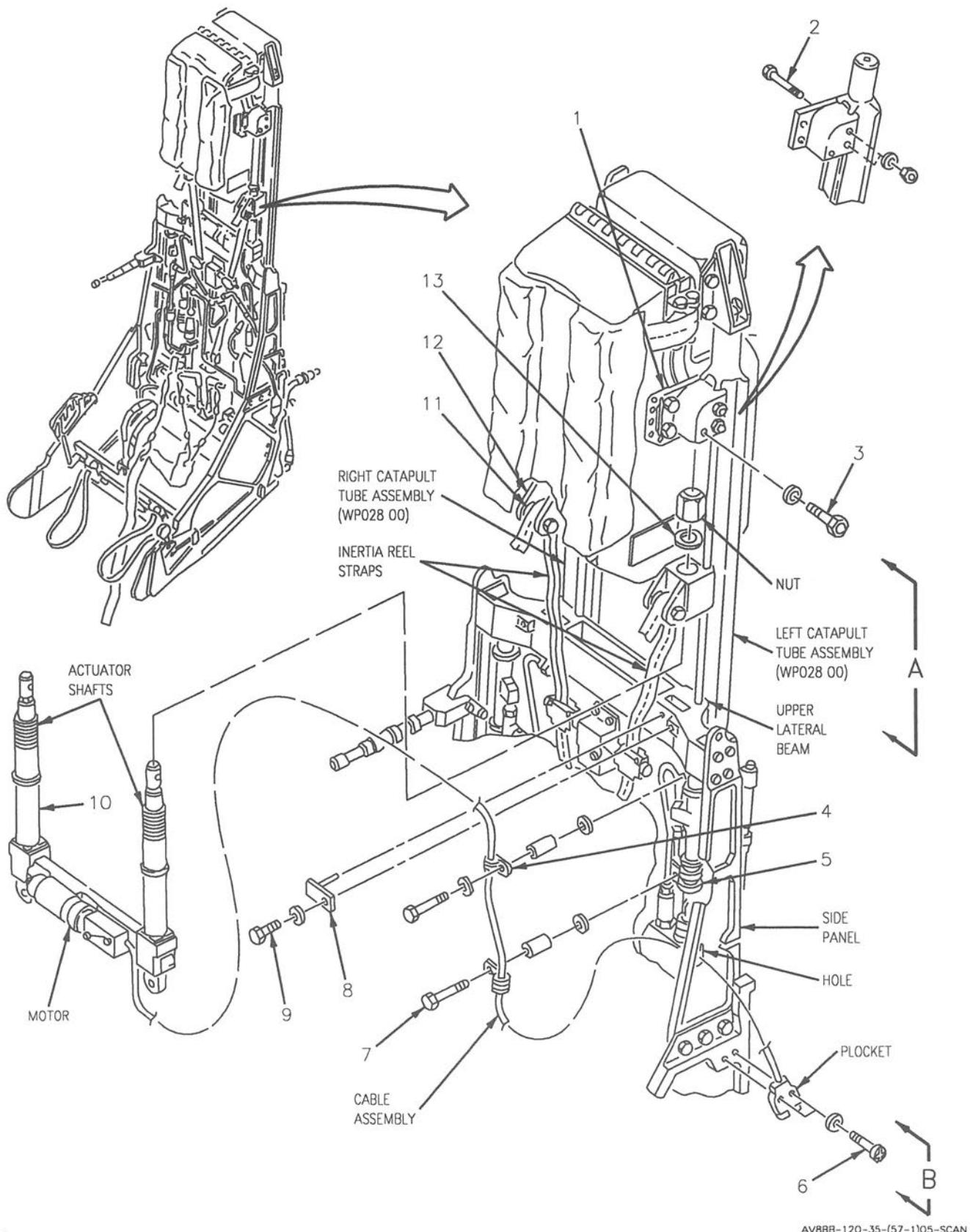
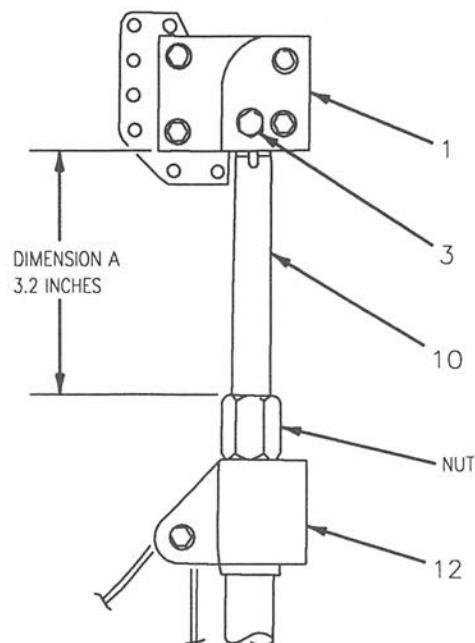
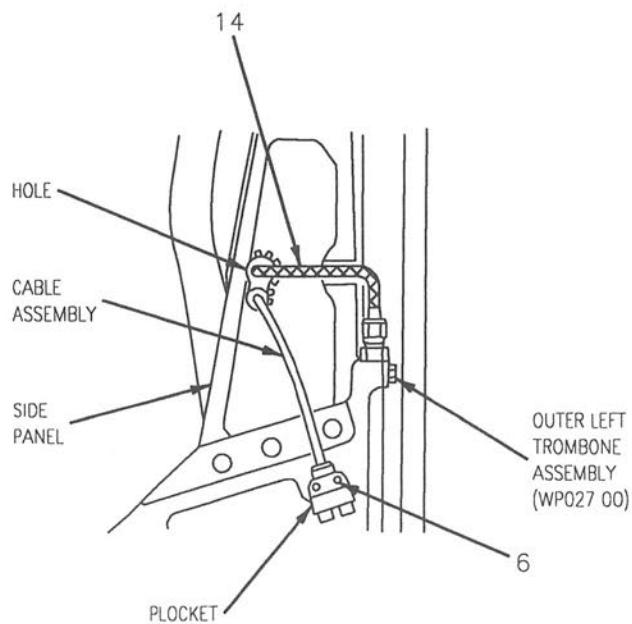


Figure 1. Height Adjustment Actuator (Sheet 1)

AV8BB-120-35-(57-1)05-SCAN



A



B

Figure 1. Height Adjustment Actuator (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	12120-3	HEIGHT ADJUSTMENT ACTUATOR			
		. BRACKET ASSEMBLY (24632)	1	A	PAOZZ
		(LEFT SIDE)			
	12120-4	. SEE ABOVE (RIGHT SIDE)	1	A	PAOZZ
	12120-5	. SEE ABOVE (LEFT SIDE)	1	B	-
	12120-6	. SEE ABOVE (RIGHT SIDE)	1	B	-
2	NAS1204-34	. SCREW	4		PAOZZ
	52NKTE-048	. NUT (22599) (SEAC SPEC	4		PAOZZ
		12484-011) (USE WITH INDEX 2)			
	NAS1149D0463K	. WASHER (USE WITH INDEX 2)	AR	*	PAOZZ
	AN960KD416	. SEE ABOVE	AR	*	PAOZZ
3	NAS6205-22	. BOLT	2		PAOZZ
	NAS1149D0516K	. WASHER (USE WITH INDEX 3)	2	*	PAOZZ
	AN960KD516L	. SEE ABOVE	2	*	PAOZZ
4	MS21919DG4	. CLAMP	1		PAOZZ
	NAS6203-19	. BOLT (AP)	1		PAOZZ
	NAS1149D0332K	. WASHER (UNDER HEAD) (AP)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-60	. SPACER (AP)	1		PAOZZ
	NAS1149D0363K	. WASHER (UNDER SPACER) (AP)	1	*	PAOZZ
	AN960KD10	. SEE ABOVE	1	*	PAOZZ
5	MS21919DG15	. CLAMP	1		PAOZZ
6	NAS600-12	. SCREW	2		PAOZZ
	NAS620A4L	. WASHER (USE WITH INDEX 6)	2		PAOZZ
7	MS21919DG4	. CLAMP	1		PAOZZ
	NAS6203-22	. BOLT (AP)	1		PAOZZ
	NAS1149D0332K	. WASHER (AP)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-72	. SPACER (AP)	1		PAOZZ
8	12331-3	. PIN ASSEMBLY (24632)	2		PAOZZ
9	NAS6203-2	. BOLT	2		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 9)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
10	12081-1	. ACTUATOR - HEIGHT ADJUSTMENT	1		PAOZZ
		(24632)			
11	767P476C007-1	. ROLLER ASSEMBLY (24632)	2		PAOZZ
	NAS6204-25	. BOLT (AP)	2		PAOZZ
	NAS1149D0416K	. WASHER (AP)	4	*	PAOZZ
	AN960KD416L	. SEE ABOVE	4	*	PAOZZ
	52NKTE-048	. NUT (22599) (SEAC SPEC	2		PAOZZ
		12484-011) (USE WITH INDEX 11)			
12	12137-11	. YOKE - RISER ROLLER (24632)	1	A	PAOZZ
		(RIGHT SIDE)			
	12137-12	. SEE ABOVE (LEFT SIDE)	1	A	PAOZZ
	12137-4	. SEE ABOVE (LEFT SIDE)	1	C	PAOZZ
	12137-19	. SEE ABOVE (RIGHT SIDE)	1	D	PAOZZ
	12137-20	. SEE ABOVE (LEFT SIDE)	1	E	PAOZZ
	12137-3	. SEE ABOVE (RIGHT SIDE)	1	F	PAOZZ
13	25000-13	. WASHER	2	G	-
14	14425-1	. HOSE ASSEMBLY - M99 TO LH	1		PAOZZ
		TROMBONE (24632)			

CODE	USABLE ON	MODEL
A	P/N 14020-7	AV-8B
B	P/N 14020-9, 14020-11 P/N 14620-1, 14620-3	AV-8B TAV-8B
C	P/N 14620-1	TAV-8B

Figure 1. Height Adjustment Actuator (Sheet 3)

A1-AV8BB-120-350

024 00

Page 11

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	D	P/N 14020-9, 14020-11 P/N 14620-1							AV-8B TAV-8B		
	E	P/N 14020-9, 14020-11 P/N 14620-3							AV-8B TAV-8B		
	F	P/N 14620-3							TAV-8B		
	G	P/N 14620-1, 14620-3							TAV-8B		

Figure 1. Height Adjustment Actuator (Sheet 4)

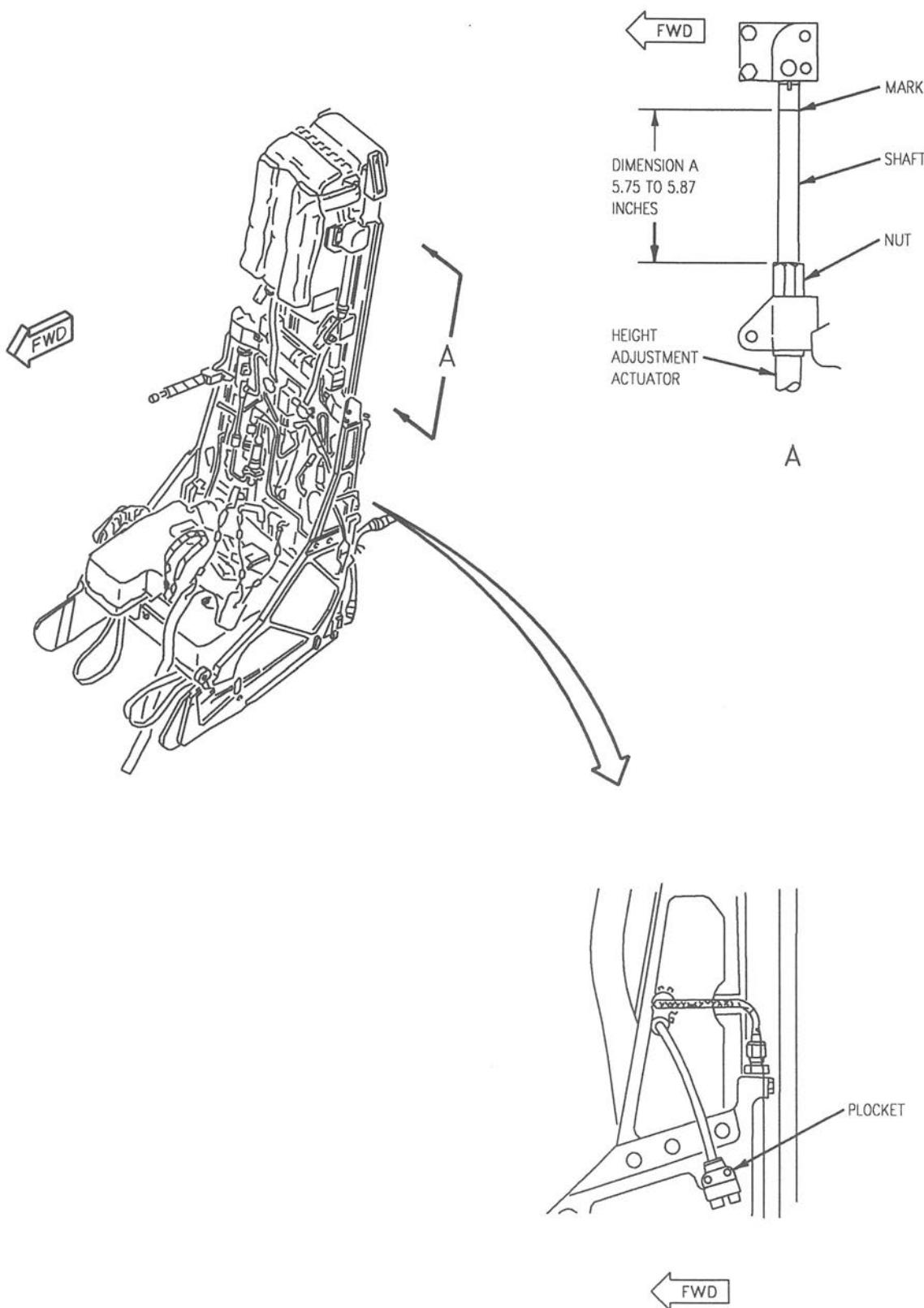


Figure 2. Height Adjustment Actuator Test

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****LEG RESTRAINT ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit Assembly.....	WP004 00

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Materials Required	4
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Support Equipment Required.....	4

Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.**Support Equipment Required**

None

- i. Remove bolts (4), washers, and nuts.

- j. Remove bolts (3), washers, and nuts.

- k. Remove leg restraint assembly (2).

3. INSTALLATION.**WARNING**

To prevent death or injury to aircrew member, straps must be correctly routed through ratchet assemblies.

NOTE

Correct strap routing is indicated by label on ratchet assembly.

- a. Make sure straps (figure 1) are correctly routed through ratchet assemblies.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well-ventilated areas.

- b. Coat bolts (3 and 4) with coating primer.

- c. Position leg restraint assembly (2) on front panel.

- d. Install bolts (3) (heads inside front panel), washers, and nuts.

- e. Install bolts (4) (heads outside front panel), washers, and nuts.

- f. Route left strap under ejection seat to left catapult tube assembly.

2. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety stremper (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Remove survival kit assembly (WP004 00).

- c. Remove pin (6, figure 1), washer, and cotter pin.

- d. Disconnect leg restraint assembly (2) from left catapult tube assembly.

- e. Remove pin (8), washer, and cotter pin.

- f. Disconnect leg restraint assembly (2) from right catapult tube assembly.

- g. Unsnap leg restraint assembly (2) from bottom of ejection seat.

- h. Remove pin (1), washers, and cotter pin.

WARNING

To prevent death or injury to aircrew member, left DART brake cord, left strap, and lanyard assembly must be attached to left catapult tube assembly.

- g. Position left strap, lanyard assembly (7), and left DART brake cord, on left catapult tube assembly.
- h. Install pin (6), washer, and cotter pin.
- i. Secure left strap to bottom of ejection seat with snap.
- j. Route right strap under ejection seat to right catapult tube assembly.

WARNING

To prevent death or injury to aircrew member, right DART brake cord and right strap must be attached to right catapult tube assembly.

- k. Position right strap and right DART brake cord on right catapult tube assembly.
- l. Install pin (8), washer, and cotter pin.
- m. Secure right strap to bottom of ejection seat with snap.
- n. Connect link to emergency release handle assembly with pin (1), washers, and cotter pin.
- o. Release left leg restraint ratchet and pull left strap to fully extended position.
- p. Release right leg restraint ratchet and pull right strap to fully extended position.
- q. Pull left and right straps to full retract position. Straps shall move with minimum pressure.
- r. Pull left and right straps in direction to extend strap. Straps shall not extend.
- s. If left/right straps extended in step r or required excess force in step q, replace or repair leg restraint assembly (2).
- t. Install survival kit assembly (WP004 00).

4. REPAIR.**5. RATCHET ASSEMBLIES.****Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
MS24665-132	Cotter Pin
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

6. Removal.

- a. Remove leg restraint assembly, this WP.
- b. Remove pin (2, figure 2), washer, and cotter pin.
- c. Remove push rod assembly (1).
- d. Rotate ratchet assembly (3) to clear locking cam on shaft assembly (4).
- e. Slide ratchet assembly (3) off shaft assembly (4).
- f. Rotate ratchet assembly (5) to clear locking cam on shaft assembly (4).
- g. Slide ratchet assembly (5) off shaft assembly (4).

7. Disassembly.**NOTE**

This is a complete disassembly procedure; remove only components required for repair.

- a. Remove screws (13, figure 2, detail A), washers, and nuts.
- b. Remove screw (14), washer, and nut.
- c. Remove cover (12).

- d. Pull out pin (8). Remove strap (10) from housing (16).
- e. Remove pin (11) from ratchet assembly (15).
- f. Remove pin (8), spring (9), and ratchet assembly (15) from housing (16).
- g. Remove pin (6), washers, cotter pin, and roller (7).

8. Assembly.

- a. Position ratchet assembly (15, figure 2, detail A) in housing (16).
- b. Insert spring (9) into ratchet assembly (15).
- c. Insert pin (8) into ratchet assembly (15) and spring (9).
- d. Insert pin (11) into ratchet assembly (15).
- e. Pull out pin (8).
- f. Position strap (10) under ratchet assembly (15). Make sure strap is positioned as shown on label (17, detail B).

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well-ventilated areas.

- g. Coat screws (13 and 14) with coating primer.
- h. Position cover (12) on housing (16).
- i. Install screw (14), washer, and nut.
- j. Install screws (13), washers, and nuts.
- k. Position roller (7) on housing (16).
- l. Secure roller (7) with pin (6), washers, and cotter pin.

9. Installation.

- a. Slide ratchet assembly (5, figure 2) on shaft assembly (4).
- b. Rotate ratchet assembly (5) and engage locking cam on shaft assembly (4). Make sure

ratchet assembly is flush against bushing on shaft assembly.

- c. Make sure strap assembly (10) is routed through ratchet assembly (5) as shown on label (17, detail B).
- d. Slide ratchet assembly (3) on shaft assembly (4).
- e. Rotate ratchet assembly (3) and engage locking cam on shaft assembly (4). Make sure ratchet assembly is flush against bushing on shaft assembly.
- f. Make sure strap assembly (10) is routed through ratchet assembly (3) as shown on label (17, detail B).
- g. Install push rod assembly (1) on shaft assembly (4) with pin (2), washer, and cotter pin (4).
- h. Install leg restraint assembly, this WP.

10. STRAP ASSEMBLIES.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

11. Removal.

- a. Remove ratchet assemblies, this WP.
- b. Remove screws (13, figure 2, detail A), washers, and nuts.
- c. Remove screw (14), washer, and nut.
- d. Remove cover (12).
- e. Pull pin (8).
- f. Remove strap (10) from housing (16).

12. Installation.

- a. Pull pin (8, figure 2, detail A).
- b. Position strap (10) in housing assembly (16).
Make sure strap is positioned as shown on label (17, detail B).

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- c. Coat screws (13 and 14) with coating primer.
- d. Position cover (12) on housing (16).

- e. Install screw (14), washer, and nut.

- f. Install screws (13), washers, and nuts.

- g. Install ratchet assemblies, this WP.

13. ILLUSTRATED PARTS BREAKDOWN.

14. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

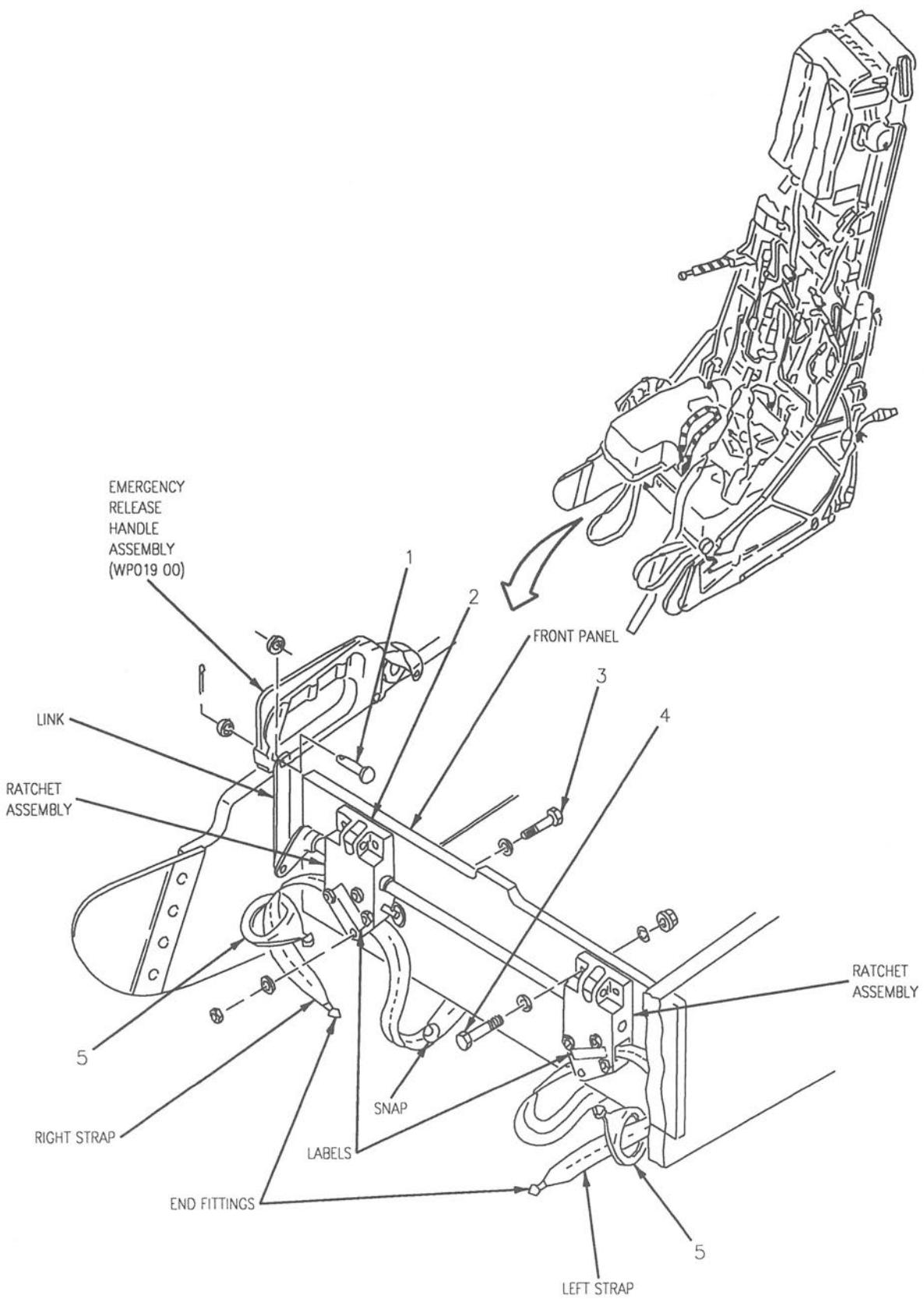


Figure 1. Leg Restraint Assembly Removal and Installation (Sheet 1)

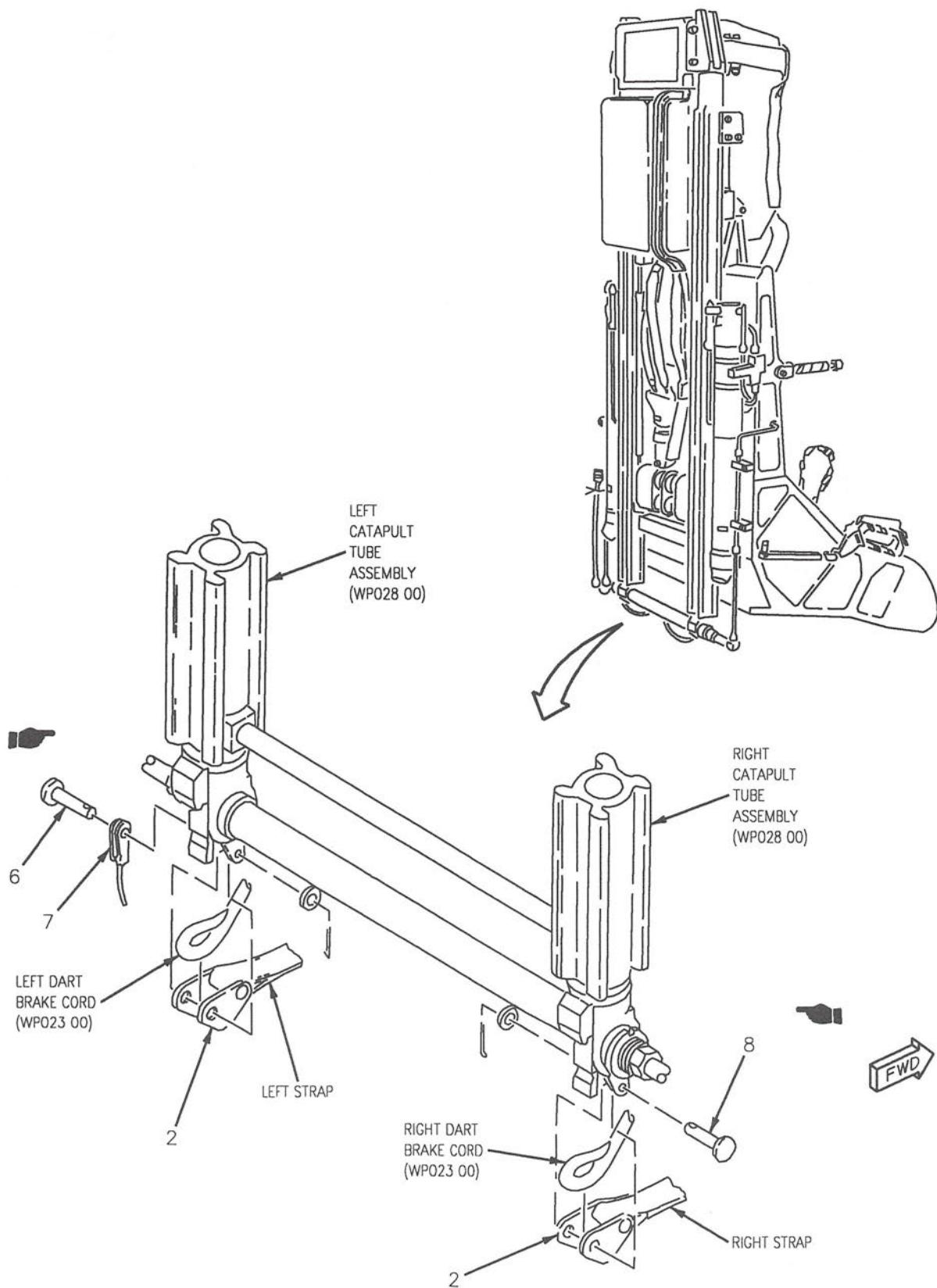
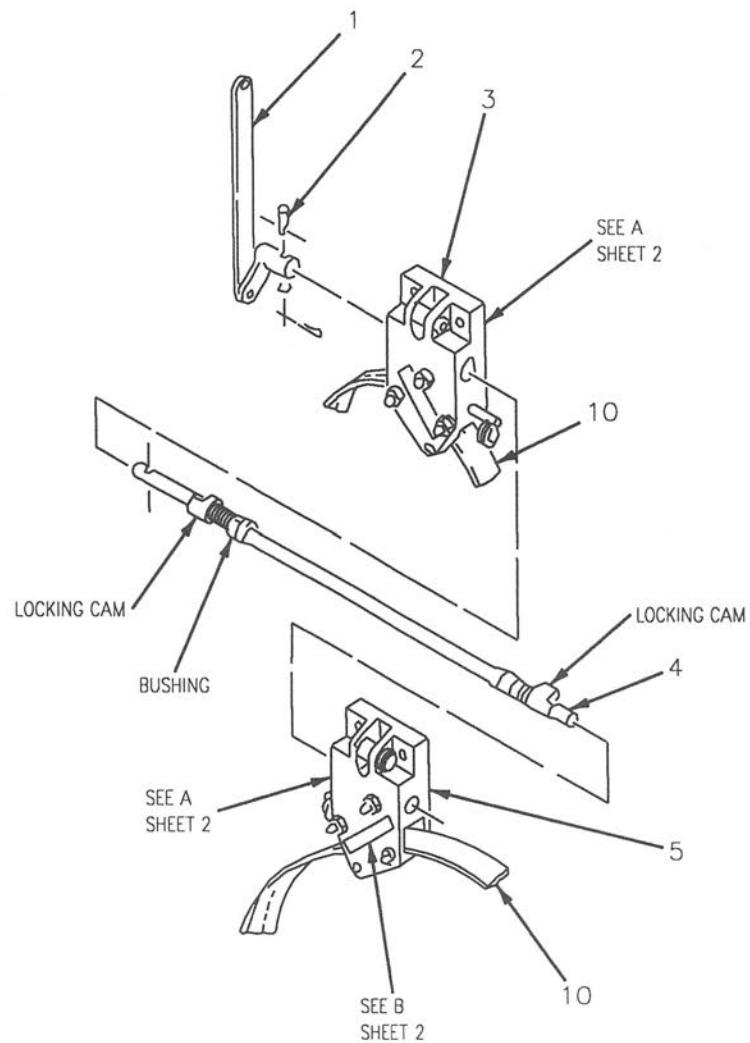


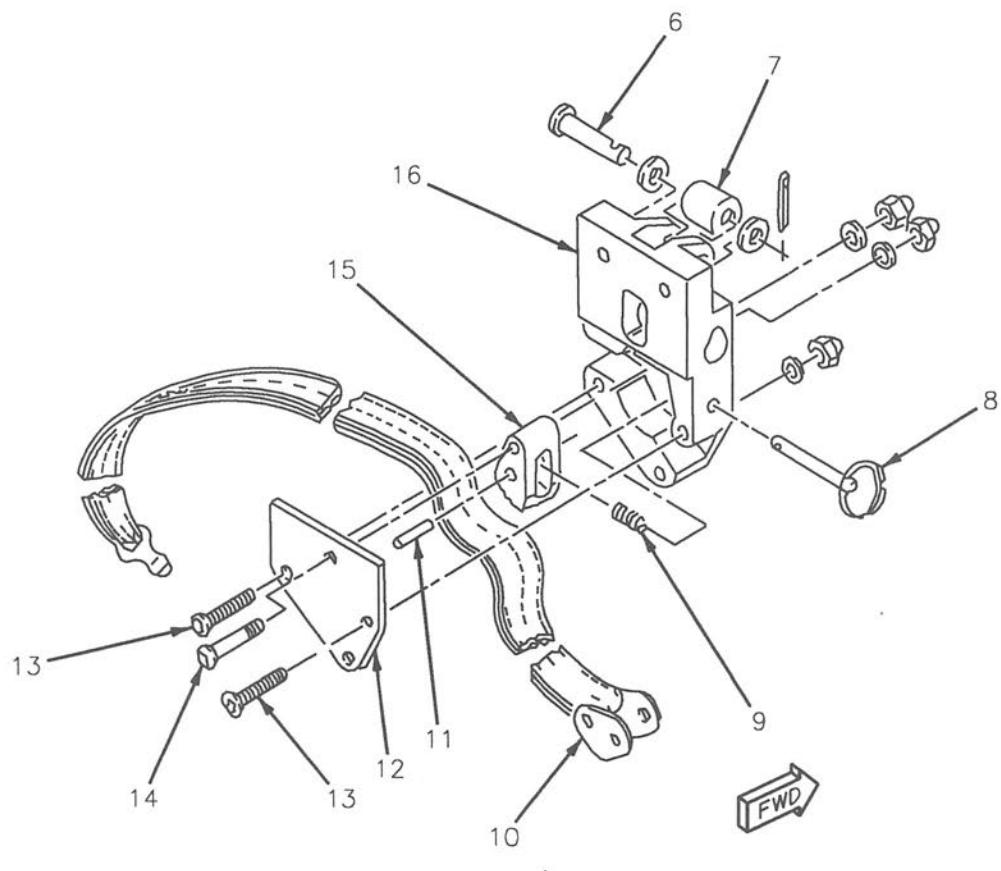
Figure 1. Leg Restraint Assembly Removal and Installation (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE									
LEG RESTRAINT ASSEMBLY														
REMOVAL AND INSTALLATION														
1	MS20392-2C27 NAS1149D0332K AN960KD10L MS24665-132	. PIN	1	*	PAOZZ									
	12130-5	. WASHER (USE WITH INDEX 1)	2	*	PAOZZ									
		. SEE ABOVE	2	*	PAOZZ									
		. PIN, COTTER (USE WITH INDEX 1)	1		PAOZZ									
		. LEG RESTRAINT ASSEMBLY	1		A0000									
		(51998) (SEE FIGURE 2 FOR BREAKDOWN)												
3	NAS6203-18 NAS1149D0332K AN960KD10L 22NKTM-02	. BOLT	2	*	PAOZZ									
		. WASHER (USE WITH INDEX 3)	4	*	PAOZZ									
		. SEE ABOVE	4	*	PAOZZ									
		. NUT - HEX, NYLON CAP (UPCO SPEC	2		PAOZZ									
		(12484-009) (USE WITH INDEX 3)												
4	NAS6203-11 NAS1149D0332K AN960KD10L MS21042L3	. BOLT	4		PAOZZ									
		. WASHER (USE WITH INDEX 4)	8	*	PAOZZ									
		. SEE ABOVE	8	*	PAOZZ									
		. NUT (USE WITH INDEX 4)	4		PAOZZ									
5	12341-11	. RING, ATTACHING - LEG	2		PAOZZ									
		RESTRAINT (51998)												
6	MS20392-3C31 NAS1149D0432K AN960KD416L MS24665-132	. PIN	1		PAOZZ									
		. WASHER (USE WITH INDEX 6)	1	*	PAOZZ									
		. SEE ABOVE	1	*	PAOZZ									
		. PIN, COTTER (USE WITH INDEX 6)	1		PAOZZ									
7	472P100C014-1	. WIRE ROPE ASSEMBLY (51998)	1		PAOZZ									
		(LANYARD ASSEMBLY)												
8	MS20392-3C27 NAS1149D0432K AN960KD416L MS24665-132	. PIN	1		PAOZZ									
		. WASHER (USE WITH INDEX 8)	1	*	PAOZZ									
		. SEE ABOVE	1	*	PAOZZ									
		. PIN, COTTER (USE WITH INDEX 8)	1		PAOZZ									

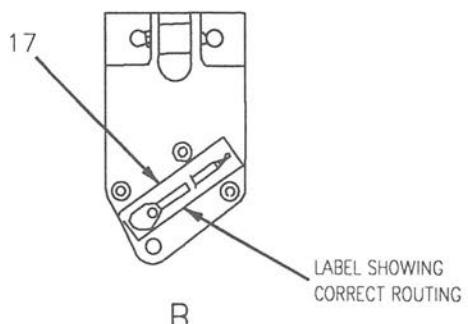
* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Leg Restraint Assembly Removal and Installation (Sheet 3)

**Figure 2. Leg Restraint Assembly Repair (Sheet 1)**



A

(LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE)

B

(LEFT SIDE SHOWN,
RIGHT SIDE OPPOSITE)

Figure 2. Leg Restraint Assembly Repair (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	12375-3	LEG RESTRAINT ASSEMBLY REPAIR	1		PAOZZ
		. PUSH ROD ASSEMBLY - LEG			
		RESTRAINT (51998)			
2	MS20392-1C17	. PIN	1		PAOZZ
	NAS1149DN416L	. WASHER (USE WITH INDEX 2)	1	*	PAOZZ
	AN960K4L	. SEE ABOVE	1	*	PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 2)	1		PAOZZ
3	15065-4	. RATCHET ASSEMBLY (51998)	1		PAOOO
4	12134-5	. SHAFT ASSEMBLY - LEG RESTRAINT	1		PAOZZ
		RELEASE (51998)			
5	15065-3	. RATCHET ASSEMBLY (51998)	1		PAOOO
6	MS20392-2C27 +	. PIN	1		PAOZZ
	NAS1149D0332K +	. WASHER (USE WITH INDEX 6)	2	*	PAOZZ
	AN960KD10L +	. SEE ABOVE	2	*	PAOZZ
	MS24665-132 +	. PIN, COTTER (USE WITH INDEX 6)	1		PAOZZ
7	472P410C016-7 +	. ROLLER - LINEAR (51998)	1		PAOZZ
8	15061-1 +	. PIN, STRAIGHT, HEADLESS	1		PAOZZ
		(51998)			
	163B5559 +	. KEYRING (USE WITH INDEX 8)	1		PAOZZ
		(51998)			
9	LC-032D-10MW +	. SPRING - COMPRESSION (84830)	1		PAOZZ
		(UPCO SPEC 25010-5)			
10	12339-1	. STRAP - WEBBING (51998) (STRAP	1		PAOZZ
		ASSEMBLIES)			
11	MS16556-821 +	. PIN	1		PAOZZ
12	15062-11 +	. COVER, HOUSING - RATCHET	1	-	-
		ASSEMBLY (51998) (LEFT SIDE)			
	15062-12 +	. SEE ABOVE (RIGHT SIDE)	1		-
13	MS24694-S15 +	. SCREW	2		PAOZZ
	NAS1149DN816L +	. WASHER (USE WITH INDEX 13)	2	*	PAOZZ
	AN960KD8L	. SEE ABOVE	2	*	PAOZZ
	22NKTM-82 +	. NUT - HEX, NYLON CAP (72962)	2		-
		(UPCO SPEC 1248-006) (USE WITH			
		INDEX 13)			
14	NAS517-3-12 +	. SCREW	1		PAOZZ
	NAS1149D0442K +	. WASHER (USE WITH INDEX 14)	1	*	PAOZZ
	AN960KD10L +	. SEE ABOVE	1	*	PAOZZ
	22NKTM-02 +	. NUT - HEX, NYLON CAP (72962)	1		-
		(UPCO) SPEC 1248-009) (USE WITH			
		INDEX 14)			
15	15059-11 +	. RATCHET ASSEMBLY (51998)	1		PAOZZ
16	12340-11 +	. HOUSING - RATCHET ASSEMBLY	1	-	-
		(51998) (LEFT SIDE)			
	12340-12 +	. SEE ABOVE (RIGHT SIDE)	1		-
17	12364-11 +	. LABEL - MASTER, LEG RESTRAINT	1		MDOZZ
		(51998) (LEFT SIDE)			
	12364-12 +	. SEE ABOVE (RIGHT SIDE)	1		MDOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

+ INDICATES COMPONENT PART OF
RATCHET ASSEMBLY

Figure 2. Leg Restraint Assembly Repair (Sheet 3)

A1-AV8BB-120-350

15 January 1995

026 00

Page 1

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

PARACHUTE CONTAINER OPENER ASSEMBLY

AIRCRAFT EJECTION SEAT

Reference Material

Periodic Maintenance Information Cards	A1-AV8BB-MRC-000
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Drogue/Container Assembly, Headrest Assembly.....	WP003 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
472P950E057-1	Height Adjustment Actuator Control Assembly

Materials Required

Specification or Part Number	Nomenclature
MS24665-9	Cotter Pin (2)

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove drogue/container assembly (WP003 00).
- c. Remove headrest assembly (WP003 00).
- d. If pins (1, figure 1) cannot be removed due to seat height position, adjust seat height position using height adjustment actuator control assembly.
- e. Remove pins (1) and cotter pins.
- f. Lift opener assembly (2) from trombone assemblies.

2. INSTALLATION.

- a. If opener assembly (2, figure 1) is to be replaced, do substeps below:

NOTE

Parachute container opener assembly is a scheduled removal components. Opener assembly must be marked with required data and entry must be made in log book.

For expiration date of parachute container open assembly, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark opener assembly (2, figure 1) with date of installation and date of expiration.

(2) Make log book entry for opener assembly (2) to include date of manufacture, lot number, serial number, date of installation and date of expiration.

b. Insert tubes of opener assembly (2) into trombone assemblies.

c. Position opener assembly (2) against mounting brackets with opener assembly on aft side of mounting brackets.

NOTE

Each set of three pins (1) are secured with one cotter pin.

d. Install pins (1) and cotter pins.

e. Install headrest assembly (WP003 00).

f. Install drogue/container assembly (WP003 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

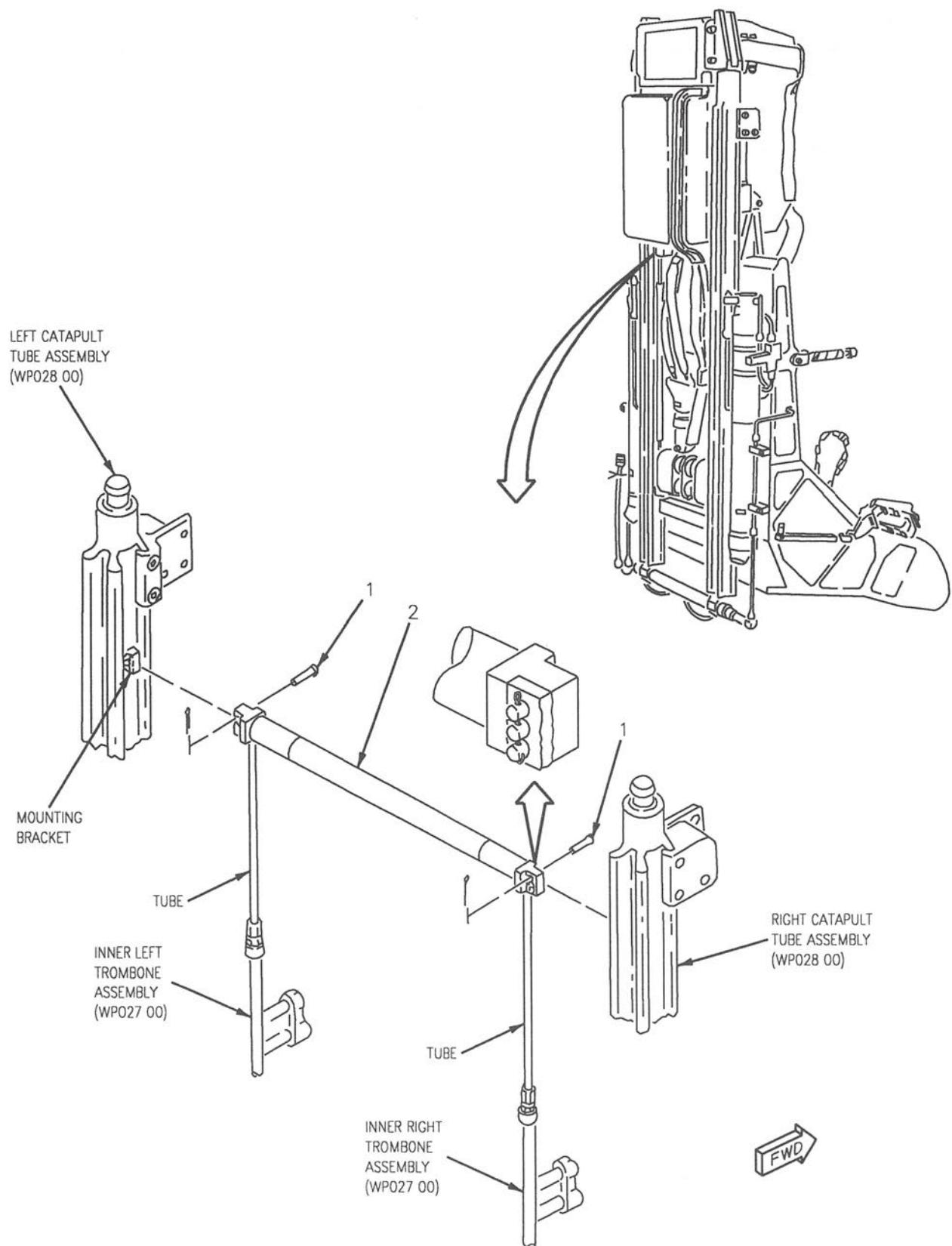


Figure 1. Parachute Container Opener Assembly (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	12315-11	PARACHUTE CONTAINER OPENER ASSEMBLY			
		. PIN - PARACHUTE OPENER BEAM (24632) (HEADS FORWARD)	6		MDOZZ
2	MS24665-9 12250-1	. PIN, COTTER (USE WITH INDEX 1) OPENER ASSEMBLY (24632) (PARACHUTE CONTAINER OPENER ASSEMBLY)	2 1		PAOZZ PCODD

Figure 1. Parachute Container Opener Assembly (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****TROMBONE ASSEMBLIES****AIRCRAFT EJECTION SEAT****Reference Material**

Periodic Maintenance Information Cards	A1-AV8BB-MRC-000
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Back Cushion Assembly, Wedge Assembly.....	WP005 00
3.0 Second Delay Initiator JAU-14/A (M597)	WP012 00
Parachute Container Opener Assembly.....	WP026 00

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Record of Applicable Technical Directives

None

1. INNER LEFT TROMBONE ASSEMBLY.

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter
472P950D057-2	Height Adjustment Actuator Control Assembly

safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Remove parachute container opener assembly (WP026 00).
- c. Remove wedge assembly (WP005 00).
- d. Remove tube assembly (3, figure 1).
- e. Remove tube assembly (4).
- f. Remove tube assembly (5).
- g. Remove tee (17), nut, and packing (18).
- h. Remove elbow (16) and packing (15).
- i. Disconnect tube assembly (25) from tee (24).
- j. Disconnect tube assembly (22) from tee (24).
- k. Using height adjustment actuator control assembly, position seat bucket full down.
- l. Remove screws (28).
- m. Remove bolt (19), washer, and spacer.
- n. Remove bolt (14) and washer.
- o. Remove trombone assembly (21).
- p. Remove packing (29) from pressure tap.
- q. If trombone assembly (21) is to be replaced, remove tee (24), nut, and packing (23).

2. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance

3. INSTALLATION.

- a. If trombone assembly (21, figure 1) is being replaced, do substeps below:

NOTE

Inner left trombone assembly is a scheduled removal component. Trombone assembly must be marked with required data and entry must be made in log book.

For expiration date of trombone assembly, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark trombone assembly (21) with date of installation and date of expiration.

(2) Make log book entry for trombone assembly (21) to include date of manufacture, lot number, serial number, date of installation, and expiration date.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(3) Lubricate new packing (23) with silicone compound.

(4) Position packing (23) and nut on tee (24).

(5) Install tee (24) in trombone assembly (21) until packing is seated. Do not tighten nut on tee.

WARNING

b. Lubricate new packing (29) with silicone compound.

c. Position packing (29) on pressure tap.

d. Position trombone assembly (21) on ejection seat.

e. Seat pressure tap in left catapult tube assembly by applying slight hand pressure.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

f. Coat threads of bolt (14) with primer.

g. Loosely install bolt (14) and washer.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

h. Coat threads of bolt (19) with silicone compound.

i. Position clamp (20) and loosely install bolt (19), washer, and spacer.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

j. Coat threads of screws (28) with primer.

k. Loosely install screws (28).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

l. Lubricate new packing (15) with silicone compound.

m. Position packing (15) on elbow (16).

n. Install elbow (16) in trombone assembly (21) until packing is seated. Do not tighten nut.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- o. Lubricate new packing (18) with silicone compound.
- p. Position packing (18) and nut on tee (17).
- q. Install tee (17) in trombone assembly (21) until packing is seated. Do not tighten nut.
- r. Loosely install tube assemblies (3, 4 and 5).
- s. Loosely connect tube assemblies (22 and 25) to tee (24).
- t. Tighten screws (28).
- u. Tighten bolts (14 and 19).
- v. Tighten nut on tee (17) and elbow (16) and tee (24).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- w. Torque tube assemblies (3, 4, 5, 22, and 25) 90 to 105 inch-pounds. Using sealing compound apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- x. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)
- y. Install parachute container opener assembly (WP026 00).
- z. Install wedge assembly (WP005 00).

4. INNER RIGHT TROMBONE ASSEMBLY.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter
472P950D057-1	Height Adjustment Actuator Control Assembly

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-010	Packing
MS9068-011	Packing (3)
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

5. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove parachute container opener assembly (WP026 00).
- c. Remove 3.0 second delay initiator JAU-14/A (M597) (WP012 00).
- d. Remove tube assembly (1, figure 1).
- e. Remove clamp (7), screw, washers, spacer, and nut.
- f. Remove tube assembly (8).
- g. Remove tube assembly (6).
- h. Remove elbow (9) and packing (11).
- i. Remove manifold (13), nut, and packing (12).
- j. Disconnect tube assemblies (26 and 27) from tee (24).
- k. Using height adjustment actuator control assembly, position seat bucket full down.
- l. Remove screws (28).
- m. Remove bolts (10) and washers.
- n. Remove trombone assembly (21) from ejection seat.
 - o. If trombone assembly (21) is to be replaced, remove tee (24), nut, and packing (23).

6. INSTALLATION.

- a. If trombone assembly (21, figure 1) is being replaced, do substeps below:

NOTE

Inner right trombone assembly is a scheduled removal component. Trombone assembly must be marked with required data and entry must be made in log book.

For expiration date of trombone assembly, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark trombone assembly (21) with date of installation and date of expiration.

(2) Make log book entry for trombone assembly (21) to include date of manufacture, lot number, serial number, date of installation and expiration date.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(3) Lubricate new packing (23) with silicone compound.

(4) Position packing (23) and nut on tee (24).

(5) Install tee (24) in trombone assembly (21) until packing is seated. Do not tighten nut on tee.

WARNING

b. Lubricate new packing (29) with silicone compound.

c. Position packing (29) on pressure tap.

d. Position trombone assembly (21) on ejection seat.

e. Seat pressure tap in right catapult tube assembly by applying slight hand pressure.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- f. Coat threads of bolts (10) with primer.
- g. Loosely install bolts (10) and washers.

WARNING

- h. Coat threads of screws (28) with primer.
- i. Loosely install screws (28).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- j. Lubricate new packing (12) with silicone compound.
- k. Position packing (12) and nut on manifold (13).
- l. Install manifold (13) in trombone assembly (21) until packing is seated. Do not tighten nut.

WARNING

m. Lubricate new packing (11) with silicone compound.

- n. Position packing (11) on elbow (9).
- o. Install elbow (9) in trombone assembly (21) until packing is seated. Do not tighten nut on elbow.
- p. Loosely install tube assemblies (1, 6, and 8).
- q. Loosely connect tube assemblies (26 and 27) to tee (24).

- r. Install clamp (7), screw, washers, spacer, and nut.

s. Tighten screws (28).

t. Tighten bolts (10).

- u. Tighten nuts on elbow (9), tee (24), and manifold (13).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- v. Torque tube assemblies (1, 6, 8, 26, and 27) 90 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- w. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

- x. Install parachute container opener assembly (WP026 00).

- y. Install 3.0 second delay initiator JAU-14/A (M597) (WP012 00).

7. OUTER LEFT TROMBONE ASSEMBLY.**Support Equipment Required**

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-012	Packing
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

8. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

b. On ejection seat SJU-4/A or SJU-14/A, do substeps below:

(1) Disconnect hose assembly (1, figure 2) from nipple (2).

(2) Disconnect trombone assembly (7) connector from manifold.

(3) Remove bolts (6), washers, and trombone assembly (7).

(4) If trombone assembly (7) is to be replaced, remove nipple (2) and packing.

c. On ejection seat SJU-13/A, do substeps below:

(1) Disconnect hose assembly (1, figure 2) from trombone assembly (11).

(2) Disconnect hose assembly (10) from trombone assembly (11).

(3) Disconnect trombone assembly (11) from 0.4 second delay initiator.

(4) Remove bolts (6), washers, and trombone assembly (11).

9. INSTALLATION.

a. If trombone assembly (7 or 11, figure 2) is being replaced, do substeps below:

NOTE

Outer left trombone assembly is a scheduled removal component. Trombone assembly must be marked with required data and entry must be made in log book.

For expiration date of trombone assembly, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark trombone assembly (7 or 11) with date of installation and date of expiration.

(2) Make log book entry for trombone assembly to include date of manufacture, lot number, serial number, date of installation and expiration date.

b. On ejection seat SJU-4/A or SJU-14/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(1) Lubricate new packing used with nipple (2) with silicone compound.

(2) Position packing on nipple (2).

(3) Install nipple (2) in trombone assembly (7).

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (4) Coat threads of bolts (6) with primer.
- (5) Position trombone assembly (7). Install bolts (6) and washers.
- (6) Install hose assembly (1) on nipple (2), handtight.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (7) Position hose assembly (1) 17° to 23° outboard of forward, and torque hose assembly 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA).

- (8) Connect trombone assembly (7) to manifold.

WARNING

- (9) Torque trombone assembly (7) 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

- c. On ejection seat SJU-13/A, do substeps below:

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (1) Coat threads of bolts (6) with primer.
- (2) Position trombone assembly (11). Install bolts (6) and washers.
- (3) Install hose assembly (1) on trombone assembly (11), handtight.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (4) Position hose assembly (1) 17° to 23° outboard of forward, and torque hose assembly 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

- (5) Connect trombone assembly (11) to 0.4 second delay initiator handtight.

WARNING

- (6) Position trombone assembly (11) fitting outboard, and torque trombone assembly to 0.4 second delay initiator 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

- (7) Connect hose assembly (10) to trombone assembly (11) fitting and tighten hose assembly. (QA).

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- d. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

10. OUTER RIGHT TROMBONE ASSEMBLY.

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-012	Packing
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

11. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. On ejection seat SJU-4/A or SJU-14/A, do substeps below:

(1) Disconnect tube assembly (3, figure 2) from nipple (4).

(2) On AV-8B 161573 THRU 163519 SJU-4/A, disconnect trombone assembly (5) from elbow.

(3) On SJU-14/A and AV-8B 163659 AND UP SJU-4/A, disconnect trombone assembly (5) from manifold.

(4) Remove bolts (6), washers, and trombone assembly (5).

(5) If trombone assembly (5) is to be replaced, remove nipple (4) and packing.

c. On ejection seat SJU-13/A, do substeps below:

(1) Disconnect tube assembly (3, figure 2) from trombone assembly (8).

(2) Disconnect hose assembly (9) from trombone assembly (8).

(3) Disconnect trombone assembly (8) from 0.4 second delay initiator.

(4) Remove bolts (6), washers, and trombone assembly (8).

12. INSTALLATION.

a. If trombone assemblies (5 or 8, figure 2) is being replaced, do substeps below:

NOTE

Outer right trombone assembly is a scheduled removal component. Trombone assembly must be marked with required data and entry must be made in log book.

For expiration date of trombone assembly, refer to A1-AV8BB-MRC-000.

(1) Using indelible ink, mark trombone assembly (5 or 8) with date of installation and date of expiration.

(2) Make log book entry for trombone assembly to include date of manufacture, lot number, serial number, date of installation and expiration date.

- b. On ejection seat SJU-4/A or SJU-14/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- (1) Lubricate new packing used with nipple (4) with silicone compound.
- (2) Position packing on nipple (4).
- (3) Install nipple (4) in trombone assembly (5).

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (4) Coat threads of bolts (6) with primer.
- (5) Position trombone assembly (5). Install bolts (6) and washers.
- (6) Install tube assembly (3) on nipple (4).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (7) Torque tube assembly (3) 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)
- (8) On AV-8B 161573 THRU 163519 SJU-4/A, connect trombone assembly (5) to elbow.

- (9) On SJU-14/A and AV-8B 163659 AND UP SJU-4/A, connect trombone assembly (5) to manifold.

WARNING

- (10) Torque trombone assembly (5) 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

- c. On ejection seat SJU-13/A do substeps below:

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (1) Coat threads of bolts (6) with primer.
- (2) Position trombone assembly (8). Install bolts (6) and washers.
- (3) Install tube assembly (3) on trombone assembly (8).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (4) Torque tube assembly (3) 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)
- (5) Connect trombone assembly (8) to 0.4 second delay initiator, handtight.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(6) Position trombone assembly (8) fitting approximately 37° outboard of aft, and torque trombone assembly to initiator 135 to 140 inch-pounds. Using sealing compound, apply tamper dots. (QA)

(7) Connect hose assembly (9) to trombone assembly (8) fitting and tighten hose assembly. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

d. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

13. ILLUSTRATED PARTS BREAKDOWN.

14. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

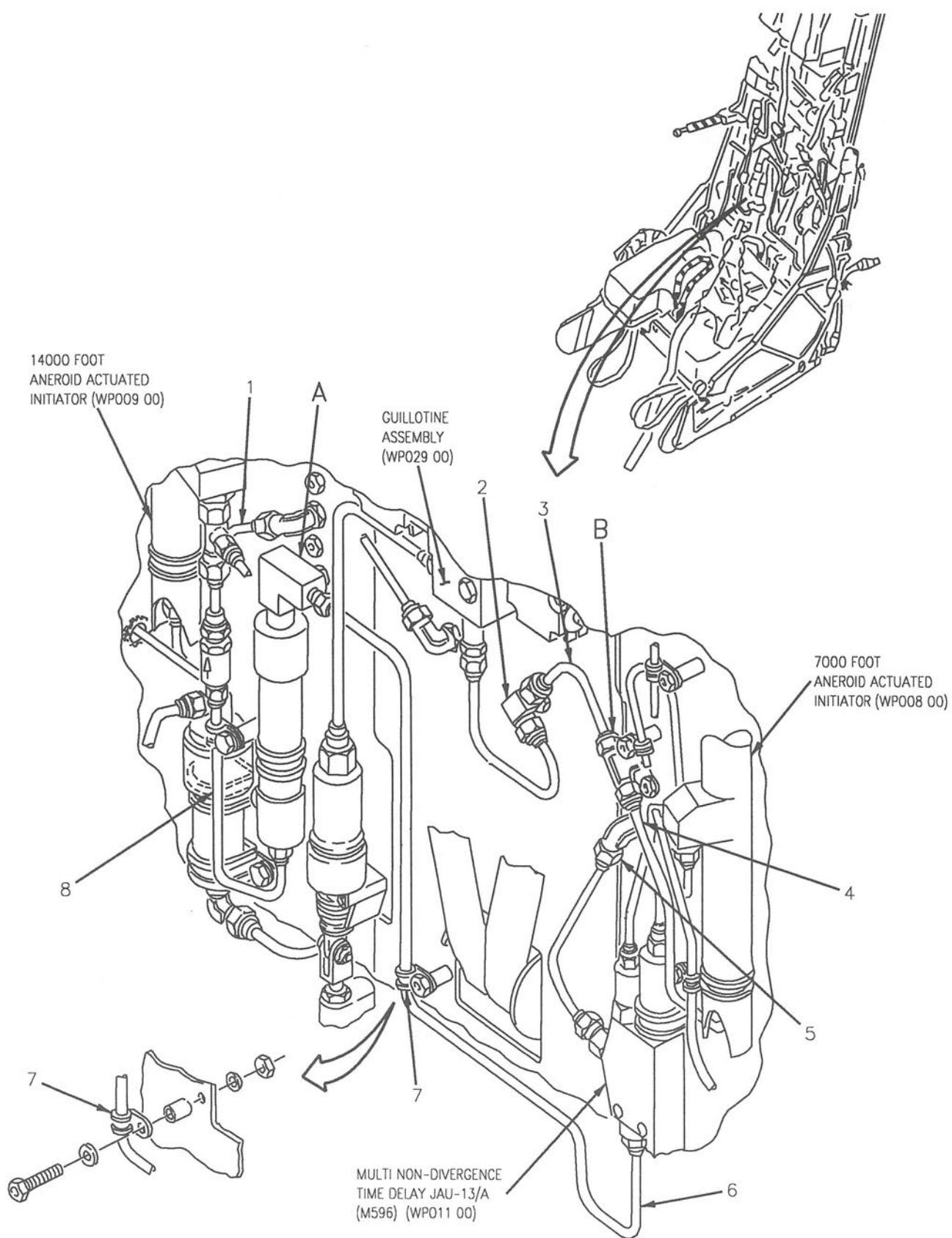


Figure 1. Inner Trombone Assemblies (Sheet 1)

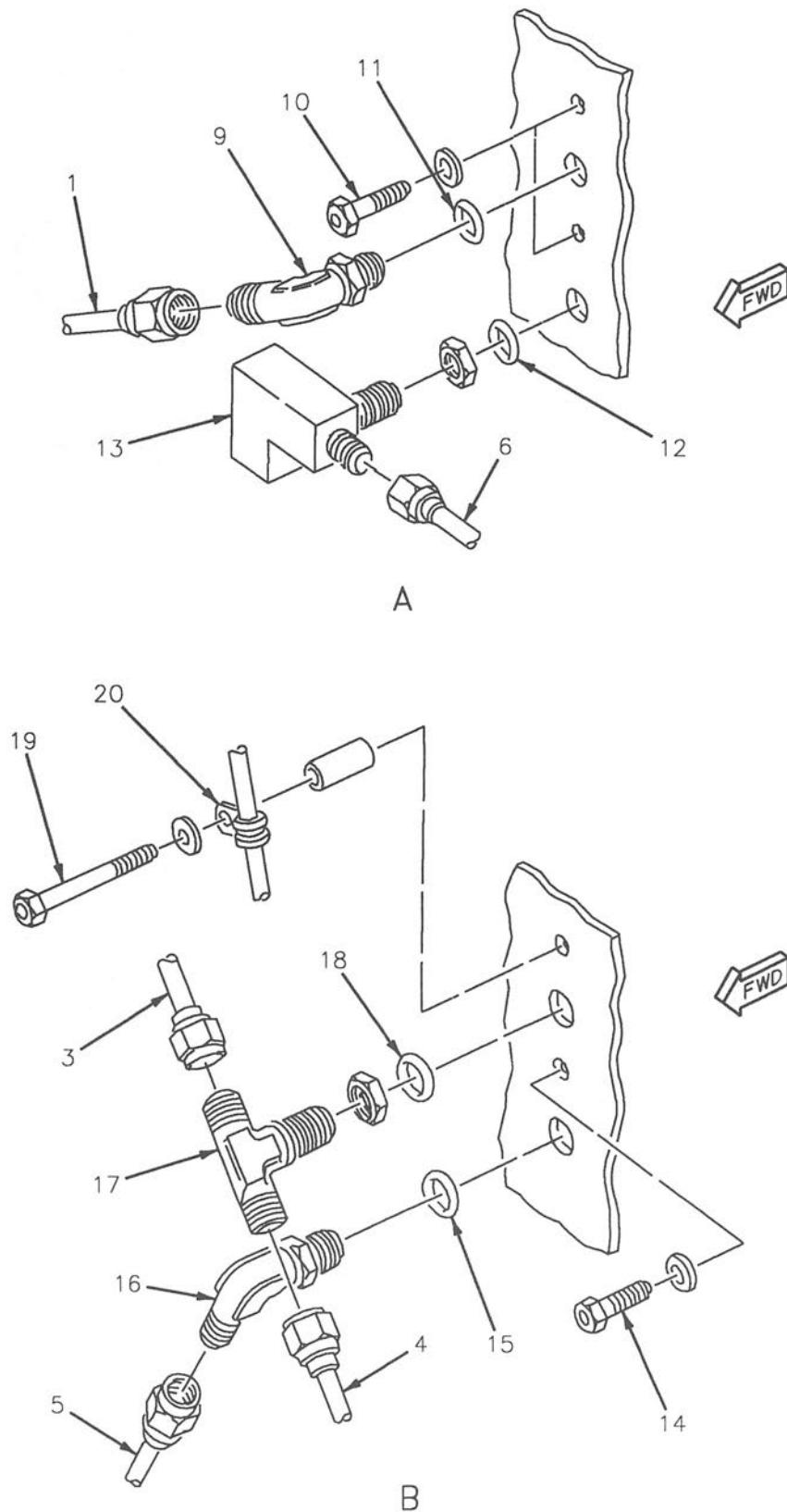


Figure 1. Inner Trombone Assemblies (Sheet 2)

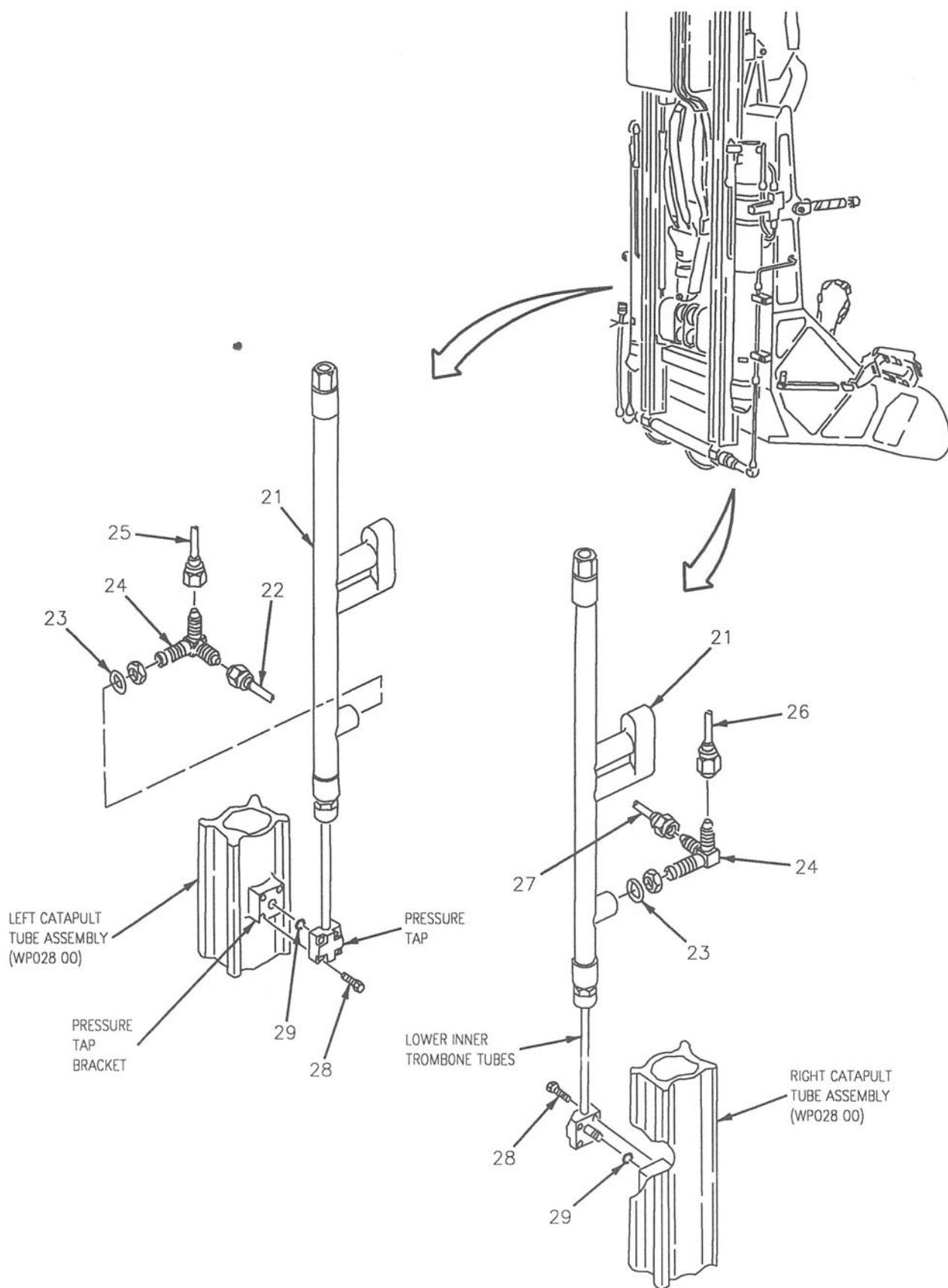


Figure 1. Inner Trombone Assemblies (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14427-1	INNER TROMBONE ASSEMBLIES	1		PAOZZ
2	12236-11	. TUBE ASSEMBLY, 14000 FT	1		PAOZZ
		ANEROID TO TROMBONE (51998)			
		. TEE, FLARED TUBE AND UNIVERSAL	1		PAOZZ
		(51998)			
	AN924-3J	. NUT (AP)	1		PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 2)	1		PAOZZ
3	12291-1	. TUBE ASSEMBLY - DROGUE ASSY	1		PAOZZ
		TO TROMBONE (51998)			
4	14430-1	. TUBE ASSEMBLY - 7000 FOOT ANEROID ..	1		PAOZZ
		TO TROMBONE (51998)			
5	14308-1	. TUBE ASSEMBLY - LH TROMBONE TO	1		PAOZZ
		MULTIPLE TIME DELAY (51998)			
6	14302-1	. TUBE ASSEMBLY - MANIFOLD TO	1		PAOZZ
		JAU-13/A (51998)			
7	MS21919DG3	. CLAMP	1		PAOZZ
	NAS6203-21	. SCREW (AP) (HEAD FORWARD)	1		PAOZZ
	NAS1149D0332K	. WASHER (AP)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
	NAS43DD3-33	. SPACER (AP)	1		PAOZZ
	MS21042L3	. NUT (AP)	1		PAOZZ
8	12290-1	. TUBE ASSEMBLY - M-99	1		PAOZZ
		TO GUILLOTINE (51998)			
9	MS51527B3S	. ELBOW	1		PAOZZ
10	NAS6203-1	. BOLT	2		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 10)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
11	MS9068-011	. PACKING	1		PAOZZ
12	MS9068-011	. PACKING	1		PAOZZ
13	14976-13	. MANIFOLD - JAU-13/A TIME DELAY	1		PAOZZ
		(51998)			
	AN924-3J	. NUT (AP)	1		PAOZZ
14	NAS6203-1	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 14)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
15	MS9068-011	. PACKING	1		PAOZZ
16	MS51527B3S	. ELBOW	1		PAOZZ
17	AN834-3J	. TEE	1		PAOZZ
	AN924-3J	. NUT (AP)	1		PAOZZ
18	MS9068-011	. PACKING	1		PAOZZ
19	NAS6203-5	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 19)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-16	. SPACER (USE WITH INDEX 19)	1		PAOZZ
20	MS21919DG3	. CLAMP	1		PAOZZ
21	12230-3	. TROMBONE ASSEMBLY (INNER LEFT	2		PAOZZ
		TROMBONE ASSEMBLY AND INNER RIGHT TROMBONE ASSEMBLY) (51998)			
22	12295-1	. TUBE ASSEMBLY - LH TROMBONE	1		PAOZZ
		TO RH ROCKET (51998)			
23	MS9068-011	. PACKING	2		PAOZZ
24	12236-11	. TEE, FLARED TUBE AND UNIVERSAL	2		PAOZZ
		(51998)			
	AN924-3J	. NUT (AP)	2		PAOZZ
25	12381-1	. TUBE ASSEMBLY (51998)	1		PAOZZ
26	12381-2	. TUBE ASSEMBLY - TROMBONE TO	1		PAOZZ
		SEAT BACK ROCKET (51998)			
27	12297-1	. TUBE ASSEMBLY - RH TROMBONE TO	1		PAOZZ
		LH SEAT BACK ROCKET (51998)			
28	NAS1190-04PS	. SCREW	8		PAOZZ
29	MS9068-010	. PACKING	2		PAOZZ

Figure 1. Inner Trombone Assemblies (Sheet 4)

A1-AV8BB-120-350

027 00

Page 16

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
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* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Inner Trombone Assemblies (Sheet 5)

LEGEND

- [1] PART NUMBER 14020-11 AND 14620-3;
ALSO 14020-9 AND 14020-7 AFTER
AV8AFC-533.
- [2] PART NUMBER 14020-9 AND 14020-7
BEFORE AV8AFC-633.

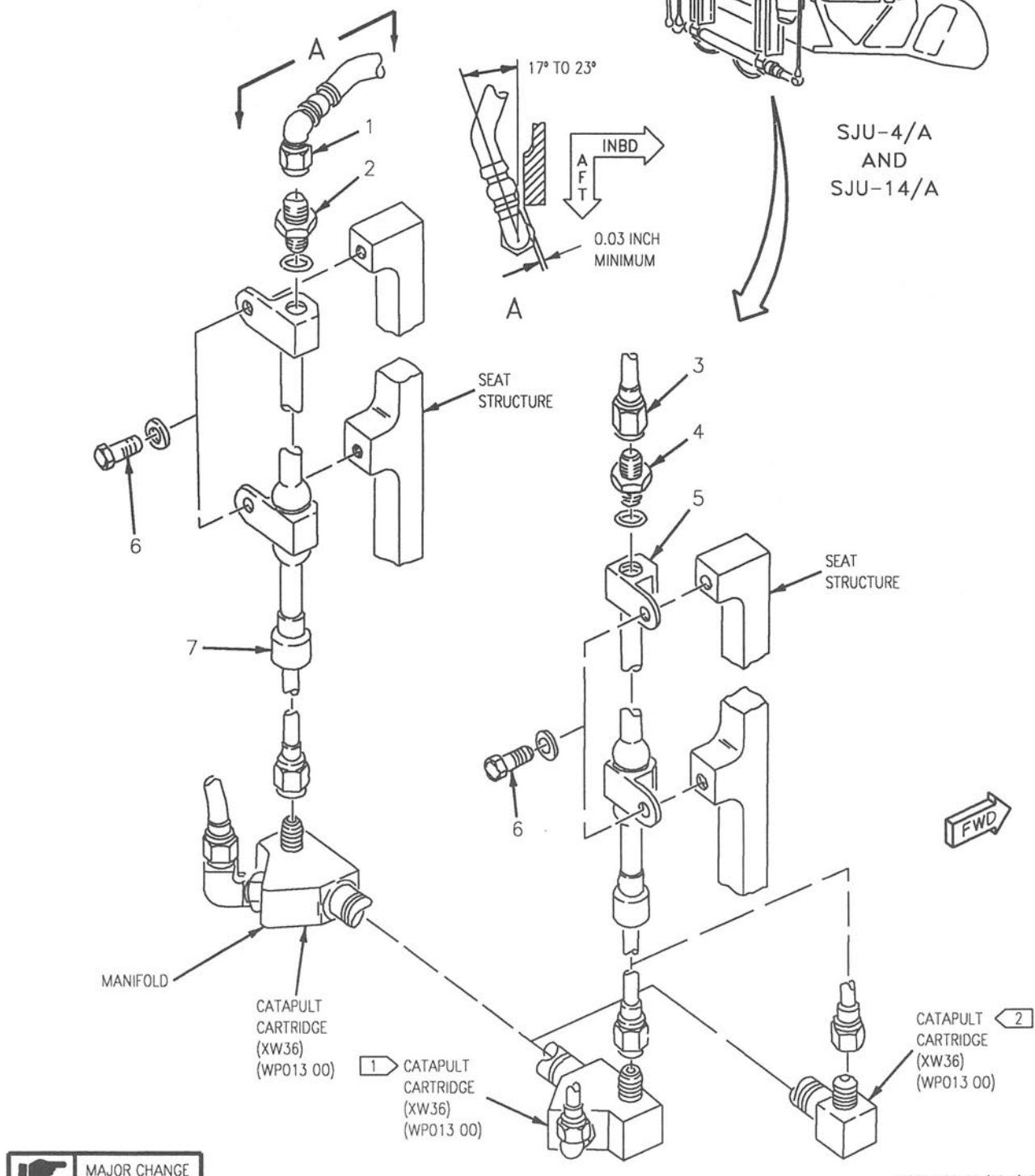


Figure 2. Outer Trombone Assemblies (Sheet 1)

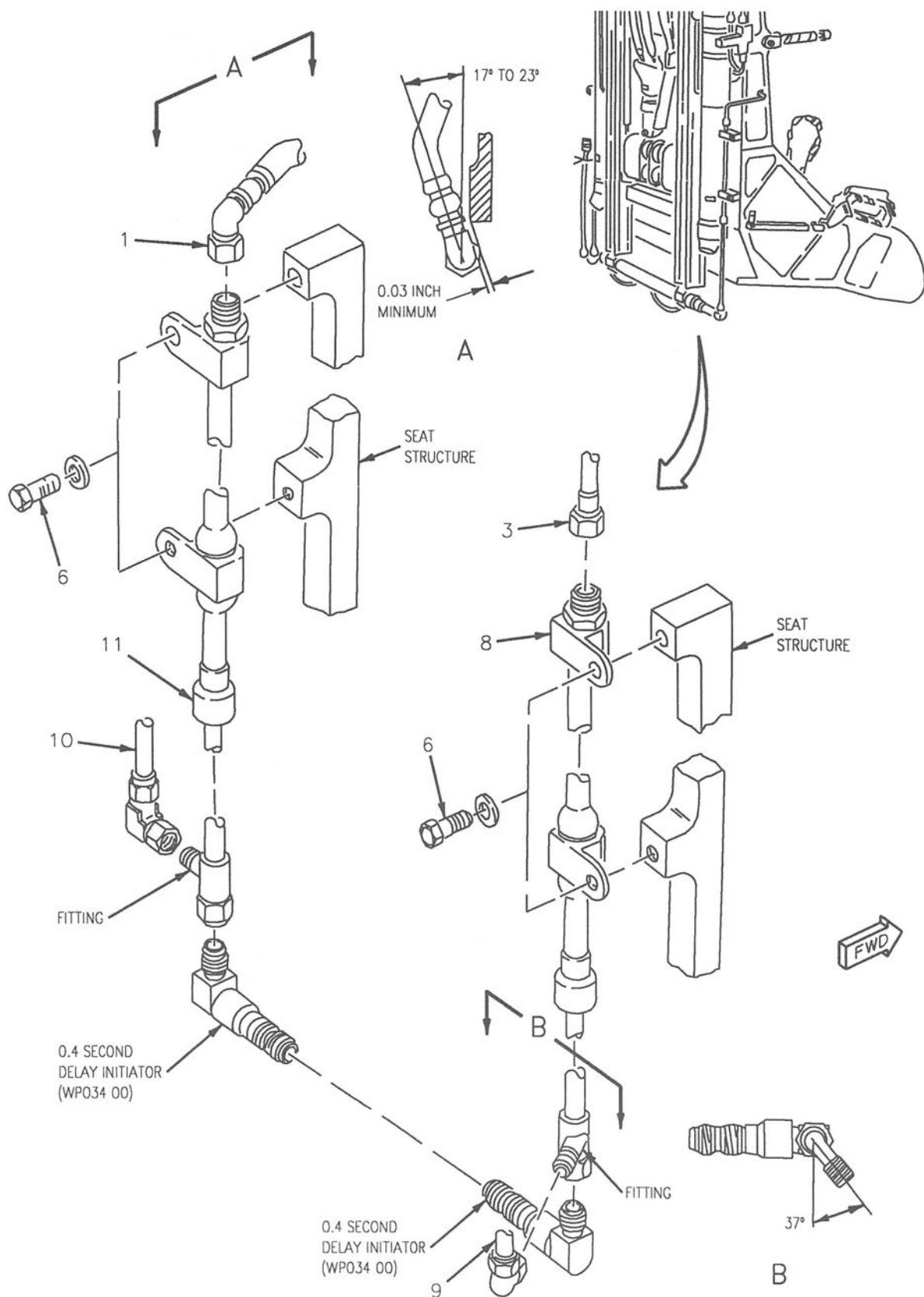


Figure 2. Outer Trombone Assemblies (Sheet 2)

INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14425-1		OUTER TROMBONE ASSEMBLIES			
		.	HOSE ASSEMBLY - M99 TO TROMBONE (51998)	1		PAOZZ
2	AN832-4J MS9068-012		NIPPLE	1	A	PAOZZ
3	14433-1		PACKING (USE WITH INDEX 2)	1	A	PAOZZ
		.	TUBE ASSEMBLY - GAS GENERATOR	1		PAOZZ
4	AN815-4J MS9068-012		MANIFOLD TO TROMBONE (51998)			
5	472P105D025-1		NIPPLE	1	A	PAOZZ
		.	PACKING (USE WITH INDEX 4)	1	A	PAOZZ
		.	TROMBONE ASSEMBLY (OUTER RIGHT	1	A	PAODD
			TROMBONE ASSEMBLY) (51998)			
6	NAS6203-2 NAS1149D0332K AN960KD10L		BOLT	4		PAOZZ
		.	WASHER (USE WITH INDEX 6)	4	*	PAOZZ
		.	SEE ABOVE	4	*	PAOZZ
7	472P105D025-2		TROMBONE ASSEMBLY (51998)	1	A	PAODD
8	23123-2		TROMBONE ASSEMBLY(OUTER RIGHT	1	B	PAODD
			TROMBONE ASSEMBLY) (51998)			
9	AE707744-129		HOSE ASSEMBLY, NONMETALLIC	1	B	PAOZZ
		.	BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-129)			
10	AE705783-12		HOSE ASSEMBLY, NONMETALLIC	1	B	PAOZZ
		.	BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-123)			
11	23123-1		TROMBONE ASSEMBLY(OUTER LEFT	1	B	PAODD
			TROMBONE ASSEMBLY) (51998)			

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

CODE	USABLE ON	MODEL
A	P/N 14020-11, 14020-9 P/N 14020-5 P/N 14620-3	SJU-4/A SJU-4/A SJU-14/A
B	P/N 14620-1	SJU-13/A

Figure 2. Outer Trombone Assemblies (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****CATAPULT TUBE ASSEMBLIES****AIRCRAFT EJECTION SEAT**

This WP supersedes WP028 00, dated 15 January 1995.

Reference Material

Periodic Maintenance Information Cards	A1-AV8BB-MRC-000
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Catapult Cartridge (XW36).....	WP013 00
Parachute Container Opener Assembly.....	WP026 00

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Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS24665-132	Cotter Pin (2)
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove parachute container opener assembly (WP026 00).
- c. Rotate ejection seat to horizontal position with tube assemblies (3 and 11, figure 1) up.
- d. Remove catapult cartridge (XW36) (WP013 00).
- e. Remove screws (2), washers, and nuts. Remove bracket assemblies (1).
- f. Remove pins (8 and 10), washers and cotter pins. Disconnect DART brake cords, leg restraint strap assemblies, and lanyard assembly (9).

NOTE

Lower trombone tubes will slide out of inner trombone assemblies.

- g. Slide tube assemblies (3 and 11) out of ejection seat with beam (6) and lower trombone tubes.

NOTE

To allow correct adjustment during installation, exact number of washers installed between beam and catapult tube assemblies must be recorded.

- h. Remove beam (6) and washers (7). Record number of washers on each side of beam.

- i. If tube assembly (3 and/or 11) is to be replaced, remove screws (4) and lower trombone tube assemblies. Remove packing from lower trombone tube assembly.

- j. Inspect beam (6) for nicks or gouges from inertia reel pin (WP018 00). If beam exhibits damage or the seat bucket has play between it and the tube assemblies (3 and 11), inspect inserts (12 and 14) for vertical grooves. If vertical grooves exist, replace inserts during installation.

2. INSTALLATION.

- a. If tube assembly (3 and/or 11, figure 1) is being replaced, do substeps below:

NOTE

Catapult tube assemblies are scheduled removal components. Catapult tube assemblies must be marked with required data and entry must be made in log book.

For expiration date of catapult tube assemblies, refer to A1-AV8BB-MRC-000.

- (1) Using indelible ink, mark tube assembly (3 and/or 11) with date of installation and date of expiration.

- (2) Make log book entry for tube assemblies (3 and/or 11) to include date of manufacture, lot number, serial number, date of installation, and date of expiration.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(3) Lubricate new packing (5) with silicone compound.

(4) Position packing (5) on lower trombone tube.

(5) Position lower trombone tube on tube assembly (3 and/or 11).

(6) Position pressure taps in pressure tap bracket.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(7) Coat threads of screws (4) with primer.

(8) Install screws (4).

WARNING

To prevent death or injury to aircrew member, catapult tube assemblies must be parallel. The same number of washers must be installed on both sides of beam. A maximum of five washers per side may be used.

b. If inserts (12 and 14) are being replaced, install inserts with screws (13).

c. Install beam (6) and washers (7). Make sure same number of washers (7) are installed as were recorded in removal. Make sure the same number of washers are installed in both sides of beam (6).

d. Position tube assemblies (3 and 11) in brackets on lower lateral beam.

e. Align lower trombone tubes with inner trombone assemblies.

f. Slide tube assemblies (3 and 11) through brackets on drogue beam assembly, upper lateral beam, and inertia reel strap roller assemblies. Make sure lower trombone tubes fit in inner trombone assemblies.

g. Measure and record distance between outer edges of tube assemblies (3 and 11) (dimension A, detail A).

h. If distance measured is 10.97 to 11.03 inches, go to step i. If distance is incorrect, do substeps below:

(1) Remove tube assemblies (3 and 11) from ejection seat.

(2) Remove beam (6) and washers (7).

(3) Add or remove washers (7) to get 10.97 to 11.03 inches between outer edges of tube assemblies (3 and 11). Make sure the same number of washers are installed on both sides of beam to a maximum of five washers per side. (QA)

(4) Repeat steps f and g.

i. Install catapult cartridge (XW36) (WP013 00).

j. Make sure tube assemblies (3 and 11) slide freely in ejection seat.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

k. Coat threads of screws (2) with primer.

NOTE

Washers may be added or removed under nut to get correct grip length.

l. Install bracket assemblies (1) with screws (2), washers, and nuts.

WARNING

To prevent death or injury to aircrew member, left DART brake cord must be attached to left catapult tube assembly.

- m. Position left DART brake cord, lanyard assembly (9), and left leg restraint strap assembly on tube assembly (11). Install pin (10), washers, and cotter pins.
- n. Position right DART brake cord and right leg restraint strap assembly on tube assembly (3). Install pin (8), washers, and cotter pins.

- o. Install parachute container opener (WP026 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

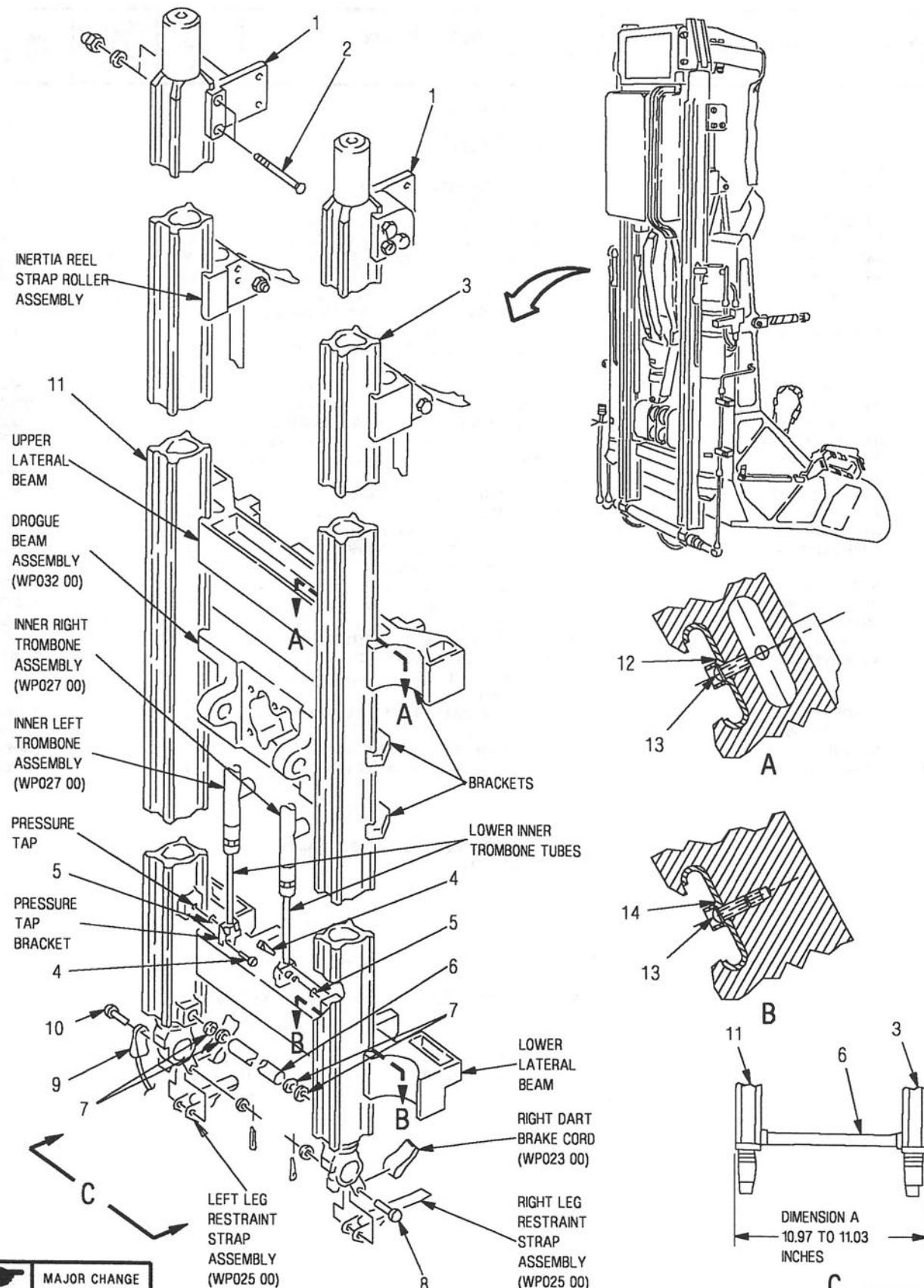


Figure 1. Catapult Tube Assemblies (Sheet 1)

C AHR722-68-1-013

INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	12120-3		CATAPULT TUBE ASSEMBLIES			
			· BRACKET ASSEMBLY (51998)	1	A	PAOZZ
			(LEFT SIDE)			
	12120-5		· SEE ABOVE	1	B	-
	12120-4		· BRACKET ASSEMBLY (51998)	1	A	PAOZZ
			(RIGHT SIDE)			
	12120-6		· SEE ABOVE	1	B	-
2	NAS1204-34		· SCREW	4		PAOZZ
	NAS1149D0463K		· WASHER (USE WITH INDEX 2)	AR	*	PAOZZ
	AN960KD416		· SEE ABOVE	AR	*	PAOZZ
	52NKTE-048		· NUT (72962) (SAEC SPEC 12484-011) (USE WITH INDEX 2)	4		PAOZZ
3	472P305E001-16		· TUBE ASSEMBLY, CATAPULT (51998) (RIGHT CATAPULT TUBE ASSEMBLY)	1		PAODD
4	NAS1190-04P8		· SCREW	8		PAOZZ
5	MS9068-010		· PACKING	2		PAOZZ
6	472P100C008-9		· BEAM, LATERAL - CATAPULT (51998) ...	1		MDOZZ
7	NAS1149D0532K		· WASHER	AR	*	PAOZZ
	AN960KD516L		· SEE ABOVE	AR	*	PAOZZ
8	MS20392-3C27		· PIN	1		PAOZZ
	NAS1149D0432K		· WASHER (USE WITH INDEX 8)	1	*	PAOZZ
	AN960KD416L		· SEE ABOVE	1	*	PAOZZ
	MS24665-132		· PIN, COTTER (USE WITH INDEX 8)	1		PAOZZ
9	472P100C014-1		· WIRE ROPE ASSEMBLY (51998)	1		PAOZZ
			(LANYARD ASSEMBLY)			
10	MS20392-3C31		· PIN	1		PAOZZ
	NAS1149D0432K		· WASHER (USE WITH INDEX 10)	1	*	PAOZZ
	AN960KD416L		· SEE ABOVE	1	*	PAOZZ
	MS24665-132		· PIN, COTTER (USE WITH INDEX 10)	1		PAOZZ
11	472P305E001-15		· TUBE ASSEMBLY, CATAPULT (51998) (LEFT CATAPULT TUBE ASSEMBLY)	1		PAODD
12	12108-11		· INSERT, LATERAL BEAM (24632)	2		PAOZZ
13	MS27039-0807		· SCREW	4		PAOZZ
	NAS620A8L		· WASHER (USE WITH INDEX 13)	4		PAOZZ
14	12108-13		· INSERT, LATERAL BEAM (24632)	2		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

CODE	USABLE ON	MODEL
A	P/N 14020-11, 14020-9 AND 14020-5	SJU-4/A
B	P/N 14620-1 P/N 14620-3	SJU-13/A SJU-14/A

Figure 1. Catapult Tube Assemblies (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****GUILLOTINE ASSEMBLY****AIRCRAFT EJECTION SEAT**

Reference Material

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Back Cushion Assembly, Wedge Assembly.....	WP005 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench
111T900C240-9	Torque Wrench Adapter

Materials Required

Specification or Part Number	Nomenclature
-	Drill Rod (0.0625 inch diameter)
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-011	Packing
MS9068-012	Packing
QQ-W-470 (CAGE 81348)	Wire, Non-electrical (0.05 inch diameter)
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove wedge assembly (WP005 00).
- c. Disconnect tube assembly (2, figure 1) from nipple (7).
- d. Disconnect tube assembly (3) from valve (4).

- e. Disconnect inertia reel straps per substeps below:



To prevent damage to inertia reel assembly, inertia reel must not be allowed to rewind freely under its own spring tension.

- (1) Set inertia reel control assembly to UNLOCK.
- (2) Fully extend inertia reel straps.
- (3) Lock inertia reel by inserting two lengths of 0.0625 inch drill rod or 0.05 inch non-electrical wire into locking pin holes in inertia reel assembly.
- (4) Push inertia reel straps through inertia reel assembly spool one at a time.
- (5) Remove retainers from inertia reel strap loops. Save retainers for installation.
- (6) Pull inertia reel straps through inertia reel assembly spool from forward side of seat, one at a time.
- (7) Pull inertia reel straps through guillotine assembly (1).
- f. Remove bolts (5 and 6) and washers.
- g. Remove guillotine assembly (1).
- h. Remove valve (4).
- i. Remove nipple (7).

2. INSTALLATION.**WARNING**

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- a. Using silicone compound, lubricate new packings used with valve (4, figure 1) and nipple (7).

- b. Install packing on nipple (7).
- c. Install packing on valve (4).
- d. Install nipple (7) in side port of guillotine assembly (1).
- e. Install valve (4) in bottom port of guillotine assembly (1).

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- f. Coat threads of bolts (5 and 6) with coating primer.
- g. Install guillotine assembly (1) with bolts (5 and 6) and washers.
- h. Install inertia reel straps per substeps below:

WARNING

To prevent death or injury to aircrew member, make sure inertia reel straps are not twisted.

Make sure inertia reel straps are routed behind all tubing and are free of obstructions.

- (1) Route inertia reel straps through guillotine assembly one at a time.
- (2) Route inertia reel straps through inertia reel assembly spool one at a time.
- (3) Insert retainers into inertia reel strap loops.
- (4) Pull inertia reel straps from forward side of seat to position strap loops and retainers in inertia reel assembly spool.

CAUTION

To prevent damage to inertia reel assembly, spool must rewind slowly.

- (5) While holding inertia reel straps from forward side of seat, remove two drill rods from locking pin holes in inertia reel assembly and slowly allow straps to rewind on spool.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- i. Connect tube assembly (2) to nipple (7). Torque 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

- j. Connect tube assembly (3) to valve (4). Torque 90 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- k. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)
 - l. Install wedge assembly (WP005 00).
3. **ILLUSTRATED PARTS BREAKDOWN.**
 4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

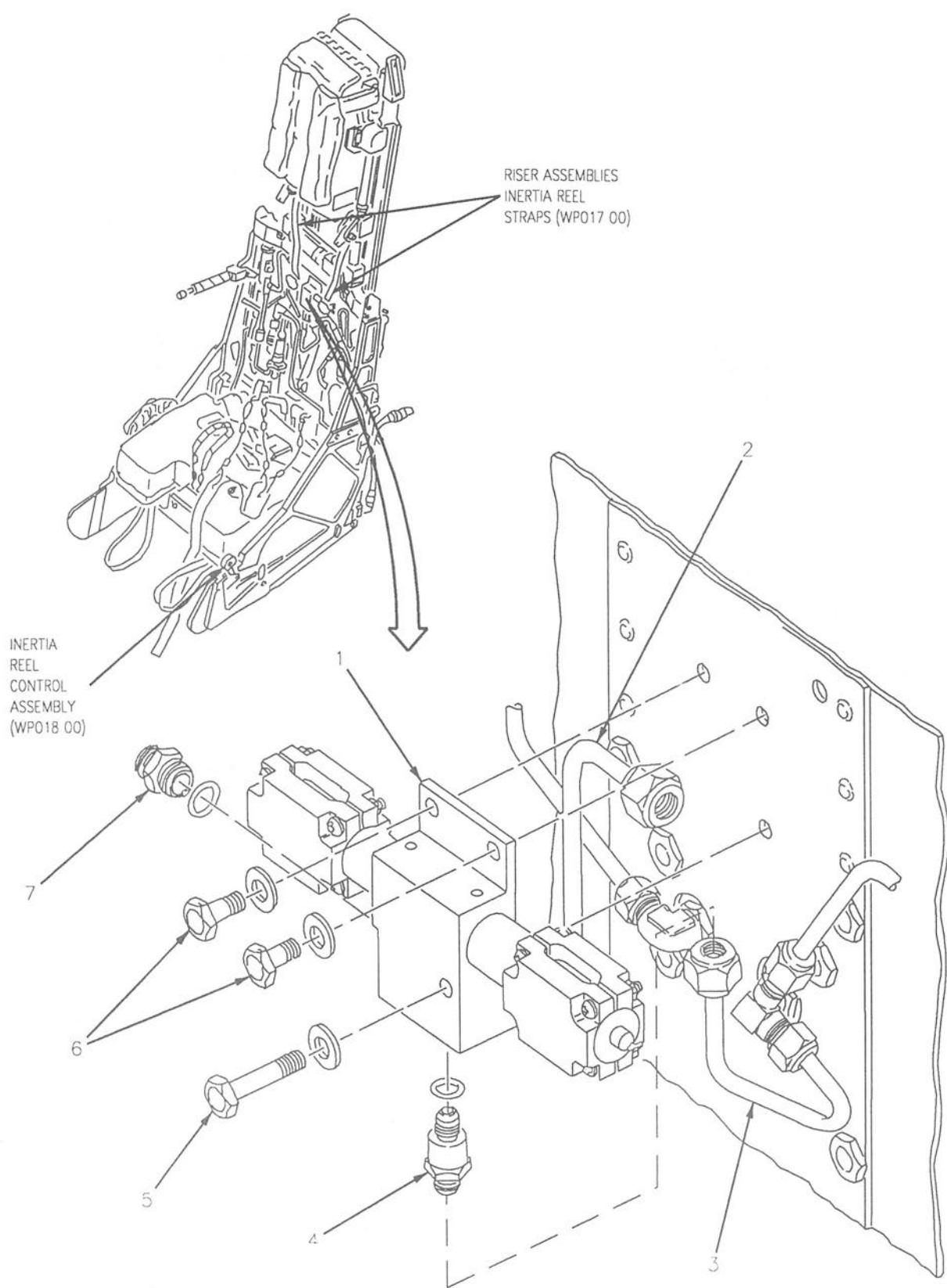


Figure 1. Guillotine Assembly (Sheet 1)

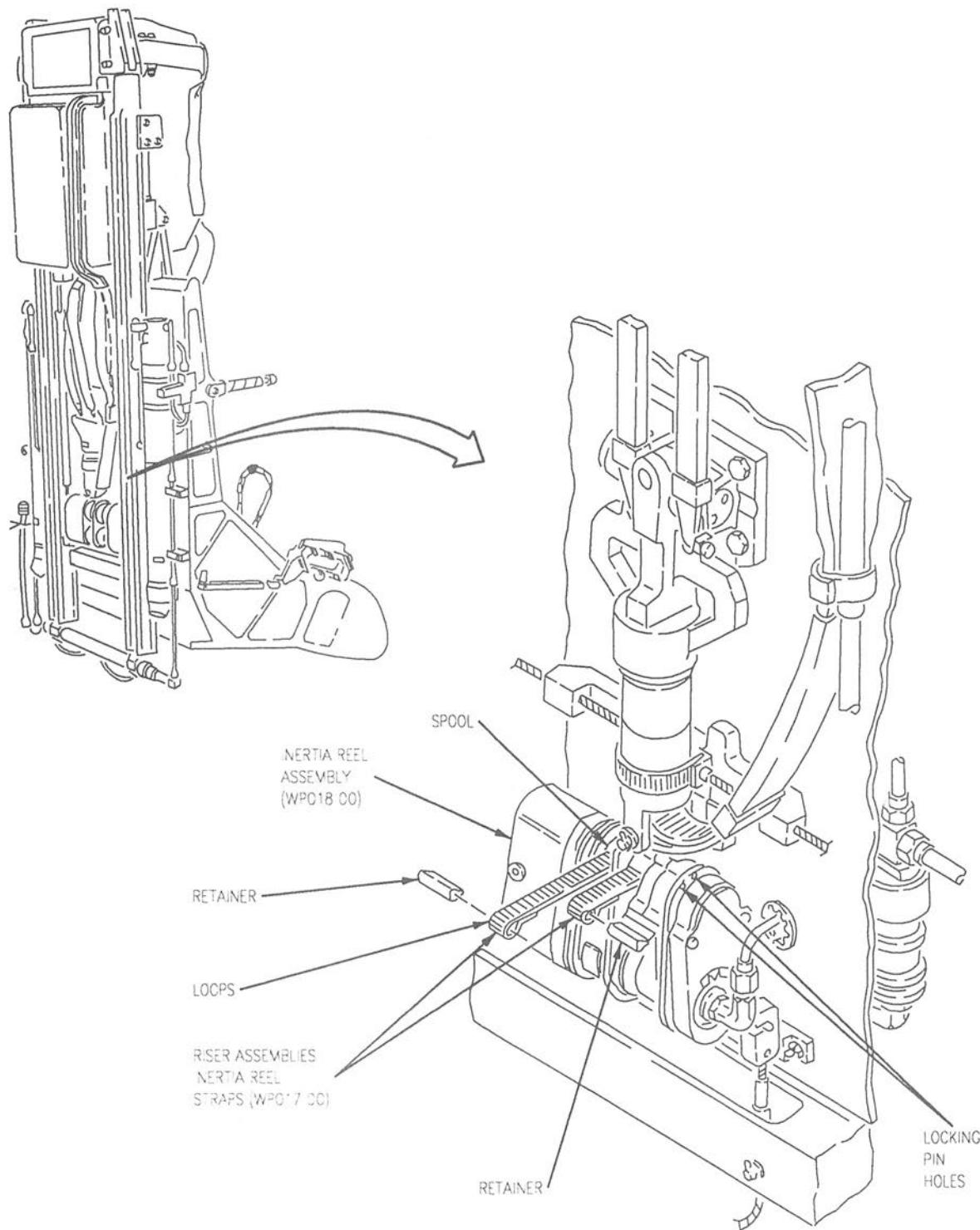


Figure 1. Guillotine Assembly (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS	USE ON CODE	SM&R CODE
			PER ASSY		
1	14160-3	GUILLOTINE ASSEMBLY	1	PAOZZ	
2	12290-1	. GUILLOTINE ASSEMBLY (51998)	1	-	
		. TUBE ASSEMBLY - M99 TO	1		
		GUILLOTINE (51998)			
3	12289-1	. TUBE ASSEMBLY - GUILLOTINE TO	1	-	
		DROGUE RELEASE (51998)			
4	K-1120-4-4	. VALVE, CHECK (83533) (UPCO	1	*	PAOZZ
		SPEC 12361-1)			
	1C1196	. SEE ABOVE (99240)	1	*	PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 4)	1	PAOZZ	
5	NAS6203-18	. BOLT	1	PAOZZ	
	NAS1149D0316K	. WASHER (USE WITH INDEX 5)	1	*	PAOZZ
	AN960KD1OLL	. SEE ABOVE	1	*	PAOZZ
6	NAS6203-4	. BOLT	2	PAOZZ	
	NAS1149D0316K	. WASHER (USE WITH INDEX 6)	2	*	PAOZZ
	AN960KD1OLL	. SEE ABOVE	2	*	PAOZZ
7	AN815-4J	. NIPPLE	1	PAOZZ	
	MS9068-012	. PACKING (USE WITH INDEX 7)	1	PAOZZ	

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Guillotine Assembly (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****LOW SPEED SELECTOR VALVE****AIRCRAFT EJECTION SEAT**

Reference Material

Periodic Maintenance Information Cards	A1-AV8BB-MRC-000
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
--	---------------------

CH150	Torque Wrench
-------	---------------

Materials Required

Specification or Part Number	Nomenclature
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EC1252 (CAGE 04963)	Sealing Compound
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Disconnect tube assembly (1, figure 1) from valve assembly (4).
- c. Disconnect tube assembly (2) from valve assembly (4).
- d. Remove bolts (3) and washers. Remove valve assembly (4).

2. INSTALLATION.

- a. If valve assembly (4, figure 1) is being replaced, do substeps below:

NOTE

Low speed selector valve is a scheduled removal component. Low speed selector valve must be marked with required data and entry must be made in log book.

For expiration date of low speed selector valve, refer to A1-AV8BB-MRC-000.

- (1) Using indelible ink, mark valve assembly (4) with date of installation and date of expiration.

- (2) Make log book entry for valve assembly (4) to include date of manufacture, lot number, serial number, date of installation, and date of expiration.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Coat threads of bolts (3) with coating primer.
- c. Position valve assembly (4) on ejection seat. Loosely install bolts (3) and washers.

CAUTION

Latch must not move. Latch movement indicates broken shear lock. If shear lock is broken, low speed selector valve must not be used.

- d. Make sure latch does not move. If latch moves, replace valve assembly (4).
- e. Loosely connect tube assemblies (1 and 2) to valve assembly (4).
- f. Tighten bolts (3).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- g. Torque tube assembly (1) 135 to 150 inch-pounds. Using sealing compound, apply tamper dot. (QA)

WARNING

- h. Torque tube assembly (2) 95 to 105 inch-pounds. Using sealing compound, apply tamper dot. (QA)

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

- i. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

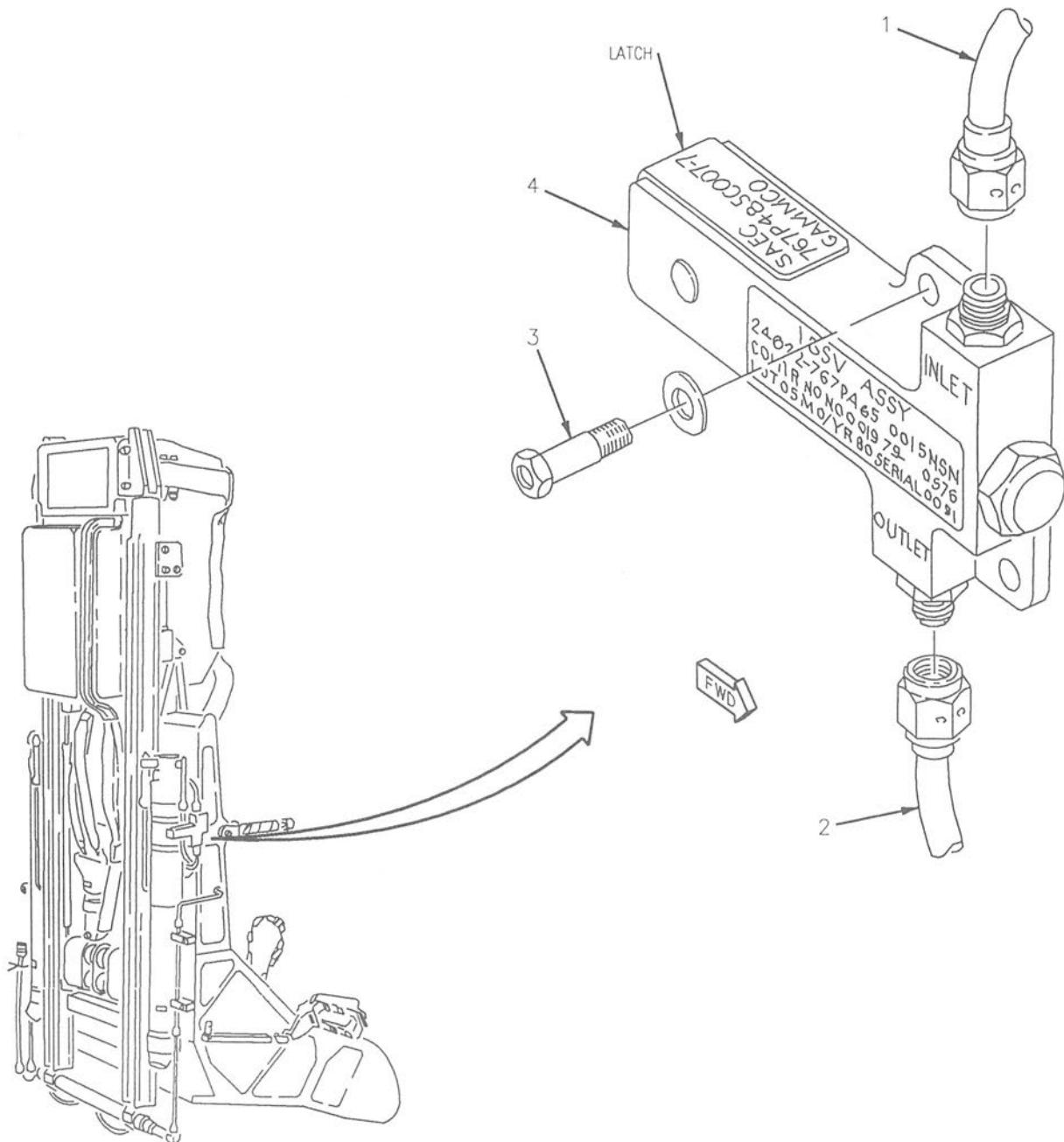


Figure 1. Low Speed Selector Valve (Sheet 1)

INDEX NO.	PART NUMBER	1 2 3 4 5 6 7	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
			LOW SPEED SELECTOR VALVE TUBE ASSEMBLY - 0.10 SEC TIME	1	-
1	14432-1		DELAY TO L.S.S.V. (51998)			
2	14411-1		. TUBE ASSEMBLY - LSSV TO		1	-
			MANIFOLD (51998)			
3	NAS6203-5 NAS1149D0363K AN960KD10		. BOLT	2	*	PAOZZ
4	14408-1		. WASHER (USE WITH INDEX 3)	2	*	PAOZZ
			. SEE ABOVE	2	*	PAOZZ
			. VALVE ASSEMBLY - LOW SPEED	1		PAODD
			SELECTOR (51998) (LOW SPEED SELECTOR VALVE)			

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Low Speed Selector Valve (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****HOSE AND TUBE ASSEMBLIES****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Seat Back Cushion, Seat Wedge Assembly.....	WP005 00
Seat Back Rocket Motors (MF21).....	WP015 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Support Equipment Required
(Continued)

Part Number or Type Designation	Nomenclature	Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0 to 200 Inch- Pounds	111T900C240-11	Torque Wrench Adapter
CH150 111T900C240-9	Torque Wrench Torque Wrench Adapter		

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer Coating

WARNING

To prevent death or injury to aircrew member, tube assemblies shall not be locally manufactured.

To prevent death or injury to aircrew member, tube assemblies connecting components which have been fired shall not be reused.

1. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

2. TUBE ASSEMBLY PN 12288-1. (11, Figure 1)

- a. Remove seat wedge assembly (WP005 00).
- b. Disconnect tube assembly (11) from elbow on inertia reel gas generating initiator.
- c. Disconnect tube assembly (11) from elbow on inertia reel assembly.
- d. Remove tube assembly (11) through hole in back panel.

3. TUBE ASSEMBLY PN 12289-1. (18, Figure 1)

- a. Remove seat wedge assembly (WP005 00).

- b. Disconnect tube assembly (18) from tee (35).
- c. Disconnect tube assembly (18) from valve (6).
- d. Remove tube assembly (18).

4. TUBE ASSEMBLY PN 12290-1. (5, Figure 1)

- a. Remove seat wedge assembly (WP005 00).
- b. While holding seat/man separation initiator bracket with open end wrench, disconnect tube assembly (5) from seat/man separation initiator (M688).
- c. Disconnect tube assembly (5) from guillotine assembly.
- d. Remove tube assembly (5).

5. TUBE ASSEMBLY PN 12291-1. (19, Figure 1)

- a. Remove seat wedge assembly (WP005 00).
- b. Disconnect tube assembly (19) from tees (35 and 36).
- c. Remove tube assembly (19).

6. TUBE ASSEMBLY PN 12295-1. (29, Figure 1)

- a. Remove right seat back rocket motor (MF21) (WP015 00).
- b. Remove velcro attachment securing drogue bridle to inner right trombone assembly.
- c. Remove clamp (30), screw, washer, and nut.
- d. Disconnect tube assembly (29) from inner left trombone assembly.
- e. Remove tube assembly (29).

7. TUBE ASSEMBLY PN 12297-1. (31, Figure 1)

- a. Remove left seat back rocket motor (MF21) (WP015 00).
- b. Remove velcro attachment securing drogue bridle to inner right trombone assembly.
- c. Remove clamp (30), screw, washer, and nut.
- d. Disconnect tube assembly (31) from inner right trombone assembly.

- e. Remove tube assembly (31).
- 8. TUBE ASSEMBLY PN 12381-1.** (32, Figure 1)
- a. Remove left seatback rocket motor (MF21) (WP015 00).
 - b. Disconnect tube assembly (32) from inner left trombone assembly.
 - c. Remove tube assembly (32).
- 9. TUBE ASSEMBLY PN 12381-2.** (28, Figure 1)
- a. Remove right seat back rocket motor (MF21) (WP015 00).
 - b. Remove velcro attachment securing drogue bridle to inner right trombone assembly.
 - c. Disconnect tube assembly (28) from inner right trombone assembly.
 - d. Remove tube assembly (28).
- 10. HOSE ASSEMBLY PN 12491-1.** (10, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Remove strap (12) from hose assembly (10).
 - c. Disconnect hose assembly (10) from ejection initiator (M688).
 - d. Disconnect hose assembly (10) from inertia reel gas generating initiator.
 - e. Remove hose assembly (10).
- 11. TUBE ASSEMBLY PN 14283-1.** (2, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (2) from manifold (34).
 - c. Disconnect tube assembly (2) from elbow (33).
 - d. Remove tube assembly (2).
- 12. TUBE ASSEMBLY PN 14302-1.** (23, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (23) from multi non-divergence time delay JAU-13/A (M596).
- c. Remove clamp (24), bolt, washer, spacer, and nut.
 - d. Disconnect tube assembly (23) from manifold (37).
 - e. Remove tube assembly (23).
- 13. TUBE ASSEMBLY PN 14308-1.** (7, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (7) from multi non-divergence time delay JAU-13/A (M596).
 - c. Disconnect tube assembly (7) from elbow (33).
 - d. Remove tube assembly (7).
- 14. TUBE ASSEMBLY PN 14411-1.** (16, Figure 1)
- a. Remove right seat back rocket motor (MF21) (WP015 00).
 - b. Disconnect tube assembly (16) from low-speed selector valve.
 - c. Disconnect tube assembly (16) from elbow (33).
 - d. Remove tube assembly (16).
- 15. HOSE ASSEMBLY PN 14425-1.** (9, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect hose assembly (9) from outer left trombone assembly.
 - c. Remove clamp (8), screw, and washer.
 - d. Disconnect hose assembly (9) from ejection initiator (M688).
 - e. Remove hose assembly (9) through hole in side panel.
- 16. TUBE ASSEMBLY PN 14426-1.** (3, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (3) from manifold (34).
 - c. Disconnect tube assembly (3) from tee (17).

- d. Remove tube assembly (3).
- 17. TUBE ASSEMBLY PN 14427-1.** (14, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (14) from elbow (33).
 - c. Using torque wrench adapter 111T900C240-9, disconnect tube assembly (14) from 14000 foot aneroid actuated initiator.
 - d. Remove tube assembly (14).
- 18. TUBE ASSEMBLY PN 14428-1.** (25, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (25) from 3.0 second delay initiator JAU-14/A (M597).
 - c. Remove clamp (26), bolt, washer, and spacer.
 - d. Disconnect tube assembly (25) from valve (27).
 - e. Remove tube assembly (25).
- 19. TUBE ASSEMBLY PN 14429-1.** (15, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (15) from tee (17).
 - c. Disconnect tube assembly (15) from valve (27).
 - d. Remove tube assembly (15).
- 20. TUBE ASSEMBLY PN 14430-1.** (22, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Using torque wrench adapter 111T900C240-9, disconnect tube assembly (22) from 7000 foot aneroid actuated initiator.
 - c. Disconnect tube assembly (22) from tee (36).
 - d. Remove tube assembly (22).
- 21. TUBE ASSEMBLY PN 14431-1.** (21, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
- b. Disconnect tube assembly (21) from 7000 foot aneroid actuated initiator.
 - c. Remove clamp (20), bolt, washer, and spacer.
 - d. Disconnect tube assembly (21) from multi non-divergence time delay JAU-13/A (M596).
 - e. Remove tube assembly (21).
- 22. TUBE ASSEMBLY PN 14432-1.** (1, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Remove tube assembly PN 14431-1, this WP.
 - c. Remove clamps (4), bolts, washers, and spacers.
 - d. Disconnect tube assembly (1) from low-speed selector valve.
 - e. Disconnect tube assembly (1) from multi non-divergence time delay JAU-13/A (M596).
 - f. Remove tube assembly (1) through side panel.
- 23. TUBE ASSEMBLY PN 14433-1.** (13, Figure 1)
- a. Remove seat wedge assembly (WP005 00).
 - b. Disconnect tube assembly (13) from inertia reel gas generating initiator.
 - c. Disconnect tube assembly (13) from outer right trombone assembly.
 - d. Remove tube assembly (13).
- 24. INSTALLATION.**
- NOTE**
- Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.
- a. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

WARNING

To prevent death or injury to aircrew member, crimped, cracked, broken or obstructed tube assemblies must not be used.

- b. Make sure all fitting, tube assemblies and connectors are not crimped, cracked, broken or obstructed.

25. TUBE ASSEMBLY PN 12288-1. (11, Figure 1)

- a. Insert tube assembly (11) through hole in back panel.
- b. Loosely connect tube assembly (11) to inertia reel gas generating initiator.
- c. Loosely connect tube assembly (11) to inertia reel assembly.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- d. Torque tube assembly (11) 135 to 150 inch-pounds. Using sealing compound, apply tamper dots. (QA)
- e. Make sure 0.03 inch minimum clearance exists between tube assembly (11) and other components or ejection seat structure. (QA)
- f. Install seat wedge assembly (WP005 00).

26. TUBE ASSEMBLY PN 12289-1. (18, Figure 1)

- a. Loosely connect tube assembly (18) to valve (6).
- b. Loosely connect tube assembly (18) to tee (35).

WARNING

c. Torque tube assembly (18) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

d. Make sure 0.03 inch minimum clearance exists between tube assembly (18) and other components or ejection seat structure. (QA)

- e. Install seat wedge assembly (WP005 00).

27. TUBE ASSEMBLY PN 12290-1. (5, Figure 1)

- a. Loosely connect tube assembly (5) to guillotine assembly.
- b. Loosely connect tube assembly (5) to seat/man separation initiator (M688).

WARNING

c. While holding seat/man separation initiation bracket with open end wrench, torque tube assembly (5) 135 to 150 inch-pounds. Using sealing compound, apply tamper dots. (QA)

d. Make sure 0.03 inch minimum clearance exists between tube assembly (5) and other components or ejection seat structure. (QA)

- e. Install seat wedge assembly (WP005 00).

28. TUBE ASSEMBLY PN 12291-1. (19, Figure 1)

- a. Loosely connect tube assembly (19) to tees (35 and 36).

WARNING

b. Torque tube assembly (19) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

c. Make sure 0.03 inch minimum clearance exists between tube assembly (19) and other components or ejection seat structure. (QA)

- d. Install seat wedge assembly (WP005 00).

29. TUBE ASSEMBLY PN 12295-1. (29, Figure 1)

- a. Loosely connect tube assembly (29) to inner left trombone assembly.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- b. Torque tube assembly (29) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- c. Coat screw used with clamp (30) with primer coating.

- d. Install clamp (30) with screw, washer, and nut.

- e. Make sure 0.03 inch minimum clearance exists between tube assembly (29) and other components or ejection seat structure. (QA)

- f. Position drogue bridle and secure to inner right trombone assembly with velcro attachment.

- g. Install right seat back rocket (MF21) (WP015 00).

30. TUBE ASSEMBLY PN 12297-1. (31, Figure 1)

- a. Loosely connect tube assembly (31) to inner right trombone assembly.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- b. Torque tube assembly (31) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- c. Coat screw used with clamp (30) with primer coating.

- d. Install clamp (30) with screw, washer, and nut.

- e. Make sure 0.03 inch minimum clearance exists between tube assembly (31) and other components or ejection seat structure. (QA)

- f. Position drogue bridle and secure to inner right trombone assembly with velcro attachment.

- g. Install left seat back rocket motor (MF21) (WP015 00).

31. TUBE ASSEMBLY PN 12381-1. (32, Figure 1)

- a. Loosely connect tube assembly (32) to inner left trombone assembly.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- b. Torque tube assembly (32) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)
- c. Make sure 0.03 inch minimum clearance exists between tube assembly (32) and other components or ejection seat structure. (QA)
- d. Install left seat back rocket motor (MF21) (WP015 00).

32. TUBE ASSEMBLY PN 12381-2. (28, Figure 1)

- a. Loosely connect tube assembly (28) to inner right trombone assembly.
- b. Torque tube assembly (28) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)
- c. Make sure 0.03 inch minimum clearance exists between tube assembly (28) and other components or ejection seat structure. (QA)

- d. Position drogue bridle and secure to inner right trombone assembly with velcro attachment.
- e. Install right seat back rocket motor (MF21) (WP015 00).

33. HOSE ASSEMBLY PN 12491-1. (10, Figure 1)

- a. Loosely connect hose assembly (10) to inertia reel gas generating initiator.
- b. Loosely connect hose assembly (10) to right ejection initiator (M688).

WARNING

c. Torque hose assembly (10) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

- d. Install strap (12) on hose assembly (10).
- e. Make sure 0.03 inch minimum clearance exists between hose assembly (10) and other components or ejection seat structure. (QA)
- f. Install seat wedge assembly (WP005 00).

34. TUBE ASSEMBLY PN 14283-1. (2, Figure 1)

- a. Loosely connect tube assembly (2) to elbow (33).
- b. Loosely connect tube assembly (2) to manifold (34).

WARNING

c. Torque tube assembly (2) 135 to 150 inch-pounds. Using sealing compound, apply tamper dots. (QA)

- d. Make sure 0.03 inch minimum clearance exists between tube assembly (2) and other components or ejection seat structure. (QA)
- e. Install seat wedge assembly (WP005 00).

35. TUBE ASSEMBLY PN 14302-1. (23, Figure 1)

- a. Loosely connect tube assembly (23) to manifold (37).
- b. Loosely connect tube assembly (23) to multi non-divergence time delay JAU-13/A (M596).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- c. Coat bolt used with clamp (24) with primer coating.

- d. Install clamp (24) with bolt, washer, spacer, and nut.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- e. Torque tube assembly (23) to 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)
- f. Make sure 0.03 inch minimum clearance exists between tube assembly (23) and other components or ejection seat structure. (QA)
- g. Install seat wedge assembly (WP005 00).

36. TUBE ASSEMBLY PN 14308-1. (7, Figure 1)

- a. Loosely connect tube assembly (7) to elbow (33).
- b. Loosely connect tube assembly (7) to multi non-divergence time delay JAU-13/A (M596).

WARNING

- c. Torque tube assembly (7) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA).

- d. Make sure 0.03 inch minimum clearance exists between tube assembly (7) and other components or ejection seat structure. (QA)
- e. Install seat wedge assembly (WP005 00).

37. TUBE ASSEMBLY PN 14411-1. (16, Figure 1)

- a. Loosely connect tube assembly (16) to elbow (33).
- b. Loosely connect tube assembly (16) to low-speed selector valve.

WARNING

- c. Torque tube assembly (16) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

- d. Make sure 0.03 inch minimum clearance exists between tube assembly (16) and other components or ejection seat structure. (QA)

- e. Install right seat back rocket motor (MF21) (WP015 00).

38. HOSE ASSEMBLY PN 14425-1. (9, Figure 1)

- a. Insert hose assembly (9) through hole in side panel.
- b. Loosely connect hose assembly (9) to outer left trombone assembly.
- c. Loosely connect hose assembly (9) to left ejection initiator (M688).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- d. Coat screw used with clamp (8) with primer coating.
- e. Install clamp (8) with screw and washer.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- f. Position hose assembly (9) 17° to 23° outboard of forward, and torque hose assembly 135

to 150 inch-pounds. Using sealing compound, apply tamper dots. (QA)

g. Make sure 0.03 inch minimum clearance exists between hose assembly (9) and other components or ejection seat structure. (QA)

h. Install seat wedge assembly (WP005 00).

39. TUBE ASSEMBLY PN 14426-1. (3, Figure 1)

a. Loosely connect tube assembly (3) to tee (17).

b. Loosely connect tube assembly (3) to manifold (34).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

c. Torque tube assembly (3) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

d. Make sure 0.03 inch minimum clearance exists between tube assembly (3) and other components or ejection seat structure. (QA)

e. Install seat wedge assembly (WP005 00).

40. TUBE ASSEMBLY PN 14427-1. (14, Figure 1)

a. Loosely connect tube assembly (14) to elbow (33).

b. Using torque wrench adapter, loosely connect tube assembly (14) to 14000 foot aneroid actuated initiator.

WARNING

c. Torque tube assembly (14) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

d. Make sure 0.03 inch minimum clearance exists between tube assembly (14) and other components or ejection seat structure. (QA)

e. Install seat wedge assembly (WP005 00).

41. TUBE ASSEMBLY PN 14428-1. (25, Figure 1)

a. Loosely connect tube assembly (25) to valve (27).

b. Loosely connect tube assembly (25) to 3.0 second delay initiator JAU-14/A (M597).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

c. Coat bolt used with clamp (26) with primer coating.

d. Install clamp (26) with bolt, washer and spacer.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

e. Torque tube assembly (25) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

f. Make sure 0.03 inch minimum clearance exists between tube assembly (25) and other components or ejection seat structure. (QA)

g. Install seat wedge assembly (WP005 00).

42. TUBE ASSEMBLY PN 14429-1. (15, Figure 1)

a. Loosely connect tube assembly (15) to valve (27).

b. Loosely connect tube assembly (15) to tee (17).

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

c. Torque tube assembly (15) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots.

d. Make sure 0.03 inch minimum clearance exists between tube assembly (15) and other components or ejection seat structure. (QA)

e. Install seat wedge assembly (WP005 00).

43. TUBE ASSEMBLY PN 14430-1. (22, Figure 1)

a. Loosely connect tube assembly (22) to tee (36).

b. Using torque wrench adapter, loosely connect tube assembly (22) to 7000 foot aneroid actuated initiator.

WARNING

c. Torque tube assembly (22) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

d. Make sure 0.03 inch minimum clearance exists between tube assembly (22) and other components or ejection seat structure. (QA)

e. Install seat wedge assembly (WP005 00).

44. TUBE ASSEMBLY PN 14431-1. (21, Figure 1)

a. Loosely connect tube assembly (21) to multi non-divergence time delay JAU-13/A (M596).

b. Loosely connect tube assembly (21) to 7000 foot aneroid actuated initiator.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

c. Coat bolt used with clamp (20) with primer coating.

d. Install clamp (20) with bolt, washer, and spacer.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

e. Torque tube assembly (21) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

f. Make sure 0.03 inch minimum clearance exists between tube assembly (21) and other components or ejection seat structure. (QA)

g. Install seat wedge assembly (WP005 00).

45. TUBE ASSEMBLY PN 14432-1. (1, Figure 1)

a. Insert tube assembly (1) through hole in side panel and route behind inertia reel straps.

- b. Loosely connect tube assembly (1) to multi non-divergence time delay JAU-13/A (M596).
- c. Loosely connect tube assembly (1) to low-speed selector valve.
- d. Install tube assembly PN14431-1, this WP.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- e. Coat bolts used with clamps (4) with primer coating.
- f. Install clamps (4), with bolts, washers, and spacer.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- g. Torque tube assembly (1) 135 to 150 inch-pounds. Using sealing compound apply tamper dots. (QA)
- h. Make sure 0.03 inch minimum clearance exists between tube assembly (1) and other components or ejection seat structure. (QA)

- i. Install seat wedge assembly (WP005 00).

46. TUBE ASSEMBLY PN 14433-1. (13, Figure 1)

- a. Insert tube assembly (13) through hole in side panel.
- b. Loosely connect tube assembly (13) to outer right trombone assembly.
- c. Loosely connect tube assembly (13) to inertia gas generating initiator.

WARNING

- d. Torque tube assembly (13) 135 to 150 inch-pounds. Using sealing compound, apply tamper dots. (QA)

- e. Make sure 0.03 inch minimum clearance exists between tube assembly (13) and other components or ejection seat structure. (QA)

- f. Make sure clearance exists between tube assembly (13) and the safe/arm control handle linkage by operating the safe/arm control handle up and down several times.

- g. Install seat wedge assembly (WP005 00).

47. ILLUSTRATED PARTS BREAKDOWN.

- 48. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

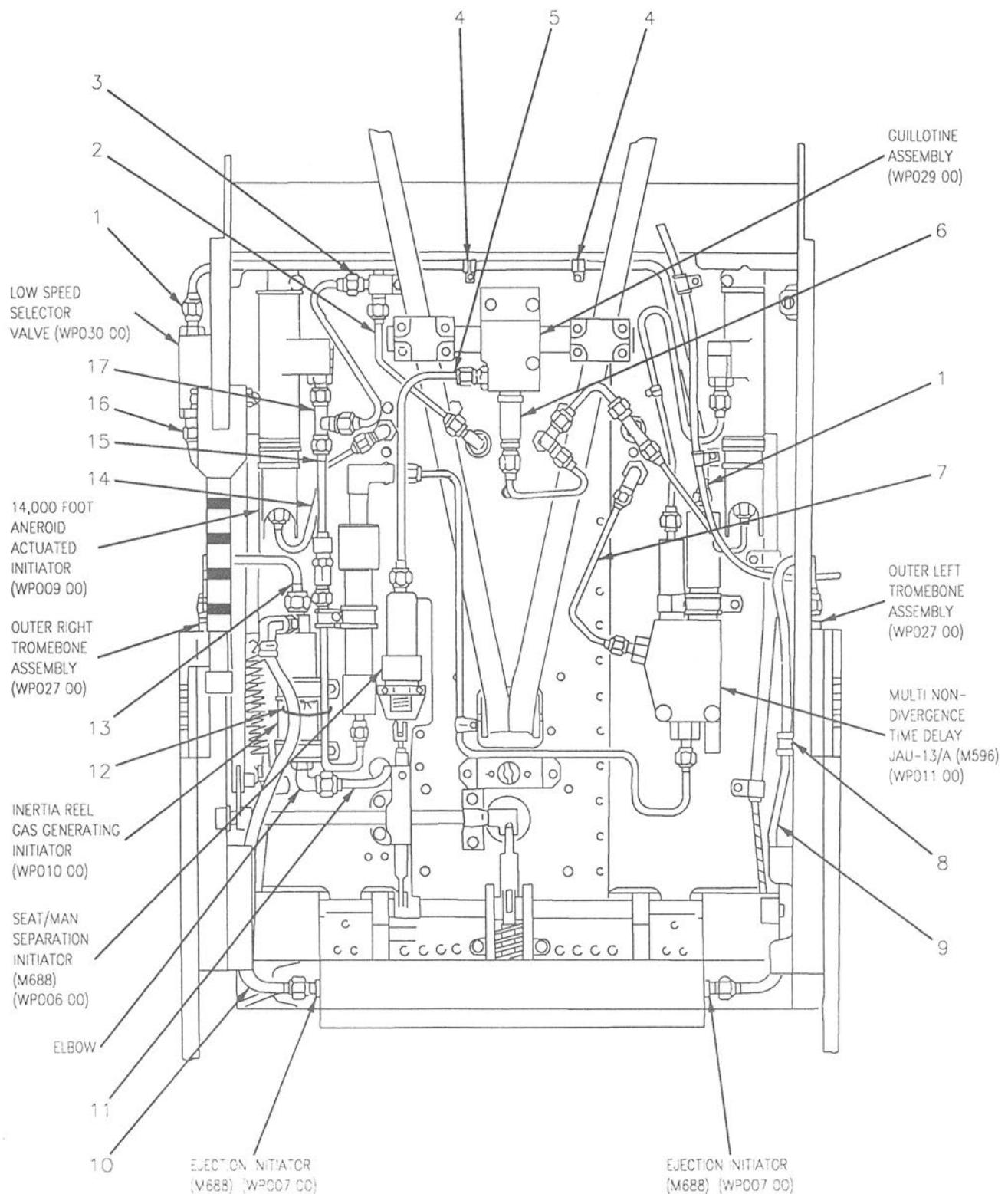


Figure 1. Hose and Tube Assemblies (Sheet 1)

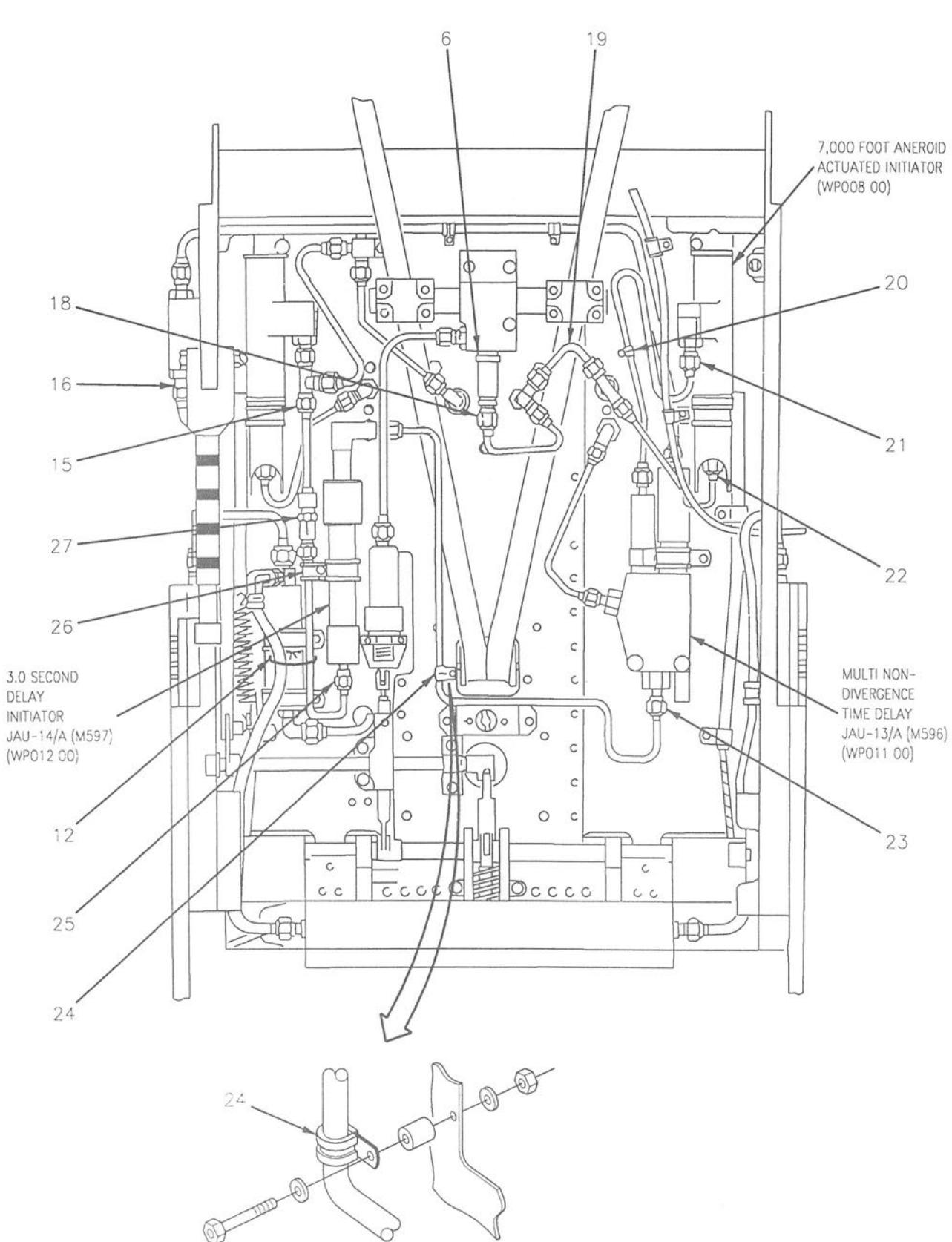


Figure 1. Hose and Tube Assemblies (Sheet 2)

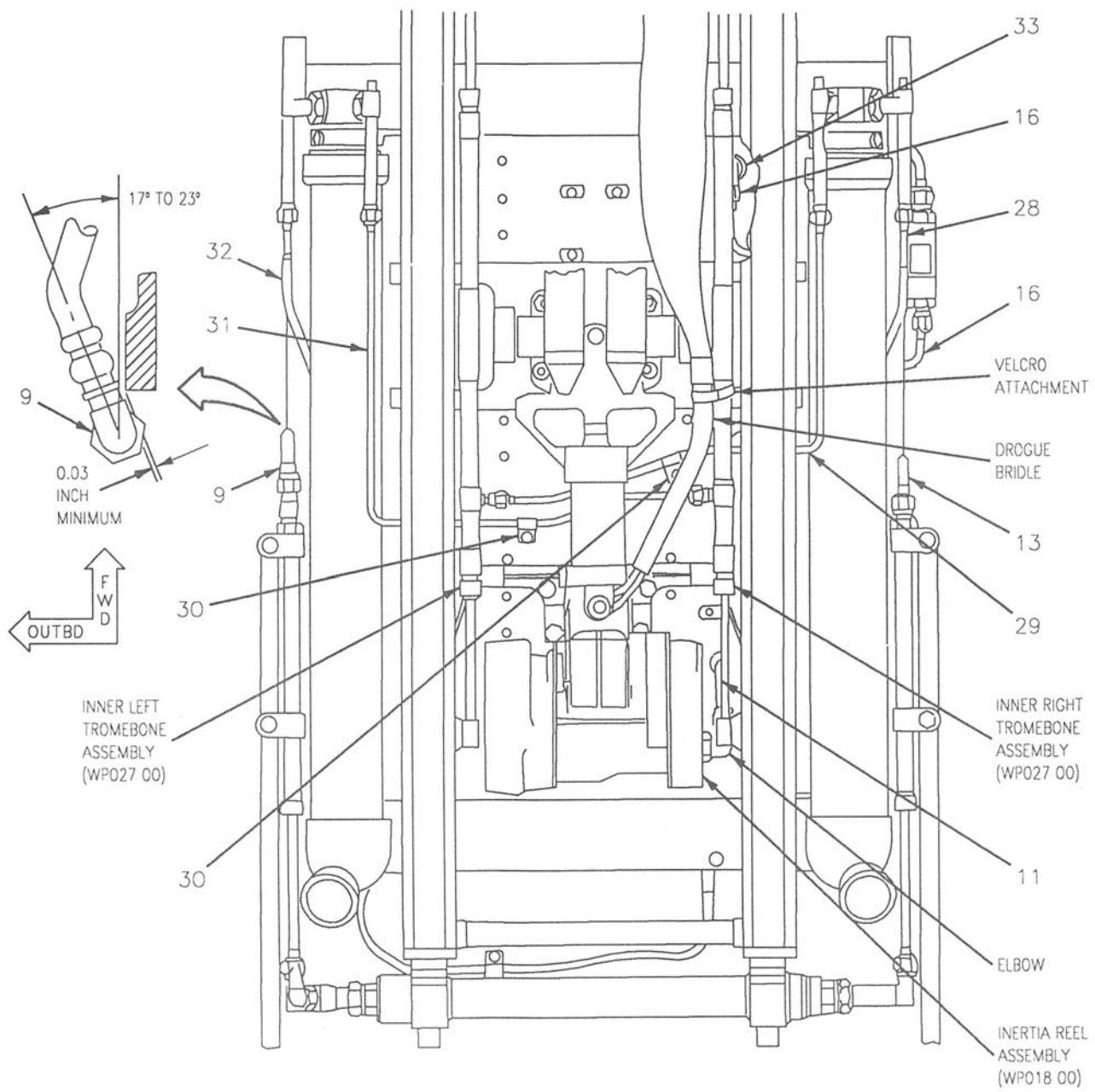


Figure 1. Hose and Tube Assemblies (Sheet 3)

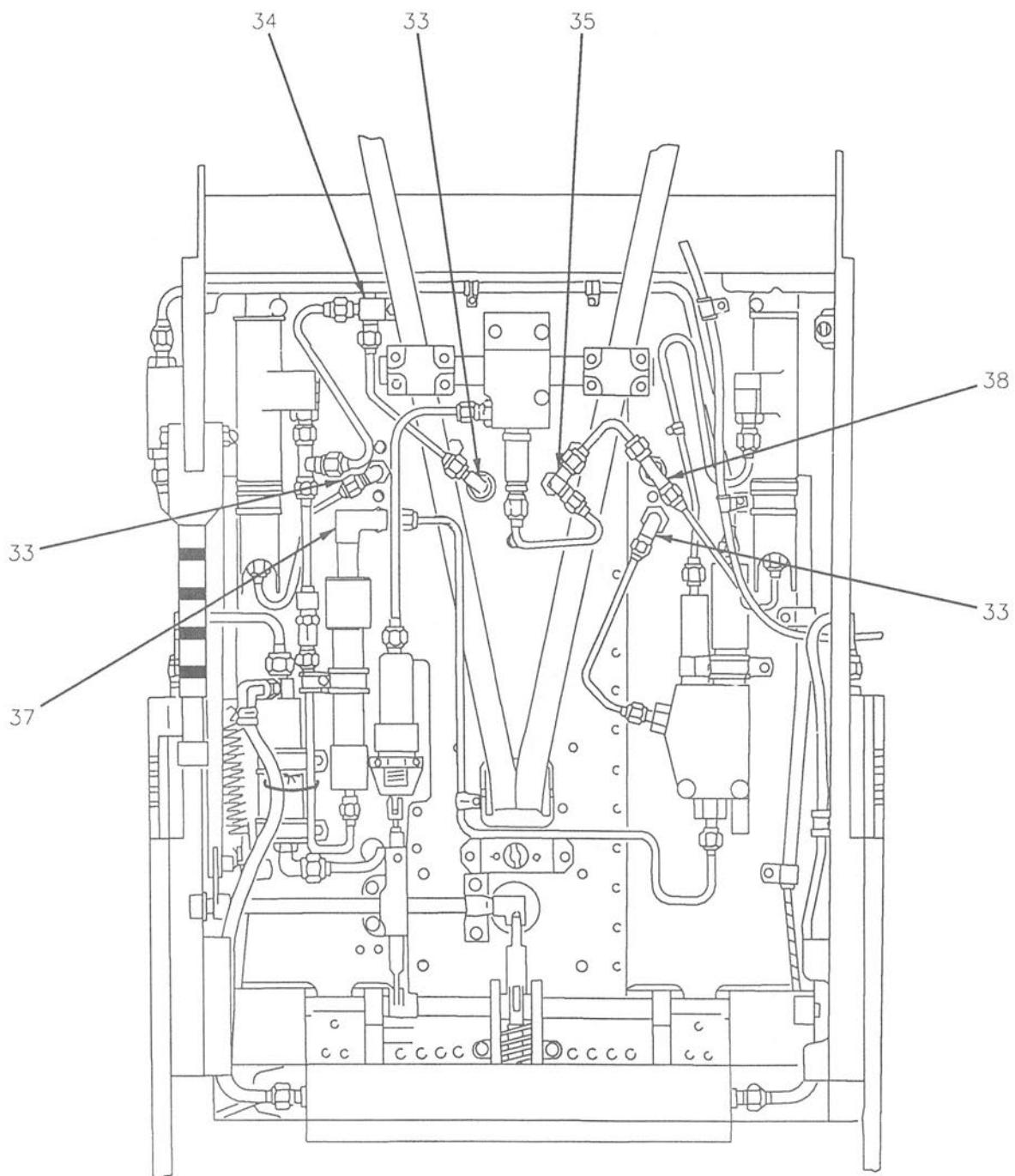


Figure 1. Hose and Tube Assemblies (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14432-1	HOSE AND TUBE ASSEMBLIES			
		. TUBE ASSEMBLY - .10 SEC TIME	1		PAOZZ
		DELAY TO L.S.S.V. (51998)			
2	14283-1	. TUBE ASSEMBLY - MANIFOLD TO	1		PAOZZ
		FITTING (51998)			
3	14426-1	. TUBE ASSEMBLY - FITTING TO	1		PAOZZ
		MANIFOLD (51998)			
4	MS21919DG4 NAS6203-10 NAS1149D0332K AN960KD10L NAS43DD3-30	. CLAMP	2		PAOZZ
		. BOLT (AP)	2		PAOZZ
		. WASHER (UNDER HEAD) (AP)	2	*	PAOZZ
		. SEE ABOVE	2	*	PAOZZ
		. SPACER (AP)	2		PAOZZ
5	12290-1	. TUBE ASSEMBLY - M99 TO GUILLOTINE ..	1		PAOZZ
		(51998)			
6	K-1120-4-4 1C1196 MS9068-011	. VALVE, CHECK (83533) (SAEC	1		PAOZZ
		SPEC 12361-1)			
		. SEE ABOVE (99240)	1		PAOZZ
7	14308-1	. PACKING (USE WITH INDEX 6)	1		PAOZZ
		. TUBE ASSEMBLY - LH TROMBONE TO ..	1		PAOZZ
		MULTIPLE TIME DELAY (51998)			
8	MS21919DG6 MS27039-1-07 NAS1149D0332K AN960KD10L	. CLAMP	1		PAOZZ
		. SCREW (AP)	1		PAOZZ
		. WASHER (AP)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
9	14425-1	. HOSE ASSEMBLY - M99 TO LH	1		PAOZZ
		TROMBONE (51998)			
10	12491-1	. HOSE ASSEMBLY - M99 TO GAS	1		PAOZZ
		GENERATOR (51998)			
11	12288-1	. TUBE ASSEMBLY - GENERATOR TO	1		PAOZZ
		INERTIA REEL (51998)			
12	MS3367-4-9	. STRAP	AR		PAOZZ
13	14433-1	. TUBE ASSEMBLY - GAS GENERATOR	1		PAOZZ
		MANIFOLD TO TROMBONE (51998)			
14	14427-1	. TUBE ASSEMBLY - 14000 FT	1		PAOZZ
		ANEROID TO TROMBONE (51998)			
15	14429-1	. TUBE ASSEMBLY - CHECK VALVE TO ..	1		PAOZZ
		ANEROID FITTING (51998)			
16	14411-1	. TUBE ASSEMBLY - LSSV TO	1		PAOZZ
		MANIFOLD (51998)			
17	MS51523B3S	. TEE	1		PAOZZ
18	12289-1	. TUBE ASSEMBLY - GUILLOTINE TO ..	1		PAOZZ
		DROGUE RELEASE (51998)			
19	12291-1	. TUBE ASSEMBLY - DROGUE RELEASE TO ..	1		PAOZZ
		TROMBONE (51998)			
20	MS21919DG3 NAS6203-5 NAS1149D0332K AN960KD10L NAS43DD3-16	. CLAMP	1		PAOZZ
		. BOLT (AP)	1		PAOZZ
		. WASHER (UNDER HEAD) (AP)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
		. SPACER (AP)	1		PAOZZ
21	14431-1	. TUBE ASSEMBLY - 1.2 SECOND	1		PAOZZ
		TIME DELAY TO 7000 FT ANEROID			
		(51998)			
22	14430-1	. TUBE ASSEMBLY - 7000 FT ANEROID TO ..	1		PAOZZ
		TROMBONE (51998)			
23	14302-1	. TUBE ASSEMBLY - MANIFOLD TO	1		PAOZZ
		JAU-13/A (51998)			
24	MS21919DG3 NAS6203-21 NAS1149D0332K AN960KD10L NAS43DD3-33 MS21042L3	. CLAMP	1		PAOZZ
		. BOLT (AP)	1		PAOZZ
		. WASHER (AP)	2	*	PAOZZ
		. SEE ABOVE	2	*	PAOZZ
		. SPACER (AP)	1		PAOZZ
25	14428-1	. NUT (AP)	1		PAOZZ
		. TUBE ASSEMBLY - TIME DELAY TO ..	1		PAOZZ
		CHECK VALVE (51998)			
26	MS21919DG3	. CLAMP	1		PAOZZ

Figure 1. Hose and Tube Assemblies (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
	NAS6203-25	. BOLT (AP)	1	*	PAOZZ
	NAS1149D0332K	. WASHER (AP)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-82	. SPACER (AP)	1	*	PAOZZ
27	K-1120-4-4	. VALVE, CHECK (83533) (SAEC SPEC 12361-1)	1	*	PAOZZ
	1C1196	. SEE ABOVE (99240)	1	*	PAOZZ
28	12381-2	. TUBE ASSEMBLY - TROMBONE TO SEAT BACK ROCKET (51998)	1	*	PAOZZ
29	12295-1	. TUBE ASSEMBLY - LH TROMBONE TO RH .. SEAT BACK ROCKET (51998)	1	*	PAOZZ
30	MS21919DG3	. CLAMP	1	*	PAOZZ
	MS27039-1-08	. SCREW (AP)	1	*	PAOZZ
	NAS1149D0332K	. WASHER (AP)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
	MS21042L3	. NUT (AP)	1	*	PAOZZ
31	12297-1	. TUBE ASSEMBLY - RH TROMBONE TO LH .. SEAT BACK ROCKET (51998)	1	*	PAOZZ
32	12381-1	. TUBE ASSEMBLY - TROMBONE TO SEAT .. BACK ROCKET (51998)	1	*	PAOZZ
33	MS51527B3S	. ELBOW	4	*	PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 34)	1	*	PAOZZ
34	14089-11	. MANIFOLD - 3.0 SEC TIME DELAY .. OUTPUT (51998)	1	*	PAOZZ
35	12236-11	. TEE - FLARED TUBE AND .. UNIVERSAL (51998)	1	*	PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 35)	1	*	PAOZZ
	AN924-3J	. NUT (USE WITH INDEX 35)	1	*	PAOZZ
36	AN834-3J	. TEE	1	*	PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 36)	1	*	PAOZZ
	AN924-3J	. NUT (USE WITH INDEX 36)	1	*	PAOZZ
37	14976-13	. MANIFOLD - JAU-14 TIME DELAY .. (51998)	1	*	PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 37)	1	*	PAOZZ
	AN924-3J	. NUT (USE WITH INDEX 37)	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Hose and Tube Assemblies (Sheet 6)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****SEAT STRUCTURE ASSEMBLY****AIRCRAFT EJECTION SEAT****Reference Material**

Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Line Maintenance Procedures.....	A1-AV8BB-GAI-100
Electrical Bonding, Sealing, and Electromagnetic Compatibility (EMC) Protection	WP032 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Back Cushion Assembly, Wedge Assembly.....	WP005 00
Seat/Man Separation Initiator (M688).....	WP006 00
Ejection Initiators (M688)	WP007 00
WORD Motor/Drogue Release Assembly (MG67).....	WP014 00
Inertia Reel Control Assembly, Inertia Reel Control Cable, Inertia Reel Assembly.....	WP018 00
DART Assembly	WP023 00
Trombone Assemblies	WP027 00
Catapult Tube Assemblies.....	WP028 00

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Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This work package provides instructions for removal and installation of miscellaneous structural components from the ejection seat. These items are part of the inert seat assembly (part number 14020-107, 14020-109, 14620-101 and 14620-103) or the seat structure assembly (part number 14040-7 and 14040-9). Removal of riveted brackets is not authorized.

3. LEADING EDGE.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

4. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove screws (7, figure 1), washers, and nuts.
- c. Remove leading edge (6).

5. INSTALLATION.**WARNING**

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- a. Coat threads of screws (7, figure 1) with primer.

- b. Fay surface seal and install leading edge (6) with screws (7), washers, and nuts (A1-AV8BB-GAI-100, WP032 00).

6. INERTIA REEL CABLE FITTING GUIDE.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

7. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove inertia reel assembly (WP018 00).
- c. Remove screws (10 and 11, figure 1), washers, and nuts.
- d. Remove guide (12).

8. INSTALLATION.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- a. Coat threads of screws (10 and 11, figure 1) with primer.
- b. Fay surface seal and install guide (12) with screws (10 and 11), washers, and nuts.
- c. Install inertia reel assembly (WP018 00).

9. SEAT/MAN SEPARATION INITIATOR BRACKET.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

10. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove seat/man separation initiator (M688) (WP006 00).
- c. Remove screws (3, figure 2), washers, and nuts.

- d. Remove bracket (4).

11. INSTALLATION.

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- a. Coat threads of screws (3, figure 2) with primer.
- b. Fay surface seal and install bracket (4) with screws (3), washers, and nuts. (A1-AV8BB-GAI-100, WP032 00).
- c. Install seat/man separation initiator (M688) (WP006 00).

12. EJECTION INITIATOR BRACKETS.

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
MS24664-132 TT-P-1757 COMP L COLOR T (CAGE 81348)	Cotter Pins Primer, Coating

13. REMOVAL.

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove ejection initiators (M688) (WP007 00).

- c. Lower DART assembly (WP023 00).
- d. Remove screws (3, figure 2), washers, and nuts.
- e. Remove bracket (4).

14. INSTALLATION.**WARNING**

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- a. Coat threads of screws (3, figure 2) with primer.
- b. Fay surface seal and install bracket (4) with screws (3), washers, and nuts.
- c. Raise DART assembly (WP023 00).
- d. Install ejection initiators (M688) (WP007 00).

15. WORD MOTOR BRACKET.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
MS24664-132	Cotter Pin
TT-P-1757	Primer, Coating
COMP L COLOR T (CAGE 81348)	

16. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

- b. Remove wedge assembly (WP005 00).

WARNING

To prevent death or injury to personnel, extreme caution must be used when handling WORD/drouge release motor assembly (MG67). The WORD motor contains explosives that could detonate if mishandled.

- c. Remove velcro attachment securing drogue bridle to inner right trombone assembly (figure 2).

- d. Pull left and right WORD releases and remove WORD motor strap assembly.

- e. Rotate and secure WORD motor/drogue release assembly to the up position.

- f. Pull left and right WORD releases through each side of bracket (5).

- g. Remove bolts (6), washers, and nuts.

- h. Remove bolts (7), washers, and nuts.

- i. Remove bolt (8), washer, spacer, and nuts.

- j. Remove bracket (5).

- k. If bracket (5) is to be replaced, remove pin (11), washer, cotter pin, and roller (12).

17. INSTALLATION

- a. If bracket (5, figure 2) was replaced, install roller (12) with pin (11), and washer and safety with cotter pin. (QA)

WARNING

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Coat threads of bolts (6, 7, and 8) with primer.
- c. Fay surface seal and install bracket (5) with bolts (6 and 7), washers, and nuts.
- d. Position clamp (10) and install bolt (8), washers, spacer, and nut.
- e. Insert left and right WORD releases through each side of bracket (5).
- f. Install WORD motor strap assembly in bracket (5) with right WORD release.

WARNING

To prevent death or injury to personnel, extreme caution must be used when handling WORD motor/drogue release assembly (MG67). The WORD motor contains explosives that will detonate if mishandled.

- g. Slowly rotate WORD motor/drogue release assembly down and position in bracket (5).
- h. Position WORD motor strap assembly and secure with left WORD release.
- i. Secure drogue bridle to inner right trombone assembly with velcro attachment.
- j. Install wedge assembly (WP005 00).

18. LOWER ROLLER.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
MS24664-132	Cotter Pin

19. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to personnel, extreme caution must be used when handling WORD motor/drogue release assembly (MG67). The WORD motor contains explosives that could detonate if mishandled.

- b. Remove velcro attachment holding drogue bridle to inner right trombone assembly (figure 2).
- c. Pull left WORD release to release word motor strap assembly.
- d. Rotate and secure WORD motor/drogue release assembly to the up position.
- e. Remove pin (11), washer, cotter pin, and roller (12).

20. INSTALLATION.

- a. Position roller (12, figure 2) on bracket (5).

- b. Install pin (11) and washer and safety with cotter pin. (QA)

WARNING

To prevent death or injury to personnel, extreme caution must be used when handling WORD motor/drogue release assembly (MG67). The WORD motor contains explosives that could detonate if mishandled.

- c. Slowly rotate WORD motor/drogue release assembly down and position in bracket (5).
- d. Position WORD motor strap assembly and secure with left WORD release.
- e. Secure drogue bridle to inner right trombone assembly with velcro attachment.

21. DROGUE BEAM ASSEMBLY.**Support Equipment Required**

None

Materials Required

Specification or Part Number	Nomenclature
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

22. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).
- b. Remove wedge assembly (WP005 00).

- c. Remove catapult tube assemblies (WP028 00).

- d. Remove WORD motor/drogue release assembly (MG67) (WP014 00).

- e. Remove left inner trombone assembly (WP027 00).

- f. Remove right inner trombone assembly (WP027 00).

- g. Remove bolts (9, figure 1), washers, and nuts.

- h. Remove beam (8).

23. INSTALLATION.**WARNING**

Primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- a. Coat threads of bolts (9, figure 1) with primer.
- b. Fay surface seal and install beam (8) with bolts (9), washers, and nuts. (A1-AV8BB-GAI-100, WP032 00).
- c. Install left inner trombone assembly (WP027 00).
- d. Install right inner trombone assembly (WP027 00).
- e. Install WORD motor/drogue release assembly (MG67) (WP014 00).
- f. Install catapult tube assemblies (WP028 00).
- g. Install wedge assembly (WP005 00).

24. ILLUSTRATED PARTS BREAKDOWN.

25. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

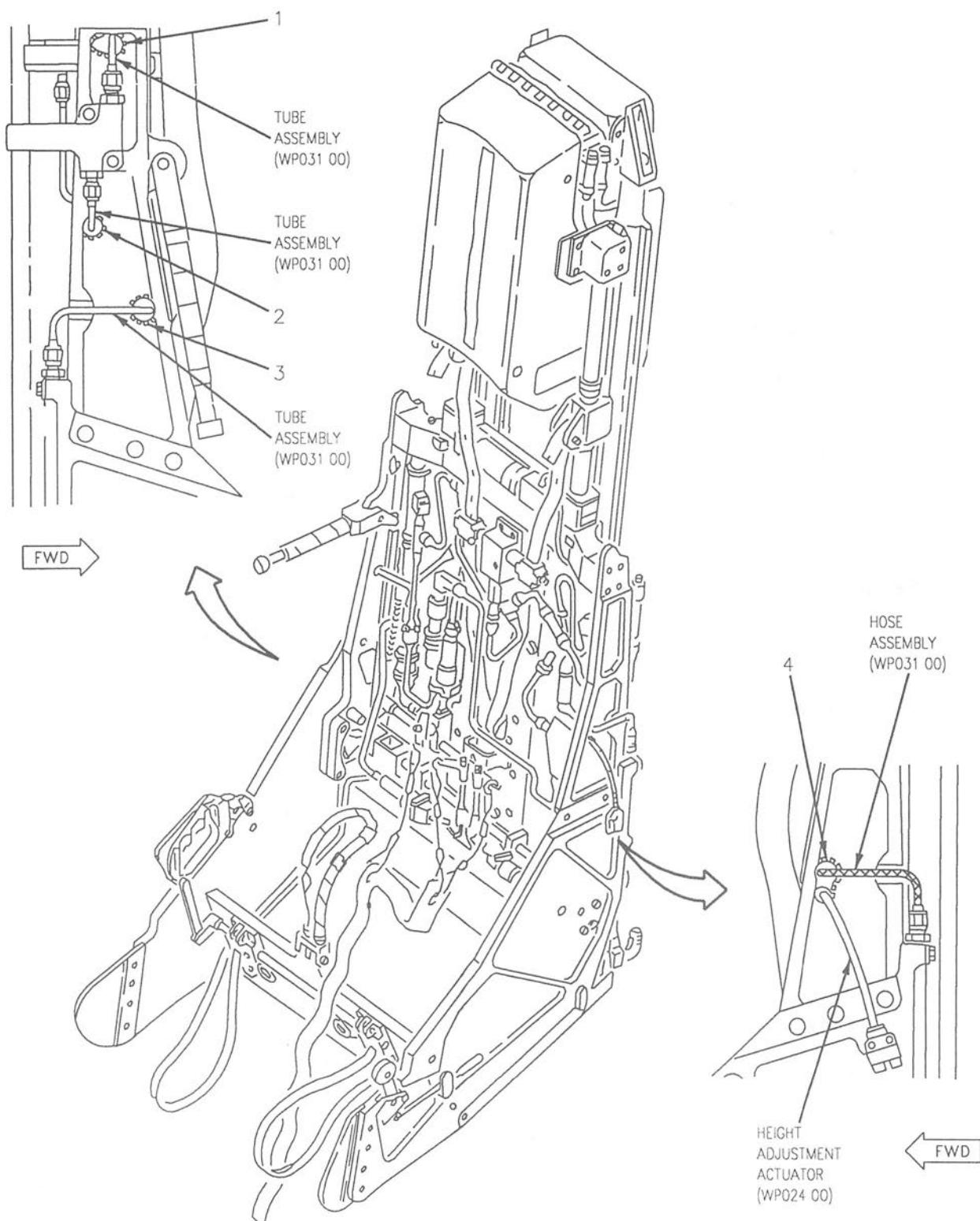


Figure 1. Seat Structure Assembly (Sheet 1)

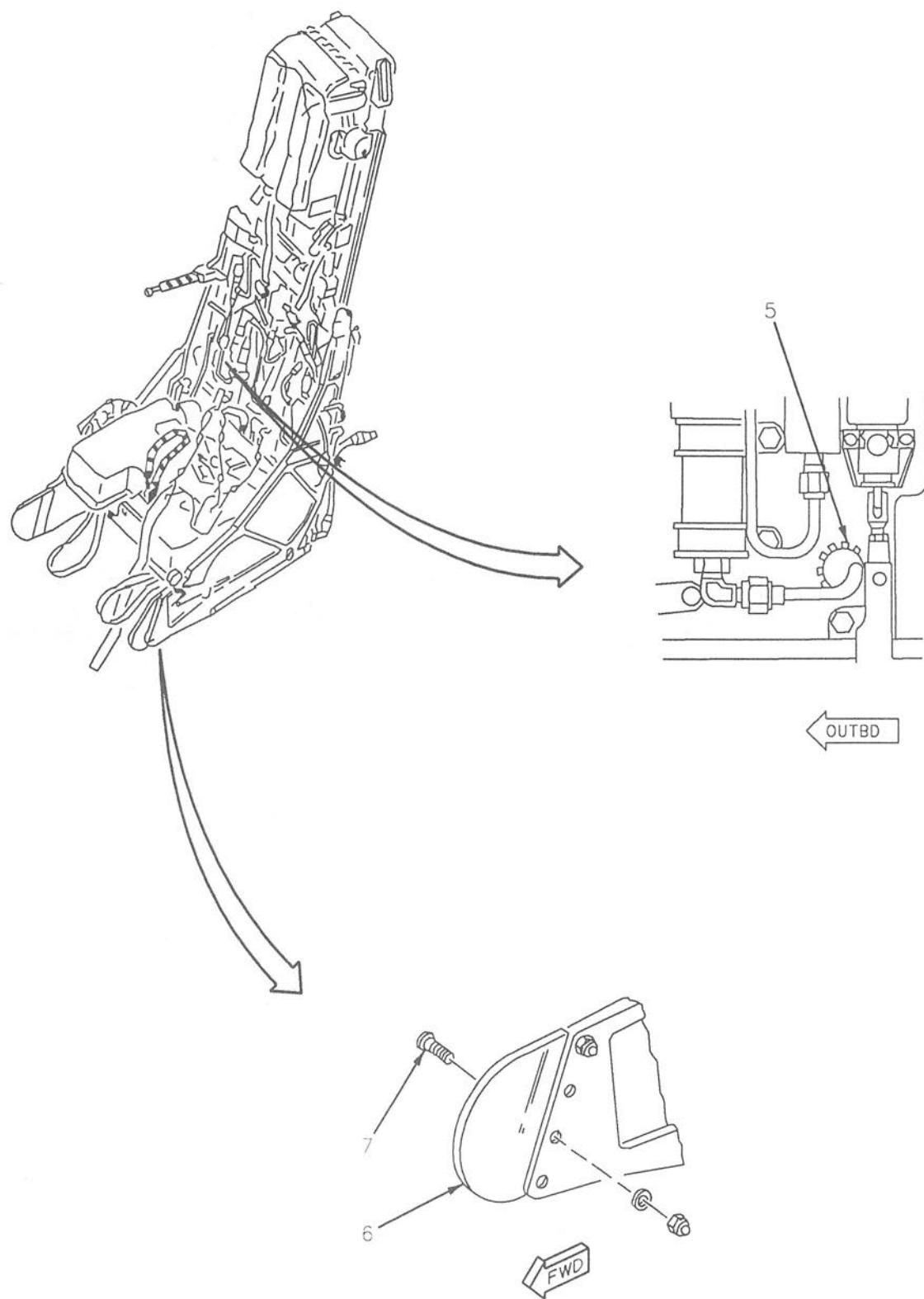


Figure 1. Seat Structure Assembly (Sheet 2)

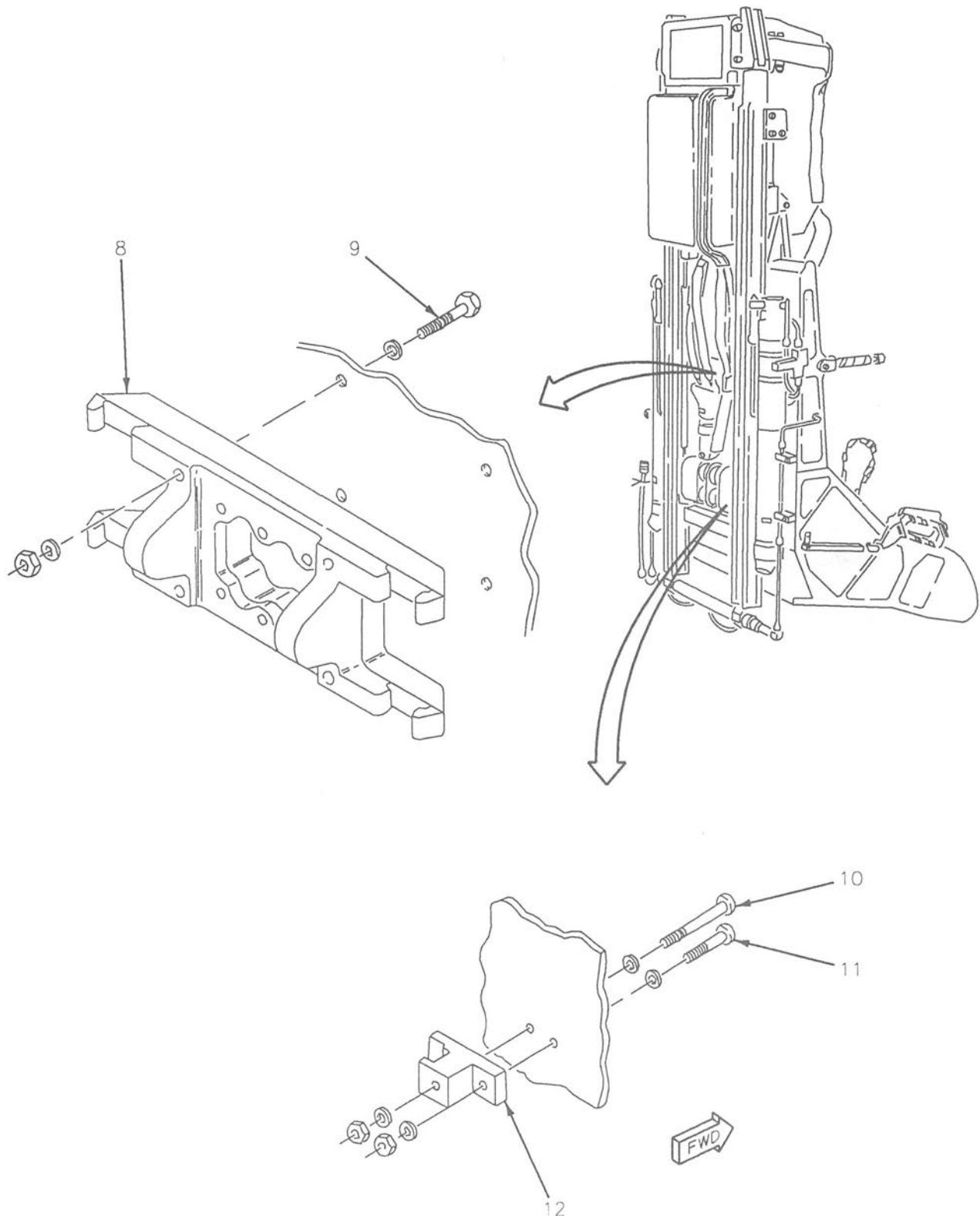


Figure 1. Seat Structure Assembly (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14081-11	SEAT STRUCTURE ASSEMBLY	1	PAOZZ	
2	14081-15	. GROMMET (51998)	1	PAOZZ	
3	14081-13	. GROMMET (51998)	1	PAOZZ	
4	14081-17	. GROMMET (51998)	1	PAOZZ	
5	14081-19	. GROMMET (51998)	1	PAOZZ	
6	14107-11	. LEADING EDGE (51998) (LEFT SIDE)	1	-	
	14007-12	. SEE ABOVE (RIGHT SIDE)	1	-	
7	MS24694-S55	. SCREW	4	PAOZZ	
	NAS1149D0363K	. WASHER (USE WITH INDEX 7)	4	PAOZZ	
	AN960KD10	. SEE ABOVE	4	PAOZZ	
	22NKTM-02	. NUT - HEX NYLON CAP (72962) (SAEC SPEC 12484-010)	4	PAOZZ	
8	12232-11	. BEAM - DROGUE RELEASE (51998) (DROGUE BEAM ASSEMBLY)	1	-	
9	NAS6204-25	. BOLT	4	PAOZZ	
	NAS1149D0432K	. WASHER (USE WITH INDEX 9)	8	PAOZZ	
	AN960KD416L	. SEE ABOVE	8	PAOZZ	
	MS21042L4	. NUT (USE WITH INDEX 9)	4	PAOZZ	
10	MS27039-0809	. SCREW	1	PAOZZ	
	NAS1149DN816K	. WASHER (USE WITH INDEX 10)	2	PAOZZ	
	AN960KD8L	. SEE ABOVE	2	PAOZZ	
	MS21042L08	. NUT (USE WITH INDEX 10)	1	PAOZZ	
11	MS27039-0817	. SCREW	1	PAOZZ	
	NAS1149DN816K	. WASHER (USE WITH INDEX 11)	2	PAOZZ	
	AN960KD8L	. SEE ABOVE	2	PAOZZ	
	MS21042L08	. NUT (USE WITH INDEX 11)	1	PAOZZ	
12	12330-11	. GUIDE, INERTIA REEL CABLE FITTING (24632)	1	-	

Figure 1. Seat Structure Assembly (Sheet 4)

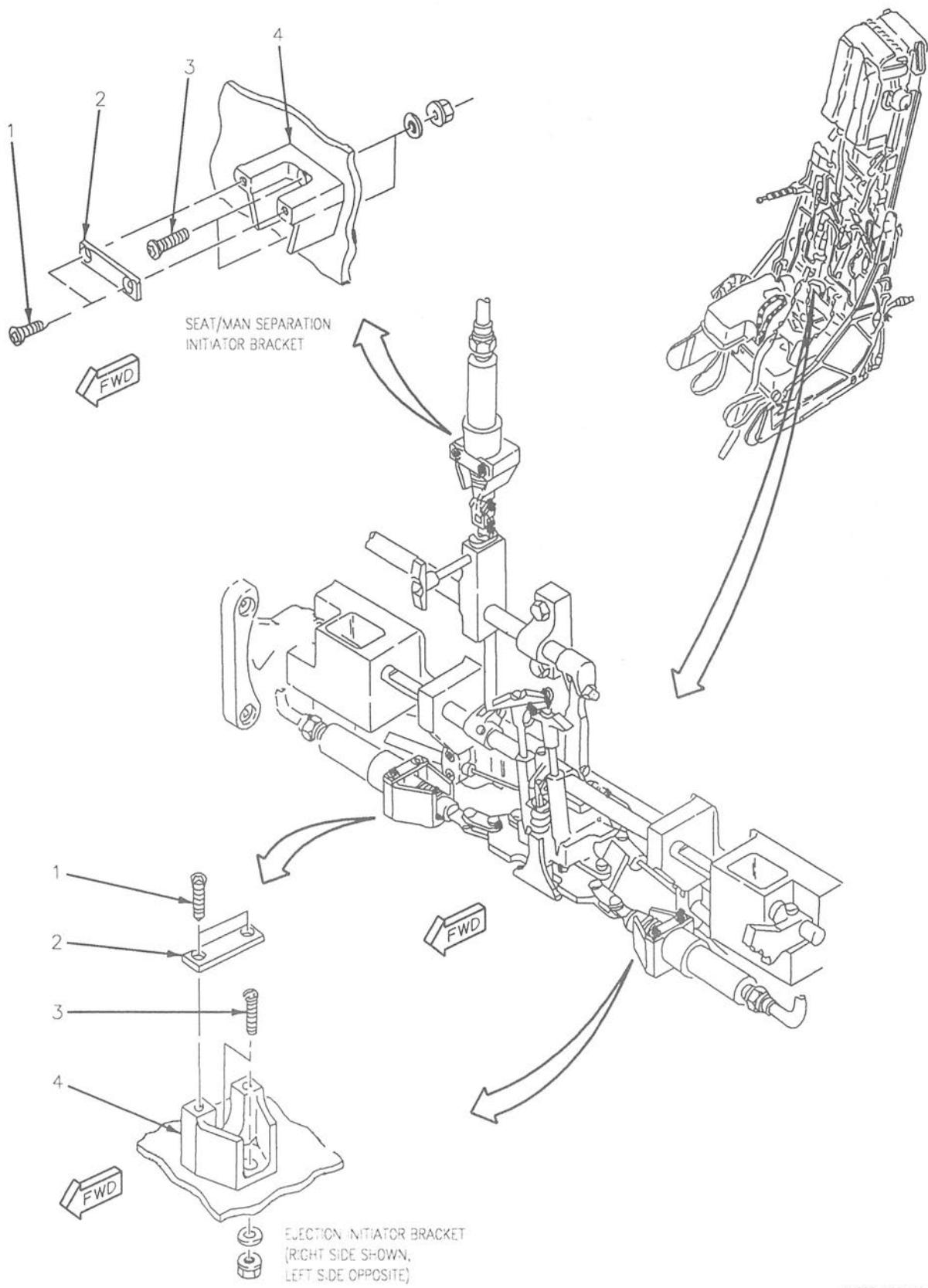


Figure 2. Inert Seat Assembly (Sheet 1)

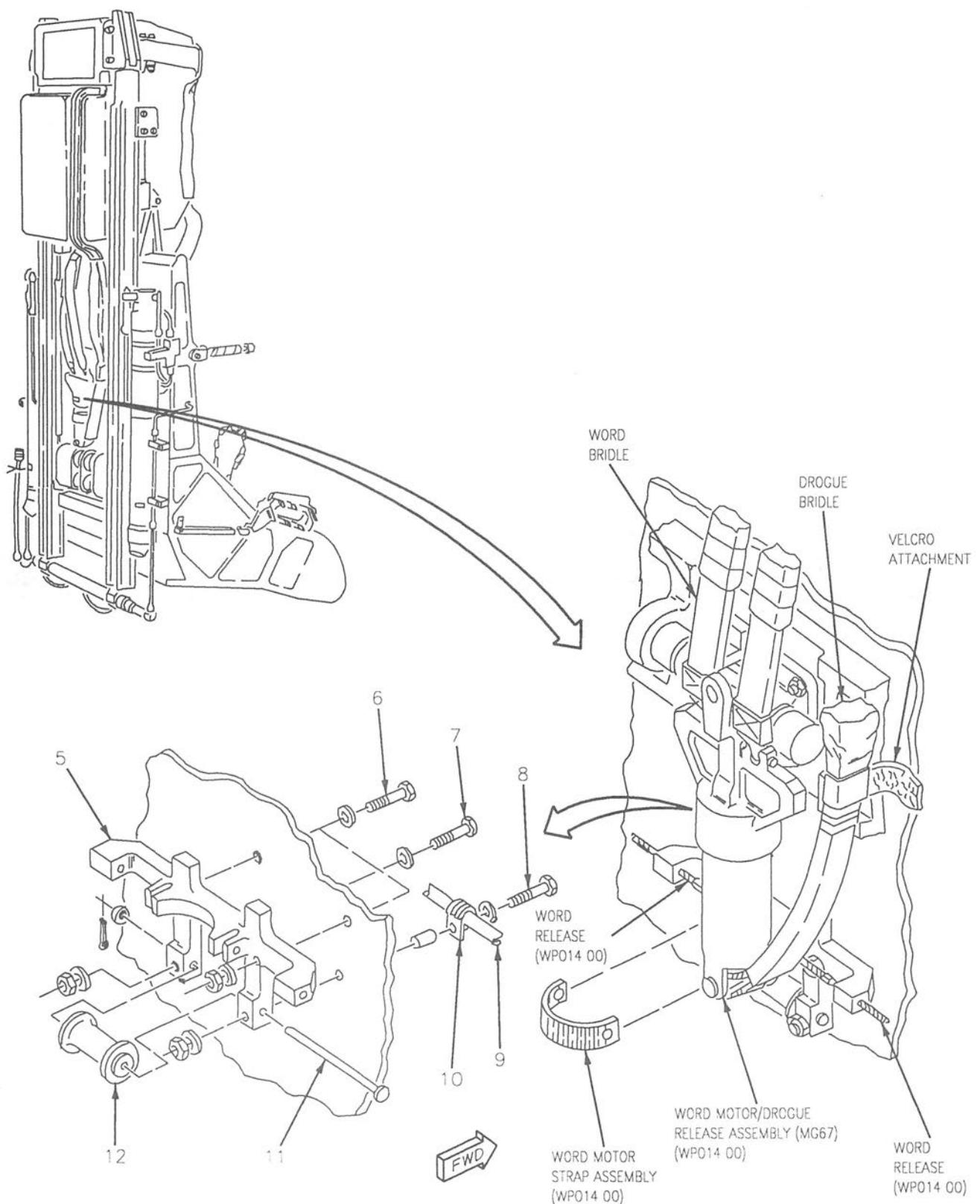


Figure 2. Inert Seat Assembly (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	NAS1189-08P8L	INERT SEAT ASSEMBLY	2		PAOZZ
2	12126-13	. SCREW	1		-
3	MS24694-S5	. PLATE, M99 BRACKET (51998)	2	*	PAOZZ
	NAS1149DN816K	. SCREW	2	*	PAOZZ
	AN960KD8L	. WASHER (USE WITH INDEX 3)	2	*	PAOZZ
	MS21042L08	. SEE ABOVE	2	*	PAOZZ
4	12125-11	. NUT (USE WITH INDEX 3)	1		PAOZZ
		(BRACKET, SEAT (51998)	1		PAOZZ
		(SEAT/MAN SEPARATION INITIATOR BRACKET) (EJECTION INITIATOR BRACKET)			
5	12109-15	. BRACKET, WORD MOTOR (51998)	1		PAOZZ
6	NAS6203-8	. BOLT	2		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 6)	4	*	PAOZZ
	AN960KD10L	. SEE ABOVE	4	*	PAOZZ
	MS21042L3	. NUT (USE WITH INDEX 6)	2		PAOZZ
7	NAS6203-11	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 7)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
	MS21042L3	. NUT (USE WITH INDEX 7)	1		PAOZZ
8	NAS6203-21	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 8)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
	NAS43DD42L3	. SPACER (USE WITH INDEX 8)	1		PAOZZ
	MS21042L3	. NUT (USE WITH INDEX 8)	1		PAOZZ
9	14302-1	. TUBE ASSEMBLY - MANIFOLD TO	1		PAOZZ
		JAU-13/A (24632)			
10	MS21919DG3	. CLAMP	1		PAOZZ
11	MS20392-2C95	. PIN	1		PAOZZ
	NAS620A10L	. WASHER (USE WITH INDEX 11)	1		PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH	1		PAOZZ
		INDEX 11)			
12	12118-11	. ROLLER - LOWER	1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 2. Inert Seat Assembly (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****DIVERGENCE ROCKET MOTORS (MT28)****AIRCRAFT EJECTION SEAT****EFFECTIVITY: SJU-13/A AND SJU-14/A****Reference Material**

Aircrew Escape Propulsion System (AEPS) Devices	NAVAIR 11-85-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS20995NC32	Lockwire
MS9068-013	Packing (2)
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer, Coating

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to personnel, care must be taken when handling divergence rocket motors (MT28). Rocket motors contain explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- To prevent death or injury to personnel, do not drop divergence rocket motors (MT28). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.
- b. Disconnect tube assemblies (3 and 4, figure 1) from fittings (5).
- c. Remove bolt (6), washer, and clamp (7).
- d. While supporting divergence rocket motors (1), remove bolts (2) and attaching parts and carefully remove divergence rocket motors.
- e. Remove tube assemblies (3 and 4).
- f. If bracket assembly (9) is to be replaced, remove bolts (8), washers, and bracket assembly.
- g. If divergence rocket motors (1) are to be replaced, remove fittings (5) and packings.
- h. Store or dispose of divergence rocket motors (1) in accordance with NAVAIR 11-85-1.

2. INSTALLATION.

- a. If bracket assembly (9, figure 1) is being replaced, do substeps below:

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (1) Coat bolts (8) with coating primer.
- (2) Position bracket assembly (9) on yoke and loosely install with bolts (8) and washers.
- (3) Torque bolts (8) 5 to 7 inch-pounds and safety with lockwire. (QA)

WARNING

To prevent death or injury to personnel, care must be taken when handling divergence rocket motors (MT28). Rocket motors contain explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop divergence rocket motors (MT28). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.

- b. If rocket motor (1) is being replaced, do substeps below:

NOTE

Divergence rocket motors (MT28) are scheduled removal components. Rocket motors must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

- (1) Using indelible ink, mark rocket motor (1) with container open date, installation date and expiration date (NAVAIR 11-85-1).
- (2) Make log book entry for rocket motor (1) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- (3) Lubricate new packings with silicone compound.
 - (4) Position packings on fittings (5).
 - (5) Install fittings (5) in divergence rocket motors (1).
- c. Loosely connect tube assembly (3) to inboard tee on seat back rocket motor.

- d. Loosely connect tube assembly (4) to outboard tee on seat back rocket motor.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- e. Coat bolts (2) with coating primer.
- f. Position divergence rocket motors (1) on bracket assembly (9) and loosely install bolts (2) and attaching parts.
- g. Loosely connect tube assembly (3) to forward rocket motor (1) and tube assembly (4) to aft rocket motor (1).

NOTE

Clamp must fit snugly around divergence rocket motors.

- h. Position clamp (7) between divergence rocket motors (1) and secure to bracket assembly (9) with bolt (6) and washer.
- i. Tighten bolts (2).
- j. Safety bolt (6) to bracket assembly (9) lockwire hole with lockwire. (QA)

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- k. Torque tube assemblies (3 and 4) to seat back rocket motor tees and to fittings (5) 95 to 105 inch-pounds. Using sealing compound, apply tamper dots. (QA)

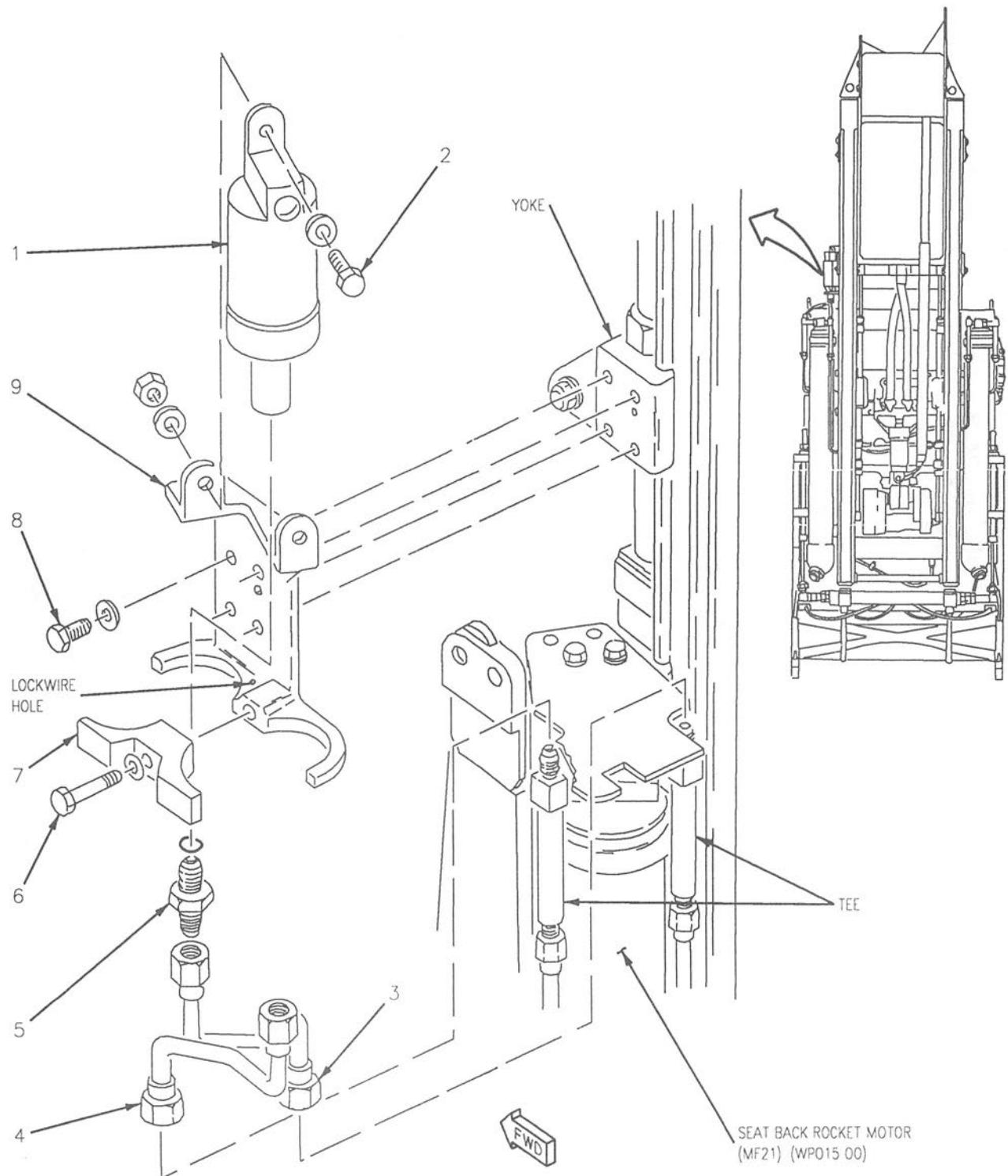
NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

1. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.



SJU-13/A

Figure 1. Divergence Rocket Motors (MT28) (Sheet 1)

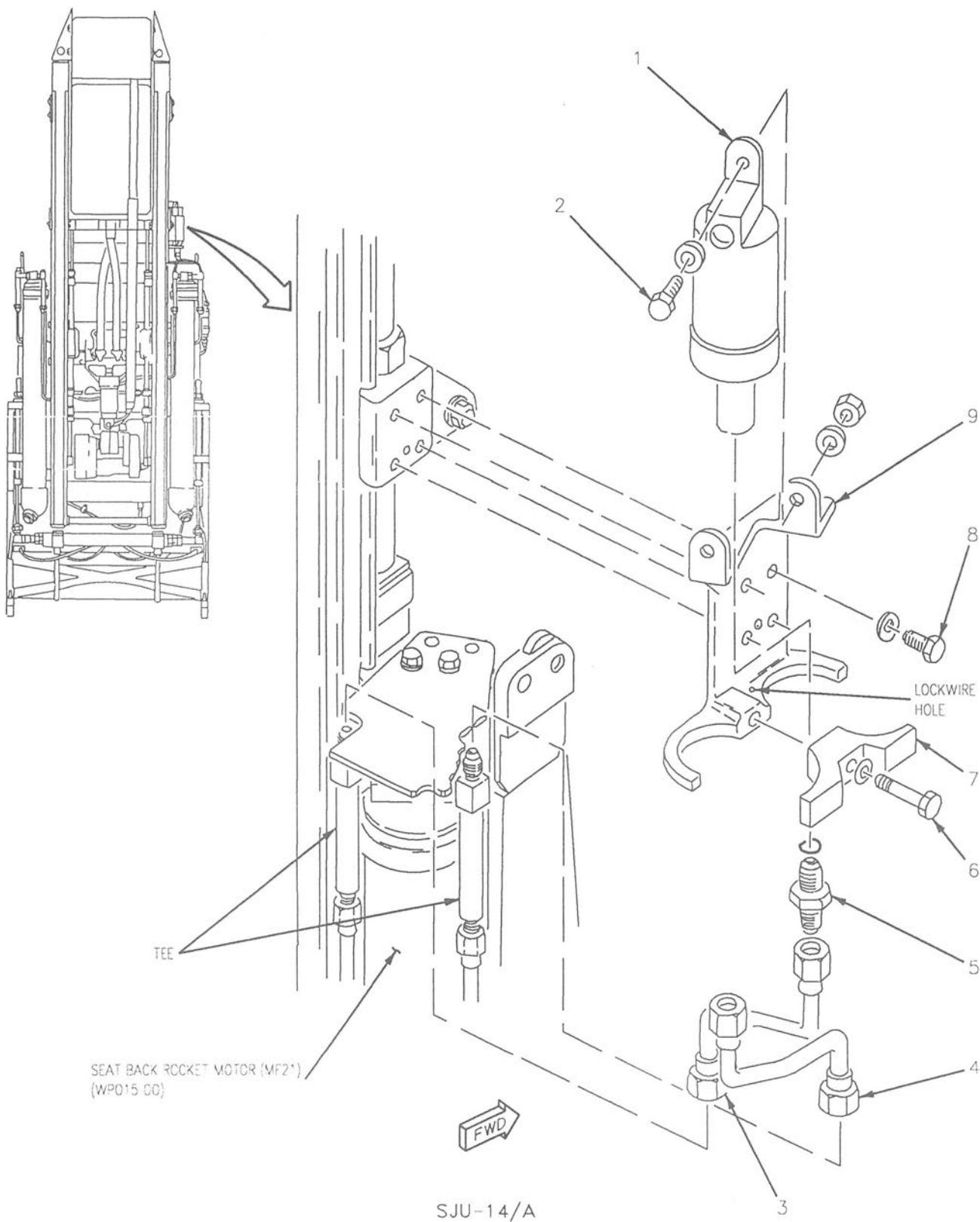


Figure 1. Divergence Rocket Motors (MT28) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	1163-3	DIVERGENCE ROCKET MOTORS (MT28) DIVERGENCE ROCKET MOTOR, MARK 121 MOD 0 (MT28) (DIVERGENCE ROCKET MOTOR) (UPCO SPEC 25069-1) (51998)	2		PCOZA
2	NAS653-6 NAS1149D0332K AN960KD10L MS21042L3	. BOLT WASHER (USE WITH INDEX 2) SEE ABOVE NUT (USE WITH INDEX 2)	2 2 2 2	*	PAOZZ
3	29450-1	. TUBE ASSY (51998)	1		PAOZZ
4	29451-1	. TUBE ASSY (51998)	1		PAOZZ
5	29452-11	. FITTING, DIVERGENCE (51998)	2		PAOZZ
	MS9068-013	. PACKING (USE WITH INDEX 5)	2		PAOZZ
6	NAS654-19H NAS1149D0463K AN960KD416	. BOLT WASHER (USE WITH INDEX 6) SEE ABOVE	1 1 1	*	PAOZZ
7	14698-11	. CLAMP, ROCKET MOTOR DIVERGENCE (51998)	1	*	PAOZZ
8	NAS653-4H NAS1149D0332K AN960KD10L	. BOLT WASHER (USE WITH INDEX 8) SEE ABOVE	4 2 2	*	PAOZZ
9	14699-2	. BRACKET ASSEMBLY, ROCKET MOTOR DIVERGENCE (51998) (FOR SJU-13/A)	1	A	-
	14699-1	. SEE ABOVE (FOR SJU-14/A)	1	B	-

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

CODE	USABLE ON	MODEL
A	PN 14620-101	TAV-8B
B	PN 14620-103	TAV-8B

Figure 1. Divergence Rocket Motors (MT28) (Sheet 3)

A1-AV8BB-120-350

15 January 1995

034 00

Page 1

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

0.4 SECOND DELAY INITIATOR (JAU-58/A) (MT05)

AIRCRAFT EJECTION SEAT

EFFECTIVITY: SJU-13/A

Reference Material

Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
472P950E057-1	Height Adjustment Actuator Control Assembly
CH150	Torque Wrench

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-014	Packings (2)

1. REMOVAL.**WARNING**

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

- a. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent injury or death to personnel, care must be taken when handling 0.4 second delay initiator (JAU-58/A) (MT05). Initiators contain explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- b. Using height adjustment actuator control assembly, position seat bucket in full up position.
- c. If left initiator (2, figure 1) is to be removed, do substeps below:

(1) Disconnect hose assembly (5) from outer left trombone assembly.

- (2) Disconnect outer left trombone assembly from initiator (2).
- d. If right initiator (2) is to be removed, do substeps below:
 - (1) Disconnect hose assembly (1) from outer right trombone assembly.
 - (2) Disconnect outer right trombone assembly from initiator (2).

WARNING

To prevent death or injury to personnel, care must be taken when handling 0.4 second delay initiator (JAU-58/A) (MT05). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

- e. Loosen nut (3) and remove initiator (2) and packing (4).
- f. If initiator (2) is to be replaced, remove packing (4) and nut (3).
- g. Store or dispose of initiator (2) in accordance with NAVAIR 11-100-1.

2. INSTALLATION.**WARNING**

To prevent death or injury to personnel, care must be taken when handling 0.4 second delay initiator (JAU-58/A) (MT05). Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

- To prevent death or injury to personnel, do not drop 0.4 second delay initiator (JAU-58/A) (MT05). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

- a. If initiator (2, figure 1) is being replaced, do substeps below:

NOTE

The 0.4 second delay initiator (JAU-58/A) (MT05) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

(1) Using indelible ink, mark initiator (2) with container open date, date of installation, and expiration date (NAVAIR 11-100-1).

(2) Make log book entry for initiator (2) propellant manufacture date, lot number, serial number, container open date, date of installation and expiration date (NAVAIR 11-100-1).

b. Install nut (3) on initiator (2).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

c. Lubricate new packing (4) with silicone compound.

d. Position packing (4) on initiator (2).

e. Install initiator (2) into catapult cartridge (XW36) until initiator aligns with outer trombone assembly and packing (4) is seated.

f. Tighten nut (3) against catapult cartridge (XW36).

g. If left initiator (2) is being installed, do substeps below:

(1) Connect outer left trombone assembly to initiator (2), handtight.

WARNING

Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(2) Position outer left trombone assembly fitting outboard, and torque trombone assembly to initiator (2) 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(3) Connect hose assembly (5) to outer left trombone assembly fitting and tighten hose assembly. (QA)

h. If right initiator (2) is being installed, do substeps below:

(1) Connect outer right trombone assembly to initiator (2), handtight.

WARNING

(2) Position outer right trombone assembly fitting approximately 37° outboard of aft, and torque trombone assembly to initiator (2) 135 to 140 inch-pounds. Using sealing compound, apply tamper dot. (QA)

(3) Connect hose assembly (1) to outer right trombone assembly fitting and tighten hose assembly. (QA)

NOTE

Hose assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

i. Inspect full length of installed hose assemblies for 0.03 inch minimum clearance between hoses and other surfaces. (QA)

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The

manual introduction has more information on IPB data.

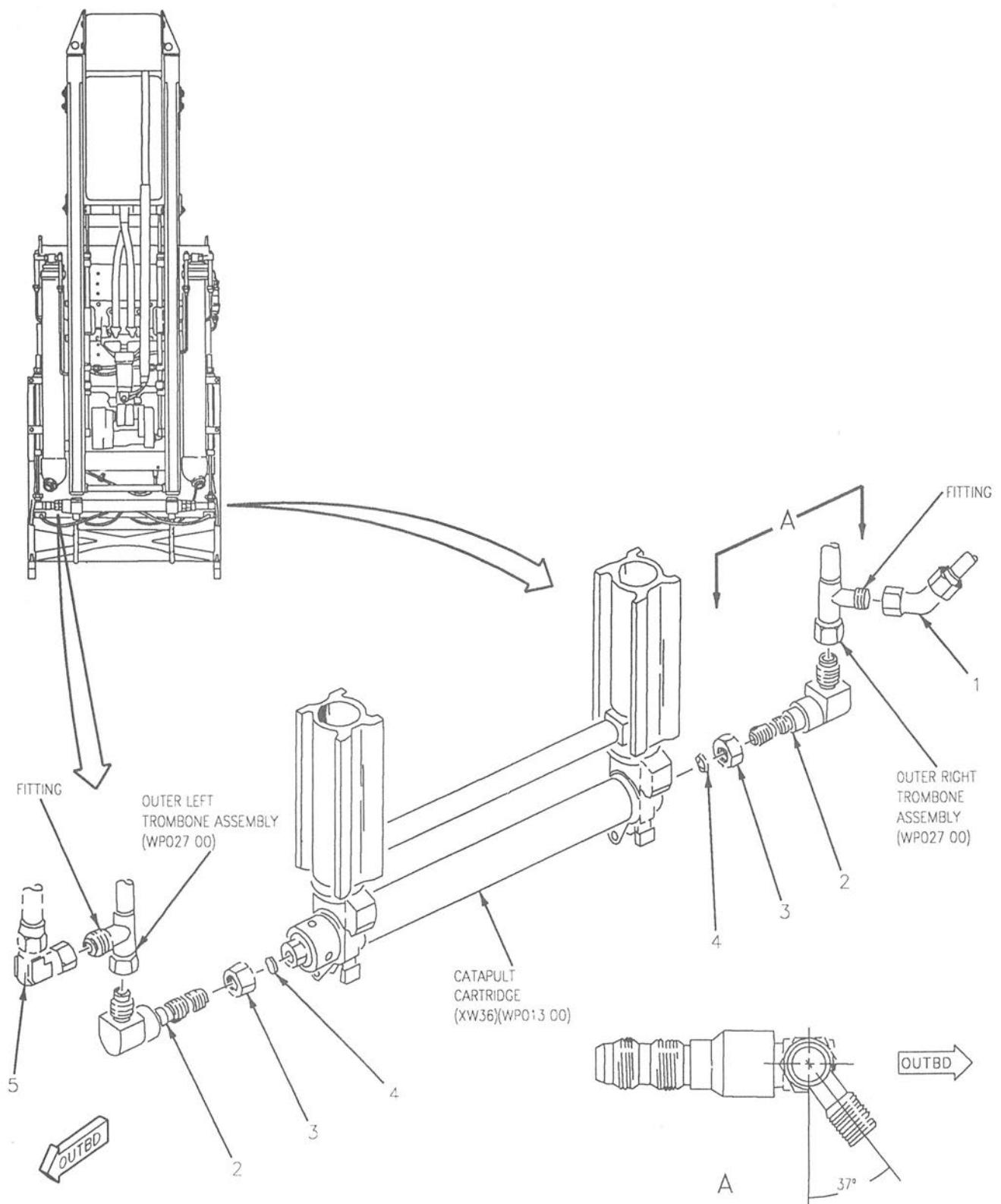


Figure 1. 0.4 Second Delay Initiator (JAU-58/A) (MT05) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
			1 2 3 4 5 6 7		
1	AE707744-129	0.4 SECOND DELAY INITIATOR (JAU-58/A)(MT05)			
		. HOSE ASSEMBLY, NONMETALLIC BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-133)	1		PAOZZ
2	1203-5	. INITIATOR, CARTRIDGE ACTUATED JAU-58/A (MT05) (0.4 SECOND DELAY INITIATOR) (51998) (UPCO SPEC 24428-1)	1		PCOZA
3	AN924-6J	. NUT	2		PAOZZ
4	MS9068-014	. PACKING	2		PAOZZ
5	AE705783-12	. HOSE ASSEMBLY, NONMETALLIC BALLISTIC GAS (LOWER HOSE ASSEMBLY) (00624) (MCDONNELL SPEC 75B800066-123)	1		PAOZZ

Figure 1. 0.4 Second Delay Initiator (JAU-58/A) (MT05) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EJECTION SEAT BUILDUP****AIRCRAFT EJECTION SEAT**

Reference Material

Aircrew Escape Propulsion System (AEPS) Devices	NAVAIR 11-85-1
Cartridges and Cartridge Actuated Devices for Aircraft and Associated Equipment.....	NAVAIR 11-100-1
Periodic Maintenance Information Cards.....	A1-AV8BB-MRC-000
Plane Captain Manual	A1-AV8BB-GAI-500
Safety Devices Required During All Ground Operations	WP004 00
Aircraft Ejection Seat.....	A1-AV8BB-120-350
Survival Kit assembly (SKU-6/A)	WP004 00
Seat Wedge Assembly	WP005 00
Catapult Cartridge (XW36).....	WP013 00
Initiation Subsystem Cover Assembly, Seat Release Shaft, Initiation Subsystem Assembly	WP016 00
Riser Stowage Pouch Assembly and Riser Assemblies	WP017 00
Ejection Seat Buildup - IPB	WP036 00

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Record of Applicable Technical Directives

None

Support Equipment Required

Part Number or Type Designation	Nomenclature
-	Torque Wrench, 0 to 200 Inch-Pounds
-	Torque Wrench, 0 to 600 Inch-Pounds
472P950D053-1	Headrest Safety Pin Assembly
472P950E057-1	Height Adjustment Actuator Control Assembly
472P950C120-1	Initiator Maintenance Safety Pin (2)
111T900C240-9	Torque Wrench Adapter
111T900C240-11	Torque Wrench Adapter

Materials Required

Specification or Part Number	Nomenclature
EC1252 (CAGE 04963)	Sealing Compound
MIL-S-46163 TYPE 2- GRADE N (CAGE 81349)	Sealing Compound
TT-P-1757 COMP L COLOR T (CAGE 81348)	Primer Coating
MIL-S-8660 (CAGE 81349)	Silicone Compound
MS9068-011	Packing (9)
MS9068-012	Packing (2)
MS9068-013	Packing
MS9068-014	Packing (2)
MS9068-116	Packing (2)
MS24665-132	Cotter pin (2)
MS24665-134	Cotter pin (4)
MS24665-283	Cotter pin
MS20995NC32	Lockwire

1. PROCEDURE.**NOTE**

Figure referenced in this procedure is found in WP036 00.

- a. Using height adjustment actuator control assembly, position seat bucket to full down position.



To prevent damage to headrest assembly, only hand pressure must be used to snap headrest assembly in position.

To prevent damage to WORD bridle, bridle must not be pinched or trapped between headrest assembly and parachute container opener assembly.

- b. Position headrest assembly (1, figure 1, sheet 1) between catapult tube assemblies.

c. Using only hand pressure, snap headrest assembly (1) in position. Make sure WORD bridle is not pinched or trapped between headrest assembly and parachute container opener assembly (sheet 3). (QA)

- d. Install screws (4, sheet 1) and washers.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- e. Coat bolt (5) with primer coating.

WARNING

MIL-S-46163 sealing compound is harmful if swallowed. May cause eye and skin irritation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- f. Apply MIL-S-46163 sealing compound to threads of bolt (5).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- g. Install bolt (5) and washer. Torque bolt 100 to 140 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)
- h. Install riser stowage pouch assembly (WP017 00).
- i. Install riser assemblies (WP017 00).
- j. Remove headrest safety pin assembly (sheet 2).
- k. Position drogue bridle keeper over parachute container opener assembly (sheet 3).
- l. Position drogue/container assembly (2, sheet 1) on top of catapult tube assemblies.

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- n. Install drogue/container assembly (2) with screws (3) and washers. Torque screws 90 to 100 inch-pounds. Using EC1252 sealing compound, apply tamper dots. (QA)
- o. Remove nylon cord retaining drogue/container assembly contents.

WARNING

To prevent death or injury to aircrew member by shearing drogue gun wire, downward pressure must not be applied to drogue/container attachment screws.

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- m. Coat screws (3) with primer coating.

WARNING

To prevent death or injury to personnel, care must be taken when handling WORD motor/drogue release assembly (MG67). The WORD motor/drogue release assembly (MG67) contains explosives that could detonate if mishandled or if pressure is allowed to enter port.

To prevent death or injury to personnel, do not drop WORD motor/drogue release assembly (MG67). If WORD motor/drogue release assembly (MG67) is dropped, do no handle. Notify explosive ordnance disposal.

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

NOTE

WORD motor/drogue release assembly (MG67) is a scheduled removal component. WORD motor/drogue release assembly (MG67) must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

p. Using indelible ink, mark WORD motor/drogue release assembly (14, sheet 4) with container open date, installation date, and expiration date (NAVAIR 11-85-1).

q. Make log book entry for WORD motor/drogue release assembly (14) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

r. Coat bolts (6 and 13) with primer coating.

s. Position and support WORD motor/drogue release assembly (14) on ejection seat.

t. From aft side of ejection seat, install bolt (13) washers, and nut.

u. From forward side of ejection seat, install bolts (6) washers, and nuts.

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

v. Torque nuts on bolts (6 and 13) 90 to 100 inch-pounds. Using EC1252 sealing compound, apply tamper dots. (QA)

w. Position WORD motor against back of seat.

x. Insert strap assembly (10) in WORD motor bracket.

y. Lock strap assembly (10) in position with left WORD release (9).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

z. Lubricate new packings used with elbow (21, sheet 5) and tee (20) with silicone compound.

aa. Position packing on elbow (21).

ab. Install elbow (21) in WORD motor/drogue release assembly (14, sheet 4) until packing is seated. Do not tighten nut.

ac. Loosely install tube assembly (15, sheet 5).

ad. Position packing and nut on tee (20).

- ae. Install tee (20) in WORD motor/drogue release assembly (14, sheet 4) until packing is seated. Do not tighten nut.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- af. Lubricate packing (19, sheet 5) with silicone compound.

- ag. Position packing (19) on valve (18).

- ah. Install valve (18) in guillotine assembly. Tighten valve.

- ai. Loosely install tube assembly (16).

- aj. Loosely install tube assembly (17).

- ak. Tighten nut on tee (20).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- al. Torque tube assembly (17) 95 to 105 inch pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

- am. Loosely connect tube assemblies (23 and 24, sheet 6) to inner right trombone assembly.

- an. Loosely connect tube assemblies (22 and 25) to inner left trombone assembly.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- ao. Coat screws used with clamps (26 and 27) with primer coating.

- ap. Loosely install clamps (26 and 27), screws, washers and nuts.

WARNING

To prevent death or injury to personnel, firing cable from drogue release to WORD motor must not be pulled.

- aq. Pull left WORD release (9) to release strap assembly (10).

- ar. Position ends of WORD bridle on WORD motor/drogue release assembly (14).

- as. Install pins (7).

- at. With WORD motor/drogue release in the extended (up) position, install cotter pins (12). Cotter pins must be installed from bottom of WORD motor/drogue release.

- au. Insert spacer used with pin (8) in loop of drogue bridle.

WARNING

To prevent death or injury to aircrew member, drogue bridle must be routed over all other lines or system will not operate correctly.

- av. Make sure drogue bridle is routed over all other lines. (QA)

- aw. Install pin (8), spacer, washer, and cotter pin.

- ax. Position WORD motor against back of seat.

- ay. Insert strap assembly (10) in WORD motor bracket.

az. Lock strap assembly (10) in position with left WORD release (9) and right WORD release (11).

ba. Secure drogue bridle by positioning velcro attachment around inner right trombone assembly.

WARNING

To prevent death or injury to personnel, care must be taken when handling seat back rocket motors (MF21). Rocket motors contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop seat back rocket motor (MF21). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.

NOTE

Seat back rocket motor (MF21) is a scheduled removal component. Rocket motor must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

bb. Using indelible ink, mark rocket motors (32, sheets 7, 8, and 9) with container open date, installation date and expiration date (NAVAIR 11-85-1).

bc. Make log book entry for rocket motors (32) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

bd. On ejection seat SJU-4/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- (1) Lubricate new packings (29) with silicone compound.
- (2) Position packings (29) and nuts (30) on elbows (31). Install elbows until packings are seated. Do not tighten nuts.
- (3) Loosen mounting bracket screws.

WARNING

Coating primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (4) Coat bolts (28 and 33) with primer coating.
- (5) Position rocket motors (32) on ejection seat.
- (6) Loosely install bolts (33) and washers.
- (7) Rotate rocket motor mounting bracket to align with mounting holes in upper lateral beam.
- (8) Loosely install bolts (28) and washers.
- (9) Torque mounting bracket screws 75 to 125 inch-pounds. (QA)
- (10) Tighten bolts (28 and 33).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (11) On left rocket motor (32), connect tube assemblies (22 and 23) to elbows (31). Torque tube assemblies 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

- (12) On right rocket motor (32), connect tube assemblies (24 and 25) to elbows (31). Torque tube assemblies 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

be. On ejection seat SJU-13/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

- (1) Lubricate new packings (29, sheet 8) with silicone compound.
- (2) On left rocket motor (32), position packings (29) and nuts (30) on tees (35). Install tees until packings are seated. Do not tighten nuts (30).
- (3) On right rocket motor (32), position packings (29) and nuts (30) on elbows (31). Install elbows until packings are seated. Do not tighten nuts (30).
- (4) Loosen mounting bracket screws.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- (5) Coat bolts (34 and 36) with primer coating.
- (6) Position rocket motors (32) on ejection seat.
- (7) Loosely install bolts (36) and washers.
- (8) Rotate rocket motor mounting brackets to align with holes in murphy plate.
- (9) Loosely install bolts (34) and washers.
- (10) Torque mounting bracket screws 75 to 125 inch-pounds. (QA)
- (11) Tighten bolts (34 and 36).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (12) On left rocket motor (32), connect tube assemblies (22 and 23) to tees (35). Torque tube assemblies 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

- (13) On right rocket motor (32), connect tube assemblies (24 and 25) to elbows (31). Torque tube assemblies 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

To prevent death or injury to personnel, the divergence rocket motors must be installed on the left side of the SJU-13/A ejection seat.

To prevent death or injury to personnel, care must be taken when handling divergence rocket motors (MT28). Rocket motors contain explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop divergence rocket motors (MT28). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.

NOTE

Divergence rocket motors (MT28) are scheduled removal components. Rocket motors must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

(14) Using indelible ink, mark divergence rocket motors (37, sheet 10) with container open date, installation date and expiration date (NAVAIR 11-85-1).

(15) Make log book entry for divergence rocket motors (37) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

(16) Lubricate new packings used with fittings (41) with silicone compound.

(17) Position packings on fittings (41).

(18) Install fittings (41) in divergence rocket motors (37).

(19) Loosely connect tube assembly (39) to inboard tee (35).

(20) Loosely connect tube assembly (40) to outboard tee (35).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(21) Coat bolts (38) with primer coating.

(22) Position divergence rocket motors (37) on bracket assembly and loosely install bolts (38), washers and nuts.

(23) Loosely connect tube assembly (39) to forward divergence rocket motor (37) and tube assembly (40) to aft divergence rocket motor (37).

NOTE

Clamp must fit snugly around divergence rocket motors.

(24) Position clamp (43) between divergence rocket motors (37) and secure to bracket assembly with bolt (42) and washer.

(25) Tighten nuts used with bolts (38).

(26) Safety bolt (42) to bracket assembly lockwire hole with lockwire. (QA)

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(27) Torque tube assemblies (39 and 40) to tees (35) and fittings (41) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dots. (QA)

bf. On ejection seat SJU-14/A, do substeps below:

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

(1) Lubricate new packings (29, sheet 9) with silicone compound.

(2) On left rocket motor (32), position packings (29) and nuts (30) on elbows (31). Install elbows until packings are seated. Do not tighten nuts.

(3) On right rocket motor (32), position packings (29) and nuts (30) on tees (35). Install tees until packings are seated. Do not tighten nuts.

(4) Loosen mounting bracket screws.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(5) Coat bolts (34 and 36) with primer coating.

(6) Position rocket motors (32) on ejection seat.

(7) Loosely install bolts (36) and washers.

(8) Rotate rocket motor mounting bracket to align with holes in murphy plate.

(9) Loosely install bolts (34) and washers.

(10) Torque mounting bracket screws 75 to 125 inch-pounds. (QA)

(11) Tighten bolts (34 and 36).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(12) On left rocket motor (32), connect tube assemblies (22 and 23) to elbows (31). Torque tube assemblies 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

(13) On right rocket motor (32), connect tube assemblies (24 and 25) to tees (35). Torque tube assemblies 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

To prevent death or injury to personnel, the divergence rocket motors must be installed on the right side of the SJU-14/A ejection seat.

To prevent death or injury to personnel, care must be taken when handling divergence rocket motors (MT28). Rocket motors contain explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop divergence rocket motors (MT28). If rocket motor is dropped, do not handle. Notify explosive ordnance disposal.

NOTE

Divergence rocket motors (MT28) are scheduled removal components. Rocket motors must be marked with required data and entry must be made in log book (NAVAIR 11-85-1).

(14) Using indelible ink, mark divergence rocket motors (37, sheet 11) with container open date, installation date and expiration date (NAVAIR 11-85-1).

(15) Make log book entry for divergence rocket motors (37) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-85-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

(16) Lubricate new packings used with fittings (41) with silicone compound.

(17) Position packings on fittings (41).

(18) Install fittings (41) in divergence rocket motors (37).

(19) Loosely connect tube assembly (39) to inboard tee (35).

(20) Loosely connect tube assembly (40) to outboard tee (35).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(21) Coat bolts (38) with primer coating.

(22) Position divergence rocket motors (37) on bracket assembly and loosely install bolts (38), washers and nuts.

(23) Loosely connect tube assembly (39) to forward divergence rocket motor (37) and tube assembly (40) to aft divergence rocket motor (37).

NOTE

Clamp must fit snugly around divergence rocket motors.

(24) Position clamp (43) between divergence rocket motors (37) and secure to bracket assembly with bolt (42) and washer.

(25) Tighten nuts used with bolts (38).

(26) Safety bolt (42) to bracket assembly lockwire hole with lockwire. (QA)

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- (27) On SJU-13/A or SJU-14/A torque tube assemblies (39 and 40, sheet 10 or 11) to tees (35) and fittings (41) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dots. (QA)

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- bg. Torque tube assemblies (22 and 25, sheet 6) to inner left trombone assembly 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

- bh. Torque tube assemblies (23 and 24) to inner right trombone assembly 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

- bi. Tighten nuts (30, sheet 7, 8, or 9) against boss on rocket motors (32). (QA)

WARNING

To prevent death or injury to personnel, care must be taken when handling 14,000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). Cartridge contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop 14,000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). If initiator or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 14,000 foot aneroid actuated initiator and aneroid actuated initiator cartridge (M647). If initiator or cartridge is dropped or damaged, it shall not be used.

NOTE

14,000 foot aneroid actuated initiator is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book.

For expiration date of 14,000 foot aneroid actuated initiator, refer to A1-AV8BB-MRC-000.

bj. Using indelible ink, mark initiator (44, sheet 12) with date of installation and expiration date (NAVAIR 11-100-1).

bk. Make log book entry for initiator (44) to include date of manufacture, lot number, serial number, date of installation and expiration date (NAVAIR 11-100-1).

NOTE

Aneroid actuated initiator cartridge (M647) is a scheduled removal component. Cartridge must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

bl. Using indelible ink, mark cartridge (51) with container open date, installation date and expiration date (NAVAIR 11-100-1).

bm. Make log book entry for cartridge (51) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

bn. Coat new packings (50 and 52) with silicone compound.

bo. Install packing (50) on lower chamber.

bp. Install packing (52) inside lower chamber.

bq. Carefully install cartridge (51).

br. Install lower chamber in upper chamber.

bs. Hold upper chamber by inlet flange. Torque lower chamber 300 to 320 inch-pounds. (QA)

bt. Safety lower chamber to upper chamber with lockwire. (QA)

bu. Position clamp (48) on initiator (44).

bv. Position initiator (44) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

bw. Coat nut (49) and screw (47) with primer coating.

bx. Install nut (49) and washer.

by. Loosely install clamp (48), screw (47) and washer. Do not tighten screw.

bz. Loosely connect tube assembly (46) to initiator. Do not tighten tube assembly.

WARNING

To prevent death or injury to personnel, care must be taken when handling 7,000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). Cartridge contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop 7,000 foot aneroid actuated initiator or aneroid actuated initiator cartridge (M647). If initiator or cartridge is dropped, do not handle. Notify explosive ordnance disposal.

To prevent death or injury to aircrew member, be careful when handling 7,000 foot aneroid actuated initiator and aneroid actuated initiator cartridge (M647). If initiator or cartridge is dropped or damaged, it shall not be used.

NOTE

7,000 foot aneroid actuated initiator is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book.

For expiration date of 7,000 foot aneroid actuated initiator, refer to A1-AV8BB-MRC-000.

ca. Using indelible ink, mark initiator (54, sheet 13) with date of installation and expiration date (NAVAIR 11-100-1).

cb. Make log book entry for initiator (54) to include date of manufacture, lot number, serial number, date of installation and expiration date (NAVAIR 11-100-1).

NOTE

Aneroid actuated initiator cartridge (M647) is a scheduled removal component. Cartridge must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

cc. Using indelible ink, mark cartridge (62) with container open date, installation date and expiration date (NAVAIR 11-100-1).

cd. Make log book entry for cartridge (62) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally enough.

ce. Coat new packings (61 and 63) with silicone compound.

cf. Install packing (61) on lower chamber.

cg. Install packing (63) inside lower chamber.

ch. Carefully install cartridge (62).

ci. Install lower chamber in upper chamber.

cj. Hold upper chamber by inlet flange. Torque lower chamber 300 to 320 inch-pounds. (QA)

ck. Safety lower chamber to upper chamber with lockwire. (QA)

cl. Position clamp (58) on initiator (54).

cm. Position initiator (54) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

cn. Coat bolt (56) and nut (55) with primer coating.

co. Install nut (55) and washer.

cp. Loosely install bolt (56), washer, spacer and clamps (57 and 58). Do not tighten bolt.

cq. Loosely connect tube assemblies (59 and 60) to initiator (54). Do not tighten tube assemblies.

WARNING

To prevent death or injury to personnel, care must be taken when handling inertia reel gas generating initiator. Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel do not drop inertia reel gas generating initiator. If initiator is dropped, do not handle. Notify explosive ordnance disposal.

cr. Make sure inertia reel gas generating initiator cartridge CCU-69A/A (MF66) is installed in initiator assembly (71, sheet 14) (WP010 00).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

cs. Lubricate new packing used with manifold (64) with silicone compound.

ct. Position packing on manifold (64).

cu. Install manifold (64) in upper port of initiator assembly (71).

WARNING

cv. Lubricate new packing used with elbow (68) with silicone compound.

cw. Position packing on elbow (68).

cx. Install elbow (68) in lower port of initiator assembly (71). Do not tighten jamnut.

cy. Position clamps (70) on initiator assembly (71).

cz. Position initiator assembly (71) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

da. Coat bolts (69) with primer coating.

db. Install bolts (69) and washers. Do not tighten bolts.

dc. Position initiator to align with tube assemblies (65, 66, and 67).

dd. Remove screw (72), washers, nut and insert (73) from safe/arm control handle assembly.

de. Position tube assembly (66) and connect to manifold (64). Do not tighten.

df. Connect tube assembly (66, sheet 15) to outer right trombone assembly. Do not tighten.

dg. Connect hose assembly (65, sheet 14) to manifold (64). Do not tighten.

dh. Loosely install tube assembly (67) on elbow (68).

di. Connect tube assembly (67, sheet 15) to inertia reel assembly. Do not tighten.

dj. Position insert (73, sheet 14) on ejection seat.

dk. Position safe/arm control handle assembly on ejection seat.

dl. Install screw (72), washers, and nut.

dm. Make sure safe/arm control handle assembly operates freely.

dn. Set safe/arm control handle assembly to the safe (full up) position.

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

do. Lubricate new packing used with manifold (77, sheet 17, detail A) with silicone compound.

dp. Position packing and nut on manifold (77).

dq. Install manifold (77) through ejection seat structure and into inner right trombone assembly lower port until packing is seated. Do not tighten nut (75).

WARNING

To prevent death or injury to personnel, care must be taken when handling 3.0 second delay initiator JAU-14/A (M597). Initiator contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop 3.0 second delay initiator JAU-14/A (M597). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

NOTE

3.0 second delay initiator JAU-14/A (M597) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

dr. Using indelible ink, mark initiator (84, sheet 18) with installation date and expiration date (NAVAIR 11-100-1).

ds. Make log book entry for initiator (84) propellant manufacture date, container open date, lot number, installation date and expiration date (NAVAIR 11-100-1).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- dt. Lubricate new packing (88) with silicone compound.
- du. Position packing (88) on initiator (84).
- dv. Position clamp (83) on initiator (84).
- dw. Install initiator (84) in manifold (77). Make sure flow arrow is pointing down. Tighten initiator.
- dx. Loosely connect tube assembly (85) to initiator (84).
- dy. Position clamp (83) on ejection seat.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- dz. Coat bolt (86) with primer coating.
- ea. Install bolt (86), washer and spacer.
- eb. Tighten nut (75, sheet 17).

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- ec. Lubricate new packing used with elbow (74) with silicone compound.
- ed. Position packing on elbow (74).
- ee. Install elbow (74) through ejection seat structure and into inner right trombone assembly upper port until packing is seated. Do not tighten nut.

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- ef. Connect tube assembly (46) to elbow (74). Torque tube assembly to elbow (74) and initiator (44) 95 to 105 inch-pounds (sheets 12 and 17). Using EC1252 sealing compound, apply tamper dot. (QA)

eg. Tighten nut on elbow (74).

WARNING

- eh. Torque both ends of tube assembly (15, sheet 5) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

ei. Tighten nut on elbow (21).

WARNING

To prevent death or injury to personnel, care must be taken when handling multi non-divergence time delay JAU-13/A. Time delay contains explosives that could detonate if mishandled or if pressure is allowed to enter ports.

To prevent death or injury to personnel, do not drop multi non-divergence time delay JAU-13/A. If time delay is dropped, do not handle. Notify explosive ordnance disposal.

NOTE

Multi non-divergence time delay JAU-13/A is a scheduled removal component. Time delay must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

ej. Using indelible ink, mark multi non-divergence time delay JAU-13/A (91, sheet 19) with container open date, installation date and expiration date (NAVAIR 11-100-1).

ek. Make log book entry for multi non-divergence time delay JAU-13/A (91) propellant manufacture date, lot number, serial number, container open date, installation date and expiration date (NAVAIR 11-100-1).

el. Position clamp (90) on multi non-divergence time delay JAU-13/A (91).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

em. Coat screws (92) and bolt (93) with primer coating.

en. Position multi non-divergence time delay JAU-13/A (91) on ejection seat.

eo. Loosely install screws (92).

ep. Install clamp (90) with bolt (93) and washer.

eq. Loosely connect tube assemblies (60, 76, and 78) to multi non-divergence time delay JAU-13/A (91).

er. Install clamp (95, sheet 20), bolt, washer and spacer.

NOTE

Tube assembly is installed in front of inertia reel straps.

es. Loosely install tube assembly (89) between multi non-divergence time delay JAU-13/A (91) and low speed selector valve.

et. Install clamps (94), bolts, washers and spacers.

eu. Tighten screws (92, sheet 19).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

ev. Torque tube assembly (60, sheet 20) to multi non-divergence time delay JAU-13/A (91) and initiator (54) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

ew. Install clamp (82, sheet 17), bolt (81), washer, and spacer.

WARNING

ex. Torque tube assembly (76, sheet 20) to multi non-divergence time delay JAU-13/A (91) and manifold (77) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

ey. Install clamp (97), bolt, washer, and spacer.

WARNING

EC1252 Sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- ez. Torque tube assembly (89) to multi non-divergence time delay JAU-13/A (91) and low speed selector valve 135 to 150 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

Silicone compound is toxic to skin, eyes, and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.

- fa. Lubricate new packings used with tee (80, sheet 17, detail B) and elbow (79) with silicone compound.
- fb. Position packing and nut on tee (80).
- fc. Install tee (80) through ejection seat structure and into inner left trombone assembly upper port until packing is seated. Do not tighten nut.
- fd. Position packing on elbow (79).
- fe. Install elbow (79) through ejection seat structure and into inner left trombone assembly lower port until packing is seated. Do not tighten nut.
- ff. Connect tube assembly (78) to elbow (79).
- fg. Connect tube assemblies (16 and 59) to tee (80).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- fh. Torque both ends of tube assemblies (16, 59, and 78, sheet 20) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

fi. Tighten nut on elbow (79, sheet 17).

fj. Tighten nut used with tee (80).

- fk. Route hose assembly (96, sheet 20) through left side panel. Loosely connect hose assembly to outer left trombone assembly.

WARNING

To prevent death or injury to personnel care must be taken when handling ejection initiator (M688). Initiator contains explosives that could detonate if mishandled.

To prevent death or injury to personnel, do not drop ejection initiator (M688). If initiator is dropped, do not handle. Notify explosive ordnance disposal.

NOTE

Ejection initiator (M688) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

The following steps are identical for both ejection initiators. Both ejection initiators must be installed.

- fl. Using indelible ink, mark initiators (98, sheet 21) with container open date, date of installation, and expiration date (NAVAIR 11-100-1).

fm. Make log book entry for initiators (98) propellant manufacture date, lot number, serial number, container open date, date of installation and expiration date (NAVAIR 11-100-1).

WARNING

To prevent death or injury to personnel from firing initiator, extreme caution must be used when removing shipping safety pin and installing initiator maintenance safety pin.

With shipping safety pin removed and before initiator maintenance safety pin is installed, ejection initiator (M688) is armed.

NOTE

To allow correct position of ejection initiator (M688) in ejection initiator bracket, initiator maintenance safety pin must be installed parallel to mounting flats of ejection initiator (M688).

fn. Carefully remove shipping safety pin and install initiator maintenance safety pin. Make sure initiator maintenance safety pin is installed parallel to mounting flats on initiator (98).

fo. Loosely connect hose assembly (65 or 96) to initiator (98).

fp. Carefully place initiator (98) in ejection initiator bracket. Make sure hole in initiator aligns with links. Make sure there is no preload on initiator (98).

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

fq. Coat screws (100) with primer coating.

fr. Position plate (101) and install screws (100).

fs. Position links and install pin (99), washer, and cotter pin. (QA)

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

ft. While holding ejection initiator bracket with open end wrench, torque hose assembly (65 or 96) 135 to 150 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

To prevent death or injury to personnel from firing initiators, make sure ejection seat safety devices are installed or positioned.

fu. Make sure safe/arm control handle assembly is in the safe (full up) position and maintenance safety streamer (3 pins) is installed in ejection seat (A1-AV8BB-GAI-500, WP004 00).

WARNING

To prevent death or injury to aircrew member, make sure initiator maintenance safety pin is removed from ejection initiator (M688).

fv. Remove initiator maintenance safety pin from initiator (98). (QA)

fw. Install initiation subsystem cover assembly (WP016 00).

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

- fx. Torque both ends of hose assemblies (65 and 96, sheet 20) 135 to 150 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)
- fy. Install clamp (111, sheet 23), screw and washer.
- fz. Tighten jamnut on elbow (68, sheet 14).
- ga. Tighten bolts (69).

WARNING

To prevent death or injury to personnel, care must be taken when handling seat/man separation initiator (M688). Initiator contains explosives that could detonate if mishandled.

To prevent death or injury to personnel, do not drop seat/man separation initiator (M688). If initiator is dropped, do not handle. Notify explosives ordnance disposal.

NOTE

Seat/man separation initiator (M688) is a scheduled removal component. Initiator must be marked with required data and entry must be made in log book (NAVAIR 11-100-1).

- gb. Using indelible ink, mark initiator (105, sheet 22) with container open date, date of installation and expiration date (NAVAIR 11-100-1).

- gc. Make log book entry for initiator (105) propellant manufacture date, lot number, serial

number, container open date, date of installation and expiration date (NAVAIR 11-100-1).

WARNING

To prevent death or injury to personnel from firing initiator, extreme caution must be used when removing shipping safety pin and installing initiator maintenance safety pin.

With shipping safety pin removed and before initiator maintenance safety pin is installed, seat/man separation initiator (M688) is armed.

NOTE

To allow correct position of seat/man separation initiator (M688) in seat/man separation initiator bracket, initiator maintenance safety pin must be installed parallel to mounting flats of seat/man separation initiator (M688).

gd. Carefully remove shipping safety pin and install initiator maintenance safety pin. Make sure initiator maintenance safety pin is installed parallel to mounting flats on initiator (105).

ge. Position initiator (105) in seat/man separation initiator bracket. Make sure hole in initiator pin aligns with clevis. Make sure there is no preload on initiator.

WARNING

Primer coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

gf. Coat screws (102) with primer coating.

gg. Position plate (103) and install screws (102).

gh. Install pin (104) and washer, and safety with cotter pin. (QA)

gi. Measure and record distance between top of connect/disconnect assembly and bottom of nut (sheet 24, detail D, dimension A).

gj. If dimension A is 0.35 to 0.39 inch, go to next step. If dimension A is not 0.35 to 0.39 inch, do connect/disconnect assembly adjustment (WP022 00). (QA)

gk. Measure and record gap between spring pin and bottom of connect/disconnect assembly (dimension B).

gl. If dimension B is 0.06 inch or less, go to next step. If dimension B is more than 0.06 inch, do connect/disconnect assembly adjustment (WP022 00). (QA)

gm. Loosely install tube assembly (106, sheet 23) between initiator (105) and guillotine assembly.

gn. While holding seat/man separation initiator bracket with open end wrench, torque tube assembly (106, sheet 22) 135 to 150 inch-pounds. (QA)

go. Torque tube assembly (106, sheet 23) to guillotine assembly 135 to 150 inch-pounds. (QA)

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

gp. Using EC1252 sealing compound, apply tamper dot to both ends of tube assembly (106). (QA)

gq. Install valve (107) in tube assembly (85).

gr. Install tube assembly (108) on valve (107).

gs. Install tee (109) between tube assembly (108) and initiator (44).

gt. Install tube assembly (110) between tee (109) and manifold.

WARNING

gu. Torque both ends of tube assemblies (85, 108 and 110) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

To prevent death or injury to aircrew member, make sure initiator maintenance safety pin is removed from initiator.

gv. Remove initiator maintenance safety pin from initiator (105, sheet 22). (QA)

WARNING

EC1252 sealing compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

gw. Torque nut on tee (109, sheet 23) to initiator (44) 95 to 105 inch-pounds. Using EC1252 sealing compound, apply tamper dot. (QA)

WARNING

gx. Torque both ends of tube assemblies (66 and 67, sheets 14 and 15) 135 to 150 inch-pounds. Using EC 1252 sealing compound, apply tamper dot. (QA)

gy. Install catapult cartridge (XW36) (WP013 00).

gz. Inspect all tube and hose assemblies. Make sure all tube and hose assemblies are torqued and tamper dot is applied.

NOTE

Tube assemblies may be positioned 5° maximum in any direction from original bend to maintain 0.03 inch clearance.

ha. Inspect full length of installed tube assemblies for 0.03 inch minimum clearance between tubes and other surfaces. (QA)

hb. Install seat wedge assembly (WP005 00).

hc. Install survival kit assembly (SKU-6/A) (WP004 00).

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EJECTION SEAT BUILDUP - IPB****AIRCRAFT EJECTION SEAT**

Reference Material

None

Alphabetical Index

Subject	Page No.
Ejection Seat Buildup, Figure 1.....	2
Illustrated Parts Breakdown	1
Illustration.....	2
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Introduction	1

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. This WP has the parts data for the ejection seat buildup procedure. Index numbers match those in WP035 00.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown contains information for identifying and ordering parts. The manual introduction has more information on IPB data.

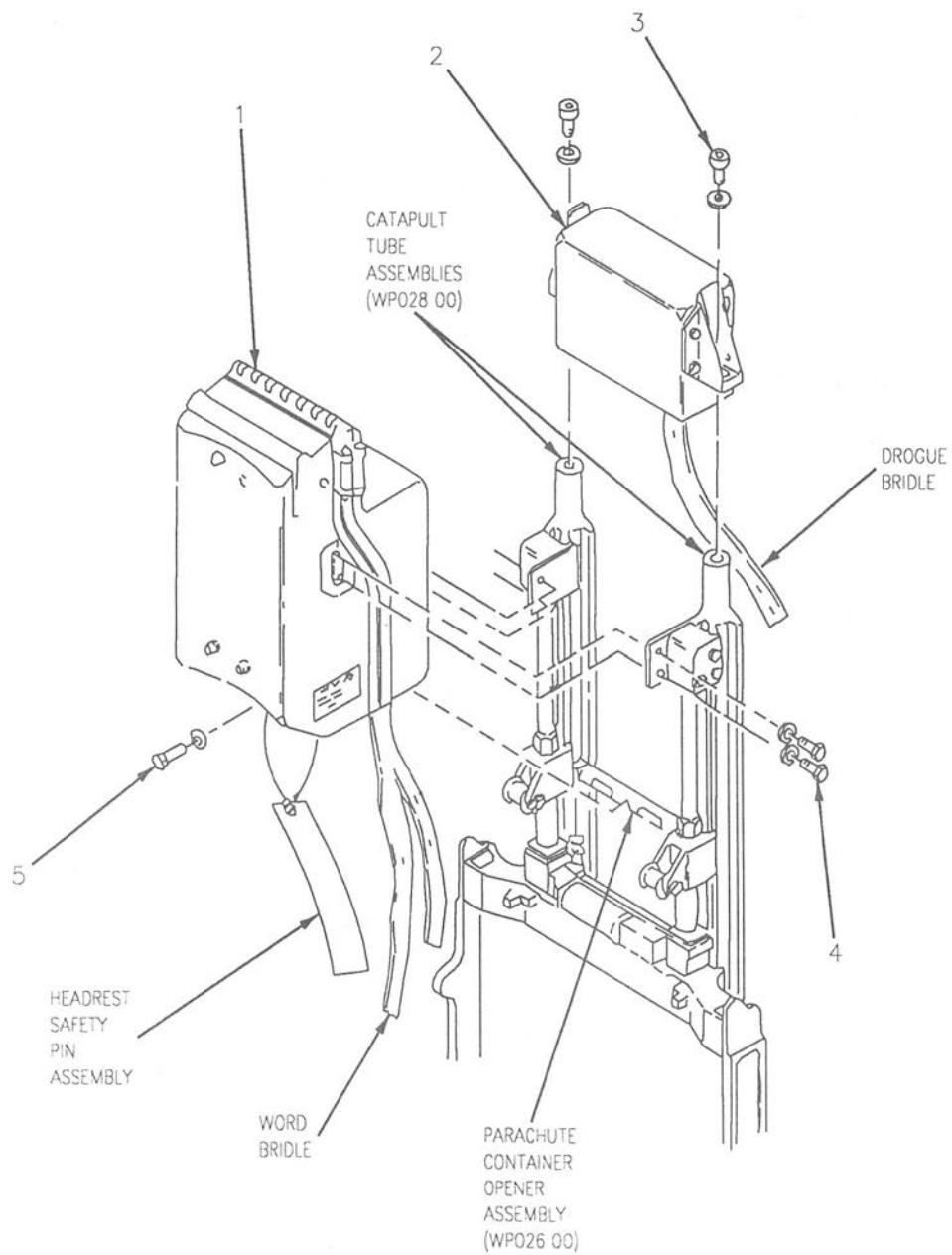


Figure 1. Ejection Seat Buildup (Sheet 1)

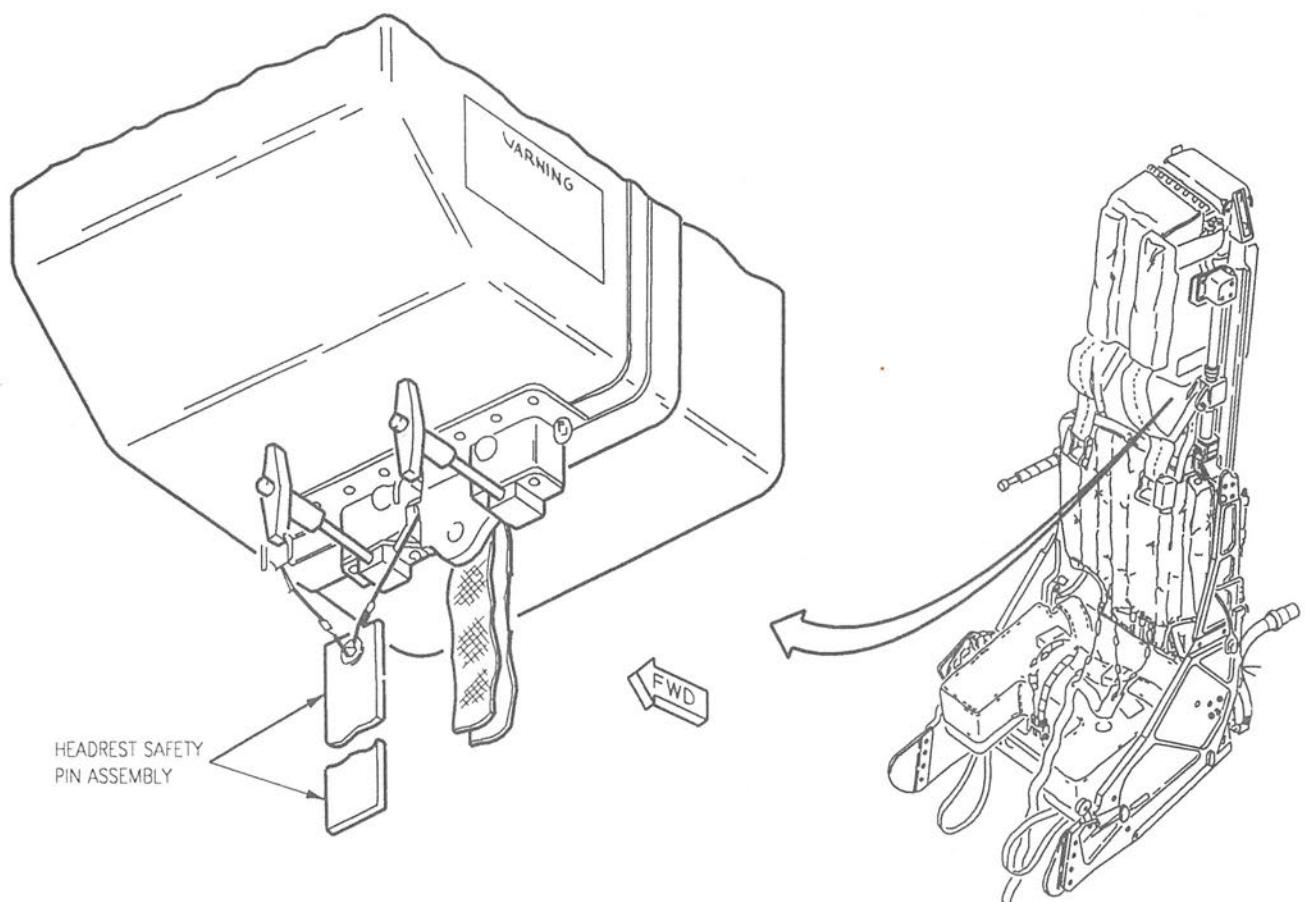


Figure 1. Ejection Seat Buildup (Sheet 2)

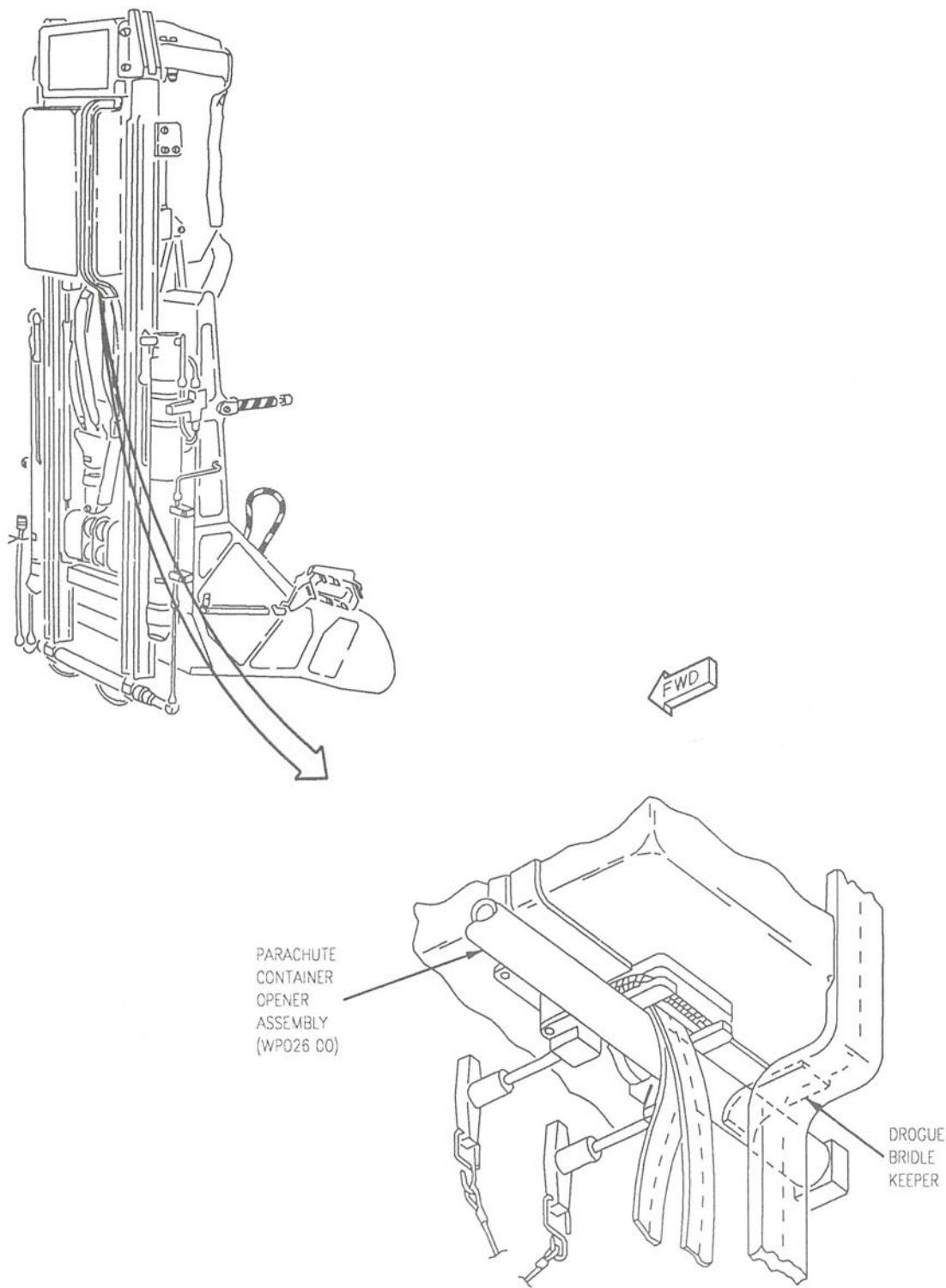


Figure 1. Ejection Seat Buildup (Sheet 3)

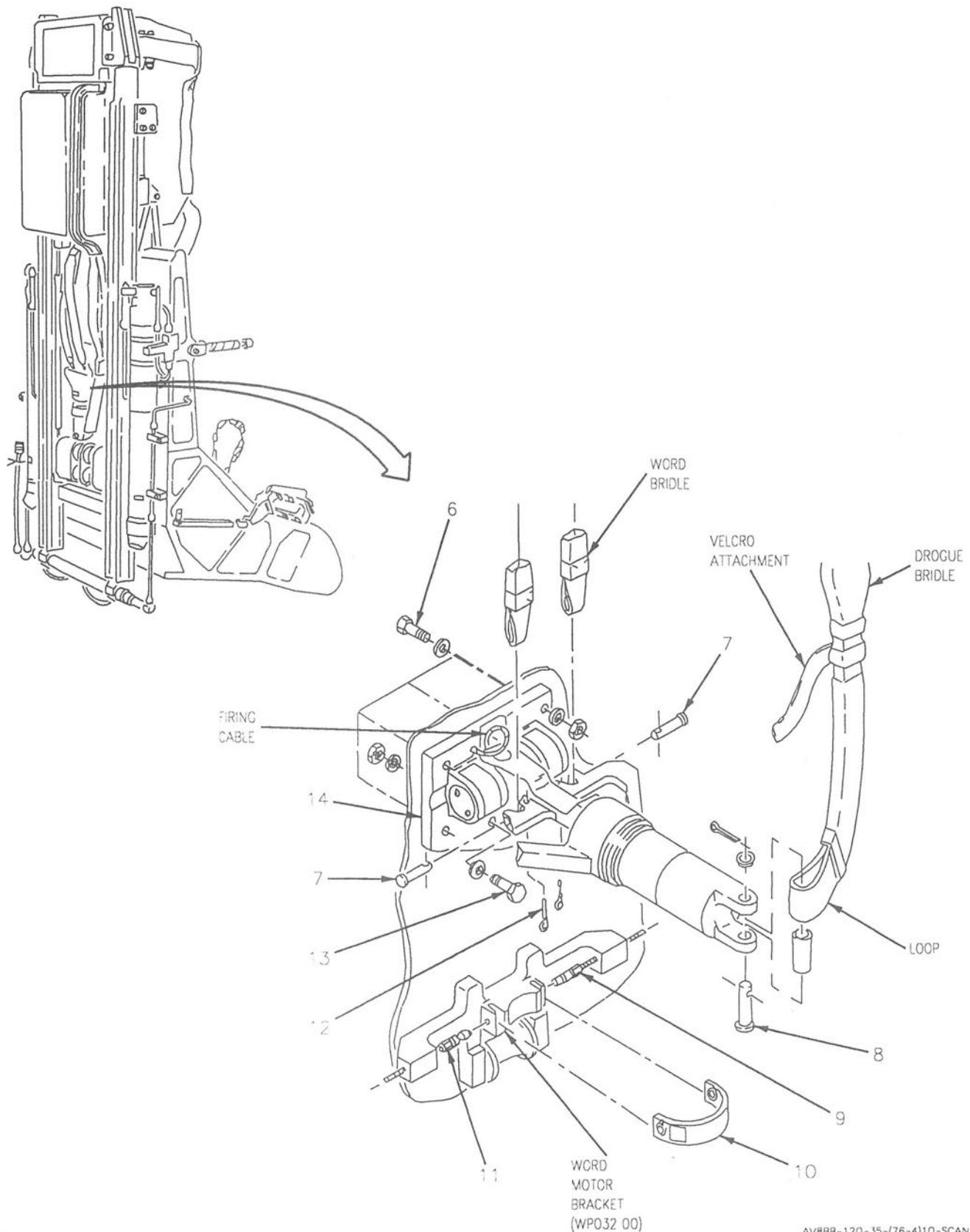


Figure 1. Ejection Seat Buildup (Sheet 4)

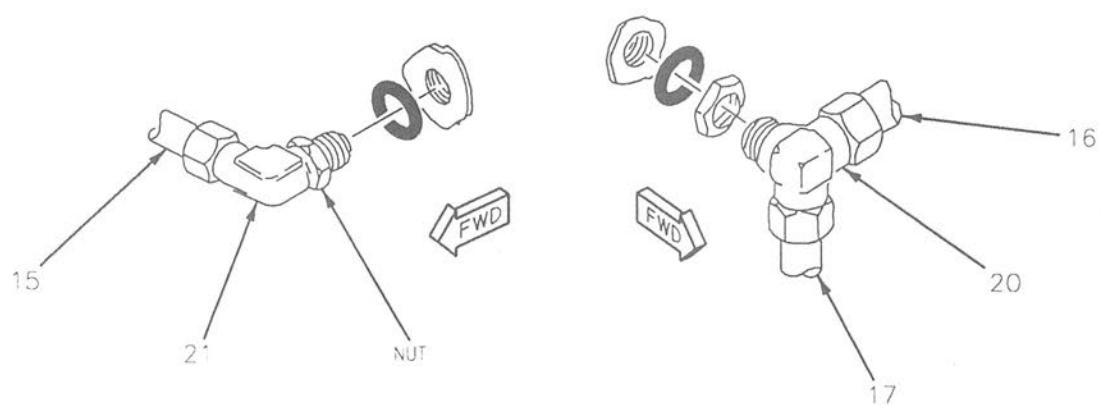
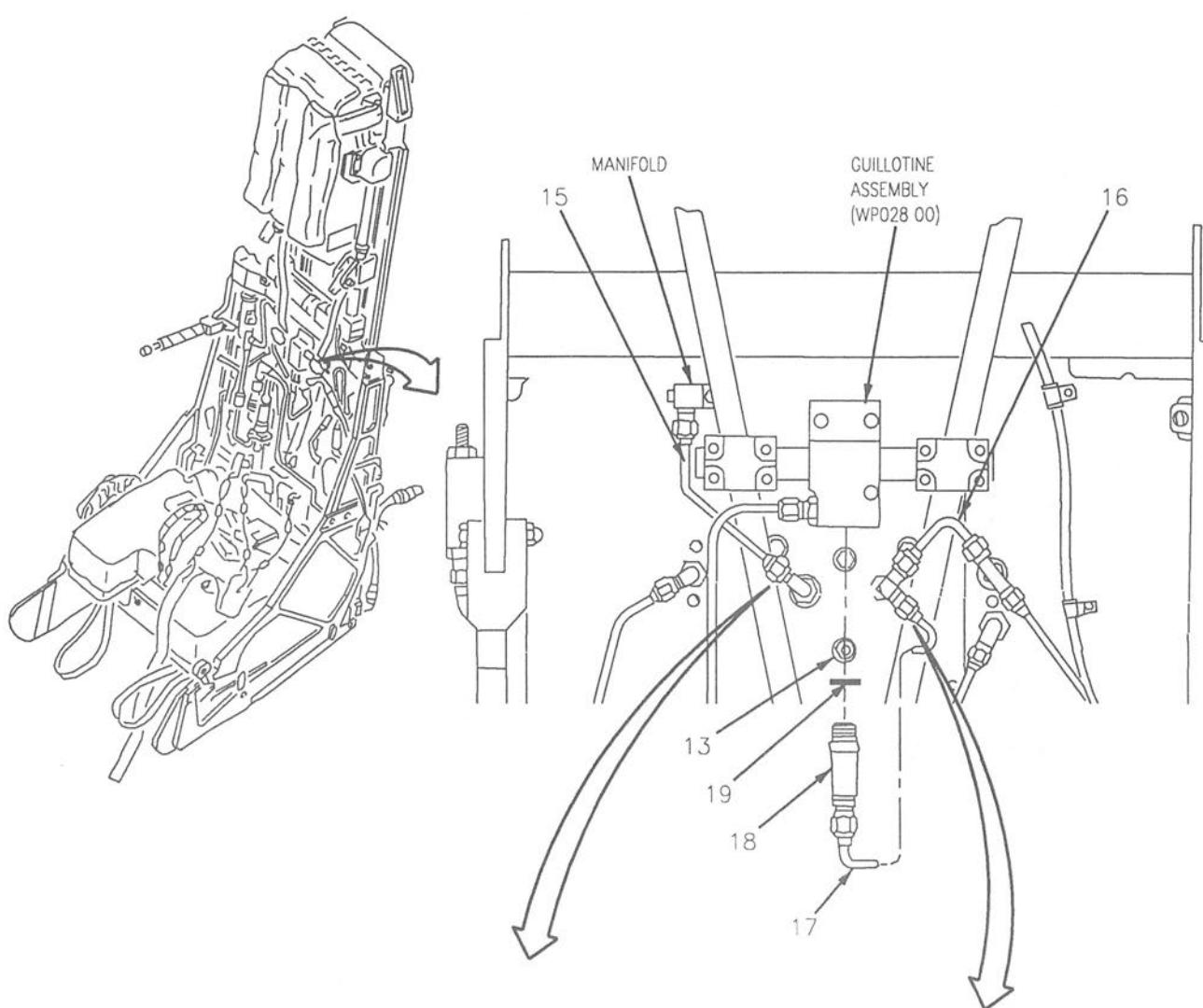


Figure 1. Ejection Seat Buildup (Sheet 5)

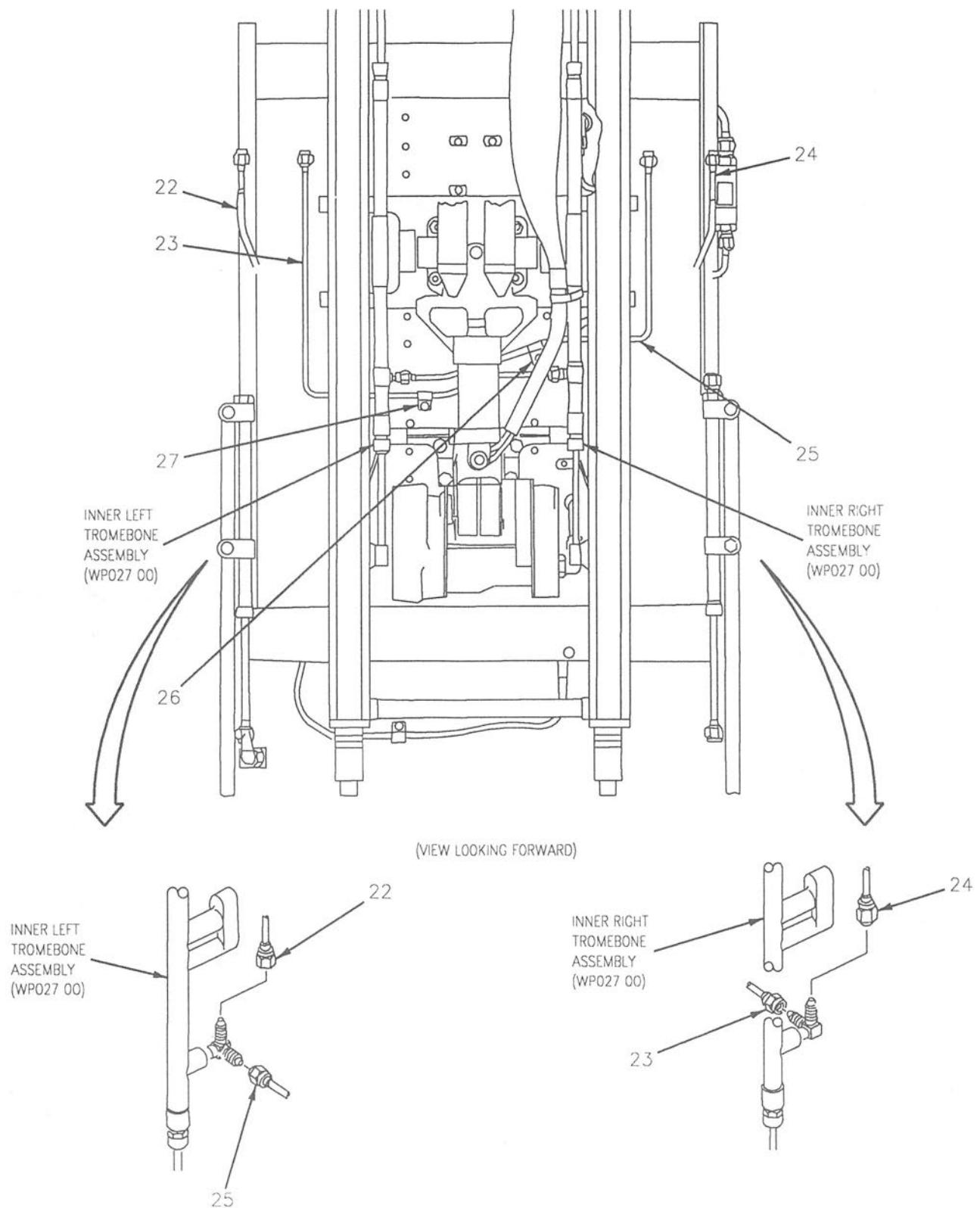


Figure 1. Ejection Seat Buildup (Sheet 6)

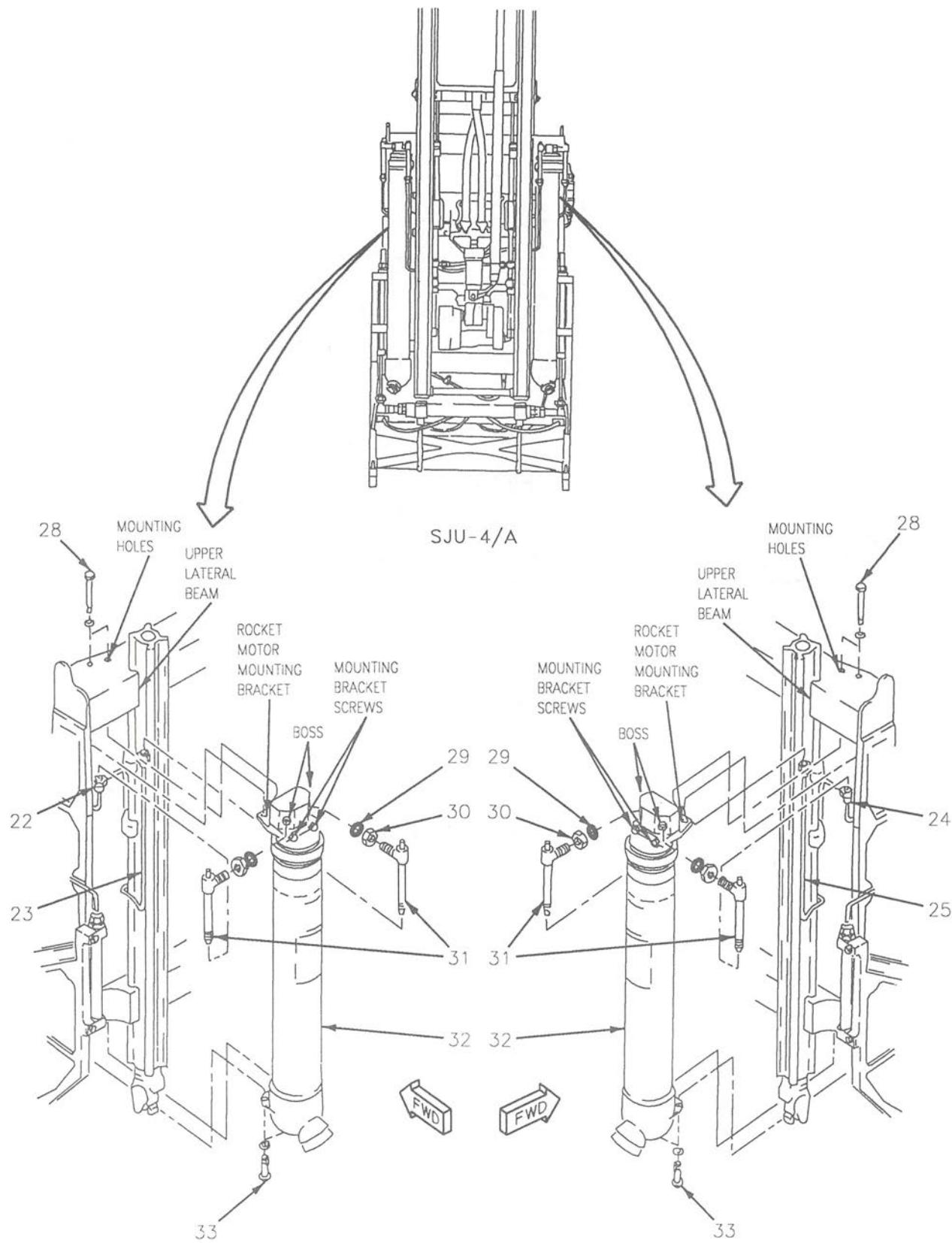


Figure 1. Ejection Seat Buildup (Sheet 7)

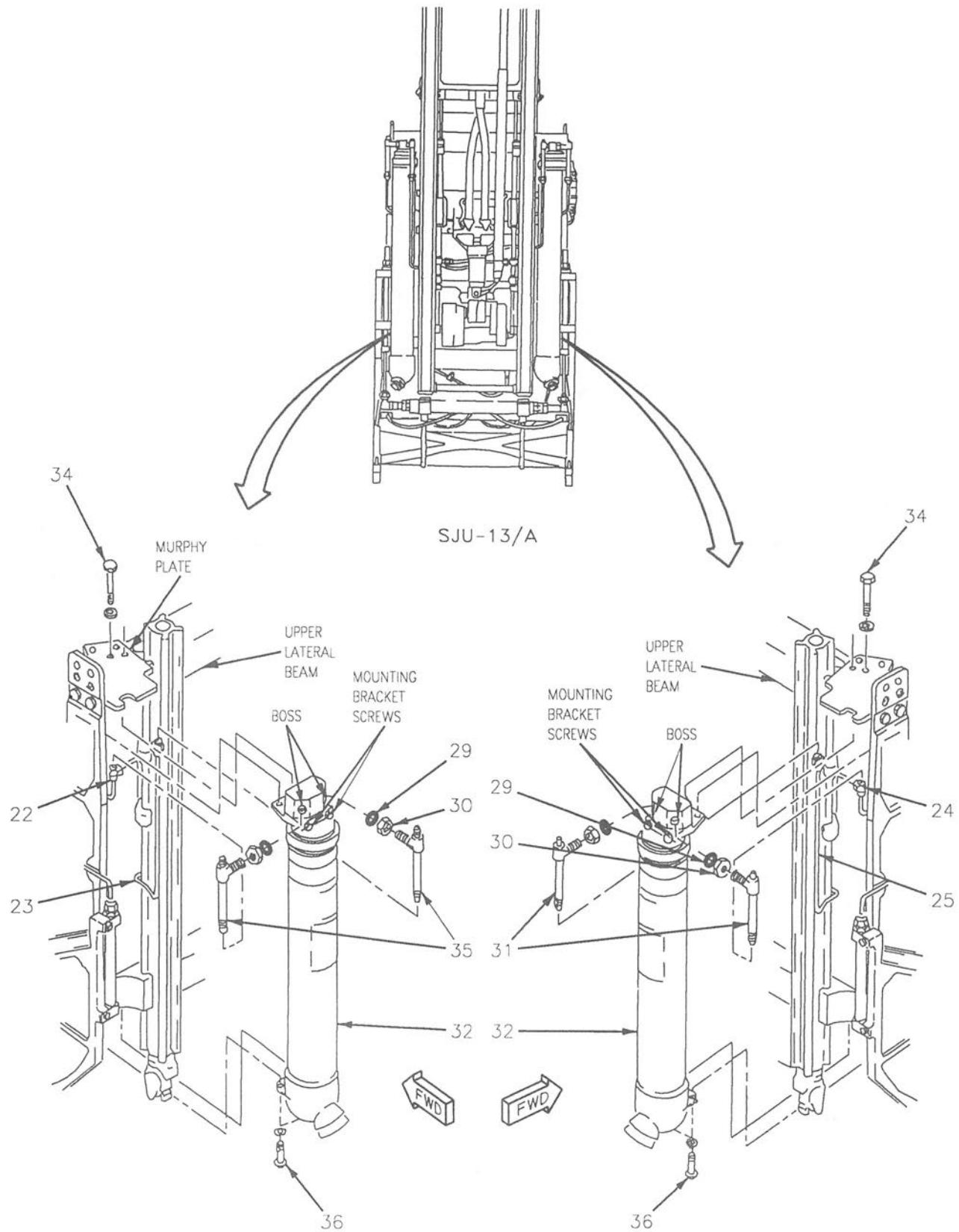


Figure 1. Ejection Seat Buildup (Sheet 8)

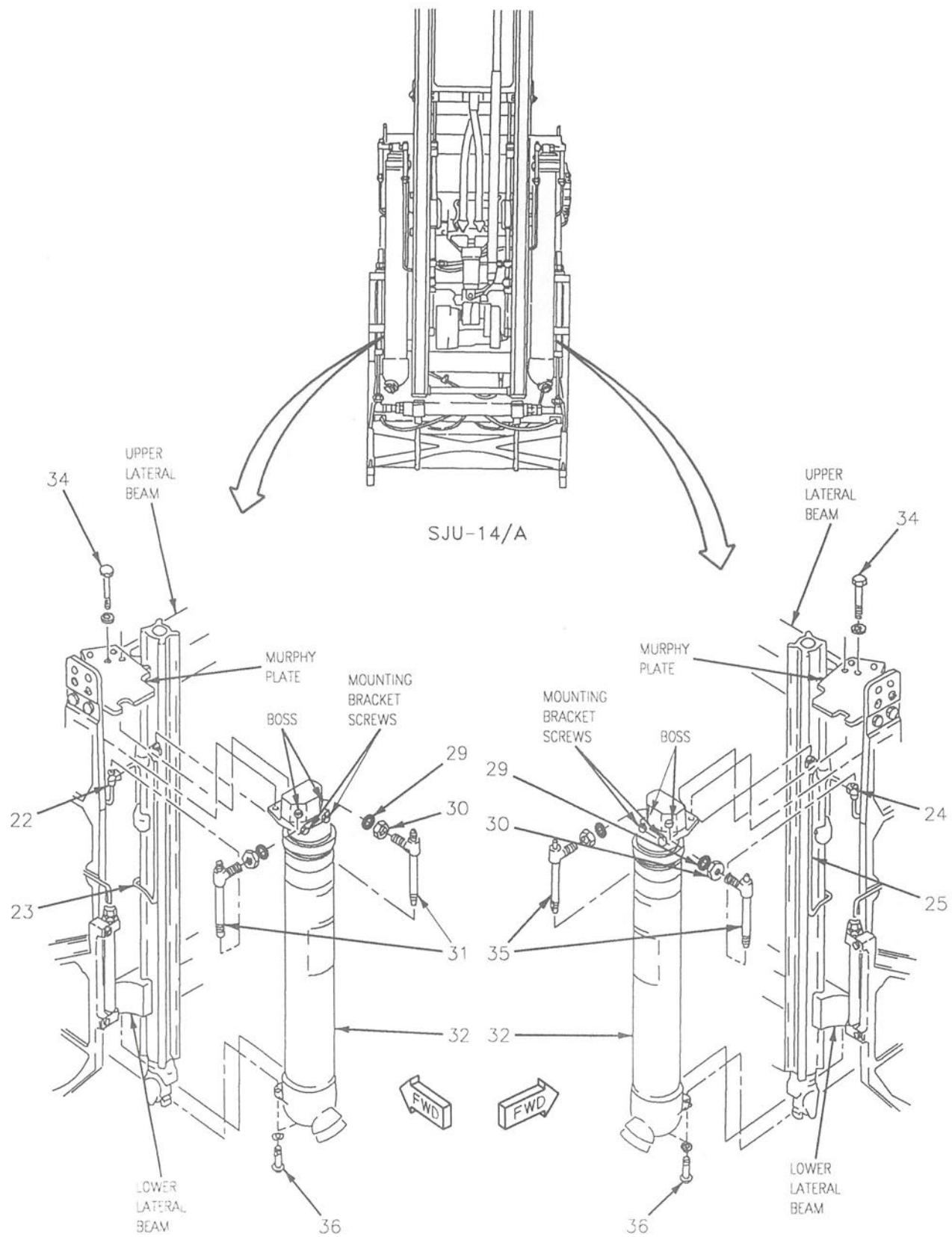
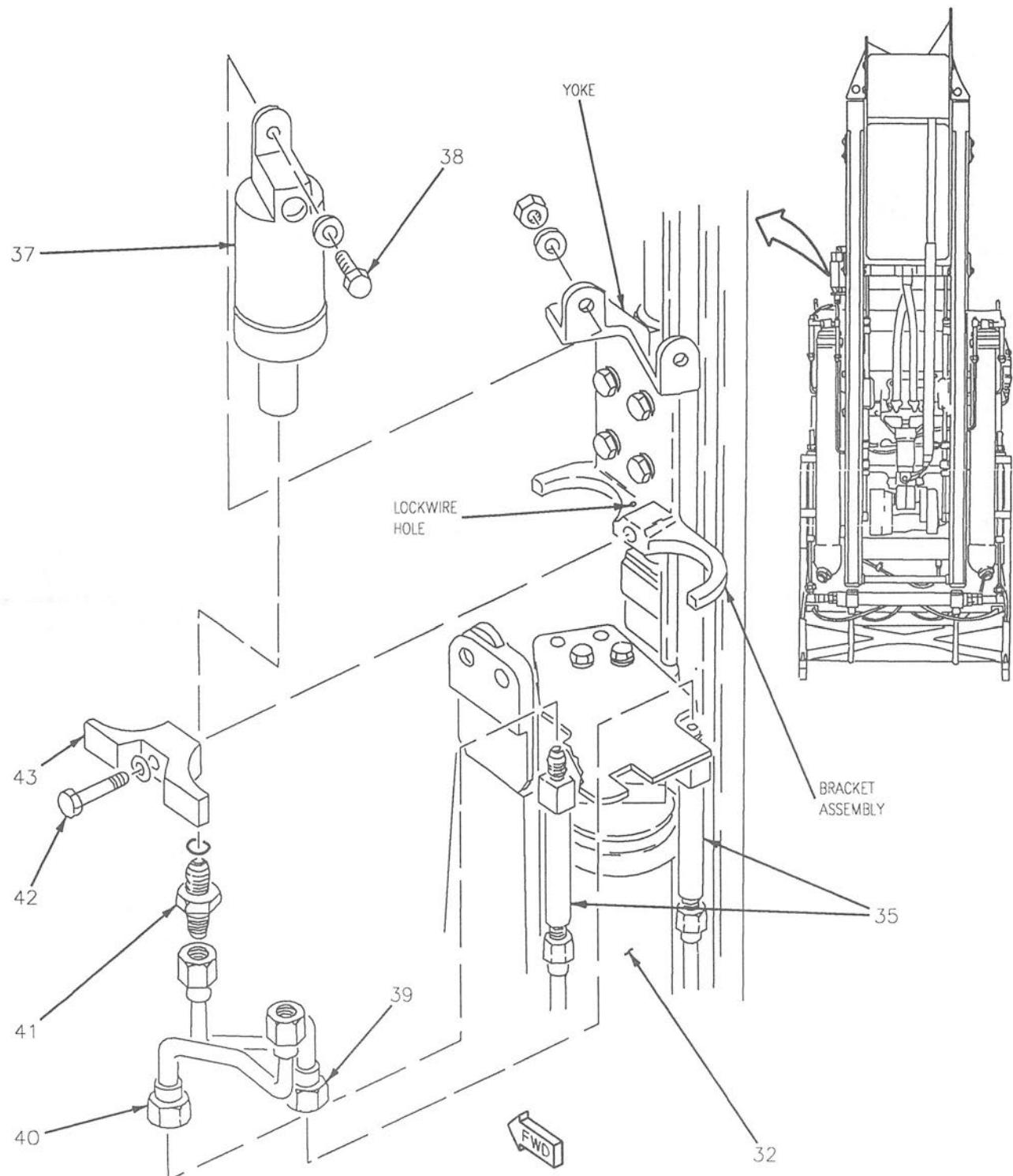


Figure 1. Ejection Seat Buildup (Sheet 9)

AV8BB-120-35-(76-9)10-SCAN



SJU-13/A

AFT ROCKET NOT
SHOWN FOR CLARITY

Figure 1. Ejection Seat Buildup (Sheet 10)

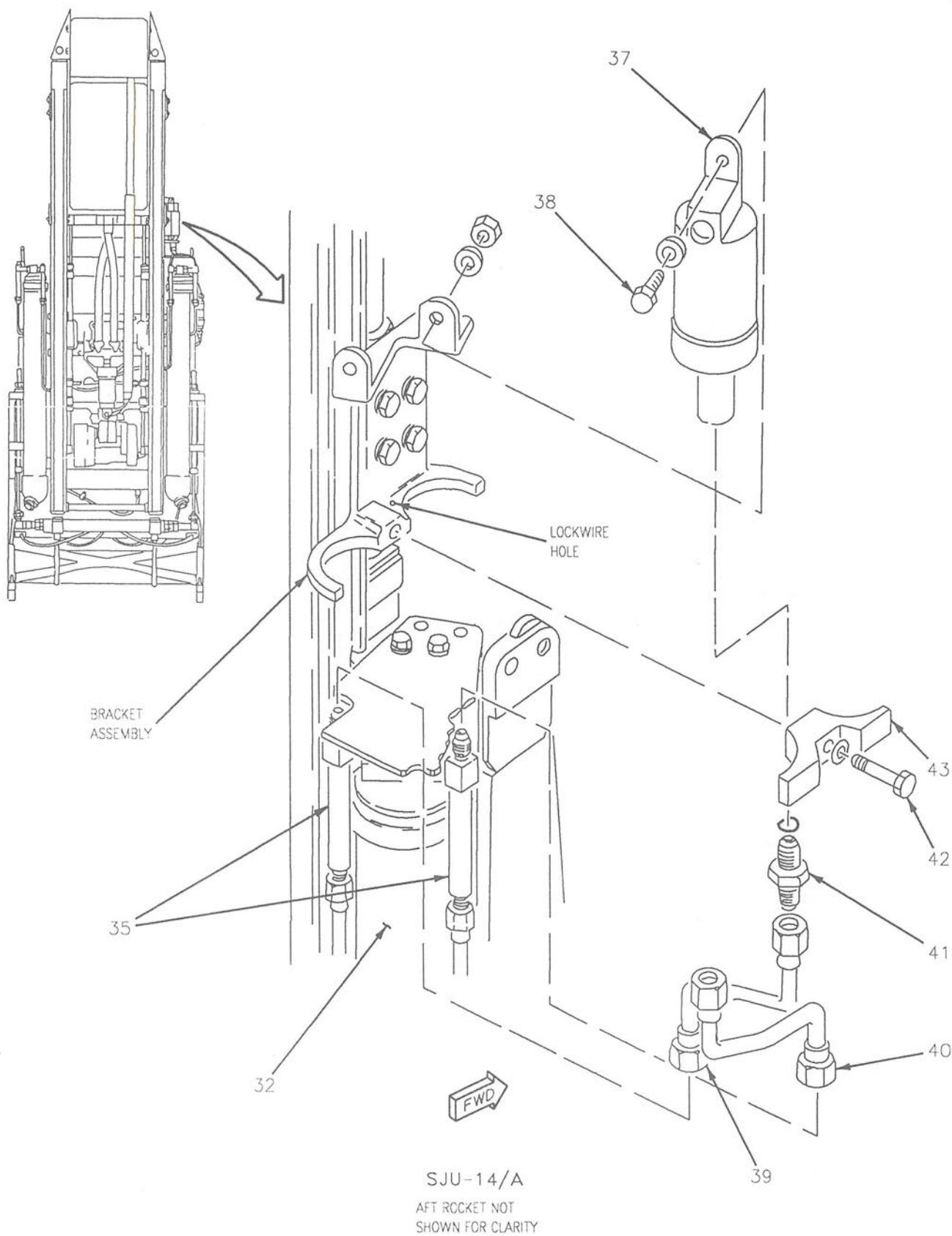
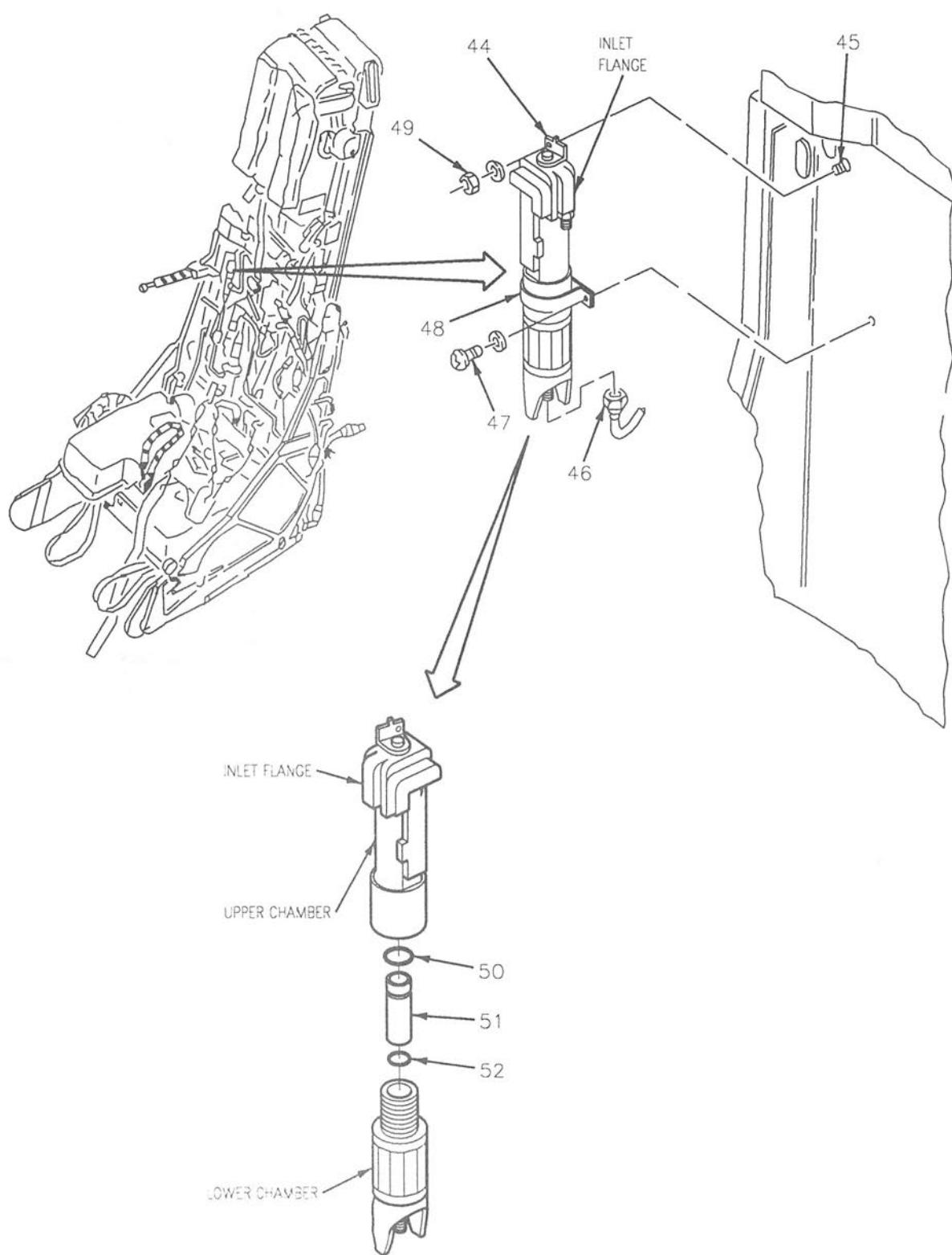


Figure 1. Ejection Seat Buildup (Sheet 11)



AV8BB-120-35-(76-12)10-SCAN

Figure 1. Ejection Seat Buildup (Sheet 12)

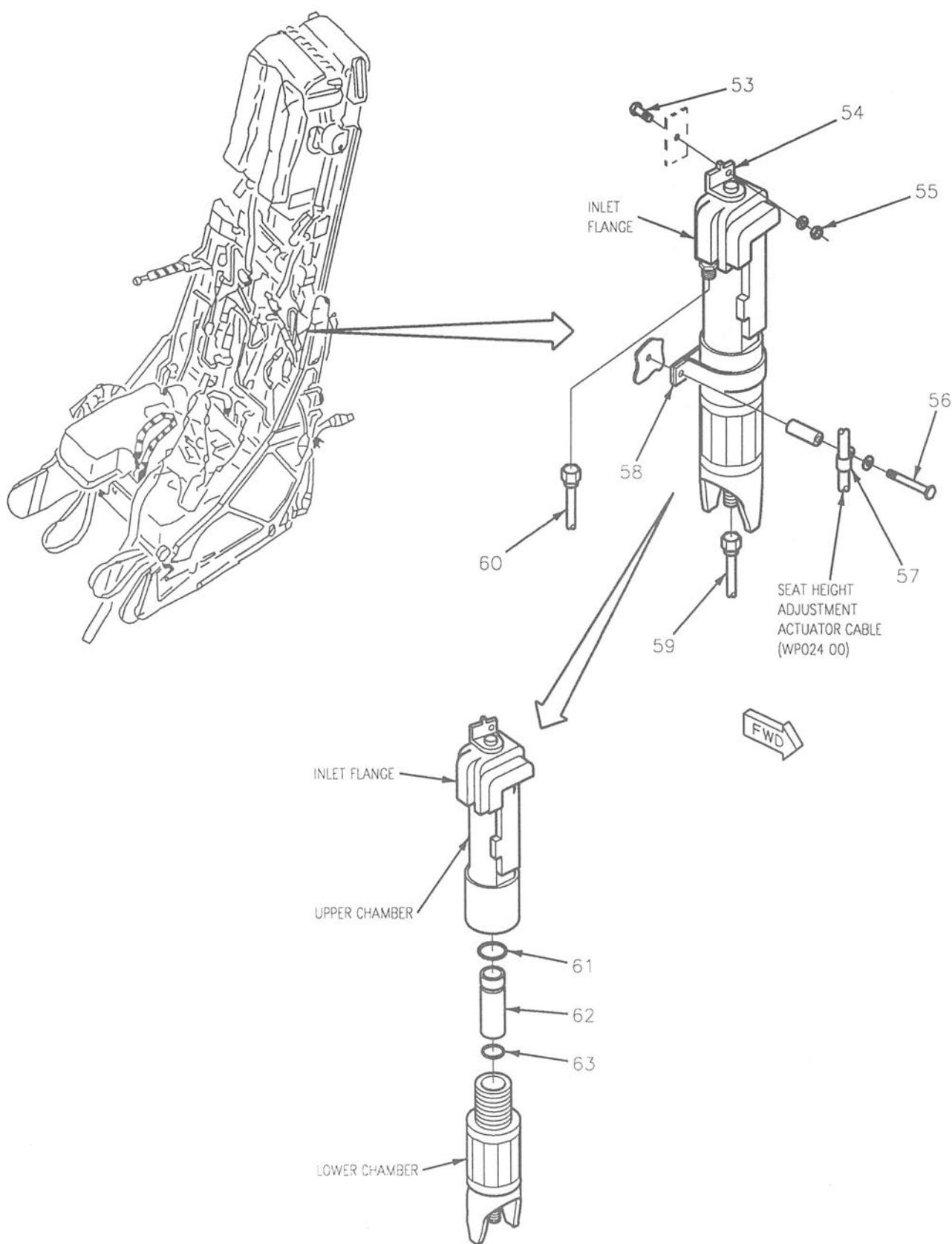


Figure 1. Ejection Seat Buildup (Sheet 13)

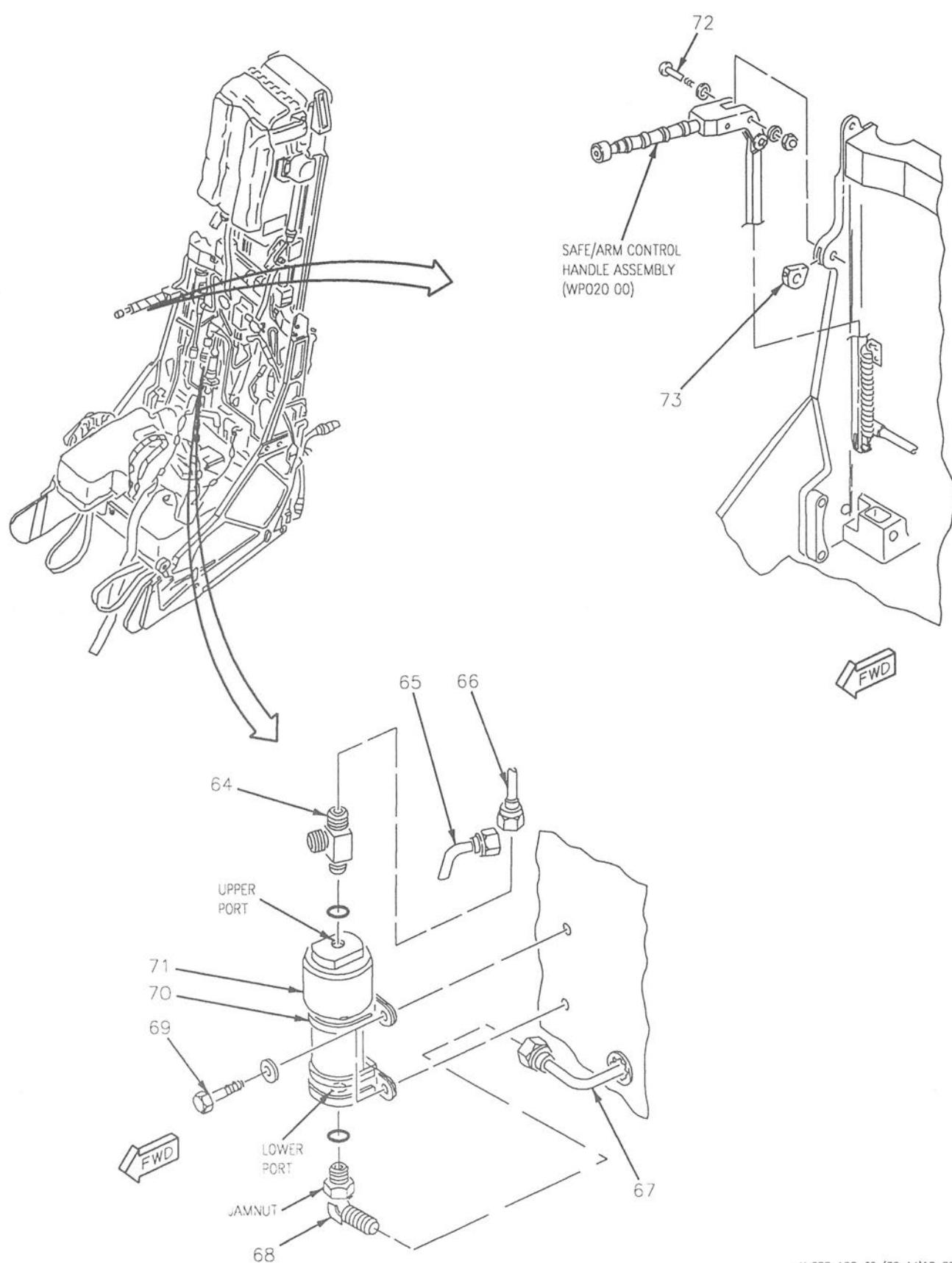


Figure 1. Ejection Seat Buildup (Sheet 14)

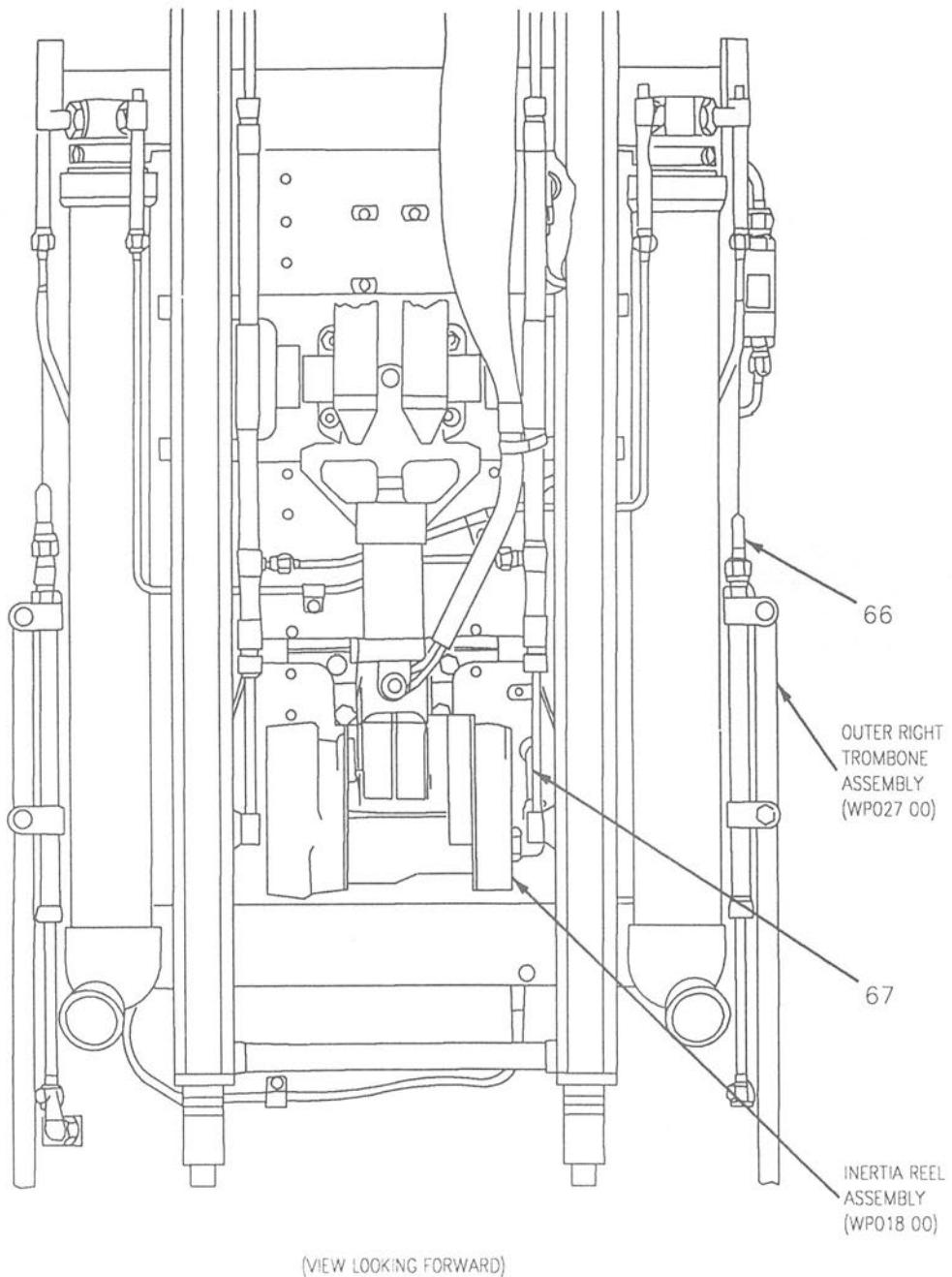


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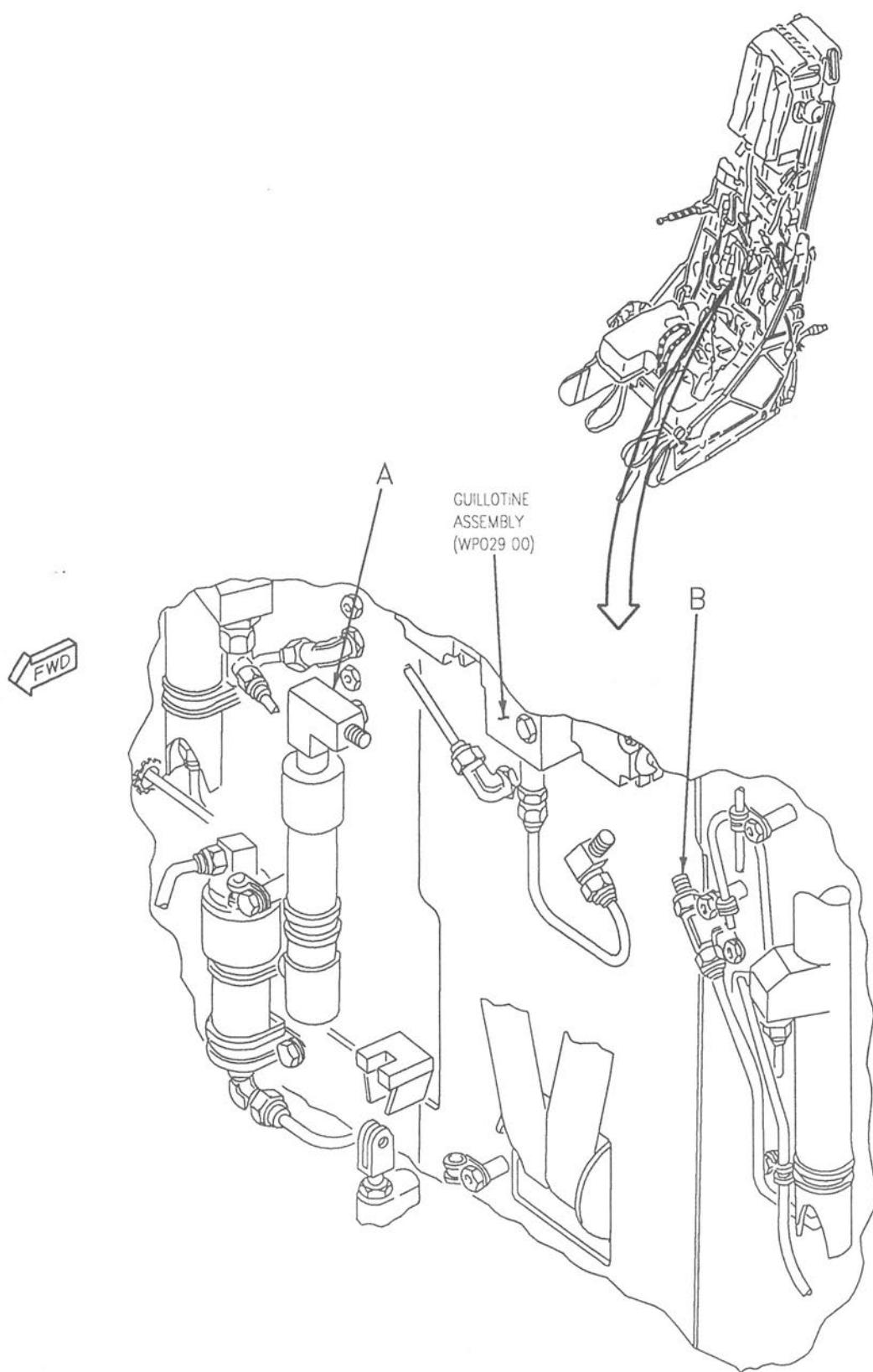


Figure 1. Ejection Seat Buildup (Sheet 16)

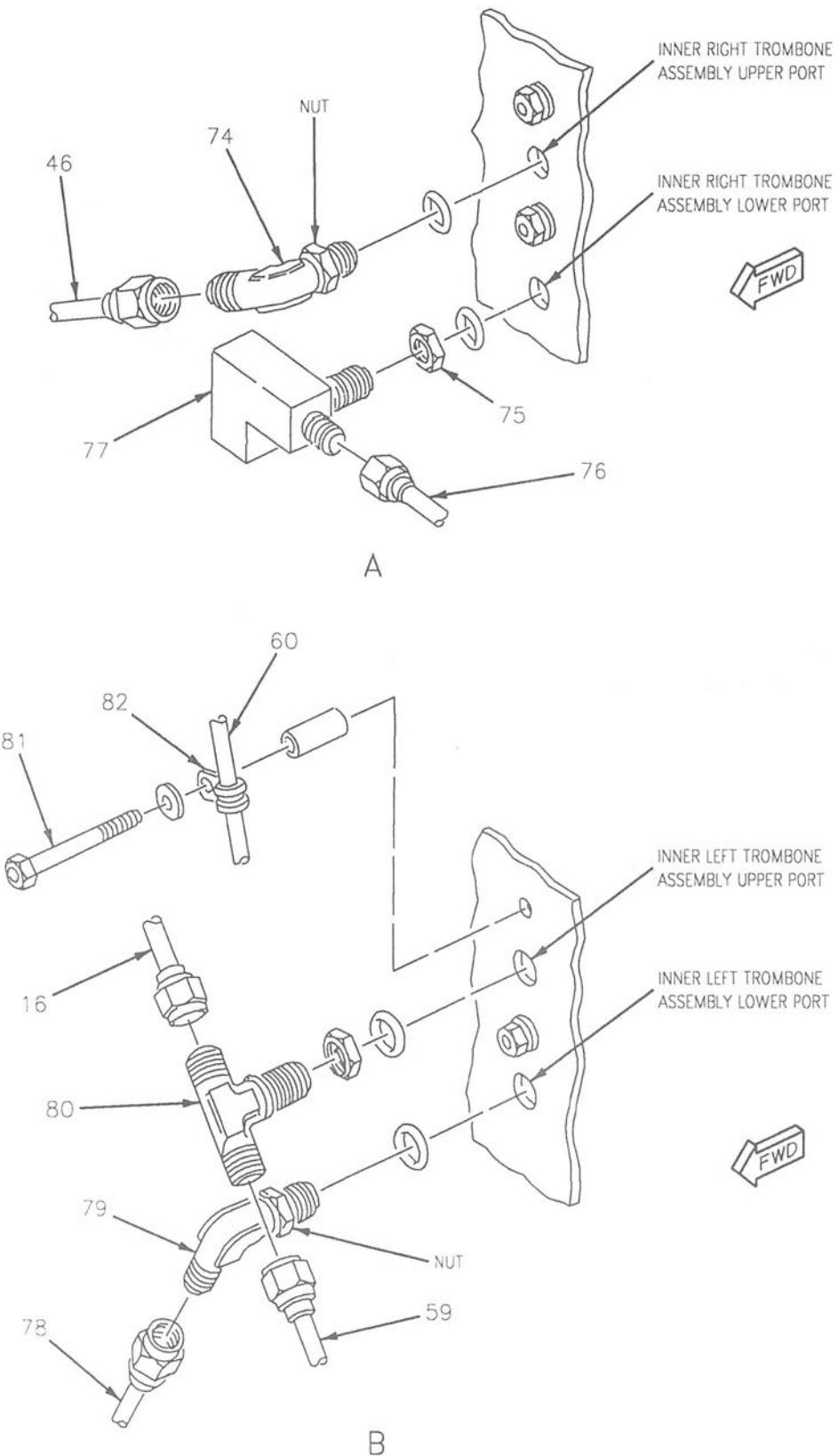


Figure 1. Ejection Seat Buildup (Sheet 17)

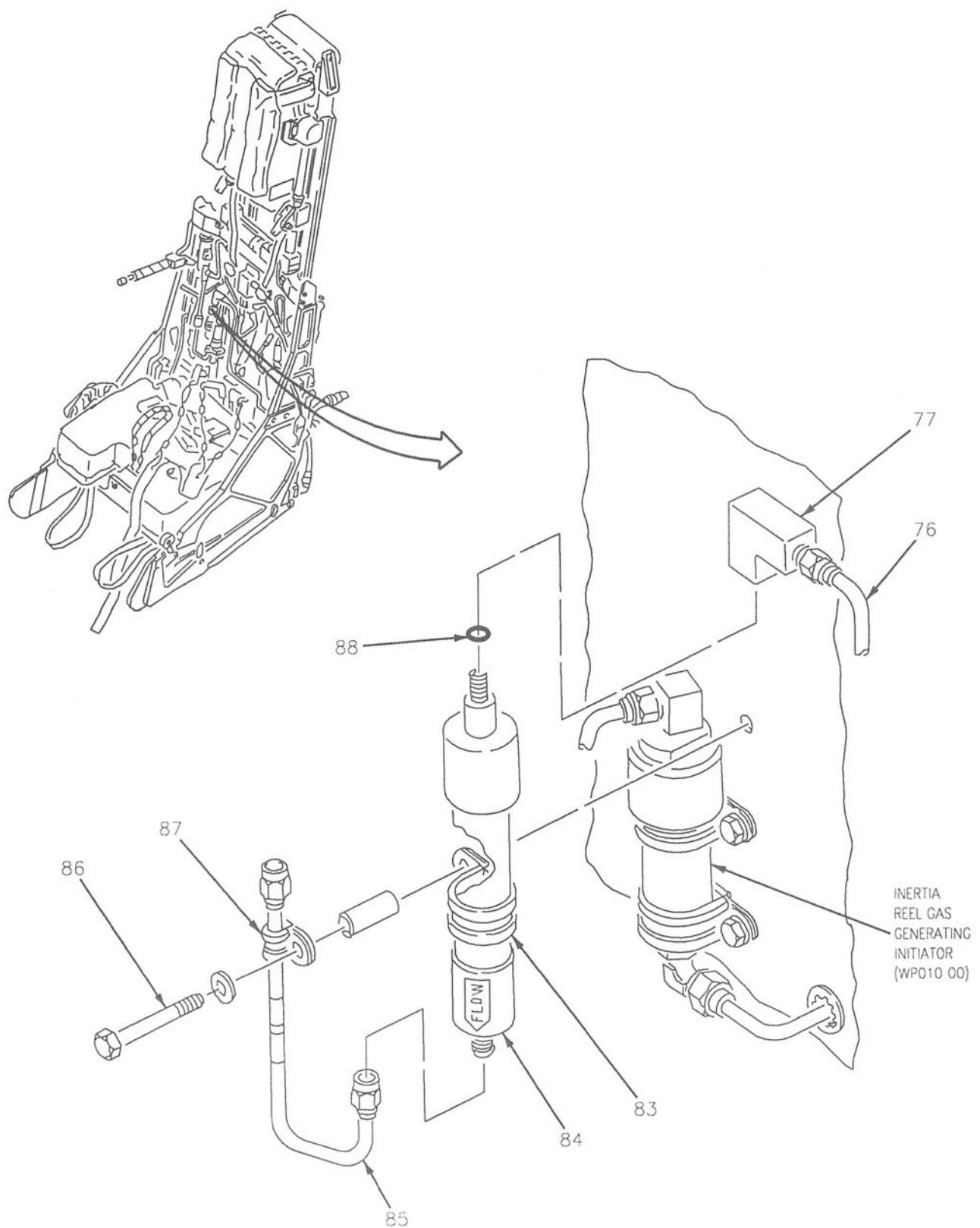


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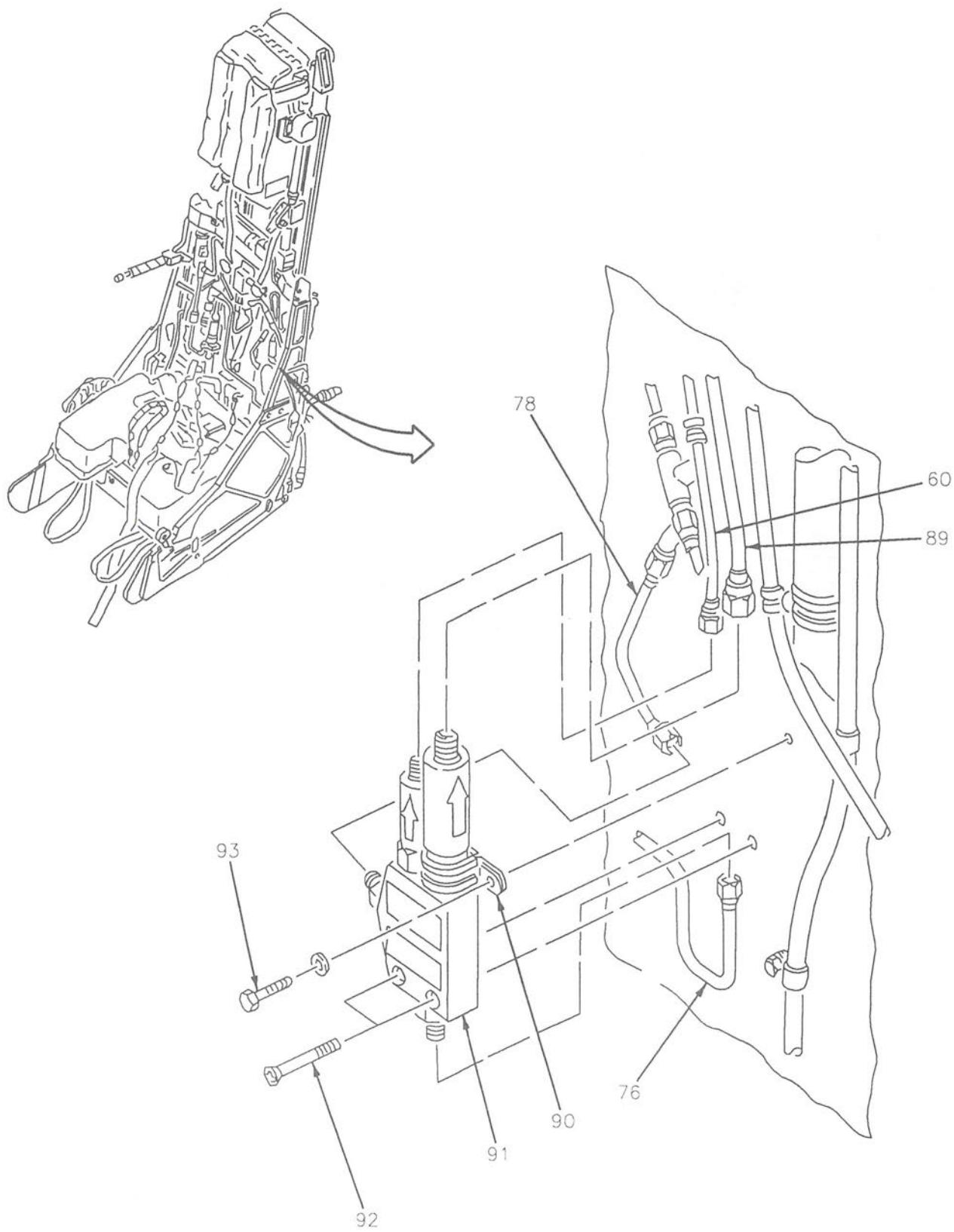


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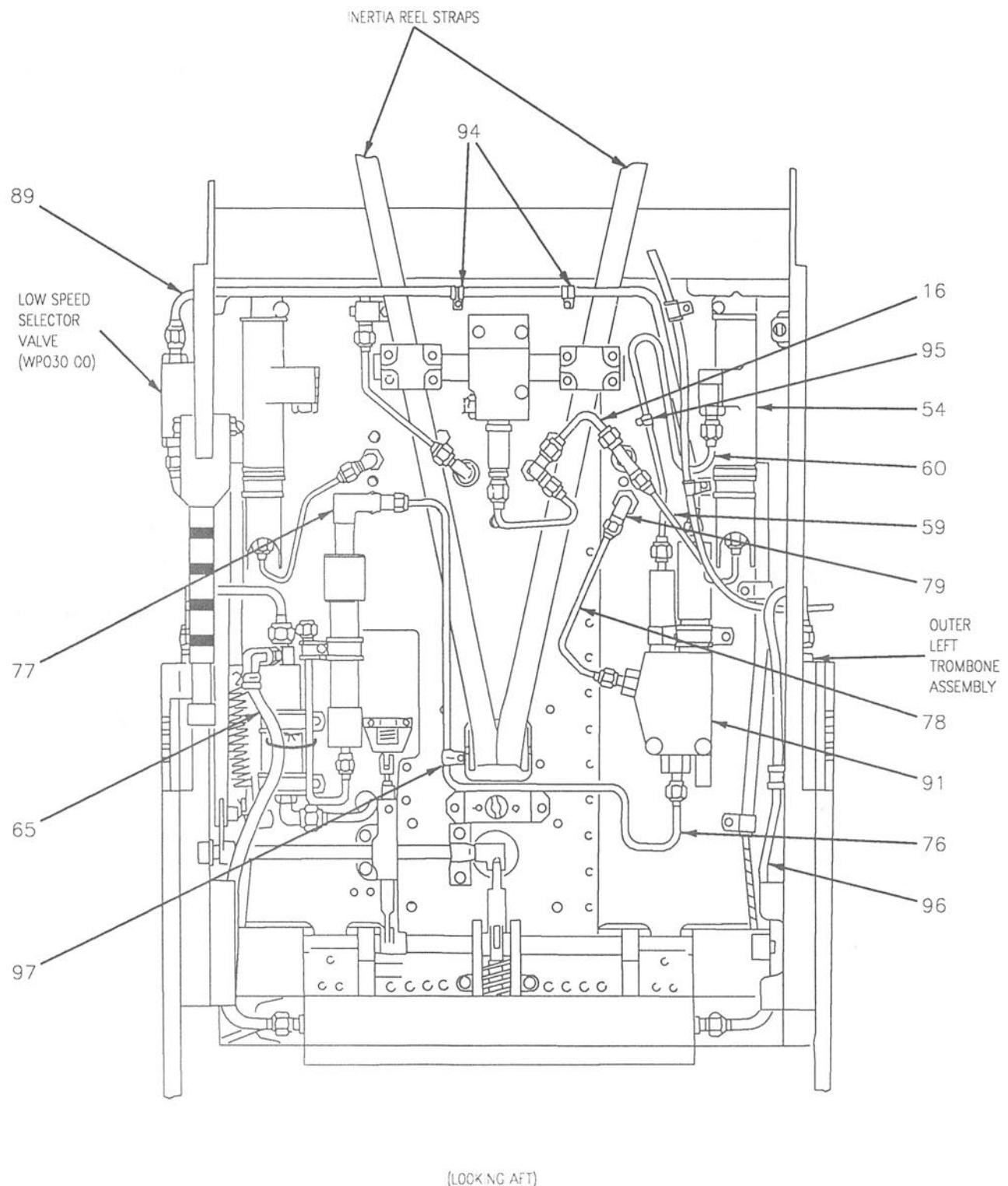


Figure 1. Ejection Seat Buildup (Sheet 20)

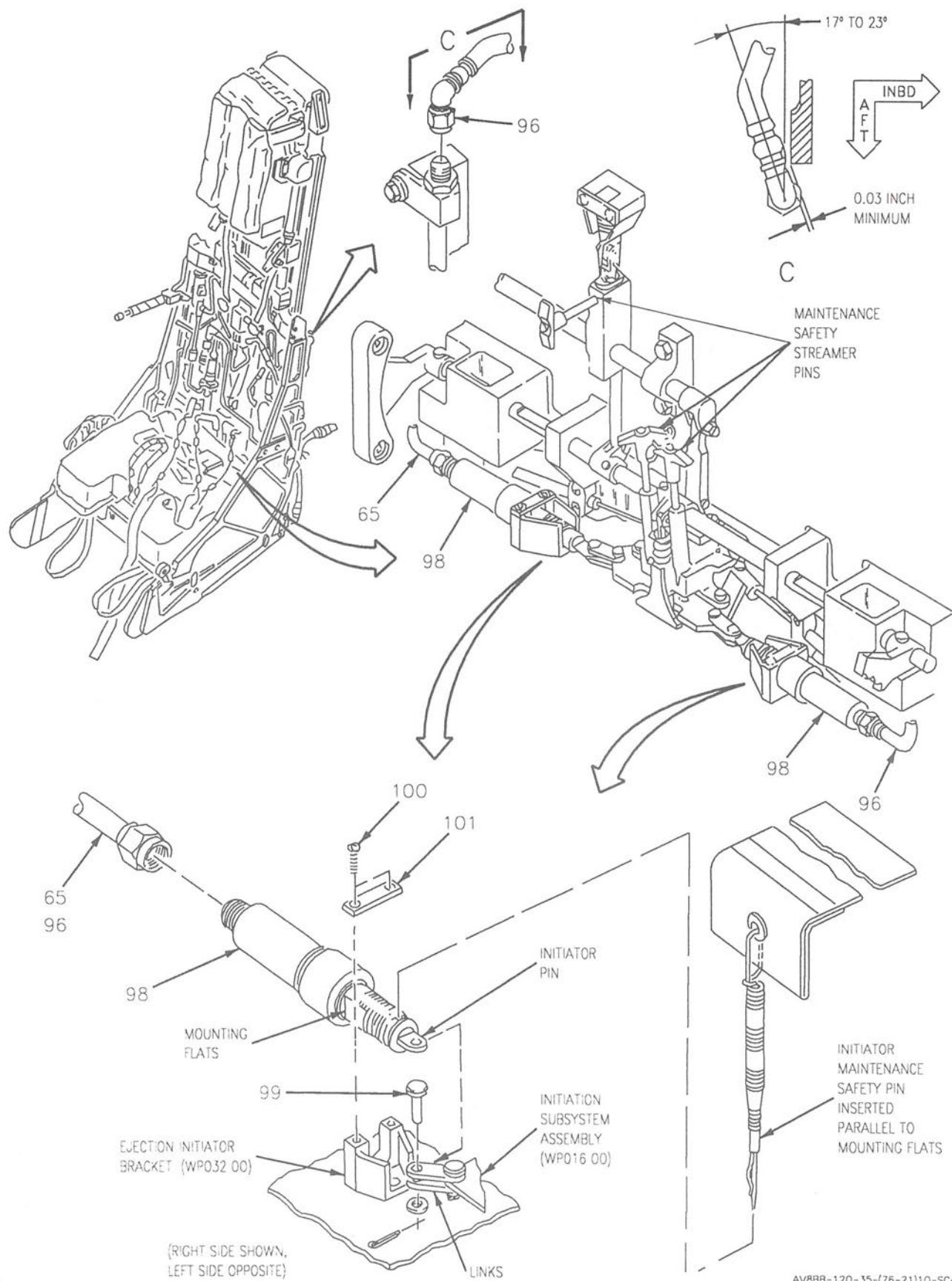


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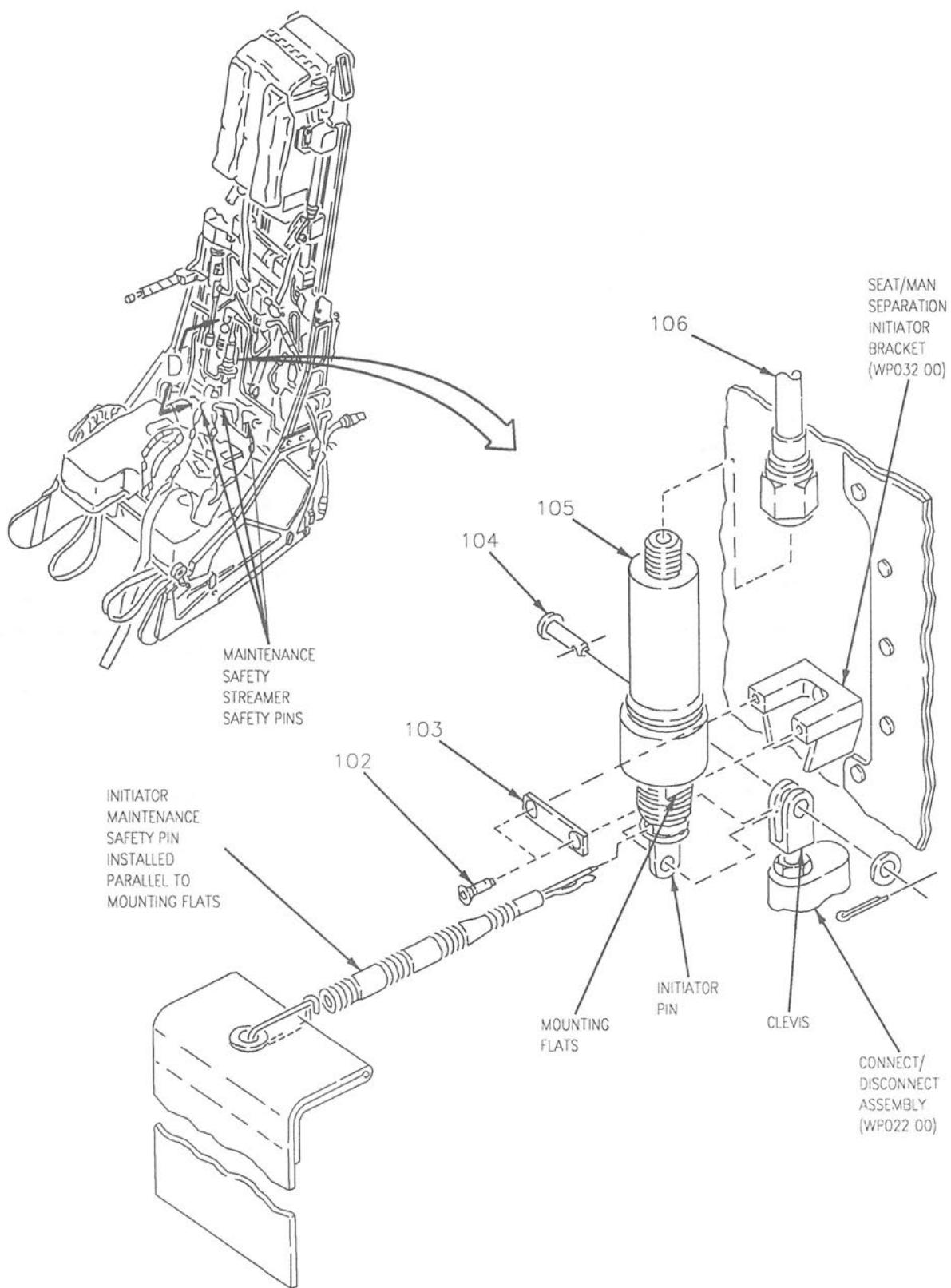
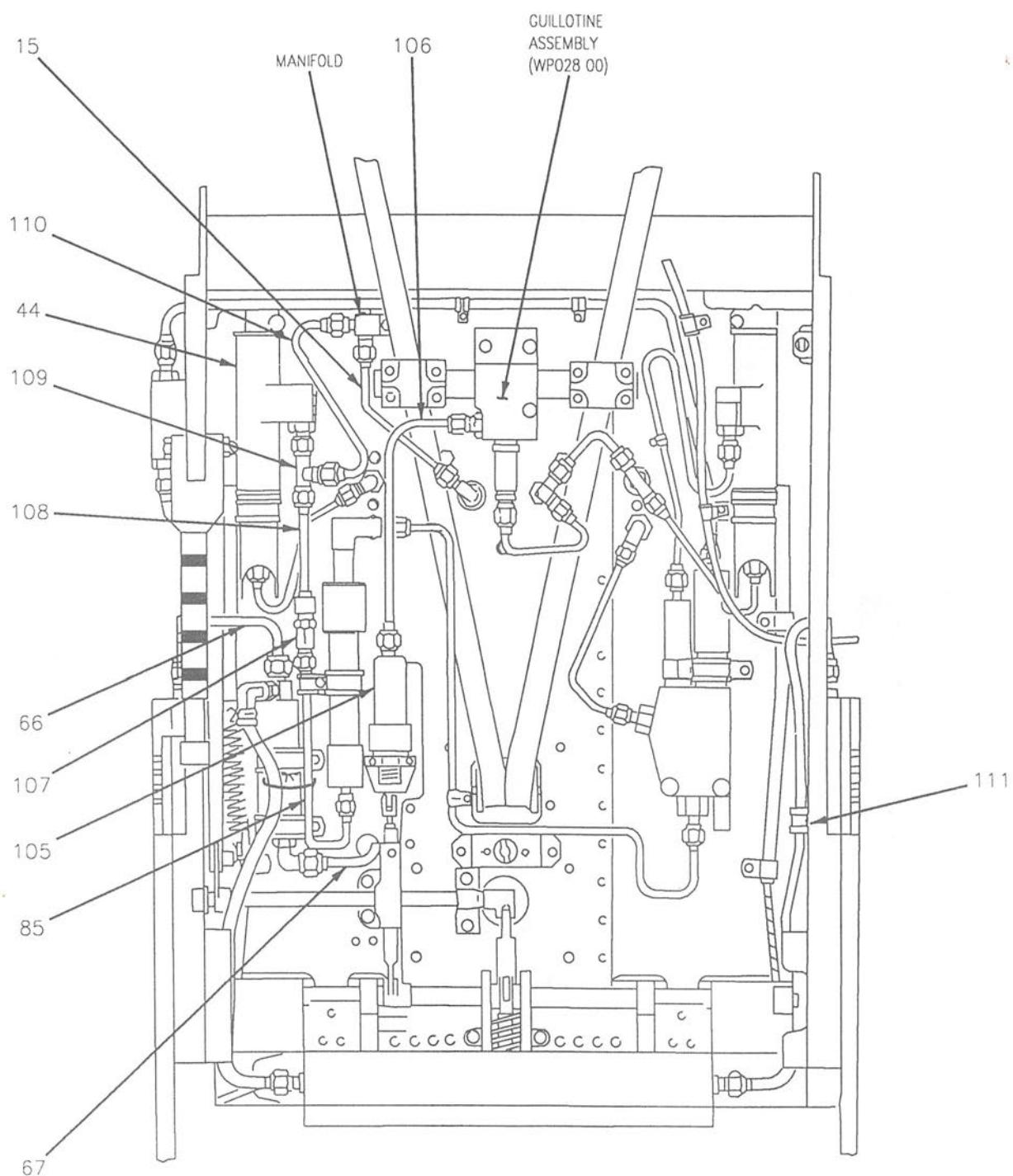
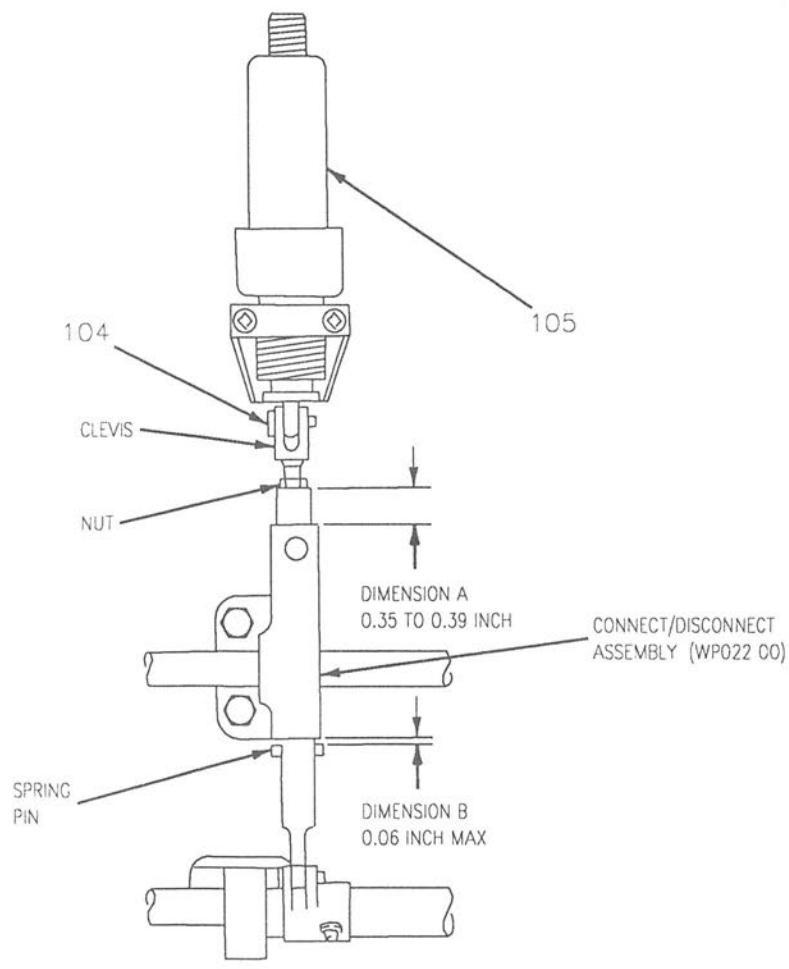


Figure 1. Ejection Seat Buildup (Sheet 22)



(VIEW LOOKING AFT)

Figure 1. Ejection Seat Buildup (Sheet 23)



D

Figure 1. Ejection Seat Buildup (Sheet 24)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
1	14090-9	EJECTION SEAT BUILD-UP			
		. HEADREST ASSEMBLY, EJECTION	1	A	AGO GD
		SEAT ASSEMBLY (A/P 28S-28) (51998)			
14690-1		. SEE ABOVE (A/P 28S-31)	1	B	AGO GD
14090-15		. SEE ABOVE (A/P 28S-30)	1	C	AGO GD
2	14210-9	. DROGUE/CONTAINER ASSEMBLY	1		AGO GG
3	MS21262-25	. SCREW	2		PAO ZZ
NAS1149D0663K		. WASHER (USE WITH INDEX 3)	2	*	PAO ZZ
AN960KD616		. SEE ABOVE	2	*	PAO ZZ
4	NAS623-3-6	. SCREW	4		PAO ZZ
NAS1149D0663K		. WASHER (USE WITH INDEX 4)	4	*	PAO ZZ
AN960KD616		. SEE ABOVE	4	*	PAO ZZ
5	NAS1225-3L	. BOLT	1		PAO ZZ
NAS1149D0532K		. WASHER (USE WITH INDEX 5)	1	*	PAO ZZ
AN960KD516L		. SEE ABOVE	1	*	PAO ZZ
6	NAS6204-25	. BOLT (HEADS FORWARD)	5		-
NAS620C416L		. WASHER (USE WITH INDEX 6)	10		-
MS21042L4		. NUT (USE WITH INDEX 6)	5		-
7	MS20392-2C21	. PIN (HEADS OUTBOARD)	2		PAO ZZ
8	MS20392-5C51	. PIN	1		PAO ZZ
NAS1149D0632K		. WASHER (USE WITH INDEX 8)	1	*	PAO ZZ
AN960KD616L		. SEE ABOVE	1	*	PAO ZZ
NAS42HT12-66		. SPACER (USE WITH INDEX 8)	1		-
MS24665-283		. PIN, COTTER (USE WITH INDEX 8)	1		PAO ZZ
9	472V400D126-3	. WORD RELEASE - WITHDRAWAL LINE	1		PAO ZZ
		(51998)			
10	779P420D075-1	. STRAP ASSEMBLY - WORD MOTOR	1		PAO ZZ
		(51998)			
11	472V400D126-3	. WORD RELEASE - WITHDRAWAL LINE	1		PAO ZZ
		(51998)			
12	MS24665-134	. PIN, COTTER	2		PAO ZZ
13	NAS6204-25	. BOLT (HEAD AFT)	1		PAO ZZ
NAS620C416L		. WASHER (USE WITH INDEX 13)	2		PAO ZZ
MS21042L4		. NUT (USE WITH INDEX 13)	1		PAO ZZ
14	12240-5	. ROCKET MOTOR - WORD, ASSEMBLY	1	*	PCO ZA
		MARK113 MOD O (MG67) (24632) (WORD MOTOR/DROGUE RELEASE ASSEMBLY)			
15	673AS200 14283-1	. SEE ABOVE (30003)	1	*	PCO ZA
		. TUBE ASSEMBLY, MANIFOLD TO	1		PAO ZZ
		FITTING (51998)			
16	12291-1	. TUBE ASSEMBLY - DROGUE RELEASE	1		PAO ZZ
		TO TROMBONE (51998)			
17	12289-1	. TUBE ASSEMBLY - GUILLOTINE TO	1		PAO ZZ
		TO DROGUE RELEASE (51998)			
18	K-1120-4-4	. VALVE, CHECK (83533) (UPCO	1	*	PAO ZZ
		SPEC 12361-1)			
19	IC1196	. SEE ABOVE (99240)	1	*	PAO ZZ
MS9068-011		. PACKING	1		PAO ZZ
20	12236-11	. TEE (51998)	1		PAO ZZ
AN924-3J		. NUT (USE WITH INDEX 20)	1		PAO ZZ
MS9068-011		. PACKING (USE WITH INDEX 20)	1		PAO ZZ
21	MS51527B3S	. ELBOW	1		PAO ZZ
MS9068-011		. PACKING (USE WITH INDEX 21)	1		PAO ZZ
22	12381-1	. TUBE ASSEMBLY - TROMBONE TO SEAT ...	1		PAO ZZ
		BACK ROCKET (51998)			
23	12297-1	. TUBE ASSEMBLY - RH TROMBONE TO ...	1		PAO ZZ
		LH SEAT BACK ROCKET (51998)			
24	12381-2	. TUBE ASSEMBLY - TROMBONE TO SEAT ...	1		PAO ZZ
		BACK ROCKET (51998)			
25	12295-1	. TUBE ASSEMBLY - LH TROMBONE TO ...	1		PAO ZZ
		RH SEAT BACK ROCKET (51998)			
26	MS21919DG3	. CLAMP	2		PAO ZZ

Figure 1. Ejection Seat Buildup (Sheet 25)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
	MS27039-1-08	. SCREW (AP)	2		PAOZZ
	NAS1149D0332K	. WASHER (AP)	4	*	PAOZZ
	AN960KD10L	. SEE ABOVE	4	*	PAOZZ
	MS21042L3	. NUT (AP)	2		PAOZZ
27	MS21919DG3	. CLAMP	2		PAOZZ
	MS27039-1-08	. SCREW (AP)	2		PAOZZ
	NAS1149D0332K	. WASHER (AP)	4	*	PAOZZ
	AN960KD10L	. SEE ABOVE	4	*	PAOZZ
	MS21042L3	. NUT (AP)	2		PAOZZ
28	NAS6203-36	. BOLT	2	A	PAOZZ
	NAS1149D0363K	. WASHER (USE WITH INDEX 28)	2	A*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	A*	PAOZZ
29	MS9068-012	. PACKING	2		PAOZZ
30	AN924-4J	. NUT	2		PAOZZ
31	12301-11	. ELBOW - TUBE (51988) (BOTH SIDES ON SJU-4/A, RIGHT SIDE ON SJU-13/A, LEFT SIDE ON SJU-14/A)	2		PAOZZ
32	672AS200	. ROCKET MOTOR, MARK 79 MOD 1 .. (MF21) (30003) (SEATBACK ROCKET MOTOR) (SAEC SPEC 472V495D001-7)	2		PCOZA
33	NAS6203-2	. BOLT	2	A	PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 33)	2	A*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	A*	PAOZZ
34	NAS653V40	. BOLT	2	D	PAOZZ
	NAS1149D0363K	. WASHER (USE WITH INDEX 34)	2	D*	PAOZZ
	AN960KD10	. SEE ABOVE	2	D*	PAOZZ
35	14697-11	. TEE (51998) (LEFT SIDE ON SJU-13/A, RIGHT SIDE ON SJU-14/A)	2	D	PAOZZ
36	NAS6203-6	. BOLT	2	D	PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 36)	2	D*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	D*	PAOZZ
37	1163-3	. DIVERGENCE ROCKET MOTOR, MARK 121 MOD 0 (MT28) (DIVERGENCE ROCKET MOTOR) (UPCO SPEC 25069-1) (51998)	2	D	PCOZA
38	NAS653-6	. BOLT	4	D	PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 38)	4	D*	PAOZZ
	AN960KD10L	. SEE ABOVE	4	D*	PAOZZ
	MS21042L3	. NUT (USE WITH INDEX 38)	2	D	PAOZZ
39	29450-1	. TUBE ASSY (51998)	1	D	PAOZZ
40	29451-1	. TUBE ASSY (51998)	1	D	PAOZZ
41	29452-11	. FITTING, DIVERGENCE (51998)	2	D	PAOZZ
	MS9068-013	. PACKING (USE WITH INDEX 41)	2	D	PAOZZ
42	NAS654-19H	. BOLT	1	D	PAOZZ
	NAS1149D0463K	. WASHER (USE WITH INDEX 42)	1	D*	PAOZZ
	AN960KD416	. SEE ABOVE	1	D*	PAOZZ
43	14698-11	. CLAMP, ROCKET MOTOR .. DIVERGENCE (51998)	1	D	-
44	21240-3	. INITIATOR, ANEROID ACTUATED .. (14000 FOOT ANEROID ACTUATED INITIATOR) (51998)	1		PAOGD
45	14112-12	. PLATE, BOLT ANEROID (51998)	1		MDOZZ
	M7885/6-4-02	. RIVET (HEAD AFT) .. (USE WITH INDEX 45)	2		PAOZZ
46	14426-1	. TUBE ASSEMBLY - 14000 FT .. ANEROID TO TROMBONE (51998)	1		PAOZZ
47	MS27039-1-07	. SCREW	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 47)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
48	MS21919DG15	. CLAMP	1		PAOZZ
49	MS21042L3	. NUT	1		PAOZZ
	NAS149D0332K	. WASHER (USE WITH INDEX 49)	1	*	PAOZZ

Figure 1. Ejection Seat Buildup (Sheet 26)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
		1 2 3 4 5 6 7			
50	AN960KD10L MS9068-116 + 25017-1	. SEE ABOVE	1	*	PAOZZ
51		. PACKING	1		PAOZZ
		. CARTRIDGE, IMPULSE (M647)	1	*	PCOZA
		(ANEROID ACTUATED INITIATOR CARTRIDGE (M647) (51998))			
52	M647 MS9068-014 + 12485-11 M7885/6-4-02	. SEE ABOVE (30003)	1	*	PCOZA
53		. PACKING	1		PAOZZ
		. PLATE, BOLT ANEROID (51998)	1		MDOZZ
		. RIVET (HEAD AFT)	2		-
		(USE WITH INDEX 53)			
54	21240-1	. INITIATOR, ANERIOD ACTUATED	1		PAOGD
		(7000 FOOT ANEROID ACTUATED INITIATOR) (51998)			
55	MS21042L3 NAS1149D0332K AN960KD10L NAS6203-22 NAS1149D0332K AN960KD10L NAS43DD3-72	. NUT	1		PAOZZ
		. WASHER (USE WITH INDEX 55)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
56		. BOLT	1		PAOZZ
		. WASHER (USE WITH INDEX 56)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ
		. SPACER (USE WITH INDEX 56)	1		PAOZZ
57	MS21919DG4	. CLAMP	1		PAOZZ
58	MS21919DG15	. CLAMP	1		PAOZZ
59	14430-1	. TUBE ASSEMBLY - 7000 FOOT ANEROID ..	1		PAOZZ
		TO TROMBONE (51998)			
60	14431-1	. TUBE ASSEMBLY - 1.2 SECOND	1		PAOZZ
		TIME DELAY TO 7000 FT ANEROID (51998)			
61	MS9068-116 + 25017-1	. PACKING	1		PAOZZ
		. CARTRIDGE, IMPULSE (M647)	1	*	PCOZA
		(ANEROID ACTUATED INITIATOR CARTRIDGE (M647) (51998))			
62	M647 MS9068-014 + 12238-13 MS9068-0111 12491-1	. SEE ABOVE (30003)	1	*	PCOZA
63		. PACKING	1		PAOZZ
64		. MANIFOLD, GAS GENERATOR (51998)	1		PAOZZ
		. PACKING (USE WITH INDEX 64)	1		PAOZZ
65		. HOSE ASSEMBLY - M99 TO GAS ..	1		PAOZZ
		GENERATOR (51998)			
66	14433-1	. TUBE ASSEMBLY - GAS GENERATOR	1		PAOZZ
		MANIFOLD TO TROMBON (51998)			
67	12288-1	. TUBE ASSEMBLY - TIME DELAY TO	1		PAOZZ
		CHECK VALVE (51998)			
68	MS51527A4S MS9068-012	. ELBOW	1		PAOZZ
69	NAS6203-4 NAS1149D0332K AN960KD10L	. PACKING (USE WITH INDEX 68)	1		PAOZZ
70	MS21919DG17 0113226-13	. BOLT	2		PAOZZ
71		. WASHER (USE WITH INDEX 69)	2	*	PAOZZ
		. SEE ABOVE	2	*	PAOZZ
		. CLAMP	2		PAOZZ
		. INITIATOR ASSEMBLY (51998)	1		A000A
		(UPCO SPEC 472V440D001-3) (INERTIA REEL GAS GENERATING INITIATOR) (SEE WP010 00 FOR BREAKDOWN)			
72	MS27039-4-26 NAS1149D0432K AN960KD416L MS51865-8	. SCREW	1		PAOZZ
		. WASHER (USE WITH INDEX 72)	2	*	PAOZZ
		. SEE ABOVE	2	*	PAOZZ
		. NUT (USE WITH INDEX 72)	1		PAOZZ
73	12228-15	. INSERT, BOSS (51998)	1		PAOZZ
74	MS51527A3S	. ELBOW	1		PAOZZ
75	AN924-3J	. NUT	1		PAOZZ
		. PACKING (USE WITH INDEX 75)	1		PAOZZ
76	MS9068-0111 14302-1	. TUBE ASSEMBLY - MANIFOLD TO	1		PAOZZ
		JAU-13/A (51998)			
77	14976-13	. MANIFOLD - JAU-13/A TIME DELAY ..	1		PAOZZ
		(51998)			

Figure 1. Ejection Seat Buildup (Sheet 27)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USE ON CODE	SM&R CODE
					1 2 3 4 5 6 7
78	14427-1	. TUBE ASSEMBLY - 14000 FOOT ANEROID TO TROMBONE (51998)	1		PAOZZ
79	MS51527A3S	. ELBOW	1		PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 79)	1		PAOZZ
80	AN834-3J	. TEE	1		PAOZZ
	AN934-3J	. NUT (USE WITH INDEX 80)	1		PAOZZ
	MS9068-011	. PACKING (USE WITH INDEX 80)	1		PAOZZ
81	NAS6203-5	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 81)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-16	. SPACER (USE WITH INDEX 81)	1		PAOZZ
82	MS21919DG3	. CLAMP	1		PAOZZ
83	MS21919DG13	. CLAMP	1		PAOZZ
84	834AS150	. INITIATOR, CARTRIDGE ACTUATED JAU-14/A (M597) (3.0 SECOND DELAY INITIATOR JAU-14/A) (30003)	1	*	PCOZA
85	14428-1	. TUBE ASSEMBLY - TIME DELAY TO CHECK VALVE (51998)	1		PAOZZ
86	NAS6203-25	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 86)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-82	. SPACER (USE WITH INDEX 86)	1		PAOZZ
87	MS21919DG3	. CLAMP	1		PAOZZ
88	MS9068-012	. PACKING	1		PAOZZ
89	14432-1	. TUBE ASSEMBLY - .10 SECOND TIME DELAY TO LSSV (51998)	1		PAOZZ
90	MS21919DG13	. CLAMP	1		PAOZZ
91	834AS100	. INITIATOR CARTRIDGE ACTUATED JAU-13/A (M596) (MULTI NON-DIVERGENCE TIME DELAY JAU-13/A) (30003)	1	*	PCOZA
	JAU-13/A	. SEE ABOVE (80058)	1	*	PCOZA
92	MS24694-S67	. SCREW	2		PAOZZ
93	NAS6203-2	. BOLT	1		PAOZZ
	NAS1149D0332K	. WASHER (USE WITH INDEX 93)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
94	MS21919DG4	. CLAMP	2		PAOZZ
	NAS6203-10	. BOLT (AP)	2		PAOZZ
	NAS1149D0363K	. WASHER (AP)	2	*	PAOZZ
	AN960KD10L	. SEE ABOVE	2	*	PAOZZ
	NAS43DD3-30	. SPACER (AP)	2		PAOZZ
95	MS21919DG3	. CLAMP	1		PAOZZ
	NAS6203-5	. BOLT (AP)	1		PAOZZ
	NAS1149D0363K	. WASHER (AP)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-16	. SPACER (AP)	1		PAOZZ
96	14425-1	. HOSE ASSEMBLY - M99 TO LH TROMBONE (51998)	1		PAOZZ
97	MS21919DG3	. CLAMP	1		PAOZZ
	NAS6203-21	. BOLT (AP)	1		PAOZZ
	NAS1149D0363K	. WASHER (AP)	1	*	PAOZZ
	AN960KD10L	. SEE ABOVE	1	*	PAOZZ
	NAS43DD3-33	. SPACER (AP)	1		PAOZZ
98	10520405	. INITIATOR, CARTRIDGE ACTUATED M99 (M688) (EJECTION INITIATOR (M688) (51998))	2	*	PCOZA
	M99	. SEE ABOVE (19200)	2	*	PCOZA
99	MS20392-2C11	. PIN	2		PAOZZ
	NAS620A10L	. WASHER (USE WITH INDEX 99)	2		PAOZZ
	MS24665-132	. PIN, COTTER (USE WITH INDEX 99)	2		PAOZZ
100	NAS1189-08PSL	. SCREW	4		PAOZZ
101	12126-13	. PLATE, M99 BRACKET (51998)	2		MDOZZ
102	NAS1189-08PSL	. SCREW	2		PAOZZ
103	12126-13	. PLATE, M99 BRACKET (51998)	1		MDOZZ

Figure 1. Ejection Seat Buildup (Sheet 28)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USE ON CODE	SM&R CODE
104	MS20392-2C11 NAS620A10L MS24665-132	. PIN	1		PAOZZ
		. WASHER (USE WITH INDEX 104)	1		PAOZZ
105	10520405	. PIN, COTTER (USE WITH INDEX 104) INITIATOR, CARTRIDGE ACTUATED, M99 (M688) (SEAT/MAN SEPARATION INITIATOR (M688) (51998)	1	*	PCOZA
106	M99 12290-1	. SEE ABOVE (19200)	1	*	PCOZA
		. TUBE ASSEMBLY - M99 TO	1		PAOZZ
107	K-1120-4-4	. VALVE, CHECK (83533) (SAEC SPEC 12361-1)	1	*	PAOZZ
108	1C1196 14429-1	. SEE ABOVE (99240)	1	*	PAOZZ
		. TUBE ASSEMBLY - CHECK VALVE TO	1		PAOZZ
109	MS51523B3S	. TEE	1		PAOZZ
110	14426-1	. TUBE ASSEMBLY - FITTING TO	1		PAOZZ
		MANIFOLD (51998)			
111	MS21919DG6 MS27039-1-07 NAS1149D0363K AN960KD10L	. CLAMP	1		PAOZZ
		. SCREW (AP)	1		PAOZZ
		. WASHER (AP)	1	*	PAOZZ
		. SEE ABOVE	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

+ INDICATES COMPONENT PART OF
ANEROID ACTUATED INITIATOR.

CODE	USABLE ON	MODEL
A	P/N 14020-7 P/N 14020-9 P/N 14020-11	SJU-4/A
B	P/N 14620-1	SJU-13/A
C	P/N 14620-3	SJU-14/A
D	P/N 14620-1 P/N 14620-3	SJU-13/A SJU-14/A

Figure 1. Ejection Seat Buildup (Sheet 29)

A1-AV8BB-120-350

15 January 1995

037 00

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ALPHABETICAL INDEX

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

REPLACEMENT ITEMS REQUIRED AFTER ACCIDENTAL FIRING OF SEAT/MAN SEPARATION INITIATOR

AIRCRAFT EJECTION SEAT

Reference Material

None

Alphabetical Index

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Replacement Items Required After Accidental Firing of Seat/Man Separation Initiator.....	2
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP NO.	Date Incorp.	Remarks
AV8ACC-574	-	Incorp of Common Risers & Riser Stowage Pouches Into SJU-4/A, SJU-13/A & SJU-14/A Ejection Seats. (51998 Universal)	15 Jan 96	-

**1. REPLACEMENT ITEMS REQUIRED
AFTER ACCIDENTAL FIRING OF
SEAT/MAN SEPARATION INITIATOR.**

WARNING

Ejection seat components are intended for one time use only. Failure to replace expended or contaminated devices could result in ejection seat failure.

NOTE

See specific WP in referenced manual for support equipment identification and materials required.

- a. Remove and replace the ejection seat components listed in table 1 below.

Table 1.

Part Number	Nomenclature	WORK PACKAGE
MG67	WORD MOTOR/DROGUE RELEASE	WP014 00
12236-11	TEE	WP014 00
MS9068-011	PACKING	WP014 00
M688	SEAT/MAN SEPARATION INITIATOR	WP006 00
14160-3	GUILLOTINE ASSEMBLY	WP029 00
AN815-4J	NIPPLE	WP029 00
MS9068-012	PACKING	WP029 00
K-1120-4-4	CHECK VALVE	WP029 00
MS9068-011	PACKING	WP029 00
12290-1	TUBE ASSEMBLY	WP031 00
12289-1	TUBE ASSEMBLY	WP031 00
12291-1	TUBE ASSEMBLY	WP031 00
14430-1	TUBE ASSEMBLY	WP031 00
12250-1	PARACHUTE CONTAINER OPENER ASSEMBLY	WP026 00
12230-3	INNER LEFT TROMBONE ASSEMBLY	WP027 00
AN834-3J	TEE	WP027 00
MS9068-011	PACKING	WP027 00

Table 1. (Continued)

Part Number	Nomenclature	WORK PACKAGE
14650-1 OR 12349-9	RISER ASSEMBLY (BEFORE AV8ACC-574)	WP017 00
14650-3	RISER ASSEMBLY (AFTER AV8ACC-574)	WP017 00
711-06016-11	7000 FOOT ANEROID ACTUATED INITIATOR	WP008 00
M647	ANEROID ACTUATED INITIATOR CARTRIDGE	WP008 00
MS9068-116	PACKING	WP008 00
MS9068-014	PACKING	WP008 00

b. Fully extend inertia reel straps. If straps do not operate smoothly, replace inertia reel (WP018 00).