


sabena B707	Module: COCKPIT + WINDOW	A/C Reg :	Check :	 84G2000500 Page 2 of 21
	Oper. : NRT	Issuer : A59513	Cert.St.: 45379	
	Type : MODIF	Release Date: 05.12.2007		
Spec. : ELECTRICIAN				

DFW B707-25-002 rev 0 ILLUMINATED CHART HOLDER INSTALLATION

					MAINT	RII/INSP	
Nr.	Hardtime	Task	Spec.	Related Documents			
1.			REI	DFW B707-25-002 rev 0			
Check:							
Zones:							
Access:							
NRC YES <input type="radio"/> NO <input type="radio"/>		IF YES, NUMBER(S):					

1. Introduction

This Engineering Instruction provides the information to manufacture mounting brackets & install an illuminated chart holder on the Captains & First officers control columns on TCA Aircraft as is installed on E-3A Aircraft. The justification for the installation is to provide flight Deck similarity for the crew between E-3A & TCA operations.

NOTE: All modification installations described in this Engineering Instruction are to be carried out i.a.w Boeing S.W.P.M / S.P.M chapter 20.


2. Wiring/Connectors: Identification & preparation.

- a) Cut two lengths of cable item 22 (BMS13-60T01C01G20-009) for Captains side 12 foot in length.
- b) Cut two lengths of cable item 22 (BMS13-60T01C01G20-009) for the First Officer's side 15 foot in Length.
- c) Identify the two lengths of cable prepared in step 2(a) W9701-9001-20 & W9701-9002-20 respectively i.a.w S.W.P.M 20-10-11 or company procedures for Wiring identification.
- d) Identify the two lengths of cable prepared in step 2(b) W9700-9001-20 & W9700-9002-20 respectively i.a.w S.W.P.M 20-10-11 or company procedures for wiring identification.
- e) Prepare identification labels for new connectors D9800J & D9801J I.A.W SWPM 20-10-11 or Company procedures for connector identification.

Note: All item numbers referred to in Accomplishment Instructions relate to the item Numbering of the Material & Kit lists of this Engineering Instruction.


3. Manufacture: Mounting Brackets. (If kit 9672463-10 not being purchased.)

- a) Locally manufacture two (Yoke FWD brackets) I.A.W fig 1 & fig 2.
- b) Locally manufacture two (Yoke AFT brackets) I.A.W fig 3 & fig 4.
- c) Cut gaskets (items 26 (MILG7021) & 27 (055117)) to size I.A.W figs 2 & 4.
- d) Prepare the surfaces of the brackets manufactured in steps (a) & (b) by cleaning i.a.w MM 25-10-81 to ensure proper adhesion of gaskets.
- e) Apply a thin continuous layer of adhesive (item 29 (BMS5-126H T2C1 grade B)) to the faying surfaces of the brackets & the gaskets using a suitable applicator.
- f) Place the gaskets into position as illustrated in fig 2 & fig 4 & apply even pressure to ensure proper contact.

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g) Locally manufacture four chart holder mount brackets (2 Ea L/H 2 Ea R/H) i.a.w fig 5.		
h) Locally manufacture two connector mount brackets i.a.w fig 6.		
i) Install mounting brackets i.a.w fig 7 using associated attaching parts.		
<u>4. Modification: Pre-conditions.</u>		
Isolate electrical power by pulling & red clipping the following C/B on P7 28V AC overhead panel.		
Effectivity		CB Identification
LX-N20199		RADIO PNL
LX-N20000		RADIO CONT PNL
LX-N19997		RADIO CONT PNL
<u>5. Captains control column.</u>		
Assembly: Wiring bundle W9701.(Ref: Fig 10)		
a) Crimp wire W9701-9001-20 with contact (item 21 (M39029/32-259)) & insert into position D9801JA of connector (item 20 (MS3114E8-33S)) i.a.w S.W.P.M Chapter 20.		
b) Crimp wire W9701-9002-20 with contact (item 21 (M39029/32-259)) & insert into position D9801JC of connector (item 20 (MS3114E8-33S)) i.a.w S.W.P.M Chapter 20.		
c) Identify connector (item 20 (MS3114E8-33S)) D9801J with label prepared in step 2 (e).		
d) Mount connector bracket (item13 (9672466-03)) as illustrated in fig 7. Secure connector (item 20(MS3114E8-33S)) to the bracket.		
e) Do not connect chart holder connector to the newly installed connector receptacle at this stage.		
f) Route new wiring assembly down along forward centre line of the control column & secure with clamps as illustrated in fig 7.		
g) Install insulation protective sleeving (item 23 (MIL-I-631)) originating at connector D9801J & running continuously for 6 feet.		
h) Remove & retain rudder heel rest panels L/H R/H & centre. The removals allow access to the wiring raceway. Panel layout illustrated In Fig 8.		
j) The vertical face of the center rudder heel rest panel is scalloped as shown in fig 8 to allow new wire bundle access to wiring raceway.		
k) Install grommet plastic edging (item 24 (MS21266-1N)) on scalloped area using adhesive (Item 29 (BMS5-126H T2C1 grade B)).		
l) Gain access to P16 panel lower control stand besides the Captains pedals to access the lower stand & Variable Autotransformer T29.		
m) Locate radio panel lighting controller on Captains control stand P16 Sta 215 (T29 Variable Autotransformer). Ref fig 9.		
n) Route wire bundle W9701-9001-20 / W9701-9002-20 following existing wire bundle aft towards T29.		

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<p>8. Function tests :</p> <p>a) On Captains control column rotate chart holder rotary control switches from fully off, clockwise, ensuring gradual increase in light intensity until fully on for both red & white lamps.</p> <p>b) On Captains control column rotate chart holder rotary control switches from fully on, anti-clockwise, ensuring gradual decrease in light intensity until fully off for both red & white lamps.</p> <p>c) Carry out steps 8 (a) & 8 (b) on the F/O control column.</p> <p>d) Record function test results on the test results page of this Engineering Instruction.</p> <p>e) Re-install panels removed in accomplishment steps 5 (h), 6 (g) & any other components/ panels removed for access during the installation.</p>		

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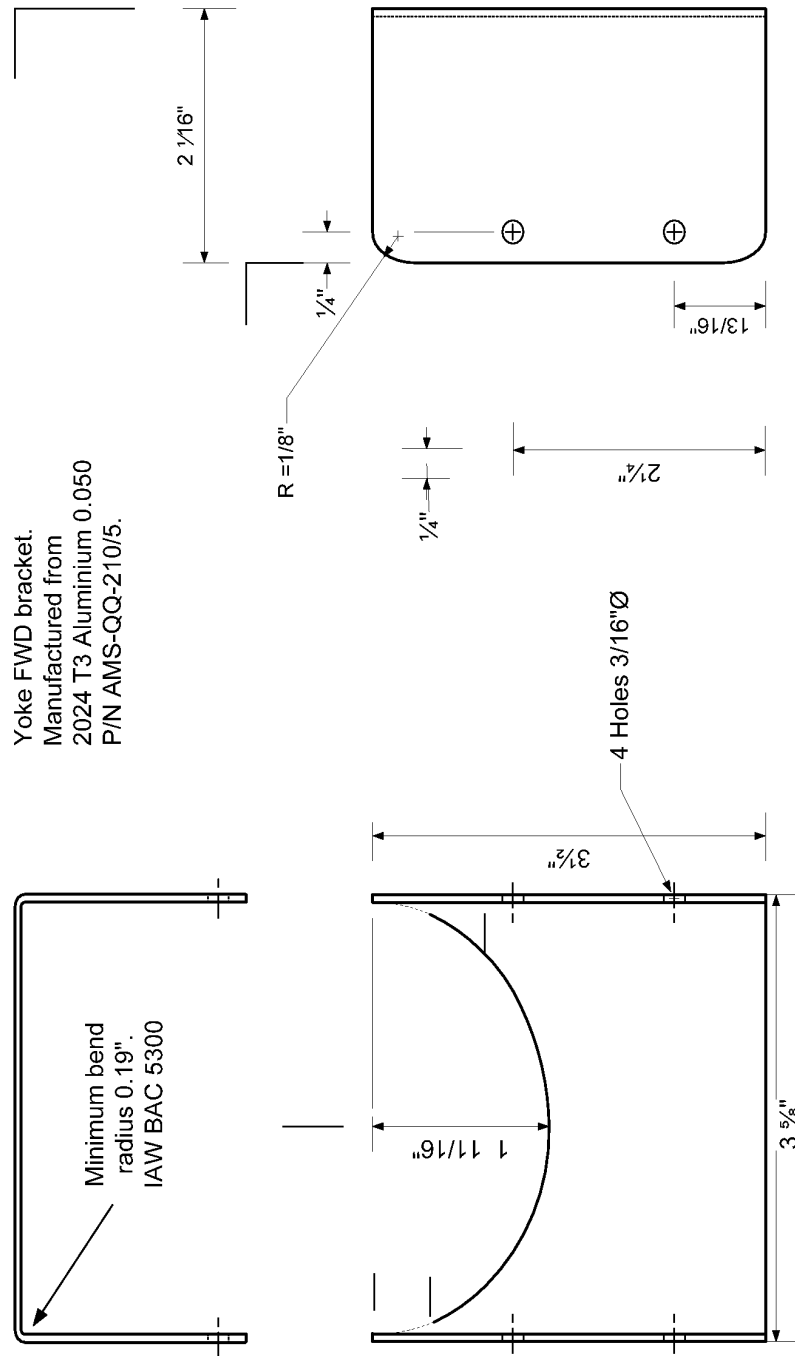



Fig 1

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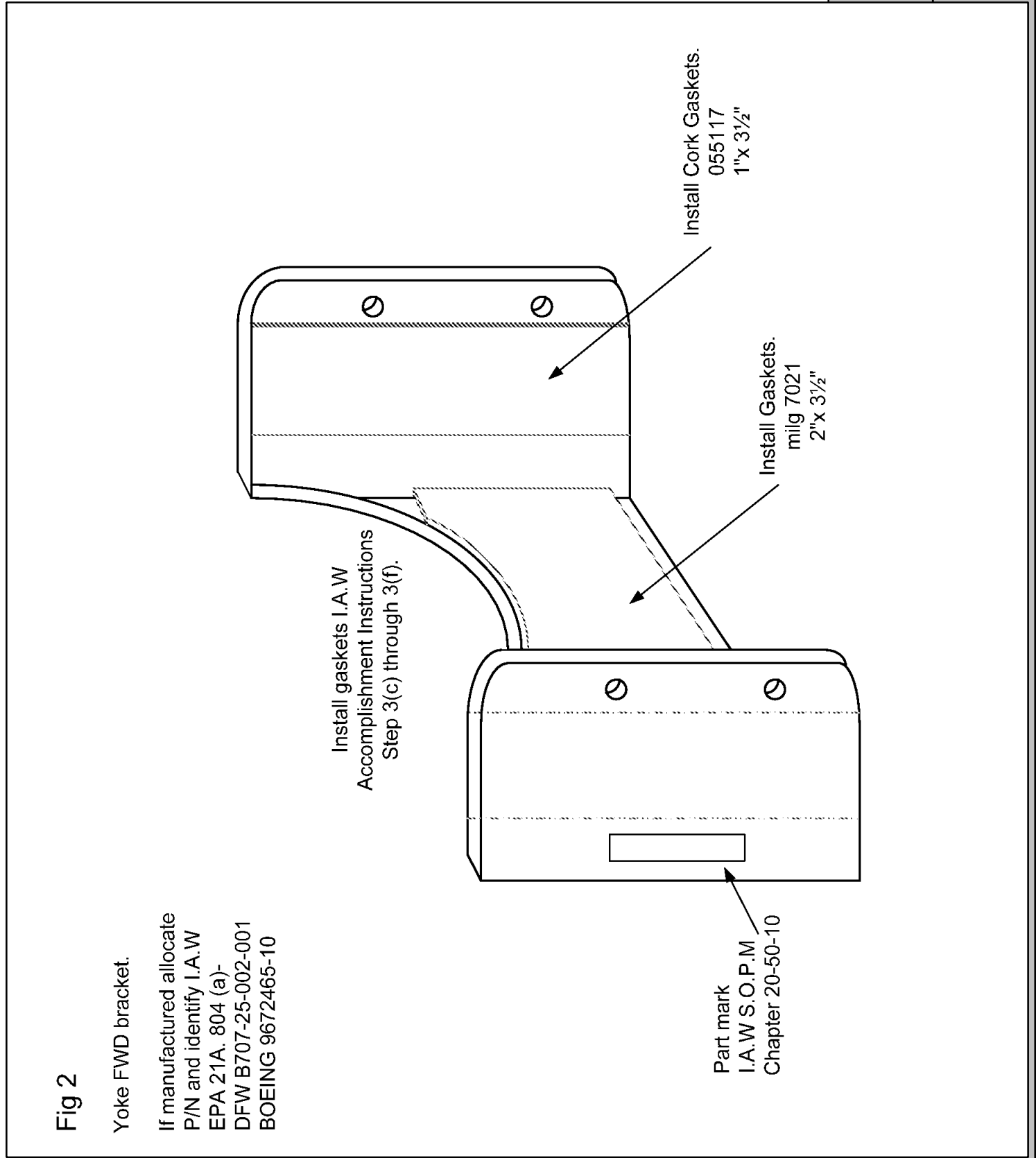


Fig 2

Yoke FWD bracket.


If manufactured allocate P/N and identify I.A.W EPA 21A. 804 (a)- DFW B707-25-002-001 BOEING 9672465-10

Install gaskets I.A.W Accomplishment Instructions Step 3(c) through 3(f).

Install Cork Gaskets. 055117 1"x 3 1/2"

Install Gaskets. milg 7021 2"x 3 1/2"

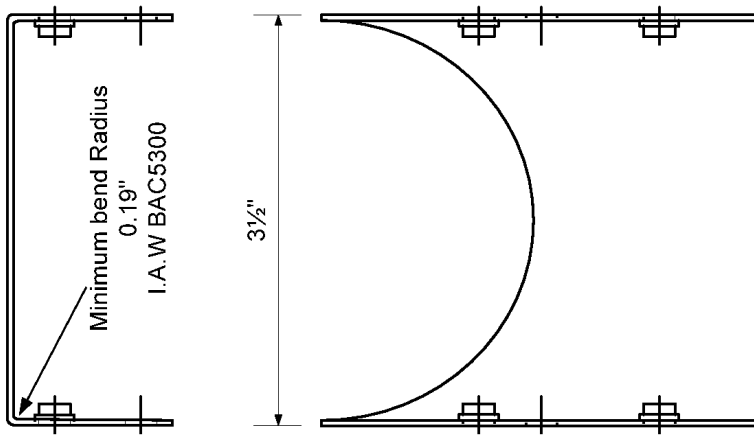
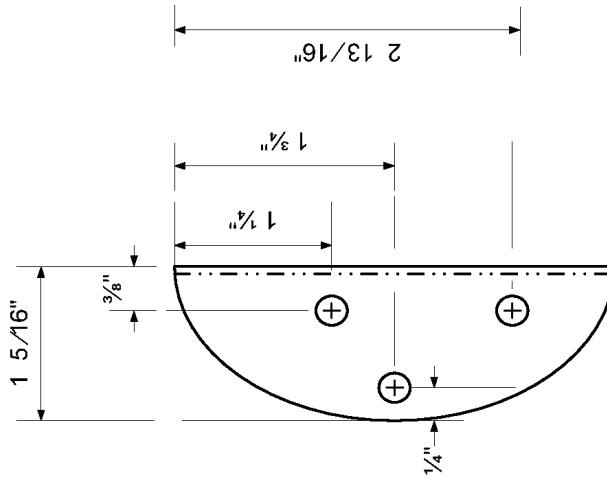
Part mark I.A.W S.O.P.M Chapter 20-50-10

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6 holes $\frac{3}{16}$ " Diameter

Fig 3

Yoke AFT bracket
 Manufactured from
 2024 T3 Aluminium 0.050
 P/N AMS-QQ-210/05.

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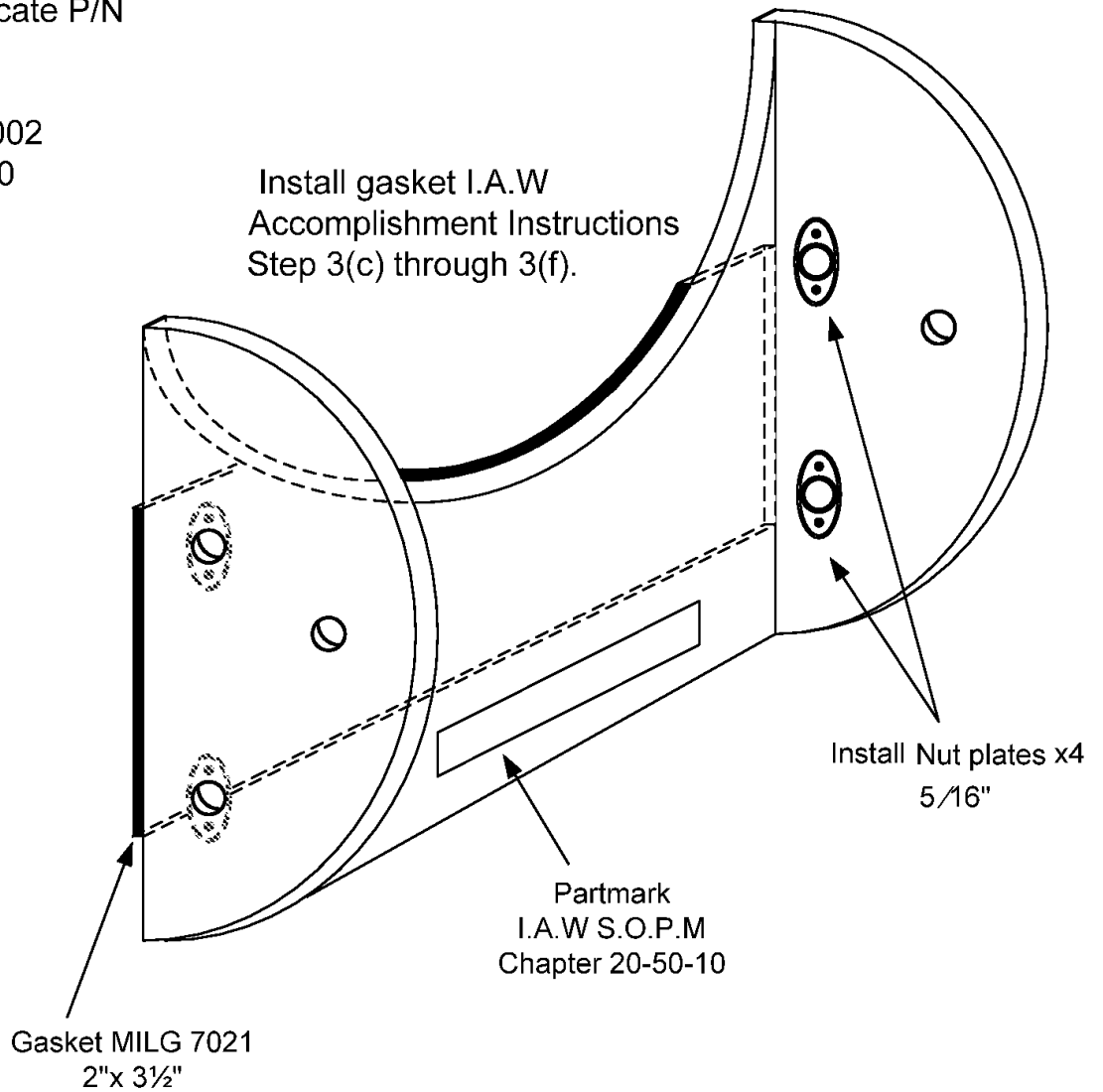
MAINT


RII/INSP

Fig 4

Yoke AFT bracket.

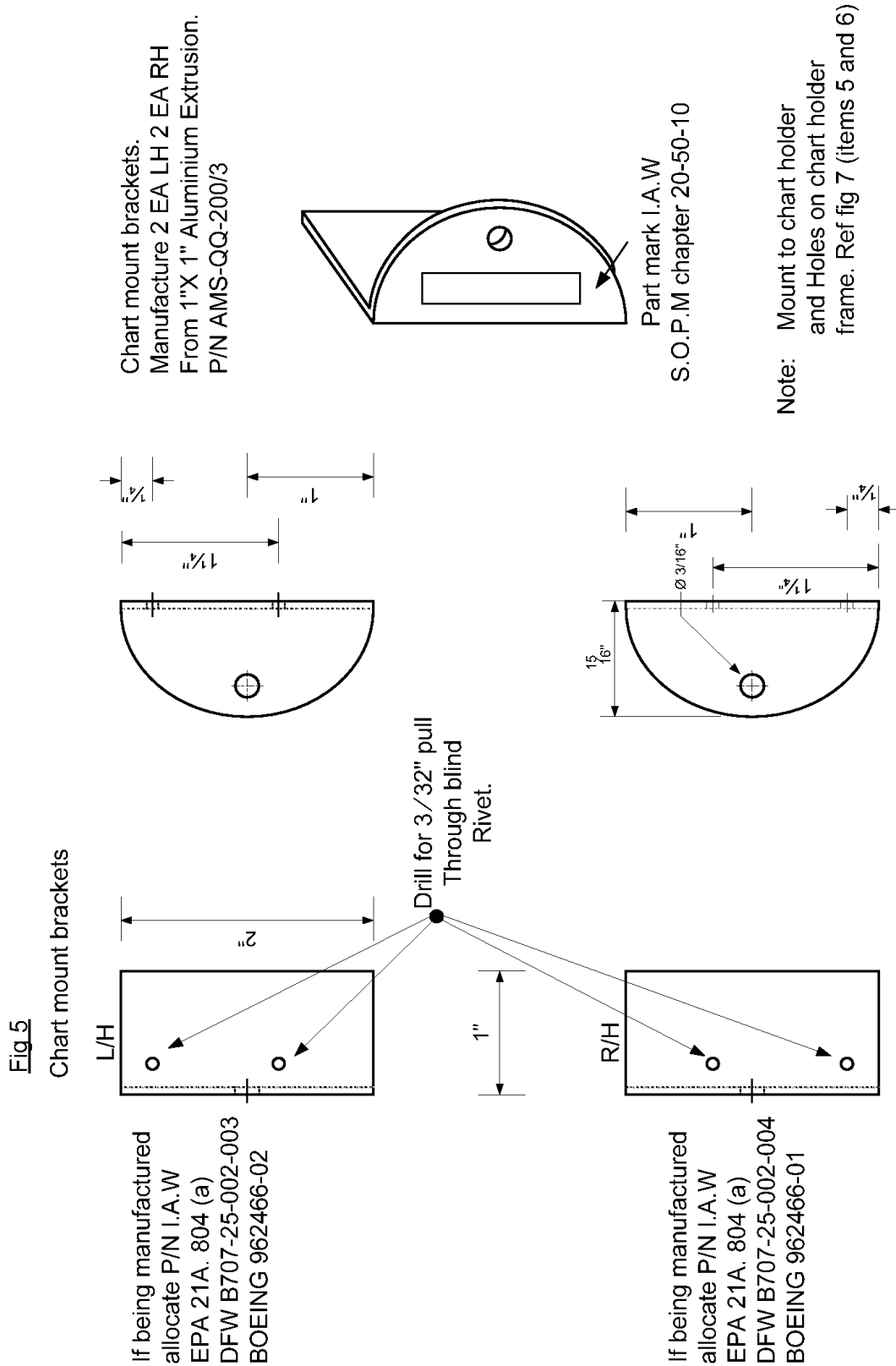
If manufactured allocate P/N
and identify I.A.W
EPA 21A. 804 (a)
DFW B707-25-002-002
BOEING 9672464-10




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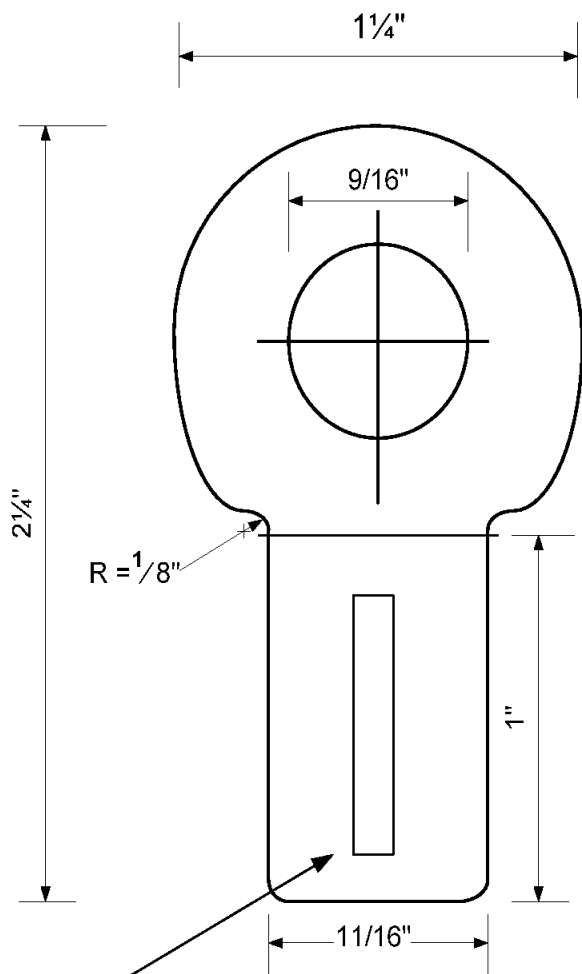


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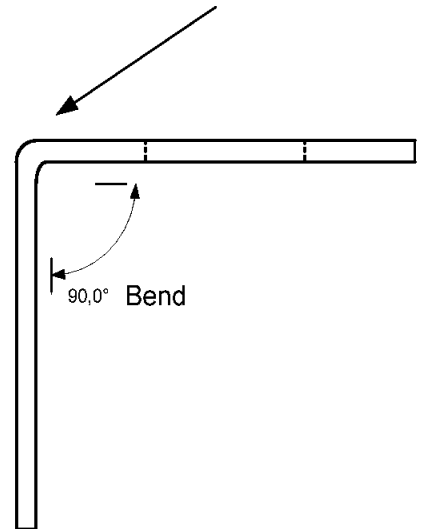
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Fig 6
Connector mount Bracket




Manufacture from Aluminium T3 2024 0.050
P/N AMS-QQ-210/5

Minimum Bend Radius
0.19"
I.A.W BAC 5300



Partmark
I.A.W S.O.P.M
Chapter 20-50-10

If manufactured allocate P/N
and identify I.A.W
EPA 21A. 804 (a)
DFW B707-25-002-005
BOEING 9672466-03

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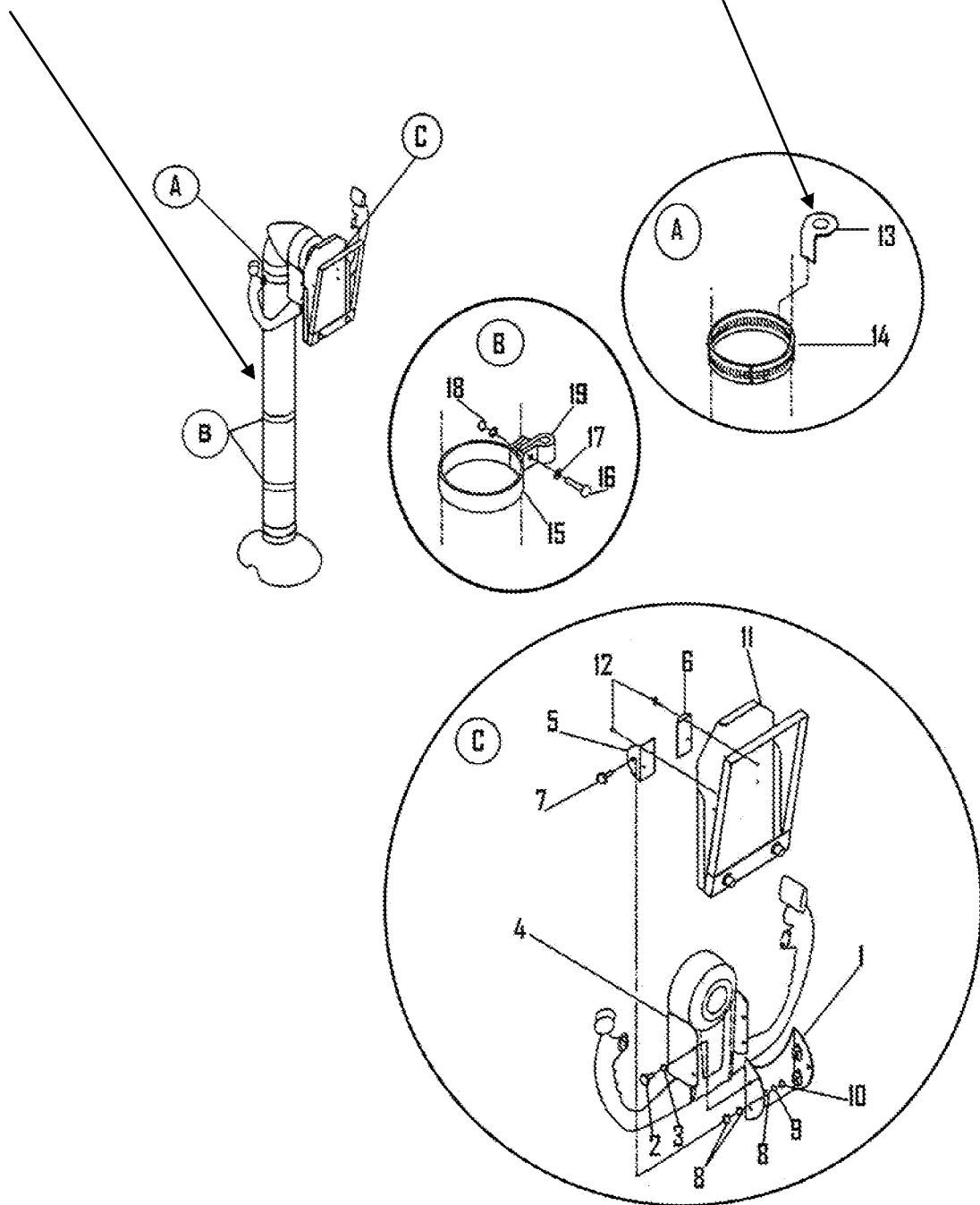
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Fig 7

Kit distribution and mounting brackets installation.(Items 1 thru 19 of Material list)

New wiring harness to route down
Along FWD centre line of Yoke.

Connector bracket.



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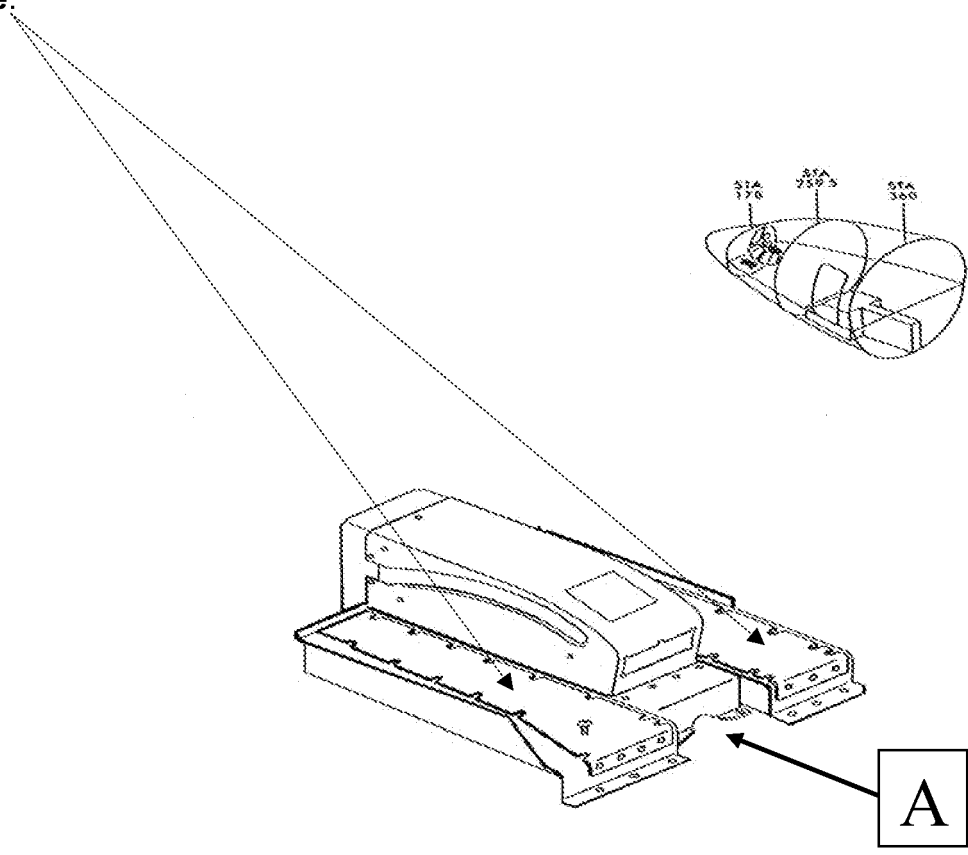
MAINT

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Fig 8

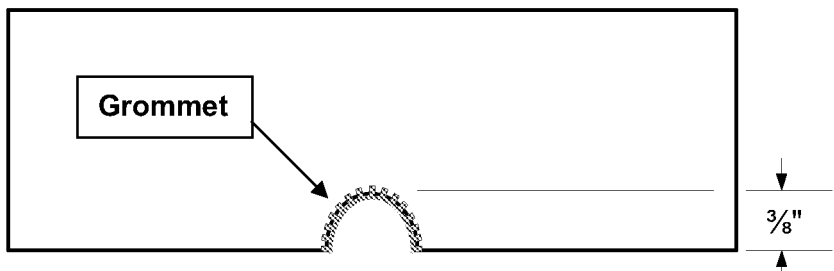
Rudder pedal box showing heel rest panels. Removal of the heel rest panels exposes raceway and existing wire bundles.

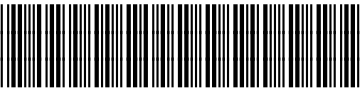
Remove.



View on A

Scallop out vertical face on centre panel as shown and apply grommet P/N MS21266-1N Using adhesive BMS5-126. (item 29)



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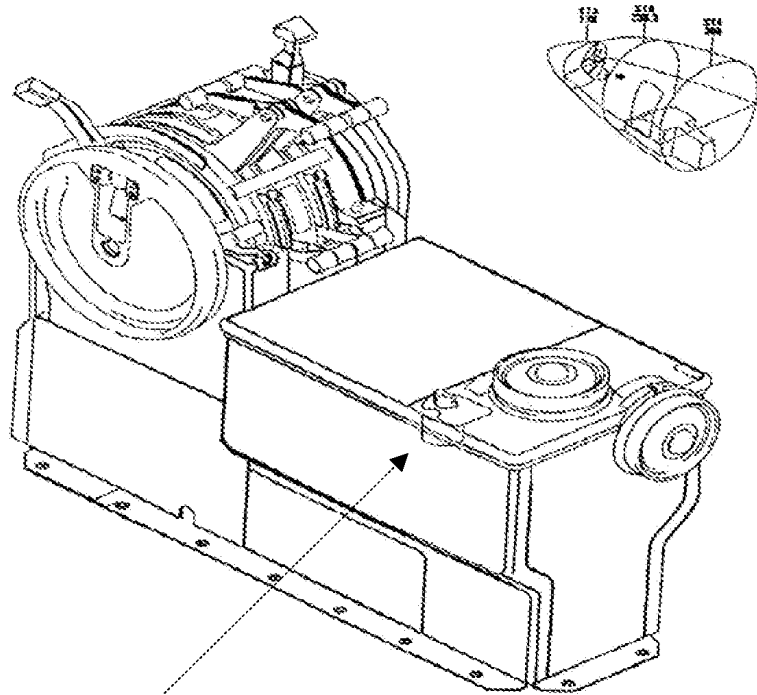
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Fig 9

P16 Centre control stand aft showing position of variable autotransformer T29.



Variable Autotransformer T29.

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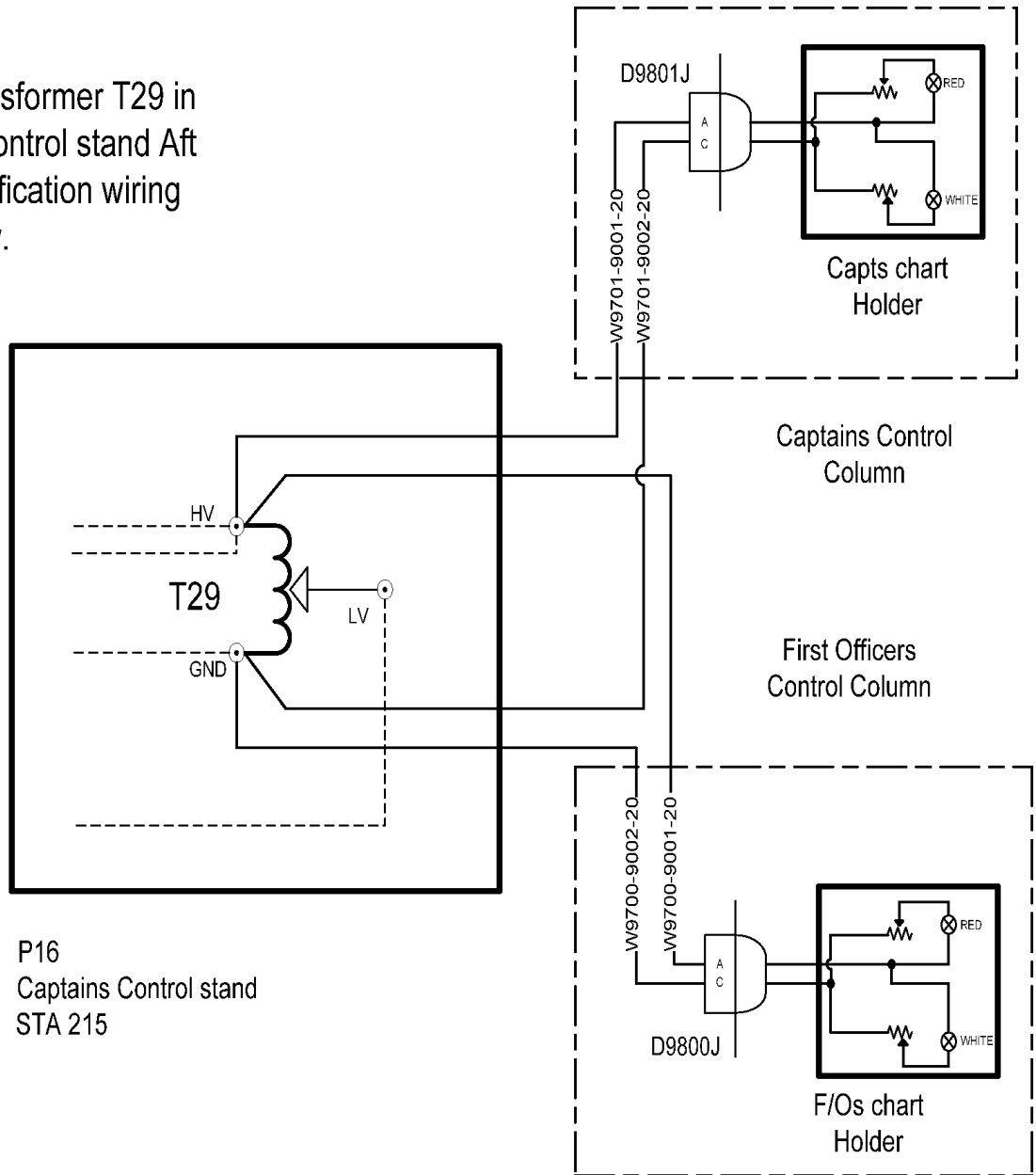
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Fig 10

Locate Autotransformer T29 in P16 Captains control stand Aft and install modification wiring as shown below.




P16
Captains Control stand
STA 215

Modification Wiring. _____
Existing Wiring. -----

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Kits						
Quantity of kits: 1 Per Aircraft. Kit top number for E-3A component 9672463-10/ IPC 33-03-9A refers.						
Item	Part Number	NATO Stock Number (N/A fo TCA)	Nomenclature	QTY per A/C	Material Provision	
					from	produced by
					manuf. by	On Dock SOR
						Note
1	9672464-10		ASSY, YOKE Aft plate (V98748) Attaching parts:	2		
2	AN3CAA		Bolt	4		
3	AN960C10		Washer	4		
4	9672465-10		ASSY, Yoke FWD plate (V98748)	2		
5	962466-02		Bracket, Mount (V98748)	2		
6	962466-01		Bracket, Mount (V98748)	2		
7	BACB30NE3-6		Attaching Parts:	2		
8	NAS1515M3H		Bolt	12		
9	AN960-10		Washer, Teflon	2		
10	NAS679C3M		Washer	2		
11	F1065-15		Nut	2		
12	BACR15DR3-2		Chart holder (V66191)	2		
13	9672466-03		Attaching Parts:	12		
14	MS35842-14		Rivet	2		
15	AN735D48		Bracket, Connector (V98748)	2		
16	MS35219-57		Clamp	2		
17	AN960C10		Clamp	4		
18	1801-2		Bolt	4		
19	MS21919WDG4		Washer	4		
			Nut (V72962)	4		
			Clamp	4		

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Material Required

Quantity: Requirement per aircraft.

Stock Number (N/A for TCA)	Item	Part Number	Nomenclature	Tot. QTY
	20	MS3114E8-33S	Connector	2
	21	M39029/32-259	Contact Socket	6
	22	BMS13-60T01C01G20-009	Wire 20 AWG	55Ft
	23	MIL-I-631	Protective sleeving	12Ft
	24	MS21266-1N	Flexi-grommet	1Ft
	25	1-51864-0	Terminal Lug	3
	26	MILG7021	Gasket	1Sh
	27	055117	Cork Gasket	1Sh
	28	F2000-3	Nut plates	8
	29	BMS5-126H T2C1 grade B	Adhesive	1
	30	AMS-QQ-200/3	Aluminium Extrusion 1"	1Ft
	31	AMS-QQ-210/5	Aluminium sheet 2024 T3 0.050	1 Sh

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Test Procedures

Test	Successful Y/N	Date	Stamp
Function tests carried in accomplishment Instructions steps 8 (a), (b) and (c).			

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Modification/Inspection Order

From ESEC To:		File:		
Organisation implementing this Engineering Instruction.		Aircraft/Component:		
		Subject:		
Cc: LIBRARY DFW				
Accepted:		Ref.:		
Schedule:		Annex:		
Responsible System Engineer:				
Remarks from Performing Dept:		Remarks from Q.A. Dept:		
		Inspection	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Modification	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
		Repair	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Revision of SB C/W:				
Date:	Signature:	Date:	Signature:	

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Accomplishment Report

Subject: Installation of an illuminated chart holder on the Captains and First Officers control Columns.

Model: B707-307C, 329C

Accomplished at (Tailnumber):

Date of Accomplishment:

Description of Deviations:

Findings:

Carry Overs:

SOR Statements:

Attach this Accomplishment Report to CDRL30 (DLM Report)

Executed/performed by: Name: Signature: Date: SOR:	SOR Engineering Representative: Name: Signature: Date:	SOR Quality Assurance: Name: Signature: Date:
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