

110

CHAP	2	SP 112	SERVICING PROCEDURES				AP 101B-1000-5A3E (Section 1 (1st Edition))		TIME	ACT																							
TRADE	FLT SYST		LIGHTNING				RAF Form 2983B (Revised Jan 78)																										
SHEET	1	OF	37	SHEET/S	3	5	6	AL	20																								
TITLE	Red Top Guided Weapon Pack-Installation Test.																																
Safety and Servicing Notes are to be complied with throughout the work detailed on this Card.																																	
Special Tools and Equipment																																	
<p>Test Set, Fire Control System, 78DA/9445123. Tester Leak, 6C/2019. Adapter, Test (LM from Plug, Unitor, 70 Way, 10H/9320950 with Pins 38/48, 53/63, 51/61 and 54/64 linked and remaining pins disconnected. LOC Man 37 Way Test Plug. (Introduced by SI/RT/30).</p>																																	
<p>NB 1 It is not possible to operate the test set whilst a weapon shoe is fitted to the weapon pack by virtue of the interlock circuit continued within the test set.</p> <p>NB 2 When the 400A and 400B lamps on the test set are lit, they do so with equal brilliance. Unequal brilliance is indicative of the loss of one phase of the three phase supply.</p> <p>NB 3 With Modification KAQ156 embodied in the Aquisition Unit, the Test set SCAN/LOCK lamp may be seen to flash on at 1 second intervals when not lit, and the event lamp blink.</p>																																	
FLT SYST																																	
1. <u>General</u>																																	
1.1 The following abbreviations are used in this Procedure:-																																	
(a) A/C - Aircraft.																																	
(b) T/S - Test Set.																																	
(c) ⊕ - Lamp lit.																																	
(d) ○ - Lamp extinguished.																																	
(e) ⊕ or ⊖ - Lamp flashing.																																	
1.2 The counter on the test set will record the running time of the boxes which is not to be allowed to exceed 15 minutes, (900 seconds) in any one hour.																																	
1.3 The diagram below identifies the lamps in the lamp pattern of the Test Set.																																	
<table style="width:100%; border: none;"> <tr> <td style="text-align: center;">SCAN/LOCK</td> <td style="text-align: center;">POW/CO</td> <td style="text-align: center;">TM+</td> <td style="text-align: center;">TM-</td> </tr> <tr> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> </tr> <tr> <td style="text-align: center;">FUZE/COOL</td> <td style="text-align: center;">ALT</td> <td style="text-align: center;">MISC</td> <td style="text-align: center;">LINNET</td> </tr> <tr> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> </tr> <tr> <td></td> <td style="text-align: center;">2400</td> <td style="text-align: center;">400A</td> <td style="text-align: center;">400B</td> </tr> <tr> <td></td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> <td style="text-align: center;">○</td> </tr> </table>										SCAN/LOCK	POW/CO	TM+	TM-	○	○	○	○	FUZE/COOL	ALT	MISC	LINNET	○	○	○	○		2400	400A	400B		○	○	○
SCAN/LOCK	POW/CO	TM+	TM-																														
○	○	○	○																														
FUZE/COOL	ALT	MISC	LINNET																														
○	○	○	○																														
	2400	400A	400B																														
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Continued																																	
ASSOCIATED PROCEDURE CARDS																																	
ASSOCIATED TRADES																																	
SP NO																																	
112																																	

SMS/ |

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	2	AL 10		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)	
<p style="text-align: center;">FLT SYST</p> <p>2. <u>Preparation</u></p> <p>2.1 Test set switch.</p> <p>(a) Rad lock switch.) Set to 'OFF'.</p> <p>(b) Signal switch.)</p> <p>(c) Tm/Mis switch. Set to 'OUTER TM'.</p> <p>(d) Channel switch. Set to 'L'.</p> <p>(e) Lamps test switch. Set to 'USE'.</p> <p>(f) Obscuration switch. Set to 'SLAVING'.</p> <p>(g) Rad Ang switch. Set to 'ZERO'.</p> <p>(h) Misc switch. Set to 'MISC'.</p> <p>(j) Range switch. Set to 'OFF'.</p> <p>(Centre position).</p> <p>2.2 Aircraft.</p> <p>(a) Arm/Safe switch. Set to 'SAFE'.</p> <p>(b) Single/Pairs switch. Set to 'SINGLE'.</p> <p>(c) Master arming selector switch. Set to 'OFF'.</p> <p>(d) CRT/LFS switch. Set to 'CRT'.</p> <p>(e) 70-way Ferranti Unitor. Disconnect.</p> <p>(Spine compartment)</p> <p>(f) 70 way test adaptor. Fit.</p> <p>(Spine compartment).</p> <p>(g) Pylon base fairing. Remove.</p> <p>(h) Pure air supply. Reconnect or fit servicing air bottle.</p> <p>2.3 Test set counter. Set to zero.</p>								
SMS/ 1A			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E				
SP NO	112	CONTINUED	LIGHTNING		Section 1				
SHEET	3	AL 18			(1st Edition) 1				
					AC NO DATE				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD				
					(1)	(2)	(3)	(4)	(5)
<u>FLT SYST</u>									
2.	<u>Preparation</u> (Contd)								
2.4	Ground equipment.								
	(a)	Test set.	(i)	Connect 37-way cable J4 01175A between test set and test socket TP1 on weapon pack distribution panel.					
			(ii)	Connect 47-way cable J4 01363A between test set and test socket TP2 on weapon pack distribution panel.					
			(iii)	Position.					
	(b)	115V 2400 Hz power supply.		Connect to RJ27 on weapon pack distribution panel.					
	(c)	28V dc power supply.		Connect to A/C.					
	(d)	200V 400Hz power supply.							
2.5	Power supplies.								
	(a)	28V dc.		Set to 'ON'.					
	(b)	115V 2400 Hz (GPU).							
	(c)	200V 400Hz (GPU).							
3.	<u>Arming and Installation Test</u>								
3.1	Armament safety break key.		Remove.						
SMS/ 2					Continued				

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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)														
SP NO	112	CONTINUED		AC NO DATE														
SHEET	4	AL 18		SERVICING RECORD														
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)											
FLT SYST																		
3. <u>Arming and Installation Test</u> (Contd)																		
3.2	Ground arming link. (A/C).	Fit and turn and ensure lamps indicate in the following pattern:-																
		<table style="margin: auto;"> <tr><td>⊕</td><td>○</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>○</td><td>○</td></tr> </table>	⊕	○	○	○	○	○	⊕	○	○	○	○	○				
⊕	○	○	○															
○	○	⊕	○															
○	○	○	○															
		Note: The 'MISC' (T/S) lamp is to remain lit throughout all tests.																
3.3	Master arming selector switch. (A/C).	Set to GW and ensure no change in lamp pattern.																
3.4	GW Arm/Safe switch. (A/C).	(i) Set to 'ARM' and ensure pressure on pure air gauge drops and recovers. (ii) Ensure arming lamp (A/C) is lit. (iii) Ensure counter starts (T/S) and lamps indicate in the following pattern:-																
		<table style="margin: auto;"> <tr><td>⊕</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td>○</td><td>⊕</td><td>⊕</td><td></td></tr> </table>	⊕	⊕	○	○	○	○	⊕	○	○	⊕	⊕					
⊕	⊕	○	○															
○	○	⊕	○															
○	⊕	⊕																
3.5	Lamps test switch. (T/S).	Set to 'TEST' and ensure all lamps on test set are lit.																
SMS/ 2A			Continued															

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CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E																
SP NO	112	CONTINUED	LIGHTNING		Section 1																
SHEET	5	AL 18			(1st Edition) 1																
					AC NO DATE																
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD																
					(1)	(2)	(3)	(4)	(5)												
FLT SYST																					
3. <u>Arming and Installation Test</u> (Contd)																					
3.6 Micro switches.																					
(a) Port pylon.																					
(i) Depress and ensure all lamps on test set are extinguished.																					
(ii) Release and ensure all lamps on test set are lit.																					
(b) Starboard pylon.																					
(i) Depress and ensure all lamps on test set are extinguished.																					
(ii) Release and ensure all lamps on test set are lit.																					
3.7 Lamps test switch. (T/S). Set to 'USE' and ensure lamps indicate in the following pattern:-																					
<table style="margin: auto;"> <tr> <td>⊕</td> <td>⊕</td> <td>○</td> <td>○</td> </tr> <tr> <td>○</td> <td>○</td> <td>⊕</td> <td>○</td> </tr> <tr> <td></td> <td>○</td> <td>⊕</td> <td>⊕</td> </tr> </table>										⊕	⊕	○	○	○	○	⊕	○		○	⊕	⊕
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	○	⊕	⊕																		
3.8 Rad lock switch. (T/S).																					
(i) Set to 'LOCK' and ensure no change in lamp pattern.																					
(ii) Set to 'OFF' and ensure no change in lamp pattern.																					
SMS/ 3					Continued																

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CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E	
SP NO	112	CONTINUED	LIGHTNING		Section 1	
SHEET	6	AL 18			(1st Edition)	
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					AC NO DATE	
					SERVICING RECORD	
					(1)	(2)
					(3)	(4)
					(5)	
FLT SYST						
4. <u>Miscellaneous Test</u>						
4.1 Misc switch. (i) Rotate to all positions and ensure lamp is lit, except in positions 11 and 12 (Table 1).						
TABLE 1						
SW Position		Circuit under test				
1		Guidance heater left.				
2		Guidance heater right.				
3		Fuze and Control heaters right channel.				
4		LSU heater.				
5		Fuze and Control heaters left channel.				
6		Gyro and Acc. group heater left channel.				
7		Gyro and Acc. group heater right channel.				
8		Acqn. Unit heater.				
9		Angle off supply.				
10		Fuze delay.				
11		AGS.				
12		K factor.				
(ii) Return to 'MISC'. Note: The Misc lamp may be dim in positions 9 and 10.						
4.2 CRT/LFS switch. (A/C). Set to 'LFS'.						
4.3 Misc switch. (i) Rotate to all positions and ensure 'Misc' lamp is lit.						
(ii) Return to Misc. Note: The Misc lamp may be dim in positions 9, 10, 11 and 12.						
SMS 3A					Continued	

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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	7	AL 18		SERVICING RECORD - RAF F. 2988B				

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

(1)	(2)	(3)	(4)	(5)
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FLT SYST

4. Miscellaneous Test (Contd)

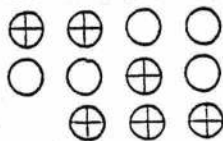
4.4 70 Way test adaptor. (Spine compartment). Remove.

4.5 CRT/LFS switch. (A/C). Set to 'CRT'.

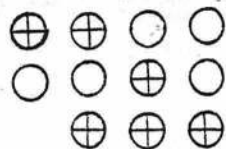
4.6 Armed lamp. (A/C). Ensure lights after 2 minutes PLUS OR MINUS 30 seconds.
Note: This time interval is to be judged by using the counter on the test set which will continue to run.

5. Radar Lock Test

5.1 Rad lock switch. (T/S). Set to 'LOCK' and ensure lamps indicate in the following pattern:-



5.2 Channel switch. (T/S). Set to 'R' and ensure lamps indicate in the following pattern:-



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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)														
SP NO	112	CONTINUED		AC NO DATE														
SHEET	8	AL 18		SERVICING RECORD														
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)											
FLT SYST																		
6. <u>Slaving Test</u>																		
6.1	Rad Ang switch. (T/S).	Set to '+' and ensure lamps indicate in the following pattern:- <div style="text-align: center;"> <table style="border: none;"> <tr><td>⊕</td><td>⊕</td><td>⊕</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table> </div>	⊕	⊕	⊕	○	○	○	⊕	○		⊕	⊕	⊕				
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○	○	⊕	○															
	⊕	⊕	⊕															
6.2	Tm/Mis switch. (T/S).	Set to 'INNER TM' and ensure no change in lamp pattern.																
6.3	Channel switch. (T/S).	Set to 'L' and ensure no change in lamp pattern.																
6.4	Tm/Mis switch. (T/S).	Set to 'OUTER TM' and ensure no change in lamp pattern.																
6.5	Red Ang switch. (T/S).	Set to '-' and ensure lamps indicate in the following pattern:- <div style="text-align: center;"> <table style="border: none;"> <tr><td>⊕</td><td>⊕</td><td>○</td><td>⊕</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table> </div>	⊕	⊕	○	⊕	○	○	⊕	○		⊕	⊕	⊕				
⊕	⊕	○	⊕															
○	○	⊕	○															
	⊕	⊕	⊕															
6.6	Tm/Mis switch. (T/S).	Set to 'INNER' and ensure no change in lamp pattern.																
6.7	Channel switch. (T/S).	Set to 'R' and ensure no change in lamp pattern.																
6.8	Tm/Mis switch. (T/S).	Set to 'OUTER TM' and ensure no change in lamp pattern.																
SMS/ LA			Continued															

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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	9	AL 21		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)
FLT SYST								
6. <u>Slaving Test (Contd)</u>								
6.9 Rad Angle switch. Set to 'Zero'. (T/S).								
NB: Sub-items 6.10 to 6.15 are applicable only to aircraft with 'look-down' modifications embodied.								
▶ 6.10 CRT/LFS switch. Set to 'LFSD' and ensure (A/C). no change in lamp pattern.								
6.11 Channel switch. Set to 'L' and ensure (T/S). no change in lamp pattern.								
6.12 Tm/Mis switch. Set to 'Inner TM' and (T/S). ensure lamps indicating the following pattern:-								
6.13 Channel switch. Set to 'R' and ensure (T/S). no change in lamp pattern.								
6.14 Tm/Mis switch. Set to 'Outer TM'. (T/S).								
6.15 CRT/LFS switch. Set to 'CRT' and ensure (A/C). lamps indicating the following pattern:-								
SMS/ 5				Continued				

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CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E	
SP NO	112	CONTINUED	LIGHTNING		Section 1	
SHEET	10	AL 21			(1st Edition)	
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					AC NO DATE	
					SERVICING RECORD	
					(1)	(2)
					(3)	(4)
					(5)	
FLT SYST						
<p>6. <u>Slaving Test (Contd)</u></p> <p>6.16 Rad lock switch. (i) Set to 'OFF'. (T/S). (ii) Set to 'LOCK'.</p>						
<p>7. <u>Scan Test</u></p> <p>7.1 Range switch. Set to 'SCAN' and ensure lamps indicate in the following pattern:-</p> <div style="text-align: center;"> </div>						
<p>7.2 Tm/Mis switch. Set to 'INNER TM' and ensure no change in lamp pattern. (T/S).</p>						
<p>7.3 Channel switch. Set to 'L' and ensure no change in lamp pattern. (T/S).</p>						
<p>7.4 Tm/Mis switch. Set to 'OUTER TM' and ensure no change in lamp pattern. (T/S).</p>						
SMS/ SA					Continued	

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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	12	AL 18		SERVICING RECORD - RAF F. 2988B				

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

			(1)	(2)	(3)	(4)	(5)											
<u>FLT SYST</u>																		
8.	<u>Scan lock Test Acquisition (Contd)</u>																	
8.5	Channel switch. (T/S).	Set to 'R' and ensure no change in lamp pattern. Event 2 lamp in A/C lights and Event 1 lamp in A/C extinguishes within 2 seconds.																
9.	<u>Weapon System Obscuration Test</u>																	
9.1	Obscuration switch. (T/S).	(i) Rotate to each position, ensuring lamps indicate in the following pattern for N. Ob positions and the Event 2 lamp in the A/C is lit.																
		<table style="margin-left: auto; margin-right: auto;"> <tr><td>○</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table>	○	⊕	○	○	○	○	⊕	○		⊕	⊕	⊕				
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○	○	⊕	○															
	⊕	⊕	⊕															
		(ii) Ensure lamps indicate in the following pattern for Ob positions and the Event 2 lamp in the A/C is extinguished.																
		(iii) Return to 'SLAVING'. Ensure that Event 2 lamp in the A/C lights.																

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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	13	AL 18		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)
FLT SYST								
9. <u>Weapon System Obscuration Test</u> (Contd)								
9.2	Rad Ang switch. (T/S).	Set to '+' and ensure no change in lamp pattern.						
9.3	Channel switch. (T/S).	Set to 'L' and ensure no change in lamp pattern. Event 1 in A/C will light and Event 2 lamp extinguish within 2 secs.						
9.4	Obscuration switch. (T/S).	(i) Rotate to each position ensuring lamps indicate in the following pattern for N.Ob position and the Event 1 lamp in the A/C is lit. <div style="text-align: center;"> </div> (ii) Ensure lamps indicate in the following pattern for Ob positions and the Event 1 lamp in the A/C is extinguished. <div style="text-align: center;"> </div> (iii) Return to 'SLAVING' Ensure Event 1 in A/C lights.						
SMS/ 7				Continued				

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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section (1st Edition)																
SP NO	112	CONTINUED		AC NO DATE																
SHEET	14	AL 20		SERVICING RECORD																
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)												
FLT SYST																				
9. <u>Weapon System Obscuration Test (Contd)</u>																				
9.5 Rad Ang switch. Set to 'ZERO' and ensure no change in lamp pattern																				
9.6 Range switch. (T/S). (i) Set to 'OFF' (centre position) and ensure lamps indicate in the following pattern:-																				
<table style="margin: auto;"> <tr> <td>⊕</td><td>⊕</td><td>○</td><td>○</td> </tr> <tr> <td>○</td><td>○</td><td>⊕</td><td>○</td> </tr> <tr> <td></td><td>⊕</td><td>⊕</td><td>⊕</td> </tr> </table>									⊕	⊕	○	○	○	○	⊕	○		⊕	⊕	⊕
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○	○	⊕	○																	
	⊕	⊕	⊕																	
(ii) Ensure Event 1 (A/C) lamp is extinguished.																				
9.7 Tm/Mis switch. (T/S). Set to 'OUTER TM' and ensure no change in lamp pattern.																				
10. <u>Firing Sequence/Single Port/Inadvertant Pairs Firing</u>																				
10.1 Range switch. Set to 'FIRE', ensure lamps indicate in the following pattern after 1 second and the Event 1 lamp in the the A/C is lit.																				
<table style="margin: auto;"> <tr> <td>○</td><td>⊕</td><td>○</td><td>○</td> </tr> <tr> <td>○</td><td>○</td><td>⊕</td><td>○</td> </tr> <tr> <td></td><td>⊕</td><td>⊕</td><td>⊕</td> </tr> </table>									○	⊕	○	○	○	○	⊕	○		⊕	⊕	⊕
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CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	15	AL 20		SERVICING RECORD - RAF F. 2988B				

Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

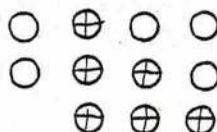
(1)	(2)	(3)	(4)	(5)
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FLT SYST

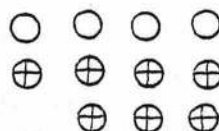
10. Firing Sequence/Single Port/Inadvertant Pairs Firing (Contd)

10.2 Fire committal switch. (A/C).

(i) Depress and hold and ensure lamps indicate in the following pattern for t = 0 seconds.



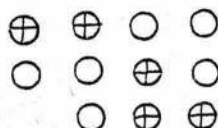
(ii) Ensure lamps indicate in the following pattern for t = 1/2 second.



(iii) Ensure lamps indicate in the following pattern for t = 1 second.



(iv) Ensure lamps indicate in the following pattern for t = 1.5 seconds and the Event 1 lamp in the A/C is extinguished and Port Gone Lamp in the A/C is lit.



CHAP	20	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A ^F Section (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	16	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)
FLT SYST								
▶ 10.	<u>Firing Sequence/Single Port/Inadvertant Pairs Firing (Contd)</u>							
10.3	Channel switch. (T/S).	Set to 'R', ensure lamps indicate in the following pattern after approximately 1 second and the Event 2 lamp in the A/C is lit and the Starboard Gone lamp in the A/C is extinguished.						
10.4	Fire committal switch.(A/C).	Release.						
Note	If the results are misread, to repeat this sub-item set the Channel switch (T/S) to 'L' and depress and release A/C Reset Switch and recommence testing at sub-item 10.1.							
11.	<u>Firing Sequence/Single Starboard/Inadvertant Pairs Firing</u>							
11.1	Fire committal switch.(A/C).	(i) Depress and hold and ensure lamps indicate in the following pattern for t= 0 sec						
		(ii) Ensure lamps indicate in the following pattern for t= 1/2 second.						
8A				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section (1st Edition)																
SP NO	112	CONTINUED		AC NO DATE																
SHEET	17	AL 20		SERVICING RECORD																
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)												
FLT SYST																				
▶ 11. <u>Firing Sequence/Single Starboard/ Inadvertant Pairs Firing (Contd)</u>																				
11.1 Fire commital switch. (A/C). (Contd).																				
(iii) Ensure lamps indicate in the following pattern for t = 1 second.																				
<table style="margin: auto;"> <tr><td>⊕</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>⊕</td></tr> <tr><td></td><td>○</td><td>⊕</td><td>⊕</td></tr> </table>									⊕	⊕	○	○	○	○	⊕	⊕		○	⊕	⊕
⊕	⊕	○	○																	
○	○	⊕	⊕																	
	○	⊕	⊕																	
(iv) Ensure lamps indicate in the following pattern for t = 1.5 seconds. The Event 2, Armed and Arming lamps in the A/C are extinguished, and the Starboard Gone Lamp in the A/C is lit. Ensure Port and Starboard misfire indicators on the Weapon Pack have operated and Counter on Test Set stops.																				
<table style="margin: auto;"> <tr><td>⊕</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>○</td><td>⊕</td><td>⊕</td></tr> </table>									⊕	⊕	○	○	○	○	⊕	○		○	⊕	⊕
⊕	⊕	○	○																	
○	○	⊕	○																	
	○	⊕	⊕																	
11.2 Fire commital switch. (A/C). Release.																				
9				Continued																

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101E-1000-5A3 ^E Section 1 (1st Edition)														
SP NO	112	CONTINUED		AC NO DATE														
SHEET	18	AL 20		SERVICING RECORD														
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)											
FLT SYST																		
▶ 11.	<u>Firing Sequence/Single Starboard/ Inadvertant Pairs Firing (Contd)</u>																	
11.3	Reset switch. (A/C).	Depress and release. Ensure lamps indicate in the following pattern after approximately 1 second and the Event 2 lamp in the A/C is lit and the Starboard Gone lamp is extinguished.																
		<table style="margin-left: auto; margin-right: auto;"> <tr><td>○</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table>	○	⊕	○	○	○	○	⊕	○		⊕	⊕	⊕				
○	⊕	○	○															
○	○	⊕	○															
	⊕	⊕	⊕															
11.4	Fire committal switch.(A/C).	(i) Depress and hold. Ensure lamps indicate in the following pattern for t= 0 seconds.																
		<table style="margin-left: auto; margin-right: auto;"> <tr><td>○</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>⊕</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table>	○	⊕	○	○	○	⊕	⊕	○		⊕	⊕	⊕				
○	⊕	○	○															
○	⊕	⊕	○															
	⊕	⊕	⊕															
		(ii) Ensure lamps indicate in the following pattern for t= $\frac{1}{2}$ second.																
		<table style="margin-left: auto; margin-right: auto;"> <tr><td>○</td><td>○</td><td>○</td><td>○</td></tr> <tr><td>⊕</td><td>⊕</td><td>⊕</td><td>⊕</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table>	○	○	○	○	⊕	⊕	⊕	⊕		⊕	⊕	⊕				
○	○	○	○															
⊕	⊕	⊕	⊕															
	⊕	⊕	⊕															
		(iii) Ensure lamps indicate in the following pattern for t= 1 second.																
		<table style="margin-left: auto; margin-right: auto;"> <tr><td>⊕</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>⊕</td></tr> <tr><td></td><td>○</td><td>⊕</td><td>⊕</td></tr> </table>	⊕	⊕	○	○	○	○	⊕	⊕		○	⊕	⊕				
⊕	⊕	○	○															
○	○	⊕	⊕															
	○	⊕	⊕															
9A			Continued															

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	19	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)	
FLT SYST								
▶ 11.	<u>Firing Sequence/Single Starboard/ Inadvertant Pairs Firing (Contd)</u>							
11.4	Fire committal (iv) switch. (A/C). (Contd).	Ensure lamps indicate in the following pattern for t= 1.5 seconds and the Event 2 lamp in the A/C is extinguished and the Starboard Gone lamp in the A/C is lit.						
		⊕ ⊕ ○ ○ ○ ○ ⊕ ○ ⊕ ⊕ ⊕						
11.5	Channel switch. (T/S).	Set to 'L' and ensure lamps indicate in the following pattern after approximately 1 second and the Event 1 lamp in the A/C is lit and the Port Gone lamp in the A/C is extinguished.						
		○ ⊕ ○ ○ ○ ○ ⊕ ○ ⊕ ⊕ ⊕						
11.6	Fire committal switch.(A/C).	Release.						
11.7	Channel switch. (T/S).	Set to 'R'.						
<u>Note</u>	If the results are misread, set the channel switch (T/S) to 'L' and depress and release A/C Reset switch and recommence testing at sub-item 10.1.							
10			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	20	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)	
FLT SYST								
12. <u>Firing Sequence/Pairs</u>								
12.1	Reset switch. (A/C).	(i)	Depress for 2 seconds and release and ensure lamps indicate in the following pattern:					
		(ii)	Ensure Arming, Armed and Event 2 lamps in A/C light					
		(iii)	Ensure counter on T/S starts and Starboard Gone and Port Gone lamps extinguish in A/C.					
12.2	Rad Ang switch. (T/S).		Set to '+'.					
12.3	Single/Pairs switch. (A/C).		Set to 'PAIRS' and ensure no change in lamp pattern.					
12.4	Fire committal switch. (A/C).		Depress and hold.					
▶ NB: Sub-items 12.5 to 12.12 inclusive are applicable only to weapon packs pre SEM/RT/022/STC.								
12.5	Channel switch. (T/S).		Set to 'L'.					
12.6	Fire committal switch. (A/C).	(i)	Release 2 seconds after para 12.5, and ensure lamps indicate in the following pattern within 5 seconds.					
		(ii)	Ensure Event 1, Event 2, Arming and lamps extinguish.					
SMS/ 20 10A			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)															
SP NO	112	CONTINUED		AC NO DATE															
SHEET	21	AL 20		SERVICING RECORD - RAF F. 2988B															
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)												
<u>FLT SYST</u>																			
12. <u>Firing Sequence/Pairs (Contd)</u>																			
12.6	Fire committal switch. (A/C). (Contd).	(iii)	Ensure counter on T/S stops and Port and Starboard Gone lamps light.																
12.7	Reset switch. (A/C).	(i)	Depress for 2 seconds and release ensuring lamps indicate in the following pattern:																
			<table style="margin-left: auto; margin-right: auto;"> <tr><td>○</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>⊕</td><td>⊕</td><td>⊕</td></tr> </table>	○	⊕	○	○	○	○	⊕	○		⊕	⊕	⊕				
○	⊕	○	○																
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	⊕	⊕	⊕																
		(ii)	Ensure Arming, Armed and Event 1 lamps light and Port and Starboard Gone lamps extinguished in A/C.																
		(iii)	Ensure counter on T/S starts.																
12.8	Rad Ang switch. (T/S).		Set to 'ZERO'.																
12.9	Fire committal switch. (A/C).		Press and hold.																
12.10	Channel switch. (T/S).	(i)	Set to 'R'.																
12.11	Fire committal switch. (A/C).	(i)	Release 2 seconds after para 12.10 and ensure lamps indicate in the following pattern within 5 seconds:-																
			<table style="margin-left: auto; margin-right: auto;"> <tr><td>⊕</td><td>⊕</td><td>○</td><td>○</td></tr> <tr><td>○</td><td>○</td><td>⊕</td><td>○</td></tr> <tr><td></td><td>○</td><td>⊕</td><td>⊕</td></tr> </table>	⊕	⊕	○	○	○	○	⊕	○		○	⊕	⊕				
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	○	⊕	⊕																
SMS/ 11			Continued																

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	22	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)	
FLT SYST								
12. <u>Firing Sequence/Pairs (Contd)</u>								
12.11	Fire committal	(ii)	Ensure Event 1, Event 2, Arming and Armed lamps extinguish and Port and Starboard Gone lamps light in the A/C.					
		(iii)	Ensure counter on T/S stops.					
12.12	Channel switch. (T/S).		Set to 'L' and ensure no change in lamp pattern.					
▶ NB: Sub-items 12.13 to 12.32 inclusive are applicable only to weapon packs post SEM/RT/022/STC.								
12.13	Channel switch. (T/S).		Set to 'L'.					
12.14	Fire committal switch. (A/C).	(i)	Release 2 seconds after para 12.13 and ensure lamps indicate following pattern after 5 seconds:					
		(ii)	Ensure Event 1 and Starboard Gone lamps are lit.					
12.15	Channel switch. (T/S).	(i)	Set to 'R' and ensure lamps indicate following pattern:					
		(iii)	Ensure Event 2 lamp is extinguished.					
SA 11A			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E					
SP NO	12	CONTINUED	LIGHTNING		Section 1 (1st Edition)					
SHEET	23	AL 22			AC NO DATE					
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD					
					(1)	(2)	(3)	(4)	(5)	
FLT SYST										
12. <u>Firing Sequence/Pairs</u> (Contd)										
12.16 Reset switch. (A/C)										
			(i)	Depress for 2 seconds and release ensuring lamps indicate the following pattern:						
			(ii)	Ensure Event 2 lamp lights and Starboard Gone lamp is extinguished.						
12.17 Channel switch. (T/S).										
			(i)	Set to 'L' and ensure lamps indicate the following pattern:						
			(ii)	Ensure Event 1 lamp is lit.						
12.18 Fire committal switch. (A/C). Depress and hold.										
12.19 Channel switch. (T/S). Set to 'R'.										
12.20 Fire committal switch. (A/C).										
			(i)	Release 2 seconds after para 12.19 and ensure lamps indicate following pattern after 5 seconds:						
			(ii)	Ensure Event 2 and Port gone lamps light.						

SMS 17A

SMS 13

Continued

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	24	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)	
FLT SYST								
12. <u>Firing Sequence/Pairs</u> (Contd)								
12.21 Channel switch. (i) Set to 'L' and ensure lamps indicate the following pattern :								
(ii) Ensure Event 1 lamp is extinguished.								
12.22 Reset switch. (i) Depress for 2 seconds and release ensuring lamps indicate the following pattern:								
(ii) Ensure Event 1 lamp lights and Port gone lamp is extinguished.								
12.23 Rad Ang switch. Set to 'ZERO'.								
12.24 Fire committal switch. (A/C). Depress and hold.								
12.25 Channel switch. Set to 'R'.								
12.26 Fire committal switch. (A/C). (i) Release 2 seconds after Para 12.25 and ensure lamps indicate following pattern after 5 seconds:								
(ii) Ensure Event 2 and Port gone lamps light.								
SMS/3A			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	25	AL 20			AC NO DATE				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD				
					(1)	(2)	(3)	(4)	(5)
FLT SYST									
▶ 12. <u>Firing Sequence/Pairs</u> (Contd)									
12.27 Channel switch. (i) Set to 'L' and ensure lamps indicate the following pattern:									
(ii) Ensure Event 1 lamp is extinguished.									
12.28 Reset switch. (i) Depress for 2 seconds and release ensuring lamps indicate the following pattern:									
(ii) Ensure Event 1 lamp lights and Port gone lamp is extinguished.									
12.29 Fire committal switch. (A/C). Depress and hold.									
12.30 Channel switch. Set to 'R'.									
12.31 Fire committal switch. (A/C). (i) Release 2 seconds after para 12.30 and ensure lamps indicate following pattern after 5 seconds:									
13					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING		AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED			AC NO DATE				
SHEET	26	AL 20			SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.			(1)	(2)	(3)	(4)	(5)		
<p style="text-align: center;">FLT SYST</p> <p>▶ 12. <u>Firing Sequence/Pairs</u> (Contd)</p> <p>12.31 Fire committal switch. (Contd)</p> <p style="padding-left: 100px;">(ii) Ensure Event 2 and Port gone lamps are lit.</p> <p>12.32 Channel switch. (T/S). (i) Set to 'L' and ensure lamps indicate following pattern:</p> <div style="text-align: center;"> </div> <p style="padding-left: 100px;">(ii) Ensure Event 2 lamp is extinguished.</p> <p>13. <u>Misfire Sequence Test</u></p> <p>13.1 Single/Pairs switch. (A/C). Set to 'SINGLES' and ensure no change in lamp pattern.</p> <p>13.2 Tm/Misc switch. (T/S). Set to 'MISFIRE' and ensure no change in lamp pattern.</p> <p>13.3 Reset switch. (A/C). Depress for 2 seconds and release and ensure Counter (T/S) starts.</p> <p>NB: Allow 20 seconds to elapse before carrying out Sub-item 13.4.</p> <p>13.4 Fire committal switch. (A/C). Depress and hold.</p>									
13A 13A			Continued						

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	27	AL 20			AC NO DATE				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD				
					(1)	(2)	(3)	(4)	(5)
FLT SYST									
13. <u>Misfire Sequence Test (Contd)</u>									
13.5 Channel switch. Set to 'R'. (T/S).									
13.6 Fire committal switch. (A/C). Release 2 seconds after para 13.5, and ensure that Counter stops.									
13.7 Reset switch. Depress and release and ensure that Counter starts.									
NB: Allow 20 seconds to elapse before carrying out Sub-item 13.8.									
13.8 Fire committal switch. (A/C). Depress and hold.									
13.9 Channel switch. Set to 'L'. (T/S).									
13.10 Fire committal switch. (A/C). Release 2 seconds after para 13.9 and ensure that Counter (T/S) stops.									
13.11 Reset switch. Depress and release and ensure that Counter (T/S) starts. (A/C).									
◀ ▶									
14					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	28	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)
<u>FLT SYST</u>								
▶ 14.	<u>Breakaway Test</u>							
14.1	Test Adaption.	Fit.						
14.2	Range switch. (T/S).	Set to 'OFF' (Centre position).						
14.3	CRT/LFS switch. (A/C).	Set to 'LFS'.						
14.4	Rad lock switch. (T/S).	Set to 'OFF'.						
14.5	Fire Committal switch. (A/C).	(i) Depress and release after 2 seconds and ensure lamps indicate in the following pattern within 5 seconds: ⊕ ⊕ ○ ○ ○ ○ ⊕ ○ ○ ⊕ ⊕ (ii) Ensure Port Gone lamp in A/C is lit.						
14.6	Channel switch. (T/S).	Set to 'R'.						
14.7	Obscuration switch. (T/S).	Set to 'OB' and ensure lamps indicate in the following pattern: ⊕ ⊕ ○ ○ ○ ○ ⊕ ○ ⊕ ⊕ ⊕						
14.8	Fire committal switch. (A/C).	Depress for 2 seconds and release and ensure no change in lamp pattern.						
		<u>Note:</u> Scan/Lock lamp on T/S remains lit while this switch is depressed.						
SMS/ 14A 14A				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	29	AL 20			AC NO DATE				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD - RAF F. 2988B				
					(1)	(2)	(3)	(4)	(5)
<u>FLT SYST</u>									
15.	<u>Barometric Capsule Check</u>								
15.1	Misc switch.		Set to position 11 and ensure Misc lamp lights.						
15.2	AGS capsule.		(i) Evacuate to 10 in. Hg approximately and ensure Misc lamp on T/S dims.						
			(ii) Release pressure and ensure Misc lamp brightens.						
16.	<u>Test Termination</u>								
16.1	Fire control system test set.								
	(a) Rad lock switch.)							
	(b) Signal switch.)	Set to 'OFF'.						
	(c) Range switch.)							
	(d) Tm/Misfire switch.)	Set to 'OUTER TM'.						
	(e) Obscuration)	Set to 'SLAVING'.						
16.2	Aircraft.								
	(a) Arm/Safe switch.		Set to 'SAFE'.						
	(b) Master armament selector switch.		Set to 'OFF'.						
16.3	Power supplies.								
	(a) 28V dc.)							
	(b) 115V 2400 Hz switch.)							
	(GPU).)	Set to 'OFF'.						
	(c) 200V 400 Hz switch.)							
	(GPU).)							
SMS/ 15 15					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E	
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)	
SHEET	30	AL 20			AC NO DATE	
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD	
					(1)	(2)
					(3)	(4)
					(5)	
<u>FLT SYST</u>						
16. <u>Test Termination (Contd)</u>						
16.4 Ground equipment.						
(a) Test set. Remove.						
(b) Cable J4) Disconnect from test						
01175A.) TP1 and TP2						
(c) Cable J4) respectively on the						
01363A) weapon pack						
distribution panel.						
(d) 115 2400 Hz Disconnect from RJ27						
supply cable. on weapon pack						
distribution panel.						
17. <u>Pylon Continuity Testing Preparation</u>						
17.1 Weapon Pack (i) Clean.						
Butt Connectors. (ii) Examine (Fig 1).						
17.2 Weapon pack						
distribution						
panel.						
(a) Test socket Connect shorting plug						
TP1. assembly J4 01506A.						
(37 way).						
(b) Test socket Connect shorting plug						
TP2. assembly J4 00367A.						
(47 way).						
<u>Note:</u> Ensure switch						
is set to 'OFF'.						
17.3 115V 2400 Hz Ensure DISCONNECTED						
supply cable. from weapon pack.						
17.4 28V External)						
DC supply to)						
aircraft.)						
) Switch ON.						
17.5 200V 400 Hz)						
external a.c.)						
supply to)						
aircraft.)						
SMS/ ISA ISA					Continued	

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	31	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)
FLT SYST								
18.	<u>Port Pylon Continuity Test</u>							
NB	During this item the following Precautions must be observed:							
	(a) 115V ac 2.4 KHz power supply must <u>NOT</u> be switched on.							
	(b) The GW arming switch must <u>NOT</u> be set to 'ARM' when 200V ac 400 Hz power supply is on.							
18.1	Master armament selector switch.	Set to 'GW'.						
18.2	Butt connector unit.	Hold to aft port pylon butt connector.						
18.3	Trigger button. (Lamp unit).	(i) Depress and ensure all lamps are lit. (ii) Release and ensure lamps marked A, FA and SA remain lit.						
18.4	Butt connector unit.	(i) Remove from pylon butt connector. (ii) Hold to forward port pylon butt connector.						
18.5	Trigger button. (Lamp unit).	(i) Depress and ensure all lamps are lit. (ii) Release and ensure lamps marked F and FA are lit, lamps L7 and L11 are extinguished and L12, L14 and L15 glow dim.						
18.6	Butt connector unit.	Remove from pylon butt connector.						
18.7	200V a.c. 400Hz external supply to aircraft.	Switch off.						
18.8	Arm/Safe switch.	Set to 'ARM'.						
SMS/ 4				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E	
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)	
SHEET	32	AL 22			AC NO DATE	
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD	
					(1)	(2)
					(3)	(4)
					(5)	
FLT SYST						
18. <u>Port Pylon Continuity Test</u>						
18.9	Butt connector unit.	(i)	Hold to forward port pylon butt connector.			
		(ii)	Ensure lamps L7 L8, L11 and L12 are lit.			
		(iii)	Remove from pylon butt connector.			
		(iv)	Hold to port pylon safety services butt connector.			
18.10	Shorting plug assembly J4 00367A (47 way).	(i)	Set switch to 'ON' and ensure all lamps marked S and SA are lit.			
		(ii)	Set switch to 'OFF' and ensure all lamps are extinguished.			
18.11	Butt connector unit.		Remove from pylon butt connector.			
18.12	Arm/Safe switch.		Set to 'OFF'.			
19. <u>Starboard Pylon Continuity Test</u>						
NB	During this item the following precautions must be observed:					
	(a) 115V ac 2.4 KHz power supply must <u>NOT</u> be switched on.					
	(b) The GW arming switch must <u>NOT</u> be set to 'ARM' when 200V ac 400 Hz power supply is on.					
19.1	200V a.c. 400Hz external supply to aircraft.		Switch on.			
19.2	Pylon continuity test.		Carry out Sub-items 18.2 to 18.12 inclusive reading 'STARBOARD' for port.			
19.3	External dc electrical power supply.		Switch off.			
SMS/ <i>GA</i>					Continued	

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	112	CONTINUED		AC NO DATE				
SHEET	33	AL 20		SERVICING RECORD				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				(1)	(2)	(3)	(4)	(5)
FLT SYST								
▶ 19. <u>Starboard Pylon Continuity Test (Contd)</u>								
19.4 200V 400 Hz external a.c. supply to aircraft. Ensure switched off.								
19.5 Weapon pack distribution panel.								
(a) Test socket.)								
TP1.)								
(b) Test socket) Disconnect shorting plug assemblies.								
TP2.)								
20. <u>Radar Signal Continuity Testing</u>								
20.1 Continuity test adapter connections. (Yellow). Clean.								
20.2 70 way Uniter/ Test adapter. (Spine compartment). Remove.								
20.3 Continuity test adapter. Fit to 70 way MUM test point.								
20.4 37 way Yellow shorting plug. Connect to test socket TP1 on weapon pack distribution panel.								
20.5 26V dc supply. Set to 'ON'.								
20.6 200V 400 Hz supply. (GPU). Ensure set to 'OFF'.								
20.7 CRT/LFS switch. Ensure set to 'CRT'.								
20.8 Master armament selector switch. Set to 'GW'.								
20.9 GW ARM/SAFE switch. Set to 'ARM'.								
SMS/ 45 17				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E	
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)	
SHEET	34	AL 20			AC NO DATE	
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD	
					(1)	(2)
<u>FLT SYST</u>					(3)	(4)
					(5)	
<u>FLT SYST</u>						
▶ 20 . Radar Signal Continuity Testing (Contd)						
20 .10 Butt Connector Unit.						
(i) Hold correctly orientated to the yellow Test Adapter 24 Way connector.						
(ii) Ensure all 'A' lamps are lit. (L12 and L14A may be dim).						
(iii) Ensure lamps F2A 6, 10 are lit.						
(iv) Refer to Table 2 for lamp indications.						
21 . <u>General</u>						
21 .1 External dc electrical power supply.)						
(i) Switch off.)						
(ii) Disconnect.)						
21 .2 200V 400 Hz external a.c. supply to aircraft.)						
21 .3 Master armament selector switch. Set to 'OFF'.						
21 .4 Fire committal switch. Set to 'SAFE'.						
21 .5 Weapon pack distribution panel.						
(a) Test socket TP1. Disconnect 37 way yellow shorting plug.						
21 .6 Ground arming link. Remove.						
21 .7 Armament safety break key. Fit.						
SMS/ 143 17A					Continued	

SMS 17A

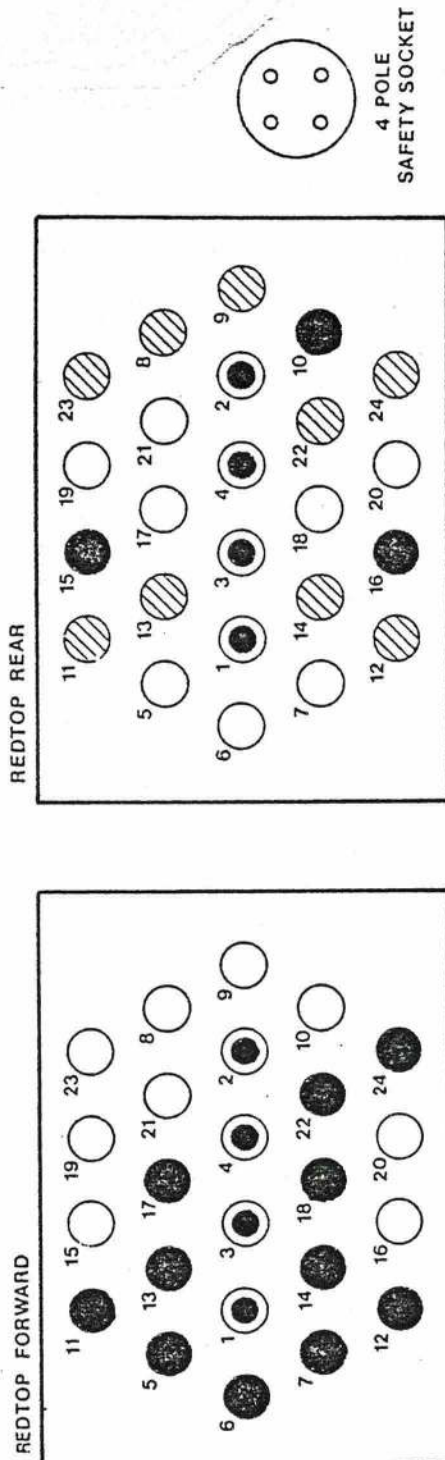
CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E	
SP NO	112	CONTINUED	LIGHTNING		Section 1 (1st Edition)	
SHEET	35	AL 20			AC NO DATE	
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.					SERVICING RECORD	
					(1)	(2)
FLT SYST						
21. <u>General</u>						
21.8 Test adapters. Remove.						
21.9 Unitor plug (70 way). Reconnect.						
22. <u>2 M.C.U Miscellaneous Supplies Deck Check</u>						
NB Ensure ALL Electrical Power Supplies are SWITCHED OFF.						
22.1 37 Way Test Plug.						
(i) Fit to 37 Way Test Socket.						
(ii) Connect plug marked 'L' to Multimeter red terminal.						
(iii) Connect plug marked 'H' to Multimeter black terminal.						
22.2 Multimeter Type 1. (5QP/1057049).						
(i) Set to 'OHMS' range.						
(ii) Ensure reading obtained is approximately 1 Kohm.						
(iii) Reverse connections.						
(iv) Ensure reading obtained is not less than 500 Kohms.						
(v) Disconnect plug marked 'H' and connect plug marked 'r'.						
(vi) Ensure reading obtained is not less 500 Kohms.						
(vii) Disconnect plug marked 'r' and connect plug marked 's'.						
(viii) Ensure reading obtained is not less 500 Kohms.						
(ix) Disconnect.						
22.3 37 Way Test Plug. Remove.						
22.4 Aircraft Panels. Refit.						
SMS/ 5					Continued	

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING			AP101B-1000-5A3 E Section I (1st Edition)				
SP NO	112	CONTINUED				AC NO DATE				
SHEET	36	AL 22								
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.						SERVICING RECORD				
						(1)	(2)	(3)	(4)	(5)
22. <u>2 M.C.U Miscellaneous Supplies Deck Check</u>										
TABLE 2										
TITLE	LAMP	TEST CONN 24 WAY	ADAPTER 70 WAY	PL/SK RJ 5 WHITE	PACK TP1					
Radar Lock	2FA	9	45	Q	N					
K Factor	6FA	3	67	D	B					
Fuze Common	10FA	21	62	H	L					
Fuze App Volt to Radar	15A	5	64	F	K					
Fuze App Volt to Missile	16A	7	63	G	H					
Launch Warning	18A	12	51	Z	D					
Range Bracket	19A	13	38	P	C					
AGC	20A	14	66	E						
			65	U						
Radar Sig EL	22A	18	69	L	X					
			70	M	Z					
Radar Sig AZ	23A	22	50	J	P					
			49	K	R					
Radar Reference	24A	24	47	B	N					
			46	A	M					
			41	Y	G					
SMS/ SA STC						Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A ^{3E}				
SP NO	112	CONTINUED		Section 1 (1st Edition)				
SHEET	37	AL 20		AC NO DATE				
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.				SERVICING RECORD				
				(1)	(2)	(3)	(4)	(5)



REDTOP pylon connectors

Fig 1

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