

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	2	AL 18			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>Fire Control System Test Set (Preparation)</u> (Contd).								
3.3	Frequency controls.		Set to '3 kHz'.						
3.4	Line selector.		Set to 'LINE 1'.						
3.5	Function switch.		Set to 'INSULN.LL'.						
3.6	Offset switch.)							
3.7	Error offset switch.)	Set to '0'.						
3.8	Power-to-aircraft switch.))							
3.9	Power-to-console switch.))	Set to 'OFF'.						
3.10	Insulation scan switch.		Set to 'USE'.						
3.11	Signal phase switch.		Set to 'REVERSE'.						
3.12	Pylon connectors.		(i) Clean butt connectors. (ii) Fit to Pylons, ensuring 0.256 in. spacer washer is fitted on rear securing bolt. (iii) Connect to junction box.						
3.13	Bifurcated cable.		Connect.						
3.14	70 way unitor plug.		Remove.						
3.15	AI slaving cable.		Connect in conjunction with adaptor test slaving.						
3.16	Control box.		(i) Position in cockpit. (ii) Connect to junction box.						
SMS/ 17 A					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	3	AL 18			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>Fire Control System Test Set (Preparation)</u> (Contd).								
3.17	All control box selector switches.	Set to 'NOT SEE'.							
3.18	Control box headsets.	Connect.							
4.	<u>Safety Break</u>								
4.1	Armament safety break key.	Remove.							
4.2	Ground arming link.	Fit and operate.							
5.	<u>Miscellaneous Supplies</u>								
5.1	28 volt d.c. supply.	(i) Connect. (ii) Switch on.							
5.2	115V 2.4 kHz GPU.	(i) Connect. (ii) Start. (iii) Adjust to 3000 rev/min. (iv) Switch on supply.							
6.	<u>Ground Cooling</u>								
6.1	Trolley.	(i) Connect. (ii) Start.							
7.	<u>Insulation Checks</u>								
7.1	Power-to-Console switch.	Set to 'ON'.							
7.2	Power-to-Console lamp.	Ensure lit.							
7.3	Master armament switch.	Set to 'ON'.							
7.4	Arming switch.								
7.5	Stopwatch.	Start.							
SMS/ 24					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 ^E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	4	AL 18			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									
7.	<u>Insulation Checks</u>		(Contd)						
7.6	Armed time indicator.	Ensure operating.							
7.7	Arming panel.	(i)	Ensure arming lamp is lit.						
		(ii)	Ensure armed lamp is flashing.						
7.8	Nose cover lamp.	Ensure lit.							
7.9	Control box Start lamps.	(i)	Ensure extinguished						
		(ii)	Allow warm up period until M1 deflects.						
7.10	Insulation scan switch.	Set to 'ZERO'.							
7.11	Test set 1M control.	Adjust until M1 indicates 1 Mohm.							
7.12	Insulation scan switch.	Set to 'FSD'.							
7.13	Test set 4M control.	Adjust until M1 indicates 4 Mohms.							
NB:	During Sub-items 7.14 to 7.16 inclusive, if any M1 indication is less than 2 Mohms the test is to be discontinued and NCO informed.								
7.14	Insulation scan switch.	(i)	Set to 'USE'.						
		(ii)	Check M1 indication.						
7.15	Function switch.	(i)	Set to 'INSULN.LE'.						
		(ii)	Check M1 indication.						
7.16	Line selector.	(i)	Set to 'LINE 2'.						
		(ii)	Check M1 indication.						
SMS/ 24A					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)					
SP NO	113	CONTINUED		AC NO DATE					
SHEET	5	AL 23		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									
8.	<u>Line Resistance and 2 Minute Arming Test.</u>								
8.1	Function switch.	(i)	Set to 'LINE RESISTANCE'.						
		(ii)	Check M1 indicates zero.						
8.2	Power-to-Aircraft switch.		Set to 'ON'.						
8.3	Power-to-Aircraft lamp.)	Ensure lit.						
8.4	Pylon load lamp.))							
8.5	Arming panel.	(i)	Ensure arming lamp remains lit and armed lamp is extinguished.						
		(ii)	Ensure armed lamp lights after a period of between 1 minute 30 seconds and 2 minutes 15 seconds.						
NB:	Sub-items 8.6 to 8.14 inclusive are to be carried out within the arming time. During Sub-items 8.6, 8.11 and 8.14, if there is no discernible deflection of M1 pointer the test is to be discontinued immediately and the Flt Syst NCO informed.								
8.6	Meter M1.		Note voltage indication on Blue scale.						
8.7	Line selector.		Set to 'LINE 1'.						
8.8	Meter M1.	(i)	Note voltage reading on blue scale and add to that noted in Sub-item 8.6.						
		(ii)	Ensure sum does not exceed 2.5 volts.						
8.9	Line selector.		Set to 'LINE 2'.						
8.10	Pylon selector switch.		Set to 'PO'.						
SMS/ 2				Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	6	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								
8.	<u>Line Resistance and 2 Minute Arming Test (Contd).</u>							
8.11	Voltage check.	Repeat sub-items 8.6 to 8.8 inclusive.						
8.12	Function switch.	Set to 'AGC'.						
8.13	Pylon selector switch.	Set to 'PO' and 'SO' in turn and ensure meter M2 indicates zero at each position.						
NB:	Item 9 is not to be commenced until the arming sequence actuated in Sub-item 8.5 is completed.							
9.	<u>Target Detector and Fire Control Test.</u>							
9.1	Function switch.	Set to 'TARG DET'.						
9.2	PAS/LFS screen arming panel and CRT.	Ensure PAD/LFS lamp, Event 1 and Event 2 indicators and Port and Starboard 'W' markers are not visible.						
9.3	Control box PO selector.	Set to 'SEE'.						
9.4	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS Event 1 lamps and Port 'W' markers are lit.						
9.5	Control box PO selector.	Set to 'NOT SEE'.						
9.6	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp, Event 1 and Event 2 indicators and Port and Starboard 'W' markers are not visible.						
9.7	Control box SO selector.	Set to 'SEE'.						
9.8	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp and Event 2 lamps and Starboard 'W' markers are lit.						
SMS/ 2A				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)					
SP NO	113	CONTINUED		AC NO DATE					
SHEET	7	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>Target Detector and Fire Control Test (Contd)</u>								
9.9	Control box SO selector.	Set to 'NOT SEE'.							
9.10	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp, Event 1 and Event 2 indicators, and Port and Starboard 'W' markers are not visible.							
9.11	Control box PO selector.	Set to 'SEE'.							
9.12	Control box SO selector.								
9.13	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp, Event 1 and Event 2 lamps and Port and Starboard 'W' markers are lit.							
9.14	Singles/Pairs switch.	Set to 'PAIRS'.							
NB.	Sub-items 9.15 to 9.22 inclusive are applicable only to weapon packs pre SEM/FS/017/STC								
9.15	Weapon trigger.	Operate and hold.							
9.16	'PO' and 'SO' Alt start lamps.	Ensure light in sequence at intervals of approximately 1/2 second.							
9.17	Mag/Jet lamp.	Ensure not lit.							
9.18	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp, Event 1 and 2 indicators, and Port and Starboard 'W' markers are not visible.							
9.19	Weapon trigger.	Release.							
9.20	Alt start lamps.	Ensure extinguished.							
9.21	Mag/Jet lamp.								
9.22	Misfire indicators.	Ensure operated.							
SMS/ 13				Continued					

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	8	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>Target Detector and Fire Control Test (Contd)</u>							
NB.	Sub-items 9.23 to 9.34 inclusive are applicable only to weapon packs post SEM/FS/017/STC							
9.23	Weapon trigger.	Operate and hold.						
9.24	'SO' Alt start lamp.	Ensure lit.						
9.25	'PO' Alt start lamp.	Ensure not lit.						
9.26	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp, Event 1 and Port 'W' marker extinguish for between 4 to 6 seconds and Event 2 and Starboard 'W' markers extinguish and remain extinguished.						
9.27	Weapon trigger.	Release.						
9.28	Weapon trigger.	Operate and hold						
9.29	'PO' Alt start lamp.	Ensure lit.						
9.30	PAS/LFS screen, arming panel and CRT.	Ensure PAS/LFS lamp, Event 1 and 2 indicators and Port and Starboard 'W' markers are not visible.						
9.31	Weapon trigger.	Release.						
9.32	Alt start lamps.)	Ensure extinguished.						
9.33	Mag/Jet lamp.)							
9.34	Misfire indicators.	Ensure operated.						
18A				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	9	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>Scan Test (Pairs)</u>								
10.1	Function switch.	Set to 'PITCH SCAN'.						
10.2	Insulation scan switch.	Set to 'ZERO'.						
10.3	Set 10V control.	Adjust for M1 indication of 10V.						
10.4	Insulation scan switch.	Set to 'FSD'.						
10.5	Set to 20V control.	Adjust for M1 indication of 20V.						
10.6	Insulation scan switch.	Set to 'USE'.						
10.7	Meter M1.	Ensure indication is not greater than 10V.						
10.8	Pylon selector switch.	Set to 'PO'.						
10.9	Meter M1.	Ensure indication is not greater than 10V.						
10.10	Meter switch.	Set to 'YAW SCAN'.						
10.11	Meter M1.	Ensure indication is not greater than 10V.						
10.12	Pylon selector switch.	Set to 'SO'.						
10.13	Meter M1.	Ensure indication is not greater than 10V.						
10.14	Fire control reset switch.	Operate.						
10.15	Meter M1.	Ensure indication is between 15 and 19V.						
10.16	Pylon selector switch.	Set to 'PO'.						
10.17	Meter M1.	Ensure indication is between 15 and 19V.						
SMS/ 19			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 ^E				
SP NO	113	CONTINUED	LIGHTNING		Section 1				
SHEET	10	AL 20			(1st Edition)				
					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									
10. <u>Scan Test (Pairs)</u> (Contd)									
10.18 Function switch. Set to 'PITCH SCAN'.									
10.19 Meter M1. Ensure indication is between 15 and 19V.									
10.20 Pylon selector switch. Set to 'S0'.									
10.21 Meter M1. Ensure indication is between 15 and 19V.									
11. <u>Scan Test (Singles)</u> .									
11.1 Singles/Pairs switch. Set to 'SINGLES'.									
11.2 Function switch. Set to 'TARGET DET'.									
11.3 PAS/LFS screen, arming panel and CRT. Ensure PAS/LFS lamp and Event 1 and 2 lamps and Port and Starboard 'W' markers are lit.									
11.4 Weapons trigger. Operate and hold.									
11.5 SO Alt start lamp. Ensure lit.									
11.6 PAS/LFS screen, arming panel and CRT. Ensure PAS/LFS lamp, Event 1 and Port 'W' marker extinguish for between 4 and 6 seconds and Event 2 lamp and Starboard 'W' marker extinguish and remain extinguished.									
11.7 Weapons trigger. Release.									
11.8 Function switch. Set to 'PITCH SCAN'.									
11.9 Meter M1. Ensure indication is not greater than 10V.									
11.10 Function switch. Set to 'YAW SCAN'.									
11.11 Meter M1. Ensure indication is not greater than 10V.									
SMS/ 19A					Continued				

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	11	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									
11. <u>Scan Test (Singles)</u> (Contd)									
11.12 Pylon selector switch. Set to 'PO'.									
11.13 Meter M1. Ensure indication is between 15 and 19V.									
11.14 Function switch. Set to 'PITCH SCAN'.									
11.15 Meter M1. Ensure indication is between 15 and 19V.									
11.16 Function switch. Set to 'TARGET DET'.									
11.17 PAS/LFS screen, arming panel and CRT. Ensure PAS/LFS on and Event 1 lamps and Port 'W' markers are lit.									
11.18 Weapons trigger. Operate and hold.									
11.19 PO and SO Alt start lamps. Ensure lit.									
11.20 PAS/LFS screen, arming panel and CRT. Ensure PAS/LFS off, Event 1 and 2 lamps and Port and Starboard 'W' markers are extinguished.									
11.21 Weapons trigger. Release.									
11.22 Function switch. Set to 'PITCH SCAN'.									
11.23 Meter M1. Ensure indication is not greater than 10V.									
11.24 Function switch. Set to 'YAW SCAN'.									
11.25 Meter M1. Ensure indication is not greater than 10V.									
11.26 Fire control reset switch. Operate.									
11.27 Meter M1. Ensure indication is between 15 and 19V.									
11.28 Misfire indicators. Reset.									
SMS/ 20					Continued				

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	12	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>AI Slaving Tests (Test 1)</u></p> <p>12.1 Function switch. Set to 'AI PITCH'.</p> <p>12.2 Offset switch. Set to 'MINUS 5' degrees.</p> <p>12.3 Error offset switch. (i) Adjust for M2 indication nearest to zero. (ii) Ensure final error does not exceed 0.5 degrees. (iii) Set to '0' degrees.</p> <p>12.4 Offset switch. Set to 'MINUS 4' degrees.</p> <p>12.5 Error offset switch. (i) Adjust for M2 indication nearest to zero. (ii) Ensure final error does not exceed 0.35 degrees. (iii) Set to '0' degrees.</p> <p>12.6 Offset switch. (i) Set to 'MINUS 1', 'PLUS 1' and 'PLUS 4' degrees in turn and for each setting repeat Sub-item 12.5. (ii) Set to 'PLUS 5' degrees.</p> <p>12.7 Error offset switch. (i) Adjust for M2 indication nearest to zero. (ii) Ensure final error does not exceed 0.5 degrees.</p> <p>12.8 Offset switch. Set to 'PLUS 10' degrees.</p> <p>12.9 Meter M2. Ensure indicates in Green sector lower scale.</p>								
SMS/ 20A			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	13	AL 23		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>AI Slaving Tests (Test 1)</u> (Contd)								
12.10 Offset switch. (i) Set to 'PLUS 15', 'MINUS 10' and 'MINUS 15' degrees in turn and for each setting repeat Sub-item 12.9.								
(ii) Set to '0' degrees.								
13. <u>AI Slaving Tests (Test 2)</u>								
13.1 Signal Phase switch. Set to 'NORMAL'.								
13.2 Function switch. Set to 'AI YAW'.								
13.3 Testing. Repeat Sub-items 12.2 to 12.10 inclusive.								
14. <u>AI Slaving Tests (Test 3)</u>								
14.1 Pylon selector switch. Set to 'SO'.								
14.2 Function switch. Set to 'AI PITCH'.								
14.3 Testing. Repeat Sub-items 12.2 to 12.10 inclusive.								
15. <u>AI Slaving Tests (Test 4)</u>								
15.1 Signal Phase switch. Set to 'REVERSE'.								
15.2 Function switch. Set to 'AI YAW'.								
15.3 Testing. Repeat Sub-item 12.2 to 12.10 inclusive.								
▶ ◀								
SMS/ 3				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	14	AL 23			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									
NB 1: Items 16 to 19 inclusive are applicable only to packs with SEM/FS/O15/STC embodied.									
NB 2: During Items 16 to 19 inclusive, if the indications on meter M2 are not within the limits specified, the 'error offset switch' is to be adjusted until the correct indication is obtained. If the correct indication still cannot be obtained set 'offset switch' to PLUS 4 degrees or MINUS 4 degrees as applicable and use the 'error offset switch' as required.									
16. <u>Depressed LFS Tests (Test1)</u>									
16.1 Pylon selector switch. Set to 'P0'.									
16.2 Function switch. Set to 'AI PITCH'.									
16.3 Meter M2. Ensure indicates within green sector lower scale.									
16.4 LFS/CRT switch. Set to 'LFS D'.									
16.5 Meter M2. Ensure deflects fully right.									
16.6 Offset switch. Set to 'PLUS 5' degrees.									
16.7 Meter M2. Ensure indicates within green sector.									
16.8 LFS/CRT switch. Set to 'LFS'.									
16.9 Meter M2. Ensure indicates within green sector.									
16.10 Offset switch. Set to '0' degrees.									
17. <u>Depressed LFS Tests (Test 2)</u>									
17.1 Signal phase switch. Set to 'NORMAL'.									
17.2 Function switch. Set to 'AI YAW'.									
17.3 Meter M2. Ensure indicates within green sector.									
17.4 Testing. Repeat Sub-items 16.4 to 16.10 inclusive.									
					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	15	AL 23		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>Depressed LFS Tests (Test 3)</u>							
18.1	Pylon selector switch.	Set to 'SO'.						
18.2	Signal phase switch.	Set to 'REVERSE'.						
18.3	Meter M2.	Ensure indicates within green sector.						
18.4	LFS/CRT switch.	Set to 'LFS D'.						
18.5	Meter M2.	Ensure deflects fully left.						
18.6	Offset switch.	Set to 'MINUS 5' degrees.						
18.7	Meter M2.	Ensure indicates within green sector.						
18.8	LFS/CRT switch.	Set to 'LFS'.						
18.9	Meter M2.	Ensure indicates within green sector.						
18.10	Offset switch.	Set to '0' degrees.						
19.	<u>Depressed LFS Tests (Test 4)</u>							
19.1	Signal phase switch.	Set to 'NORMAL'.						
19.2	Function switch.	Set to 'AI PITCH'.						
19.3	Meter M2.	Ensure indicates within green sector.						
19.4	Testing.	Repeat Sub-items 18.4 to 18.10 inclusive.						
SMS / 4			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	16	AL 23		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								
20.	<u>Cold Air Checks</u>							
20.1	Port and Starboard pylon connector boxes.							
	(a) Air pressure gauge.	Ensure indicates between 175 and 225 lbf/in2.						
	(b) Red plunger.	Depress.						
	(c) Air pressure gauge.	Ensure indication constant after initial fall and rise.						
	(d) Red plunger.	Release.						
21.	<u>Load Shed and Mag/Jet Circuit Tests</u>							
21.1	Function switch.	Set to 'LOAD SHED MAG/JET'.						
21.2	PAS/LFS screen, arming panel and CRT.	Examine PAS/LFS, Event 1 and Event 2 lamps and Port and Starboard 'W'. markers are lit.						
21.3	Pylon load lamp.	Ensure lit.						
21.4	Weapons trigger.	Operate and hold.						
21.5	SO Alt start lamp.	Ensure lit.						
21.6	Shed switch.	Operate.						
21.7	Mag/Jet lamp.	Ensure lights momentarily.						
21.8	SO Alt start lamp.	Ensure extinguished.						
21.9	Port acquisition lamp.	Ensure extinguishes for 4 to 6 seconds.						
21.10	Pylon load lamp.	Ensure extinguished.						
21.11	Weapons trigger.	Release.						
21.12	Starboard pylon connector box.	(i) Vent pressure to zero. (ii) Ensure pressure gauge continues to indicate zero.						

Continued

SMS/4A

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	17	AL 23		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								
21. <u>Load Shed and Mag/Jet Circuit Tests (Contd)</u>								
21.13	Misfire indicators.	(i)	Ensure Starboard indicator has operated.					
		(ii)	Ensure Port indicator has not operated.					
		(iii)	Reset Starboard indicator.					
21.14	Pylon selector switch.		Set to 'PO'.					
21.15	Pylon load lamp.		Ensure lit.					
21.16	Shed switch.		Operate.					
21.17	Pylon load lamp.)							
21.18	Power-to-Aircraft lamp.))	Ensure extinguished.					
21.19	Arming panel.	(i)	Ensure 'ARMING' lamp lit.					
		(ii)	Ensure 'ARMED' lamp flashing.					
21.20	'ARMING' switch.)							
21.21	Master Armament selector.))	Set to 'OFF'.					
21.22	Arming panel.	(i)	Ensure 'ARMING' lamp extinguished.					
		(ii)	Ensure 'ARMED' lamp extinguished.					
21.23	Nose cover lamp.		Ensure extinguished.					
21.24	Armed time indicator.		Reset to zero.					
21.25	Master Armament selector.		Set to 'GW'.					
21.26	Arming switch.		Set to 'ON'.					
SMS/5				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	18	AL 23			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									
21. <u>Load Shed and Mag/Jet Circuit Tests (Contd)</u>									
21.27 'ARMING' lamp.)									
21.28 Arming indicator) lamp.)									
21.29 Pylon load lamp.) Ensure lit.									
21.30 Power-to-) Aircraft lamp.)									
21.31 Nose cover lamp.)									
NB: Sub-item 21.32 is not to be commenced until the arming period initiated in Sub-item 21.26 is completed and the 'ARMED' lamp lit.									
21.32 Control box SO Set to 'NOT SEE'. SEE/NOT SEE switch.									
21.33 PAS/LFS screen, Ensure PAS/LFS, Event 1 arming panel lamp and Port 'W' marker and CRT. lit.									
21.34 Weapons trigger. Operate and hold.									
21.35 Control box PO Ensure lit. Alt start lamp.									
21.36 Shed switch. Operate.									
21.37 Mag/jet lamp. Ensure lit momentarily.									
21.38 Control box PO) Alt start lamp.) Ensure extinguished.									
21.39 Pylon load lamp.)									
21.40 Weapons trigger. Release.									
21.41 Port pylon connector. (i) Vent pressure to zero. (ii) Ensure gauge continues to indicate zero pressure.									
21.42 Misfire indicators. (i) Ensure Port indicator operated. (ii) Ensure Starboard indicator not operated. (iii) Reset Port indication.									
SMS/SA					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A ^{3E}				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	19	AL 23			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									
22.	Altitude Gain Control Unit Checks (Test 1)								
22.1	Function switch.	Set to 'AGC'.							
22.2	Meter M1.	Check that indication is between 9 and 5 in. Hg.							
22.3	Leak tester.	(i) Connect to LSU static test point.							
		(ii) Set to 'SUCTION TO STATIC'.							
		(iii) Operate pump until meter M1 indicates 20 in. Hg.							
22.4	Pylon selector switch.	Set to 'P0'.							
22.5	Meter M1.	Check indication is 20 in. Hg.							
22.6	Pylon selector switch.	Set to 'S0'.							
22.7	Leak test selector.	Set to 'RELEASE' and reduce vacuum until Meter M1 indicates 5 in. Hg.							
22.8	AGC switch.	Set to 'RELAY SET' and hold.							
22.9	AGC set control.	(i) Adjust clockwise until meter M2 indicates zero.							
		(ii) Continue clockwise adjustment until meter M2 suddenly deflects.							
22.10	Meter M2.	Ensure indicates within Green sector.							
22.11	AGC switch.	Set to 'RELAY'.							
22.12	Meter M2.	Ensure pointer remains steady.							
22.13	AGC switch.	Set to 'RELAY SET' and hold.							
SMS/6					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	20	AL 23			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									
22.	<u>Altitude Gain Control Unit Checks (Test 1)</u> (Contd)								
22.14	AGC set control.	(i)	Adjust anti-clockwise until meter M2 indicates zero.						
		(ii)	Continue anti-clockwise adjustment until meter M2 suddenly deflects.						
22.15	Meter M2.		Ensure indicates within Green sector.						
22.16	AGC switch.		Set to 'RELAY'.						
22.17	Meter M2.		Ensure pointer remains steady.						
23.	<u>Altitude Gain Controls Unit Check (Test 2)</u>								
23.1	Pylon selector switch.		Set to 'PO'.						
23.2	Testing.		Repeat Sub-items 22.8 to 22.17 inclusive.						
23.3	Leak tester.	(i)	Set to 'RELEASE'.						
		(ii)	Reduce vacuum to zero.						
		(iii)	Disconnect and stow						
24.	<u>General</u>								
24.1	Master armament switch.)	Set to 'OFF'.						
24.2	Arming switch.)							
24.3	Arming panel.		Ensure all lamps extinguished.						
24.4	Weapons trigger.		Set to 'SAFE'.						
24.5	FLS switch.		Set to 'CRT'.						
SMS/6A					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	21	AL 23		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								
25.	<u>General</u>							
25.1	Armament safety break key.	Fit.						
25.2	Ground arming link.	Remove.						
25.3	Misfire indicator.	Reset.						
25.4	Fire control system test set. (a) Power-to-Aircraft switch. (b) Power-to-Console switch.	Set to 'OFF'.						
25.5	115V 2.4 kHz GPU.	(i) Set to 'OFF'. (ii) Stop engine. (iii) Disconnect from fire control system test set.						
25.6	28V d.c. supply.)	(i) Set to 'OFF'.						
25.7	Ground cooling trolley.)	(ii) Disconnect.						
25.8	Armament installation test set cables.	(i) Disconnect. (ii) Stow.						
25.9	AI slaving cable and adapter.	Remove.						
25.10	AI 70 way UNITOR test plug.	Replace.						
25.11	GW pack test points.	Close protective caps.						
25.12	Pylon connectors.	(i) Remove. (ii) Stow.						
25.13	Pylon base fairings.	Fit.						
SMS/7 STC			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E				
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)				
SHEET	13	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>AI Slaving Tests (Test 1)</u> (Contd)									
12.10 Offset switch. (i) Set to 'PLUS 15', 'MINUS 10' and 'MINUS 15' degrees in turn and for each setting repeat Sub-item 12.9.									
(ii) Set to '0' degrees.									
13. <u>AI Slaving Tests (Test 2)</u>									
13.1 Signal Phase switch. Set to 'NORMAL'.									
13.2 Function switch. Set to 'AI YAW'.									
13.3 Testing. Repeat Sub-items 12.2 to 12.10 inclusive.									
14. <u>AI Slaving Tests (Test 3)</u>									
14.1 Pylon selector switch. Set to 'SO'.									
14.2 Function switch. Set to 'AI PITCH'.									
14.3 Testing. Repeat Sub-items 12.2 to 12.10 inclusive.									
15. <u>AI Slaving Tests (Test 4)</u>									
15.1 Signal Phase switch. Set to 'REVERSE'.									
15.2 Function switch. Set to 'AI YAW'.									
15.3 Testing. Repeat Sub-item 12.2 to 12.10 inclusive.									
NB: Items 16 to 19 inclusive are applicable only to packs fitted with SE400 Post SEM/FS/O14/STC.									
16. <u>Depressed LFS Tests (Test 1)</u>									
16.1 Pylon selector switch. Set to 'PO'.									
SMS/ 21					Continued				

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	113	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								
16. <u>Depressed LFS Tests (Test 1) (Contd)</u>								
16.2 Function switch. Set to 'AI PITCH'.								
16.3 Meter M2. Ensure indicates within green sector lower scale.								
16.4 LFS/CRT switch. Set to 'LFS D'.								
16.5 Meter M2. Ensure deflects fully right.								
16.6 Offset switch. Set to 'PLUS 5' degrees.								
16.7 Meter M2. Ensure indicates within green sector.								
16.8 LFS/CRT switch. Set to 'LFS'.								
16.9 Meter M2. Ensure indicates within green sector.								
16.10 Offset switch. Set to '0' degrees.								
17. <u>Depressed LFS Tests (Test 2)</u>								
17.1 Signal phase switch. Set to 'NORMAL'.								
17.2 Function switch. Set to 'AI YAW'.								
17.3 Meter M2. Ensure indicates within green sector.								
17.4 Testing. Repeat Sub-items 16.4 to 16.10 inclusive.								
18. <u>Depressed LFS Tests (Test 3)</u>								
18. Pylon selector switch. Set to 'SO'.								
18.2 Signal phase switch. Set to 'REVERSE'.								
18.3 Meter M2. Ensure indicates within green sector.								
18.4 LFS/CRT switch. Set to 'LFS D'.								
SMS/ 2A				Continued				

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 ^E Section 1 (1st Edition)				
SP NO	113	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								
21.	Load Shed and Mag/Jet Circuit Tests (Contd)							
21.2	PAS/LFS screen, arming panel and CRT.	Examine PAS/LFS, Event 1 and Event 2 lamps and Port and Starboard 'W'. markers are lit.						
21.3	Pylon load lamp.	Ensure lit.						
21.4	Weapons trigger.	Operate and hold.						
21.5	S0 Alt start lamp.	Ensure lit.						
21.6	Shed switch.	Operate.						
21.7	Mag/Jet lamp.	Ensure lights momentarily.						
21.8	S0 Alt start lamp.	Ensure extinguished.						
21.9	Port acquisition lamp.	Ensure extinguishes for 4 to 6 seconds.						
21.10	Pylon load lamp.	Ensure extinguished.						
21.11	Weapons trigger.	Release.						
21.12	Starboard pylon connector box.	(i) Vent pressure to zero. (ii) Ensure pressure gauge continues to indicate zero.						
21.13	Misfire indicators.	(i) Ensure Starboard indicator has operated. (ii) Ensure Port indicator has not operated. (iii) Reset Starboard indicator.						
21.14	Pylon selector switch.	Set to 'PO'.						
21.15	Pylon load lamp.	Ensure lit.						
SMS/ 22A				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3 E				
SP NO	113	CONTINUED	LIGHTNING		Section 1				
SHEET	17	AL 20			(1st Edition)				
					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									
21. <u>Load Shed and Mag/Jet Circuit Tests (Contd).</u>									
21.16 Shed switch. Operate.									
21.17 Pylon load lamp.)									
21.18 Power-to-) Ensure extinguished.									
Aircraft lamp.)									
21.19 Arming panel. (i) Ensure 'ARMING' lamp lit.									
(ii) Ensure 'ARMED' lamp flashing.									
21.20 'ARMING' switch.)									
21.21 Master Armament) Set to 'OFF'.									
selector.)									
21.22 Arming panel. (i) Ensure 'ARMING' lamp extinguished.									
(ii) Ensure 'ARMED' lamp extinguished.									
21.23 Nose cover lamp. Ensure extinguished.									
21.24 Armed time indicator. Reset to zero.									
21.25 Master Armament selector. Set to 'GW'.									
21.26 Arming switch. Set to 'ON'.									
21.27 'ARMING' lamp.)									
21.28 Arming indicator)									
lamp.)									
21.29 Pylon load lamp.) Ensure lit.									
21.30 Power-to-)									
Aircraft lamp.)									
21.31 Nose cover lamp.)									
NB: Sub-item 21.32 is not to be commenced until the arming period initiated in Sub-item 21.26 is completed and the 'ARMED' lamp lit.									
21.32 Control box S0 Set to 'NOT SEE'.									
SEE/NOT SEE switch.									
SMS/ 23					Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	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								
22.	<u>Altitude Gain Control Unit Checks (Test 1)</u> (Contd)							
22.4	Pylon selector switch.	Set to 'PO'.						
22.5	Meter M1.	Check indication is 20 in. Hg.						
22.6	Pylon selector switch.	Set to 'SO'.						
22.7	Leak test selector.	Set to 'RELEASE' and reduce vacuum until Meter M1 indicates 5 in. Hg.						
22.8	AGC switch.	Set to 'RELAY SET' and hold.						
22.9	AGC set control.	(i) Adjust clockwise until meter M2 indicates zero. (ii) Continue clockwise adjustment until meter M2 suddenly deflects.						
22.10	Meter M2.	Ensure indicates within Green sector.						
22.11	AGC switch.	Set to 'RELAY'.						
22.12	Meter M2.	Ensure pointer remains steady.						
22.13	AGC switch.	Set to 'RELAY SET' and hold.						
22.14	AGC set control.	(i) Adjust anti-clockwise until meter M2 indicates zero. (ii) Continue anti-clockwise adjustment until meter M2 suddenly deflects.						
SMS/ 24			Continued					

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3E Section 1 (1st Edition)				
SP NO	113	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								
22. <u>Altitude Gain Control Unit Checks (Test 1)</u> (Contd)								
22.15 Meter M2. Ensure indicates within Green sector.								
22.16 AGC switch. Set to 'RELAY'.								
22.17 Meter M2. Ensure pointer remains steady.								
23. <u>Altitude Gain Controls Unit Check (Test 2)</u>								
23.1 Pylon selector switch. Set to 'PO'.								
23.2 Testing. Repeat Sub-items 22.8 to 22.17 inclusive.								
23.3 Leak tester. (i) Set to 'RELEASE'. (ii) Reduce vacuum to zero. (iii) Disconnect and stow								
24. <u>General</u>								
24.1 Master armament switch.) Set to 'OFF'.								
24.2 Arming switch.)								
24.3 Arming panel. Ensure all lamps extinguished.								
24.4 Weapons trigger. Set to 'SAFE'.								
24.5 FLS switch. Set to 'CRT'.								
25. <u>General</u>								
25.1 Armament safety break key. Fit.								
25.2 Ground arming link. Remove.								
25.3 Misfire indicator. Reset.								
SMS/24A				Continued				

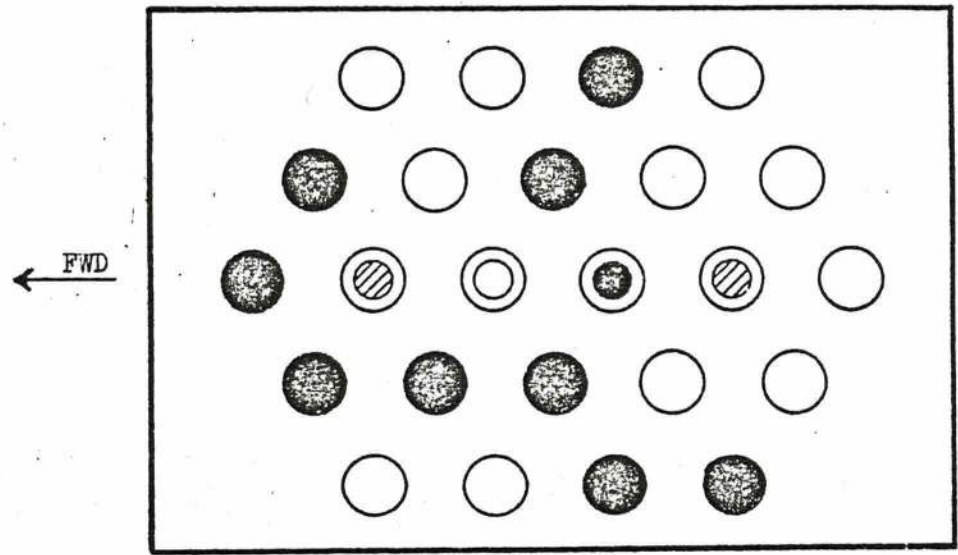
SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES LIGHTNING	AP101B-1000-5A3 E Section 1 (1st Edition)				
SP NO	113	CONTINUED		AC NO DATE				
SHEET	21	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								
25. <u>General</u> (Contd)								
25.4 Fire control system test set.								
(a) Power-to- Aircraft switch.)								
(b) Power-to- Console switch.)								
				Set to 'OFF'.				
25.5 115V 2.4 kHz GPU.				(i)	Set to 'OFF'.			
				(ii)	Stop engine.			
				(iii)	Disconnect from fire control system test set.			
25.6 28V d.c. supply.)				(i)	Set to 'OFF'.			
25.7 Ground cooling trolley.)				(ii)	Disconnect.			
25.8 Armament installation test set cables.				(i)	Disconnect.			
				(ii)	Stow.			
25.9 AI slaving cable and adapter.				Remove.				
25.10 AI 70 way UNITOR test plug.				Replace.				
25.11 GW pack test points.				Close protective caps.				
25.12 Pylon connectors.				(i)	Remove.			
				(ii)	Stow.			
25.13 Pylon base fairings.				Fit.				
SMS/ 25				Continued				

SMS 17A

CHAP	2	FLT SYST	SERVICING PROCEDURES		AP101B-1000-5A3E	
SP NO	113	CONTINUED	LIGHTNING		Section 1 (1st Edition)	
SHEET	22	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)

FIRESTREAK



- NO PITTING PERMISSABLE
- ▨ SLIGHT PITTING PERMISSABLE
- MUST BE CLEAN

FIG 1

FIRESTREAK pylon connector

SMS 17B





This file was downloaded
from the RTFM Library.

Link: www.scottbouch.com/rtfm

Please see site for usage terms,
and more aircraft documents.

ENGINE
INHIBITED
DO NOT
TURN
PROP