P/O

CHAP	2	SP 112		SERVICING PROCEDURES	AP 101B-1000-5A3E (Section 1 (1st Edition)
TRADE		FLT SYST		LIGHTNING	
SHEET	1	OF 37	SHEET/S	3 5 6 AL 20	RAF Form 2988B (Revised Jan 78)
TITLE	Red Top Guided Weapon Pack-Installation Test.				SERVICING RECORD

Aircraft/Equipment
Ser No:
Date:

TIME — ACT / EST

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

Special Tools and Equipment

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).

Tradesman Man Hrs	Tradesman Initials	Brief Details of Suspected Defect and MOD 7720 ORN/SNOW When Applicable	Supervisor Man Hrs	Supervisor Initials
1	2	3	4	5

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.

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.

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.

FLT SYST

1. General

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.

SCAN/LOCK ○	POW/CO ○	TM+ ○	TM- ○
FUZE/COOL ○	ALT ○	MISC ○	LINNET ○
	2400 ○	400A ○	400B ○

ASSOCIATED PROCEDURE CARDS

ASSOCIATED TRADES

SP NO 112

SMS/ 1

Continued

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

2. Preparation

2.1	Test set switch.	
	(a) Rad lock switch. (b) Signal switch.	Set to 'OFF'.
	(c) Tm/Mis switch.	Set to 'OUTER TM'.
	(d) Channel switch.	Set to 'L'.
	(e) Lamps test switch.	Set to 'USE'.
	(f) Obscuration switch.	Set to 'SLAVING'.
	(g) Rad Ang switch.	Set to 'ZERO'.
	(h) Misc switch.	Set to 'MISC'.
	(j) Range switch.	Set to 'OFF'. (Centre position).
2.2	Aircraft.	
	(a) Arm/Safe switch.	Set to 'SAFE'.
	(b) Single/Pairs switch.	Set to 'SINGLE'.
	(c) Master arming selector switch.	Set to 'OFF'.
	(d) CRT/LFS switch.	Set to 'CRT'.
	(e) 70-way Ferranti Unitor. (Spine compartment)	Disconnect.
	(f) 70 way test adaptor. (Spine compartment).	Fit.
	(g) Pylon base fairing.	Remove.
	(h) Pure air supply.	Reconnect or fit servicing air bottle.
2.3	Test set counter.	Set to zero.

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

2. Preparation (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. Arming and Installation Test

3.1	Armament safety break key.	Remove.

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Continued

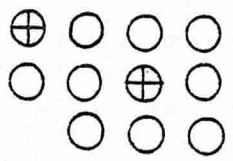
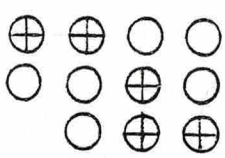
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

3. Arming and Installation Test (Contd)

3.2	Ground arming link. (A/C).	Fit and turn and ensure lamps indicate in the following pattern:-  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:- 
3.5	Lamps test switch. (T/S).	Set to 'TEST' and ensure all lamps on test set are lit.

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. Arming and Installation Test (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:-	
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.

Continued

FLT SYST

4. Miscellaneous Test

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.

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)

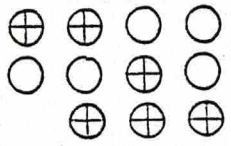
FLT SYST

4. Miscellaneous Test (Contd)

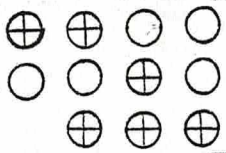
4.4	70 Way test adaptor. (Spine compartment).	Remove.
4.5	CRT/LFS switch. (A/C).	Set to 'CRT'.
4.6	Armed lamp. (A/C).	Ensure lights after 2 minutes PLUS OR MINUS 30 seconds. Note: This time interval is to be judged by using the counter on the test set which will continue to run.

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:-



Continued

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

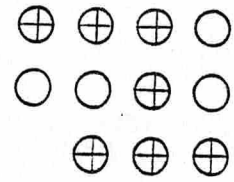
SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

6. Slaving Test

6.1 Rad Ang switch. (T/S). Set to '+' and ensure lamps indicate in the following pattern:-

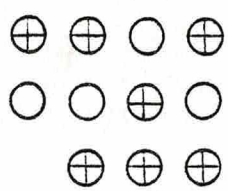


6.2 Tm/Mis switch. (T/S). Set to 'INNER TM' and ensure no change in lamp pattern.

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:-



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.

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

6. Slaving Test (Contd)

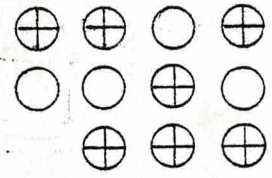
6.9 Rad Angle switch. (T/S). Set to 'Zero'.

NB: Sub-items 6.10 to 6.15 are applicable only to aircraft with 'look-down' modifications embodied.

6.10 CRT/LFS switch. (A/C). Set to 'LFSD' and ensure no change in lamp pattern.

6.11 Channel switch. (T/S). Set to 'L' and ensure no change in lamp pattern.

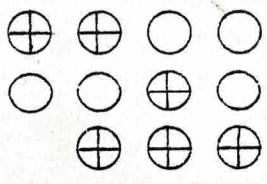
6.12 Tm/Mis switch. (T/S). Set to 'Inner TM' and ensure lamps indicating the following pattern:-



6.13 Channel switch. (T/S). Set to 'R' and ensure no change in lamp pattern.

6.14 Tm/Mis switch. (T/S). Set to 'Outer TM'.

6.15 CRT/LFS switch. (A/C). Set to 'CRT' and ensure lamps indicating the following pattern:-



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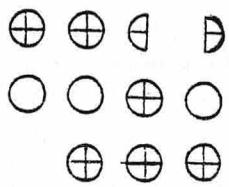
FLT SYST

6. Slaving Test (Contd)

6.16	Rad lock switch. (T/S).	(i) Set to 'OFF'. (ii) Set to 'LOCK'.

7. Scan Test

7.1	Range switch. (T/S).	Set to 'SCAN' and ensure lamps indicate in the following pattern:-



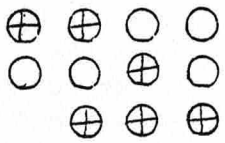
7.2	Tm/Mis switch. (T/S).	Set to 'INNER TM' and ensure no change in lamp pattern.
7.3	Channel switch. (T/S).	Set to 'L' and ensure no change in lamp pattern.
7.4	Tm/Mis switch. (T/S).	Set to 'OUTER TM' and ensure no change in lamp pattern.

FLT SYST

Note Items 8 to 13 inclusive are applicable to Weapon Packs Post Mod KAQ 156 only.

8. Scan Lock Test Acquisition

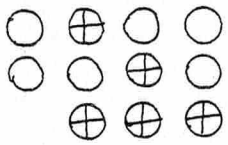
8.1 Range switch. (T/S). Set to 'OFF' (Centre position), and ensure lamps indicate in the following pattern:-



8.2 Tm/Mis switch. (T/S). Set to 'MISFIRE' and ensure no change in lamp pattern.

8.3 Signal switch. (T/S). Set to 'SEEING' and ensure no change in lamp pattern.

8.4 Range switch. (T/S). Set to 'SCAN' and ensure lamps indicate in the following pattern:-



Note: There will be a delay of about 1 second before the Scan/Lock lamp is extinguished and the Event 1 lamp in the A/C lights.

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)

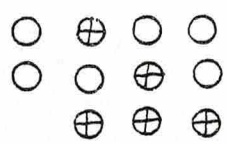
FLT SYST

8. Scan lock Test Acquisition (Contd)

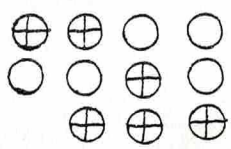
8.5	Channel switch. (T/S).	Set to 'R' and ensure no change in lamp pattern. Event 2 lamp in A/C lights and Event 1 lamp in A/C extinguishes within 2 seconds.

9. Weapon System Obscuration Test

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.



(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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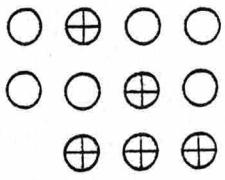
Continued

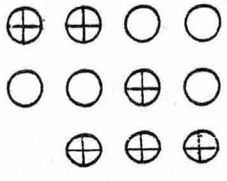
FLT SYST

9. Weapon System Obscuration Test (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.



(ii) Ensure lamps indicate in the following pattern. for Ob positions and the Event 1 lamp in the A/C is extinguished.



(iii) Return to 'SLAVING' Ensure Event 1 in A/C lights.

FLT SYST

9. Weapon System Obscuration Test (Contd)

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:-

⊕ ⊕ ○ ○
○ ○ ⊕ ○
⊕ ⊕ ⊕

(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. Firing Sequence/Single Port/Inadvertant Pairs Firing

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.

○ ⊕ ○ ○
○ ○ ⊕ ○
⊕ ⊕ ⊕

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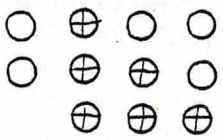
FLT SYST

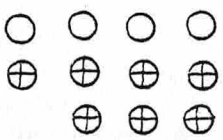
10. Firing Sequence/Single Port/Inadvertant Pairs Firing (Contd)

10.2 Fire committal switch. (A/C).

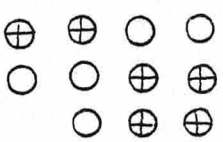
(i) Depress and hold and ensure lamps indicate in the following pattern for t = 0 seconds.



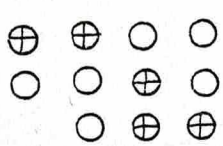
(ii) Ensure lamps indicate in the following pattern for t = 1/2 second.



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



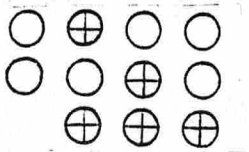
(iv) Ensure lamps indicate in the following pattern for t = 1.5 seconds and the Event 1 lamp in the A/C is extinguished and Port Gone Lamp in the A/C is lit.



FLT SYST

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

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.

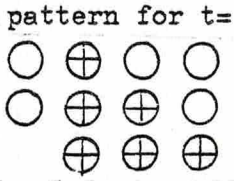


10.4	Fire committal switch.(A/C).	Release.

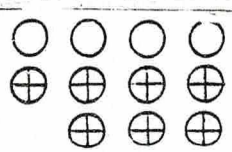
Note If the results are misread, to repeat this sub-item set the Channel switch (T/S) to 'L' and depress and release A/C Reset Switch and recommence testing at sub-item 10.1.

11. Firing Sequence/Single Starboard/Inadvertant Pairs Firing

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= ½ second.



SERVICING RECORD

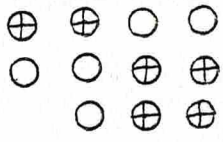
(1)	(2)	(3)	(4)	(5)

FLT SYST

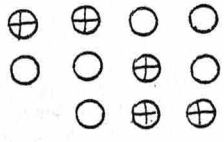
11. Firing Sequence/Single Starboard/ Inadvertant Pairs Firing (Contd)

11.1 Fire commital switch. (A/C). (Contd).

(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. 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.



11.2 Fire commital switch.(A/C).

Release.

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FLT SYST

▶ 11. Firing Sequence/Single Starboard/ Inadvertant Pairs Firing (Contd)

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.

○ ⊕ ○ ○
○ ○ ⊕ ○
⊕ ⊕ ⊕

11.4 Fire committal switch.(A/C). (i) Depress and hold. Ensure lamps indicate in the following pattern for t= 0 seconds.

○ ⊕ ○ ○
○ ⊕ ⊕ ○
⊕ ⊕ ⊕

(ii) Ensure lamps indicate in the following pattern for t= $\frac{1}{2}$ second.

○ ○ ○ ○
⊕ ⊕ ⊕ ⊕
⊕ ⊕ ⊕

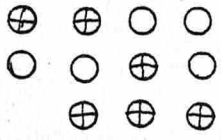
(iii) Ensure lamps indicate in the following pattern for t= 1 second.

⊕ ⊕ ○ ○
○ ○ ⊕ ⊕
○ ⊕ ⊕

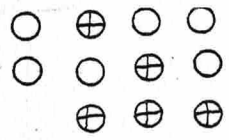
FLT SYST

11. Firing Sequence/Single Starboard/ Inadvertant Pairs Firing (Contd)

11.4	Fire committal switch. (A/C). (Contd).	(iv)	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'.

Note 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.

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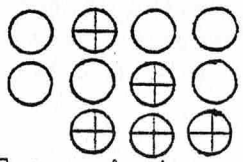
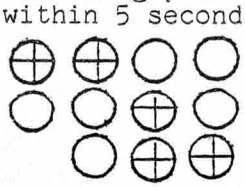
FLT SYST

12. Firing Sequence/Pairs

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 patten.	
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.

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

(1)	(2)	(3)	(4)	(5)

FLT SYST

12. Firing Sequence/Pairs (Contd)

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: ○ ⊕ ○ ○ ○ ○ ⊕ ○ ⊕ ⊕ ⊕ (ii) Ensure Arming, Armed and Event 1 lamps light and Port and Starboard Gone lamps exstinguished 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:- ⊕ ⊕ ○ ○ ○ ○ ⊕ ○ ○ ⊕ ⊕

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Continued

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

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

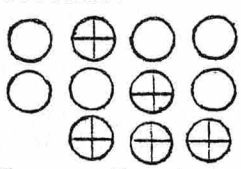
FLT SYST

12. Firing Sequence/Pairs (Contd)

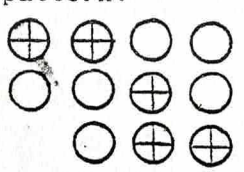
12.11 Fire committal	(ii)	Ensure Event 1, Event 2, Arming and Armed lamps extinguish and Port and Starboard Gone lamps light in the A/C.
	(iii)	Ensure counter on T/S stops.
12.12 Channel switch. (T/S).		Set to 'L' and ensure no change in lamp pattern.

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.

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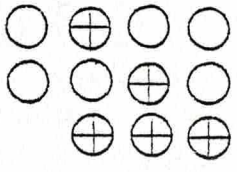
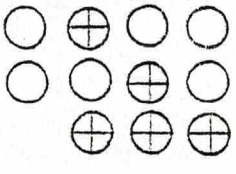
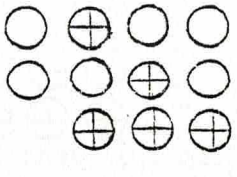
Safety and Servicing Notes are to be complied with throughout the work detailed on this card.

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

FLT SYST

12. Firing Sequence/Pairs (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.

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

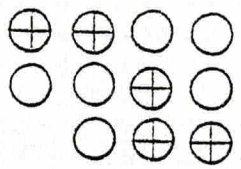
SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

12. Firing Sequence/Pairs (Contd)

12.21 Channel switch. (T/S).

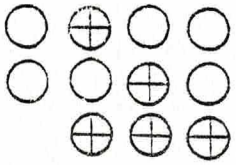
(i) Set to 'L' and ensure lamps indicate the following pattern :



(ii) Ensure Event 1 lamp is extinguished.

12.22 Reset switch. (A/C).

(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.

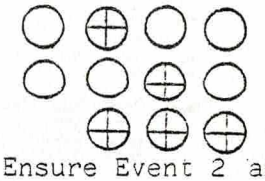
12.23 Rad Ang switch. (T/S). Set to 'ZERO'.

12.24 Fire committal switch. (A/C). Depress and hold.

12.25 Channel switch. (T/S). 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.

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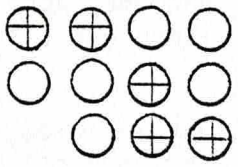
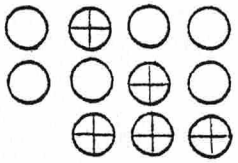
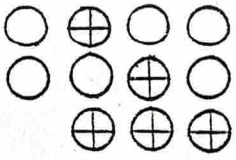
Continued

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. Firing Sequence/Pairs (Contd)

12.27 Channel switch. (T/S).	(i)	Set to 'L' and ensure lamps indicate the following pattern: 
	(ii)	Ensure Event 1 lamp is extinguished.
12.28 Reset switch. (A/C).	(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. (T/S).		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: 

FLT SYST

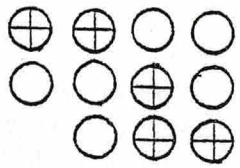
12. Firing Sequence/Pairs (Contd)

12.31 Fire committal switch. (Contd)

(ii) Ensure Event 2 and Port gone lamps are lit.

12.32 Channel switch. (T/S).

(i) Set to 'L' and ensure lamps indicate following pattern:



(ii) Ensure Event 2 lamp is extinguished.

13. Misfire Sequence Test

13.1 Single/Pairs switch. (A/C). Set to 'SINGLES' and ensure no change in lamp pattern.

13.2 Tm/Misc switch. (T/S). Set to 'MISFIRE' and ensure no change in lamp pattern.

13.3 Reset switch. (A/C). Depress for 2 seconds and release and ensure Counter (T/S) starts.

NB: Allow 20 seconds to elapse before carrying out Sub-item 13.4.

13.4 Fire committal switch. (A/C). Depress and hold.

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FLT SYST

13. Misfire Sequence Test (Contd)

13.5	Channel switch. (T/S).	Set to 'R'.
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. (T/S).	Set to 'L'.
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. (A/C).	Depress and release and ensure that Counter (T/S) starts.

▶ ◀

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

14. Breakaway Test

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.
	Note:	Scan/Lock lamp on T/S remains lit while this switch is depressed.

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)

FLT SYST

15. Barometric Capsule Check

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 presure and ensure Misc lamp brightens.

16. Test Termination

16.1	Fire control system test set.	
	(a) Rad lock switch.	Set to 'OFF'.
	(b) Signal switch.	
	(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).	

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Continued

FLT SYST

16. Test Termination (Contd)

16.4	Ground equipment.	
	(a) Test set.	Remove.
	(b) Cable J4 01175A.) (c) Cable J4 01363A)	Disconnect from test TP1 and TP2 respectively on the weapon pack distribution panel.
	(d) 115 2400 Hz supply cable.	Disconnect from RJ27 on weapon pack distribution panel.

17. Pylon Continuity Testing Preparation

17.1	Weapon Pack Butt Connectors.	(i) Clean. (ii) Examine (Fig 1).
17.2	Weapon pack distribution panel.	
	(a) Test socket TP1.	Connect shorting plug assembly J4 01506A. (37 way).
	(b) Test socket TP2.	Connect shorting plug assembly J4 00367A. (47 way). Note: Ensure switch is set to 'OFF'.
17.3	115V 2400 Hz supply cable.	Ensure DISCONNECTED from weapon pack.
17.4	28V External DC supply to aircraft.	
17.5	200V 400 Hz external a.c. supply to aircraft.	Switch ON.

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. Port Pylon Continuity Test

NB During this item the following Precautions must be observed:
(a) 115V ac 2.4 KHz power supply must NOT be switched on.
(b) The GW arming switch must NOT 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'.

Continued

SERVICING RECORD				
(1)	(2)	(3)	(4)	(5)

FLT SYST

18. Port Pylon Continuity Test

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. Starboard Pylon Continuity Test

NB During this item the following precautions must be observed:
(a) 115V ac 2.4 KHz power supply must NOT be switched on.
(b) The GW arming switch must NOT 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.

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

(1)	(2)	(3)	(4)	(5)

FLT SYST

19. Starboard Pylon Continuity Test (Contd)

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) TP2.)	Disconnect shorting plug assemblies.

20. Radar Signal Continuity Testing

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'.

Continued

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

▶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 indicattions.

21. General

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.

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. General

21.8	Test adapters.	Remove.
21.9	Unitor plug (70 way).	Reconnect.

22. 2 M.C.U Miscellaneous Supplies Deck Check

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.

Continued

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

SERVICING RECORD

(1)	(2)	(3)	(4)	(5)

22. 2 M.C.U Miscellaneous Supplies Deck Check

TABLE 2

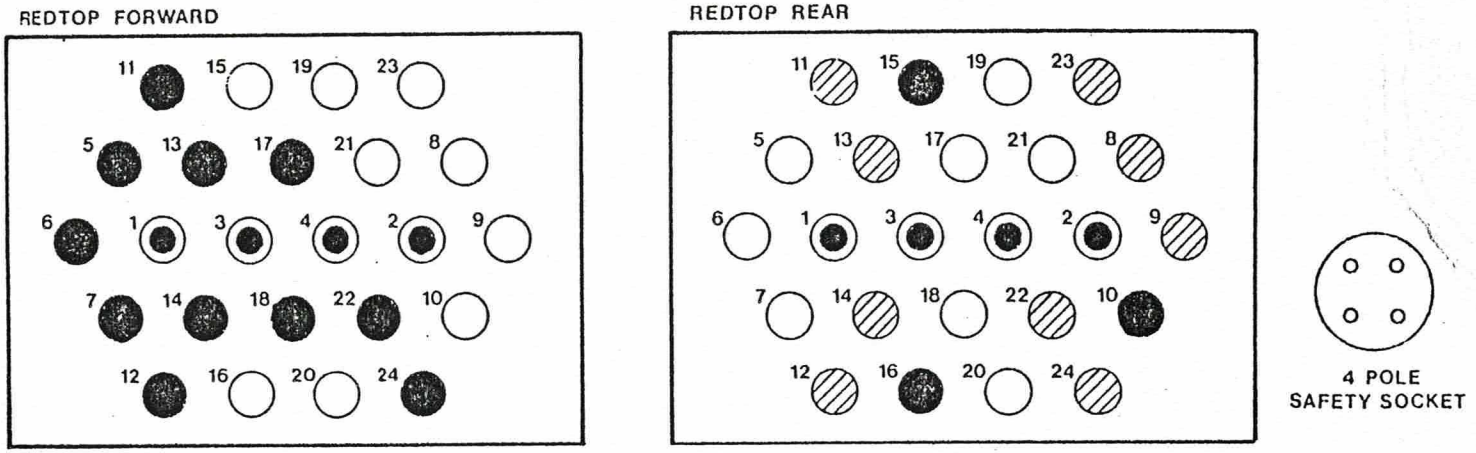
TITLE	LAMP	TEST CONN 24 WAY	ADAPTER 70 WAY	PL/SK RJ 5 WHITE	PACK TP1
Radar Lock	2FA	9	45	Q	N
K Factor	6FA	3	67	D	B
Fuze Common	10FA	21	62	H	L
Fuze App Volt to Radar	15A	5	64	F	K
Fuze App Volt to Missile	16A	7	63	G	H
Launch Warning	18A	12	51	Z	D
Range Bracket	19A	13	38	P	C
AGC	20A	14	66	E	
			65	U	
Radar 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/ 5A STC

Continued

SMS 17A

SMS / Fig 20



REDTOP pylon connectors

Fig 1

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