SECTION 9

RADAR INSTALLATION

LIST OF CHAPTERS OVERLEAF

SECTION 9

RADAR INSTALLATION

LIST OF CHAPTERS

Note.- *A list of contents appears at the beginning of each chapter*

Chapter I GREEN SATIN

◀PRE MOD. 5466▶

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◀**Note**...*Combined theoretical/routeing diagrams for this installation are contained in A.P. 101B-0417-10 (Servicing Diagrams Manual).*▶

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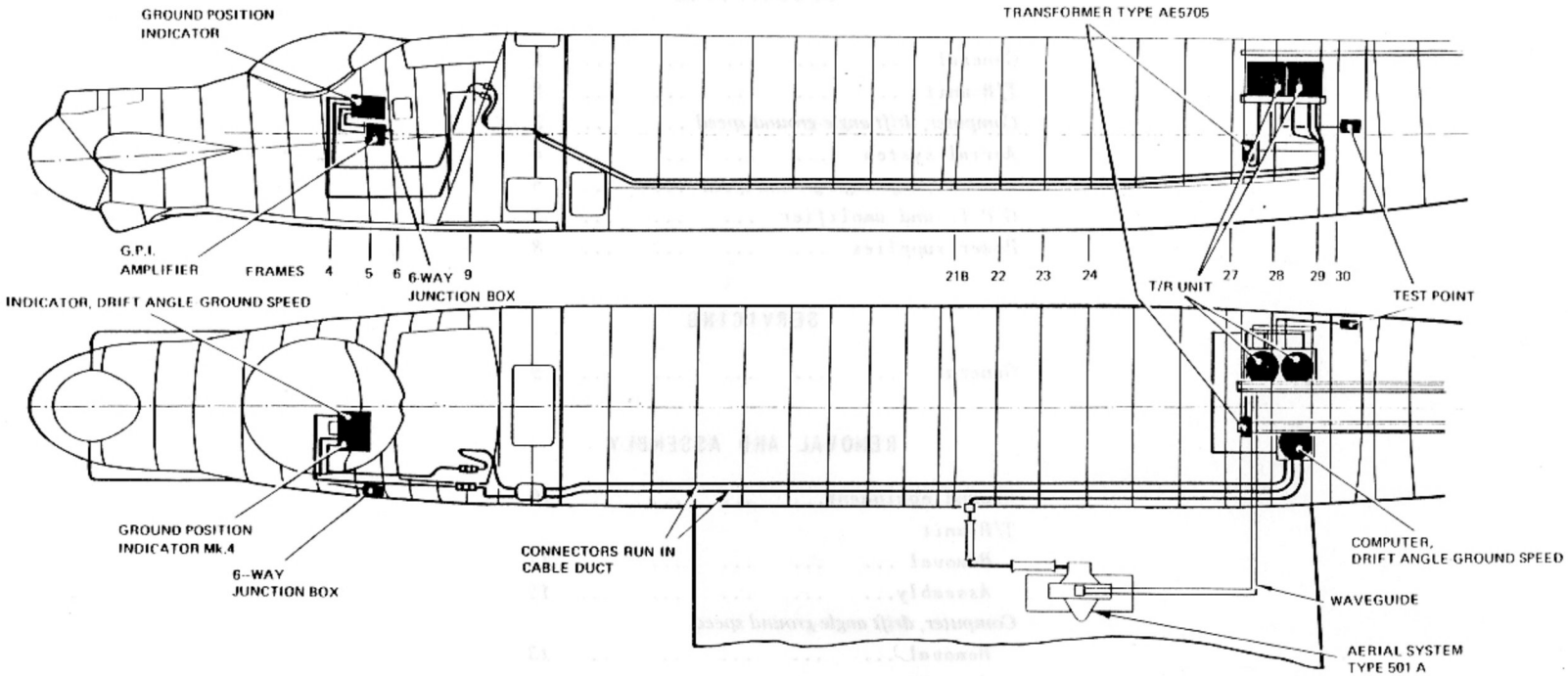

EG7.82.3013.1A

FIG. 1. GREEN SATIN A.R.I. 5951 INSTALLATION

◀ CIRCUIT DELETED ▶

DESCRIPTION

General

1. The A.R.I. 5951 system is an airborne navigational aid which measures the ground speed and drift angle of aircraft in flight at altitudes between 400 and 60,000 ft. It operates on the Doppler principle and provides a continuous indication of ground speed over the range 100 to 700 knots, and drift angle from 0 to 20 degrees, port and starboard, with an accuracy under normal flight conditions of ± 0.7 per cent and ± 0.1 degrees, respectively. The equipment incorporates a facility for informing the navigator of signal failure and then remembering the last known ground speed and drift information. A cyclometer-type counter is also fitted which indicates ground miles flown and registers in tenths of a nautical mile up to 9999.9 nautical miles.

T/R unit

2. The Type TR3710 T/R unit, mounted at the starboard side in the fuselage between frames 27 and 29, consists of two cylindrical containers. One container houses the modulator, magnetron and first I.F. amplifier while the second container houses the H.T. and E.H.T. power supplies. Electrical connections between the two are made via a cable duct on the underside of the base. Also under the base is the waveguide system. Both containers are pressurized to 5 lb/in^2 above atmospheric pressure at ground level and a Schrader valve is provided on the base casting for this purpose. Each pressure cover has a rubber sealing ring in its bottom flange and is secured to its baseplate by four quick-release clamps. The pressure cover is surrounded by a slightly larger cover with an air inlet port at the back and a vent at the top which acts as a heat exchanger and is secured by a retaining ring at its base. The blowers that provide the cooling air are part of the backplate assembly and mounting tray.

Computer drift angle-ground speed

3. The computer, drift angle-ground speed 16897, mounted in the fuselage at the port side between frames 28 and 29, is self contained with its own power supplies. It receives the I.F. signal from the T/R unit, amplifies, detects and filters it to extract the Doppler frequencies from which the ground speed, distance flown and drift angle are computed. The unit has a cylindrical container, pressurized to 5 lb/in^2 above atmospheric pressure at ground level, the baseplate casting of which is bolted to a rectangular plinth. The pressure cover has a rubber sealing ring in its bottom flange and is secured to the baseplate by four quick-release clamps. A blower which forms part of the backplate assembly and mounting tray circulates the cooling air between the pressure cover and the outer cover.

Aerial system

4. The Type 501A aerial system is situated in the port inner wing and consists of four slotted waveguide linear arrays, lying parallel to each other, in a directional horn assembly, the axis of the aerials being horizontal. The linear arrays are arranged in phased and anti-phased pairs with a common feed at one end providing forward and backward looking beams. To determine drift the aerials can be rotated through 20 degrees either side of the fore-and-aft line of the aircraft.

Indicator, drift angle-ground speed

5. This indicator is mounted at the starboard side of the navigator's station and provides a:-

Ground speed indicator:
Speed is indicated on an instrument calibrated from 100 to 700 knots at 5 knot intervals.

Drift angle indicator:
Drift angle is indicated on an instrument calibrated from 20 deg port to 20 deg starboard.

Distance flown indicator:
Distance flown is indicated on a counter to within a tenth of a nautical mile up to 9999.9 miles. A reset knob is provided which returns the figures to zero.

6. Also on the front panel are inching and neon indicator controls. The neons give a supplementary approximate indication of ground speed, and are used in conjunction with the inching controls in locking the equipment for correction operation. They are also used to indicate when the equipment is locked on signal.

G.P.I. and amplifier

7. These two items are located at the starboard side of the navigator's station and are connected to the indicator, drift angle-ground speed and the computer, drift

angle-ground speed. They are also connected to the A.D.R.I.S. system via the GM4B junction box.

Power supplies

8. The routeing of the power supplies is shown in the combined theoretical and routeing diagrams in A.P.101B-0417-10 (Servicing Diagrams Manual).

SERVICING

WARNING

The relevant safety precautions detailed on the LETHAL WARNING marker card must always be observed before entering the cabin or performing any operations upon the aircraft.

General

9. Servicing information on the system is given in A.P.114E-0300-1. Gantries are provided in the roof of the rear fuselage to permit the use of a trolley, mini-lift hoist and special slings, to remove and install the T/R unit and tracking unit. When removing the T/R and tracking unit care must be taken to prevent damage to the tail-plane control electrical cables and to the supply line from the fire extinguisher.

REMOVAL AND ASSEMBLY

Ground equipment

10. The following tools and equipment are required:-

Ref.No.	Description
26FZ/95431	Trolley, con-rod, mono-rail
26FZ/95432	Sling, front, Green Satin
26FZ/95433	Sling, rear, Green Satin
26FZ/95434	Sling, tracking unit
4GC/5699	Hoist, a/c heavy 2½ cwt
4GC/5744	Handle, winch, 6-in.
4GC/5431	Tube, extension, 4½-in.
4GC/5432	Top, sheath (Type 2)
4GC/5433	Ball-end, cable winch

T/R unit

Removal

11.

(1) Fit the trolley assembly to the starboard mono-rail and insert the stop pin at the rear of the rail.

(2) Fit the hoist to the rear hook of the trolley assembly.

(3) Attach the rear sling to the cable ball-end.

(4) Attach the front sling to the forward hook of the trolley assembly.

(5) Position the trolley assembly above the T/R.

(6) Hook the front sling to the forward carrying handle and the rear sling to the rear carrying handle of the T/R.

(7) Free the T/R from the mounting tray.

(8) Operate the front sling turnbuckle to lift the front of the T/R clear of the mounting tray.

(9) Operate the hoist to lift the rear of the T/R clear of the mounting tray.

(10) Push the trolley assembly to the rear of the rail until it abuts against the stop pin.

(11) Lift the front of the T/R and unhook the front sling from the carrying handle then lower the T/R to the vertical position.

(12) Operate the hoist to lower the T/R.

(13) Remove the rear sling from the rear handle of the T/R.

(14) Remove the slings and hoist from the trolley assembly.

(15) Remove the trolley from the mono-rail.

(16) Refit the stop pin to the rail.

Assembly

12.

(1) Fit the trolley assembly to the starboard mono-rail and insert the stop pin at the rear of the rail.

(2) Fit the hoist to the trolley assembly rear hook.

(3) Hook the rear sling to the rear carrying handles of the T/R.

(4) Attach the cable hoist ball-end to the rear sling.

(5) Attach the front sling to the forward hook of the trolley assembly.

(6) Operate the hoist to raise the T/R on the rear sling to within a few inches of the mono-rail.

(7) Pull the trolley assembly to the rear of the rail until it abuts against the stop pin.

(8) Lift the T/R by the front handles to a horizontal position and attach the front sling to the handles.

(9) Push the trolley assembly forward until the T/R is positioned over the mounting tray.

(10) Operate the hoist to lower the rear of the T/R.

(11) Operate the front sling turnbuckle to lower the front of the T/R over the mounting tray.

(12) Remove the slings from the T/R.

(13) Secure the T/R to the mounting tray.

(14) Remove the slings and hoist from the trolley assembly.

(15) Remove the trolley assembly from the mono-rail.

(16) Refit the stop pin to the mono-rail.

Computer, drift angle-ground speed

Removal

13.

(1) Fit the trolley assembly rear hook to the port mono-rail and insert the stop pin at the rear of the rail.

(2) Hook the hoist to the trolley assembly.

(3) Attach the sling, 26FZ/95434 to the cable hoist ball-end.

(4) Position the trolley assembly above the computer unit.

(5) Hook the sling to the carrying handles of the computer unit.

(6) Free the computer unit from the mounting tray.

(7) Operate the hoist to lift the computer unit clear of the mounting tray.

(8) Push the trolley assembly to the rear of the rail until it abuts against the stop pin.

(9) Operate the hoist to lower the computer unit.

(10) Remove the sling from the computer unit.

(11) Remove the sling and hoist from the trolley assembly.

(12) Remove the trolley assembly from the mono-rail.

(13) Refit the stop pin to the rail.

Assembly

14.

(1) Fit the trolley assembly rear hook to the port mono-rail and insert the pin at the rear of the rail.

(2) Hook the hoist to the trolley assembly.

(3) Hook the sling to the carrying handles of the computer unit.

(4) Attach the cable hoist ball-end to the sling.

(5) Operate the hoist to raise the computer unit as high as possible.

(6) Push the trolley assembly forward until the computer unit is positioned above the mounting tray.

(7) Operate the hoist to lower the computer unit to the mounting tray.

(8) Remove the sling from the computer unit.

(9) Secure the computer unit to the mounting tray.

(10) Remove the sling from the trolley assembly.

(11) Remove the trolley assembly from the mono-rail.

(12) Replace the stop pin in the mono-rail.

TABLE 1

Connectors

CONNECTOR LA EG7.82.1195

TERMINATION	PIN	CABLE	PIN	TERMINATION
Computer unit 8-way socket LA	1	MNMS22	1	T/R unit 8-way plug LA
	2	MN22	2	
	3	MN22	3	
	4	MNMS22	4	
	5	MN22	5	
	6	MN22	6	
	7	MN22	7	
	8	MN22	8	

Pin 2 is connected to screening of cores 1 and 4 at both ends.

CONNECTOR LB/B EG7.82.1205

TERMINATION	PIN	CABLE	PIN	TERMINATION
Fuselage skin 25-way Mk.7 socket LB/B	A	MN22	1	Computer unit 28-way connector LB/B
	B	MN22	2	
	C	MN22	3	
	D	MN22	4	
	E	MN22	5	
	F	MN22	6	
	G	MN22	7	
	H	MN22	8	
	J	MN22	9	
	K	MNMS22	10	
	L	MNMS22	11	
	M	MNMS22	12	
	N	MN22	13	
	O	MNMS22	14	
	P	MNMS22	15	
	Q	MNMS22	16	
	R	MN22	17	
	S	MNMS22	18	
	T	MNMS22	19	
	U	MNMS22	20	

CONNECTOR LB/B EG7.82.1205 – *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
Fuselage skin 25-way Mk.7 socket LB/B	V	MN22	21	Computer unit 28-way connector LB/B
	W	MNMS22	22	
	X	MNMS22	23	
	Y	MNMS22	24	
	Z	MN20	25	

Pin J is connected to screening of cores K, L, M, O, P, Q, S, T, U, W, X and Y

Pin 9 is connected to screening of cores 10, 11, 12, 14, 15, 16, 18, 19, 20, 22, 23, and 24

CONNECTOR LB/B1 EG7.82.1207

TERMINATION	PIN	CABLE	PIN	TERMINATION
Fuselage skin 25-way Mk.7 plug LB/B1	A	MN22	A	Aerial, port wing 25-way Mk.7 socket LB/B1
	B	MN22	B	
	C	MN22	C	
	D	MN22	D	
	E	MN22	E	
	F	MN22	F	
	G	MN22	G	
	H	MN22	H	
	J	MN22	J	
	K	MNMS22	K	
	L	MNMS22	L	
	M	MNMS22	M	
	N	MN22	N	
	O	MNMS22	O	
	P	MNMS22	P	
	Q	MNMS22	Q	
	R	MN22	R	
	S	MNMS22	S	
	T	MNMS22	T	
	U	MNMS22	U	
	V	MN22	V	
	W	MNMS22	W	

continued...

TABLE 1 Connectors - *continued*

CONNECTOR LB/B1 EG7.82.1207 - *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
Fuselage skin 25-way Mk.7 plug LB/B1	X	MNMS22	X	Aerial, port wing 25-way Mk.7 socket LB/B1
	Y	MNMS22	Y	
	Z	MN22	Z	

Pin J is connected to screening of cores K,L,M,O,P,Q,S,T,U,W,X, and Y

CONNECTOR LC EG7.82.167

TERMINATION	PIN	CABLE	PIN	TERMINATION
Indicator unit 20-way socket LC	1	MNMS22	A	Pressure bulkhead 25-way Mk.7 socket LC
	2	Coaxial	B	
	3	MN22	C	
	4	MNMS22	D	
	5	MNMS22	E	
	6	MNMS22	F	
	7	MN22	G	
	8	MN22	H	
	9	MN22	J	
	10	MNMS22	K	
	11	MN22	L	
	12	MN22	M	
	13	MN22	N	
	14	MNMS22	O	
	15	MNMS22	P	
	16	MNMS22	Q	
	17	MN22	R	
	18	MN22	S	
	19	MN22	T	
	20	MN22	U	

Pin 11 is connected to screening of cores 1,2,4,5,6,10,14,15 and 16

Pin W is connected to screening of cores A,D,E,F,K,O,P, and Q.
Pin B screening is connected to pin Z

CONNECTOR LC/1 EG7.82.169

TERMINATION	PIN	CABLE	PIN	TERMINATION
Pressure bulkhead 25-way Mk.7 plug LC/1	A	NMS22	1	Computer unit 20-way plug LC/1
	B	Coaxial	2	
	C	N22	3	
	D	NMS22	4	
	E	NMS22	5	
	F	NMS22	6	
	G	N22	7	
	H	N22	8	
	J	N22	9	
	K	NMS22	10	
	L	N22	11	
	M	N22	12	
	N	N22	13	
	O	NMS22	14	
	P	NMS22	15	
	Q	NMS22	16	
	R	N22	17	
	S	N22	18	
	T	N22	19	
	U	N22	20	

Pin W is connected to screening of cores A,D,E,F,K,O,P,Q.
Pin Z is connected to screening of B

Pin 11 is connected to screening of cores 1,4,5,6,10,14,15 and 16

CONNECTOR LD EG7.82.161

TERMINATION	PIN	CABLE	PIN	TERMINATION
Ground position indicator 8-way socket LD	1	NMS22	A	Pressure bulkhead 12-way free socket LD
	2	NMS22	B	
	3	NMS22	D	
	4	NMS22	G	
	5	NMS22	J	

Pin 6 is connected to screening of cores 1,2,3,4, and 5

Pin A screening to pin C
Pin B screening to pin F

continued...

TABLE 1 Connectors - *continued*

CONNECTOR LD EG7.82.161 - *continued*

Pin D screening to pin E
Pin G screening to pin H
Pin J screening to pin K

CONNECTOR LM EG7.82.175

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
T/R unit LM	1	N14	Red		Terminal block LM
	2	N14	Yellow		
	3	N14	Blue		

CONNECTOR LN/A EG7.82.177

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
T/R unit 8-way socket LN/A	1 & 2	N14	Red		Terminal block ring tongue tags LN/A
	3 & 4	N14	Yellow		
	5 & 6	N14	Blue		

CONNECTOR LP EG7.82.159

TERMINATION	PIN	CABLE	PIN	TERMINATION
Indicator unit 101 8-way plug LP	2	N22	2	Ground position indicator 8-way socket L.P.
	3	N22	3	
	4	NMS22	4	
	5	NMS22	5	
	6	NMS22	6	
	7	N22	7	
	8	N22	8	

Pin 2 is connected to screening of cores 4,5 and 6

CONNECTOR LT EG7.82.173

TERMINATION	PIN	CABLE	PIN	TERMINATION
Ground position indicator 8-way socket LT	1	NMS22	A	Amplifier 6-way socket LT
	2	NMS22	B	
	3	N22	C	

CONNECTOR LT EG7.82.173 - *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
Ground position indicator 8-way socket LT	4	N22	D	Amplifier 6-way socket LT
	5	N22	E	
	6	N22	F	

Pin 3 is connected to screening of cores 1 and 2

Pin C is connected to screening of cores A and B

CONNECTOR LD/1 EG7.82.163

TERMINATION	PIN	CABLE	PIN	TERMINATION
Pressure bulkhead free 12-way Mk.7 plug LD/1	A	NMS22	1	Computer unit 8-way plug LD/1
	B	NMS22	2	
	D	NMS22	3	
	G	NMS22	4	
	J	NMS22	5	

Pin C connected to screening of core A
Pin E connected to screening of core D
Pin F connected to screening of core B
Pin H connected to screening of core G
Pin K connected to screening of core J

Pin 6 connected to screening of cores 5,4,3,2 and 1

CONNECTOR ASSEMBLY LG EG7.82.1197

TERMINATION	PIN	CABLE	PIN	TERMINATION
Coaxial connector T/R unit LG		Uniradio 70		Coaxial connector Computer unit LG

CABLE ASSEMBLY LJ EG7.82.991

TERMINATION	PIN	CABLE	PIN	TERMINATION
Test point Mk.4 12-way coupler socket LJ/A	A	UR70	1	T/R unit 12-way plug LJ
	B	UR70	2	
	C	UR70	3	

continued...

TABLE 1 **Connectors** - *continued*

CABLE ASSEMBLY LJ EG7.82.991 - *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
Test point Mk.4 12-way coupler socket LJ/A	D	MN22	4	T/R unit 12-way plug LJ
	E	MN22	5	
	F	MN22	6	
	G	MN22	7	
	H	MN22	8	
	J	MN22	9	
	K	MN22	10	
	L	MN22	11	
	M	MN22	12	
	C	UR96	LJ/B Plug break	

CONNECTOR LU EG7.82.171

TERMINATION	PIN	CABLE	PIN	TERMINATION
Ground position indicator 8-way socket LU	1	NMS22	TB1	6-way Junction box tails LU
	2	NMS22	TB6	
	3	NMS22	TB3	
	4	NMS22	TB4	
	5	NMS22	TB5	

Chapter 2 I.F.F.

◀PRE MOD. 5466 (SEE SUPPLEMENT FOR POST MOD. 5466)▶

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LIST OF ILLUSTRATIONS

◀ **Note**... *Combined theoretical/routeing diagrams for this installation are contained in A.P. 101B-0417-10 (Servicing Diagrams Manual).* ▶

General information

1. The I.F.F./S.S.R. (Identification ◀Friend or Foe/ Secondary Surveillance Radar) A.R.I.23134 secondary radar▶ system is installed so that the aircraft may be recognised when challenged by a suitably equipped friendly station. The basis of the aircraft installation is the T/R unit which responds to an interrogatory challenge by radiating a reply consisting of a train of pulses. This train of pulses is presented on the screen of the interrogator P.P.I. as a series of arcs around the conventional radar echo; the number of arcs being dependent on the operational mode to which the equipment is set. In certain modes the reply can include information set on the navigator's controller in a prearranged digital code which is displayed at the ground station on a digital read out indicator.

2. There are four different types of transponder reply, the one being transmitted dependent on the interrogation mode and the operation of the I/P and EMGY (emergency) switches on the controller. Details of the four types of reply are as follows:-

Normal reply: given in answer to an interrogation on any mode providing that the I/P and EMGY switches are not operated.

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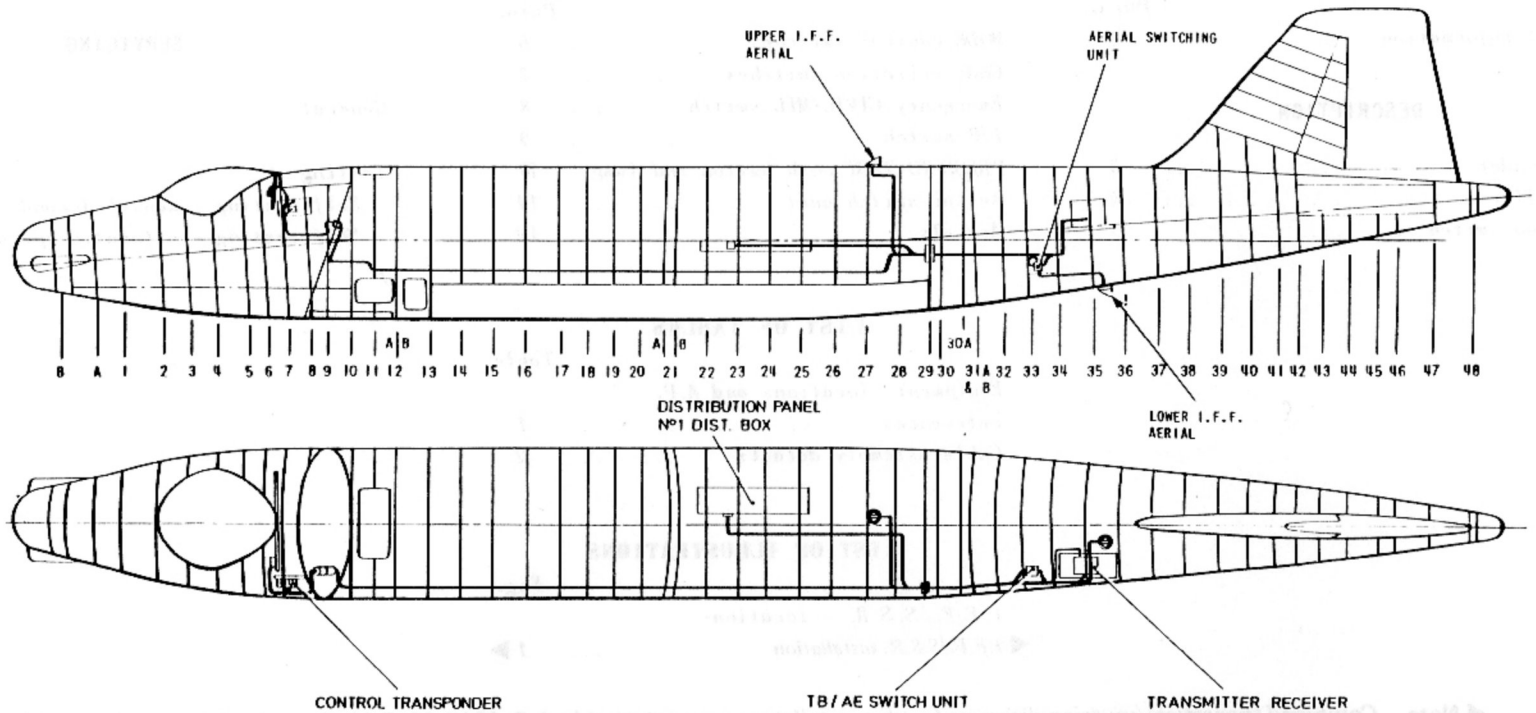

EG7-82-2851

FIG. 1. I.F.F./S.S.R. INSTALLATION

◀ CIRCUIT DELETED ▶

Civil I/P reply: given in answer to an interrogation on any mode except military identification (Mode 1) and automatic altitude (Mode C) challenges occurring in conjunction with the I/P switch being depressed. A Mode C interrogation will, if the information pulse D4 is selected, cause the transponder to emit an I/P pulse independent of the I/P switch.

Military I/P reply: given in answer to an interrogation on the military mode (Mode 1).

Emergency reply: given in answer to an interrogation on all modes other than automatic altitude (Mode C) and Mode D (not used) when the emergency facility is selected. The coding on the information pulses is dependent on the setting of the CIVIL/MIL switch and will be 7700 or as set on the controller respectively.

DESCRIPTION

Transponder

3. The transponder is mounted on a support structure at the port side of the centre fuselage between frames 34 and 36. The units function is to reply to all correct interrogations. The unit checks all interrogations, to ensure that they are not due to a sidelobe or incorrect transmission, decodes them, ascertains their mode and transmits a reply in the code set up for the appropriate mode on the controller. Manual demand and automatic self test facilities are also embodied and these enable the integrity of the receiver responses to be monitored at all times.

Controller

4. On this unit are mounted a number of switches which control the general operation of the transponder. All connections to the unit are made via a 55-way receptacle connector mounted at the rear of the unit and illumination is provided by ten internally mounted lamps. The function and circuit operation of the switches is described in the following paragraphs.

Function switch

5. This is the main switch controlling the transponder operation and has five positions, these are:-

OFF – transponder inoperative

STBY – Power supplies on but transponder inhibited, i.e. in a stand-by condition of readiness

LOW – transponder operational but with low sensitivity

NORM – transponder fully operational on all modes

EMGY – transponder fully operational on all modes but giving a special emergency reply to each interrogation on modes 1, 2, 3/A, or B. To select this position it is necessary to push the switch knob as well as rotate.

MODE control switches

6. Any combination of these switches can be depressed and they determine the modes of interrogation to which the transponder will reply.

Code selection switches

7. These are thumb wheel switches and they are employed to set up the four digit transponder reply code, the setting of each switch being individually indicated at an adjacent window. Switches SK, SL, SM and SN are used for replying to Mode 1 interrogations and switches SP, SQ, SR and SS are similarly used for Mode 3/AB replies.

Emergency CIVIL/MIL switch

8. This switch determines the content of the information given in reply to a mode 3/AB interrogation only. When the switch is selected to CIVIL the reply code will be 7700 and when set to MIL the reply will be the code selected at switches SP, SQ, SR and SS.

I/P switch

9. This switch controls the transmission of the I/P pulse. When operated the switch causes the transponder to produce a civil I/P reply in response to an interrogation on modes 2, 3/A, B or D. A military I/P reply will be given in response to a Model interrogation.

PRESS-TO-TEST push button and lamp

10. The lamp is fitted integrally in

the test button and the operation of both items is described in para. 14.

Aerial switch unit

11. This unit is a solid state coaxial switch performing the function of connecting the transponder alternately to either one of two aerials (upper and lower). The cycle rate is 40 ± 4 Hz and the unit is designed to connect the transponder to the upper aerial in the event of a power supply or transistor oscillator/amplifier failure and to the lower aerial if a breakdown occurs in either or both of the switching diodes. The unit may also be manually selected to connect the transponder to either aerial by making an appropriate selection on the AERIAL C/O switch mounted on the navigator's instrument panel *(Sect. 6, Chap. 11)*.

Aerials

12. Two omni-directional, sharks fin type, aerials are fitted. One projects through the upper fuselage skin slightly to starboard of the aircraft centre line between frames 27 and 28 and the other projects through the lower fuselage slightly to port of the aircraft centre line between frames 35 and 36.

SERVICING

WARNING

The relevant safety precautions detailed on the LETHAL WARNING marker card must always be observed before entering the cabin or performing any operations upon the aircraft.

General

13. Servicing information and the necessary setting up and testing instructions can be found in Part 2 of A.P. 114J-0101-16, Book 1. Apart from these instructions little servicing is required. Removal and assembly of the equipment is straight forward and access to the equipment mounted on the support structure is provided by way of the rear fuselage hatch. Wiring faults should be investigated by referring to Table 2 and the combined theoretical and routeing diagrams in A.P.101B-0417-10 (Servicing Diagrams Manual).

Testing

Self testing – manual demand

14. The ST PRESS switch and light are combined in a single assembly. Depressing the switch causes an artificial interrogation signal to be fed into the receiver in the same manner as a normal signal; a self-test facility within the transponder then checks the responses. If receiver sensitivity, transmitter power output and mode are all satisfactory, and the rotary control switch is in the NORM or EMGY-PUSH position, the ST PRESS lamp will light. If the self-test checks are not satisfactory or if the control switch is at LOW or STBY, the SYSTEM FAILURE lamp on the navigator's control panel will light; system failure is indicated when LOW is selected because the receiver has been desensitized, and the lamp flashes when STBY is selected because the transmitter is inhibited.

Self testing – automatic operation

15. The SYSTEM FAILURE light comes on automatically under the following conditions:-

(1) When the rotary control switch is set to OFF.

(2) Intermittently when the control switch is set to STBY and the transponder receives correct interrogation signals.

(3) If a fault occurs on the receiver sensitivity, transmitter power or mode networks.

Note...

A system failure indication may be obtained when the equipment is first switched on. If the failure is not due to a fault condition, it will be cleared by operation of the ST PRESS switch.

TABLE 1

Equipment, locations and A.P. references

Equipment	Type	Location	A.P. Reference
Transponder	5895-99-956-3378	Support structure, frames 34-36, port	114J-0101-16
Aerial switch unit	5895-99-107-1521	Support structure, frames 33-34, port	
Controller	5895-99-956-3379	Navigator's station	
Upper aerials	100B	Frames 27-28	
Lower aerial	100B	Frames 35-36	

TABLE 2

Cable assembly details

CABLE ASSEMBLY N418

E.C.P. free plug	A	N418	N16	N418A	S1	Fail lamp press-to-test switch

CABLE ASSEMBLY IF1 (EG7.82.2859-1SS.2)

	A	IF1	N22	IF1A	A	
	B	IF1	N22	IF1A	B	
	C	IF1	N22	IF1A	C	
	D	IF1	N22	IF1A	D	
	E	IF1	N22	IF1A	E	
	F	IF1	N22	IF1A	F	
	G	IF1	N22	IF1A	G	
	H	IF1	N22	IF1A	H	
	J	IF1	N22	IF1A	J	
	K	IF1	N22	IF1A	K	
	L	IF1	N22	IF1A	L	
	M	IF1	N22	IF1A	M	
I.F.F. control transponder set. Free plug	N	IF1	N22	IF1A	N	
	P	IF1	N22	IF1A	P	Pressure bulkhead Free plug
	R	IF1	N22	IF1A	R	
	S	IF1	N22	IF1A	S	
	T	IF1	N22	IF1A	T	
	U	IF1	N22	IF1A	U	
	V	IF1	N22	IF1A	V	
	W	IF1	N22	IF1A	W	
	X	IF1	N22	IF1A	X	
	Z	IF1	N22	IF1A	Z	
	b	IF1	N22	IF1A	b	
	c	IF1	N22	IF1A	c	
	d	IF1	N22	IF1A	d	
	e	IF1	N22	IF1A	e	
	f	IF1	N22	IF1A	f	
	g	IF1	N22	IF1A	g	
	h	IF1	N22	IF1A	h	
	i	IF1	N22	IF1A	i	

CABLE ASSEMBLY IF1 (EG7.82.2859-1SS.2) – *continued*

	j	IF1	N22	IF1A	j	
	k	IF1	N22	IF1A	k	
	m	IF1	N22	IF1A	m	
	n	IF1	N22	IF1A	n	
I.F.F. control transponder set. Free plug	p	IF1	N22	IF1A	p	
	q	IF1	N22	IF1A	q	Pressure bulkhead Free plug
	r	IF1	N22	IF1A	r	
	s	IF1	N22	IF1A	s	
	t	IF1	N22	IF1A	t	
	u	IF1	N22	IF1A	u	
	v	IF1	N22	IF1A	v	
	x	IF1	N22	IF1A	x	
	w	IF1	N22	IF1C	LLL21	Internal lighting T.B.on navigator's coaming panel
	SS74	IF1B	N22	IF1A	y	
Navigator's control panel T.B.	S11	IF1B	N22	IF1A	z	
	SS72	IF1B	NMS22	IF1A	AA*	Pressure bulkhead Free plug
	SS73	IF1B	NMS22	IF1A	BB*	
	E18	IF1B	NMS22	IF1A	CC*	
				IF1A	DD	

*Screens linked to IF1A-DD.

CABLE ASSEMBLY IF2 (EG7.82.2861-1SS.2)

	A	IF2A	N22	IF2	88	
	B	IF2A	N22	IF2	13	
	C	IF2A	N22	IF2	14	
	D	IF2A	N22	IF2	15	
Pressure bulkhead Free plug	E	IF2A	N22	IF2	17	Transmitter/ receiver Free plug
	F	IF2A	N22	IF2	18	
	G	IF2A	N22	IF2	19	
	H	IF2A	N22	IF2	26	
	J	IF2A	N22	IF2	27	
	K	IF2A	N22	IF2	28	
	L	IF2A	N22	IF2	29	

continued...

TABLE 2 Cable assembly details – *continued*

CABLE ASSEMBLY IF2 (EG7.82.2861-ISS.2) – *continued*

	M	IF2A	N22	IF2	30	
	N	IF2A	N22	IF2	31	
	P	IF2A	N22	IF2	32	
	R	IF2A	N22	IF2	33	
	S	IF2A	N22	IF2	34	
	T	IF2A	N22	IF2	35	
	U	IF2A	N22	IF2	38	
	V	IF2A	N22	IF2	39	
	W	IF2A	N22	IF2	40	
	X	IF2A	N22	IF2	41	
	Z	IF2A	N22	IF2	43	
	b	IF2A	N22	IF2	45	
	c	IF2A	N22	IF2	46	Transmitter/
	d	IF2A	N22	IF2	47	receiver
	e	IF2A	N22	IF2	48	Free plug
	f	IF2A	N22	IF2	49	
	g	IF2A	N22	IF2	50	
Pressure	h	IF2A	N22	IF2	51	
bulkhead	i	IF2A	N22	IF2	52	
Free plug	j	IF2A	N22	IF2	53	
	k	IF2A	N22	IF2	54	
	m	IF2A	N22	IF2	55	
	n	IF2A	N22	IF2	56	
	p	IF2A	N22	IF2	57	
	q	IF2A	N22	IF2	70	
	r	IF2A	N22	IF2	71	
	s	IF2A	N22	IF2	24	
	t	IF2A	N22	IF2B	E18	No.1
	u	IF2A	N22	IF2B	E18	distribution box
	v	IF2A	N22	IF2E	SS81	Quick release
	x	IF2A	N22	IF2B	E18N	tags
	y	IF2A	N22	IF2	44	Transmitter/
	z	IF2A	N22	IF2	42	receiver free plug
*Screens	*AA	IF2A	N22	IF2C	C	Aerial switch unit
linked to	*BB	IF2A	N22	IF2C	D	Free plug
IF2A-DD						
	*CC	IF2A	NMS22	IF2B	E18	No.1 dist. box
	DD	IF2A				

CABLE ASSEMBLY IF2 (EG7.82.2861-ISS.2) – *continued*

No.2	SG11	IF2E	N22	IF2	22	
distribution	E18N	IF2B	N22	IF2	23	
box. Quick	E18	IF2B	N22	IF2	93	
release tags	SS7	IF2B	N22	IF2	96	
	25	IF2D	N22	IF2	25	
	78	IF2D	N22	IF2	78	
	79	IF2D	N22	IF2	79	Transmitter/
	80	IF2D	N22	IF2	80	receiver
	81	IF2D	N22	IF2	81	Free plug
I.F.F. tray	82	IF2D	N22	IF2	82	
T.B.	83	IF2D	N22	IF2	83	
	84	IF2D	N22	IF2	84	
	85	IF2D	N22	IF2	85	
	86	IF2D	N22	IF2	86	
	91	IF2D	N22	IF2	91	
	92	IF2D	N22	IF2	92	
No.2 dist. box	SS71	IF2E	NMS22	IF2C	B	Aerial switch
Quick release tags	E18	IF2B	NMS22	IF2C	A	unit Free plug

IF2C screens are all linked to IF2E

CABLE ASSEMBLY IF5 (EG7.82.2867-1)

Switch unit Plug, Type UKC2	END A	UNR67	END B	Transmitter/receiver Plug, Type UKC2

CABLE ASSEMBLY IF3 (EG7.82.2863-ISS.1)

Upper aerial Plug, Type 119(CS)	END A	UNR67	END B	Switching unit Plug, Type UKC2

CABLE ASSEMBLY IF4 (EG7.82.2865-ISS.1)

Lower aerial Plug, Type 119(CS)	END A	UNR67	END B	Switching unit Plug, Type UKC2

Chapter 3 TACAN

◀PRE MOD. 5466 (SEE SUPPLEMENT FOR POST MOD. 5466)▶

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◀ **Note**...*Combined theoretical/routeing diagrams for this installation are contained in A.P. 101B-0417-10 (Servicing Diagrams Manual).*▶

DESCRIPTION

General

1. A Tacan installation (A.R.I. 18107/4) is fitted to the aircraft. The installation consists of a transmitter-receiver (T/R unit), a control unit, an indicator coupling unit and a pair of indicators.

2. Tacan is a navigational system which operates on frequencies between 962 and 1213 Mc/s in 126 channels using ground transponder beacons. The indicators display the distance and bearing of a transmitter operating on the frequency to which the equipment is tuned.

3. The channel spacing is 1 Mc/s and frequencies differing by 63 Mc/s are used for transmission and reception. Transmission takes place on frequencies between 1025 and 1150 Mc/s. Reception on channels 1 to 63 is of 962 to 1024 Mc/s signals, and on channels 64 to 126 is of 1151 to 1213 Mc/s signals.

T/R unit

4. The T/R unit is a Type RT-220C/ARN21 fitted on a Type 9274 mounting tray, located at the starboard side of the upper equipment bay. The receiver section is used for the reception of signals from the beacon to provide bearing information. The transmitter is used to transmit signals which are returned by the beacon and processed by the receiver to give distance information. Each beacon radiates a Morse code identification signal every 37.5 sec; this is fed into the intercomm. system via the intercomm. junction box and may be heard at any of the three station boxes by selecting TACAN.

Control unit

5. The control unit is a Type 7750 unit mounted on the navigator's port control panel, between the I.F.F. control unit and the radio compass voice/range fil-

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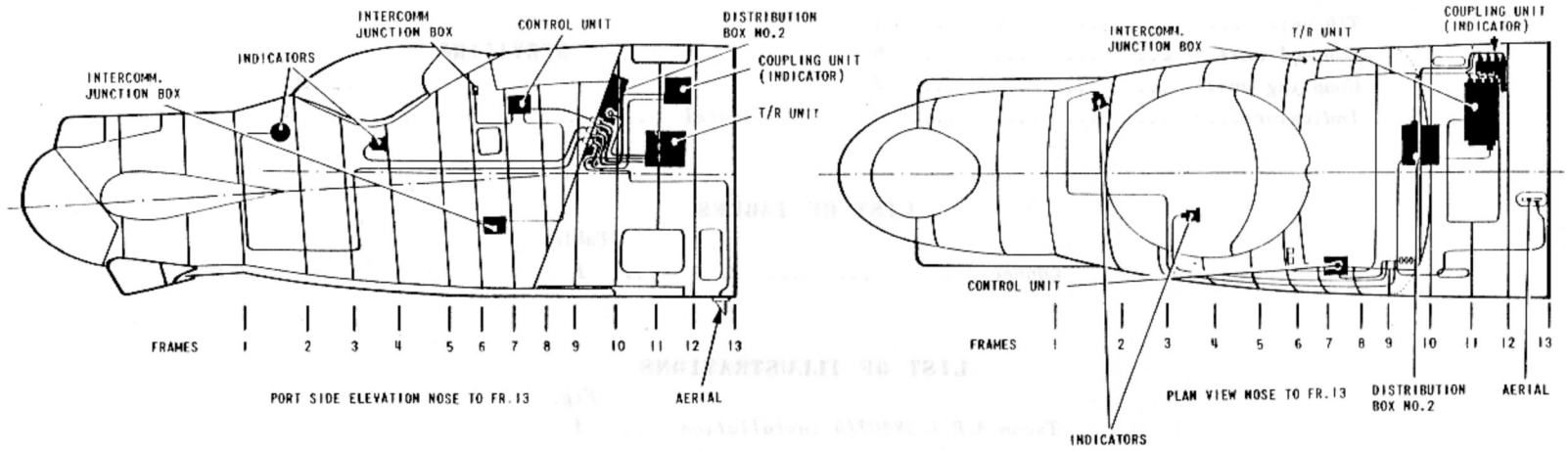

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FIG. 1 TACAN A.R.I. 18107/4 INSTALLATION

◀ CIRCUIT DELETED ▶

ter. The mode of operation is selected by a key switch annotated OFF/REC/T/R. This controls the power supplies via relays on the T/R unit mounting tray.

6. Channel selection is made by means of two rotary switches. The left-hand switch selects the decades of channel numbers, the right-hand switch the units. Selection information is passed to the T/R unit as a proportion of two 20V 400 c/s a.c. supplies selected by the potentiometer action of the selector switches. The number of the channel selected is displayed in a window between the rotary switch knobs. The VOL control permits adjustment of the level of the beacon identification before it is fed into the intercomm. system.

Coupling unit

7. The Type 9546 coupling unit indicator, is fitted to a Type 9545 mounting, located in the upper equipment bay above the T/R unit. The unit provides a link between the T/R unit and the indicators. It contains two separate servo links which receive the bearing and distance information from the T/R unit and transmit this information via synchro transmission systems to the indicators.

8. The unit has four dials on its front panel. The upper pair of these indicate the bearing and distance settings of the system; the lower pair give vernier readings of these settings.

Indicators

9. Two Type 9547 electrical indicators are fitted in the cabin. The pilot's indicator is mounted at the lower inboard corner of the starboard instrument panel. The navigator's indicator is in the port upper corner of his instrument panel.

10. The indicator presents information on the bearing of the beacon from the aircraft by an arrow-headed pointer, and on the distance of the aircraft from the beacon by a digital display. The information is obtained via a synchro transmission system from the indicator coupling unit which is connected to the T/R unit.

11. When the installation is operating normally the bearing pointer remains steady and the distance counter indication decreases as the aircraft flies towards the beacon. When the T/R unit is not 'locked on' to the beacon to which it is tuned, the bearing pointer rotates continuously round the dial and the distance counters also rotate but are partially obscured by a flag. When the T/R locks on and the distance is greater than 99 nautical miles, a figure 1 on the flag appears at the left-hand side of the digital display so that the indicator is capable of showing distances up to the operational limit of the equipment, i.e. 195 nautical miles. When the distance has decreased to 99 nautical miles, the flag clears, leaving a two-digit display.

Aerial

12. The Type 100B omni aerial is mounted on the underside of the fuselage, on the port side of the centre line between frames 12 and 13.

Power supplies

13. The 28V d.c. supply required is obtained from busbar PP7 via fuse No.165 in the E.C.P. The 115V 400 c/s a.c. supply is obtained from busbar 1XA1 via fuse No.106. It is connected to the T/R unit via a Type S1 relay, which is controlled by the OFF/REC/T/R switch on the control unit. A test socket for this supply is situated in the upper equipment bay adjacent to the coupling unit and this socket also provides a supply point for the Type 10166 performance tester, used in testing the installation in the aircraft.

SERVICING

WARNING

The relevant safety precautions detailed on the LETHAL WARNING marker card must always be observed before entering the cabin or performing any operations upon the aircraft.

General

14. All cables, connectors, and units should be examined periodically for security and freedom from damage. Removal and assembly of the units is straightforward and instructions for setting up and servicing the units are given in A.P.2534N, Vol.1. Wiring faults should be investigated by referring to the combined theoretical and routeing diagrams in A.P.101B-0417-10 (Servicing Diagrams Manual).

TABLE 1

Connectors

CONNECTOR TACAN NO.1 EG7.82.133

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
Pressure bulkhead UK–AN fixed plug Tacan 1	A	M12C	White	A	Pilot's indicator Type 9547 Mk.7 socket Tacan 1
	B	M12C	Black	B	
	C	M12C	Yellow	C	
	D	M12C	Blue	E	
	E	M12C	Grey	G	
	F	M12C	Lt. Green	H	
	G	M12C	Green	J	
	H	M12C	Violet	K	
	J	M12C	Pink	L	
	K	M12C	Orange	M	
	L	M12C	Red	D	
	M	M12C	Brown	F	

CONNECTOR TACAN NO.1/A EG7.82.135

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
Coupling unit (indicator), Type 9546 Unitor socket Tacan 1/A	A	M12C	White	A	Pressure bulkhead UK–AN free socket Tacan 1/A
	B	M12C	Black	B	
	C	M12C	Yellow	C	
	E	M12C	Blue	D	
	G	M12C	Grey	E	
	H	M12C	Lt. Green	F	
	J	M12C	Green	G	
	K	M12C	Violet	H	
	L	M12C	Pink	J	
	M	M12C	Orange	K	
	N	M12C	Red	L	
	O	M12C	Brown	M	

CONNECTOR TACAN NO.2 EG7.82.137

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
Pressure bulkhead UK–AN fixed plug Tacan 2	A	M12C	White	A	Navigator's indicator Mk.7 socket Tacan 2
	B	M12C	Black	B	
	C	M12C	Yellow	C	
	D	M12C	Blue	E	

CONNECTOR TACAN NO.2 EG7.82.137 – *continued*

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
Pressure bulkhead UK–AN fixed plug Tacan 2	E	M12C	Grey	G	Navigator's indicator Mk.7 socket Tacan 2
	F	M12C	Lt. Green	H	
	G	M12C	Green	J	
	H	M12C	Violet	K	
	J	M12C	Pink	L	
	K	M12C	Orange	M	
	L	M12C	Red	D	
	M	M12C	Brown	F	

CONNECTOR TACAN NO.2/A EG7.82.139

TERMINATION	PIN	CABLE	IDENT	PIN	TERMINATION
Coupling unit (indicator), Type 9546 Unitor socket Tacan 2/A	A	M12C	White	A	Pressure bulkhead UK–AN free socket Tacan 2/A
	B	M12C	Black	B	
	C	M12C	Yellow	C	
	E	M12C	Blue	D	
	G	M12C	Grey	E	
	H	M12C	Lt. Green	F	
	J	M12C	Green	G	
	K	M12C	Violet	H	
	L	M12C	Pink	J	
	M	M12C	Orange	K	
	N	M12C	Red	L	
	O	M12C	Brown	M	

CONNECTOR TACAN NO.3 EG7.82.141

TERMINATION	PIN	CABLE	PIN	TERMINATION
Control unit Type 7750 free UK–AN plug Tacan 3	A	N20	A	Pressure bulkhead UK–AN fixed plug Tacan 3A
	B	NMS20	H	
	C	N20	B	
	D	N20	G	
	E	N20	I	
	F	N20	J	
	G	N20	C	
	H	N20	D	

continued...

TABLE 1 Connectors - *continued*

CONNECTOR TACAN NO.3 EG7.82.141 - *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
Control unit Type 7750 free UK-AN plug Tacan 3	J	N20	E	Pressure bulkhead UK-AN fixed plug Tacan 3A
	K	N20	F	
	M	N20	LLL11	Navigator's dimmer Q.R. tag Tacan 3C intercomm. junction box
	N	NMS20	A	Cannon free socket Tacan 3B

Pin J is connected to screening of cores B and N

CONNECTOR TACAN NO.3/A EG7.82.143

TERMINATION	PIN	CABLE	PIN	TERMINATION
Pressure bulkhead UK-AN free socket Tacan 3/A	A	N20	A	T/R free UK-AN plug Tacan 3/A
	H	NMS20	H	
	B	N20	B	
	G	N20	G	
	I	N20	I	
	J	N20	J	
	C	N20	C	
	D	N20	D	
	E	N20	E	
	F	N20	F	

CONNECTOR TACAN NO.4 EG7.82.145

TERMINATION	PIN	CABLE	PIN	TERMINATION
T/R UK-AN free socket Tacan 4	B	N22	U	Coupling unit (indicator), Type 9546 Unitor socket Tacan 4
	C	NMS22	Y	
	D	N22	O	
	E	NMS22	Z	
	F	NMS22	T	
	G	NMS22	W	
	H	N22	J	
	J	N22	G	
	K	N22	B	
	L	N22	C	
	M	N22	E	

CONNECTOR TACAN NO.4 EG7.82.145 - *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
T/R UK-AN free socket Tacan 4	P	N22	H	Coupling unit (indicator), Type 9546 Unitor socket Tacan 4
	R	NMS22	M	
	S	N22	K	
	T	NMS22	S	
	U	N22	A	

Pin B is connected to screening of cores C,E,F,G,R and T

Pin U is connected to pins R and N. Pin K is connected to pin L.

CONNECTOR TACAN NO.5 EG7.82.147

TERMINATION	PIN	CABLE	PIN	TERMINATION
Distribution box No.2 Plessey standard socket Tacan 5B	A	N20	A	Coupling unit (indicator), Type 9546 Unitor socket Tacan 5A
	B	N20	B	
T/R UK-AN free plug Tacan 5	A	N22	H	
	B	NMS22	O	
	C	N22	G	
	D	NMS22	W	
	J	N22	Y	
	K	NMS22	L	
	M	N22	K	
	N	NMS22	N	
	R	NMS22	U	
	S	NMS22	Z	
	T	N22	J	
	U	NMS22	M	

CONNECTOR TACAN NO.6 EG7.82.149

TERMINATION	PIN	CABLE	PIN	TERMINATION
Aerial omni Type 100B plug Type 119 Tacan 6		Uniradio 67		T/R plug Type UG1213/U Tacan 6

CONNECTOR F.417 EG7.81.847

TERMINATION	PIN	CABLE	PIN	TERMINATION
T/R UK-AN socket F.417	A	N16	SN21	Terminal blocks in distribution box No.2 F.417
	B	N20	S21	
	C	N20	SA21	

continued...

TABLE 1 Connectors - *continued*

CONNECTOR F.417 EG7.81.847 - *continued*

TERMINATION	PIN	CABLE	PIN	TERMINATION
T/R UK-AN socket F.417	D	N16	S2	Terminal blocks in distribution box No.2 F.417
	E	N20	SA21	
	G	N20	S2	

CONNECTOR F.409 EG7.81.897

TERMINATION	PIN	CABLE	PIN	IDENT	TERMINATION
Test socket F.409	A	Miniature Electric 3C	E28N	Blue	Terminal blocks in distribution box No.2 F.409
	B		SA21	Red	
	C		E28N	Green	

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Chapter 4 SPECIAL EQUIPMENT

◀PRE MOD. 5466 (SEE SUPPLEMENT FOR POST MOD. 5466)▶

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◀**Note**...*Combined theoretical/routeing diagrams for this installation are contained in A.P. 101B-0417-10 (Servicing Diagrams Manual).*▶

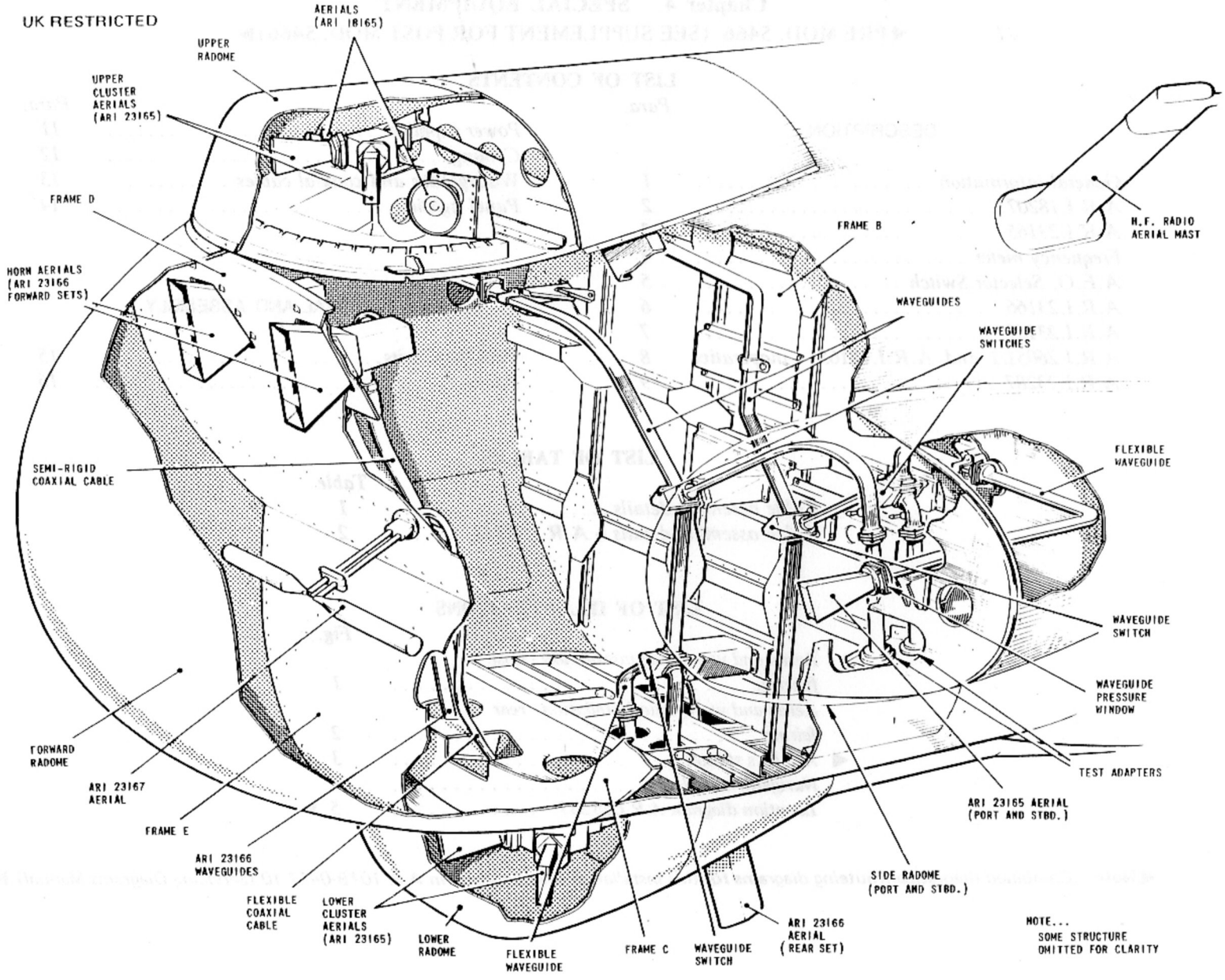

FIG. 1. AERIAL AND WAVEGUIDE INSTALLATION - NOSE FUSELAGE

DESCRIPTION

WARNING

The relevant safety precautions detailed on the LETHAL WARNING marker card must always be observed before entering the cabin or performing any operations upon the aircraft.

General information

1. This chapter briefly describes the installation of the special (E.C.M.) equipment in the aircraft. The main items are carried in two packs housed in the fuselage pack bay and in the rear equipment bay; the aerials are grouped in forward *(fig.1)* and rear *(fig.2)* radomes and on the underside of the fuselage. The control units are located at the A.E.O.'s station *(fig.3)* on the starboard cabin wall with the aerial and equipment switches above the control units. For detailed information on the individual equipment reference should be made to the appropriate publication.

A.R.I.18207

2. This installation comprises two Type X13919 transmitters and a Type 13920 control unit. The transmitters are mounted one in each pack and the control unit, which controls the forward and aft systems, is at the forward end of the upper row of units at the A.E.O.'s station. The transmitter outputs are fed to the aerials in the forward and rear radomes via waveguide switches and the waveguide system used for the A.R.I.23165 equipment.

A.R.I.23165

3. This installation consists of two separate systems, mounted one in each pack. Each system has its independent aerial system, the forward radome horn and cluster aerials serving the forward pack and the rear fairing horn and clasp aerials serving the rear pack. Each system comprises a 6053-8021 receiver, a 6053-8018 transmitter complete with a directional coupler, 6053-8022 power supply, a 6053-8023 generator, a 6080-8005 counter-measures control, a 6080-8004 modulator control and a 151942 line delay unit.

The four control units are on the upper row at the A.E.O.'s station; reading from forward to aft, they are the forward system counter-measures control and modulator, and the aft system counter-measures control and modulator.

Frequency meter

4. A frequency meter, mounted at the forward end of the E.C.M. panel, is used to monitor the frequency of the forward or aft A.R.I.23165. The meter is controlled by a switch, labelled A.R.I.23165 – FWD/AFT, mounted above the meter.

A.E.O. selector switch

5. A switch, labelled AEO SELECTOR SWITCH – I.L.S. MARKER/603 FWD/603 REAR/APR-9, is mounted at the aft end of the E.C.M. panel. Selection of the switch to 603 FWD or 603 REAR, allows an audio signal from the forward or aft A.R.I.23165, as selected, to be heard in the crew's headsets. The APR-9 position provides a similar facility from the A.R.I.23287.

A.R.I.23166

6. This installation consists of two identical, port and starboard, systems in the forward pack and a third system in the rear pack. Each system comprises a T915 transmitter, a H.D.609 liquid cooler, which incorporates a power supply unit, and a C4646 control indicator (port and starboard systems, 'E/F' band; rear system 'D' band). An oscillator is plugged into each transmitter; the forward pack transmitters each use a Type RF.0-1104-Alt.21A oscillator, and the rear pack transmitter an RF.Band 1/Alt.21A. The two forward pack horn aerials are mounted side-by-side in the forward radome, and the rear pack slotted-cylinder aerial is mounted below the nose. The three control units are on the lower row at the A.E.O.'s station; reading from forward to aft, they control the port forward system, the starboard forward system and the rear system, respectively.

A.R.I.23167

7. This installation comprises a T782 transmitter, a PP2679 power supply unit and a C3324 control indicator. Provision is made to fit this system as an alternative to the forward port A.R.I.23166 system. The aerial is mounted in the nose radome and the control unit at the aft end of the lower row of units at the A.E.O's station.

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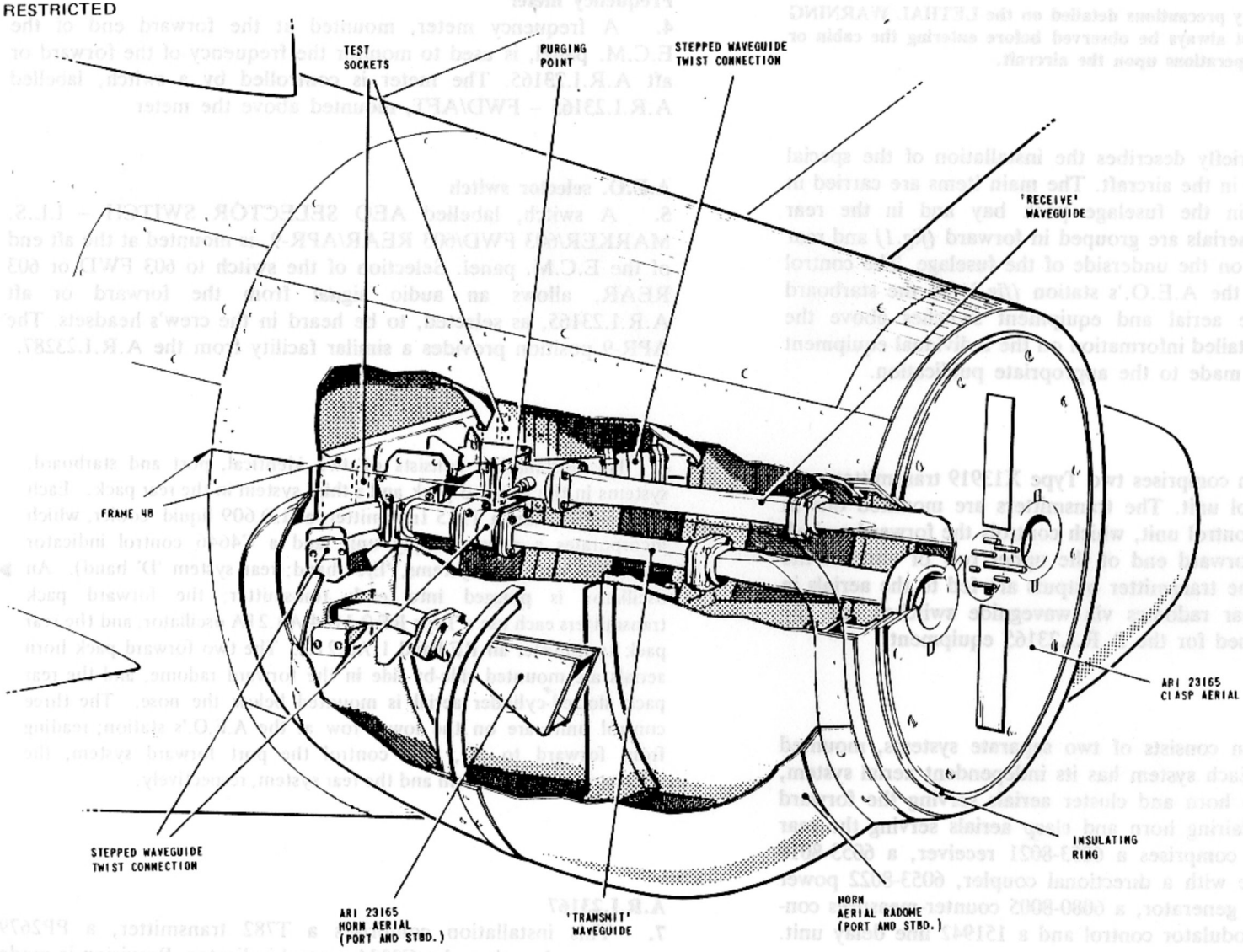

FIG. 2. AERIAL AND WAVEGUIDE INSTALLATION - REAR FAIRING

A.R.I.26051/1 and A.R.I.18165 – inoperative

8. The port and starboard aerials and amplifier detectors associated with the above systems together with their cable assemblies are fitted in the forward upper radome. All other system components and cable assemblies are either removed or disconnected and made safe.

A.R.I.23287

9. The control unit and indicator for this installation are located at the A.E.O.'s station. A power unit Type PP337, mixer amplifier, switch R.F., relay assembly and four R.F. tuners are located in a rack in the rear equipment bay. Of the four R.F. tuners, only three are connected. A power unit Type PP336 is located in a rack aft of the rear access hatch and a Chelton Type 10-30 aerial is located on the lower surface of the fuselage, forward of the rear access hatch.

10. An audio output from the system is fed to the crew's headsets via the A.E.O.'s selector switch. Power supplies of 28V a.c. and 115V, 400 Hz a.c. are drawn from the E.C.P. and radio fuse and relay box respectively. A synchro power fuse is located below the indicator.

Power supplies

11. Power supplies for the equipment are obtained from a distribution box in the pack bay roof, which distributes the 200/115V 3-phase, 400 Hz a.c., obtained from two turbine-driven alternators, and the 28V d.c. supply from the d.c. system; details of the power supplies are given in Sect.6, Chap.11.

Cooling

12. The components in the pack bay are cooled by ram air which enters three scoops on the underside of the packs and exits through two outlet ducts at the aft end of the rear pack. A shutter in each scoop is hydraulically operated by a single jack *(A.P.101B-0417-1A, Sect.3, Chap.6)* and controlled by the INLET SCOOPS CLOSED/OPEN switch mounted above the A.E.O.'s A.R.I. control units. The adjacent indicator lamps show the position of the scoops.

Waveguides and coaxial cables

13. Connections between the pack transmitter/receivers and their respective aerials are made by waveguides for the A.R.I.18207 and 23165 systems, and by coaxial cables for the A.R.I.23166 and 23167 system. The waveguides and cables are pressurized by a nitrogen system *(A.P.101B-0417-1A, Sect.3, Chap.9)* to prevent internal corrosion.

Panel lighting

14. Power for the lighting circuits associated with the A.R.I. panel units, is supplied from fuses 160, 161 and 162 in the E.C.P. and is described in Sect.6, Chap.8.

REMOVAL AND ASSEMBLY

Pack bay units

15. Removal and assembly of the A.R.I. pack bay units is facilitated by use of a table Ref.No.26FZ/95639 fitted on a trolley Ref.No.26FZ/95640. The units are removed complete with their mounting trays and earthing leads, the latter being disconnected at the pack structure. Each unit must be secured to the table by the quick-release pins, attached to the table, before the table is lowered or the trolley moved. Stowages are provided within the pack bays for unit connectors not in use.

Packs

16. Instructions for removal and assembly of the packs are given in A.P.101B-0417-1A, Sect.3, Chap.1.

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY CR5 (EG7-82-853-1) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	a	CR5	T20	CR5	a	
	b	CR5	T20	CR5	b	
	c	CR5	T20	CR5	c	
UK-AN	d	CR5	T20	CR5	d	J702
free socket	e	CR5	T20	CR5	e	UK-AN
pressure	f	CR5	T20	CR5	f	free socket
bulkhead	g	CR5	T20	CR5	g	A.R.I.23166
	h	CR5	T20	CR5	h	cooler (port)
	j	CR5	T20	CR5	j	
	k	CR5	T20	CR5	k	

CABLE ASSEMBLY CR6 (EG7-82-854-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR6	T20	CR6	A	
	B	CR6	T20	CR6	B	
	C	CR6	T20	CR6	C	
	D	CR6	T20	CR6	D	
	E	CR6	T20	CR6	E	
	F	CR6	T20	CR6	F	
	G	CR6	T20	CR6	G	
	H	CR6	T20	CR6	H	
	I	CR6	T20	CR6	I	
	J	CR6	T20	CR6	J	
UK-AN	K	CR6	T20	CR6	K	J702
free socket	L	CR6	T20	CR6	L	UK-AN
pressure	M	CR6	T20	CR6	M	free socket
bulkhead	N	CR6	T20	CR6	N	A.R.I.23166
	O	CR6	T16	CR6	O	cooler (stbd)
	P	CR6	T16	CR6	P	
	R	CR6	T16	CR6	R	
	S	CR6	T16	CR6	S	
	T	CR6	T16	CR6	T	
	U	CR6	T16	CR6	U	
	V	CR6	T16	CR6	V	
	W	CR6	T20	CR6	W	
	X	CR6	T20	CR6	X	
	Y	CR6	T20	CR6	Y	

continued...

CABLE ASSEMBLY CR6 (EG7-82-854-1) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	Z	CR6	T20	CR6	Z	
	a	CR6	T20	CR6	a	
	b	CR6	T20	CR6	b	
	c	CR6	T20	CR6	c	J702
UK-AN	d	CR6	T20	CR6	d	UK-AN
free socket	e	CR6	T20	CR6	e	free socket
pressure	f	CR6	T20	CR6	f	A.R.I.23166
bulkhead	g	CR6	T20	CR6	g	cooler (stbd)
	h	CR6	T20	CR6	h	
	j	CR6	T20	CR6	j	
	k	CR6	T20	CR6	k	

CABLE ASSEMBLY CR7 (EG7-82-855-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR7	T20	CR7	A	
	B	CR7	T20	CR7	B	
	C	CR7	T20	CR7	C	
	D	CR7	T20	CR7	D	
	E	CR7	T20	CR7	E	
	F	CR7	T20	CR7	F	
	G	CR7	T20	CR7	G	
	H	CR7	T20	CR7	H	2J2
	I	CR7	T20	CR7	I	UK-AN
UK-AN	J	CR7	T20	CR7	J	free socket
free socket	K	CR7	T20	CR7	K	A.R.I.23165
pressure	L	CR7	T16	CR7	L	power supply
bulkhead	M	CR7	T16	CR7	M	(fwd.)
	N	CR7	T16	CR7	N	
	O	CR7	T16	CR7	O	
	P	CR7	T16	CR7	P	
	R	CR7	T16	CR7	R	
	S	CR7	T16	CR7	S	
	T	CR7	T16	CR7	T	
	U	CR7	T16	CR7	U	
	V	CR7	T16	CR7	V	
	W	CR7	T20	CR7	W	
	X	CR7	T20	CR7	X	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY CR7 (EG7-82-855-1) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	Y	CR7	T20	CR7	Y	
	Z	CR7	T20	CR7	Z	
	a	CR7	T20	CR7	a	
	b	CR7	T20	CR7	b	2J2
UK-AN	c	CR7	T20	CR7	c	UK-AN
free socket	d	CR7	T20	CR7	d	free socket
pressure	e	CR7	T20	CR7	e	A.R.I.23165
bulkhead	f	CR7	T20	CR7	f	power supply
	g	CR7	T20	CR7	g	(fwd.)
	h	CR7	T20	CR7	h	
	j	CR7	T20	CR7	j	
	k	CR7	T20	CR7	k	

CABLE ASSEMBLY CR8 (EG7-82-856-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR8	T16	CR8	A	
	B	CR8	T16	CR8	B	
	C	CR8	T16	CR8	C	
	D	CR8	T16	CR8	D	
	E	CR8	T16	CR8	E	9J1
UK-AN	F	CR8	T16	CR8	F	UK-AN
free socket	G	CR8	T16	CR8	G	A.R.I.23165
pressure	H	CR8	T16	CR8	H	generator
bulkhead	J	CR8	T16	CR8	J	(fwd.)
	K	CR8	T16	CR8	K	
	L	CR8	T16	CR8	L	
	M	CR8	T16	CR8	M	
	N	CR8	T16	CR8	N	
	P	CR8	T16	CR8	P	

CABLE ASSEMBLY CR9 (EG7-82-857-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
Mk.7 free socket pressure bulkhead screen to earth	A	Red	Min 25C	Red	A	Mk.7 free plug A.R.I.18207 (fwd.) screen insulated from earth
	B	Blue	Min 25C	Blue	B	
	C	Green	Min 25C	Green	C	
	D	Yellow	Min 25C	Yellow	D	
	E	White	Min 25C	White	E	

continued...

CABLE ASSEMBLY CR9 (EG7-82-857-1) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	F	Black	Min 25C	Black	F	
	G	Brown	Min 25C	Brown	G	
	H	Violet	Min 25C	Violet	H	
	J	Orange	Min 25C	Orange	J	
	K	Pink	Min 25C	Pink	K	
	L	Light green	Min 25C	Light green	L	
Mk.7	M	Grey	Min 25C	Grey	M	Mk.7
free socket	N	Red/blue	Min 25C	Red/blue	N	free plug
pressure	O	Red/green	Min 25C	Red/green	O	A.R.I.18207
bulkhead	P	Red/yellow	Min 25C	Red/yellow	P	(fwd.)
screen to	Q	Red/white	Min 25C	Red/white	Q	screen
earth	R	Red/black	Min 25C	Red/black	R	insulated
	S	Red/brown	Min 25C	Red/brown	S	from earth
	T	Blue/yellow	Min 25C	Blue/yellow	T	
	U	Blue/white	Min 25C	Blue/white	U	
	V	Blue/black	Min 25C	Blue/black	V	
	W	Blue/orange	Min 25C	Blue/orange	W	
	X	Green/yellow	Min 25C	Green/yellow	X	
	Y	Green/white	Min 25C	Green/white	Y	
	Z	Green/orange	Min 25C	Green/orange	Z	

CABLE ASSEMBLY CR10 (EG7-82-858-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR10	T20	CR10	A	
	B	CR10	T20	CR10	B	
	C	CR10	T20	CR10	C	
	D	CR10	T20	CR10	D	
	E	CR10	T20	CR10	E	J206
UK-AN	F	CR10	T20	CR10	F	UK-AN
free socket	G	CR10	T20	CR10	G	free socket
pressure	H	CR10	T20	CR10	H	A.R.I.23167
bulkhead	J	CR10	T20	CR10	J	power supply
	K	CR10	T20	CR10	K	
	L	CR10	T20	CR10	L	
	M	CR10	T20	CR10	M	
	N	CR10	T20	CR10	N	
	P	CR10	T16	CR10	P	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY CR10 (EG7-82-858-1) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	R	CR10	T16	CR10	R	
	S	CR10	T16	CR10	S	
	T	CR10	T16	CR10	T	
	U	CR10	T16	CR10	U	
	V	CR10	T16	CR10	V	
	W	CR10	T20	CR10	W	
	X	CR10	T20	CR10	X	
	Z	CR10	T20	CR10	Z	
	a	CR10	T20	CR10	a	J206
UK-AN	b	CR10	T20	CR10	b	UK-AN
free socket	c	CR10	T20	CR10	c	free socket
pressure	d	CR10	T20	CR10	d	A.R.I.23167
bulkhead	e	CR10	T20	CR10	e	power supply
	f	CR10	T20	CR10	f	
	g	CR10	T20	CR10	g	
	h	CR10	T20	CR10	h	
	j	CR10	T20	CR10	j	
	k	CR10	T20	CR10	k	
	m	CR10	T20	CR10	l	
	n	CR10	T16	CR10	o	
	p	CR10	T20	CR10	y	

CABLE ASSEMBLY CR11 (EG7-82-859-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
9J2	A	CR11A	T14	CR11	A	
UK-AN	B	CR11A	T16	CR11	K	
free socket	C	CR11A	T14	CR11	B	
A.R.I.23165	D	CR11A	T16	CR11	L	
generator	E	CR11A	T14	CR11	C	UK-AN
(fwd.)	G	CR11A	T14	CR11	D	free plug
						No.1
2J1	A	CR11B	T14	CR11	G	distribution
UK-AN	B	CR11B	T16	CR11	M	box
free socket	C	CR11B	T14	CR11	H	
A.R.I.23165	D	CR11B	T16	CR11	N	
power unit	E	CR11B	T14	CR11	J	
(unit 2 fwd.)	G	CR11B	T14	CR11	P	

continued...

CABLE ASSEMBLY CR11 (EG7-82-859-2) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
Mk.7	A	CR11C	T12	CR11	E	UK-AN
free socket	B	CR11C	T12	CR11	F	free plug
A.R.I.18207						No.1
(fwd.)						distribution box

CABLE ASSEMBLY CR12 (EG7-82-860-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
J700	A	CR12A	T12	CR12	A	
UK-AN	B	CR12A	T16	CR12	K	
free socket	C	CR12A	T12	CR12	B	
A.R.I.23166	D	CR12A	T14	CR12	E	
cooler (stbd)	E	CR12A	T12	CR12	C	UK-AN
	G	CR12A	T14	CR12	D	free plug
						No.1
J700 or J201	A	CR12B	T12	CR12	G	distribution
UK-AN	B	CR12B	T16	CR12	L	box
free socket	C	CR12B	T12	CR12	H	
A.R.I.23166	D	CR12B	T14	CR12	F	
cooler (port)	E	CR12B	T12	CR12	J	
or A.R.I.23167	G	CR12B	T14	CR12	P	
power supply						

CABLE ASSEMBLY CR13 (EG7-82-861-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
J700	A	CR13A	T12	CR13	A	
UK-AN	B	CR13A	T16	CR13	K	
free socket	C	CR13A	T12	CR13	B	UK-AN
A.R.I.23166	D	CR13A	T14	CR13	E	free plug
cooler (aft)	E	CR13A	T12	CR13	C	No.1
	G	CR13A	T14	CR13	D	distribution
						box
Mk.7	A	CR13B	T12	CR13	G	
free socket	B	CR13B	T12	CR13	H	
A.R.I.18207						
(aft)						

continued...

TABLE 1 **Cable assembly details** - *continued*

CABLE ASSEMBLY CR14 (EG7-82-862-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR14	T14	CR14	A	
2J1	B	CR14	T16	CR14	B	UK-AN
UK-AN	C	CR14	T14	CR14	C	free plug
free socket	D	CR14	T16	CR14	D	No.1
A.R.I.23165	E	CR14	T14	CR14	E	distribution
power supply	F	CR14	T14	CR14	F	box
(aft)	G	CR14	T14	CR14	G	

CABLE ASSEMBLY CR15 (EG7-82-863-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR15	T14	CR15	A	
9J2	B	CR15	T16	CR15	B	UK-AN
UK-AN	C	CR15	T14	CR15	C	free plug
free socket	D	CR15	T16	CR15	D	No.1
A.R.I.23165	E	CR15	T16	CR15	E	distribution
generator	F	CR15	T16	CR15	F	box
(aft)	G	CR15	T16	CR15	G	

CABLE ASSEMBLY CR16 (EG7-82-864-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
Pygmy free socket waveguide switch inboard fwd. frame 13	A	CR16A	N20	CR16	A	
	B	CR16A	N20	CR16	E	
Pygmy free socket waveguide switch outboard fwd. frame 13	A	CR16B	N20	CR16	C	UK-AN
	B	CR16B	N20	CR16	D	free plug
						No.1
Pygmy free socket waveguide switch outboard aft frame 29	A	CR16C	N20	CR16	H	distribution
	B	CR16C	N20	CR16	G	box
Pygmy free socket waveguide switch inboard aft frame 29	A	CR16D	N20	CR16	F	
	B	CR16D	N20	CR16	J	

CABLE ASSEMBLY CR17 (EG7-82-865-2)

TERMINATION	END	CABLE	END	TERMINATION
3J7 UK-BNC plug A.R.I.23165 receiver (fwd.)	CR17	UR.96	CR17	UK-BNC plug frame 29-30

CABLE ASSEMBLY CR18 (EG7-82-866-2)

TERMINATION	END	CABLE	END	TERMINATION
3J7 UK-BNC plug A.R.I.23165 receiver (aft)	CR18	UR.96	CR18	UK-BNC plug frame 29-30

CABLE ASSEMBLY CR20 (EG7-82-868-C)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR20	T16	CR20	A	
2J5	B	CR20	T16	CR20	B	1J1
UK-AN	C	CR20	T16	CR20	C	UK-AN
free plug	D	CR20	T14	CR20	D	free socket
A.R.I.23165	E	CR20	T14	CR20	E	A.R.I.23165
power supply	F	CR20	T14	CR20	F	transmitter
	G	CR20	T14	CR20	G	

CABLE ASSEMBLY CR21 (EG7-82-869-D)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR21	Q20	CR21	A	
	B	CR21	Q20	CR21	B	
	C	CR21	Q20	CR21	C	
	D	CR21	Q20	CR21	D	
	E	CR21	Q20	CR21	E	
	F	CR21	T16	CR21	F	
	G	CR21	Q20	CR21	G	
	H	CR21	T16	CR21	H	
	I	CR21	Q20	CR21	I	
1J2	J	CR21	Q20	CR21	J	2J4
UK-AN socket	K	CR21	T14	CR21	K	UK-AN socket
A.R.I.23165	L	CR21	T14	CR21	L	A.R.I.23165
transmitter	M	CR21	Q20	CR21	M	power supply
	N	CR21	Q20	CR21	N	
	P	CR21	Q20	CR21	P	
	R	CR21	Q20	CR21	R	
	S	CR21	Q20	CR21	S	
	T	CR21	Q20	CR21	T	
	U	CR21	Q20	CR21	U	
	V	CR21	Q20	CR21	V	
	W	CR21	Q20	CR21	W	
	X	CR21	Q20	CR21	X	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY CR22 (EG7-82-870-C)

TERMINATION	END	CABLE	END	TERMINATION
1J3 UK-BNC plug A.R.I.23165 transmitter	CR22	UR.96	CR22	2J6 UK-BNC plug A.R.I.23165 power supply

CABLE ASSEMBLY CR24 (EG7-82-872-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
9J3	A	*CR24	NMS16	CR24	*A	10J1
UK-AN socket	B	Screen connections	Q22	Screen connections	B	UK-AN socket
A.R.I.23165 generator (fwd.)	C	*CR24	NMS16	CR24	*C	A.R.I.23165 Ferrite modulator (fwd.)

*Screens connected to B at each end

CABLE ASSEMBLY CR25 (EG7-82-873-C)

TERMINATION	END	CABLE	END	TERMINATION
1J4 UK-BNC plug A.R.I.23165 transmitter	CR25	UR.96	CR25	3J8 UK-BNC plug A.R.I.23165 receiver

CABLE ASSEMBLY CR26 (EG7-82-874-3)

TERMINATION	END	CABLE	END	TERMINATION
3J3 UK-N3 (modified) plug A.R.I.23165 receiver	CR26	UR.91	CR26	6J2 UK-N3 (modified) plug A.R.I.23165 delay unit

CABLE ASSEMBLY CR27 (EG7-82-875-4)

TERMINATION	END	CABLE	END	TERMINATION
6J1 UK-N3 (modified) plug A.R.I.23165 delay unit	CR27	UR.91	CR27	5J1 UK-N3 (modified) plug A.R.I.23165 transmitter

CABLE ASSEMBLY CR28 (EG7-82-876-C)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
J703	A	CR28	Q20	CR28	A	J500
UK-AN socket	B	CR28	Q20	CR28	B	UK-AN socket
A.R.I.23166	C	CR28	Q20	CR28	C	A.R.I.23166
cooler (stbd.	D	CR28	Q20	CR28	D	transmitter
and aft)	E	CR28	Q20	CR28	E	(stbd. and aft)

continued...

CABLE ASSEMBLY CR28 (EG7-82-876-C) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	F	CR28	Q20	CR28	F	
	G	CR28	Q20	CR28	G	
	H	CR28	Q20	CR28	H	
	I	CR28	Q20	CR28	I	
	J	CR28	T14	CR28	J	
	K	CR28	T16	CR28	K	J500
J703	L	CR28	T16	CR28	L	UK-AN socket
UK-AN socket	M	CR28	T16	CR28	M	A.R.I.23166
A.R.I.23166	N	CR28	Q20	CR28	N	transmitter
cooler (stbd.	P	CR28	Q20	CR28	P	(stbd. and
and aft)	R	CR28	Q20	CR28	R	aft)
	S	CR28	Q20	CR28	S	
	T	CR28	Q20	CR28	T	
	U	CR28	Q20	CR28	U	
	V	CR28	Q20	CR28	V	
	W	CR28	Q20	CR28	W	
	X	CR28	Q20	CR28	X	

CABLE ASSEMBLY CR29 (EG7-82-877-C)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR29	T14	CR29	A	
J701	B	CR29	T14	CR29	B	J501
UK-AN	C	CR29	T14	CR29	C	UK-AN
free plug	D	CR29	T16	CR29	D	free socket
A.R.I.23166	E	CR29	T14	CR29	E	A.R.I.23166
cooler	F	CR29	T16	CR29	F	transmitter
	G	CR29	T14	CR29	G	

CABLE ASSEMBLY CR30 (EG7-82-878-C)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR30	Q20	CR30	A	
	B	CR30	Q20	CR30	B	
	C	CR30	Q20	CR30	C	
J703 or J203	D	CR30	Q20	CR30	D	J500 or J106
UK-AN socket	E	CR30	Q20	CR30	E	UK-AN socket
A.R.I.23166	F	CR30	Q20	CR30	F	A.R.I.23166
cooler	G	CR30	Q20	CR30	G	transmitter
(port) or	H	CR30	Q20	CR30	H	(port) or
A.R.I.23167	I	CR30	Q20	CR30	I	A.R.I.23167
power supply	J	CR30	T14	CR30	J	transmitter
	K	CR30	T16	CR30	K	
	L	CR30	T16	CR30	L	
	M	CR30	T16	CR30	M	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY CR30 (EG7-82-878-C) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	N	CR30	Q20	CR30	N	
J703 or J203	P	CR30	Q20	CR30	P	J500 or J106
UK-AN socket	R	CR30	Q20	CR30	R	UK-AN socket
A.R.I.23166	S	CR30	Q20	CR30	S	A.R.I.23166
cooler	T	CR30	Q20	CR30	T	transmitter
(port) or	U	CR30	Q20	CR30	U	(port) or
A.R.I.23167	V	CR30	Q20	CR30	V	A.R.I.23167
power supply	W	CR30	Q20	CR30	W	transmitter
	X	CR30	Q20	CR30	X	

CABLE ASSEMBLY CR31 (EG7-82-879-C)

TERMINATION	END	CABLE	END	TERMINATION
3J4 UK-BNC plug	CR31	UR.96	CR31	9J4 UK-BNC plug
A.R.I.23165				A.R.I.23165
receiver				generator

CABLE ASSEMBLY CR32 (EG7-82-880-D)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	CR32	Q20	CR32	A	
	B	CR32	Q20	CR32	B	
	C	CR32	Q20	CR32	C	
	D	CR32	Q20	CR32	D	
	E	CR32	Q20	CR32	E	
	F	CR32	Q20	CR32	F	
	G	CR32	Q20	CR32	G	
3J1	H	CR32	Q20	CR32	H	2J3 UK-AN
pygmy socket	i	CR32	Q20	CR32	I	socket
A.R.I.23165	J	CR32	Q20	CR32	J	A.R.I.23165
receiver	K	CR32	Q20	CR32	K	power supply
	L	CR32	Q20	CR32	L	
	M	CR32	Q20	CR32	M	
	N	CR32	Q20	CR32	N	
	r	CR32	T16	CR32	O	
	P	CR32	Q20	CR32	P	
	R	CR32	Q20	CR32	R	
	S	CR32	Q20	CR32	S	
	T	CR32	Q20	CR32	T	

continued...

CABLE ASSEMBLY CR32 (EG7-82-880-D) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	U	CR32	Q20	CR32	U	
	V	CR32	Q20	CR32	V	
	W	CR32	Q20	CR32	W	
	X	CR32	Q20	CR32	X	
	Y	CR32	Q20	CR32	Y	
	Z	CR32	Q20	CR32	Z	
3J1	a	CR32	Q20	CR32	a	2J3 UK-AN
pygmy socket	b	CR32	Q20	CR32	b	socket
A.R.I.23165	c	CR32	Q20	CR32	c	A.R.I.23165
receiver	d	CR32	Q20	CR32	d	power supply
	e	CR32	Q20	CR32	e	
	f	CR32	Q20	CR32	f	
	g	CR32	Q20	CR32	g	
	h	CR32	Q20	CR32	h	
	j	CR32	T16	CR32	j	
	k	CR32	T16	CR32	k	

CABLE ASSEMBLY CR33 (EG7-82-881-C)

TERMINATION	END	CABLE	END	TERMINATION
3J5 UK-BNC plug	CR33	UR.96	CR33	9J5 UK-BNC plug
A.R.I.23165				A.R.I.23165
receiver				generator

CABLE ASSEMBLY CR34 (EG7-82-882-1)

TERMINATION	END	CABLE	END	TERMINATION
3J2 UK-BNC plug	CR34	UR.96	CR34	9J6 UK-BNC plug
A.R.I.23165				A.R.I.23165
receiver				generator

CABLE ASSEMBLY CR35 (EG7-82-883-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
9J3 UK-AN	A	*CR35	NMS16	CR35	*A	10J1 UK-AN
socket	B	Screen	Q22	Screen	B	socket
A.R.I.23165		connection		connection		A.R.I.23165
generator	C	*CR35	NMS16	CR35	*C	ferrite modu-
(aft)						lator (aft)

*Screens connected to pin B at each end

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY CR36 (EG7-82-884-C)

TERMINATION	END	CABLE	END	TERMINATION
J212 co-ax plug A.R.I.23167 power supply	CR36	UR.67	CR36	J108 co-ax plug A.R.I.23167 transmitter

CABLE ASSEMBLY NR1 (EG7-82-1095)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
4J1 UK-AN free socket A.R.I.23165 control unit (aft)	A	NR1	N20	NR1A	A	UK-AN fixed plug pressure bulkhead
	B	NR1	N20	NR1A	B	
	C	NR1	N20	NR1A	C	
	D	NR1	N20	NR1A	D	
	E	NR1	N20	NR1A	E	
	F	NR1	N20	NR1A	F	
	H	NR1	N20	NR1A	H	
	I	NR1	N20	NR1A	I	
	K	NR1	N20	NR1A	K	
	L	NR1	N20	NR1A	L	
	M	NR1	N20	NR1A	M	
	N	NR1	N16	NR1A	N	
	O	NR1	N16	NR1A	O	
	P	NR1	N16	NR1A	P	
	R	NR1	N16	NR1A	R	
	S	NR1	N16	NR1A	S	
	T	NR1	N16	NR1A	T	
	U	NR1	N16	NR1A	U	
	V	NR1	N16	NR1A	V	
	W	NR1	N20	NR1A	W	
	Y	NR1	N20	NR1A	Y	
	Z	NR1	N20	NR1A	Z	
	a	NR1	N20	NR1A	a	
	b	NR1	N20	NR1A	b	
	c	NR1	N20	NR1A	c	
	d	NR1	N20	NR1A	d	
	e	NR1	N20	NR1A	e	
	f	NR1	N20	NR1A	f	
	g	NR1	N20	NR1A	g	
	h	NR1	N20	NR1A	h	
	k	NR1	N20	NR1A	k	
	s	NR1	N20	NR1B	LL66	Lighting T.B.
	J	NR1	N20		1	
	j	NR1	N20		2	
	X	NR1	N20		19	
UK-AN fixed plug pressure bulkhead	X	NR1A	N20		20	frequency meter T.B.
Terminals - Equipment selector switch (rear) Sect.6, Chap.11	8		N18		19	
	9		N18		20	
	3		N18		11	
	2		N18		12	

continued...

CABLE ASSEMBLY NR2 (EG7-82-1097-3)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
		NR2		NR2A		
	A	Red	Min 25C	Red	A	
	B	Blue	Min 25C	Blue	B	
	C	Green	Min 25C	Green	C	
	D	Yellow	Min 25C	Yellow	D	
	E	White	Min 25C	White	E	
	F	Black	Min 25C	Black	F	
	G	Brown	Min 25C	Brown	G	
	H	Violet	Min 25C	Violet	H	
	J	Orange	Min 25C	Orange	J	
NR2 Mk.7 free socket A.R.I.18207 control unit (aft) screen insulated from earth	K	Pink	Min 25C	Pink	K	
	L	Light green	Min 25C	Light green	L	Mk.7 fixed plug pressure bulkhead screen earthed
	M	Grey	Min 25C	Grey	M	
	N	Red/blue	Min 25C	Red/blue	N	
	O	Red/green	Min 25C	Red/green	O	
	P	Red/yellow	Min 25C	Red/yellow	P	
	Q	Red/white	Min 25C	Red/white	Q	
	R	Red/black	Min 25C	Red/black	R	
	S	Blue/brown	Min 25C	Blue/brown	S	
	T	Blue/yellow	Min 25C	Blue/yellow	T	
	U	Blue/white	Min 25C	Blue/white	U	
	V	Blue/black	Min 25C	Blue/black	V	
	W	Green/orange	Min 25C	Green/orange	W	
	X	Green/yellow	Min 25C	Green/yellow	X	
	Y	Green/white	Min 25C	Green/white	Y	
	Z	Green/orange	Min 25C	Green/orange	Z	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY NR3 (EG7-82-1099-1)

TERMINATION	PIN	END	CABLE	END	PIN/ TAIL	TERMINATION
	A	NR3	N16	NR3A	A	
	B	NR3	N16	NR3A	B	
	C	NR3	N16	NR3A	C	
	D	NR3	N16	NR3A	D	
8J1	E	NR3	N16	NR3A	E	
UK-AN	F	NR3	N16	NR3A	F	UK-AN
free socket	H	NR3	N16	NR3A	H	fixed plug
A.R.I.23165	J	NR3	N16	NR3A	J	pressure
control unit	K	NR3	N16	NR3A	K	bulkhead
(aft)	L	NR3	N16	NR3A	L	
	M	NR3	N16	NR3A	M	
	N	NR3	N16	NR3A	N	
	P	NR3	N16	NR3A	P	
	G	NR3	N16	NR3B	LL66	Lighting T.B.

CABLE ASSEMBLY NR4 (EG7-82-1101-1)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	NR4	N20	NR4A	A	
	B	NR4	N20	NR4A	B	
	C	NR4	N20	NR4A	C	
	D	NR4	N20	NR4A	D	
	E	NR4	N20	NR4A	E	
	F	NR4	N20	NR4A	F	
	H	NR4	N20	NR4A	H	
J800	I	NR4	N20	NR4A	I	
UK-AN	J	NR4	N20	NR4A	J	UK-AN
free socket	K	NR4	N20	NR4A	K	fixed plug
A.R.I.23166	L	NR4	N20	NR4A	L	pressure
control	M	NR4	N16	NR4A	M	bulkhead
indicator	N	NR4	N16	NR4A	N	
	O	NR4	N16	NR4A	O	
	P	NR4	N16	NR4A	P	
	R	NR4	N16	NR4A	R	
	S	NR4	N16	NR4A	S	
	T	NR4	N16	NR4A	T	
	U	NR4	N16	NR4A	U	

continued...

CABLE ASSEMBLY NR4 (EG7-82-1101-1) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN/ TAIL	TERMINATION
	V	NR4	N16	NR4A	V	
	W	NR4	N20	NR4A	W	
	X	NR4	N20	NR4A	X	
	Y	NR4	N20	NR4A	Y	
	Z	NR4	N20	NR4A	Z	
J800	a	NR4	N20	NR4A	a	
UK-AN	b	NR4	N20	NR4A	b	UK-AN
free socket	c	NR4	N20	NR4A	c	fixed plug
A.R.I.23166	d	NR4	N20	NR4A	d	pressure
control	e	NR4	N20	NR4A	e	bulkhead
indicator	f	NR4	N20	NR4A	f	
	g	NR4	N20	NR4A	g	
	h	NR4	N20	NR4A	h	
	j	NR4	N20	NR4A	j	
	k	NR4	N20	NR4A	k	
	G	NR4	N20	NR4B	LL63	Lighting T.B.

CABLE ASSEMBLY NR5 (EG7-82-1103-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	NR5	N20	NR5A	A	
	B	NR5	N20	NR5A	B	
	C	NR5	N20	NR5A	C	
	D	NR5	N20	NR5A	D	
	E	NR5	N20	NR5A	E	
J800	F	NR5	N20	NR5A	F	
UK-AN	H	NR5	N20	NR5A	H	
free socket	I	NR5	N20	NR5A	I	UK-AN
A.R.I.23166	J	NR5	N20	NR5A	J	fixed plug
control	K	NR5	N20	NR5A	K	pressure
indicator	L	NR5	N20	NR5A	L	bulkhead
(port)	M	NR5	N16	NR5A	M	
	N	NR5	N16	NR5A	N	
	O	NR5	N16	NR5A	O	
	P	NR5	N16	NR5A	P	
	R	NR5	N16	NR5A	R	
	S	NR5	N16	NR5A	S	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY NR5 (EG7-82-1103-2) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN/ TAIL	TERMINATION
	T	NR5	N16	NR5A	T	
	U	NR5	N16	NR5A	U	
	V	NR5	N16	NR5A	V	
	W	NR5	N20	NR5A	W	
	X	NR5	N20	NR5A	X	
J800	Y	NR5	N20	NR5A	Y	
UK-AN	Z	NR5	N20	NR5A	Z	
free socket	a	NR5	N20	NR5A	a	UK-AN
A.R.I.23166	b	NR5	N20	NR5A	b	fixed plug
control	c	NR5	N20	NR5A	c	pressure
indicator	d	NR5	N20	NR5A	d	bulkhead
(port)	e	NR5	N20	NR5A	e	
	f	NR5	N20	NR5A	f	
	g	NR5	N20	NR5A	g	
	h	NR5	N20	NR5A	h	
	j	NR5	N20	NR5A	j	
	k	NR5	N20	NR5A	k	
	G	NR5	N20	NR5B	LL63	Lighting T.B.

CABLE ASSEMBLY NR6 (EG7-82-1105-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	NR6	N20	NR6A	A	
	B	NR6	N20	NR6A	B	
	C	NR6	N20	NR6A	C	
	D	NR6	N20	NR6A	D	
J800	E	NR6	N20	NR6A	E	
UK-AN	F	NR6	N20	NR6A	F	UK-AN
free socket	H	NR6	N20	NR6A	H	fixed plug
A.R.I.23166	I	NR6	N20	NR6A	I	pressure
control	J	NR6	N20	NR6A	J	bulkhead
indicator	K	NR6	N20	NR6A	K	
(stbd.)	L	NR6	N20	NR6A	L	
	M	NR6	N16	NR6A	M	
	N	NR6	N16	NR6A	N	
	O	NR6	N16	NR6A	O	

continued...

CABLE ASSEMBLY NR6 (EG7-82-1105-2) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN/ TAIL	TERMINATION
	P	NR6	N16	NR6A	P	
	R	NR6	N16	NR6A	R	
	S	NR6	N16	NR6A	S	
	T	NR6	N16	NR6A	T	
	U	NR6	N16	NR6A	U	
	V	NR6	N16	NR6A	V	
	W	NR6	N20	NR6A	W	
J800	X	NR6	N20	NR6A	X	
UK-AN	Y	NR6	N20	NR6A	Y	UK-AN
free socket	Z	NR6	N20	NR6A	Z	fixed plug
A.R.I.23166	a	NR6	N20	NR6A	a	pressure
control	b	NR6	N20	NR6A	b	bulkhead
indicator	c	NR6	N20	NR6A	c	
(stbd.)	d	NR6	N20	NR6A	d	
	e	NR6	N20	NR6A	e	
	f	NR6	N20	NR6A	f	
	g	NR6	N20	NR6A	g	
	h	NR6	N20	NR6A	h	
	j	NR6	N20	NR6A	j	
	k	NR6	N20	NR6A	k	
	G	NR6	N20	NR6B	LL63	Lighting T.B.

CABLE ASSEMBLY NR7 (EG7-82-1107)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	NR7	N20	NR7A	A	
	B	NR7	N20	NR7A	B	
	C	NR7	N20	NR7A	C	
4J1	D	NR7	N20	NR7A	D	
UK-AN	E	NR7	N20	NR7A	E	UK-AN
free socket	F	NR7	N20	NR7A	F	fixed plug
A.R.I.23165	H	NR7	N20	NR7A	H	pressure
control unit	I	NR7	N20	NR7A	I	bulkhead
(fwd.)	K	NR7	N20	NR7A	K	
	L	NR7	N20	NR7A	L	

continued...

TABLE 1 Cable assembly details - *continued*

CABLE ASSEMBLY NR7 (EG7-82-1107) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
8J1 UK–AN free socket A.R.I.23165 control unit (fwd.)	M	NR7	N16	NR7A	M	UK–AN fixed plug pressure bulkhead
	N	NR7	N16	NR7A	N	
	O	NR7	N16	NR7A	O	
	P	NR7	N16	NR7A	P	
	R	NR7	N16	NR7A	R	
	S	NR7	N16	NR7A	S	
	T	NR7	N16	NR7A	T	
	U	NR7	N16	NR7A	U	
	V	NR7	N20	NR7A	V	
	W	NR7	N20	NR7A	W	
	Y	NR7	N20	NR7A	Y	
	Z	NR7	N20	NR7A	Z	
	a	NR7	N20	NR7A	a	
	b	NR7	N20	NR7A	b	
	c	NR7	N20	NR7A	c	
	d	NR7	N20	NR7A	d	
	e	NR7	N20	NR7A	e	
	f	NR7	N20	NR7A	f	
	g	NR7	N20	NR7A	g	
	h	NR7	N20	NR7A	h	
	k	NR7	N20	NR7A	k	
	G	NR7	N20	NR7B	LL66	Lighting T.B.
◄	J	NR7	N20	NR7C Term 6		frequency meter T.B.
	j	NR7	N20	NR7C Term 5		
	X	NR7	N20	NR7C Term 13		
UK–AN fixed plug pressure bulkhead	X	NR7A	N20	NR7C Term 14		

CABLE ASSEMBLY NR8 (EG7-82-1109-F)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	NR8	N16	NR8	A	
8J1	B	NR8	N16	NR8	B	
UK–AN	C	NR8	N16	NR8	C	UK–AN
free socket	D	NR8	N16	NR8	D	fixed plug
A.R.I.23165	E	NR8	N16	NR8	E	pressure
control unit	F	NR8	N16	NR8	F	bulkhead
(fwd.)	H	NR8	N16	NR8	H	
	J	NR8	N16	NR8	J	

continued...

CABLE ASSEMBLY NR8 (EG7-82-1109-F) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN/TAIL	TERMINATION
8J1	K	NR8	N16	NR8	K	UK–AN fixed plug pressure bulkhead
UK–AN	L	NR8	N16	NR8	L	
free socket	M	NR8	N16	NR8	M	
A.R.I.23165	N	NR8	N16	NR8	N	
control unit	P	NR8	N16	NR8	P	
(fwd.)	G	NR8	N16	NR8B	LL66	Lighting T.B.

CABLE ASSEMBLY NR9 (EG7-82-1111-3)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	Red	Min 25C	Red	A	
	B	Blue	Min 25C	Blue	B	
	C	Green	Min 25C	Green	C	
	D	Yellow	Min 25C	Yellow	D	
	E	White	Min 25C	White	E	
	F	Black	Min 25C	Black	F	
	G	Brown	Min 25C	Brown	G	
	H	Violet	Min 25C	Violet	H	
	J	Orange	Min 25C	Orange	J	
Mk.7 free socket A.R.I.18207 control unit (fwd.) screen insulated from earth	K	Pink	Min 25C	Pink	K	Mk.7 fixed plug pressure bulkhead screen earthed
	L	Light green	Min 25C	Light green	L	
	M	Grey	Min 25C	Grey	M	
	N	Red/blue	Min 25C	Red/blue	N	
	O	Red/green	Min 25C	Red/green	O	
	P	Red/yellow	Min 25C	Red/yellow	P	
	Q	Red/white	Min 25C	Red/white	Q	
	R	Red/black	Min 25C	Red/black	R	
	S	Red/brown	Min 25C	Red/brown	S	
	T	Blue/yellow	Min 25C	Blue/yellow	T	
	U	Blue/white	Min 25C	Blue/white	U	
	V	Blue/black	Min 25C	Blue/black	V	
	W	Blue/orange	Min 25C	Blue/orange	W	
	X	Green/yellow	Min 25C	Green/yellow	X	
	Y	Green/white	Min 25C	Green/white	Y	
	Z	Green/orange	Min 25C	Green/orange	Z	

continued...

TABLE 1 **Cable assembly details** - *continued*

CABLE ASSEMBLY NR10 (EG7-82-1113-2)

TERMINATION	PIN	END	CABLE	END	PIN	TERMINATION
	A	NR10	N20	NR10A	A	
	B	NR10	N20	NR10A	B	
	C	NR10	N20	NR10A	C	
	D	NR10	N20	NR10A	D	
	E	NR10	N20	NR10A	E	
	F	NR10	N20	NR10A	F	
	H	NR10	N20	NR10A	H	
	J	NR10	N20	NR10A	J	
J1101	K	NR10	N20	NR10A	K	UK-AN
UK-AN	L	NR10	N20	NR10A	L	fixed plug
free socket	M	NR10	N20	NR10A	M	pressure
A.R.I.23167	N	NR10	N20	NR10A	N	bulkhead
control unit	P	NR10	N16	NR10A	P	
	R	NR10	N16	NR10A	R	
	S	NR10	N16	NR10A	S	
	T	NR10	N16	NR10A	T	
	U	NR10	N16	NR10A	U	
	V	NR10	N16	NR10A	V	
	W	NR10	N20	NR10A	W	
	X	NR10	N20	NR10A	X	
	Z	NR10	N20	NR10A	Z	

continued...

CABLE ASSEMBLY NR10 (EG7-82-1113-2) - *continued*

TERMINATION	PIN	END	CABLE	END	PIN/TAIL	TERMINATION
	a	NR10	N20	NR10A	a	
	b	NR10	N20	NR10A	b	
	c	NR10	N20	NR10A	c	
	d	NR10	N20	NR10A	d	
	e	NR10	N20	NR10A	e	
J1101	f	NR10	N20	NR10A	f	UK-AN
UK-AN	g	NR10	N20	NR10A	g	fixed plug
free socket	h	NR10	N20	NR10A	h	pressure
A.R.I.23167	j	NR10	N20	NR10A	j	bulkhead
control unit	k	NR10	N20	NR10A	k	
	l	NR10	N20	NR10A	m	
	o	NR10	N20	NR10A	n	
	y	NR10	N20	NR10A	p	
	G	NR10	N20	NR10B	LL64	Lighting T.B.

CABLE ASSEMBLY NR37 (EG7-82-1915-3)

TERMINATION	PIN	END	CABLE	END	TAIL	TERMINATION
Free socket	A	NR37	N20	NR37	LL6	A.E.O.'s
A.R.I.18207	B	NR37	N20	NR37	E25	dimmer
control unit						control panel
						T.B..
	C				11	
	D				12	Frequency
	E				17	meter T.B.
	F				18	

CABLE ASSEMBLY SRIM 3791

TERMINATION	PIN	CABLE	PIN	TERMINATION
	A	N20	5	
	B	N20	6	Q.R. tags
Frequency	C	N20	2	Frequency
meter SK 1	D	N20	1	Meter T.S.
	E	N20	3	
	F	N20	4	

TABLE 2

Cable assembly details – A.R.I.23287

CABLE ASSEMBLY SCSHQ 126662 A2

Termination	Pin	Cable	Pin	Termination
Indicator Type 1D226 PL602 A	B	DMN MS20	j	Pressure bulkhead APR9-1 C
	C		k	
	D	MN 18	M	
	A	RG71BU	A	Mixer amplifier CV43C PL515 B
Pressure bulkhead APR9-1 D	j	DMN MS20	B	
	k		C	
	M	MN 18	D	

Screens connected to pin D at terminations A and B.
Screens connected to pin M at terminations C and D.

CABLE ASSEMBLY SCSHQ 126663 A2

Termination A	Pin	Cable	Pin	Termination B
A.E.O.'s selector switch Box PL5	–	UR108	–	Mixer amplifier CV43C PL516

CABLE ASSEMBLY SCSHQ 126664 A2

Termination	Pin	Cable	Pin	Termination
Indicator Type 1D226 PL601 A	A	UMT2	A	Power unit Type PP336 PL103 B
	B	UMT2	B	
	C	UMT2	C	
	D	MN14	R	Pressure bulkhead APR9-1 C
	M	DMN MS16	S	
	J		U	

CABLE ASSEMBLY SCSHQ 126664 A2 – *continued*

Termination	Pin	Cable	Pin	Termination
Indicator Type 1D226 A	F	MN20	F	Pressure bulkhead APR9-2 E
	K	MN20	K	
	L	DMN MS20	L	
	M		M	
	N	DMN MS20	N	
	P		P	
	R	MN20	R	
	S	MN20	S	
	–	screen	G	
Synchro power fuse G	1	DMN MS20	A	
	2		B	
	–	screen	C	
Pressure bulkhead APR9-1 D	R	MN14	D	
	S	DMN MS16	H	
	U		J	
Pressure bulkhead APR9-1 F	F	MN20	F	Power unit Type PP336 PL903 B
	K	MN20	K	
	L	DMN MS20	L	
	M		M	
	N	DMN MS20	N	
	P		P	
	R	MN20	R	
	S	MN20	S	
	C	screen	–	

All screens connected to pin D at terminations A and B.

continued . . .

TABLE 2 Cable assembly details – A.R.I.23287 – *continued*

CABLE ASSEMBLY SCSHQ 126667 A2

Termination A	Pin	Cable	Pin	Termination B
Power unit Type PP336 PL904	A	MN12	–	Local earth, Frame 32

CABLE ASSEMBLY SCSHQ 126668 A2

Termination	Pin	Cable	Pin	Termination
Control unit Type 654 PL1302 A	C	DMN MS16	–	Fuse 235
	D		–	Neutral terminal Radio fuse and relay box
	B	Screen	–	D
		MN12	–	E25
	E	MN12	–	C
				Fuse 170 E.C.P. B

CABLE ASSEMBLY SCSHQ 126669 A2

Termination A	Pin	Cable	Pin	Termination B
Relay assembly Type 539 SKT13	–	RG71/BU	–	Mixer amplifier Type CV43C PL501

CABLE ASSEMBLY SCSHQ 126670 A2

Termination A	Pin	Cable	Pin	Termination B
Power unit Type PP337 PL1102	–	UMT2	–	Power unit Type PP336 PL907

CABLE ASSEMBLY SCSHQ 126671 A2

Termination A	Pin	Cable	Pin	Termination B
Power unit Type PP337 PL1101	A	DMN MS16	A	Power unit Type PP336 PL906
	B		B	
	E	MN18	E	
	D	MN20	D	
	C	not used	C	

CABLE ASSEMBLY SCSHQ 126672 A2

Termination	Pin	Cable	Pin	Termination
Mixer amplifier CV 43C PL514 A	A	MN20	A	Power unit Type PP336 PL902 B
	B	MNMS14	B	
	C	MNMS14	C	
	D	MNMS14	D	
	E	MN20	E	
	F	MN20	F	
	G	MN20	G	
	H	MN20	H	
	J	MNMS20	J	
	K	DMN M520	K	
	L		L	
	M	MN20	M	
	N	MN20	N	
	P	MN M520	P	
	R	MN M520	R	
	S	MN14	S	
	T	MN20	T	
	Z	MN20	Z	
	d	MN20	d	
Local earth, Frame 32 C		screens	–	

continued . . .

TABLE 2 Cable assembly details – A.R.I.23287 – *continued*

CABLE ASSEMBLY SCSHQ 126673 A2

Termination	Pin	Cable	Pin	Termination
Power unit Type PP336 PL901 A	A	UMT20	A	Relay assembly Type 539 PL1 B
	B	UMT20	B	
	C	MN20	C	
	D	MN20	D	
	E	MN20	E	
	F	MN20	F	
	H	MN20	H	
	J	MN20	J	
	K	DMN MS20	K	
	M		M	
	N	DMN MS20	N	
	P		P	
	R	MN20	R	
	S	MN20	S	
	L	MN MS20	A	Pressure bulkhead APR9-1 C
Relay assembly Type 539 PL1 B	L	MN MS20	B	

Screens at terminations A, B and C connected to pin C.

CABLE ASSEMBLY SCSHQ 126676 A2

Termination A	Pin	Cable	Pin	Termination B
Tuner R.F. TN128 PL101	A	UMT20	A	Relay assembly Type 539 SKT1
	B	UMT20	B	
	C	MN20	C	
	D	MN20	D	
	E	MN20	E	
	F	MN20	F	
	H	MN20	H	
	J	MN20	J	
	K	DMN M520	K	
	M		M	
	L	TMN M520	L	
	N		N	
	P		P	
	R	MN20	R	
	S	MN20	S	
	G	not used	G	
	O	not used	O	
	Q	not used	Q	

Screens at both terminations connected to pin C.

continued . . .

TABLE 2 Cable assembly details – A.R.I.23287 – *continued*

CABLE ASSEMBLY SCSHQ 127605 A1

Termination	Pin	Cable	Pin	Termination
Pressure bulkhead APR9-1 A	K	MN20	K	Power unit Type PP336 PL905 B
	L	MN20	L	
	N	MN20	N	
	O	DMN MS16	O	
	V		V	
	P	MN12	P	
	T	MN12	T	
	W	MN MS20	W	
	C	MN MS20	C	
	X	MN20	X	
	Y	MN20	Y	
	Z	MN20	Z	
	a	MN20	a	
	b	MN20	b	
	d	MN20	d	
	e	MN20	e	
	f	MN20	f	
	g	MN20	g	
	h	MN20	h	
	C	MN20	C	
	D	MN20	D	
	F	MN20	F	
	H	MN20	G	Relay assembly Type 539 PL2 C
	G	MN20	B	
	B	MN20	A	
Local earth, Frame 32 D	–	MN20	J	

CABLE ASSEMBLY SCSHQ 127607 A1

Termination A	Pin	Cable	Pin	Termination B
Control unit Type 654 PL1301	C	MN20	C	Pressure bulkhead APR9-1
	D	MN20	D	
	F	MN20	F	
	K	MN20	K	
	L	MN20	L	
	N	MN20	N	
	O	DMN MS16	O	
	V		V	
	P	MN12	P	
	T	MN12	T	
	W	MN MS20	W	
	c	MN MS20	c	
	X	MN20	X	
	Y	MN20	Y	
	Z	MN20	Z	
	a	MN20	a	
	b	MN20	b	
	d	MN20	d	
	e	MN20	e	
	f	MN20	f	
	g	MN20	g	
	h	MN20	h	
	H	MN20	H	
	G	MN20	G	
	B	MN20	B	
	A	MN20	–	

Screens connected to pin P at both terminations.
Pin A linked to pin B at termination A.

continued . . .

TABLE 2 Cable assembly details – A.R.I.23287 – *continued*

CABLE ASSEMBLY SCSHQ 126677 A2

Termination A	Pin	Cable	Pin	Termination B
Tuner R.F. TN128 PL103	–	RG71/BU	–	Relay assembly Type 539 SKT14

CABLE ASSEMBLY SCSHQ 126678 A2

Termination A	Pin	Cable	Pin	Termination B
Tuner R.F. TN129 PL103	–	RG71/BU	–	Relay assembly Type 539 SKT15

CABLE ASSEMBLY SCSHQ 126679 A2

Termination A	Pin	Cable	Pin	Termination B
Tuner R.F. TN129 PL101	A	UMT2	A	Relay assembly Type 539 SKT2
	B	UMT2	B	
	C	MN20	C	
	D	MN20	D	
	E	MN20	E	
	F	MN20	F	
	H	MN20	H	
	J		J	
	K	DMN MS20	K	
	M		M	
	L		L	
	N	TMN MS20	N	
	P		P	
	R	MN20	R	
	S	MN20	S	
	G	not used	G	
	O	not used	O	
	Q	not used	Q	

Screens connected to pin C at both terminations.

CABLE ASSEMBLY SCSHQ 126685 A2

Termination A	Pin	Cable	Pin	Termination B
Switch R.F. Type 563 SKT1	–	URM112	–	Tuner R.F. TN128 PL102

CABLE ASSEMBLY SCSHQ 126686 A2

Termination A	Pin	Cable	Pin	Termination B
Switch R.F. Type 563 SKT2	–	URM112	–	Tuner R.F. TN129 PL102

CABLE ASSEMBLY SCSHQ 126687 A2

Termination A	Pin	Cable	Pin	Termination B
Switch R.F. Type 563 SKT3	–	URM112	–	Tuner R.F. TN130 or TN131 PL102

CABLE ASSEMBLY SCSHQ 126689 A2

Termination A	Pin	Cable	Pin	Termination B
Switch R.F. Type 563 1N	–	URM112	–	Aerial Type 10-30

continued . . .

TABLE 2 Cable assembly details – A.R.I.23287 – *continued*

CABLE ASSEMBLY SCSHQ 127608 A2

Termination A	Pin	Cable	Pin	Termination B
Switch R.F. Type 563 PL1	A	MN20	A	Relay assembly Type 539 SKT4
	B	MN20	B	
	C	MN20	C	
	D	MN20	D	

CABLE ASSEMBLY SCSHQ 127609 A2

Termination A	Pin	Cable	Pin	Termination B
Tuner R.F. TN130 or TN131 PL103	–	RG71/BU	–	Relay assembly Type 539 SKT16

CABLE ASSEMBLY SCSHQ 127610 A2

Termination A	Pin	Cable	Pin	Termination B
Tuner R.F. Type TN130 or TN131 PL101	A	UMT2	A	Relay assembly Type 539 SKT3
	B	UMT2	B	
	C	MN20	C	
	D	MN20	D	
	E	MN20	E	
	F	MN20	F	
	H	MN20	H	
	J	MN20	J	
	L	TMN M520	L	
	N		N	
	P		P	
	K	DMN M520	K	
	M		M	
	R	MN20	R	
	S	MN20	S	
	G	not used	G	
	O	not used	O	
	Q	not used	Q	

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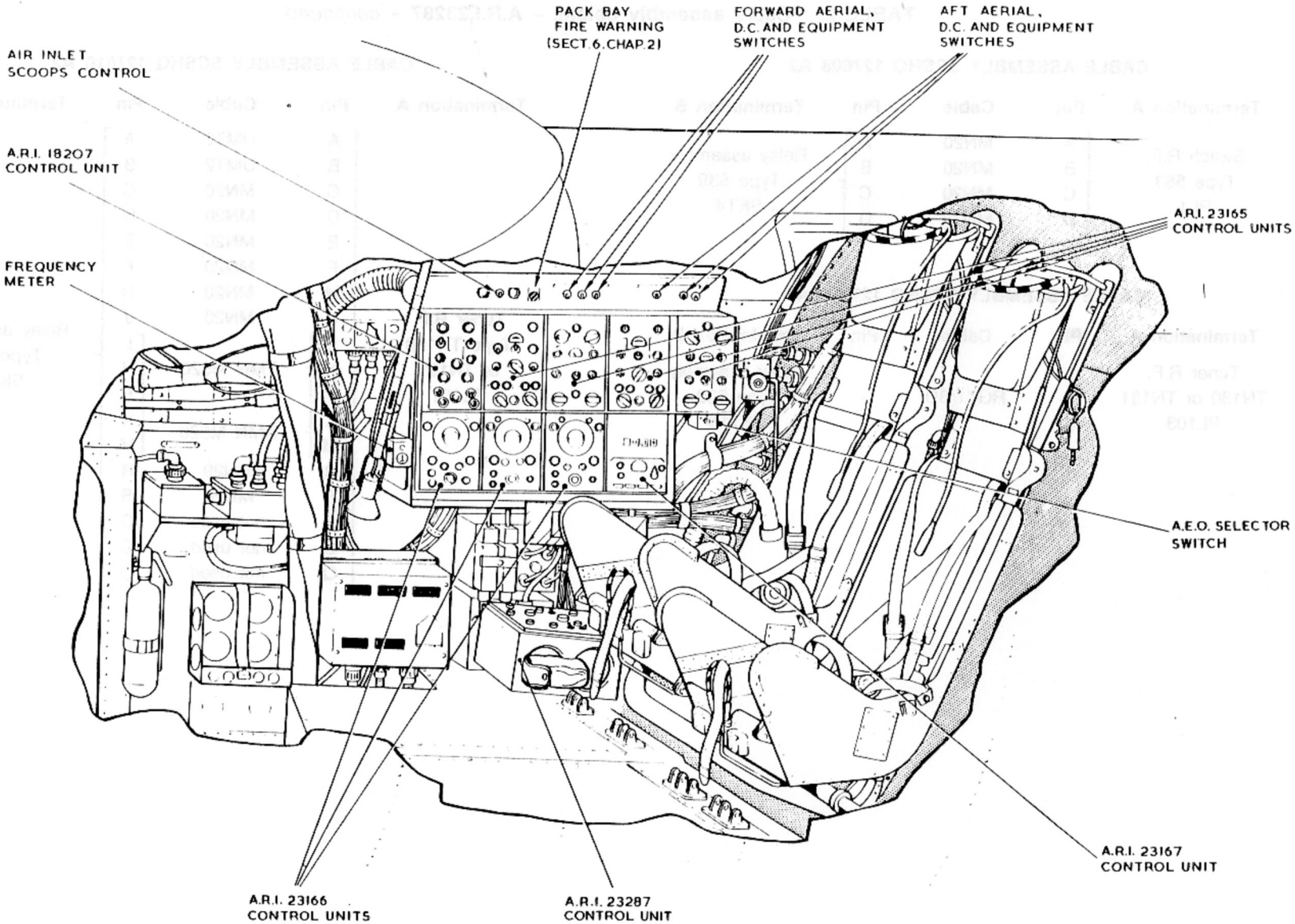

FIG. 3. A.E.O.'S STATION

◀ FIG RENUMBERED ▶

UK RESTRICTED

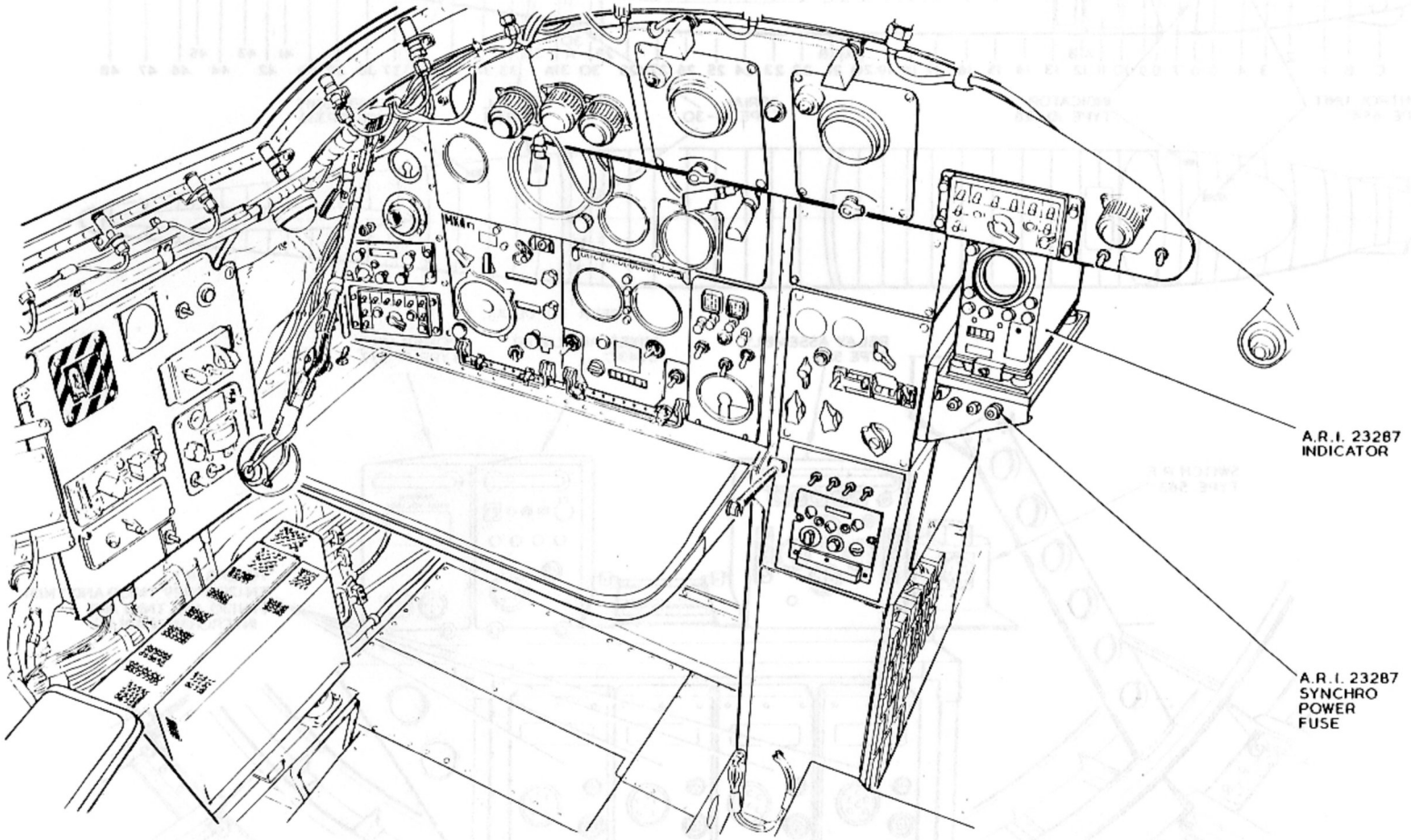

FIG. 4. NAVIGATOR'S STATION

◀ FIG RENUMBERED ▶

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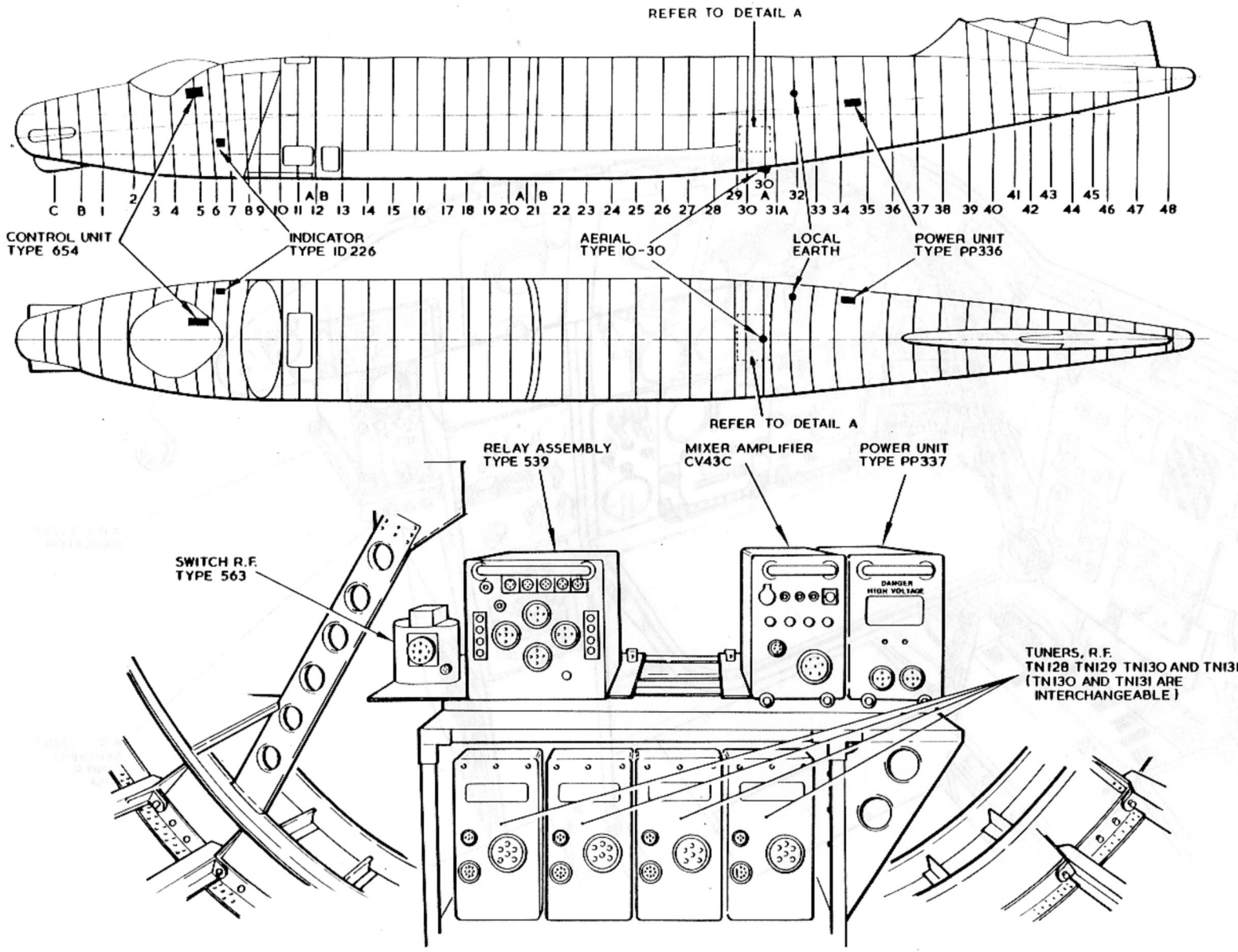

DETAIL A - EQUIPMENT BETWEEN FRAMES 29 AND 31

FIG. 5. LOCATION DIAGRAM - A.R.I. 23287

◀ FIG RENUMBERED ▶