

UNCLASS  
CF-105 SERVICE DATA

Section 40  
Electronics

Power Distribution

ANALYZED

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# CF-105 SERVICE DATA

Classification cancelled / Changed to UNCLASS

By authority of AVES

Date 27 Sept 96

Signature [Signature]

Unit / Rank / Appointment AVES

ELECTRONICS

Section 40

POWER DISTRIBUTION

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## CF-105 SERVICE DATA

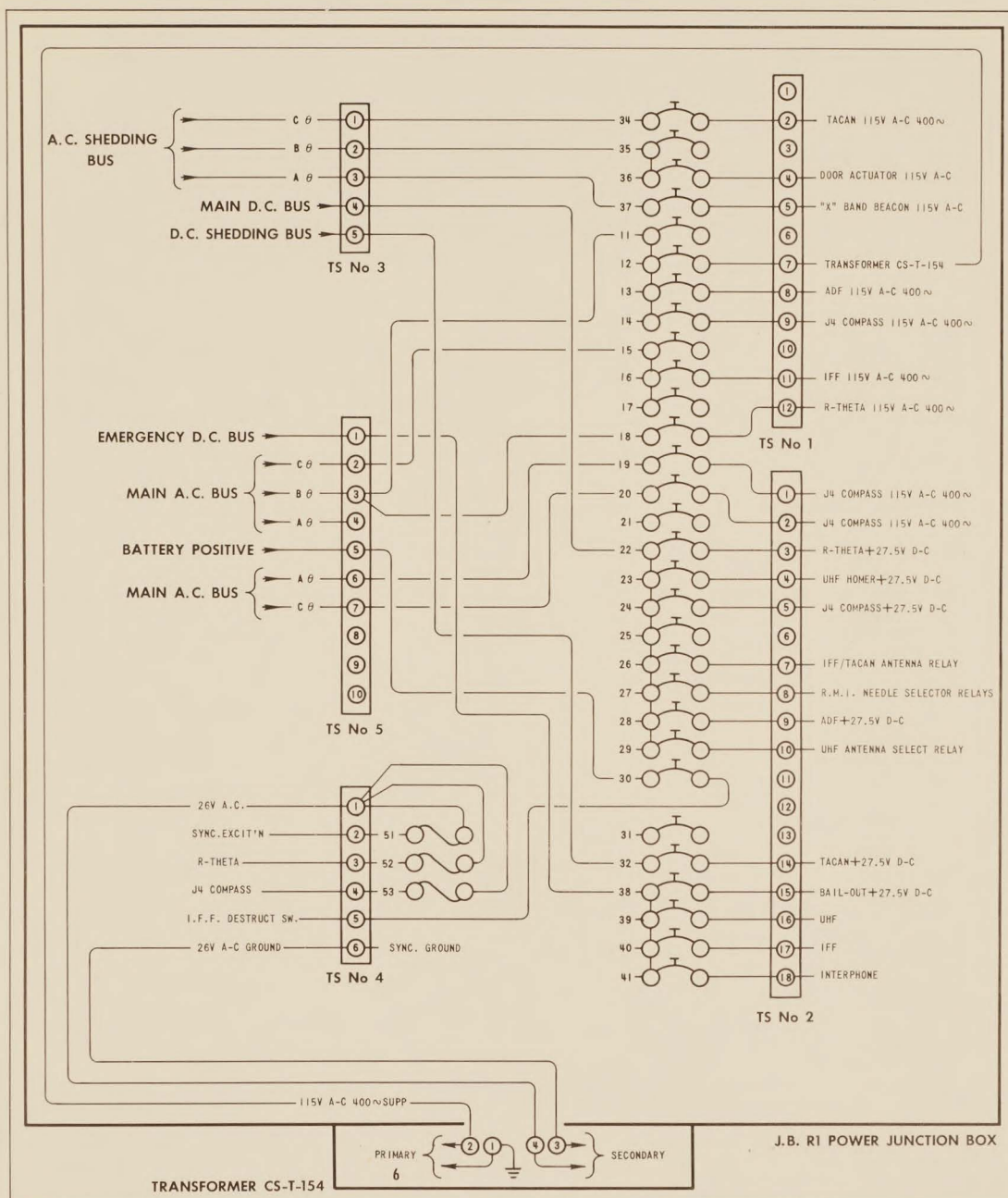


FIG. 1 POWER JUNCTION BOX R 1-SCHEMATIC WIRING



## CF-105 SERVICE DATA

## SYSTEM DATA SHEET

SYSTEM		SUB-SYSTEM		AIRCRAFT EFFTY	REF. NO.
ELECTRONICS		POWER DISTRIBUTION		25201	13-10
DESCRIPTION					
General					
1. Two junction boxes designated JB R1 and JB R2 are provided to facilitate interconnection between the electronic systems components and aircraft power supplies.					
Junction Box R1					
2. Junction box R1, located in the electronic equipment bay on the bulkhead at Sta. 255, serves as the power distribution box. All electronics system power supply circuit breakers and fuses are housed in the junction box. Five terminal strips mounted inside the box facilitate interconnection between aircraft power supplies and the individual electronic systems. Mounted externally on the junction box is a 115/26 volt transformer type CS-T-154. The transformer derives a supply from the main a-c bus, and provides 26 volts a-c 400 cps output. Listed below are the circuit breakers in JB R1 together with the associated equipment and power supply.					
C.B. No.	C.B. Value	Voltage	Source of Supply	Equipment Supplied	
22	5A	27.5V. d-c	MAIN D-C BUS	R-Theta	
23	5A	27.5V. d-c	MAIN D-C BUS	UHF Homer	
24	5A	27.5V. d-c	MAIN D-C BUS	J4 Compass	
25	5A	27.5V. d-c	MAIN D-C BUS	(Reserved for Air Data Boom	
26	5A	27.5V. d-c	MAIN D-C BUS	IFF/TACAN Antenna Relay	
27	5A	27.5V. d-c	MAIN D-C BUS	RMI Needle Selector Relay	
28	10A	27.5V. d-c	MAIN D-C BUS	ADF	
29	5A	27.5V. d-c	MAIN D-C BUS	(UHF Antenna Selector Relay	
30	10A	27.5V. d-c	BATTERY BUS	IFF Destructor	
32	5A	27.5V. d-c	D-C SHEDDING BUS	TACAN	
38	5A	27.5V. d-c	EMERGENCY D-C BUS	Bail-out	
39	25A	27.5V. d-c	EMERGENCY D-C BUS	UHF	
40	5A	27.5V. d-c	EMERGENCY D-C BUS	IFF	
41	5A	27.5V. d-c	EMERGENCY D-C BUS	Interphona	
34	5A	115-200V. a-c	Secondary A-C Bus (Shedding) C $\phi$	TACAN	
35	5A	115-200V. a-c	Secondary A-C Bus (Shedding) B $\phi$	Reserved for Doppler	
36	5A	115-200V. a-c	Secondary A-C Bus (Shedding) B $\phi$	Door Actuator	
37	5A	115-200V. a-c	Secondary A-C Bus (Shedding) A $\phi$	"X" Band Beacon	
11	5A	115-200V. a-c	Primary A-C Bus (Main) B $\phi$	(Reserved for Air Data Computer	
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C.B. No.	C.B. Value	Voltage	Source of Supply	Equipment Supplied
12	5A	115-200V. a-c	Primary A-C Bus (Main) B $\phi$	(Transformer CS-T-154 (115/26V. Primary
13	5A	115-200V. a-c	Primary A-C Bus (Main) B $\phi$	ADF
14	5A	115-200V. a-c	Primary A-C Bus (Main) B $\phi$	J4 Compass
15	5A	115-200V. a-c	Primary A-C Bus (Main) C $\phi$	Reserved for Damping
16	5A	115-200V. a-c	Primary A-C Bus (Main) C $\phi$	IFF
17	5A	115-200V. a-c	Primary A-C Bus (Main) C $\phi$	(Reserved for Emergency (Damping
18	5A	115-200V. a-c	Primary A-C Bus (Main) B $\phi$	R-Theta
19	5A	115V. a-c 400 cps	Primary A-C Bus (Main) A $\phi$	J4 Compass
20	5A	115V. a-c 400 cps	Primary A-C Bus (Main) C $\phi$	J4 Compass
51(F)	1.5A	26V. a-c	Transformer CS-T-154	Synchro. Excitation
52(F)	1.5A	26V. a-c	Transformer CS-T-154	R-Theta
53(F)	0.5A	26V. a-c	Transformer CS-T-154	J4 Compass

(F) Fuses

Junction Box R2

3. Junction Box R2, located on the forward face of the bulkhead at Sta. 255 in the electronic power bay, serves as the circuit interconnection point and relay panel. Twelve terminal strips mounted inside the box, and thirteen AN type connectors mounted around the sides of the box, facilitate interconnection between electronic systems components. Six type CS-R-131 relays, mounted in the junction box, control the operation of the following circuits:

- Relay No. 41 - Tow Vehicle Interphone.
- Relay No. 42 - Starting Vehicle Interphone.
- Relay No. 43 - IFF Aux. Mode 2 Control and UHF Transmit Control interlock.
- Relay No. 44 - Front cockpit RMI Needle Selector.
- Relay No. 45 - Rear cockpit RMI Needle Selector.
- Relay No. 46 - Telescramble Interphone.

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## CF-105 SERVICE DATA

## COMPONENT DATA SHEET

SYSTEM ELECTRONICS	SUB-SYSTEM POWER DISTRIBUTION	COMPONENT Power Junction Box R1	REF. NO. 13-10-1		
AVRO PART NO. 7-1354-43	MANUFACTURER Avro Aircraft	MAN'FR'S PART NO.	AIRCRAFT EFFECTIVITY 25201		
OVERHAUL LIFE:      KNOWN-      ESTIMATED- 1500 hours					
FUNCTION  To serve as a power distribution point for the electronic systems.					
LOCATION  Mounted in electronics equipment bay, on bulkhead 255.					
ACCESS  Release and lower the electronics equipment bay centre access door - 33 camlocs.			MEN X MINUTES  <table border="1"> <tr><td></td><td></td></tr> </table>		
REPLACEMENT PROCEDURE  Open the lid of the junction box and secure the lid retaining strut. Fit the box to the bulkhead using six mounting screws. Draw the circuit wires through the AN connector shells on the sides of the junction box and secure the wiring to the terminal strips. Release the lid retaining strut and close the lid of the junction box.			MEN X MINUTES  <table border="1"> <tr><td></td><td></td></tr> </table>		

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INSPECTION		MEN X MINUTES	
<p>Check that the wiring, terminal strips and connector shells are securely and properly fitted.</p>		MEN X MINUTES	
FUNCTIONAL CHECKS		MEN X MINUTES	
GROUND HANDLING AND GROUND TEST EQUIPMENT			
SPECIAL TOOLS TO REMOVE OR SERVICE			
REMARKS			
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## CF-105 SERVICE DATA

## COMPONENT DATA SHEET

SYSTEM ELECTRONICS		SUB-SYSTEM POWER DISTRICUTION		COMPONENT Junction Box R2		REF. NO. 13-10-2	
AVRO PART NO. 7-1352-11		MANUFACTURER Avro Aircraft		MAN'FR'S PART NO.		AIRCRAFT EFFECTIVITY 25201	
OVERHAUL LIFE:		KNOWN-		ESTIMATED- 1500 hours			
<p>FUNCTION</p> <p>To facilitate interconnection of electronic systems components. Also houses six relays used in certain circuits.</p>							
<p>LOCATION</p> <p>Mounted on the forward face of bulkhead 255 in the electronics power bay.</p>							
<p>ACCESS</p> <p>Remove electronics power bay access panel by removing 76 - 3/16 inch screws.</p>						MEN X MINUTES	
<p>REPLACEMENT PROCEDURE</p> <p>Remove the lid of the junction box - 12 camloc fasteners. Fit and secure the junction box to the bulkhead at Sta. 255 - 12 screws. Connect and secure circuit wiring. Connect 13 AN connectors (R1020-2, R1012-5, R1007-4, R1014-3, R1023-1, R1009-3, R1021-1, R1006-2, R1051-3, R1013-2, R1052-2, R1010-5, R1024-1). Refit lid and secure 12 camloc fasteners.</p>						MEN X MINUTES	



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INSPECTION							MEN X MINUTES		
Check that the wiring, relays and connectors are securely and properly fitted.									
FUNCTIONAL CHECKS							MEN X MINUTES		
GROUND HANDLING AND GROUND TEST EQUIPMENT									
SPECIAL TOOLS TO REMOVE OR SERVICE									
REMARKS									
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