QCY AUTO CF 105 71 Maint 11-1



NRC - CISTI J. H. PARKIN BRANCH

JUN 8 1995

ANNEXE J. H. PARKIN CNRC - ICIST



SECURITY CLASSIFICATION -CONFIDENTIAL

Classification cancelled / Changed to USCCASS

ARROW 1

By authority of AVES

MAINTENANCE INSTRUCTIONS

Signature OBILL

Unit / Rank / Appointment Aves S

FIRE DETECTION & PROTECTION - ELECTRICS

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Prepared January

For Maintenance and Reliability

Section

Approved:

Technical Mesign G

Technical Design Grou

Approved

For Equipment Design Grou

Authorized:

oject Designer

ENGINEERING DIVISION, AVRO AIRCRAFT LIMITED, MALTON, ONTARIO



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	COMPONENT DATA	
M.D.R. 11-E16/2 M.D.R. 11-E21/8 M.D.R. 11-E21/12 M.D.R. 11-E177 M.D.R. 11-E1525	Resistor Left Engine Fire Detector Resistor Hydraulic Bay Fire Detector Fire Detector Control Unit L Eng. Fire Detector Control Unit R Eng. Fire Detector Control Unit Hyd. B Relay Hydraulic Bay Lock-On Relay 2nd Shot Switch Left Eng Fire Warning and Extinguisher Switch Right Fng Fire Warning and Extinguisher Switch Hyd. Bay Fire Warning and Extinguisher Switch Second Shot Switch - Aircraft Master Switch Ground Test Resistor Current Limiting Fire Extinguisher Supply Unit Fire Detection Loop Hyd. Bay	rtor
	2.2 2.3 FIGURE 1 FIGURE 2 M.D.R. 11-E3/5 M.D.R. 11-E5/26 M.D.R. 11-E5/28 M.D.R. 11-E5/28 M.D.R. 11-E5/70 M.D.R. 11-E5/70 M.D.R. 11-E5/70 M.D.R. 11-E6/9 M.D.R. 11-E6/21 M.D.R. 11-E14/6 M.D.R. 11-E14/7 M.D.R. 11-E14/7 M.D.R. 11-E14/10 M.D.R. 11-E15/26 M.D.R. 11-E15/25 M.D.R. 11-E15/26	2.2 Ground Test Equipment Functional Checking ILLUSTRATIONS FIGURE 1 Fire Extinguisher Supply Unit Ground Test Panel FIGURE 2 Component location COMPONENT DATA M.D.R. 11-E3/5 Relay Left Engine Lock-On M.D.R. 11-E5/26 Resistor Right Engine Fire Detect M.D.R. 11-E5/28 Resistor Left Engine Fire Detect M.D.R. 11-E5/36 Resistor Hydraulic Bay Fire Detect M.D.R. 11-E5/69 Fire Detector Control Unit R Eng. M.D.R. 11-E5/70 Fire Detector Control Unit R Eng. M.D.R. 11-E5/71 Fire Detector Control Unit Hyd. B M.D.R. 11-E6/21 Relay 2nd Shot M.D.R. 11-E6/21 Switch Left Eng Fire Warning and Extinguisher M.D.R. 11-E14/6 Switch Right Fng Fire Warning and Extinguisher M.D.R. 11-E14/10 Switch Hyd. Bay Fire Warning and Extinguisher M.D.R. 11-E16/2 Switch - Aircraft Master M.D.R. 11-E16/2 Switch Ground Test M.D.R. 11-E21/12 Resistor Current Limiting M.D.R. 11-E177 Fire Extinguisher Supply Unit Fire Extinguisher Supply Unit Fire Extinguisher Supply Unit Fire Detection Loop Hyd. Bay



1. DESCRIPTION

1.1 General

- 1.1.1 The fire protection system is comprised of fire detection and fire extinguisher actuation circuits.
- 1.1.2 The fire detection circuits detect and indicate fire conditions in the LH engine compartment, the RH engine compartment and the hydraulic bay which is the section of the fuselage between the engine compartments. In addition to the hydraulic equipment, fuel system and electrical system components are located in this section.

In the extinguisher actuation circuits, two fire extinguishers are fitted which can be discharged individually into any two of the three fire detection areas. Alternatively, both extinguishers can be discharged into any one of the three areas.

1.2 Fire Detection Circuits

- 1.1.2 The three fire detection circuits are electrically identical. Each circuit is comprised of a number of lengths of a specially constructed heat detector conduit, a detector unit and a combined fire warning indicator and switch which, when depressed, actuated the corresponding actuation circuit of the extinguishers.
- 1.2.2 The detector conduit consists of two uninsulated wires embedded in an insulating material which has a negative co-efficient of temperature, i.e. a rise in temperature results in a drop in the insulation resistance value. The wires and the insulating material are contained in a conductive sheathing of Inconel which is grounded at intervals to the aircraft structure. One of the core wires is connected to the sheathing, and the other is connected to a transistorized sensing circuit in the detector units.
- 1.2.3 The transistorized sensing circuit of the detector unit receives a d-c supply from the emergency d-c bus. If a first condition occurs, the leakage current across the core wires at a predetermined temperature will be sufficient to allow a relay located in the control unit to be energized. The relay, when energized, completes a supply circuit from the emergency d-c bus to the fire warning indicator, located in the cockpit.



- 1.2.4 The lengths of detector conduit can be constructed to have different operating limits by increasing or decreasing the leakage current flow for any given temperature. This permits a complete circuit to indicate fire conditions at different temperatures along its length. The detector circuits of the engine compartments are assembled in this manner.
- 1.2.5 The detector conduit loops located forward of the engine firewall, aft of the engine fire wall and in the hydraulics bay are constructed to permit sufficient leakage current to flow and energize their detector relays when the equivalent total temperature of each individual detector loop is 425°F. (204°C)

If less than the full length of the detector loop is heated to a higher temperature, sufficient leakage current would energize the detector relay.

- 1.2.6 A resistor fitted externally on each detector control unit facilitates calibration of the relevant system to the required temperature operating limits. These calibrating resistors are, in effect, in parallel with the detector conduit core wires and provide a small, standing current through the relay coil of the detector unit. By altering the ohmic value of the calibrating resistors, the leakage current flow between the core wires required to energize the corresponding detector unit relay will be increased or decreased. Increasing the ohmic value of the calibrating resistors, with respect to the core wire resistance, will increase the operating temperature limit. Conversely, decreasing the ohmic value will decrease the operating temperature limit.
- 1.2.7 As the detector circuits are formed in loops, they will continue to operate normally despite a break occuring in the live core wire. To facilitate checking this core wire for continuity, a switch is provided to interrupt the loop and ground the core wire. This simulates a leakage current to ground and continuity of the wire will be indicated if the relevant fire warning lights illuminate. The switch is a three-pole type and grounds all three detection circuits simultaneously. To restrict the current flow when the detector circuits are grounded, a current limiting resistor for each circuit is inserted between the test contacts of the switch and ground.



1.3 Extinguisher Actuation Circuits

- 1.3.1 Two fire extinguisher actuation circuits, namely a first shot circuit and a second shot circuit, are provided for each one of the three fire detection areas. The first shot circuits are actuated by depressing the relevant fire warning indicator. A single second shot switch will energize the second shot circuits. These circuits are inoperative until the corresponding first shot circuits have been selected.
- 1.3.2 Due to the fact that the first shot circuit of the LH engine compartment and the hydraulic bay discharge the same extinguisher, the operation of these circuits is interrelated. When the fire warning indicator of the LH engine is depressed, a supply circuit is completed to a lock on relay. The lock on relay, when energized, does the following:
 - (a) Completes a self-holding circuit which holds the relay in the energized position until the supply circuit is interrupted, i.e. selecting the Master Power switch to OFF.
 - (b) Completes a preparatory supply circuit to the relay-open contact of a second shot relay.
 - (c) Transfers the hydraulic bay first shot circuit to the remaining extinguisher.
- 1.3.3 The hydraulic bay extinguisher circuit, when actuated by depressing the hydraulic bay fire warning indicator, completes a supply circuit to a lock-on relay and, via the relay-open contacts of the LH engine lock-on relay, to the relevant extinguisher. If the LH engine extinguisher circuit has been actuated prior to the hydraulic bay, this lock-on relay will be energized which transfers the supply through the relay closed contacts to the remaining extinguisher. The hydraulic bay lock-on relay, when energized, completes a self-holding circuit and a second shot preparatory circuit and transfers the LH engine first shot circuit to the remaining extinguisher.
- 1.3.4 A lock-on relay is incorporated in the RH engine extinguisher circuit. When the RH engine fire warning light is depressed, a supply circuit is completed to the lock-on relay. The lock-on relay, when energized, completes a self-holding circuit and a second shot preparatory circuit.



1.3.5 The second shot circuits are identical in operation.

Operating the 2nd SHOT switch will complete a supply circuit to the second shot relay. This relay, when energized, completes all three second shot circuits, but only one will be alive due to the operation of the first shot circuit.



2. FUNCTIONAL CHECK

2.1 Introduction

- 2.1.1 This functional check is to ensure that the electrical components of Fire Detection and Fire Protection systems are functioning correctly. (Refer to Ayro Drawing 7-1100-3 sht 8)
- 2.1.2 The electrical solenoids on the Fire Extinguishing Units may be removed by unscrewing a gland nut. On a bench check the operation of the solenoid may be checked by energizing the solenoid and ensuring that the plunger moves .028 ± .001 inches.

2.2 Ground Test Equipment

- 2.2.1 A.C. Ground Power Supply Trailer
- 2.2.2 Tester Ohmmeter
- 2.2.3 Fire Extinguisher Supply Unit Ground Test Panel

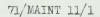
2.3 Functional Checking

2.3.1 Fire Detection

- 2.3.1.1 Select the "MASTER ELECTRIC" switch to the "ON" position.
- 2.3.1.2 Select the "GROUND TEST" switch, located on E21 panel, to the "TEST" position. The fire warning lights, "HYDRAULIC BAY", "LEFT ENGINE" and "RIGHT ENGINE" should be illuminated.
- 2.3.1.3 Select the "GROUND TEST" switch to the "OFF" position, the fire warning lights should go out.
- 2.3.1.4 To check the fire detector loops for correct resistance, disconnect the electrical connector from each of the fire detector control units, then with a resistance test meter, connected to pin C and L (cable connector), check for correct resistance, (Resistance details to be supplied at a later date)
- 2.3.1.5 Reconnect the electrical connector to the fire detector control units.
- 2.3.1.6 Select the "MASTER ELECTRIC" switch to the "OFF" position.

2.3.2 Fire Protections

- 2.3.2.1 Disconnect the three electrical connectors from each of the fire extinguishing supply units, and connect them to the fire protection test panel (Figure 1).
- 2.3.2.2 Select the "MASTER ELECTRIC" switch to the "ON" position.





- 2.3.2.3 Select and hold the left engine fire warning and extinguisher No. 1 shot switch. The No. 1 fire extinguisher supply unit zone No. 1 lamp on the test panel should illuminate. Release the switch and the lamp on the test panel should go out.
- 2.3.2.4 Select and hold the 2nd shot switch. The No. 2 fire extinguisher supply unit zone No. 1 lamp on the test panel should illuminate. Release the switch and the lamp on the test panel should go out.
- 2. 3.2.5 Select the "MASTER ELECTRICS" switch to the "OFF" position.
- 2.3.2.6 Select the "MASTER ELECTRICS" switch to the "ON" position.
- 2.3.2.7 Select and hold the right engine fire warning and extinguisher No. 1 shot switch. The No. 2 fire extinguisher supply unit zone No. 2 lamp on the test panel should illuminate. Release the switch and the lamp on the test panel should go out.
- 2.3.2.8 Select and hold the 2nd shot switch. The No. 1 fire extinguisher supply unit zone No. 2 lamp on the test panel should illuminate. Release the switch and the lamp on the test panel should go out.
- 2.3.2.9 Select the "MASTER ELECTRICS" switch to the "OFF" position.
- 2.3.2.10 Select the "MASTER ELECTRICS" switch to the "ON" position.
- 2.3.2.11 Select and hold the hydraulic bay fire warning and extinguisher No. 1 shot switch. The No. 1 fire extinguisher supply unit zone No. 3 lamp on the test panel should illuminate. Release the switch and the lamp on the test panel should go out.
- 2.3.2.12 Select and hold the 2nd shot switch. The No. 2 fire extinguisher supply unit zone No. 3 lamp on the test panel should illuminate. Release the switch and the lamp on the test panel should go out.
- 2.3.2.13 Select the "MASTER FLECTRICS" switch to the "OFF" position.
- 2.3.2.14 Select the "MASTER ELECTRICS" switch to the "ON" position.



2.3.2.15 This check is to ensure that when the fluid from one of the fire extinguisher supply units is discharged into one of the three fire zones, the fluid from the remaining fire extinguisher supply unit may be discharged into either of the remaining zones.

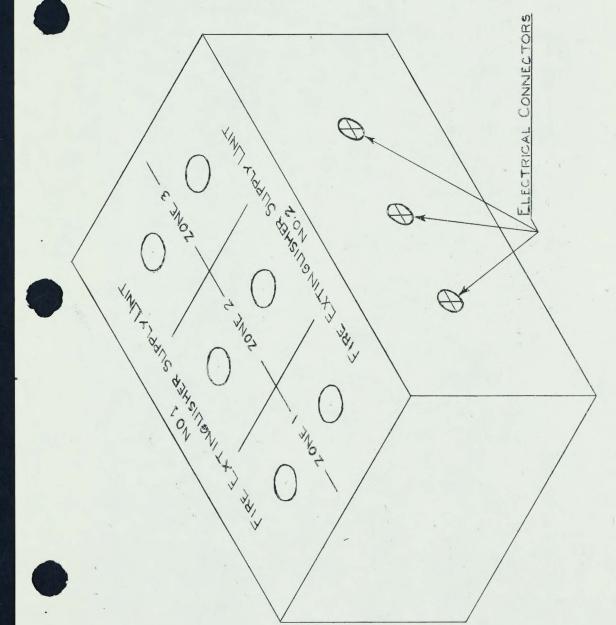
Select and hold one of the three fire warning and extinguisher No. 1 shot switches. The appropriate lamp on the test panel should illuminate. Release the switch and the lamp should go out.

Select and hold either of the remaining fire warning and extinguisher No. 1 shot switches. The appropriate warning light for the other fire extinguisher supply unit should illuminate. Release the switch and the lamp should go out.

- 2.3.2.16 Remove the electrical connectors from the test panel, with a voltmeter ensure that there is no voltage at the electrical connections then re-connect them to their appropriate fire extinguisher supply units.
- 2.3.2.17 Select the "MASTER ELECTRICS" switch to the "OFF" position.
- 2.3.2.18 Using an ohmmeter, check each solenoid of the fire extinguisher supply units for correct resistance.

 (Resistance details to be supplied at a later date).

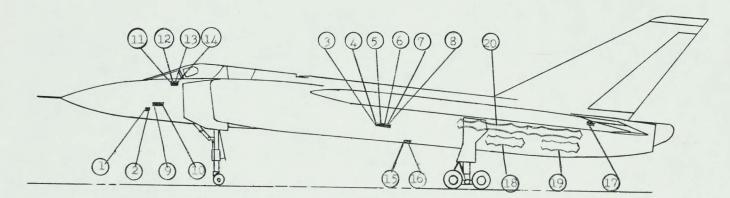




FIRE EXTINGUISHER SUPPLY LINIT GROUND TEST PANEL

FIGURE 1.

- 1. Relay Right Engine Lock-on
- Relay Left Engine Lock-on
 Fire Detection Control Unit Right Engine
- 4. Fire Detection Control Unit Left Engine
- 5. Fire Detection Control Unit Hyd. Bay
- 6. Resistor Fire Detection Right Engine
- 7. Resistor Fire Detection Left Engine
- 9. Resistor Fire Detection Hyd. Bay
- 9. Relay = Second shot
- 10. Relay Hyd. Bay Lock-on



- 11. Switch Right Eng. Fire Warning and Extinguishing
- 12. Switch Left Eng. Fire Warning and Extinguishing
- 13. Switch Hyd. Bay Fire Warning and Extinguishing
- 14. Switch Second Shot
- 15. Resistors Current Limiting
- 16. Switch Ground Test
- 17. Fire Extinguisher Supply Units
- 18. Fire Detection Loop Engine Zone #1
- 19. Fire Detection Loop Engine Zone #2
- 20. Fire Detection Loop Hydraulic Bay

COMPONENT LOCATION

MAINTENANCE AVRO AIRCRAFT LTD.	DATA RECORD Engineering Div.	SYSTEM ELECTRICS	REF. NO. 11-E3/5
S. Brown	A/C TYPE - Arrow 1 EFF. A/C - 25201	COMPONENT Relay Deft engine lock	-02
MANUFACTURER'S PART NO. MANUFACTURER'S NAME		AVRO PART NO. MS 25024/	1
AVROCAN SPEC.	REF. DWGS.		
envelope size 2.625% x 2.687% LOCATION Panel E3, located nose wheel well		7-1100-2 7-1100-3	
When energized, by depressing the left engine fire warning and extinguisher switch the relay transfers the hydraulic bay extinguisher actuation to the		REF. M.D.R.	LITY
remaining extinguisher ar for a second shot	nd completes a circuit	OVERHAUL LIFE 150 WASTAGE Q.T.R.	O HRS.

INSPECTI	ON	OPERATION TO BE PERFORMED		MEN X MINUTES	
PERIO			EST.	ACTUA	
25 Hrs.	Check that the connected to	he relay is securely mounted. he circuit wiring is securely and properly the relay terminals. ck. (See Maintenance Instructions Report 1)	1 x 5		
		ACCESSIBILITY			
	Mounted on pa				
	•				
ISSUE	1				
	17 July 57 .				
DATE					
COMPILED	WO2 Wentworth				

		LUBRICAT	ION NIL			
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	AC	CESS	
(
DETAILS:						
		GROUND SUPPORT	EQUIPMENT			
SPECIAL '	TOOLS FOR AIRCRAFT	r UBE	SPECIAL TO	OLS FOR BENCH	USE	
	NIL		NI	L		
GROUN	D TESTING EQUIPMEN	T	GROUND HA	NDLING EQUIPME	ENT	
INTERCHANGEABLE	X				BATTLEY V	
REPLACEABLE		REMOVAL IN	STRUCTIONS		EST.	ACTUA
l. Remove 4 mo	ounting bolts.	onnections from t	he relay terminal:	5 .		ACTUA
1. Remove 4 mo	ounting bolts.	onnections from t	he relay terminal:	5 .	EST.	ACTUA

	AIRCRAFT LTD.	DATA RECORD Engineering Div.	SYSTEM ELECTRICS (Fire Detection)	ner. 1	10. E5/28
DISTRIBUTION	N: STANDARD +	A/C TYPE - AFFOW 1	COMPONENT		
		EFF. A/C - 0.5003	Resistor		
S.	Brown	25201	Left engine fire	detector	a) S
MANUFACTU	RER'S PART NO. RW 20V9	00	AVRO PART NO.		
MANUFACTU	RER'S NAME Internation	nal Resistance Co.			
AVROCAN SP	EC. E.O.	. NO.			
ENVELOPE S	IZE 2.5" x 1.25" x .	5" WEIGHT LB.	REF. DWGS.	sht 19	
roof.	Mounted on panel E	5 located on missile bay	7-1100-3 : 7-4511-4	sht 8	
DIMOTION.	An external trin no	int adjusting resistor,			
for the	e left engine fire de	etector control unit.	REF. M.D.R.		
			RELIABIL	ITY	
			OVERHAUL LIFE 150		HRS.
			Q.T.R.		
INSPECT	TON	OPERATION TO BE PERFORME	² D	MEN X M	INUTES
PERIO	D	Va Military		EST.	ACTUA
25 Hr.	Check for	security and damage.		1 x 2	
م مدد ر م	OHOOK TOT	Section and desired		38.	
		ACCESSIBILITY			
	On panel E	5			
	•				
				ļ	
100110					
198UE	7.02 T7 500			1	
DATE	17 July 57				
	17 July 57 W02 Wentworth J. Ferguson				

MAINTE AVRO AIRCRAI		TA RECORD	SYSTEM ELECTRICS	REF.	no. E5/70
DISTRIBUTION: STAND		A/C TYPE - AFFOW 1 EFF. A/C - 25201	COMPONENT Fire detection coright engine.	ntrol un	it
MANUFACTURER'S PAR MANUFACTURER'S NAM AVROCAN SPEC.	ME Walter Kidde).	AVRO PART NO. 7-1154-18		
envelope size 2.	5" x 2.5" x 2.9	WEIGHT LB.	REF. DWGS.		
LOCATION Pan	el E5, located (on roof of missile bay	7-11.00-2 7-1100-3		
runction To com engine fire w are indicated	arning light whe	circuit to the right en fire conditions :	REF. M.D.R.		
			RELIABII OVERHAUL LIFE 1500 WASTAGE Q.T.R.	7 7 7 7	HRS.
INSPECTION		OPERATION TO BE PERFORME			MINUTES
25 Hrs.		ng for security.	ty	1 x 2	ACT ON

	OPERATION TO BE PERFORMED		MEN A MATOLES	
PERIO	D	EST.	ACTUAL	
25 Hrs.	Check mounting for security. Check electrical connector for security	1 x 2		
	A C C E S S I B I L I T Y			
	Mounted on panel E5			
ISSUE	1			
DATE	17 July 57		****	
COMPILED	WO2 Wentworth			
CHECKED	J. Ferguson			
APPROVED	R.F. Reid			

		LUBRICATIO	NIL NIL	
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
		GROUND SUPPORT	EQUIPMENT	
SPECIAL T	TOOLS FOR AIRCRAFT			OOLS FOR BENCH USE
	NIL		N	IL
GROUNI	D TESTING EQUIPMEN	Т	GROUND H	IANDLING EQUIPMENT
Electrical Grou	and Power Unit	,	N	IL
INTERCHANGEABLE	X	REMOVAL INST	PUCTIONS	MEN × MINUTES
REPLACEABLE		KEMOTALINS	ROCTIONS	EST. ACTUA
l. Remove 2 mo 2. Disconnect	unting bolts l electrical co	onnector Remove and	Replace	1 x 5

MAINTENANCE AVRO AIRCRAFT LTD.	DATA RECORD Engineering Div.	SYSTEM ELECTRICS	REF. NO. 11-E6/9
S. Brown	A/C TYPE - Arrow 1 EFF. A/C - 25201	COMPONENT Relay Hydraulic Bay loo	k-on
MANUFACTURER'S PART NO. MANUFACTURER'S NAME AVROCAN SPEC.	E.O. NO.	AVRO PART NO. MS 25024-1	
ENVELOPE SIZE 2.625 x 2.61 LOCATION Panel E6 locate wheel well	ed on the roof of the nose	7-1100-2 s 7-1100-3 s	
bay fire warning and ex	, by depressing the hydraulic xtinguishing switch, the engine extinguisher actuation	REF. M.D.R.	
to the remaining exting circuit in preparation	guisher and completes a for a second shot.	RELIABIL OVERHAUL LIFE 1500 WASTAGE Q.T.R.	

INSPECT	TON OPERATION TO BE PERFORMED	MEN X MINUTES	
PERIO		EST.	ACTUA
25 Hr.	Check that the relay is securely mounted Check that the circuit wiring is securely and properly connected to the relay terminals. Function check. (Seen Maintenance Instructions Report 71/MAINT 11/1)	1 x 5	
	ACCESSIBILITY Mounted on Panel E6		
		44	
ISSUE	1		
DATE	17 July 57		
COMPILED	WO2 Wentworth		
CHECKED	J. Ferguson		
APPROVED	R.F. Reid		

MAINTENANCE AVRO AIRCRAFT LTD.	DATA RECORD Engineering Div.	SYSTEM ELECTRICS	REF. NO. 11-E14/5	
S. Brown	A/C TYPE - Arrow 1 EFF. A/C - 25201	COMPONENT Switch L. engine fire warning and extinguishing #1 shot		
MANUFACTURER'S PART NO. A 3084 MANUFACTURER'S NAME Hetheringt AVROCAN SPEC. E287 E.O.		AVRO PART NO. CS=S=155		
envelope size .75th dia.x 2 13	/64" WEIGHT 0.1 LB.	7-1100-2 7-1100-3		
FUNCTION To serve as a comb indicator and fire extingu		REF. M.D.R. 11=E14		
		OVERHAUL LIFE 15 WASTAGE Q.T.R.		
INSPECTION	OPERATION TO BE PERFORME	0	MEN × MINUT	

•

INSPECTIO	ON OPERATION TO BE PERFORMED	MEN X	MINUTES
PERIOD		EST.	ACTUAL
Primary	Check lamp for serviceability (See Maintenance Instructions Report 71/MAINT 11/1)	lxl	
25 Hrs.	Check switch for security of mounting.	1 x 2	
	ACCESSIBILITY	=	
	Mounted on panel E14		
SSUE	1		
DATE	17 July 1957		
COMPILED	WO2 Wentworth		
CHECKED	J. Ferguson		
APPROVED	R.F. Reid		

	AIRCRAFT LTD.	DATA RECORD Engineering Div.	ELECTRICS	REF.	E14/6
DISTRIBUTIO	N: STANDARD +	A/C TYPE - Arrow 1	COMPONENT Switch R. engine	e fire war	ning a
S	Brown	EFF. A/C - 25201	extinguishing #		Ü
MANUFACTU	rer's part no. A3084R=	BX	AVRO PART NO.		
MANUFACTU	RER'S NAME Hethering	ton	***		
AVROCAN SP	ec. E287 e.o	. NO.	CS-S-155		
ENVELOPE 8	IZE .75" x 2.203"	weight 0.1 LB.	REF. DWG8.		
side.	Panel E14, located	in pilots cockpit L.H.	7-1100-2 7-1100-3		
runction indicat		ined fire warning isher actuation switch.	REF. M.D.R. 11-E14	*	
			RELIAE	BILITY	
			OVERHAUL LIFE] WASTAGE Q.T.R.	.500	HRS.
INSPECT	пом	OPERATION TO BE PERFORME	D	MEN X	MINUTES
PERIO	do do			EST.	ACTUA
Primary 25 Hrs.	Instruction Check swit	for serviceability (See Mains Report 71/MAINT 11/1) ch for security of mounting trical connections for secur		1 x 1	
		ACCESSIBILITY			
	Mounted on				
					1
ISSUE	1				
ISSUE DATE	1 17 July 1957				

APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
	7			
DETAILS:				
		GROUND SUPPORT	EQUIPMENT	
SPECIAL	TOOLS FOR AIRCRAFT	USE	SPECIAL TOOL	S FOR BENCH USE
Ŋ	NIL		NII	
GROUN	D TESTING EQUIPMENT	r	GROUND HAN	DLING EQUIPMENT
Electrical Gr	round Power Unit		Cockpit Access Sta	nd .
INTERCHANGEABLE	X 2	REMOVAL IN	STRUCTIONS	MEN × MINUT
REPLACEABLE				EST. ACTU
		Remove	and Replace	1 x 5
*				

MAI	NTENANCE D.	ATA RECORD	SYSTEM	REF.	NO.
	AIRCRAFT LTD.	Engineering Div.	ELECTRICS	11-E	14/7
	s STANDARD +	A/C TYPE -Arrow 1	COMPONENT		
		PPP A/C	Switch	and the same of	75.70
	S. Brown	25201	Hydraulic bay freextinguishing #		ng and
MANUFACTUR	er's part no. A 3084 R	BX	AVRO PART NO.	L Dito	
MANUFACTUR	er's NAME Hetheringt	on	00.0 155		
VROCAN SPE	ec. E287 E.o. N	o.	CS-S-155		
INVELOPE SI	ze .75" dia.x 2.203"	weight 0.16 LB.	REF. DWGS.	-h+ 6	
LOCATION	Panel E14, pilots co	ckpit L.H. console	7-1100-2		
FUNCTION indicate	To serve as a combin or and fire extinguis	ed fire warning her actuation switch.	REF. M.D.R.		
			RELIAB	ILITY	
			OVERHAUL LIFE 150 WASTAGE Q.T.R.	00	HRS.
INSPECTI	ON		MEN X I	ATNITES	
PERIOI		OPERATION TO BE PERFORME	D	EST.	ACTU
25 Hrs.		for security of mounting ical connections for security		1 x 2	
		ACCESSIBILITY			
	Mounted on p				
	Mounted on p				
ISSUE	1				
	1 17 July 1957				
ISSUE DATE COMPILED	1				

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GROUND SUPPORT EQUIPMENT SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL SPECIAL TOOLS FOR AIRCRAFT USE NIL OROUND TESTING EQUIPMENT Electrical Ground Fower Unit Cockpit Access stand INTERCHANGEABLE INTERCHANGEABLE REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer 2. Disconnect 3 electrical connections	220000	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS	
CROUND SUPPORT EQUIPMENT SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS MEN X REPLACEABLE Remove mounting nut & lock washer 2. Disconnect 3 electrical connections	P. Henry		a. Low tion			
GROUND SUPPORT EQUIPMENT SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT Electrical Ground Fower Unit Cockpit Access stand INTERCHANGEABLE X REMOVALINSTRUCTIONS REPLACEABLE Remove mounting nut & lock washer C. Disconnect 3 electrical connections						
GROUND SUPPORT EQUIPMENT SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS REPLACEABLE Remove mounting nut & lock washer Disconnect 3 electrical connections						
NIL SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS REPLACEABLE Remove mounting nut & lock washer Disconnect 3 electrical connections	DETAILS:					
NIL SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections						
NIL SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT GROUND HANDLING EQUIPMENT Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections						
NIL SPECIAL TOOLS FOR AIRCRAFT USE NIL NIL GROUND TESTING EQUIPMENT GROUND HANDLING EQUIPMENT Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections						
NIL GROUND TESTING EQUIPMENT Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections			GROUND SUPPORT	EQUIPMENT		
GROUND TESTING EQUIPMENT Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections	SPECIAL	TOOLS FOR AIRCRAFT	USE	SPECIAL TOOLS	FOR BENCH USE	
GROUND TESTING EQUIPMENT Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections						
Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS REPLACEABLE EST. Remove mounting nut & lock washer Disconnect 3 electrical connections		NIL		NIL		
Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS REPLACEABLE EST. Remove mounting nut & lock washer Disconnect 3 electrical connections						
Electrical Ground Power Unit Cockpit Access stand INTERCHANGEABLE X REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections	CROW	ND TESTING POSITEMENT		CROUND HANDS	NG FOURMENT	
INTERCHANGEABLE X REMOVAL INSTRUCTIONS REPLACEABLE EST. Remove mounting nut & lock washer Disconnect 3 electrical connections	GROOT	INSMITTED ENTERS		GROUND HANDL	ma Equi ment	
INTERCHANGEABLE X REMOVAL INSTRUCTIONS REPLACEABLE EST. Remove mounting nut & lock washer Disconnect 3 electrical connections	-			0		
REPLACEABLE REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections	Electrical G	round Power Unit		Cockpit Access st	and	
REPLACEABLE REMOVAL INSTRUCTIONS EST. Remove mounting nut & lock washer Disconnect 3 electrical connections						
REPLACEABLE EST. Remove mounting nut & lock washer Disconnect 3 electrical connections	INTERCHANGEABL	EX	REMOVAL INS	TRUCTIONS	MEN × M	INUTES
Disconnect 3 electrical connections	REPLACEABLE		NEMOTAL IN		EST.	ACTUA
	2. Disconnect	3 electrical con		Replace	1 x 5	

MAINTE	NANCE D	ATA RECORD Engineering Div.	SYSTEM ELECTRICS	REF.	NO. E14/10
S. Brown		A/C TYPE - Arrow 1 EFF. A/C - 25201	COMPONENT Switch (second shot)		
	0022 83 6	1	AVRO PART NO.		
Manufacturer's par Manufacturer's nam	0022.27		8811K15		
AVROCAN SPEC.	B.O. N				
ENVELOPE SIZE 1.12	25" x 1.046" x	.625" WEIGHT 0.08 LB.	REF. DWOS.		
console.	E14 located in	pilots cockpit L.H.	7-1100-2 si 7-1100-3 si		
fire extinguiant shot switch.	rgize circuitry sher to the are	r to direct the remaining sea selected by the first	REF. M.D.R.		
			RELIABILI	TY	
м			OVERHAUL LIFE 1500 WASTAGE Q.T.R.		HRS.
INSPECTION		OPERATION TO BE PERFORMED		MEN X	MINUTES
PERIOD				EST.	ACTUA
25 Hr.	Check for se Function che 71/MAINT 11/	ecurity and damage. eck (see Maintenance Instra (1)	uctions Report	1 × 10	
	Mounted on p				

17 July 1957

W02 Wentworth
J. Ferguson
R.F. Reid

DATE

COMPILED CHECKED APPROVED

MAIN	TENANCE D	DATA RECORD	SYSTEM	REF. 1	
AVRO AU	RCRAFT LTD.	Engineering Div.	ELECTRICS	11-E1	.6/2
DISTRIBUTION: 8	TANDARD +	A/C TYPE - Arrow 1	COMPONENT		
a D		//2	Switch		
S. Brown		25201	A/C Master		
MANUFACTURER	'S PART NO. 7660K9	avegan et al. All to	AVRO PART NO.		
	Couting Ham		796 6 0100		
MANUFACTURER	'S NAME Cutler Ham	mer	7660K9		
AVROCAN SPEC.	E.O.	NO.			
ENVELOPE SIZE	1 3125# x 1.203#	x .75" WEIGHT 0.16 LB.	REF. DWGS.		
			7-1100-2	2 sht 6	
console.	el E 6 - located	in pilots cockpit R.H.	7-1100-3		
FUNCTION			REF. M.D.R.		
Aircraft e	electrical master lever switch)	switch	KW1 HAD		
			RELIAB	ILITY	
			OVERHAUL LIFE]	1500	HRS.
			Q.T.R.		
INSPECTION					
		OPERATION TO BE PERFORME		MEN × N	INUTE
PERIOD 25 Hrs.		operation to be performe ecurity and damage.	D.D.	MEN X MEST.	ACTU
PERIOD			Z.D	EST.	
PERIOD			D.D.	EST.	
PERIOD		security and damage.	D.D.	EST.	
PERIOD		ACCESSIBILITY	D.D.	EST.	
PERIOD	Check for s	ACCESSIBILITY	D.D.	EST.	
PERIOD	Check for s	ACCESSIBILITY	D.D.	EST.	
PERIOD	Check for s	ACCESSIBILITY	D. D. C. D.	EST.	
PERIOD	Check for s	ACCESSIBILITY	D. D. C. D.	EST.	
PERIOD 25 Hrs.	Check for s	ACCESSIBILITY	D. D. C. D.	EST.	
PERIOD 25 Hrs.	Check for s	ACCESSIBILITY	D. D. C. D.	EST.	
PERIOD 25 Hrs. IBSUE DATE 17	In pilot's	ACCESSIBILITY	D. D. C. D.	EST.	
PERIOD 25 Hrs. ISSUE DATE 17 COMPILED WO	Check for s	ACCESSIBILITY	D.D.	EST.	

•

		LUBRICA	TION NIL	
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
DEIRILS:				
		GROUND SUPPOR	T EQUIPMENT	
SPECIAL	TOOLS FOR AIRCRAF	T USE	SPECIAL TOOLS	FOR BENCH USE
	NIL		NIL	
GROUN	D TESTING EQUIPME	NT	GROUND HANDLI	ING EQUIPMENT
A/C Ground Powe	er Unit		Cockpit access stand	d
INTERCHANGEABLE	z X	PEMOVÁLI	NSTRUCTIONS	MEN × MINUTES
REPLACEABLE		REMOVALI	NSTRUCTIONS	EST. ACTUA
2. Remove one	mounting nut	Remove and	Replace	1 x 10

		LUBRICATIO	N NIL	
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
	THE STATE OF THE S	GROUND SUPPORT E	QUIPMENT	
SPECIAL	TOOLS FOR AIRCRAF	T USE	SPECIAL TOOLS	FOR BENCH USE
	has to			
	NIL		NIL	
				NA ROUNNING
GROUN	D TESTING EQUIPME	NI	GROUND HANDLI	NG EGODWENT
Electrical Grou	and Power Unit		NIL	
INTERCHANGEABLE	X	REMOVAL INST	RUCTIONS	MEN × MINUTES
REPLACEABLE	The second			EST. ACTUAL
1. Remove moun	nting nut and 1	ock washer		ARTHUR HARA
2. Disconnect	9 electrical c	connections		
		Remove ar	nd Replace	1 x 5
A CONTRACTOR				
L				

b

MANUFACTURER'S NAME International Resistance Co. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEIGHT LB. ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEIGHT LB. LOCATION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fire ref. md.r. detector controller when the ground test switch is selected to "TEST" position. INSPECTION OPERATION TO BE PERFORMED PRINCE WASTAGE Q.T.R. INSPECTION OPERATION TO BE PERFORMED Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY	S. Brown MANUFACTURER'S PART NO. MANUFACTURER'S NAME International Resistance Co. AVROCAN SPEC. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" LOCATION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fire REF. M.D.R. detector controller when the ground test switch is selected to "TEST" position. MEN MEN MEN MEN PERIOD OPERATION TO BE PERFORMED MEN MEN MEN EST. A ACCESSIBILITY On panel E21	M A I N T	ENANCE	DATA RECORD	SYSTEM ELECTRICS Fire Protection	REF. NO.
S. Brown MANUFACTURER'S PART NO. RW20V201 MANUFACTURER'S NAME International Resistance Co. AVROCAN SPEC. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEEHT LE. PRINCTION A current limiting resistor to protect the fir detector controller when the ground test switch is selected to "TEST" position. PREF. MDR. 11-E21/13 11-E21/14 RELIABILITY OVERNAUL LIPE WASTAGE O.T.R. Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY ACCESSIBILITY	S. Brown MANUFACTURER'S PART NO. RW20V201 MANUFACTURER'S NAME International Resistance Co. AVROCAN SPEC. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEERT LOCATION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fir REF. MO.R. detector controller when the ground test switch is selected to "TEST" position. INSPECTION OPERATION TO BE PERFORMED OPERATION TO BE PERFORMED OPERATION TO BE PERFORMED OPERATION TO BE PERFORMED ACCESSIBILITY On panel E21 MEN X MINUE RET. DWGS. 7-1156-19 7-1100-2 sht 23 7-1100-2 sht 23 11-E21/13 11-E21/14 RELIABILITY OVERHAUL LIFE WASTAGE O.T.R. ACCESSIBILITY On panel E21	STRIBUTION: STA	NDARD +	A/C TYPE - Arrow 1	COMPONENT	
MANUFACTURER'S NAME International Resistance Co. AVROCAN SPEC. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEIGHT LB. LOCATION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fire detector controller when the ground test switch is selected to "TEST" position. FUNCTION PERIOD OPERATION TO BE PERFORMED OPERATION TO BE PERFORMED Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY ACCESSIBILITY	MANUFACTURER'S NAME International Resistance Co. AVECAN SPEC. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEIGHT LOCATION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fir REF. M.D.R. detector controller when the ground test switch I1-E21/13 I1-E21/14 RELIABILITY OVERNAUL LIFE WASTAGE Q.T.R. INSPECTION OPERATION TO BE PERFORMED Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 MBBUE 1 JULY 57 COMPULED WO2 Wentworth	S. B	rown	EFF. A/C - 25201		g
AVROCAN SPEC. E.O. NO. ENVELOPE SIZE 2.5" x 1.25" x 0.5" LOCATION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fire detector controller when the ground test switch is selected to "TEST" position. INSPECTION OPERATION TO BE PERFORMED Primary Check for continuity (See Maintenance Instructions REF. DWGS. 7-1156-19 7-1100-2 sht 23 7-1100-2 sht 23 7-1100-2 sht 23 11-E21/13 11-E21/14 RELIABILITY OVERHAUL LIFE WASTAGE Q.T.R. MEN X MINU EST. AC Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2)	ACCESSIBILITY On panel E21 ACCESSIBILITY On panel E21 DATE 17 July 57 COMPILED WOO Wentworth DATE 17 July 57 COMPILED WOO Wentworth ENDATE 17 July 57 COMPILED WOO Wentworth	MANUFACTURER'S	PART NO. RW20V	201	AVRO PART NO.	
ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEIGHT LE. REF. DWGS. 7-1156-19 7-1100-2 sht 23 7-1100 - 3 sht 3 FUNCTION A current limiting resistor to protect the fire REF. M.D.R. detector controller when the ground test switch is selected to "TEST" position. INSPECTION OPERATION TO BE PERFORMED Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY	ENVELOPE SIZE 2.5" x 1.25" x 0.5" WEIGHT LE. TOWGE. 7-1156-19 7-1100-2 sht 23 7-1100 - 3 sht 3 FUNCTION A current limiting resistor to protect the fire detector controller when the ground test switch is selected to "TEST" position. REF. DWGE. 7-1156-19 7-1100-2 sht 23 7-1100 - 3 sht 3 FREF. MD.R. REF. DWGE. 7-1156-19 7-1100-2 sht 23 7-1100-2 sht 23 7-1100-3 sht 3 11-E21/13 11-E21/13 11-E21/13 11-E21/14 REF. DWGE. 7-1156-19 7-1100-2 sht 23 Tellou - 10 sht 23	MANUFACTURER'S	NAME Intern	ational Resistance Co.		
FUNCTION Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the fire REF, M.D.R. detector controller when the ground test switch is selected to "TEST" position. INSPECTION PERIOD OPERATION TO BE PERFORMED OPERATION TO BE PERFORMED OPERATION TO BE PERFORMED ACCESSIBILITY ACCESSIBILITY ACCESSIBILITY Tell100-2 sht 23 7-1100-3 sht 3 The Line REF, M.D.R. 11-E21/13 11-E21/14 RELIABILITY OVERNAUL LIPE HAS WASTAGE Q.T.R. ACCESSIBILITY ACCESSIBILITY ACCESSIBILITY	Totalion Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the first detector controller when the ground test switch Is selected to "TEST" position. INSPECTION OPERATION TO BE PERFORMED O.T.R. Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 DATE 17 July 57 COMPILED WOZ Wentworth	AVROCAN SPEC.		E.O. NO.		
LOCATION Panel E21 located fwd of LH speed brake 7-1100-2 sht 23 7-1100 - 3 sht 3 FUNCTION A current limiting resistor to protect the fire detector controller when the ground test switch is selected to "TEST" position. REF. M.D.R. 11-E21/13 11-E21/14 RELIABILITY OVERHAUL LIFE HAS WASTAGE Q.T.R. Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY ACCESSIBILITY	Totalion Panel E21 located fwd of LH speed brake FUNCTION A current limiting resistor to protect the first detector controller when the ground test switch Is selected to "TEST" position. INSPECTION OPERATION TO BE PERFORMED O.T.R. Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 DATE 17 July 57 COMPILED WOZ Wentworth	ENVELOPE SIZE 2	.5" x 1.25" x	: 0.5" WEIGHT L	REF. DWGB.7-1156-19	
is selected to "TEST" position. 11-E21/13 11-E21/14	detector controller when the ground test switch is selected to "TEST" position. 11-E21/14 RELIABILITY OVERHAUL LIPE HR WASTAGE Q.T.R.	LOCATION Pan	el E21 locate	d fwd of LH speed brake		
is selected to "TEST" position. 11-E21/13 11-E21/14	detector controller when the ground test switch is selected to "TEST" position. 11-E21/14 RELIABILITY OVERHAUL LIPE HR WASTAGE Q.T.R.	function A c	urrent limiti	ng resistor to protect the f	ir Ref. M.D.R.	****
OVERHAUL LIFE WASTAGE Q.T.R. INSPECTION OPERATION TO BE PERFORMED Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY	OVERHAUL LIFE WASTAGE Q.T.R. INSPECTION PERIOD OPERATION TO BE PERFORMED MEN X MIN EST. A Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 BBUE 1 DATE 17 July 57 COMPILED W02 Wentworth	detector co	introller when	the ground test switch	11-E21/13	
INSPECTION OPERATION TO BE PERFORMED Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY	INSPECTION PERIOD OPERATION TO BE PERFORMED MEN X MIN EST. A Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 BBUE 1 DATE 17 July 57 COMPILED WOZ Wentworth				RELIABILI	ITY
Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY	Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 DATE 17 July 57 COMPILED WOZ Wentworth				WASTAGE	HRS.
Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY	Primary Check for continuity (See Maintenance Instructions Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 DATE 17 July 57 COMPILED WOZ Wentworth	INSPECTION			MEN × MINU	
Report 71/MAINT 11/2) ACCESSIBILITY	Report 71/MAINT 11/2) ACCESSIBILITY On panel E21 DATE 17 July 57 COMPILED W02 Wentworth	PERIOD		OPERATION TO BE PERFOR	MED	EST. AC
	On panel E21 IBSUE 1 DATE 17 July 57 COMPILED WO2 Wentworth		Report 7	1/MAINT 11/2)		
On panel E21	IBSUE 1 DATE 17 July 57 COMPILED WO2 Wentworth		Report 7	T/MAINT 11/2)		
	IBSUE 1 DATE 17 July 57 COMPILED WO2 Wentworth		Report 7	/I/MAINT 11/2)		
	DATE 17 July 57 COMPILED WO2 Wentworth			ACCESSIBILITY		
	DATE 17 July 57 COMPILED WO2 Wentworth			ACCESSIBILITY		
INSTIR	COMPILED WO2 Wentworth	TRETTE	On panel	ACCESSIBILITY		
			On panel	ACCESSIBILITY		
DATE 17 July 57		DATE 17	On panel	ACCESSIBILITY		

MAINI	ENANCE	DATA RE	CORD	SYSTEM	REF. NO. 23-1
AVRO AIRCE	AFT LTD.	Engin	eering Div.	FIRE PROTECTION	11177
STRIBUTION: STA	NDARD +	A/C TYPE -	ARROW 1	COMPONENT	
S. Brown		EFF. A/C -	25201	Fire Extinguish Supply Unit	ner
MANUFACTURER'S I	ART NO.			AVRO PART NO.	
MANUFACTURER'S N	AME Walter	Kidde		7-2358-21	
AVROCAN SPEC. E3	79 & E405	E.O. NO.			
envelope size 1	$3.0^{\circ} \times 18.0^{\circ}$	" x 8.5" WEIGHT	60.0 full 36.0 empty ^{LB.}	REF. DWGS. 7-1100-3 Sht.8 7-2300-2 7-2358-5	3
FUNCTION A sto (Freon 1282) cockpit.	rage unit f	or fire extinguis by a switch in th	her fluid, e pilot's	REF. M.D.R. E-178	
00011p10				RELIABI	LITY
				OVERHAUL LIFE 1500 WASTAGE Q.T.R. Pendi	
INSPECTION		ODERATION	TO BE PERFORMED		MEN X MINUTES
PERIOD		OPERATION	10 BE PERFURMED		EST, ACTUA
Primary Airframe Primary Electrics	Check co	ressure at pressur andition of safety scharge parts and ectrical connecto	disc. control valves	5.	1 x 5
25 Hrs. Electrics		n check electrical aintenance Instruc		L/Maint 11/1)	1 x 15
		A C C E S S I B I L I	тү		
		door No. 4 - (28	Camlocs)		
$^{\mathrm{T}}$ hrou	gh service				
$^{ m T}$ hrou	gh service		Remove and	1 Replace	1 x 2
	gh service	2	Remove and		1 x 2
issue]		July 13/56	3	4	1 x 2
issue] Date May 4		July 13/56 WO2 wentworth	Remove and 3 December 28/56 D. Collingwood		1 x 2

		LUBR	ICATION		
ION MA	TERIAL	SPECIFICATION	ON FREQUENCY	ACCESS	
PECIAL TOOLS E	OP AIRCRAF			LS FOR BENCH USE	
NIL				NIL	
GROUND TEST	NG EQUIPMEN	NT	GROUND HAN	DLING EQUIPMENT	
al Ground Po	wer Unit	Ohmeter	Maintenance Platfo Winch	rm	
NGEABLE X		REMOV	AL INSTRUCTIONS	MEN X MINUT	res
ABLE		K C M O T .	- INSTRUCTIONS	EST. ACT	'UAL
To remove f. (a) Remove (b) Remove (c) Discon (d) Lower	ire extin locking 6 mounti nect 3 pi unit from	guisher bottl wire from mou ng bolts. pe lines. aircraft.	unting bolts.	1 x 6	
(a) Remove (b) Discon	2 mounti			l x 15	
	NIL GROUND TESTE al Ground Pour INGEABLE X ABLE To remove f: (a) Remove (b) Remove (c) Discond (d) Lower n (e) Remove To remove a (a) Remove	NIL GROUND TESTING EQUIPMENT al Ground Power Unit INGEABLE X ABLE Onnect 6 electrical c To remove fire extin (a) Remove locking (b) Remove 6 mounti (c) Disconnect 3 pi (d) Lower unit from (e) Remove 1 strut To remove a bottle f (a) Remove 2 mounti	GROUND SUPPLED TO THE STING EQUIPMENT ABLE TO remove fire extinguisher bottl (a) Remove locking wire from more (b) Remove 6 mounting bolts. (c) Disconnect 3 pipe lines. (d) Lower unit from aircraft. (e) Remove 1 strut - 2 bolts. To remove a bottle from the asser (a) Remove 2 mounting bolts.	GROUND SUPPORT EQUIPMENT SPECIAL TOOLS FOR AIRCRAFT USE SPECIAL TOOL NIL GROUND TESTING EQUIPMENT al Ground Power Unit Ohmeter Maintenance Platfo Winch NGEABLE X REMOVAL INSTRUCTIONS Remove and Replace To remove fire extinguisher bottle assy. (a) Remove locking wire from mounting bolts. (b) Remove 6 mounting bolts. (c) Disconnect 3 pipe lines. (d) Lower unit from aircraft. (e) Remove 1 strut - 2 bolts. Remove and Replace To remove a bottle from the assembly. (a) Remove 2 mounting bolts.	GROUND SUPPORT EQUIPMENT GROUND TESTING EQUIPMENT ACCESS NIL NIL REMOVAL INSTRUCTIONS Remove and Replace ACCESS MEN X MINUTEST. ACT To remove fire extinguisher bottle assy. (a) Remove 1 strut - 2 bolts. Remove and Replace To remove a bottle from the assembly. (a) Remove 2 mounting bolts. Remove and Replace To remove a bottle from the assembly. (a) Remove 2 mounting bolts. Remove and Replace 2 x 40 To remove a bottle from the assembly. (a) Remove 2 mounting bolts.