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Avro  
CF105  
71 maint.  
12-5

Classification cancelled to UNCLASS  
By authority of MAINTENANCE INSTRUCTIONS  
INSTRUMENTS - MISCELLANEOUS  
Date 30 Sept 66  
71/MAINT 12/5  
Signature  
Unit / Rank / Appointment

ANALYZED  
NRC - CISTI  
J. H. PARKIN  
BRANCH  
JUN 8 1995  
ANNEXE  
J. H. PARKIN  
CNRC - ICIST

Classification cancelled ~~APPROW 1~~ changed to **UNCLASS**

By authority of **MAINTENANCE INSTRUCTIONS**  
**INSTRUMENTS - MISCELLANEOUS** **AVRS**

Date **30 Sept 96**

71/MAINT 12/5 **DBilly**

Signature

Unit / Rank / Appointment **AVRS**



SECURITY CLASSIFICATION - CONFIDENTIAL

ANALYZED

71/MAINT 12/5

ARROW 1

MAINTENANCE INSTRUCTIONS

Classification cancelled / Changed to UNCLASS

By authority of AVRS

Date 30 Sept 66

Signature P. B. Kelly

Unit / Rank / Appointment AVRS

INSTRUMENTS - MISCELLANEOUS

71/MAINT 12/5

10 Jan. 58

Prepared: [Signature]

For Maintenance and Reliability  
Section

Approved: [Signature]

For Airborne Equipment Section

Approved: [Signature]

For Equipment Design Department

Authorized: [Signature]

Project Designer

ENGINEERING DIVISION, AVRO AIRCRAFT LIMITED, MALTON, ONTARIO





CONFIDENTIAL

71/MAINT 12/5

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COMPONENTS

M.D.R. 12-2 Compass - Standby  
M.D.R. 12-3 Accelerometer  
M.D.R. 12-4 Clock - 8 Day  
M.D.R. 12-7 Indicator - Artificial Horizon  
M.D.R. 12-10 Indicator - Turn and Slip  
M.D.R. 12-12 Indicator - Cabin Pressure  
M.D.R. 12-16 Indicator - Skin Temperature  
M.D.R. 12-17 Indicator - Landing Gear Position  
M.D.R. 12-47 Sensor - Skin Temperature



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## 1. DESCRIPTION

### 1.1 General

1.1.1 This instruction covers all instruments which are not part of a system and which in most cases, do not require transmitting or sensing devices. Electrical power is required in some cases as noted. The instruments described below are all mounted on the pilot's main instrument panel.

1.1.1.1 The accelerometer is a self-contained, mechanically operated instrument which indicates acceleration loads on the aircraft in terms of "G" units.

1.1.1.2 The clock is self-contained and mechanically operated. It provides the pilot with an indication of time.

1.1.1.3 The stand-by compass is self-contained, and indicates the magnetic heading of the aircraft at all times. It is used as a rough check on the J-4 compass system or to obtain magnetic direction indication when the J-4 compass system fails.

1.1.1.4 The cabin pressure indicator is a self contained pressure operated instrument. It indicates the pressure inside the cockpit in feet of altitude.

1.1.1.5 The artificial horizon is an electrically operated instrument which indicates the attitude of the aircraft relative to the true horizon. Power requirements are 115 volts, 400 cycles AC 3  $\phi$  DELTA-A. GYRO ERECT button is provided to erect the gyro quickly and provide a means of function testing.

1.1.1.6 The turn and slip indicator is also an electrically operated instrument which indicates the rate of turn and the amount of slip or skid in a turn. Power requirements are 28 volts DC.

1.1.1.7 The skin temperature indicator is a dual purpose instrument which indicates the outside air temperature when the aircraft is on the ground or the aircraft skin temperature in flight. The sensor is mounted on the underside of the radome. Power requirements are 115 volts, 400 cycles AC.

1.1.1.8 The landing gear position indicator is an electrically operated instrument which indicates whether the gear is fully up, down and locked, or unsafe. The indicator consists of three components, one for each main gear and one for the nose gear.



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1.1.1.8 (continued)

The components are actuated by micro-switches on each gear leg. Power requirements are 28 volts DC.

1.2 Operation

1.2.1 It is considered that all personnel concerned are familiar with the operation of the accelerometer, clock, stand-by compass, turn and slip indicator, cabin pressure indicator and landing gear position indicator and that publications are readily available for reference if required. Therefore the operation of these instruments will not be given in this instruction. A brief description of the operation of the artificial horizon and the skin temperature indicator is detailed below.

1.2.1.1. The artificial horizon operates on 115 volts, 400 cycles AC from the aircraft supply. This power is fed to the instrument through an electrical receptacle on the back of the case. A second receptacle is provided for use during bench testing only. A GYRO ERECT switch, installed on the panel adjacent to the artificial horizon, provides a means of erecting the gyro quickly after start-up and a method of function testing the gyro. Without the use of the gyro erection switch, the gyro requires 20 seconds to erect and  $1\frac{1}{2}$  minutes to run up to full speed.

CAUTION

The gyro erection switch must not be depressed for at least 30 seconds after power is applied. It must not be depressed for periods exceeding 1 minutes and, if the switch is held down for 1 minute, at least 30 seconds must elapse before the switch is operated again.

The phase failure indicator consists of a flag marked OFF which appears in a small window in the sky plate of the instrument when the power is off, when one phase has failed, or when the applied voltage drops to approximately 60 volts. Under normal operating conditions, the flag is rotated away from the window and is replaced with a blank, black surface matching the surface of the sky plate. For further details on this instrument, refer to RCAF E.O. 20-20-JA-2.

1.2.1.2 The skin temperature indicator is a transistorized instrument with a range of  $-60^{\circ}$  to  $+300^{\circ}$ F operating on 115 volts, 400 cycles AC. A sensor mounted on





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- 1.2.1.2 (continued)  
the radar nose senses the temperature and transmits a signal to the indicator amplifier which in turn drives the motor of the indicator. When the electrical power is switched off, the indicator pointer will remain at the last temperature reading until the power is switched on again.

## 2. FUNCTION TESTS

### 2.1 Primary Inspection

#### NOTE

A function test will not be performed on the clock, standby compass or cabin pressure gauge on primary inspections.

#### 2.1.1 Ground Test Equipment

##### 2.1.1.1 Air Conditioner and Generator AC

#### 2.1.2 Preparation for Tests

2.1.2.1 Ensure that the circuit breakers marked SKIN TEMP., ART. HORIZON, TURN AND SLIP and U/C IND., on circuit breaker panel E1 in the nose wheel well, are set.

2.1.2.2 Connect the air conditioner and generator AC to the aircraft.

#### 2.1.3 Test Procedure

2.1.3.1 Check that the turn and slip and artificial horizon warning flags show OFF and the landing gear position indicators show the neutral or unsafe position.

2.1.3.2 Select the MASTER ELEC switch to the ON position. Check that the OFF warning flags of the turn and slip and artificial horizon indicators disappear. The landing gear position indicators should show wheels down and the skin temperature indicator should read the ambient temperature.

2.1.3.3 Allow 30 seconds for the artificial horizon to run up and press the GYRO ERECT switch. The warning light should come on and the horizon bar should oscillate slightly. After the erection cycle is completed the warning light should go off.



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- 2.1.3.4 Press the accelerometer reset knob and check that all three pointers read  $1G \pm .2G$ .

2.2 Periodic Inspection (25 Hours)

2.2.1 Electrically Operated Instrument

Carry out a primary function test on the electrically operated instruments and the accelerometers as detailed in Para 2.1 of this instruction.

NOTE

A function test will not be performed on the clock or the cabin pressure gauge on 25 hour periodic inspections.

2.2.2 Stand-By Compass

2.2.2.1 Ground Test Equipment

- (a) Bar Magnet

2.2.2.2 Preparation for Test

- (a) Inspect the compass for discoloration of the liquid and presence of bubbles.

2.2.2.3 Test Procedure

- (a) Deflect the compass card  $30^{\circ}$  to the left with the bar magnet and hold it steady until the liquid settles down.
- (b) Remove the bar magnet. The compass should not overswing its equilibrium position by more than  $15^{\circ}$  when the bar magnet influence is removed.
- (c) Repeat Paras 2.2.2.3 (a) and 2.2.2.3 (b), deflecting the compass card to the right.



MAINTENANCE DATA RECORD				SYSTEM	REF. NO.
AVRO AIRCRAFT LTD.		Engineering Div.		INSTRUMENTS	12-2
DISTRIBUTION: STANDARD + K. Knowlton.		A/C TYPE - ARROW 1 EFF. A/C - 25201		COMPONENT COMPASS- STANDBY	
MANUFACTURER'S PART NO. 1841-3-A				AVRO PART NO.	
MANUFACTURER'S NAME Eclipse - Pioneer (ROAF 6B/1337)				NIL	
AVROCAN SPEC. NIL E.O. NO. 20-25BD-2				REF. DWGS.	
ENVELOPE SIZE 3.75" x 3.5" Dia. WEIGHT .75 LB.				7-1252-57 Sheet 2	
LOCATION Pilot's Main Instrument Panel.				REF. M.D.R.	
FUNCTION Indicates aircraft magnetic heading - used when J-4 Compass system fails.				12-24	
				RELIABILITY	
				OVERHAUL LIFE HRS.	
				WASTAGE	
				Q.T.R.	
INSPECTION PERIOD	OPERATION TO BE PERFORMED			MEN X MINUTES	
				EST.	ACTUAL
Primary	Check for Security, cleanliness and damage. Check than deviation card is legible and secure. Check date of next swing.			1 x 1	
Periodic (25 hours)	Check compass for presence of Bubbles or discoloration of the liquid, function the compass and check for excessive card oscillation. (See maintenance instructions report 71/MAINT 12/5.)			1 x 5	
Compass Swing.	Check that compass error is within limits and record deviations. (See maintenance instructions Report 71/MAINT 13/1)			2 x 30	
ACCESSIBILITY					
UNOSTRUCTED.					
ISSUE	1	2	3		
DATE	15 Aug. 56	24 Jan. 57	25 Nov. 1957		
COMPILED	D. Collingwood	D. Collingwood	Sgt. McEgan		
CHECKED	WO2 Wentworth	Sgt. Duhamel	Owen J. Lempre.		
APPROVED	G. Emmerson.	R. F. Reid.	R. F. Reid.		

LUBRICATION				
NIL				
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
GROUND SUPPORT EQUIPMENT				
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE		
NIL		NIL		
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT		
Bar Magnet. Magnetic Sighting Compass Non-Magnetic Screwdriver		Cockpit Access Stand.		
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES
REPLACEABLE				EST.
1. Remove 4 mounting Screws. 2. Withdraw Instrument From Panel. 3. Disconnect 1 Electrical Connector.		Remove and Replace.		1 x 10

ACTUAL

MAINTENANCE DATA RECORD				SYSTEM INSTRUMENTS	REF. NO. 12-3
AVRO AIRCRAFT LTD.		Engineering Div.			
DISTRIBUTION: STANDARD + K. Knowlton.		A/C TYPE - Arrow 1 EFF. A/C - 25201		COMPONENT ACCELEROMETER	
MANUFACTURER'S PART NO. 3419-5A-A1				AVRO PART NO.	
MANUFACTURER'S NAME Eclipse - Pioneer (RCAF 6A/1107)				NIL	
AVROCAN SPEC. NIL E.O. NO. 20-140CAA-2					
ENVELOPE SIZE 3.6" x 2.2" Dia. WEIGHT .75 LB.				REF. DWGS. 7-1252-57 Sheet 2	
LOCATION Pilot's Main Instrument Panel.					
FUNCTION Indicates Acceleration loads on the Aircraft in "G" Units.				REF. M.D.R. 12-24	
				RELIABILITY	
				OVERHAUL LIFE HRS.	
				WASTAGE	
				Q.T.R.	
INSPECTION PERIOD	OPERATION TO BE PERFORMED			MEN X MINUTES	
				EST.	ACTUAL
Primary	Check for security, cleanliness and Damage. Function the Gaging knob and leave it unlocked. (See Maintenance instructions report 71/MAINT 12/5)			1 x 2	
ACCESSIBILITY					
UNOBSTRUCTED.					
ISSUE	1	2	3		
DATE	27 Aug. 56	24 Jan. 57	25 Nov. 57		
COMPILED	WO2 Wentworth	D. Collingwood	Sgt. McEgan.		
CHECKED	D. Collingwood	Sgt. Duhamel	Owen J. Lemyre.		
APPROVED	G. Emmerson.	R. F. Reid.	R. F. Reid.		



LUBRICATION NIL				
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
GROUND SUPPORT EQUIPMENT				
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE		
NIL		NIL		
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT		
NIL		Cockpit Access Stand.		
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES
REPLACEABLE				EST.
1. Remove 3 Mounting Screws.				
2. Withdraw Instrument From Panel.				
Remove and Replace.				1 x 4

ACTUAL

MAINTENANCE DATA RECORD				SYSTEM	REF. NO.
AVRO AIRCRAFT LTD.		Engineering Div.		INSTRUMENTS	12-4
DISTRIBUTION: STANDARD + K. Knowlton		A/C TYPE - Arrow 1 EFF. A/C - 25201		COMPONENT Clock - 8 Day.	
MANUFACTURER'S PART NO. Type A-13-A (6W/28) 22322-S-ET-12 MANUFACTURER'S NAME Waltham Watch Co. AVROCAN SPEC. NIL E.O. NO. 20-110				AVRO PART NO. NIL	
ENVELOPE SIZE 3.5" x 1.9" Dia. WEIGHT 1.75 LB.				REF. DWGS. 7-1252-57 Sheet 2	
LOCATION Pilot's Main Instrument Panel.				REF. M.D.R. 12-24	
FUNCTION Supplied an Indication of time.				RELIABILITY	
				OVERHAUL LIFE HRS. WASTAGE Q.T.R.	
INSPECTION PERIOD	OPERATION TO BE PERFORMED			MEN X MINUTES	
				EST.	ACTUAL
Primary	Check for Security, Cleanliness and Damage, Rewind. and check for correct reading.			1 x 2	
ACCESSIBILITY					
UNOBSTRUCTED.					
ISSUE	1	2	3		
DATE	7 Sept. 56	24 Jan. 57	25 Nov. 57		
COMPILED	D. Collingwood	D. Collingwood	Sgt. McEgan.		
CHECKED	WO2 Wentworth	Sgt. Duhamel	Owen J. Lemyre.		
APPROVED	G. Emmerson.	R. F. Reid	R. F. Reid.		

LUBRICATION NIL				
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
GROUND SUPPORT EQUIPMENT				
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE		
NIL		NIL		
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT		
NIE		COCKPIT ACCESS STAND.		
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES
REPLACEABLE				EST.
1. Remove 2 Mounting Screws. 2. Withdraw Clock From Panel.		Remove and Replace.		1 x 4

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MAINTENANCE DATA RECORD				SYSTEM INSTRUMENTS		REF. NO. 12-7	
AVRO AIRCRAFT LTD. Engineering Div.							
DISTRIBUTION: STANDARD +  K. Knowlton.		A/C TYPE - Arrow 1  EFF. A/C - 25201		COMPONENT INDICATOR - ARTIFICIAL HORIZON			
MANUFACTURER'S PART NO. 64/30000 (6A/1282)  MANUFACTURER'S NAME Ferranti Electric Ltd.,  AVROCAN SPEC. NIL E.O. NO. 20-20JA-2				AVRO PART NO.  NIL			
ENVELOPE SIZE 8.4" x 4.5" dia. WEIGHT 6.5 LB.				REF. DWGS.  7-1252-57 Sheet 2			
LOCATION Pilots Main Instrument Panel.				REF. M.D.R.  12-24			
FUNCTION Indicates the attitude of the aircraft Relative to the true Horizon				RELIABILITY  OVERHAUL LIFE HRS. WASTAGE Q.T.R.			
INSPECTION PERIOD		OPERATION TO BE PERFORMED			MEN x MINUTES		
					EST. ACTUAL		
Primary		Check for Cleanliness Security and Damage. Function the Gyro and Erection Button. (See maintenance instructions report 71/MAINT 12/5)			1 x 4		
Periodic		Remove for Calibration Check.					
ACCESSIBILITY  UNOBSTRUCTED.							
ISSUE	1	2					
DATE	9 Jan. 57	25 Nov. 57					
COMPILED	Sgt. Duhamel	Sgt. McEgan.					
CHECKED	D. Collingwood	Owen J. Lemyre.					
APPROVED	R. F. Reid.	R. F. Reid.					

[illegible]

MAINTENANCE DATA RECORD				SYSTEM INSTRUMENTS		REF. NO. 12-10	
AVRO AIRCRAFT LTD. Engineering Div.							
DISTRIBUTION: STANDARD +  K. Knowlton		A/C TYPE Arrow 1  EFF. A/C - 25201		COMPONENT  INDICATOR - TURN AND SLIP.			
MANUFACTURER'S PART NO. Type AE 355-1-A (RCAF 6A/1299)  MANUFACTURER'S NAME Aviation Electric.  AVROCAN SPEC. NIL E.O. NO. 20-20AF-2				AVRO PART NO.  NIL			
ENVELOPE SIZE 6.0" x 3.25" x 3.25" WEIGHT 1.6 LB.				REF. DWGS. 7-1252-57 Sheet 2 7-1100-2 sheet 3			
LOCATION Pilot's Main Instrument Panel.							
FUNCTION Provides rate of turn indication and amount of slip or skid.				REF. M.D.R.  12-24			
				RELIABILITY  OVERHAUL LIFE HRS. WASTAGE Q.T.R.			
INSPECTION PERIOD		OPERATION TO BE PERFORMED			MEN X MINUTES		
					EST.		ACTUAL
Primary		Check for cleanliness, security and damage. Function the Gyro (See maintenance instructions Report 71/MAINT 12/5.)			1 x 4		
Periodic		Remove For Calibration Check.					
ACCESSIBILITY  UNOBSTRUCTED.							
ISSUE	1	2					
DATE	24 Jan. 57	25 Nov. 57					
COMPILED	Sgt. Duhamel	Sgt. McEgan.					
CHECKED	D. Collingwood	Owen J. Lemyre.					
APPROVED	R. F. Reid	R. F. Reid.					



LUBRICATION				
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
NIL				
DETAILS:				
GROUND SUPPORT EQUIPMENT				
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE		
NIL		NIL		
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT		
Air Conditioner And Generator AC		Cockpit Access Stand.		
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES
REPLACEABLE				EST.
1. Remove 4 Mounting Screws 2. Withdraw Instrument From Panel. 3. Disconnect 1 Electrical Connector.		Remove and Replace.		1 x 5

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MAINTENANCE DATA RECORD				SYSTEM INSTRUMENTS		REF. NO. 12-12	
AVRO AIRCRAFT LTD.				Engineering Div.			
DISTRIBUTION: STANDARD +  K. Knowlton		A/C TYPE - Arrow 1  EFF. A/C - 25201		COMPONENT Indicator - Cabin Pressure			
MANUFACTURER'S PART NO. 60-603 (RCAF 6A/1162)				AVRO PART NO.  N/A			
MANUFACTURER'S NAME Aerno							
AVROCAN SPEC. NIL E.O. NO. 20-70KA							
ENVELOPE SIZE 2.5" x 2.15" x 2.15" WEIGHT 1.0 LB.				REF. DWGS.  7-1252-57			
LOCATION Pilot's main instrument panel							
FUNCTION Indicates the cabin pressure in feet of altitude.				REF. M.D.R. 12-24			
				RELIABILITY			
				OVERHAUL LIFE HRS.			
				WASTAGE			
				Q.T.R.			
INSPECTION PERIOD		OPERATION TO BE PERFORMED		MEN X MINUTES			
				EST.		ACTUAL	
Primary		Check for security cleanliness and damage.		1 x 1			
Periodic (25 Hrs.)		Remove for calibration check.		1 x 20			
ACCESSIBILITY							
Unobstructed							
ISSUE	1	2					
DATE	18 Jan. 57	10 Jan. 58					
COMPILED	Sgt Duhamel	Sgt McEgan					
CHECKED	D. Collingwood	O.J. Lemyre					
APPROVED	R.F. Reid	R.F. Reid					

LUBRICATION NIL				
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
GROUND SUPPORT EQUIPMENT				
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE		
NIL		NIL		
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT		
NIL		Cockpit access stand		
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES
REPLACEABLE				EST.
1. Remove 4 mounting screws. 2. Withdraw instrument from panel.		Remove and replace		1 x 4

ACTUAL



MAINTENANCE DATA RECORD				SYSTEM INSTRUMENTS	REF. NO. 12-16
AVRO AIRCRAFT LTD.		Engineering Div.			
DISTRIBUTION: STANDARD +  K. Knowlton		A/C TYPE - Arrow 1  EFF. A/C - 25201		COMPONENT  Indicator - Skin Temperature	
MANUFACTURER'S PART NO. B338-F  MANUFACTURER'S NAME Liquidometer Corp.  AVROCAN SPEC. E418 E.O. NO.  ENVELOPE SIZE 5.65" x 2.0" Dia. WEIGHT .75 LB.  LOCATION Pilot's main instrument panel  FUNCTION Indicates aircraft skin temperature in flight; acts as an outside air temperature indicator on the ground.				AVRO PART NO.  7-1252-15	
				REF. LWGS.  7-1252-57 sht 2	
				REF. M.D.R.  12-47	
				RELIABILITY  OVERHAUL LIFE 1000 est HRS. WASTAGE Q.T.R. Liq. ER 1307	
INSPECTION PERIOD	OPERATION TO BE PERFORMED			MEN X MINUTES	
				EST.	ACTUAL
Primary	Check for cleanliness and damage. Function indicator (See Maintenance Instructions Report 71/MAINT 12/5)			1 x 2	
Periodic (25 Hrs.)	Check electrical connector and wiring for security and damage.			1 x 4	
ACCESSIBILITY  Unobstructed					
ISSUE	1	2	3		
DATE	6 June 56	24 Jan. 57	10 Jan. 58		
COMPILED	D. Collingwood	D. Collingwood	Sgt McEgan		
CHECKED	W02 Wentworth	Sgt Duhamel	O.J. Lemyre		
APPROVED	G. Emmerson	R.F. Reid	R.F. Reid		

LUBRICATION NIL					
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS	
DETAILS:					
GROUND SUPPORT EQUIPMENT					
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE			
NIL		NIL			
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT			
Air Conditioner and Generator AC		Cockpit access stand			
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES	
REPLACEABLE				EST.	ACTUAL
1. Loosen 1 mounting screw.		Remove and replace		1 x 5	
2. Withdraw instrument from panel.					
3. Disconnect 1 electrical connector.					

ACTUAL

MAINTENANCE DATA RECORD				SYSTEM INSTRUMENTS	REF. NO. 12-17
AVRO AIRCRAFT LTD.		Engineering Div.			
DISTRIBUTION: STANDARD + K. Knowlton		A/C TYPE - Arrow 1 EFF. A/C - 25201		COMPONENT Indicator - Landing Gear Position	
MANUFACTURER'S PART NO. 303-14L MANUFACTURER'S NAME Keystone Watch Co. AVROCAN SPEC. N/A E.O. NO. 20-100FA				AVRO PART NO. N/A	
ENVELOPE SIZE 1.85" x 1.4" x 0.85" (each indicator) LOCATION Pilot's main instrument panel FUNCTION Indicates the position of each leg of the landing gear (3 indicators)				REF. DWGS. 7-1152-8 7-1252-57 7-1252-49	
				REF. M.D.R. 12-24	
				RELIABILITY OVERHAUL LIFE HRS. WASTAGE Q.T.R.	
INSPECTION PERIOD		OPERATION TO BE PERFORMED		MEN X MINUTES	
				EST.	ACTUAL
Primary		Check for security cleanliness and damage. Function the indicator (See Maintenance Instructions Report 71/MAINT 12/5)		1 x 5	
Periodic (25 Hours)		Check electrical connections for security. Function the indicator (See Maintenance Instructions Report 71/MAINT 11/4)		1 x 10	
ACCESSIBILITY Unobstructed					
ISSUE	1	2	3		
DATE	30 Aug. 56	25 Mar. 57	10 Jan. 58		
COMPILED	WO2 Wentworth	D. Collingwood	Sgt McEgan		
CHECKED	D. Collingwood	Sgt McEgan	O. J. Lemyre		
APPROVED	G. Emmerson	R. F. Reid	R. F. Reid		



LUBRICATION NIL				
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS
DETAILS:				
GROUND SUPPORT EQUIPMENT				
SPECIAL TOOLS FOR AIRCRAFT USE		SPECIAL TOOLS FOR BENCH USE		
NIL		NIL		
GROUND TESTING EQUIPMENT		GROUND HANDLING EQUIPMENT		
Air Conditioner and Generator AC Aircraft Hydraulic System Test Stand		Cockpit access stand		
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES
REPLACEABLE				EST.
1. Disconnect 1 electrical connector. 2. Remove 2 mounting screws.		Remove and replace		1 x 5

ACTUAL

MAINTENANCE DATA RECORD				SYSTEM	REF. NO.
AVRO AIRCRAFT LTD.		Engineering Div.		INSTRUMENTS	12-47 11-E112
DISTRIBUTION: STANDARD + K. Knowlton		A/C TYPE - Arrow 1 EFF. A/C - 25201		COMPONENT Sensor - Skin Temperature	
MANUFACTURER'S PART NO. B241-F				AVRO PART NO.	
MANUFACTURER'S NAME Liquidometer Corp.				7-1152-106	
AVROCAN SPEC. E418 E.O. NO.				REF. DWGS.	
ENVELOPE SIZE 2.05" x 2.05" x 1.36" WEIGHT .17 LB.				7-1100-2	
LOCATION Underside of radome (Sta. 111.96)				REF. M.D.R.	
FUNCTION Senses changes of temperature and feeds a signal to the transistorized instrument.				12-16	
				RELIABILITY	
				OVERHAUL LIFE 1000 est HRS.	
				WASTAGE	
				Q.T.R. LIQ ER 1307	
INSPECTION PERIOD		OPERATION TO BE PERFORMED		MEN X MINUTES	
				EST.	ACTUAL
Primary		Check sensor for security and cleanliness.		1 x 1	
Periodic (25 Hours)		Check electrical connector and wiring for security and damage.		1 x 4	
ACCESSIBILITY					
Access panel on underside of radome - 16-10/32" screws.					
Remove and replace				1 x 10	
ISSUE	1	2	3		
DATE	11 May 56	3 Jan. 57	10 Jan. 58		
COMPILED	D. Collingwood	D. Collingwood	Sgt McGean		
CHECKED	G. Emmerson	WO2 Wentworth	O.L. Lemyre		
APPROVED		R.F. Reid	R.F. Reid		

LUBRICATION					NIL	
APPLICATION	MATERIAL	SPECIFICATION	FREQUENCY	ACCESS		
DETAILS:						
GROUND SUPPORT EQUIPMENT						
SPECIAL TOOLS FOR AIRCRAFT USE			SPECIAL TOOLS FOR BENCH USE			
NIL			NIL			
GROUND TESTING EQUIPMENT			GROUND HANDLING EQUIPMENT			
Air Conditioner and Generator AC			4G/1596 Maintenance platform Adjustable type			
INTERCHANGEABLE	X	REMOVAL INSTRUCTIONS		MEN X MINUTES		
REPLACEABLE				EST.	ACTUAL	
1. Disconnect 1 electrical connector. 2. Remove 4 mounting screws.  Remove and replace				1 x 5		