

Project No: **BDHRN002**Job Card No **0114**

Notif.No.: 10049229

Activity: **1034**

Rev No: 20000622

Model.: F900EX

Sheet 1 of 1

A/C Regn: **D-AHRN**

Serial No.: 096

Type: F900EX

Starting Phase: Routine

Starting Work Centre: MTX AVIO DEPT

Job Description: **Calibrate RAD/ALT 1 RX/TX(2sa)**

ETOPS A/C: No

RVSM A/C: No

Warranty: -

ATA: 34

Work Center	
MTX AVIO DEPT	

**Zone: 100****Access Required for this task:**

251BL

## Corrective Action

0001	<b>Task carried out in accordance with the attached Customer Card that quotes the Operator code detailed below.</b>					  Order: 80069308 Operation: 0010 Phase: Routine - scheduling activity Work Center: MTX AVIO DEPT
	Accomplished		Inspected			
	Pers. No.	Date	Pers. No.	Date		
	Stamp		Stamp			

Completed & Confirmed on SAP IAW MOE 2.13.

**Defect Card Raised**

## Components Removed/Installed

	Part Number	Part Name	S/N	Location	Comm. Off/On
OFF					
ON					
OFF					
ON					
OFF					
ON					
OFF					
ON					

Occurance Report Raised? YES ☐

Operations Above &amp; Notifications Completed IAW MOE 2.13.

OEM Code: 34-42-01-820-801-01

Operator Code: 34-42-01-820-801-01

Form No: JA-SAP-MTX-002

Printed by: ADAMOVIC G



Printed: 03.09.2012

13:34:17

Print No: 1

Operator: <b>HERON AVIATION</b>		Work Card No.: <b>34.280</b>
Serial No.: <b>096</b>	Model: <b>FALCON 900EX</b>	
Reg No.: <b>D-AHRN</b>	Workorder No.: _____	

	Date	A/C HRS	AFL	APH			
Due At	<b>25-JAN-2013</b>						
Accomplished							

TECHNICIAN SIGNATURE: \_\_\_\_\_ KIND OF CERTIFICATE & NO.: \_\_\_\_\_

INSPECTED BY: \_\_\_\_\_ KIND OF CERTIFICATE & NO.: \_\_\_\_\_

34-42-01-900-801-01	NO. 1 RADIO-ALTIMETER TRANSCEIVER	AMM 34-42-01-900-801
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REASON REMOVED: (CHECK ONE)	<input type="checkbox"/> TIME EXPIRED	<input type="checkbox"/> FAILURE	<input type="checkbox"/> WORN	<input type="checkbox"/> LOANER	<input type="checkbox"/> SCHEDULING CONV
	<input type="checkbox"/> MOD/UPGRADE	<input type="checkbox"/> SERVICE	<input type="checkbox"/> ENGINE CHANGE	<input type="checkbox"/> TIRE CHANGE	<input type="checkbox"/> SWAP/TRBLE SHOOT <input type="checkbox"/> DAMAGED <input type="checkbox"/> UNKNOWN

*If removed P/N & S/N information is incorrect please provide details below.*

REMOVED P/N	7001840-932		S/N	0708D999		LABOR-HRS	
INSTALLED P/N			S/N			PART COST\$	
INSTALLED TSN	MOS	INSTALLED TSO	MOS	TIME SINCE REPAIR	MOS	WARRANTY TIME REMAINING	MOS
	HRS		HRS		HRS		HRS
	LDGS		LDGS		LDGS		LDGS
						TECH:	INSP:

REMARKS : \_\_\_\_\_

Note: INITIAL THE SERVICE TASKS BELOW WHICH WERE ACCOMPLISHED DURING CHANGE. IF TASKS WERE NOT ACCOMPLISHED, RECORD TIME ACCRUED SINCE TASK WAS LAST ACCOMPLISHED OR CHECK CONTINUE TIME (CT).

TECH	INSP	LABOR-HRS HRS.MINS	TIME ACCRUED	CONTINUE TIME
------	------	-----------------------	-----------------	------------------

**#>34-42-01-820-801 CALIBRATION NO. 1 RADIO-ALTIMETER TRANSCEIVER -01**

RECORD DATE OF CALIBRATION \_\_\_\_/\_\_\_\_/\_\_\_\_

AMM  
34-42-01-820-801,GEN  
ERIC NO REF

REMARKS : \_\_\_\_\_

Operator: **HERON AVIATION**

Work Card No.: **34.280**

Serial No.: **096**

Model: **FALCON 900EX**

Reg No.: **D-AHRN**

Workorder No.: \_\_\_\_\_

**ACCESS PANEL SUMMARIES**

**251BL LH UPPER DOORS DOOR**

34-42-01-900-801-01 NO. 1 RADIO-ALTIMETER TRANSCEIVER

**252BR RH UPPER DOORS DOOR**

34-42-01-900-801-01 NO. 1 RADIO-ALTIMETER TRANSCEIVER

**AREA SUMMARIES**

**F4 PASSENGER CABIN**

34-42-01-900-801-01 NO. 1 RADIO-ALTIMETER TRANSCEIVER

**SOURCE SUMMARIES**

**956 MPD 05-20-34 PAGE NO.:PAGE 1/2 REF: 34-40 INDEPENDENT POSITION DETERMINING DATE: MAR 09/2012 2**

34-42-01-820-801-01 CALIBRATION NO. 1 RADIO-ALTIMETER TRANSCEIVER

## FALCON 900EX AIRCRAFT MAINTENANCE MANUAL

### TASK 34-42-01-900-801

## REMOVAL / INSTALLATION AND ZERO GROUND ADJUSTMENT OF RADIO ALTIMETER RECEIVER / TRANSMITTER

### 1. OVERVIEW OF THE JOB

Operation codes:

- 34-42-01-900-801-01                      radio altimeter 1 receiver/transmitter (**2SA**)
- 34-42-01-900-801-02                      radio altimeter 2 receiver/transmitter (**22SA**)

### 2. LOGISTICS

#### A. References

Reference	Designation
• <b>24-00-00-860-801</b>	ENERGIZATION / DE-ENERGIZATION OF THE AIRCRAFT
• <b>53-60-01-900-801</b>	REMOVAL / INSTALLATION OF THE FUSELAGE FAIRINGS

#### B. Tools and Ground Support Equipment

Reference	Designation	Quantity
• <b>F7XC202000008</b>	TOOL BOX	
• <b>TO-20-932</b>	DIGITAL VOLTMETER	

#### C. Energy

- ELECTRICAL

#### D. Access

Reference	Designation
• <b>PAX</b>	PASSENGER DOOR
• <b>251BL</b>	WING ROOT FRONT ACCESS DOOR
• <b>252BR</b>	WING ROOT FRONT ACCESS DOOR

#### E. Miscellaneous

- ZERO HEIGHT ADJUSTMENT CABLE (LOCAL PROCUREMENT)

### 3. PRELIMINARY STEPS

- A. Remove fuselage fairing fillet (Refer to **TASK 53-60-01-900-801**) (**fig. 1**):

- (1) For radio altimeter 1 (**2SA**):
  - (**251BL**).
- (2) For radio altimeter 2 (**22SA**) (A/C with M 1875):
  - (**252BR**).

- B. Connect the electrical ground power unit (Refer to **TASK 24-00-00-860-801**, paragraph "Connection of the Electrical Ground Power Unit").

## **FALCON 900EX AIRCRAFT MAINTENANCE MANUAL**

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### **4. REMOVAL OF RADIO ALTIMETER (2SA)/(22SA)**

Refer to **fig. 1**

- A. Disconnect the aircraft cable from connector J1.
- B. Identify and disconnect the antenna cables from transmit and receive connectors J2 and J3.
- C. Remove screws (1) and washers (2) which secure radio altimeter (2SA) or (22SA) (A/C with M 1875)).
- D. Slightly pull radio altimeter (2SA) or (22SA) (A/C with M 1875)) to disconnect the strip connectors.
- E. Remove radio altimeter (2SA) or (22SA) (A/C with M 1875)).

### **5. INSTALLATION OF RADIO ALTIMETER (2SA)/(22SA)**

Refer to **fig. 1**

- A. Make sure that the contact surfaces are clean with no corrosion.
- B. Make sure that the wiring insulating sleeves and the connectors on aircraft side and on RA side are in good condition:
  - No unwanted material in the connectors,
  - No cracks on the wiring insulating sleeves,
  - No pins bent,
  - No corrosion on the electrical connectors.
- C. Position radio altimeter (2SA) or (22SA) (A/C with M 1875)) on its support.
- D. Check that the radio altimeter strip connectors are exactly facing the support connectors.
- E. Push home radio altimeter (2SA) or (22SA) (A/C with M 1875)).
- F. Install washers (2) and screws (1) and check that the radio altimeter is safetied to its support.
- G. Connect the cables to transmit and receive connectors J2 and J3.
- H. Connect the aircraft cable to connector J1.
- I. Make sure that the wiring insulating sleeves do not rub against the aircraft structure.
- J. Perform a Zero Ground Adjustment (see paragraph 6.).

### **6. ZERO GROUND ADJUSTMENT**

Refer to **fig. 1**

**CAUTION:** DO NOT APPLY POWER TO THE SYSTEM UNLESS THE ANTENNA OR A SUFFICIENT LOAD (50 OHM TERMINATION) IS CONNECTED TO THE TRANSMIT CONNECTOR. THE TWO ANTENNAS MUST BE CONNECTED TO DO THE ZERO HEIGHT ADJUSTMENT. IF THE ANTENNAS ARE NOT CONNECTED, THE RADIO ALTIMETER WILL BE DAMAGED.

## FALCON 900EX AIRCRAFT MAINTENANCE MANUAL

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**NOTE:** There are two ways to do the zero ground adjustment procedure. Method A is the recommended method because it supplies a more accurate adjustment of the zero height. Method B is the alternative method. If the cable shown in figure 3 is not available or cannot be fabricated, then use method B to adjust the zero height.

A. Use method A to adjust zero height as follows (**fig. 3**):

- (1) Connect the zero height adjustment cable in line with the aircraft cable and connector J1 of the radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)).
- (2) Make sure the transmit and receive connectors J2 and J3 of the radio altimeter are connected to the radio altimeter antennas (**3SA**)/(4SA) or (**23SA**)/(24SA) (A/C with M 1875)).
- (3) Connect the digital voltmeter (DVM) to the cable meter leads.
- (4) Energize the aircraft systems (Refer to **TASK 24-00-00-860-801**, paragraph "Energization with the Electrical Ground Power Unit").
- (5) Operate radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)) for a minimum of 15 minutes (warm-up period).
- (6) Adjust zero altitude adjustment to read  $0 \pm 2$  mV indication on the DVM.

**NOTE:** Gain access to the potentiometer through a hole in the front panel of the radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)).

- (7) In the cockpit, on circuit breaker panel (**10PP**), disengage the relevant circuit breaker(s) (**fig. 2**):
  - "RAD ALT 1" (**1SA**),
  - "RAD ALT 2" (**21SA**) (A/C with M 1875).
- (8) Disconnect the zero height adjustment cable from connector J1 of the radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)).
- (9) In the cockpit, on circuit breaker panel (**10PP**), engage the relevant circuit breaker(s) (**fig. 2**):
  - "RAD ALT 1" (**1SA**),
  - "RAD ALT 2" (**21SA**) (A/C with M 1875).

B. Use method B to adjust zero height as follows:

- (1) Energize the aircraft systems (Refer to **TASK 24-00-00-860-801**, paragraph "Energization with the Electrical Ground Power Unit").
- (2) Operate radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)) for a minimum of 15 minutes (warm-up period).
- (3) Adjust zero altitude adjustment until a positive radio altitude shows on one of Primary Flight Display (PFD) (**L12FV**) or (**R12FV**) (**fig. 2**).

**NOTE:** Gain access to the potentiometer through a hole in the front panel of the radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)).

- (4) Adjust zero altitude adjustment for a zero foot display indication on one of PFD (**L12FV**) or (**R12FV**) (**fig. 2**).

C. Perform an operational test of the radio altimeter (**2SA**) or (**22SA**) (A/C with M 1875)) (Refer to **TASK 34-42-00-710-801**).

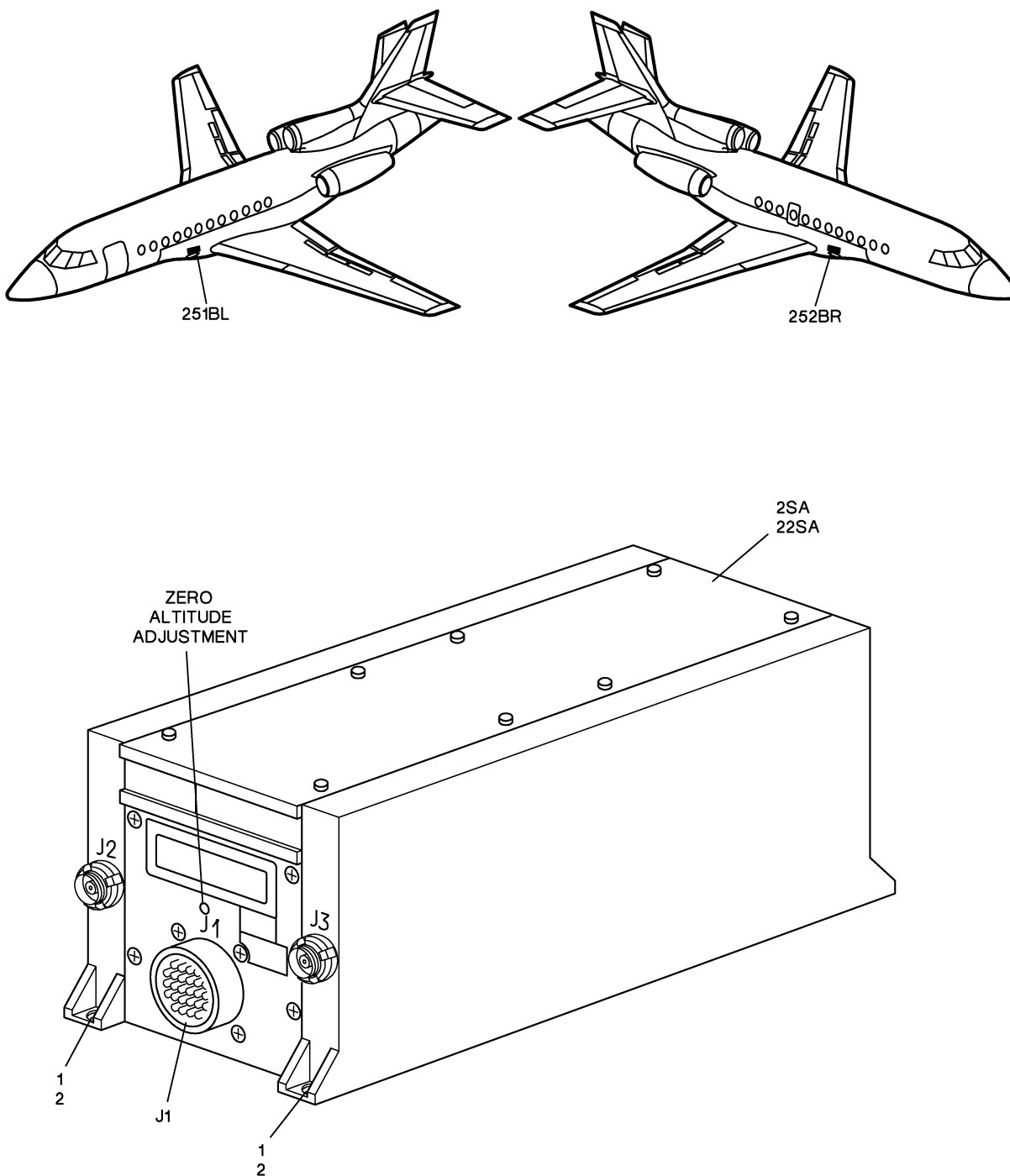
## FALCON 900EX AIRCRAFT MAINTENANCE MANUAL

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### 7. FINAL STEPS

- A. De-energize the aircraft systems (Refer to [TASK 24-00-00-860-801](#), paragraph "De-energization with Electrical Ground Power Unit").
- B. Install fuselage fairing fillet (Refer to [TASK 53-60-01-900-801](#)) (**fig. 1**):
  - (1) For radio altimeter 1 ([2SA](#)):
    - ([251BL](#)).
  - (2) For radio altimeter 2 ([22SA](#)) (A/C with M 1875):
    - ([252BR](#)).
- C. Disconnect the electrical ground power unit (Refer to [TASK 24-00-00-860-801](#), paragraph "Disconnection of the Electrical Ground Power Unit").

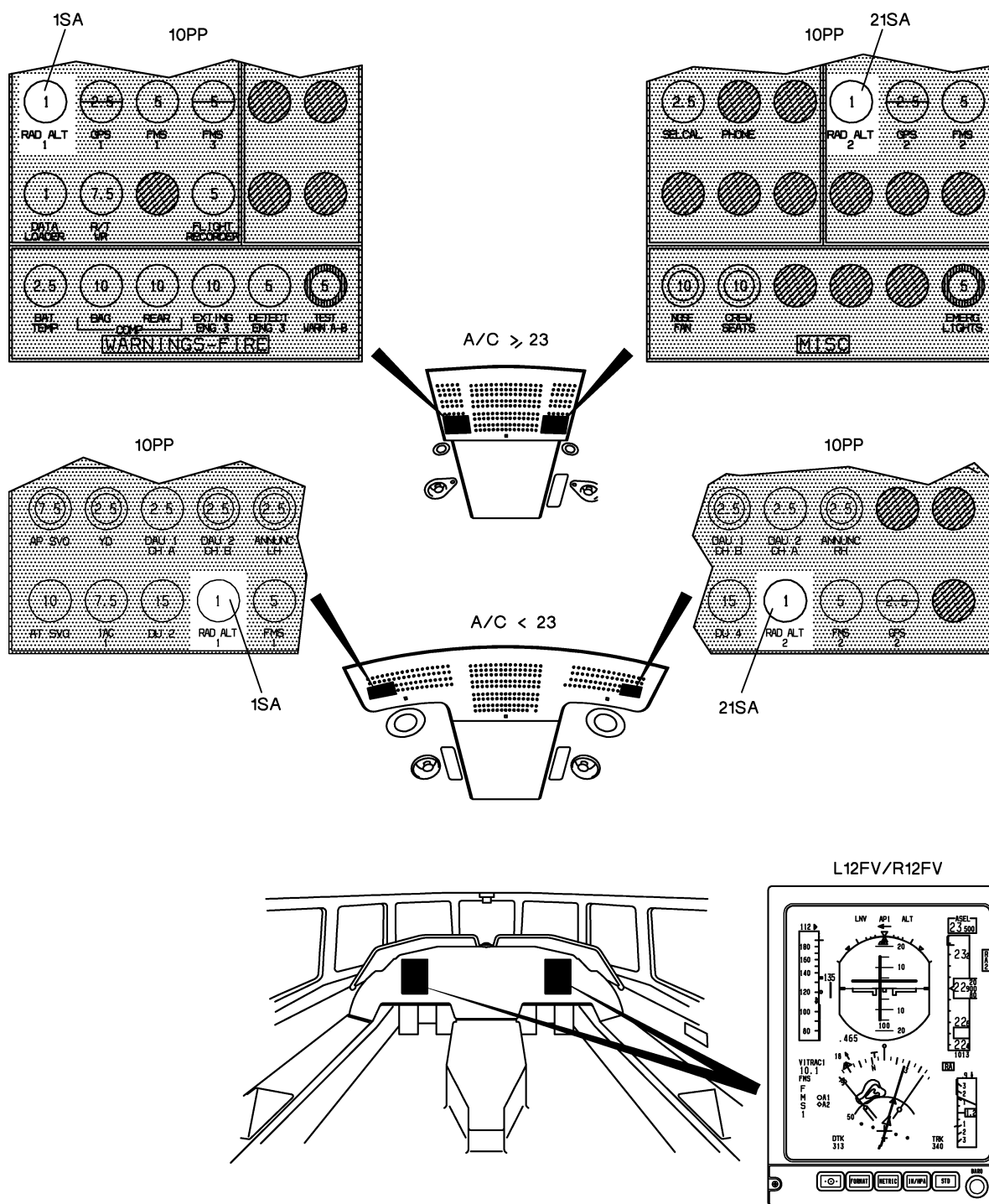
## FALCON 900EX AIRCRAFT MAINTENANCE MANUAL



**Figure 1: Removal/Installation of Radio Altimeter**

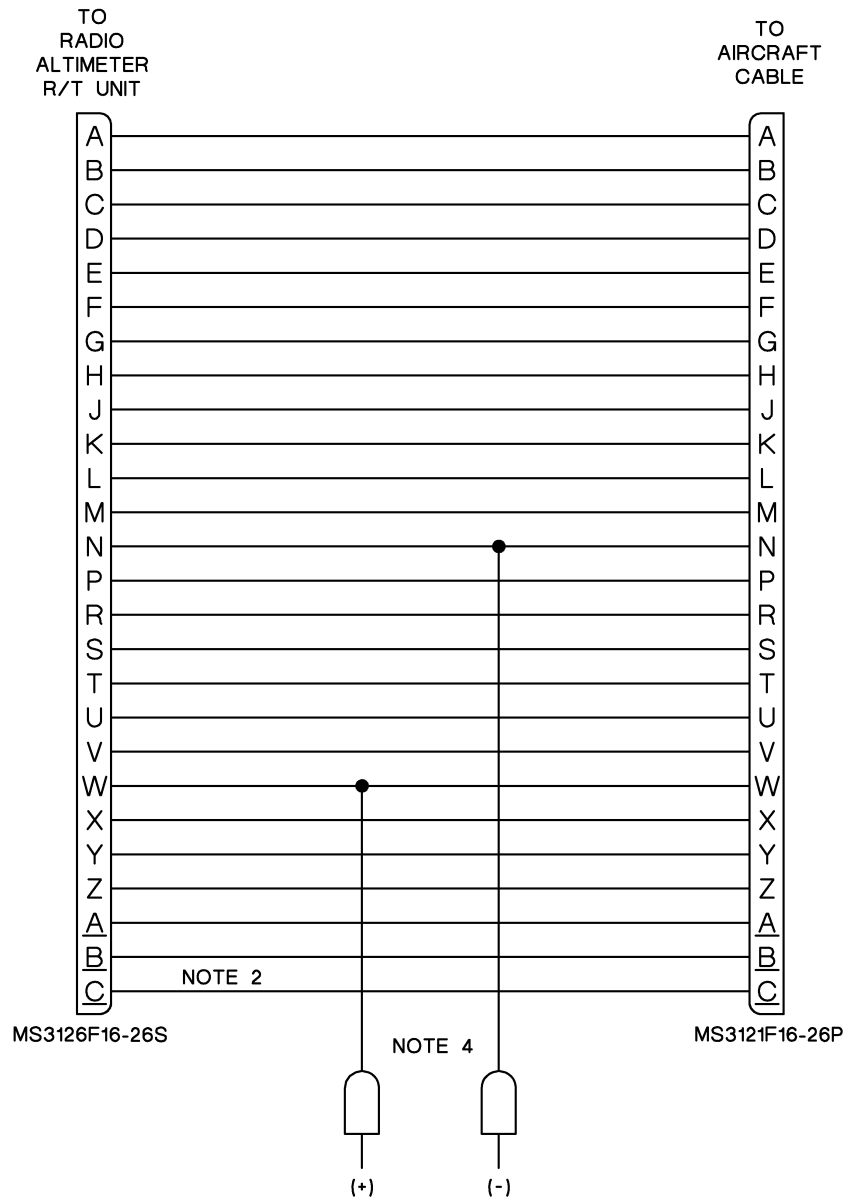


# FALCON 900EX AIRCRAFT MAINTENANCE MANUAL



### Figure 2: Location of Cockpit Controls

## FALCON 900EX AIRCRAFT MAINTENANCE MANUAL



**NOTES:**

1. ALL WIRING 22 AWG, EXCEPT AS NOTED.
2. WIRING FOR PINS B AND C IS 20 AWG.
3. LENGTH OF CABLE IS SIX INCHES.
4. LENGTH OF DVM LEADS ARE AS REQUIRED.  
CONNECT PLUG TO LEADS AS REQUIRED TO CONNECT TO DVM.

**Figure 3: Radio Altimeter R/T Adjustment - DVM Pin Connection Location**

## **FALCON 900EX AIRCRAFT MAINTENANCE MANUAL**

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### **TASK 34-42-01-820-801**

## **CALIBRATION OF THE RADIO ALTIMETER RECEIVER / TRANSMITTER**

### **1. OVERVIEW OF THE JOB**

Operation codes:

- 34-42-01-820-801-01 radio altimeter 1 receiver/transmitter (**2SA**)
- 34-42-01-820-801-02 radio altimeter 2 receiver/transmitter (**22SA**)

This task consists in bench checking the radio altimeter receiver/transmitter (see Part 91, Appendix A).

This operation must be performed by an authorized Repair Agent.

For Removal/Installation of the radio altimeter receiver/transmitter, refer to the AMM (Refer to **TASK 34-42-01-900-801**).

### **2. LOGISTICS**

#### **A. References**

##### **Reference**

- **34-42-01-900-801**

##### **Designation**

**REMOVAL / INSTALLATION AND ZERO GROUND ADJUSTMENT OF  
RADIO ALTIMETER RECEIVER / TRANSMITTER**