

TECHNICAL BULLETIN
Bell Helicopter

A Textron Company

No. 407-08-83

Date MAY 20, 2008

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DATE
REV

MODEL AFFECTED: 407

SUBJECT: ENCODING ALTIMETER RETROFIT

HELICOPTERS AFFECTED: 407 Helicopters having 407-706-001-101 kit installed.

COMPLIANCE: At Customer's Option

DESCRIPTION:

This Technical Bulletin provides instructions to install the new 3A65.22.20F.05.1.RB encoding altimeter in aircraft that previously had kit 407-706-001-101 installed per BHT-407-II-16.

APPROVAL:

The engineering design aspects of this bulletin are Transport Canada Civil Aviation (TCCA) approved.

MANPOWER:

Approximately 8 man-hours are required to complete this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

There is no warranty credit applicable for parts or labor associated with this Bulletin.

MATERIALS:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
3A65.22.20F.05.1.RB	Indicator, Encoding Altimeter	1
212-070-173-003	Adapter	1
407-075-045-101	Tube assembly	1
MS28778-4	Packing	1
MS33737-16C	Nut	3
48 THD seal	Sealant tape 48	1
MS3476W14-19S	Connector	1
M39029/22-191	Contact	3
M39029/5-115	Contact	3
140-039-22	Electrical wire	A/R

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not affected

ELECTRICAL LOAD DATA:

3A65.22.20F.05.1.RB encoding altimeter, 0.10 amps continuous.

REFERENCES:

BHT-ELEC-SPM Electrical Standard Practices Manual

BHT-407-MM Maintenance Manual
Chapter 95-00-00 Instrument
Chapter 96-00-00 Electrical

BHT-407-II-16
Installation Instruction for Encoding Altimeter

PUBLICATIONS AFFECTED:

BHT-407-IPC Illustrated Parts Breakdown
Chapter 95-00-00 Instrument

BHT-407-MM Maintenance Manual
Chapter 95-00-00 Instrument
Chapter 96-00-00 Electrical

BHT-407-II-16
Installation Instruction for Encoding Altimeter

ACCOMPLISHMENT INSTRUCTIONS:

1. Prepare the helicopter for maintenance.
2. Disconnect the battery and external power from the helicopter.
3. Carefully tilt the instrument panel aft (refer to BHT-407-MM-10, chapter 95).
4. Remove left and right side panels on instrument pedestal.

-NOTE-

Existing MS35214-32 screws can be re-used.

5. Remove existing encoding altimeter (refer to BHT-407-MM-10, chapter 95).
6. Remove and discard existing 407-075-028-101 static tube assy and existing 212-070-173-001 adapter (refer to BHT-407-MM-10 chapter 95 and BHT-407-IPB chapter 95).
7. Refer to figure 1, install packing (3) and apply 48 THD seal on adapter (2) side mating with encoding altimeter ensuring first thread to be free of tape.
8. Install adapter (2) into encoding altimeter (4).
9. Install the encoding altimeter (4) in its location on the instrument panel using nuts (6) and screws (7, previously removed).
10. Install 407-075-045-101 tube assy (1) between encoding altimeter adapter (2) and static port tee.

11. Remove all wires from existing MS3476W14-15S connector (reference designator 3427DS1P1) and discard connector.
12. Remove the Pedal Restrictor Control Unit (reference designator 6540CM1) in order to gain access to the affected wire bundles, clamps and connectors affected in the following steps. (refer to BHT-407-MM-10, chapter 96)

-NOTE-

The following actions specified in the "ACTION" column of figure 3 / Wiring Modification Instructions Table are described as follows:

- I. **DELETE** – Remove the wire completely from the aircraft.
- II. **RETERMINATE** – Reposition one end of the wire FROM its previous location TO a new location.
- III. **ADD** – A new wire is required.

13. Delete the wire as shown in figure 3, (refer to BHT-407-II-16).

-NOTE-

Refer to the Electrical Standard Practices Manual (BHT-ELEC-SPM) for wiring maintenance procedures as required.

14. Add new wires as shown in figure 2 and figure 3, refer to figure 4 for the location of affected modules and terminal boards.
15. Re-terminate wires into new connector (ref. des. 3427DS1P1) as shown in figure 2 and figure 3.
16. Re-install the Pedal Restrictor Control Unit (ref des 6540CM1). (refer to BHT-407-MM-10, chapter 96)
17. Perform a pitot-static system leak test (refer to BHT-407-MM-10, chapter 95).
18. Perform a Pedal Restrictor Control Unit (PRCU) (ref des 6540CM1) operational check and functional test. (refer to BHT-407-MM-10, chapter 96)
19. Close instrument panel and re-install instrument pedestal panels. (refer to BHT-407-MM-10, chapter 95)
20. Make an entry in the helicopter records to show that this technical bulletin has been accomplished.

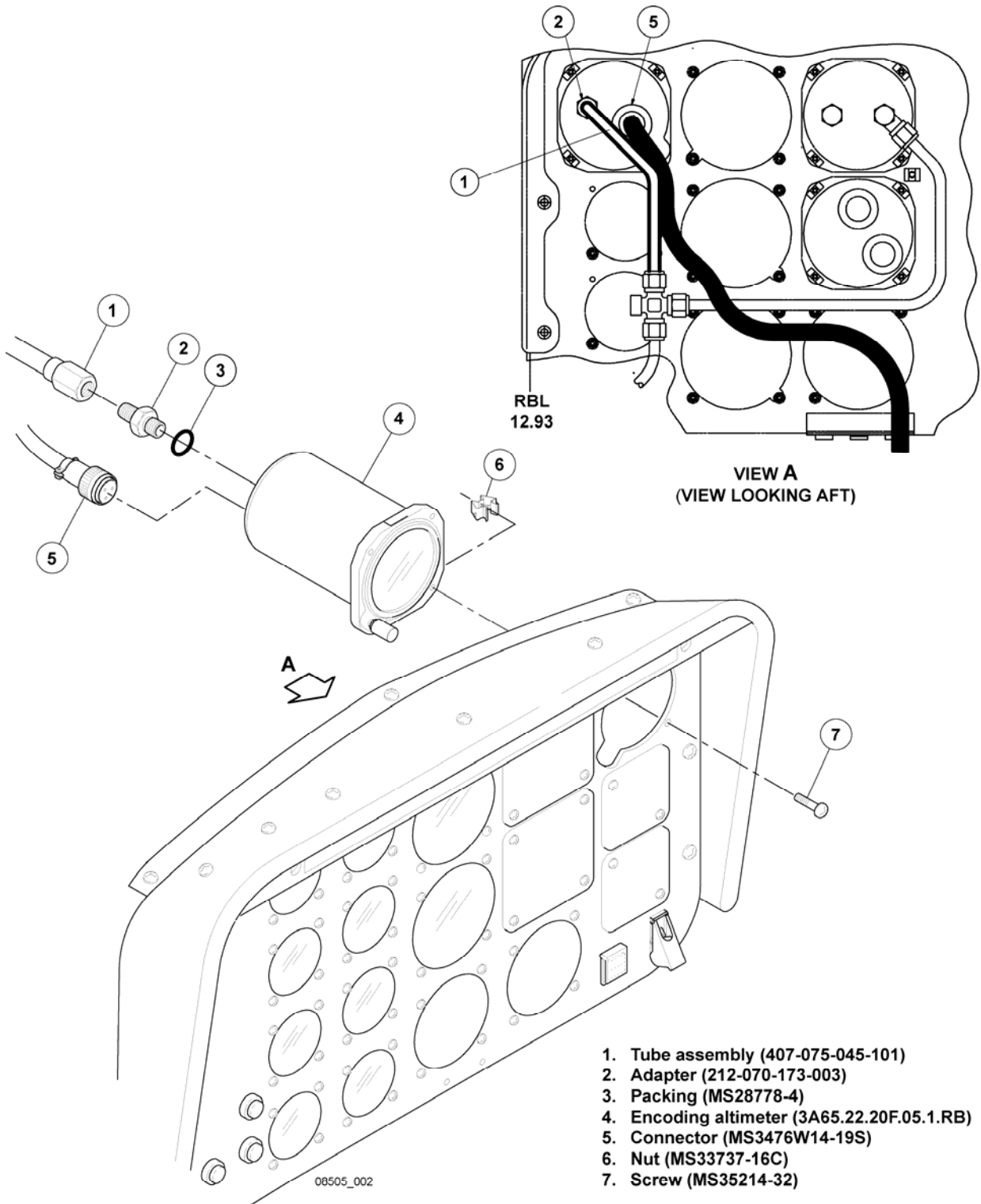
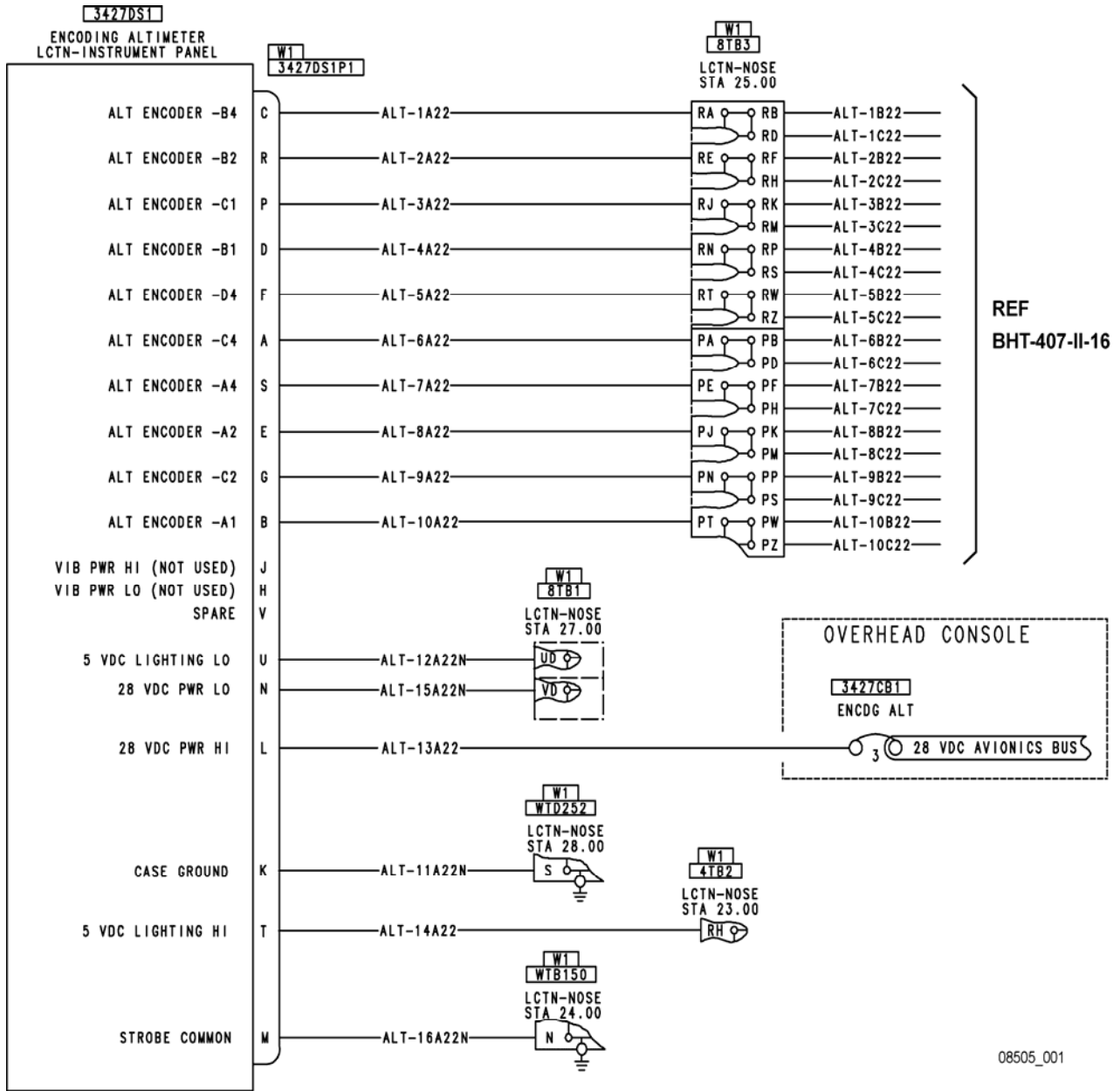


Figure 1. Installation of encoding altimeter



REF
BHT-407-II-16

08505_001

Figure 2. Encoding altimeter modified wiring diagram

WIRING MODIFICATIONS INSTRUCTIONS TABLE						
ACTION	WIRE NUMBER	LENGTH (INCH)	FROM	HARDWARE	TO	HARDWARE
DELETE	ALT-12A22N	-	3427DSP1 (C)	-	WTD252 (T)	-
ADD	ALT-12A22N	47	3427DS1P1 (U)	M39029/5-115	8TB1 (UD)	M39029/22-191
ADD	ALT-15A22N	47	3427DS1P1 (N)	M39029/5-115	8TB1 (VD)	M39029/22-191
ADD	ALT-16A22N	50	3427DS1P1 (M)	M39029/5-115	WTB150 (N)	M39029/22-191
RETERMINATE	ALT-1A22	-	3427DS1P1 (L)	-	3427DS1P1(C)	-
RETERMINATE	ALT-2A22	-	3427DS1P1 (K)	-	3427DS1P1(R)	-
RETERMINATE	ALT-3A22	-	3427DS1P1 (M)	-	3427DS1P1 (P)	-
RETERMINATE	ALT-4A22	-	3427DS1P1 (J)	-	3427DS1P1 (D)	-
RETERMINATE	ALT-5A22	-	3427DS1P1 (E)	-	3427DS1P1 (F)	-
RETERMINATE	ALT-6A22	-	3427DS1P1 (P)	-	3427DS1P1 (A)	-
RETERMINATE	ALT-7A22	-	3427DS1P1 (H)	-	3427DS1P1 (S)	-
RETERMINATE	ALT-8A22	-	3427DS1P1 (G)	-	3427DS1P1 (E)	-
RETERMINATE	ALT-9A22	-	3427DS1P1 (N)	-	3427DS1P1 (G)	-
RETERMINATE	ALT-10A22	-	3427DS1P1 (F)	-	3427DS1P1 (B)	-
RETERMINATE	ALT-11A22N	-	3427DS1P1 (R)	-	3427DS1P1 (K)	-
RETERMINATE	ALT-13A22	-	3427DS1P1 (A)	-	3427DS1P1 (L)	-
RETERMINATE	ALT-14A22	-	3427DS1P1 (D)	-	3427DS1P1 (T)	-

Figure 3. Wiring modifications instructions table

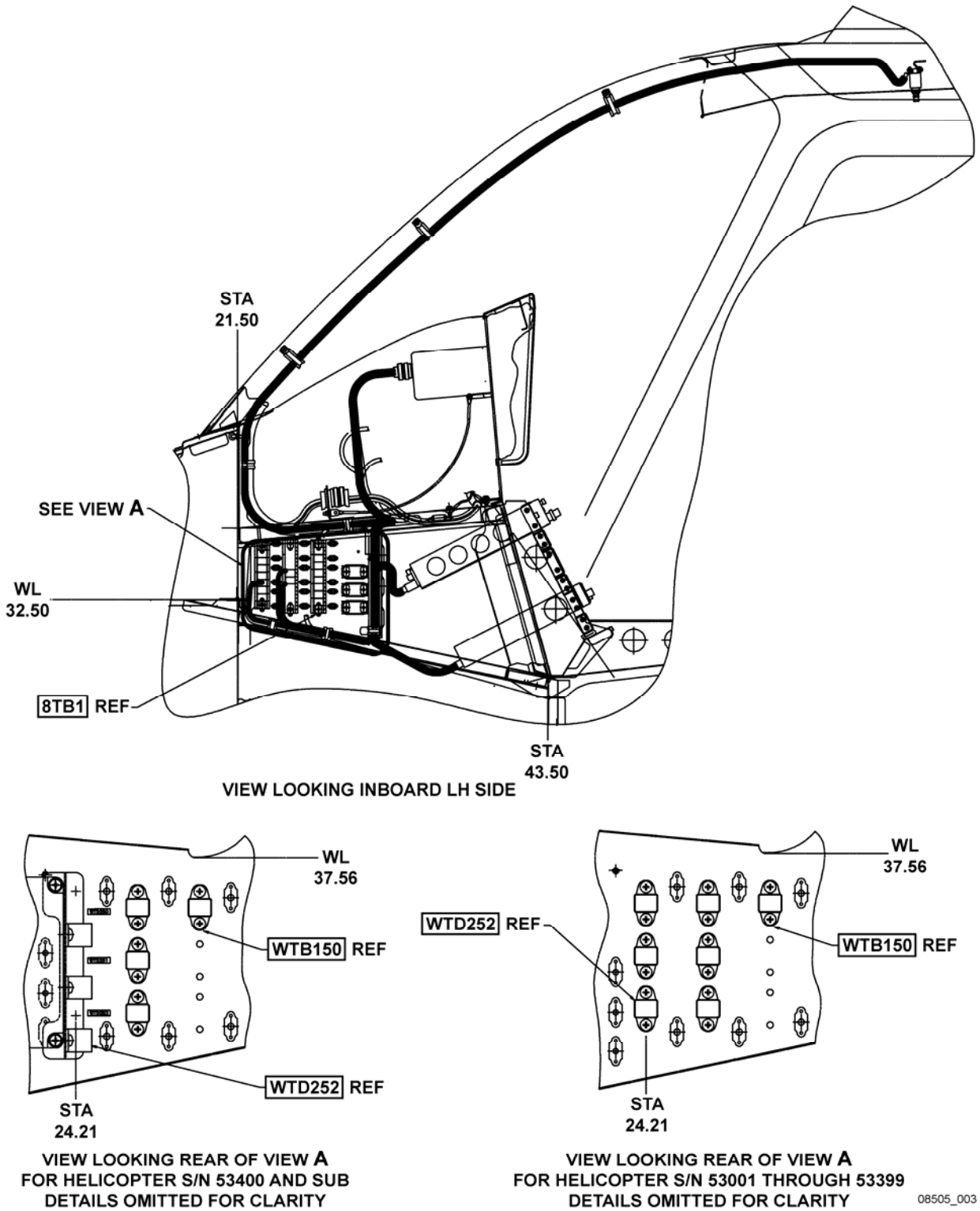


Figure 4. Location of affected modules and terminal boards