

ECCN
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TECHNICAL BULLETIN TB No. AA-06173

SUBJECT: Cockpit Voice and Flight Data Recorder
(L-3 Communications FA2300)
412-709-002-103

MODELS AFFECTED: Bell Helicopter Textron model 412EP helicopters with Aeronautical Accessories Inc. 412-709-002-103 Cockpit Voice and Flight Data Recorder Kit installed per STC SR01278NY-D (formerly SR01278NY or Transport Canada Civil Aviation STC SH01-20)

COMPLIANCE: At Customer's option.

DESCRIPTION: This Technical Bulletin is being issued to advise operators of an upgrade that will connect the Flight Data Recorder (FDR) to the #1 & #2 Hydraulic Pressure switch with no interface to the hydraulic solenoid to improve reliability of the Low Hydraulic Pressure recording circuits in the MADRAS.

FAA APPROVAL: The engineering design change represented by this Technical Bulletin complies with applicable Federal Aviation Regulations and is FAA approved.

MANPOWER: Approximately 4 hours

MATERIAL REQUIRED:

PART NUMBER	DESCRIPTION	QTY
1N4005	Diode	2
M22759/41-22-9	Wire, 22 AWG	AR

SPECIAL TOOLS: Normal shop tools.

WEIGHT AND BALANCE: Not Significant

ELECTRICAL LOAD DATA: Not affected

REFERENCES:

BHT-412-MM Volume 12, Chapter 98

BHT-412-MMS-02 MAINTENANCE MANUAL SUPPLEMENT FOR COMBINED COCKPIT VOICE FLIGHT DATA RECORDER WITH UNDERWATER LOCATOR BEACON

PUBLICATIONS AFFECTED: None

ACCOMPLISHMENT INSTRUCTIONS

The CVFDR is currently wired in accordance with 412-M-98-106-1. See Figure 1.

1. Prepare the helicopter for maintenance. Disconnect the aircraft battery.
2. Gain access to the forward avionics compartment and locate terminal board 9TB4.
3. Cap and stow C30C22 and C47C22 as shown in Figure 2.

NOTE

If the indicated section of Terminal Block 9TB4 is in use it is permissible to relocate FDR502A22, FDR300A22, and C502C22 to an unused section of 9TB4

4. Route FDR502A22 from P56B of J1B on the MADRAS and terminate into 52 of 9TB4 with 1N4005 diode installed in line. Refer to Figure 2 and make certain the diode is installed in the proper polarity.
5. Route FDR501A22 from P57B of J1B on the MADRAS and terminate into 47 of 9TB4 with 1N4005 diode installed in line. Refer to Figure 2 and make certain the diode is installed in the proper polarity.
6. Relocate C502C22 from Master Caution Panel (8A1P2, Pin 14) and terminate into 53 of 9TB4. See Figure 2.

7. Route FDR300A22 from Master Caution Panel (8A1P2, Pin 14) and terminate into 54 of 9TB4. See Figure 2.
8. Reconnect the aircraft battery.
9. Perform functional test of the Flight Data Recorder in accordance with BHT-412-MMS-02
10. Annotate the helicopter historical records with accomplishment of this Technical Bulletin.

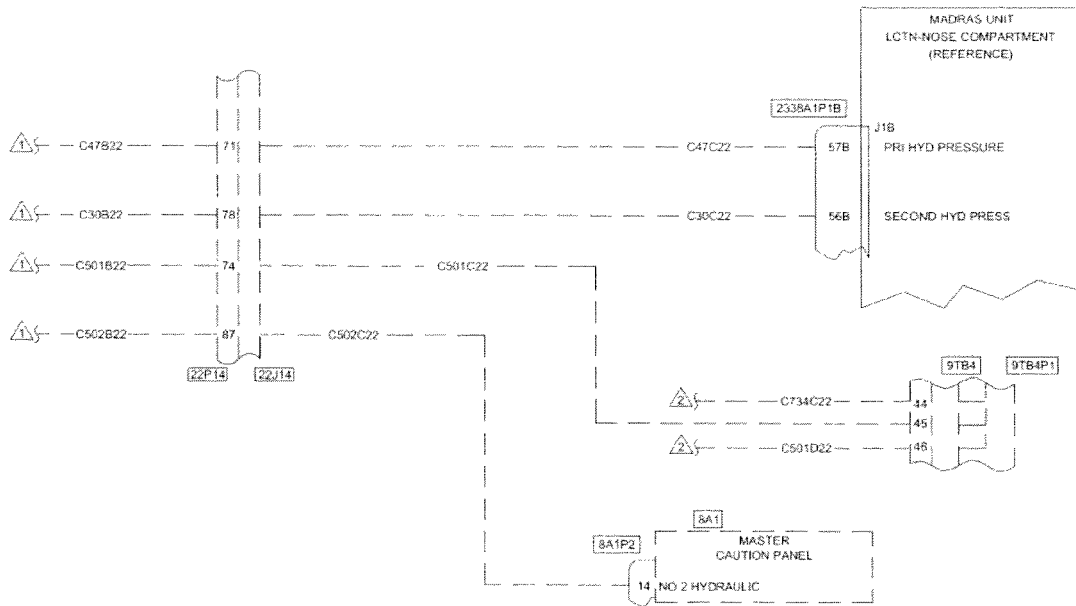
In this new configuration the presence of a ground will be equivalent to hydraulic off instead of hydraulic on. For this reason the ROSE software for the download of the Hydraulic 1 and 2 FDR files will need to be modified by the user to reflect this change in logic.

Any questions regarding this bulletin should be addressed to:

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PRODUCT SUPPORT
1-800-251-7094

Figure 1. Current Configuration

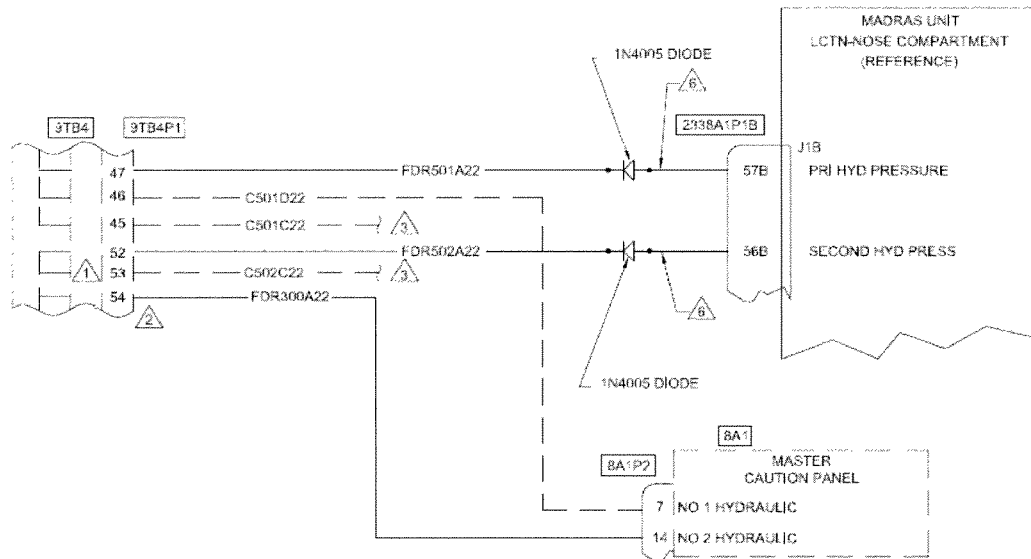


1 REFERENCE BHT-412-MM-1, REV 0 OR LATER APPROVED REVISION, FIGURE 98-106 HYDRAULIC SYSTEMS (S/N 33101 THROUGH 36086 AND 36087 AND SUBSEQUENT).

2 REFERENCE BHT-412-MM-1, REV 0 OR LATER APPROVED REVISION, FIGURE 98-144 COMPONENT REPLACEMENT (S/N 36087 AND SUBSEQUENT).

3. SYMBOL — — — — DENOTES EXISTING WIRES AND COMPONENTS

Figure 2. New Configuration



PROPOSED WIRING MODIFICATION

- 1. RELOCATE C502C22 FROM MASTER CAUTION PANEL (8A1P2, PIN 14) AND TERMINATE AS SHOWN.
- 2. IF INDICATED SECTION OF 9TB4 IS IN USE IT IS PERMISSIBLE TO RELOCATE FDR502A22, FDR300A22, AND C502C22 TO AN UNUSED SECTION OF 9TB4
- 3. REFERENCE BHT-412-MM-1, REV 0 OR LATER APPROVED REVISION, FIGURE 98-106 HYDRAULIC SYSTEMS (S/N 33101 THROUGH 36086 AND 36087 AND SUBSEQUENT).
- 4. SYMBOL — — — — — DENOTES EXISTING WIRES AND COMPONENTS.
- 5. CAP AND STOW C30C22 AND C47C22.
- 6. JUMPER WIRES TO BE LESS THAN 6 INCHES LONG AND 22 AWG WIRE PER MIL-W-22753/4.