

TB 43-0001-61-6

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**EQUIPMENT IMPROVEMENT REPORT
AND
MAINTENANCE DIGEST**

(SECOND QUARTER CY 2007)

**TEST, MEASUREMENT, AND DIAGNOSTIC
EQUIPMENT (TMDE)**

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HEADQUARTERS, DEPARTMENT OF THE ARMY

JULY 2007

NOTICE

THIS ISSUE OF EIR DIGEST, TB 43-0001-61-6, CONTAINS THE ARTICLES RECEIVED DURING THE 3rd AND 4th QUARTERS OF CY 2006 (1 JULY THROUGH 30 DECEMBER 2006) and 1st QUARTER CY 2007 (1 JANUARY THROUGH 31 MARCH 2007). THERE WILL BE NO TB PUBLISHED WHICH NORMALLY WOULD HAVE COVERED THE SPANNED QUARTERS. THE LAST ISSUE RELEASED WAS TB 43-0001-61-3 WHICH COVERED THE 3rd QUARTER OF CY 2006 (1 JULY THROUGH 31 SEPTEMBER 2006).

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REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can improve this manual. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. A reply will be furnished to you. You may also provide DA Form 2028 information to AMCOM via e-mail, fax, or the World Wide Web. Our FAX number is: DSN 788-6546 or Commercial 256-842-6546. Our e-mail address is: 2028@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual. For the World Wide Web, use: <https://amcom2028.redstone.army.mil>.

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CHAPTER 1

GENERAL

SECTION I. INTRODUCTION

1.1 Purpose

a. This bulletin provides information and/or action to be taken to correct equipment faults reported through Equipment Improvement Recommendations (EIRs). It also provides notification of minor alterations, publication changes, advance information of modification work orders (MWOs) and maintenance program planning and execution.

b. This technical bulletin (TB) is published quarterly to disseminate technical information concerning Test, Measurement, and Diagnostic Equipment (TMDE) to field units and major commands.

1.2 Scope

a. This bulletin contains EIR and general information pertaining to TMDE that is managed or maintained by the U.S. Army Aviation and Missile Command. It may contain information on EIRs, equipment publication changes, MWOs, warranty recall information, and publication actions – some resulting from DA Forms 2028, Recommended Changes to Publications and Blank Forms.

b. This bulletin is informational in nature. It contains discretionary entries, authorizes certain maintenance actions, and gives advance information on the future changes to equipment publications.

c. This bulletin may contain minor changes that may be performed without an MWO. Control and reporting of these changes in accordance with DA PAM 738-750 is not required except as routine maintenance action.

1.3 Obtaining the Equipment Improvement Report and Maintenance Digest.

This TB will be posted to the LOGSA website. The digest may be requested from APD.

1.4 **Inquiries.** Points of contact for this EIR are Mr. Gary Davenport, gary.davenport1@redstone.army.mil, DSN 788-0600, commercial 256-842-0600 or Mr. Fred Melton, fred.melton@redstone.army.mil, DSN 645-8082, commercial 256-955-8082.

SECTION II. GENERAL INFORMATION

1.1 Purpose

The purpose of an EIR is to initiate early and effective corrective action, where necessary, to eliminate failure and/or improve material. AR 750-1 makes the submission of an EIR mandatory when an equipment failure occurs as a result of other than normal wear, operational malpractice, or accidental damage. DA Pamphlet 738-750 provides the detailed instructions for the submission of an EIR.

1.2 Deficiency Reporting

a. DA PAM 738-750, The Army Maintenance Management System, is the guideline for initiating and submitting EIRs which are to be reported on SF 368, Quality Deficiency Report (QDR).

b. Materiel received damaged, due to improper packaging or packing, must be reported on SF 364, Report of Discrepancy (ROD), in accordance with AR 735-11-2.

c. Transportation/shipping damage must be reported on SF 361, Discrepancy in Shipment Report, in accordance with AR 55-38.

1.3 Priorities for EIR

a. CATEGORY 1. A deficiency/improvement recommendation which will or may affect life or limb of personnel or impair the combat capabilities of the using organization or individual. Deficiencies that affect operational capability, to the extent that mission accomplishment is jeopardized, fall within this definition.

b. CATEGORY 2. A deficiency/improvement recommendation which does not meet the criteria set forth in category 1.

CHAPTER 2

SAFETY-OF-(USE/FLIGHT) MESSAGES

2.1 General

This section provides information on safety issues that all personnel should be made aware of and/or requires an action to be taken by the user to rectify the situation.

2.2 Fluke Recalls Test Leads

DESCRIPTION OF PROBLEM:

TL221, TL222 and TL224 SureGrip™ test lead sets, manufactured between December 2002 and October 2003, may have a faulty connection that could cause the tester to not indicate that voltage or current is present. THIS COULD PLACE THE USER IN A POTENTIALLY HAZARDOUS SITUATION.

The affected leads are also included with the following test lead kits: TL220, TL223, TLK220, TLK225, and L215

The affected leads are also included with the following Fluke equipment with serial numbers between 83260001 and 85210001:

Fluke 179/1AC	Kit-87-3	Fluke 88	Fluke 743B
Fluke 179/EDA	Flk-87E-3	Fluke 741B	Fluke 744

The impacted leads have the following characteristics:

The leads have only been available for purchase since January 2003. These leads are modular with no probes permanently affixed to the ends.

The connectors have a black over-molding and are inscribed with the Fluke logo and are categorized as CAT III 1000 V, CAT IV 600 V

ACTIONS

Users are advised to stop using the affected TL221, TL222 and TL224 test leads and return them for free replacement. Do not return your DMM or other accessories.

United States residents: call 1-888-401-9940

More information available at:

<http://news.fluke.com/usen/support/safetynote/testleadrecall.htm>

CHAPTER 3

EQUIPMENT IMPROVEMENT RECOMMENDATION CASES

SECTION I. INTRODUCTION

3.1 General. This chapter provides information on Equipment Improvement Reports (EIR's)/QDR cases requiring corrective action by the field that were opened or closed during the period, as well as information on EIR cases that have had a change of status. Unless definite limitations are specified, recipients of this technical bulletin are authorized to apply corrections as indicated for deficiencies listed in the following section. These changes or corrections are to be undertaken only if adequate skills, tools, and parts are available. If additional information is needed, make reference to the EIR number in your inquiry.

SECTION II. ACTIVE (OPEN) EIR CASES

3.2 EIRs still under investigation. All QDRs have been closed.

SECTION III. INACTIVE (CLOSED) EIR CASES

3.3 EIRs requiring answers to the originator only. None

3.4 Closed EIR cases. There is no QDR information for this quarter.

CHAPTER 4

MINOR ALTERATIONS/INFORMATION

4.1 General

All minor alterations are optional for application to the item indicated at the field maintenance level specified. Minor alterations are to be undertaken only if adequate skills, tools, and parts are available. Application of minor alterations will be recorded in the appropriate equipment record as a routine maintenance action.

4.2 Statement of Memory Volatility

In order to satisfy government requirements, Department of Defense and other contractors are requesting information on memory access and volatility for instruments that they purchase. This requirement is driven by Homeland Security and the information is used when moving electronic instrumentation to and from sensitive test areas.

<http://news.fluke.com/usen/support/Instrument+Security/default.htm>

4.3 Fluke Fuse Information

Use the link below to access the Fluke database of fuses used in all of their equipment. This can then be cross-referenced against Fed Log to find appropriate NSN's.

<http://news.fluke.com/usen/support/FuseGuide/default.htm>

4.4 Fluke Operation/Service Manuals

The link below takes you to the Fluke webpage for downloading operation and service manuals for all Fluke instruments.

<http://news.fluke.com/usen/support/manuals/default.htm>

4.5 DH Instruments RPM3

The APSL has received a number of RPM3 pressure standards with calibration factors reset to original factory default values. Resetting calibration factors erases the previous APSL calibration, and threatens the accuracy of any subsequent calibration using the RPM3. Pages 3-41 through 3-43 of the factory manual (available on the DH Instruments website if you no longer have the original) describe the **Reset** function of the RPM3, and how it is accessed.

“Reset-cal” and **“Reset-all”** should never be executed, and in fact there is no reason to employ any aspect of the **Reset** function. The APSL will begin setting password protection to prevent inadvertent use of the **Reset** capability, but until all RPM3s are protected, please be sure you do not use this function.

The point of contact for this article is Gregory Rigney, DSN 746-7715, gregg.rigney@redstone.army.mil.

4.6 Intercomp Aircraft Weighing Scales

Currently TB 43-180 lists 4 different entries for the same aircraft platform scale and two different intervals. This has caused some confusion with our customers.

The listings in TB 43-180 are:

1. The AC1-25LP is the shipping container for the scales and this item should not be listed in TB 43-180 for calibration since we calibrate each scale separately.
2. The AC1-25LP-310 is a 3 scale kit. The 310 means it is a three scale kit.
3. The AC1-25LP-410 is the 4 scale kit which is the DAWS kit.
4. The AC1-25LP-4C is the correct model number for DAWS scale which is the same scale used in the AC1-25LP-310 and AC1-25LP-410 DAWS kit.

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To summarize, the AC1-25LP-310 and AC1-25LP-410 DAWS kit are comprised of the AC1-25LP-4C scale and should be on a 360 day interval. The next version of TB 43-180 will reflect this interval.

Point of contact for this information is Mr. Eddy Copeland, AMSAM-TMD-LI, DSN 788-2700 commercial 256-842-2700, e-mail eddy.copeland@us.army.mil.

4.7 Torque Cell Orientation

During a recent Quality Assurance audit, one lab experienced problems calibrating a torque cell following the instructions in TB 9-6695-301-50. The cell passed calibration in clockwise mode with the cell in the 7:00 position (that is the cable oriented at 7:00), and failed in the counter-clockwise mode with the cell in the 5:00 position. Further investigation revealed this is a known problem with some cells, and will require us to modify the TB and our procedures. Depending on the orientation of the cell's square drive with the case, the connector will face down in either the 6:00 or 7:00 position when mounted in the torque fixture (sometimes known as the z-fixture). The cell should remain in that orientation throughout the calibration, in both clockwise and counter-clockwise modes. It is important that the cell is also used in the same position when calibrating torque wrenches. To summarize, be sure the cable is hanging down, at either 6:00 or 7:00, at all times. The point of contact is Gregory Rigney, DSN 746-7715.

4.8 TS4463/P, PITOT Static Test Set Tips

As many users and calibrators are aware, the TS4463/P Pitot Static Test Set is a very sensitive piece of equipment requiring diligence on the operator's part to maintain the equipment in good condition. Though owners are asked to follow prescribed care and cleaning procedures as described in the operations manual, maintainers must also take additional precautions to insure safe and effective operation of the test set.

ATST Cp Humphreys and OMEMS provide the following tips to help keep the equipment operating as it should:

- a. This test set is very sensitive to moisture. Because the case is not waterproof due to the large vent on the side, it is important that you are aware of where you are using the Test Instrument (TI) and in what conditions.
- b. Do not use Teflon tape on the fittings and hoses. The hoses are designed to seal properly to the fittings on the TI without tape. Use of Teflon tape may result in damage to threads and hoses. Subsequently, use of damaged hoses can cause damage to pressure standards that are used to calibrate the TI. Additionally, Teflon tape can get sucked into the internal vacuum system and cause non-repairable damage to the valves and pump system. After return to the owner, the Teflon tape could then get blown into the aircraft's system.
- c. Use the front panel Ps and Pt port caps to protect against excessive moisture and debris from entering the instrument via the front panel ports. Moisture and debris will cause severe damage to the internal valves and pump. Additionally, these caps are designed to help protect the threads on the front panel ports.

d. The lid of the TI is not for storing hoses or power cords. There is an accessory bag provided for the hoses and power cords. Storing items in the lid may lead to cracked front panel displays and bent/damaged/broken threads and ports.

e. Cap the ends of the red and blue air hoses when not in use to prevent contamination. Tag and replace unserviceable hoses.

f. Never use water and soap to check for leaks in the system. The soap gets sucked into the instrument and causes severe damage to the valve assemblies.

4.9 PM TMDE Register

PM TMDE is developing a web based registry of Preferred Items and Alternate items available for issue. The web database will include a listing of all equipment purchased by US Army elements both TOE and TDA. The listing entitled "US Army TMDE Register" will provide a means for LCMCs, PEOs, PMs, Combat and Material Developers as well as TOE and TDA organizations to research TMDE availability to include detailed specifications to determine equipment applicability and availability. Additionally, the website will provide a means to submit required documents and information to request acquisition approval from PM TMDE. Information submitted will be placed in a folder (pending approval). Information can be entered directly into the database from the website. Once acquisition approval is provided and the organization provides exact specifications and information required, the item will be included in the TMDE register.

Items that do not meet preferred item requirements will not be listed on the DA TMDE Preferred Items List (PIL). The register will also provide equipment listings by MACOM, providing the additional benefit of providing a means to reduce make and model proliferation within major commands.

The database will automatically generate notification letters, to parent organizations, as required to ensure local policy requirements are followed. The US Army TMDE Activity (USATA) will receive an email to perform a supportability review. Upon completion of this process with all parties in agreement, acquisition approval is granted by the APM TEMOD generating an approval letter to the requestor and their MACOM.

When the equipment is purchased, the requestor is required to provide acquisition information (Type Funds, Quantity, etc) into the database to close out the acquisition process.

<https://tmde-register.us.army.mil/>

4.10 Bird 4421 Wattmeter IEEE Hardware

Recent ICE procedure changes and new ICE procedures may call for the Bird Wattmeter to be hooked to the IEEE bus for fully automatic calibration. Specifically addressed is the necessity to have this communication when performing the AN/GRM-122 ICE procedure. It has come to our attention that some labs may not have a fully capable Bird Wattmeter. When the Meters were fielded the IEEE-488 hardware was shipped in the same box but not installed. If you find that your Bird Wattmeter does not have a IEEE interface available (on the rear face of the unit) and you cannot locate the part (see picture below) then you can order a new interface using the following information.

POC : Stephanie Hebebrand - Direct Dial : 440-519-2183

Toll Free: 866-695-4569 (This is the Receptionist Desk – Ask for Stephanie Hebebrand)

Part # : 4421-488

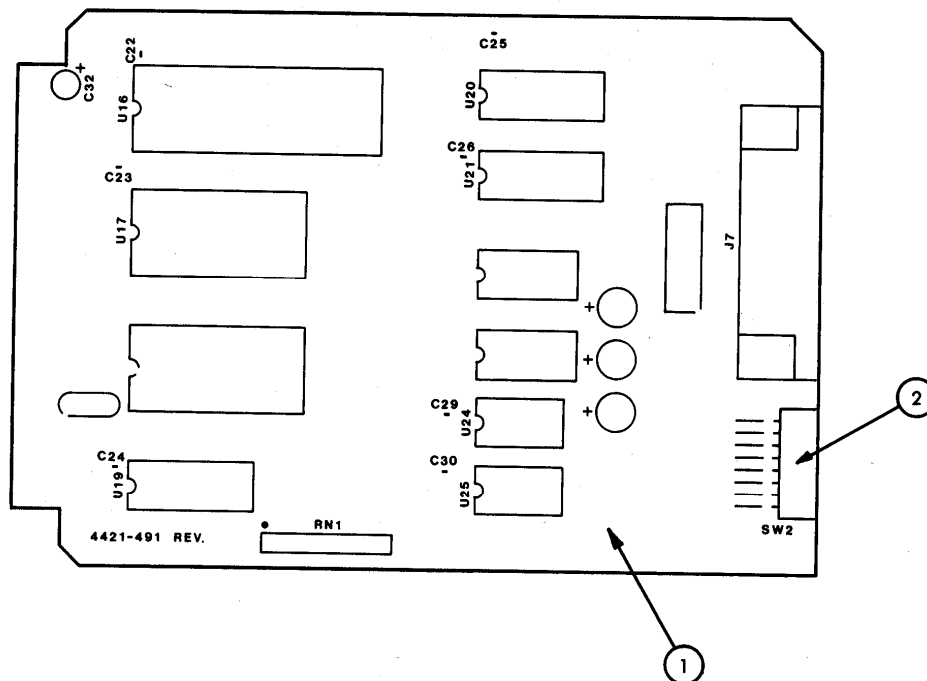
Lead time is estimated at 4 weeks.

A Tax Exempt certificate is required to order the part.

[http://www.bird-technologies.com/sales/sales_tax/BEC Uniform Sales and Use Certificate.pdf](http://www.bird-technologies.com/sales/sales_tax/BEC_Uniform_Sales_and_Use_Certificate.pdf)

In the interim, it is still possible to complete a calibration by simply performing that portion of the procedure manually. To greater improve the contrast of the written procedure just hold your left mouse button and drag across the grayed-out text to highlight.

Figure A-7. 4421-488 Module.



CHAPTER 5

EQUIPMENT PUBLICATIONS

5.1 AN/GSM 705 and AN/GSM 421 Equipment Sets Hand Receipt

Hand Receipts for the 705 and 421 Equipment Sets have been sent to Publishing for distribution.

705 : TM 9-6695-307-14-HR

421 : TM 9-6695-306-14-HR

POC is Rick Burcham at (256) 842-9906, DSN 788-9906
rick.burcham@redstone.army.mil

CHAPTER 6

MODIFICATION WORK ORDERS – NOT INCLUDED

CHAPTER 7

TRAINING OPPORTUNITIES

7.1 General

This section will contain valuable training aids and guides available through the USATA home page.

7.2 The ET6000-75 GPS Time Code & Frequency Generator

Don't overlook the many functions available to you with the ET6000-75. Check the Computer Based Training (CBT) order form to get the CD-ROM training for this piece of equipment. All of the menus which get you to the higher level functions are explained in easy to understand terms bringing the power and versatility of this device into the forefront.

7.3 Thermal Sight Collimator

Anyone who has ever worked with these Collimators knows how much of a chore setting up the calibration can be. This CBT makes the job easier with great audio/visual aids.

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7.4 Starrett Model 716 Dial Indicator Calibrator

The recently fielded 716 Dial Indicator Calibrator has a Operator's training course available. Bring your new techs up to speed on this item with this CBT.

7.5 TMDE Support Coordinator Training

Ever had a customer walk in with a blank stare on their face with no idea of why they are there or what they need to do? This training aid is intended for the end-user to help them understand the process behind TMDE.

7.6 CBT Information/Additional Training

Direct your browser to https://usata.redstone.army.mil/trainingv2/Order_Form_net.aspx and order the corresponding Computer Based Training aids as needed.

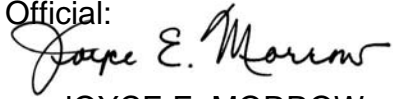
As an added note, remember to "Certify" the course after completion and forward your results to the CBT team to receive a certificate of course completion and supply feedback to the team.

Additional training opportunities can be found at:

<https://usata.redstone.army.mil/training/traininginformation.pdf>

By Order of the Secretary of the Army:

Official:



JOYCE E. MORROW
*Administrative Assistant to the
Secretary of the Army*

0712902

GEORGE W. CASEY, JR.
*General, United States Army
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From: "Whomever" whomever@redstone.army.mil
To: <2028@redstone.army.mil

Subject: DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:**55-2840-229-23
9. **Pub Title:** TM
10. **Publication Date:** 04-JUL-85
11. **Change Number:** 7
12. **Submitter Rank:** MSG
13. **Submitter FName:** Joe
14. **Submitter MName:** T
15. **Submitter LName:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. **Page:** 2
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text**

This is the text for the problem below line 27.

