

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**WARRANTY PROGRAM
FOR
TRAILER MOUNTED LAUNDRY UNIT
MODEL M85-100, NSN 3510-01-291-8169**

Headquarters, Department of the Army, Washington, D. C.

1 May 1990

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this bulletin. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of this manual direct to Commander, U. S. Army Troop Support Command, Attn:AMSTR-MCTS, 4300 Goodfellow, Boulevard, St. Louis, MO 63120-1798. A reply Will be furnished directly to you.

1. General. This warranty technical bulletin identifies warranty conditions and procedures that apply to the Trailer Mounted Laundry Unit, Model M85-100, NSN 3510-01-291-8169, as supplied under Contract DAAK01-88-D-0041. This warranty will be for twelve (12) months from the date of supplies/equipment acceptance as shown on the Material Inspection Report (DD Form 250).

2. Explanation of Terms. The following terms apply to the Laundry

Unit warranty program:

a. Abuse. The improper use, repair or handling of warranted items such that the warranty may become void. Failure to perform preventive maintenance or improperly performed corrective maintenance also constitutes abuse.

b. Acceptance Date. The date an item of equipment is accepted into DOD inventory by the execution and signing of a DD Form 250 or an approved acceptance document by an

authorized Government representative.

c. Contractor support. Those services that are to be performed and those responsibilities that are placed on the contractor by the Government as specified in the warranty contract/provisions of contract DAAK01 - 88-D-0041. This support, which may include items such as labor, parts, tools, training, technical packages, etc., will be used in support of the warranted equipment during the specified warranty period.

d. Latent defects. Latent defects are defects that are not immediately obvious as a result of systematic engineering review of designs or documentation.

3. Coverage - Specific. Engineered Air System, Inc., (the contractor) warrants that each Laundry Unit and each component of the Laundry Unit is manufactured to conform to specific performance requirements identified in contract DAAK01-88-D-0041. Additionally, Engineered Air Systems, Inc. warrants that each Laundry Unit and components of that same Laundry Unit are free from defects in materials and workmanship that would cause the Laundry Unit to fail to conform to performance requirements specified in contract DAAK01-88-D-0041. These conditions apply for a period of twelve (12) months from the date of supplies/equipment acceptance as shown on the Material Inspection Receiving Report (DD Form 250). This warranty applies only to components originally installed by Engineered Air Systems, Inc which can be identified by serial number as factory-installed on a specific Laundry Unit or to components repaired under the conditions of this warranty. The sole obligation of Engineered Air Systems shall be , at its option, to repair or replace any article or part which is proven to be other than warranted. For Engineered Air Systems to be obligated under this warranty, Engineered Air Systems, Inc. must be notified in writing within sixty days of discovery of a failed

component or item. Upon determination that a defect is covered by this warranty, Engineered Air Systems, Inc. will replace or repair (at its option) without charge to the U. S. Government. If the defect is determined not to be covered by this warranty, EASI will advise the WARCO and will not proceed until written authorization and costing information is agreed upon. Under this warranty, the contractor is limited to the repair or replacement of a defective article. If repair or replacement is impossible or cannot be accomplished in time to meet Government schedules, the contractor will refund the purchase price including transportation. If the contractor determines that a unit or component is not for any reason covered by this Warranty, no warranty work will be performed except at the written direction of the Contracting Officer for Contract DAAK01-88-D-0041. Thereafter the matter will proceed through the "Disputes" clause of this document.. In the case of Government-furnished equipment or property, Engineered Air Systems, Inc. warrants that installation to (or of) Government-furnished property by Engineered Air Systems will not degrade the performance or reliability of that Government-furnished property. Modification of Government-furnished property by Engineered Air Systems, Inc. (other than installation of equipment) is warranted for two years from the date of acceptance.

4. Contractor Responsibilities.

Engineered Air Systems, Inc. is responsible for providing repair or replacement of warranted items/components within 30 days after notification. Engineered Air Systems, Inc. is located at 1270 North Price Road, St. Louis, MO. 63132-2316 (314) 993-5880. The items determined to be defective due to defective material or workmanship, will be replaced with new or rebuilt items at no cost to the Government. Transportation costs for warranty service will be borne by the contractor.

a. On items located within the continental United States and where warranty repairs exceed unit, direct, or general support or depot maintenance level in accordance with the Maintenance Plan in the statement of work, the contractor will provide at no cost to the government, a technical service representative, on site, to remedy the situation during the warranty period. Response by the contractor shall be within a three (3) working day period after government notification of this desired service.

b. On items located outside the continental United States and if the contractor maintains established business facilities servicing the geographic area of concern, a technical service representative shall be furnished from such facility in accordance with the terms of paragraph a. relating to technical service representatives. Where the contractor maintains no such facilities, the repair/ or replacement item (s) shall be accompanied by detailed installation instructions.

5. Government Responsibilities. Using activities are responsible for reporting failures to U. S. Army Troop Support Command, 4300 Goodfellow Blvd, Attn: AMSTR-QE, St. Louis, MO. 63120-1798, AUTOVON 693-9457, CMCL (314) 263-9457 during the hours of 0800 - 1600 CST. U. S. Army Troop Support Command shall be responsible for administering the warranty program for the Laundry Unit.

6. Government Maintenance. The Government will be responsible for completing preventive and corrective maintenance in accordance with the approved Maintenance Allocation Chart. The Government will also be responsible for maintaining and providing to EASI appropriate maintenance records for each Laundry Unit by serial number and each maintenance action performed on each Laundry Unit or Laundry Unit component by serial number (if applicable). The Government will make

these records available for contractor examination to determine warranty coverage for components and/or end items.

7. Owning Unit Responsibilities. The owning unit responsibilities shall be the same as those identified in the **Government Responsibilities and Government Maintenance** paragraphs.

8. Warranty Control Office (WARCO) Responsibilities. The Warranty Control Office for the Laundry Unit is U. S. Army Troop Support Command, 4300 Goodfellow, St. Louis, MO. WARCO responsibilities are identified in the **Government Responsibilities** paragraph.

9. Army Oil Analysis Program (AOAP). The Army Oil Analysis Program does not apply to the Laundry Unit.

10. Alterations/Modifications. Alterations and modifications shall not be made unless expressly authorized or directed by: U. S. Army Troop Support Command, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

11. Design / Performance Specifications. Equipment performance is as specified in the appropriate technical manual. The warranty tag for the unit is located on the unit control panel or on the frame.

12. Nullification. Actions taken by Government personnel which will void Laundry Unit end item or component warranties are:

- a. Failure to operate the Laundry Unit and/or components in accordance with approved Technical Manuals;
- b. Failure to maintain the Laundry Unit and/or components in accordance with approved Maintenance Allocation Chart recommendation and Technical Manual procedures;

c. Failure to properly install, connect, position or adjust the end item and/or components as prescribed by the appropriate Technical Manuals;

d. Failure to adequately preserve a Laundry Unit before placing said unit into storage or failure to adequately depreserve a Laundry Unit when said unit is removed from storage;

e. Transportation or storage of a Laundry Unit under conditions determined to be detrimental to the performance of the unit;

f. Operation of the end item and/or components outside stated performance parameters;

g. Operation of the end item and/or components for purposes other than intended.

h. Removal of components from one serial numbered Laundry Unit for reinstallation on a different serial numbered Laundry Unit (cannibalization). (Installation of components that have been repaired under this warranty program being an exception);

i. Modification or retrofit of components or equipment not expressly authorized by Engineered Air Systems, Inc.;

j. Failure to maintain appropriate documentation that would resolve conclusively any question concerning the use, maintenance or deployment of the end item resulting in a warranty claim;

k. Deployment of the end item in a combat zone or exposure of the end item to combat conditions.

l. This warranty does not apply to damage resulting from latent defects in maintenance philosophy, Maintenance Allocation Charts,

technical manuals or literature. This warranty does not apply to equipment damaged as a result of incorrect Technical Manuals or literature.

m. This warranty does not apply to spare parts or equipment supplied by contractors other than Engineered Air Systems, Inc. or as noted otherwise in this bulletin.

Actions required to keep this warranty in effect are:

a. Proper maintenance (both preventive and corrective) of equipment as prescribed by approved Maintenance Allocation Charts and technical publications;

b. Transportation, preservation, depreservation and storage in accordance with technical documentation;

c. Operation of the end item and components within stated performance envelope(s);

d. Use of the end item for its intended purpose.

13. Abuse Determination. When abuse is suspected but not obvious, it is the Government's responsibility to provide documentation of the maintenance of the item to allow the contractor or a joint contractor/Government panel to determine if abuse has occurred. If abuse (as defined in this bulletin) becomes evident, the Government will reimburse the contractor for the repair and associated repair and transportation costs. Warranties for replacement parts will be the same as the warranty on replacement parts supplied in non-abuse situations.

14. Abuse Avoidance. When abuse (intentional or unintentional) has been determined, a statement shall be made by the abuse determining activity as to how abuse can be avoided in the future.

15. Claim Procedures. When the need for warranty service becomes evident, the following steps must be completed:

a. Identification of Failed Items.

Failed items should be identified as follows:

(1.) Failed warranty items should be tagged/identified to prevent improper repair or use. DA Form 2402 Exchange Tag shall be completed and attached to the defective component. Refer to Appendix A for instructions on completing DA Form 2402.

(2.) DA Form 2407 Maintenance Request is to be completed. Refer to Appendix B for instructions on completing DA Form 2407.

(3.) The Warranty Control Office and Engineered Air Systems, Inc. must be notified of the failure in writing within 30 days of failure occurrence. A list of Warranty Control Offices is supplied as Appendix C.

(4.) Non-direct exchange (non-DX) claim items. When the warranted item is not handled through DX, the unit prepares and sends a completed DA Form 2402 (with exhibit) and DA Form 2407 to the warranty claims office. The office then deals with the DA Form 2407 as follows:

(a.) Send copy #1, #2, and #5 to CDR, TROSCOM, ATTN: AMSTR-Q, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798 One of these copies will go to the item manager to show a supply demand.

(b.) Keep copy #3 for 180 days (with exhibit and DA Form 2402) unless you are told differently. If you receive no instructions after 90 days, contact: CDR, TROSCOM,

ATTN: AMSTR-Q, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798, telephone number 314-263-9457 for information.

(c.) Copy #4 gives you the authority to tell the claim creator to get the new item through supply. Copy #4 is kept at most for 180 days or until you get notice that the claim has been honored.

(5.) Direct exchange (DX) claim items. When the warranted item is handled through DX, the unit starting the claim action fills out the same forms and deals with them the way they do for a non-DX item except as follows:

(a.) The unit running the DX shop starts the replacement action for supported units. The DX shop uses copy #4 of the DA Form 2407 to start the action.

(b.) Normal DX replacement actions will be made by the DX shop for like serviceable items in stock.

(6.) Final processing of approved claims. Support of depot maintenance units will handle all claims promptly. These units will send approved claims to the creator whose address and MILSTRIP document number is in Block 20 of DA Form 2407. The support or depot unit will also return to the replacing unit all labor costs used in replacing the bad items. Refer to Appendix B for information on completing DA Form 2407 and Appendix A for information on completing DA Form 2402.

b. Disposition of Failed Items.

Failed items will be dispositioned in accordance with instructions issued by the appropriate WARCO after review of the documentation submitted.

(1.) False Returns. Government units returning items to the contractor for repair which are found to be serviceable will be penalized for the cost, loss of time, nonavailability of items or other restrictions. False returns will be monitored by TROSCOM.

(2.) Receipts/verification of contractor repairs.

c. Special Area Requirements. If an item or component is located in the continental United States (CONUS), the item will be returned to the destination identified for that component or to Seller's plant, whichever is advantageous to the Government. In the event components are located outside CONUS, the appropriate WARCO listed in Appendix C shall be contacted for disposition instructions.

d. Reimbursement for Army Repair. The Army shall proceed with

non-contractor repair only after negotiation and settlement with the contractor concerning the scope of repairs to be performed by Army personnel.

Army repair of hardware shall proceed only upon receipt of written instructions from the contractor and appropriate WARCO.

e. Claim Denials/Disputes. Claim denials/disputes will be addressed through the WARCO and by Engineered Air Systems. When a dispute arises, settlement will be established by negotiation between TROSCOM and the Contracts department of Engineered Air Systems, Inc.

f. Reporting. Reporting or recording action on a failed item shall be as specified in DA Pam 738-750 or DA Pam 738-751.

**Appendix A
DA Form 2402**



| | | | | |
|-------------------------------|-------------------------------|--|----------|------------------------|
| 1. SUPPORT AGENCY (DODAAC) | | 2. DATE | | COPY 1 |
| 3. ORGANIZATION (DODAAC) | | 4. <input type="checkbox"/> EIR EXHIBIT <input type="checkbox"/> EXCHANGE | | |
| 5. NSN | | 6. NOUN NOMENCLATURE | | DA FORM 2488 MAY 65 |
| 7. PD | 8. PD AUTHENTICATION | | | |
| END ITEM IDENTIFICATION | 9. END ITEM NOUN NOMENCLATURE | | | |
| | 10. MODEL | 11. SERIAL NO. | | |
| 12. DEFICIENCY OR SYMPTOM | | | | DA FORM 2488 MAY 65 |
| 13. DATE ACCEPTED | 14. SIGNATURE | | 15. NAME | |
| 16. JOB | 17. INITIALS | | | |
| 18. DATE REPAIRED | 19. INITIALS | | | |

1. **SUPPORT AGENCY (DODAAC).** Enter the DODAAC of the support activity that will exchange the item for you. When this form is used for other than exchanges, use the DODAAC or UIC.
2. **DATE.** Enter the Julian date the item was prepared for exchange.
3. **ORGANIZATION (DODAAC).** Enter the DODAAC of the unit or organization needing to exchange the item. When this form is used for other exchanges, use the DODAAC or UIC.
4. **EIR EXHIBIT/EXCHANGE.** Mark the block to show an exchange or EIR exhibit. When used for warranty claims, put a "W" in the open space to the right of EIR EXHIBIT.
5. **NSN.** Enter the NSN of the item.
6. **NOUN NOMENCLATURE.** Print the noun abbreviation of the item to be exchanged.
7. **PD.** Enter the priority designator (PD) that applies to the action. The unit or organization listed in Block 3 normally assigns the PD. When the exchange supports a customer maintenance request, use the PD of the maintenance request.

8. PD AUTHENTICATION.

a. The commander or the designated representative signs when a PD of 01 through 10 is in Block 7.

b. Enter the job order number when a PD of 01 through 10 is taken from a maintenance request.

9. END ITEM NOMENCLATURE. Enter the noun abbreviation of the end item for the part or component in Block 5.

10. MODEL. Enter the model number of the end item.

11. SERIAL NO. Enter the serial number of the end item.

12. DEFICIENCY OR SYMPTOM. Briefly describe the problem.

13. DATE ACCEPTED. When the form is used as a receipt, the exchange facility will enter the Julian date.

14. SIGNATURE. The person who receives the item for exchange signs.

15. NMCS. Print the word "Yes" for an NMCS condition.

16. JON. The facility that will repair the item enters the job number.

17. INITIALS. The person receiving the item for repair initials in this block.

18. DATE REPAIRED. The person doing the work enters the date the work was finished.

19. INITIALS. The person doing the work initials in this block.

**APPENDIX B
DA FORM 2407**

| MAINTENANCE REQUEST | | PAGE NO. | NO. OF PAGES | | EQUIPMENT CONTROL SYMBOL |
|---|----------------------|-------------|--------------|--------------------------|--------------------------|
| FORM 10 OF THE FORMS, AND THE 20-7000 THE APPROPRIATE SYMBOLS IS OBSOLETE | | | | | |
| SECTION I - EQUIPMENT DATA | | | | | |
| CONTROL NUMBER L08610 | WORK ORDER NUMBER | WESDC | ORG PD | PD AUTHENTICATION | |
| <input type="checkbox"/> WORK REQUEST <input checked="" type="checkbox"/> WWO <input type="checkbox"/> WARRANTY CLAIM | 1a. ORGANIZATION | b. LOCATION | | c. UNIT IDENT CODE | |
| 1. SERIAL NO. | 2. NOUN NOMENCLATURE | 3. LINE NO. | 4. MODEL | 5. NATIONAL STOCK NUMBER | |

Page No/No of Pages. Enter the page number. Total pages will be entered when entries in Section II are complete.

Work Order Number. Leave blank.

WESDC. Leave blank.

ORG PD. Leave blank.

PD Authentication. Leave blank.

Work Request. Leave blank.

MWO. Leave blank.

Warranty. Mark this block.

1a ORGANIZATION. Enter location of organization sending in the report.

1b LOCATION. Enter name of organization writing the request (overseas list APO only).

1c UNIT IDENT CODE. Enter unit identification code (UIC) of the unit shown in block 1a.

2. SERIAL NO.

- a. For nontactical wheeled vehicles, list the USA registration number.
- b. For ammunition, put in the lot number.
- c. For all other items, list the serial number, if known. For floating craft, list the Department of Army Hull number. If more than one serial number, leave blank.
- d. When using this form for more than one item or component, leave blank.

3. NOUN NOMENCLATURE. Put in name abbreviation of equipment for which the form was started.

4. LINE NO. Leave blank.

5. MODEL. Put in the item model number.

6. NATIONAL STOCK NUMBER. Put in the National Stock Number of equipment in block 3. When completing this form for many items having several NSNs, leave blank.

| | | | | | | | | |
|--|----------------------------|----------------------------|----------------------------|---|----------------------------|----------------------------|----------------------------|----------------------------|
| 7. MAINTENANCE ACTIVITY | 8. LEVEL | 9. UTILIZATION CODE | 9. MCSR ITEM | 9. ERC | 9. PACING ITEM | 10. HOURS | 11. MILES | 12. ROUNDS |
| 14. FAILURE DETECTED DURING (check one - use 7 or 23) | | | | 15. FIRST INDICATION OF TROUBLE (check one - use 7 or 23) | | | | |
| <input type="checkbox"/> A | <input type="checkbox"/> B | <input type="checkbox"/> C | <input type="checkbox"/> D | <input type="checkbox"/> E | <input type="checkbox"/> F | <input type="checkbox"/> G | <input type="checkbox"/> H | <input type="checkbox"/> I |
| Start/Stop | Year | Storage | Flight | DM1 | Inspection | 7581 | Overheating | 775 |
| <input type="checkbox"/> J | <input type="checkbox"/> K | <input type="checkbox"/> L | <input type="checkbox"/> M | <input type="checkbox"/> N | <input type="checkbox"/> O | <input type="checkbox"/> P | <input type="checkbox"/> Q | <input type="checkbox"/> R |
| Handling | Inspection On | Inspection | Other | DM2 | None | 777 | Low Performance | Other |
| 16. LISTEN TO SYMPTOMS OR THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURES IN EQUIPMENT TO THE MAXIMUM EXTENT POSSIBLE | | | | | | | | |
| 16A. REMARKS | | | | | | | | |

- 7. **Maintenance Activity.** Put in the name of your support activity.
 - a. **Level.** Put in the code of the maintenance level doing the maintenance.
 - O – Organizational (ORG)
 - F – Direct Support (DS)
 - H – General Support (GS)
 - D – Depot
 - L – Special Repair Activity
- 8. **Utilization Cod..** For nontactical wheeled vehicles in administrative use, use utilization code “V.”
- 9. **MCSR Item.** Leave blank.
- 9a. **ERC.** Leave blank.
- 9b. **Pacing Items.** Leave blank.
- 10. **Hours.** Put in the hour reading (rounded to the nearest hour) from the hour meter on the equipment in block 3.
- 11. **Miles.** Put in the mileage (rounded to the nearest mile) of the equipment in block 3.
- 12. **Rounds.** Leave blank.
- 13. **Starts.** For turbine engines, put in the number of hot starts. If not needed, leave blank.
- 14. **Failure Detected During.** Mark the box that best describes when the failure was found.
- 15. **FIRST INDICATION OF TROUBLE.** Mark the box that best describes the conditions when you first found the trouble. Write in a code number from the table below. Leave blank if block 14 is left blank or when listing sampled items for unit maintenance”.

| code | Description |
|-------|--------------------------|
| 008 | Noisy |
| 068 | Inoperative |
| 258 | Overheating |
| 387 | Low performance |
| 790 | Out of adjustment |
| * 380 | Intermittent |
| * 432 | Off frequency |
| * 580 | Unstable |
| * 077 | Accident (motor vehicle) |
| * 777 | Accident (motor vehicle) |
| * 099 | Other |

* The asterisk shows code numbers not listed in block 15. DA Form 2407. If you select one of these codes, the proper code number must be put in the space called “Other,” block 15.

16& 16A. Leave blank,

| SECTION II - WORK ACCOMPLISHED | | | | | | | | | |
|-----------------------------------|--------------|--|--------------------------------|--|-----------------------|--------------------------------|-----------------------|--|--|
| 19a. REPAIR ORGANIZATION/ACTIVITY | | 1. UNIT IDENT CODE | | 19. TYPE ORGANIZATION/ACTIVITY AS COMPLETED WORK (State date - use 1 of 2) | | | 19. AMS ASSEMBLY CODE | | |
| A. LOCATION | | | | <input type="checkbox"/> TOE <input type="checkbox"/> TO <input checked="" type="checkbox"/> CONTRACTOR | | | | | |
| 20. ACT CODE | FAILURE CODE | 4. COMPONENT/PART HOLDING SUE. OR MFG. NO. | | MANHOURS (hrs & min) | NATIONAL STOCK NUMBER | PART NUMBER | CITY | PARTS COST | |
| | | 4. CS CODE | 5. REF DESIGNATOR (4 MFG CODE) | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| 20l. TOTAL MANHOURS | | | | 20m. TOTAL MANHOURS COST | 20n. TOTAL PARTS COST | | | | |
| 21. DELAY (Select one) | | 22. DELAY BY | | 23. DELAY BY | | 24. DELAY BY | | 25. DELAY BY | |
| <input type="checkbox"/> None | | <input type="checkbox"/> Manpower | | <input type="checkbox"/> Materials | | <input type="checkbox"/> Parts | | <input type="checkbox"/> Other | |
| 26. SUBMITTED BY | | 27. RECEIVED BY | | 28. WORK ORDER BY | | 29. APPROVED BY | | 30. DATA TRANSMISSION | |
| JULIAN DATE | | JULIAN DATE | | JULIAN DATE | | JULIAN DATE | | <input type="checkbox"/> To User <input type="checkbox"/> Original <input type="checkbox"/> To Owner <input type="checkbox"/> Duplicate <input type="checkbox"/> To Contractor | |

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17a thru 18. Leave blank.

19. CONTRACT NUMBER (DAAK01-87-C-A018).

20d. CB CODE. Put in the name of the part or assembly under warranty.

20e. REF DESIGNATOR. Put in the serial number of the part or assembly under warranty.

20g. Put in the estimated number of hours needed to replace the bad part. Use the proper technical bulletin time schedule guide to get the estimated hours. If you can't get the guide, use actual hours.

20h. NATIONAL STOCK NUMBER. Put in the NSN of the bad part. If an NSN is not found, use the part number.

20i.j.k. Leave blank.

20a thru 20k. Using the remaining spaces in block 20a-20k, put in this information: The

NSN of the defective item.

The name of the defective item.

The date of the failure.

The complete telephone number (AUTOVON/commercial with area code) of the person creating the form. State clearly all factors which added to the failure. Include factors such as type of operation and land and weather conditions. State clearly your opinion as to why the part failed.

20l. Total Manhouse. Self-explained.

20m. Total Manhour Cost. Leave blank.

20n. Total Parts Cost. Self-explained.

21 thru 22. Leave blank.

23. Submitted. The person authorized to send DA Form 2407 signs here.

24 thru 28. Leave blank.

**APPENDIX C
TROSCOM WARRANTY CONTROL OFFICES (WARCO)**

| Command | Location/Station | Address | Phone AV/COMM |
|---------|--------------------|--|-------------------|
| TROSCOM | HEADQUARTERS | Cdr, TROSCOM ATTN: AMSTR-Q 4300 Goodfellow Blvd. St. Louis, MO 63120-1798 | 693-9457 |
| USACSLA | FT. HUACHUCA | Cdr, USA CSLA ATTN: SELCL-MMP-MM Ft. Huachuca, AZ 85613-7090 | 879-6037 |
| USAEMRA | VINT HILL FARMS | Cdr, USA EMRA ATTN: SELEM-A Vint Hill Farms Station Warrenton, VA 22186 | 249-6781 |
| USAREUR | Belgium, Chivres | Cdr, 47th Area Spt Group ATTN: AERUK-Q APO NY 09075 | 243-1274 |
| USAREUR | GE, ANSBACH | Crd, 1st AD ATTN: AETS-KGD-M APO NY 09326 | ETS 468-8461 |
| USAREUR | GE, BAD KREUZNACH | Cdr, 8th DMMC ATTN: AETH-MC APO NY 09111 | ETS 490-7181/7148 |
| USAREUR | GE, BERLIN | Cdr, USA Berlin ATTN: AEBA-MA-O APO NY 09742 | ETS 332-3249/3189 |
| USAREUR | GE, BREMERHAVEN | Cdr, 5430 Area Support Gp ATTN: AERB-GM APO NY 09069 | ETS 342-8285/8588 |
| USAREUR | GE, CHIVRES BERLIN | Cdr, 80th Area Support Gp ATTN: AERSH-LM APO NY 09088 | ETS 361-5454 |
| USAREUR | GE, DARMSTADT | Cdr, 32D AADCOM ATTN: AETL-GD-CM APO NY 09175 | ETS 348-6532/7186 |
| USAREUR | GE, FRANKFURT | Cdr, 3D DMMC (3d AD) ATTN: AETFOE-MMO-MAT APO NY 09039 | ETS 328-7221/8281 |
| USAREUR | GE, FRANKFURT | Cdr, V Corps ATTN: AETV-GDM-M APO NY 09079 | ETS 320-6062/5773 |

| Command | Location/Station | Address | Phone AV/COMM |
|---------|--------------------|--|-------------------|
| USAREUR | GE, FULDA | Cdr, 11th ACR ATTN: AETO-CSS-MMC APO NY 09146 | ETS 321-3679/3779 |
| USAREUR | GE, GARLSTEDT | Cdr, 2D Armd Div (FWD) ATTN: AEUAD-498-MAT APO NY 09355 | ETS 342-6730-6728 |
| USAREUR | GE, GOEPPINGEN | Cdr, 1st Inf Div Fwd ATTN: AETSGSB-MM-MMD APO NY 09137 | ETS 425-3637/3753 |
| USAREUR | GE, GRAFENWOEHR | Cdr, 7th ATC ATTN: AETT-DOL-SM-E APO NY 09114 | ETS 476-2567/2767 |
| USAREUR | GE, GRAFENWOEHR | Chief, M1 Mat Fielding Team ATTN: AMCPM-GCM-MFT-E APO NY 09114 | ETS 476-2757/2612 |
| USAREUR | GE, HEIDELBERG | Cdr, 7th MEDCOM ATTN: AEMLO-L APO NY 09102-3304 | ETS 370-2718/2719 |
| USAREUR | GE, HEIDELBERG | Cdr, 26th Spt Gp ATTN: AEUSG-LG-M APO NY 09102-0161 | ETS 370-8319/6478 |
| USAREUR | GE, KAEFERTAL | Cdr, 51st Maint Bn ATTN: AERAB-MO APO NY 09086 | ETS 380-6773/7416 |
| USAREUR | GE, KAISERSLAUTERN | Cdr, 9th Spt Ctr ATTN: AERLM-LS APO NY 09325-3704 | ETS 483-7561/8625 |
| USAREUR | GE, KAISERSLAUTERN | Cdr, 29th Area Support Gp ATTN: AERAS-MM APO NY 09054 | ETS 483-7347/8235 |
| USAREUR | GE, KAISERSLAUTERN | Cdr, HHD 66th Maint Bn ATTN: AERAS-W-D APO NY 09227 | ETS 489-6636/6676 |
| USAREUR | GE, KARLSRUHE | Cdr, 18th Eng Bde ATTN: AEUEG-S APO NY 09164-2934 | ETS 376-6069/7102 |

| Command | Location/Station | Address | Phone AV/COMM |
|---------|------------------|--|--------------------|
| USAREUR | GE, MANNHEIM | Cdr, CBT Equip Go Europe ATTN: AERSE-M-SMO APO NY 09166-3768 | ETS 380-7686/6285 |
| USAREUR | GE, MOEHRINGEN | Cdr, VII Corps ATTN: AETS-GD-MR APO NY 09107 | ETA 421-2622/2382 |
| USAREUR | GE, MUNICH | Cdr, 66th MI GP ATTN: IAGPE-LO-MM APO NY 09108-4827 | ETS 440-7306/6433 |
| USAREUR | GE, NELLINGEN | Cdr, 800th CMMCS ATTN: AETS-SC-CMMC-OP APO NY 09061 | ETS 421-6500/6372 |
| USAREUR | GE, NELLINGEN | Cdr, 2d SUPCOM Corps ATTN: AETS-SC-GE-TAAEM APO NY 09160 | ETS 421-6385 |
| USAREUR | GE, NEU ULM | Cdr, 55th Maint Bn ATTN: AEUATS-MMC APO NY 09035 | ETS 427-6189/7193 |
| USAREUR | GE, NUERNBERG | Cdr, 2d ACR ATTN: AETSAC-AL-RMO APO NY 09093 | ETS 460-5757/5805 |
| USAREUR | GE, OBERURSEL | Cdr, 4th TRANSCOM ATTN: AEUTR-SVC-M APO NY 09451-4006 | ETS 325-2743/2808 |
| USAREUR | GE, PIRMASENS | Cdr, 59th Ord Bn ATTN: AEUSA-DMM APO NY 09189 | ETS 495-7216/7276 |
| USAREUR | GE, RHEINBERG | Cdr, 7th SUPCOM ATTN: AERSC-LM APO NY 09712 | Comm 02843-70757 |
| USAREUR | GE, RHEINBERG | Cdr, 54 Area Support GP ATTN: AERV-L APO NY 09712 | Comm 02843-70674 |
| USAREUR | GE, SANDHOFEN | Cdr, 70th TRANS BN ATTN: AERSS-S APO NY 09028 | ETS 382-61 10/7236 |

| Command | Location/Station | Address | Phone AV/COMM |
|----------------|-------------------------|--|------------------------------|
| USAREUR | GE, SECKENHEIM | Cdr, HQ AMC Europe ATTN: AMXEU-CQ APO NY 09333 | 380-6222 Comm 0621-478791 |
| USAREUR | GE, WEISBADEN | Cdr, 19th Support Center ATTN: AETV-SCM-PF APO NY 09757-5000 | ETS 337-5851/5377 |
| USAREUR | GE, WORMS | Cdr, 5th SIGCOM ATTN: ASELG-M APO NY 09056 | ETS 383-7554/7548 |
| USAREUR | GE, WUERZBERG | Cdr, 3d ID ATTN: AETSBGD-MR APO NY 09036 | ETS 350-7188/6226 |
| USAREUR | GE, WUERZBERG | Cdr, 3d ID ATTN: AETSBSBSC-DM-(WARCO) APO NY 09701 | ETS 355-2603/2782 |
| USAREUR | GE, SWEIBRUECKEN | Cdr, 60th Ord Gp ATTN: AEROD-LM APO NY 09052-3818 | ETS 494-6275/7398 |
| USAREUR | GE, SWEIBRUECKEN | Cdr, 200th TAMMC ATTN: AEAGD-MMC-RL-W APO NY 09052-5356 | ETS 494-6568/8268 |
| USAREUR | IT, LIVORNO | Cdr, 201st MMC (USASETAF) ATTN: AESE-MMX-M APO NY 09019 | ETS 633-7002/7087 |
| USARJ | JAPAN, ZAMA | Cdr, USA Garrison Honshu ATTN: AJGH-ID-MS-Q APO San Francisco 96343-0071 | 228-4194 |
| WESTCOM | FT. SHAFTER | Cdr, USASCH ATTN: APZV-DLM Ft. Shafter. HI 96858 | 438-1410 |

By Order of the Secretary of the Army

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

WILLIAM J. MEEHAN, II
Brigadier General, United States Army
The Adjutant General

DISTRIBUTION:

To be distributed in accordance with DA Form 12-25E, Unit and Direct Support and General Support Maintenance requirements for Laundry Unit, Single Trailer Mounted, with Canvas Cover, Type M532.



THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT. FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)
PFC JOHN DOE
COA, 3d ENGINEER BN
FT. LEANHEARDWOOD, MD 63108
 DATE SENT

PUBLICATION NUMBER: TB 10-3510-220-24
 PUBLICATION DATE: 1 May 1990
 PUBLICATION TITLE: TRAILER MOUNTED LAUNDRY UNIT

| BE EXACT PIN-POINT WHERE IT IS | | | | IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT: |
|--------------------------------|------------|-----------|----------|--|
| PAGE NO | PARA-GRAPH | FIGURE NO | TABLE NO | |
| 6 | 2-1 a | | | In line 6 of paragraph 2-1a the manual states the engine has <u>6</u> cylinders. The engine on my set only has <u>4</u> cylinders. Change the manual to show <u>4</u> cylinders. |
| B1 | | 4-3 | | Callout 16 on figure 4-3 is pointing at a <u>bolt</u> . In key to figure 4-3, item 16 is called a <u>shim</u> - Please correct one or the other. |
| 125 | line 20 | | | I ordered a gasket, item 19 on figure B-16 by NSN 2 910-00-762-3001. I got a gasket but it doesn't fit. Supply says I got what I ordered, so the NSN is wrong. Please give me a good NSN |

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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 dekagram = 10 grams = .35 ounce
 1 hectogram = 10 dekagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

| To change | To | Multiply by | To change | To | Multiply by |
|---------------|--------------------|-------------|--------------------|---------------|-------------|
| inches | centimeters | 2.540 | ounce-inches | newton-meters | .007062 |
| feet | meters | .305 | centimeters | inches | .394 |
| yards | meters | .914 | meters | feet | 3.280 |
| miles | kilometers | 1.609 | meters | yards | 1.094 |
| square inches | square centimeters | 6.451 | kilometers | miles | .621 |
| square feet | square meters | .093 | square centimeters | square inches | .155 |
| square yards | square meters | .836 | square meters | square feet | 10.764 |
| square miles | square kilometers | 2.590 | square meters | square yards | 1.196 |
| acres | square hectometers | .406 | square kilometers | square miles | .386 |
| cubic feet | cubic meters | .028 | square hectometers | acres | 2.471 |
| cubic yards | cubic meters | .766 | cubic meters | cubic feet | 35.315 |
| fluid ounces | milliliters | 29.573 | cubic meters | cubic yards | 1.308 |
| pints | liters | .473 | milliliters | fluid ounces | .034 |
| quarts | liters | .946 | liters | pints | 2.113 |
| gallons | liters | 3.786 | liters | quarts | 1.057 |
| ounces | grams | 28.349 | liters | gallons | .264 |
| pounds | kilograms | .454 | grams | ounces | .035 |
| short tons | metric tons | .907 | kilograms | pounds | 2.206 |
| pound-feet | newton-meters | 1.356 | metric tons | short tons | 1.102 |
| pound-inches | newton-meters | .11396 | | | |

Temperature (Exact)

| °F | Fahrenheit temperature | 5/9 (after subtracting 32) | Celsius temperature | °C |
|----|------------------------|----------------------------|---------------------|----|
|----|------------------------|----------------------------|---------------------|----|

