

TB 10-5411-207-24-1

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

WARRANTY PROGRAM
FOR
ELECTRICAL EQUIPMENT SHELTER
MODEL S-280C/G SHIELDED

NSN: 5411-01-304-3069

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HEADQUARTERS, DEPARTMENT OF THE ARMY
30 MAY 1995

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**WARRANTY PROGRAM
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Headquarters, Department of the Army, Washington, DC30 MAY 1995

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake 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 Aviation and Troop Command, ATTN: AMSAT-IMP, 4300 Goodfellow Boulevard, St. Louis, Mo 63120-1798. A reply will be furnished directly to you.

1. GENERAL. This Warranty Technical Bulletin (WTB) describes the manufacturers warranty for the S-280C/G Electrical Equipment Shelters. Ramim Engineering warrants each shelter against defects in material or workmanship.

2. EXPLANATION OF TERMS. The following terms, applicable to this WTB, are explained to help the reader understand the application and extent of the warranty.

a. Abuse. The improper use, repair, or handling of warranted items such that the warranty may become void.

b. Acceptance date. The date an item of equipment is accepted into the Army's inventory by the execution of the acceptance block and signing of a DD Form 250, or approved acceptance document, by an authorized representative of the Government.

c. Acquiring command or activity. An activity which procures the items or materiel for a user.

d. Alterations/Modifications. Any al-

teration after production such as retrofit, conversion, remanufacture, design change, engineering change and the like.

e. Contractor support. Those services that are to be performed and those responsibilities that are placed upon the contractor by the government as specified in the warranty contract/provisions. This support, which may include such things as labor, parts, tools, training technical packages, etc., will be used in support of the warranted equipment during the specified warranty period.

f. Defect. Any condition or characteristic in any supplies or services furnished by the contractor under the contract that is not in compliance with the requirements of the contract.

g. Failed item. A part, component, or end item that fails to perform its intended use.

h. False return rate. The return of suspected defective warranty items to the manufacturer that are eventually determined to be serviceable.

i. Manufacturer's recall.

(1) Safety recall. A manufacturer recalls an item to repair or replace a defective part or assembly which may affect public safety,

(2) Service recall. A manufacturer recalls an item to repair or replace a defective part or assembly which does not affect the safe use of the item.

j. Primary damage. The damage suffered by a part, component, or end item itself upon its failure.

k. Prime contractor. A party that enters into an agreement directly with the United States to furnish part or all of a system.

l. Reimbursement. A written provision in a warranty contract whereby the user may make the necessary repairs, with or without prior approval of the contractor, and the Government will be reimbursed for the repair parts and/or labor costs.

m. Repair. To restore an item to serviceable condition without affecting the warranty.

n. Repairable. An item that may be reconditioned or economically repaired for reuse when it becomes unserviceable.

o. Secondary damage. The damage suffered by an item because of a failure of another item within the same configuration.

p. Serviceable. The condition of an item which may be new or used that meets all the requirements and performs the functions for which it was originally intended.

q. Subcontractor. Any supplier, distributor, vendor or firm that furnishes supplies or service to or for a prime contractor or another subcontractor.

r. Turnaround time. That amount of time that's permitted for an item to be replaced/ repaired by the contractor/maintenance repair facility and returned to the user. The time is

measured from the time the contractor/repair facility receives the request.

s. Validation. The process by which the contractor shall test/measure the WTB to assure its accuracy as it pertains to the warranty item(s).

t. Verification. The process of determining the accuracy and adequacy of the WTB provided by the contractor. This process is performed by the Government/user.

u. WARCO. Warranty Control Offices established at the General Support/Director of Industrial Operations Level, or equivalent, who serve as the intermediary between the troops owning the equipment and the local dealer, contractor, or manufacturer. All warranty claim actions will be processed through the WARCO.

v. Warranty. A promise or statement of fact from a seller to a purchaser on the nature, usefulness, or condition of the supplies or performance of services to be furnished. The main purposes of a warranty in a government contract are to outline the rights and obligations of the contractor and the government for defective items or services. It also serves to foster quality performance by the contractor but is not a substitute for an adequate quality assurance program.

w. Warranty claim. Action started by the equipment user for authorized warranty repair, replacement, or reimbursement made from the local dealer or manufacturer.

x. Warranty period. Time during which the warranty is in effect. Normally measured as the maximum number of years, months, days, miles, or hours used.

y. Warranty start date. The date the warranty is put into effect.

3. COVERAGES-SPECIFIC. The specifics of coverage for this warranty are listed in table 1. This warranty applies only to the S-280C/G Shielded Shelters as defined in TM 10-5411-207-14 and not to any other equipment installed in the shelters.

Table 1. Specifics of Coverage

Nomenclature:	Shelter, Electrical Equipment
Line Item Number:	S00792
Model Numbers:	S-280C/G Shielded
National Stock Numbers:	NSN 5411-01-304-3069
Manufacturer and Part Numbers:	Ramim Engineering Works, Ltd. CAGE: 47176 Part Number: 17-1-3274
Serial Numbers:	0028-001E thru 0028-250E
Contract Number:	DAAK01-93-D-0028
Length of Time Coverage:	Two years after acceptance or six months after deployment to a field unit, whichever occurs first.
Type of Coverage	Warrants that the item conforms to design and manufacturing requirements, is free from all defects in materials and workmanship and conforms to all contractual essential performance requirements. This warranty does not cover damage resulting from accident, misuse, abuse or the affixing of any attachment not provided with the Shelters. Damage occurring during transit is not covered in this warranty.

4. EXCEPTIONS TO WARRANTY. The warranty does not apply to repair or replacement required to restore the unit to operation in the following instances:

a. Expendable items such as filters, gaskets, lubricants, fluids, and items replaceable due to normal service requirements.

b. Combat damage and liability for loss, damage, or injury to third parties or consequential damages.

5. CONTRACTOR RESPONSIBILITIES.

a. The contractor shall, within 30 days of Government notice, repair, replace, or modify such parts as necessary to achieve the specified performance requirements, as referenced herein, at no cost to the Government. Repair or replacement will be done only to the level originally supplied under the contract.

b. If the contractor fails to repair, replace or modify such parts within 30 days of Government notice, the contractor shall pay costs incurred by the Government in procuring such parts from another source and in accomplishing the repair. The contracting officer shall give Ramim Engineering 30 days notification prior to exercising this option. Refer to paragraph 3 for warranty coverage.

c. On items used within the continental 48 states of the United States and the District of Columbia, the guarantee shall include the furnishing of new items to replace any that prove to be nonconforming and/or defective within the warranty period. Such items shall be furnished without cost to the Government, Free-on-Board (FOB) manufacturers nearest dealer or branch, or to the original line item destination, whichever is more advantageous to the Government. The cost of any labor involved in the repair or replacement of items shall be

borne by the contractor. Where warranty repairs exceed unit, direct support, general support, or depot level in accordance with the maintenance allocation chart, 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) day working period after Government notification of this desired service. In all situations when repair or replacement requires transportation of the nonconforming or defective item(s), shipping costs from line item delivery point to contractor's plant and return, shall beat the expense of the contractor.

d. On items used outside the continental 48 states of the United States and the District of Columbia, the guarantee shall include the furnishing of new items to replace any that prove to be nonconforming and/or defective within the warranty period. Such items shall be delivered via air by the contractor to the destination point designated by the Government. The contractor shall be responsible for transportation costs not to exceed the greater of FOB manufacturer's nearest dealer/branch or the original line item destination, whichever is more advantageous to the Government. Return of defective items to the contractor shall be at the option and at the expense of the contractor. The cost of any labor involved in the repair or replacement of items shall be borne by the contractor. 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 c. that relate to technical service representatives. Where the contractor maintains no such facilities, the repair or replacement of item(s) shall be accomplished by detailed installation instructions.

e. If the Government determines that a defective or nonconforming warranted item or component is within the maintenance capability of the user to repair or replace and does not require contractor repair or replacement, then the Government shall be entitled, from the contractor, those actual costs incurred, including detail parts, materials, and labor necessary to restore the item to an operational status.

f. Completion of warranty repair or

replacement by the contractor will be documented in the quarterly Warranty Status Report. Whenever repairs or replacement are Performed by the Government, the performing activity should notify the administrative WARCO.



Figure 1. Warranty Data Plate

6. **TRANSPORTATION.** When replacement requires transportation of the defective item(s), shipping costs not to exceed usual commercial method of shipment from delivery point to contractor's plant and return shall be borne by the contractor.

7. **GOVERNMENT RESPONSIBILITY.** Using units are responsible for reporting warranty claims to U.S. Army Aviation and Troop Command, ATTN: AMSAT-A-TD, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798, DSN 693-3080, COMMERCIAL (314) 263-3080. Only trained or qualified personnel having knowledge of the equipment requirements shall inspect the equipment for nonconformance deficiencies or for estimating repair cost(s). It shall be the responsibility of the Government to fully document the cause, if known, and description of each defect. When component items are shipped back to the contractor for warranty work, they should be packaged in such a manner as to prevent shipping damage. Proper containers and packaging materials shall be used.

8. **CLAIMS.** Warranty claims from using field units are to be forwarded to the ATCOM Warranty Control Office (WARCO) AMSAT-A-TD, which will initiate Warranty Claim Actions for warranted items, and Quality Deficiency Reporting actions for systematic failures in accordance with DA PAM 738-750.

9. NOTIFICATION OF FAILURES. The contractor must be notified in writing by the Government of any failure of the shelter or component thereof that is covered under this warranty within 60 days after verification of the failure by an intermediate maintenance facility. Corrections of the failure by the contractor shall be within 30 days of the Government notice.

10. RETENTION OF FAILED COMPONENTS. All failed components covered under this warranty shall be appropriately tagged and identified, and retained for 45 days for contractor examination, at contractor's option.

11. GOVERNMENT MAINTENANCE. Using units are allowed to perform troubleshooting, preventive maintenance, and replacement of defective components as authorized by the maintenance allocation chart.

12. ALTERATIONS. Alterations and/or modifications shall not be made to this equipment unless authorized by USAATCOM.

13. NULLIFICATION. Failure to perform operation and maintenance in accordance with the applicable technical manuals and maintenance allocation chart may be cause for nullification of the warranty. If a failure is determined to be the result of unauthorized modifications and/or repairs performed by any organization other than Ramim Engineering, the warranty responsibilities are terminated for the modified item.

14. FALSE RETURNS. In the event it is determined that a failure was not subject to the warranty described herein, the contractor will be reimbursed for any and all expenses incurred by the Warranty Claim Action (WCA). The contractor will submit an itemized cost statement to the Contracting Officer when requesting a reimbursement.

15. ABUSE DETERMINATION AND AVOIDANCE. When damage to warranted items is not obvious, but suspected to be the result of abuse, the activity responsible for the equipment shall carefully document the nature, extent, probable cause, and estimated time and place of occurrence of the damage. The documented data shall be analyzed, and compared to similar cases

(if existent), to determine whether the damage was accidental or intentional. Appropriate action shall be taken to prevent recurrence of accidental or intentional abuse through training, added precautionary and/or handling and usage labeling or instruction, and personnel disciplinary measures.

16. REIMBURSEMENT FOR ARMY REPAIR. Requests for reimbursement costs should be directed to the WARCO. In the event that the reimbursement costs requested exceed the costs estimated for equivalent Ramim Engineering repair, the actual reimbursement amount will be negotiated with the contracting officer.

17. REPORTING. Reporting or recording action on a failed item shall be as specified in DA PAM 738-750.

18. FORMS. DA Forms 2407 and 2402 are used by the field in reporting WCA's. The purpose of these forms is for the seller to repair or replace any defective part so the equipment can be returned to an operational readiness mode. Instructions for completing these forms are in DA PAM 738-750.

19. GOVERNING OF WCA'S.

a. WCA's can be started by any maintenance level.

b. Selecting exhibits. A component or part of assembly under warranty that is defective due to design or workmanship becomes a warranty claim exhibit. All exhibits will carry a DA Form 2402 marked "WARRANTY EXHIBIT."

c. Local commands will set up an office to handle local warranty claims. The office will also deal with warranty actions between its activities, the local dealer or manufacturer, and the National Maintenance Point (NMP). Report warranties settled locally by printing "For Information Only" in Block 16a of the DA Form 2407.

d. 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

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Form 2407 to the warranty claims office. The office then deals with the DA Form 2407 as follows:

(1) Send copies #2, and #3 to: CDR, ATCOM, ATTN: AMSAT-A-TD, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. One of these copies will go to the item manager to show a supply demand.

(2) Keep COPY #5 for 45 days (with exhibit and DA Form 2402), unless you are told differently. If you receive no instructions after 45 days, contact ATCOM, ATTN: AMSAT-A-TD, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798, DSN 693-3080, COMMERCIAL (314) 263-3080 for information.

(3) 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 45 days or until you get notice that the claim has been honored.

e. 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 the item the same way they do for a non-DX item except as follows:

(1) 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.

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

20. Storage. Storage of the equipment or its components shall be as prescribed in TM 10-5411-207-14.

21. Shipment. No shipment will be made without direct authority of the ATCOM Warranty Control Officer.

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APPENDIX A

REFERENCES

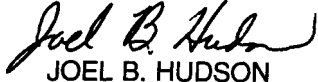
DA PAM 738-750
DA Form 2407
DA Form 2402
DA Form 2408-9
TM 10-5411-207-14

DD Form 250

The Army Maintenance Management System (TAMMS)
Maintenance Request
Exchange Tag
Acceptance Report
Technical Manual for Shelters, Electrical Equipment S-280C/G
Unshielded and S-280C/G Shielded
Material Inspection and Receiving Report

By Order of the Secretary of the Army:

Official:



JOEL B. HUDSON

*Acting Administrative Assistant to the
Secretary of the Army*

00449

GORDON R. SULLIVAN
*General, United States Army
Chief of Staff*

DISTRIBUTION:

To be distributed in accordance with DA Form 12-25-E, block no. 6291, requirements for TB 10-5411-207-24-1.



SOMETHING WRONG WITH THIS PUBLICATION?

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

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

PFC John DOE
CO 4 3rd Engineer Bn
Ft. Leonardwood, MO 63108

DATE SENT

22 August 1992

PUBLICATION NUMBER

TM 1-1520-250-10

PUBLICATION DATE

15 June 1992

PUBLICATION TITLE

Operator's manual MH60K Helicopter

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		
B1		4-3	

In line 6 of paragraph 2-1a the manual states the engine has 6 cylinders. The engine on my set only has 4 cylinders. Change the manual to show 4 cylinders.

Callout 16 in figure 4-3 is pointed to a bolt. In key to figure 4-3, item 16 is called a shim. Please correct one or the other

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

JOHN DOE, PFC (268) 317-7111

SIGN HERE

JOHN DOE *John Doe*

DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE.
DRSTS-M verprint2, 1 Nov 80

P.S. - IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION, MAKE A CARBON COPY OF THIS AND GIVE TO YOUR HEADQUARTERS.

FILL IN YOUR
UNITS ADDRESS



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DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

COMMANDER
U.S. ARMY AVIATION AND TROOP COMMAND
ATTN: AMSAT-I-MP
4300 GOODFELLOW BOULEVARD
ST. LOUIS, MO 63120-1798

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RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



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BE EXACT PIN-POINT WHERE IT IS				IN THIS SPACE, TELL WHAT IS WONG AND WHAT SHOULD BE DONE ABOUT IT:
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO	

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ST. LOUIS, MO 63120-1798

TEAR ALONG PERFORATED LINE

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 (contare) = 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	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	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	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pound-inches	newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	$\frac{5}{9}$ (after subtracting 32)	Celsius temperature	°C
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