TM 10-4500-200-13

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL,
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS

HEATERS, SPACE: RADIANT TYPE, PORTABLE (TYPE I, MODEL M1941, SOLID FUEL) FSN 4520-257-4877 (TYPE II, MODEL M1941, LIQUID FUEL) FSN 4520-927-4214 (YUKON MODEL M1950, SOLID OR LIQUID FUEL) FSN 4520-287-3353

HEATERS, IMMERSION: LIQUID FUEL FIRED, FOR CORRUGATED CANS, (ALL MAKES AND MODELS) FSN 4540-266-6835 (PREWAY MODEL 447-2EX) FSN 4540-453-9140 FOR TANK TRAILER, (ALL MAKES AND MODELS) FSN 4540-266-6834

This copy is a reprint which includes current pages from Changes 1 and 3 through 13.

HEADQUARTERS, DEPARTMENT OF THE ARMY

10 DECEMBER 1969

Technical Manual
No. 10-4500-200-13

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D. C., *10 December 1969*

OPERATOR'S, ORGANIZATIONAL, AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS

HEATERS, SPACE: RADIANT TYPE, PORTABLE (TYPE I, MODEL M1941, SOLID FUEL) FSN 4520-257-4877 (TYPE II, MODEL M1941, LIQUID FUEL) FSN 4520-927-4214 (YUKON MODEL M1950, SOLID OR LIQUID FUEL) FSN 4520-287-3353

HEATERS, IMMERSION: LIQUID FUEL FIRED, FOR CORRUGATED CANS, (ALL MAKES AND MODELS) FSN 4540-266-6835 (PREWAY MODEL 447-2EX) FSN 4540-453-9146 FOR TANK TRAILER, (ALL MAKES AND MODELS) FSN 4540-266-6834

Current as of 12 March 1973

***This manual supersedes TM 10-735,14 February 1952, TM 10-725,19 March 1952; TM 10-4540-201-15,16 January 1961, TM 10-4520-202-25P, 19 April 1963; TM 10-4520-203-25P, 15 February 1963; and TM 10-4540-201-24P, 5 October 1962, including all changes.**

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual contains instructions for the use of personnel to whom the heaters are issued. Individual models are described in separate chapters. Each chapter contains instructions for the use of operator and organizational personnel operating and maintaining the heaters as allocated by the maintenance allocation chart. A repair parts list applicable to the individual model heater is provided in the chapter pertinent to that heater.

b. Report all equipment improvement recommendations as prescribed by DA Pam 738-750.

c. The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MTS, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798.

1-2. Record and Report Forms

a. DA Form 2258 (Depreservation Guide for Vehicles and Equipment).

b. For other record and report forms applicable to operator, crew, and organizational maintenance, refer to DA Pam 738-750.

Section II REPAIR PARTS

1-3. Scope

This section consists of an explanatory introduction for the tabular lists and illustrations of repair parts required to operate and maintain the individual dual model heater. The explanatory introduction is applicable to each tabular listing in the respective chapters.

1-4. General

a. The repair parts list is arranged as follows:

(1) Individual parts and major assemblies are listed alphabetically by item name.

(2) Assembly components and subassemblies are listed alphabetically by item name under major assemblies.

b. This repair parts and special tools list is divided into the following tabular listings.

(1) The first tabular listing following the narrative portion of a chapter contains a list ofrepairparts authorized for the performance level of maintenance at the organizational level.

(2) Repair parts authorized for the performance of maintenance at the direct support level are in a listing following the Repair Parts for organizational level.

1-5. Explanation of Columns

The following provides an explanation of columns in the tabular lists.

a. Source, Maintenance, and Recoverability Codes (SMR).

(1) *Source Code.* This column indicates the selection status and source for the listed item. S-codes used are:

Code	*Explanation*
P	Applied to repair parts which are stocked in or supplied from DSA/GSA or the Army supply system, and authorized for use at indicated maintenance categories.
M	Applied to repair parts which are not procured or stocked but are to be manufactured at the indicated maintenance levels.
A	Applied to assemblies which are not procured or stocked as such, but are made up of two or more units, each of which carries an individual stock number and description and is procured and stocked separately and can be assembled by units at the indicated maintenance categories.
X	Applied to parts and assemblies which are not procured or stocked, the mortality of which is normally below that of the applicable end item or component, and the failure of which should result in retirement of the end item from the supply system.
X l	Applied to repair parts which are not procured or stocked, the requirement for which will be filled by use of the next higher assembly or component.
X 2	Applied to repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain them through cannibalization if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.
G	Applied to major assemblies that are procured with PEMA (Procurement Equipment Missiles Army) funds for initial issue only, to be used as exchange assemblies at the DSU maintenance level. These assemblies will not be stocked above the DSU level or returned to the depot supply level.

(2) *Maintenance Code.* This code indicates the lowest level of maintenance authorized to install the listed item. The maintenance level codes are:

Code	Explantion
O	Organizational maintenance Direct support maintenance

(3) *Recoverability Code.* This code indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

Code	*Explanation*
R	Applied to repair parts (assemblies and components) which are considered economically reparable at the direct support and general support maintenance levels. When the maintenance capability to repair these items does not exist, they are normally disposed of at the GS level. When supply considerations dictate, some of these repair parts may he listed for automatic return to supply for depot level repair as set forth in AR 710-50. When so listed, they will be replaced by supply on an exchange basis.
T	Applied to high dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhau led at depot maintenance activities.
U	Applied to repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, or high dollar value reusable casings or castings.

(4) This column also lists, below the SMR code, an index number for each item in ascending numerical sequence, which is used to locate items in the publication when the Federal stock number and/or reference number is known.

b. Federal Stock Number. This column indicates the Federal stock number for the item.

c. Description, This column indicates the Federal item name and any additional description of the item required. A part number or other reference number is preceded by the applicable fivedigit Federal supply code for manufacturers in parentheses.

d. Unit of Measure. This column indicates the unit used as a basis for issue; e.g., ea, pr, ft, yd; etc.

e. Quantity Incorporated in Unit. Indicates the quantity of the item used in the functional group.

f. Fifteen-Day Organizational Maintenance Allowances.

(1) The allowance columns are divided into four subcolumns. Indicated in each subcolumn opposite the first appearance of each item is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have no allowance columns but will have in the description column a reference to the first appearance of the item. Items authorized for use as required, but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for organizational level of maintenance represents one initial prescribed load for a 15-day period for the number of equipments supported. Units and Organizations authorized additional prescribed loads will multiply the number of prescribed loads authorized by the quantity of repair parts reflected in the appropriate density column to obtain the total quantity of re parts authorized.

(3) Organizational unita providing maintenance for more than 100 of these equipments will determine the total quantity of parts required. This is done by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance columns. Example The authorized allowance for 51-100 equipments is 12; therefore, for 140 equipments multiply 12 by 1.40 to obtain 16.80; rounded off this gives 17 parts required.

(4) Subsequent changes to allowances will be limited as follows No change in the range of items is authorized. If additional items are considered necessary, a recommendation should be forwarded to US Army Troop Support Command for exceptions or revisions to the allowance list. Revisions to the range of items authorized will be made by this Command based upon engineering experience, demand data, or TAMMS information.

g. Thirty-Day DS Maintenance Allowances.

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn, opposite the first appearance of each item, is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have no entry in the allowance column, but will have in the description column a reference to the first appearance of the item. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for direct support levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a

decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. Example, authorized allowante for 51-100 equipments is 40; for 150 equipments multiply 40 by 1.50 or 60 parts required.

i. One Year Allowances Per 100 Equipments/Contingency Plan Planning Purposes. Indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for one year.

j. Illustration.

(1) *Figure number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number.* Indicates the callout number used to reference the item in the illustration.

1-6. Special Information

a. Repair parts mortality has been based on 2000 hours of operation per year.

b. Parts which require manufacture or assembly at a level higher than that authorized for installation will indicate in the source column the higher level.

1-7. How to Locate Repair Parts

a. When Federal stock number or reference number is unknown:

(1) *First.* Determine the assembly group within which the repair part belongs.

(2) *Second.* Find the illustration covering the assembly group to which the repair part belongs.

(3) *Third.* Identify the repair part on the illustration, and note the illustration figure and item number of the repair part.

(4) *Fourth.* Using the Repair Parts Listing, find the assembly group to which the repair part belongs and locate the illustration figure and item number noted on the illustration

b. When Federal stock number or reference number is known:

(1) *First.* Using the Index of Federal Stock Numbers and Reference Numbers, find the pertinent Federal stock number or Reference Number. This index is in ascending alpha-numeric sequence cross-referenced to an index number.

(2) *Second.* Using the Repair Part Listing, find the index number referenced in the Index of Federal Stock Numbers and Reference Numbers.

1-8. Federal Supply Codes for Manufacturers

Code	*Manufacturer*
08288	Military Supply Standards
24617	General Motors Corp., 3044 Grand Blvd., W. Detroit, Mich. 48202
31577	Jaeger Machine Co. The, 550 W. Spring St., Columbus, Ohio 43216
48745	Preway Inc
72795	Eagle Lock Corp., 20 South Main Street Terry vine, Corm. 06786
81337	Army NATICK Laboratories, Mechanical Engineering Div., Natick, Mass.
81349	Military Specifications Promulgated by Standardization Div. Directorate of Logistic Services DSA
91494	Controls Co of America Heating and Air Conditioning Division
93084	Vogt Brothers Mfg. Co., P.O. Box 922, Louisville, Ky. 40201

CHAPTER 2
HEATER, SPACE, RADIANT TYPE PORTABLE, SOLID FUEL (MODEL M1941, TYPE I) FSN 4520-277-4877 AND LIQUID FUEL (MODEL M1941, TYPE II) FSN 4520-927-4214

Section I. DESCRIPTION AND TABULATED DATA

2-1. Description

a. General. The M1941, Type I and II space heaters (fig. 2-1) are designed to heat personnel tents. The heater assembly consists of essentially a heater body top and bottom, adapter ring, grate or liquid fuel burner assembly, and air conditioning-heating pipe sections.

b. Accessories. Accessories such as a spark arrestor (for Model M1941, Type I), tent shield, and elbow are not stocked with a complete space heater. Refer to paragraph 2-42 for accessory part number.

c. Fuel.

(1) Type I. Unless the Conversion Kit has been installed, the Type I heater burns wood or coal. With the Conversion Kit installed, the Type I heater burns liquid fuel (diesel oil, light fuel oil or gasoline). Follow operating and maintenance instructions for Type II heaters if your Type I heater has been converted to burn liquid fuel.

(2) Type II. All Type II heaters operate with liquid fuel.

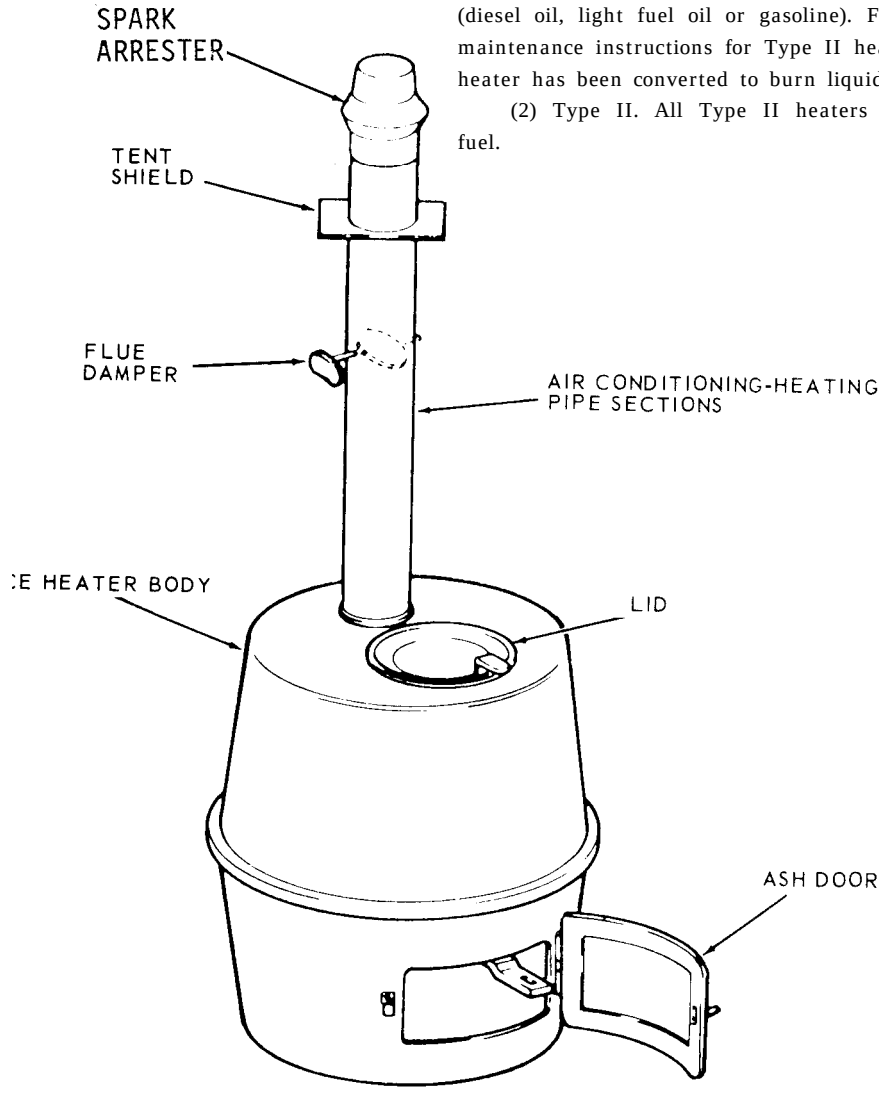

Figure 2-1. Space heater (Type I without Conversion Kit installed) (sheet 1 of 2).