TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT MAINTENANCE MANUAL

HEATER, SPACE, MULTI-FUEL, WITH BLOWER, 6,000 BTU/HR (HUNTER MODEL UH-68F)

NSN 4520-01-050-5628

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OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL

HEATER, SPACE, MULTIFUEL, WITH BLOWER,
60,000 BTU/HR, 120 VAC
(HUNTER MODEL UH-68F)
NSN 4520-01-050-5628

REPORT 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 Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

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CHAPTER 1

INTRODUCTION

SECTION I. GENERAL

1-1. SCOPE

This manual is for your use in operating and maintaining the Heater, Space, Multifuel, with Blower, 60,000 BTU/HR, 120 VAC, Model UH-68F.

1-2. MAINTENANCE FORMS AND RECORDS.

a. Maintenance forms and records that you are required to use are as follows:

(1) DA Form 2402 (Exchange Tag).

(2) DA Form 2404 (Equipment Inspection and Worksheet).

(3) DA Form 2407 (Maintenance Request Used for Requesting Support Maintenance).

b. For additional forms and records pertaining to your particular equipment, refer to TM-38-750 (The Army Maintenance Management System (TAMMS)).

1-3. REPORTING OF ERRORS.

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 Publication and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Troop Support and Aviation Materiel Readiness Command, ATTN: DRSTS-MTPS, 4300 Goodfellow Boulevard, St. Louis, MO 63120. A reply will be furnished to you.

1-4. EQUIPMENT SERVICEABILITY CRITERIA.

This equipment is not covered by an ESC.

1-5. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

a. Destruction by Misuse.

(1) Pour sand and gravel into the fuel supply.

(2) Block air inlet and outlet passages with oil-soaked rags or debris.

b. Mechanical Destruction. Using an axe, pick, mattock, sledge, or any other heavy implement, damage all vital elements such as controls, fuel pump, switches and valves, motor and any other major assemblies and components.

c. Destruction by Fire. Pour fuel over unit and pile quantities of flammable material around unit. Burn assemblies and components on a priority basis if possible. Proper concentration of equipment to be burned will produce a hotter, more destructive fire. Fires should be lit after mechanical destruction has been accomplished.

d. Destruction by Gunfire. Fire on the equipment with the heaviest weapons available, aiming at the major assemblies and controls.

WARNING

Point blank firing at equipment should not be attempted unless the safety of all personnel in the area is assured.

e. Use of Natural Surroundings.

(1) Submergence of equipment and repair parts underwater (lakes, ponds, bogs, swamps, etc.), or by concealment by hiding material in caves or preferably by burial, can be used effectively.

(2) Widely dispersed scattering of material, preferably into heavy underbrush, can serve as a denial or delaying measure. In the event the area is recaptured, effort should be made to recoup concealed items.

1-6. ADMINISTRATIVE STORAGE.

a. General.

(1) Equipment that is placed in administrative storage should be capable of being readied to perform its mission within a 24-hour period or as otherwise may be prescribed by the approving authority.

(2) Report equipment in administrative storage in Materiel Readiness and Unit Readiness reports as prescribed for all reportable equipment.

(3) Perform inspections, maintenance services, and lubrications in accordance with the instructions in this manual.

b. Storage Site.

(1) Select the best available site for storage. Separate stored equipment from equipment in use. Conspicuously mark the area “Administrative Storage.”

(2) Covered space is preferable. Open sites should be improved hardstand, if available. Unimproved sites should be firm, well-drained, and kept free of excessive vegetation.

c. Storage Plan.

(1) Store equipment so as to provide maximum protection from the elements and to provide access for inspection, maintenance, and exercising.

(2) Take into account environmental conditions, such as extreme heat or cold; high humidity; blowing sand, dust, or loose debris; soft ground; and take adequate precautions.

d. Maintenance Services and Inspection.

(1) Prior to storage, perform the next scheduled major preventive maintenance checks and services. Inspect and approve equipment.

(2) Correct all shortcomings and deficiencies. Clean the equipment of dirt, grease, and other contaminants.

(3) Remove rust and damaged paint by scraping, wire brushing, sanding, or buffing. Sand to a smooth finish and spot paint, as necessary.

(4) After cleaning and drying, immediately coat unpainted surfaces with an oil or grease as appropriate.

(5) Install all covers; close and secure all openings except those required for venting and draining. Seal openings to prevent entry of rain, snow, or dust. Place equipment and provide adequate blocking to allow for draining of water.

SECTION II. DESCRIPTION AND DATA

1-7. DESCRIPTION.

a. The Model UH-68F Multifuel Space Heater is designed for heating enclosed areas where the maximum output of 60,000 Btu per hour may be required. It operates on 120 volts alternating current, and requires an external fuel pump and fuel supply. The heater may be mounted on either floor or wall in any one of four mounting positions. The unit is controlled by a remote thermostat which can be set to maintain room temperature from 35° to 80°F (1.7° to 26.7°C) up to the rated output of the heater.

b. The heater draws in fresh, cool air through the adjustable louvered side panels of through the return air opening in one end of the heater case if the side panels cannot be used. Combustion air is fed to the burner by a combustion motor. Circulating air is blown across the heat exchanger by the ventilating motor fan, and discharged through a screen at the discharge outlet of the heater.

c. The heater is equipped with a time delay ignition control (flame failure shutdown) to provide for safe, thermostat-controlled starting without continuous operator supervision. If proper ignition does not occur within a predetermined time, power is shut off and manual reset is required. This minimizes the danger of fire or explosion, and protects the heater from damage in case of equipment malfunction or loss of fuel supply.

d. When the heater is operating, another safety control shuts off the flow of fuel if the heater exceeds a preset overheat temperature. The heater will automatically restart when it cools to just below the overheat temperature.

e. The maintenance paragraphs of this manual contain detailed descriptions of heater components.

1-8. IDENTIFICATION AND TABULATED DATA.

a. Identification. The heater has four major identification plates. These are:

(1) The manufacturer's data/operating data plate (fig. 1-1) lists information regarding the model number, serial number, electrical characteristics, and heat output. It also provides brief operating instructions. The data plate is an integral part of the control box cover.

(2) The U.S. Government identification data plate (fig. 1-2) lists the heater's nomenclature national stock number, manufacturer's part number, manufacturer, contract number, assembly date, serial number, and weight.

(3) The circuit schematic data plate (fig. 1-2) shows the major components of the heater and how they are functionally interconnected. It is mounted on one side access door. Refer to figure 1-3 for a detailed view of the circuit schematic.

(4) The wiring diagram data plate (fig. 1-2) shows all of the electrical connections inside the heater. It is mounted on one side access door. Refer to figure 1-4 for a detailed view of the wiring diagram.

b. Tabulated Data. Tabulated data applicable to the space heater and its components is listed in Table 1-1.

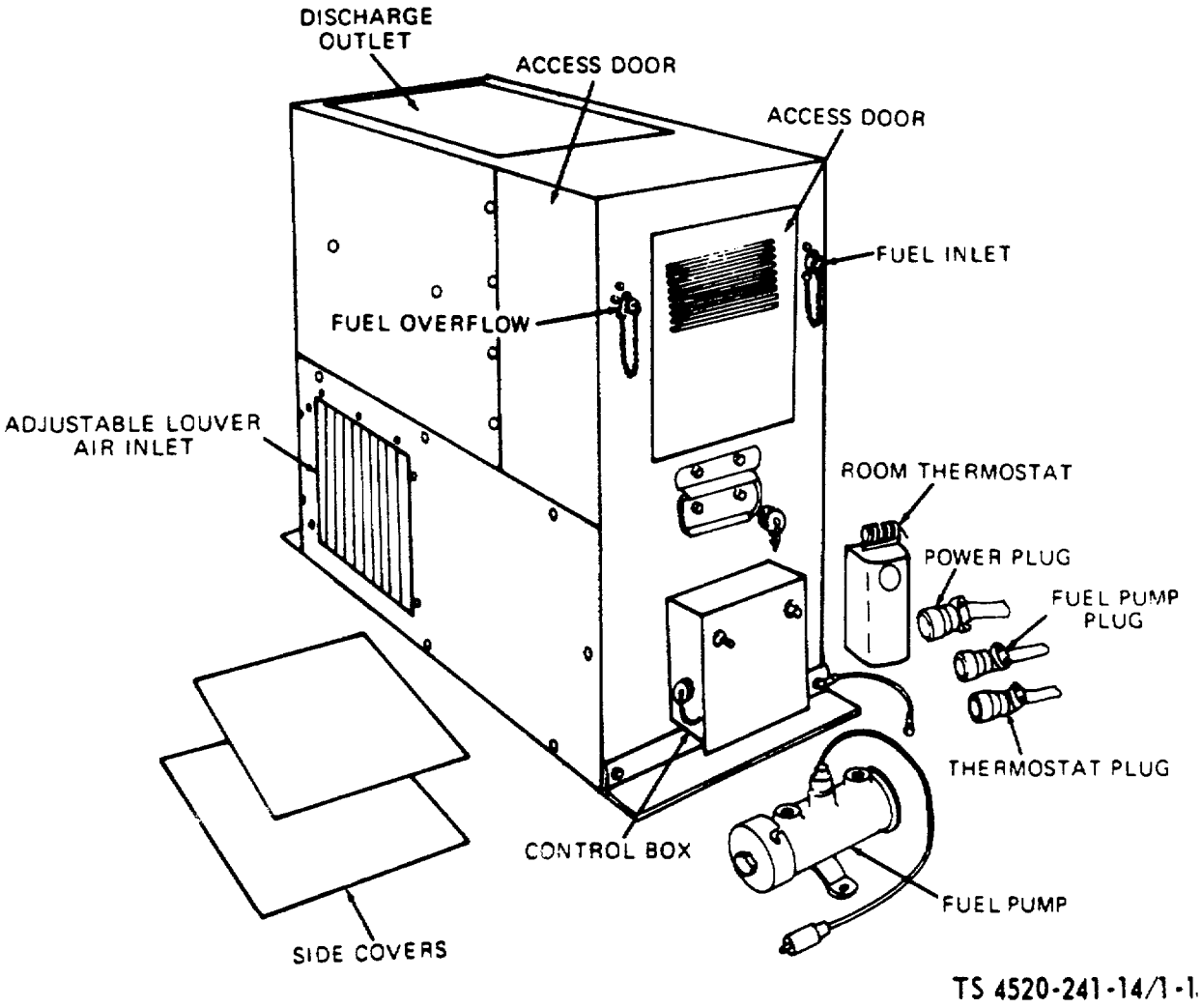

Figure 1-1. Multifuel space heater, left front, three-quarter view.