# INSTRUCTION MANUAL WITH PARTS LIST

# MODEL B-75 PORTABLE HEATER

## WARRANTY

The Company warrants its equipment to be free from defects in material or workmanship, under normal and proper use in accordance with instructions of The Company for a period of ninety days from date of delivery to the buyer, but the liability on such warranty shall be limited to the repair or replacement by The Company (f.o.b. Dayton, Chio) of any of its equipment which may be returned by the buyer to Dayton, Ohio, transportation charges and handling fees prepaid, within said ninety day period and which is found by The Company to have been thus defective in material or workmanship. The foregoing is the full extent of the responsibility of The Company. There are no other warranties, expressor implied, and in no event shall The Company be liable for delay caused by defects, for consequential damages, or for any charges or expense of any nature incurred without its written consent. This warranty will not apply to any product which has been repaired or altered outside of our Dayton factory, in any respect which, in our judgment, affects its condition or operation.

MASTER VIBRATOR COMPANY, DAYTON 1, OHIO

Part No. M6766 Form No. K-306

## GENERAL

This portable heater is an efficient, handy tool to provide a source of heat when used in accordance with the following instructions.

Table I lists the heater specifications. The heater will operate through its complete cycle within the specification limits.

#### TABLE I

# HEATER SPECIFICATIONS

TO 200 L 75 000
Capacity (BTU per hour) 50,000 to 75,000
Heated air output (cubic
ft. per min.)
Ventilating air temperature 190° F. rise at outlet (MAX)
Net weight (less fuel)
Net weight (less ruer)
Fuel tank capacity 5 gallons
Type of fuel Kerosene or No. 1
Fuel Oil
. /
Average fuel consumption per hour (at maximum burning rate) 1/2 gallon
16 days hours of
Minimum hours of continous consumption 9
continous consumption
Air outlet diameter
Not recommended
Duct Not recommended
Not required
Flue
115 Voit AC
Motor
phase, 1/10 HP
pnase, 1/10 nr

# CONNECTING HEATER. (See figure 1.)

Fillthe fuel tank with clean fuel. Use kerosene or No. 1 fuel oil only.

# CAUTION

Do not use gasoline, heavy fuel oil, or heavy diesel fuels. If any fuel other than kerosene or No. 1 fuel oil is used it will damage combustion chamber assembly requiring service before heater again functions properly. Use of any fuel other than those recommended above will void the warranty. Make sure the fuel is clean and free of water.

Plug the heater cord into the power supply. The pigtail on the heater cord plug must be connected to ground.

## . CAUTION

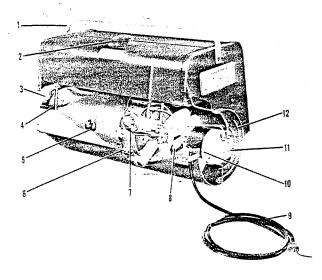
Make certain the power supply corresponds to the electrical characteristics given on the heater name plate. Any other type of power will damage the heater and void the warranty.

If the heater is connected to the power supply by means of an extension cord, the extension cord must conform to the lengths given in Table II.

If the heater is to be operated indoors, partly open a door or window near heater level. Do not connect a duct to the heater outlet as this will restrict and adversely affect combustion. Also, do not position outlet of heater closer than 6 feet to any wall or obstruction that would impair air flow.

TABLE II
HEATER EXTENSION CORD LENGTHS

	( ) === (2)
Distance in Feet	Wire Size (AWG)
100	
200	12
300	
400	
500	6



1. Handle 7. Control knob
2. Filler cap 8. Fan
3. Heated air outlet 9. Service cord
4. Drain pipe 10. Motor
5. Flame detector 11. Fuel pump
6. Igniter 12. Air intake

Figure 1. Cutaway view of Portable Heater

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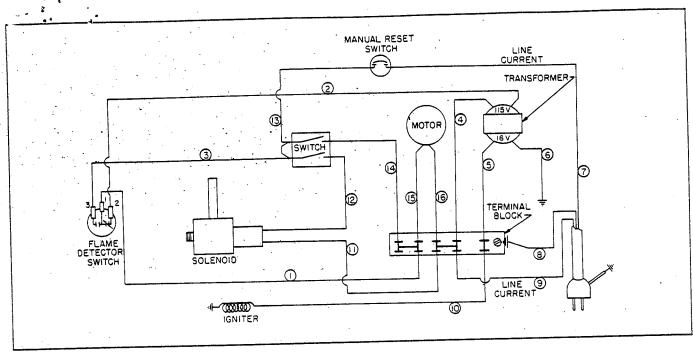


Figure 2. Wiring Diagram

Wire No.	Part Number	Wire Name and Description	Quantity
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	M5052-5 NP M5052-6 NP NP NP NP NP NP NP M5052-8 M5052-9 M5052-7 M5052-7 M5052-7 NP NP	Wire Assy., Flame detector to terminal block Wire, Transformer primary to flame detector Wire Assy., Flame detector to main switch Wire, Transformer primary to terminal block Wire, Transformer secondary to terminal block Wire, Transformer secondary to ground Wire, Extension cord to reset switch Wire, Extension cord to ground at terminal block Wire, Extension cord to terminal block Wire Assy, Igniter to terminal block Wire Assy, Solenoid to terminal block Wire Assy, Solenoid to main switch Wire Assy, Manual reset switch to main switch Wire Assy, Main switch to terminal block Wire, Motor to terminal block Wire, Motor to terminal block	1 Ref 1 Ref Ref Ref Ref Ref 1 1 1 Ref Ref Ref

# NP-Not Procurable Separately

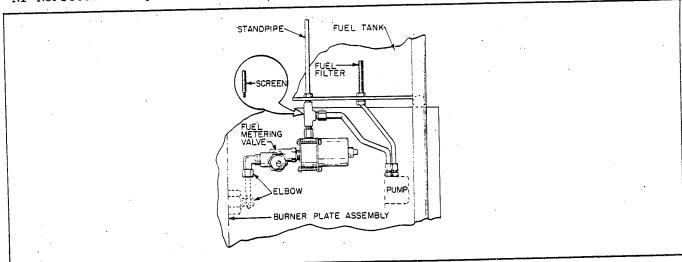


Figure 3. Fuel Piping Diagram

# REPAIR PARTS LIST

For the benefit and convenience of owners, company distributors have been established through the country. These distributors carry a supply of genuine parts and all requests for parts should be placed with them. If some particular part is not available the distributor can obtain it promptly from the factory. In those cases where no distributor is available, parts may be obtained direct from the factory.

When ordering parts it is absolutely necessary that the following information be furnished with the order:

1. The model, style and serial number found on

the name plate.

- 2. Quantity.
- 3. Part name and number.

The repair parts list contains a complete listing of replaceable parts of the heater. All parts are index ed on the illustration, figure 4. These index numbers are listed in the parts list for the heater. For example, index number 4-6 on the parts list means that the part is number 6 on figure 4. These index numbers are not to be used for ordering any parts. Use the part number and part name when ordering.

Figure &	Part		Quantity
Index No.	Number	Part Name	Quantity
	м4396	Handle	1
4-1	WLI-4	Lock washer, int. teeth, 1/4 in.	2
4-2	RPC4-4	Screw, Phillips rd. hd., 1/4-20 x 1/2 in.	2
4-3	M4843	End cover	. 2
4-4	RPF3-5	Screw, Phillips rd. hd., No. 10-32 x 5/8 in.	8
4-5	NLF-3	Nut, Flex Loc No. 10-32	4
4-6 4-7	WP-3	Washer	8
4- <i>1</i> 4-8	M3353	Filler cap	1
4-9	M6620	Fuel tank assembly	1
4-10	M5855	Fuel filter assembly	1
4-11	M6577	Standpipe assembly	1 /
4-12	M6688	Screen	1 (
4-12	M6652	Drain pipe cap, 1/4 in.	1
4-14	M6588	Drain pipe	1
4-15	M4927	Leg assembly	2
4-16	M6611	Side panel	1
4-17	M6612	Control side panel	1
4-18	RF3-5	Screw, Rd. hd, No. $10-32 \times 5/8$ in.	8
4-19	WLI-3	Lock washer, int. teeth, No. 10	8
4-20	M5776	Plug button	1
4-21	M6613	Igniter access door	1
4-22	RF3-5	Screw, Rd. hd. sheet metal, No. 8 x 3/8 in.	1
4-23	M6618	Fuel line, tank to pump	1
4-24	M6621	Fuel line, pump to solenoid valve	1
4-25	M6617	Fuel line, valve to burner	1
4-26	M6665	Knob	1 1
4-27	M6776	Indicator plate	1
4-28	M6668	Switch	1
4-	M6789	Nut, for switch	1
4-	M6795	Nut, for switch	1
4-29	M6667	Metering valve	1
4-30	M6580	Solenoid valve	1
4-31	69248	Elbow	1
4-32	M6658	Flame detector switch	1
4-33	M6679	Flame detector shield assembly	2
4-34	STP2-3	Screw, Phillips rd. hd. sheet metal, No. 8 x 3/8 in.	1
4-35	M6659	Manual reset safety switch	$\overset{1}{2}$
4-36	STP2-3	Screw, Phillips rd. hd. sheet metal, No. 8 x 3/8 in.	<u>.</u>
4-37	M6650	Igniter and holder assembly	î
4-38	ST2-4	Screw Rd hd, sheet metal, No. 8 x 1/2 in.	i
4-39	M6689	Gasket	ī
4-40	M6578	Terminal block	1 4
4-41	STP2-8	Screw, Phillips rd. hd, sheet metal, No. 8 x 1 in.	ī
4-	M5483-2	Extension cord assembly	ī
4-	M6595	Motor, Grille, Transformer and Fan Assembly	ī
4-42	M6609	Pump cap	_

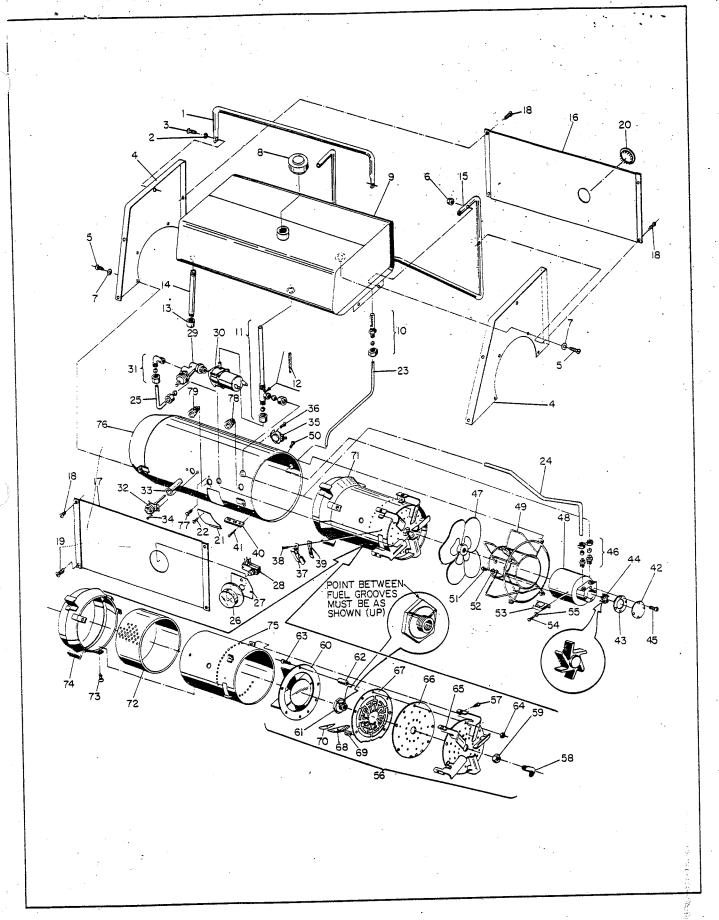


Figure 4. Exploded View

Figure & Index No.	Part Number	Part Name	Quantity
4-43	м5705	Pump gasket	1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /
4-44	M5703	Pump impeller	4
4-45	RPC2-3	Screw, Phillips rd. hd. No. 8-32 x 3/8 in.	2
4-46	M5976	Connector	1
4-47	M4502	Fan	1
4-48	M5721	Motor	1
4-49	M5232	Grille 4.1 No. 10 x 1/2 in	4
4-50	STP3-4B	Grille Screw, Phillips rd. hd. sheet metal, blunt point No. 10 x 1/2 in.	$\overline{4}$
4-51	RPC2-3	Screw. Phillips rd. nd. No. 8-32 x 5/6 m.	$\overline{4}$
4-52	WLE2	Lock washer, external, No. 8	
4-53	M5301-1		1 2 2
4-54	STP2-2-1/2B	Transformer Screw, Phillips rd. hd. sheet metal, blunt point No. 8 x 5/16 in.	2
4-55	WLE2	Lock washer, external, No. 8	ī
4-56	M6655	m	4
4-57	STP2-3	Screw, Phillips rd. hd., sheet metal No. $8 \times 3/8$ in.	i
4-58	69248	Elbow	ī
4-59	NJF8	Nut, jam, 1/2-20	1
	M5675	Fin assembly	1
4-60	M6638	Fuel distributing plate	6
4-61	M6643		7
4-62	RPC-2-7SS	Spacer Screw, Phillips rd. hd., stainless steel, No. 8-32 x 7/8 in.	7
4-63	NPC-2	Nut. hex. No. 8-32	1
4-64	M6656	Air turning vane assembly	1
4-65	M6600	Fiberfrax pad	1
4-66	M6579	Pad support ring	1
4-67	M6606	Drip trough	1
4-68	M6653	Drip trough spacer	1
4-69	M6639	Fiberfrax drip trough gasket	1
4-70	M6627	Combustion chamber assembly	1
4-71	M5666	Democrated closus	5
4-72	STP-2-3	Screw, Phillips, rd. hd., sheet metal, No. 8 x 3/8 in.	f e
4-73	M5659	Cone assembly	· •
4-74	M6628	Combustion chamber	. 1
4-75	M6614	O the shall accombly	1
4-76	ST2-3A	Screw. Phillips rd. hd. sheet metal No. 8 x 3/8 in.	1
4-77	M6642	Porcelain bushing, 1/2 in. 1.D.	1
4-78	M6641	Porcelain bushing, 5/16 in. I.D.	1
4-79	MOOAT	No. 1	