



**MODEL**

**F-155**

(Including Spec. No. 2720G2-4)

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# **OPERATING, MAINTENANCE and SERVICE INSTRUCTIONS with PARTS LIST**

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## **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. factory) of any of its equipment which may be returned by the buyer to the factory, 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. Except as expressly stated above, we make no warranty of merchantability and no warranty of fitness for any particular purpose nor do we make any warranty, express or implied, of any nature whatsoever with respect to our equipment or the use thereof, and in no event shall the Company be liable for delay caused by defects, for consequential damages, or for any charges or expenses 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 factory, in any respect which, in our judgment, affects its condition or operation.

**KNIPCO**

Division of

**MASTER CONSOLIDATED INC.**

333 West First Street, Dayton, Ohio 45402

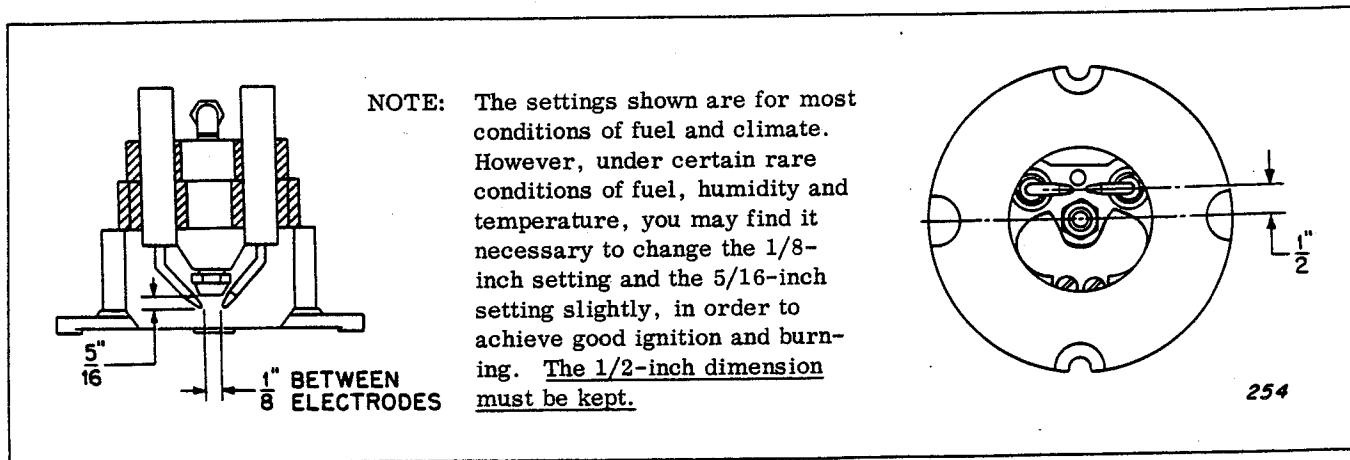


Figure 1. Burner Electrode Settings

## STOPPING

### Thermostatically Controlled Heater

Set the thermostat to OFF position. Fan will operate until combustion chamber cools and then will shut off automatically.

### Heater with Combustion Control Unit

Turn the thermostat wheel to OFF. The burner will immediately stop, however, the motor will operate until the heater is purged, then stop.

## OPERATION IN EXTREME TEMPERATURE CONDITIONS

When the heater is being used in an area where the temperature rises rapidly or rises over a wide range during the time the heater is not operating, the combustion control unit may trip out due to the increase

in the surrounding temperature. When this happens, and heat is still needed, reset the control circuits by twisting the control reset knob in the direction of the arrow, as was done to start heater operation.

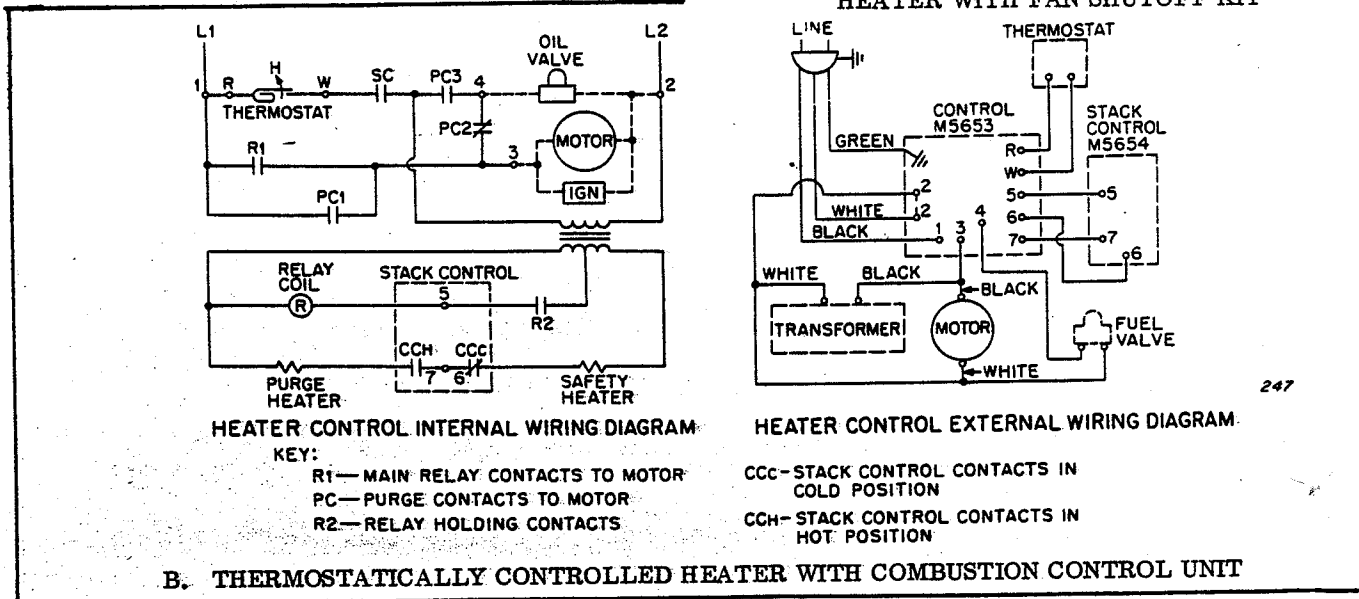
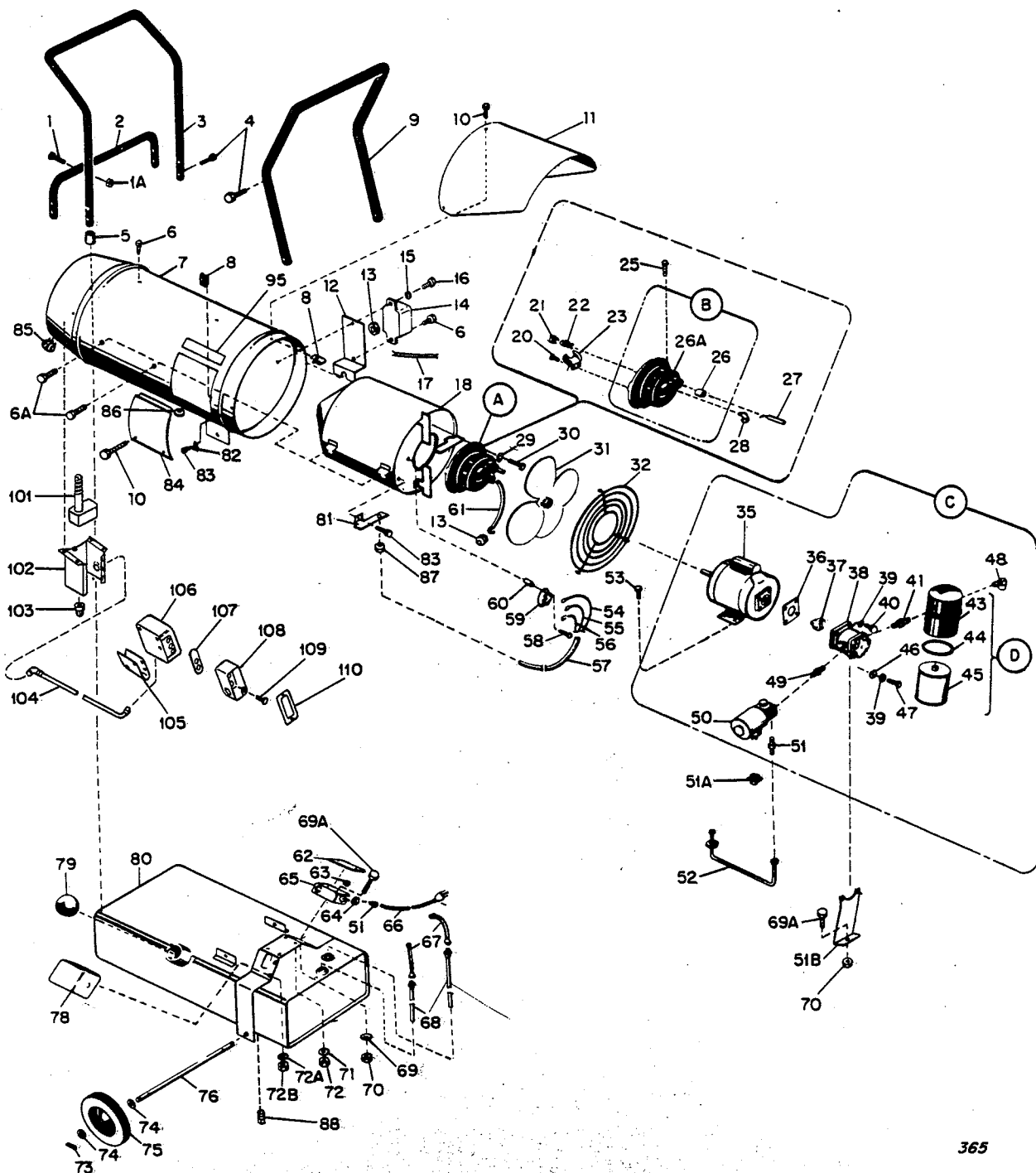


Figure 2. Wiring Diagrams

Index No.	Part Number	Part Name or Description	Units per Assy.			
		Column A - Heaters with Serial No. beginning with "3" . . . . .	A			
		Column B - Heaters with Serial No. beginning with "4" or "5" . . . . .		B		
		Column C - Heaters with "Spec. No. 2720G2-4" on nameplate . . . . .			C	
39	WLI-5	. Lockwasher, Internal tooth, 5/16	* 4	4	4	
40	HC5-6	. Screw, Hex hd, 5/16-18 x 3/4	* 2	2	2	
41	M10953	. Nipple, Hex reducing	1	1	1	
(D)	M3973	. Filter Assembly	1	1	1	
43	M4307	. . Filter Can (Replacement)	1	1	1	
44	M3301-2	. . Filter Gasket (Replacement)	1	1	1	
45	M3301-1	. . Filter Element (Replacement)	1	1	1	
46	WP-5	. Washer, Flat 5/16	* 2	2	2	
47	HC5-7	. Screw, Hex hd, 5/16-18 x 7/8	* 2	2	2	
48	57413	. Street Elbow	1	1	1	
49	M3297	. Nipple	1	1	1	
50	M3974-1	. Solenoid Valve	1	1	1	
51	1000513	. Fitting, 1/8 Pipe to 3/16 Tube	* 1	1	1	
51A	1001349	Connector	2	2	2	
51B	M3526	Bracket	1	1	1	
52	M3475	Fuel Line	1	1	1	
53	HC4-6	Screw, Hex hd, 1/4-20 x 3/4	* 4	4	4	
54	M5052G14	Wire Assy	1	1	1	
55	M5052G36	Wire Assy	1	1	1	
56	M5052G37	Wire Assy	1	1	1	
57	M3486-2	Tubing, Varnished (over wire assemblies)	1	1	1	
58	STP2-6	Screw, Sheet metal, Rd hd, No. 8 x 3/4	* 2	-	-	
58	M11084-40	Screw, Self-tapping, Hex hd, No. 8-15 x 5/8, Type A	* -	2	2	
59	M5895	Thermal Switch	1	1	1	
60	M6190	Spacer	2	-	-	
60	M8152	Spacer	-	2	2	
61	M10816G7	Electrode Lead Assy	2	2	2	
62	M5837	Switch Box Cover	1	1	1	
63	69321-61	Connector (Wire nut)	4	4	4	
64	M3530	Grommet, 7/8	3	3	3	
65	M3307	Utility Box	1	-	-	
65	M6016	Utility Box	-	1	1	
66	M10813G5	Extension Cord Assy	1	-	-	
66	M10813G12	Extension Cord Assy	-	1	1	
67	M3334G8	Fuel Line Assy	2	2	2	
68	M10923	Intake and Return Tube Assy	2	2	2	
69	WP-4	Flat Washer, 1/4	* 6	-	-	
69A	M12461-27	Screw, Hex hd, No. 10-32 x 1/2	* -	3	3	
70	NLC-4	Nut, Flexloc, 1/4-20	* 4	-	-	
70	NLF-3	Nut, Flexloc, 10-32	* -	3	3	
71	WP-4	Flat Washer, 1/4	* 6	4	4	
72	NLC-4	Nut, Flexloc, 1/4-20	* 4	4	4	
72A	WLM-4	Lockwasher, 1/4	* 2	2	2	
72B	NPC-4	Nut, Hex, 1/4-20	* 2	2	2	
73	C4-8	Cotter Pin, 1/8 x 1	* 2	2	2	
74	WP-8	Flat Washer, 1/2	* 4	4	4	
75	M3976	Wheel	2	2	-	
75	M14261	Wheel	-	-	2	
76	M10804	Axle	1	-	-	
76	M12486-1	Axle	-	1	-	
76	M12486-3	Axle	-	-	1	
78	M3259	Transformer	1	-	-	
78	<del>M3259-4</del>	Transformer <i>M27827-3</i>	-	1	1	
79	M3353	Fuel Tank Cap	1	1	1	
80	M10848G1	Fuel Tank Assembly	1	-	-	

Index No.	Part Number	Part Name or Description	Units per Assy.		
		Column A - Heaters with Serial No. beginning with "3" .....	A		
		Column B - Heaters with Serial No. beginning with "4" or "5" .....	B		
		Column C - Heaters with "Spec. No. 2720G2-4" on nameplate .....	C		
80	M12485G1	Fuel Tank Assembly	-	1	1
81	M4785	Air Deflector	1	1	1
82	M3570	Clip, Nylon	2	2	2
83	M10908-14	Screw, Self-tapping, Hex hd, No. 8-32 x 3/8, Type S	* 3	-	-
83	M11084-38	Screw, Self-tapping, No. 8-15 x 3/8, Type A	* -	1	1
84	M8988G2	Access Door Assy	1	1	1
-	M5620	Operating Instructions	1	1	1
85	M6572	Plug Button	1	1	1
86	1000577	Grommet	-	1	1
87	M6821	Grommet	-	1	1
88	M8257	Plug, Pipe	-	1	1
		DECALS AND PAINT			
	M10942	Plate, Tech data and name	1	1	1
	M5374	Tag, "Please Read"	1	1	1
	M4950	Decal, Caution	1	1	1
	M9807	Decal, Knipco	1	1	1
	M9134	Wiring Diagram	1	1	1
	M16420	Decal, Caution	-	-	1
		OPTIONAL EQUIPMENT			
	M5839	<u>Combustion Control Kit</u>	x	-	-
	M11528	<u>Combustion Control Kit</u>	-	x	x
101	M5654	. Flame Detector	1	1	1
102	M5644	. Cover	1	1	1
103	M5829	. Knob, Reset	1	1	1
104	M5655G3	. Cable Assembly, Flame Detector to Combustion Control	1	1	1
105	M3492	. Combustion Control Bracket	1	1	1
106	M5653	. Combustion Control	1	1	1
107	M5652	. Spacer	1	1	1
108	M3307	. Junction Box	1	1	1
109	M3586	. Bushing, 1/2, with 50460 Locknut	2	2	2
110	M5649	. Junction Box Cover	1	-	-
110	M12622	. Plate, Cover	-	1	1
	M3587	. Duct	1	-	-
	M2739	. Connector, 90°	2	-	-
	M2738	. Connector, Straight	1	-	-
	M3570	. Cord Clamp	-	2	2
	M3530	. Grommet	-	4	4
	1001349	. Connector, Straight, 3/8	-	2	2
	M10908-27	. Screw, Self-tapping, Hex hd, No. 10-32 x 1/2, Type S	-	2	2
	NLF-3C	. Nut, No. 10-32 Flexloc	-	4	4
	M11084-38	. Screw, Self-tapping, Hex hd, No. 8-15 x 3/8	-	6	6
	M12461-27	. Screw, Hex hd, No. 10-32 x 1/2	-	4	4
	FC1-2C	. Screw, Flat hd, No. 6-32 x 1/4	-	2	2
	M5642	. Wiring Diagram	1	-	-
	M5642-1	. Wiring Diagram	-	1	1
	M9408	<u>Low Oil Cutoff Kit</u>	-	x	x
	M11818G2	<u>Spark Arrestor Kit</u>	-	x	x



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Figure 3. Model F-155 Portable Heater, Exploded View

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		Column A - Heaters with Serial No. beginning with "3" . . . . .	A			
		Column B - Heaters with Serial No. beginning with "4" or "5" . . . . .		B		
		Column C - Heaters with "Spec. No. 2720G2-4" on nameplate . . . . .			C	
1	M11084-7	Screw, Hex hd, No. 12-11 x 1, Type A	* 4	2	-	
1	HC4-8C	Screw, Hex hd, No. 1/4-20 x 1	* -	-	2	
1A	NLC-4C	Nut, Hex, 1/4-in., Flexloc	* -	-	2	
2	M10935G1	Brace	1	1	1	
3	M10934	Front Leg	1	1	1	
4	M10908-32	Screw, Self-tapping, Hex hd, No. 10-32 x 1-1/8, Type S	* 8	-	-	
4	M12461-33	Screw, Hex hd, No. 10-32 x 1-1/4	* -	8	8	
5	M8704-2	Plug button	2	2	2	
6	M10908-30	Screw, Self-tapping, Hex hd, No. 10-32 x 7/8, Type S	* 2	-	-	
6A	M10908-27	Screw, Self-tapping, Hex hd, No. 10-32 x 1/2, Type S	* -	5	5	
7	M10926G1	Outer Shell Assy	1	1	1	
8	M11271-5	Nut, Tinnerman	5	5	5	
9	M10933	Back Leg	1	1	1	
10	M10908-27	Screw, Self-tapping, Hex hd, No. 10-32 x 1/2, Type S	* 9	-	-	
10	M11084-40	Screw, Self-tapping, Hex hd, No. 8-15 x 5/8, Type A	* -	5	5	
11	M3364	Cowl	1	1	1	
12	M8001	Bracket, Thermostat mounting	1	-	-	
12	M8001-2	Bracket, Thermostat mounting	-	1	1	
13	1000576	Grommet, 1/2	3	2	2	
14	M10986	Thermostat	1	-	-	
14	M4037-3	Thermostat	-	1	1	
15	WLE-1	Lockwasher, No. 6	* 3	-	-	
16	RPC1-3	Screw, Rd. hd, No. 6-32 x 3/8	* 3	-	-	
16	M12461-29	Screw, Hex hd, No. 10-32 x 5/8	* -	1	1	
17	M5845G14	Cable Assembly (to thermostat)	1	-	-	
18	M9758G2	Combustion Chamber Assembly	1	-	-	
18	M9758G3	Combustion Chamber Assembly	-	1	1	
(A)	M9107G1	Burner Head Assembly	1	1	1	
20	RC1-2	. Screw, Rd hd, No. 6-32 x 1/4	* 2	2	2	
21	M9108	. Nozzle	1	1	1	
22	M4274	. Nozzle Spring	1	1	1	
23	M3978	. Air Deflector	1	1	1	
25	HF3-3	. . Screw, Hex hd, No. 10-32 x 3/8	* 2	2	2	
(B)	M3853G1	. Burner Body and Bushing Assy	1	1	1	
26	M9788	. . Electrode Bushing	2	2	2	
26A	M10947	. . Body, Burner	1	1	1	
27	M3981	. Electrode	2	2	2	
28	M2294	. Elbow, Compression tube	1	1	1	
29	WP-2	Washer, Flat, No. 8	2	-	-	
30	M10908-16	Screw, Self-tapping, Hex hd, No. 8-32 x 5/8, Type S	* 2	-	-	
30	M12461-16	Screw, Hex hd, No. 8-32 x 5/8	* -	2	2	
31	M9928	Fan	1	1	1	
32	M3247	Fan guard	1	1	1	
(C)	M10931G2	Motor-Package Assembly	1	1	1	
35	M9809-2	. Motor	1	1	1	
36	M3547	. Gasket	1	1	1	
37	M3473	. Coupling	1	1	1	
38	M11138-1	. Pump	1	1	1	