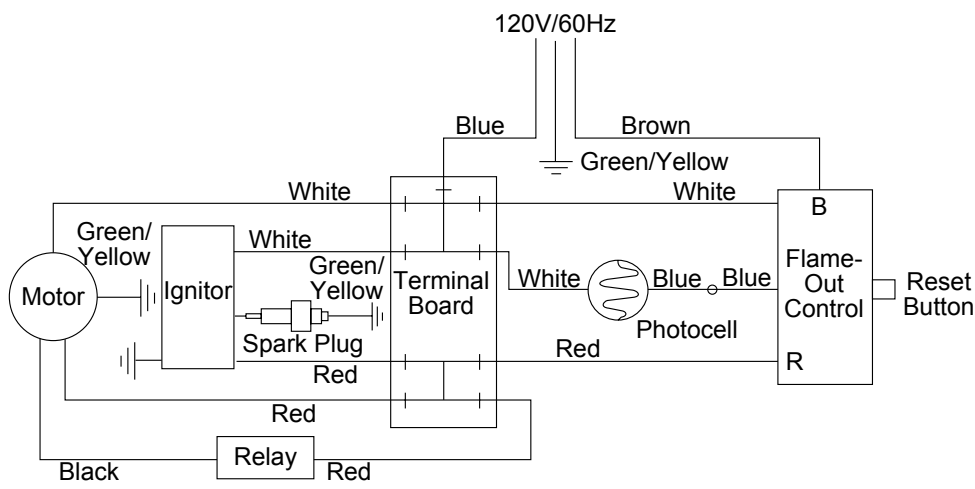


SPECIFICATIONS

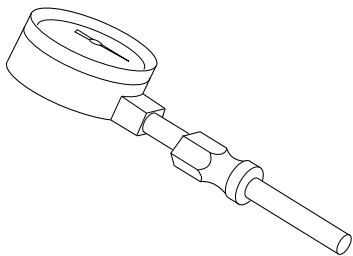
Output Rating (Btu/Hr.)	100,000	150,000
Fuel	Use Only Kerosene or No. 1 Fuel Oil	
Fuel Tank Capacity (Liters/U.S. Gal.)	34/9.0	51/13.5
Fuel Consumption (Liters/Gal. Per Hr.)	2.8/76	4.1/1.1
Electric Requirements	120 V/60 Hz (Same All Models)	
Amperage (Normal Run)	4.0	4.4
Hot Air Output (CMM/CFM)	13.6/480	14.2/500
Motor RPM	3450	3450
Motor HP	1/4	1/4
Approximate Shipping Weight (KG/Pounds)	27/60	31/68
Approximate Heater Weight without Fuel (KG/Pounds)	23/51	26/57

WIRING DIAGRAM



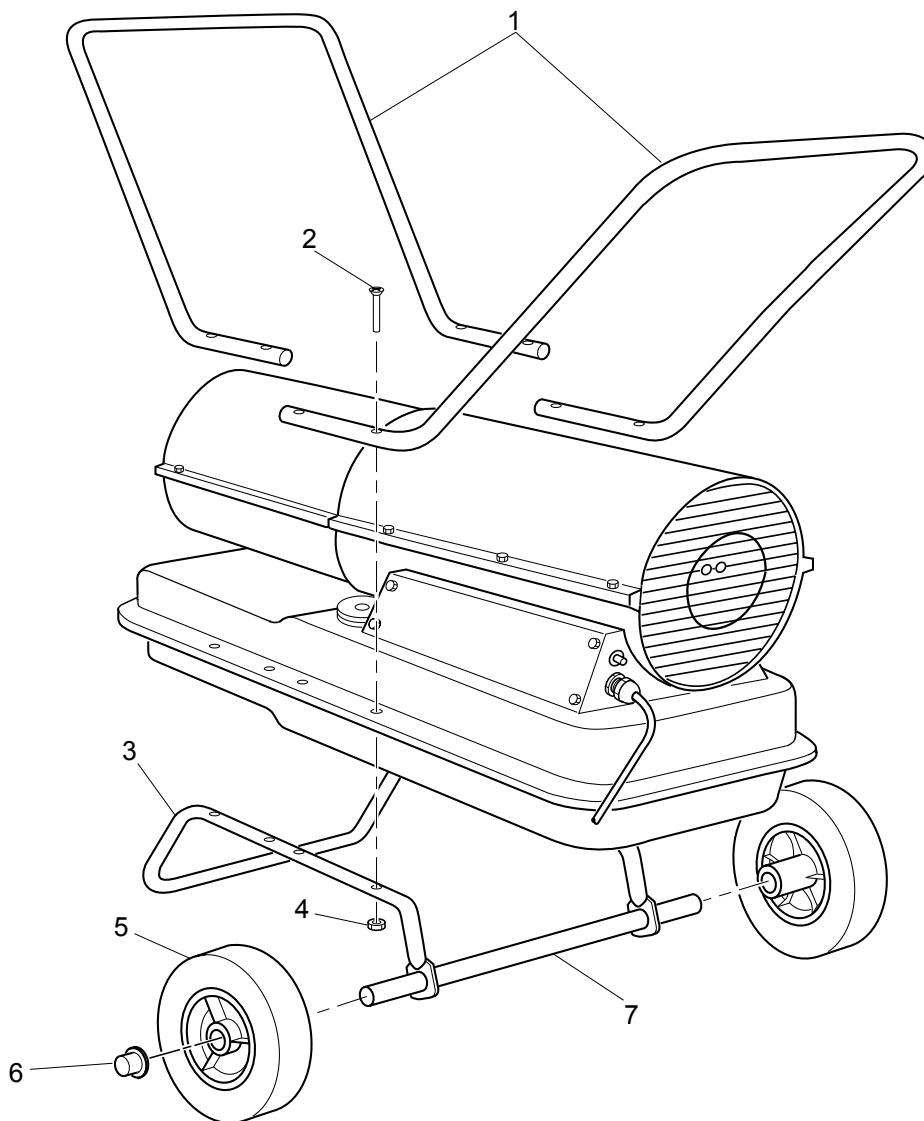
REPLACEMENT PARTS AND ACCESSORY

AIR GAUGE KIT - HA1180
Special tool to check pump pressure.



WHEELS AND HANDLE PARTS LIST

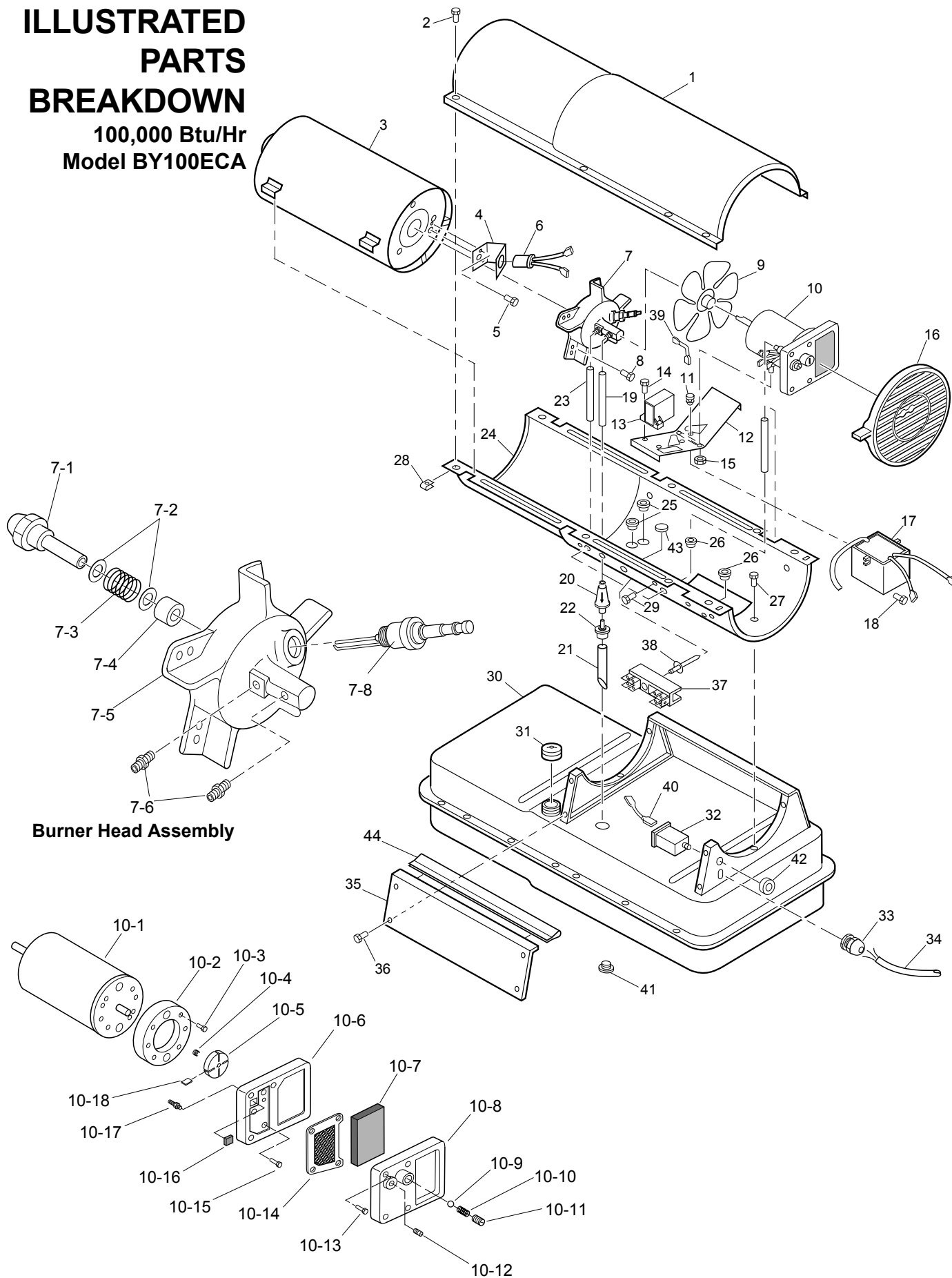
KEY NO.	PART NUMBER	PART DESCRIPTION	BY100ECA 100,000 QTY.	BY150ECA 150,000 QTY.
1	HA2203	Handle	2	—
	HA2204	Handles	—	2
2	M12345-33	Screw, #10-24 x 1 3/4"	8	8
3	M12342-3	Wheel Support Frame	1	—
	M12831-3	Wheel Support Frame	—	1
4	NTC-3C	Hex Nut, #10-24	8	8
5	097896-04	Wheel	2	2
6	M28526	Cap Nut	2	2
7	M51015-01	Axle	1	—
	M16801-2	Axle	—	1



Model BY100ECA, 100,000 Btu/Hr and Model BY150ECA, 150,000 Btu/Hr

ILLUSTRATED PARTS BREAKDOWN

100,000 Btu/Hr
Model BY100ECA



Burner Head Assembly

Motor and Pump Assembly

To order call M&S Service Co. Inc. 1-800-475-5660

PARTS LIST

100,000 Btu/Hr
Model BY100ECA

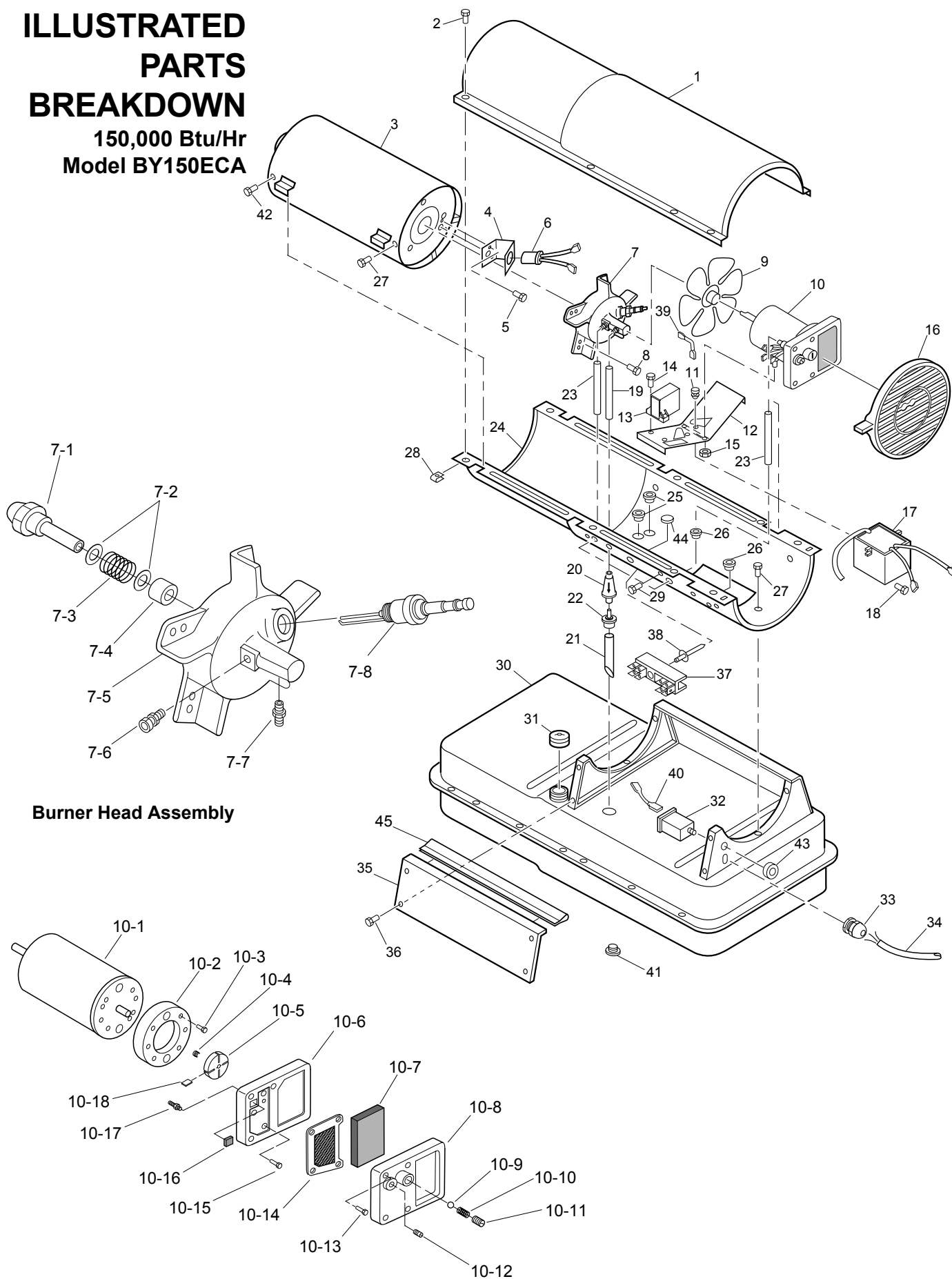
This list contains replaceable parts used in your heater. When ordering parts, be sure to provide the correct model and serial numbers (from the model plate), then the part number and description of the desired part.

KEY NO.	PART NUMBER	DESCRIPTION	QTY.	KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	098511-138	Upper Shell	1	17	102482-01	Ignitor Kit	1
2	100647-01	Screw, #10-16 x 1/2"	8	18	M11084-29	Screw, #10-16 x 3/4"	2
3	098512-31	Combustion Chamber	1	19	M51345-01	Fuel Line	1
4	M16660	Photocell Bracket	1	20	M51150-01	Fuel Filter	1
5	M10908-2	Screw, #6-32 x 3/8"	2	21	M51151-01	Fuel Line Tube	1
6	HA3019	Photocell Assembly	1	22	M10990-3	Rubber Bushing	1
7	**	Burner Head Assembly	1	23	M50814-03	Airline	1
7-1	100735-06	Nozzle	1	24	098511-191	Lower Shell	1
7-2	M10659-1	Nozzle Washer	2	25	M50104-03	Bushing	2
7-3	M10809-1	Nozzle Spring	1	26	M50104-01	Bushing	2
7-4	M8882	Nozzle Sleeve	1	27	M11084-27	Screw, #10-16 x 1/2"	6
7-5	M50924-03	Burner Head Body	1	28	M11271-8	Clip Nut	8
7-6	M50820-02	Barb Fitting	2	29	M10908-14	Screw, #8-32 x 3/8"	1
7-7	HA3012	Spark Plug	1	30	098513-75	Fuel Tank	1
8	M11084-27	Screw, #10-16 x 1/2"	3	31	097702-01	Fuel Cap (Includes Gasket)	1
9	097293-01	Fan	1	32	HA3003	Flame-Out Control	1
10	**	Motor and Pump Assembly	1	33	M50400	Strain Relief Bushing	1
10-1	102001-06	Motor (Split Phase)	1	34	M15779-27	Power Cord	1
10-2	079975-02	Pump Body	1	35	M51077-01AA	Side Cover	1
10-3	FHPF3-5C	Screw, #10-32 x 5/8"	2	36	M11084-27	Screw, #10-16 x 1/2"	4
10-4	M22009	Rotor Insert	1	37	099125-03	Terminal Board	1
10-5	M22456-1	Pump Rotor	1	38	099157-01	Rivet	1
10-6	M50545	Pump End Cover	1	39	079010-20	Wire Assembly (Red, 18")	1
10-7	M12179	Intake Filter	1	40	M16841-57	Wire Assembly (Red, 6")	1
10-8	M16545	Filter End Cover	1	41	M27417	Drain Plug (Includes "o" Ring)	1
10-9	M8940	Steel Ball, 1/4" Diameter	1	42	099177-01	Hex Nut, 3/8 - 27	1
10-10	M10993-1	Relief Spring	1	43	099213-01	Button Plug	1
10-11	M27694	Adjusting Screw	1	44	097468-01	Edge Liner	1
10-12	M22997	Plug	1	PARTS AVAILABLE - NOT SHOWN			
10-13	M12461-31	Screw, #10-32 x 1"	10		097650-01	Tradename Decal	1
10-14	M12244-1	Output Filter	1		101888-21	Operation Decal (English/French)	1
10-15	M11637	Lint Filter	1		101888-20	Operation Decal (Spanish/Dutch)	1
10-16	M50820-02	Barb Fitting	1		101639-04	Warning Decal	1
10-17	M8643	Blade	4		HA2210	Filler Neck Screen	1
11	M50631	Rubber Bumper	2		M9900-192	Combustion Chamber	
12	101206-01	Motor Mounting Bracket	1			Grounding Wire	1
13	097061-01	Solid State Relay	1				
14	M15823-39	Screw, #8-18 x 1/2"	2				
15	NTC-4C	Hex Lock Nut, 1/4-20	2				
16	M51114-01	Fan Guard	1				

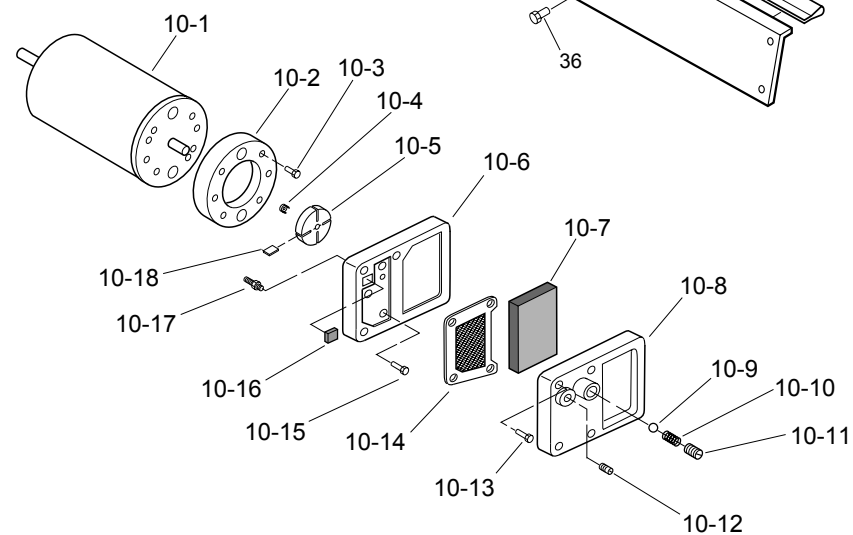
** Not available as an assembly.

ILLUSTRATED PARTS BREAKDOWN

150,000 Btu/Hr
Model BY150ECA



Burner Head Assembly



PARTS LIST

**150,000 Btu/Hr
BY150ECA**

This list contains replaceable parts used in your heater. When ordering parts, be sure to provide the correct model and serial numbers (from the model plate), then the part number and description of the desired part.

KEY NO.	PART NUMBER	DESCRIPTION	QTY.	KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	098511-138	Upper Shell	1	17	102482-01	Ignitor Kit	1
2	100647-01	Screw, #10-16 x 1/2"	8	18	M11084-29	Screw, #10-16 x 3/4"	2
3	098512-29	Combustion Chamber	1	19	M51345-01	Fuel Line	1
4	099229-01	Photocell Bracket	1	20	M51150-01**	Fuel Filter	1
5	M10908-2	Screw, #6-32 x 3/8"	2	21	M51151-02	Fuel Line Tube	1
6	HA3019	Photocell Assembly	1	22	M10990-3	Rubber Bushing	1
7	***	Burner Head Assembly	1	23	M50814-03	Airline	1
7-1	100735-07	Nozzle	1	24	098511-191	Lower Shell	1
7-2	M10659-1	Nozzle Washer	2	25	M50104-03	Bushing	2
7-3	M10809-1	Nozzle Spring	1	26	M50104-01	Bushing	2
7-4	M8882	Nozzle Sleeve	1	27	M11084-27	Screw, #10-16 x 1/2"	8
7-5	M50924-03	Burner Head Body	1	28	M11271-8	Clip Nut	8
7-6	M50820-02	Barb Fitting	2	29	M10908-14	Screw, #8-32 x 3/8"	1
7-7	HA3012	Spark Plug	1	30	098513-76	Fuel Tank	1
8	M11084-27	Screw, #10-16 x 1/2"	3	31	097702-01	Fuel Cap (Includes Gasket)	1
9	097293-01	Fan	1	32	HA3003	Flame-out Control	1
10	***	Motor and Pump Assembly	1	33	M50400	Strain Relief Bushing	1
10-1	102001-06	Motor (Split Phase)	1	34	098219-19	Power Cord	1
10-2	079975-02	Pump Body	1	35	M51077-01AA	Side Cover	1
10-3	FHPF3-5C	Screw, #10-32 x 5/8"	2	36	M11084-27	Screw, #10-16 x 1/2"	4
10-4	M22009**	Rotor Insert	1	37	099125-03	Terminal Board	1
10-5	M22456-1**	Pump Rotor	1	38	099157-01	Rivet	1
10-6	M50545	Pump End Cover	1	39	079010-20	Wire Assembly (Red, 18")	1
10-7	M12179**	Intake Filter	1	40	M16841-57	Wire Assembly (Red, 6")	1
10-8	M16545	Filter End Cover	1	41	M27417	Drain Plug (Includes "O" Ring)	1
10-9	M8940**	Steel Ball, 1/4" diameter	1	42	099230-01	Shoulder Screw	2
10-10	M10993-1**	Relief Spring	1	43	099177-01	Hex Nut, 3/8-27	1
10-11	M27694**	Adjusting Screw	1	44	099213-01	Button Plug	1
10-12	M22997**	Plug	1	45	097468-01	Edge Liner	1
10-13	M12461-31	Screw, #10-32 x 1"	10	PARTS AVAILABLE - NOT SHOWN			
10-14	M12244-1**	Output Filter	1		HA2210	Filler Neck Screw	1
10-15	M11637**	Lint Filter	1		097643-01	Tradename Decal	1
10-16	M50820-02	Barb Fitting	1		101888-22	Operation Decal (English/French)	1
10-17	M8643**	Blade	4		101888-23	Operation Decal (Spanish/Dutch)	1
11	M50631	Rubber Bumper	2		101639-04	Warning Decal	1
12	101206-01	Motor Mounting Bracket	1		M9900-192	Combustion Chamber Grounding Wire	1
13	097061-01	Solid State Relay	1				
14	M15823-39	Screw, #8-18 x 1/2"	2				
15	NTC-4C	Hex Lock Nut, 1/4-20	2				
16	M51114-01	Fan Guard	1				

** Not available as an assembly.