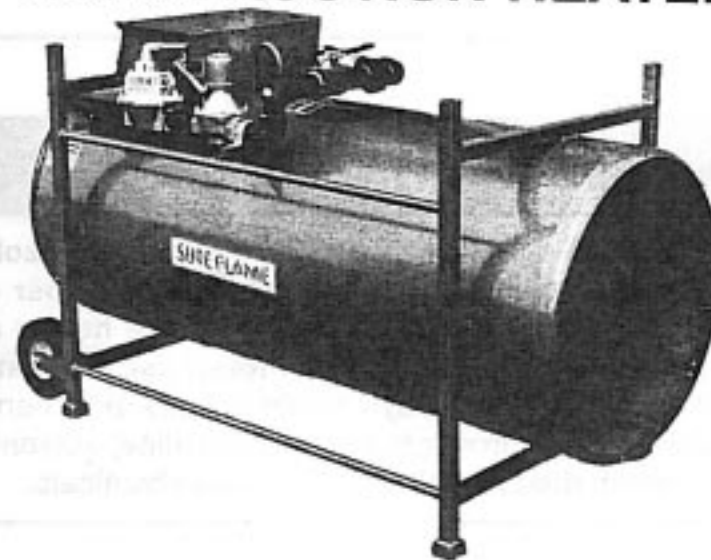




SURE FLAME[®]

S1505B

CONSTRUCTION HEATER



Rev. 4, August 31, 2007

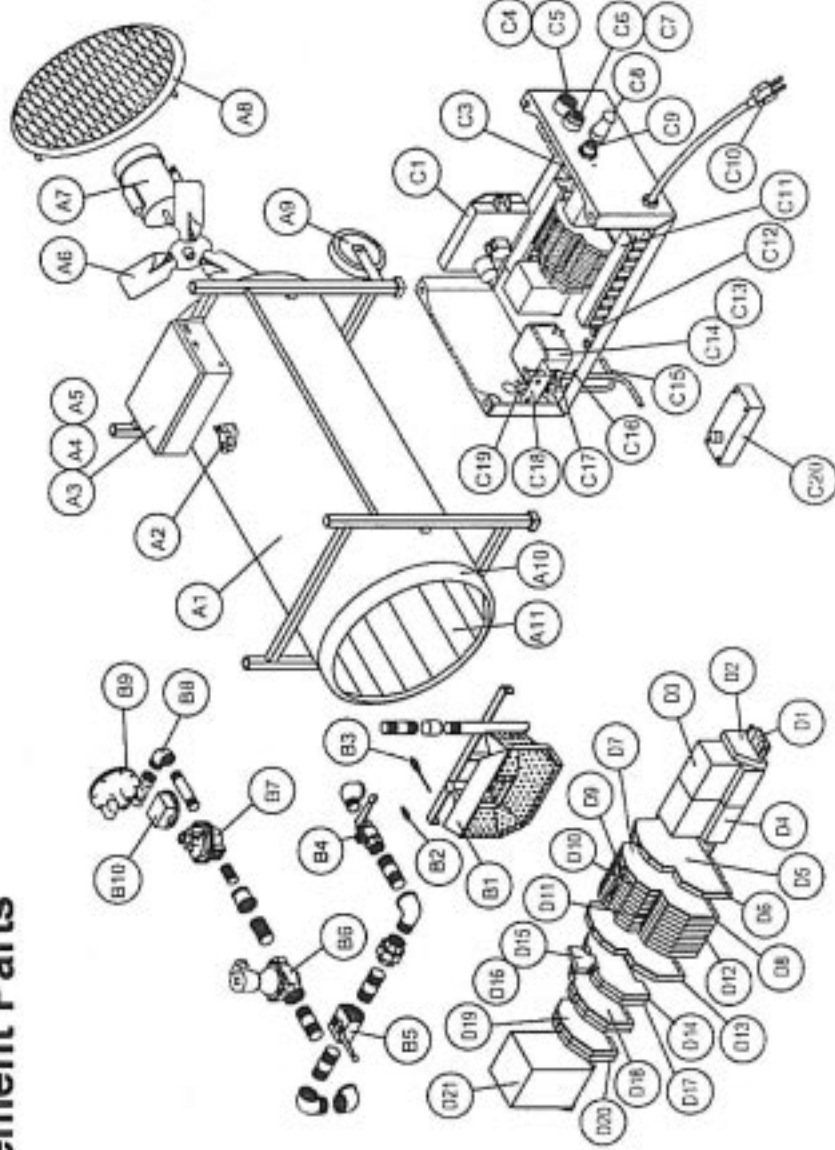
SERVICE AND MAINTENANCE MANUAL No. 974-9308

PLEASE RETAIN FOR FUTURE REFERENCE

SURE FLAME[®] PRODUCTS

A DIVISION OF HAUL-ALL EQUIPMENT LTD.

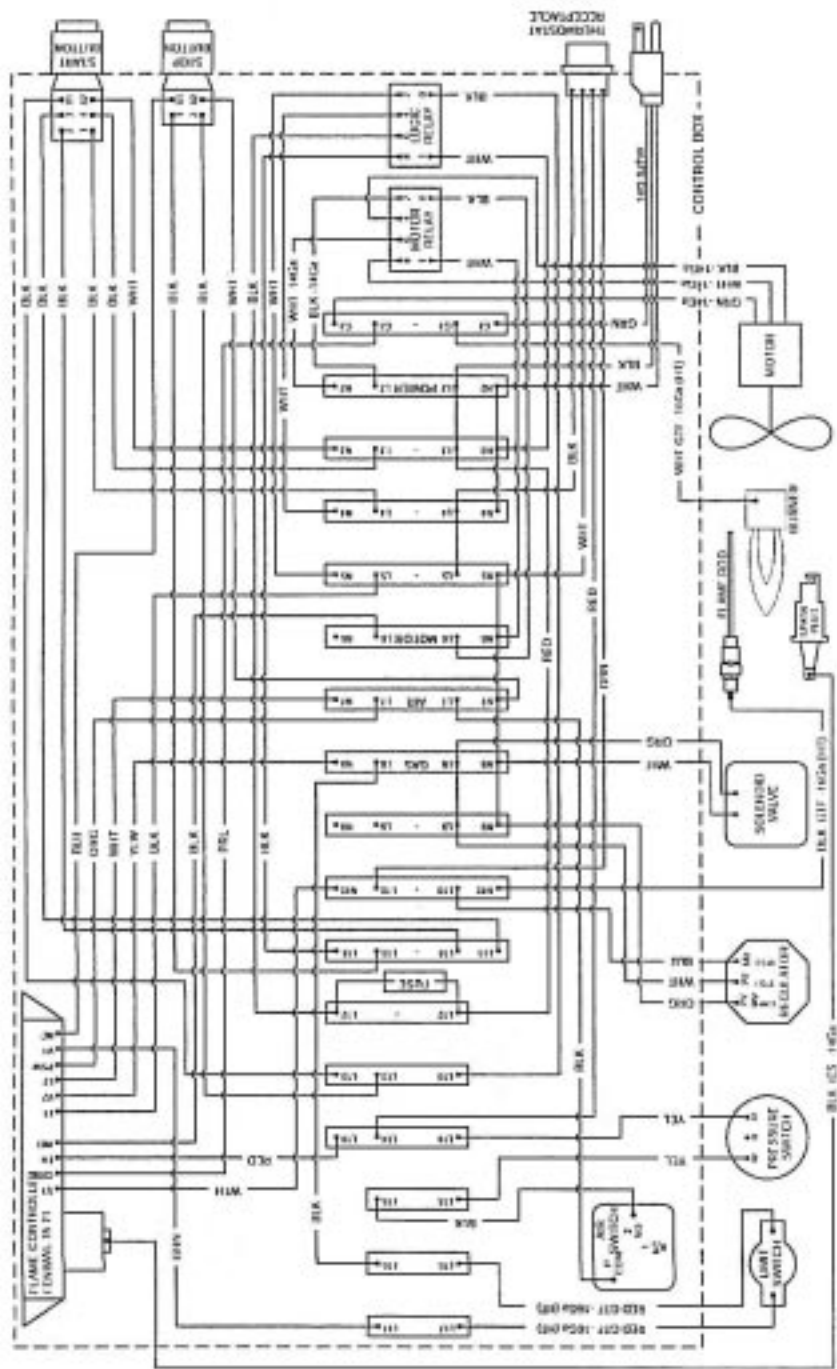
Replacement Parts



Ref	Part No.	Description
A1	S1505-56	Heater Body (Includes A10 & A11)
A2	2446	Limit Switch, 180°F
A3	S1500-104	Control Box Lid
A4	S1500-501	Control Box
A5	7723	Control Box Seal
A6	2423	Fan Blade, 24"
A7	9262	Motor, 1HP
A8	SL11B-53	Screen
A9	6119	Wheel
A10	SL11B-13	Nose Cone
A11	SL11B-90	Heat Shield
B1	BV85-50	Burner
B2	2143	Spark Plug
B3	SL11B-66	Flame Rod
B4	2539	Manual Shut-Off Valve, 1-1/2"
B5	S1505-61	Gas Selector Valve, 1-1/2"
B6	2537	Solenoid Valve, 1-1/2"
B7	4490	2-Stage Regulator, 1-1/4"
B8	S1500-86	Strainer Assembly, 1-1/4"
B9	2528	Regulator (optional)
B10	4509	Gas Pressure Switch
C1	9624	Flame Controler
C3	S1500-106	Wiring Duct, 3"
C4	9612	Start Button
C5	S1500-718	Start Contact Block Assembly
C6	9611	Stop Button
C7	S1500-717	Stop Contact Block Assembly
C8	S1500-713	Thermostat Jumper Assembly
C9	8692	Thermostat Receptacle
C10	3868	Power Cord, 24"

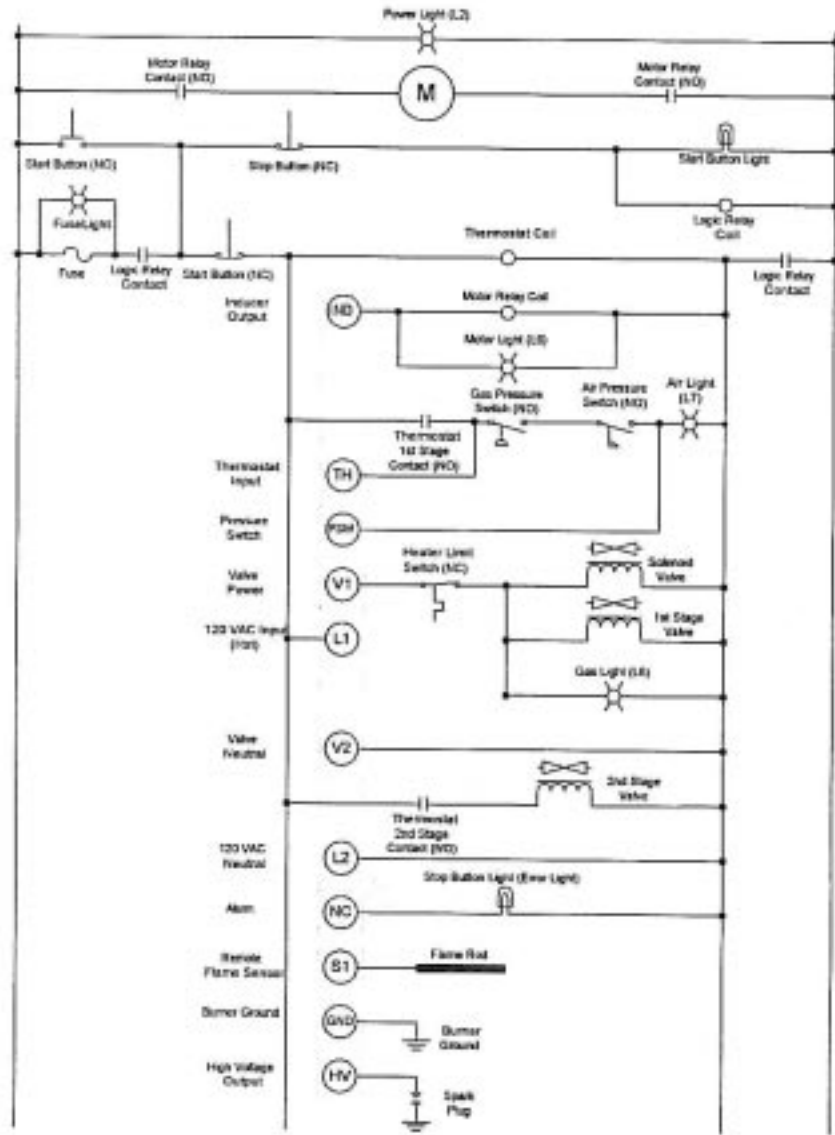
Ref	Part No.	Description
C11	S1500-107	Wiring Duct, 7"
C12	5509	Snap Bushing, 1/2"
C13	S1500-710	Adjusted Air Switch
C14	9294	Vinyl Tube, 3/16"
C15	S1500-109	Air Tube
C16	5515	Rubber Grommet
C17	2554	Compression Fitting, 1/4" Tubex 1/8" MNPT
C18	S1500-502	Air Tube Bracket
C19	9348	Connector, 1/8" MNPT x .170" HB 90° Elbow
C20	S1500-716	Remote Thermostat Assembly w/Cable
D1	S1500-105	Mounting Rail
D2	8651	End Bracket
D3	9264	Power Relay, 120V
D4	9286	Power Relay Adapter
D5	9280	End Plate (APC 1-2.5 D2/E), Green
D6	9275	Terminal Block (WKC 2.5 D2/2 SL35), Green
D7	9279	End Plate (APC 1-2.5 D2/E), Gray
D8	9277	Terminal Block (WKC 2.5 E/35), Red
D9	9283	Cross Connector, 2 Pole
D10	9284	Cross Connector, 3 Pole
D11	9285	Cross Connector, 5 pole
D12	9276	Terminal Block (WKC 2.5 E), Gray
D13	9274	Terminal Block (WKC 2.5 D2/2 SL35), Gray
D14	9278	Terminal Block (WKC 2.5 TKG/35), Gray
D15	9271	Fuse Holder
D16	9270	Fuse, 2A
D17	9273	Terminal Block (WKC 2.5 D1/2/35), Gray
D18	9281	End Plate (APC 1-2.5 D1/TK), Gray
D19	9282	End Plate (APC 1-2.5), Gray
D20	9272	Terminal Block (WKC 2.5/35), Gray
D21	8659	Utility Box

S1505B Connection Wiring Diagram

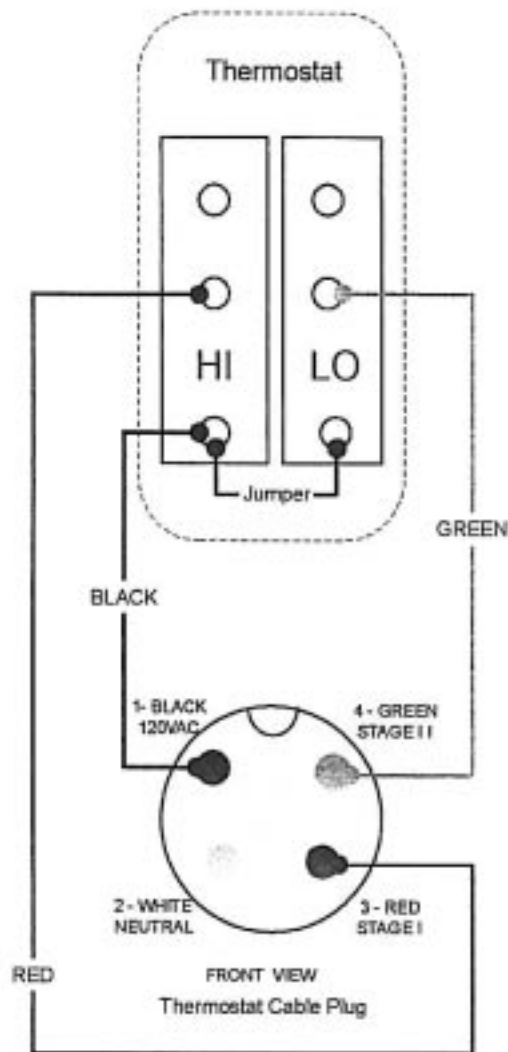


Note: All wires 18 Ga STR TEW 600W unless otherwise specified.

Ladder Wiring Diagram



Two Stage Thermostat Wiring Diagram (S1500-716)



LPG - PROPANE FUEL VAPORIZATION RATE

The following chart shows the amount of BTU's that various sizes of tanks will produce on the average at specific temperatures and regular atmospheric conditions.

Tank Size Gallons (Pounds)	Maximum intermittent withdrawal rate (BTU/hr) without tank frosting* if lowest outdoor temperature (average for 24 hours) reaches.							
	+40 F.	+30 F.	+20 F.	+10 F.	0 F.	-10 F.	-20 F.	-30 F.
150 (600)	214,900	187,900	161,800	148,000	134,700	132,400	108,800	107,100
250 (1000)	288,100	251,800	216,800	198,400	180,600	177,400	145,800	143,500
500 (2000)	478,800	418,600	360,400	329,700	300,100	294,800	242,300	238,600
1000 (4000)	852,800	745,600	641,900	587,200	534,500	525,400	431,600	425,000

* Frosting on the outside of the tank acts as an insulator, reducing the vaporization rate.

MAXIMUM BTU CONTENT (PROPANE)

The following table shows the maximum BTU's that a cylinder contains.

CYLINDER SIZE	BTU CONTENT
100 pound	2,159,100
250 gallon USA	22,922,500
500 gallon USA	45,845,000
1000 gallon USA	91,690,000

CAUTION: In extremely cold weather it is impossible to completely empty a propane cylinder.

PRESSURE & FLOW EQUIVALENTS

1 Std. Atmosphere =	14.73 lb./sq. in. =	1.014 bar
1" Water Column (W.C.) =	0.58 oz./sq. in. =	2.49 millibar
11" Water Column =	0.4 lb./sq. in. =	27.39 millibar
1 lb./sq. in. (psig) =	27.71" W.C. =	0.0689 bar
1" Mercury =	0.49 psig =	33.86 millibar
1 Std. Cubic Ft./Hr. =	2,500 BTU/Hr. =	0.02832 cu. m/hr.
1 BTU/Hr. =	0.2931 Watts	