



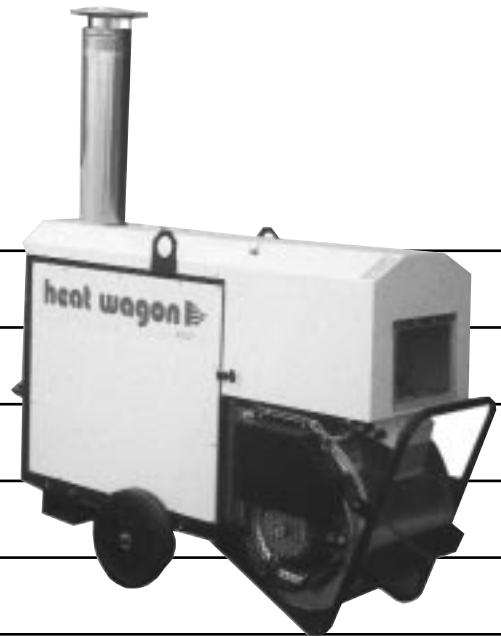
342 N. Co. Rd. 400 East  
Valparaiso, IN 46383  
888-432-8924 • Fax 219-462-7985  
[www.heatwagon.com](http://www.heatwagon.com)

## Installation and Maintenance Manual

Please retain this manual for future reference.

# VG400

*Construction  
Heater*



City of New York  
Dept. of Buildings  
29-05-E

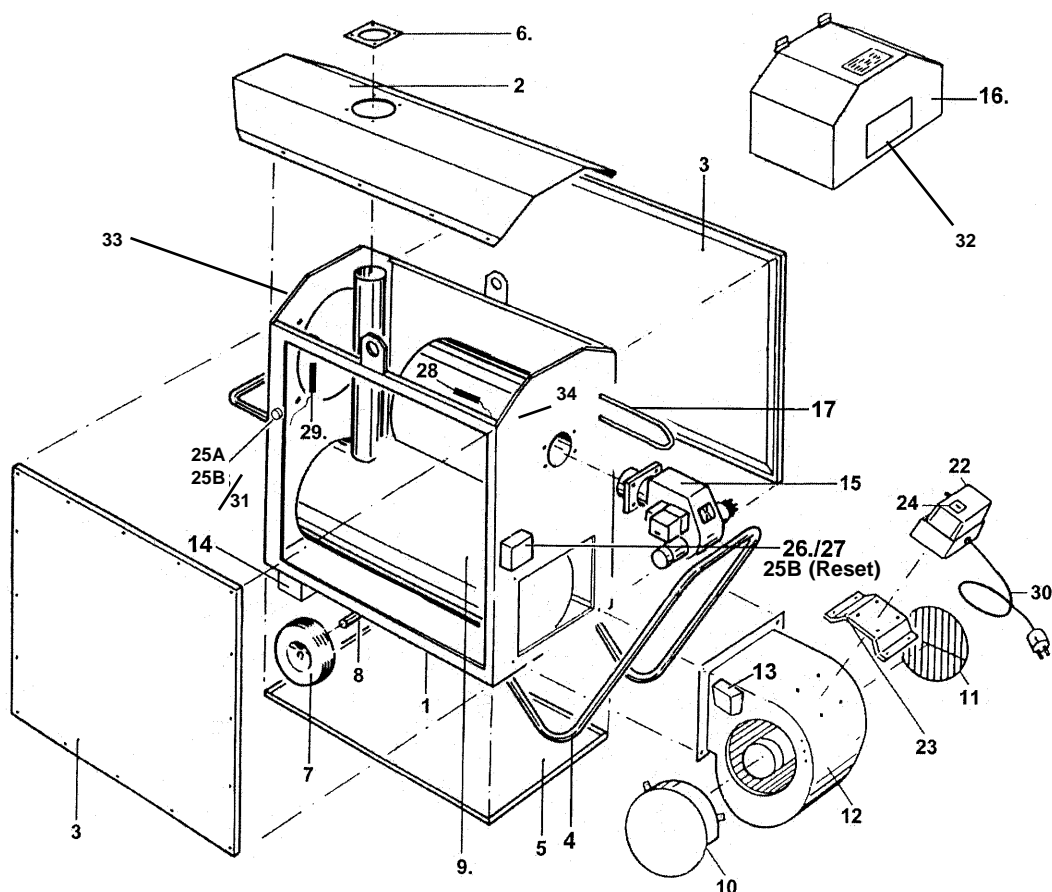


C US



**CAUTION:** Do not use this heater in a space where gasoline or other liquids having flammable vapors are stored.

# Heat Wagon VG400 Parts List



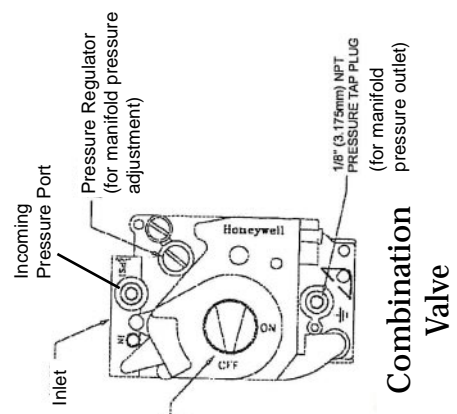
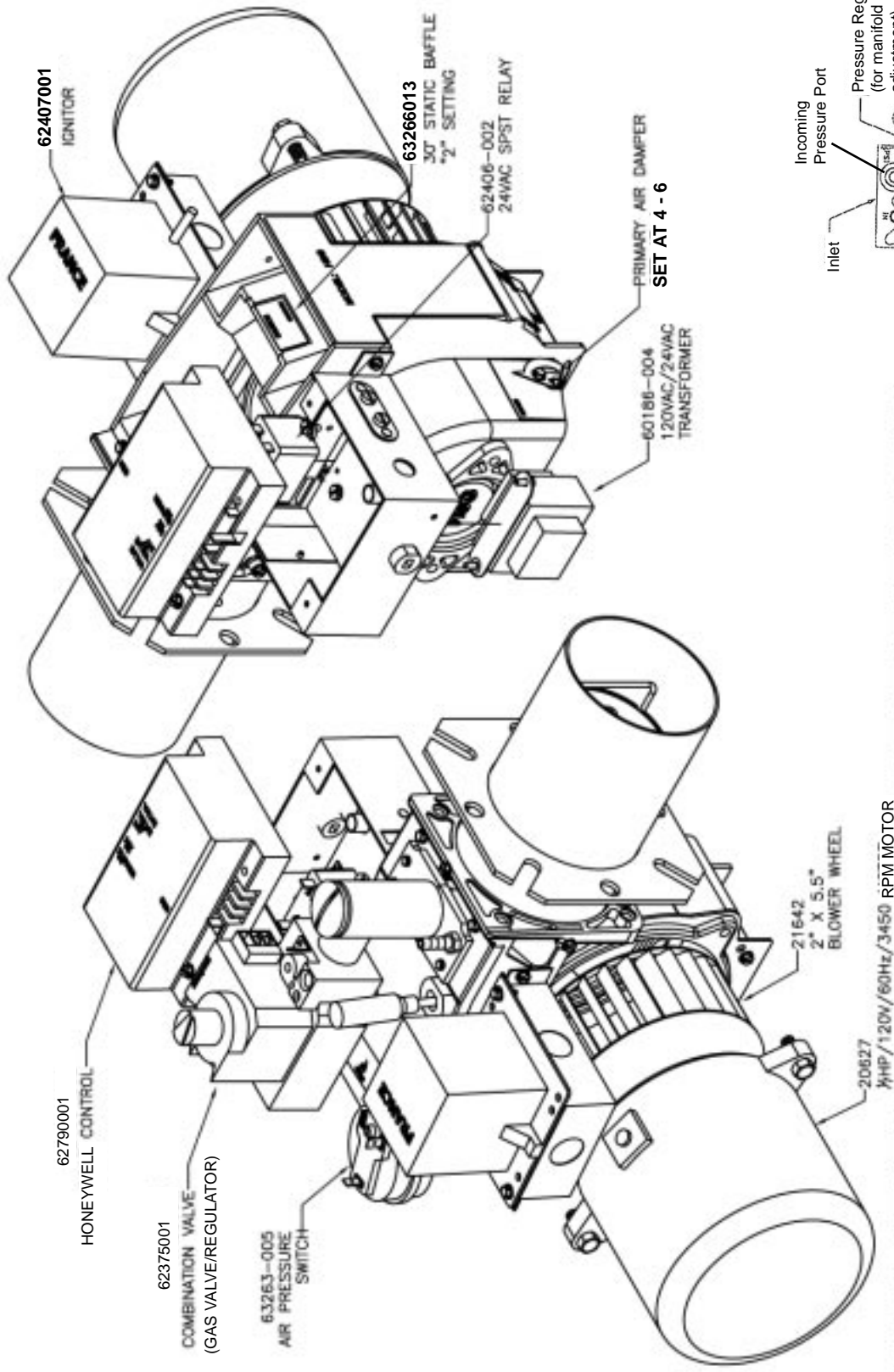
ITEM	PART#	DESCRIPTION	ITEM	PART#	DESCRIPTION
1	HWP 2109001	HEATER FRAME	27	HWP 20579	HEATER CONTROL UNIT
2	HWP 2109002	COVER PLATE	28	HWP 20581	FAN SENSOR (4" SENSOR)
3	HWP 2109003	SIDE PANELS (2)	29	HWP 20582	BURNER SENSOR
4	HWP 2109004	REAR HANDLE	30	HWP HC1020	POWER CORD & PLUG
5	HWP 2109005	BOTTOM PLATE	31	HWP 36811	RUBBER GROMMET
6	HWP 2109006	FLUE COLLAR	32	HWP 210938	PLASTIC WINDOW W/BRACKET
7	HWP HW1065	WHEEL	33	HWP 2109037	12" BLACK OUTLET ADAPTER
8	HWP 2109008	WHEEL SHAFT	34	HWP 20583	FAN SENSOR (8" SENSOR)
9	HWP 2109009	BURNER CHAMBER ASSEMBLY			
10, 11	HWP 2109010	FAN GUARD	NOT SHOWN IN DIAGRAM		
12	HWP 12440	FAN	HWP 2436		CONTACTOR
13	HWP 40900	FAN CONNECTION BOX	HWP 46950		CAPACITOR
14	HWP 2109014	FORKLIFT EYE	HWP 80200		BURNER COVER LATCH
15	HWP 120008B	BURNER VG400	HWP 2109031		RADIATION SHIELD (UPPER)
16	HWP 2109016	BURNER COVER	HWP 12000		SMOKE FLUE W/RAIN CAP
17	HWP 211153	OIL PREHEAT COIL	HPW 2109033		RADIATION SHIELD (SIDE)
22	HWP 41000	MAIN CONTROL BOX	HWP 2453		REMOTE THERMOSTAT (w/o cord)
23	HWP 2109023	BRACKET, MAIN CONTROL BOX	HWP 100428		GASKET FOR 120008 OR 120008B
24	HWP 26400	MAIN SWITCH	HWP 21724011		FLANGE ADJ. FOR 120008 OR 12008B
25A	HWP 21800	OVERHEAT LIMIT SWITCH (bimetallic)	HWP 62459002		ORIFICE PACK FOR 120008B
25B	HWP 21400**	OVERHEAT LIMIT (CAPILLARY)	HWP 40850SS		SILICONE SEAL - 40850 THERM. BOX
26	HWP 40850	THERMOSTAT BOX	ACC 40SV06		OPTIONAL REGULATOR FOR MORE THAN 14" W.C.
			HWP 210047		RUBBER EDGE SEAL (SOLD PER FOOT) (30 FEET PER HEATER)
			HWP 2109034		WIRE HARNESS
			DKV400		DECAL KIT
			180036		KIT TO CHANGE OVERHEAT LIMIT
			86800		SILICONE SLEEVE (sold in 4ft. sections)

Also see Control Box Parts page 17.

\*\*Note: Overheat limit switch - New design (capillary tube)  
S/N M2728-2746, M4769 and greater

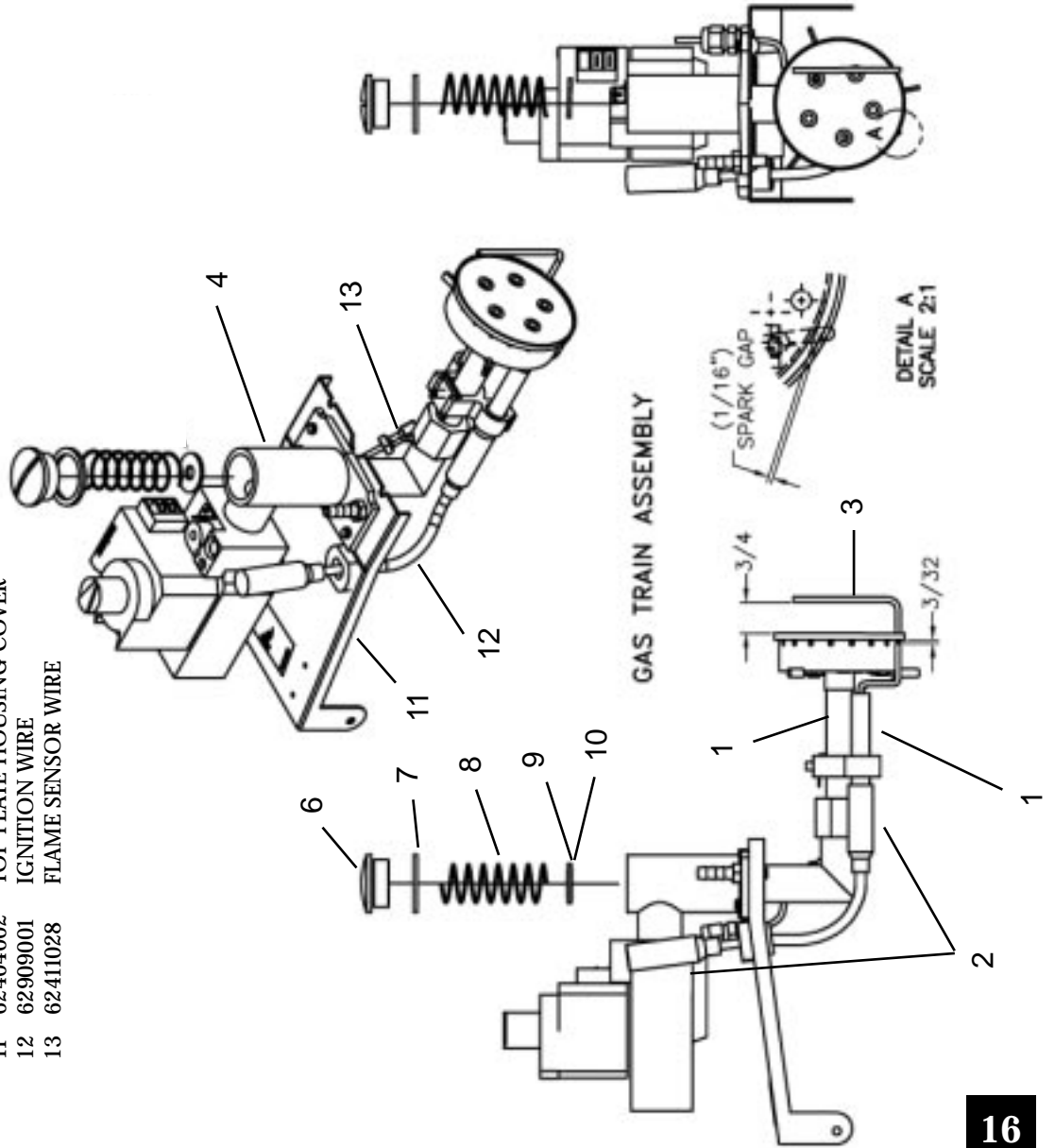


# WAYNE BURNER PARTS BREAKDOWN

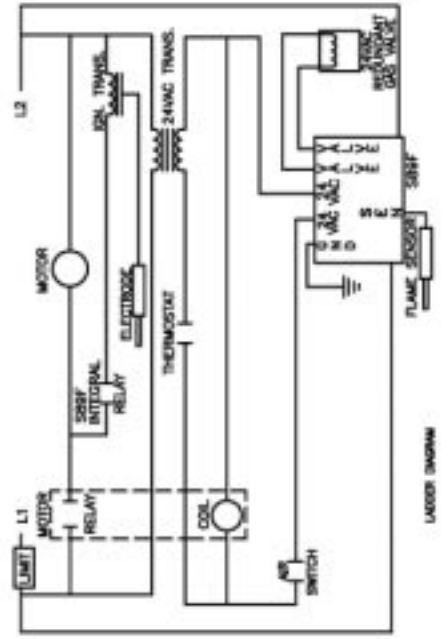
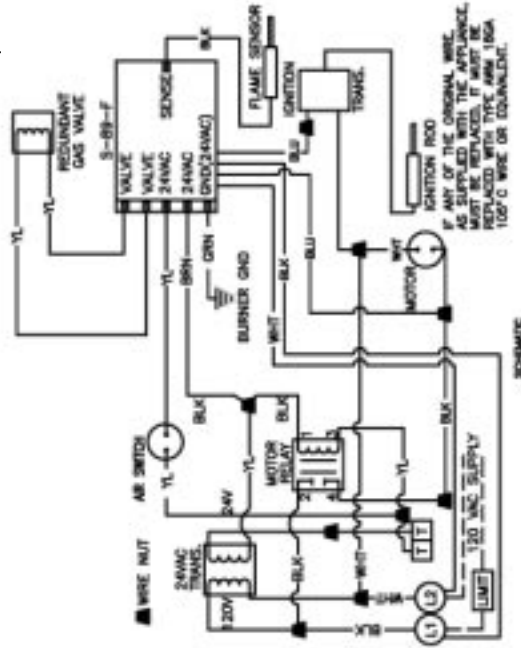


# WAYNE BURNER PARTS BREAKDOWN

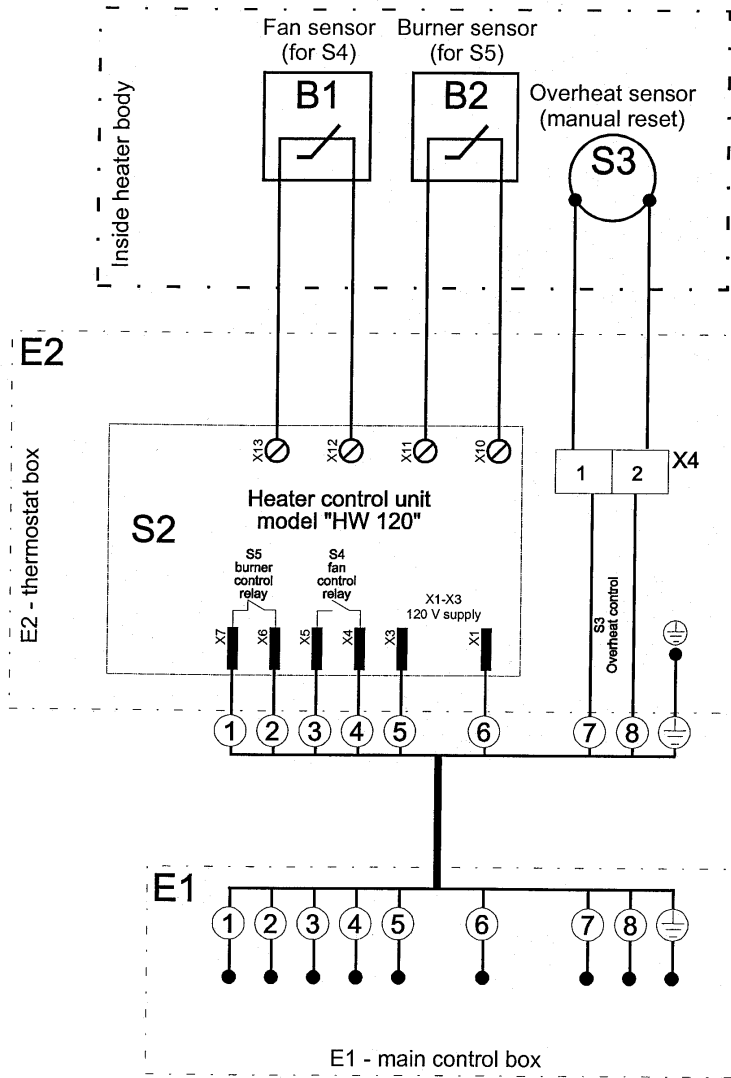
PART#	DESCRIPTION
1	ELECTRODE
2	ELECTRODE SLEEVES (QTY 2)
3	FLAME SENSOR
4	ORIFICE HOUSING
5	BURNER MANIFOLD
6	ORIFICE CAP
7	ORIFICE CAP GASKET
8	ORIFICE SPRING
9	.332 PROPANE ORIFICE
10	.468 NAT GAS ORIFICE
11	TOP PLATE HOUSING COVER
12	IGNITION WIRE
13	FLAME SENSOR WIRE



HSG POWER GAS BURNER  
WITH HONEYWELL S89F PRIMARY  
WIRING DIAGRAMS



# 120 Volt 1



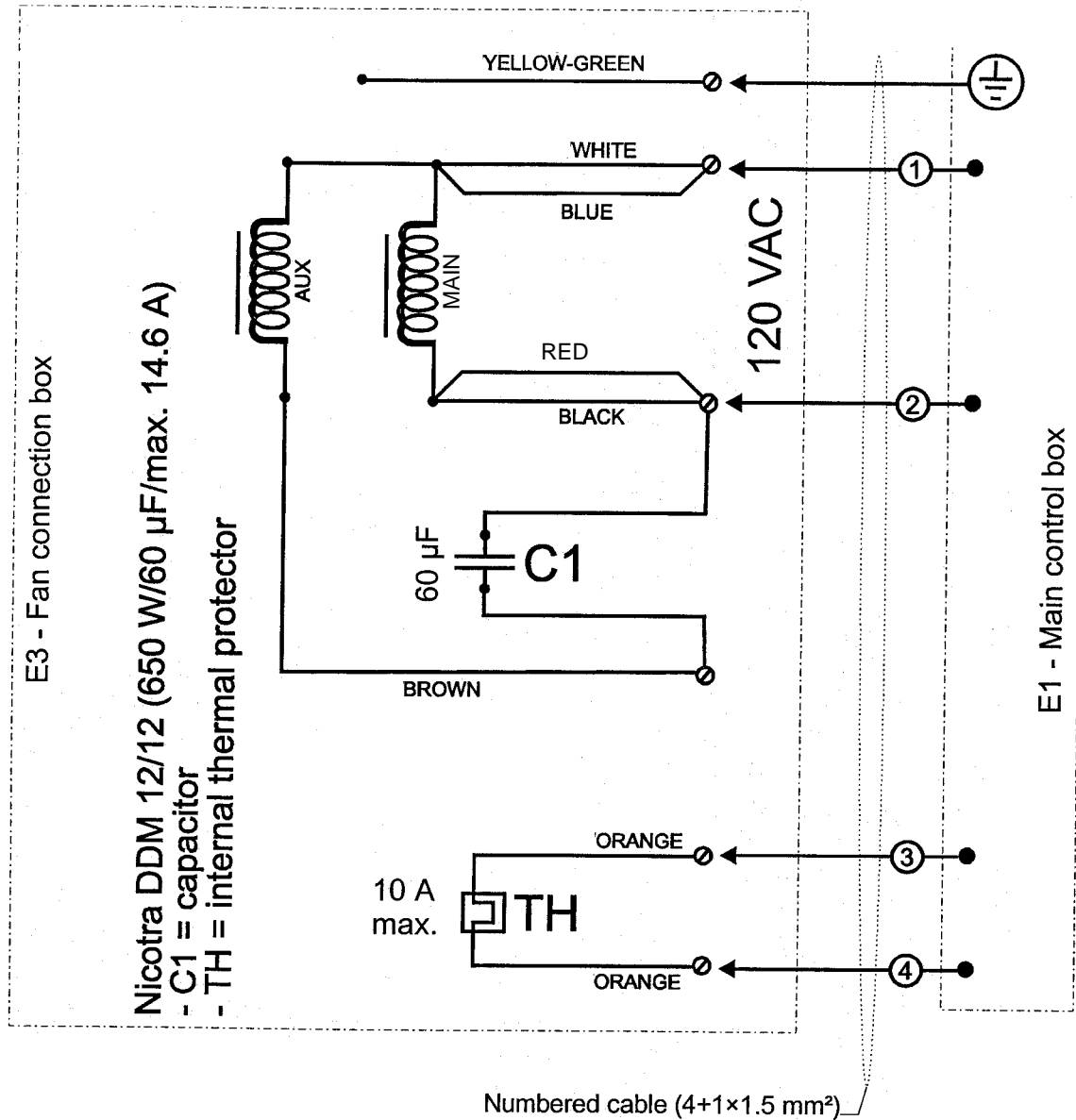
SENSOR RESISTANCE CHART

Degrees Fahrenheit	Degrees Celcius	Resistance (1K Ohm Scale)*	Degrees Fahrenheit	Degrees Celcius	Resistance (1K Ohm Scale)*
-40	-40	330.6	185	85	1.07
-31	-35	239	194	90	0.9156
-22	-30	174.7	203	95	0.7862
-13	-25	129	212	100	0.6777
-4	-20	96.21	221	105	0.5863
5	-15	72.42	230	110	0.5089
14	-10	55.01	239	115	0.4433
23	-5	42.14	248	120	0.3873
32	0	32.55	257	125	0.3395
41	5	25.34	266	130	0.2985
50	10	19.87	275	135	0.2633
59	15	15.7	284	140	0.2328
68	20	12.48	293	145	0.2065
77	25	10	302	150	0.1836
86	30	8.059	311	155	0.1636
95	35	6.534	320	160	0.1455
100	40	5.329	329	165	0.1303
113	45	4.371	338	170	0.1169
122	50	3.604	347	175	0.1052
131	55	2.988	356	180	0.09484
140	60	2.489	365	185	0.08569
149	65	2.084	374	190	0.07757
158	70	1.753	383	195	0.07037
167	75	1.481	392	200	0.06398
176	80	1.256			

\* Correct Ohm reading when sensors are at the above listed temperatures

# 120 Volt 1 PH

# BLOWER MOTOR SCHEMATIC



ITEM	PART#	DESCRIPTION
E1	HWP 41000	MAIN CONTROL BOX
E2	HWP 40850	THERMOSTAT BOX
E3	HWP 40900	FAN CONNECTION BOX
S1	HWP 26400	MAIN SWITCH
S2	HWP 20579	HEATER CONTROL UNIT,
B1	HWP 20581	FAN SENSOR (for S4)
B1	HWP 20583	FAN SENSOR 225MM TUBE
B2	HWP 20582	BURNER SENSOR (for S5)
S3	HWP 21800	OVERHEAT LIMIT SWITCH (BIMETALLIC)
	HWP 21400	OVERHEAT LIMIT (CAPILLARY)
X1	HWP 36701	TERMINAL BLOCK (E1)
X2	HWP 36100	GROUNDING BLOCK (E1)
	HC1020	POWER CABLE & PLUG
X4	HWP 36701	TERMINAL BLOCK (E2)
X5	HWP 36701	TERMINAL BLOCK (E3)
CI		CAPACITOR
TH		INTERNAL THERMAL PROTECTOR

# 120 Volt 1 PH

