

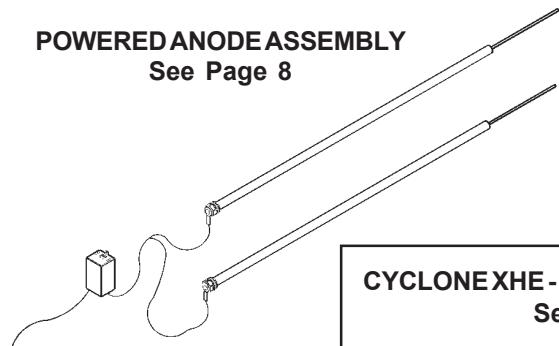
**A.O.SMITH**  
**WATER PRODUCTS  
COMPANY**

PSD-3-443/c

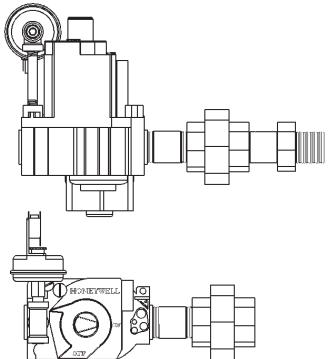
**GAS**

COMMERCIAL WATER HEATER PARTS LIST  
MODEL BTH-300A  
SERIES 970/971  
MODEL BTH-400A  
SERIES 970

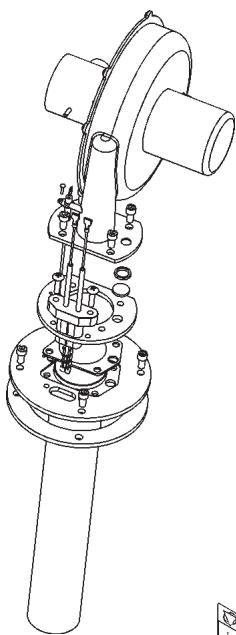
POWERED ANODE ASSEMBLY  
See Page 8



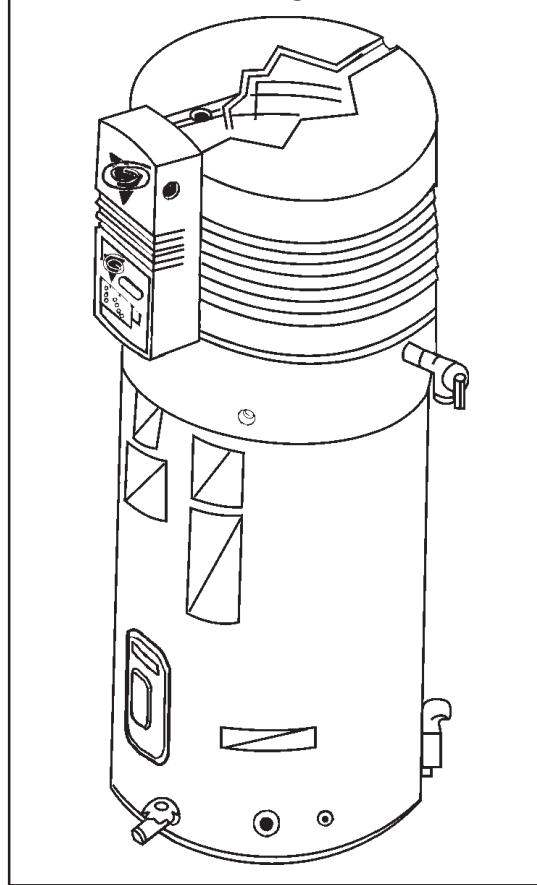
GAS VALVE  
See Page 5



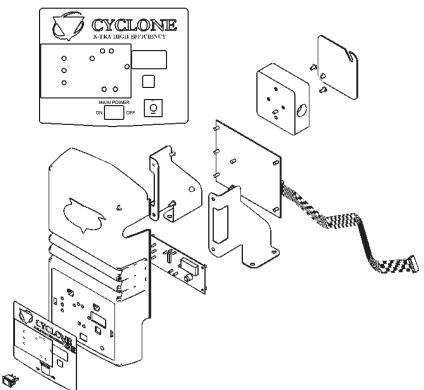
BLOWER/BURNER ASSEMBLY  
See Page 7



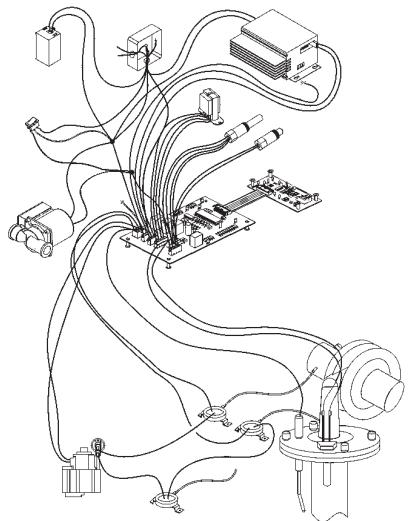
CYCLONE XHE - MODEL BTH-300A/400A  
See Page 2



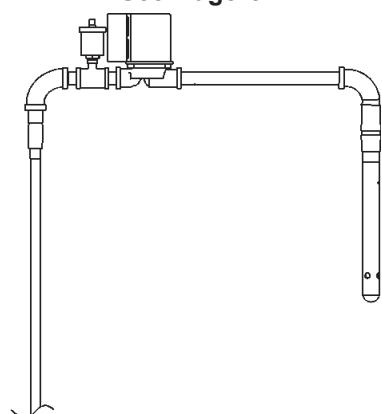
CONTROL PANEL  
See Page 3



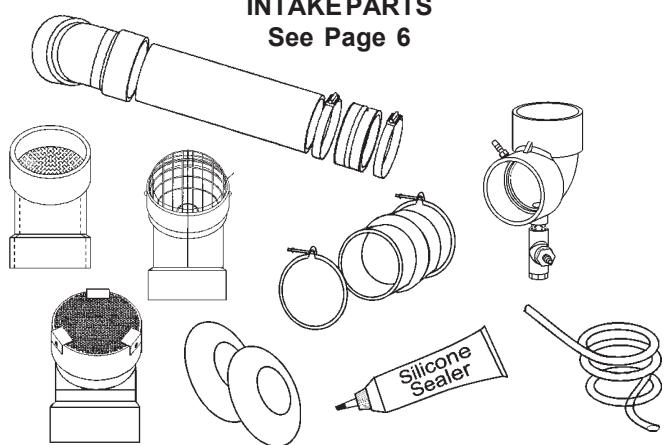
OPERATING CONTROL WIRING  
See Page 4



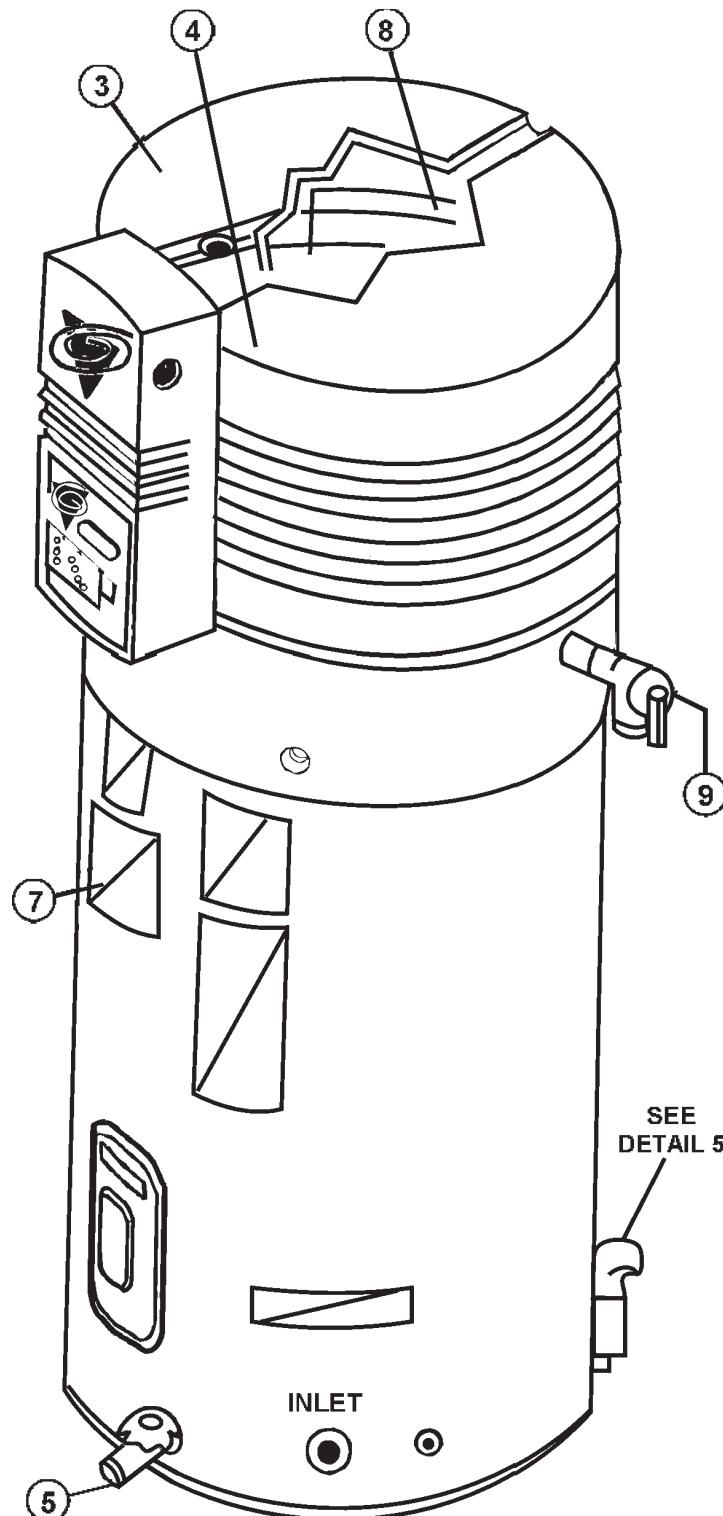
RECIRCULATING SYSTEM  
See Page 5



EXHAUST ELBOW, VENT KIT & BLOWER  
INTAKE PARTS  
See Page 6



## CYCLONE XHE BTH 300A/400A - PARTS LIST

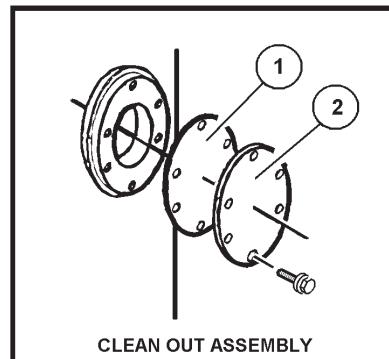


Item	Description	BTH 300A 970/971	BTH 400A 970/971
1	Cleanout Gasket .....	<u>99038</u> .....	<u>99038</u>
2	Cover, Cleanout .....	<u>99037</u> .....	<u>99037</u>
3	Cover, Left .....	194748 .....	194748
4	Cover, Right .....	194749 .....	194749
5	Drain Valve .....	26273-4 .....	26273-4
7	Labels:		
	800 Help Line .....	190600 .....	190600
	C.E.C. ....	42985 .....	42985
	Cleanout .....	78754 .....	78754
	ECO .....	192282-1 .....	192282-1
	Electronic Ignition .....	77860 .....	77860
	Flammable Vapors .....	193302 .....	193302
	Lighting & Operating .....	194548 .....	194548
	Relief Valve .....	191068 .....	191068
	UL .....	192870 .....	192870
	Ultra Coat .....	193860 .....	193860
	Warning .....	193912 .....	193912
	Water Inlet .....	94519 .....	94519
	Water Outlet .....	94518 .....	94518
	Wiring Diagram .....	194772 .....	194772
8	Panel, Back .....	194750 .....	194750
9	Temperature and Pressure Relief Valve .....	99383-3 .....	99383-3

**NOTE:** Underlined parts are recommended stock items for emergency replacement.  
Consider gas used in your area only.

\*Not illustrated.

Standard hardware items may be purchased locally.



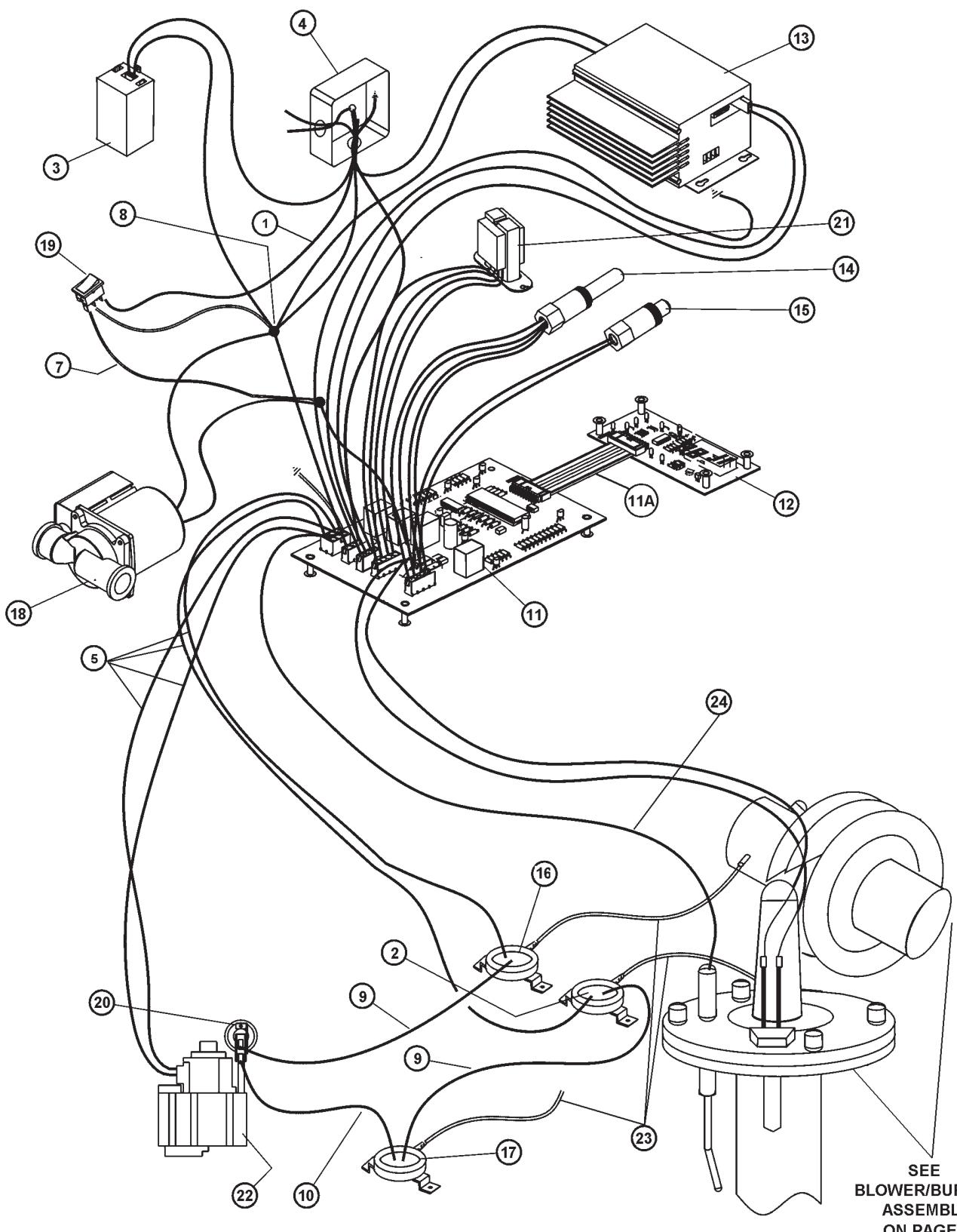
## CYCLONE XHE BTH 300A/400A - CONTROL PANEL

Item	Description	BTH300A	BTH400A
		970/971	970/971
1	Board, Display Panel .....	194808 .....	<u>194808</u> .....
2	Bracket, Mounting Left .....	194123-1 .....	<u>194123-1</u> .....
3	Bracket, Mounting Right .....	194123 .....	194123 .....
	Control Board, Cable Assembly (includes 4 & 4A) .....	194811 .....	195018 .....
4	Control Board .....	194812 .....	195010 .....
4A	Cable Assembly .....	194809 .....	194809 .....
5	Junction Box Assembly .....	194126 .....	194126 .....
6	Junction Box Cover .....	2233 .....	2233 .....
7	Label, Display Panel .....	194203 .....	194203 .....
8	Label, Led .....	194915 .....	194915 .....
9	Panel Front .....	193884 .....	193884 .....
10	Screw, Plastic .....	194202 .....	194202 .....
11	Switch,Off/On .....	193243 .....	193243 .....

## CYCLONE XHE BTH 300A/400A - OPERATING CONTROLS & WIRING (See Next Page)

Item	Description	BTH 300A 970/971	BTH 400A 970/971
1	Cable Assembly, Power Switch .....	194785 .....	194785 .....
2	Blower Prover Air Switch .....	194706 .....	<u>195013</u> .....
3	Box, Anode .....	194857 .....	194857 .....
4	Box, Junction .....	194126 .....	194126 .....
5	Cable Assembly, Low Voltage .....	194918 .....	194918 .....
7	Wire Harness .....	194783 .....	194783 .....
8	Cable, Assembly - Controls .....	194784 .....	194784 .....
9	Wire Assembly - Air Flow Switch .....	192802-2 .....	192802-2 .....
10	Wire Assembly - Air Flow Switch .....	192802-1 .....	192802-1 .....
	Control Board, Cable Assembly (Includes Item 11 & 11A) .....	194811 .....	<u>195018</u> .....
11	Control Board .....	194812 .....	195010 .....
11A	Cable Assembly .....	194809 .....	194809 .....
12	Display Board .....	194808 .....	<u>194808</u> .....
13	Electronic Control .....	194747 .....	194747 .....
14	Probe, Upper .....	196597 .....	<u>196597</u> .....
15	Probe, Lower .....	196598 .....	<u>196598</u> .....
16	Switch, Blocked Inlet .....	194911 .....	195012 .....
17	Switch, Blocked Outlet - NAT .....	194910 .....	194910 .....
	Switch, Blocked Outlet - LP .....	195017 .....	195017 .....
18	Pump, Recirculation .....	194799 .....	194799 .....
19	Switch, On/Off .....	193243 .....	193243 .....
20	Switch, NAT, Low Gas Pressure .....	191149-6 .....	<u>191149-6</u> .....
	Switch, LP ,Low Gas Pressure .....	191149-4 .....	<u>191149-4</u> .....
21	Transformer .....	192608 .....	192608 .....
22	Valve, Natural Gas .....	194536-5 .....	<u>194536-5</u> .....
22	Valve, LP Gas .....	194536-6 .....	<u>194536-6</u> .....
23	Tubing, 1/4" ID, PVC .....	193738 .....	193738 .....
24	Cable Assembly, Igniter .....	194937 .....	194937 .....

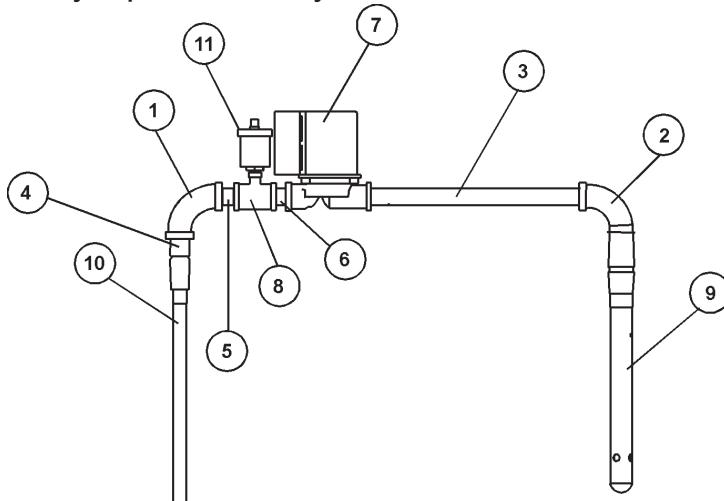
**DETAIL 2 - CYCLONE XHE BTH 300A - CONNECTIONS (Continued)**



## RECIRCULATING SYSTEM

Item	Description	BTH 300A	BTH 400A
		970/971	970/971
1	Elbow, 3/4" Female - 3/4" Female .....	194873 .....	194873
2	Elbow, 3/4" Male - 1" Female .....	194872 .....	194872
3	Hose, Flexible .....	194912 .....	194912
4	Nipple, 3/4" - Pipe x 2" .....	194921-3 .....	194921-3
5	Nipple, 3/4" - Pipe x 4" .....	194921-2 .....	194921-2
6	Nipple, 3/4" - Pipe x close .....	194921-1 .....	194921-1
7	Pump, Recirculation .....	194799 .....	194799
8	Tee, Non-Reducing .....	194870 .....	194870
9	Tube, Closed End Dip .....	194924 .....	194924
10	Tube, Inlet .....	194820 .....	194820
11	Vent, Automatic Air .....	194830 .....	194830

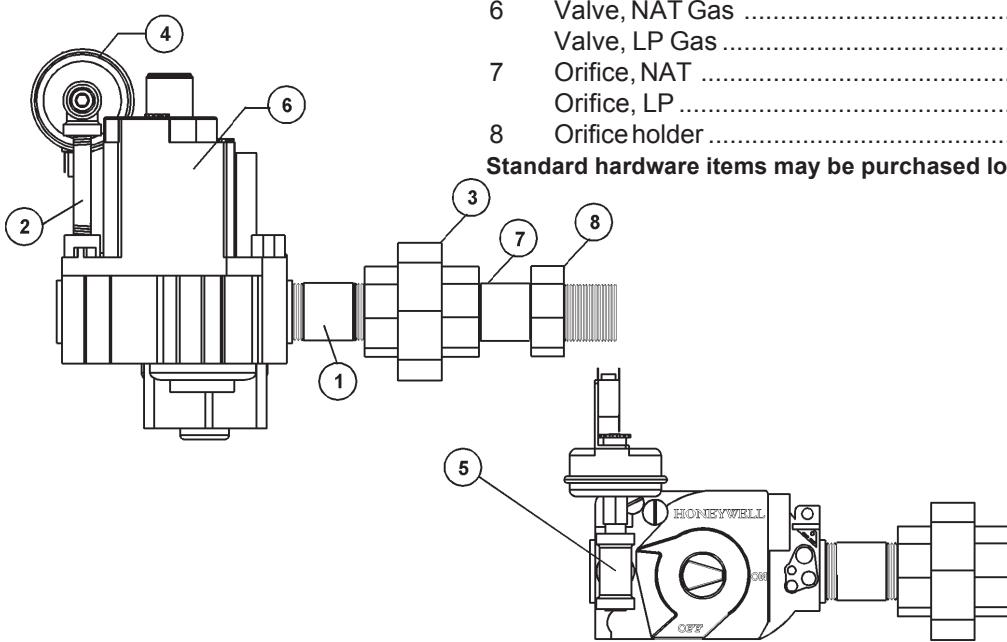
Standard hardware items may be purchased locally.



## DETAIL 4 - GAS VALVE

Item	Description	BTH 300A 970/971	BTH 400A 970/971
1	Nipple, 3/4" - Pipe .....	85040-18 .....	85040-18
2	Nipple, 1/8" - Pipe .....	192948-2 .....	192948-2
3	Pipe, Union .....	95515 .....	95515
4	Switch, Low Gas Pressure .....	<u>191149-6</u> .....	<u>191149-6</u>
	LP Gas .....	<u>191149-4</u> .....	<u>191149-4</u>
5	Tee, Non-Reducing .....	40119 .....	40119
6	Valve, NAT Gas .....	<u>194536-5</u> .....	<u>194536-5</u>
	Valve, LP Gas .....	<u>194536-6</u> .....	<u>194536-6</u>
7	Orifice, NAT .....	192477-7 .....	192477
	Orifice, LP .....	192477-8 .....	192477-9
8	Orifice holder .....	192447 .....	192447

Standard hardware items may be purchased locally.

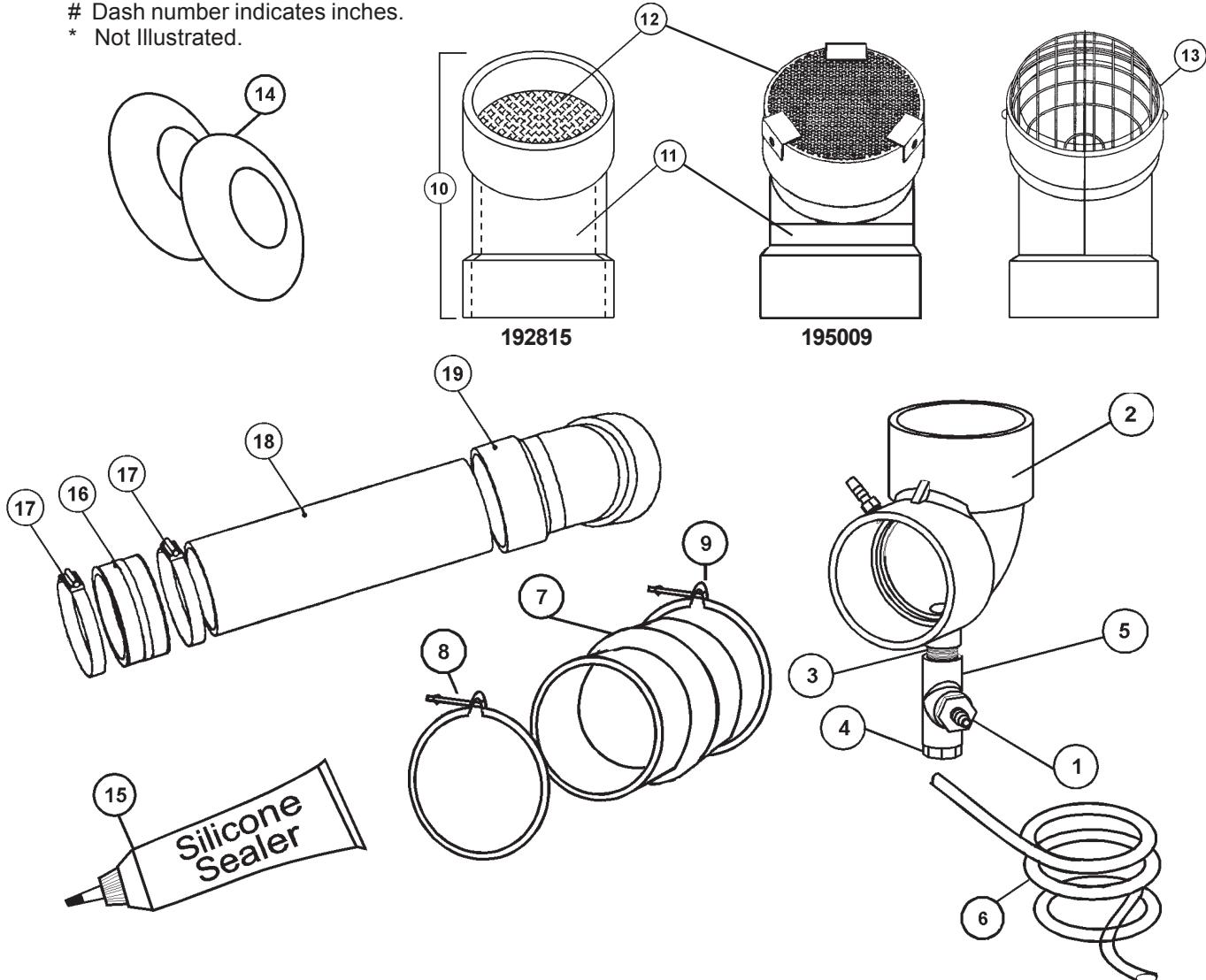


## EXHAUST ELBOW, VENT KIT & BLOWER INTAKE PARTS

Item	Description	BTH 300A 970/971	BTH 400A 970/971
<b>EXHAUST ELBOW AND FITTINGS</b>			
1	Adapter, Hose Fitting .....	192472 .....	192472
2	Elbow, 90° .....	194836 .....	194836
3	Nipple, Pipe, Closed .....	194558 .....	194588
4	Plug, Hex .....	194560 .....	194560
5	Tee .....	194559 .....	194559
6	Tubing .....	191746-72 .....	191746-72
7	Connector, Exhaust .....	192636 .....	192636
8	Hose Clamp, 3" .....	192696 .....	192696
9	Hose Clamp, 4.5" .....	192697 .....	192697
<b>VENT KIT PARTS</b>			
10	Elbow w/Screen .....	192815 .....	195009
11	Elbow, 45° x 3.5" dia.....	181901 .....	181901
12	Screen .....	181662 .....	195008
13	Intake Terminal .....	182167 .....	182167
14	Wall Plates (2 Req'd) .....	181557 .....	181557
15	Silicone Sealer, 2 oz. tube .....	181564 .....	181564
<b>BLOWER INTAKE PARTS</b>			
16	Coupling .....	182094 .....	182094
17	Hose Clamp .....	194838 .....	194838
18	Tube, Intake .....	194923 .....	194923
19	Vent Terminal, Intake .....	192815 .....	192815

# Dash number indicates inches.

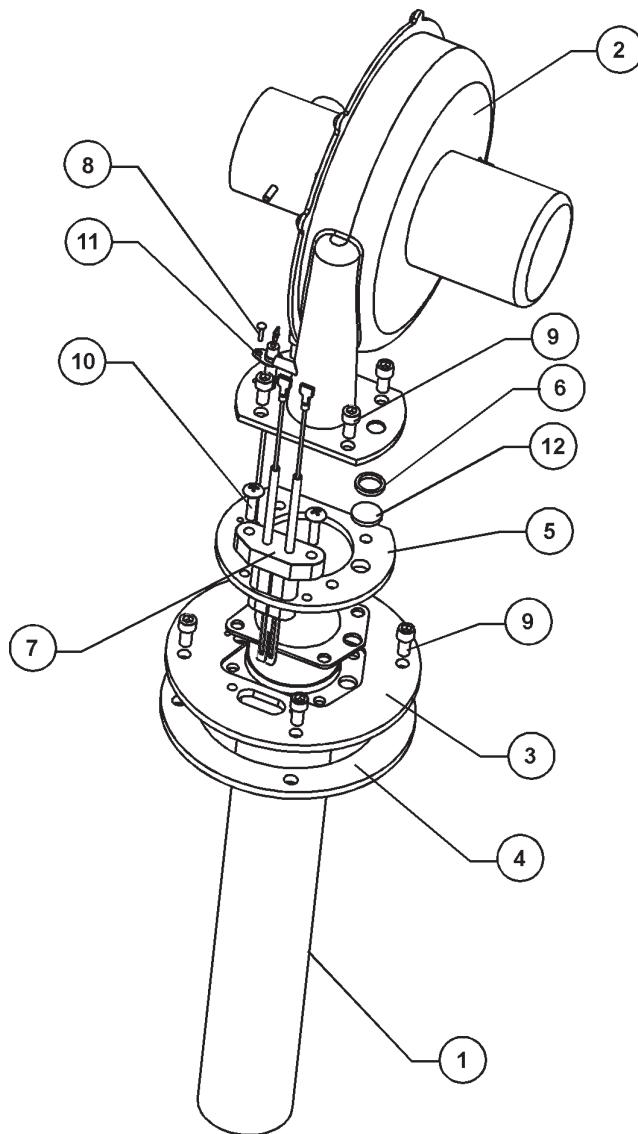
\* Not Illustrated.



## BLOWER/BURNER - ASSEMBLY

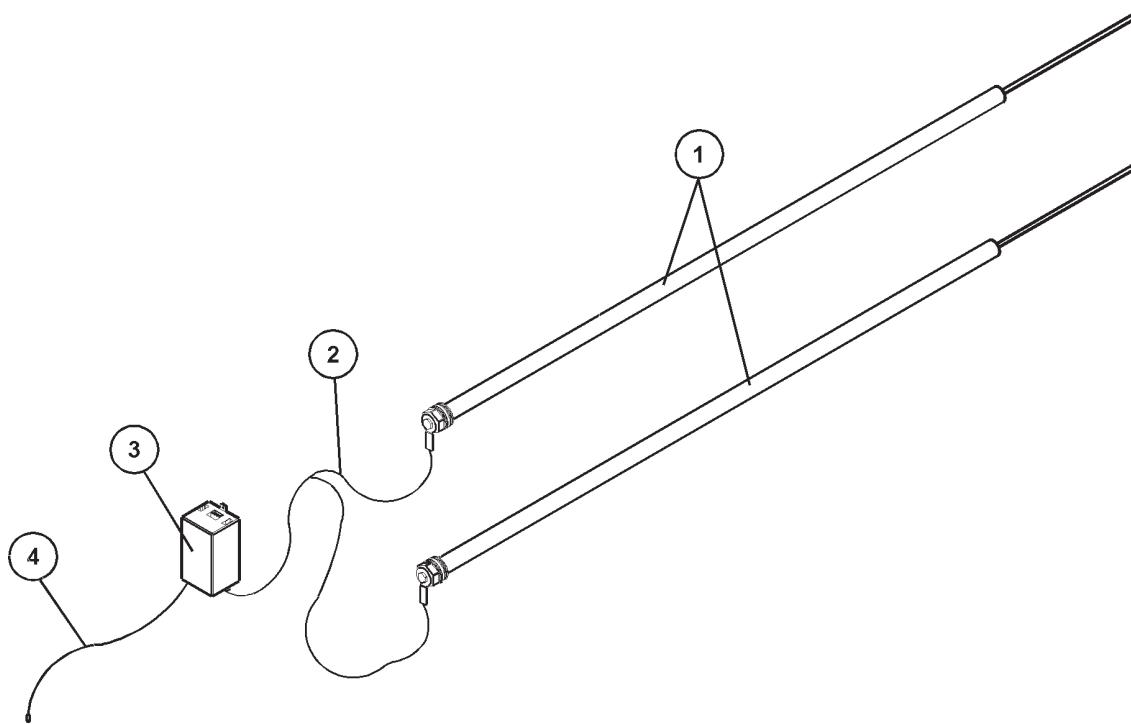
Item	Description	BTH 300A	BTH 400A
		970/971	970/971
1	Burner .....	194779 .....	194998
2	Blower/Motor Assembly .....	194746 .....	194746
3	Flange-Burner .....	194960 .....	194960
4	Gasket .....	194817 .....	194817
5	Gasket, Burner .....	194777 .....	195016
6	Gasket-Viewport .....	194827 .....	194827
7	Ignitor .....	<u>192334</u> .....	<u>192334</u>
8	Screw, #8-18 x 1/2 .....	192698 .....	192698
9	Screw, Socket Head Cap .....	192515 .....	192515
10	Screw, Truss Hd. Mach 1/4-20 x 2.00 .....	194816 .....	194816
11	Sensor, Flame .....	194776-1 .....	194776-1
12	Window, Observation .....	98758-3 .....	98758-3

Standard hardware items may be purchased locally.



## POWERED ANODE ASSEMBLY

Item	Description	BTH 300A 970/971	BTH 400A 970/971
1	Anode .....	194787 .....	194787
2	Anode Wire, 28"	194925 .....	194925
3	Control Box .....	194857 .....	194857
4	LED w. Lead Wire .....	194959 .....	194959



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