



Date: December 20, 1999  
Subject: Gas Water Heater Conversion Policy  
To: All Accounts

No. 137 Rev. 2

\* This supersedes all previous letters and field bulletins concerning residential and commercial water heater conversion.

## **GAS WATER HEATER CONVERSION POLICY**

All A.O. Smith Water Products Company's residential and commercial gas water heaters are designed certified by CSA or UL, under ANSI Standards for operation on one type of gas only, as indicated on the water heater's model number and rating plate.

A.O. Smith realizes that there may be certain situations where a field conversion may be necessary and in order to facilitate such a conversion, A. O. Smith complies with CSA or UL regulations ensuring that a field conversion be appropriately and safely completed.

An improper field conversion from one type of gas to another could cause potentially dangerous conditions that may cause an explosion or fire resulting in property damage, bodily injury or both.

**A.O. SMITH WILL ONLY ALLOW THE CONVERSION OF GAS WATER HEATERS FROM LP GAS (PROPANE) TO NATURAL GAS. THE CONVERSION OF A GAS WATER HEATER FROM NATURAL GAS TO LP GAS (PROPANE) IS NOT ALLOWED UNDER ANY CIRCUMSTANCES.**

A.O. Smith will provide kits as demand warrants through our Parts Department, phone no. 1-800-433-2545. Prices, dimensions and specifications are subject to change without notice.

Each conversion kit is to be installed by an A.O. Smith service agent or a gas utility serviceman in accordance with A.O. Smith's written instructions and all codes and requirements of the authority having jurisdiction. Failure to follow instructions could result in serious injury or property damage. The utility performing this work assumes responsibility for this conversion.

### **Changing the Input on Gas Water Heaters**

The only changes to the input of a gas water heater allowed are:

- Adjustments to match that shown on the rating plate of the heater. The installation instructions supplied with the heater indicate if adjustments to input are a required procedure.
- Changes made as required to adjust the heater for proper operation at high altitude as determined by a qualified service technician. Service manuals include the proper procedure for adjusting heaters at high altitudes.

### **Conversion of Gas Water Heaters**

The conversion of LP gas (Propane) to Natural gas is ONLY allowed providing:

- The conversion is done as part of a gas utility's program where propane appliances were installed anticipating the completion of natural gas service to the area. The conversion must be done under the direct supervision of the utility and by their service representatives.

Claims of damage or injury arising from the unauthorized conversion of any A.O. Smith water heater not design certified for conversion will be the complete and total responsibility of the person or entity making the conversion.

If you have any questions regarding the above policy, please contact the A.O. Smith Parts Department at 1-800-433-2545 or our Technical Information Center at 1-800-527-1953.

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**A.O. SMITH WATER PRODUCTS CO., INC.**  
5621 W. 115TH STREET • ALSIP, ILLINOIS 60803  
PHONE: 1-800-433-2545  
FAX: 1-800-433-2515 • [www.hotwater.com](http://www.hotwater.com)

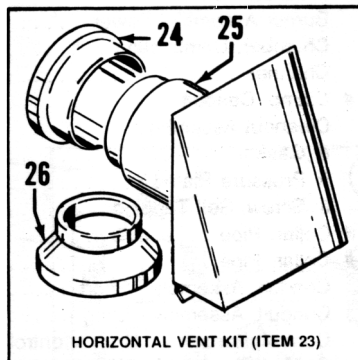
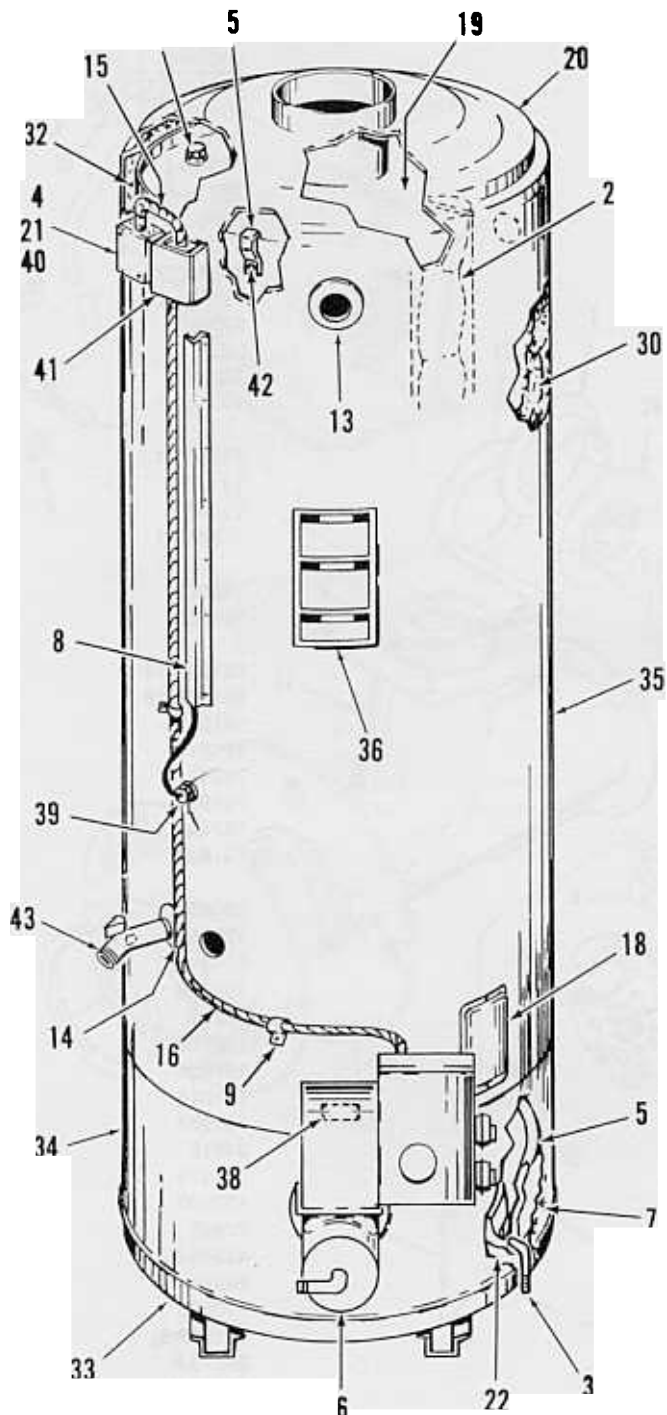
**GAS**

**COMMERCIAL TANK TYPE WATER HEATER PARTS LIST**

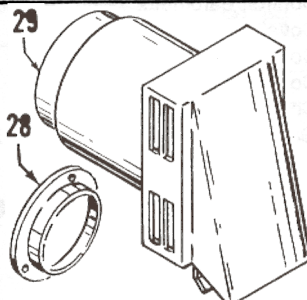
**MODEL BTP-540A AND 700A**

**SERIES 920**

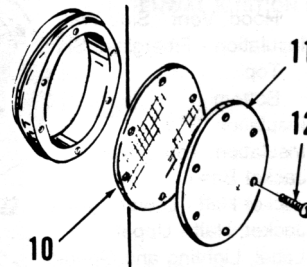
SEE NEXT PAGE FOR PARTS LIST



HORIZONTAL VENT KIT (ITEM 23)



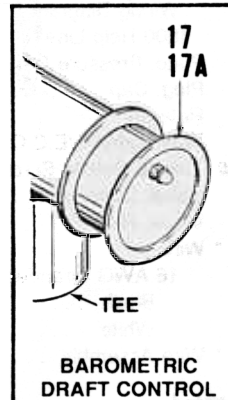
DIRECT VENT KIT - INCLUDES ITEM 23  
HORIZONTAL VENT KIT (ITEM 27)



CLEANOUT ASSEMBLY



ITEM NO. 44



BAROMETRIC  
DRAFT CONTROL

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

5621 W. 115TH STREET • ALSIP, ILLINOIS 60803  
PHONE: 1-800-433-2545 • FAX: 1-800-433-2515 • WWW.HOTWATER.COM

# WATER HEATER PARTS LIST (SEE FRONT PAGE FOR ILLUSTRATION)

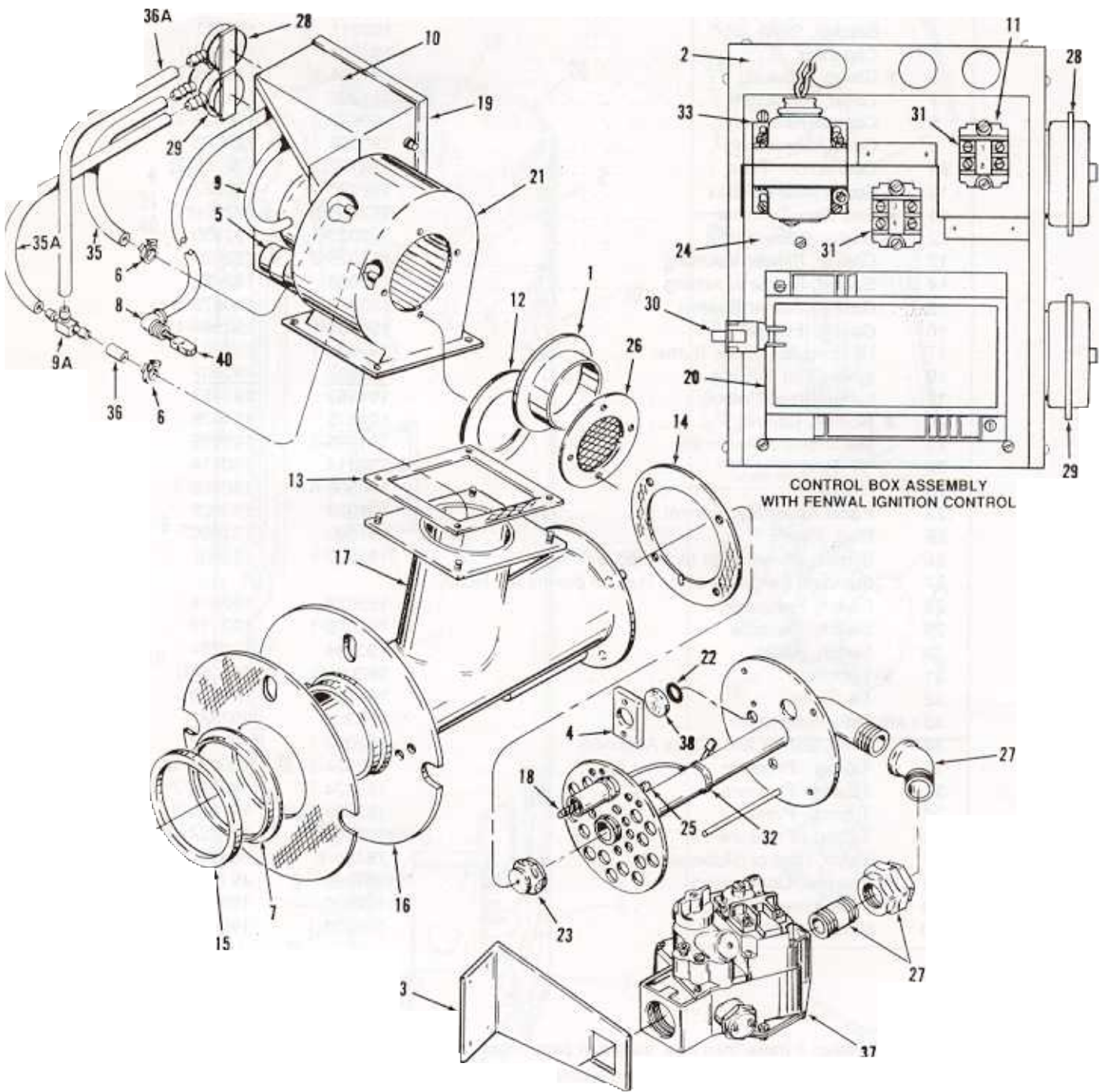
<u>Item</u>	<u>Description</u>	<u>BTP-540</u>	<u>BTP-700</u>
	# Anode, Plug .....	43817-4(4)	43817-4(4)
	# Baffle, Flue .....	191996-1(16)	191996(16)
	# Bolt, Base .....	41431(4)	41431(4)
	Box, Junction .....	93558	93558
	# Bracket .....	191534(6)	191534(6)
6	Burner Assembly, Power .....	191993-1	191993
7	Chamber, Combustion .....	191020	191020
8	Channel .....	95312-3	95312-3
	# Clamp, Conduit .....	94694(2)	94694(2)
	Cleanout Assembly:		
10	# Gasket .....	<u>99038(2)</u>	<u>99038(2)</u>
11	# Pressure Plate .....	<u>99037(2)</u>	<u>99037(2)</u>
12	# Screw, Self Tapping .....	<u>69852-1(12)</u>	<u>69852-1(12)</u>
13	# Collar, Pipe .....	20172-6(2)	20172-6(2)
14	# Collar, Pipe .....	95030-2(2)	95030-2(2)
15	Conduit, Assembly - Short .....	78916-4	78916-4
16	Conduit, Assembly - Long .....	78916-5	78916-5
17	Control, Barometric Draft (Control Only) .....	69803-9	69803-9
17A	Control, Barometric (With Tee Included) .....	170777-2	170777-2
18	# Cover, Front .....	38445(2)	38445(2)
19	Cover, Inner .....	190885-2	190885-2
20	Cover, Jacket .....	97062	97062
21	Cover, Junction Box .....	2233	2233
22	Gasket, Skirt Ring .....	76443	76443
23	Horizontal Vent Kit .....	192049-1	192049
	(Includes the following items:)		
24	Adapter, Hood .....	192079-1	192079
25	Hood, Vent - Side Wall .....	191236	191235
26	Reducer - Flue .....	191981	191981-1
27	Direct Vent Kit .....	192050-1	192050
	(Includes item 23 and the following items:)		
28	Adapter, Inlet .....	192072	192072
29	Hood, Vent - Side Wall .....	191236	191235
30	Insulation - Fiberglass Skirt:		
	Top .....	181268-14	181268-14
	Bottom .....	181268-18	181268-18
31	Insulation, Skirt .....	191017	191017
32	Insulation, Top Cover .....	191018	191018
33	Jacket Base .....	76242	76242
34	Jacket Half - Lower .....	76697-5	76697-5
35	Jacket, Half - Upper .....	78749-6	78749-6
36	Label, Lighting and Operating .....	191808	191808
37	* Labels:		
	ASME .....	68065	68065
	California .....	42985	42985
	# Cleanout .....	97444(2)	97444(2)
	Combination .....	191159	191159
	Outlet .....	94519	94519
	Permafoam .....	180980	180980
	Relief Valve .....	191068	191068
	U.L. .....	191916	191916
	Venting .....	191983	191983
	Water Inlet .....	94518	94518
	Wiring Diagram .....	191973	191973
	800 Help Line .....	190600	190600
38	Plate, Pressure Data .....	77995	77995
39	Plug, Cap .....	42346-3	42346-3
40	Retainer .....	39884	39884
41	Thermostat w/E.C.O .....	<u>170336</u>	<u>170336</u>
42	# Thread-Cutting Screw .....	<u>191533(6)</u>	<u>191533(6)</u>
43	Valve, Drain .....	26273-6	26273-6
44	Valve, Relief .....	99465-3	99465-3
45	* Wire		
	16 AWG Stranded, 109°C, AWM & TEW		
	Black .....	86578	86578
	White .....	86580	86580
46	* Wire Assembly .....	78394-15	78394-16

\* Not illustrated.

# Quantities if more than one, shown in parenthesis next to part number.

Part numbers underlined are recommended stock items for emergency replacement.

Request parts from Product Service Division giving all information such as model and series number.



CONTROL BOX ASSEMBLY WITH FENWAL IGNITION CONTROL

**POWER BURNER PARTS LIST (SEE PAGE 3 FOR ILLUSTRATION)**

<u>Item</u>	<u>Description</u>	<u>BTP-540A</u>	<u>BTP-700A</u>
1	Adapter, Inlet (Direct Vent Only) . . . . .	192072	192072
2	Back Assembly, Control Box . . . . .	192005	192005
3	Bracket, Gas Valve . . . . .	191522	191522
4	Bracket, Sight . . . . .	190911	190911
5	Capacitor . . . . .	191689	191689-1
6	# Clamp, Hose (2) . . . . .	191794-2	191794-2
7	Collar, Refractory . . . . .	191008	191008
8	Conduit Assembly . . . . .	190928-3	190928-3
9	Conduit Assembly . . . . .	190928	190928
9A	Connector - Tube . . . . .	192152(2)	192152(2)
10	Cover - Control Box . . . . .	192027	192027
11	# End Cap, Terminal . . . . .	98206(2)	98206(2)
12	Gasket, Blower Inlet . . . . .	192030	192030
13	Gasket, Blower Mounting . . . . .	192025-1	192025
14	Gasket, Burner Mounting . . . . .	192026	192026
15	Gasket, Burner Sealing . . . . .	190873	190873
16	Gasket, Flange . . . . .	190864-1	190864-1
17	Housing Assembly, Burner . . . . .	192001-1	192001
18	Igniter, Hot Surface . . . . .	<u>190907</u>	<u>190907</u>
19	Label, Rhino Power . . . . .	191453	191453
20	# Module, Control . . . . .	191675	191675
21	Motor/Blower Assembly . . . . .	191995-1	191995
22	"O" Ring . . . . .	190914	190914
23	Orifice . . . . .	190908-6	190908-3
24	Panel Assembly, Control . . . . .	192028	192028
25	Plug, Pipe . . . . .	191690	191690
26	Screen, Blower Inlet (not used with Item 1) . . . . .	192007-1	192007
27	Standard hardware items may be purchased locally.		
28	Switch, Pressure . . . . .	192018	192018
29	Switch, Pressure . . . . .	192019-1	192019
30	Switch, Reset . . . . .	190894	190894
31	# Terminal . . . . .	98205(4)	98205(4)
32	Tie, Cable . . . . .	191189	191189
33	Transformer . . . . .	99238-1	99238-1
34	Tube, Burner and Plates Assembly . . . . .	192002-1	192002
35	Tubing - Pressure . . . . .	192024-14	192024-14
35A	Tubing - Pressure . . . . .	192024-7	192024-7
36	Tubing - Pressure . . . . .	192024-2	192024-2
36A	Tubing - Pressure . . . . .	192024-11	192024-11
37	Valve, Control (Robertshaw) . . . . .	78450-7	78450-7
38	Window, Observation . . . . .	191186	191186
39	* Wire Assembly . . . . .	192023	192023
40	Wire Assembly, Igniter . . . . .	190933-1	190933-1

# Quantities if more than one, shown in parenthesis next to part number.

Part numbers underlined are recommended stock items for emergency replacement.

Request parts from Water Products Company giving all information such as model and series number.

\* Not illustrated.