



Date: December 20, 1999 No. 137 Rev. 2
Subject: Gas Water Heater Conversion Policy
To: All Accounts
* 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.

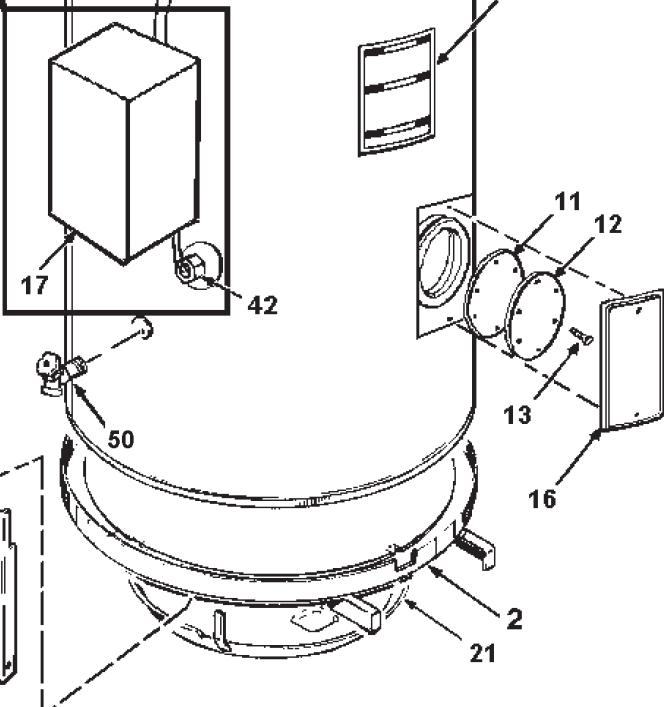
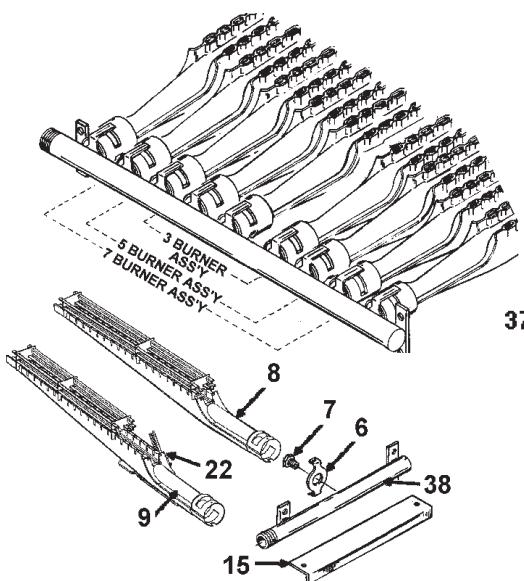
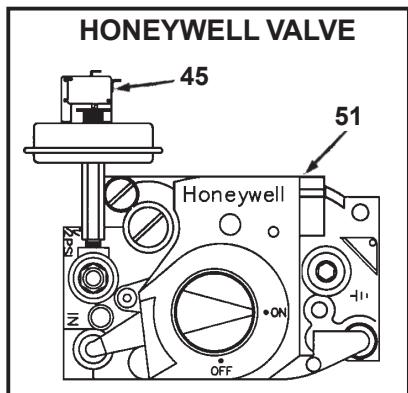
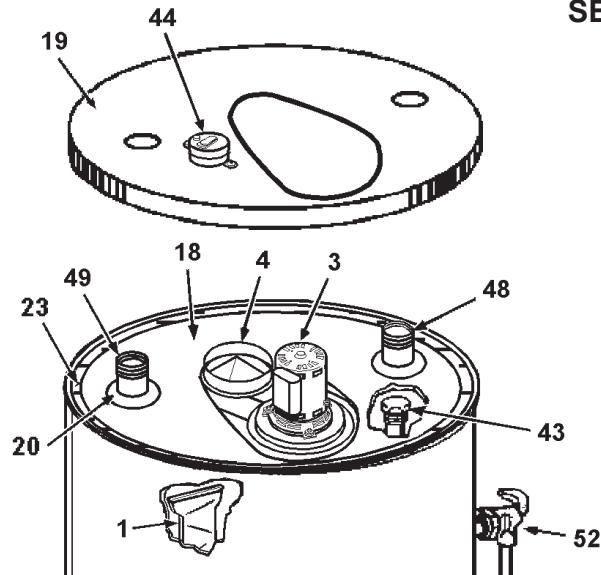
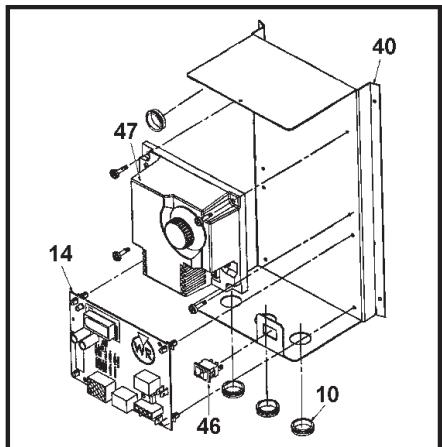
If you have any questions regarding the above policy, please contact the A.O. Smith Parts Department at 1-800-433-2545 or our Technical Information Center at 1-800-527-1953.

A.O.SMITH
WATER PRODUCTS
COMPANY

PSD-3-441

GAS

COMMERCIAL TANK TYPE WATER HEATER
REPLACEMENT PARTS LIST
MODELS BTN 120 thru 400/A:
STANDARD AND ASME (A)
SERIES 104



A.O. SMITH WATER PRODUCTS CO., INC.

5621 W. 115TH STREET • ALSIP, ILLINOIS 60803

PHONE: 1-800-433-2545 • FAX: 1-800-433-2515

Website: www.hotwater.com/parts • EMAIL: parts@hotwater.com

| Item | Description | BTN | BTN | BTN | BTN | BTN |
|--------------------------|--------------------------------------|------------|------------|------------|------------|------------|
| | | 120 | 154 | 180 | 199 | 200/A |
| 1 | Baffle, Flue | 193595-1 | 194705-1 | 192199-3 | 192199-3 | 192199-3 |
| 2 | Base, Jacket Assembly | 194518 | 194556 | 194556 | 194556 | 194556 |
| Blower Assembly | | | | | | |
| 3 | Blower | 194408 | 194408 | 194408 | 194408 | 194408 |
| 4 | Outlet Assembly, Exhaust | 194424 | 194424 | 194424 | 194424 | 194424 |
| 5 | Screw, TEK | 194613 | 194613 | 194613 | 194613 | 194613 |
| 6 | Burner, Orifice Bracket, Main | 98044 | 98044 | 98044 | 98044 | 98044 |
| 7 | Burner Orifice, Main | 76243-32 | 76243-35 | 76243-33 | 76243-32 | 76243-32 |
| 8 | Burner Assembly, Main | 194611 | 194611 | 194611 | 194611 | 194611 |
| 9 | Burner w/Ignitor Bracket, Main | 194383 | 194383 | 194383 | 194383 | 194383 |
| 10 | Bushing | 193404 | 193404 | 193404 | 193404 | 193404 |
| Cleanout Assembly | | | | | | |
| 11 | Gasket | 99038 | 99038 | 99038 | 99038 | 99038 |
| 12 | Pressure Plate | 99037 | 99037 | 99037 | 99037 | 99037 |
| #13 | Screws, Machine | 69852-1(6) | 69852-1(6) | 69852-1(6) | 69852-1(6) | 69852-1(6) |
| 14 | Control, Ignition Board | 194392 | 194392 | 194392 | 194392 | 194392 |
| 15 | Cover, Burner | 98185 | 921185-3 | 98185-3 | 98185-3 | 98185-3 |
| 16 | Cover, Cleanout | 181260 | 181260 | 181260 | 181260 | 181260 |
| 17 | Cover, Control Box | 194395 | 194395 | 194395 | 194395 | 194395 |
| 18 | Cover, Inner | 194514 | 194388-6 | 194388-3 | 194388-3 | 194388-3 |
| 19 | Cover, Jacket | 194523 | 194389 | 194389 | 194389 | 194389 |
| 20 | Collar, Pipe Nipple | 74060 | 74060 | 74060 | 74060 | 74060 |
| 21 | Floor Shield Assembly | 193864 | 193984 | 193864 | 193864 | 193984 |
| 22 | Ignitor, Flame Sensor | 194405 | 194405 | 194405 | 194405 | 194405 |
| 23 | Insulation, Top | 194439 | 194439 | 194439 | 194439 | 194439 |
| *24 | Cleanout | 193914 | 193914 | 193914 | 193914 | 193914 |
| *25 | Flammable Vapors | 192872 | 192872 | 192872 | 192872 | 192872 |
| *26 | Help Line | 190600 | 190600 | 190600 | 190600 | 190600 |
| *27 | Instruction | 170345 | 170345 | 170345 | 170345 | 170345 |
| *28 | Instruction, Bilingual | 193912 | 193912 | 193912 | 193912 | 193912 |
| *29 | Instruction, ECO | 192282-1 | 192282-1 | 192282-1 | 192282-1 | 192282-1 |
| 30 | L&O Label | 194401 | 194401 | 194401 | 194401 | 194401 |
| *31 | Master Fit | 193859 | 193859 | 193859 | 193859 | 193859 |
| *32 | Relief Valve | 200042 | 200042 | 200042 | 200042 | 200042 |
| *33 | Ultra Coat | 193860 | 193860 | 193860 | 193860 | 193860 |
| *34 | Water Inlet | 161040 | 161040 | 161040 | 161040 | 161040 |
| *35 | Water Outlet | 161040-1 | 161040-1 | 161040-1 | 161040-1 | 161040-1 |
| *36 | Wiring Diagram | 194400 | 194400 | 194400 | 194400 | 194400 |
| 37 | Leg | 194115 | 194115 | 194115 | 194115 | 194115 |
| 38 | Manifold | 194516 | 194535 | 194535 | 194535 | 194535 |
| *39 | Manual, Instruction | 194758 | 194758 | 194758 | 194758 | 194758 |
| 40 | Plate, Mounting | 194391 | 194391 | 194391 | 194391 | 194391 |
| 41 | Probe/ECO, Upper Thermostat | 194396 | 194396 | 194396 | 194396 | 194396 |
| 42 | Probe/Lower Thermostat | 194397 | 194397 | 194397 | 194397 | 194397 |
| 43 | Rod, Anode | 180618-42 | 180618-42 | 180618-42 | 180618-42 | 180618-42 |
| 44 | Switch, Blower/Prover | 194411-3 | 194411 | 194411s | 194411-3 | 194411-3 |
| 45 | Switch, Low Gas Pressure | 191149-5 | 191149-5 | 191149-5 | 191149-5 | 191149-5 |
| 46 | Switch, Off/On | 193243 | 193243 | 193243 | 193243 | 193243 |
| 47 | Thermostat, Digital | 194393 | 194393 | 194393 | 194393 | 194393 |
| 48 | Tube, Inlet | 192626-1 | 192626-1 | 192626-1 | 192626-1 | 192626-1 |
| 49 | Tube, Outlet | 192627-1 | 192627-1 | 192627-1 | 192627-1 | 192627-1 |
| 50 | Valve, Drain | 26273-6 | 26273-6 | 26273-6 | 26273-6 | 26273-6 |
| 51 | Valve, Gas - Natural | 194536-1 | 194536-1 | 194536-1 | 194536-1 | 194536-1 |
| 52 | Valve, T&P | 192467 | 192467 | 192467 | 192467 | 192467 |
| *53 | Wire Harness - Control | 194545 | 194545 | 194545 | 194545 | 194545 |
| *54 | Wire Harness - Power | 194398 | 194398 | 194398 | 194398 | 194398 |

| Item | Description | BTN 250/A | BTN 275/A | BTN 310/A | BTN 366/A | BTN 400/A |
|---------------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
| 1 | Baffle, Flue | 192199-4 | 192199-3 | 192199-3 | 192199-3 | 194705 |
| 2 | Base, Jacket Assembly | 194556 | 194556 | 194556 | 194385 | 194671 |
| Blower Assembly: | | | | | | |
| 3 | Blower | 194408 | 194408 | 194408 | 194408 | 194408 |
| 4 | Outlet Assembly, Exhaust | 194424 | 194424 | 194424 | 194424 | 194424 |
| 5 | Screw, TEK | 194613 | 194613 | 194613 | 194613 | 194613 |
| 6 | Burner, Orifice Bracket, Main | 98044 | 98044 | 98044 | 98044 | 98044 |
| 7 | Burner Orifice, Main | 76243-30 | 76243-32 | 76243-32 | 76243-30 | 76243-29 |
| 8 | Burner Assembly, Main | <u>194611</u> | <u>194611</u> | <u>194611</u> | <u>194611</u> | 194760 |
| 9 | Burner w/Ignitor Bracket, Main | 194383 | 194383 | 194383 | 194383 | 194383 |
| 10 | Bushing | 193404 | 193404 | 193404 | 193404 | 193404 |
| CLEANOUT Assembly: | | | | | | |
| 11 | Gasket | <u>99038</u> | <u>99038</u> | <u>99038</u> | <u>99038</u> | <u>99038</u> |
| 12 | Pressure Plate | 99037 | 99037 | 99037 | 99037 | 99037 |
| #13 | Screws, Machine | 69852-1(6) | 69852-1(6) | 69852-1(6) | 69852-1(6) | 69852-1(6) |
| 14 | Control, Ignition Assembly | <u>194392</u> | <u>194392</u> | <u>194392</u> | <u>194392</u> | <u>194392</u> |
| 15 | Cover, Burner | 98185-3 | 98185-3 | 98185-3 | 98185-4 | 19411 |
| 16 | Cover, Cleanout | 181260 | 181260 | 181260 | 181260 | 181260 |
| 17 | Cover, Control Box | 194395 | 194395 | 194395 | 194395 | 194395 |
| 18 | Cover, Inner | 194388-4 | 194388-4 | 194388-4 | 194388 | 194388 |
| 19 | Cover, Jacket | 194389 | 194389 | 194389 | 194389 | 194389 |
| 20 | Collar, Pipe Nipple | 74060 | 74060 | 74060 | 74060 | 74060 |
| 21 | Floor Shield Assembly | 193984 | 193984 | 193984 | 193984 | 193984 |
| 22 | Ignitor, Flame Sensor | <u>194405</u> | <u>194405</u> | <u>194405</u> | <u>194405</u> | <u>194405</u> |
| 23 | Insulation, Top | 194439 | 194439 | 194439 | 194439 | 194439 |
| LABELS: | | | | | | |
| *24 | Cleanout | 193914 | 193914 | 193914 | 193914 | 193914 |
| *25 | Flammable Vapors | 192872 | 192872 | 192872 | 192872 | 192872 |
| *26 | Help Line | 190600 | 190600 | 190600 | 190600 | 190600 |
| *27 | Instruction | 170345 | 170345 | 170345 | 170345 | 170345 |
| *28 | Instruction, Bilingual | 193912 | 193912 | 193912 | 193912 | 193912 |
| *29 | Instruction, ECO | 192282-1 | 192282-1 | 192282-1 | 192282-1 | 192282-1 |
| 30 | L&O Label | 194401 | 194401 | 194401 | 194401 | 194401 |
| *31 | Master Fit | 193859 | 193859 | 193859 | 193859 | 193859 |
| *32 | Relief Valve | 200042 | 200042 | 200042 | 200042 | 200042 |
| *33 | Ultra Coat | 193860 | 193860 | 193860 | 193860 | 193860 |
| *34 | Water Inlet | 161040 | 161040 | 161040 | 161040 | 161040 |
| *35 | Water Outlet | 161040-1 | 161040-1 | 161040-1 | 161040-1 | 161040-1 |
| *36 | Wiring Diagram | 194400 | 194400 | 194400 | 194400 | 194400 |
| 37 | Leg | 194115 | 194115 | 194115 | 194115 | 194115 |
| 38 | Manifold | 194535 | 194535 | 194535 | 194386 | 194386 |
| *39 | Manual, Instruction | 194758 | 194758 | 194758 | 194758 | 194758 |
| 40 | Plate, Mounting | 194391 | 194391 | 194391 | 194391 | 194391 |
| 41 | Probe/ECO, Upper Thermostat | <u>194396</u> | <u>194396</u> | <u>194396</u> | <u>194396</u> | <u>194396</u> |
| 42 | Probe/Lower Thermostat | <u>194397</u> | <u>194397</u> | <u>194397</u> | <u>194397</u> | <u>194397</u> |
| 43 | Rod, Anode | 180618-42 | 180618-42 | 180618-42 | 180618-42 | 180618-42 |
| 44 | Switch, Blower Prover | <u>194411-5</u> | <u>194411-4</u> | <u>194411-4</u> | <u>194411-3</u> | <u>194411</u> |
| 45 | Switch, Low Gas Pressure | <u>191149-5</u> | <u>191149-5</u> | <u>191149-5</u> | <u>191149-5</u> | <u>191149-5</u> |
| 46 | Switch, Off/On | 193243 | 193243 | 193243 | 193243 | 193243 |
| 47 | Thermostat, Digital | 194393 | 194393 | 194393 | 194393 | 194393 |
| 48 | Tube, Inlet | 192626-1 | 192626-1 | 192626-1 | 192626-1 | 192626-1 |
| 49 | Tube, Outlet | <u>192627-1</u> | <u>192627-1</u> | <u>192627-1</u> | <u>192627-1</u> | <u>192627-1</u> |
| 50 | Valve, Drain | <u>26273-6</u> | <u>26273-6</u> | <u>26273-6</u> | <u>26273-6</u> | <u>26273-6</u> |
| 51 | Valve, Gas - Natural | <u>194536-1</u> | <u>194536-1</u> | <u>194536</u> | <u>194536</u> | <u>194536</u> |
| 52 | Valve, T&P | <u>192467</u> | <u>192467</u> | <u>192467</u> | <u>192467</u> | <u>192467</u> |
| *53 | Wire Harness - Control | 194545 | 194545 | 194545 | 194545 | 194545 |
| *54 | Wire Harness - Power | 194398 | 194398 | 194398 | 194398 | 194398 |

*Items not illustrated. # Quantities shown in parenthesis next to part number. TBD To be determined.

Part numbers underlined are recommended stock items for emergency replacement. (Consider gas used in your area only). Requests from PSD by giving all information such as model and series number, type of gas and specifications.

A.O.SMITH
WATER PRODUCTS
COMPANY



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