

Fuel Conversion Instructions

Natural Gas to Propane/LP

For Models: HBDV/DVHB, BDV/DVB, CDV Series

Kit Contents:

Description	Qty.	HBDV/ DVBH300	HBDV/ DVBH400	BDV/ DVB300	BDV/ DVB400	BDV/ DVB500	CDV33 DVB600	CDVR 33V117	CDV36	CDV42/47
Burner Orifice	1	1.50 mm	1/16	#54	#53	1.55 mm	1.28 mm	1.25 mm	1.35 mm	1.45 mm
Pilot Orifice	1	#35	#35	#35	#35	#35	#35	#35	#35	#35
LPG Gas Valve Regulator	1									
LPG Conversion Rating Plate Label	1									

Refer to Page 5 for conversion from Propane/LP to Natural Gas.

Tools required: Torx T20 Driver or Slotted Screwdriver, 5/32" Hex head/Allen Wrench, Phillip Screwdriver, 9/16" and 3/4" Combination Wrenches, 1/2" and 3/4" Deep Socket and Ratchet

This Kit Must be Installed by a Qualified Service Agency

Check to make sure that you have received all of the correct parts. If not, contact your dealer before beginning conversion.

CAUTION

Before installing conversion kit...

- First - Disconnect electrical power.
- Second - Shut off gas supply.

WARNING

This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable code and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

LOGS MAY BE HOT TO THE TOUCH. HANDLE THE LOGS WITH GLOVES AND PLACE THEM ON A NONCOMBUSTIBLE SURFACE WHEN THEY HAVE BEEN REMOVED FROM THE INSERT.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Conversion Instructions

Natural Gas to Propane/LP

1. Check to make sure you have model BDV/DVB/CDV/HBDV/DVHB unit.
2. Remove glass door, logs, grate, and ember material. *Refer to Owner's Manual.*
3. Remove valve cover/faceplate from the unit. *Figure 1*
4. If unit is millivolt, disconnect the wires from the ignitor. Disconnect the ON/OFF/RS switch wires.
5. Turn off the gas shut off valve. Loosen and disconnect union. *Figure 2*
6. Remove the screws securing the engine/burner system. Lift the engine/burner system out through the glass door opening. *Figure 1*. For electronic units, remove ignition module with engine/burner assembly.
7. Place engine/burner system on a bench for conversion and pre-installation testing.
8. Using a TORX T20 driver or slotted screwdriver, remove and discard the regulator and rubber gasket in the face of the valve. Reinstall existing knob extender(s). *Refer to regulator instructions in conversion kit.*

NOTE: The regulator bracket has been removed so it can be used on electronic valves.

9. Install the new regulator with rubber gasket from the conversion kit. Make sure the gasket is seated properly. Follow the regulator instructions in conversion kit.
10. Disconnect the aluminum burner tube from burner orifice using a 9/16" and 3/4" wrench. Remove screws to burner. Lift burner off for access to orifice. *Refer to Figure 2 for burner tube location.*
11. Before proceeding, make sure your kit contains the correct size orifices. Using the 3/4" socket, replace the burner orifice with the LP orifice included in the conversion kit.
12. Hand tighten the gas lines plus 1/4 turn. Do not overtighten.
13. Remove air shutter. Secure screw in place. *Figure 3.*
NOTE: If air shutter is not removed, burner will not function correctly. Poor combustion (sooting) will occur.
14. Remove the top of the pilot assembly by pulling straight up on the hood. Replace the pilot orifice with the one included in the kit using a 5/32" hex head or Allen wrench. *Refer to Figure 2 for pilot location.*

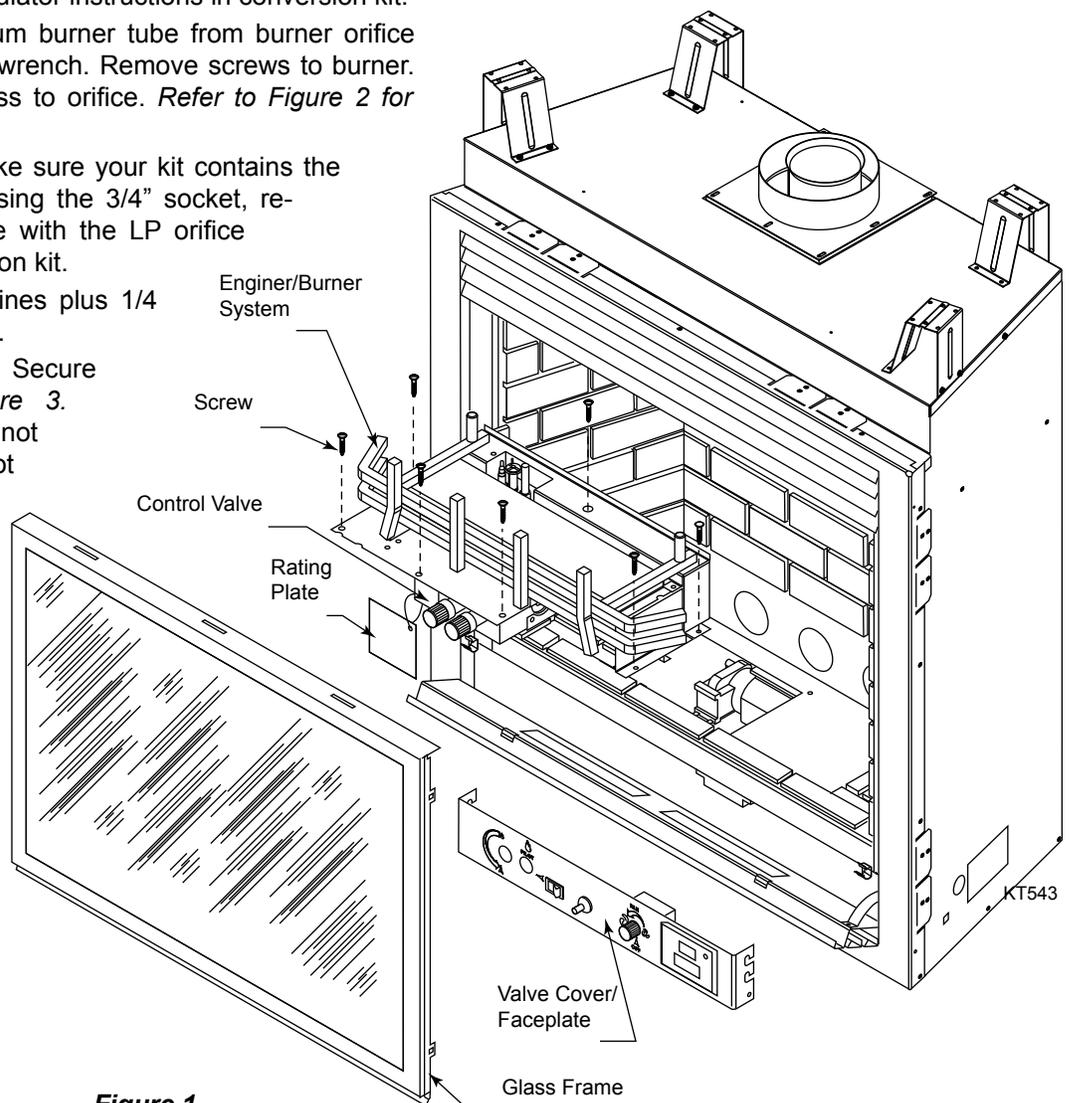


Figure 1
Remove Valve Cover/Faceplate, Engine/Burner System and Glass Frame
(BDV Millivolt Unit Shown)

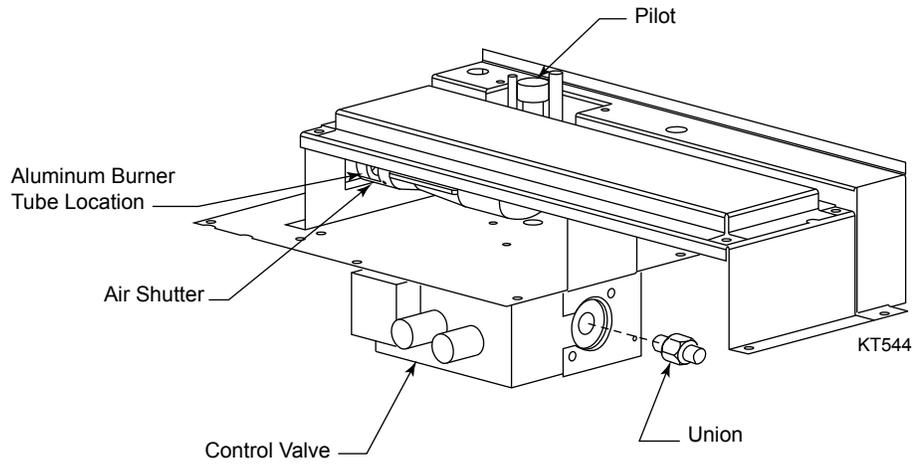


Figure 2
Remove Union from Control Valve
(Millivolt Unit Shown)

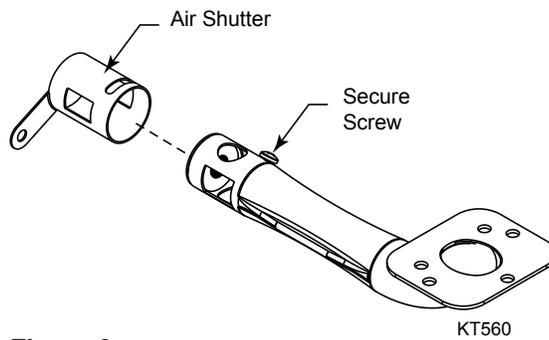


Figure 3
Remove Air Shutter and Secure Screw in Place

Bench Testing Engine / Burner Assembly

Millivolt Models:

1. Attach flex connector. Turn on the gas shut off valve. Turn the control knob to the "PILOT" position only. *Figure 4*
2. Light the pilot. Use soapy water to check for leaks on the pilot assembly and regulator.
3. Turn control knob to "ON" position following the lighting instructions in owner's manual. Use soapy water to check for leaks around fitting of aluminum tubing. Light burner. *Figure 5*
4. Place the Propane Conversion rating label plate and the regulator's conversion label on the existing rating plates. *Refer to Figure 1* for rating plate and conversion label locations. Attach conversion label to control valve.
5. Reinstall engine/burner system assembly. Make sure the gasket provides a good seal. Reattach the ignitor and on/off switch wires. Reattach valve cover/faceplate.
6. Reattach the union. Open the gas shut off valve. Check the connection for leaks using a soapy water solution.
7. Reinstall logs, grate and embers. *Refer to Owner's Manual*
8. Reinstall glass door.
9. Light unit. Check for proper burner flame appearance. *Refer to Owner's Manual.*

DANGER

Never check for gas leak with open flame!

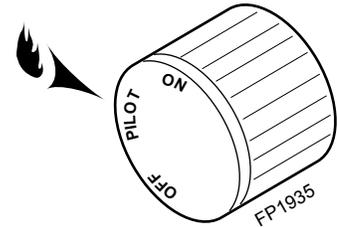


Figure 4
Valve Control - "PILOT" Position

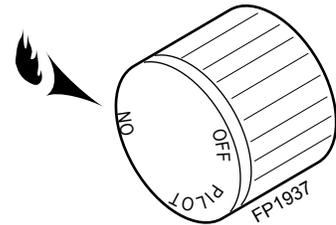


Figure 5
Valve Control - "ON" Position

Electronic Models

1. Attach flex connector. Turn on the gas shut off valve.
2. Turn RS-OFF-ON rocker switch to "ON" position.
3. Check for leaks around pilot, regulator and fitting of aluminum tubing with soapy water. Turn off burner.
4. Place the Propane Conversion rating plate and the regulator conversion label on the existing rating plates. *Refer to Figure 1* for rating plate and conversion label locations. Attach conversion label to control valve.
5. Reinstall engine/burner system assembly. Make sure the gasket provides a good seal. Reattach the ignitor and on/off switch wires. Reattach valve cover/faceplate.
6. Reattach the union. Open the gas shut off valve. Check the connection for leaks using a soapy water solution.
7. Reinstall logs, grate and embers. *Refer to Owner's Manual*
8. Reinstall glass door.
9. Light unit. Check for proper burner flame appearance. *Refer to Owner's Manual*

Fuel Conversion Instructions

Propane/LP to Natural Gas

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Burner Orifice	1	2.35 m	#41	#443	#41	#40	#45	#45	#44	2.35 mm
Pilot Orifice	1	.62 mm	.62 mm	.62 mm	.62 mm	.62 mm	.62 mm	.62 mm	.62 mm	.62 mm
NG Gas Valve Regulator	1									
NG Conversion Rating Plate Label	1									
Air Shutter	1									

Refer to Page 1 for conversion from Natural Gas to Propane/LP.

Tools required: Torx T20 Driver or Slotted Screwdriver, 5/32" Hex head/Allen Wrench, Phillip Screwdriver, 9/16" and 3/4" Combination Wrenches, 1/2" and 3/4" Deep Socket and Ratchet

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Conversion Instructions

Propane/LP to Natural Gas

1. Check to make sure you have model BDV/DVB/CDV/HBDV/DVHB unit.
2. Remove glass door, logs, grate, and ember material. *Refer to Owner's Manual.*
3. Remove valve cover/faceplate from the unit. *Figure 6*
4. If unit is millivolt, disconnect the wires from the ignitor. Disconnect the ON/OFF/RS switch wires.
5. Turn off the gas shut off valve. Loosen and disconnect union. *Figure 7*
6. Remove the screws securing the engine/burner system. Lift the engine/burner system out through the glass door opening. *Figure 6.* For electronic units, remove ignition module with engine/burner assembly.
7. Place engine/burner system on a bench for conversion and pre-installation testing.
8. Using a TORX T20 driver or slotted screwdriver, remove and discard the regulator and rubber gasket in the face of the valve. Reinstall existing knob extender(s). *Refer to regulator instructions in conversion kit.*

NOTE: The regulator bracket has been removed so it can be used on electronic valves.

9. Install the new regulator with rubber gasket from the conversion kit. Make sure the gasket is seated properly. Follow the regulator instructions in conversion kit.
10. Disconnect the aluminum burner tube from burner orifice using a 9/16" and 3/4" wrench. Remove screws to burner. Lift burner off for access to orifice. *Refer to Figure 2 for burner tube location.*
11. Before proceeding, make sure your kit contains the correct size orifices. Using the 3/4" socket, replace the burner orifice with the natural gas orifice included in the conversion kit.

12. Hand tighten the gas lines plus 1/4 turn. Do not overtighten.

13. Add air shutter, supplied and adjust to 1/4" open.

NOTE: If air shutter is not 1/4" open, burner will not function correctly. Poor combustion (sooting) will occur.

14. Remove the top of the pilot assembly by pulling straight up on the hood. Replace the pilot orifice with the one included in the kit using a 5/32" hex head or Allen wrench. *Refer to Figure 2 for pilot location.*

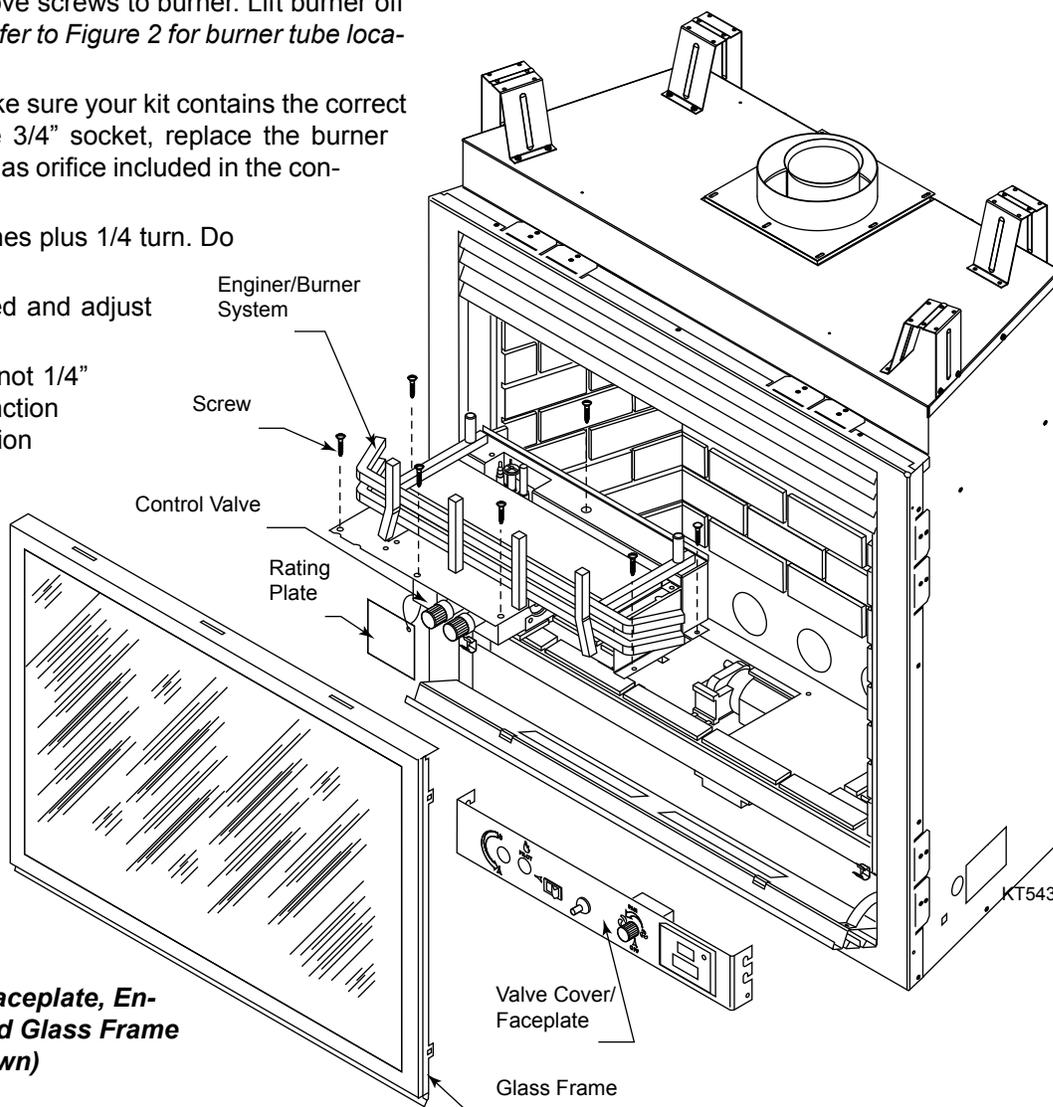


Figure 6
Remove Valve Cover/Faceplate, Engine/Burner System and Glass Frame (BDV Millivolt Unit Shown)

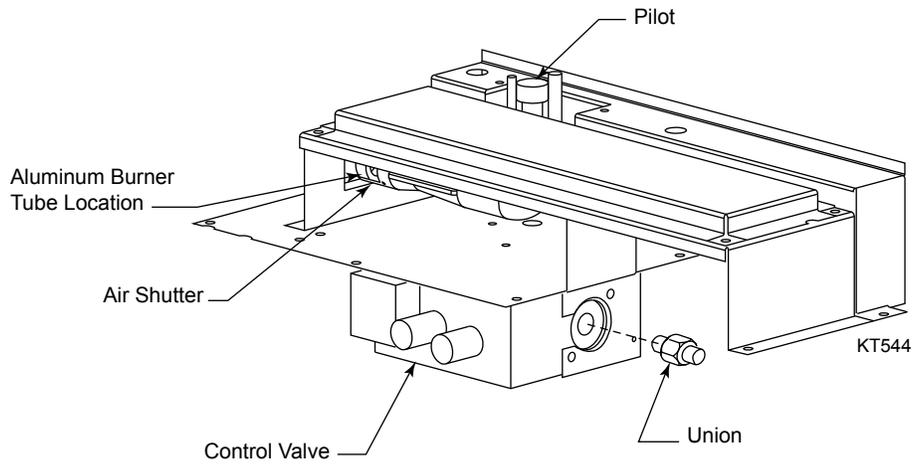


Figure 7
Remove Union from Control Valve
(Millivolt Unit Shown)

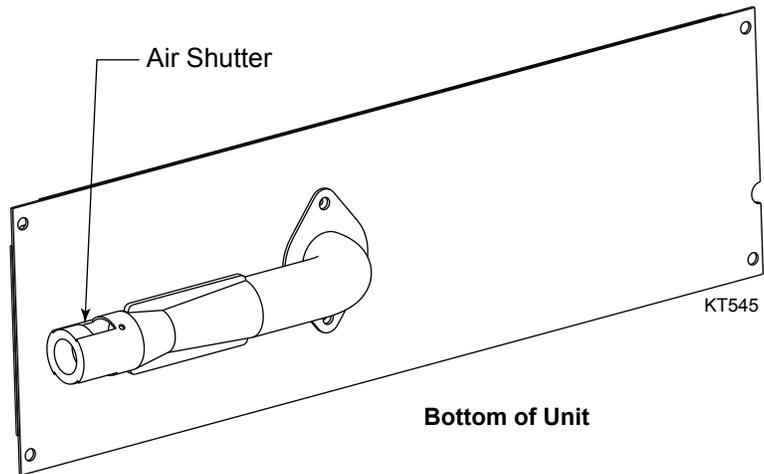


Figure 8
Adjust Air Shutter - 1/4" Open

Bench Testing Engine / Burner Assembly

Millivolt Models:

1. Attach flex connector. Turn on the gas shut off valve. Turn the control knob to the "PILOT" position only. *Figure 9*
2. Light the pilot. Use soapy water to check for leaks on the pilot assembly and regulator.
3. Turn control knob to "ON" position following the lighting instructions in owner's manual. Use soapy water to check for leaks around fitting of aluminum tubing. Light burner. *Figure 10*
4. Place the Propane Conversion rating label plate and the regulator's conversion label on the existing rating plates. *Refer to Figure 6* for rating plate and conversion label locations. Attach conversion label to control valve.
5. Reinstall engine/burner system assembly. Make sure the gasket provides a good seal. Reattach the ignitor and on/off switch wires. Reattach valve cover/faceplate.
6. Reattach the union. Open the gas shut off valve. Check the connection for leaks using a soapy water solution.
7. Reinstall logs, grate and embers. *Refer to Owner's Manual*
8. Reinstall glass door.
9. Light unit. Check for proper burner flame appearance. Refer to Owner's Manual.

Electronic Models

1. Attach flex connector. Turn on the gas shut off valve.
2. Turn RS-OFF-ON rocker switch to "ON" position.
3. Check for leaks around pilot, regulator and fitting of aluminum tubing with soapy water. Turn off burner.
4. Place the Propane Conversion rating plate and the regulator conversion label on the existing rating plates. *Refer to Figure 6* for rating plate and conversion label locations. Attach conversion label to control valve.
5. Reinstall engine/burner system assembly. Make sure the gasket provides a good seal. Reattach the ignitor and on/off switch wires. Reattach valve cover/faceplate.
6. Reattach the union. Open the gas shut off valve. Check the connection for leaks using a soapy water solution.
7. Reinstall logs, grate and embers. *Refer to Owner's Manual*
8. Reinstall glass door.
9. Light unit. Check for proper burner flame appearance. *Refer to Owner's Manual*

DANGER

Never check for gas leak with open flame!

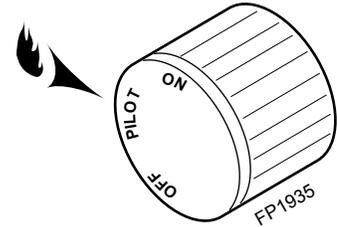


Figure 9
Valve Control - "PILOT" Position

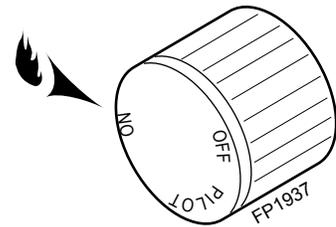


Figure 10
Valve Control - "ON" Position