## LP and High-Altitude LP Conversion Kit For Installations in United States (0–10,000 Feet)

# INSTALLATION INSTRUCTIONS

### For R7 Series Light Commercial Package Gas/Electric Units

**IMPORTANT: Please read all instructions before converting the furnace.** Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored.

**WARNING** indicates a potentially hazardous situation that if not avoided, could result in personal injury or death.

**CAUTION** indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

This conversion kit is only to be used to convert a natural gas unit to propane (LP) gas or to an LP high-altitude application in the United States. This kit may only be used in units installed at altitudes of 0–10,000 feet above sea level.

Kits have detailed listings of orifices required for converting light commercial units to LP gas for altitudes of 0–10,000 feet. Please check kit needed for your application. Verify the contents of the conversion kit with that of the parts listed in **Table 1** and familiarize yourself with each component.

**Table 1. LP Conversion Kit Components**

| COMPONENT | QTY | PN |
|---|---|---|
| **KIT PN: 1011435<br>100K BTU, 0–8K FEET<br>225K BTU, 0–4K FEET** | | |
| Gas orifice, #46 | 2 | 273353 |
| Gas orifice, #47 | 2 | 273354 |
| Gas orifice, #48 | 5 | 273355 |
| Gas orifice, #49 | 5 | 273356 |
| Spring kit, gas valve conversion (100/166 BTU) | 1 | 624667 |
| Spring kit, gas valve conversion (200/225 BTU) | 1 | 197207 |
| Pressure switch, 0.58" (green)* | 1 | 204327 |
| Pressure switch, 0.75" (red) | 1 | 203933 |
| Label, LP & high-altitude conversion warning | 1 | 703935 |
| Label, LP & high-altitude conversion info. LC | 1 | 1011987 |
| **KIT PN: 1011436<br>100K BTU, 9–10K FEET<br>166K/2000K BTU, 2–10K FEET<br>225K BTU, 5–10K FEET** | | |
| Gas orifice, #50 | 5 | 273357 |
| Gas orifice, #51 | 5 | 273358 |
| Gas orifice, #52 | 5 | 273359 |
| Spring kit, gas valve conversion (100/166 BTU) | 1 | 624667 |
| Spring kit, gas valve conversion (200/225 BTU) | 1 | 197207 |
| Pressure switch, 0.58" (green)* | 1 | 204327 |
| Pressure switch, 0.75" (red) | 1 | 203933 |
| Pressure switch, 1.00" (brown) | 1 | 201160 |
| Label, LP & high-altitude conversion warning | 1 | 703935 |
| Label, LP & high-altitude conversion info. LC | 1 | 1011987 |

*Requires reuse of mounting bracket from replaced switch.

## ⚠ WARNING

**FIRE OR EXPLOSION HAZARD**

- **Failure to follow safety warnings exactly could result in serious injury or property damage.**
- **Installation and service must be performed by a qualified installer, service agency, or the gas supplier.**
- **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**

**WHAT TO DO IF YOU SMELL GAS**

- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Leave the building immediately.**
- **Immediately call your gas supplier from a neighbors phone. Follow the gas supplier's instructions.**
- **If you cannot reach your gas supplier, call the fire department.**

**DO NOT DESTROY. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.**

## ⚠ AVERTISSEMENT

**RISQUE D'INCENDIE OU D'EXPLOSION**

- **Le non-respect des avertissements de sécurité pourrait entraîner des blessures graves ou des dommages matériels.**
- **L'installation et l'entretien doivent être effectués par un installateur qualifié, un organisme de service ou le fournisseur de gaz.**
- **Ne pas entreposer ni utiliser de l'essence ni d'autres vapeurs ou liquides inflammables dans le voisinage de cet appareil, ni de tout autre appareil.**

**QUE FAIRE S'IL Y A UNE ODEUR DE GAZ**

- **Ne tenter d'allumer aucun appareil.**
- **Ne toucher à aucun interrupteur électrique; n'utiliser aucun téléphone dans le bâtiment.**
- **Évacuer l'immeuble immédiatement.**
- **Appeler immédiatement le fournisseur de gaz en employant le téléphone d'un voisin. Respecter les instructions du fournisseur de gaz.**
- **Si personne ne répond, appeler le service des incendies.**

**NE PAS DÉTRUIRE. VEUILLEZ LIRE ATTENTIVEMENT ET CONSERVER EN UN LIEU SÛR POUR RÉFÉRENCE ULTÉRIEURE.**

## ⚠ WARNING:

**All gas piping must conform with local building codes or, in the absence of local codes, with the most recent edition of CGA B149.1. DO NOT attempt to modify, or tap into existing gas lines yourself. Fire or explosion may result causing property damage, personal injury, or loss of life. Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.**

## ⚠ WARNING:

**All electrical wiring must comply with the latest edition of the Canadian Electrical Code (CSA C22.1 and/or local codes). Failure to follow these instructions could result in possible damage to equipment, serious personal injury, or death.**

### BEFORE YOU CONVERT THE UNIT

## ⚠ WARNING:

**Shut off the gas supply at the manual gas shutoff valve, before disconnecting the electrical power. A fire or explosion may result causing property damage, personal injury or loss of life. Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.**

## ⚠ WARNING:

**To avoid electric shock, personal injury, or death, turn off the electric power at the disconnect or the main service panel before making any electrical connections.**

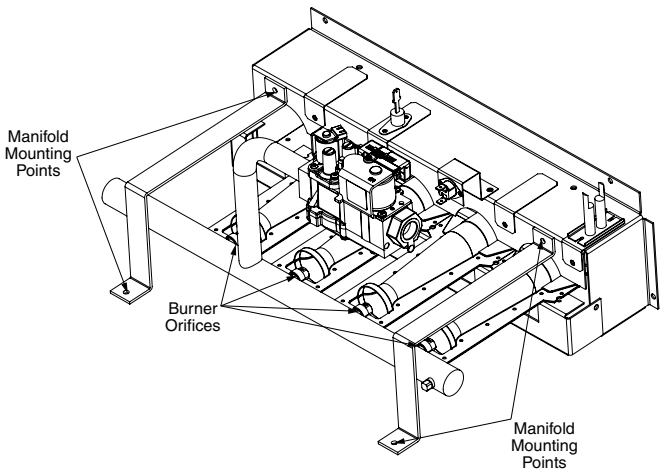


**Figure 1. Burner and Manifold Assembly**

1. Set the thermostat to the OFF position or to its lowest temperature setting.
2. Shut OFF the gas supply at the manual shutoff valve located outside of the appliance.
3. Turn off all electrical power to the appliance.
4. Remove the louvered burner access panel.
5. Move the gas valve ON/OFF knob to the OFF position (see **Figure 2**).

### BURNER MANIFOLD REMOVAL

1. **STOP!** Read all the above steps in **Before You Convert the Unit**.
2. Remove one screw to allow heat surface cover to slide out.
3. Remove the (Blue) wire from the Low Stage terminal of the gas valve. Remove the (Violet) wire from the High Stage terminal of the gas valve. Remove (Brown) common wire from gas valve.
4. Remove (if installed) supply gas piping from the gas valve.
5. Remove four fasteners that secure the gas manifold to the burner box. Carefully remove the gas manifold assembly from the burner box (see **Figure 1**).

   **NOTE:** The gas manifold assembly consists of the gas valve, the gas manifold, and the orifices.

6. Identify the gas valve manufacturer listed on the gas valve label. Convert the valve for operation with LP gas as described in the appropriate manufacturers instructions.

### CONVERTING TO PROPANE (LP) GAS (AT ALTITUDES OF 0–10,000 FEET)

1. Examine the rating plate of the unit to determine model number and rated input (BTUh).
2. Count the number of burners in the burner box. Verify all information in the kit to determine the appropriate LP gas orifice size for your application (refer to **Table 3**).
3. Install the appropriate LP gas burner orifices into the gas manifold.

## ⚠ WARNING:

**Do not use Teflon tape or pipe joint compound on the orifice threads. The hole in the orifice may become blocked and may cause fire, explosion, property damage, carbon monoxide poisoning, personal injury, or death.**

#### IMPORTANT NOTES

- **Before installing an orifice, check the face or side of the orifice for the drill number to ensure that it is the appropriate size.**
- **To prevent cross threading, hand tighten the orifices into the gas manifold assembly until snug, then tighten with a wrench one-half to one turn.**
- **For units converted for operation above 2,000 feet, follow the instructions in High-Altitude Deration.**

4. Reinstall the gas manifold assembly to the burner assembly with the four screws, that were removed earlier. **NOTE**: It is important that the center of the orifices are aligned with the center of the burners.
5. Reconnect the gas piping to the gas valve inlet.
6. Reconnect the wires to the gas valve terminals.

## HIGH-ALTITUDE DERATION

High-altitude application with this unit depends on the installation altitude and the heating value of the gas. At high altitudes, the heating value of natural gas is always lower than the heating value at sea level.

All installations of this equipment must be made in accordance with the National Fuel Gas Code or with local jurisdiction codes. For installations at altitudes of 0–2,000 feet, the installer does not need to derate the heat exchanger performance.

## ⚠ WARNING:

**The reduction of input rating necessary for high-altitude installation may only be accomplished with factory-supplied orifices. Do not attempt to drill out orifices in the field. Improperly drilled orifices may cause fire, explosion, carbon monoxide poisoning, personal injury, or death.**

**IMPORTANT NOTES:**

- **For any installation that exceeds 2,000 feet, the input rate must be reduced 4% per 1,000 feet of altitude (Example: 12% at 3,000 feet, 16% at 4,000 feet, etc). Always round up to the next highest value of 1,000. So, an installation at 3,120 feet is derated by 16% due to rounding up to 4,000.**
- **Deration is necessary to compensate for low atmospheric pressure at high altitudes. Generally this will require obtaining the gas heating value from the local gas utility and replacing the burner orifices.**
- **Observe the action of the burners to make sure there is minimal yellowing, lifting, or flashback of the flame.**
- **Table 2** lists the correct orifice size to use at different altitudes. Refer to **Example 1** to determine the unit rating and orifice size.
- After changing the orifices, it is required that you measure the gas input rate by clocking the gas meter and using the local gas heating value (refer to **Verifying and Adjusting Firing Rate**).

**EXAMPLE 1**

**Elevation:** .....3,890 feet
**Type of Gas:**..... Propane Gas
**Unit Model:**..... R7TQ-072C100C

At 4,000 feet, the unit needs to be derated by 4% for each 1,000 feet of elevation. This equates to 16% or less than the sea level rating of 100,000 BTUh.

1. Determine unit input rating:
   [100k × (100-16)%] = 84,000 BTUh. The required heating rate for 3,890 feet is 84,000 BTUh.
2. Determine orifice size:
   Find the gas heat size (refer to **Table 4**). Follow across the row and stop at the 4,000 elevation column. For this example, the orifice size displayed is #47. For units equipped with a Honeywell VR9205Q gas valve, install one #47 orifice in every burner and check the firing rate. In this example, the firing rate must not exceed 84,000 BTUh.

## BURNER MANIFOLD ASSEMBLY REINSTALLATION

1. Carefully reinstall the gas manifold assembly to the burner box with the four fasteners removed earlier.
2. Inspect the alignment of the burners with the heat exchanger tubes. The center of the burners should be aligned with the center of the tubes.
3. Reconnect the main gas piping to the gas valve.
4. Reconnect wiring to the gas valve terminals. Blue wire to Low Stage, Violet wire to High Stage, and the Brown common wire to the C terminal.
5. Install the Heat Surface Cover.
6. Replace cover retaining screw.

## VERIFYING AND ADJUSTING FIRING RATE

The firing rate must be verified for each installation to prevent over-firing of the unit.

## ⚠ CAUTION:

**Do not re-drill the burner orifices. If the orifice size must be changed, use only new orifices.**

**IMPORTANT NOTE:**

**The firing rate must not exceed the rate shown on the unit data label. At altitudes above 2,000 feet, it must not exceed that on the data label less 4% for each 1,000 feet. Follow the steps below to determine the unit firing rate:**

- For installations at altitudes of 0–2,000 feet, the firing rate is the same as shown on the unit rating label.
- For installations above 2,000 feet, calculate the correct firing rate as shown in **Example 1**.
- **Table 2** lists the correct orifice size to use at different altitudes. Refer to **Example 1** to determine the unit rating and orifice size.
- After changing orifices, it is required that you measure the gas input rate by clocking the gas meter and using the local gas heating value (refer to step 6 and **Example 2**.
- Observe the action of the burners. Ensure that there is no yellowing, lifting, or flashback of the flame.

## ⚠ WARNING:

**The reduction of input rating necessary for high-altitude installation may only be accomplished with factory-supplied orifices. DO NOT attempt to drill out orifices in the field. Improperly drilled orifices may cause fire, explosion, carbon monoxide poisoning, personal injury, or death.**

1. Obtain the gas heating value from the gas supplier (HHV).
2. Verify that the gas supply line is at the correct supply pressure and that the supply pressure is within the allowable unit limits listed on the unit rating plate.
3. Shut off all other gas fired appliances.
4. Start the unit in heating mode and allow it to run for at least 3 minutes.
5. Using an in-line flow meter, measure the gas flow rate through the supply line to the unit. Convert the reading into cubic feet per hour. Refer to the meter manufacturer's instructions or the gas supplier for more information.

6. Multiply the gas flow rate in cubic feet per hour by the heating value of the gas in BTU per cubic foot to obtain the firing rate in BTUh (refer to **Example 2** below). **The Manifold pressure must be set to the appropriate value for your installation. Adjustments to the firing rate can be made by adjusting the gas manifold pressure.**

**EXAMPLE 2**

- For a high fire flow rate of 68 cubic feet gas per hour.
- Local heating value of LP gas (obtained from gas supplier) = 2,500 BTU per cubic feet.
- Input rate = 2,500 × 68 = 170,000 BTUh.

## PRESSURE GAUGE INSTALLATION

For LP gas installations: refer to the unit rating plate to determine the incoming gas maximum and minimum inlet pressures.

**IMPORTANT NOTE:**

**If pressure-testing the gas supply lines at pressures greater than 1/2 psig (14 IN WC), the unit must be disconnected from the gas supply piping system to prevent damage to the gas valve.**

## LIGHTING AND ADJUSTMENT OF APPLIANCE

1. Turn ON the gas at the manual valve, outside of the unit.
2. Check all gas connections for leaks using a soap and water solution. If the solution bubbles, there is a gas leak that must be corrected. **DO NOT use an open flame to check for gas leaks.**
3. Turn ON the electrical power to the appliance.
4. Move the gas valve lever/switch/knob to the ON position (see **Figure 2**). **NOTE**: The lever/knob must be moved to the end of its range of motion to insure the valve is completely open. Use only your hand to push in or turn the gas control valve. Never use tools.
5. Set the room thermostat to a point above room temperature to begin the heating cycle of the unit.
6. Check to ensure that the unit ignites and operates properly. Refer to the installation instructions provided with your unit for the normal operating sequence.
7. After the flame ignites, visually inspect the burner assembly to ensure that the flame is drawn directly into the center of the heat exchanger tube. The end of the flame will be out of sight around the bend of the heat exchanger tube. In a properly-adjusted burner assembly, the flame color should be blue with some light yellow streaks near the outer portions of the flame.

**NOTE:** Until all of the air is bled out of the gas line, the spark ignitor may not ignite the gas. If the ignition control locks out, turn the thermostat to its lowest setting and wait 1 minute then turn the thermostat to a point above room temperature. The ignitor will try again to ignite the main burners. This process may have to be repeated several times before the burners will ignite. After the burners are lit, check all gas connections for leaks again using soap and water solution. **If the solution bubbles, there is a gas leak that must be corrected. Do not use an open flame to check for gas leaks.**

**NOTE:** The following manifold pressure measurement and adjustment procedures apply only to R7TQ units. For R7DA units, refer to the controls manual, form CP-P125-D19-D21-D22-D23 (PN 1024315).

**2-STAGE HONEYWELL VALVE**

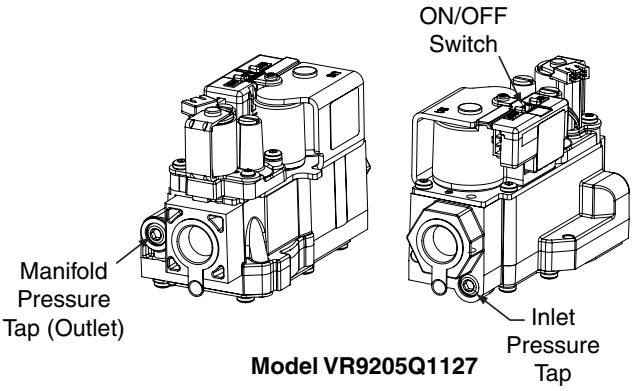


**Figure 2. Inlet and Manifold Pressure Taps**

### Manifold Pressure Measurement (R7TQ Units)

The manifold pressure can be measured by installing a pressure gauge or U-tube manometer to the OUTLET end of the gas valve as follows:

1. Turn off all electrical power to the appliance.
2. Shut OFF the gas supply at the manual shutoff valve located outside of the appliance.
3. Using a 3/16-inch Allen wrench, remove the manifold pressure tap plug located on the outlet side of the gas valve (see **Figure 2**, **Figure 3**, **Figure 4**, and **Figure 5**).
4. Install an 1/8-inch NPT pipe thread fitting that is compatible with a manometer or similar pressure gauge.
5. Connect the manometer or pressure gauge to the manifold pressure tap.
6. Set the room thermostat above room temperature to start the furnace.
7. Allow the unit to operate for 3 minutes and then check the manifold pressure. For LP gas installations, the manifold pressure should be factory-set to 9.5 IN WC or 10 IN WC, dependent upon the style of gas valve installed. If the manifold pressure is not set to the appropriate pressure, it must be adjusted.

### Manifold Pressure Adjustment (R7TQ Units)

**NOTE 1**: Depending on the gas valve manufacturer, the valve may be factory-set for a 9.5 IN WC or 10 IN W.C. manifold setting. Always inspect the unit rating label to determine the correct factory setting (refer to **Table 4**).

**NOTE 2**: The unit firing rate should be inspected for each installation as described in these instructions. The manifold pressure may be different than the factory setting. If the determination of the actual unit firing rate cannot be made with quality instruments, the manifold pressure should be set to the factory setting, as shown on the unit rating label or **Table 4**.

### Gas Valve Adjustment (6-, 7 1/2-, and 10-Ton Units)

1. Remove the protective cap from the top of the High fire gas valve regulator, as shown in the manufacturers instructions.
2. Set the manifold pressure to the factory settings, as shown on the unit rating label, or to the correct manifold pressure setting to obtain the correct firing rate.

**NOTE**: Turn the adjusting screw clockwise to increase pressure or counterclockwise to reduce pressure. To prevent the screw from backing all the way out from the valve, turn the screw slowly.

3. Replace the protective cap over the adjustment screws and tighten.

**NOTE:** The unit Low firing rate (Stage 1 only) should be approximately 70% of the unit High firing rate (Stage 1 and 2) (refer to **Table 2**). Per **Example 1**, the furnace high fire rating of 100,000 BTUh reduced for 4,000 feet elevation would have a fire rating of 84,000 BTUh or 0.84 × 100,000 BTUh.

4. Inspect the unit Low firing rate in the same manner described in **Verifying and Adjusting Firing Rate**.
5. Use the same procedure for the high fire adjustment described in steps 1–3 to adjust the low fire manifold pressure. Set the low fire manifold pressure to the factory setting, as shown on the unit rating label or refer to **Table 4**.

### Removing Pressure Gauge U-Tube Manometer

After the manifold pressure has been properly adjusted, the pressure gauge or U-tube manometer must be removed from the gas valve as follows:

1. Turn the thermostat to its lowest setting.
2. Shut OFF the main gas supply to the unit at the manual shutoff valve, located outside of the unit.
3. Shut OFF all electrical supplies to the unit.
4. Remove the manometer adapter from the gas valve and replace it with the 1/8-inch NPT manifold pressure plug removed earlier. Verify that the plug is sealed tightly and is not cross-threaded.
5. Turn ON all electrical power to the unit.
6. Turn ON the main gas supply to the unit at the manual shutoff valve, located outside the unit.

## CONVERTING BETWEEN NATURAL AND LP GAS

**⚠ WARNING**

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY, OR DEATH**

**1. Do not use a gas control set for natural gas on LP gas or a gas control set for LP gas on natural gas.**
**2. When making conversion, main and pilot burner orifices MUST be changed to meet appliance manufacturer specifications.**

Standard-opening or slow-opening gas controls are converted from one gas to another using a conversion kit. To convert from natural gas to LP, use the LP conversion kit (PN 393691) that is included with the VR8305 gas control. To convert from LP to natural gas, use the natural gas conversion kit (PN 394588) that is sold separately. Step-opening gas controls cannot be converted.

To convert the control from one gas to another:

1. Turn off the main gas supply to the appliance.
2. Remove the regulator capscrew and pressure regulator adjusting screw (see **Figure 3** and **Figure 5**).
3. Remove the existing spring.
4. Insert the replacement spring with tapered end down (see **Figure 5**).
5. Install the new plastic pressure regulator adjustment screw. **NOTE**: Ensure that the top of the screw is flush (level) with the top of the regulator.
6. Turn the pressure regulator adjustment screw clockwise six complete turns. **NOTE**: This provides a preliminary pressure setting of about 10.0 IN WC (2.5 kPa) for an LP regulator or 3.5 IN WC (0.9 kPa) for a natural gas regulator.

## COMPLETING THE CONVERSION

1. Affix the conversion warning label provided in the kit to the outside of the unit's louvered burner access panel.
2. Affix the conversion information label over the Natural Gas warning label. **NOTE:** Each label shall be prominent and visible after installation.
3. Affix the gas valve manufacture's labels to the valve, as described in the manufacture's instructions.
4. Replace the unit's louvered burner access panel.
5. Run the appliance through a complete cycle to ensure proper operation.

**NOTE:** Retain pressure switches within the unit. If the unit fails to start, replace the HIGH fire pressure switch with the next numerically-lower pressure switch.

### Conversion Kit Installation in Regulated Gas Control

1. Check the regulator setting with a manometer or by clocking the gas meter.
2. Install the new capscrew.
3. Affix the conversion label on the control.
4. Install the control and applinace according to the appliance manufacturer's instructions.

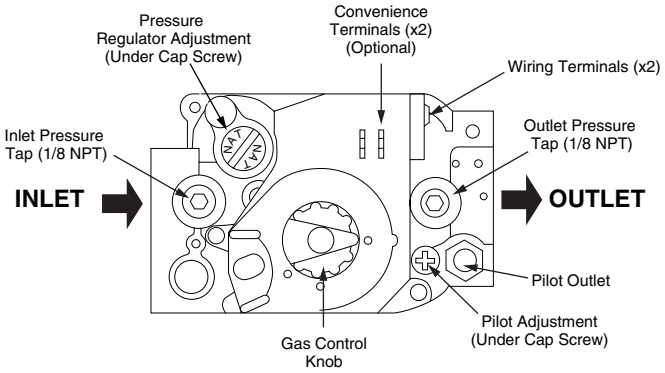


**Figure 3. Gas Valve Top View**

## HONEYWELL MODEL VR9205Q1127
## 100,000 AND 166,000 HEAT SIZES (PN 624787)

**IMPORTANT NOTES:**

- **When converting to propane (LP) gas from natural gas, the springs from the gas valve must be replaced by the larger springs from the kit. The propane (LP) springs for both HIGH and LOW fire are the same size, shape, and color.**
- **Use only a Torx-25 or 3/16-inch flathead screwdriver when removing adjustment screws or during pressure adjustment.**

1. Remove the HIGH fire capscrew.
2. Remove and discard the HIGH fire adjustment screw from the gas valve.
3. Remove and discard the spring from the gas valve.
4. Install a larger spring from the conversion kit.
5. Install a new adjusting screw from the kit.
6. Repeat steps 1–5 for replacement of the LOW fire spring and adjustment screw.
7. Check and adjust the regulator setting (refer to **Gas Valve Adjustment (6-, 7 1/2-, and 10-Ton Units)**.
8. Reinstall the capscrews on the HIGH and LOW regulators. Plastic replacement capscrews are provided in the conversion kit.
9. Affix the label from the conversion kit to the gas valve.

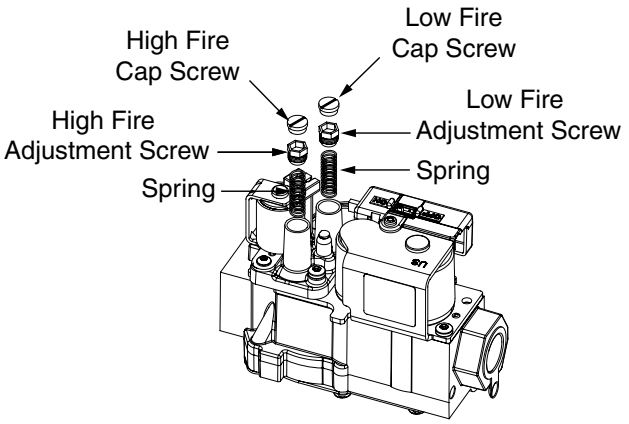


**Figure 4. Gas Valve Conversion**

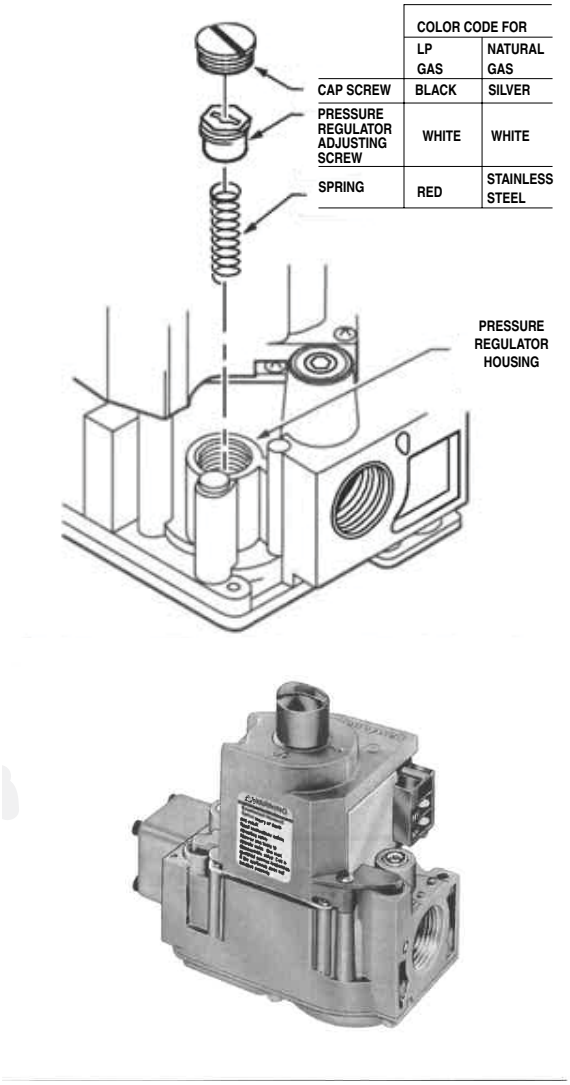


**Figure 5. LP and Natural Gas Conversion for Honeywell VR8305 Gas Valve**

## Table 2. Natural Gas Orifice Drill Sizes

| mBTU | ORIFICE SIZE FOR INCREASED ELEVATION (FEET) | | | | | | | | | QTY |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0–2K | 3K | 4K | 5K | 6K | 7K | 8K | 9K | 10K | |
| 100 | #30 | #31 | | | | #32 | | #33 | #35 | 2 |
| 166 | #31 | | #32 | | #33 | #34 | #35 | #36 | #37 | 4 |
| 200 | | | | | | | | | | 5 |
| 225 | 0.125 | #31 | | | | | | | | 5 |

## Table 3. Propane (LP) Orifice Drill Sizes

| mBTU | ORIFICE SIZE FOR INCREASED ELEVATION (FEET) | | | | | | | | | QTY |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0–2K | 3K | 4K | 5K | 6K | 7K | 8K | 9K | 10K | |
| 100 | #46 | #47 | | #48 | | #49 | | #50 | | 2 |
| 166 | #50 | | | #51 | | | #52 | | | 4 |
| 200 | | | | | | | | | | 5 |
| 225 | #48 | #49 | | #50 | | | #51 | | #52 | 5 |

## Table 4. Heating Input for Propane (LP)

| HEAT SIZE (mBTU) | NUMBER OF BURNERS | GAS VALVE MANUFACTURER | HEATING INPUT (BTUh) | | ORIFICE SIZE FOR INCREASED ELEVATION (FEET) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | HIGH FIRE | LOW FIRE | 0–2K | 3K | 4K | 5K | 6K | 7K | 8K | 9K | 10K |
| 100K | 2 | HONEYWELL VR9205Q | 100,000 | 70,000 | #46 | #47 | | #48 | #49 | | | #50 | |
| 166K | 4 | HONEYWELL VR9205Q | 166,000 | 116,200 | #50 | | | #51 | | | #52 | | |
| 200K | 5 | HONEYWELL VR8305 | 200,000 | 140,000 | | | | | | | | | |
| 225K | 5 | HONEYWELL VR8305 | 225,000 | 140,000 | #48 | #49 | | #50 | | | #51 | #52 | |

## Table 5. Heat Rise Range for Natural Gas and Propane (LP)

| HEAT SIZE (mBTU) | HIGH FIRE | | LOW FIRE | | HEAT RISE TEMPERATURE RANGE (°F) | CFM |
|---|---|---|---|---|---|---|
| | HEATING INPUT | HEATING OUTPUT | HEATING INPUT | HEATING OUTPUT | | |
| 100 | 100,000 | 81,000 | 70,000 | 56,700 | 25–55 | 2550 |
| 166 | 166,000 | 134,460 | 116,200 | 94,122 | 30–60 | |
| 166 | 166,000 | 134,460 | 116,200 | 94,122 | | 3150 |
| 200 | 200,000 | 162,000 | 140,000 | 113,400 | | |
| 225 | 225,000 | 182,250 | 157,500 | 127,575 | 25–55 | |
| 166 | 166,000 | 134,460 | 116,200 | 94,122 | 30–60 | 3450 |
| 200 | 200,000 | 162,000 | 140,000 | 113,400 | | |
| 225 | 225,000 | 182,250 | 157,500 | 127,575 | 25–55 | |

The installer performing this work assumes all responsibility for this conversion. These instructions are primarily intended to assist qualified individuals experienced in the proper installation of these components. Some local codes require licensed installation/ service personnel for this type of equipment. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Improper installation of the components or failure to follow safety warnings could result in serious injury, death, or property damage. After completing the installation, return these instructions to the homeowner's package for owner-user's future reference.

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**Revision: CP-R7-GC-LP (04-19) PN1012133-B**
**Supersedes: 1012133-A R7TQ-072-090-120 Nat Gas Conversion to LP ii**

1012133B