

# Installation Instructions

**IMPORTANT:** Read all instructions before beginning the conversion of the appliance.

This gas valve kit is for the replacement for all Honeywell VR82205 series gas valves.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment.



### CAUTION:

All gas piping must conform with local building codes or, in the absence of local codes, with most recent edition of the National Fuel Gas Code ANSI Z223.1. All electrical wiring must comply with the latest edition of the National Electrical Code ANSI/NFPA 70.



### WARNING:

DO NOT REMOVE OR DEFACE THE ORIGINAL RATING PLATE.



### CAUTION:

The gas supply shall be shut off prior to disconnecting the electrical power, before proceeding with the conversion.

### Before Starting the Replacement

Table 1 is a detailed listing of the components in the valve replacement kit. Please check the contents with the parts listing, and familiarize yourself with each component.

### To Turn Off Fuel Supply to the Appliance:

1. Set the room thermostat to "OFF" or its lowest temperature setting.
2. Turn OFF the main gas supply to the unit at the manual valve, outside of the unit casing.
3. Remove the control access panel / louvered door.

4. Move the appliance gas valve lever/knob to the "OFF" position.
5. Turn OFF the electrical power to the appliance.

### Removing the Gas Valve

1. Follow the instructions "To Turn Off the Fuel Supply to the Appliance."
2. For condensing furnaces, remove any tubing connected to the gas valve.
3. Remove the gas valve from the manifold pipe.
4. Attach new gas valve to manifold pipe, using an approved pipe sealant.
5. If replacing a gas valve on a condensing furnace, remove the adjustment screw from the gas valve, and install the barbed fitting supplied in the kit.
6. If the appliance is converted to LP/Propane gas, follow "Instructions for Converting Honeywell Gas Valve to LP/Propane Gas."

### Instructions for Converting Honeywell Valve to LP/Propane Gas.

1. Turn off gas supply at the appliance service valve.
2. When converting this valve, use conversion kit part number 624642 ONLY.
3. Remove the pressure regulator adjustment screw located underneath the cap screw. For condensing furnaces, the Pressure Regulator Adjustment is located underneath the brass fitting (see Figure 1).
4. Remove the existing spring
5. Insert the replacement spring.
6. Reinstall the plastic pressure regulator adjustment screw.
7. Check and adjust the regulator setting using a manometer.
8. Continue conversion per manufacturers instructions.

Description	Part No.	Qty.
Installation Instructions		1
Conversion Kit for Honeywell Gas Valve		
VR8502S		1
Barbed Fitting	663950-	1
Conversion Kit for Gas Valve	624642-	1
Honeywell VR8205S2288		

Table 1. LP Gas Conversion Kit

## Lighting and Adjustment of the Appliance

1. Turn ON the gas at the manual valve, outside of the unit.
2. Check all gas connections for leaks with a soap and water solution. If the solution bubbles there is a gas leak which 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/knob to the "ON" position. 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 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 hot surface ignitor may not ignite the gas. If the ignition control locks out, turn the thermostat to its lowest setting and wait one minute then turn the thermostat to a point above room temperature and the ignitor will try again to ignite the main burners. This process may have to be repeated several times before the burners will ignite. Once the burners are lit, check all gas connections for leaks again with the soap and water solution. If the solution bubbles there is a gas leak which must be corrected. Do not use an open flame to check for gas leaks.

## Checking the Manifold Pressure

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

1. With a 3/16 inch Allen wrench, remove the manifold pressure tap plug located on

the outlet side of the gas valve. Refer to Figure 2.

2. A fitting, which has a 1/8 inch NPT pipe thread that is compatible with the pressure gauge or U-tube manometer, must be installed at this point.
3. Install the pressure gauge or U-tube manometer according to the manufacturer's supplied instructions.
4. Set the room thermostat to a point above room temperature to start the furnace.
5. Allow the furnace to operate for three (3) minutes and then check the manifold pressure. Compare the measured value with the value shown in Table 2 and Table 3. If the manifold pressure is not set to the appropriate pressure, then it must be adjusted.

## Adjusting the Manifold Pressure

1. If the manifold pressure must be adjusted, remove the protective cap from the top of the gas valve regulator, as shown in Figure 2.
2. Using a short screwdriver, turn the adjustment screw to obtain the manifold pressure appropriate for your installation. Note: Turning the screw clockwise increases the pressure, turning the screw counter-clockwise decreases the pressure.
3. Replace and tighten the protective cap over the adjustment screw.

## Removing the Pressure Gauge or U-tube Manometer

Once the manifold pressure has been properly adjusted, the pressure gauge or U-tube manometer must be removed from the gas valve.

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

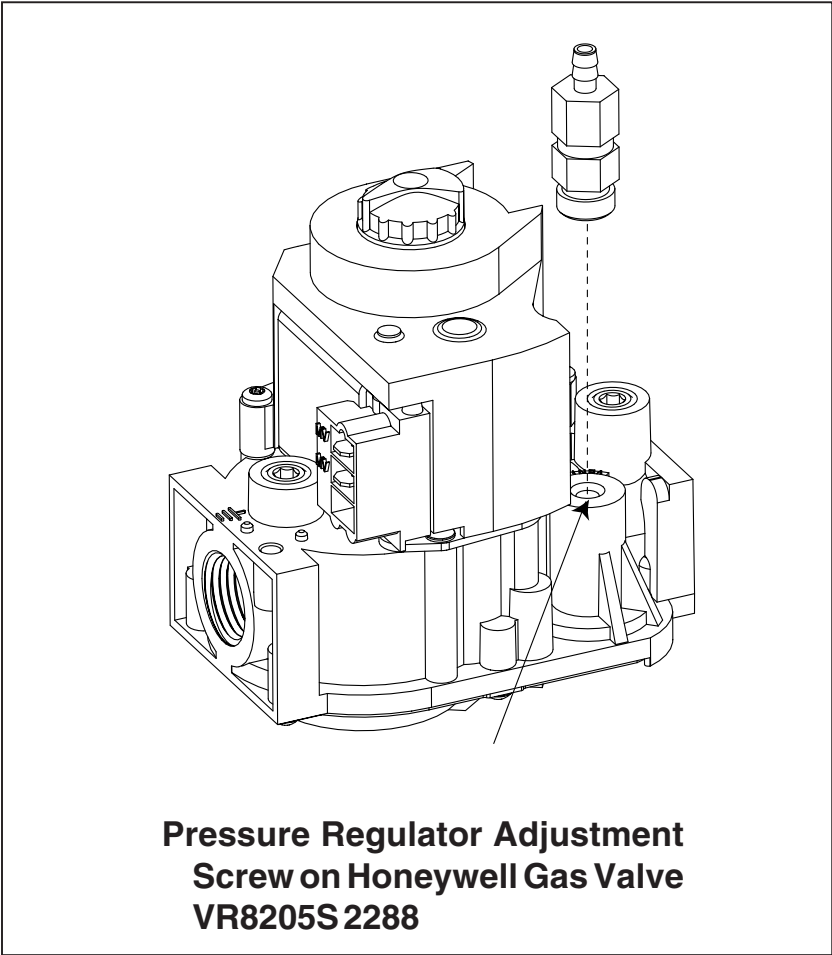


Figure 1

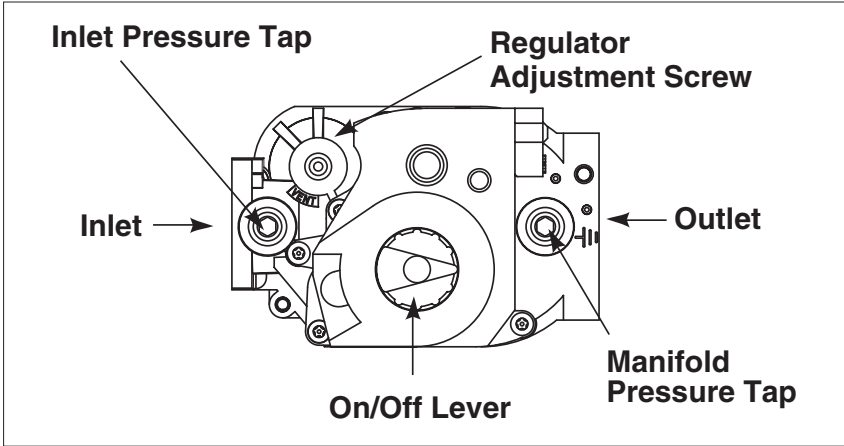


Figure 2. Gas Valve

For a Natural Gas Sea Level Heating Value of 800 to 899 Btu/cu.ft.					
	Elevation (feet above sea level)				
	zero to 1999	2000 to 4999	5000 to 5999	6000 to 7999	8000 to 10000
Manifold Pressure Setting (in WC)	3.5	3.5	3.5	3.5	3.0

For a Natural Gas Sea Level Heating Value of 900 to 999 Btu/cu.ft.					
	Elevation (feet above sea level)				
	zero to 1999	2000 to 4999	5000 to 5999	6000 to 7999	8000 to 10000
Manifold Pressure Setting (in WC)	3.5	3.5	3.5	3.2	2.8

For a Natural Gas Sea Level Heating Value of 1,000 to 1,100 Btu/cu.ft.					
	Elevation (feet above sea level)				
	zero to 1999	2000 to 4999	5000 to 5999	6000 to 7999	8000 to 10000
Manifold Pressure Setting (in WC)	3.5	3.5	3.0	2.8	2.5

**Table 2. Manifold Pressure (in WC) for Natural Gas at Various Altitudes**

	Elevation, Feet				
	0 to 1,999	2,000 to 4,999	5,000 to 5,999	6,000 to 7,999	8,000 to 10,000
Manifold Pressure (in WC)	10.0	8.5	10.0	9.0	8.5

**Table 3. Manifold Pressure (in WC) for LP/Propane Gas for Various Altitudes Based on a Sea Level Heating Value of 2500 Btu/ft.**

**INSTALLER: Do Not Discard These Instructions. After completing the installation, return these instructions to the Homeowner's Package for owner-user's future reference.**



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