LPLP03
LOW PRESSURE PROPANE KIT
INSTALLATION INSTRUCTIONS

Description

This kit is designed for gas-fired units converted to propane gas use. The Propane Low Pressure (LPLP03) Kit monitors the gas line pressure with a pressure switch and disables the unit gas valve if the line pressure drops below acceptable levels.

ATTENTION INSTALLING PERSONNEL

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

⚠ RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION

1	Propane Low Pressure Switch
	Switch to Gas Valve Piping
1	1/8" Close Nipple
1	1/8" Tee Pipe
1	1/2" x 1/8" Bushing
	Low Pressure Switch Wiring
1	Short Single-Stage Harness
1	Long Single-Stage Harness
1	Long Jumper Wire
1	Two-Stage Harness
1	Modulating Wire Harness
1	Propane Low Pressure Kit Label
1	Wiring Diagram
1	Honeywell to White-Rodgers Wire Harness Adaptor
1	White-Rodgers to Honeywell Wire Harness Adaptor

Field Supplied	
1	1/2" x 1-1/2" Nipple
1	1/2" Tee
1	90 Degree Street Elbow
1	1/2" Pipe (length dependent on model and application)

NOTE: Field supplied parts are not required for all installations. See figures inside this IO for application needs.

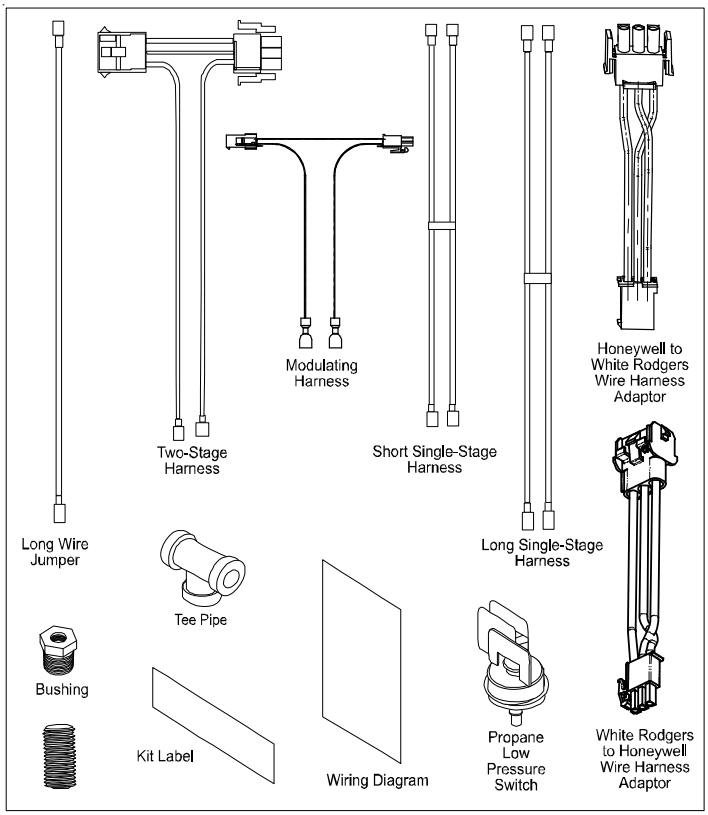


Figure 1

CONTENTS

IMPORTANT INFORMATION

This kit provides control over the unit gas valve by routing the gas valve wiring through the supplied pressure switch. To enable proper fit-up, the pressure switch kit must be installed before connecting the gas supply line to the gas valve. For new unit installations, the kit hardware may be fitted to the gas valve while the gas manifold is removed for LP gas orifice conversion. For existing installations, the gas valve line must be disconnected from the gas valve to allow fitting of kit hardware as installed in unit. **Before proceeding, shut off gas supply at manual shutoff and turn off power to unit.**

⚠ CAUTION

TO AVOID THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR FIRE, SHUT OFF GAS SUPPLY FIRST, THEN DISCONNECT THE ELECTRICAL SUPPLY BEFORE PROCEEDING WITH CONVERSION.

⚠ WARNING

HIGH VOLTAGE
DISCONNECT ALL ELECTRICAL POWER AND SHUT OFF GAS SUPPLY BEFORE SERVICING OR INSTALLING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ WARNING

IF THE GAS FURNACE IS INSTALLED IN A BASEMENT, AN EXCAVATED AREA OR A CONFINED SPACE, IT IS STRONGLY RECOMMENDED TO CONTACT A PROPANE SUPPLIER TO INSTALL A GAS DETECTING WARNING DEVICE IN CASE OF A GAS LEAK.
- SINCE PROPANE GAS IS HEAVIER THAN AIR, ANY LEAKING GAS CAN SETTLE IN ANY LOW AREAS OR CONFINED SPACES.
- PROPANE GAS ODORANT MAY FADE, MAKING THE GAS UNDETECTABLE EXCEPT WITH A WARNING DEVICE.

⚠ WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

– 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.
- IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE. FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.
- IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.

– INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

⚠ WARNING

PERSONAL INJURY OR DEATH MAY RESULT FROM IMPROPER INSTALLATION OR MAINTENANCE PERFORMED BY UNTRAINED PERSONNAL. CALL YOUR INSTALLING DEALER OR OTHER QUALIFIED SERVICE COMPANIES TO PERFORM THE INSTALLATION OR MAINTENANCE INSPECTION.

⚠ WARNING

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO EXPLOSION OR FIRE, INSTALL A GAS DETECTING WARNING DEVICE. SINCE THE ODORANT IN PROPANE GAS CAN BE REDUCED BY IRON OXIDE (RUST), A GAS DETECTING WARNING DEVICE IS THE ONLY RELIABLE METHOD TO DETECT PROPANE GAS LEAKS.

Contact a local propane gas supplier
about installing a gas detecting warning device.

NOTE: *To ensure proper operation, install, operate and maintain the unit in accordance with these installation instructions, all local building codes and ordinances. In their absence, follow the latest edition of the National Fuel Gas Code (NFPA 54/ANSI Z223.1), and/or CAN/CSA B149.1 Installation Codes.*

MODELS USING WHITE-RODGERS 36F & 36E GAS VALVES WITH 1/8" NPT INLET PRESSURE PORT

(Alternate method on page 4 may also be used.)

NOTE: *All threaded connections must be sealed with Teflon tape or pipe dope. Pipe sealant must be approved for use with propane gas.*

⚠ CAUTION

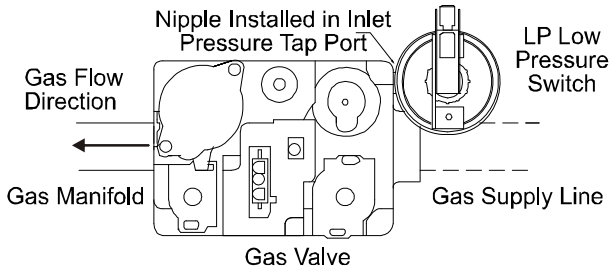
TO AVOID THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR FIRE, SHUT OFF GAS SUPPLY FIRST, THEN DISCONNECT THE ELECTRICAL SUPPLY BEFORE PROCEEDING WITH CONVERSION.

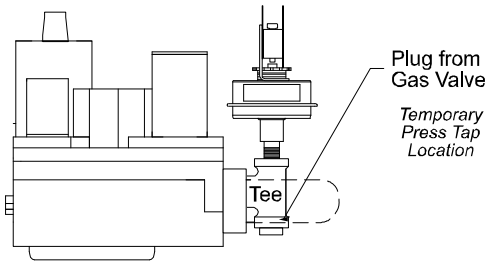
1. Remove plug from the gas valve **inlet** pressure tap port. Save plug.
2. Install the supplied close nipple into the open inlet pressure tap port.
3. Thread the provided tee onto free end of the nipple. Orient the tee as shown in figure(s).

   NOTE: On some models, tee orientation depends on which side the gas supply line enters.
4. Install pressure switch into the tee.
5. Temporarily fit a field-supplied pressure tap into the remaining leg of the tee. This pressure tap will allow gas supply line pressure measurement during installation check out.
6. Attach the pressure tap to a manometer or pressure measurement device before opening gas supply.
7. With gas valve and manifold installed in the unit, connect gas supply line to the gas valve.
8. Perform installation check out procedure (piping leak check, line pressure measurement, manifold pressure adjustment, etc.) as outlined in the unit installation instructions.
9. Turn OFF gas supply.
10. Remove field-supplied pressure tap from tee and insert plug removed in step 1.
11. Turn ON gas supply and leak check inserted plug.
12. Turn OFF power to furnace. Connect jumper harness between LPLP switch and gas valve and gas valve wiring as indicated in Figure 7 (single-stage models) or Figures 6, 8 or 9 (two-stage models).
13. Turn ON power to furnace. Verify proper unit operation.
14. Remove backing from kit label. Fold label around jumper harness wire to indicate kit installation.
15. Adhere kit wiring diagram adjacent to existing unit wiring diagram.

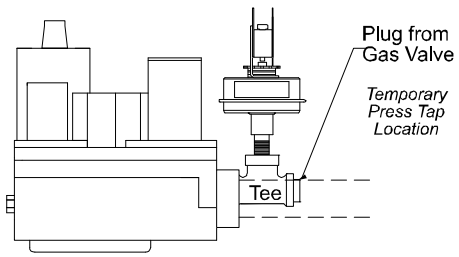
IMPORTANT NOTE: Secure all wires to avoid their contact with any hot surfaces or moving parts.

White-Rodgers 36F Valve
White-Rodgers 36E Valve
Right Facing Gas Inlet





Tee Orientation for *Alternate* Inlet Gas Piping



Tee Orientation for *Direct* Inlet Gas Piping for *All* Piping on Other Models

Figure 2

White-Rodgers 36F Valve
White-Rodgers 36E Valve
Left Facing Gas Inlet

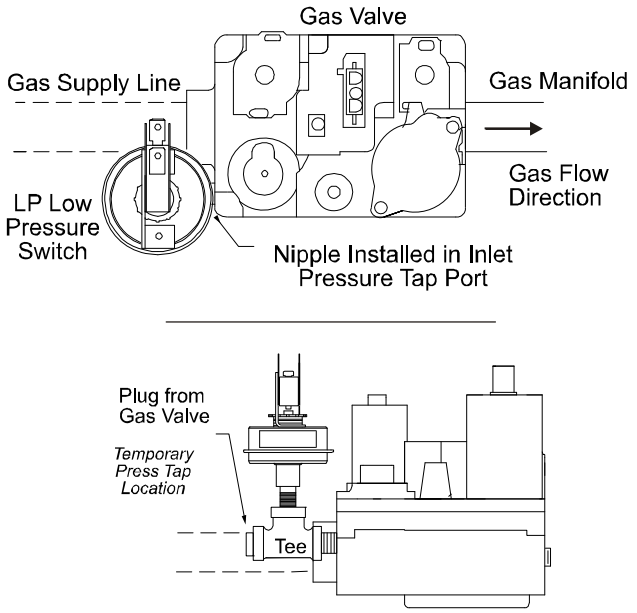
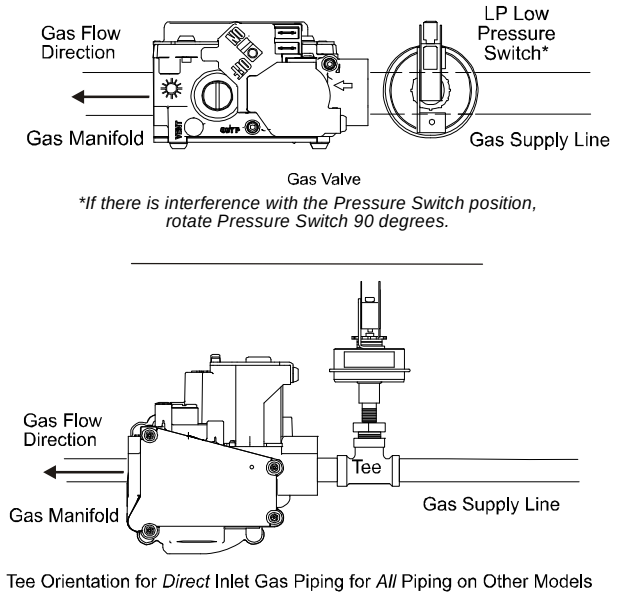


Figure 3

White-Rodgers 36G/36J Valve
Right Facing Gas Inlet
(Left Facing Similar)

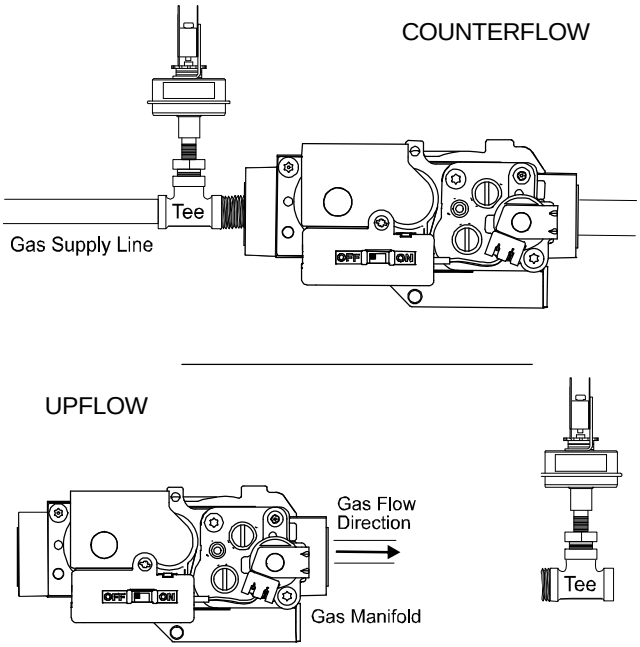


**If there is interference with the Pressure Switch position, rotate Pressure Switch 90 degrees.*

Tee Orientation for *Direct* Inlet Gas Piping for *All* Piping on Other Models

Figure 4

Honeywell VR82, VR9205Q Valves or
VR9205R (Modulating) Valve
Used on 90%+ Models



Tee Orientation for *Direct* Inlet Gas Piping for *All* Piping on Other Models

Figure 5

80% MODELS USING HONEYWELL VR82, VR9205Q OR WHITE-RODGERS 36G/36J GAS VALVES

NOTE: *All threaded connections must be sealed with Teflon tape or pipe dope. Pipe sealant must be approved for use with propane gas.*

⚠ CAUTION

TO AVOID THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR FIRE, SHUT OFF GAS SUPPLY FIRST, THEN DISCONNECT THE ELECTRICAL SUPPLY BEFORE PROCEEDING WITH CONVERSION.

1. Install field-supplied 90 degree street elbow into gas valve.
2. Install field-supplied 1/2” x length required to exit wrapper into 90 degree street elbow for left side gas outlet. Install field supplied 1/2” x length required to exit wrapper on the right side of the gas outlet (See Figure 6).
3. Place 1/2” tee on pipe.
4. With gas valve and manifold installed in the unit, connect the gas supply line into 1/2” tee as required (typically opposite of gas valve side).
5. Install 1/2” x 1/8" bushing into 1/2” tee in the remaining opening.

6. Install pressure switch in bushing. Pressure switch will be installed outside of the wrapper (see Figure 6.)

   NOTE: Ensure that the switch is upright in all applications.

7. Perform installation check out procedure (piping leak check, line pressure measurement, manifold pressure adjustment, etc.) as outlined in the unit installation instructions.
8. Turn OFF gas supply.
9. Turn OFF power to furnace. Connect jumper harness between LPLP switch and gas valve and gas valve wiring as indicated in Figure 7 (single-stage models - some models may require the use of long single-stage harness) or Figures 8-11 (two-stage models). Some two-stage models may require the use of long jumper wires to accommodate connection of the switch. *(2nd long jumper wire can be taken from long single stage harness*.)

   NOTE: Do not run wires through the gas pipe opening if gas piping is present. Pipe could easily cause damage to the wires.

10. Turn ON power to furnace. Verify proper unit operation.
11. Remove backing from kit label. Fold label around jumper harness wire to indicate kit installation.
12. Adhere kit wiring diagram adjacent to existing unit wiring diagram.

IMPORTANT NOTE: Secure all wires to avoid their contact with any hot surfaces or moving parts.

Honeywell VR82 or VR9205Q Valves
Used on 80% Models

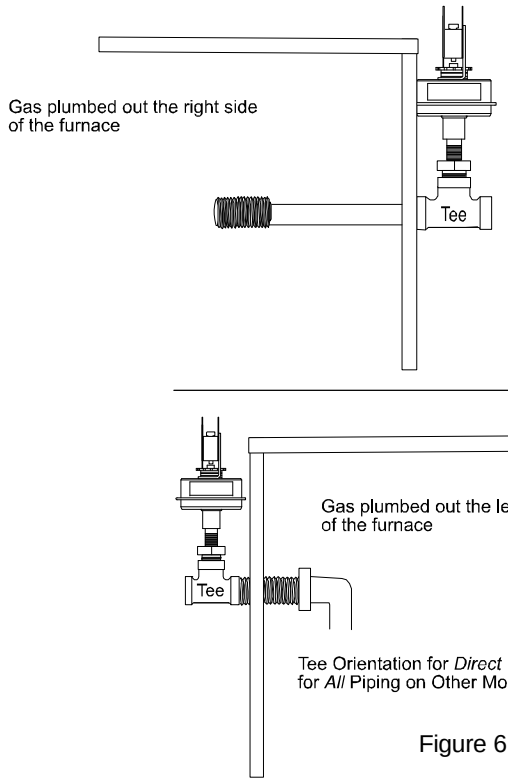


Figure 6

Honeywell or White-Rodgers Gas Valves
LP Low Pressure Switch Wiring
Single-Stage Models

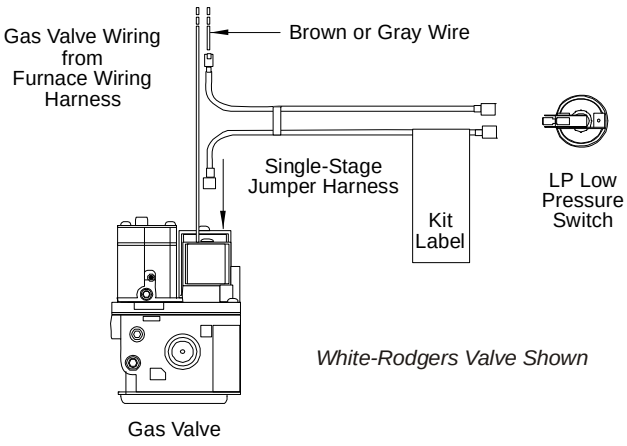


Figure 7

White-Rodgers Gas Valve
&
Wiring Harness Connection
LP Low Pressure Switch Wiring
Two-Stage Models

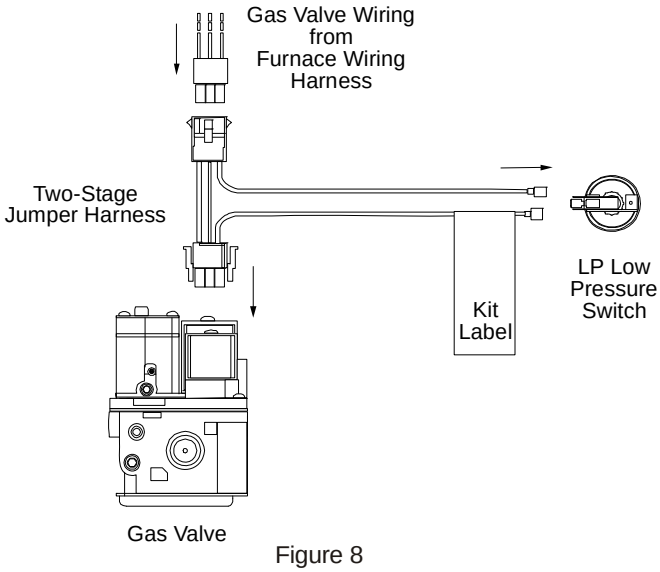


Figure 8

White-Rodgers Gas Valve
With Honeywell
Wiring Harness Connection
LP Low Pressure Switch Wiring
Two-Stage Models

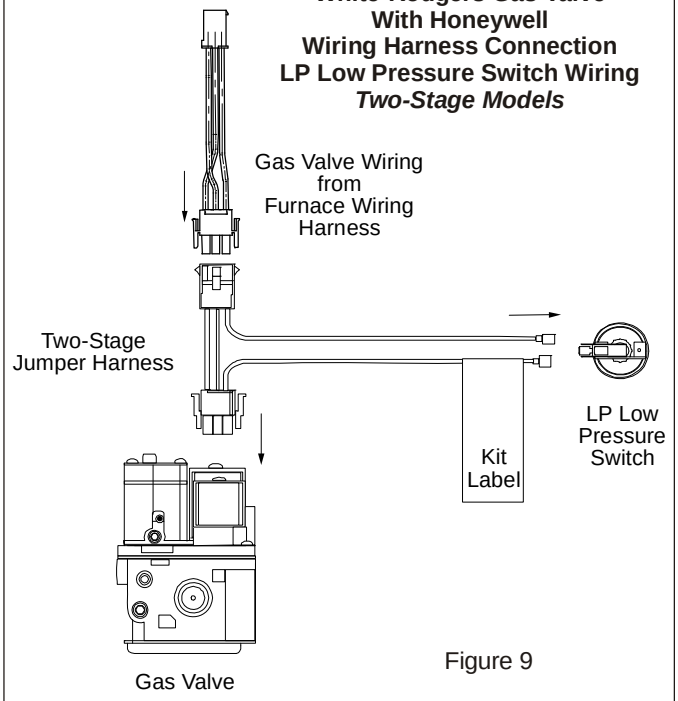


Figure 9

Honeywell Gas Valve VR9205Q
And
Wiring Harness Connection
LP Low Pressure Switch Wiring
Two-Stage Models

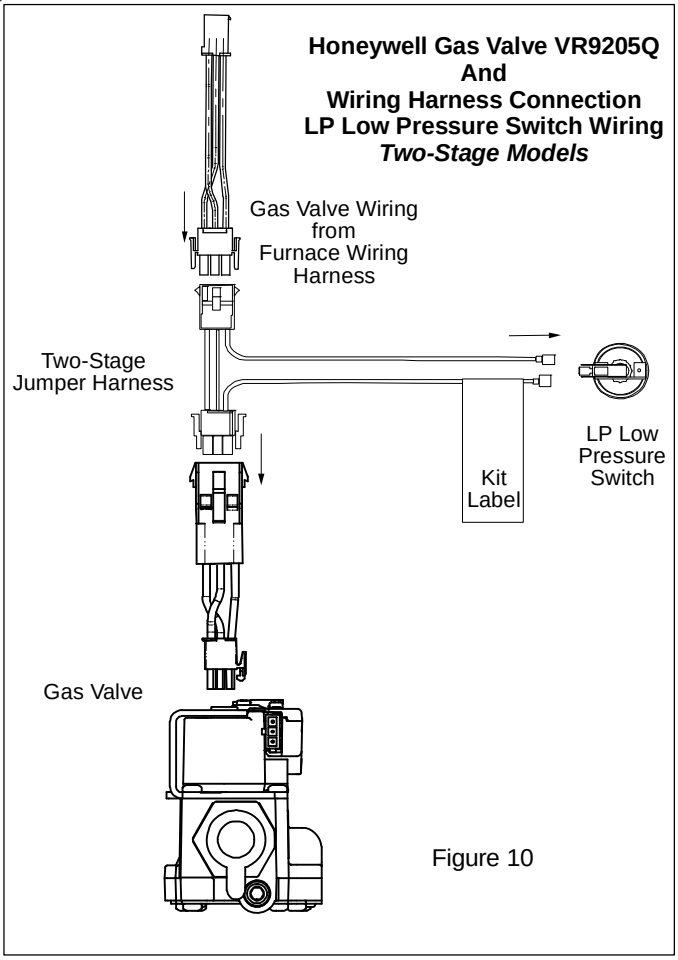


Figure 10

Honeywell Gas Valve VR9205Q
With White-Rodgers
Wiring Harness Connection
LP Low Pressure Switch Wiring
Two-Stage Models

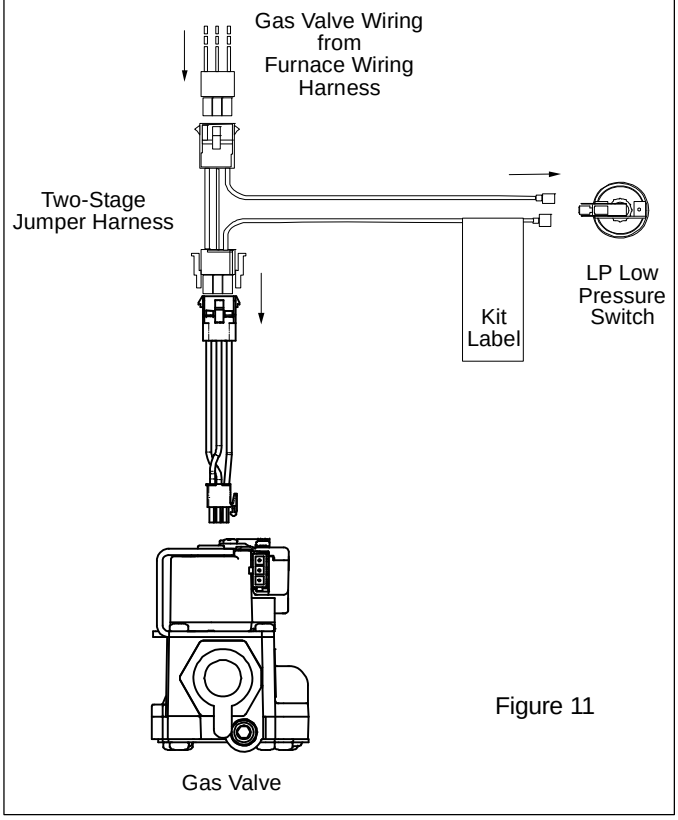


Figure 11

Honeywell VR9205R
Modulating Gas Valve
and
Wiring Harness Connection
for LP Low Pressure Switch
Modulating Furnace Models

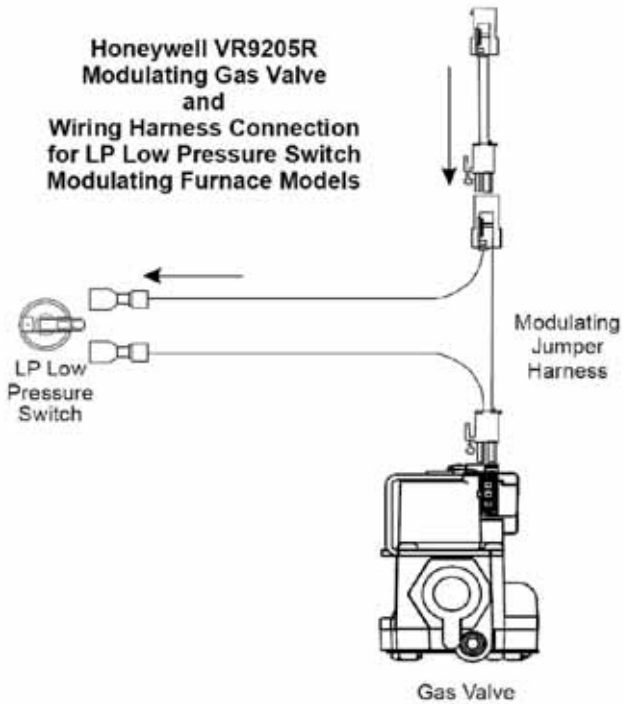


Figure 12

SHORT 90 FURNACES USING VR82, VR92 and 36J GAS VALVES

NOTE: *All threaded connections must be sealed with Teflon tape or pipe dope. Pipe sealant must be approved for use with propane gas.*

⚠ CAUTION

TO AVOID THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR FIRE, SHUT OFF GAS SUPPLY FIRST, THEN DISCONNECT THE ELECTRICAL SUPPLY BEFORE PROCEEDING WITH CONVERSION.

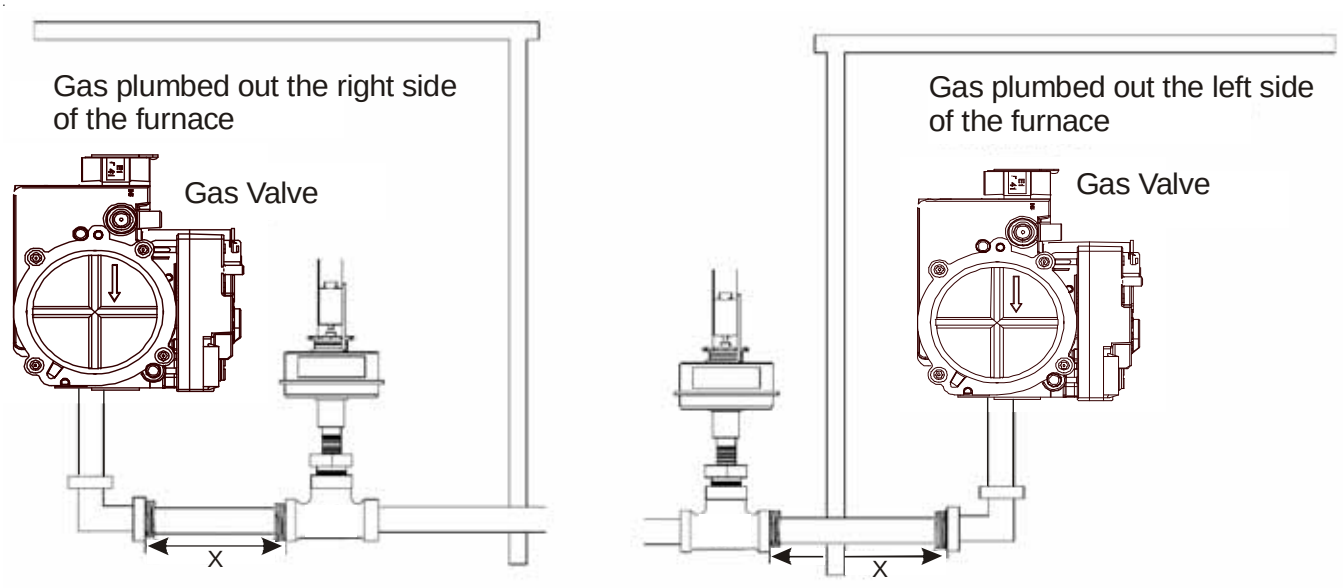


Figure 13

1. Install field-supplied ½" x length required to exit wrapper, when the inlet is on left side.
2. For installing the pressure switch, in case of a right side inlet, install field-supplied ½"x 1 ½" required for "C and D" size cabinet models. "B" cabinet models require a field supplied ½" x length sufficient enough to be clear from any interference from other components. The pressure switch can be installed within or outside the cabinet in case of right side inlet.
3. Place ½" tee on pipe.
4. With gas valve and manifold installed in the unit, connect the gas supply line into 1/2" tee as required (typically opposite of gas valve side).
5. Install ½" x 1/8" bushing into ½" tee in the remaining opening.
6. Install pressure switch in bushing (See Figure 13).

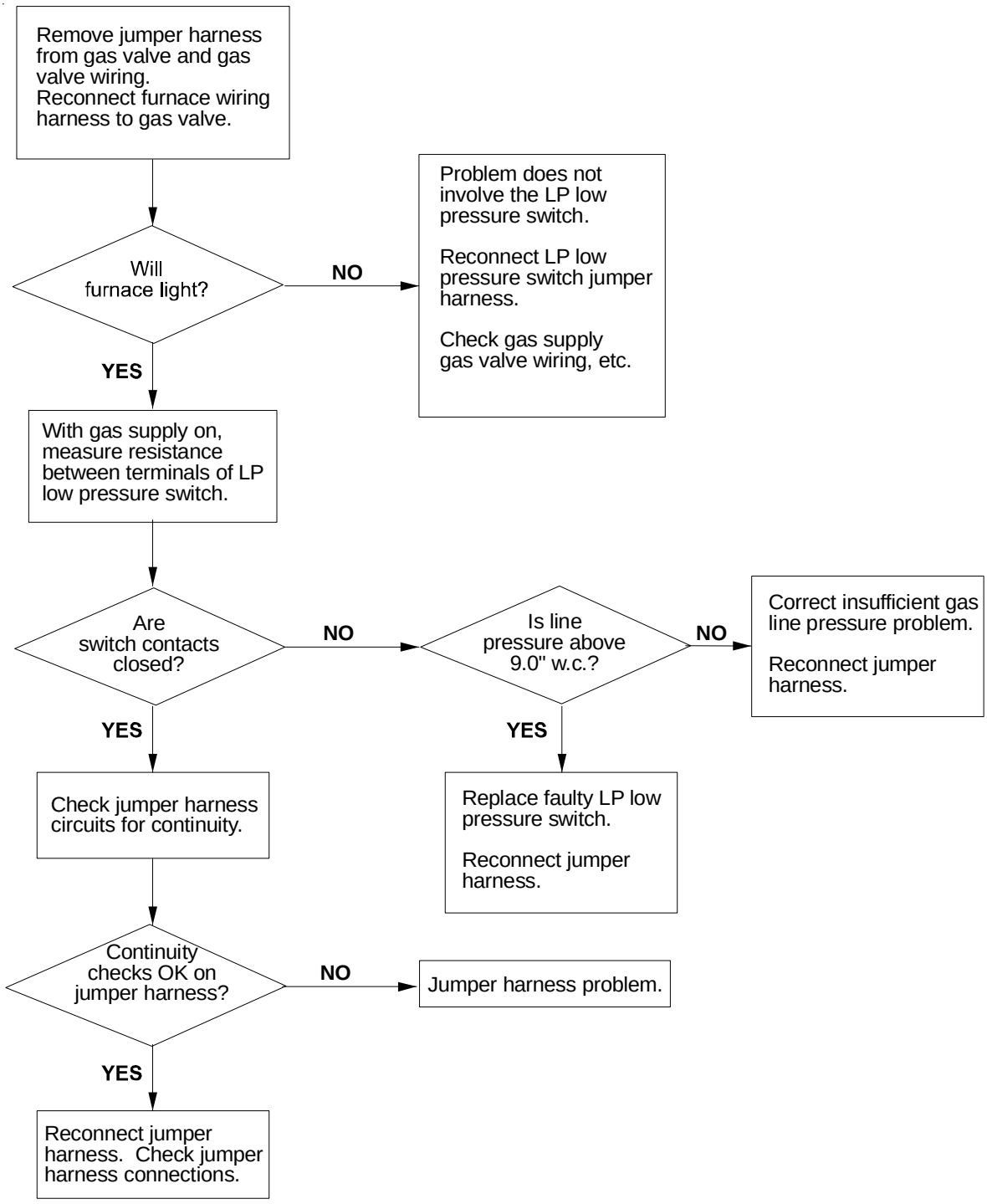
   NOTE: Ensure that the switch is upright in all applications.
7. Perform installation check out procedure (piping leak check, line pressure measurement, manifold pressure adjustment, etc.) as outlined in the unit installation instructions.
8. Turn OFF gas supply.
9. Turn OFF power to furnace. Connect jumper harness between LPLP switch and gas valve and gas valve wiring as indicated in Figure 7 (single-stage models - some models may require the use of long single-stage harness) or Figures 8-11 (two-stage models). Some two-stage models may require the use of long jumper wires to accommodate connection of the switch. (*2nd long jumper wire can be taken from long single stage harness.)*

   NOTE: Do not run wires through the gas pipe opening if gas piping is present. Pipe could easily cause damage to the wires.
10. Turn ON power to furnace. Verify proper unit operation.
11. Remove backing from kit label. Fold label around jumper harness wire to indicate kit installation.
12. Adhere kit wiring diagram adjacent to existing unit wiring diagram.

    IMPORTANT NOTE: Secure all wires to avoid their contact with any hot surfaces or moving parts.

TROUBLESHOOTING

If the furnace fails to light after installation of the LP low pressure switch kit, proceed as follows:



NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE

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