Installer's Guide

LP Conversion Kit for Single/Two Stage Gas Packaged *YC** 2 to 5 Ton A5PG* 2 to 5 Ton *DC** 2 to 5 Ton

BAYLPKT100
BAYLPKT101
BAYLPKT102
BAYLPKT103
BAYLPKT104

Note: ** indicates an alpha character.*

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

June 2025 **PKGR-SVN005A-EN**

Introduction

Read this manual thoroughly before operating or servicing this unit.

This document is customer property and is to remain with this unit. Return to the service information pack upon completion of work.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.
NOTICE	Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury.

All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury.

Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, MUST follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- **Before installing/servicing this unit, technicians MUST put on all PPE required for the work being undertaken (Examples; cut resistant gloves/ sleeves, butyl gloves, safety glasses, hard hat/ bump cap, fall protection, electrical PPE and arc flash clothing). ALWAYS refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.**
- **When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labelling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.**
- **If there is a risk of energized electrical contact, arc, or flash, technicians MUST put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, PRIOR to servicing the unit. NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING

Follow EHS Policies!

Failure to follow instructions below could result in death or serious injury.

- **All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.**
- **Non-Trane personnel should always follow local regulations.**

⚠ WARNING

Cancer and Reproductive Harm!

This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠ WARNING

Safety Hazard!

Failure to follow instructions below could result in death or serious injury or property damage.

This unit is not to be used by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

Do not allow children to play or climb on the unit or to clean or maintain the unit without supervision.

⚠ WARNING

Hazardous Voltage!

Failure to disconnect power before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Verify that no power is present with a voltmeter.

⚠ WARNING

Safety and Electrical Hazard!

Failure to follow instructions below could result in death or serious injury or property damage.

All servicing MUST be performed by qualified personnel only based on the operating instructions provided.

⚠ WARNING

Grounding Required!

Failure to follow instructions below could result in death or serious injury, or property damage.

- **Reconnect all grounding devices.**
- **All parts of this product that are capable of conducting electrical current are grounded.**
- **If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.**

⚠ WARNING

Safety Hazard!

Failure to operate the unit without the access panels properly installed could result in death or serious injury.

Do not operate the unit without the evaporator fan access panel or evaporator coil access panel in place. Reinstall the access panels after performing maintenance procedures on the fan.

Important: *Air filters and media wheels or plates shall meet the test requirements in UL 900.*

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Trademark

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Revision History

- Literature number 18-CH33D1-1D-EN is replaced with PKGR-SVN005A-EN.
- Added new LP kit information.
- Gas valve information updated.

Table of Contents

General Information

These instructions describe converting single/two stage packaged gas/electric models *YC* and A5PG* and dual fuel models *DC** from natural gas to LP gas.

Conversion from natural gas to LP gas is a critical procedure; therefore, these **INSTRUCTIONS MUST BE FOLLOWED CLOSELY**. The conversion kit shall be installed by a qualified service agency.

Inspection

1. Unpack all components of the LP conversion kit.
2. Check the kit for damage. Report promptly to the carrier any damage found to the kit.
3. Check to be sure that the package contains the parts listed in Table 1, p. 5. Any missing components should be reported to your supplier at once and replaced with authorized components only.

Table 1. Orifice kits

Kit / Models	Orifice		Propane Springs [a] [b]	Manifold Pressure		
				Single Stage Models	Two–Stage Models	
	Qty	Size			First Stage	Second Stage
BAYLPKT100 (All 40k and 120k models)	3	#49	2	10	5.6	10
BAYLPKT101 (All 64k, 70k, and 96k models)	3	#52	2	10	5.8	10
BAYLPKT102 (All 75k models)	2	#50	2	10	5.8	10
BAYLPKT103 (All 60k and 90k models)	3	#53	2	10	5.8	10
BAYLPKT104 (All 115k models)	3	#51	2	10	5.8	10

[a] Use one spring for single stage models

[b] Only White Rodgers gas valves require propane springs for proper functioning.

Conversion Procedure

1. Set the thermostat to OFF
2. Shut off gas supply to the unit.
3. Open the unit's electrical disconnect switch
4. Remove the Controls/Heat access panel.
5. Remove the electrical connector from the gas valve. Identify the type of gas valve installed in your unit (White Rodgers or Sanhua).

Note: *Failure to disconnect the connector could lead to premature failure of the gas valve due to damage to the connection terminals.*

6. Remove the manifold from the burner bracket four (4) screws.
7. Record the orifice depth prior to removing all the main burner natural gas orifices from manifold. Remove & discard the natural gas orifices.
   See Figure 1, p. 8.
8. Install LP gas orifices to the same depth previously recorded.
9. At the gas regulator, follow the appropriate steps based on your gas valve model:

   For White Rodgers model 36G/H/J gas valves only:

   a. Single stage units:
      i. Remove the cap screw.
      ii. Remove the plastic adjusting screw.
      iii. Remove the regulator spring.
      iv. Replace the regulator spring with one of the springs provided in the kit. See Figure 2, p. 9 and Figure 4, p. 9.
      v. Retain the extra LP spring provided in the kit with the unit for future replacement if needed.

   b. Two stage units:
      i. Remove the low fire cap screw..
      ii. Remove the plastic adjusting screw.
      iii. Remove low fire regulator spring.
      iv. Replace the regulator spring with one of the springs provided in the kit.
      v. Repeat this procedure to replace the high fire regulator spring with the other spring from the kit. See Figure 3, p. 9 and Figure 5, p. 9.

   For Sanhua gas valves: Single and two-stage units with Sanhua gas valves do not require regulator spring replacement.
10. Reverse the disassembly procedure and secure all components in their respective positions
11. Attach the "LP" nameplate supplied with this kit adjacent to the unit nameplate and the round "LP" conversion label to the gas valve.
12. Check all piping joints and electrical connections for tightness
13. Turn on the gas supply to the unit
14. Measure the gas pressure. The incoming supply gas pressure should be 11–in. to 13–in. W.C.
15. Check for leaks at all joints with a soap solution.
16. Attach a manifold pressure gauge to the outlet pressure tap.

Note: *Contact the LP gas supply company if the supply pressure is different than the value indicated on the unit nameplate.*

17. Restore power to unit.
18. Place the thermostat selector switch to the HEAT position and adjust the set point indicator to its highest setting. The burners should light.
19. See the rating nameplate for proper input. Adjust the unit manifold pressure to the values shown in Table 1, p. 5 (See *YC**, A5PG* and *DC** Installer's Guide for proper adjustment instructions and input calculations).

Important: *Adjust high fire regulation first, followed by low fire adjustment.*

20. Inspect burner flames. Flame should be soft, stable, and blue. Flames should not lift off of burners or have significant yellow tipping.
21. Replace the access panel.
22. See *YC**, A5PG* and *DC** Installer's Guide to verify proper unit sequence of operation.
23. At altitudes above 2000 feet derate application 4% per 1000 feet.

Gas Valve Adjustment

General Safety Precautions

1. Verify the gas supply to the appliance is turned off before making any adjustments.
2. Turn off all electrical power to the system to prevent accidental ignition.

Tools and Equipment Needed

- Manifold pressure gauge
- Flexible tubing
- 3/32–inch and 5/32–inch hex wrench
- Straight screwdriver
- Leak detection solution or soap suds

White Rodgers Gas Valve Adjustment

1. Loosen Pressure Tap Test Screw:
   a. Loosen (do not remove) the pressure tap test set screw one turn with a 3/32-inch hex wrench.
   b. Attach a manifold pressure gauge with flexible tubing to the outlet pressure boss marked "OUT P" on the White Rodgers gas valves. See Figure 2, p. 9 and Figure 3, p. 9.
2. Turn on system power with NO call for heat.
3. Adjust Second Stage Manifold Pressure:

Note: *For single stage units, follow the steps for second stage adjustment.*

   a. Make a call for second stage heating. Confirm the unit is in second stage heating by verifying 24Vac is measured between C and HI on the gas valve.
   b. Remove the high (HI) adjustment regulator cover screw. See Figure 5, p. 9.
   c. Adjust the HI outlet pressure by turning the regulator adjust screw:
      i. Clockwise to increase pressure.
      ii. Counterclockwise to decrease pressure.
   d. Adjust until the pressure shown on the manometer matches the specified pressure in Table 1, p. 5.
   e. Replace and tighten the regulator cover screw securely.
4. Adjust First Stage Manifold Pressure:
   a. Remove the call for second stage heat. First stage heat is now running.
   b. Remove the low (LO) adjustment regulator cover screw. See Figure 4, p. 9.
   c. Adjust the LO outlet pressure by turning the regulator adjust screw:
      i. Clockwise to increase pressure.
      ii. Counterclockwise to decrease pressure.
   d. Adjust until the pressure shown on the manometer matches the specified pressure in Table 1, p. 5.
   e. Replace and tighten the regulator cover screw securely.
5. Cycle the valve several times to verify regulator settings. Repeat adjustments if needed.
6. Turn off all electrical power to the system.
7. Remove Manometer and Tighten Pressure Tap Screw.
8. Remove the manometer and flexible tubing.
9. Tighten the pressure tap screw.
10. Using a leak detection solution or soap suds, check for leaks at the pressure outlet boss and pressure tap test screw.
11. Turn on system power and check the operation of the unit.

Sanhua Gas Valve Adjustment

1. Loosen Pressure Tap Test Screw:
   a. Loosen (do not remove) the pressure tap test set screw one turn with a 3/32-inch hex wrench.
   b. Attach a manifold pressure gauge with flexible tubing to the outlet pressure boss marked OUT P on the Sanhua gas valve. See Figure 6, p. 10.
2. Turn on system power with NO call for heat.
3. Remove the protection cap on the pressure regulator. See Figure 6, p. 10.
4. Adjust HI Outlet Pressure:

Note: *For single stage units, follow the steps for second stage adjustment. Use 5/32–inch hex wrench to remove protective cover. See Figure 7, p. 10.*

   a. Make a call for second stage heating. Ensure the unit is in second stage heating by verifying 24Vac is measured between C and HI on the gas valve.
   b. Adjust the HI outlet pressure by rotating the HI pressure point on the regulator with a straight screwdriver to meet the setting requirement of HI pressure in Table 1, p. 5.
      i. Clockwise to increase pressure.
      ii. Counterclockwise to decrease pressure.
      iii. See Figure 8, p. 11.
5. Adjust Low Outlet Pressure:
   a. Remove the call for second stage heat. First stage heat is now running.
   b. Adjust the Low outlet pressure by rotating the Low pressure adjustment point on the regulator with a 3/

32-inch hex wrench to meet the setting requirement of Low pressure in table.

i. Clockwise to increase pressure.

ii. Counterclockwise to decrease pressure. See Figure 9, p. 11.

6. Cycle the valve several times to verify regulator settings. Repeat adjustments if needed.
7. Turn Off System Power:
   a. Turn off all electrical power to the system.
   b. Remove Manometer
   c. Tighten Pressure Tap Screw
8. Remove the manometer and flexible tubing.
9. Tighten the pressure tap screw.
10. Using a leak detection solution or soap suds, check for leaks at the pressure outlet boss and pressure tap test screw.
11. Turn on system power and check the operation of the unit.

Figure 1. Burner and valve

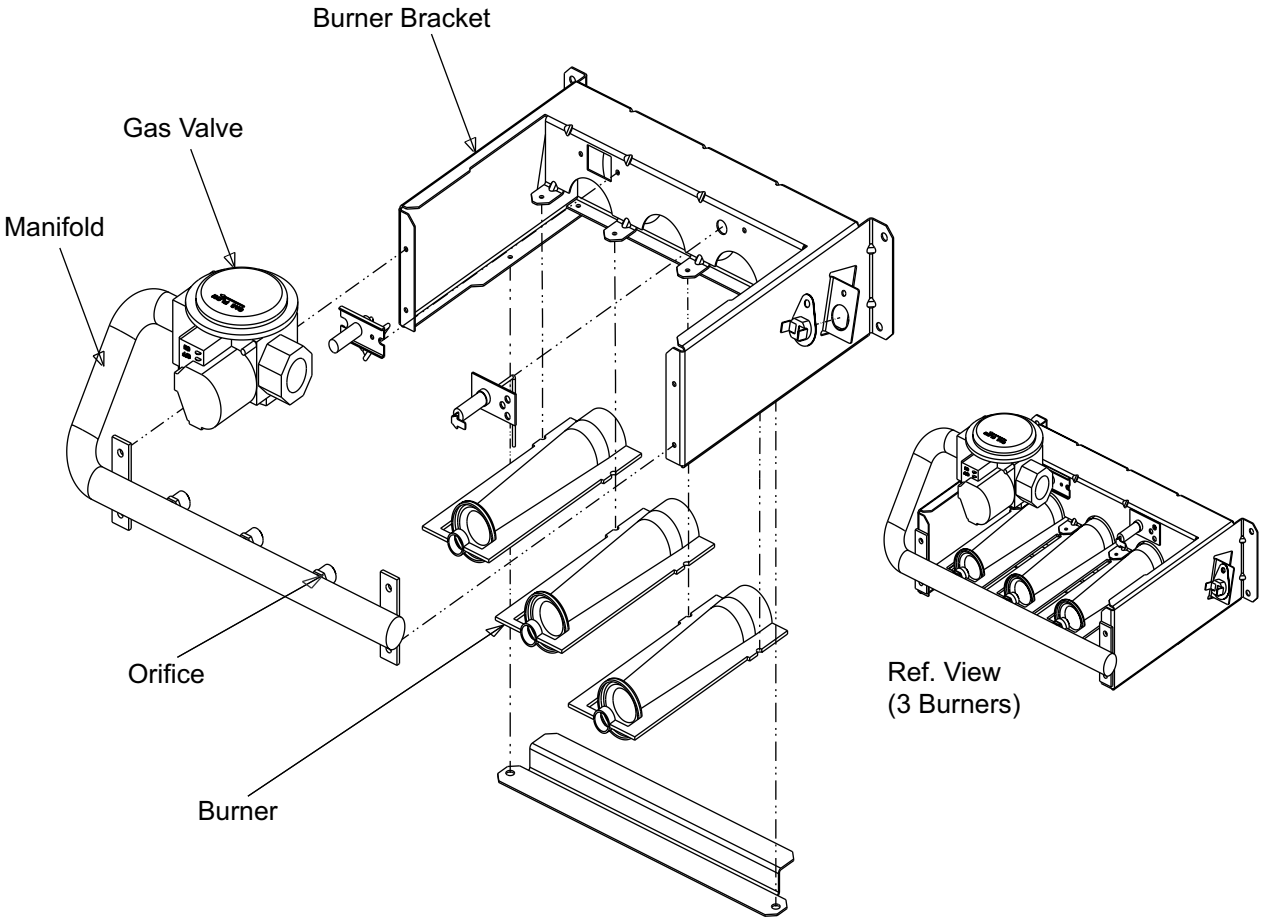


Figure 2. White-Rodgers single-stage gas valve only

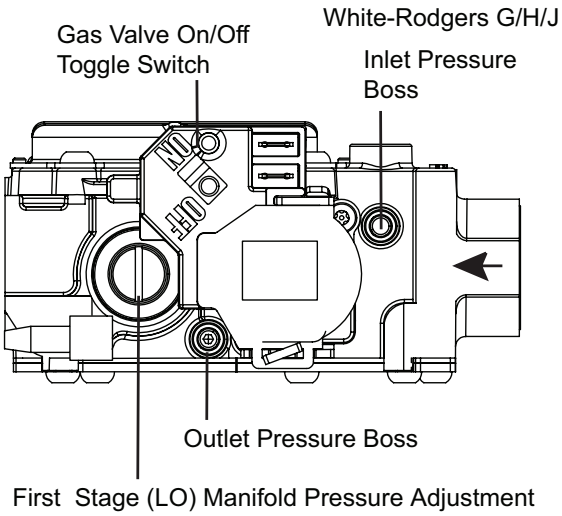


Figure 3. White-Rodgers two-stage gas valve only

White-Rodgers G/H/J

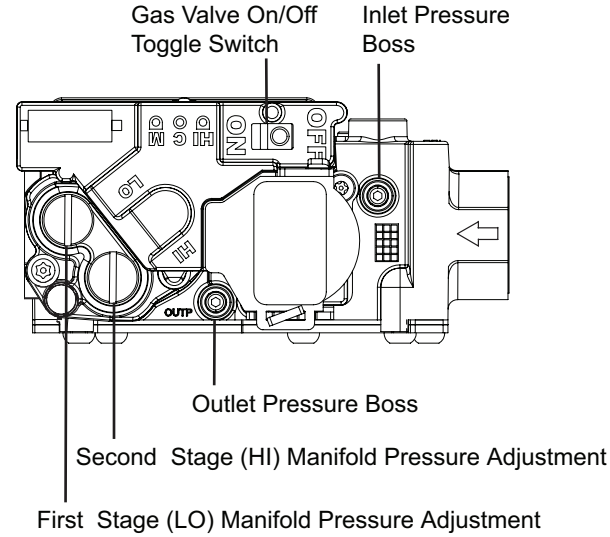


Figure 4. White-Rodgers single-stage gas valve - LP spring installation

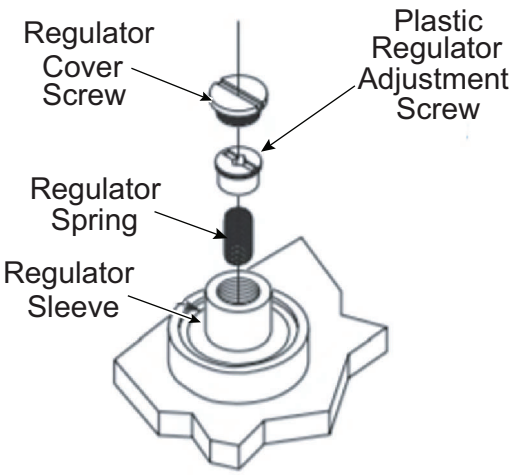


Figure 5. White-Rodgers two-stage gas valve - LP spring installation

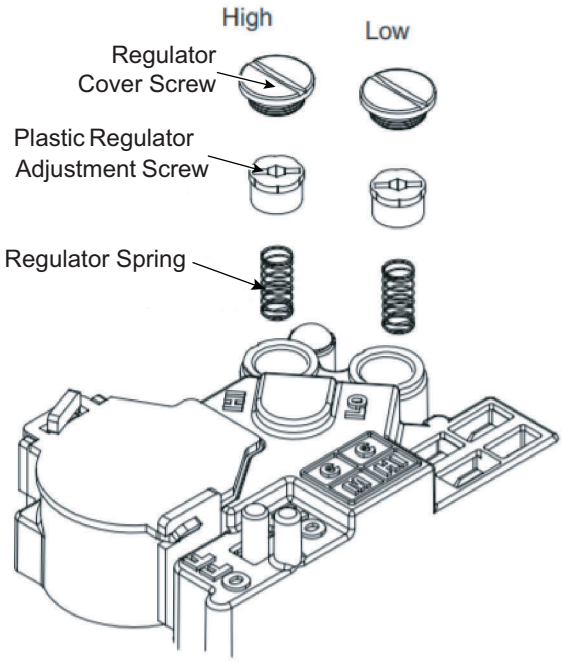


Figure 6. Sanhua two-stage gas valve

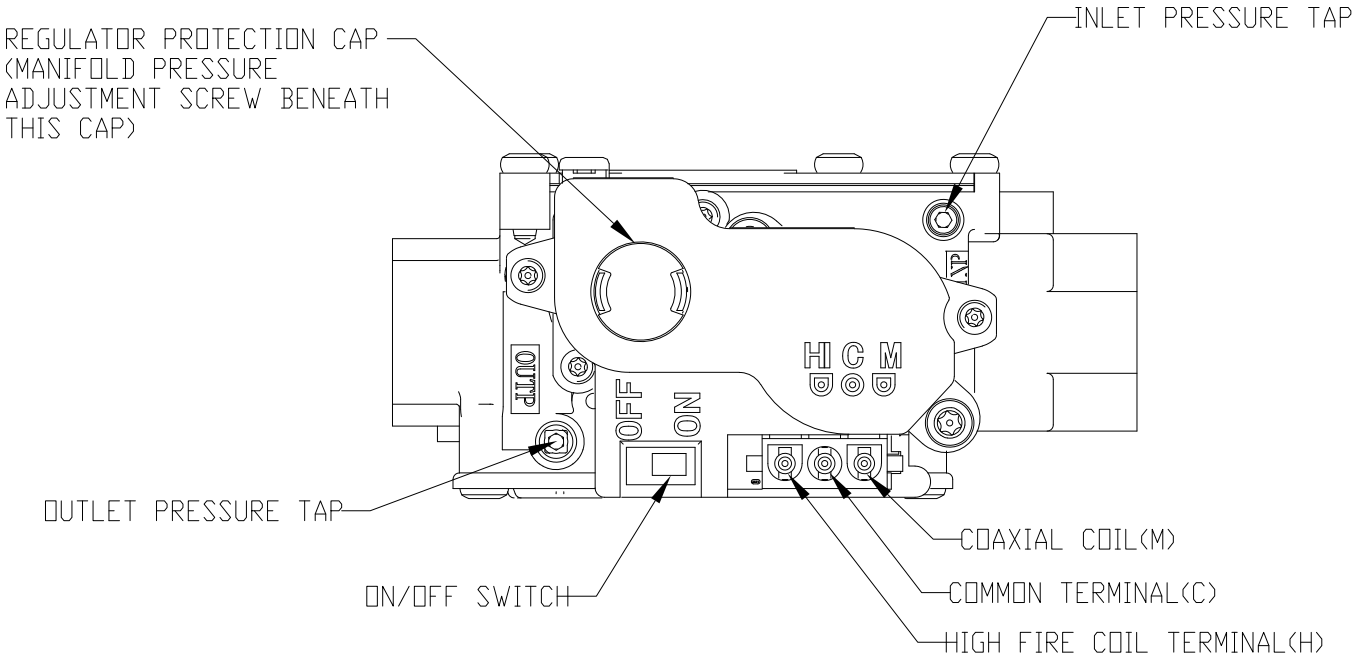


Figure 7. Sanhua single-stage gas valve

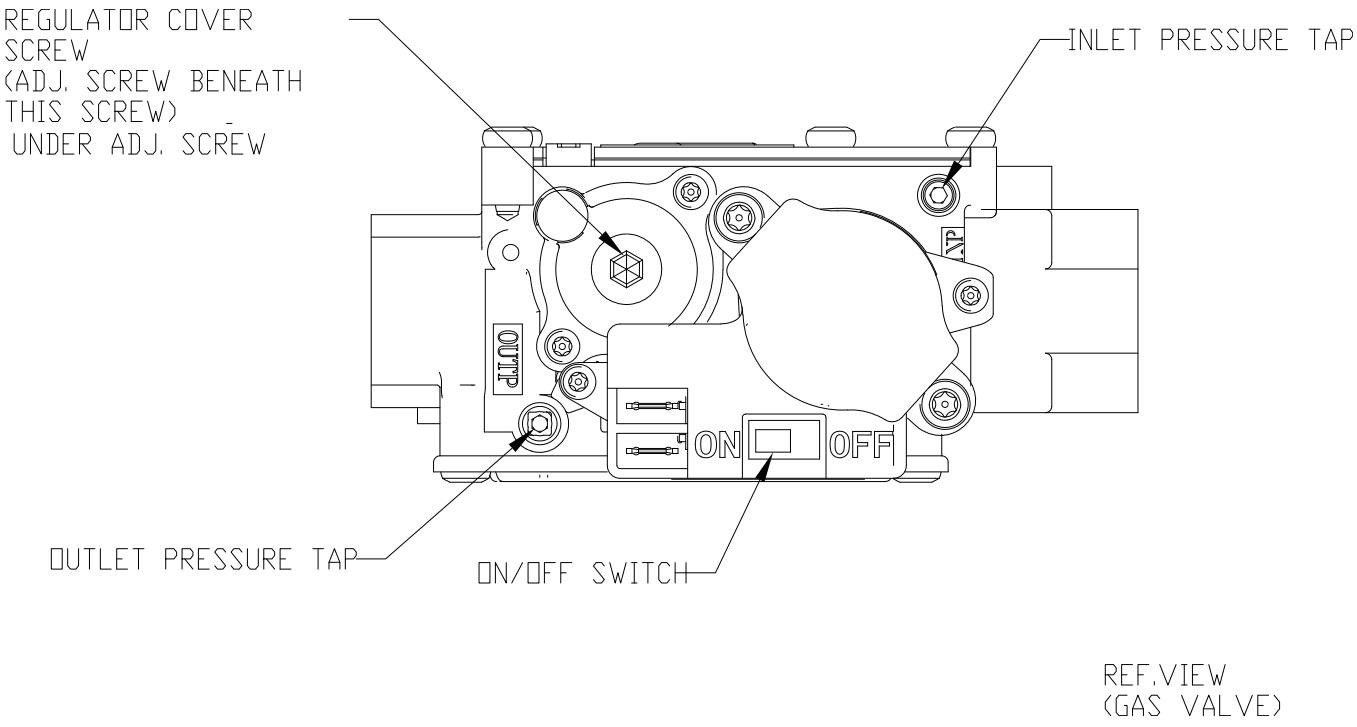


Figure 8. Sanhua gas valve high pressure adjusment

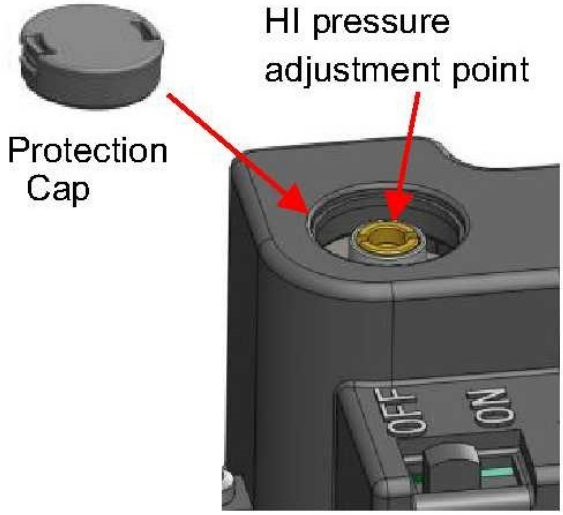
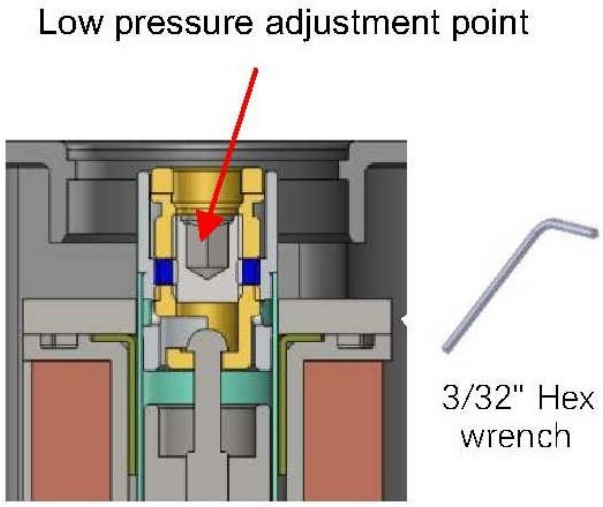


Figure 9. Sanhua gas valve low pressure adjustment



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