Installation Instructions

Through-the-Base Gas Piping

Gas/Electric Packaged Units

3 to 25 Tons

⚠ 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.

August 2022 **ACC-SVN17E-EN**

Introduction

Read this manual thoroughly before operating or servicing this unit.

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-including industry replacements for CFCs and HCFCs such as saturated or unsaturated HFCs and HCFCs.

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 Labeling 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.**

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Revision History

Added new installation procedure for through-the-base gas connection Precedent™ packaged rooftop units 15 to 25 tons in the Installation chapter.

Installation

Precedent™ 6 to 12.5 Tons Packaged Rooftop Units

General

These instructions describe field assembly and installation of gas piping for through the base gas option. The following installation instructions are for units with a ½-in. gas supply line.

Inspection

Unpack all components of the through-the-base gas piping package shipped with the unit. Check carefully for shipping damage. If any damage is found, report it immediately, and file a claim against the transportation company.

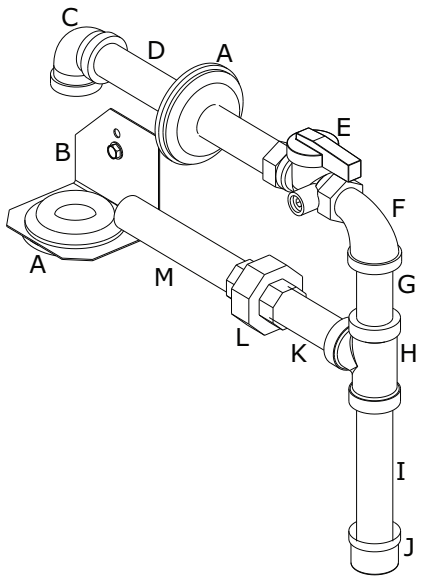
Installation for ½-in. Gas Supply

Parts List

- One (1) ½-in. x 2 ½-in. Pipe fitting
- One (1) ½-in. x 2 ¾-in. Pipe fitting
- One (1) ½-in. x 4-in. Pipe fitting
- One (1) ½-in. x 4 ½-in. Pipe fitting
- One (1) ½-in. x 7 ¼-in. Pipe fitting
- One (1) ½-in. 90° Elbow
- One (1) ½-in. Gas ball valve
- One (1) ½-in. Street elbow
- One (1) ½-in. Tee pipe
- One (1) Pipe union
- Two (2) Grommets
- One (1) TBUG bracket
- One (1) ½-in. Pipe cap

1. Remove the plastic plug from the holes in the center post and insert the grommets. Install one grommet into bracket and slide grommet and bracket over gas supply line. Attach bracket with one screw to side wall.
2. Apply pipe sealant on threads of the gas supply line.
3. Thread and tighten a 90° elbow to the gas supply line.
4. Slide the 7 ¼-in. pipe fitting through the top grommet.
5. Apply sealant to both ends, thread and tighten the 7 ¼-in. pipe into the 90° elbow on the gas supply line.
6. Thread and tighten the gas ball valve on to the 7 ¼-in. pipe fitting.
7. Apply pipe sealant on threads of street elbow and thread street elbow into gas ball valve.
8. Apply pipe sealant on threads of a 2 ½-in. pipe fitting, thread and tighten into street elbow.
9. Thread and tighten a ½-in. tee pipe onto the 2 ½-in. pipe fitting.
10. Apply pipe sealant on threads of a 2 ¾-in. pipe fitting, thread and tighten into ½-in. tee pipe.
11. Slide the 4 ½-in. pipe fitting through the bottom grommet.
12. Apply sealant to both ends, thread and tighten the 4 ½-in. pipe fitting into the 90° elbow on the gas valve.
13. Disassemble pipe union.
14. Thread one half of the disassembled pipe union onto the end of the close 2 ¾-in. pipe fitting.
15. Thread the other half of the disassembled pipe union onto the end of the 4 ½-in. pipe fitting.
16. Reassemble pipe union and tighten.
17. Apply sealant to both ends of the 4-in. drip leg pipe fitting.
18. Thread and tighten into bottom side of ½-in. tee pipe.
19. Thread and tighten ½-in.pipe cap to bottom of drip leg.

Figure 1. Half inch pipe



A	Grommets
B	TBUG bracket
C	90° Elbow (½-in.)
D	Pipe fitting (½-in. x 7¼-in.)
E	Gas ball valve (½-in.)
F	Street elbow (½-in.)
G	Pipe fitting (½-in. x 2 ½-in.)
H	Tee pipe (½-in.)
I	Pipe fitting (½ in. x 4 in.)
J	Pipe cap (½ in.)
K	Pipe fitting (½-in. x 2 ¾-in.)
L	Pipe union
M	Pipe fitting (½-in. x 4 ½-in.)

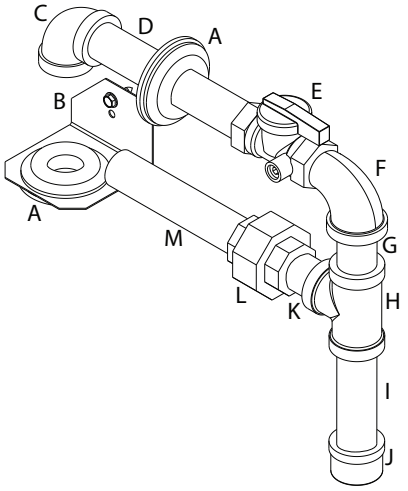
Installation for ¾-in. Gas Supply

Parts List

- One (1) ¾-in. x 2-in. Pipe fitting
- One (1) ¾-in. x 2 ¼-in. Pipe fitting
- One (1) ¾-in. x 4-in. Pipe fitting
- One (1) ¾-in. x 5 ¼-in. Pipe fitting
- One (1) ¾-in. x 6 ½-in. Pipe fitting
- One (1) ¾-in. 90° Elbow
- One (1) ¾-in. Gas ball valve
- One (1) ¾-in. Street elbow
- One (1) ¾-in. Tee pipe
- One (1) Pipe union
- Two (2) Grommets
- One (1) TBUG bracket
- One (1) ¾-in. Pipe cap

1. Remove the plastic plug from the holes in the center post and insert the grommets. Install one grommet into bracket and slide grommet and bracket over gas supply line. Attach bracket with one screw to side wall.
2. Apply pipe sealant on threads of the gas supply line.
3. Thread and tighten a 90° elbow to the gas supply line.
4. Slide the 6 ½-in. pipe fitting through the top grommet.
5. Apply sealant to both ends, thread and tighten the 6 ½-in. pipe fitting into the 90° elbow on the gas supply line.
6. Thread and tighten the gas ball valve on to the 6 ½-in. pipe fitting.
7. Apply pipe sealant on threads of street elbow and thread street elbow into gas ball valve.
8. Apply pipe sealant on threads of the 2 ¼-in. pipe fitting, thread and tighten into street elbow.
9. Thread and tighten a ¾-in. tee pipe onto the 2 ¼-in. pipe fitting.
10. Apply pipe sealant on threads of a 2-in. pipe fitting, thread and tighten into ¾-in. tee pipe.
11. Slide the 5 ¼-in. pipe fitting through the bottom grommet.
12. Apply sealant to both ends, thread and tighten the 5 ¼-in. pipe fitting into the 90° elbow on the gas valve.
13. Disassemble pipe union.
14. Thread one half of the disassembled pipe union onto the end of the close 2-in. pipe fitting.
15. Thread the other half of the disassembled pipe union onto the end of the 5 ¼-in. pipe fitting.
16. Reassemble pipe union and tighten.
17. Apply sealant to both ends of the 4-in. drip leg pipe nipple.
18. Thread and tighten into bottom side of ¾-in. tee pipe.
19. Thread and tighten ¾-in pipe cap to bottom of drip leg.

Figure 2. Three quarter inch pipe



A	Grommets
B	TBUG bracket
C	90° Elbow (¾-in.)
D	Pipe fitting (¾-in. x 6 ½-in.)
E	Gas ball valve (¾-in.)
F	Street elbow (¾-in.)
G	Pipe fitting (¾-in. x 2 ¼-in.)
H	Tee pipe (¾-in)
I	Pipe fitting (¾-in. x 4-in.)
J	Pipe cap (¾-in.)
K	Pipe fitting (¾-in. x 2-in.)
L	Pipe union
M	Pipe fitting (¾-in. x 5 ¼-in.)

Precedent™ 12.5 to 25 Tons Packaged Rooftop Units

General

These instructions describe field assembly and installation of gas piping for through the base gas option. The following installation instructions are for units with a 3/4-in. gas supply line.

Inspection

Unpack all components of the through-the-base gas piping package shipped with the unit. Check carefully for shipping damage. If any damage is found, report it immediately, and file a claim against the transportation company.

Installation for ¾-in. Gas Supply

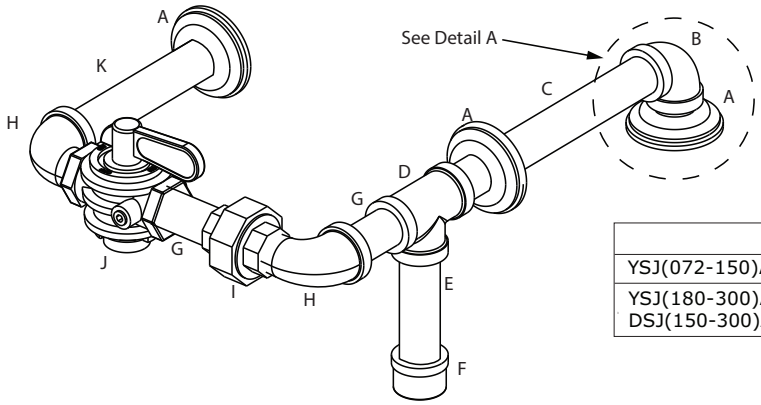
Parts List

- Three (3) ¾-in. Gas connection grommet
- One (1) ¾-in. 90° Elbow
- One (1) ¾-in. x 8 ½-in. Black pipe nipple
- One (1) ¾-in. Tee pipe
- One (1) ¾-in. x 4-in. Black pipe nipple
- One (1) ¾-in. Pipe cap
- Two (2) ¾-in. x 2 ½-in. Black pipe nipple
- Two (2) ¾-in. Street elbow
- One (1) ¾-in. Pipe union
- One (1) ¾-in. Gas shut-off valve
- One (1) ¾-in. x 6 ½-in. Black pipe nipple

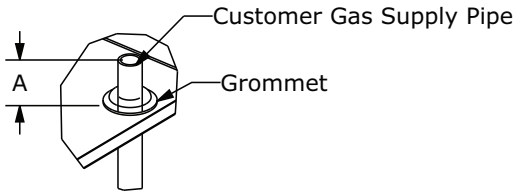
Note: *Refer to Figure 3, p. 7 while performing the following steps.*

1. Remove the plastic plug from the hole in the through the Base Panel on the unit. If not factory installed slide grommet over gas supply line.
2. Apply pipe sealant on threads of the gas supply line. Tighten a 90° elbow on the gas supply pipeline.
3. Slide the 8 ½-in. pipe nipple through the right-hand side grommet on the panel.
4. Apply sealant to both ends, thread and tighten the 8 ½-in. pipe nipple into the 90° elbow on the gas supply line.
5. Thread and tighten the tee pipe on to the 8 ½-in. pipe nipple.
6. Apply sealant to both ends, thread and tighten the 4-in. pipe nipple into the lower opening of the pipe tee.
7. Close the end of the 4-in. pipe nipple using a pipe cap.
8. Apply sealant to both ends, thread and tighten the 2 ½-in. pipe nipple into the open end of the tee pipe.
9. Thread and tighten the street elbow into 2 ½-in. pipe nipple.
10. Slide the 6 ½-in. pipe nipple through the left-hand side grommet on the panel.
11. Apply sealant to both ends, thread and tighten the 6 ½-in. pipe nipple into the union on unit gas valve pipe train.
12. Thread and tighten the street elbow into 6 ½-in. pipe nipple.
13. Apply pipe sealant on threads of street elbow and thread and tighten the gas shut-off valve on to the street elbow.
14. Apply sealant to both ends, thread and tighten the 2 ½-in. pipe nipple into the gas shut-off valve.
15. Disassemble pipe union.
16. Thread one half of the disassembled pipe union onto the end of the 2 ½-in. pipe nipple.
17. Apply pipe sealant on threads of street elbow on 2 ½-in. pipe nipple and thread the other half of the disassembled pipe union onto the end of the street elbow.
18. Reassemble pipe union and tighten.

Figure 3. Gas piping connections



Model	Dimension A
YSJ(072-150)A**(0,A) (L, M, H)	4 5/8”
YSJ(180-300)A**(0,A)(L, M, H), DSJ(150-300)A**(0,A)(L, M, H)	1 3/16”



DETAIL A

A	Grommet (3/4-in.)
B	90° Elbow (3/4-in.)
C	Black pipe nipple (3/4-in. X 8 ½-in.)
D	Tee Pipe (3/4-in.)
E	Black pipe nipple (3/4-in. X 4-in.)
F	Pipe cap (3/4-in.)
G	Black pipe nipple (3/4-in. X 2 ½-in.)
H	Street elbow (3/4-in.)
I	Pipe union (3/4-in.)
J	Gas shut-off valve (3/4-in.)
K	Black pipe nipple (3/4-in. X 6 ½-in.)

Refer to “Parts List,” p. 6 for part details.

Trane and American Standard create comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or americanstandardair.com.

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