



Installation Instructions

Pumpout Compressor Gasket Change

Model Number: PMP02072
Used With: EarthWise™ Purge System

This document applies to service offering applications only.

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.

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SO-SVN009A-EN

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TECHNOLOGIES

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Warnings, Cautions, and Notices

Read this manual thoroughly before operating or servicing this unit. 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.

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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.

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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

Document updated to reflect Service Offering number.

Tools Required

- TORX® socket T25
- Scraper
- SO-SVN009*-EN (*Installation Instructions: Pumpout Compressor Gasket Change*)
- PRGD-SVX01*-EN (*Installation, Operation, and Maintenance: EarthWise™ Purge System with Tracer® AdaptiView™ Control for Water-Cooled CenTraVac™ Chillers with R-123 Refrigerant*)

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Introduction

- This installation literature was created to explain why the vacuum pump gasket needs to be changed if the chiller uses R-11 or R-113 refrigerant, and the process for changing the gasket.
- This kit includes the gasket for use with R-11 or R-113.
- The purge vacuum pump diaphragm cover must be removed so that the existing R-123 gasket (indicated by a white dot on the gasket) can be removed.
- After replacing the existing R-123 gasket with the R-11/R-113 gasket, the vacuum pump diaphragm cover must be replaced and tightened.
- For identification purposes, the gasket for use with R-123 has small white dot on the gasket; the gasket for use with R-11/R-113 has no marking on the gasket.

Installation

⚠ WARNING

Hazardous Voltage w/Capacitors!

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

Disconnect all electric power, including remote disconnects and discharge all motor start/run capacitors before servicing. Follow proper lockout/tagout procedures to ensure the power cannot be inadvertently energized. For variable frequency drives or other energy storing components provided by Trane or others, refer to the appropriate manufacturer's literature for allowable waiting periods for discharge of capacitors. Verify with a CAT III or IV voltmeter rated per NFPA 70E that all capacitors have discharged.

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⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear PPE and follow proper handling guidelines could result in death or serious injury. Always wear appropriate personal protective equipment in accordance with applicable regulations and/or standards to guard against potential electrical shock and flash hazards.

1. Follow all lockout/tagout procedures prior to performing installation of pumpout compressor gasket.
2. Always wear appropriate personal protective equipment.
3. Remove the four screws from the diaphragm cover with a TORX wrench (T25).
4. Remove the O-ring.

Note: The O-ring may fall out; take care not to lose the O-ring.

5. Remove the four screws from the hold-down plate.
6. Remove the valve plate from the head casting.
7. Remove the R-123 gasket (indicated by a white dot on the gasket). Use a scraper if necessary.
8. Replace the R-123 gasket with the R-11/R-113 gasket (the R-11/R-123 gasket has no markings on the gasket).

Note: The center rib of the gasket must cover the center rib of the head casting.

Figure 1.



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9. Assemble the valve plate to the head with the exhaust flapper hole towards the A port (as shown in Figure 2).

Figure 2.



10. Turn all four screws to a minimal torque by hand so that the head of the screw is about flush with the valve plate. Torque each screw to 48 in·lb in a crisscross pattern.

Figure 3.



11. Assemble the O-ring to flange on head.

Note: Confirm the O-ring is seated flat for its full diameter and is not twisted.

12. Replace the diaphragm cover.

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13. Turn all four cover screws to a minimal torque by hand so that the head of each screw is about flush with the compressor head. Torque each screw to 48 in·lb in a crisscross pattern.

Figure 4.



14. Visually check for gaps between the compressor head and housing to be sure that the compressor head is clamped down evenly.
15. Check for leaks using the pumpout cycle.

Note: For more information on checking for leaks using the pumpout cycle, refer to the following sections in PRGD-SVX01*-EN: Exhaust Circuit Pressure Check and Exhaust Circuit Vacuum Check.

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