



Installation Instructions

Location of Parts

Motor Change Out Kit

KIT16378

Model Number: CVHG

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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1

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.

2

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.

3

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.

General Information

Some of these kits are intended for more than one size or type of unit and may contain additional parts not required for the particular unit in which the kit is being installed. Check the unit parts list if questions arise as to use of individual components.

Trane recommends using Loctite® 515 Gasket Eliminator on all refrigerant to atmospheric O-ring connections (except suction elbows to compressor connection) on centrifugal chillers using R-11, R-113, and R-123. Loctite 515 Gasket Eliminator is available from the Trane in 50-mL tubes (SEL00922) and 300-mL caulking tubes (SEL00376). Refer to KIT09237 for more information on Loctite and its installation.

To confirm leak free joints after rebuild, apply Loctite 515 to grooved O-ring joints as follows:

1. Inspect O-ring groove for nicks and scratches. Minor surface scratches or nicks can be repaired by filling the imperfection with a soft soldering material, then filing or sanding to a smooth finish.
2. Apply a bead of Loctite 515 (1/8-in. dia. max) to the entire circumference of the bottom I.D. of the O-ring groove as shown in [Figure 1](#).
3. Place the O-ring into the groove and gently press it into sealant.

Note: O-rings should not be stretched more than 5 percent of their I.D. dimension once seated in the groove.

4. Apply a bead of Loctite 515 (1/8-in. dia. max) to the entire circumference between the O-ring and top O.D. of the groove as shown in [Figure 2](#).

Figure 1.

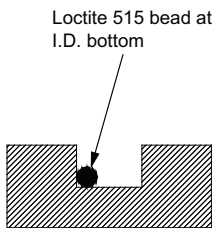


Figure 2.

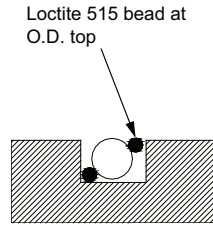


Figure 3. Refer to [Table 1](#) for part location and use

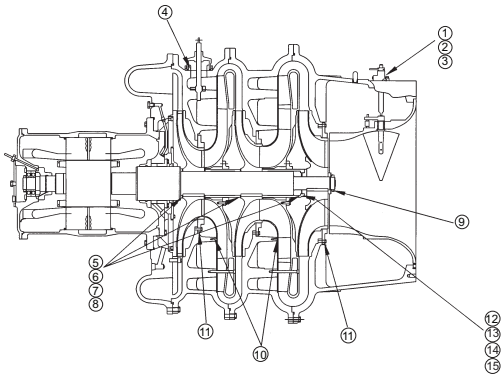


Table 2. Part numbers referenced in [Figure 4](#)

Part Number	Qty.	Location and Use	Ref Number
RNG02123	1	O-ring; suction elbow to evap	32
RNG02106	1	O-ring; volute to cond	33
GKT02694	1	Sealant; comp to suct elbow	34
RNG02121	1	O-ring; comp to suct elbow	35
RNG02125	1	O-ring; comp to suct elbow	35
GKT04416	4	Gasket; 4-bolt flange	36
GKT04402	3	Gasket; 2-bolt flange	37
GKT04445	2	Gasket; comp to econ pipe	38
GKT04433	2	Gasket; econ to cond and evap	39
GKT04422	1	Gasket; volute oil drain	45
GKT04522	1	Gasket; 2-bolt oil regulator	46

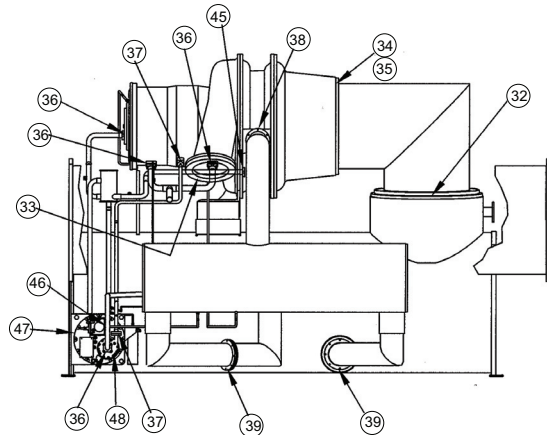
Table 1. Part numbers referenced in [Figure 3](#)

Part Number	Qty.	Location and Use	Ref Number
RNG02145	1	O-ring; 1st stage tang assy	1
RNG02082	2	O-ring; 1st stage tang assy	2
SEL00409	1	Oil seal; 1st stage tang assy	3
GKT04459	1	Gasket; 2nd stage tang assy	4
SHM00178*	3	Shim; compressor 0.050 x 4.5	5
SHM00180*	3	Shim; compressor 0.005 x 4.5	6
SHM00181*	3	Shim; compressor 0.010 x 4.5	7
SHM00182*	5	Shim; compressor 0.020 x 4.5	8
WAS00488	1	Washer; rotor shaft	9
SCR02146	16	Screw; 0.25-20 x 0.75	10
WAS01050	40	Washer; ramp, 2 pieces = 1 pair	11
SHM00184*	2	Shim; compressor 0.005 x 2.5	12
SHM00185*	2	Shim; compressor 0.010 x 2.5	13
SHM00186*	2	Shim; compressor 0.020 x 2.5	14
SHM00187*	2	Shim; compressor 0.050 x 2.5	15

Table 2. Part numbers referenced in [Figure 4](#) (continued)

Part Number	Qty.	Location and Use	Ref Number
GKT04520	1	Gasket; oil tank cover	47
GKT03688	1	Gasket; oil tank impeller	48

Figure 4. Refer to [Table 2](#) for part location and use



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