

Installation Instructions

Liquid Line Solenoid Valve Kit

KAALS
KHALS

NOTE: Read the entire instruction manual before starting the installation.

INTRODUCTION

This instruction covers the installation of liquid line solenoid valve kit Part No. KAALS0101LLS on air conditioners and Part No. KHALS0101LLS on heat pumps.

The single-flow solenoid valve is for air conditioner applications. The bi-flow solenoid valve is for heat pump applications. Do not use the air conditioner solenoid valve on heat pumps.

NOTE: The installation of some units requires the use of a hard shut-off TXV. In these applications, a solenoid valve *may or may not* be necessary. Refer to the equipment Installation Instructions and the Long-Line Application Guideline, or consult your distributor for location and flow arrow direction.

SAFETY CONSIDERATIONS

Installing and servicing air conditioning equipment can be hazardous due to system pressures and electrical components. Only trained personnel should install or service air conditioning equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils, or cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on air conditioning equipment, observe precautions in the literature, on tags, and on labels attached to the unit.

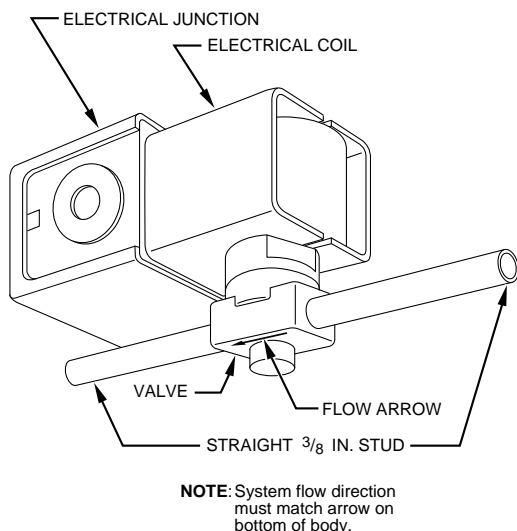
Follow all safety codes. Wear safety glasses and work gloves. Use a quenching cloth for brazing operations. Have a fire extinguisher available.

⚠ WARNING: Before beginning any installation or modification, be sure the main electrical disconnect switch is in the OFF position. TAG THE DISCONNECT SWITCH WITH A SUITABLE WARNING LABEL. Electrical shock can cause personal injury or death.

DESCRIPTION AND USAGE

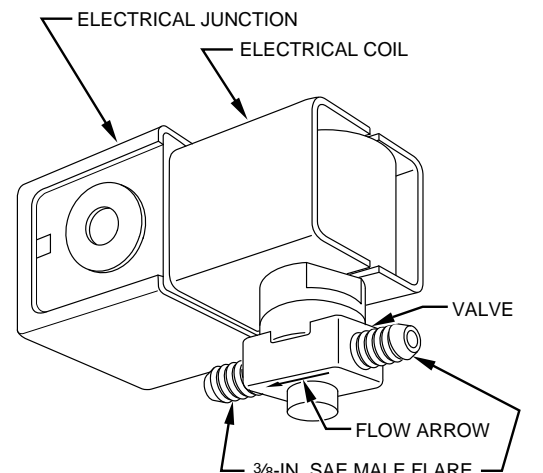
The liquid line solenoid valve closes when the thermostat demand is satisfied to prevent liquid refrigerant migration. This device is for use in long-line and increased efficiency applications.

NOTE: An accessory start capacitor and relay is required when using the liquid line solenoid valve with single-phase reciprocating compressors.



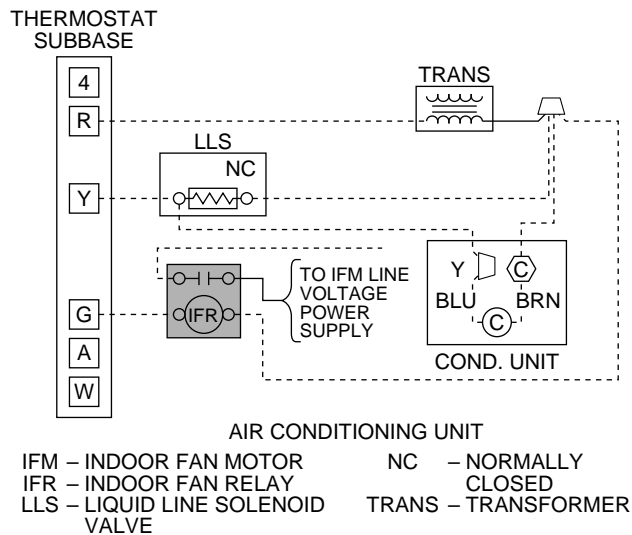
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Fig. 1—Air Conditioner Solenoid Valve



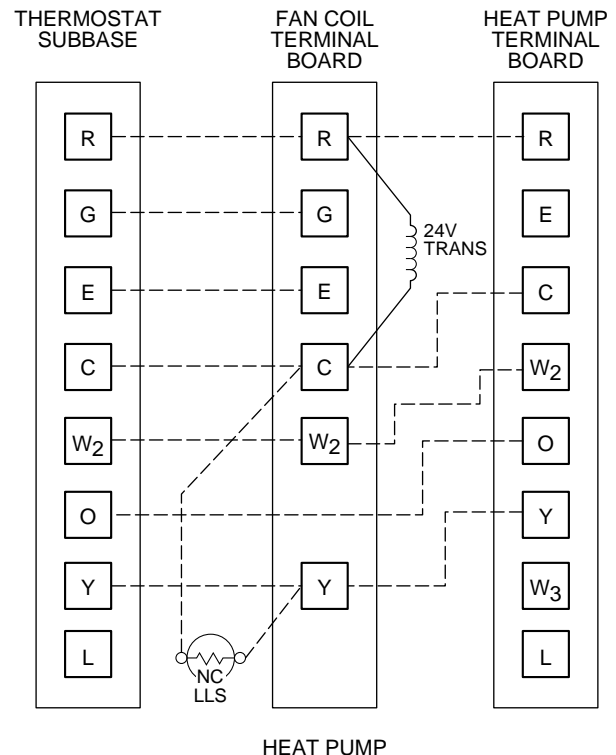
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Fig. 2—Heat Pump Solenoid Valve



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NOTE: Refer to condensing unit or heat pump instructions for detailed control wiring.



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Fig. 3—Typical Solenoid Valve Wiring

INSTALLATION

NOTE: For use in long-line applications, refer to the Long-Line Application Guideline or your distributor for location and flow arrow direction.

⚠ CAUTION: A field-supplied 60-volt control power source may be necessary when adding the solenoid valve. Determine transformer loading prior to installation. Wiring must comply with local and National Electrical Code (NEC) requirements.

PROCEDURE 1—AIR CONDITIONING APPLICATION

1. Remove clip holding solenoid coil on valve assembly and slide coil off valve stem.
2. Wrap solenoid valve body with wet cloth to prevent distortion from heat.
3. Remove and discard solenoid valve end caps. Braze solenoid valve in liquid line within 2 ft of indoor coil. Solenoid valve flow arrow must point toward indoor coil.
4. Reinstall solenoid coil and retainer clip. Solenoid valve must be mounted with coil above valve body. (See Fig. 1.)

PROCEDURE 2—HEAT PUMP APPLICATION

1. Cut liquid line within 2 ft of indoor or outdoor unit (depending on application).
2. Place 3/8-in. flare nuts on cut ends of liquid line and flare both ends.
3. Remove and discard solenoid valve end caps, then connect flare nuts to solenoid valve assembly. Solenoid valve must be mounted with coil above valve body. (See Fig. 2.)

NOTE: When solenoid valve is de-energized (closed), refrigerant flow will be stopped only in the direction of the flow arrow on the valve body.

PROCEDURE 3—WIRING

Solenoid coil must be wired into 24-v control circuit so coil is energized (open) with outdoor unit. Wire solenoid coil between Y (contactor) and C (common) terminals. (See Fig. 3.)