

INSTALLATION INSTRUCTIONS

Evaporator Freeze Thermostat

NASA001FS

These instructions must be read and understood completely before attempting installation.

Safety Considerations:

Installing and servicing of air conditioning equipment can be hazardous due to system pressure 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 and on tags and 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.

Safety Labeling and Signal Words

DANGER, WARNING, CAUTION, and NOTE

The signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTE** are used to identify levels of hazard seriousness. The signal word **DANGER** is only used on product labels to signify an immediate hazard. The signal words **WARNING**, **CAUTION**, and **NOTE** will be used on product labels and throughout this manual and other manuals that may apply to the product.

DANGER – Immediate hazards which **will** result in severe personal injury or death.

WARNING – Hazards or unsafe practices which **could** result in severe personal injury or death.

CAUTION – Hazards or unsafe practices which **may** result in minor personal injury or product or property damage.

NOTE – Used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

Signal Words in Manuals

The signal word **WARNING** is used throughout this manual in the following manner:



The signal word **CAUTION** is used throughout this manual in the following manner:



Signal Words on Product Labeling

Signal words are used in combination with colors and/or pictures on product labels.

ELECTRICAL SHOCK HAZARD

Failure to turn off electric power could result in personal injury or death.

Before installing or servicing system, turn off main power to the system. There may be more than one disconnect switch, including accessory heater(s).

EXPLOSION HAZARD

Failure to follow this warning could result in death, serious personal injury, and/or property damage.

Never use air or gases containing oxygen for leak testing or operating refrigerant compressors. Pressurized mixtures of air or gases containing oxygen can lead to an explosion.

INTRODUCTION

This instruction covers the installation of evaporator freeze thermostat Part No. NASA001FS on split-system air conditioners and heat pumps.

The device is designed to shutdown the outdoor section in the event of indoor coil freeze up, preventing damage to the compressor.

DESCRIPTION AND USAGE

The evaporator freeze thermostat is recommended to prevent coil freezing.

When the temperature of the vapor (suction) tube drops below the pre-set value of the Freeze Thermostat, the control breaks the demand signal to the outdoor unit. When the vapor (suction) temperature rises, the demand signal is restored.

Included in the kit are:

- Temperature switch HH22JB026 --- 1
- Installation Instructions ----- 1

INSTALLATION

The following items must be field supplied:

- Standard 4" X 4" electrical box and cover ----- 1
- No. 8-32 X 1/2" sheet metal screws-----2
- No. 10-24 X 1/2" sheet metal screws-----2
- Wire ties-----2
- 16-gauge wires (cut to length)-----2
- Insulation (Armaflex®) for bulb coverage

⚠ CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in unit damage

Do not puncture coil and/or tubing when drilling holes.

1. Remove knockout in bottom of electrical box.
2. Drill two 3/16" diameter clearance holes in right-hand side of electrical box 1 inch apart. Position holes in side of box to ensure clearances for mounting of thermostat. (Refer to Figure 1.)
3. From within electrical box, pass evaporator freeze thermostat bulb through knockout hole. Do not mount thermostat to box at this time.
4. Attach evaporator freeze thermostat bulb to vapor line, using 2 wire ties, as close to evaporator coil as possible. (Refer to Figure 1.)
5. Position electrical box on side of plenum or coil casing. Be sure location is NOT near coil surface. Using a 9/64" or No. 27 bit, drill through the electrical box and into plenum or casing.
6. Fasten electrical box to plenum or casing using 2 No. 10-24 X 1/2" sheet metal screws. (Refer to Figure 1.)
7. Mount evaporator freeze thermostat to side of electrical box (inside) using 2 No. 8-32 X 1/2" sheet metal screws (holes drilled in step 1).
8. Route wires for bulb through knockout hole in electrical box, and connect to evaporator freeze thermostat.
9. Wire evaporator freeze thermostat in series with Y (Single stage) or Y1 (Two stage) low-voltage wire from indoor thermostat at indoor unit to outdoor unit. (Refer to Figure 2 & 3.)
10. Secure cover to electrical box.
11. Insulate evaporator freeze thermostat bulb.

