

# INSTALLATION INSTRUCTION

## INSTALLATION INSTRUCTIONS FOR HORIZONTAL AIR DISCHARGE KIT 559914 R6GP SERIES 6 & 7 ½ TON EQUIPMENT

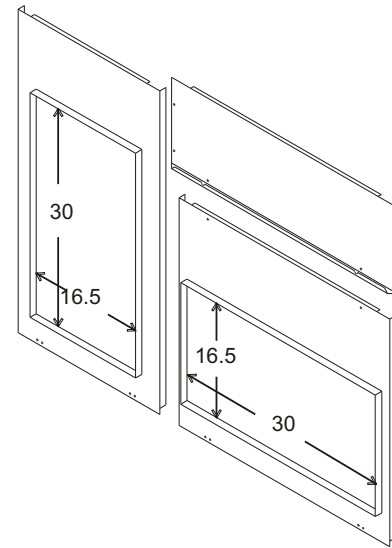
FORM# 279D-0309

### I - Shipping and Packing List

Package 1 of 1 contains:

- 1 ea. Supply Down-flow Duct Cover Panel
- 1 ea. Return Down-flow Duct Cover Panel
- 1 ea. Horizontal Supply Conversion Panel
- 1 ea. Horizontal Return Conversion Panel
- 1 ea. Return Air Compartment, Filter Access Panel
- 1 ea. of the following Air Temperature Limit
  - 626474 - 180°F Open temp, SPDT
  - 626341 - 155°F Open temp, SPST
  - 626575 - 125°F Open temp, SPDT
- 2 ea. Horizontal Conversion Panel Retaining Clips
- 6 ea. #10 x ½" Self drilling/tapping Screws

18 items Total



Check contents for shipping damage. Contact the last carrier immediately if any shipping damage is found.

These instructions are intended primarily to assist qualified individuals, experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Read all instructions carefully before starting the installation. Read these instructions thoroughly before starting the installation. Follow all precautions and warnings contained within these instructions and on the unit.

## **Warning:**

- ❖ Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.
- ❖ Refer to these instructions for the proper application of this accessory kit.
- ❖ For assistance or additional information consult a qualified, professional installer or service agency.

### II - Application

This kit is for use on Nordyne R6GP Series Packaged Gas/Electric units in the short cabinet (43.5" tall with baserails) and will provide a means to convert factory standard units from the down-flow supply & return duct setup to a horizontal supply & return duct configuration. When installing this accessory kit in conjunction with other accessory kits, it is recommended to install this kit first.

**Notice to Installer** - Depending on the R6 unit model, the air temperature, safety limit switches may need to be replaced in order to properly configure the unit for safe operation. The first step of this installation is the determination of the units' model number and installed heat-exchanger configuration. The second step is the determination of the required safety limits for the safe operation of the unit. Failure to comply with these procedures will void the warranty of the appliance may cause personnel injury or property damage.

### III - Installation Procedures

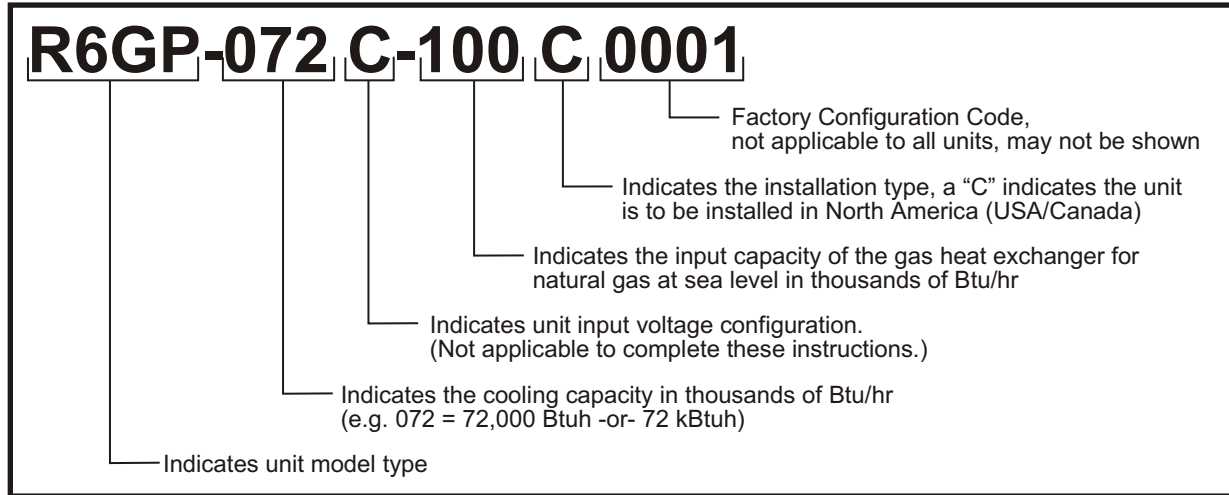
1. Determine unit cooling capacity and the installed heat exchanger.
2. Determine the safety limits required for horizontal operation.
3. Perform the installation as described in section 4.
4. Record the information required on the back cover of these instructions.
5. Save these instructions in a safe place, along with the unit installation instructions for future reference with the equipment owner.

# INSTALLATION INSTRUCTION

## INSTALLATION INSTRUCTIONS FOR HORIZONTAL AIR DISCHARGE KIT 559914 R6GP SERIES 6 & 7 ½ TON EQUIPMENT

### IV - Installation Instructions

1. Refer to the rating plate installed on the unit, record the model number, located at the top of the rating plate on the installation checklist located on the back cover of these instructions. Determine the unit cooling capacity and heat exchanger size using the model number decode below:



2. Based on the installed Heat Exchanger capacity reference **Table 1** below to determine the correct safety limit switches for horizontal operation. **Refer to Figure 4** for a description of the limit locations in the unit.

<b>R6GP Series Light Commercial Units</b>			
<b>Heat Exchangers with 100k - 200k Btu inputs</b>			
<b>Air Temperature Limits for Horizontal Applications</b>			
HX, Input (kBtu/h)	200	166	100
<b>Upper Limit</b>	125° / 85° 626575	155° / 115° 626341	135° / 95° 626583
<b>Lower Limit</b>	180° / 140° 626474	255° / 215° 626582	255° / 215° 626582

*Table 1. Limit Settings: Open Temp / Close Temp (deg F)*

3. The Factory Standard unit configurations can be determined by **Table 2** below and can be quickly referenced to determine what limits need to be replaced with the application of this horizontal kit installation.

<b>Horizontal Limits Conversion Requirements</b>			
<b>For R6GP Series, Factory Standard Unit Configurations</b>			
Cooling Cap. (kBtu/h)	090	072	072
HX, Input (kBtu/h)	200	166	100
<b>Upper Limit</b>	Replace	Replace	No Change
<b>Lower Limit</b>	Replace	No Change	No Change

*Table 2. Standard Limit Change-out Requirements*

# INSTALLATION INSTRUCTION

## INSTALLATION INSTRUCTIONS FOR HORIZONTAL AIR DISCHARGE KIT 559914

4. Remove the existing supply and return access panels of unit to provide for horizontal air openings. Retain screws to be used later.
5. Place supply air cover panel (insulated side down) over flanges of supply air opening in bottom of unit. Fasten cover panel to flanges and, using holes in cover as a guide, drill holes in opening flanges and attach cover with screws provided. **See Figure 1.**
6. Place return air cover panel (insulated side down) over flanges of return air opening and attach as per Step 5 above. **See Figure 1.**

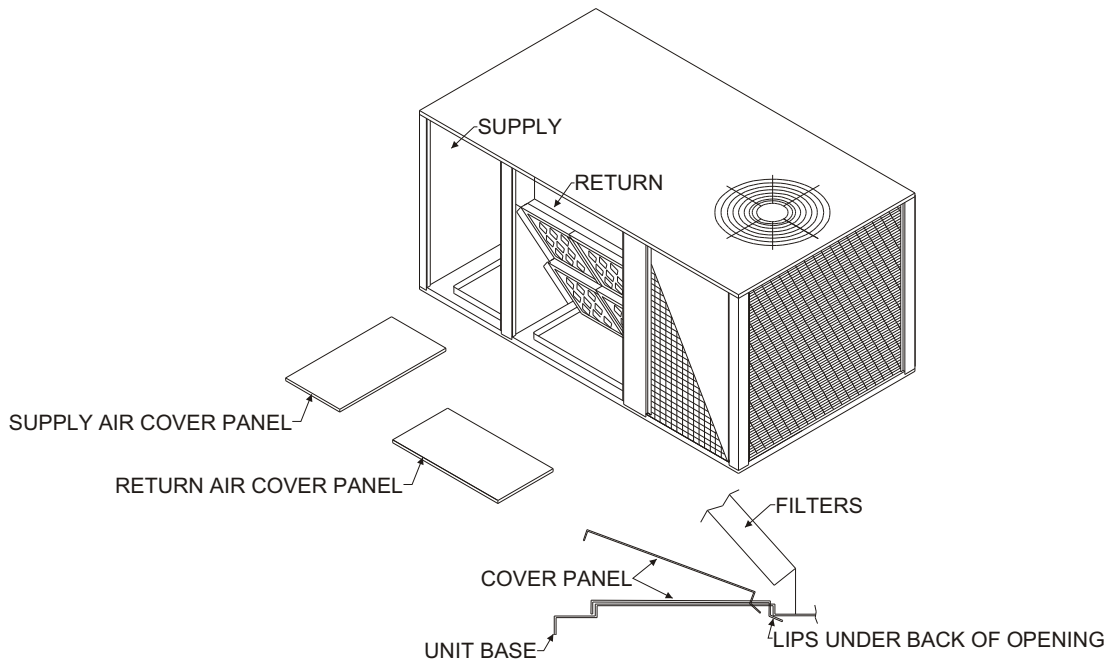


Figure 1

7. Install supply panel with duct opening to unit horizontal supply air opening of unit. Using holes in the bottom of panel and secure with screws from Step 1.
8. Install return panel with duct opening to unit horizontal return air opening of unit. Align the bottom of the panel with the unit base pan. Using holes in the bottom of panel, secure with screws from Step 1. **See Figure 2.**

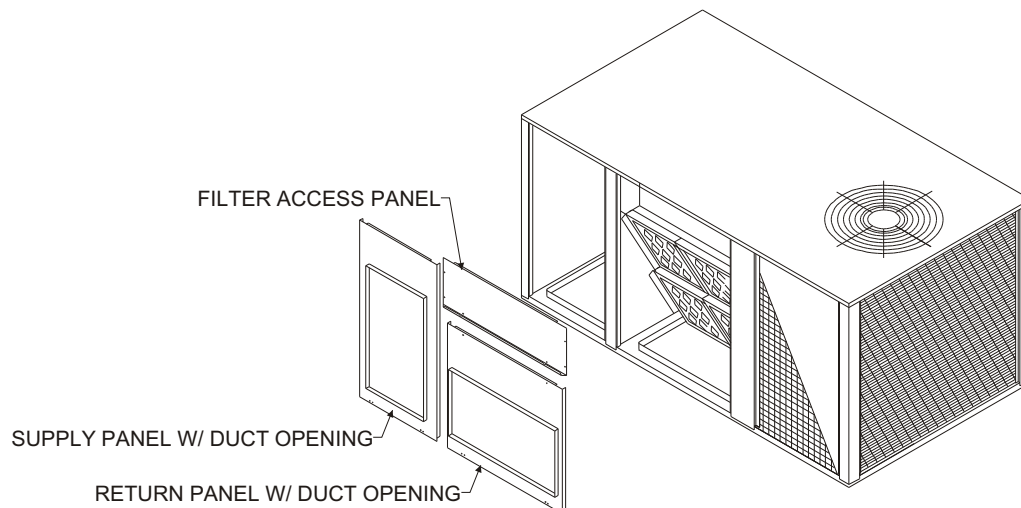


Figure 2

# INSTALLATION INSTRUCTION

## INSTALLATION INSTRUCTIONS FOR HORIZONTAL AIR DISCHARGE KIT 559914 R6GP SERIES 6 & 7 ½ TON EQUIPMENT

- Take the two clips and place one on each side of return panel and using a screw from the unit posts to secure so tab is over return panel. **See Figure 3.**
- Attach filter access panel, above return air opening, flush with top panel. With panel firmly against flanges, install screws provided and tighten securely. **See Figure 3.**

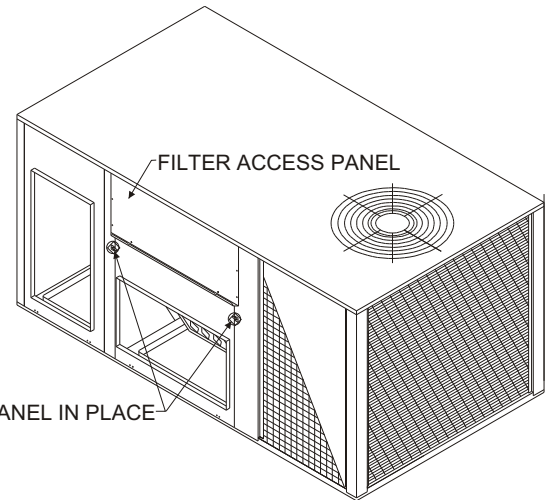


Figure 3

### Note: For Units Requiring Limit Replacement.

- Disconnect all electrical power to unit before replacing limit control.
- Remove blower access panel and locate main air limits on the interior divider panel near the blower outlet duct. **See Figure 4.**

**WARNING!** MARK ALL WIRES AND NOTE TERMINAL ORIENTATION BEFORE REMOVAL OF WIRING OR TRANSFER WIRES IMMEDIATELY TO NEW MAIN AIR LIMIT TO ENSURE PROPER OPERATION OF UNIT.

### INDOOR BLOWER COMPARTMENT

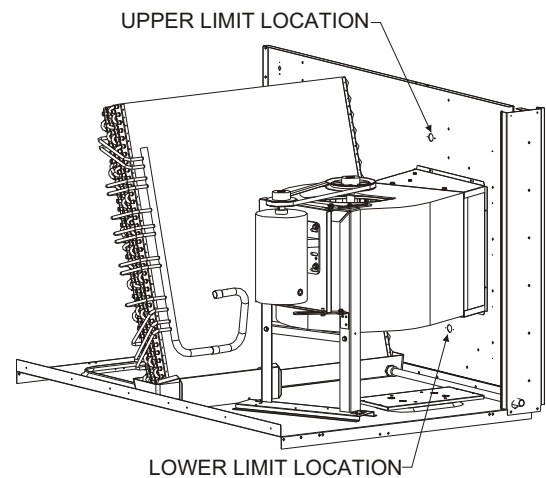


Figure 4

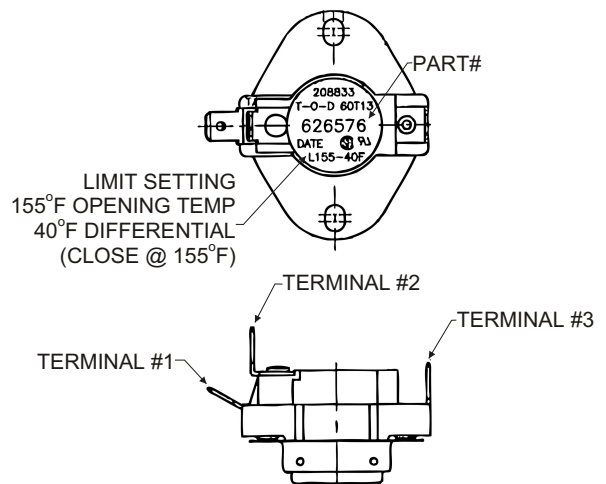


Figure 5

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13. The ignition control module is located behind the burner access panel on all of the R6GP series units. (Compartment is located to the right of the unit control panel, refer to the Unit Installation Instructions) Some unit models incorporate a Fenwal ignition control module. **See Picture 1.** On these units the air temperature limits are a single pole, double throw design and are connected as shown in wiring diagram 1 below. Also, **See Figure 5** to reference the terminal orientation on these limits.

Most R6GP Series units utilize a UTEC ignition control board; this configuration can be seen in **Picture 2.** This control method utilizes a single pole, single throw air temperature limit. (Terminals 1 & 3 ONLY – as **Shown in Figure 5.** Some limits included in this kit only have terminals 1& 3 and are for use only on units incorporating the UTEC control.) These units will be wired as shown in Wiring diagram 2.

**Note:** Reference the unit wiring diagram located in the unit control panel or in the unit installation instructions as needed.

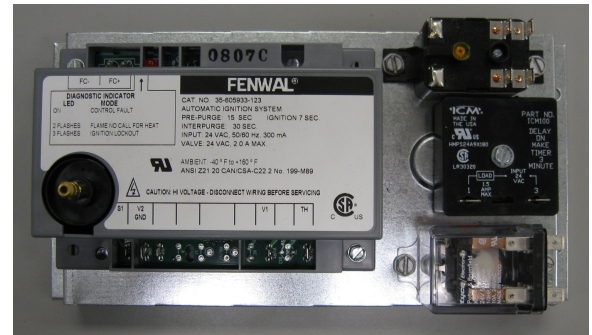
### Warning:

- ❖ Improper Air Temperature Limit installation or service maintenance can cause injury or property damage and may cause an unsafe condition to exist.
- ❖ It is the installers' responsibility to ensure that the correct limits are installed in accordance with these instructions.
- ❖ For assistance or additional information consult a qualified, professional installer or service agency.

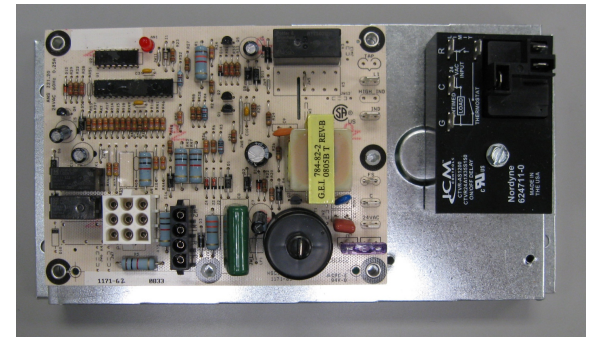
a. As determined in steps 1, 2 and 3: remove the correct limit(s) from the parts kit and it's individually sealed plastic bag. Label the wires installed on the limit to be replaced and remove the appropriate limit from the unit by removing the wires and 2 screws that secure the limit in place. Install the correct limit for horizontal operation with the same screws and replace the wiring on the same limit terminals. Repeat if necessary for the second safety limit replacement.

**Note:** It is recommended to only replace one limit at a time.

14. Check all terminals for proper connections.
15. Replace blower access panel and reconnect electrical power to unit.
16. Complete Checklist on back cover of these instructions.
17. Complete the unit installation in accordance with the units installation instructions.
18. Review the installation details with the building owner.



Picture 1

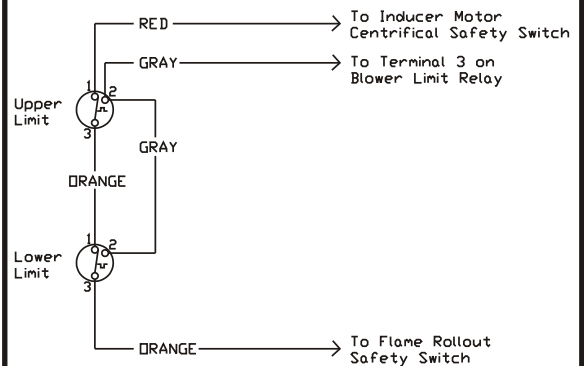


Picture 2

### Safety Limit Wiring Diagrams

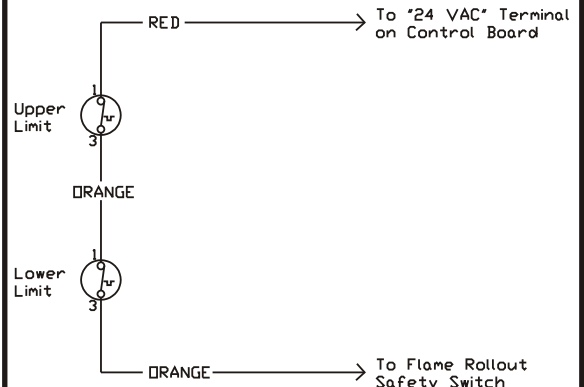
For units with Fenwal controls

#### Wiring Diagram #1



For units with Utec controls

#### Wiring Diagram #2



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### Horizontal Kit Installation Checklist:

#### Installation Details:

Date of kit installation:

\_\_\_\_\_

Installation Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Building Owner Contact & phone #:

\_\_\_\_\_

\_\_\_\_\_

#### Installer Details:

Installers Name:

\_\_\_\_\_

Company Information & contact #:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Unit Model number:**

\_\_\_\_\_

#### Upper Limit Details:

Part # Installed: \_\_\_\_\_ Temp Setting noted on installed Limit: \_\_\_\_\_

Note: For Build to order units, factory configured for horizontal operation annotate "Factory Installation"  
For Installations that do not require a change to the safety limit, annotate "No Change Required"

#### Lower Limit Details:

Part # Installed: \_\_\_\_\_ Temp Setting noted on installed Limit: \_\_\_\_\_

Note: For Build to order units, factory configured for horizontal operation annotate "Factory Installation"  
For Installations that do not require a change to the safety limit, annotate "No Change Required"

**Leave these instructions and the unit  
Installation instructions with the  
Building owner**