

# INSTALLATION INSTRUCTION

## INSTALLATION INSTRUCTIONS FOR 555622 / 555623 POWER EXHAUST USED WITH GR4GM-150/180 (R-22) and R6GN-150/180 (R410A) UNITS

FORM# 656B-0509 (656B-0604)

### I - SHIPPING AND PACKING LIST

Package 1 of 1 contains:

- 1 - Power Exhaust Assembly
- 1 - Hardware Bag
- 11 - #10 -16 x 1/2" Type A Screws
- 1 - 1 3/4" Bushing

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

### II - APPLICATION

Power exhaust can be used in down flow and horizontal applications. This power exhaust is designed to relieve excess pressure that may occur with economizers or certain building conditions. All fan motors are recognized by UL. Permanently lubricated ball bearing and motor overload protection are standard.

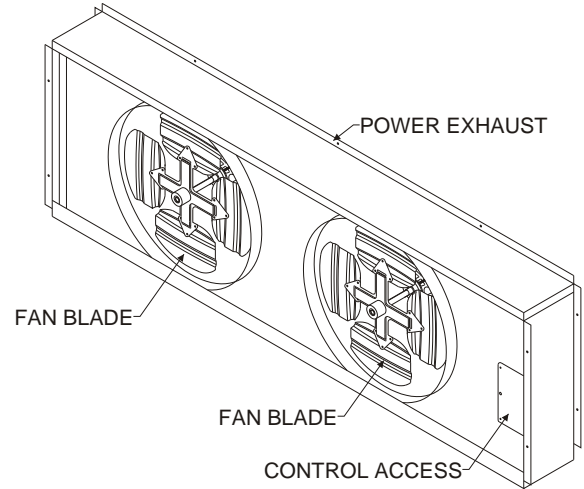


Figure 1

12.5 and 15 Ton Package Systems - R4GM and R6GN Series											
Nortek Global HVAC Part No.	Volts	Phase	No. of Fans	HP	High Speed		FLA	Fuse	MCA <sup>2</sup>	MOP <sup>2</sup>	
					CFM <sup>1</sup>	RPM					
555622	208	3	2	3/4	9800	1050	10.00	15	12.50	20	
	230										
555623	460	3	2	3/4	9800	1050	5.00	7	6.25	10	

Note:  
1. CFM is per fan curve @ 0.1" w.c. external static pressure  
2. Applicable to R6GN Models

Table 1

Read these instructions in their entirety before proceeding with the installation of the power exhaust unit, control components, and its wiring.

**Warning:**

This kit is to be installed by a qualified service technician in accordance with these instructions and all codes having jurisdiction. Failure to follow these instructions could result in serious injury, property damage, or death. These instructions are primarily intended 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.

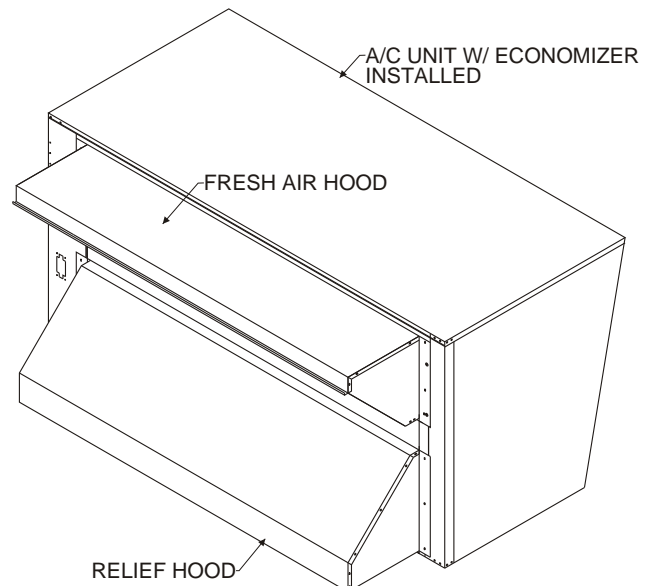


Figure 2

### III - INSTALLATION

1. Disconnect all power to unit.
2. Remove the relief hood of economizer, if previously installed, and retain the screws for later use.

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### 4. Electrical Connections

#### **Warning:**

All electrical wiring must comply with the latest edition of the National Electrical Code (NEC) - NFPA 70.

**For GR4GM-150/180 (R-22) Models** - Locate plug on the side of the economizer under economizer controls, insert bushing, and route power exhaust control and supply wiring through economizer side panel. Connect to unit per accessory wiring diagram. Power exhaust low voltage control wiring connects to EF and EF1 on the economizer W7212 logic module. Refer to the installation instructions provided with the economizer for proper set up and operation. **IMPORTANT: See unit rating label before operating this accessory to ensure correct field supply wire size has been installed for proper operation.**

**For R6GN-150/180 (R410A) Models** - Application of this accessory on R6GN-150/180 models requires a separate branch circuit for proper operation. Locate plug on the side of the economizer under economizer controls, insert bushing, and route power exhaust control wiring through economizer side panel and connect to unit per accessory wiring diagram. Power exhaust low voltage control wiring connects to EF and EF1 on the economizer W7212 logic module. Refer to the installation instructions provided with the economizer for proper set up and operation. Removal of the 6 pin/4 wire harness assembly from the LINE side of the power exhaust contactor is required prior to field wire attachment. **See Table 1 or the accessory rating label for proper branch circuit electrical requirements. (Field Supplied)**

#### Down Flow Application

3a. Install the power exhaust where relief hood was mounted using same holes and screws from step 2.

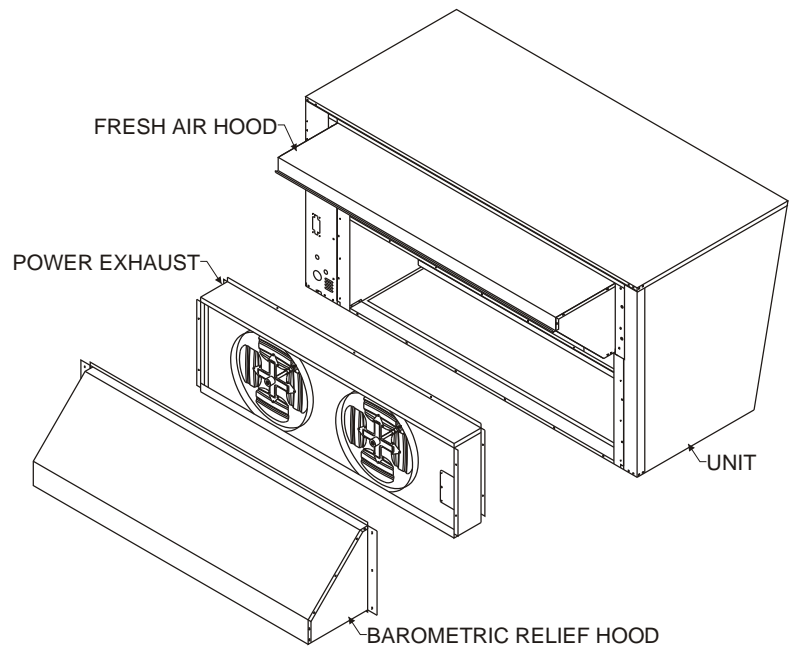


Figure 3

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### Horizontal Application

3b. Secure power exhaust to side face of the horizontal duct over the precut hole with screws provided. Support assembly as required.

### Return Duct Size:

70" W x 20" H

Requires 1" top and bottom flanges and 3" side flanges for proper mounting and sealing to economizer and unit.

### Power Exhaust Air Opening:

Approx. 70" L x 18" H (Max.)

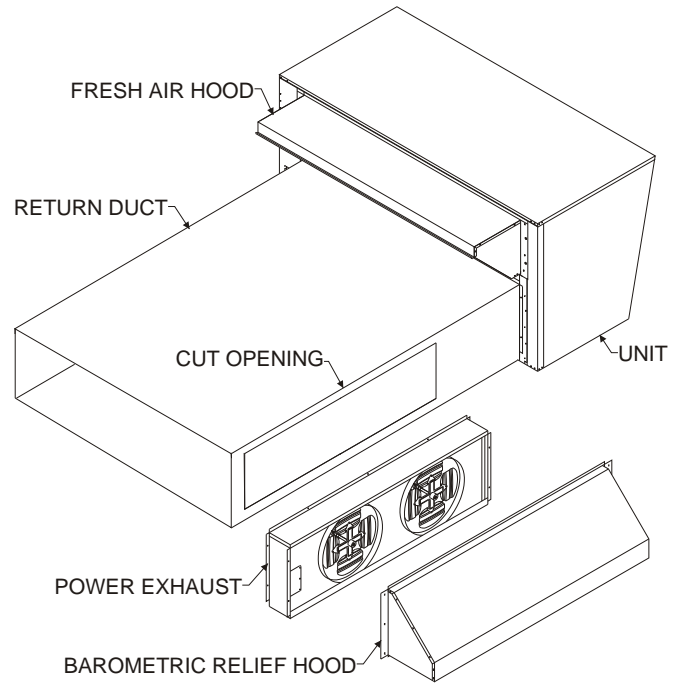


Figure 4

5. After installation caulk around the return duct, power exhaust, and relief hood flanges with appropriate materials to ensure a leak free seal.
6. Reinstall economizer relief hood over front of power exhaust using screws provided.
7. Reconnect power to the unit. Energize economizer to an opening greater than the power exhaust activation switch is set for to verify proper operation.

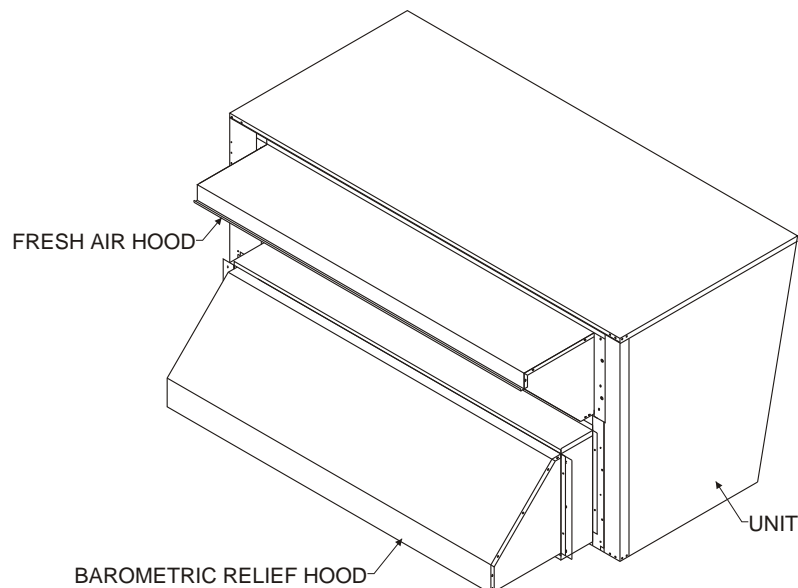
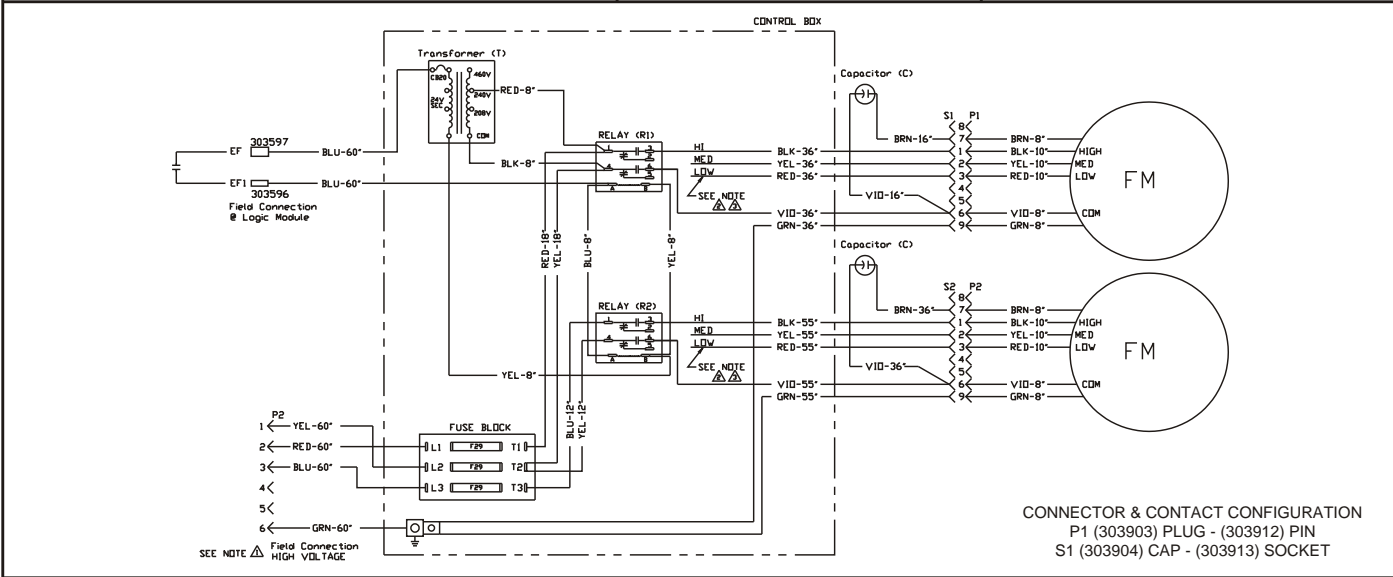


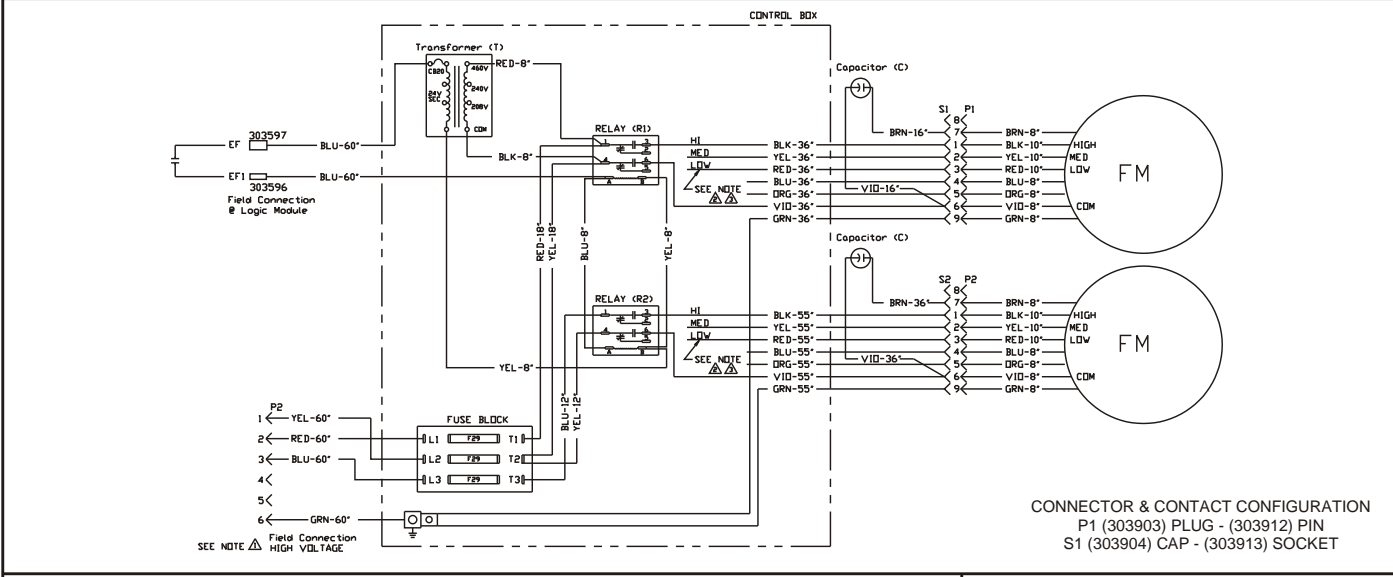
Figure 5

HARNESS DETAIL	COMPONENT CODE	WIRE COLOR CODE			
<p>HARNESS LEADS ARE 14 GA. WIRE WITH NO END DESIGNATION</p>	<p>C Capacitor EF &amp; EF1 Economizer Logic Module Switch FM Fan Motor F29 Fuse P1 &amp; P2 Fan Plug Male R1 &amp; R2 Relay S1 &amp; S2 Control Box Female T Transformer</p>	<p>BLK Black BRN Brown GRY Gray RED Red YEL Yellow</p>	<p>BLU Blue GRN Green ORG Orange VIO Violet</p>		



<p>Notes:</p> <ol style="list-style-type: none"> <li>GR4GM-150/180 Models - Connect high voltage wiring harness to unit supplied plug. R6GN-150/180 Models - Remove wire harness from LINE side of contactor and connect properly sized (field supplied) branch circuit. <b>See Table 1.</b></li> <li>A. Power Exhaust wired for <b>High</b> speed. B. For <b>Med</b> speed disconnect <b>BLK</b> at relay (3), connect <b>BLU</b> at relay (3). C. For <b>Low</b> speed disconnect <b>BLK</b> at relay (3), connect <b>RED</b> at relay (3).</li> <li><b>Be sure all leads from motor have been covered with tape.</b></li> </ol>	<p>208-230 Volt 3 Phase Power Exhaust for</p>
	<p>Date: May 7, 2009 Supercedes: 09-08-04 Drawn by: Unit # 555622 Diagram# 474651013W</p>

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	<p>Date: May 6, 2009 Supercedes: 09-08-04 Drawn by: Unit # 555623 Diagram# 474651033W</p>