

## Installation Instructions

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**IMPORTANT:** Read these instructions completely before attempting to install the Vertical EconoMi\$er2 Accessory.

**Table 1 - Package Contents**

PACKAGE NO.	QTY	CONTENTS
CRECOMZR066A00, CRECOMZR068A00	1	Hood Top and Sides
	1	Hood Divider
	1	Aluminum Filter
	18	Screws
	1	EconoMi\$er2 Assembly
	1	Supply Air Temperature Sensor
CRECOMZR070A00	1	Hood Top and Sides
	1	Hood Divider
	1	Hood Filter Divider
	2	Aluminum Filters
	1	Hardware Bag
	1	EconoMi\$er2 Assembly
	1	Supply Air Temp Sensor


**Table 2 - Package Usage**

UNIT SIZE	PART NUMBER
Small Cabinet, Footprint size: 46 3/4" x 74 3/8"	CRECOMZR066A00
Large Cabinet, Footprint size: 58 1/2" x 88 1/8"	CRECOMZR068A00
Extra-Large Cabinet, Footprint size: 63 3/8" x 115 7/8"	CRECOMZR070A00

### SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions of replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags, and labels attached to the unit, and other safety precautions that may apply. Follow all safety codes. Wear safety glasses and work gloves.

Recognize safety information. This is the safety-alert symbol .

When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard which could result in personal injury or death. CAUTION is used to identify unsafe practices which may result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.



### WARNING

#### ELECTRICAL SHOCK HAZARD

Failure to follow this warning could cause personal injury and/or death.

Disconnect power supply and install lockout tag before attempting to install the accessory.

### GENERAL

The EconoMi\$er2 system utilizes the latest technology available for integrating the use of free cooling with mechanical cooling for rooftop units.

This system utilizes gear-drive technology with a direct mount spring return actuator that will close upon loss of power. The EconoMi\$er2 system comes standard with an outdoor air temperature sensor. Field-installed CO<sub>2</sub> sensors are available.

### IMPORTANT NOTE

The economizer outside air dampers meet ASHRAE 90.1 leakage requirements.

Economizer must be installed perfectly square to avoid damper leakage or binding. Squareness tolerance +/- 1/32".

Standard barometric relief dampers provide natural building pressurization control. An optional power exhaust system is available for applications requiring even greater exhaust capabilities.

EconoMi\$er2 accessories require a 4 to 20 mA actuator signal control. These accessories do not include a controller. The EconoMi\$er2 actuator is operated by a 4 to 20 mA signal from an existing field-supplied DDC controller. See Table 3 for sensor usage.

**Table 3 - Sensor Usage**

<b>APPLICATION</b>	<b>OUTDOOR AIR TEMPERATURE SENSOR</b>	<b>RETURN AIR TEMPERATURE SENSOR</b>	<b>OUTDOOR AIR ENTHALPY SENSOR</b>	<b>RETURN AIR ENTHALPY SENSOR</b>
Dry Bulb Temperature	Included HH79NZ039	—	—	—
Differential Dry Bulb Temperature	Included HH79NZ039	Required — 33ZCT55SPT	—	—
Single Enthalpy	Included Not Used	—	Required — HH57AC077	—
Differential Enthalpy	Included Not Used	—	Required — HH57AC077	Required — HH57AC078

**NOTES:**

1. CO<sub>2</sub> Sensors (Optional)
  - .. 33ZCSENCO2 - Room sensor (adjustable). Aspirator box is required for duct mounting of the sensor.
  - .. 33ZCASPCO2 - Aspirator box used for duct-mounted CO<sub>2</sub> room sensor.
  - .. 33ZCT55CO2 - Space temperature and CO<sub>2</sub> room with override.
  - .. 33ZCT56CO2 - Space temperature and CO<sub>2</sub> room sensor with override and setpoint.
2. All unit include the following standard Sensors:
  - .. Outdoor-Air Sensor - HH79NZ039
  - .. Mixed-Air Sensor

## ACCESSORIES LIST

The EconoMiSer2 has several field-installed accessories available to optimize performance. Refer to Table 4 for authorized parts and power exhaust descriptions.

**Table 4 - EconoMiSer2 Field-Installed Accessories**

DESCRIPTION	PART NUMBER
Small Cabinet Power Exhaust 208-230 v 1 Ph	CRPWREXH030A01
Small Cabinet Power Exhaust 460 v 3Ph	CRPWREXH021A01
Large Cabinet Power Exhaust 208-230 v 1 Ph	CRPWREXH022A01
Large Cabinet Power Exhaust 460 v 3 Ph	CRPWREXH023A01
Extra Large Cabinet Power Exhaust 208-230 v 1 Ph	CRPWREXH080A00
Extra Large Cabinet Power Exhaust 460 v 3 Ph	CRPWREXH081A00
Return Air Dry Bulb	33ZCT55SPT
Outdoor Air Enthalpy Sensor	HH57AC077
Return Air Enthalpy Sensor	HH57AC078
CO <sub>2</sub> Room Sensor	33ZCSENC02
Aspirator Box for Duct Mount CO <sub>2</sub> Sensor	33ZCASP02
Space Temperature and CO <sub>2</sub> Room Sensor with Override	33ZCT55CO2
Space Temperature and CO <sub>2</sub> Room Sensor with Override and Set Point	33ZCT56CO2

## INSTALLATION

- Turn off unit power supply(s) and install lockout tag.

### ⚠ WARNING

#### ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury and/or death.

Disconnect power supply and install lockout tag before attempting to install accessory.

- Remove the existing unit filter access panel. Raise the panel and swing the bottom outward. The panel is now disengaged from the track and can be removed. (See Fig. 2.)
- Remove the indoor coil access panel and discard. (See Fig. 2.)
- The box with the EconoMiSer2 hood components is shipped with the EconoMiSer2. Remove hood from packaging. The hood top and sides are shipped factory assembled.

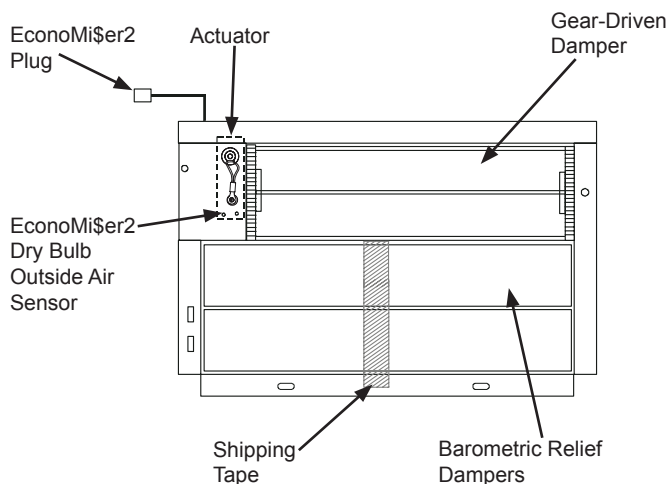
**NOTE:** If the power exhaust accessory is to be installed on the unit, the hood shipped with the EconoMiSer2 will not be used and may be discarded. Save the aluminum filter for use in the power exhaust hood assembly.

- Insert the hood divider between the hood sides. (See Fig. 3) Secure hood divider with 2 screws (provided) on each hood side. Screws should go through the hood sides into the divider. The hood divider is also used as the bottom filter rack for the aluminum filter. On hood for extra large cabinet install filter divider. (See Fig. 4.)
- Slide the EconoMiSer2 assembly into the rooftop unit. (See Fig. 6). On small and large cabinets be sure to engage the rear EconoMiSer2 flange under the tabs in the return-air opening of the unit base. (See Fig. 7)

## IMPORTANT NOTE

The economizer outside air dampers meet ASHRAE 90.1 leakage requirements.

Economizer must be installed perfectly square to avoid damper leakage or binding. Squareness tolerance +/- 1/32".



**Fig. 1 - EconoMiSer2 Component Locations — (2 to 6 Ton Shown)**

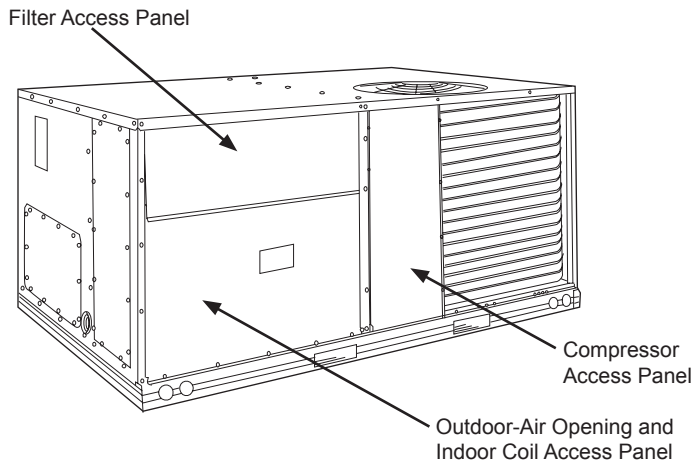
- Secure the EconoMiSer2 to unit along side and bottom flanges using the screws provided. (See Fig. 6)
- Remove the tape securing the relief dampers in place.
- Remove and save the 12-pin jumper plug from the unit wiring harness (located in the upper left corner of the unit). Insert the EconoMiSer2 plug into the unit wiring harness. Refer to Fig. 8 for wiring diagram.

**NOTE:** The 12-pin jumper plug should be saved for future use, in the event that the EconoMiSer2 is removed from the unit. The jumper plug is not needed as long as the EconoMiSer2 is installed.

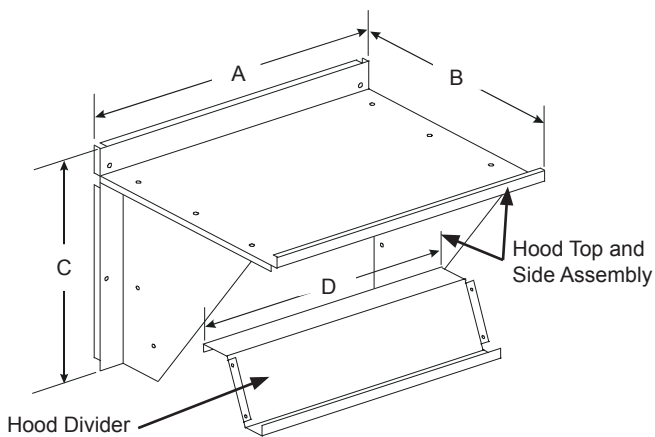
- While everything is open install and wire any other accessories and/or sensors as applicable and convenient, per their installation instructions. Some accessories require that unit ducting already be installed.

**NOTE:** If also installing a power exhaust accessory, skip step 12 and follow the power exhaust instructions instead.

- Install the EconoMiSer2 hood over the EconoMiSer2. Use screws provided. (See Fig. 8.)
- Check all wiring for safety then reapply power to the unit. Verify correct operation and setting of the accessory(s) per the Configuration and Operations sections of the instruction.
- Replace the filter access panel. Slide top of panel into track and lift. Push bottom of panel into place.
- Install the economizer hood filter(s) by opening the filter clips which are located underneath the hood top. Insert the aluminum filter(s) into the bottom filter rack (hood divider). Push the filter into position past the open filter clips. Close the filter clips to lock the filter into place. (See Fig. 5.)
- To adjust economizer minimum position and other settings, refer to instructions provided with specific Economizer DDC Controller.



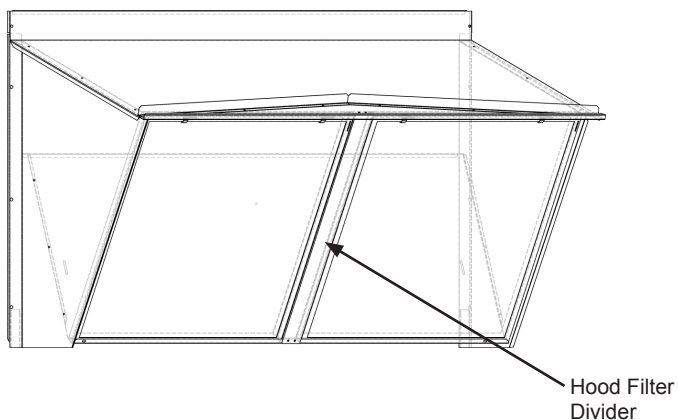
**Fig. 2 - Typical Access Panel Locations**



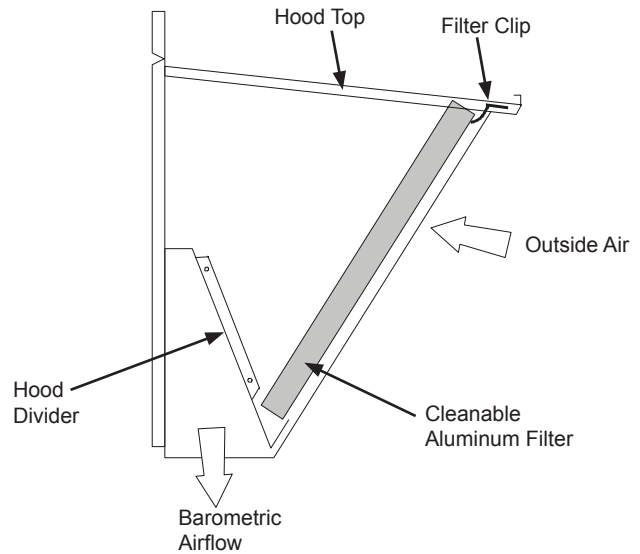
**Fig. 3 - Hood Assembly**

ECONOMIZER P/N	A	B	C	D	SHIP WT.
CRECOMZR066A00	33.37"	17.43"	19.05"	29.5"	55 lb
CRECOMZR068A00	40.37"	22.28"	24.48"	36.27"	80lb
CRECOMZR070A00	52.92"	27.03"	33.41"	49.92"	98lb

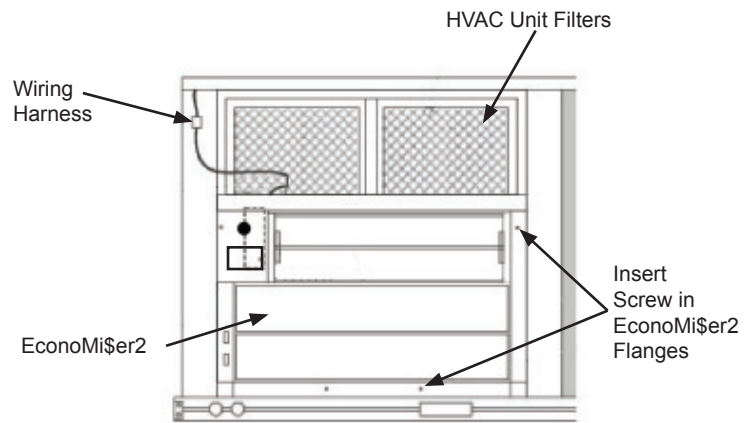
**NOTE:** The CRECOMZR070A00 hood has 2 aluminum filters and a hood filter divider that installs between the filters.



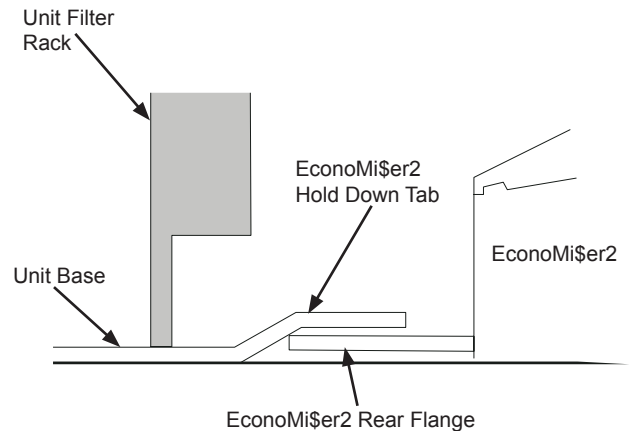
**Fig. 4 - Hood for Extra Large Cabinet**



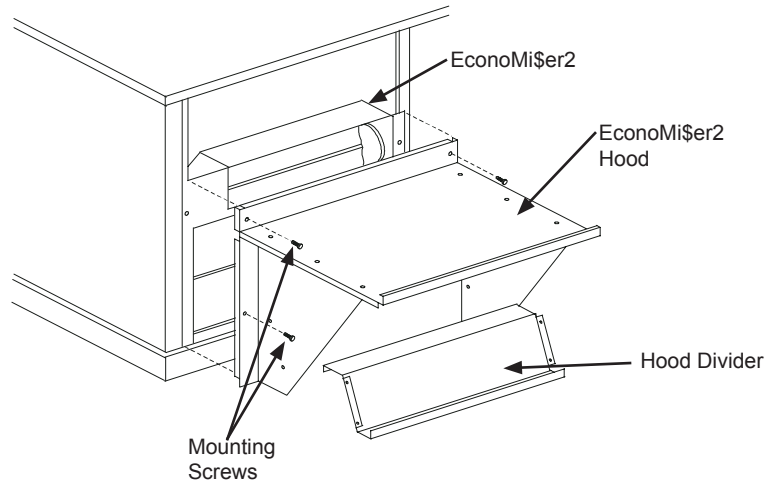
**Fig. 5 - Filter Installation**



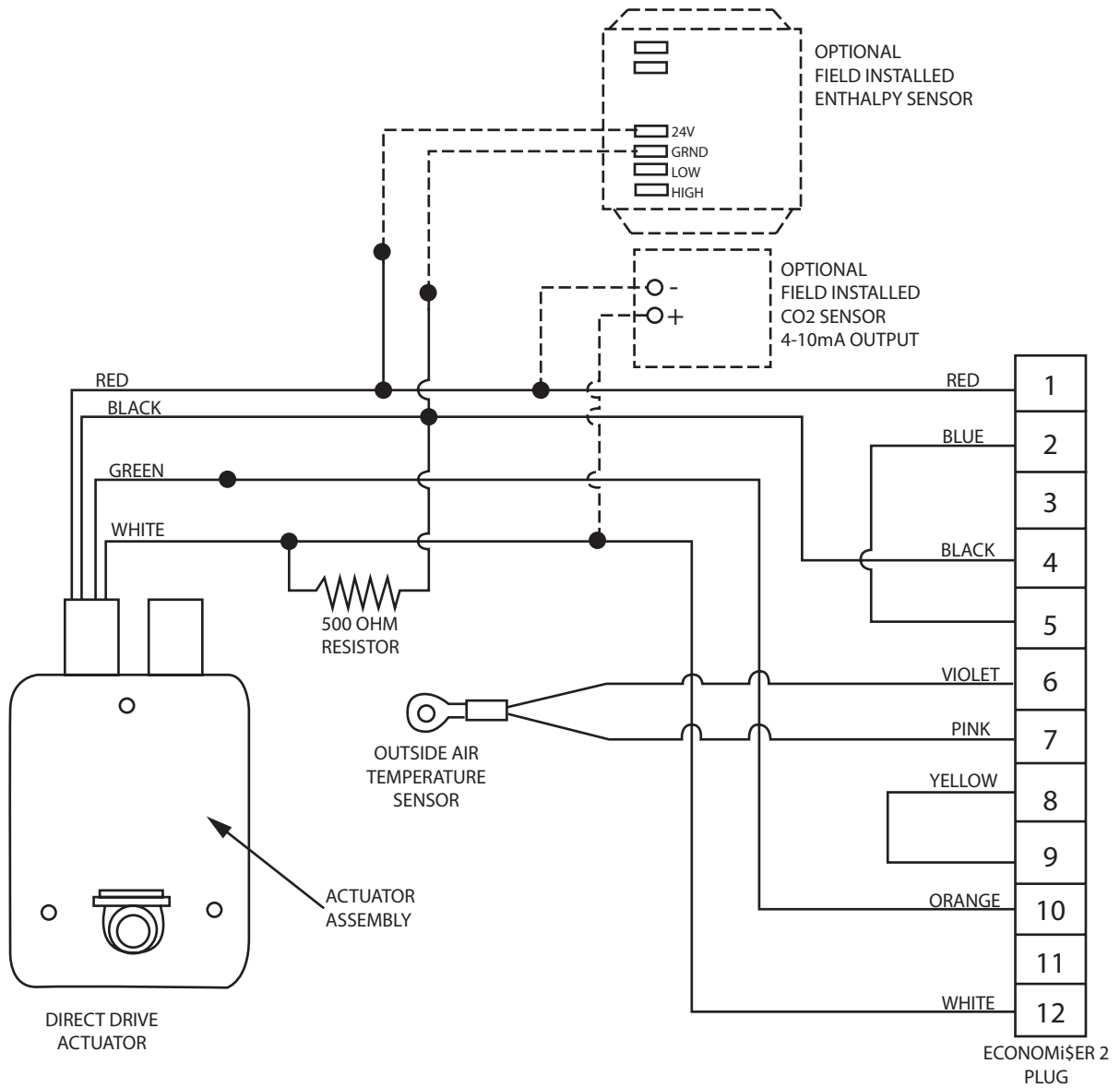
**Fig. 6 - EconoMiSer2 Installed in HVAC Unit  
(3 to 6 Ton Shown)**



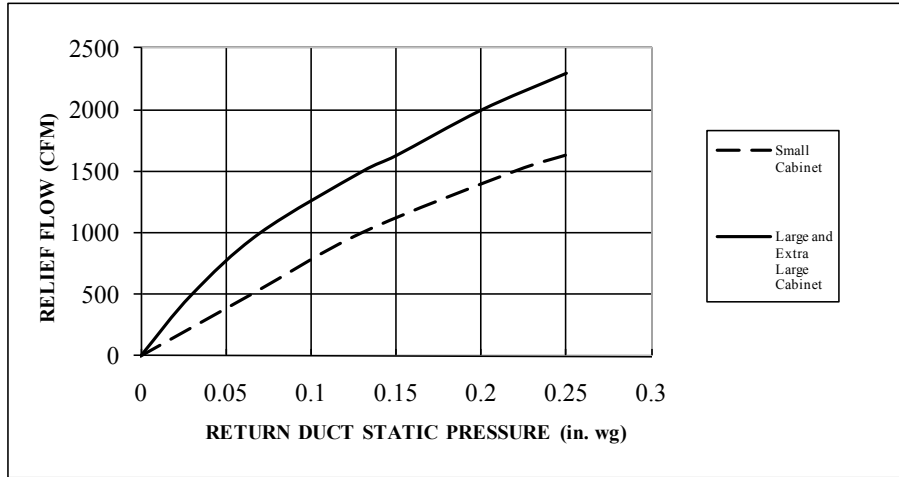
**Fig. 7 - Rear EconoMiSer2 Flange Installation  
(Small and Large Cabinet)**



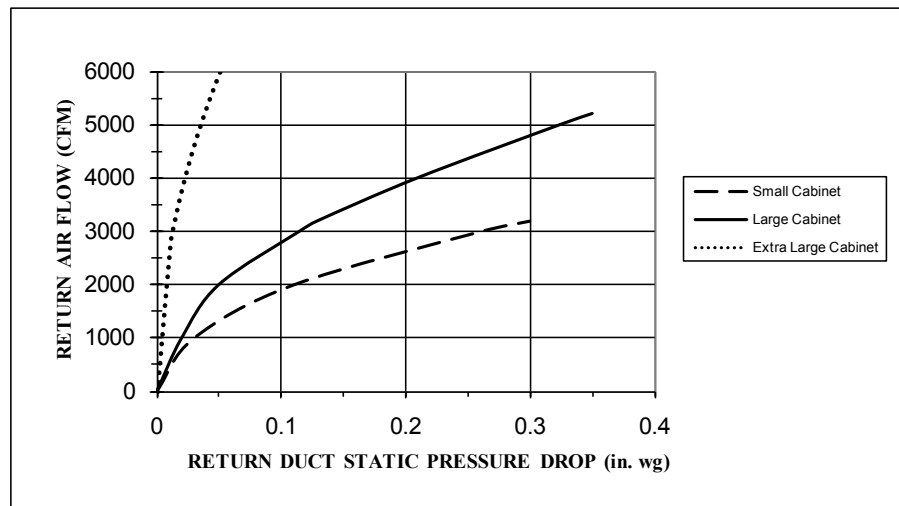
**Fig. 8 - EconoMiSer2 Hood Installation**



**Fig. 9 - EconoMiSer2 Wiring**



**Fig. 10 - Barometric Relief Flow Capacity**



**Fig. 11 - Return Air Pressure Drop**