

<b>FUJITSU GENERAL AMERICA, INC</b> 353 Route West. Fairfield, NJ 07004 Ph: 973-575-0381 Fx: 973-836-0449 Em: ServiceHVAC@fujitsugeneral.com		<b>SERVICE BULLETIN</b> Number: 0006 Date: 9/22/09 Rev2 Type: Field
<b>PROBLEM</b>	Fresh Air Intake w/ Compressor Operation Only	
<b>SOLUTION</b>	Duct Fan Control	
<b>MODEL</b> :18/24/36/42RLX Systems	Production: All Cassettes	

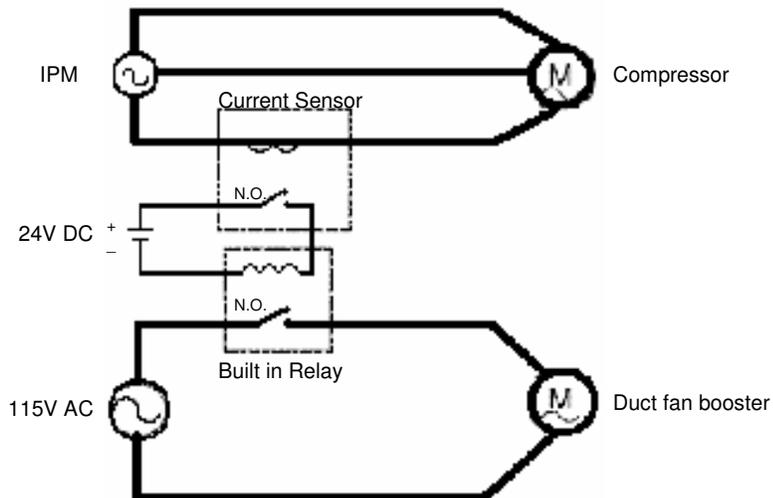
**1. Outline**

The circuit shown below provides a cost effective solution for wiring a current switch that monitors the compressor operation ON/OFF status and energizes the coil of a relay which in turn close the contacts and provide line voltage to the duct fan. The duct fan is required to introduce fresh (outside) air for ventilation.

**2. Application**

A third party current sensor switch with a built-in relay was used in this application. The current sensor may be installed around one of the compressor line voltage wires (Red, Black or White).

**3. Wiring diagram**



#### 4. Components utilized

Current sensor with built-in relay specifications:

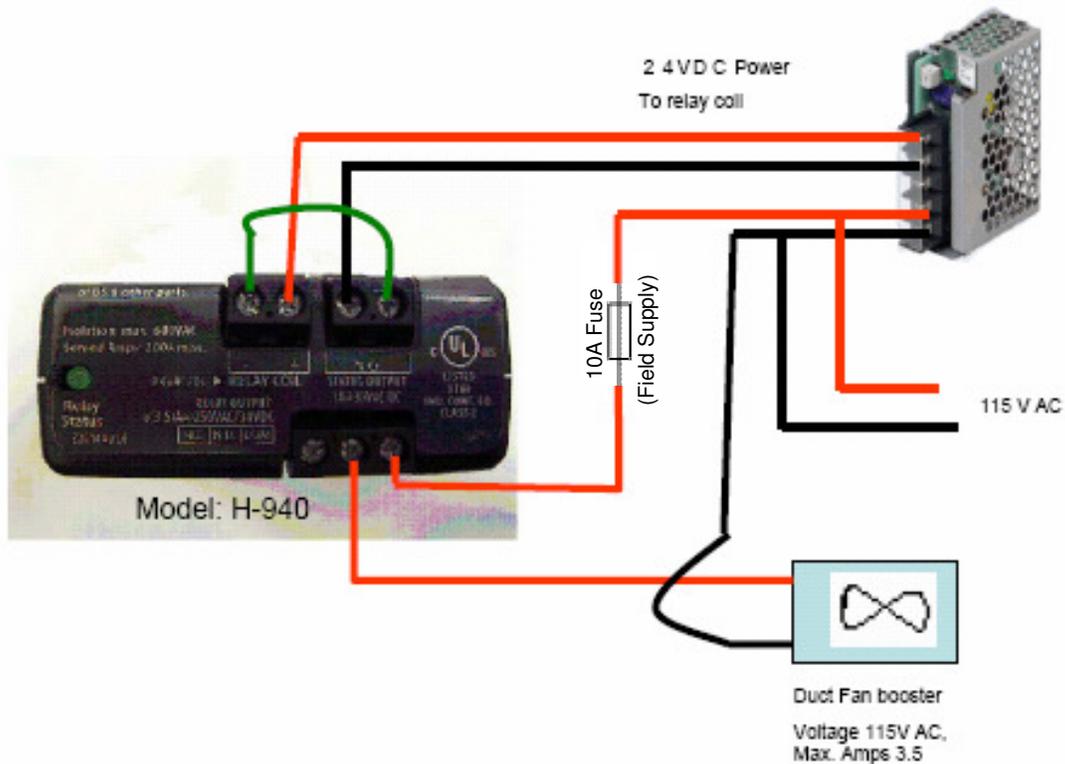
Split Core Fixed Threshold Current Status Sensor with Command Relay and Switching Power Supply.

*FGAI Fresh Air Kit Part # KHRS940-25*

#### 5. Recommended Fan size.

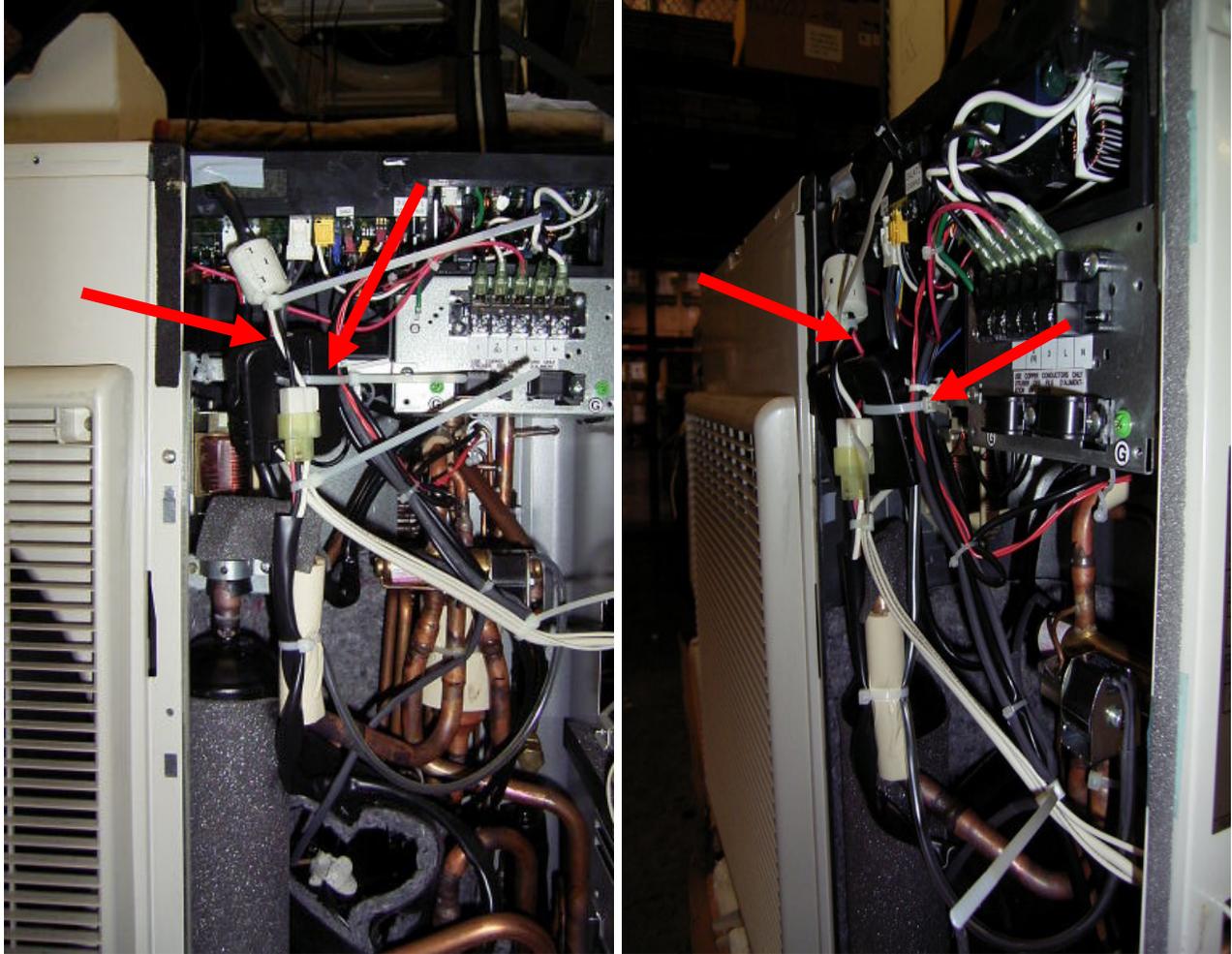
Duct and Fan are field supply. A fan capable of generating 15 CFM at a static pressure of approximately .26 inches W.C.

### Wiring



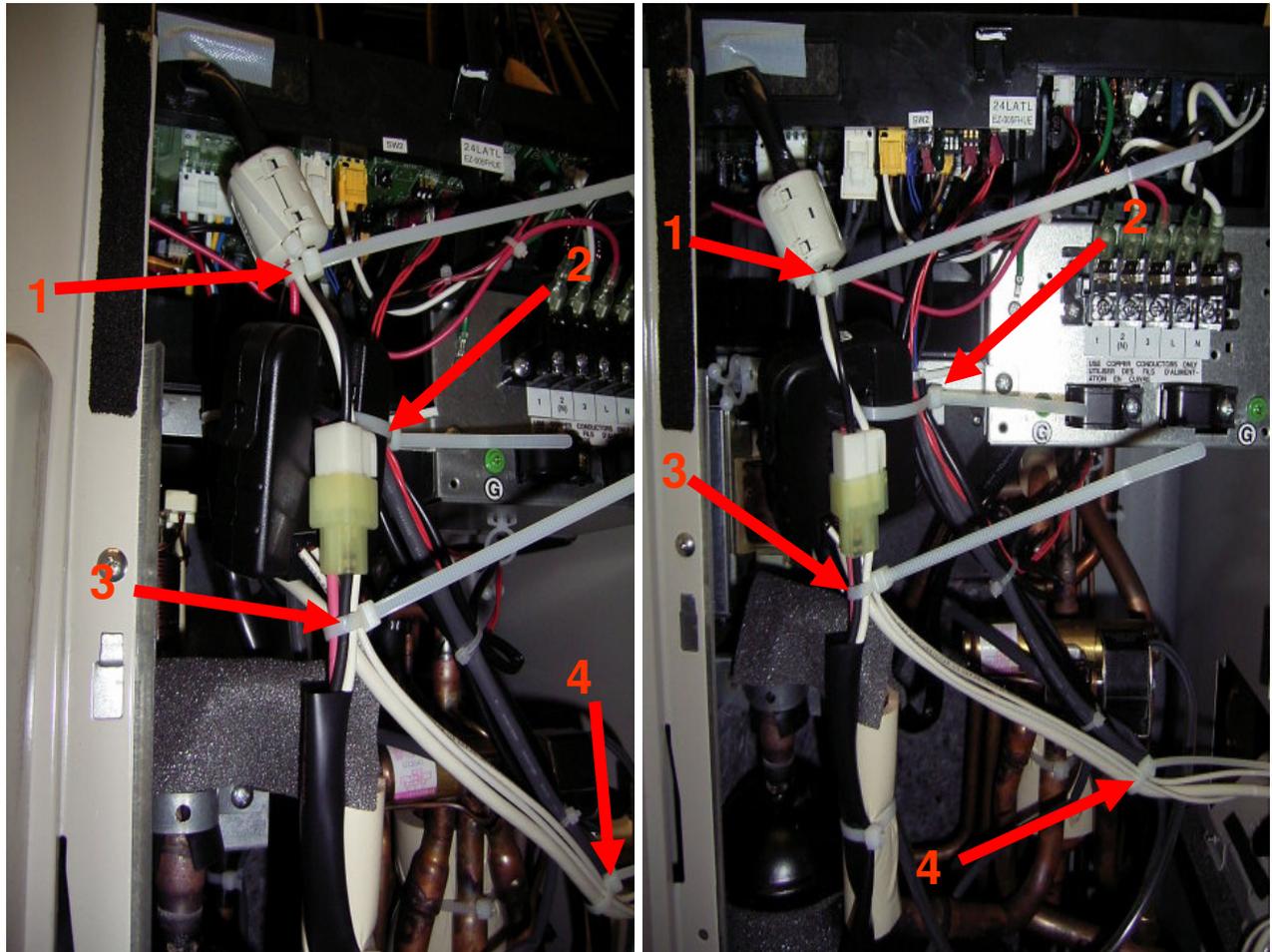
•Recommended wire size- 14 AWG.

## Current Sensor Installation



- Install the current sensor around one of the compressor line voltage wires.
- Tuck sensor into the clearance behind the compressor wire molex plug.
- Secure the current sensor with a zip tie.

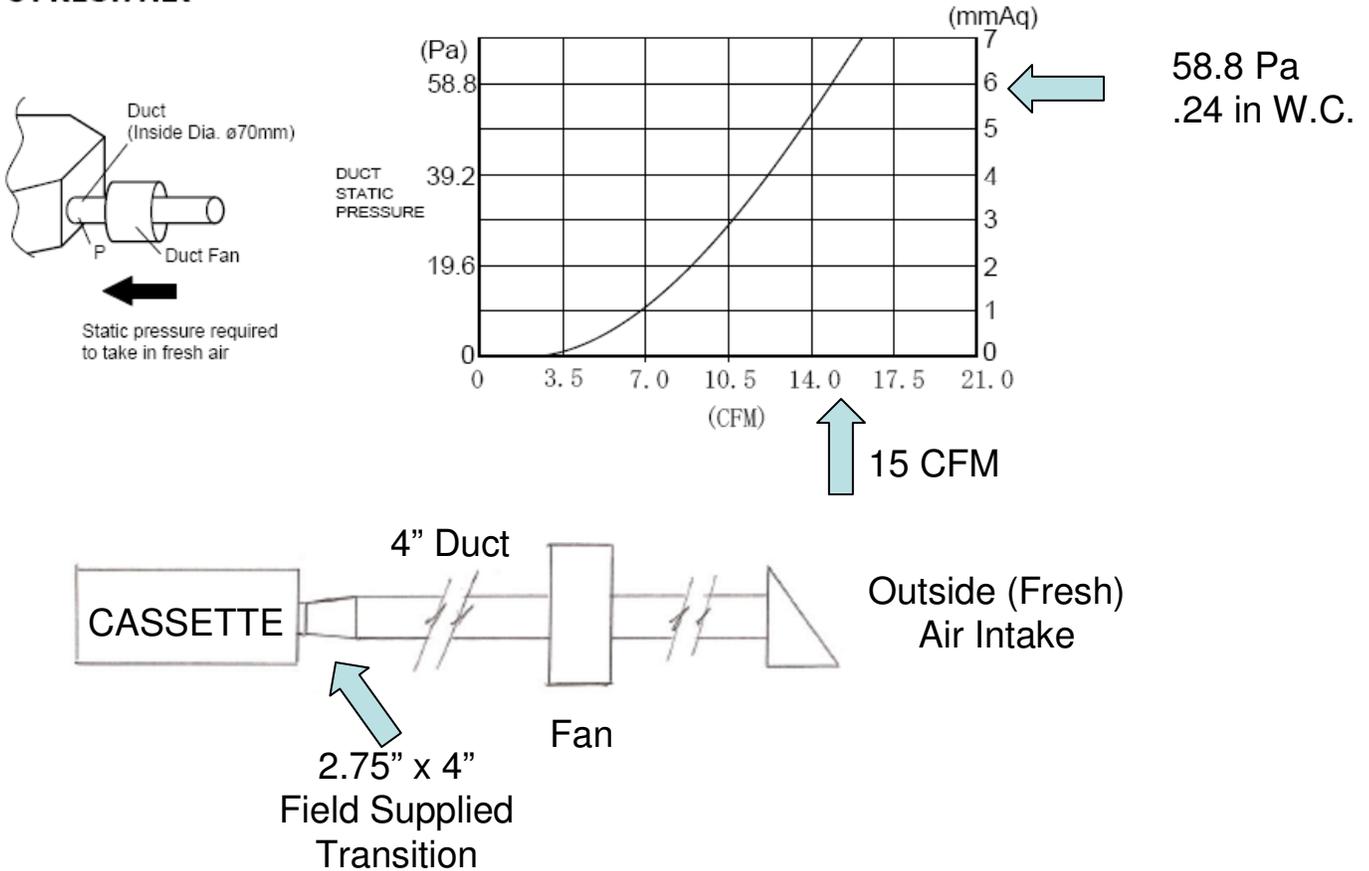
## Secure Current Sensor



- 4 zip ties are needed for correct installation.
- Secure the current sensor wires with all four zip ties according to the arrows. Do not tie around any of the copper lines.
- Cut the ends of the zip ties.

# CEILING CASSETTE OUTSIDE (FRESH) AIR INTAKE

## ● FRESH AIR



### Fan Static Pressure Requirements:

Static pressure required at Cassette = .24 in W.C.  
 25 ft. 4" duct + intake=45ft. TEL x .04/100 = .018 in W.C.  
 TOTAL =.258 in W.C.

### Fan Selection:

Select fan to deliver 15 CFM @ approximately .26 in W.C.  
 Static pressure requirements will vary with duct length and inlet conditions.

**NOTE:** Filter for outside air required. Add filter static pressure loss to static pressure requirements above.