

# INSTALLATION INSTRUCTIONS

## SMOKE DETECTOR ACCESSORY MODEL # 2SD04700324

Supersedes: Nothing

035-19459-000-A-0503

### For Single Package Gas/Electric Air Conditioners 3 Thru 6 Ton Single Packaged Heat Pumps 3 Thru 5 Ton

#### GENERAL

This accessory is intended to provide early detection of smoke and products of combustion present in the air moving through an HVAC unit.

These devices are designed to prevent the recirculation of smoke in areas by the air handling systems, fans and blowers. The complete HVAC system shall be shut down in the event of smoke detection.

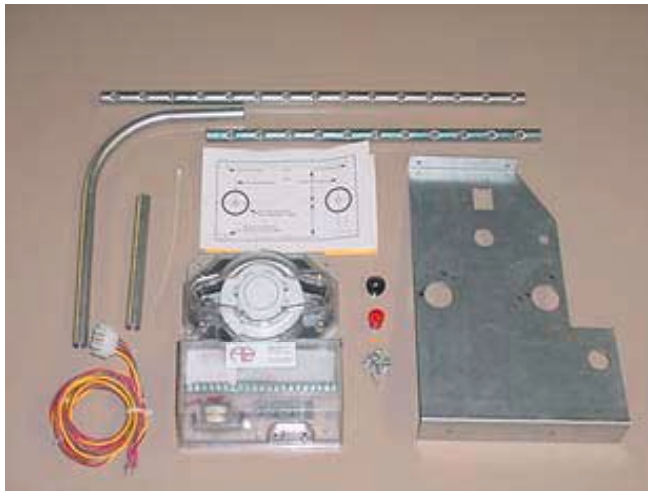


FIGURE 1 - ACCESSORY COMPONENTS

TABLE 1: ACCESSORY COMPONENTS

ITEM	QTY.	DESCRIPTION
1	1	Smoke Detector
2	1	Smoke Detector Bracket
3	1	22.9" Return Air Sample Tube
4	1	17.9" Supply Air Sample Tube
5	1	7" Supply Air Exhaust Tube
6	1	Bent Return Air Exhaust Tube
7	1	Accessory Kit Installation Instructions
8	1	Manufacturers Product Overview
9	1	Smoke Detector Mounting Template
10	1	Wiring Harness
11	8	Screw #10-16 x.5"
12	1	Snap Bushing
13	1	Red Plug
14	1	Cable Strap

#### **WARNING**

Before installing read all of the manufacturers installation instructions.

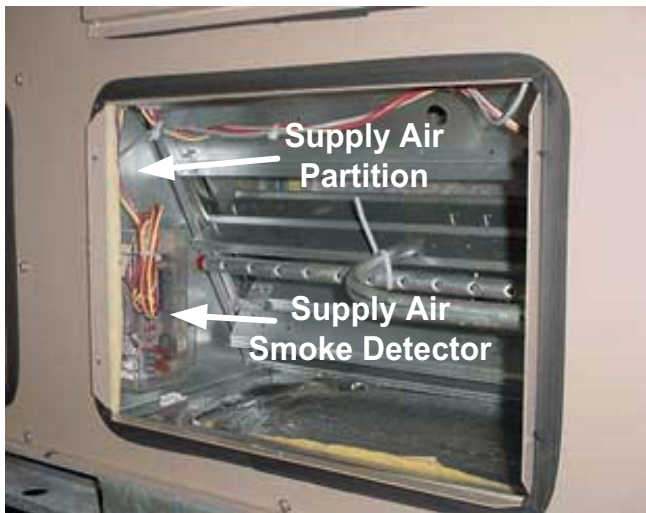
1. Check that all parts are in the kit.
2. Determine which application is to be installed.
  - Supply Air Stream
  - Return Air Stream

#### **WARNING**

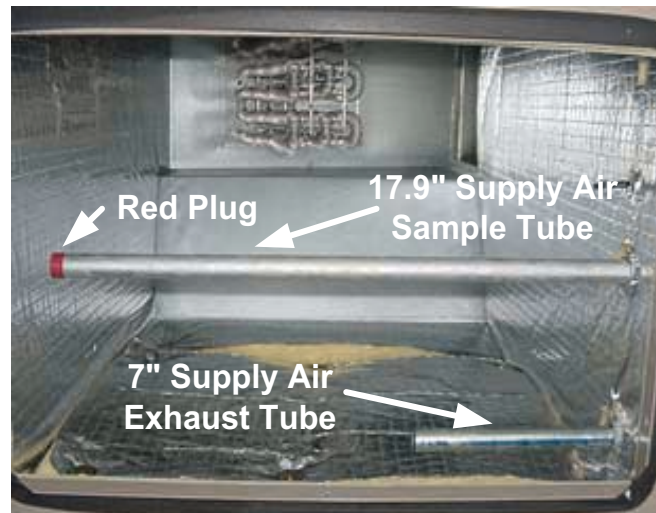
If the unit is connected to power sources, make sure that all electrical power to the unit has been disconnected.

#### SUPPLY AIR STREAM INSTRUCTIONS

1. Remove panels as needed to expose supply air partition panel. (See Figure 2.)
2. Remove the two 1.5" knock-outs that are pre punched in the lower outside corner of the partition panel.
3. Remove the plastic cover from the smoke detector, by loosing the four screws, revealing the electrical terminals.
4. Remove the .875 knock-out on the side of the smoke detector and insert the black snap bushing.
5. Insert the wiring harness terminal ends through the snap bushing.



**FIGURE 2 - SUPPLY AIR PARTITION WITH SMOKE DETECTOR**



**FIGURE 3 - SUPPLY AIR SAMPLE TUBE LOCATION**

6. Connect wire harness terminals to the smoke detector as follows:
    - Red wire 901 to smoke detector terminal 5
    - Brown wire 902 to smoke detector terminal 6
    - Red wire 903 to smoke detector terminal 7
    - Yellow wire 905 to smoke detector terminal 8
  7. Install smoke detector by screwing it to the supply air partition panel with four screws provided. Holes are pre punched. (See Figure 2.)
  8. Remove P14 Plug from the unit wiring harness and insert smoke detector wiring harness plug into S14 Socket. Discard P14 Plug.
  9. Insert the 17.9" supply air sample tube into the top hole of the smoke detector. Tighten conduct connector screw to hold tube in place.
- NOTE:** Make sure the holes in the supply air sample tube are facing the air flow. (See Figure 3.)
10. Insert red plug in end of tube.

11. Insert the 7" supply air exhaust tube into the bottom hole of the smoke detector. Tighten conduct connector screw to hold tube in place.
12. Power up unit and perform operational and functional testing per the manufacturer specifications found under Test Procedures in the Product Overview Document.
13. Testing complete. Replace smoke detector plastic cover and all panels removed for installation.
14. Resume normal unit operation.

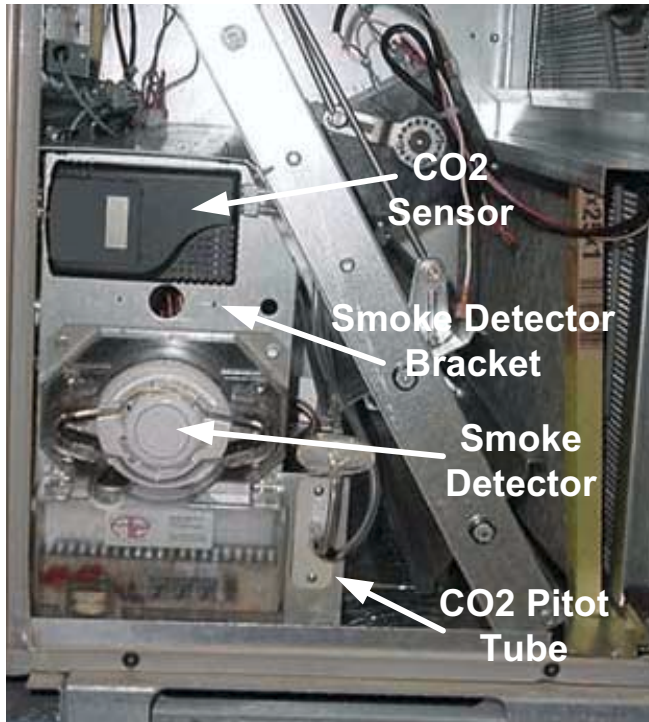
### **WARNING**

If the unit is connected to power sources, make sure that all electrical power to the unit has been disconnected.

### **RETURN AIR STREAM INSTRUCTIONS**

1. Remove panels as needed to expose return air section. (See Figure 4.)

2. Remove the plastic cover from the smoke detector, by loosening the four screws, revealing the electrical terminals.

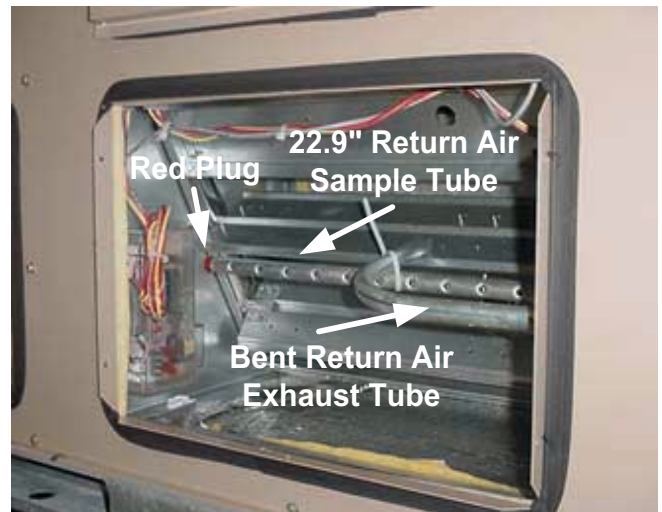


**FIGURE 4 - RETURN AIR SECTION WITH SMOKE DETECTOR**

3. Remove the .875 knock-out on the side of the smoke detector and insert the black snap bushing.
4. Insert the wiring harness terminal ends through the snap bushing.
5. Connect wire harness terminals to the smoke detector as follows:
  - Red wire 901 to smoke detector terminal 5
  - Brown wire 902 to smoke detector terminal 6
  - Red wire 903 to smoke detector terminal 7
  - Yellow wire 905 to smoke detector terminal 8
6. Screw smoke detector to the smoke detector bracket with four screws provided. Holes are pre-pounded.
7. Remove two screws from the base pan of the unit and install the smoke detector using those screws. If an economizer is installed in the unit attach the smoke detector bracket to the economizer at the top, with screws provided. (See Figure 4.)

8. Remove P13 Plug from the unit wiring harness and insert smoke detector wiring harness plug into S13 Socket. Discard P13 Plug.
9. Insert the 22.9" straight return air sample tube into the smoke detector hole closest to the evaporator coil or economizer if used. Tighten conduct connector screw to hold tube in place.

**NOTE:** Make sure the holes in the return air sample tube are facing the air flow. (See Figure 5.)



**FIGURE 5 - RETURN AIR SAMPLE TUBE LOCATION**

10. Insert red plug in end of tube.
11. Insert the bent return air exhaust tube into the smoke detector hole farthest from the evaporator coil or economizer if used. Tighten conduct connector screw to hold tube in place.
12. Place cable strap around tubes and pull tight. (See Figure 5.)
13. Power up unit and perform operational and functional testing per the manufacturer specifications found under Test Procedures in the Product Overview Document.
14. Testing complete. Replace smoke detector plastic cover and all panels removed for installation.
15. Resume normal unit operation.

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