

# INSTALLATION INSTRUCTIONS

SMOKE DETECTOR KIT, UNIT MOUNT  
MODEL# 2SD04700724  
FOR 15 THRU 25 TON ROOFTOP UNITS

## WARNING: BEFORE INSTALLING READ ALL OF THE MANUFACTURERS INSTALLATION AND MAINTENANCE INSTRUCTIONS

The 2SD04700724 Smoke Detector Kit contains the parts and hardware to mount the smoke detector in the following applications:

Determine which application is to be installed.

- 15 - 25 Ton Supply Air Stream (Blower Compartment)
- 15 - 25 Ton Return Air Stream with Economizer, or without Economizer
- Supply or Return Duct (Use Factory Installation Instruction)

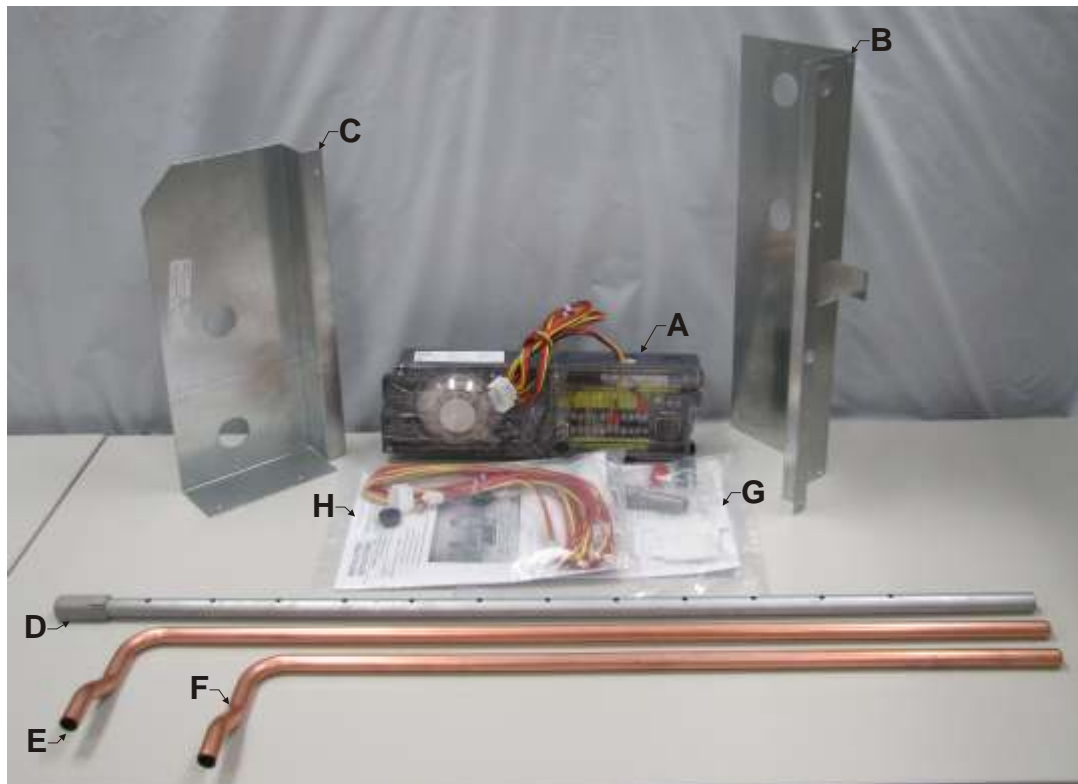


Figure 1

Check the correct number of parts. See the list below

- 1 ea. Smoke Detector with Wire Harness (A)
- 1 ea. Smoke Detector 15 - 25 Return Bracket (B)
- 1 ea. Smoke Detector 15 - 25 Supply Bracket (C)
- 1 ea. Sampling Tube - 34" (D)
- 1 ea. Sampling Tube - Copper 28" (E)
- 1 ea. Sampling Tube - Copper 33" (F)
- 1 ea. Factory Installation and Maintenance (IM) Instructions (G)
- 1 ea. Hardware Bag (H)
- 5 ea. Screw "AB" Hex 10-16 x 1/2"
- 2 ea. Screw Hextec 10-16 x 1"
- 2 ea. Snap Bushing UB875
- 1 ea. Wire Extension - 10"
- 1 ea. Wire Extension - 120"
- 1 ea. 2" Tube Adaptor

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### Supply Air Application

#### Step 1:

Remove the (2)  $\frac{7}{8}$ " knock-outs from the upper and lower blower plates. If the blower assembly is not equipped with knock-outs, drill (2)  $\frac{7}{8}$ " holes. The holes are to be located 4.25" from the right edge and 7.25" (6.00" on 15-ton unit) from the front edge of the blower plate. See Figure 2.



Figure 2

#### Step 2:

Insert the 90-degree copper sampling tube through the (2)  $\frac{7}{8}$ " holes in the blower assembly. Next, slide a  $\frac{7}{8}$ " snap bushing over each end of the sampling tube and insert into the blower assembly. See Figure 3.



Figure 3

#### Step 3:

Secure the detector to the supply air mounting bracket with two #10 -16 x 1" hextec screws (provided). Insert 2" tube adaptor found in hardware bag (H) in the inlet tube in back of smoke detector. Insert the 4" gray plastic tube found in (IM) hardware bag (G) in the exhaust tube in back of the smoke detector. See Figure 4.



Figure 4

#### Step 4:

Insert the 90-degree copper sampling tube into the 2" tube adaptor in the inlet opening of the smoke detector and secure the mounting bracket to the inner frame post. See Figure 5.



Figure 5

#### Step 5:

Remove jumper plug from unit socket (S18). Insert plug (P18) of the smoke detector into unit socket (S18). See Figure 6.



Figure 6

#### Step 6:

Test per smoke detector manufacturer spec. See (IM) instructions.

#### Step 7:

Replace all panels removed during installation.

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## SMOKE DETECTOR KIT, UNIT MOUNT MODEL# 2SD04700724 FOR 15 THRU 25 TON ROOFTOP UNITS

### Return Air Application with Economizer

#### Step 1:

Remove panels as needed to expose Return air partition panel.

#### Step 2:

Prepare the Return air partition panel to mount Smoke Detector.

#### Step 3:

Drill two  $\frac{5}{32}$ " holes. See Figure 7.

- \* One at 12  $\frac{3}{8}$ " in and 3  $\frac{1}{2}$ " up from the lower left corner of the economizer partition panel flange.
- \* One at 26  $\frac{3}{8}$ " in and 3  $\frac{1}{2}$ " up from the lower left corner of the economizer partition panel flange.

#### Step 4:

Drill two 1  $\frac{3}{8}$ " holes. See Figure 7.

- \* One at 19  $\frac{1}{2}$ " in and 3  $\frac{1}{2}$ " up from the lower left corner of the economizer partition panel flange.
- \* One at 24  $\frac{7}{8}$ " in and 3  $\frac{1}{2}$ " up from the lower left corner of the economizer partition panel flange.

#### Step 5:

Mount in the Return air partition panel. Secure with the two #10-16 x 1" Hextec screws (provided). See Figure 8.

#### Step 6:

Insert red tube plug into the end of the sampling tube.

#### Step 7:

Insert sampling tube into the inlet tube in back of smoke detector. Insert the 4" gray plastic tube found in (IM) hardware bag (G) in the exhaust tube in back of the smoke detector. **Note: The sampling tube may need to be cut to the appropriate length to span the Return Air opening.** Make sure the air holes of the sampling tube face into the airflow. Secure with screws provided. See Figure 9.

#### Step 8:

Remove jumper plug from unit socket (S17). Insert plug (P17) of the smoke detector into unit socket (S17).

#### Step 9:

Test per smoke detector manufacturer spec. See (IM) instructions.

#### Step 10:

Replace all panels removed during installation.



Figure 7



Figure 8

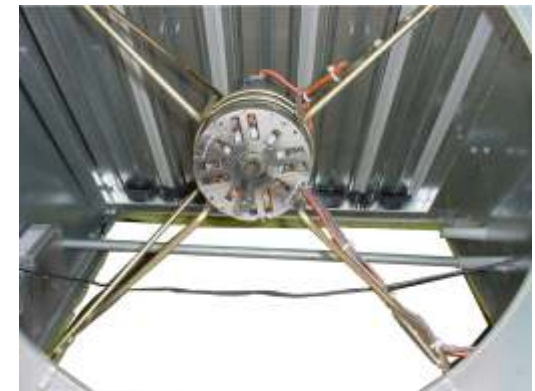


Figure 9

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## SMOKE DETECTOR KIT, UNIT MOUNT MODEL# 2SD04700724 FOR 15 THRU 25 TON ROOFTOP UNITS

### Return Air Application without Economizer

#### Step 1:

Remove fresh air and return air panels to expose return air section. See Figure 10.

#### Step 2:

Remove existing screws from unit. See Figure 11.

#### Step 3:

Secure Smoke Detector to bracket with the two #10-16 x 1" Hextec screws (provided). See Figure 12.

#### Step 4:

Insert red tube plug into the end of the sampling tube.

#### Step 5:

Insert the sampling tube in the inlet tube of the back of the smoke detector. Insert the 4" gray plastic tube found in (IM) hardware bag (G) in the exhaust tube in back of the smoke detector. **Note: The sampling tube may need to be cut to the appropriate length to span the Return Air opening, or cut to allow service of the Supply Air Smoke Detector.** Make sure the air holes of the sampling tube face into the airflow. Secure with screws provided.

#### Step 6:

Mount Smoke Detector Assembly in Return Air opening using existing screw removed in Step 2. See Figure 13.

#### Step 7:

Remove jumper plug from unit socket (S17). Insert plug (P17) of the smoke detector into unit socket (S17). See Illustration 1.

#### Step 8:

Test per smoke detector manufacturer spec. See (IM) instructions.

#### Step 9:

Replace all panels removed during installation.

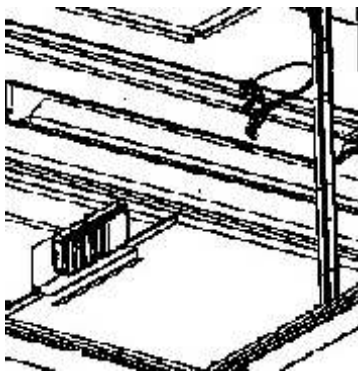


Illustration 1

Return Air with duct cover,  
and power exhaust removed



Figure 10

Existing screws shown in place



Figure 11



Figure 12

Bracket mounted with existing screws



Figure 13

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