

**MANUAL – INSTALLATION**

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# **Modular Directional Diffuser**

SMD

v000 – Issue Date: 06/07/18

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**PRICE**<sup>®</sup>

# MODULAR DIRECTIONAL DIFFUSER

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# MODULAR DIRECTIONAL DIFFUSER

## PRODUCT OVERVIEW

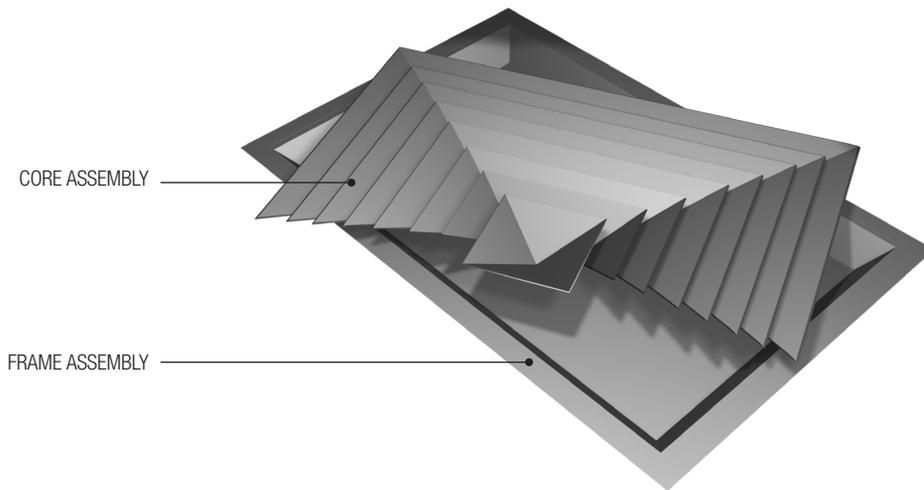
### Product Overview

The Price modular directional diffusers are available in a wide range of air patterns. They supply large volumes of air at low sound level and pressure drops.

These installation instructions are applicable to the following models: SMDA/AMDA, SMX/AMX, AMDL, AMXL, AMDEX, AMDE.

**NOTE:** The images in the installation manual depict the SMD/AMD models, and may differ slightly from other listed models.

The diffusers have an outer frame assembly (backpan) and a removable inner core assembly (directional core).



**NOTE:** If the TRV option is selected with any of the diffusers, the core will be fixed.

The diffusers have one (1) sticker located on back of the backpan. For ease of troubleshooting assistance, replacement parts, and general factory assistance, it is recommended that the order number and model line string be available for reference. This information can be found on the Factory Label.



# MODULAR DIRECTIONAL DIFFUSER

## PRODUCT OVERVIEW

### Before You Start

Inspect all cartons and boxes for flaws and shipping damage. If anything is discovered to be damaged, contact the shipping company and file a freight claim.

### Getting Started

**STEP 1:** Remove the diffuser from the shipping carton and inspect for any damage.

**STEP 2:** Refer to Factory Label to determine the border type of the diffuser. Use the following table to find the appropriate reference page for the particular border type. In the example below, the frame style would be 17.

Sample line string: SMD///18/18/**17**/4A/24/24///B12

Border Type	Type of Mounting (shown in bold above)	Page Number
1, 5 or 6	Surface	3
3P, 3PA, 4P, 4PA, 5TB, 17, 17P, 17PA, 33 or 36, 34, 38	T-bar Lay in	7

# MODULAR DIRECTIONAL DIFFUSER

## INSTALLATION & MOUNTING INSTRUCTIONS

### Surface Mount

Use the following table to find the reference page based on the type of installation wanted:

Type of Installation	Page Number
Into Framing	3
Suspended	4
Hard Ducted	5

### Into Framing

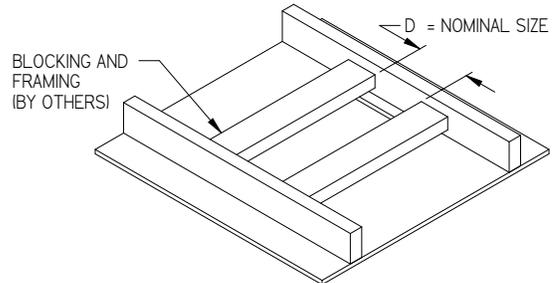
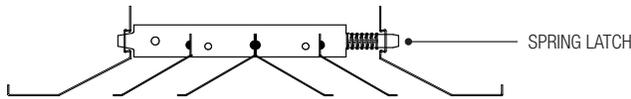
Applicable Border Type: 1 and 6

**STEP 1:** Hang the duct work.

**STEP 2:** Install the support framing; the framing should be installed to follow listed duct size on two sides.

**NOTE:** The framing should be installed such that it does not interfere with the diffuser spring latch.

**NOTE:** The framing should be installed between the joists prior to the installation of the drywall.



**STEP 3:** Mount the drywall leaving an opening for the diffuser. The size of the opening should follow the table below.

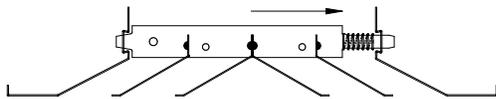
Border Type	Ceiling Opening
1	D + 3 1/2 in.
6	D + 1 in.

**STEP 4:** Remove the diffuser's core from the face of the diffuser.

**NOTE:** Core is not removable if Throw Reducing Vanes (TRV) is selected as an option.

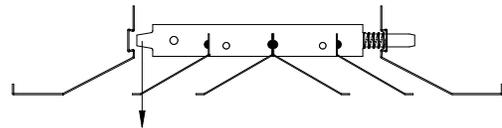
#### 1 ▼

Locate the side of the diffuser where the spring latch is. Push the opposite side of the core until the core disengages.



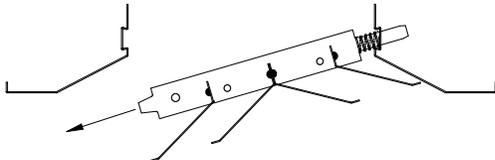
#### 2 ▼

Pull down on the core once it has disengaged.



#### 3 ▼

Slide the core all the way out.



#### 4 ▼

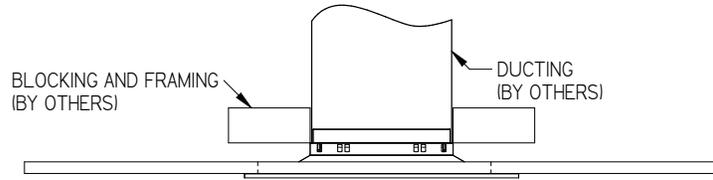


# MODULAR DIRECTIONAL DIFFUSER

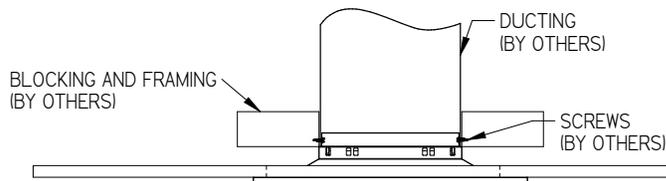
## INSTALLATION & MOUNTING INSTRUCTIONS

**STEP 5:** Slip the duct over the inlet of the diffuser and secure the ducting into place.

**STEP 6:** Push the backpan into the opening until the diffuser is flush with the ceiling.



**STEP 7:** Once the diffuser is in place, through the neck of the diffuser, screw the diffuser's inlet to the framing using self-tapping screws.



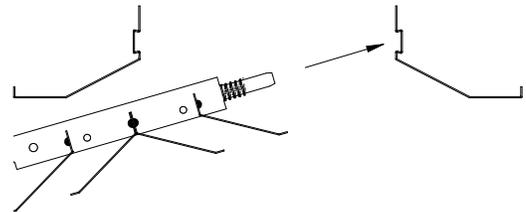
**STEP 8:** Reattach the diffuser's core assembly to the backpan.

1 ▼



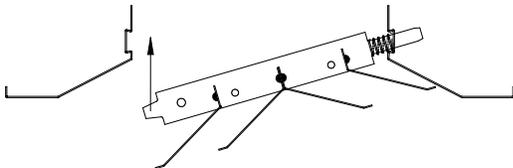
2 ▼

Push the spring latch into the receptor



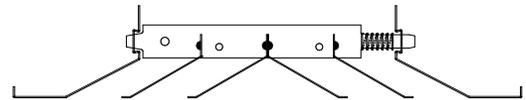
3 ▼

Depress the spring latch until the core can be slid into place



4 ▼

Push the core in place until both sides are fully engaged



# MODULAR DIRECTIONAL DIFFUSER

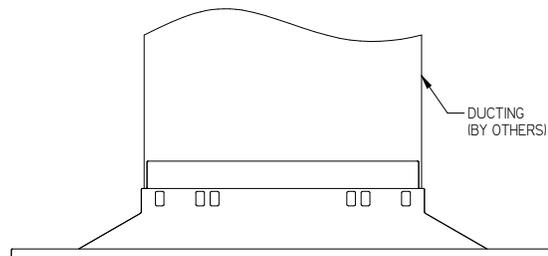
## INSTALLATION & MOUNTING INSTRUCTIONS

### Suspended Installation

Applicable Border Type: 1, 5 and 6

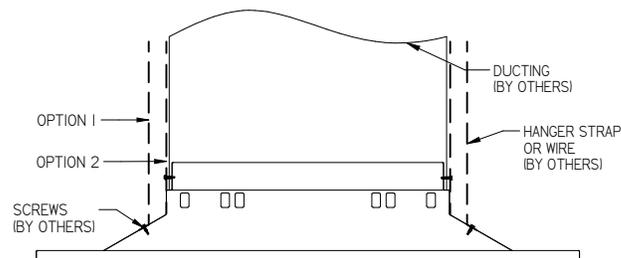
**STEP 1:** Remove diffuser core from backpan (see STEP 4 on page 3).

**STEP 2:** Attach the ducting to the diffuser's inlet.



**STEP 3:** Attach the hanger straps or wires to the frame of the diffuser.

**NOTE:** The hanger straps/wires should be placed such that the screws are hidden once the core is reattached.



**STEP 4:** Attach the hanger straps/wires to the structure.

**STEP 5:** Reattach the diffuser's core to the backpan (see STEP 8 on page 4).

**STEP 6:** Install drywall.

# MODULAR DIRECTIONAL DIFFUSER

## INSTALLATION & MOUNTING INSTRUCTIONS

### Hard Ducted Installation

Applicable Border Type: 1, 5 and 6

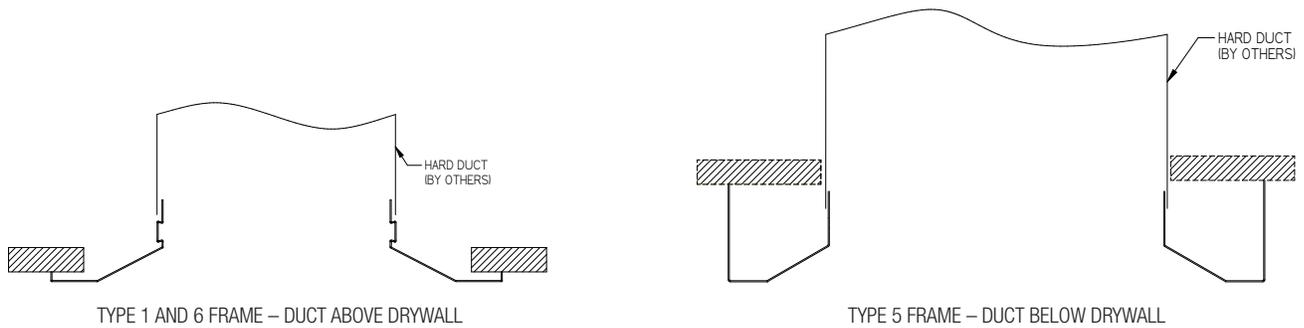
**STEP 1:** Remove diffuser's core from the backpan (see STEP 4 on page 3).

**STEP 2:** Cut the opening for the diffuser; opening should follow table below.

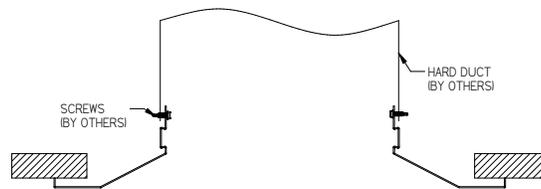
Border Type	Ceiling Opening
1	D + 3 1/2 in.
6	D + 1 in.
5	D + 1/4 in.

**STEP 3:** Raise diffuser frame into ceiling opening and slide inlet into ductwork.

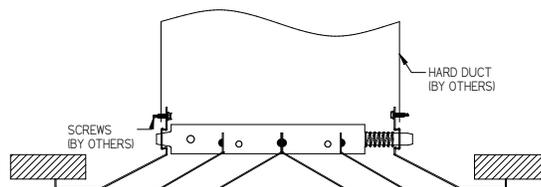
**NOTE:** For type 5 border, the solid duct should extend below surface of the the drywall.



**STEP 4:** When the backpan is in place, screw the backpan's inlet to the hard duct work.



**STEP 5:** Reattach the diffuser's core to the backpan (see STEP 8 on page 4).



# MODULAR DIRECTIONAL DIFFUSER

## INSTALLATION & MOUNTING INSTRUCTIONS

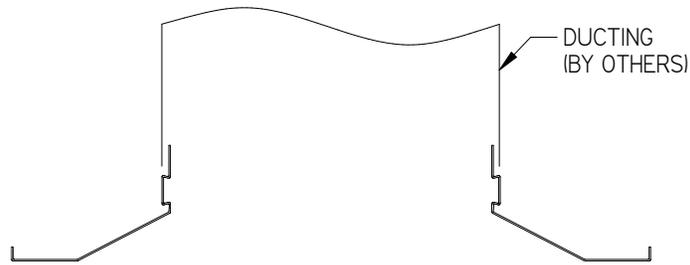
### T-Bar Mounting

Applicable Border Types: 3P, 3PA, 4P, 4PA, 5TB, 17, 17P, 17PA, 33 and 36

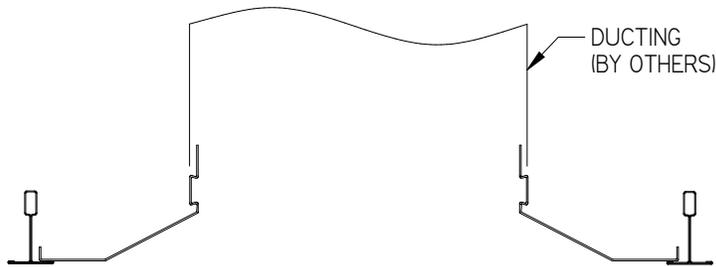
#### Installation

**STEP 1:** Remove diffuser's core from backpan (see STEP 4 on page 3).

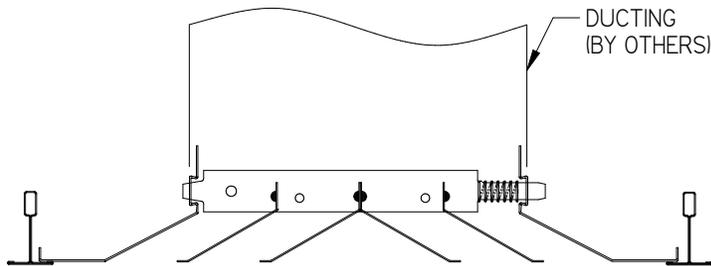
**STEP 2:** Mount and secure duct to the diffuser's.



**STEP 3:** Lay the diffuser's backpan into ceiling grid.



**STEP 4:** Reattach the diffuser's core to the backpan (see STEP 8 on page 4).







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This document contains the most current product information as of this printing.  
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