

# **BI28SP** Ceiling Inlet

Bi-Flow, Spring Actuated Models: BI28SP • BI28SP-01



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# **BI28SP In et** Instructions for Use and Maintenance

#### Thank You:

Thank you for purchasing a Munters inlet. Munters equipment is designed to be the highest performing, highest quality equipment you can buy. With the proper installation and maintenance it will provide many years of service.

#### **Please Note:**

To achieve maximum performance and insure long life from your Munters product it is essential that it be installed and maintained properly. Please read all instructions carefully before beginning installation.

#### Warranty:

For Warranty claims information see the "Warranty Claims and Return Policy" form QM1021 available from the Munters Corporation office at 1-800-227-2376 or by e-mail at aghort.info@munters.com.

#### **Conditions and Limitations:**

- Products and Systems involved in a warranty claim under the "Warranty Claims and Return Policy" shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Munters Corporation.
- Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

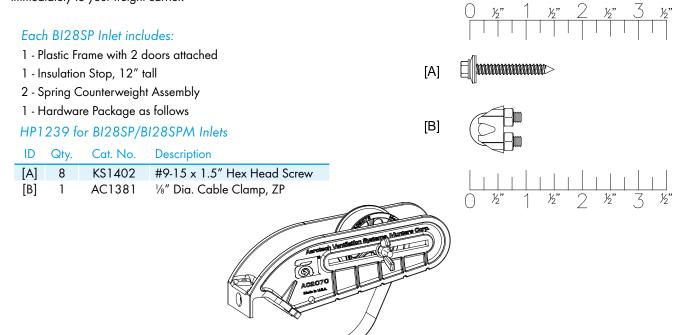
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## **Unpacking the Equipment**

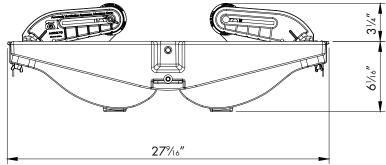
#### 1.1 Parts List

Before beginning installation, check the overall condition of the equipment. Remove packing materials, and examine all components for signs of shipping damage. Any shipping damage is the customer's responsibility and should be reported immediately to your freight carrier.

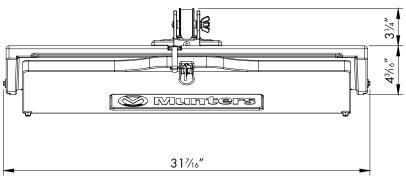


Spring Counterweight Assembly

#### 1.2 Inlet Dimensions



End View





## Installation Instructions

# 2.

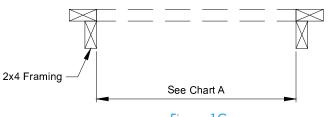
#### 2.1 FRAMING

#### Step 1

Construct a framed opening in ceiling that is  $25\frac{1}{2}$ "W. x  $25\frac{1}{2}$ "L. and fasten to trusses or bracing between trusses. Trim out framing with 'J'-trim if a metal ceiling is used. See Figure 1A and 1B. If inlet is being installed in a house with a Tri-Ply ceiling, construct frame as shown in Figure 1C.

#### ▲ IMPORTANT

If installing inlets near heaters, it is recommended to install the BI28/BI48 inlet at a location far enough from heaters that will give a maximum temperature of 150°F. This should be approximately 2-3 ft. from the heater.



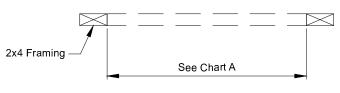


#### Step 2A

The Spring Counterweight Assemblies and other hardware will already be assembled as shown in *Figure 2*. The Lift Line should be turned towards actuator and Eye Bolt will be away from actuator.

#### Step 2B

The doors will be held closed with the latch. Keep doors latched and remove the (4) screws shown. While removing these screws make sure the washer comes off the inlet and stays with the screw. These screws will be used in Step 3. See Figure 2.





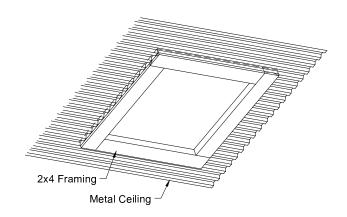


Figure 1B

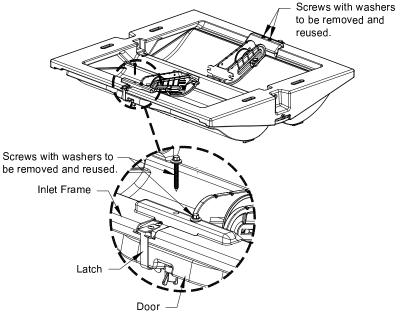


Figure 2

#### Chapter 2 Installation Instructions

#### 2.2 Inlet Mounting

#### Step 3

Turn Spring Counterweight Assembly over and set on frame of inlet and secure assembly with (2) of the screws and washers removed in Step 2B. See Figure 3. Repeat for other Spring Assembly.

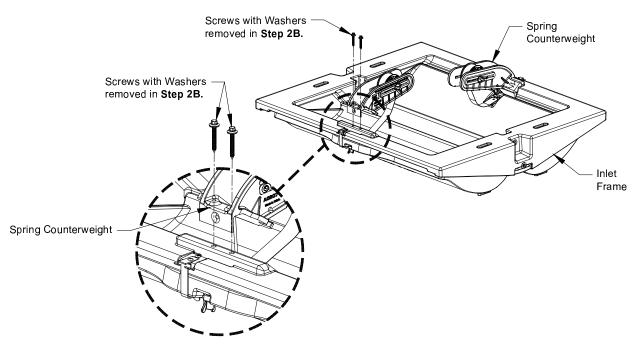
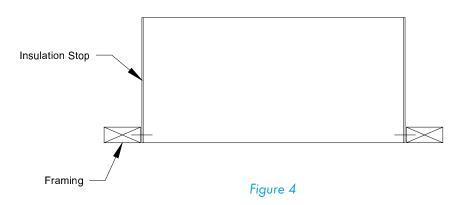


Figure 3

#### Step 4

Install provided Insulation Stop into framed opening as shown using screws or staples (not provided). See Figure 4.

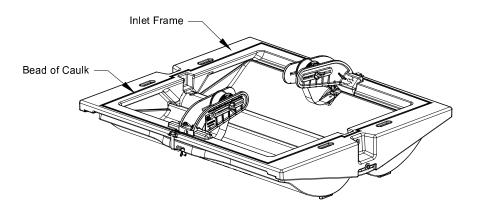


#### Step 5

Apply bead of caulk around top of inlet as shown in *Figure 5A*. Position inlet into framed opening and attach inlet using (8) Hex Head Screws [A] provided. *See Figure 5B*. Be careful not to over tighten as this may pull the Inlet Frame out of shape.

#### Step 6

To ensure an airtight fit, caulk around outside of 2x4 Framing and Inlet Frame.





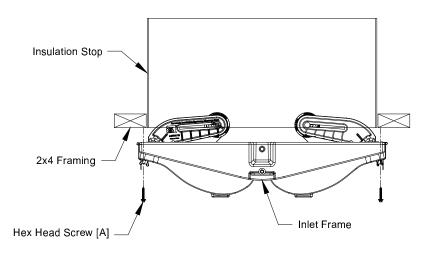


Figure 5B

## Latch Operation

# 3.

#### Step 7

Latch is pre-installed near center of door. Rotate latch upward to unlock and downward to lock. When inlet is in normal operation, be sure latch is in up position so it does not interfere with door closing. See Figure 6A and 6B.

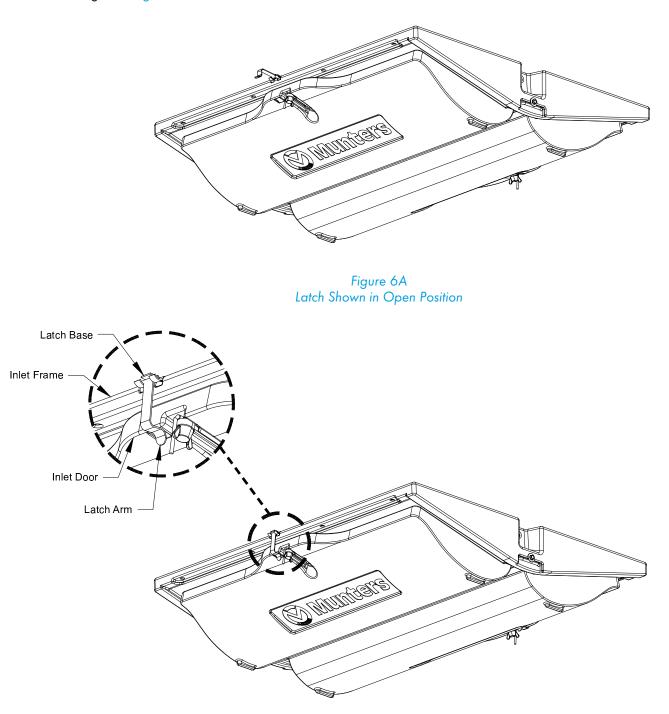


Figure 6B Latch Shown in Closed Position

### Operation



#### Note:

To achieve a lower static pressure move the spring toward hinges (inward) and to achieve a higher static pressure move spring towards outside of the inlet (outward). See Figure 7.

#### Step 1

Start by setting all the Spring Assemblies on the 2nd (#2) mark. Turn on the minimum ventilation fans and note the static pressure and how doors are opening. Adjust springs accordingly to achieve the desired pressure and opening. To achieve a lower static pressure (open door more) move the spring towards the hinges (inward toward a lower number) and to achieve a higher static pressure (close door more) move spring towards the outside of inlet (outward towards a higher number).

#### Step 2

With several inlets in a room it usually requires a couple of times going through adjusting inlets since adjustments to subsequent inlets affects the pressure and response of the inlets you have already adjusted. When you have finished, shut fans off and check to ensure the inlets are all closing fully.

# OutwardInwardAssociation Systemers MunicersComparedAcceleration Systemers MunicersComparedAcceleration Systemers#4#4#3Acceleration Spring Position

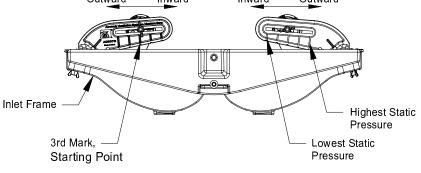


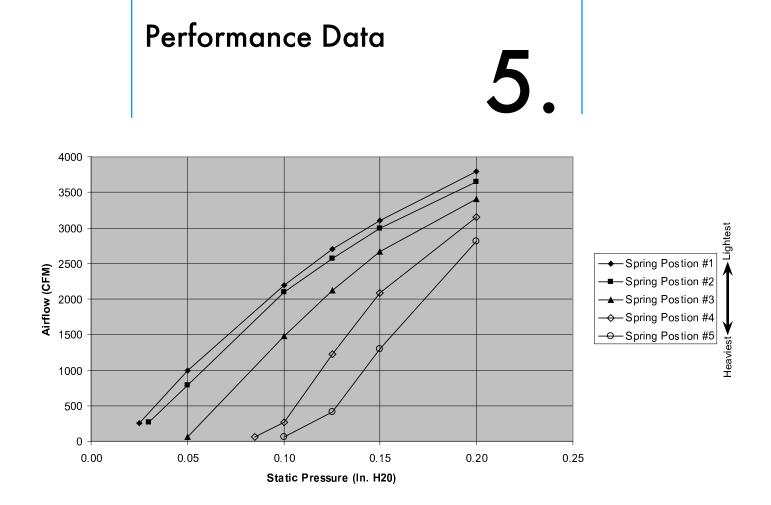
Figure 7

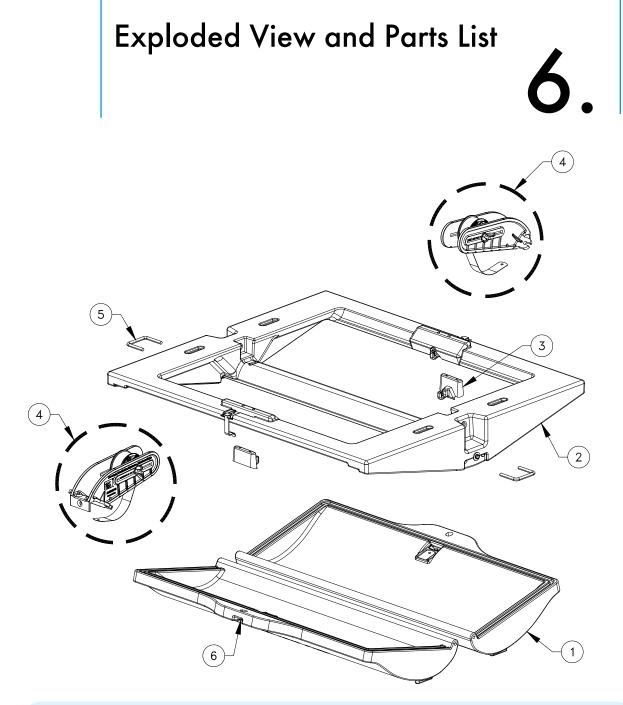
#### Note:

Spring Position settings may vary from inlet to inlet. Adjust each inlet as needed.

#### **Helpful Hint:**

One method to accomplishing the above is pick an opening size and go through setting the inlets one by one to the same opening (say 3" for example). When you finish you will notice the inlets you adjusted first may be more or less open since adjusting the later inlets changed the static pressure (total inlet opening in building). Note the current static pressure. If the pressure is lower than desired adjust the more open inlets to close more. If the pressure is higher than desired adjust the more closed inlets to open more.





Ref. No.	Cat. No.	Description	Quantity
1	AC2635	BI28 Inlet Door, Black Plastic	2
	AC2635-01	BI28 Inlet Door, w/Insulation, Black, Plastic	2
2	AC2630	BI28 inlet Frame, Black Plastic	1
3	AC2640	Lift Line Guide insert, BI28, Black Plastic	1
4	AC2664	Spring Counterweight assembly	2
	AC2070	Spring Reel mount Bracket for BI Series inlets	1
	AC2072	Spring Reel Spool, 1.25"W. x 2.75" O.D.	1
	KX1462	Constant Force Spring, 2.5 lb.	1
	AC2074	Spool Axle Sleeve, ¾" O.D.	1
	KS1511	1/4" - 20 x 3" L. Carriage Bolt, Stainless Steel	1
	KN2301	¼" - 20 Type A, Wing Nut, Nylon	1
	KW3002	1/4" Type A, Narrow Flat Washer, Stainless Steel	3
5	AC2645	BI28 Inlet Door Hinge Pin, Stainless Steel	2
6	AC0211	Azuma Bolt Only, Split type, Blue Plastic	2

BI28 Inlets are developed and produced by Munters Corporation, Lansing, Michigan U.S.A. 1-800-227-2376



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