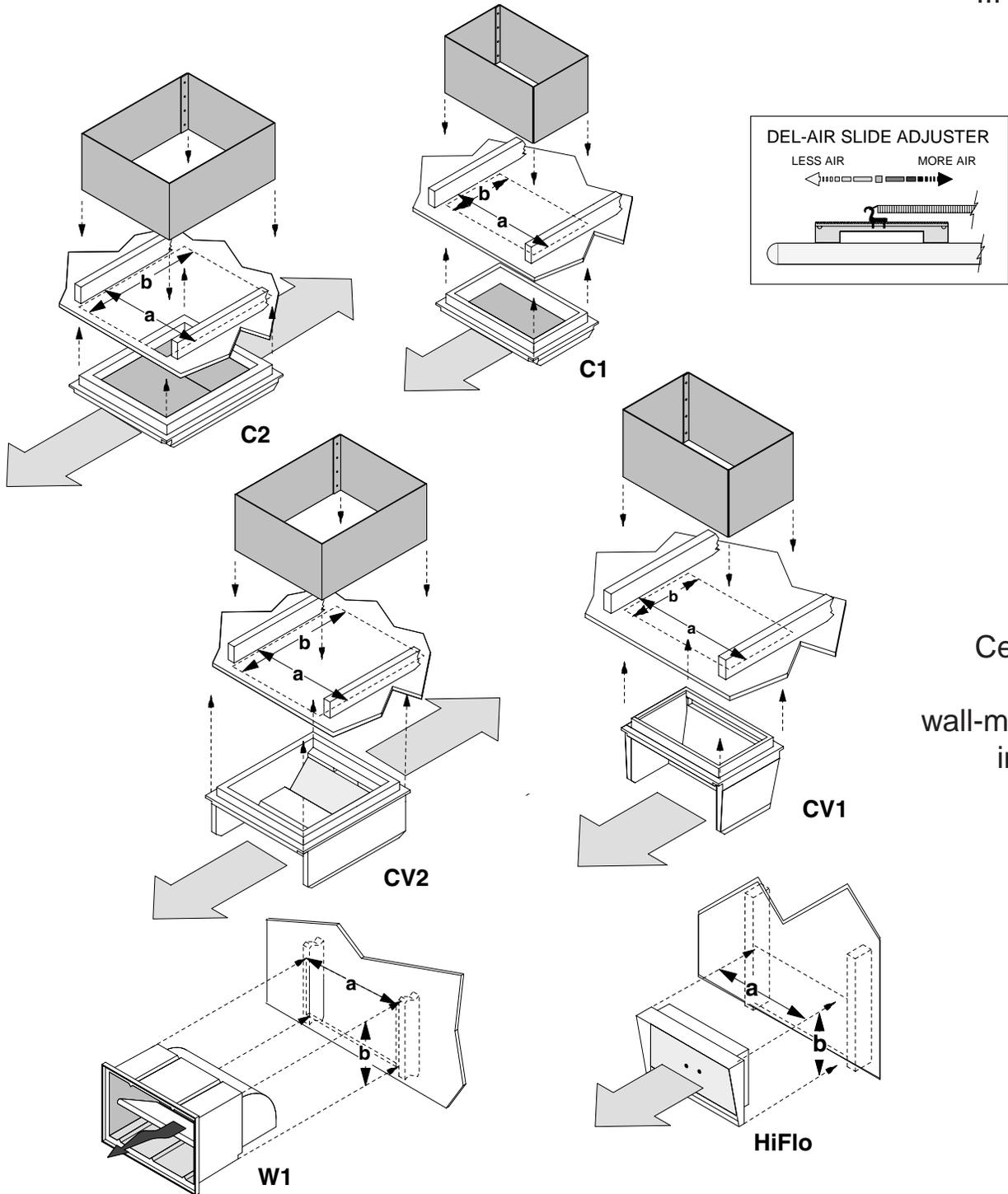


INSTALLATION INSTRUCTIONS

III-11/98



Ceiling
and
wall-mount
inlets

Inlet with Arrows '98

C1, C2, CV1, CV2, W1, HiFlo

LOCATING THE INLETS:

1. Placement of fresh air inlets is very important. Ensure that fresh air reaches all areas of the room. Contact your Dealer or DEL-AIR for a FREE ventilation design.
2. Keep the ceiling clear of obstructions. Even an electrical conduit can cause the air to detach and fall to the floor.
3. Ceiling inlets must be provided with adequate attic relief. Provide at least 1 sq. ft. of eave or gable opening for each 800 cfm of ventilation, plus an additional 0.1 sq. ft. per 600 sq. ft. of ceiling area along the ridge to relieve heat build-up in the attic.
4. Wall inlets draw air directly from outside. Avoid placing wall inlets within 5 ft. of exhaust fans.
5. Hall inlets draw air from adjacent rooms, hallways or from distribution ducts into the room. This fresh air is usually pre-heated. Provide adequate fresh air vents in the adjacent space to match the capacity of all hall inlets drawing of the space. Contact your Dealer or DEL-AIR for proper sizing. The HiFlo inlet mounts between studs on 24" center or can be surface mounted.
6. The C2 and CV2 models can be "cross mounted" on ceilings with 24" or 16" joist spacing without cutting the stud. Refer to Figure 1 and the section below it for instructions.

INSTALLATION:

1. Mark rough openings according to the dimensions in Table 1. All DEL-AIR inlets are installed from inside the room to be ventilated.
2. Cut and remove the interior sheathing with a jig saw, circular saw, reciprocating saw or router.
3. Cut and remove the insulation.
4. On wall and hall inlets, drill out the corners of the opening to mark the exterior sheathing. Cut the exterior sheathing or metal away.
5. If desired, block the rough opening with 2 x 4 or 2 x 6 toe-nailed in place.
6. Install the insulation stop onto the inlet before inserting the inlet into the rough opening. †
7. Insert the inlet, making sure it slides fully into place without force or twisting. Attach with the wood screws provided.
8. Caulk around the mounting flange with a construction grade sealant.
9. Check to be sure the inlet baffle moves freely.

Table 1 Rough Opening Dimensions

Inlet Model	Typical Location	Rough Opening		# of Screws
		A	B	
C1	Ceiling	21-3/4"	13-1/2"	4
C2		21-3/4"	26"	4
CV1	Ceiling	22"	14"	4
CV2		22"	26-1/2"	4
W1	Exterior Wall	22-1/4"	15"	6
HiFlo	Interior Wall	21-1/4"	11-3/4"	6

† HiFlo inlet may also mount on the face of the wall to fit a 16" O.C. wall opening.

OPERATION:

1. Ensure all doors and windows are shut. Turn on all summer fans for maximum ventilation.
2. Adjust each inlet for the desired summer air pattern, using the DEL-AIR Slide adjuster (See front).
3. Reduce fans to winter capacity and re-adjust inlets if necessary. Ideally, all inlets will open to the same gap. Note that some inlets may be closed off in winter to suit the ventilation rates. Check your ventilation design.
4. From time to time it may be necessary to re-adjust inlets as springs and styrofoam age.

MAINTENANCE:

1. Regularly check the opening for any blockage.
2. Be sure the damper is free to open and close.
3. Replace springs, latches or other hardware as necessary.

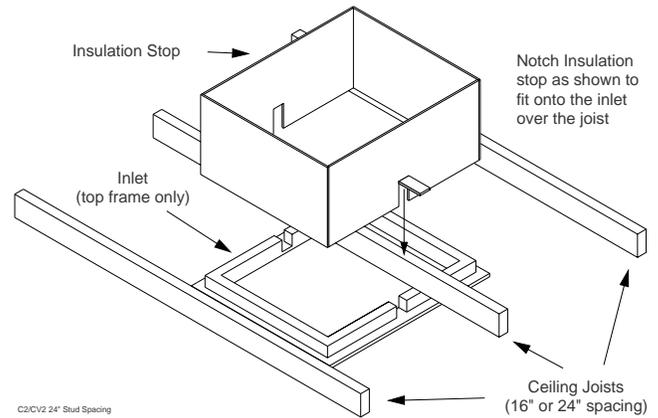


Figure 1 Installing the insulation stop across a joist.

† **Note:** The C2 and CV2 inlets may be "cross mounted" between studs (see Figure 1). The installation stop must be notched as shown and installed from the attic

Table 2 Replacement Parts.

Del-Air Part No.	Description
001310	Inlet Slide Adjuster
001315	Damper Support (C1, C2)
001351	OPTIONAL Inlet Lock (C1, C2)
500401	Baffle & Slide Adjuster
130205	C1/CV1 Insulation Stop
130305	C2/CV2 Insulation Stop

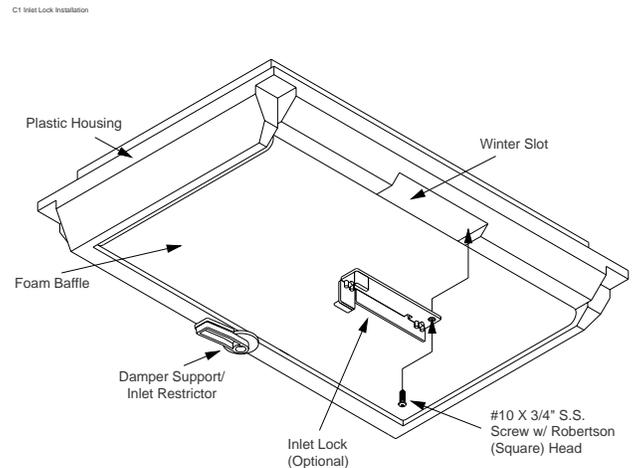


Figure 2 Installing the lock in the winter slot (C1 Inlet shown)

OPTIONAL Inlet Lock Installation Instructions

1. Refer to Figure 2. Tilt the locking tab and blocking flap up into position as shown.
2. Place the lock into the winter slot and make sure the locking tab will catch the baffle and hold it locked.
3. Center the lock in the slot and install the screw as shown.

Using the OPTIONAL Inlet Lock

The inlet lock was developed to meet the needs of customers who reported problems with inlets opening at inappropriate times during the winter. Usually, the cause of this is a sudden pressurization of the attic caused by winds or drafts. It is more common in facilities that utilize chimney fan ventilation.

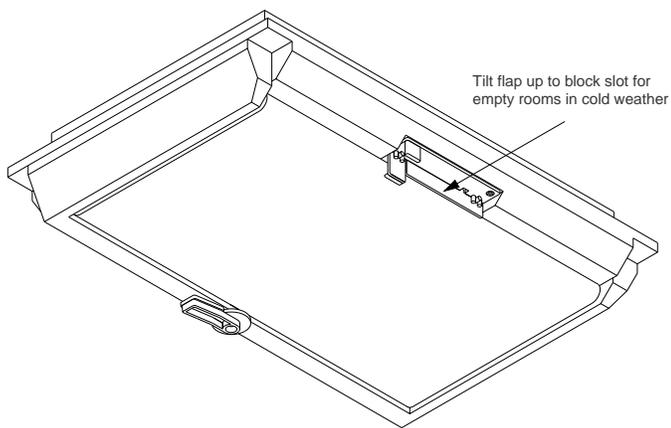


Figure 3 Inlet lock installed to lock baffle and block winter slot (C1 inlet shown)

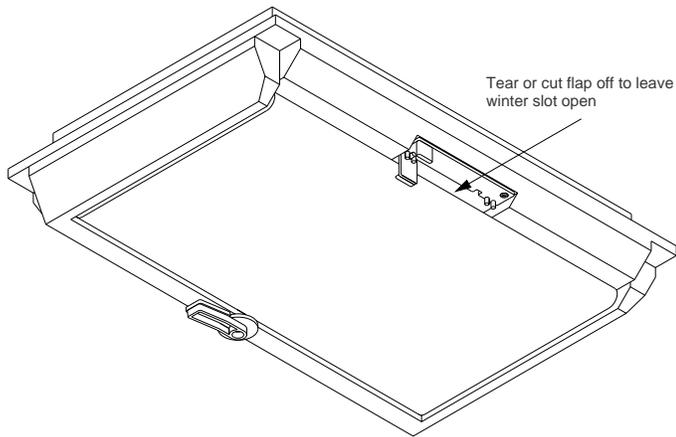


Figure 4 Inlet lock installed to lock baffle while leaving the winter slot open.

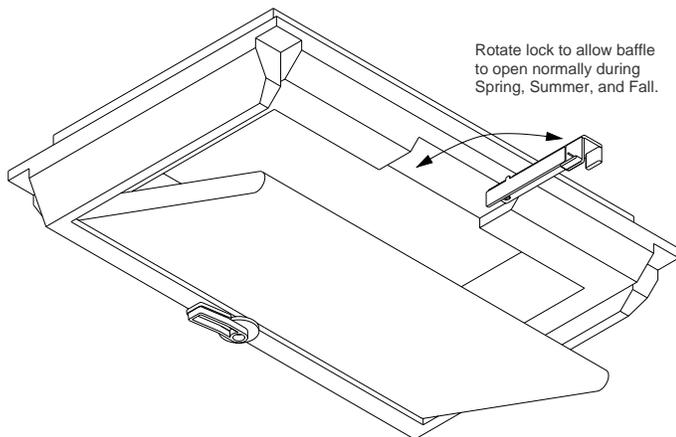


Figure 5 Inlet lock installed but in the open position for Spring, Summer and Fall operation

The main purpose of the lock is to "lock" the baffle and prevent it from opening at all. This will ensure that freezing cold air does not fall onto the animals causing chills. Another feature incorporated into the lock is the ability to entirely block any air from entering the room through the winter slot (see Figure 3). Normally, though, it is a good idea to remove the blocking flap to allow fresh air into the space (see Figure 4). Since the air from the winter slot will "jet" across the ceiling, it is unlikely that this will cause any chilling effects on the pigs. Also, there should always be some minimum winter ventilation fan operating the room so it is important that fresh air be allowed to replace the air that is exhausted.

As the outdoor temperature begins to climb, you should swing the lock open (see Figure 5) and allow the baffle to open according to the static pressure created by the fans. Failure to open the lock during warm weather will result in high static pressures in the room (assuming the fans are on) and will cause the ventilation fan motors to overheat and possibly burn out prematurely. Warranty will not be given on motors that have failed because of improper use of the inlet lock.

Using the Inlet Restrictor

The Damper Support/Inlet Restrictor serves two purposes:

- (1) It supports the "hinged" edge of the baffle (see Figure 6), and
 - (2) it can be rotated to restrict the opening of baffle (see Figure 7).
- In rooms with high humidity and freezing outdoor temperatures, some frost may tend to build up on the inlet. In a room with several inlets, you may notice that some inlets tend to freeze closed. As more ventilation comes on in the room, the result is the unfrozen inlets tend to open up far more than the inlets that are frozen. This can result in dumping cold fresh air onto a group of animals. By restricting the opening of the baffle, we can "help" the frozen inlets open by creating a higher static pressure in the room. As in the case of the inlet lock, the restrictor should only be used in this manner in the winter. Warranty will not be given on motors that have failed because of improper use of the inlet restrictor.

Only available for C1 and C2 inlets (C2 has two restrictors).

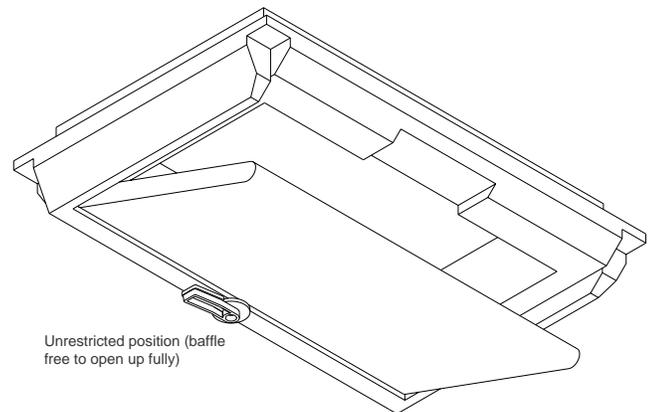


Figure 6 Standard C1 inlet (unrestricted) for normal operation

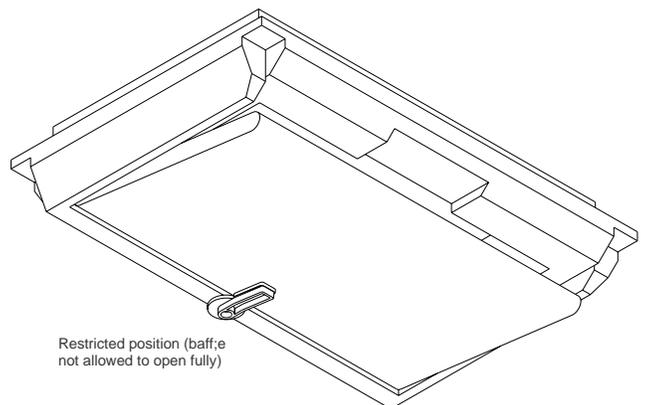


Figure 7 Inlet restrictor rotated to restrict the baffle opening (winter only)

LIMITED WARRANTY

DEL-AIR SYSTEMS LTD. offers an additional "System Performance Gaurantee™" to purchasers who take advantage of the free ventilation planning service. Contact your dealer for details, or call a Del-Air Sales Representative.

DEL-AIR SYSTEMS LTD. warrants to the purchaser the full repair or replacement value of any part proven to be defective in material or workmanship, for one year from date of original purchase.

OTHER EXTENDED WARRANTIES:

MOTORS - 3 year pro-rated.

Full value in first year, 2/3 value in second year, 1/3 value in 3rd year.

PLASTIC HOUSINGS - 10 year full value.

HRV CORES - 10 years full value.

TERMS AND CONDITIONS

1. The owner is obligated to exercise due care and attention in the installation and use of this product.
2. This warranty is applicable only to DEL-AIR ventilation systems installed for agricultural confinement livestock operations.
3. Parts replaced or repaired under this warranty are warranted only through the remainder of the original warranty.
4. This warranty does not cover cost of shipping defective or repaired or replaced parts to or from original customer.
5. DEL-AIR Systems Ltd. reserves the right to make changes and improvements to its products at any time with the express understanding that such changes and improvements do not impose any obligation to install such changes and improvements on products previously sold.

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