

TRION[®]

Air Bear Series

Duct Mount Media Air Cleaner



**Manual for:
Installation • Operation • Maintenance**

DEAR OWNER:

Congratulations on your choice of a high efficiency media air cleaner. You can now look forward to year after year of clean air living. As you become better acquainted with your air cleaner, we believe you will agree that it is one of the best investments you have ever made.

The following information will familiarize you with the operation of your air cleaner and provides helpful tips on how to obtain maximum performance from your unit.

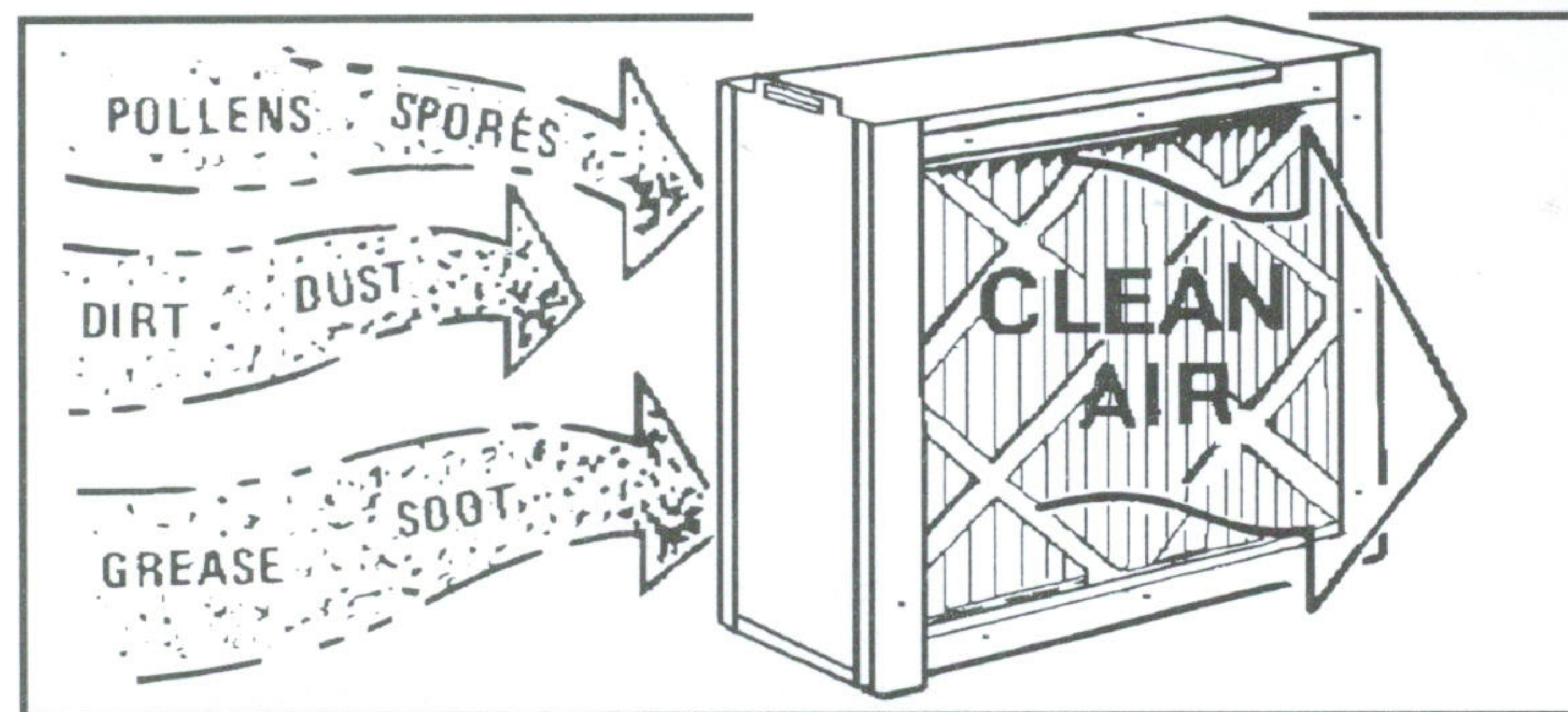
This media air cleaner (excluding the Media Filter model) can easily be upgraded to a highly efficient electronic air cleaner with a permanent washable collecting cell.

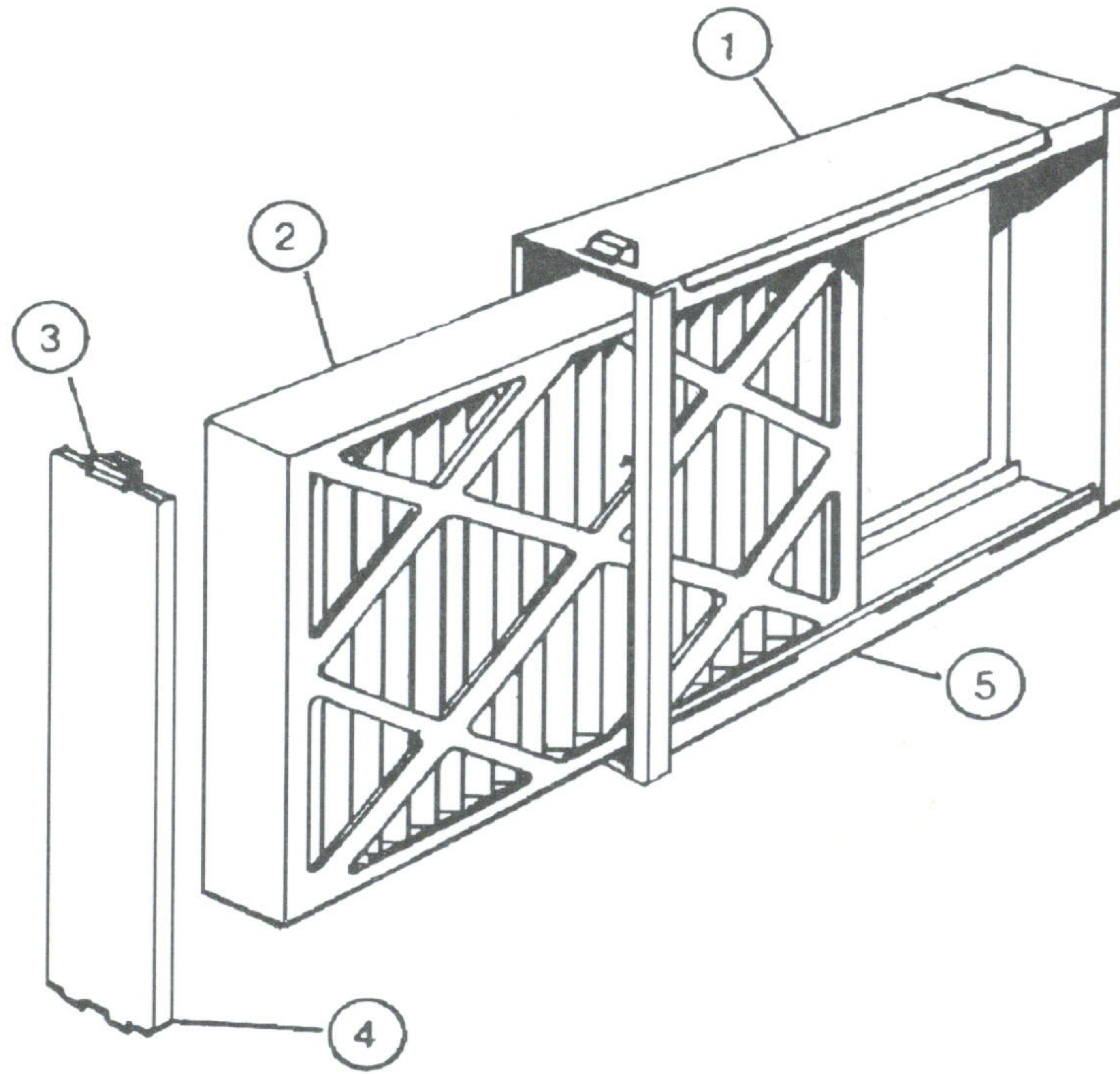
WHAT IS A MEDIA AIR CLEANER?

Your media air cleaner is a high efficiency air filtration device designed to remove dirt, dust, pollen and other microscopic particles from the air passing through it. Considering the messy dirt collecting job it performs, you will be surprised at the simplicity of its operation and care.

HOW THE AIR CLEANER WORKS:

Dirty air enters the air cleaner by way of the return air duct system in your home. Particles are collected by the special pleated filter media. The pleats provide an exceptionally large filtering face area in a very compact space which allows maximum dirt holding capacities with minimum air flow resistance.





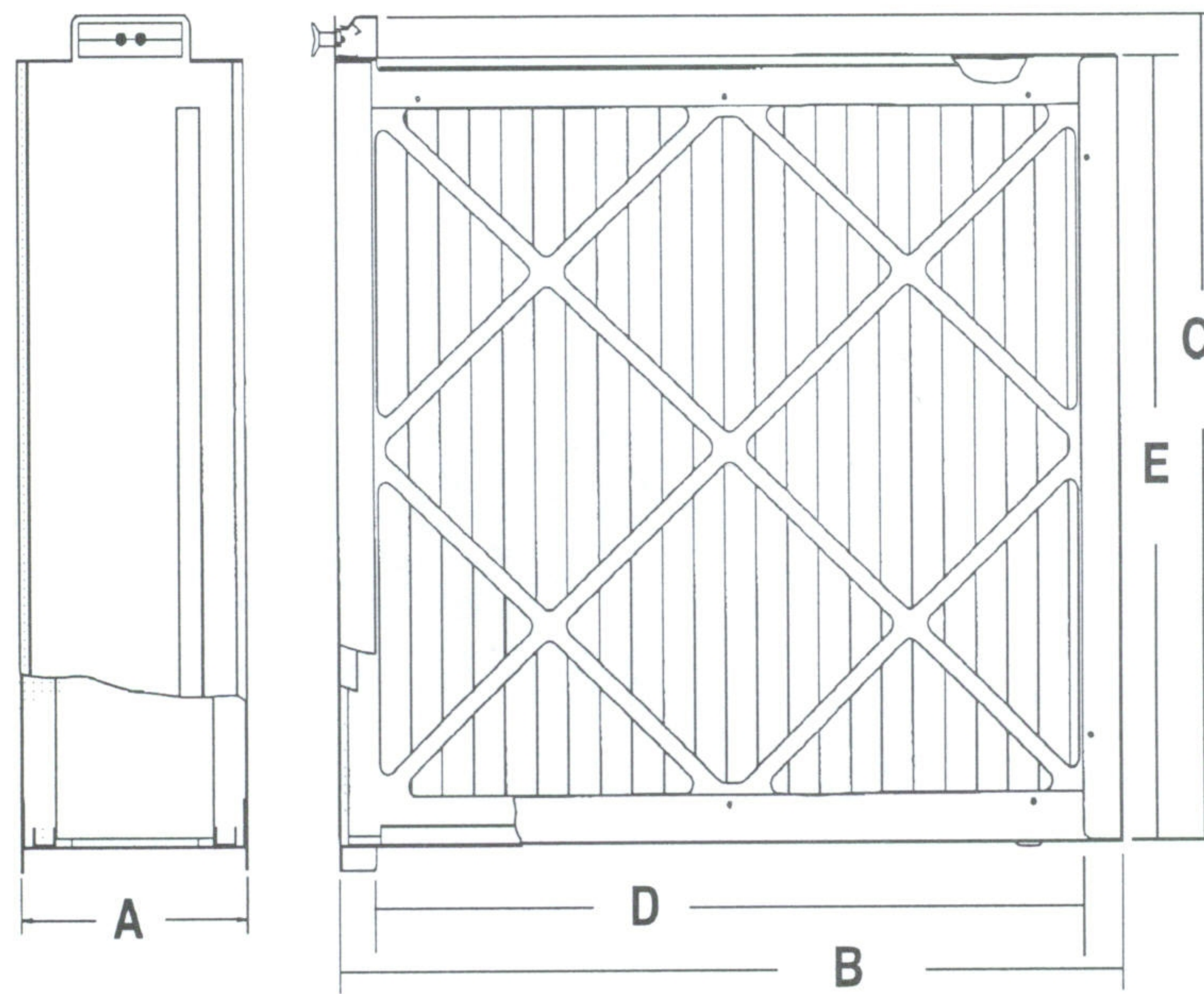
- 1. Cabinet Top
- 2. Factory Assembled Media
- 3. Access Handle
- 4. Access Door
- 5. Cabinet

Note:

The Access Door on the Media Filter model is flush with the top of the Cabinet.

Figure 1

SPECIFICATIONS



	Air Bear	Air Bear TM	Air Bear 20 x 20	Media Filter *	Air Bear 25 x 20
Part Number	435790-027	435790-028	435790-029	435790-048	453000-001
Air Flow (CFM)	600-2000	600-1200	600-1400	600-2000	600-2000
	DIMENSIONS				
A	7 1/4"	5 1/4"	7 1/4"	7 1/4"	7 1/4"
B	25"	25"	21 1/2"	25"	20 1/4"
C	20 1/4"	16 1/4"	20 1/4"	20 1/4"	25"
	DUCT OPENING				
D	22 1/2"	22 1/2"	19"	22 1/2"	22 1/2"
E	17 7/8"	13 7/8"	17 7/8"	17 7/8"	17 7/8"
Replacement Media Filter	9-12 months between changes UL Class 2				

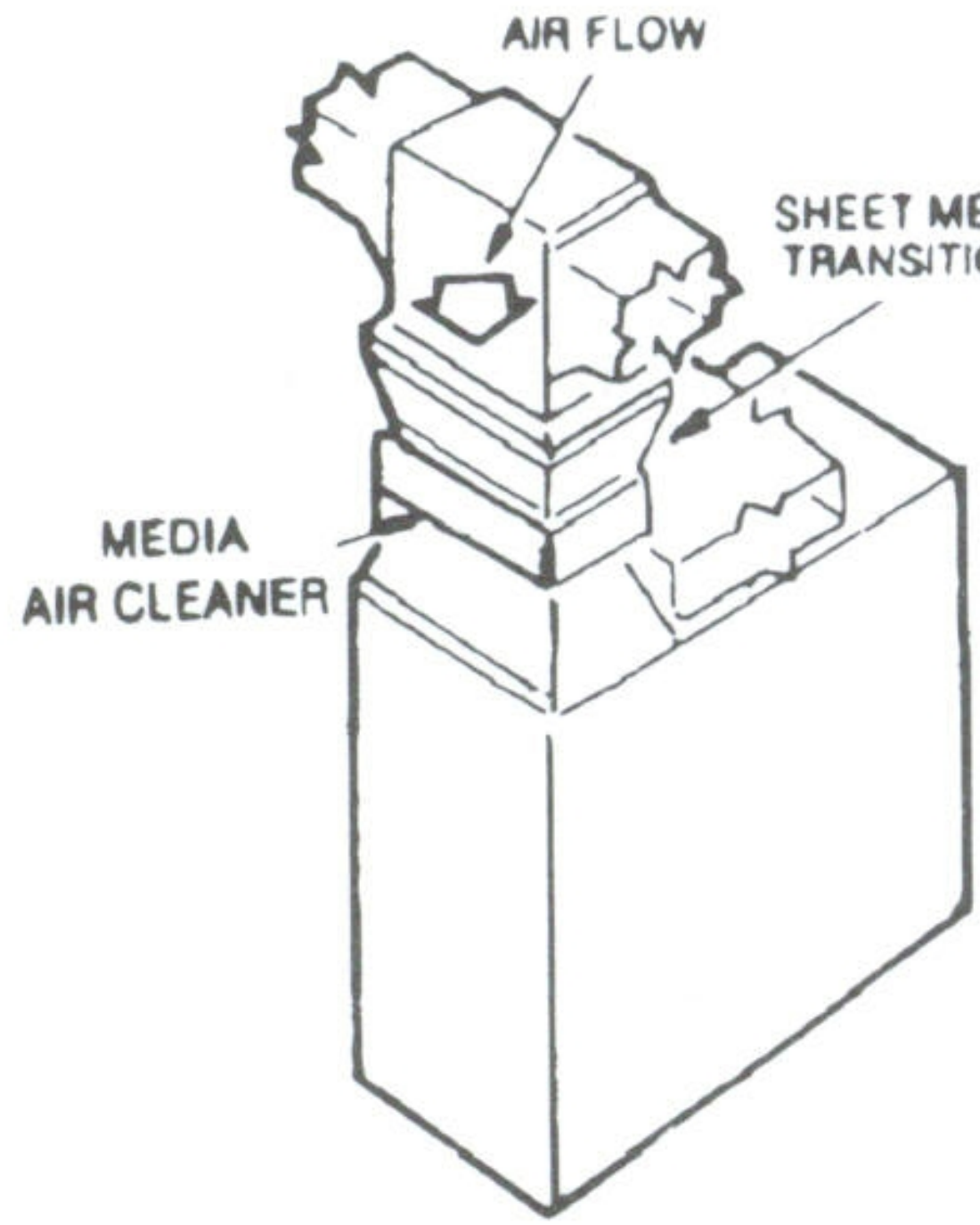
* Media Filter model cannot be upgraded to an Electronic Air Cleaner

AIR FLOW RESISTANCE

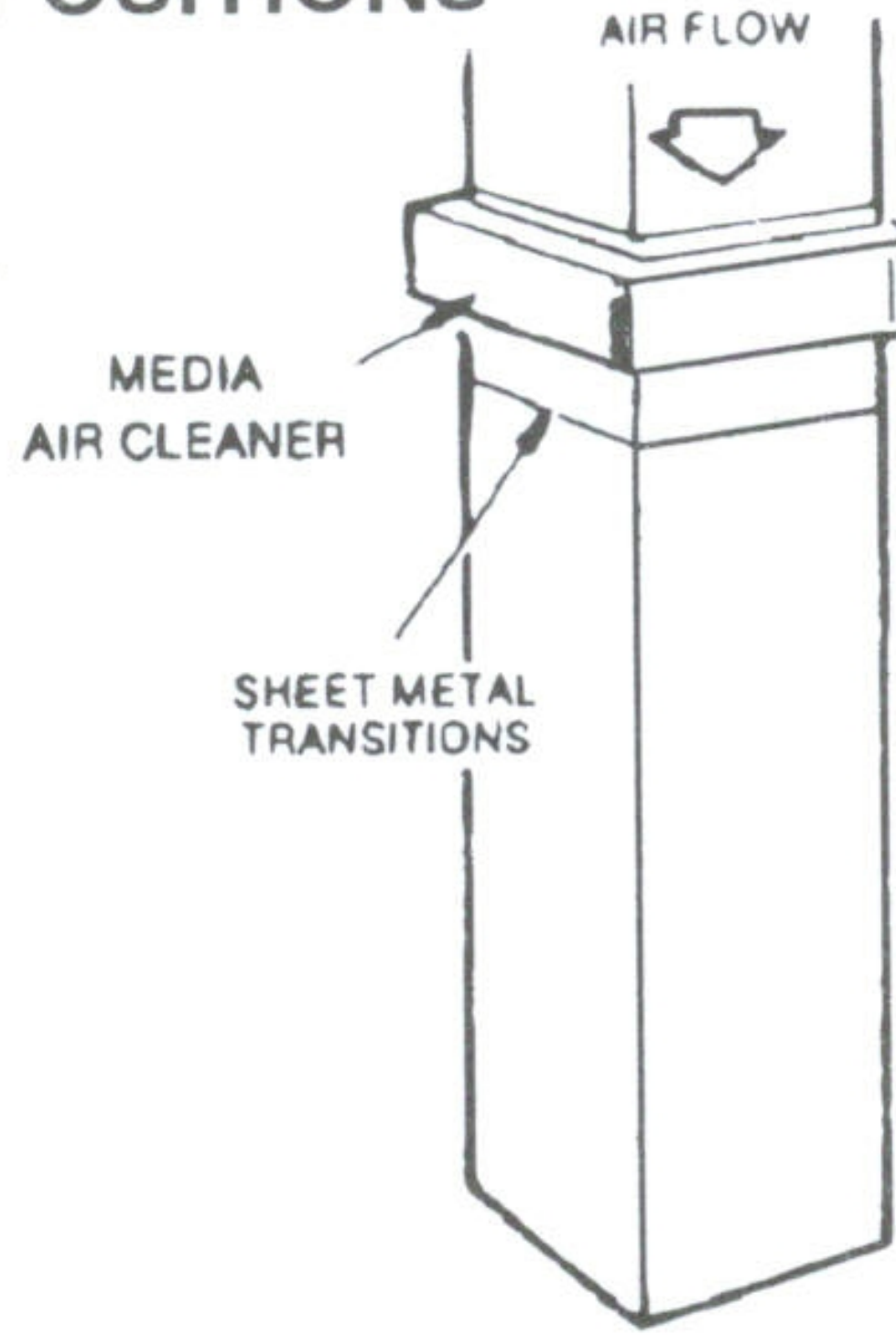
	Air Bear	Air Bear TM	Air Bear 20 x 20	Media Filter *	Air Bear 25 x 20
Air Flow (CFM)	Resistance (Inches W.G.)				
600	.02	.05	.02	.02	.02
800	.06	.10	.06	.06	.06
1000	.10	.14	.08	.10	.10
1200	.14	.18	.11	.14	.14
1400	.18	-	.15	.18	.18
1600	.23	-	-	.23	.23
1800	.27	-	-	.27	.27
2000	.31	-	-	.31	.31

* Media Filter model cannot be upgraded to an Electronic Air Cleaner

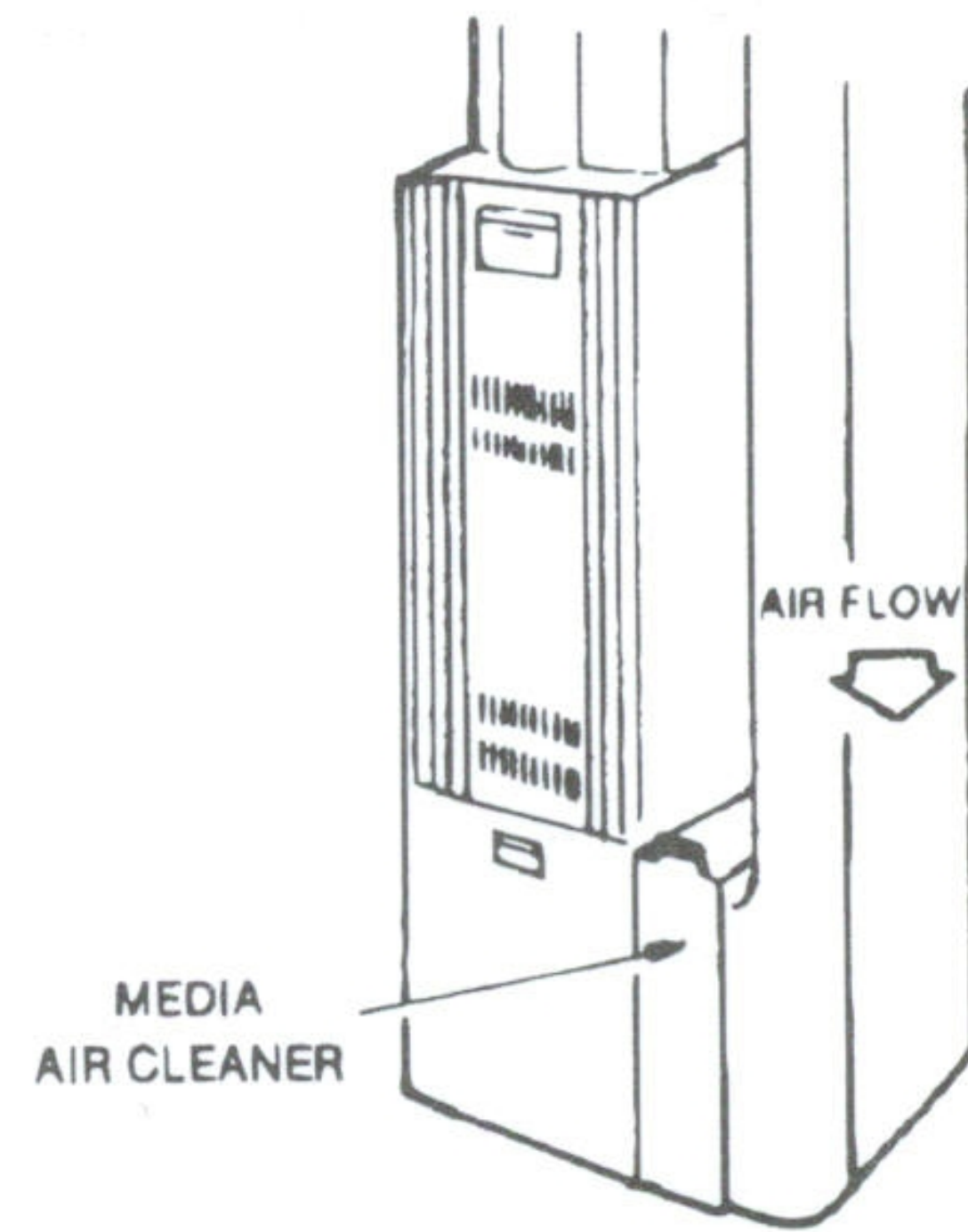
TYPICAL MOUNTING POSITIONS



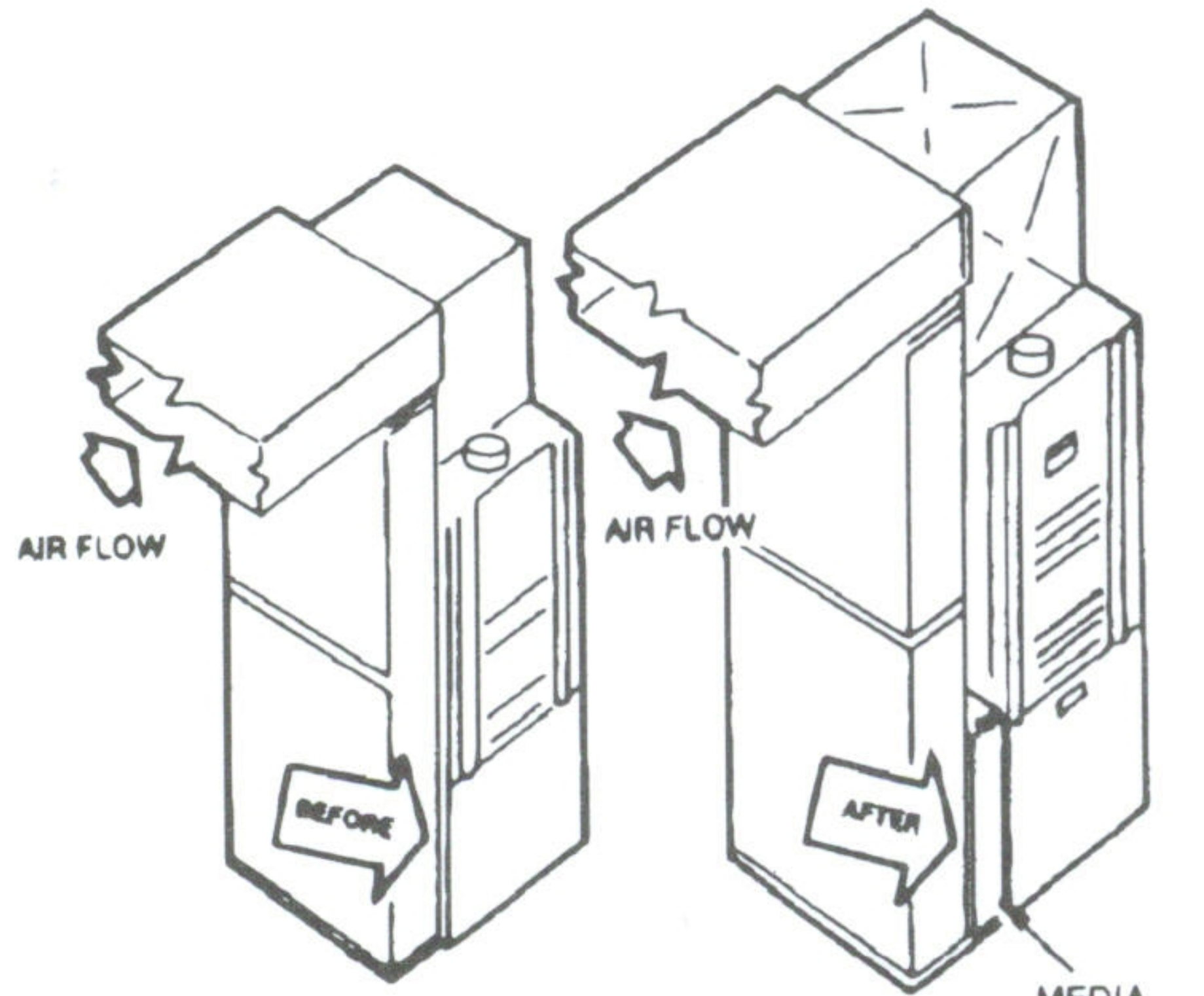
BASEMENT FURNACE (LOWBOY)
Mounted horizontally in return plenum - just above the furnace



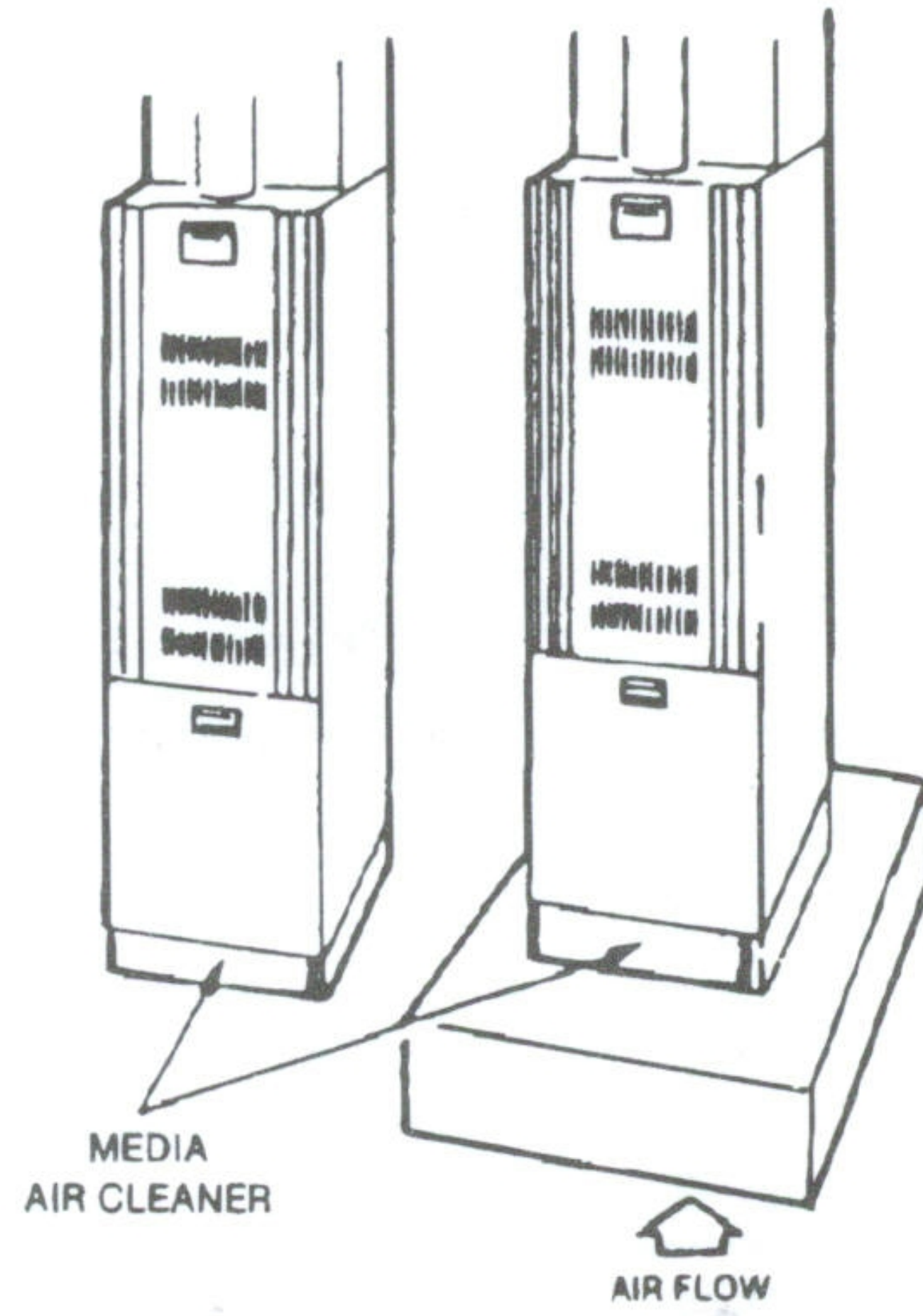
COUNTERFLOW FURNACE
Mounted horizontally in return duct - just above the furnace



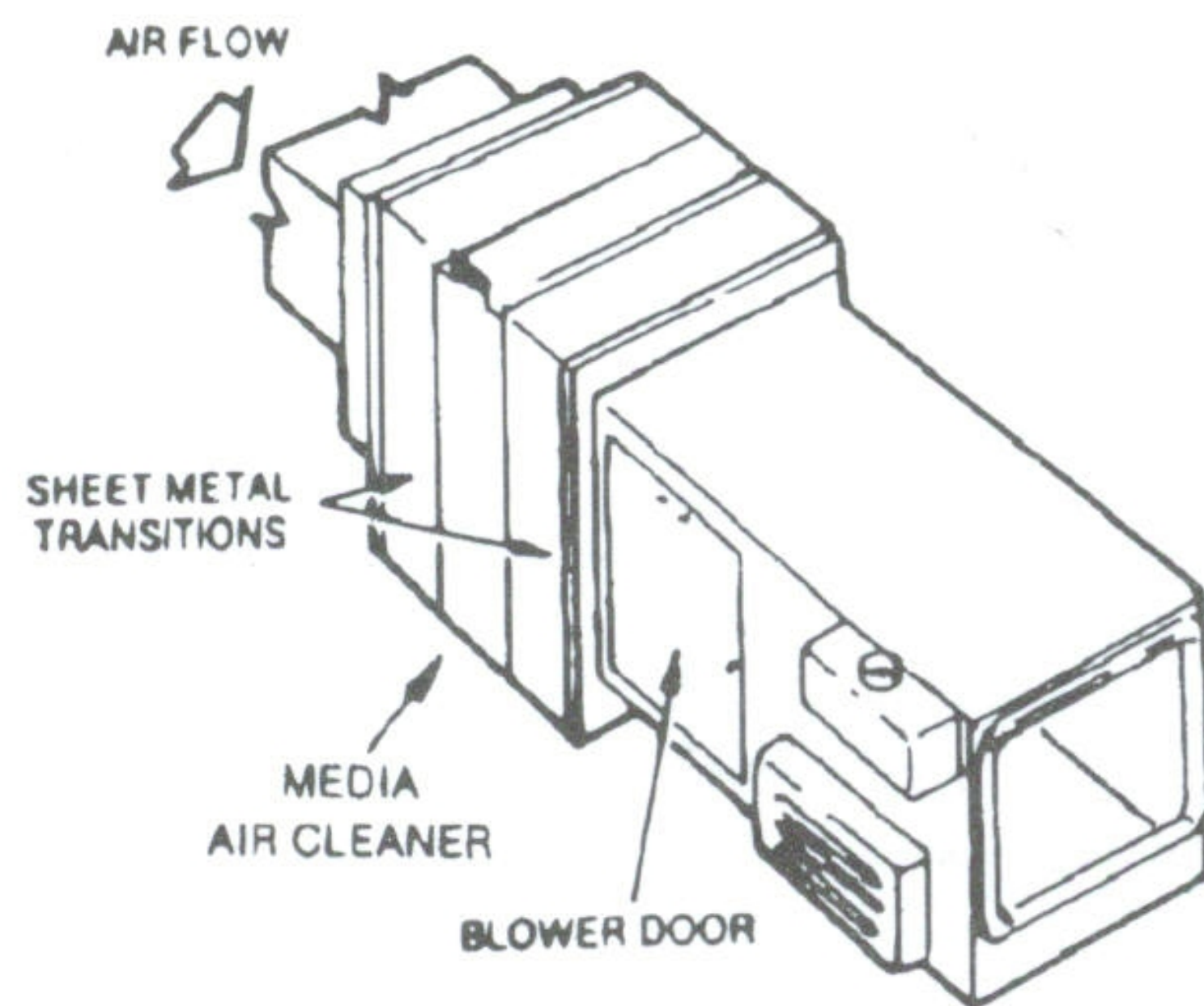
SPACE SAVER FURNACE (HIGHBOY)
Side installation. Cleaner is mounted vertically, where return air enters side inlet of furnace.



OFFSET INSTALLATION
If there is less than 7-in. for mounting the air cleaner between the duct and the furnace, move the return air drop.



SPACE SAVER (HIGHBOY)
Installation beneath furnace. Cleaner mounts horizontally, where return air enters from below. Raise furnace by installing a suitable wood structure and install air cleaner.



HORIZONTAL FURNACE
Mounted vertically in return duct as close to the furnace as possible.

APPLICATION

The air cleaners are used in forced air heating, cooling and ventilating systems. The air cleaner should be installed in the system so that all the system air is circulated through the air cleaner. The air cleaner will only remove the airborne contaminants delivered to it. Maximum performance is obtained when the system blower is set for continuous operation.

Installation Requirements

The best location for the air cleaner is in the return air duct next to the blower compartment. In this location, the blower motor and cooling coils will be kept clean. Do not install the air cleaner in the discharge air duct. Before installing the air cleaner, consider the application. If a transition is required, refer to section entitled **Transitions**. The unit must be readily accessible for periodic inspection and replacement of media cartridge to maintain maximum efficiency and trouble-free operation.

Air Conditioning

The air cleaner should be installed upstream of the cooling coil. This will keep the coil clean and reduce air conditioning coil maintenance. Improved cooling efficiency is the result which directly affects energy costs. A clean coil will reduce utility costs. Failure to replace media can cause damage to cooling system.

Transitions

If the air duct does not fit the air cleaner cabinet opening, gradual transitions are recommended to reduce air turbulence through the air cleaner and maximize efficiency. Not more than 20° (about 4" per running foot) of expansion should be used on each side of the transition fitting (Figure 2).

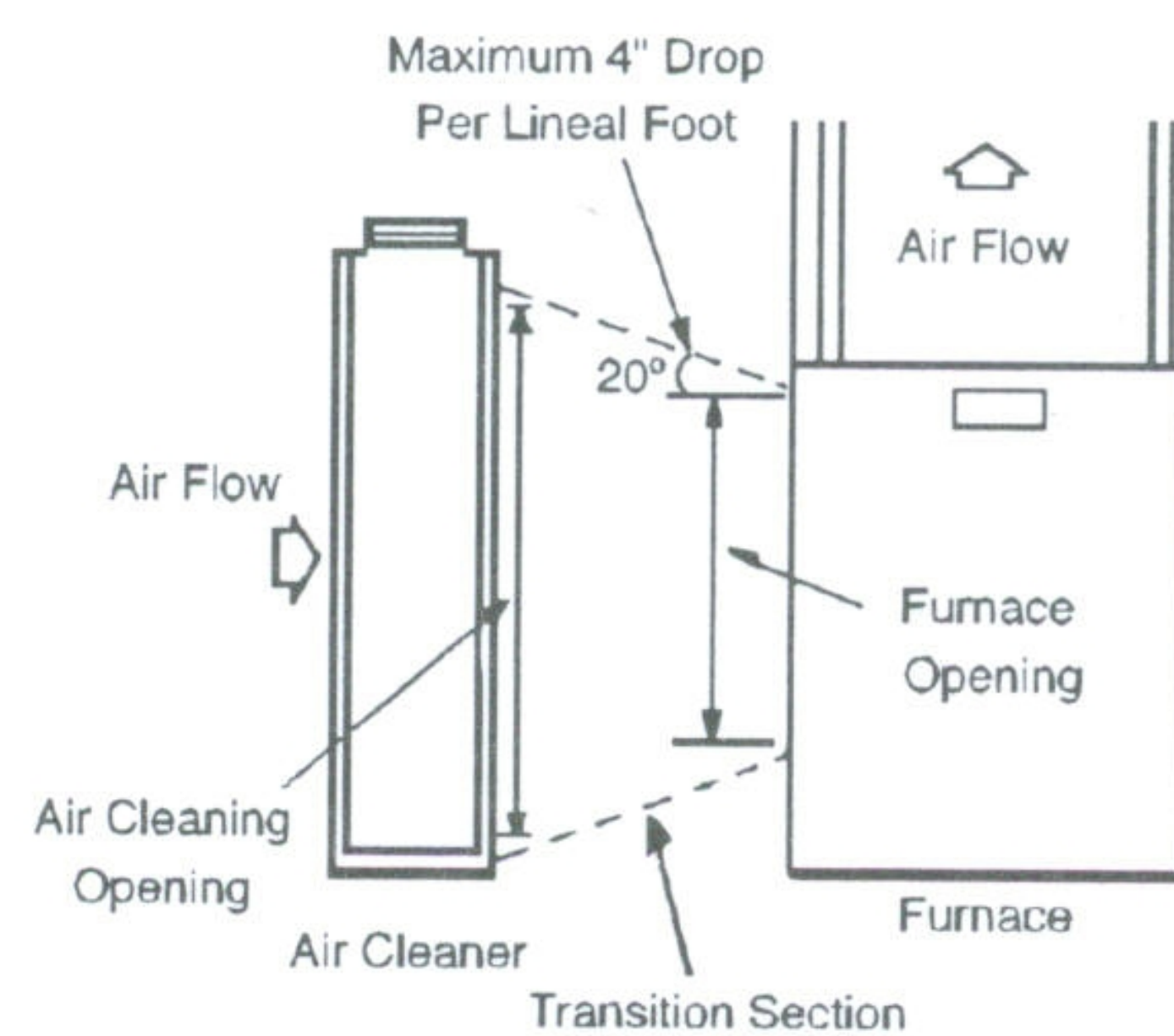


Figure 2 - Transitions

Turning Vanes

If the air cleaner is installed adjacent to a 90° duct elbow, add turning vanes inside the duct to improve the air distribution across the face of the air cleaner (Figure 3).

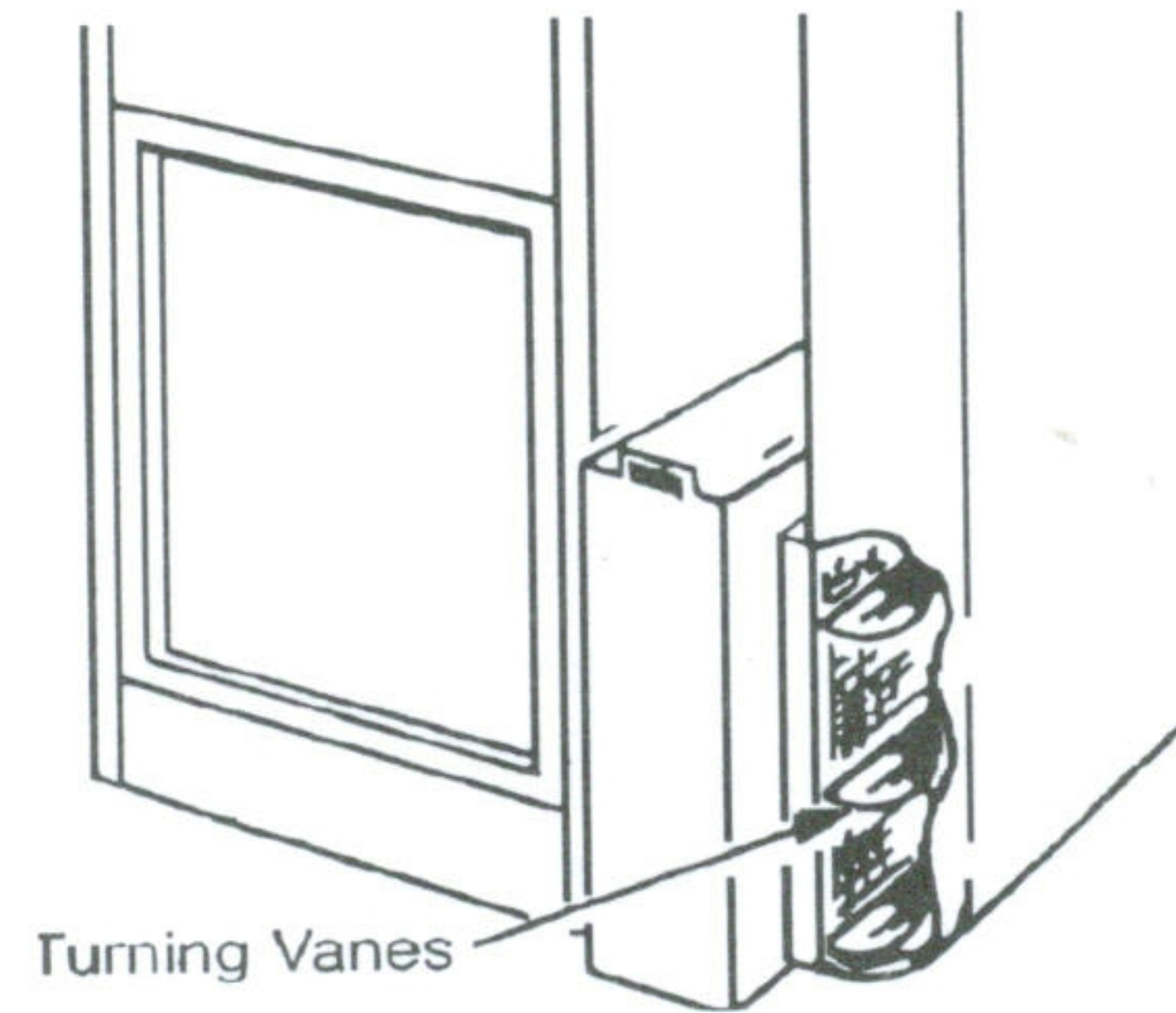


Figure 3 - Turning Vanes

Humidifiers

Location of the system humidifier is important to the operation of the air cleaner. When an evaporative type humidifier is used, it may be installed between the furnace warm air duct and the return air duct without effecting the air cleaner. Atomizing and spray type humidifiers should be installed downstream of the air cleaner. If the humidifier must be installed upstream, allow at least 6' between air cleaner and humidifier.

SELECT LOCATION FOR THE AIR CLEANER

Select a location that is readily accessible for periodic inspection and cleaning. Allow a minimum of 26" in front of the access panel for filter removal. For complete dimensions required, refer to the section entitled **SPECIFICATIONS**.

DIRECTION OF AIR FLOW THROUGH THE AIR CLEANER

The air cleaner is set up for left to right air flow, when facing the access door. For right to left air flow remove filter cartridge, turn it around and replace in cabinet. The directional arrows on the filter cartridge must point in the direction of air flow.

PHYSICAL INSTALLATION

The air cleaner can be in any position, except with the access door facing down. The section entitled **TYPICAL MOUNTING POSITIONS** (page 5) shows proper air cleaner mounting with a variety of furnace installations.

Prior to installing this product . . .

1. Read rules and instructions carefully for safe operation. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given on the product to make sure it is suitable for your application.
3. Remove the old furnace filter and discard.
4. The air cleaner cannot remove existing dirt from the blower and ducts.

NOTE:

The following is a typical installation of the air cleaner on a highboy furnace. You may have to alter the installation to fit your specific application.

6. Locate the cabinet in the cold air return duct so that all of the return air flows through the unit. If the furnace and air cleaner openings are different, use a transition (see Figure 2).

7. Mounting holes are provided for simple connection to duct work. The .140" holes are sized for #8 sheet metal screws, or $\frac{1}{8}$ " rivets. If the adjoining duct work is flanged, install the screws so that the screw heads are inside the cabinet. This will prevent damage to the filter cartridge during removal and installation (Figure 4).

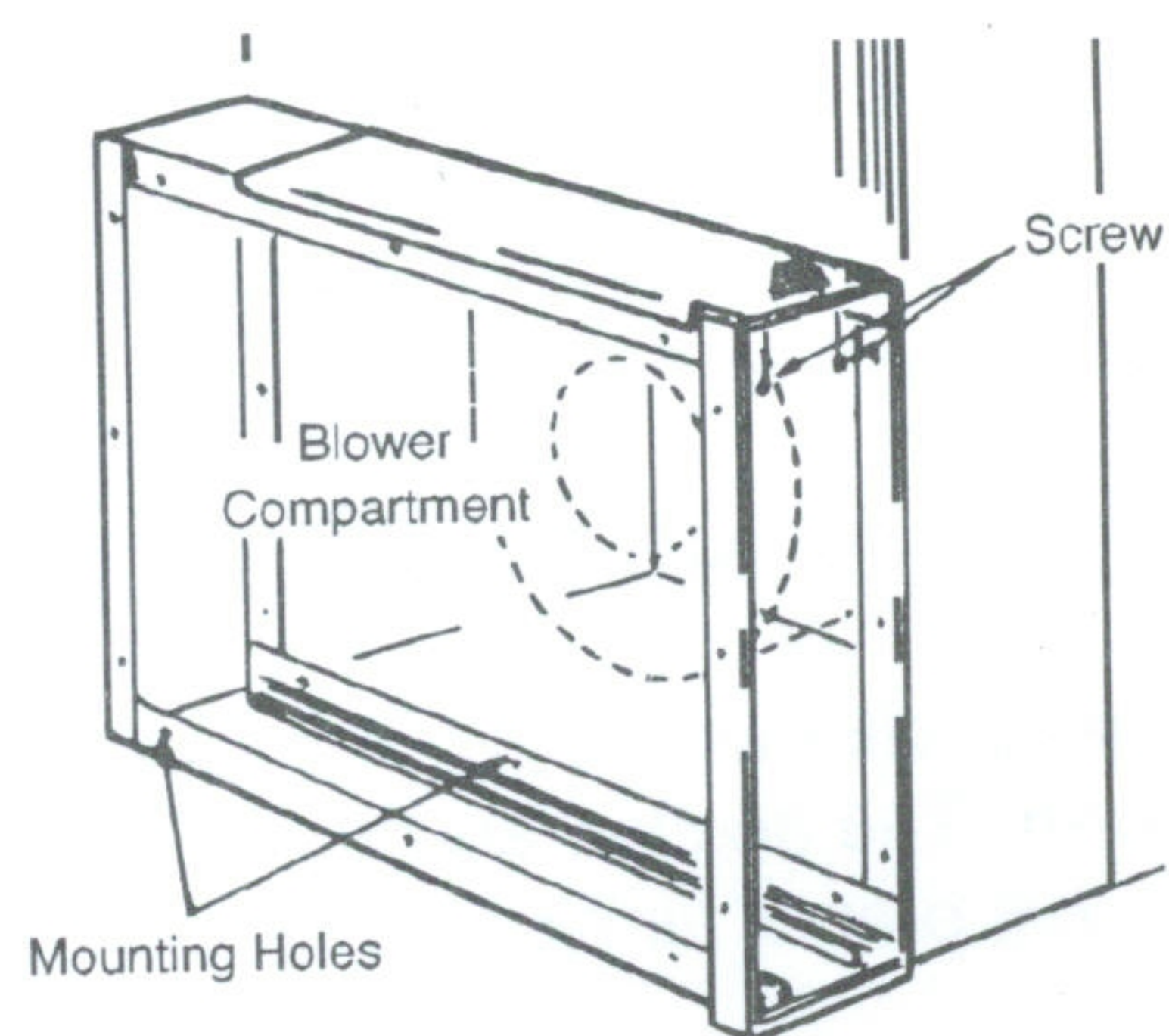


Figure 4

8. Remove media filter cartridge from plastic bag and replace media filter in cabinet.

9. After the unit has been secured, seal seams air tight with duct tape or caulking. Reinstall access door to ensure a tight seal.

HOW TO MAINTAIN YOUR AIR CLEANER

The filter in your air cleaner must be replaced periodically. The frequency of filter replacement is best determined by visual examination. On average, media filters should be replaced every 9-12 months under normal usage.

STEPS FOR REPLACING FILTER

1. Open access door by pulling the handle. Remove door completely.
2. Pull used filter straight out of cabinet and place to side.
3. Remove new filter cartridge from plastic bag and save the bag.
4. Slide new filter cartridge into cabinet with "AIR-FLOW" arrow pointing in the direction of air-flow.
5. Replace door and place used filter in plastic bag for easy disposal.

Replacement Cartridge Filters For Your Media Air Cleaner

Remember, periodic inspection and annual replacement of your filter will insure high efficiency air cleaning. Contact your HVAC dealer for replacement filter cartridges.

Air Cleaner Model	Filter Size	Standard Replacement Filter Part Number	Antimicrobial Replacement Filter Part Number	Number per Carton
Air Bear Air Bear 25x20 Media Filter Model	5 x 20 x 24 1/2	229990-102	248713-102	3
Air Bear TM	3 x 16 x 24 1/2	229990-101	248713-101	6
Air Bear 20x20	5 x 19 3/4 x 20 3/4	229990-103	248713-104	4

**MEDIA AIR CLEANER
LIMITED TEN-YEAR WARRANTY**

This limited warranty covers Trion Residential Type Media Air Cleaners, excluding door latch, disposable media cartridge, charcoal filter accessories, duct work and installation. Trion, Inc. warrants that all new Trion Media Residential Air Cleaners are free from defects in material and workmanship under normal, noncommercial use and service. Trion will remedy any such defects if they appear within 10 years from the date of original installation as evidenced by receipt of the warranty registration card, subject to the terms and conditions of this Limited Ten-Year Warranty stated below:

1. THIS LIMITED TEN-YEAR WARRANTY IS GRANTED BY TRION INC., McNEILL ROAD, P.O. BOX 760, SANFORD, NORTH CAROLINA 27330-0760.
2. This warranty shall extend only to any noncommercial owner who has purchased the Residential Media air cleaner other than for purposes of resale.
3. The completion and return of the Warranty Registration Card is a condition precedent to warranty coverage and performance.
4. All components are covered by this limited warranty except expendable items, such as the door latch, charcoal filters and disposable media filter pads.
5. If within the warranty period any Trion Residential media air cleaners or component requires service it must be performed by a competent HVAC contractor (preferably the installing contractor). Trion, Inc. will not pay shipping charges, or labor charges to remove or replace such defective parts or components. If the part or component is found by inspection to contain such defective material and workmanship it will be either repaired or exchanged free of charge at Trion's option, and returned freight collect.
6. In order to obtain the benefits of this limited Ten-year Warranty, the owner must notify the dealer or distributor in writing of any defect within 30 days of its discovery. If after reasonable time you have not received an adequate response from the dealer or distributor, notify in writing Trion, Inc., McNeill Road, P.O. Box 760, Sanford, North Carolina 27330. Residential media air cleaners which have **been installed** or become part of real estate cannot be returned. Trion will receive, Freight Prepaid, only removable parts or components of such defective Residential media air cleaners.
7. This limited warranty does not apply to any part or component that is: damaged in transit or when handling, has been subject to misuse, neglect or accident; has not been installed, operated and serviced according to Trion's instruction; has been operated beyond the factory rated capacity; or altered in any such way that its performance is affected. There is no warranty due to neglect, alteration or ordinary wear and tear. Trion's liability is limited to replacement of defective parts or components and does not include the payment of the cost of labor charges to remove or replace such defective components or parts.
8. Trion will not be responsible for loss of use of any product; loss of time, inconvenience, or any other indirect, incidental or consequential damages with respect to person or property, whether as a result of breach of warranty, neglect or otherwise. **SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATION OR EXCLUSION IN THE PRECEDING SENTENCE MAY NOT APPLY TO YOU.**
9. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
10. Any warranty work will be performed within a reasonable time, usually within 120 days after notice of defect and delivery to the Trion factory, subject to delays beyond Trion's control.
11. Any warranty by Trion of merchantability, fitness for use or any other warranty (express, implied or statutory), representation or guarantee other than those set forth herein, shall expire at the expiration date of this express limited warranty. **SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE LIMITATION IN THE PRECEDING SENTENCE MAY NOT APPLY TO YOU.**
12. Trion reserves the right to make changes in the design and material of its products without incurring any obligation to incorporate such changes in units completed on the effective date of such change.

TRION Inc

P.O. Box 760 • 101 McNeill Road • Sanford, North Carolina 27331-0760

Fax: (919) 777-6355 • <http://www.trioninc.com>