# MERV 11 PLATFORM MEDIA AIR CLEANERS FOR FURNACES AND AIR HANDLERS

# **Installation & Operation Manual**

**MODELS** 

AM11-2833-5PP, AM11-2843-5PP FOR FURNACES AM11-2232-5PP, AM11-2240-5PP FOR AIR HANDLERS





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Daikin North America LLC does not accept any liability for installations of air cleaning equipment installed by unqualified personnel or the use of parts/components/ filters/equipment that are not authorized or approved by Daikin.

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#### **READ AND SAVE THESE INSTRUCTIONS**



#### /!\ warning!

This symbol indicates important instructions. Failure to heed them can result in serious injury or death.



#### /!\ CAUTION!

This symbol indicates important instructions. Failure to heed them can result in injury or material property damage.

#### WARNING!

Before beginning any installation or modification, be certain that the main line electrical disconnect switch is in the OFF position. Unexpected start-up of system blower may cause serious injury. Tag disconnect switch with suitable warning labels.



# /!\ CAUTION!

#### Installation:

- Only a heating/air conditioning installer or qualified service person should install your air cleaner, unless you are completely familiar with the necessary tools, equipment and potential hazards involved. If you plan to install this air cleaner yourself, please be aware that the improper use of any tool can be dangerous. The manufacturer will not assume any responsibility for failures due to incorrect installation procedures.
- Homeowners can perform the basic maintenance functions of replacing filters.
- When working on the air cleaner, observe precautions in the Owner's Manual, labels attached to the furnace or air handler, and other safety precautions that may apply. Follow all safety codes. Wear safety glasses and work gloves.



Our continuing commitment to quality products may mean a change in specifications without notice.

IO-AM11-5PP

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# **INTRODUCTION**



#### What the Air Cleaner Does

This air cleaner has been designed to remove a wide range of airborne particulates from the ducts in your heating and cooling system.

#### **Features and Benefits**

- MERV 11 media filter removes airborne particles as small as 0.3 micron†.
- Maintenance-free except for filter replacement.
- No electrical hook-up required.
- Helps protect and prolong the operating efficiency of the heating and cooling equipment
- Heavy-gauge, galvanized-steel cabinet and powdercoat paint finish on one of the cabinet cabinet doors resist corrosion and provide trouble-free installation.
- Space saving design for vertical installations; keeps furnace off floor allowing a cleaner, more professional installation.
- Well-suited for high-flow installations where bottom return is recommended by the furnace or air handler manufacturer.
- Eliminates need for transitions, deflectors or turning vanes, which are often needed in side-return air cleaners, thereby saving installation time and cost.
- Large surface area media filter with 24, extra-deep 5¼" pleats
- Two pull-out doors with handle allow filter access from either side of the air cleaner.
- Adjustable inlet duct opening eliminates need for field-installed transitions, significantly reducing installation time.

#### **How It Works**

Return air ducts of heating and cooling systems carry airborne particles to the media air cleaner. Here the particles can be captured by the air cleaner's media filter.

The media filter in this air cleaner is constructed of continuous hydrophobic polyolefin fibers that will not shred or absorb moisture. The media filter design features a structured density gradient with an electric charge for higher initial and sustained efficiency. The media is supported by an open steel mesh and enclosed by a high wet-strength beverage board filter frame. The filter has an Underwriter's Laboratories Class 2 rating.

The efficiency of the filter in this air cleaner is MERV 11, based on the ASHRAE Standard 52.2. Maximum test velocity is 492 feet/minute. An arrow printed on the outside of the filter frame indicates direction of airflow.

Composite Average Ef	ficiency Value	E1	E2	E3	
Composite Minimum	Range (Microns)	0.3 - 1.0	1.0 - 3.0	3.0 - 10.0	
	AM11-2833-5PP	33.5%	66.0%	89.6%	
Average Composite	AM11-2843-5PP	33.5%	66.0%	89.6%	
Minimum Values	AM11-2232-5PP	34.3%	66.7%	89.6%	
	AM11-2240-5PP	33.5%	66.0%	89.6%	

<sup>†</sup> Refer to Composite Average Efficiency Value table on this page





#### Installation

**IMPORTANT:** This air cleaner may cause more of a restriction on the airflow in your air-handling system than a standard 1" equipment filter, because of its increased efficiency. The pressure drops through the AM11-5 Series of Platform Media air cleaners with new filters at 50% and 100% of rated airflow are shown below. As the filter collects particulates, the pressure drop increases and airflow through the filter decreases. This media filter is not recommended where added pressure drop would cause operational problems with the heating and cooling equipment.

Air Cleaner Model	Media Filter	% of Rated Airflow	Pressure Drop (In. w.c.)	% of Rated Airflow	Pressure Drop (In. w.c.)
AM11-2833-5P	P AMP-M8-1056	50% (1000 CFM)	0.069	100% (2000 CFM)	0.208
AM11-2843-5P	P AMP-M8-1056	50% (1000 CFM)	0.069	100% (2000 CFM)	0.208
AM11-2232-5P	P AMP-M2-1056	50% (700 CFM)	0.069	100% (1400 CFM)	0.230
AM11-2240-5P	P AMP-M8-1056	50% (1000 CFM)	0.069	100% (2000 CFM)	0.208

#### Location

This air cleaner is designed to be installed under your furnace or air handler. This location provides the most even airflow across the filter and allows the air cleaner to keep the system motor and fan clean.

#### **Humidifiers**

If a humidifier is installed in your heating and cooling system, it should be installed in the furnace warm air supply duct. However, it may be installed in the return duct without causing problems to your air cleaner. Care must be taken that the humidifier does not leak, as this may damage the filter media or cause mineral deposits to build up on the filter.

### **Air Conditioning**

Whenever possible, this air cleaner should be installed upstream of the cooling coil. This will help remove airborne particulates before they reach the evaporator coil. A build-up of particles on the evaporator coil will reduce the heat transfer efficiency of the coil and increase operating costs of the AC system.

#### **General Installation Steps**

Leave sufficient room around your air cleaner There must be adequate room to remove and replace the filter from the air cleaner cabinet.

#### 1. Prepare the Platform

- a. Remove the Cabinet From Its Shipping Carton Inspect cabinet for any visible signs of damage in transit
- b. Filter Access Door Place the handle on the door using the two #6 x ½" screws provided.
   Note: Only one of the doors has holes to attach the handle. This door is to be located on the side of the cabinet where the homeowner has access for replacing the filter.
- **c. Filter Spacer** The filter spacer ⑤ is placed to the back of the filter track, closest to the door that is not accessible. The open side of the spacer will be against the door. (Not used on the AM11-2232-5PP)
- d. Adjustable Center Crossbar The center crossbar ① is secured to the platform with the formed flanges down. Position the crossbar in place, as indicated in the diagram, but do not secure it to the platform until the return air duct adjuster ② is in place. This crossbar can be adjusted to reduce the opening for a narrow air handler or furnace.
- **e. Duct Flanges** Bend the flat, duct flanges ③ upwards 90°. They will be used to secure the return air duct to the platform.
- f. Return Air Duct Adjuster The return air duct adjuster ② can be positioned to accommodate either 10"-12" duct (AM11-2240-5PP and AM11-2843-5PP models). The inlet duct size on models AM11-2232-5PP and AM11-2833-5PP is not adjustable. The formed flange of the return air duct adjuster ② should be facing up and is used to secure the return air duct to the platform. Once the adjuster is positioned correctly, secure it ② and the center crossbar ① to the platform using four, #8 x ¾" screws (provided). Use one screw to secure the adjuster to the crossbar.
- g. Return Air Duct Adaptor The duct adaptors ④ are used if you need to reduce the return air duct opening to 24". The adaptors are placed where shown in the diagram; holes will need to be drilled in the platform. Use the clearance holes on the adaptors as the locators to drill the platform holes. Do not drill holes elsewhere, as this may interfere with the door.

# **MAINTENANCE**



- h. Door Foam (AM11-2232-5PP only) To ensure a good seal between the door and the filter, install the gasket material (provided) on the rear door. Make sure the media filter is installed in the platform cabinet for the next step:
  - With a pencil, draw a line on the inside of the rear door along the top edge of the filter.
  - Remove the door and adhere the gasket to the door below the line that you drew.

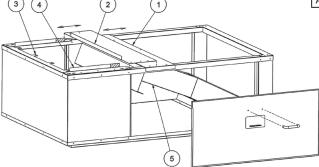
# 2. Mount the Air Handler or Furnace on the **Platform Air Cleaner**

Mount the furnace or air handler on the platform. Make sure rivets or screws do not protrude into the cabinet where they could catch on, and damage, the media filter. Secure the air handler or furnace to the platform using the screws provided

- 3. Secure the Return Air Duct to the Platform Air Cleaner Attach the return air duct to the platform by inserting screws through the holes in the duct flanges 3 and the return air duct adjuster ②.
- 4. **Seal Joints** Once the air handler or furnace and the duct are in place and secured, all joints must be properly sealed to prevent air leakage
- 5. **Transitions** This AM11 Series Air Cleaner is designed to fit directly under a furnace or air handler. No transitions between the ductwork and the air handler should be required.
- 6. **Turning Vanes** This air cleaner has a turning vane incorporated into its design, so field-supplied turning vanes are not required.

# To improve the performance of your air cleaner, these simple steps are recommended:

- Run your heating/cooling system fan continuously on low speed (if available), since your air cleaner only removes particulate matter when the system fan is operating.
- Ensure there are no obstructions to airflow (for example, from furniture or carpets) in front of the return air grilles so that air moves freely to the heating/cooling equipment.



#### Maintenance



# ∕!\ WARNING!

Turn off your heating and cooling system fan before performing maintenance to your air cleaner.

The media filter in this air cleaner should be changed once or twice a year based on conditions within the home. Since the indoor environment varies from home to home, it is recommended that the condition of the filter be checked six months after the air cleaner is installed to ensure it is not excessively loaded with particulates. If it is very heavily loaded, the filter should be changed more frequently than once per year. If the filter is not changed frequently enough, the accumulated particulates on the filter may cause a restriction to the air flow through the system.

This will reduce the air flow circulation in your heating and cooling system which could reduce occupant comfort, increase run time of the equipment, and increase energy costs to operate the system. If the filter is allowed to become extremely clogged with particulates, the cooling coil may freeze up in the summertime, or the heat rise across the furnace's heat exchanger may increase enough to shut off the furnace for safety reasons.

# To change the air cleaner filter:

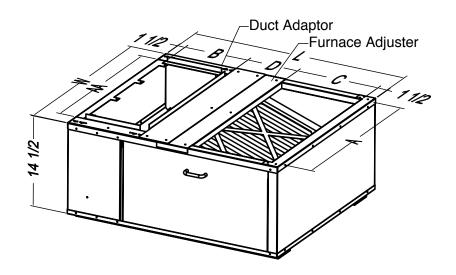
- 1. Remove air cleaner door.
- 2. Remove filter, place in a bag, seal it and discard.
- 3. Install new filter. Arrow must point toward the system fan. Mark the date on the new filter.
- 4. Replace the air cleaner cabinet door.

When replacement filters are required, contact the original installer or the contractor who services your heating and cooling equipment.

# **Replacement Media Filters**

Air Cleaner Model	Media Filter	Upgrade (MERV 14) filter
AM11-2232-5PP	AMP-M2-1056	N/A
AM11-2240-5PP	AMP-M8-1056	AMP-G8-1056
AM11-2833-5PP	AMP-M8-1056	AMP-G8-1056
AM11-2843-5PP	AMP-M8-1056	AMP-G8-1056

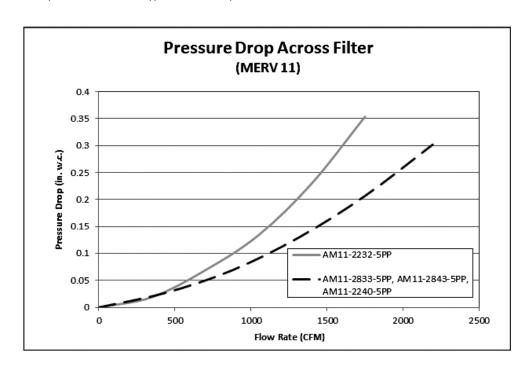




**Dimensions in Inches** 

Model	w	L	А	AA	В	(C) Size Range	(C) Prepunched Holes	(D) Range	Filter Size	Replacement Filter																																			
AM11-2833-5PP	28½	33	26	23¾* 26	10	12½ - 15½	12½ and 15½	4½ - 7½	20 x 25	AMP-M8-1056																																			
AB444 2042 EDD*	201/	43 26	26	23¾*	10	19 - 24½	19 and 22½	F1/ 11	20 25	A B A D B A O A O E C																																			
AM11-2843-5PP*	28½		43	/2 43	28/2   43	28/2 43	20/2 45	20/2 43	20/2 45	45	/2 45	43	43	43	43	26	43 20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	.5 20	45 20	20	20	20	20	20	45 20	26	12	19 - 22½	19 and 22½	5½ - 11	20 x 25
AM11-2232-5PP	22½	32	20	20	8	14¼ - 16¼	15% and 151%	4¾ -6¾	20 x 20	AMP-M2-1056																																			
AM11 2240 EDD	ANA 2240 FPD 221/ 40 20 20	20	10	20 - 22	20 and 22	5 - 8½ 20 x 2	20 % 25	AMP-M8-1056																																					
<b>AM11-2240-5PP</b> 22½ 40 20	20 20	20	12	16½ - 20	16½ and 20		20 X 25	AlviP-ivi8-1036																																					

<sup>\*</sup>Includes removable duct adaptors. Smaller dimension applies when duct adapters are installed



#### FILTRATION

# LIMITED WARRANTY



#### CLEAN COMFORT™ MEDIA AIR CLEANER LIMITED FIVE YEAR WARRANTY

This Clean Comfort™ product is warranted by Daikin North America LLC ("Daikin") to the original owner to be free from defects in material and workmanship, under normal use and maintenance, within its listed capacity, for a period of five years from the date of purchase, except however, for the disposable media filter, which will have to be replaced from time to time depending upon the use. This Clean Comfort™ product must not have been moved from the site of original installation. Daikin's exclusive obligation, and the owner's sole remedy, under this warranty shall be for Daikin to supply, without charge, a replacement for any covered part of the Air Cleaner which is found to be defective and is returned by the owner or a qualified servicing Daikin dealer prepaid, together with the serial number, date of installation, and proof of purchase. If the date of installation is unknown, Daikin will guarantee the unit for a period of sixty (60) months from the date of manufacture listed on the product's rating plate. Any part replaced pursuant to this warranty is warranted only for the unexpired portion of the warranty term applying to the original part.

THIS WARRANTY DOES NOT COVER ANY LABOR OR OTHER COSTS incurred for diagnosis, repairing, removing, installing, shipping, servicing, or handling of either defective parts or replacement parts.

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Some states and provinces do not allow limitations on how long an implied warranty lasts or the exclusions of consequential or

incidental damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or province to province.

#### DAIKIN WILL NOT BE RESPONSIBLE FOR:

- Normal maintenance including replacement of filters as outlined in the Installation and Maintenance Instructions.
- Damage or repairs needed as a consequence of any misapplication, faulty installation, abuse, improper servicing, unauthorized alteration, or improper operation.
- Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of Daikin.
- 4. Parts not supplied or designated by Daikin.
- 5. Products installed outside the continental U.S.A., Alaska, Hawaii and Canada.

Model No	
Serial No.	
Daka af Imakallasian	
Installed By	
Owner's Name & Address	

ATTENTION INSTALLING CONTRACTOR: IF FAILURE SHOULD OCCUR, DO NOT RETURN PRODUCT TO THE DISTRIBUTOR. CALL THE TOLL-FREE HOTLINE 1-800-267-8305.

# **Daikin North America LLC**

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FOR TECHNICAL ASSISTANCE, CALL THE AIR CLEANER HOTLINE TOLL FREE 1-800-267-8305





Our continuing commitment to quality products may mean a change in specifications without notice.



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