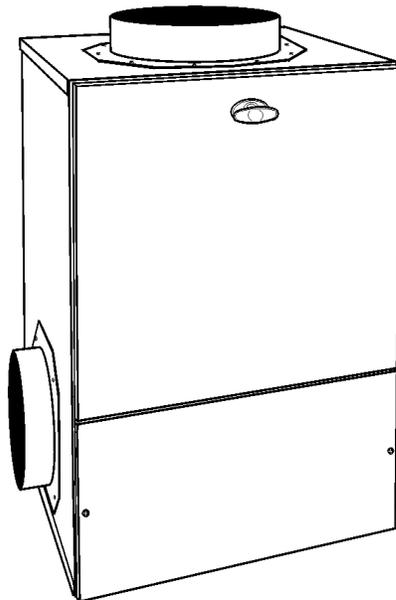


# INSTALLATION AND MAINTENANCE INSTRUCTIONS

## MODEL A-HEPA650, GHEPA650 WHOLE-HOUSE TRUE HEPA AIR CLEANER

*IMPORTANT: PLEASE READ MANUAL BEFORE OPERATING UNIT*



### Features

- Long-life, Certified True HEPA (High Efficiency Particulate Air) Filter is 99.97% efficient at removing particles 0.3 micron
- Activated Carbon Prefilter removes lint and unpleasant odors, to extend life of HEPA Filter
- Carbon VOC After Filter removes additional unpleasant odors and gases (optional)
- Easy-to-change filters
- Heavy gauge steel cabinet and powder-coat paint finish provide rigid installation and durability
- Powerful motor delivers 540 CFM of filtered air
- Small footprint for easier, more convenient installation
- Three air outlets for versatility
- Versatile installation can be freestanding, floor, ceiling or wall mounted

**FOR QUESTIONS REGARDING INSTALLATION, OPERATION & SERVICE,  
CALL THE AIR CLEANER HOTLINE TOLL-FREE  
1-800-267-8305**

## SAFETY CONSIDERATIONS

Read and follow instructions carefully. Follow all local electrical codes during installation. All wiring must conform to local and national electrical codes. Improper wiring or installation may damage the HEPA Air Cleaner.

Understand the signal words **WARNING** and **CAUTION** which are present in the Owner's Manual. **WARNING** and **CAUTION** signify a hazard which could result in property damage, personal injury or death.

### WARNING

Before beginning any installation or modification, be certain that the main line electrical disconnect switch is in the **OFF** position. Electric shock could result. Tag disconnect switch with suitable warning labels.

**Only a heating/air conditioning installer or qualified service person should install, repair, or service your Whole-House HEPA Air Cleaner.**

**Homeowners or untrained personnel can perform the basic maintenance functions of replacing filters.**

**When working on air cleaning equipment, observe precautions in the Owner's Manual, labels attached to the unit, and all safety precautions that may apply. Follow all safety codes. Wear safety glasses and work gloves.**

### WHAT THE HEPA AIR CLEANER DOES

The Whole-House HEPA Air Cleaner has been designed to remove particulate such as atmospheric and household dust, coal dust, insecticide dust, mites, pollen, mold spores, fungi, bacteria, viruses, pet dander, cooking smoke and grease, tobacco smoke and more. It also removes odors with the Carbon Prefilter.

### BENEFITS

- Helps provide relief from allergies, asthma, and other respiratory illness.
- Helps reduce housekeeping time and redecorating costs.
- Provides a healthier, more comfortable environment, year-round.

### HOW IT WORKS

Millions of airborne pollutants are carried through the return air ducts of the heating/cooling system. The HEPA Air Cleaner has been designed to be ducted to the return air duct. A portion of this return air is bypassed through a 12 inch intake duct on the top of the unit and passes through a 2-stage filtration system.

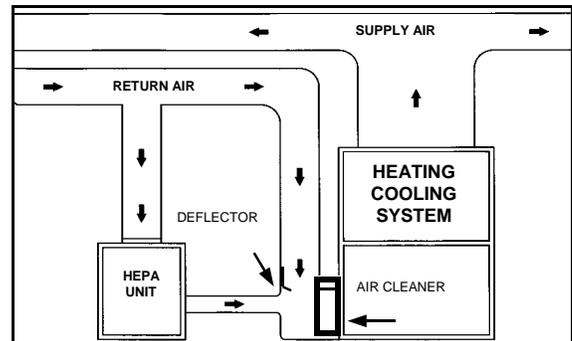
The Activated Carbon Prefilter (activated carbon impregnated polyester filter) first removes lint and odors before they enter the HEPA filter.

Smaller particles then pass through a long-life, True HEPA (High Efficiency Particulate Air) Filter which captures 99.97% of particles 0.3 micron (1/84,000 of an

inch) and larger. This HEPA filter has more than 133 ft<sup>2</sup> of collection surface area.

Clean air is discharged through an 8 inch duct, back into the return air duct.

## INSTALLATION



### WARNING

This unit must be installed on the return air side of the system only. Do not connect to supply side. Do not install in a cooking area or connect directly to any appliance.

### LOCATION

The HEPA Air Cleaner should be located as close to the return air duct as possible. This allows for shorter lengths of ducting which helps keep the static pressure lower. The unit can be adapted to mount on a wall or be suspended from the ceiling. Care should be taken to keep the unit away from an area where there is a possibility of moisture leaking on to it. Ensure there is 36 inches in front of the unit to remove the filters for cleaning or replacing.

**NOTE:** If the unit is going to be mounted on it's back you must contact the distributor for special mounting kit.

### GENERAL INSTALLATION STEPS

1. Remove any packaging or plastic from filters before installing. See Maintenance for instructions to remove the filters.
2. When the unit is shipped, the intake and exhaust collars are reverse mounted to prevent damage in shipping. The intake collar must be removed and reattached with the collar ring facing out. The exhaust collar can be mounted on one of three sides of the unit with the ring out. The other two sides will be covered with the exhaust covers. **These covers must be installed for the unit to operate properly.**
3. An inlet collar is provided on the unit to allow a flexible 12 inch intake duct, from the cold air return, to be attached. The 12 inch intake must be drawn from the cold air return duct at a location that will be ahead of the clean exhaust air, that will be returned to the duct from the Air Cleaner.

4. A duct adapter and a length of 12 inch flexible hose or duct is required to attach between the 12 inch intake collar and the existing cold air return duct. When running the hose, make sure that there are no kinks or sharp bends that will impede the air flow to the unit. Secure and seal the hose and connections to prevent air leakage.
5. The 8 inch exhaust collar can be conveniently mounted on one of three sides of the unit. A duct adapter and a length of 8 inch flexible hose or duct is required to attach between the exhaust collar and the existing cold air return. The exhaust hose should be attached to the return air duct, close to the furnace. The ideal location is low on the return air boot pointing at the furnace. To prevent air shear inside the duct, it is recommended that you install a deflector inside the boot, so the discharged air is deflected down into the boot. When running the hose, make sure that there are no kinks or sharp bends that will impede the air flow from the unit. Secure and seal the hose and connections to prevent air leakage.
6. It is important to maintain some distance between the intake and the exhaust openings in the return air duct. Failure to do this may result in short cycling between the intake and the clean air discharge. It is recommended you leave 10 feet between the intake and the exhaust; however, as little as 6 feet will work effectively. If the distance is smaller than 6 feet, it is important that an air deflector is installed in the duct.
7. If outside air is introduced into the return air duct, either through a HRV (Heat Recovery Ventilator) or direct, it should be added to the system before the intake inlet to the Air Cleaner.

## OPERATING INSTRUCTIONS

### WARNING

Never use the unit without all of the filters in place.

The HEPA Air Cleaner is designed to run continuously to provide clean, filtered air 24 hours a day. The fan on the heating/cooling system, to which the HEPA Air Cleaner is dependent on for circulated air, should be on 'continuous'.

**Note:** *If the system fan setting is on 'automatic', it is recommended the HEPA Air Cleaner be operated through an air switch or relay to turn the Air Cleaner off, when there is no system fan on.*

The unit plugs into a regular 120 volt outlet and is controlled by a switch located on the rear panel, near the cord.

**Note:** *Do not allow the cord to be placed where it may be walked on or allow anything to roll over it.*

The door must be secured for the Air Cleaner to operate. All filters must be in place for the unit to operate properly.

## MAINTENANCE

### CAUTION

Make sure to turn Air Cleaner **OFF** before performing any maintenance or removing any components.

For efficient operation, the filters must be changed on a regular basis. If you notice a reduction in air flow from the system, check the filters.

1. To access the filters, turn the Air Cleaner **OFF** at the switch and remove the front door.
2. Release the filter hold down bar by pulling it forward one side at a time.
3. Carefully remove filters to avoid spilling of collected contaminants. Dispose of filters in a plastic bag and discard with regular household trash.
4. Remove plastic from new filters before installing. Discard plastic safely. Take care not to damage the filters.
5. Date the replacement filter in the space provided.
6. Place the Carbon prefilter around the HEPA filter and secure with the Velcro.
7. Ensure the open end of the HEPA filter is toward the motor.
8. Replace the filter hold down bar by placing one side under the bracket on the side of the cabinet. Once you have one side started force the bar under the bracket on the other side of the cabinet. This insures the filter has a good seal.
9. Use genuine replacement filters only. Call the original installer for parts.

**Note:** *When the filters are new, you may notice a new smell from the system. This is normal and will dissipate within a few days.*

**Carbon Prefilter:** This must be replaced every 3 - 6 months and may be vacuumed between changes. Use a soft brush attachment when cleaning. If there are heavy odors in the home from cooking, smoking, painting or other sources, the filter will require changing more often.

**True HEPA Filter:** Replace every 2-4 years. The life of this filter depends on the amount of contaminants in the air and the frequency in which the prefilter has been changed. Renovations in the home that create wood, drywall dust or similar contaminants will shorten the life expectancy of the HEPA filter. To improve airflow, the HEPA filter can be vacuumed between changes, preferably outdoors. Use a soft brush attachment for vacuuming this filter.

**Note:** *Handle the HEPA filter by the frame only. The paper is fragile and a puncture or tear will reduce efficiency.*

**VOC After Filter (optional):** This filter is positioned inside the HEPA filter, and must be replaced every 6-12 months. If there are heavy odors in the home from cooking, smoking, painting or other sources, the filter may require changing more often.

## TECHNICAL DATA

Dimensions	Length Width Height	18 in 18 in 31 in	45.7 cm 45.7 cm 78.7 cm
Intake		12 in	30.5 cm
Outflow		8 in	20.3 cm
Unit Weight		57 lbs	25.9 kg
Input Voltage		120 v 60 hz	
Power Consumption		215 watts	
Air Flow		540 cfm	918 m <sup>3</sup> /hr
Power Cord		9.0 ft	2.74 m
Filter Dimensions	Carbon Prefilter HEPA Filter Carbon VOC After Filter	47 x 15.5 x 0.25 in 16 (H) x 14.25 (Dia) x 2.375 in 26.63 x 15.5 x 0.5 in	119.4 x 39.4.2 x 0.63 cm 40.6 x 36.2 x 6 cm 67.6 x 39.4 x 1.3 cm
Carbon Prefilter Collecting Surface Area		4.98 ft <sup>2</sup>	0.46 m <sup>2</sup>
HEPA Collecting Surface Area		133 ft <sup>2</sup>	12.4 m <sup>2</sup>
Carbon VOC After Filter (optional) Surface Area		2.87 ft <sup>2</sup>	0.27 m <sup>2</sup>

### WHOLE-HOUSE HEPA AIR CLEANER LIMITED FIVE (5) YEAR WARRANTY

**FIVE YEAR WARRANTY** - This GOODMAN product is warranted to be free from electrical and mechanical defects in material and workmanship, under normal use and maintenance within its listed capacity, for a period of FIVE (5) years from the date of purchase, excluding the fan/motor assembly which is warranted for ONE (1) year from the date of purchase. This warranty does not include the Carbon Prefilter, HEPA or VOC Filter. This GOODMAN product must not have been moved from the site of original installation. A new or remanufactured part to replace the defective part will be provided without charge for the part itself, through an authorized GOODMAN service dealer, provided the defective part is returned to the GOODMAN distributor **prepaid**. The replacement part assumes the unused portion of the warranty. **Proof of Purchase and Installation** must be provided. Failing this, GOODMAN MANUFACTURING COMPANY, L.P. will guarantee the unit for a period of sixty (60) months from the date of manufacture, according to the manufacturer's records and the conditions within this warranty.

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

**LIMITATIONS OF WARRANTY** - THE EXPRESS WARRANTIES CONTAINED HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES. IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY ARE LIMITED TO THE DURATION OF THE WARRANTY DESCRIBED HEREIN. CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OF ANY WARRANTY WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO LOSSES TO PERSONS OR PROPERTY ARISING OUT OF THE FAILURE OF THIS EQUIPMENT TO OPERATE FOR ANY REASON WHATSOEVER ARE EXCLUDED. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER OR OTHER PERSON WHATSOEVER.

Some states 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.

**GOODMAN MANUFACTURING COMPANY, L.P. WILL NOT BE RESPONSIBLE FOR:**

1. Normal maintenance as outlined in the Installation And Maintenance Instructions including cleaning and/or replacement of filters.
2. Damage or repairs needed as a consequence of any misapplication, negligent handling, improper servicing, unauthorized alteration, or improper operations.
3. Damage or repairs required as a consequence of faulty installation or application by others.
4. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
5. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of GOODMAN MANUFACTURING COMPANY, L.P.
6. Parts, including filters, not supplied or designated by GOODMAN MANUFACTURING COMPANY, L.P.
7. GOODMAN MANUFACTURING COMPANY, L.P. products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.

Model No.

Serial No.

Date Of Installation

Installed By

Owner's Name & Address

RETAIN THIS CERTIFICATE WITH YOUR VALUABLE DOCUMENTS

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

**GOODMAN MANUFACTURING COMPANY, L.P.**  
2550 North Loop West, Suite 400, Houston, Texas 77092  
**FOR MORE INFORMATION, CALL THE AIR CLEANER HOTLINE TOLL FREE**  
**1-800-267-8305**