



Mechanical Systems

Part I – HVAC

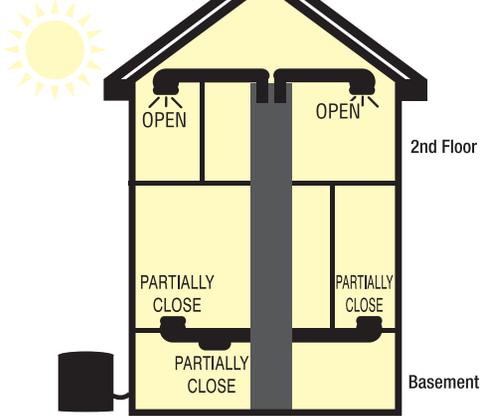
Ryan
Homes

Welcoming families home
for over 65 years.

7 THINGS YOU CAN DO TO IMPROVE HOME COMFORT

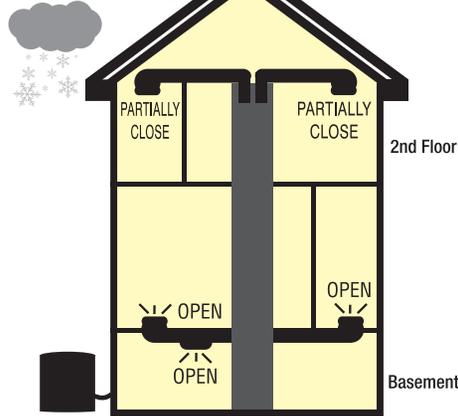
AVOID UNNECESSARY CHARGES BY TRYING THE FOLLOWING STEPS

1. Summer Months Register Setting



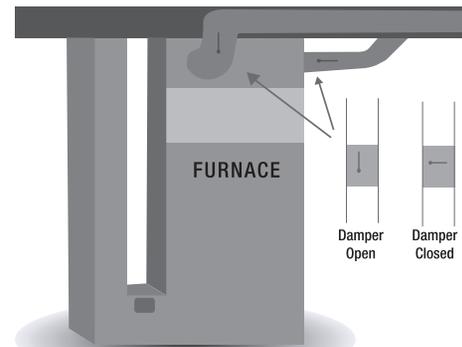
During warm outside temperatures, **OPEN** registers on upper floor and **PARTIALLY CLOSE** registers on first floor &/or basement.

Winter Months Register Setting



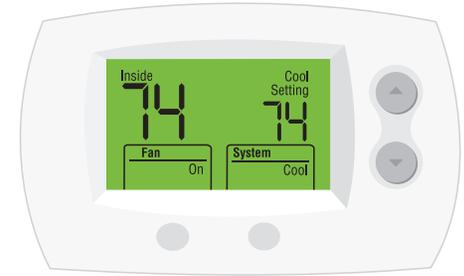
During cold outside temperatures, **PARTIALLY CLOSE** registers on upper floor and **OPEN** registers on first floor &/or basement.

2. Additional Seasonal Balancing



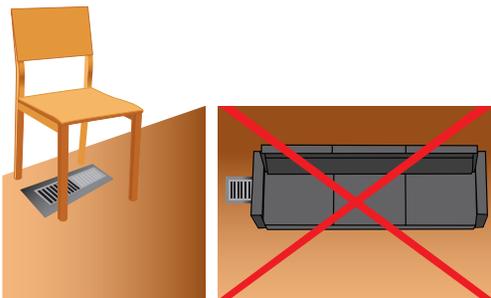
If additional seasonal balancing is required, open or close ductwork dampers as needed. Similar to pictures 1 per season.

3. Place thermostat fan setting to "ON"



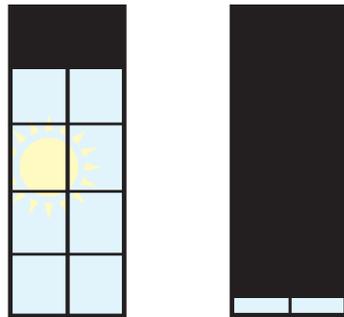
Leaving the fan "ON" balances the temperature throughout the areas in the home.

4. Prevent Airflow Restrictions



Do not cover registers with furniture or other large items that block airflow.

5. Reduce Summer Solar Heating



Closing blinds and shades will help keep heat from infiltrating rooms.

6. Maintain Proper Airflow



Make sure you check your furnace filter once a month.

7. Anticipate Cooling Needs In Advance



Precool the house prior to events with many people.



Air Conditioning & Heating



IT'S TIME TO RAISE YOUR EXPECTATIONS.

Meet
Goodman:

The best HVAC brand
you've never heard of.
.....

You may not know the Goodman® brand...

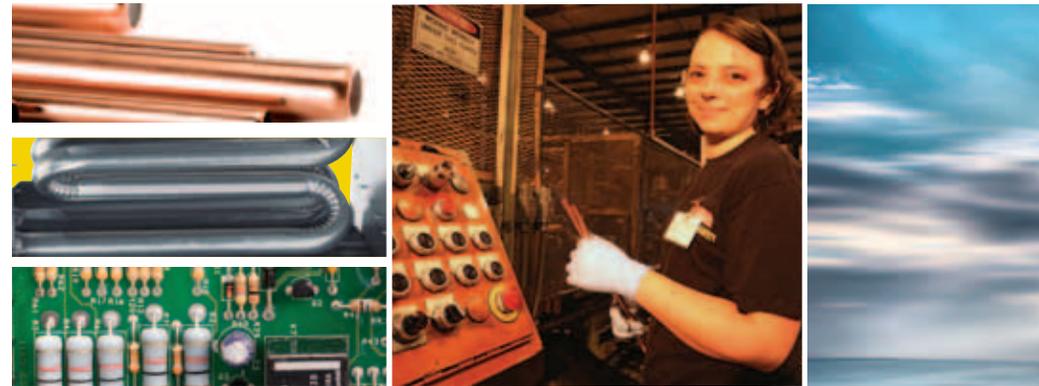
But, for indoor comfort, millions and millions of homeowners rely on us every day.

Don't be alarmed if you've never heard of the Goodman brand of air conditioning and heating products and systems.

That's understandable, because for over three decades, the Goodman® brand has concentrated on something more important than simple brand-recognition consumer advertising. And that's the design, engineering, and manufacture of dependable products that have helped millions and millions of homeowners achieve reliable, high-quality, and affordable indoor comfort. In addition, the Goodman brand has earned the loyalty and respect from thousands of local independent heating and cooling professionals across North America.

We believe that your local HVAC (Heating, Ventilation and Air Conditioning) professional knows best about your specific indoor comfort needs and indoor air quality solutions. When they recommend a Goodman brand product, rest assured that you and your family will soon be receiving great indoor comfort, at a refreshingly affordable price.

Independent HVAC contractors have access to a wide variety of heating and air conditioning brands. And they have to stand behind the brand that they recommend 100%, or suffer the consequences of unhappy customers.



Most homeowners have no idea of the brand name of their central heating and cooling system that is installed in their home. It's a purchase many homeowners make just once or twice in their life typically. And as luck would have it, it's usually on a very hot or very cold day. On the other hand, your local HVAC dealer recommends and installs Goodman brand heating and cooling systems every day!

Making the grade

And as further proof that the Goodman brand is making the grade with satisfied homeowners, it was awarded the A+ rating by the Better Business Bureau. This is the highest rating possible.





Thank goodness for Goodman®



Time-tested Performance

The efficient movement of heat is a basic premise of the HVAC industry. Whether it's the removal of heat in conjunction with cooling products or the creation of heat for warmth, the HVAC world revolves around the thermodynamics of heat transfer. As your local HVAC dealer knows, the Goodman brand is recognized as a heat transfer expert. Investing in research and development is integral to the Goodman brand's success.

Look to it for a wide array of unique product features and enhancements that reinforce the durability and reliability of the entire Goodman brand product line, such as:

- the industry's only dual-diameter, tubular gas furnace heat exchanger, with a unique design that brings new meaning to durability;
- high-efficiency air conditioners and heat pumps with the Goodman brand's unique SmartCoil® condensing coil – the most advanced and efficient 5mm copper tube and aluminum fin combination available;
- ComfortNet™ Communicating Control systems that help high-efficiency systems run their absolute best and offer homeowners new levels of control and operational precision;
- unique All-Aluminum evaporator coils that help to eliminate a leading cause of premature copper evaporator coil failures;
- heat pumps that today offer homeowners new levels of control and operational precision;
- a full line of indoor air quality products that offer advanced filtration, humidification, ventilation, and purification for any home;
- high-performance commercial heating and cooling products and systems that are providing comfortable indoor environments for businesses, restaurants and stores coast-to-coast.

Committed to Quality

There's good reason that thousands of the nation's HVAC professionals recommend the Goodman brand. Dealers are completely comfortable that Goodman brand products will keep their customers satisfied and enhance their reputation. Goodman brand manufacturing facilities are ISO 9001-certified, an independent standard accepted worldwide as the benchmark for quality manufacturing and management processes, and ISO 14001-certified, an international environmental certification.

Before purchasing this appliance, read important information about its estimated annual energy consumption, yearly operational cost, or energy efficiency rating that is available from your retailer.

Trust the Experts

When it comes to recommending a brand for your cooling and heating needs, your local HVAC professional knows best. After all, they are the experts, the ones in the field who can accurately evaluate your specific needs and solutions. You may not know the brand of brake pads your trusted mechanic installed, but you trust your mechanic to make your vehicle perform the way it was meant to. Each HVAC installation is unique, and your local, independent HVAC professional knows which HVAC brands are best suited to your specific indoor comfort needs.

So it's okay if you don't know about the Goodman® brand. Thousands of the country's most experienced heating and air conditioning professionals trust it to

perform each and every day, year after year. Their recommendations have been keeping millions and millions of North American households comfortable since day one.

As Goodman CEO David Swift says, "We stay focused on a few basic goals: build more reliable, longer-lasting products than anyone else; make durable cooling and heating products and systems as affordable as possible and design everything for quick, trouble-free installations. Those values have led the Goodman brand this far and they will lead us into the future."

For more information on Goodman brand air conditioning and heating products, visit www.goodmanmfg.com or contact your local HVAC contractor.



Air Conditioning & Heating

Our continuing commitment to quality products may mean a change in specifications without notice. © 2012 Goodman Manufacturing Company, L.P. · Houston, Texas · USA

www.goodmanmfg.com



CB-DNG-1 09-12

NEW

We've taken the Goodman® brand website to a whole new level.

www.goodmanmfg.com



WARRANTY REGISTRATION
LEARN MORE



HEATING AND COOLING 101
LEARN MORE



ENERGY SAVINGS ESTIMATOR
LEARN MORE



COMMERCIAL PRODUCTS
LEARN MORE



ENVIRONMENTAL RESPONSIBILITY
LEARN MORE



TAX CREDITS
LEARN MORE

Take a Quick Click Tour Today!

We've added great new features. Navigating has never been so easy.

From all-new search buttons to all-new ways to learn about our products, the revised Goodman brand website makes learning about our products and finding our dealers a pleasure.

What's new at home

On our redesigned home page you'll be able to:



Full Product Details. Get complete product descriptions for all residential, commercial, and international lines. Each dedicated page includes product-specific brochures, limited warranties and technical specification information.

View Dynamic Video Content. Tune in for company updates and new information.

Find a Dealer. Use the Dealer Locator by simply typing in a zip code.

Hit Quick Links. The easy-to-navigate graphic interface gives you total control to search:

- Residential and commercial products
- Warranty information
- Product rebates
- When to repair or replace a unit

Environmental Compliance. Learn how Goodman brand products are envied by Mother Nature.



Visit us. We look great.

Branded Look. We've updated our look with clean, consistent graphic navigation.

Check out some of our new features:

Print-ready web pages. No matter if you want to print our pdf files directly from your own desktop printer or wish to print them at a nearby service center, these pages are ready to go when you are.



Bookmark and Email Capabilities.

- Bookmark pages to refer to later
- Email individual pages to customers

Product Pages. Get specific details on individual products organized by product line, model number and category. Everything you need to choose the right equipment is just clicks away.



FAQ Section. Get answers to frequently asked questions.

Energy Savings Calculator. You tell us about the home or business and the heating and cooling system. And we calculate what your annual energy savings will be annually and your 10-year extended savings estimate. It's that simple.



Limited Warranties. Register a product and get an in-depth look at extended service plans.



Dealer Locator. Find a Goodman brand dealer near you. "Find a Dealer" tab is located on each page within each section.



Be sure to check out Partnerlink for full dealer and distributor sales support.

<http://partner.goodmanmfg.com>

Ask your distributor for your user name and password information.



Air Conditioning & Heating

www.goodmanmfg.com

URGENT!

TIME-SENSITIVE INFORMATION ABOUT YOUR GOODMAN® BRAND CENTRAL HEATING AND COOLING SYSTEM!
REGISTER NOW FOR A **10-YEAR PARTS LIMITED WARRANTY!***

Congratulations on the purchase of your new indoor comfort system. Because you wanted to have one of the best comfort systems available, a Goodman® brand system has been installed in your home. We are confident that your central heating and cooling system will provide years and years of dependable comfort to you and your family. By simply registering your equipment within **60-days** after closing, it may qualify for an **Extended Limited Warranty.***



How to Register Your System.

The process takes just a few minutes to complete.*

1. Log on to www.goodmanmfg.com.
2. Select the "Product Registration" tab.
3. Complete the request information, using the serial numbers listed on the label located on the indoor unit.
4. Print a copy of your registration confirmation for your records.

* Failure to register within 60 days results in standard warranty coverage only.



* Complete warranty details available from your local dealer or at www.goodmanmfg.com. To receive the Lifetime Compressor and Lifetime Heat Exchanger Limited Warranties (both good for as long as you own your home) and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Quebec.



SYSTEM #1:

INDOOR UNIT SERIAL NUMBER

OUTDOOR UNIT SERIAL NUMBER

COIL SERIAL NUMBER

SYSTEM #2:

INDOOR UNIT SERIAL NUMBER

OUTDOOR UNIT SERIAL NUMBER

COIL SERIAL NUMBER

Thank goodness for Goodman.®

LIMITED WARRANTY

Models: ACNF, ADPF, AEPF, AVPTC, AR, ARPF, ARPT, ARUF, ATUF, ASPF, ASPT, ASUF, AWUF, MBE, MBR, MBVC

This heating or air conditioning unit, if installed in an owner-occupied residence, is warranted by Goodman Manufacturing Company, L.P. ("Goodman") to be free from defects in materials and workmanship under normal use and maintenance as described below:

- **To the original registered owner** and his or her spouse ("owner"), **all parts** are warranted for a period of **10 YEARS** or for so long as the owner owns the home in which the unit was originally installed (whichever ends first), except as provided below. This warranty applies only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click on "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.
- If the above warranty does not apply, then **all parts** are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

Units installed in buildings other than owner-occupied residences are separately warranted in either Goodman's Multi-Family Residence Warranty (if installed in a multi-family residence not occupied by the owner) or Goodman's Commercial Warranty (if installed in a non-residential building). The Multi-Family Residence Warranty covers all parts for either 10 years (if the unit has been properly registered) or 5 years (if it is not). The Commercial Warranty covers all parts for 5 years. For a copy of either the Multi-Family Residence Warranty or the Commercial Warranty, write to Goodman Manufacturing Company, L.P., 7401 Security Way, Houston, Texas 77040, Attn: Warranty Administration.

Regardless of time of registration, the warranty period begins on the date of the original installation. Where a product is installed in a newly constructed residence, the date of installation is the date the owner purchased the residence from the builder. If that date cannot be verified, the warranty period begins three months after the month of manufacture (indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

This warranty is in lieu of all other express warranties. **ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.** Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

GOODMAN SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGES TO PROPERTY. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.

2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state or province to province.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

MODEL # & SERIAL #

INSTALLATION DATE



Part No. PWCAHPJ
3/2013

Printed in the USA

For further information about this warranty, contact Goodman Consumer Affairs at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

MULTI-FAMILY RESIDENCE WARRANTY

Models: ACNF, ADPF, AEPF, AVPTC, AR, ARPF, ARPT, ARUF, ATUF, ASPF, ASPT, ASUF, AWUF, MBE, MBR, MBVC

This warranty applies only to units installed in multi-family residences that are not owner-occupied. A distinct warranty applies to units installed in owner-occupied residences, including multi-family owner-occupied residences.

The unit models listed above, if installed in residences that are not owner-occupied, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- **To the original registered owner, all parts** are warranted for a period of **10 YEARS**, except as provided below. This warranty applies only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.
- If the above warranty does not apply, then **all parts** are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

Regardless of time of registration, each warranty period referred to above begins on the date of the original installation of the unit. If that date cannot be verified, each warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yymm)).

As its only responsibility, and the customer's only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.

4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

MODEL # & SERIAL #

INSTALLATION DATE

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No. PWCAHPJ-MFR
3/2013

Printed in the USA

For further information about this warranty, contact Goodman Consumer Affairs
at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

COMMERCIAL WARRANTY

Models: ACNF, ADPF, AEPF, AVPTC, AR, ARPF, ARPT, ARUF, ATUF, ASPF, ASPT, ASUF, AWUF, MBE, MBR, MBVC

This warranty applies only to units installed in buildings other than residences. Distinct warranties apply to units installed in residences.

The unit models listed above, if installed in buildings other than residences, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- **To the original owner, all parts are warranted for a period of 5 YEARS.**

This warranty does not continue after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

The warranty period begins on the date of the original installation. If that date cannot be verified, the warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yymm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.

7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

MODEL # & SERIAL #

INSTALLATION DATE

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No. PWCAHPJ-COM
3/2013

Printed in the USA

For further information about this warranty, contact Goodman Consumer Affairs
at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

LIMITED WARRANTY

Models: GMV8, GMVC8, GCH9, GCH95, GDH8, GME8, GMH8, GMV9, GMS95, GMH95, GMV95, GMVC95, GMVM96, GCV9, GCVC9, GCVC95, GCVM96, GME95

This heating or air conditioning unit, if installed in an owner-occupied residence, is warranted by Goodman Manufacturing Company, L.P. ("Goodman") to be free from defects in materials and workmanship under normal use and maintenance, as described below:

- **To the original registered owner** and his or her spouse ("owner"), the **HEAT EXCHANGER** is warranted for the owner's **LIFETIME** or for so long as the owner owns the residence in which the unit was originally installed (whichever ends first), and **all remaining parts** are warranted for a period of **10 YEARS**, except as provided below. These warranties apply only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.
- If the above warranties do not apply, then the **HEAT EXCHANGER** of any such unit is warranted for a period of **20 YEARS**, and **all remaining parts** of the unit are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies or licensing requirements.

Units installed in buildings other than owner-occupied residences are separately warranted in either Goodman's Multi-Family Residence Furnace Warranty (if installed in a multi-family residence not occupied by the owner) or Goodman's Commercial Furnace Warranty (if installed in a non-residential building). The Multi-Family Residence Furnace Warranty covers the heat exchanger for 20 years and the remaining parts for either 10 years (if the unit has been properly registered) or 5 years (if it is not). The Commercial Furnace Warranty covers the heat exchanger for 20 years and the remaining parts for 5 years. For a copy of either the Multi-Family Residence Furnace Warranty or the Commercial Furnace Warranty, write to Goodman Manufacturing Company, L.P., 7401 Security Way, Houston, Texas 77040, Attn: Warranty Administration.

Regardless of time of registration, the warranty period begins on the date of the original installation. Where a product is installed in a newly constructed residence, the date of installation is the date the owner purchased the residence from the builder. If that date cannot be verified, the warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and your only remedy, Goodman will furnish (i) a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance, or (ii) for a heat exchanger that is covered by the lifetime warranty and that fails in the first 10 years, a new, equivalent furnace. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state certified or licensed contractor. Any part replaced pursuant to this warranty is warranted only for the unexpired portion of the warranty term applying to the original part.

These warranties do not apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges.

These warranties are in lieu of all other express warranties. **ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.** Some states and provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

GOODMAN SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGES TO PROPERTY. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Use of components or accessories not compatible with this unit.
4. Products installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement and lubrication.
6. Parts not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Units operated in incomplete structures.
12. Damage or repairs required as a result of the use of used or recycled refrigerant.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state or province to province.

Owner Name _____

Address of Installation _____

City/State-Province/ _____

Zip-Postal Code _____

Installer Name _____

City/State-Province/ _____

Zip-Postal Code _____

Phone # / Fax # _____

Distributor Name _____

City/State-Province/ _____

Zip-Postal Code _____

Phone # / Fax # _____

Model # & Serial # _____

Installation Date _____



Part No. PWCFURNUH
Printed in USA
12/2012

For further information about this warranty, contact Goodman Consumer Affairs at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

MULTI-FAMILY RESIDENCE FURNACE WARRANTY

Models GMV8, GCH9, GCH95, GDH8, GME8, GMH8, GMV9, GMS95, GMH95, GMV95, GMVC95, GMVM96, GCV9, GCVC9, GCVC95, GCVM96, GME95

This warranty applies only to units installed in multi-family residences that are not owner-occupied. A distinct warranty applies to units installed in owner-occupied residences, including multi-family owner-occupied residences.

The unit models listed above, if installed in residences that are not owner-occupied, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- To the original owner, the heat exchanger is warranted for **20 YEARS** or for so long as the owner owns the residence in which the unit was originally installed (whichever ends first).
- To the original registered owner, all parts other than the heat exchanger are warranted for a period of **10 YEARS**. That warranty applies only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration." If the original owner fails to register the unit, then all parts of the unit other than the heat exchanger are warranted for a period of **5 YEARS**. Failure by owners of multi-family residences located in California and Quebec to complete the product registration form does not diminish their warranty rights.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies or licensing requirements.

Regardless of time of registration, each warranty period referred to above begins on the date of the original installation of the unit. If that date cannot be verified, each warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and the customer's only remedy, Goodman will furnish (i) a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance, or (ii) for a heat exchanger that is covered by the 20-year warranty, a new, equivalent furnace. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state certified or licensed contractor. Any part replaced pursuant to this warranty is warranted only for the unexpired portion of the original warranty term.

The warranties do not apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges.

Goodman is not responsible for:

1. Damage or repairs required as a result of faulty installation or application,
2. Damage or repairs required as a result of floods, fires, wind, lightning, accidents, corrosive atmosphere or other conditions beyond Goodman's reasonable control,

3. Damage or repairs required as a result of the use of components or accessories not compatible with the unit,
4. Units installed outside of the United States and Canada,
5. Normal maintenance, as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication, or damage caused by failure to perform such maintenance,
6. Parts or accessories not supplied or designated for use by Goodman,
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing,
8. Damage or failure to start due to interrupted and/or inadequate electrical service,
9. Changes in the appearance of the unit that do not affect its performance,
10. Replacement of fuses and replacement or resetting of circuit breakers,
11. Damage caused by use in incomplete buildings, or
12. Damage or repairs required as a result of the use of used or recycled refrigerant.

Owner Name _____

Address of Installation _____

City/State-Province/ _____

Zip-Postal Code _____

Installer Name _____

City/State-Province/ _____

Zip-Postal Code _____

Phone # / Fax # _____

Distributor Name _____

City/State-Province/ _____

Zip-Postal Code _____

Phone # / Fax # _____

Model # & Serial # _____

Installation Date _____

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No.
PWCFURNUH-MFR
Printed in USA
12/2012

For service, contact an Authorized Goodman® Brand Servicer.

For answers to questions regarding the above or to locate an authorized servicer, contact:

Consumer Affairs Department • 7401 Security Way, Houston, Texas 77040.

1-877-254-4729 inside U.S.A. • 1-713-861-2500 outside U.S.A.

COMMERCIAL FURNACE WARRANTY

Models GMV8, GCH9, GCH95, GDH8, GME8, GMH8, GMV9, GMS95, GMH95, GMV95, GMVC95, GMVM96, GCV9, GCVC9, GCVC95, GCV96, GME95

This warranty applies only to units installed in buildings other than residences. Distinct warranties apply to units installed in residences.

The unit models listed above, if installed in buildings other than residences, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- To the original owner, the heat exchanger is warranted for **20 YEARS** or for so long as the owner owns the building in which the unit was originally installed (whichever ends first), and
- To the original owner, all parts other than the heat exchanger are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies or licensing requirements.

Each warranty period referred to above begins on the date of the original installation of the unit. If that date cannot be verified, each warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and the customer's only remedy, Goodman will furnish (i) a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance, or (ii) for a heat exchanger that is covered by the 20-year warranty, a new, equivalent furnace. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state certified or licensed contractor. Any part replaced pursuant to this warranty is warranted only for the unexpired portion of the original warranty term.

The warranties do not apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Use of components or accessories not compatible with this unit.
4. Products installed outside the United States or its territories, or Canada.

5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement and lubrication.
6. Parts not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Units operated in incomplete structures.
12. Damage or repairs required as a result of the use of used or recycled refrigerant.

Owner Name _____

Address of Installation _____

City/State-Province/ _____

Zip-Postal Code _____

Installer Name _____

City/State-Province/ _____

Zip-Postal Code _____

Phone # / Fax # _____

Distributor Name _____

City/State-Province/ _____

Zip-Postal Code _____

Phone # / Fax # _____

Model # & Serial # _____

Installation Date _____

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No.
PWCFURNUH-COM
Printed in USA
12/2012

For service, contact an Authorized Goodman® Brand Servicer.

For answers to questions regarding the above or to locate an authorized servicer, contact:

Consumer Affairs Department • 7401 Security Way, Houston, Texas 77040.

1-877-254-4729 inside U.S.A. • 1-713-861-2500 outside U.S.A.

LIMITED WARRANTY

Models: GSX11, GSX13, GSX16, VSX13, GSZ11, GSZ13, VSZ13, GPH, GPC

This heating or air conditioning unit, if installed in an owner-occupied residence, is warranted by Goodman Manufacturing Company, L.P. ("Goodman") to be free from defects in materials and workmanship under normal use and maintenance as described below:

- **To the original registered owner** and his or her spouse ("owner"), **all parts** are warranted for a period of **10 YEARS** or for so long as the owner owns the home in which the unit was originally installed (whichever ends first), except as provided below. This warranty applies only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.
- If the above warranty does not apply, then **all parts** are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

Units installed in buildings other than owner-occupied residences are separately warranted in either Goodman's Multi-Family Residence Warranty (if installed in a multi-family residence not occupied by the owner) or Goodman's Commercial Warranty (if installed in a non-residential building). The Multi-Family Residence Warranty covers all parts for either 10 years (if the unit has been properly registered) or 5 years (if it is not). The Commercial Warranty covers all parts for 5 years. For a copy of either the Multi-Family Residence Warranty or the Commercial Warranty, write to Goodman Manufacturing Company, L.P., 7401 Security Way, Houston, Texas 77040, Attn: Warranty Administration.

Regardless of time of registration, the warranty period begins on the date of the original installation. Where a product is installed in a newly constructed residence, the date of installation is the date the owner purchased the residence from the builder. If that date cannot be verified, the warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

This warranty is in lieu of all other express warranties. **ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.** Some states and provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

GOODMAN SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGES TO PROPERTY. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state or province to province.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

MODEL # & SERIAL #

INSTALLATION DATE

Part No. PWCACHPPH
3/2013

Printed in USA

For further information about this warranty, contact Goodman Consumer Affairs at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.



MULTI-FAMILY RESIDENCE WARRANTY

Models: GSX11, GSX13, GSX16, VSX13, GSZ11, GSZ13, VSZ13, GPH, GPC

This warranty applies only to units installed in multi-family residences that are not owner-occupied. A distinct warranty applies to units installed in owner-occupied residences, including multi-family owner-occupied residences.

The unit models listed above, if installed in residences that are not owner-occupied, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- **To the original registered owner, all parts** are warranted for a period of **10 YEARS**, except as provided below. This warranty applies only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.
- If the above warranty does not apply, then **all parts** of the unit are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

Regardless of time of registration, each warranty period referred to above begins on the date of the original installation of the unit. If that date cannot be verified, each warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and the customer's only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

MODEL # & SERIAL #

INSTALLATION DATE

Part No. PWCACHPPH-MFR
3/2013

Printed in USA

For further information about this warranty, contact Goodman Consumer Affairs
at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

COMMERCIAL WARRANTY

Models: GSX11, GSX13, GSX16, VSX13, GSZ11, GSZ13, VSZ13, GPH, GPC

This warranty applies only to units installed in buildings other than residences. Distinct warranties apply to units installed in residences.

The unit models listed above, if installed in buildings other than residences, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- **To the original owner, all parts** are warranted for a period of **5 YEARS**.

This warranty does not continue after the unit is removed from the location where it was originally installed.

This warranty does not apply to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

The warranty period begins on the date of the original installation. If that date cannot be verified, the warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yymm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.

6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

MODEL # & SERIAL #

INSTALLATION DATE

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No. PWCACHPPH-COM
3/2013

Printed in USA

For further information about this warranty, contact Goodman Consumer Affairs
at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

LIMITED WARRANTY

Models: **SSX14, SSX16, SSZ14, SSZ16**

This heating or air conditioning unit, if installed in an owner-occupied residence, is warranted by Goodman Manufacturing Company, L.P. ("Goodman") to be free from defects in materials and workmanship under normal use and maintenance as described below:

• **To the original registered owner** and his or her spouse ("owner"), the **COMPRESSOR** is warranted for the owner's **LIFETIME** or for so long as the owner owns the home in which the unit was originally installed (whichever ends first) and **all remaining parts** are warranted for a period of **10 YEARS**, except as provided below. This warranty applies only if both (i) for lifetime warranty coverage on the compressor, the unit is installed with a new outdoor coil or air handler to which it is properly matched by the installer and (ii) the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.

• If the above warranty does not apply, then **all parts** are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

Units installed in buildings other than owner-occupied residences are separately warranted in either Goodman's Multi-Family Residence Warranty (if installed in a multi-family residence not occupied by the owner) or Goodman's Commercial Warranty (if installed in a non-residential building). The Multi-Family Residence Warranty covers all parts for either 10 years (if the unit has been properly registered) or 5 years (if it is not). The Commercial Warranty covers all parts for 5 years. For a copy of either the Multi-Family Residence Warranty or the Commercial Warranty, write to Goodman Manufacturing Company, L.P., 7401 Security Way, Houston, Texas 77040, Attn: Warranty Administration.

Regardless of time of registration, the warranty period begins on the date of the original installation. Where a product is installed in a newly constructed residence, the date of installation is the date the owner purchased the residence from the builder. If that date cannot be verified, the warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

This warranty is in lieu of all other express warranties. **ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.** Some states and provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

GOODMAN SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO EXTRA UTILITY EXPENSES OR DAMAGES TO PROPERTY. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

This warranty gives you specific legal rights, and you may also have other rights that may vary from state to state or province to province.

OWNER NAME _____

ADDRESS OF INSTALLATION _____

CITY / STATE-PROVINCE / ZIP-POSTAL CODE _____

INSTALLER NAME _____

CITY / STATE-PROVINCE / ZIP-POSTAL CODE _____

PHONE # / FAX # _____

DISTRIBUTOR NAME _____

CITY / STATE-PROVINCE / ZIP-POSTAL CODE _____

PHONE # / FAX # _____

OUTDOOR UNIT _____

MODEL # & SERIAL # _____

INSTALLATION DATE _____

INDOOR UNIT _____

MAKE _____

MODEL # & SERIAL # _____

INSTALLATION DATE _____



Part No. PWCACHPCF
3/2013

Printed in the USA

For further information about this warranty, contact Goodman Consumer Affairs at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

MULTI-FAMILY RESIDENCE WARRANTY

Models: SSX14, SSX16, SSZ14, SSZ16

This warranty applies only to units installed in multi-family residences that are not owner-occupied. A distinct warranty applies to units installed in owner-occupied residences, including multi-family owner-occupied residences.

The unit models listed above, if installed in residences that are not owner-occupied, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- **To the original registered owner, all parts** are warranted for a period of **10 YEARS**, except as provided below. This warranty applies only if the unit is properly registered with Goodman online within 60 days after the original installation. To register, go to www.goodmanmfg.com and click "Warranty Registration". Failure by California and Quebec residents to complete the product registration form does not diminish their warranty rights.
- If the above warranty does not apply, then **all parts** of the unit are warranted for a period of **5 YEARS**.

Neither warranty continues after the unit is removed from the location where it was originally installed.

Neither warranty applies to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

Regardless of time of registration, each warranty period referred to above begins on the date of the original installation of the unit. If that date cannot be verified, each warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yyymm)).

As its only responsibility, and the customer's only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.

5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.
7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

OWNER NAME _____

ADDRESS OF INSTALLATION _____

CITY / STATE-PROVINCE / ZIP-POSTAL CODE _____

INSTALLER NAME _____

CITY / STATE-PROVINCE / ZIP-POSTAL CODE _____

PHONE # / FAX # _____

DISTRIBUTOR NAME _____

CITY / STATE-PROVINCE / ZIP-POSTAL CODE _____

PHONE # / FAX # _____

OUTDOOR UNIT _____

MODEL # & SERIAL # _____

INSTALLATION DATE _____

INDOOR UNIT _____

MAKE _____

MODEL # & SERIAL # _____

INSTALLATION DATE _____

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No. PWCACHPCF-MFR
3/2013

Printed in the USA

For further information about this warranty, contact Goodman Consumer Affairs at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.

COMMERCIAL WARRANTY

Models: SSX14, SSX16, SSZ14, SSZ16

This warranty applies only to units installed in buildings other than residences. Distinct warranties apply to units installed in residences.

The unit models listed above, if installed in buildings other than residences, are warranted by Goodman Manufacturing Company, L.P. ("Goodman") against defects in materials and workmanship under normal use and maintenance, as provided below:

- **To the original owner all parts** are warranted for a period of **5 YEARS**.

This warranty does not continue after the unit is removed from the location where it was originally installed.

This warranty does not apply to, and no warranty is offered by Goodman on, any unit ordered over the Internet, by telephone or other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies and licensing requirements.

The warranty period begins on the date of the original installation. If that date cannot be verified, the warranty period begins three months after the month of manufacture (as indicated by the first four digits of the serial number (yymm)).

As its only responsibility, and your only remedy, Goodman will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance. For warranty credit, the defective part must be returned to a Goodman heating and air conditioning products distributor by a state or province certified or licensed contractor. 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 apply to labor, freight, or any other cost associated with the service, repair or operation of the unit. Goodman will not pay for electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging or labor charges. This warranty does not cover refrigerant.

Goodman is not responsible for:

1. Damage or repairs required as a consequence of faulty installation or application.
2. Damage as a result of floods, fires, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Goodman.
3. Damage or repairs required as a result of the use of components or accessories not compatible with this unit.
4. Units installed outside the United States or its territories, or Canada.
5. Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
6. Parts or accessories not supplied or designated by Goodman.

7. Damage or repairs required as a result of any improper use, maintenance, operation or servicing.
8. Damage or failure to start due to interruption and/or inadequate electrical service.
9. Any damage caused by frozen or broken water pipes in the event of equipment failure.
10. Changes in the appearance of the unit that do not affect its performance.
11. Replacement of fuses and replacement or resetting of circuit breakers.
12. Units operated in incomplete structures.
13. Damage or repairs required as a result of the use of used or recycled refrigerant.

OWNER NAME

ADDRESS OF INSTALLATION

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

INSTALLER NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

DISTRIBUTOR NAME

CITY / STATE-PROVINCE / ZIP-POSTAL CODE

PHONE # / FAX #

OUTDOOR UNIT

MODEL # & SERIAL #

INSTALLATION DATE

INDOOR UNIT

MAKE

MODEL # & SERIAL #

INSTALLATION DATE

THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT OR OTHERWISE.

Part No. PWCACHPCF-COM
3/2013

Printed in the USA

For further information about this warranty, contact Goodman Consumer Affairs
at (877) 254-4729 or by mail to 7401 Security Way, Houston, Texas 77040.



Air is life. Make it perfect.™

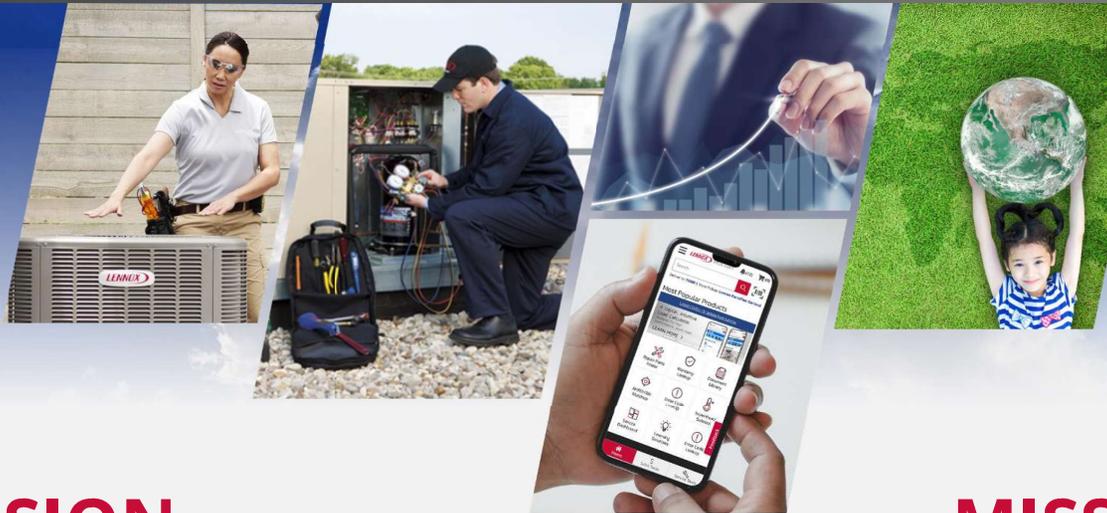
WHY LENNOX



We are in the
Business of You.



LENNOX VISION & MISSION



VISION

To deliver perfect air for homes and buildings through innovative and sustainable climate control solutions.

MISSION

Built on the foundation of our core values and our legacy of innovation, Lennox develops the best solutions for our customers, provides a workplace where our people achieve their full potential, and delivers superior value to our shareholders.



OUR CORE VALUES AND GUIDING BEHAVIORS

INTEGRITY

Accountability

We deliver on our commitments.

Positive Engagement

We energize and motivate others.

Trust

We are honest, ethical and safe.

RESPECT

Customer Experience

We earn the loyalty of our customers.

Sustainability

We care for our community and planet.

Talent

We foster belonging and create opportunities to grow.

EXCELLENCE

Innovation

We embrace original ideas and creative solutions.

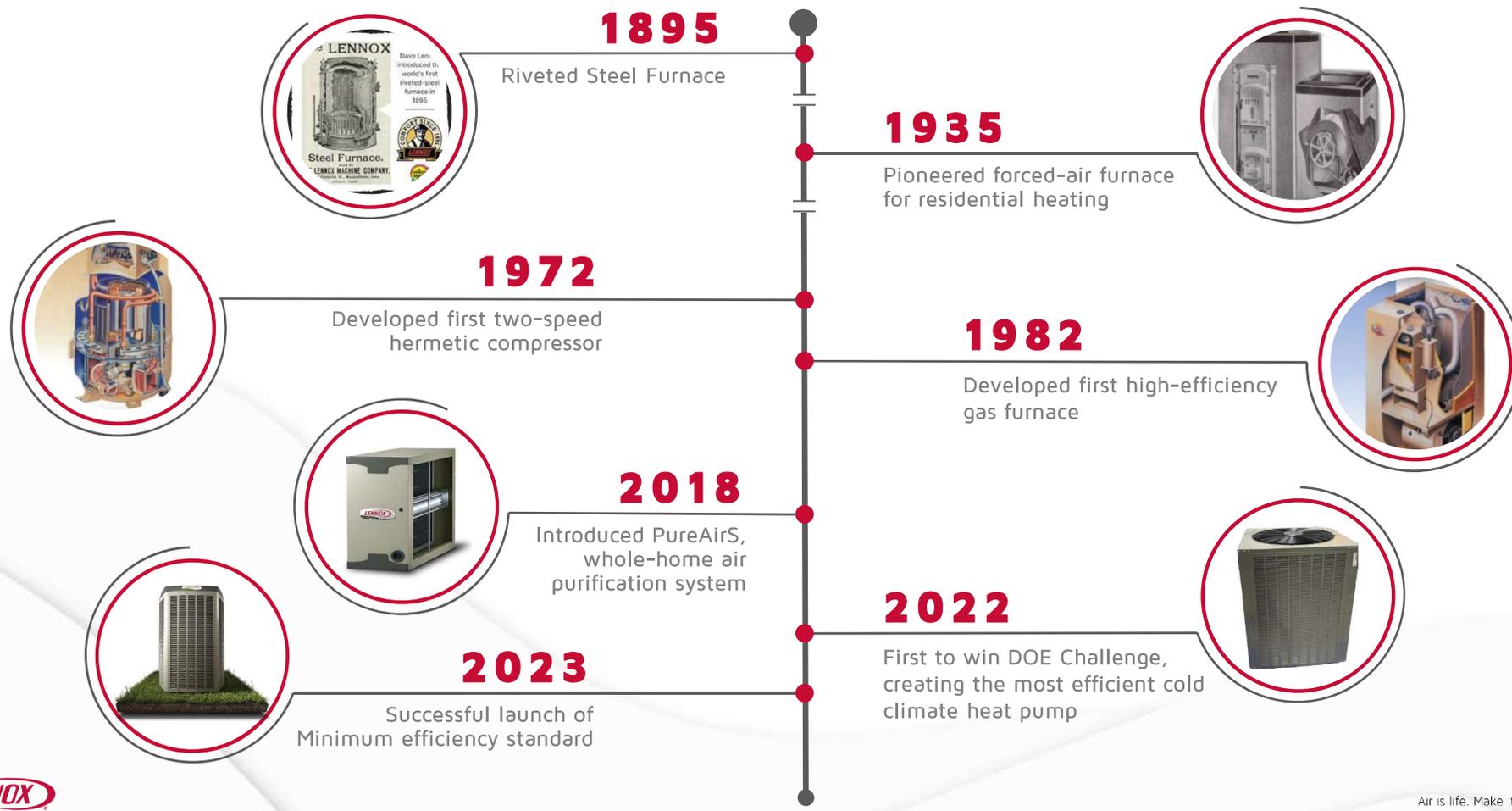
Quality

We strive for continuous improvements.

Results

We prioritize superior outcomes for our stakeholders.

COMPANY HISTORY IS ROOTED IN INNOVATION



INDUSTRY AWARD RECOGNITIONS

FORBES HOME

Lennox is the Best HVAC Company of 2023



1st to Meet DOE Cold Climate Heat Pump Challenge



Lennox hits **1,000,000** smart thermostats sold

FORBES
Lennox - Most Efficient HVAC Brand 2023



People Recognition:
20 to Watch
Women in HVACR;
40 under 40 ACHR

Lennox wins **Together We Unity Award**

An average of **160 patents** awarded each year

LENNOX RESIDENTIAL CUSTOMER CHARTER



Trusted Partners

We work directly with our dealer partners to provide the highest level of **access, ease, support** and **accountability**.



All customer support calls answered in 3 minutes with 24/7 online access to answers



Customer support answer rate of 95%



Products backed by our commitment to excellence



Exceptional Customer Experience

We will meet our customers where they are to provide a **premium partner experience** that exceeds their expectations.



Next day service for 95% of the market with an on-time fill rate of 95%



75 NPS Score for Lennox Pros, Stores and Customer Support



Leverage technology to make your business more efficient



Innovative, High-Quality Products

We will deliver the most **innovative, highest efficiency, quietest products** for our partners to win in the marketplace.



4.0 or Higher Product Review Ratings for AC/Air Handlers/Heat Pumps



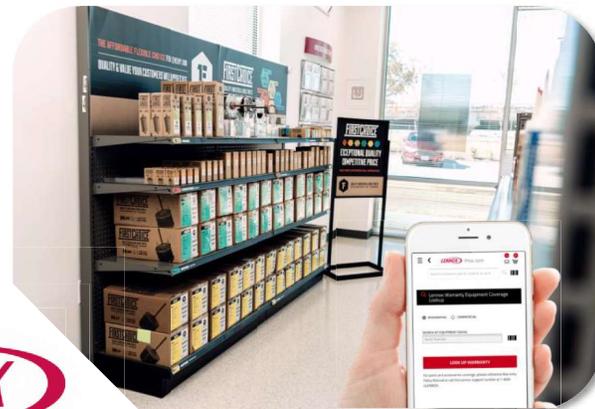
The right products to align with your market needs (Commercialization Success metric 80-120%)

OUR STRATEGY REMAINS CONSISTENT

Market Leading
Supply Chain



Industry Leading
Omni-Channel
Distributor



LENNOX

**DIRECT TO
DEALER**

Industry Leading
Products &
Services



World Class Sales
& Marketing



ONE STEP DISTRIBUTION MODEL



Air is life. Make it perfect.™

MANUFACTURING AND DISTRIBUTION

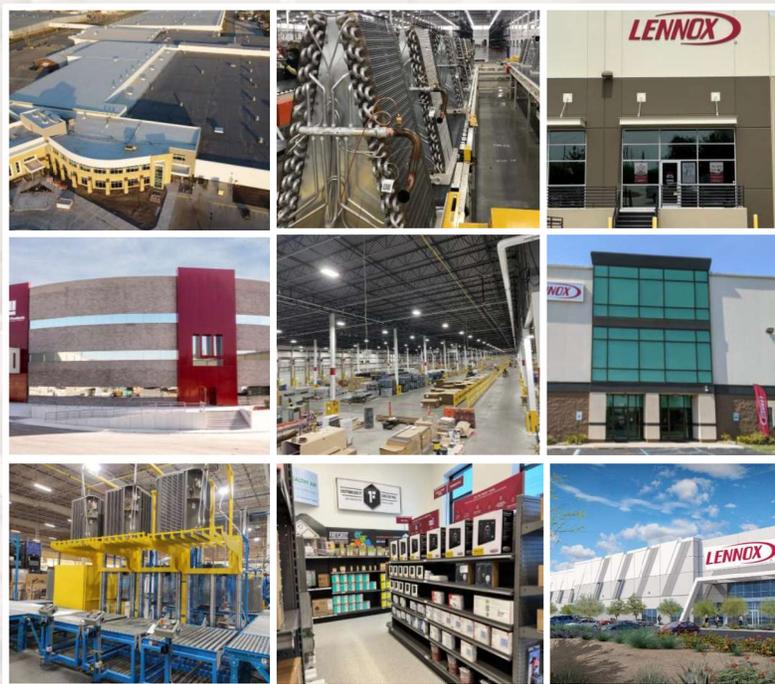
6

FACTORIES

OVER

3M

SQ. FT.



27

REGIONAL / LOCAL
DISTRIBUTION CENTERS

250

STORES



Air is life. Make it perfect.™

DIRECT RELATIONSHIP



One-to-one Partnership

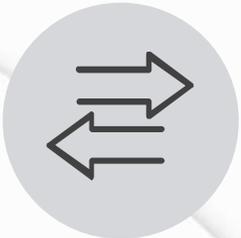
When you choose Lennox, you will experience a level of access and partnership that can only come from having a direct relationship with the manufacturer.



Network of Expert Support

Lennox works one-to-one with your business to find solutions together.

That means faster answers, from a network of experts fully invested in helping you succeed.



Direct Access Gets Results

OUR PEOPLE ARE HERE FOR YOUR PEOPLE.

LENNOX STORES

WHERE HVAC PROS GET IN, OUT AND ON THEIR WAY.

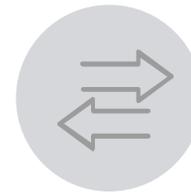
No matter the size or complexity of the job, Lennox Stores are your go-to stop for the equipment, parts and supplies to get it done right. And since Lennox is the only manufacturer that works directly with dealers, you know the advice and expertise is knowledge you can trust. When you've got a business to grow, the helpful Lennox Stores team is here to make it easy to find what you need when you need it.



Convenience and Speed



Exceptional Service



Direct from the Source



High-Quality Essentials



LENNOX SPONSORED INDUSTRY EVENTS

Feel The Love

Dealer Registration Begins – Feb 26



Aire Serve Homecoming

March 21-23 Ft. Worth, TX



Feel The Love

Nominations Open – May 1
Nomination Deadline – Aug 31



FTL Installation Week

Oct 5-12
Across US & Canada



Nexstar Super Meeting

Oct TBD
Pending Location



FEBRUARY

MARCH

MAY - SEPTEMBER

OCTOBER



NAHB International Builders Show

IBS is the largest annual light construction show in the world. The 2024 show welcomes nearly 70,000 visitors from over 100 countries.

Feb 27-29 Las Vegas, NV



Lennox LIVE –Annual HVAC Conference

Lennox LIVE is the biggest annual conference in the HVAC industry and we build your experience around leadership, innovation, vision and education.

LIVE Nashville | Feb 26-27
LIVE Orlando | March 5-6
LIVE Denver | March 25-26



Neighborhoodly Reunion (PTN)

Oct 10-15 Grapevine, TX



Service World Expo

Oct 14-18 Orlando, FL



Air is life. Make it perfect.™

INTERNATIONAL BUILDERS SHOW



SEE NEW PRODUCTS

IBS exhibitors like Lennox launch hundreds of new products and services each year. Leading manufacturers and suppliers share their latest products and answer your questions on the show floor.



LEARN FROM THE PROS

Education sessions, workshops and demos help you walk away with strategies to tackle your niche-specific challenges. Discover the hottest innovative tips from industry experts.



CONNECT AND GROW

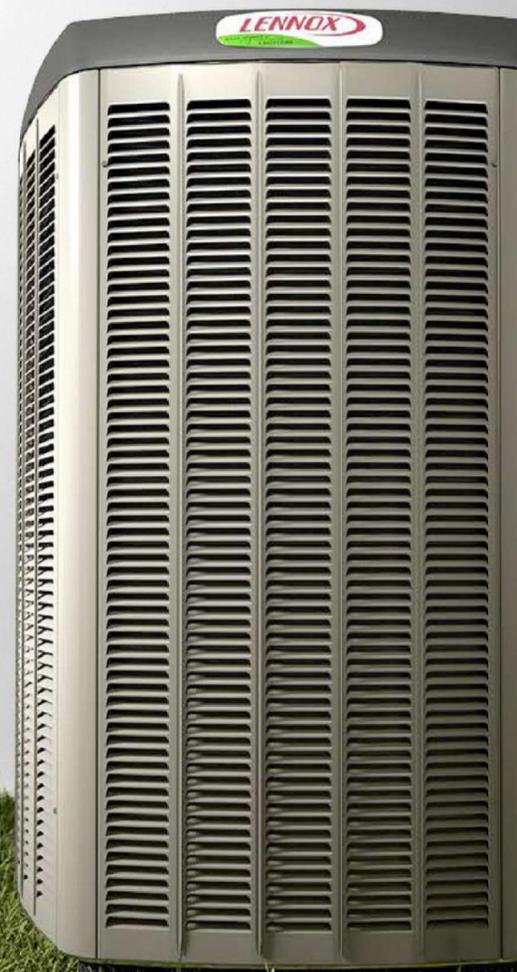
IBS helps you form vital business partnerships. You can connect with and learn from peer professionals who are as passionate about the industry as you are.





BUSINESS INSIGHTS

Air is life. Make it perfect.™



DEDICATED TO YOUR SUCCESS



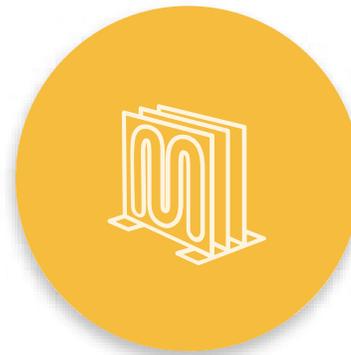
Dedicated
Technical &
Sales Training



New Product
Resources &
Information



**Flexible
Homeowner
Solutions**



**R-410A
Replacement
Parts**



**2025
Compliant
Equipment**

2025 REFRIGERANT TRANSITION

YOU CAN COUNT ON LENNOX

to make decisions that are good for dealers, good for homeowners and good for the environment. That's why we've updated our entire product lineup to use 2025 Compliant Refrigerant, R-454B.



2025 COMPLIANT
REFRIGERANT

78%
**LOWER
GLOBAL
WARMING
POTENTIAL**

Compared to R-401A Refrigerant



LENNOX IS PREPARING FOR 2025



AC/HP



Coils



AHU



Furnace



Package Unit

Complete new product lines for low GWP refrigerants



Air is life. Make it perfect.™

R-410A VS R-454B

When selecting a new refrigerant, Lennox considered ease of installation, service, safety, performance, environmental impact and more. Our choice of 2025 Compliant Refrigerant has a **78% lower GWP** than previous refrigerants and zero ozone depletion potential.

Lennox engineers worked to maximize equipment performance and efficiency with this refrigerant, while minimizing changes to installation requirements.

	R-410A	 R-454B
ASHRE Safety Classification	A1	A2L
Ozone Depletion Potential	0	0
Global Warming Potential (GWP)	2,088	466
Flammability	No Flame Propagation	Mildly Flammable
Refrigerant Leak Safety Control	None	Required



While the 2025 compliant refrigerant has an A2L classification of mildly flammable, it poses no greater risk than household products like hairspray or olive oil. We have incorporated additional safety features such as a Refrigerant Detection System that will reduce its concentration in the event of a large leak. That means homeowners can rest easy knowing their system is operating safely.



We are in the
Business of You.

Results & Data



EVERY PATH LEADS TO PERFECT AIR

Lennox products make perfect air possible with

**Unmatched Efficiency · Quiet Operation · Complete Control ·
Craftsmanship · Durability**



Air is life. Make it perfect.™



We are in the
Business of You.

HELPFUL LINKS

Lennox Pros: <https://www.lennoxpros.com/>

Event Playbook: <https://www.lennoxpros.com/partner-resources/marketing/residential-playbook>

Lennox Stores: <https://www.lennoxpros.com/STORES>

Lennox LIVE: <https://lennoxlive.com/>

Feel The Love: <https://www.lennoxpros.com/>



Air is life. Make it perfect.™

THANK YOU

