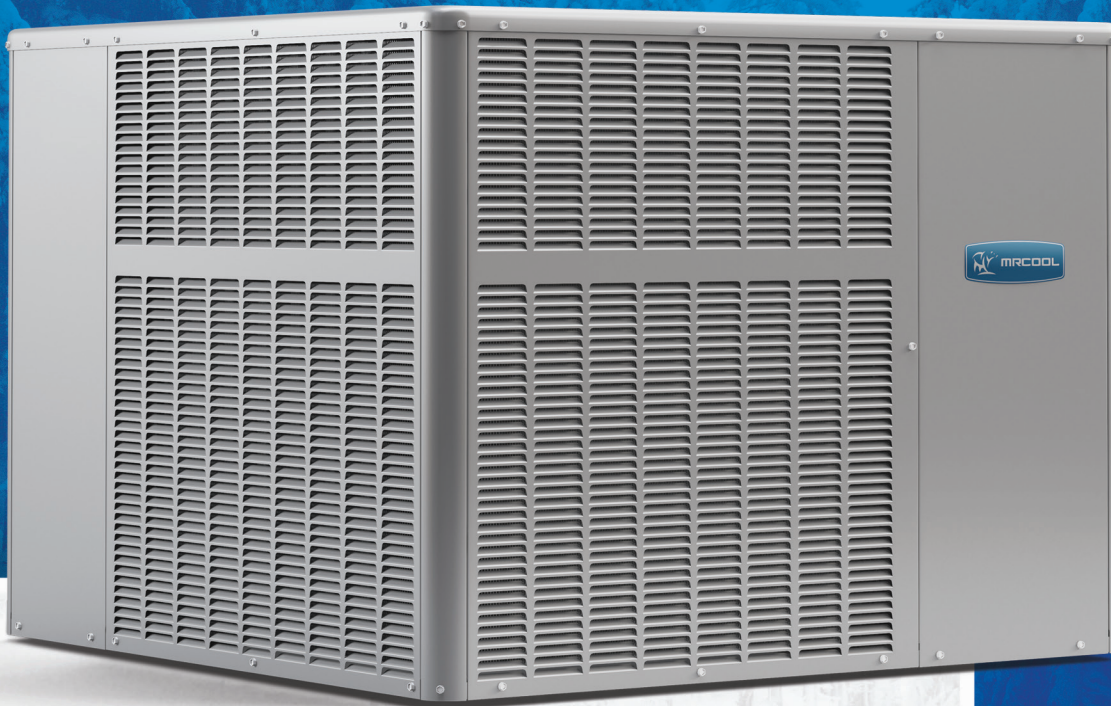




UP TO 14 SEER / 81% AFUE PACKAGE GAS ELECTRIC

MPG*S*M414A

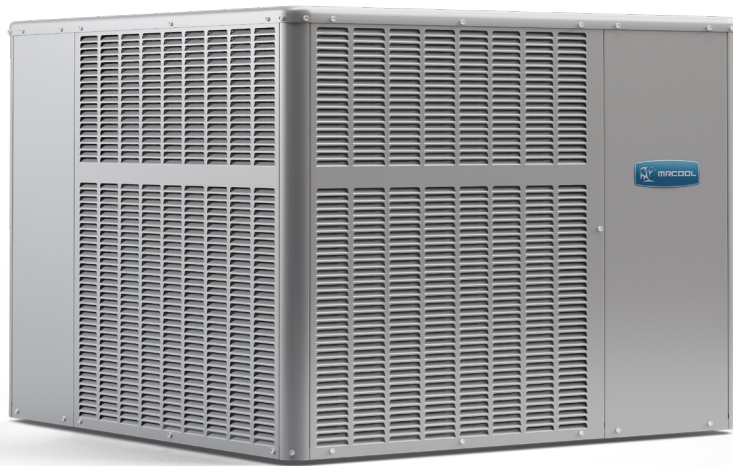


- ✓ Easy Installation & Service
- ✓ Quiet Running
- ✓ Durable Build & Finish
- ✓ Multi-Position Application
- ✓ R-410A Refrigerant
- ✓ Optional LP Kit
- ✓ 81% AFUE
- ✓ Compact Design

Sensible heating and cooling solutions with our affordable and durable packaged gas / electric options.

48 Remington Way
Hickory, KY 42051
270.366.0457

www.mrcool.com



UP TO 14 SEER / 81% AFUE

PACKAGE GAS / ELECTRIC

MPG*S*M414A

The MRCOOL® Gas / Electric Packaged Unit combines a high performance 14 SEER air conditioner with a powerful gas furnace to deliver the best air comfort possible in all weather conditions. Like all MRCOOL® products, this hybrid system is competitively priced, suitable for residential or commercial installation, and will run smoothly for years to come.

†Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty; 15-year for heat exchanger where specified). Warranty must be registered online within 60 days of installation to qualify for extended coverage. Unregistered equipment defaults to 5-year coverage.

- Available in 2, 2.5, 3, 3.5, 4, and 5 ton capacities.
- 10-Year Parts Limited Warranty.†

SPECIFICATIONS

MODEL NO.	Unit	MPG24S054M414A	MPG24S054M414A	MPG24S054M414A	MPG24S054M414A	MPG24S054M414A	MPG24S054M414A
Power Supply	Ph-V-Hz	1 - 208/230 - 60	1 - 208/230 - 60	1 - 208/230 - 60	1 - 208/230 - 60	1 - 208/230 - 60	1 - 208/230 - 60
Cooling Capacity	Btu/h	22600	28600	34000	40000	46000	57000
SEER	Btu/w	14	14	14	14	14	14
EER	Btu/w	11	11	11	11	11	11
Heating Input	Btu/h	54000	54000	90000	90000	10800	10800
Output	Btu/h	43800	43800	72900	72900	87500	87500
Temp. Rise Range	°F	30-60	30-60	40-70	40-70	40-70	40-70
AFUE	%	81	81	81	81	81	81
Outdoor Unit Dimension (WxDxH)	inch	46.8 x 46.77 x 36.82	46.8 x 46.77 x 36.82	46.8 x 46.77 x 36.82	46.8 x 55.27 x 40.88	46.8 x 55.27 x 40.88	46.8 x 55.27 x 40.88
Weight	lbs	315	324	340	433	438	460
Refrigerant Type	Type	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Refrigerant Charge	lb-oz	72	80	87	108	115	125
Sound Rating (Hi/Mi/Lo)	dB(A)	77	79	78	78	77	78



*Data provided by AHRI



The Signature Series is **NOT** designed for amateur installation. Installation **SHOULD** be performed by an authorized technician. Please read this manual carefully before installation and keep it for future reference.

Owner & Installation Manual



MRCOOL®

COMFORT MADE SIMPLE

Signature Series

MPG*S*M414A-2 Residential Package

Due to updates and constantly improving performance, the information and instructions within this manual are subject to change without notice. Please visit www.mrcool.com/documentation to ensure you have the latest version of this manual.

Version Date: 05-05-21



**THIS MANUAL MUST BE LEFT WITH THE
HOMEOWNER FOR FUTURE REFERENCE**

⚠ WARNING

If this unit is to be installed in a mobile or manufactured home application, the duct system must be sized to achieve static pressures within the manufacturer's guidelines. All other installation guidelines must also be followed. Failure to do so may result in equipment damage, personal injury, and improper performance of the unit.

⚠ WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a licensed professional (or equivalent), HVAC installer, service agency, or the gas supplier.



⚠ CAUTION

The installation of the unit, wiring, warm air ducts, venting, etc. must conform to the requirements of the National Fire Protection Association; the National Fuel Gas Code, ANSI Z223.1 (latest edition) and the National Electrical Code, ANSI/NFPA No. 70 (latest edition) in the United States; the Canadian Installation Codes CAN/CGA-B149.1 & .2 (latest edition) and the Canadian Electrical Code Part 1, CSA 22.1 (latest edition) in Canada; and any state or provincial laws, local ordinances, or local gas utility requirements. Local authorities having jurisdiction should be consulted before installation is made. Such applicable regulations or requirements take precedence over the general instructions in this manual.

INSTALLATION AND MAINTENANCE INSTRUCTIONS

MPG*S*M414A-2 SERIES UNITS

RESIDENTIAL PACKAGED UNITS

Gas/Electric

05/2021

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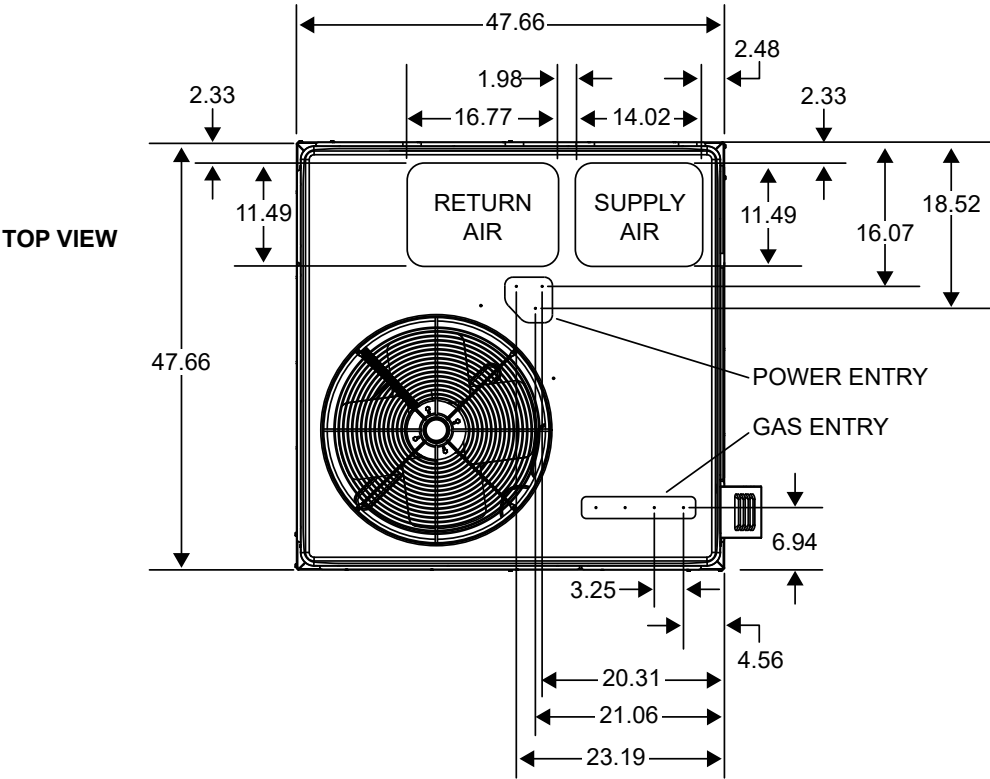
⚠ WARNING

Do not store combustible materials, including gasoline and other flammable vapors and liquids, near the unit, vent pipe, or warm air ducts. Such actions could cause property damage, personal injury, or death.

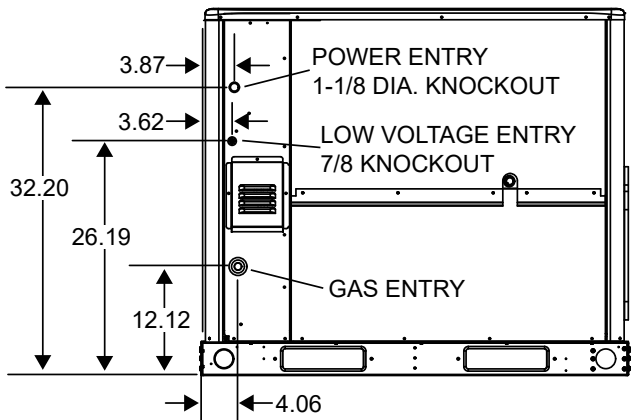
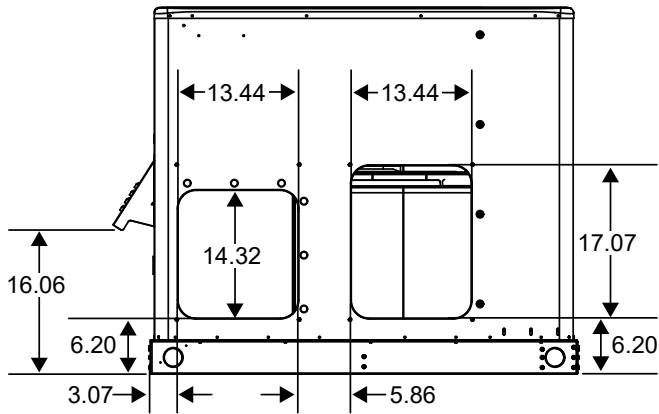
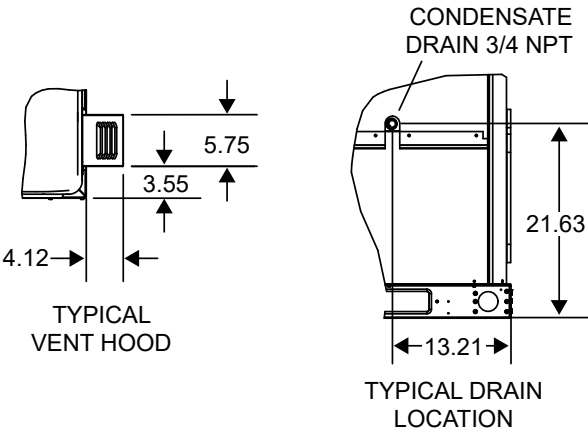
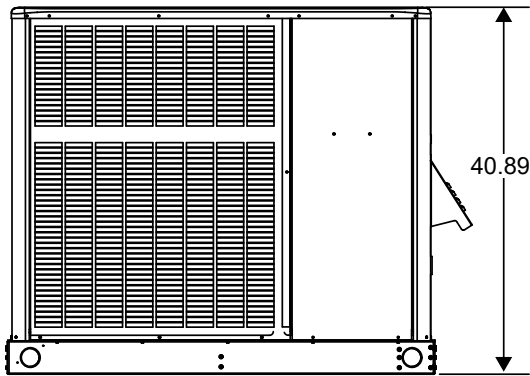
Manufactured By
MRCOOL LLC
48 Remington Way
Hickory, KY 42051

Save these instructions for future reference

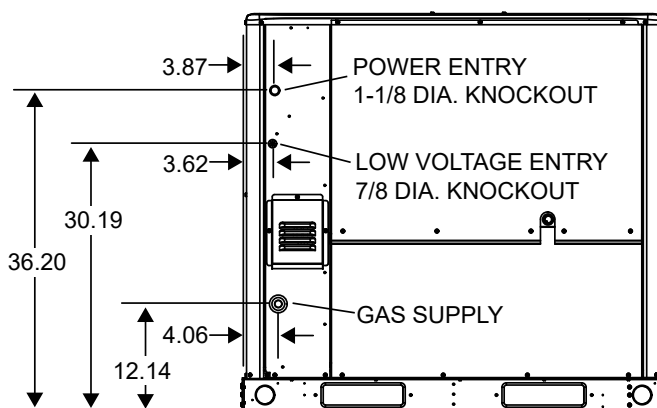
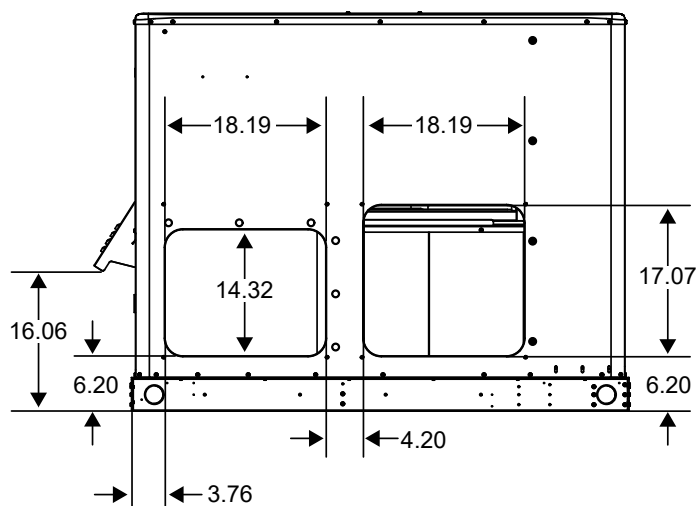
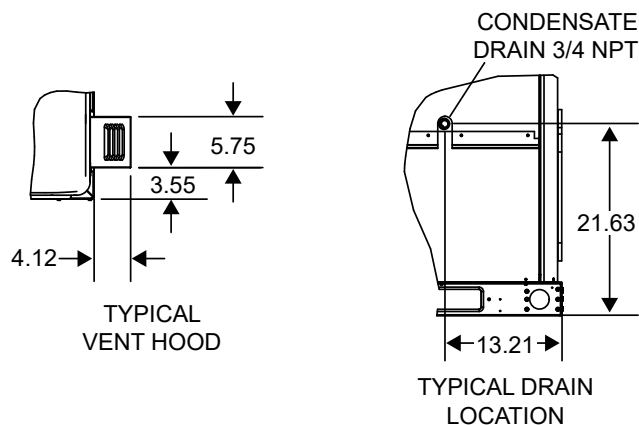
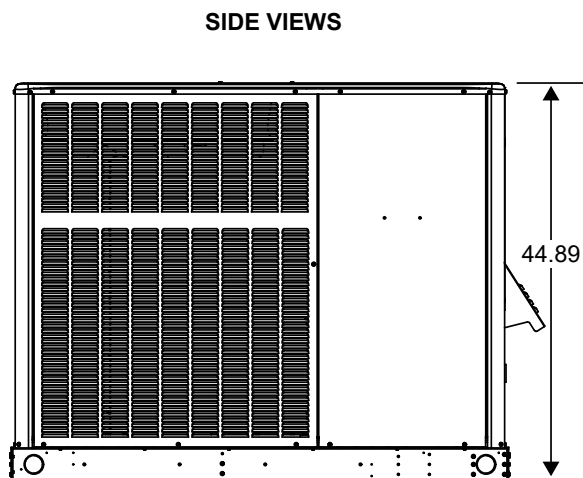
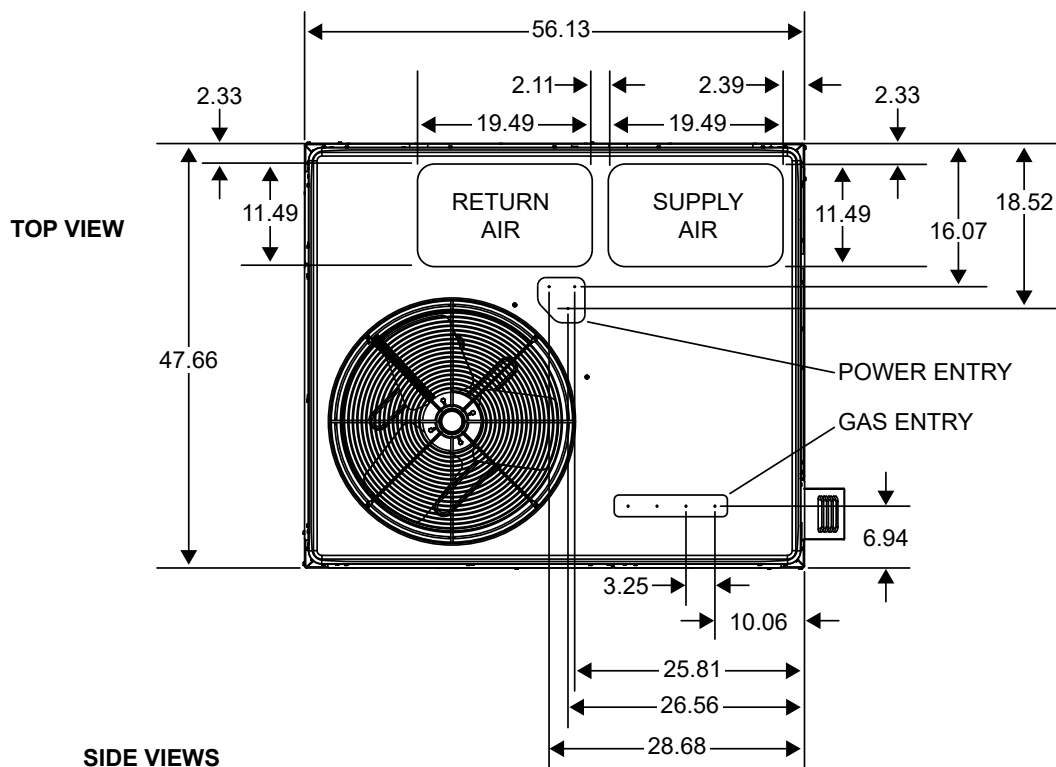
Unit Dimensions - Small Base Gas/Electric



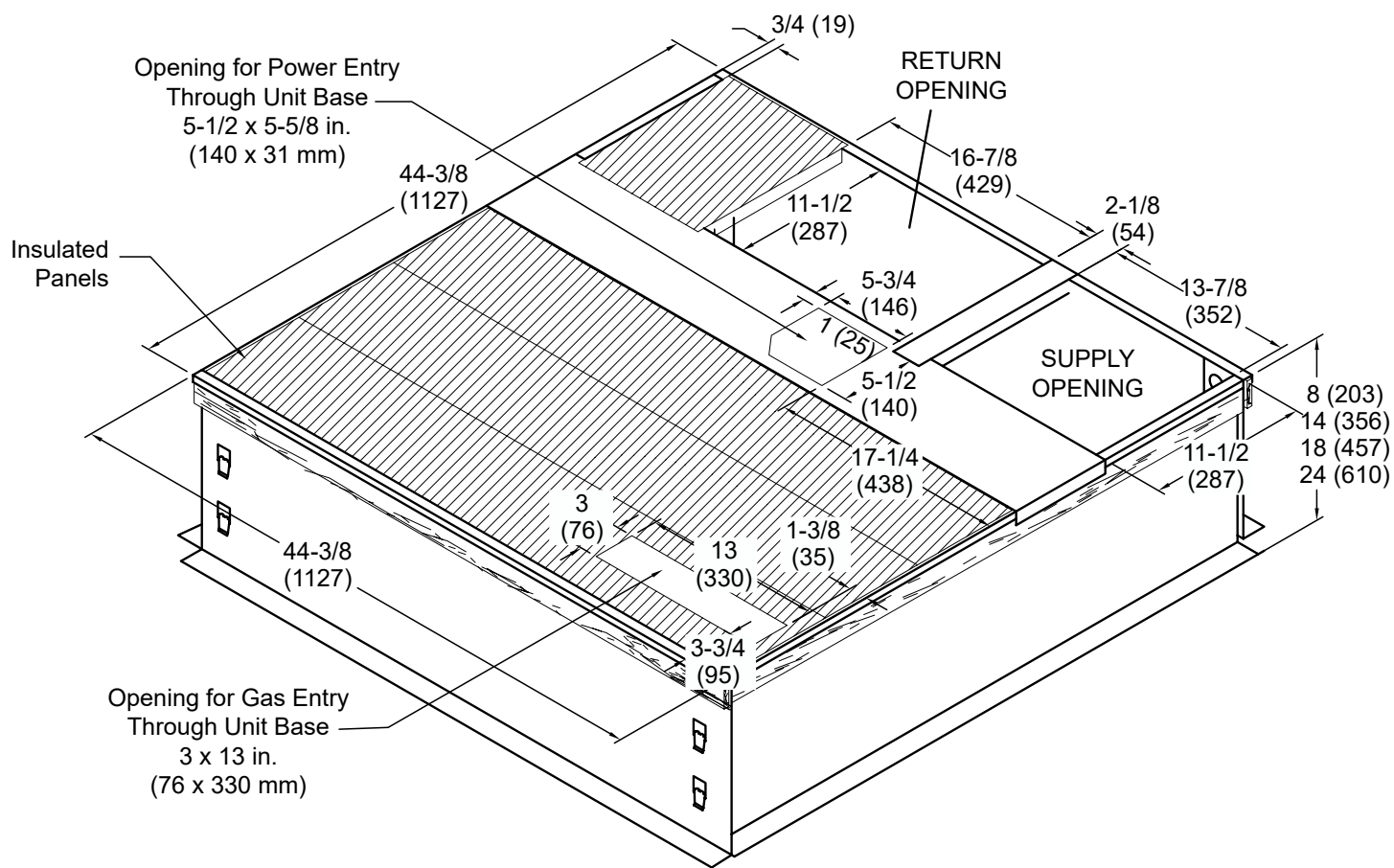
SIDE VIEWS



Unit Dimensions - Large Base Gas/Electric



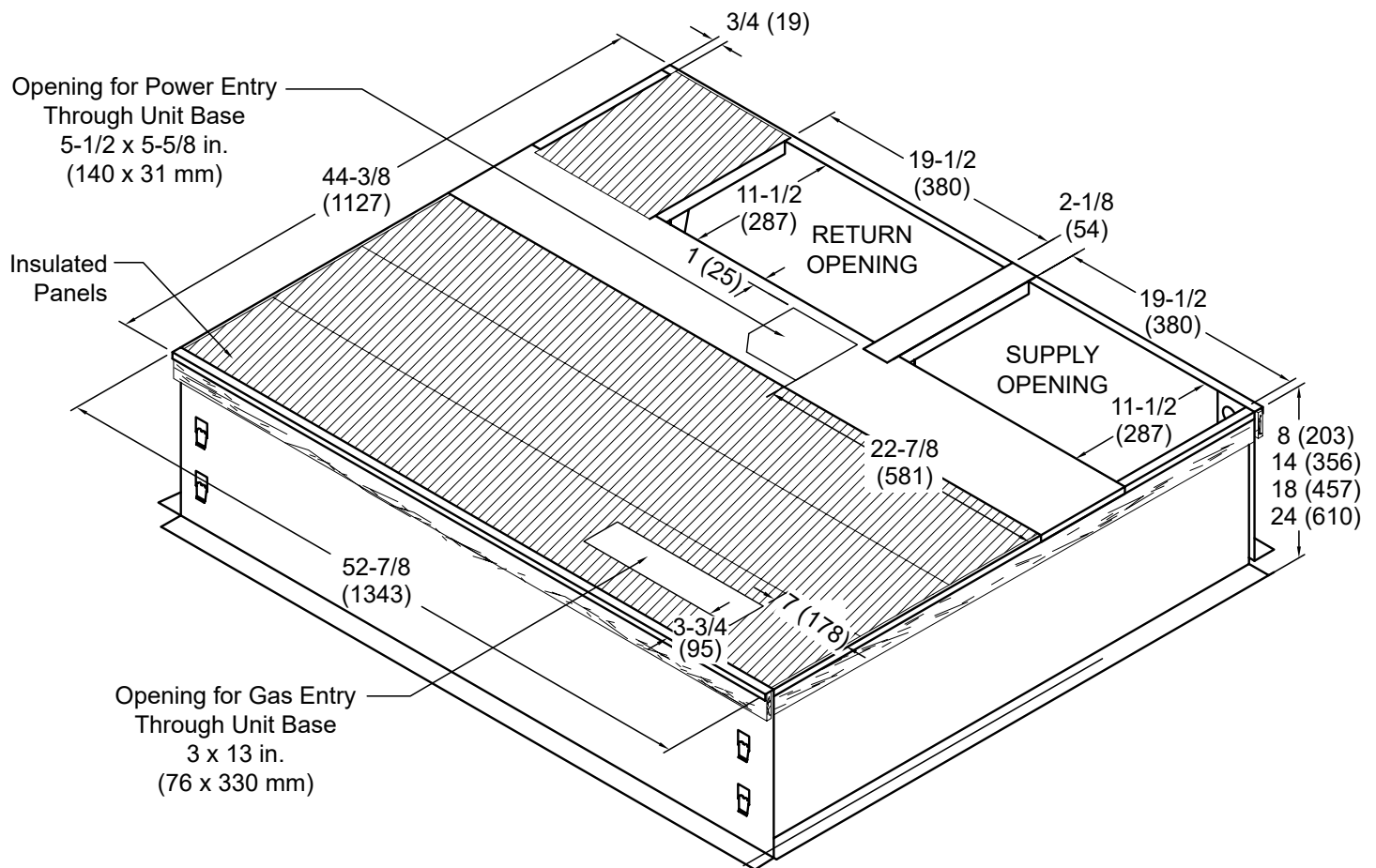
Roof Curb Dimensions - Small Base Gas/Electric



NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

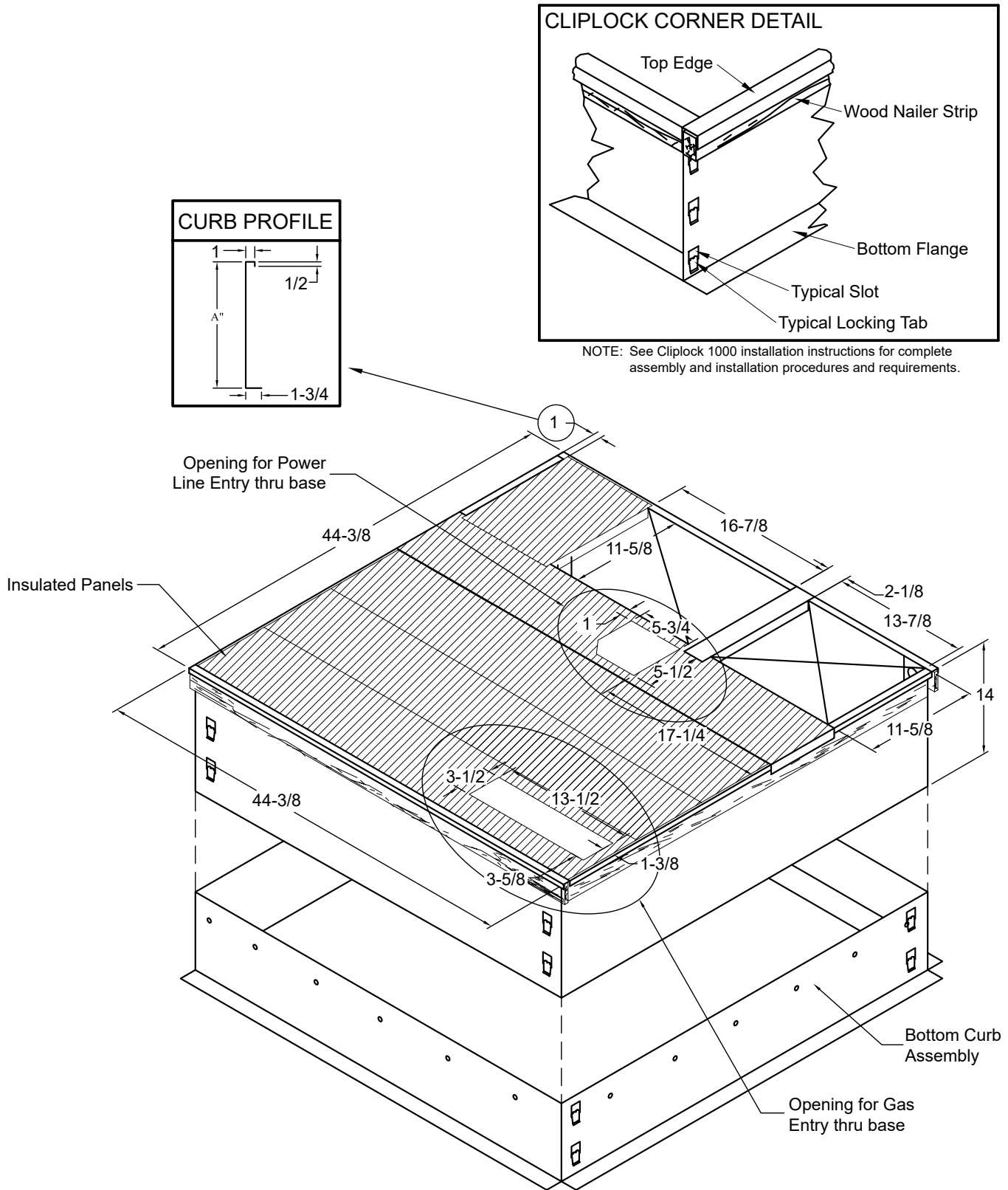
Roof Curb Dimensions - Large Base Gas/Electric



NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

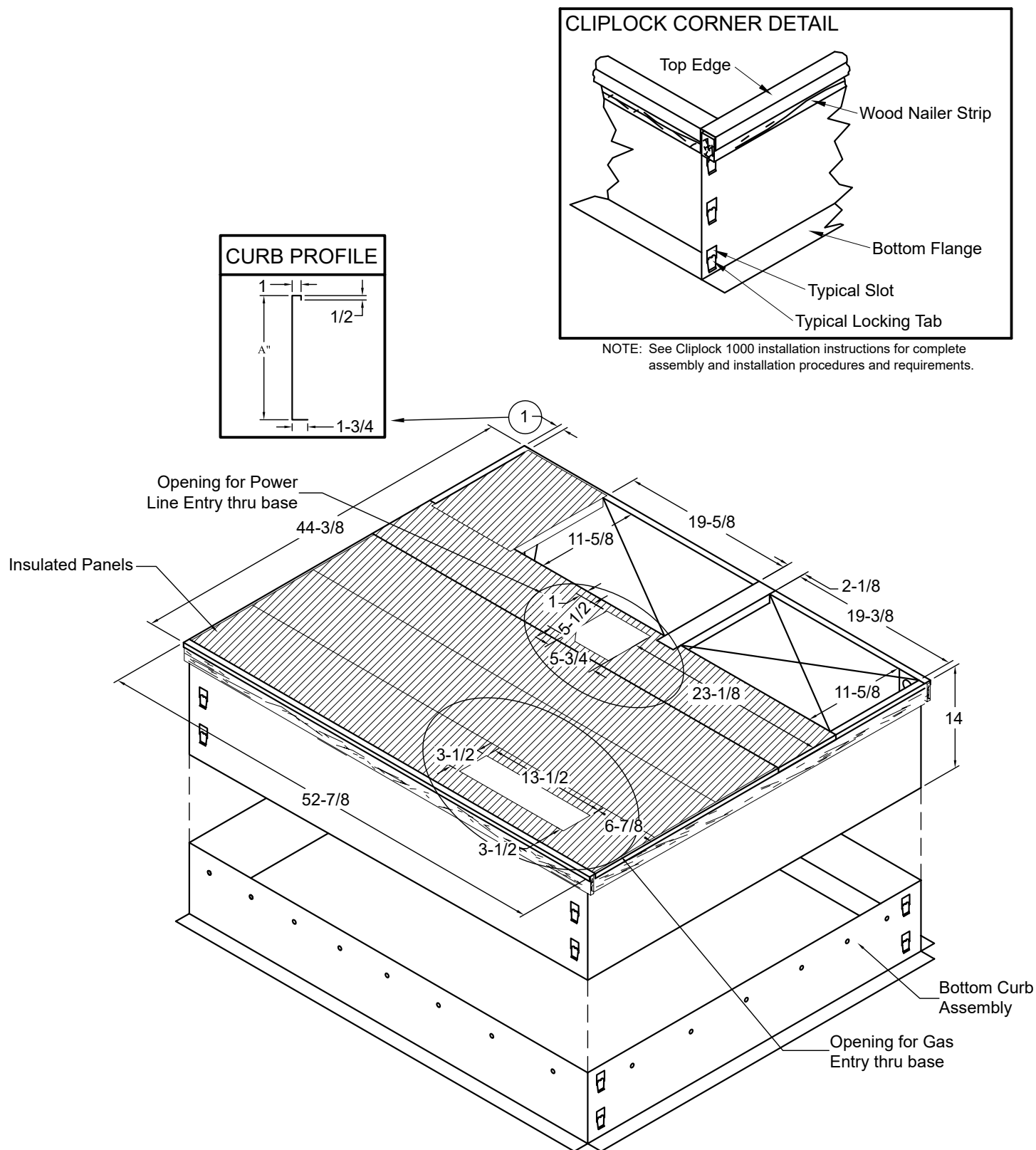
Adjustable Roof Curb Dimensions - Small Base Gas/Electric



NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

Adjustable Roof Curb Dimensions - Large Base Gas/Electric



NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

Installation

These instructions must be saved for future reference.

These units are single package air conditioners with gas heat designed for outdoor installation on a rooftop or a slab.

The units are completely assembled. All piping, refrigerant charge, and electrical wiring are factory installed and tested. The units require only electric power, gas piping, condensate drain, and duct connections, plus installation of the vent cover at the point of installation.

If components are to be added to a unit to meet local codes, they are to be installed at the dealer's and/or customer's expense.

The size of unit for the proposed installation should be based on heat loss/heat gain calculation made according to the methods of Air Conditioning Contractors of America (ACCA).

WARNING

In the State of Massachusetts:

This product must be installed by a licensed Plumber or Gas Fitter. When flexible connectors are used, the maximum length shall not exceed 36". When lever-type gas shutoffs are used, they shall be T-handle type.

These installation instructions are intended as a general guide only, for use by an experienced, qualified contractor.

These units are certified by E.T.L. Testing Laboratories, Inc.:

- For use as a forced air furnace with cooling unit.
- For outdoor installation only.
- For installation on combustible material.
- For use with natural gas or propane gas. (Conversion kit required for propane gas application.)

These units are not suitable for use with conventional venting systems.

Inspection

As soon as the unit is received, it should be inspected for possible damage during transit. If damage is evident, the extent of the damage should be noted on the carrier's freight bill. A separate request for inspection by the carrier's agent should be made in writing.

Location

Use the following guidelines to select a suitable location for these units.

1. Unit is designed for outdoor installation only. Unit must be installed so all electrical components are protected from water.
2. Condenser coils must have an unlimited supply of air.
3. For ground level installation, use a level prefabricated pad or use a level concrete slab. Do not tie the slab to the building foundation.
4. Maintain level within a tolerance of 1/4" maximum across the entire length or width of the unit.

CAUTION

Unit levelness is critical for proper float switch operation.

5. Do not locate the unit where the combustion air supply will be exposed to any of the following substances:
 - Permanent wave solutions
 - Chlorinated waxes and cleaners
 - Chlorine-based swimming pool chemicals
 - Water softening chemicals
 - Deicing salts or chemicals
 - Carbon tetrachloride
 - Halogen-type refrigerants
 - Cleaning solvents (such as perchloroethylene)
 - Printing inks, paint removers, varnishes, etc.
 - Cements and glues
 - Antistatic fabric softeners for clothes dryers
 - Masonry acid washing materials
 - Chlorinated laundry products
 - Hydrochloric acid

Use of Unit During Construction

Use of this unit as a construction heater or air conditioner is not recommended during any phase of construction. Very low return air temperatures, harmful vapors and operation of the unit with clogged or misplaced filters will damage the unit.

If this unit has been used for heating or cooling of buildings or structures under construction, the following conditions must be met or the warranty will be void:

- A room thermostat must control the unit. The use of fixed jumpers that will provide continuous heating or cooling is not allowed.
- A pre-filter must be installed at the entry to the return air duct.
- The return air duct must be provided and sealed to the unit.

- Return air temperature range between 55°F (13°C) and 80°F (27°C) must be maintained.
- Air filters must be replaced and pre-filters must be removed upon construction completion.
- The input rate and temperature rise must be set per the unit rating plate.
- The heat exchanger, components, duct system, air filters and evaporator coil must be thoroughly cleaned following final construction clean-up.
- The unit operating conditions (including airflow, cooling operation, ignition, input rate, temperature rise and venting) must be verified according to these installation instructions.

Clearances

All units require certain clearances for proper operation and service. Refer to Table 1 for the minimum clearances to combustibles, servicing, and proper unit operation. In the U.S., units may be installed on combustible floors made from wood or class A, B, or C roof covering material. In Canada, units may be installed on combustible floors. Units must be installed outdoors.

Clearance to combustibles below the unit flue is 10 inches since the flue points down.

Do not permit overhanging structures or shrubs to obstruct condenser air discharge outlet, combustion air inlet, or vent outlet.

	Clearance to Combustibles	Clearance for Service Access
Front of unit	0 in.	24 in.
Back of unit	0 in.	0 in.
Left side	0 in.	24 in.
Right side (from vent hood)	12 in.	24 in.
Base of unit	0 in.	0 in.
Top of unit	0 in.	48 in.
Minimum clearance to combustible material below the flue is 10 inches to allow proper dissipation of flue gases and temperatures. For any future service, installer must provide access to screws of top and rear panels.		

Table 1. Minimum Clearances

Roof Curb Installation

If a roof curb is used, follow the manufacturer's installation instructions and be sure that all required clearances are observed (see Clearances section).

Prior to setting the unit on the roof curb, the shipping bracket located underneath the unit must be removed. Remove the two screws in the base rail (located on the front and rear of the unit). The four screws and the bracket can be discarded. See Figure 1.

Rigging Unit

Exercise care when moving the unit. Do not remove any packaging until the unit is near the place of installation.

1. Connect rigging to the unit base rails using both holes in each corner.

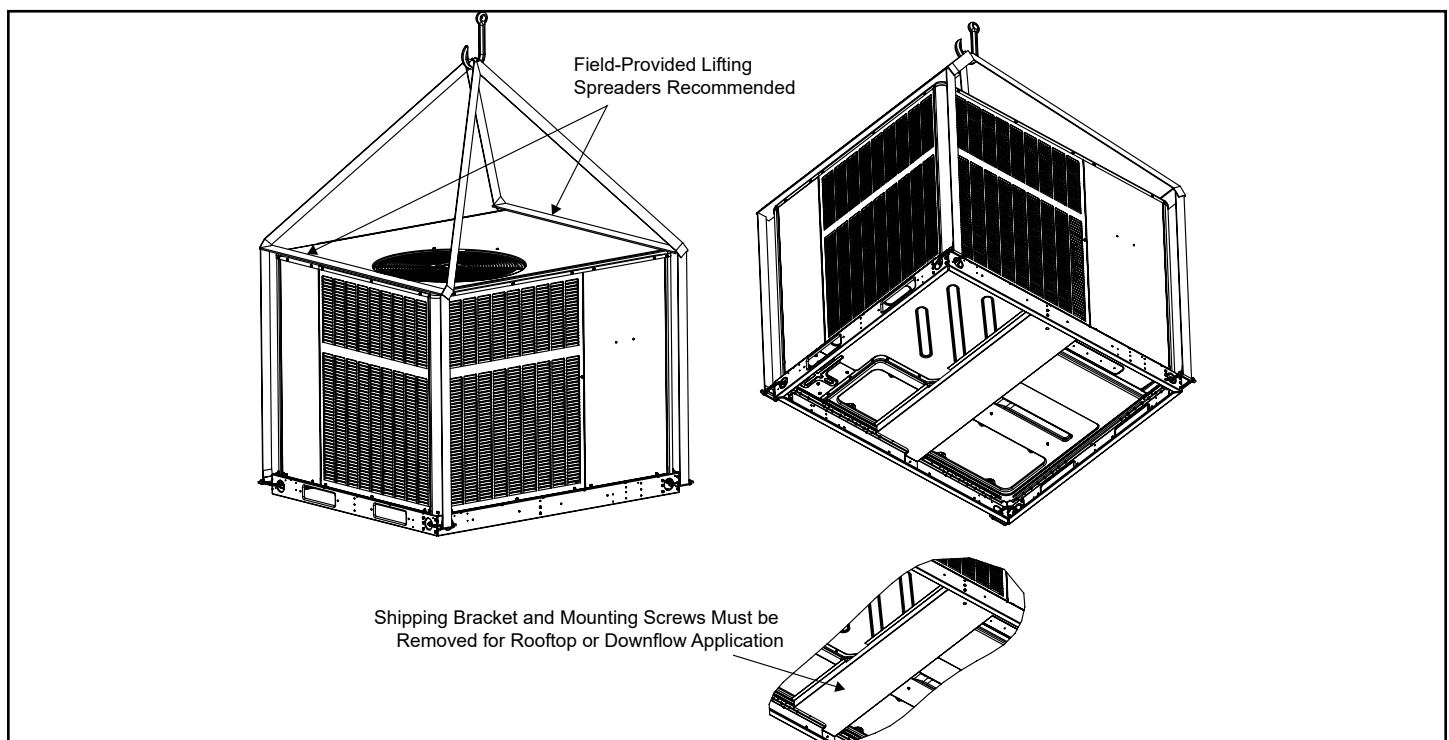


Figure 1.

2. All panels must be in place for rigging.
3. Place field-provided spreaders in place. Spreaders must be of adequate strength and length (must exceed unit dimension by 6 inches).

Units may also be moved or lifted with a forklift. **The lengths of the forks of the forklift must be a minimum of 42 inches.**

CAUTION

Before lifting a unit, make sure that the weight is distributed equally on the cables so that it will lift evenly.

Unpacking

Locate the four stacking brackets at each corner of the top panel. Remove the screws that secure these brackets. All screws must be re-installed. The stacking brackets can be discarded. Remove the bag and remaining packaging material, which can be discarded. Locate the four plastic fork slot bumpers on the base rails. Remove the fasteners and bumpers and discard.

Service Access

Access to all serviceable components is provided by four removable panels: upper access panel (for blower, ID coil, and optional filter), heat exchanger access, control access panel, and compressor access.

CAUTION

As with any Mechanical equipment, personal injury can result from contact with sharp sheet metal edges. Be careful when you handle this equipment.

WARNING

This unit is charged with HFC-410A refrigerant. Operating pressures for units charged with HFC-410A are higher than pressures in units charged with HCFC-22. All service equipment **MUST** be rated for use with HFC-410A refrigerant.

Venting

The vent outlet must be installed in a location as to prevent building degradation and must be consistent with the National Fuel Gas Code, Z223.1 or CAN/CGA-B149.1 & .2.

The products of combustion are discharged through a screened opening on the gas heat side panel. The horizontal vent system shall terminate at least 4 feet below, 4 feet horizontally from, or 1 foot above any door, window, or gravity air inlet into the building. The vent system shall terminate at least 3 feet above any forced air inlet located within 10 feet.

The unit shall be installed in a manner such that snow accumulation will not restrict the flow of flue products.

Minimum horizontal clearance of 4 feet from electric meters, gas meters, regulator, and relief equipment is required.

In addition to the above requirements, consideration must be given to prevent unwanted ice buildup from the vent condensate. The vent should not be located on the side of a building where the prevailing winter winds could trap the moisture, causing it to freeze on the walls or on overhangs (under eaves). The vent should not be located over a sidewalk, patio, or other walkway where the condensate could cause the surface to become slippery.

The products of combustion must not be allowed to accumulate within a confined space where they may be recirculated.

Vent Hood Installation

The unit is shipped with the vent hood inside the control compartment. Locate the vent hood and attach to side of utility panel with screws provided in the instruction bag (see Figure 2).

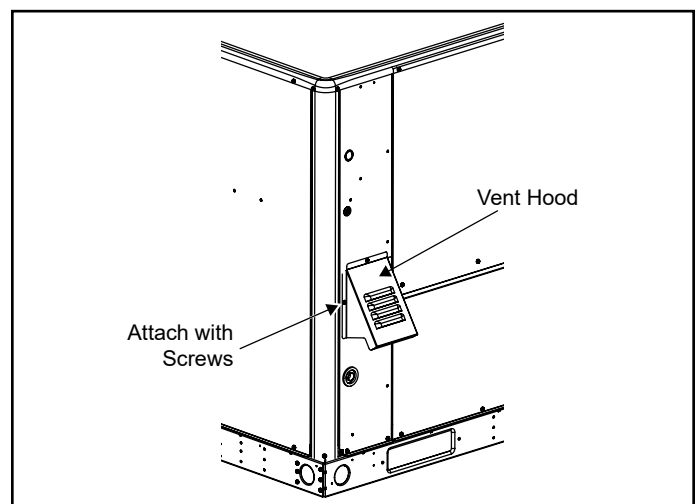


Figure 2. Installing the Vent Cover

NOTE:

If an existing gas furnace is being removed from a common venting system when this packaged unit is installed, then read and follow the instructions in the "Removal of Unit from Common Venting System" section that follows. Otherwise, you may skip this section.

Removal of Unit from Common Venting System

When an existing furnace is removed from a common venting system serving other appliances, the venting system is likely to be too large to properly vent the remaining attached appliances. The following test should be conducted with each appliance while the other appliances connected to the common venting system are not in operation.

1. Seal any unused openings in the common venting system.
2. Visually inspect the venting system for proper size and horizontal pitch and determine there is no blockage or restriction, leakage, corrosion, or other deficiencies which could cause an unsafe condition.
3. Insofar as is practical, close all building doors and windows between the space in which the appliances remaining connected to the common venting system are located and other spaces in the building. Turn on clothes dryers and any appliance not connected to the common venting system. Turn on exhaust fans, such as range hoods and bathroom exhausts, so they will operate at maximum speed. Do not operate a summer exhaust fan. Close fireplace dampers.
4. Following the lighting instructions, place the unit being inspected in operation. Adjust the thermostat so the appliance will operate continuously.
5. Test for spillage at the draft control relief opening after 5 minutes of main burner operation. Use the flame of a match or candle.
6. Follow the preceding steps for each appliance connected to the common venting system.
7. After it has been determined that each appliance remaining connected to the common venting system properly vents when tested as outlined above, return doors, windows, exhaust fans, fireplace dampers, and any other fuel burning appliance to their previous condition of use.
8. If improper venting is observed during any of the above tests, the common venting system must be corrected. See National Fuel Gas Code, ANSI Z223.1 (latest edition) or CAN/CGA B149.1 & .2 Canadian Installation Codes to correct improper operation of common venting system.

Duct System

The duct system should be designed and sized according to the methods in the Air Conditioning Contractors of America (ACCA) manual that is most appropriate to the installation application.

A closed return air duct system shall be used. This shall not preclude use of economizers or outdoor fresh air intake. It is recommended that supply and return air duct connections at the unit be made with flexible joints.

The supply and return air duct systems should be designed for the CFM and static requirements of the job. They should not be sized by matching the dimensions of the duct connections on the unit.

The unit is shipped ready for horizontal flow (side duct connections) or downflow (bottom duct connections). All units are equipped with a drain pan overflow switch that is installed and wired at the factory. Duct attachment screws are intended to go into the duct panel flanges. Duct to unit connections must be sealed and weather proofed.

For horizontal duct systems:

1. Remove the duct covers on side of the unit. They can be discarded.
2. Install the duct system to the unit.

For downflow duct systems:

1. Remove the duct covers on side of the unit. Keep the screws and the covers as they will be re-installed later.
2. Remove the downflow duct covers located inside unit. Remove the four screws securing each cover. Remove the covers from the unit. They can be discarded.
3. Remove screws located between the supply and return air openings that attach the blower deck to the base pan. These screws can interfere with bottom duct connections or roof curb seals. Discard these screws.
4. Install the duct system to the unit.
5. Re-install the duct covers removed in Step 1.

Filters

Air filters are not supplied with the unit. A field-provided air filter must always be installed ahead of the evaporator coil and must be cleaned or replaced if necessary. Dirty filters will reduce the airflow of the unit.

An optional filter rack kit may be purchased separately for installation inside the unit's coil compartment. Air filter sizes are shown in Table 2 for use with filter rack kit.

NOTE:

The filter rack must be installed prior to installation of the unit in applications where access to the rear panel is limited.

Unit Model	Filter 1	Filter 2
24, 30, 36	14 x 20 x 1	20 x 20 x 1
42, 48, 60	20 x 20 x 1	

Table 2. Unit Air Filter Sizes - inches

Condensate Drain

This package unit is equipped with a 3/4" FPT coupling for condensate line connection. Plumbing must conform to local codes. Use a sealing compound on male pipe threads.

Do not operate unit without a drain trap. The condensate drain is on the negative pressure side of the blower; therefore, air being pulled through the condensate line will prevent positive drainage without a proper trap.

The condensate drain line must be properly trapped, routed to a suitable drain and primed prior to unit commissioning.

NOTE: Install drain lines and trap so they do not block service access to the unit.

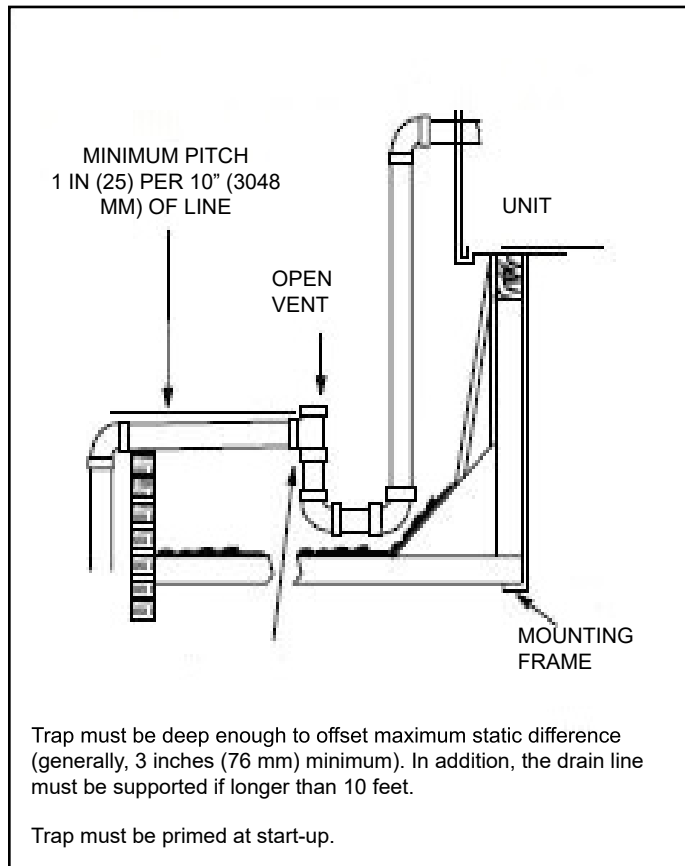


Figure 3. Typical Condensate Drain Connection

See Figure 3 for proper drain arrangement. The drain line must pitch to an open drain or pump to prevent clogging of the line. Seal around the drain connection with suitable material to prevent air leakage into the return air system.

To prime trap, pour several quarts of water into drain, enough to fill drain trap and line.

CAUTION

Drain lines should be hand-tightened only. Do not use tools to tighten fitting into drain.

Gas Piping

Proper sizing of a gas piping depends on the cubic feet per hour of gas flow required, specific gravity of the gas, and length of run. National Fuel Gas Code Z223.1 latest edition should be followed in all cases unless superseded by local codes or gas company requirements. In Canada, refer to CAN/CGA B.149.1 & .2 (latest edition).

The heating value of the gas may differ with locality. The value should be checked with the local gas utility. For temperature rise of unit, see unit rating plate.

Gas Piping Recommendations

- A drip leg and a ground joint union must be installed in the gas piping. A ground joint union is recommended by the manifold/valve.
- When required by local codes, a manual shutoff valve may have to be installed outside of the unit.
- Use pipe thread sealing compound resistant to propane gas sparingly on male threads.
- The gas supply should be a separate line and installed in accordance with all safety codes listed on Page 1. After the gas connections have been completed, open the main shutoff valve admitting normal gas pressure to the mains. Check all joints for leaks with soapy solution or other material suitable for the purpose.

WARNING

Never use a flame to check for gas leaks. Explosion causing injury or death may occur.

- The furnace and its field supplied manual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 PSIG (3.48kPa).
- A 1/8" N.P.T. plugged tapping, accessible for test gauge connections, must be installed immediately upstream of the gas supply connection to the furnace.

Gas Connection

The gas supply line is routed through the gas entry location on the side of the unit (see Figure 4). A grommet is provided in the instruction bag and should be used to seal gas supply line to gas entry of control compartment.

NOTE: An optional bottom-entry gas kit is available for these units. See the kit instructions for proper installation details.

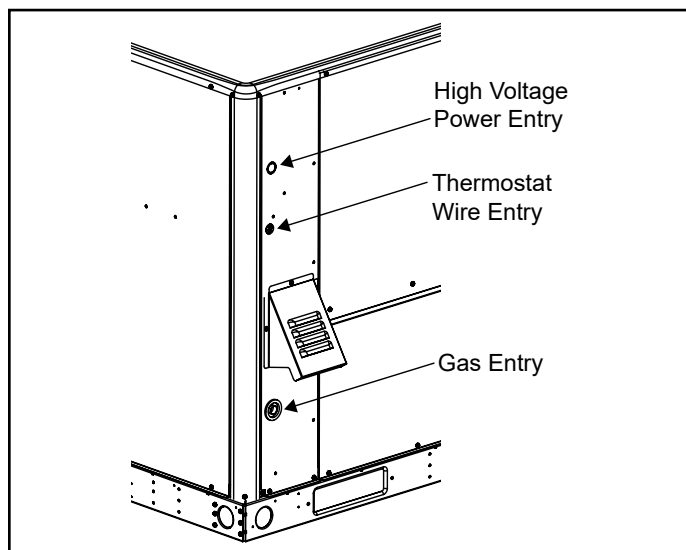


Figure 4.

! WARNING

The furnace must be isolated from the gas supply piping system by closing the field supplied manual shutoff valve during any pressure testing of gas supply piping system at test pressures equal to or less than 1/2 psig or 14" w.c. If the piping system is to be tested at pressures in excess of 1/2 psig, the furnace and its individual shutoff valve must be disconnected from the gas supply piping system.

NOTE: LP/Propane Units, Tanks, and Piping

Units are shipped equipped for use with natural gas, but can be converted to LP/propane in the field by an approved licensed technician. If conversion is required, use the approved conversion kit.

When converting a low NOx unit (designated by an L in some model numbers) to propane, **the NOx inserts must be removed.**

All LP/propane gas equipment must conform to the safety standards of the National Fire Protection Association.

For satisfactory operation, LP/propane gas pressure must be a minimum of 11" w.c. at the unit under full load.

Complete information regarding tank sizing for vaporization, recommended regulator settings, and pipe sizing is available from most regulator manufacturers and LP/propane gas suppliers.

Check all connections for leaks when piping is completed, using a soapy, non-chlorine based solution. **Some soaps used for leak detection are corrosive to certain metals.**

Carefully rinse piping thoroughly after completing leak detection.

NOTE: An optional bottom-entry gas kit is available for these units. See the kit instructions for proper installation details.

! WARNING

Danger of explosion. Can cause injury or product or property damage. Do not use matches, candles, flame or other sources of ignition to check for leaks.

! CAUTION

If a flexible gas connector is required or allowed by the authority that has jurisdiction, black iron pipe shall be installed at the gas valve and must extend outside the cabinet. The flexible connector can then be added between the black iron pipe and the gas supply line.

Electrical Wiring

See Figure 4 and Figure 5

All wiring should be done in accordance with the National Electrical Code, ANSI/NFPA No. 70 (latest edition); Canadian Electrical Code Part 1, CSA C22.1 (latest edition); or local codes where they prevail. Use wiring with a temperature limitation of 75°C minimum. Run the 208 or 230 volt, 60 hertz electric power supply through a fused disconnect switch to the control box of the unit and connect as shown in the wiring diagram located on the inside of the control access panel.

Power supply to the unit must be N.E.C. Class 1, and must comply with all applicable codes. A disconnect switch should be field provided for the unit; follow local codes to determine what type of switch to use. The switch must be separate from all other circuits. If any of the wire supplied with the unit must be replaced, replacement wire must be of the type shown on the wiring diagram. Electrical wiring must be sized to carry minimum circuit ampacity marked on the unit. **Use copper conductors only.** Each unit must be wired with a separate branch circuit and be properly fused.

NOTE: An optional bottom-entry power kit is available for these units. See the kit instructions for proper installation details.

! CAUTION

When connecting electrical power and control wiring to the unit, waterproof type connectors must be used so that water or moisture cannot be drawn into the unit during normal operation.

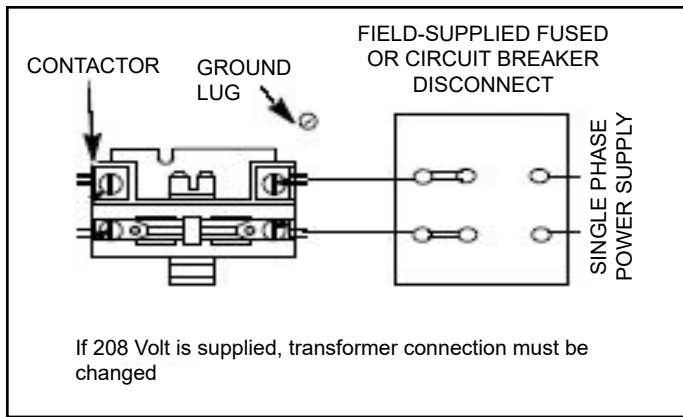


Figure 5. 208/230 Line Voltage Wiring

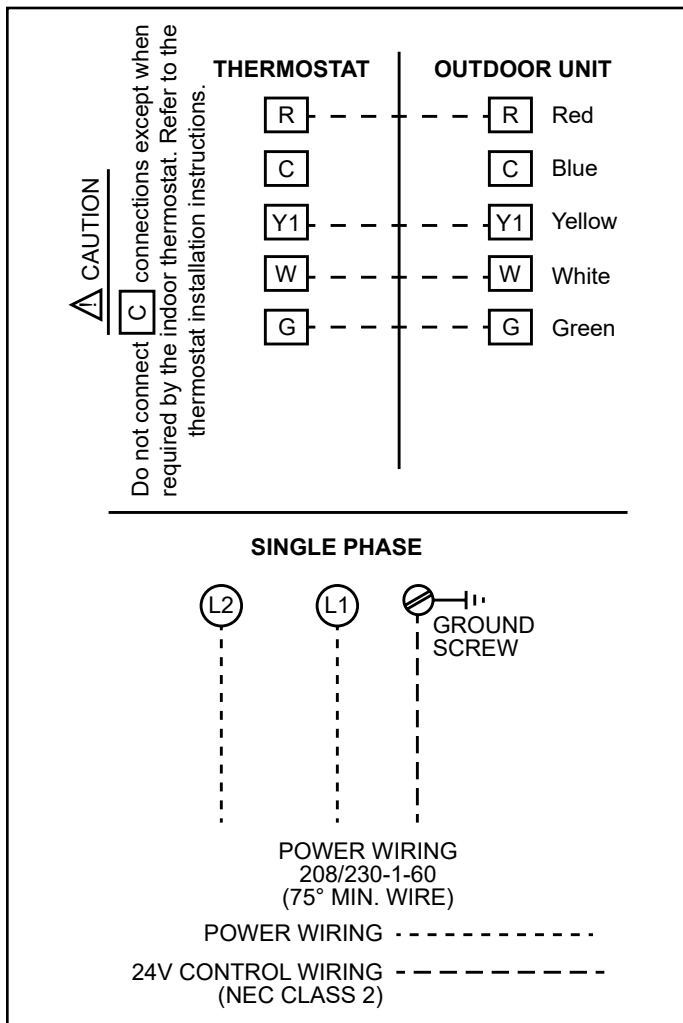


Figure 6. Typical Wiring Connections

Thermostat

The room thermostat should be located on an inside wall where it will not be subject to drafts, sun exposure, or heat from electrical fixtures or appliances. Follow the manufacturer's instructions enclosed with thermostat for general installation procedure. Color-coded insulated wires (#18 AWG) should be used to connect the thermostat to the unit.

Four wires are required for cooling. The heat anticipator setting is 0.75 amp.

Compressor

Units are shipped with compressor mountings factory-adjusted and ready for operation.

CAUTION

Do not loosen compressor mounting bolts.

Heating Start-Up

For Your Safety, Read Before Lighting

CAUTION

Furnace is equipped with a direct ignition control. Do not attempt to manually light the burners.

Pre-Start Checklist

Complete the following checks before starting the unit:

1. Check the type of gas being supplied. Be sure it is the same as listed on the unit nameplate.
2. Make sure that the vent cover has been properly installed.

To Light Main Burners

1. Turn off electrical power to unit.
2. Turn the thermostat to lowest setting.
3. Slide the gas valve switch to the "ON" position (see Figure 7).
4. Turn on electrical power to the unit.
5. Set the room thermostat to the desired temperature. (If the thermostat "set" temperature is above room temperature after the pre-purge time expires, main burners will light.)

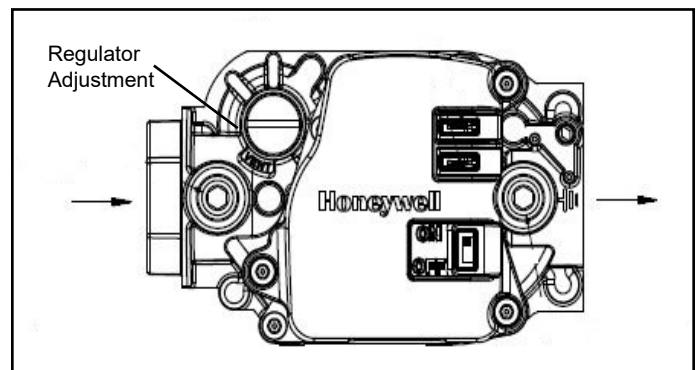


Figure 7. Gas Valve

To Shut Down Main Burners

1. Turn off electrical power to unit.
2. Slide the gas valve switch to the "OFF" position (see Figure 7).

Post-Start Checklist

After the entire control circuit has been energized and the heating section is operating, make the following checks:

1. Check for gas leaks, using soapy solution, in the unit piping as well as the supply piping.
2. Check for correct manifold gas pressures (see Manifold Gas Pressure Adjustment Regulator sections).
3. Check the supply gas pressure. It must be within the limits shown on the rating plate. Supply pressure should be checked with all gas appliances in the building at full fire. At no time should the standby gas pressure exceed 13" w.c., nor the operation pressure drop below 5" w.c. for natural gas units or 11" w.c. for propane gas. If gas pressure is outside these limits, contact the gas supplier for corrective action.
4. Adjust temperature rise to the range specified on the rating plate.

Manifold Gas Pressure Adjustment Regulator – Natural Gas

For purpose of input adjustment, the minimum permissible gas supply pressure is 5" w.c. for natural gas.

Gas input must never exceed the input capacity shown on the rating plate. **The furnace is equipped for natural gas rated inputs with manifold pressure of 3.5" w.c.**

The manifold pressure can be measured by shutting off the gas, removing the pipe plug in the downstream side of the gas valve, and connecting a water manometer or gauge. **Under no circumstances should the final manifold pressure vary more than 0.3" w.c. from the above specified pressures.** To adjust the regulator, turn the adjusting screw on the regulator clockwise to increase pressure and input or counterclockwise to decrease pressure and input. See Figure 7 to assist in locating the regulator on the gas valve.

Check the furnace rate by observing the gas meter, making sure all other gas appliances are turned off. The test hand on the meter should be timed for at least one revolution, noting the number of seconds per revolution. The heating value of the gas can be obtained from the local utility.

$$\text{BTU/HR Input} = \frac{\text{Cubic Feet per Revolution}}{\text{\# Seconds per Revolution}} \times 3600 \times \text{Heating Value}$$

For example, by actual measurement, it takes 38 seconds for the hand on the 1-cubic foot dial to make a revolution with a 100,000 BTU/HR furnace running. The result is

99,750 BTU/HR, which is close to the 100,000 BTU/HR rating of the furnace.

Manifold Gas Pressure Adjustment Regulator – LP/Propane Gas

LP/propane units require a LPG regulator on both the gas valve and on the LP/propane tank.

IMPORTANT: For purpose of input adjustment, the minimum permissible gas supply pressure (inlet side of gas valve) is 11" w.c. for LP/propane.

If at any time ignition is slow and burner does not seem to be operating correctly, check manifold pressure (outlet side of the gas valve). **It should be 10" to 10.5" w.c. pressure for LP/propane.**

The furnace is designed to obtain rated input at 10" w.c. manifold pressure for propane.

High Altitude

The input rate shown on the rating plate is for elevations up to 2000 feet. For elevations from 2001 to 4500 feet, the input rate is reduced by 5%. For elevations above 4500 feet, refer to the National Fuel Gas Code Z223.1 (latest edition) or the Canadian Installation Codes CAN/CGA-B149.1 & B149.2 for further details.

To check this pressure:

1. Slide the gas valve switch to the "OFF" position (see Figure 7).
2. Remove plug on valve marked "OUTLET PRESSURE."
3. Install a water manometer.
4. Slide the gas valve switch to the "ON" position and initiate a call for heat. If manifold pressure must be adjusted, remove cap from pressure regulator and turn adjustment screw clockwise to increase pressure or counterclockwise to reduce pressure.
5. After checking pressure, turn gas off, remove manometer fitting, and replace pipe plug and regulator cap.
6. Put furnace in operation and check plug for leaks using soapy solution.

Burner and Burner Orifice Instructions

To check or change burners or burner orifices:

1. **Close the main manual gas shutoff valve and turn off all power to unit.**
2. Remove the burner access panel.
3. Disconnect the union in the gas supply line upstream of the gas valve and downstream of the manual shutoff valve.
4. Label wires going to the gas valve, then disconnect the wires.

5. To change orifice:
 - a. Remove screws that fasten the manifold to the burner box assembly and remove the manifold.
 - b. Remove the orifices, then install replacement orifices.
 - c. To reassemble: Reverse above steps, making sure orifices are inserted into the orifice holders on the back end of the burners, and that burners are level and centered on each burner opening in the vest panel.
6. To remove or service burners:
 - a. Label and disconnect the wires to the rollout switch and disconnect the igniter and flame sensor leads at the ignition control.
 - b. Remove the screws that secure the burner box assembly to the vest panel and remove the assembly from the unit.
 - c. Remove the screws that fasten the burner rack and bottom shield assembly to the burner box. Burners are now accessible for removal.
 - d. To Reassemble: Reverse above steps.
7. After reassembly of all parts is complete and all wires are reconnected, open the main manual gas shutoff valve; check for and correct any gas leaks. Turn electrical power on, initiate a call for heat, and check for proper burner operation.
8. Install burner access panel.

Heat Anticipator

The heat anticipator setting is 0.75 amp. It is important that the anticipator setpoint be correct. Too high of a setting will result in longer heat cycles and a greater temperature swing in the conditioned space. Reducing the value below the correct setpoint will give shorter "ON" cycles and may result in the lowering of the temperature within the conditioned space.

Operation

Cooling System

The cooling system is factory-charged with HFC-R-410A. The compressor is hermetically sealed and base-mounted with rubber-insulated bolts.

Cooling Sequence of Operation

When the thermostat calls for cooling, R is closed to Y (see the wiring diagrams). This action completes the low voltage control circuit, energizing the compressor, condenser fan motor, and blower motor.

Unit compressors have internal protection. In the event there is an abnormal rise in the temperature of the compressor, the protector will open and cause the compressor to stop.

A combustion air inducer operates for the first 10 seconds of every cooling cycle to prevent insects from nesting in the flue outlet.

Blower Delay – Cooling

The circulating air blower is controlled by a timing circuit in the integrated blower/ignition control. Timings are not adjustable. Blower "ON" delay is 5 seconds after the compressor starts and blower "OFF" timing is 60 seconds after the compressor shuts down.

NOTE: *There is no blower OFF delay when there is a call for G (fan only).*

Cooling System Performance

This equipment is a self-contained, factory-optimized refrigerant system. The unit should not require adjustments to system charge when properly installed. If unit performance is questioned, perform the following checks.

Cooling System Performance Values		
Model	Suction Superheat +/- 3°	Liquid Subcooling +/- 2°
2 Ton	13	
2.5 Ton	16	
3 Ton	14	
3.5 Ton	14	
4 Ton	16	
5 Ton	17	
Based on outdoor ambient temperature of 82°F, and indoor entering air of 80°F db, 67°F wb.		

Table 3.

Ensure unit is installed per manufacturer's instructions and that line voltage and air flow are correct. Refer to Table 3 for proper performance value. The indoor metering device varies by model. When checking performance of a unit using an orifice for metering, refer to the suction superheat value to judge performance. When checking performance of a unit that uses an expansion valve for metering, refer to the subcooling value to judge system performance. If the measured performance value varies from table value allowance, check internal seals, service panels and duct work for air leaks, as well as restrictions and blower speed settings. If unit performance remains questionable, remove system charge, evacuate to 500 microns, and weigh in refrigerant to nameplate charge. It is critical that the exact charge is re-installed. Failure to comply will compromise system performance. If unit performance is still questionable, check for refrigerant-related problems, such as blocked coil or circuits, malfunctioning metering device or other system components.

Continuous Fan

With the proper thermostat and sub-base, continuous blower operation is possible by closing the R to G circuit. Cooling blower delay is also functional in this mode.

Heating Sequence of Operation

When the thermostat calls for heating, R is closed to W. The following describes the gas heating sequence of operation.

1. A call for heat from the room thermostat starts the combustion air blower and the circulating air blower.
2. When the speed of the combustion air blower reaches proper RPM, the pressure switch closes, initiating a pre-purge period (30 seconds nominal).
3. When the pre-purge period has expired, the ignition control energizes the main gas valve and spark electrode for a period of 10 seconds.
4. If the flame sensor does not sense that a flame has been established in the 10-second interval, then the ignition control will de-energize the gas valve, and begins a 30 second inter-purge period, then initiates another trial for ignition.
5. The ignition control is designed to repeat this "trial for ignition" a total of three times. If, at the end of the third trial, flame still has not been established, then the ignition control will try to light again 1 hour later. The 1-hour retry is indefinite. The ignition control can be reset by interrupting the unit power or the thermostat circuit.
6. Once flame sense has been established, the circulating air blower is energized after a 30 second blower on delay.
7. When the thermostat is satisfied, the combustion air blower and gas valve are de-energized. The circulation air blower will continue to run for a short period after the furnace is shut down.

Blower Delay – Heating

- The circulating air blower "OFF" delay is 120 seconds after shutting down the burners. This delay is not adjustable.
- The circulating air blower "ON" delay is 120 seconds after "W" signal is received to allow the furnace to warm up.

Safety Controls

The control circuit includes the following safety controls:

Limit Control

This control is located behind the heat exchanger access panel and is designed to open at abnormally high circulating air temperatures. It resets automatically. The limit control operates when a high temperature condition, caused by inadequate airflow, occurs. This closes the main gas valve.

Pressure Switch

If the combustion air blower should fail, the pressure switch prevents the spark electrode and gas valve from being energized.

Flame Sensor

If the ignition control does not receive a signal from the flame sensor indicating that the burners have established flame, the gas valve closes after the 10-second trial for ignition period.

Rollout Switch

The switch is located on the top of the burner box. In the event of a sustained main burner rollout, the rollout switch shuts off the ignition control and closes the main gas valve. To reset, push the button on top of the switch.

Secure Owner's Approval

When the system is functioning properly, secure the owner's approval. Show the owner the location of all disconnect switches and the thermostat. Instruct the owner on how to start and stop the unit and how to adjust temperature settings within the limitations of the system.

Maintenance

Periodic inspection and maintenance normally consists of changing or cleaning the filters and cleaning the evaporator coil. On occasion, other components of the furnace may also require cleaning.

WARNING

Shut off all electrical power to the unit before conducting any maintenance procedures. Failure to do so could cause personal injury.

Filters

Filters are not supplied with the unit. Inspect once a month. Replace disposable or clean permanent type as necessary. **Do not replace permanent type with disposable.**

Motors

Indoor and outdoor fan and vent motors are permanently lubricated and require no maintenance.

Evaporator Coil

Dirt and debris should not be allowed to accumulate on the evaporator coil surface or other parts in the air circuit. Cleaning should be as often as necessary to keep coil clean. Use a brush, vacuum cleaner attachment, or other suitable means. If water is used to clean the coil, be sure the power to unit is shut off prior to cleaning. **Care should be used when cleaning the coil so that the coil fins are not damaged.**

Do not permit the hot condenser air discharge to be obstructed by overhanging structures or shrubs.

Condenser Coil

Clean condenser coil annually with water and inspect monthly during the cooling season.

Condenser coil may need to be cleaned at startup in case oil from the manufacturing process is found on the condenser coil.

Burners

To clean the burners, first remove them from the furnace as explained in the Burner and Burner Orifice Instructions section. Vacuum and/or brush as required.

Vent Outlet

Visually inspect vent outlet periodically to make sure that there is no buildup of soot or dirt. If necessary, clean to maintain adequate opening to discharge flue products.

Heat Exchanger

With proper combustion adjustment, the heat exchanger of a gas-fired furnace will seldom need cleaning. Sooting of a gas appliance is highly irregular and once cleaned, the cause of the sooting must be determined. If the heat exchanger should become sooted, it can be cleaned as follows:

1. Remove the burner assembly as outlined in the Burner and Burner Orifice Instructions section.
2. Remove the combustion blower.
3. At the bottom of the heating section, remove the screws holding the flue collector box. Carefully remove the flue collector box without ripping the adjacent insulation.
4. Using a wire brush on a flexible wand, brush out the inside of each heat exchanger from the burner inlet and flue outlet ends.
5. Brush out the inside of the flue collector box.
6. Run the wire brush down the heat exchanger tubes from the flue collector end.
7. If soot buildup is excessive, remove the vent motor and

clean the wheel and housing. Run the wire brush down the flue extension at the outlet of the vent housing.

8. After brushing is complete, blow all brushed areas with air. Vacuum as needed.
9. Replace parts in the reverse order they were removed in Steps 1 through 3.
10. When replacing the flue collector box, be careful so as not to tear the adjoining insulation.
11. Assure that all joints on the vent side of the combustion system are air tight. Apply a high temperature (+500°F) sealing compound where needed.

Control System Diagnostics

LED Status	Flashing Rate	Fault Description
Slow Flash	One flash per second	Normal operation: No call for heat
Fast Flash	Two flashes per second	Normal operation: Call for heat
2 Flash	Two flashes in second with 1-second pause	System lockout: Failed to detect or sustain flame
3 Flash	Three flashes in 1.5 seconds with 1-second pause	Pressure switch senses incorrect pressure or gas valve coil is open.
4 Flash	Four flashes in 2 seconds with 1-second pause	High limit or rollout switch open
5 Flash	Five flashes in 2.5 seconds with 1-second pause	Flame sensed and gas valve not energized
Steady	--	Internal failure: Micro-controller failure; self-check

Table 4. Fault Codes

Table 5. Cooling Performance - Gas/Electric Models

80 DB / 67 WB Deg. Return Air		Air Temperature Entering Evaporator Coil, Degree F											
Cooling Input (1000 BTU)	Pressure	65°	70°	75°	80°	82°	85°	90°	95°	100°	105°	110°	115°
24	Suction	135	136	137	139	139	141	143	146	148	150	152	154
30		135	137	140	142	143	145	147	150	152	154	155	157
36		135	137	140	142	143	144	147	149	151	152	154	155
42		129	132	135	139	140	141	143	145	146	147	148	149
48		132	136	139	143	144	145	146	147	149	151	152	154
60		130	131	133	134	135	136	139	141	144	146	149	152
24	Liquid	250	266	282	298	304	318	340	363	388	413	438	463
30		247	269	292	314	323	336	358	380	406	432	457	483
36		250	275	301	326	336	351	375	399	423	446	470	493
42		248	271	293	316	325	339	362	385	411	436	462	487
48		265	286	308	329	338	352	376	400	427	455	482	509
60		256	276	296	316	324	340	365	386	415	438	473	503

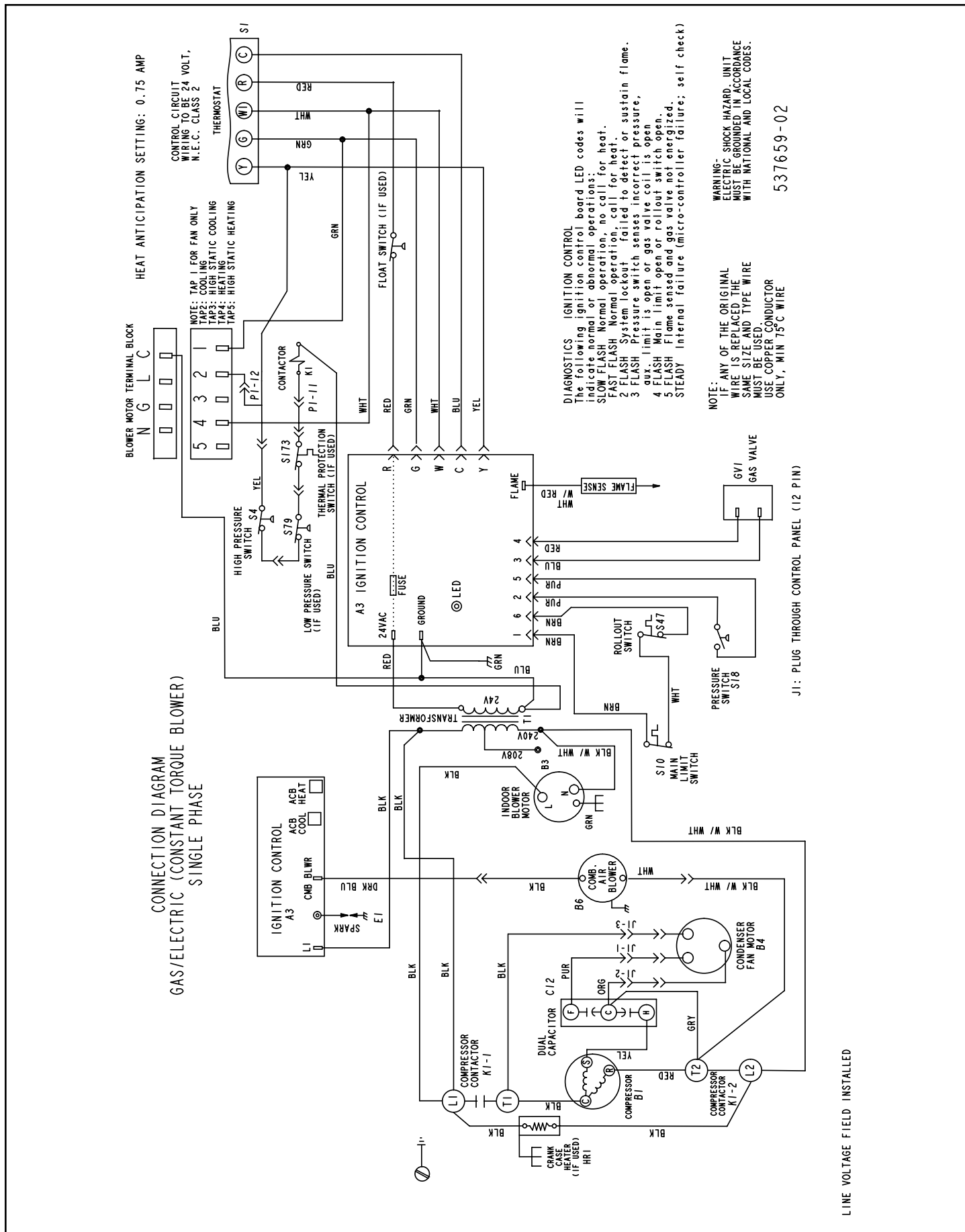


Figure 8. Wiring Diagram – Single Phase CT



MRCOOL®

COMFORT MADE SIMPLE

Signature Series

MPG*S*M414A-2 Residential Package

ELECTRICIAN and/or HVAC TECHNICIAN:

LICENSE #:

INSTALLATION DATE:

INSTALLATION LOCATION:

SERIAL NUMBER:

The design and specifications of this product and/or manual are subject to change without prior notice. Consult with the sales agency or manufacturer for details.

MPG*S*M414A-2

PRODUCT SPECIFICATIONS

14 SEER GAS ELECTRIC
PACKAGED UNIT

FORM NO. MPG*S*M414A-2 (01/2021)

REFRIGERANT SYSTEM

- Environmentally friendly R410A refrigerant
- Copper tubing with enhanced fin coils
- Internal service gauge ports
- Sleeved distributor tubes
- Antimicrobial insulated drain pan
- High and Low Threaded pressure switches for system protection

HEAT EXCHANGER

- GX models comply with California Energy Commission Low NOx regulations
- Aluminized Tri-Dimple tubular heat exchanger for increased efficiency
- Pest protected flue outlet

CABINET CONSTRUCTION

- Heavy-gauge galvanized steel base rails with rigging holes
- Rounded corners for safety and an attractive, clean appearance
- One piece base design for strength and stability
- Condensate and coil runoff drains to the perimeter of the unit
- Horizontal and downflow duct openings are flanged to minimize water entry
- Low profile, with compact footprint
- Insulation to minimize heat loss plus reduce sound
- Textured pre-painted steel cabinet finish
- Superior service access to components
- Louvered coil guard protection
- One piece "no leak" top design

BLOWER

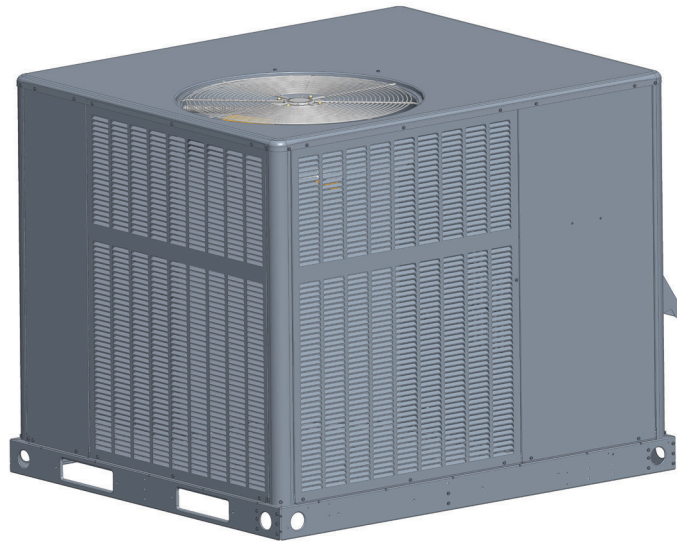
- Insulated compartment to reduce sound
- Efficient constant torque motor for wide airflow range
- Slide out blower housing for easy service

CONTROLS

- Solid state integrated blower control board with L.E.D. self diagnostics
- Direct spark ignition
- Color coded wiring for easy service

INSTALLATION

- Horizontal or down discharge capable
- Horizontal and downflow duct covers provided with unit for installation flexibility
- Drain pan float switch monitors condensate level in drain pan and shuts down unit if drain becomes clogged
- Utility connections on "right side"
- Kits enable bottom gas and power entry through base pan



ACCESSORIES

- LP Gas Conversion

WARRANTY

10 year limited parts and compressor warranty/lifetime heat exchanger warranty available. See limited warranty document for details.

California Only

If installed in South Coast Air Quality Management District (SCAQMD) only: This furnace does not meet the SCAQMD Rule 1111 NOx emission limit (14 ng/l), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

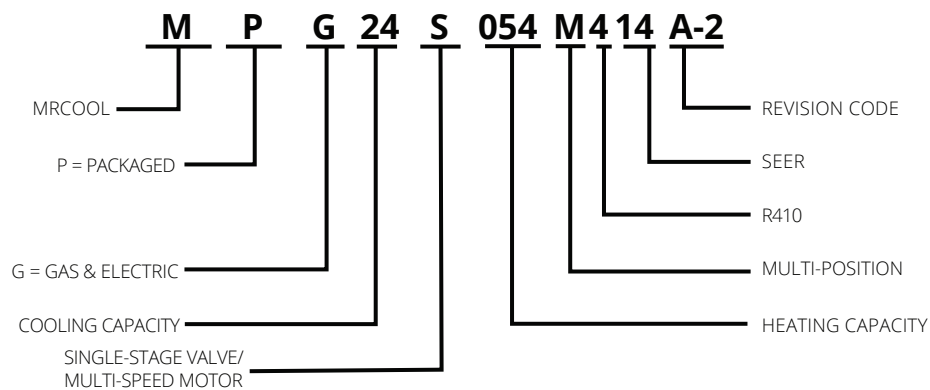
If installed in San Joaquin Valley Air Pollution Control District (SJVAPCD) only: This furnace does not meet the SJVAPCD Rule 4905 NOx emission limit (14 ng/l), and thus is subject to a mitigation fee of up to \$450.



Intertek



MODEL NUMBER GUIDE



ELECTRICAL AND PHYSICAL DATA

Model	Voltage	Phase	Hz	Min Volts @ 60 hz	MCA	Max Fuse/ HACR Breaker	Compressor		Condenser Motor		Blower Motor		Exhaust Motor		Refrig. Charge (oz.)	Weight (lbs.)
							RLA	LRA	FLA	HP	FLA	HP	RLA	HP		
MPG24S054M414A-2	208-230	1	60	197	14.4	20	8.6	43.5	1.0	1/6	2.8	1/3	0.22	1/50	72	388
MPG30S054M414A-2					18.22	25	10.6	47			4.1	1/2			80	400
MPG36S090M414A-2					22.7	35	15.7	72.2			4.1	1/2			87	419
MPG42S090M414A-2					27.5	40	15.9	112.3	1.7	1/4	6	3/4			108	496
MPG48S108M414A-2					28.7	45	16.9	94			6	3/4			115	506
MPG60S108M414A-2					38.9	60	26.4	152.5			7.6	1.0			125	543
																549

PERFORMANCE

Model	COOLING					HEATING				Sound dBA
	Rated AHRI Capacity Btuh	SEER	EER	Rated Sensible Capacity Btuh	CFM	Input BTUH	Output BTUH	Efficiency AFUE	Temp Rise Range F	
MPG24S054M414A-2	22,600	14.0	11.0	17,400	800	54,000	43,800	81%	30-60	77
						72,000	58,400		40-70	
MPG30S054M414A-2	28,400			21,900	1000	54,000	43,800		30-60	79
						72,000	58,400		40-70	
MPG36S090M414A-2	34,000			26,100	1200	72,000	58,400		35-65	78
						90,000	72,900		40-70	
MPG42S090M414A-2	40,000			30,800	1400	90,000	72,900		40-70	77
MPG48S108M414A-2	45,500			35,000	1600	108,000	87,500		40-70	
MPG60S108M414A-2	57,000			41,600	1800	108,000	87,500		40-70	78
						126,000	102,100		45-75	

*Certified in accordance with Unitary Air Conditioner Certification Program, which is based on AHRI Standard 210/240

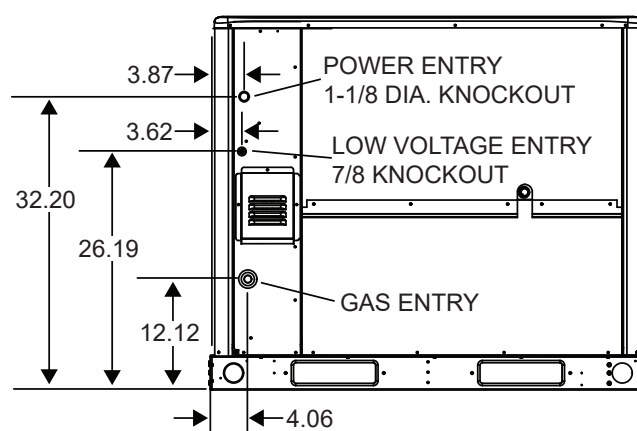
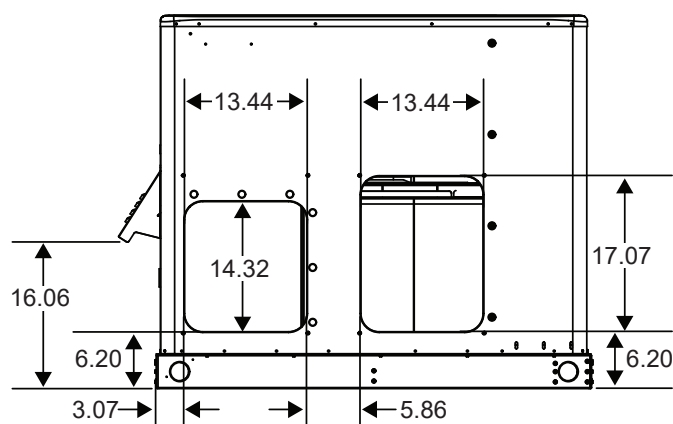
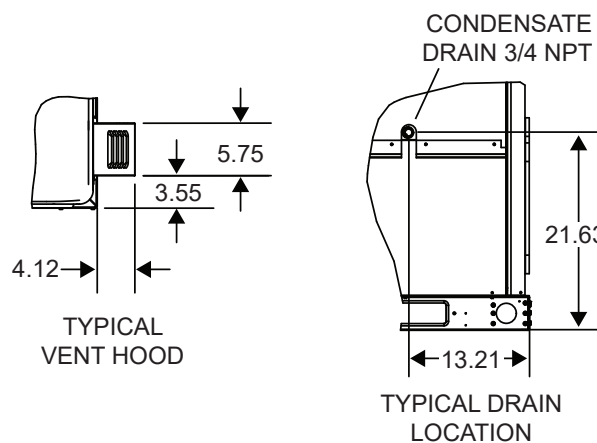
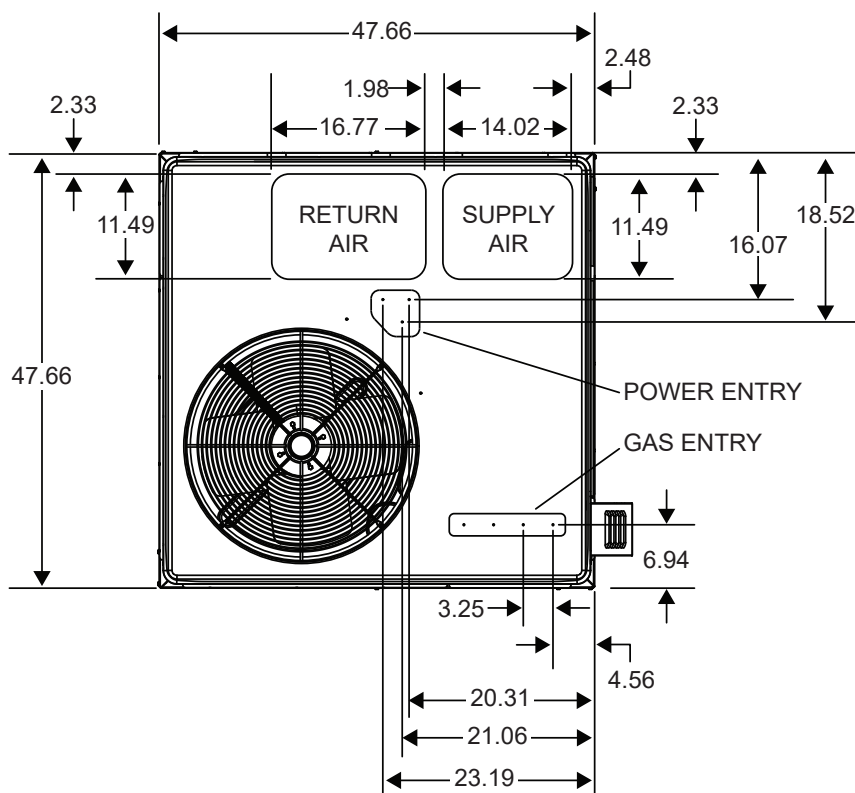
BLOWER PERFORMANCE

Model	Blower Tap	CFM @ext. Static Pressure in in. wc without filter, dry coil									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
MPG24S054M414A-2	TAP 1	610	560	525	485	430	N/A	N/A	N/A	N/A	N/A
	TAP 2	820	795	760	720	690	650	615	575	540	470
	TAP 3	950	920	880	850	820	800	760	720	680	625
MPG30S054M414A-2	TAP 1	850	820	780	745	710	680	630	590	550	515
	TAP 2	1040	1000	970	935	900	875	845	815	770	735
	TAP 3	1175	1145	1115	1080	1050	1015	990	945	900	860
MPG36S090M414A-2	TAP 1	850	800	750	700	645	600	550	480	435	N/A
	TAP 2	1245	1210	1175	1140	1100	1065	1025	975	920	845
	TAP 3	1400	1370	1335	1300	1265	1220	1180	1150	1060	875
MPG42S090M414A-2	TAP 1	800	720	640	550	475	390	310	N/A	N/A	N/A
	TAP 2	1470	1410	1360	1300	1260	1210	1155	1095	1000	940
	TAP 3	1700	1650	1610	1575	1540	1480	1430	1390	1340	1210
MPG48S108M414A-2	TAP 1	1145	1075	1000	930	850	790	740	670	570	490
	TAP 2	1675	1630	1600	1540	1490	1440	1390	1300	1230	1125
	TAP 3	1800	1770	1715	1690	1640	1610	1565	1500	1460	1380
MPG60S108M414A-2	TAP 1	1400	1320	1260	1200	1120	1060	980	900	N/A	N/A
	TAP 2	1920	1870	1820	1770	1720	1670	1450	1360	N/A	N/A
	TAP 3	2235	2195	2165	2130	2090	2060	2025	1985	1960	1940

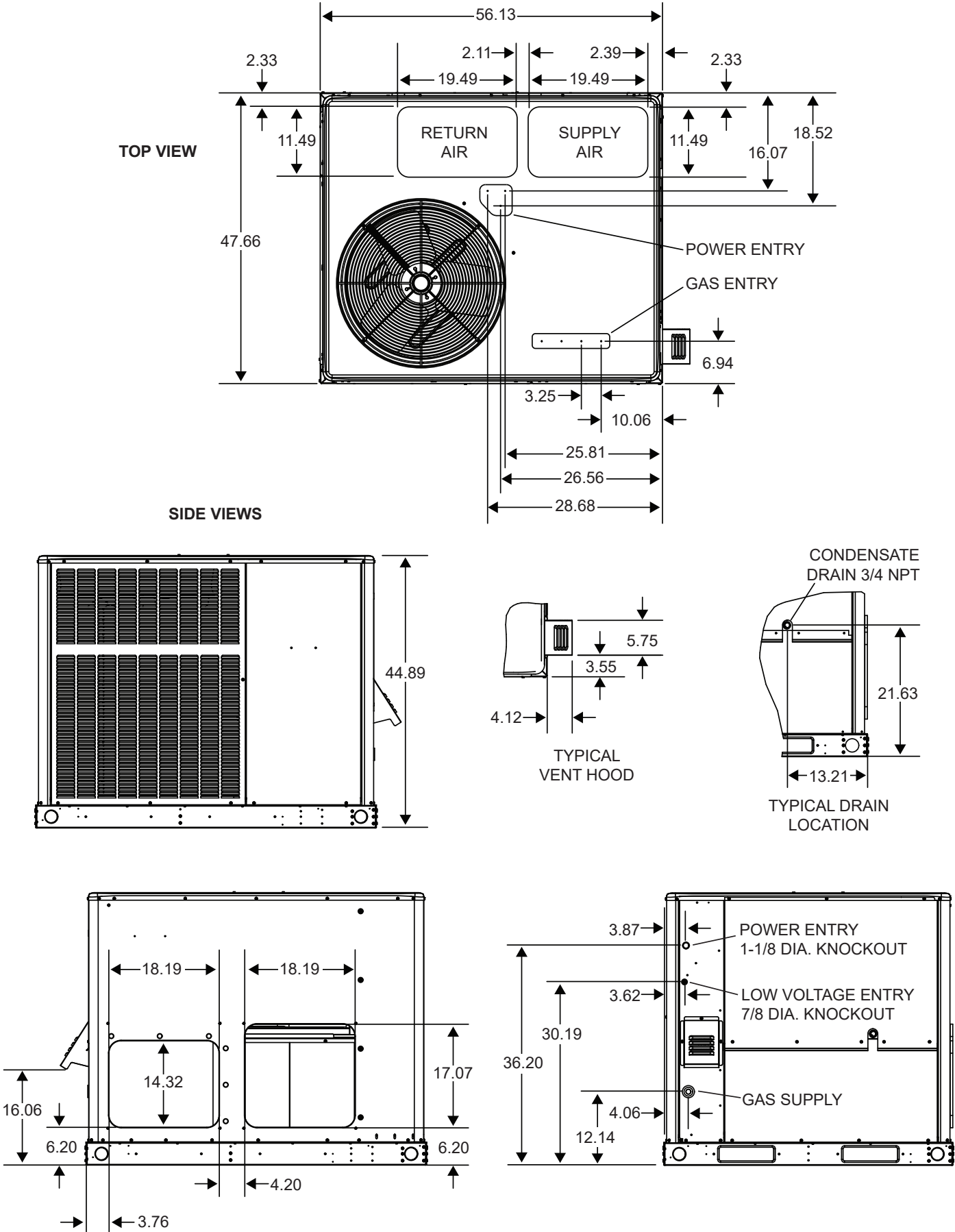
COOLING PERFORMANCE - EXTENDED RATINGS

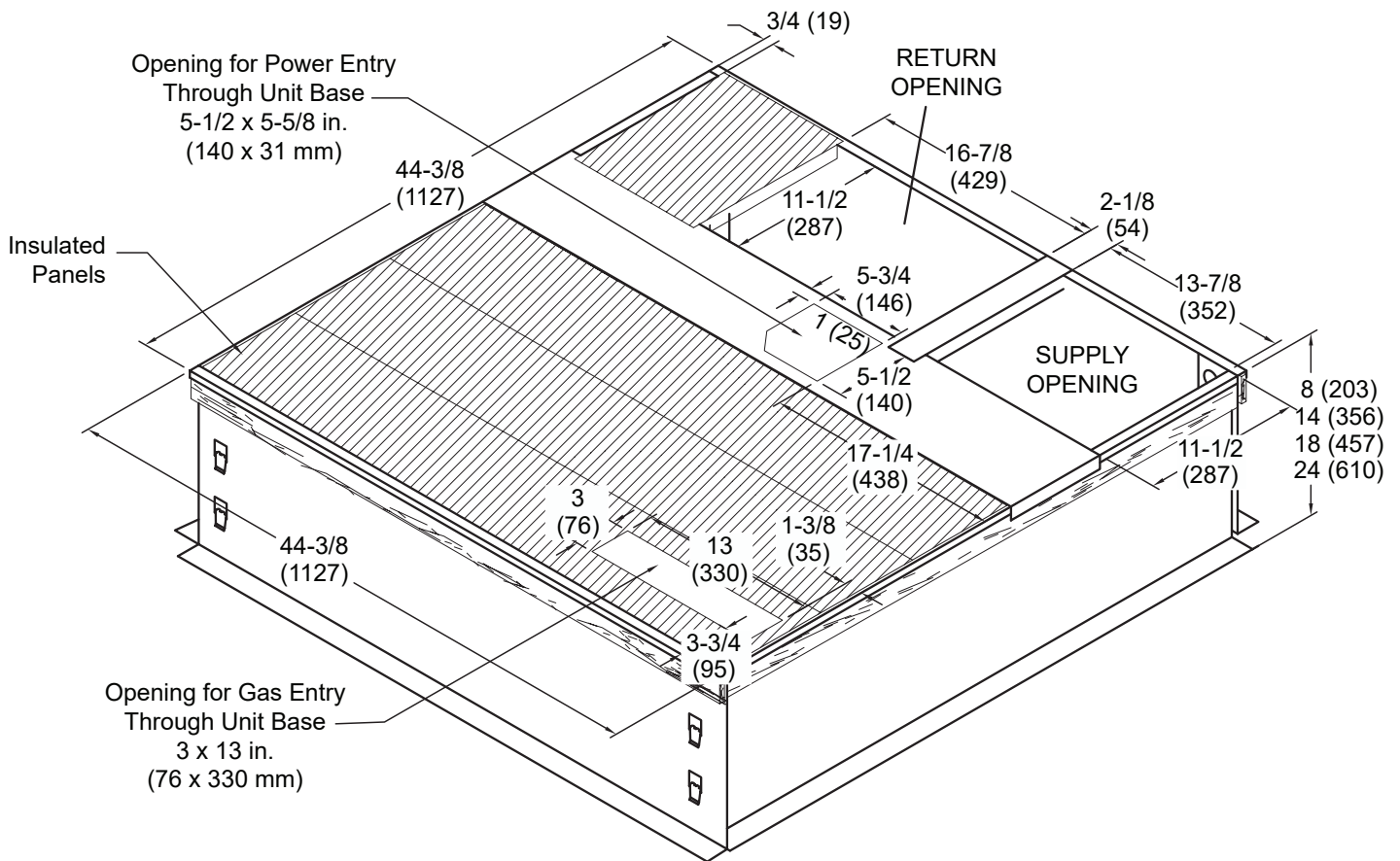
Outdoor Model	Indoor Temp DB/WB °F	Outdoor Temperature - DB °F														
		65°			82° / 67 °			95° / 75 °			105° / 85 °			115° / 95°		
		Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW
MPG24S054M414A-2	85 / 72	30,600	0.65	1.33	27,700	0.68	1.65	24,700	0.70	1.88	23,100	0.72	2.06	22,500	0.75	2.26
	80 / 67	27,900	0.71	1.35	25,500	0.74	1.65	22,600	0.77	1.88	21,200	0.79	2.06	20,700	0.82	2.25
	75 / 63	26,000	0.74	1.36	23,800	0.77	1.65	21,000	0.79	1.87	20,700	0.82	2.05	19,300	0.84	2.23
	75 / 57	23,800	1	1.39	22,100	1	1.64	20,700	1	1.87	19,600	1	2.04	18,500	1.00	2.22
MPG30S054M414A-2	85 / 72	38,200	0.68	1.83	34,700	0.71	2.16	32,000	0.74	2.42	30,500	0.74	2.6	29,000	0.78	2.86
	80 / 67	35,200	0.75	1.76	32,300	0.78	2.11	28,400	0.75	2.34	28,100	0.84	2.57	25,100	0.8	2.74
	75 / 63	33,000	0.77	1.71	30,400	0.8	2.06	27,700	0.8	2.31	25,900	0.82	2.51	24,100	0.84	2.72
	75 / 57	29,900	1	1.66	28,300	1	2.01	26,600	1	2.29	25,200	1	2.49	23,700	1	2.7
MPG36S090M414A-2	85 / 72	45,800	0.68	2.09	41,700	0.72	2.49	37,600	0.73	2.82	35,400	0.74	3.1	32,400	0.75	3.39
	80 / 67	40,800	0.75	2.1	38,500	0.75	2.51	34,400	0.79	2.81	33,200	0.84	3.09	30,500	0.85	3.38
	75 / 63	38,100	0.76	2.11	36,000	0.77	2.51	32,300	0.81	2.80	30,500	0.84	3.08	28,400	0.87	3.37
	75 / 57	35,200	1	2.14	33,600	1	2.5	30,700	1	2.80	29,200	1	3.07	27,400	1	3.36
MPG42S090M414A-2	85 / 72	54,500	0.67	2.51	48,900	0.71	2.9	45,700	0.73	3.28	44,200	0.74	3.64	42,800	0.75	4.08
	80 / 67	50,100	0.74	2.52	45,100	0.78	2.91	40,000	0.77	3.28	38,400	0.79	3.64	35,700	0.8	4.05
	75 / 63	46,800	0.76	2.52	42,700	0.8	2.91	38,800	0.81	3.29	36,300	0.82	3.65	33,500	0.83	4.06
	75 / 57	42,500	1	2.53	39,700	1	2.93	37,100	1	3.3	35,100	1	3.66	33,100	1	4.07
MPG48S108M414A-2	85 / 72	59,400	0.69	2.78	53,900	0.72	3.29	49,700	0.72	3.6	47,100	0.75	4.09	43,600	0.75	4.48
	80 / 67	54,600	0.75	2.8	49,900	0.77	3.3	46,000	0.80	3.71	42,900	0.8	4.07	40,000	0.81	4.47
	75 / 63	50,700	0.76	2.82	46,700	0.79	3.3	43,300	0.82	3.7	40,400	0.82	4.06	38,100	0.86	4.47
	75 / 57	47,200	1	2.83	43,800	1	3.29	41,000	1	3.7	39,000	1	4.06	36,900	1	4.47
MPG60S108M414A-2	85 / 72	70,300	0.63	3.5	66,100	0.64	4.19	62,800	0.65	4.72	59,200	0.7	5.27	55,500	0.76	5.82
	80 / 67	65,700	0.69	3.47	61,000	0.71	4.08	57,400	0.73	4.69	54,300	0.78	5.24	51,200	0.83	5.78
	75 / 63	61,400	0.72	3.45	56,300	0.74	4.12	52,300	0.76	4.63	50,200	0.8	5.19	48,000	0.85	5.75
	75 / 57	54,500	1	3.42	50,100	1	4.09	50,100	1	4.09	46,700	1	5.17	45,900	1	5.73

TOP VIEW



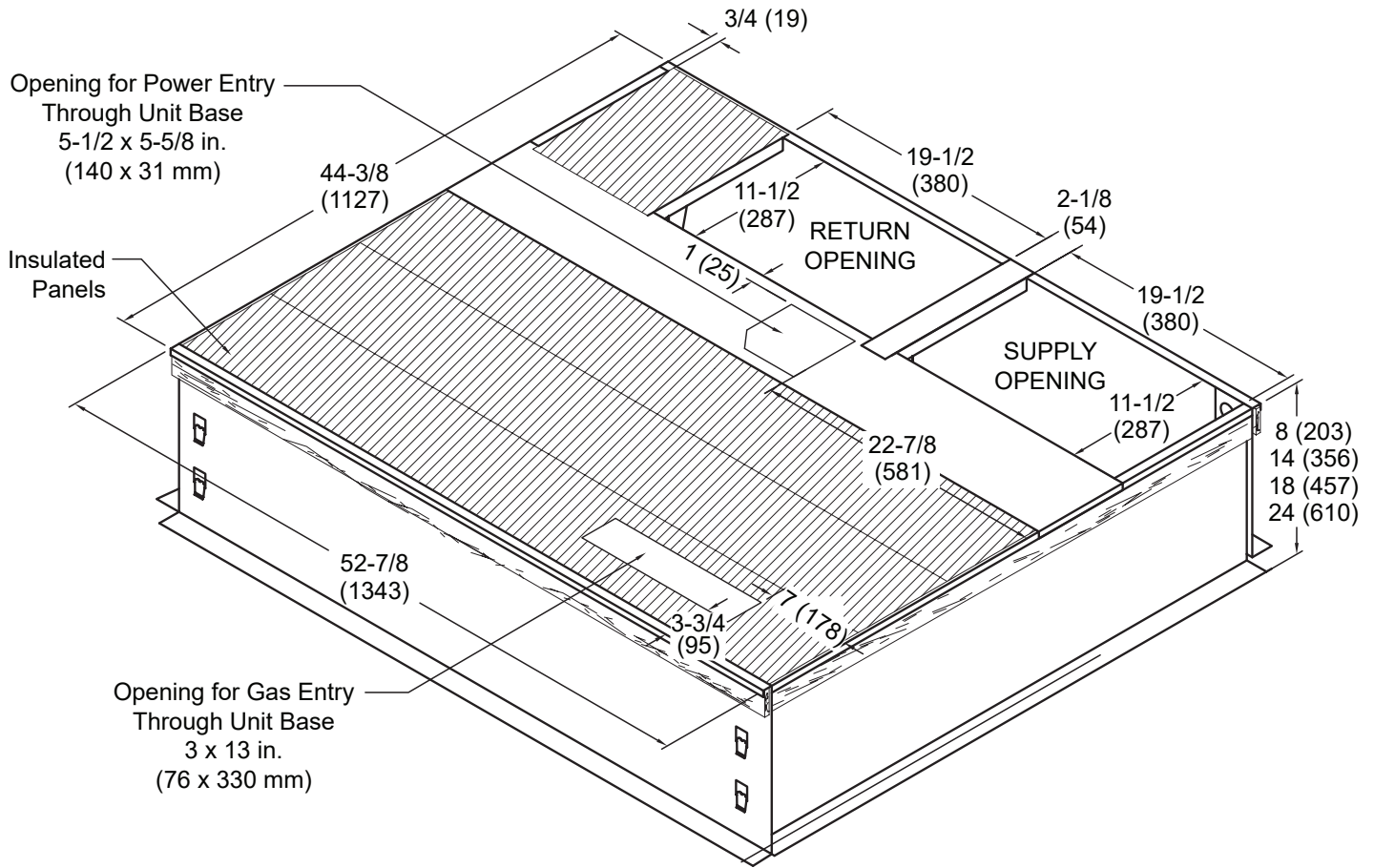
DIMENSIONS (IN.) - LARGE BASE



ROOF CURB DIMENSIONS - SMALL BASE

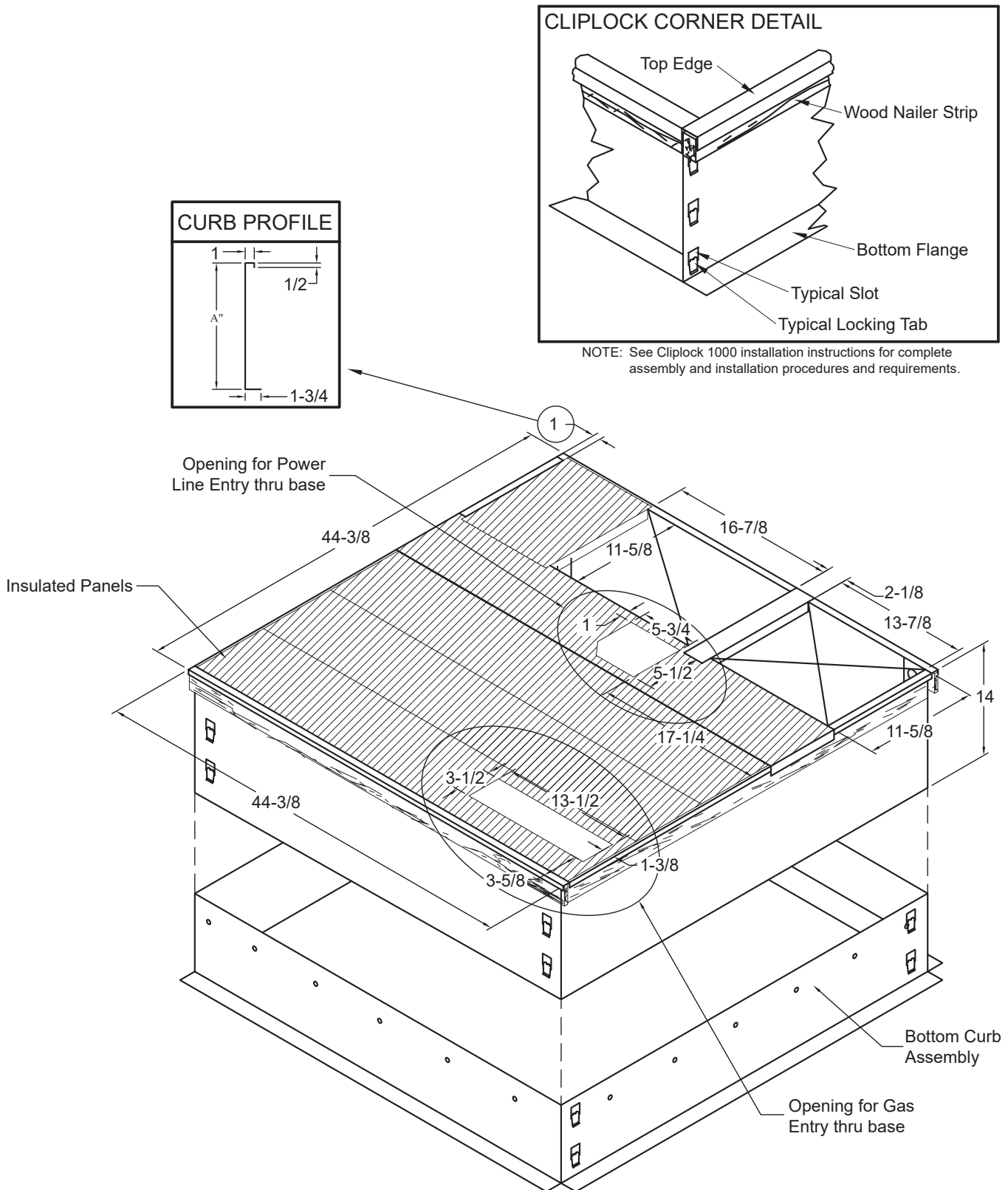
NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

ROOF CURB DIMENSIONS - LARGE BASE

NOTE - Roof deck may be omitted within confines of curb.

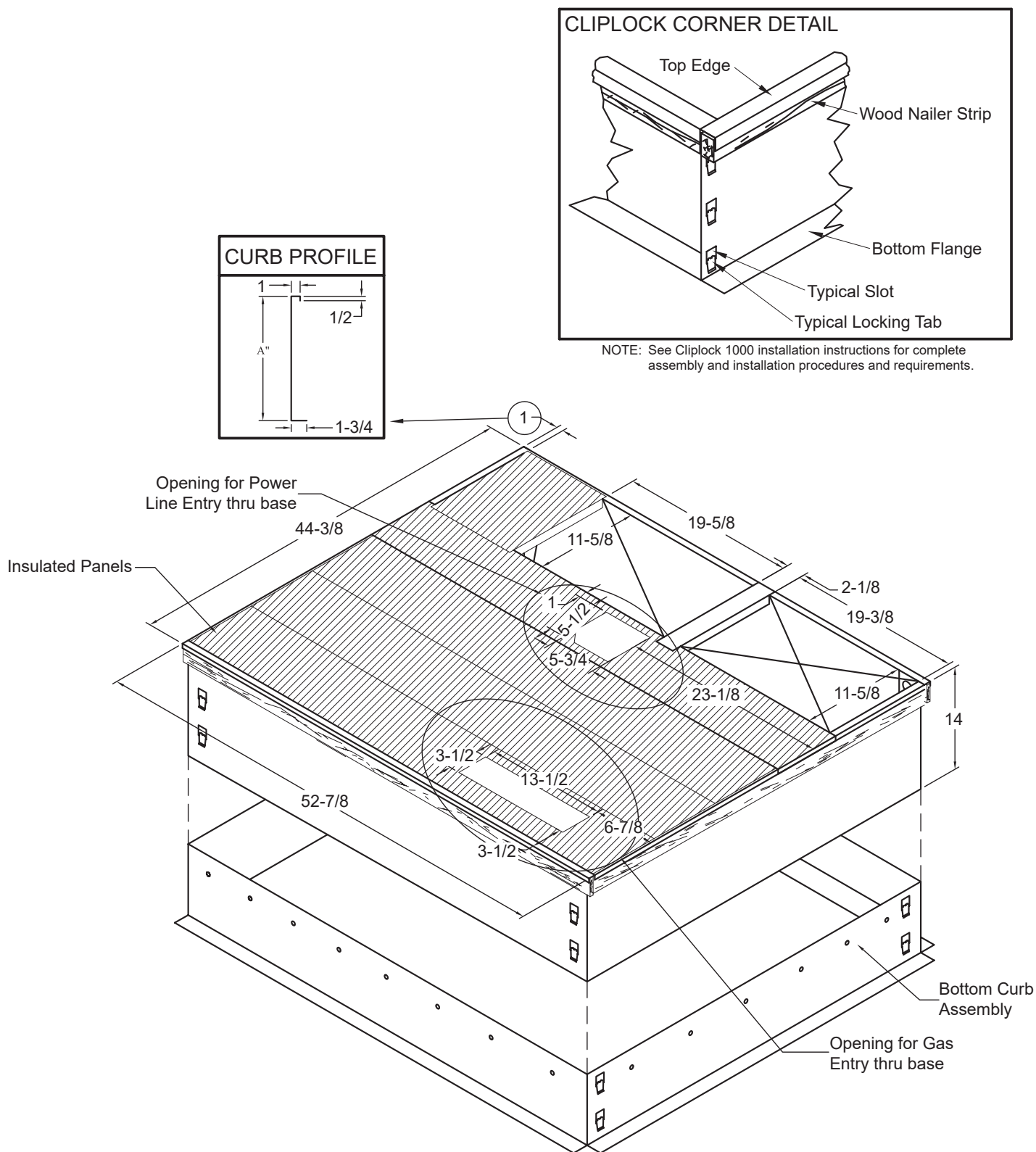
NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

ADJUSTABLE CURB DIMENSIONS - SMALL BASE

NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

ADJUSTABLE CURB DIMENSIONS - LARGE BASE



NOTE - Roof deck may be omitted within confines of curb.

NOTE - If bottom entry is used, condensate from the heat exchanger may leak during warm ambient temperatures in humid climates. Ensure that bottom entry is watertight, if used.

ACCESSORIES

Description	Where Used	Kit Number
LPG/Propane Conversion Kit	All	MLP1PS



For MRCOOL customer service or tech support please call: 1-(270)-366-0457

All specifications and illustrations subject to change without notice and without incurring obligations.

The Signature Series is **NOT** designed for amateur installation. Installation **SHOULD** be performed by an authorized technician. Please read this manual carefully before installation and keep it for future reference.

User's Information Manual



MRCOOL®

COMFORT MADE SIMPLE

Signature Series

Gas Heating/Electric Cooling

Package Unit

The Signature Series is **NOT** designed for amateur installation. Installation **SHOULD** be performed by an authorized technician. Please read this manual carefully before installation and keep it for future reference.

USER'S INFORMATION MANUAL

Gas Heating/Electric Cooling Package Unit

Save these instructions for future reference

Congratulations...

...your outdoor heating/cooling package unit is a valuable piece of equipment, designed and manufactured by the most modern methods. Proper care of your unit should result in many years of service and comfort.

To keep your operating costs low and to eliminate unnecessary service calls, we have provided a few guidelines. These guidelines will help you understand how your heating/cooling unit operates and how to maintain it so you can get years of safe and dependable service. Read all the instructions in this manual, and keep all manuals for future reference.

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MAINTENANCE OF YOUR UNIT.....	4
FILTER	5
BURNER FLAME	6



WARNING

FIRE OR EXPLOSION HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.

- **Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.**
- **What to do if you smell gas:**
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach the gas supplier, call the fire department.
- **Installation and service must be performed by a qualified installer, service agency or the gas supplier.**

Manufactured By
MRCOOL LLC
Hickory, KY 42051

F507302-C

(P) 507302-01C

IMPORTANT SAFETY INFORMATION

WARNING

ELECTRICAL SHOCK, FIRE, OR EXPLOSION HAZARD

Failure to follow the safety warnings exactly could result in dangerous operation, serious injury, death, or property damage.

Improper servicing could result in dangerous operation, serious injury, death, or property damage.

- Before servicing, disconnect all electrical power to unit.
- When servicing controls, label all wires prior to disconnecting. Reconnect wires correctly.
- Verify proper operation after servicing.

For your safety, read the following before operating your gas heating/electric cooling package unit:

1. The area around the unit must be kept clear and free of combustible materials, gasoline, and other flammable vapors and liquids.
2. This unit requires air for combustion and ventilation to ensure both proper and safe operation. Combustion air is brought in through the condenser section. Do not block or obstruct the condenser coil or condenser fan opening.
3. This unit is equipped with an ignition device which

automatically lights the burners. See **OPERATING YOUR UNIT** on page 3 for information on lighting and shutting down the unit.

4. Should the gas supply fail to shut off or if overheating occurs, shut off the gas valve to the unit before shutting off the electrical supply.
5. Do not use the unit if any part has been under water. A flood-damaged unit is extremely dangerous. Attempts to use the unit can result in fire or explosion. A qualified service agency should be contacted to inspect the unit and to replace all gas controls, control system parts, electrical parts that have been wet, or the unit if deemed necessary.
6. Examine the unit installation to determine that:
 - A. All flue gas carrying areas external to the unit, such as the vent hood, are clear and free of obstructions.
 - B. Return air duct connection(s) is physically sound and sealed to the unit casing.
 - C. Physical support of the unit is sound without sagging, cracks, gaps, etc.
 - D. There are no obvious signs of deterioration of the unit.
 - E. Burner flames are in good adjustment (see Burner Flame beginning on page 6).
7. It is important that you conduct a physical inspection of the unit at least twice a year. It is also recommended that the unit should be inspected by a qualified service agent at least once per year.

OPERATING YOUR UNIT

These units are equipped with an ignition device which automatically lights the burners. **Do not try to light the burners by hand.**

Before operating, smell around furnace area for gas. Be sure to smell near the unit base because some gas is heavier than air and will settle to the lowest point. See **WHAT TO DO IF YOU SMELL GAS** on page 1 if the odor of gas is present.

Use only your hand to slide the gas control switch; **never use tools**. If the switch will not move by hand, don't try to repair it. Call a qualified service technician. **Force or attempted repair may result in a fire or explosion.**

Lighting Instructions

1. **STOP!** Read the previous safety information.
2. Set the thermostat to the lowest setting.
3. Turn off all electric power to the unit.
4. Remove the burner compartment access panel.
5. This appliance is equipped with an automatic ignition device. **Do not try to light the burners by hand.**
6. Slide the gas control switch, or turn the gas control knob, to "OFF" (see Figure 1).

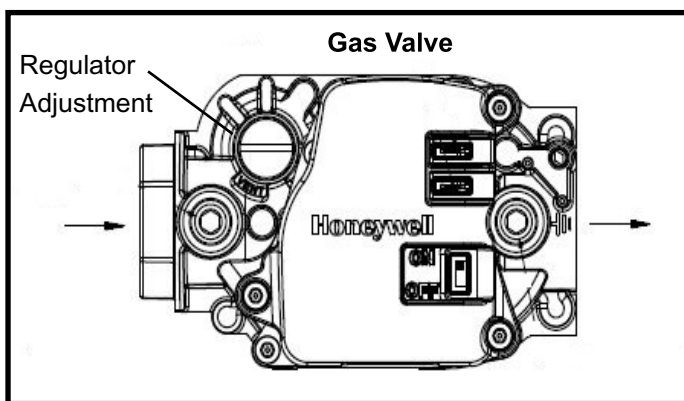


Figure 1

7. Wait 5 minutes to clear out any gas, then smell for gas (including at the bottom of the unit near the ground). If you smell gas, stop and follow the directions in **WHAT TO DO IF YOU SMELL GAS** on page 1. If you don't smell gas, continue to next step.
8. Slide the gas control switch, or turn the gas control knob, to "ON".
9. Replace the burner compartment access panel.
10. Turn on all electric power to the unit.
11. Set the thermostat to the desired setting.
12. If the unit will not operate, follow the instructions found below in **To Turn Off Gas to Unit** and call your service technician or gas supplier.

Operating Sequence

When the thermostat calls for gas heat, the vent motor will purge the system for 30 seconds (nominal). When the prepurge time has expired, the gas valve will open for direct ignition. When burners are lit, the flame sensor will sense flame and keep the gas valve open. If the flame sensor does not sense that a flame has been established, it will shut off the gas valve. The ignition system is designed to go through three trials for ignition. If flame still has not been established after the third trial, the system will go into lockout. After 1 hour, the system will try three more times.

If the system goes into lockout, it can be reset by turning your thermostat down or off for 10 seconds and then back to the desired point.

When the room thermostat is satisfied, the electrical circuit to the gas valve is opened and the burners are shut off.

Shutting Down the Unit

To shut down the unit, set the thermostat to the "OFF" position.

To Turn Off Gas to Unit

1. Set the thermostat to the lowest setting.
2. Turn off all electric power to the unit if service is to be performed.
3. Remove the burner compartment access panel.
4. Slide the gas control switch, or turn the gas control knob "OFF" (see Figure 1). Do not force.
5. Replace the burner compartment access panel.

Temperature Control

There are many types and styles of thermostats. However, almost all thermostats perform the same basic functions described in the following section.

Thermostat Operation

There are two switches located on the thermostat. One switch controls the heating and cooling functions. The other switch is for "FAN" operation, either continuous or automatic. On the thermostat is the temperature range for the heating temperature and the cooling temperature desired.

To put the system into operation, push the switch to either "HEAT" or "COOL" position. After choosing the type of operation, move the thermostat dial or lever to select the temperature you would like the system to maintain.

Fan Operation

You may wish to increase your comfort by setting your system for continuous air circulation of the indoor air. The fan switch on the thermostat permits you to do this.

With the switch in the "ON" position the fan will operate continuously. "AUTO" position gives fan operation only when the unit is in either heating or cooling.

Unit Operation

If your unit is operating but fails to provide complete comfort, check the following before calling for service:

1. Be sure the thermostat setting is correct.
2. Check to see if the filter is clean.
3. Be sure air can circulate freely throughout your home. Do not block supply registers or return grilles with furniture or rugs.
4. Keep surface of the outdoor coil free from dirt, lint, paper, or leaves.

If your unit fails to operate, check the following:

1. Be sure the main switch that supplies power to the unit is in the "ON" position.
2. Replace any burned-out fuses or reset circuit breakers.
3. Be sure the thermostat is properly set.

If the unit still does not start, call a qualified service technician.

MAINTENANCE OF YOUR UNIT

WARNING

Always shut off all power to the unit before attempting any of the following maintenance procedures. Failure to do so may result in personal injury.

There are routine maintenance steps you should take to keep your unit operating efficiently. This maintenance will assure longer life, lower operating costs, and fewer service calls. In addition to the maintenance procedures listed in this manual, there are also other service and maintenance procedures that require the skills of a service person who has specialized tools and training. **Personal injury can result if you are not qualified to do this work.** Please call your dealer when service is needed.

Your unit is designed to give many years of efficient, satisfactory service. However, the varied air pollutants commonly found in most areas can affect longevity and safety. Chemicals contained in everyday household items such as laundry detergents, cleaning sprays, hair sprays, deodorizers, and other products which produce airborne residuals may have an adverse effect upon the metals used to construct your appliance.

The cabinet of the unit can be cleaned with soap and water. Grease spots can be removed with a household cleaning agent.

It is important that you conduct periodic physical inspections of your appliance, paying special attention to the gas burners and the flue outlet. These components are located at the front of the unit. A flashlight will be useful for these inspections. Make one inspection prior to the beginning of the heating season and another during the middle.

When inspecting the flue outlet, be sure to check for evidence of black soot or blockage by leaves or other debris. Clear any blockage that is found. If any soot is found, a qualified service agency should be called immediately.

During your periodic inspections, check for obvious signs of deterioration of the unit. Check that the return and supply ducts attached to the unit are sound and airtight. Check that the unit's physical support and concrete slab or roof curb is sound and not in need of repair. Make sure there are no gaps between the roof curb and the unit where rain could leak in. Snow or debris should not be allowed to accumulate in or around the unit.

As part of your inspection, you should start the unit. The vent motor should start and purge the system for 30 seconds. After the prepurge time, the burners should ignite. If the

burner does not ignite, contact a qualified service technician for assistance.

Should you observe unusual amounts of any of the following conditions, it is important that you call your authorized dealer at once to obtain a qualified service inspection:

- Rust, flakes, or other deposits
- Coatings
- Corrosion

Even if no unusual rust or other conditions are observed, it is recommended that the unit be inspected and serviced at least once per year by a qualified service technician. Regular inspections and planned maintenance will assure many years of economical performance from your unit.

Combustion and Ventilation Air

This unit requires air for combustion and ventilation to ensure both proper and safe operation. Combustion air is brought in through louvers next to outdoor coil. Do not block or obstruct these louvers.

⚠ WARNING

Adequate combustion and ventilation air must reach the unit to provide for proper and safe operation. Air openings must be kept free of obstructions. Do not permit overhanging structures or shrubs to obstruct condenser air discharge, combustion air inlet, or vent outlet. Any obstruction may cause improper operation that can result in a fire hazard or carbon monoxide injury.

Venting and Unit Support

Venting of this unit must comply with the unit Installation Instructions. Be sure the installer has followed these requirements. If not, you should request the installer to comply as soon as possible.

Make sure the vent terminal is clear and free of any obstruction. For proper venting terminations, see the Installation Instructions furnished with the unit.

Check to see that the unit cabinet is sound and firmly supported, without sagging. There should be no cracks or gaps.

It is important that the outside area where the vent terminates is kept clear of any obstructions which might block or impede the venting of the unit. Screens in vent terminals should be cleaned periodically. Should venting become blocked at anytime, your unit is equipped with a special safety control to prevent operation of the unit until the condition has been corrected.

Contact your dealer if you desire more information about this important safety feature.

Should any unusual conditions be observed during your inspections, call an authorized service dealer immediately.

Return Air

All return air duct connections must be tight and sealed to unit cabinet. Supply and return air registers must be open when the unit is in operation. Obstructions must not be allowed to block airflow in or out of the registers.

Filters

Air filters are to be used with this heating/cooling unit. Filters are not factory supplied in the unit.

Minimum Required Surface Area for Disposable Filters	
Nominal Cooling	Filter Area (sq.ft.)
24,000	2.67
30,000	3.33
36,000	4.00
42,000	4.67
48,000	5.33
60,000	6.67

Table 1

An optional filter rail is available to install inside the return air compartment. Otherwise, a filter must be installed in the duct work by the installer. Filters must always be installed ahead of the evaporator coil and must be kept clean or replaced. Dirty filters will reduce the airflow of the unit. Filters should be sized in accordance with Table 1.

Outdoor Coil

Leaves and other large obstructions should be carefully removed from the outdoor coil surfaces without damaging the fin surface of the coil.

Lubrication

Lubrication of the bearings in the circulating air blower motor and the combustion blower motor is not recommended.

Blower Assembly

Even with good filters properly in place, blower wheels and motors will become dust laden after long months of operation. The entire blower assembly should be inspected annually. If the motor and wheel are heavily coated with dust, they can be brushed and cleaned with a vacuum cleaner.

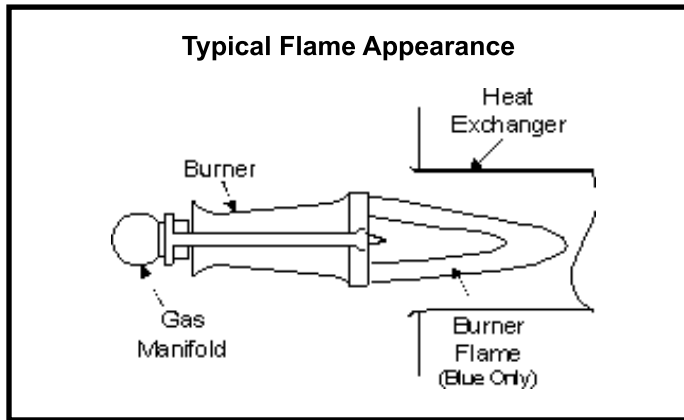


Figure 3

Burner Flame

While the unit is in operation, observe the burner flames. Compare these observations to Figure 3 to determine if proper flame adjustment is present. If your observations indicate improper flame adjustment, call your authorized service dealer for service. **Do not attempt to adjust flame!** Your service representative will perform this adjustment correctly.

Rollout Switch

This unit is equipped with a manual reset high temperature sensor or rollout switch. In the unlikely event of a sustained burner flame rollout, the rollout switch will shut off the flow of gas by closing the gas valve. The switch is located inside the gas burner area. Flame rollout can be caused by blockage of the power vent system, a blocked heat exchanger, or improper gas pressure or adjustment. If this event occurs, the unit will not operate properly. The gas supply to the unit should be shut off and **no attempt should be made to place it in operation.** The system should be inspected by a qualified service technician.

Owner Record

Model # _____

Serial # _____

Installation Date _____

Installed by: _____

Dealer _____

Address _____

Telephone # _____

License # _____



MRCOOL®

COMFORT MADE SIMPLE

Signature Series

Gas Heating/Electric Cooling Package Unit

ELECTRICIAN and/or HVAC TECHNICIAN:

LICENSE #:

INSTALLATION DATE:

INSTALLATION LOCATION:

SERIAL NUMBER:

The design and specifications of this product and/or manual are subject to change without prior notice. Consult with the sales agency or manufacturer for details.

MRCOOL
EQUIPMENT LIMITED WARRANTY
APPLIES IN U.S.A. AND CANADA ONLY
FAILURE TO MAINTAIN YOUR EQUIPMENT WILL VOID THIS WARRANTY

0674707-00

COVERED EQUIPMENT

The following heating and cooling equipment is covered by the Limited Warranty,
Condensing Units: MAC16
Heat Pumps: MHP15
Gas Furnaces: MGM95, MGD95, MGM80, MGD80
Electric Furnace: MMBV
Evaporator Coils: MCH, MCV
Air Handlers: MAH
Package Equipment: MPG, MPC, MPH

PARTS and COMPRESSOR COVERAGE

The covered equipment and covered parts and compressor are warranted by MRCOOL for a period of five (5) years from the date of the original installation, when installed in a residential application (which includes homes, duplexes, apartments and condominiums). The covered equipment and covered parts are warranted for a period of one (1) year and compressor is warranted for five (5) years by MRCOOL from the date of the original installation, when installed in non-residential applications. If, during this period, a covered component fails because of a manufacturing defect, MRCOOL will provide a free replacement part to the owner through a licensed service contractor utilizing an MRCOOL distributor. You must pay shipping charges and all other costs of warranty service. MRCOOL will not pay labor involved in diagnostic calls or in removing, repairing, servicing or replacing parts. Such cost may be covered by a separate warranty provided by the installer.

HEAT EXCHANGER COVERAGE

All covered heat exchangers are warranted by MRCOOL for a period of twenty (20) years from the date of original installation in a residential application. Heat exchangers in all non-residential applications are warranted for a period of ten (10) years.

NOTE: In the event that a component covered by this warranty is no longer available, MRCOOL, at its option, through a established MRCOOL distributor, will provide a free suitable substitute component or will allow a credit toward the purchase of an equivalent new MRCOOL product (at the current suggested distributor's cost).

If the date of original installation cannot be verified, the warranty period will be deemed to begin six (6) months after the date of manufacture.

EXCLUDED COMPONENTS

The following components are not covered by this warranty: cabinets, cabinet pieces, air filters, driers, refrigerant, refrigerant line sets, belts, wiring, fuses, oil nozzles, unit accessories and any parts not affecting unit operation.

CARE OF EQUIPMENT

Your new MRCOOL unit must be properly installed, operated and maintained in accordance with the unit installation, operation and maintenance instructions provided with each MRCOOL unit. Failure to provide maintenance per MRCOOL instructions will void this warranty.

WARRANTY PROCEDURE

When service or warranty parts are required:

1. Call your local licensed service dealer or contractor
2. If the installing dealer is unable to provide warranty service, check online at <https://mrcool.com/warranty>.
3. Be prepared to furnish the following information:
 - a. Complete model and serial number
 - b. Proof of required periodic maintenance, installation date and location.
 - c. An accurate description of the problem

WARRANTY LIMITATIONS

1. All installation must be in compliance with applicable laws, regulations, codes, and ordinances.
2. Products purchased over the internet or through other electronic means must be installed by a qualified installer and the installation must adhere to the Quality Installation protocols of the Air Conditioning Contractors of America (ACCA), and these products must be registered with the manufacturer within 60 days of installation for the warranty to be in place.
3. This warranty is void if the covered equipment is removed from the original installation site.
4. This warranty does not cover damage or defect resulting from:
 - a. Flood, wind, fire, lightning, mold, or installation and operation in a corrosive atmosphere, or otherwise in contact with corrosive materials (chlorine, fluorine, salt, recycled waste water, urine, fertilizers, or other damaging substances or chemicals). Accident, or neglect or unreasonable use or operation of the equipment including operation of electrical equipment at voltages other than the range specified on the unit nameplate (includes damages caused by brownouts).
 - b. Modification, change or alteration of the equipment, except as directed in writing by MRCOOL.
 - c. Operation with system components (indoor unit, outdoor unit and refrigerant control devices) which are not an AHRI match or meet the specifications recommended by MRCOOL.
 - d. Operation of furnaces with return air temperatures of less than 60°F (16°C) or operation of a furnace field installed downstream from a cooling coil.
 - e. Use of contaminated or refrigerant not compatible with the unit.

The installation of replacement parts under the terms of this warranty does not extend the original warranty period.

MRCOOL makes no express warranties other than the warranty specified above. All implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are excluded to the extent to a period legally permissible. Should such exclusion or limitation of the warranty be unenforceable, such implied warranties are in any event limited to a period of one (1) year. Liability for incidental and consequential damages is excluded. Some states do not allow limitation of incidental damages, so the limitations or exclusions may not apply to you. MRCOOL will not pay electricity or fuel costs, or increases in electricity or fuel costs, for any reason whatsoever, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging expenses or labor charges.

MRCOOL shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond its control.

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

NOTE TO CUSTOMER

Please complete information below and retain this warranty for your records and future reference.

Outside Unit Model Number: _____ Serial Number: _____ Installed Date: _____

Furnace / Air Handler: _____ Serial Number: _____ Installed Date: _____

Indoor Coil Model Number: _____ Serial Number: _____ Installed Date: _____

Installing Company Name: _____ Phone: _____

Installing Company Address: _____ State/Province: _____ Zip/Postal Code: _____

Part Number 507972-01



LIMITED EXTENDED PARTS WARRANTY

MRCOOL LLC ("MRCOOL") provides its air conditioning and heating products with a standard five-year parts warranty. This limited extended parts warranty is in addition to and is intended to supplement MRCOOL's standard 5-year parts warranty. As such, this limited extended warranty provides for a total of 10 years of limited warranty coverage (Standard 5-Year Limited Parts Warranty plus Additional 5-Year Limited Extended Parts warranty).

EXTENDED COVERAGE -

PARTS/COMPRESSORS

The covered equipment and parts are warranted by MRCOOL for a total of 10 YEARS (standard 5 Year Limited Parts Warranty) from installation, except as provided below.

HEAT EXCHANGERS

The covered residential heating equipment's heat exchanger is warranted by MRCOOL for a Limited Lifetime (standard 20 Year Limited Warranty) from date of original installation, except as provided below.

This warranty applies only to the original purchaser of the unit and cannot be transferred. If during this period, a covered part fails because of a defect in materials or workmanship under normal use and maintenance, MRCOOL will provide a free replacement part to the purchaser through a MRCOOL dealer or other licensed service contractor through an authorized MRCOOL distributor. The purchaser must pay shipping costs, including labor, of the warranty service.

EXCLUDED COMPONENTS -

The following components are expressly not covered by this limited warranty: cabinets, cabinet pieces, air filters, driers, refrigerant, refrigerant line sets, belts, wiring, fuses, oil nozzles, and unit accessories, R-22 compressors, and any parts not affecting unit operation.

COVERAGE REQUIREMENTS -

1. The unit is a MRCOOL branded unit;
2. The unit is installed in a residential application, which is an owner-occupied single-family residence. No commercial applications are allowed;
3. The unit is properly registered at <https://mrcool.com/warranty> with MRCOOL within 60-days after the original date of installation or occupancy. To register, follow the directions and complete the online warranty registration at <https://mrcool.com/warranty>. For customer inquiries, contact MRCOOL at 270-366-0457 ext. 301 or <https://mrcool.com/contact>.
4. The unit is part of a complete AHRI matched system and installed by a state certified or licensed contractor in accordance with the unit installation, operation, and maintenance instructions provided with the unit.
5. Coils and air handlers are covered only when they are branded MRCOOL and are purchased and installed as a system along with a qualifying unit. (Third party coils are not covered).
6. Installation takes place on or after October 3, 2008.
7. Installation is in compliance with applicable laws, regulations, codes, and ordinances.

If this extended warranty does not apply, then parts are warranted for the standard warranty period of 5 YEARS and all heat exchangers for 20 YEARS. If the standard warranty periods differ from the original warranty certificate, the periods stated on the original warranty certificate apply.

This limited extended warranty does not apply to, and no warranty is offered by MRCOOL, on any unit ordered over the internet. Proof of purchase may be required.

Any part replaced pursuant to this limited extended warranty is warranted only for the unexpired portion of the limited extended warranty term applying to the original part. The installation of replacement parts under the terms of this limited extended warranty does not extend the warranty period.

This limited extended warranty is an extension of MRCOOL's standard warranty. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE TERM OF THIS LIMITED EXTENDED 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.

MRCOOL 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 limitation or exclusion may not apply to you.

MRCOOL is not responsible for:

1. Damage or repairs required as a result of flood, fire, wind, lightning strike (to the home or unit), corrosive atmosphere, contact with corrosive material (chlorine, fluorine, salt, recycled waste water, fertilizers or other damaging substances) or other conditions beyond the control of MRCOOL;
2. Use of parts, accessories, or refrigerant not compatible with the unit;
3. Modification, change or alteration of the unit, except as expressly directed in writing by MRCOOL;
4. Improper use, accident, neglect or unreasonable use or operation of the unit, including operation of electrical equipment at voltages other than the range specified on the unit nameplate;
5. Operation with system parts (indoor unit, outdoor unit and refrigerant control devices) which are not AHRI matched or do not meet the specifications recommended by MRCOOL;
6. Damage or repairs required as a consequence of faulty or installation or application;
7. Normal maintenance as described in the installation and operating manual, such as cleaning of coils, filter cleaning and/or replacement and lubrication; and
8. Changes in the appearance or sound of the unit that do not affect its performance.

The parties intend this writing as a final expression of their agreement with respect to warranties. MRCOOL makes no other warranty beyond that which is expressly contained in this writing.

MRCOOL shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond its control, including the unavailability of replacement parts.

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

Steps for getting replacement parts under this limited extended warranty:

If you suspect a defect in your equipment, please contact the installer of the unit to obtain assistance. If unsuccessful, please contact a MRCOOL dealer or distributor in your area. If unable to obtain local assistance, refer to MRCOOL's website (<https://mrcool.com/warranty>) or contact MRCOOL at 270-366-0457 ext. 301 or <https://mrcool.com/contact>.

1 Excludes residents of states or provinces where registration requirements are prohibited, such as California and Quebec. Residents of these states or provinces may either register as noted above or provide proof of when the unit was purchased and installed, such as an original invoice from the contractor with the Owner's name, address, purchase date, serial and model number.