

INSTALLATION INSTRUCTIONS

PACKAGED GAS ELECTRIC

FEATURING EARTH-FRIENDLY R-410A REFRIGERANT 

RGEAZR (2-5 TONS)



THIS BOOK IS FOR MODELS EQUIPPED WITH A STANDARD OR LOW NOX HEAT EXCHANGERS. IF YOUR MODEL IS EQUIPPED WITH AN ULTRA LOW NOX HEAT EXCHANGER SEE THE SUPPLEMENT INCLUDED WITH YOUR UNIT FOR HEAT EXCHANGER DETAILS.

DO NOT DESTROY THIS MANUAL. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN.



RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

▲ WARNING

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED, LICENSED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT AND OPERATION OF THIS UNIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

DO NOT DESTROY THIS MANUAL PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICEMAN

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This book contains installation and warnings for all models. All cooling information is common regardless of heat exchanger type. This book contains specifics of models with: standard heat exchangers and low nox heat exchangers (40ng/J)

For ultra low nox models (14ng/J) this book and all warnings are applicable, in addition to the supplement included with your product.

For convenience, specific topics that apply to ultra low models are marked with a * to signify additional information in the supplement.

IMPORTANT: TO INSURE PROPER INSTALLATION AND OPERATION OF THIS PRODUCT, COMPLETELY READ ALL INSTRUCTIONS PRIOR TO ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE, MAINTAIN OR REPAIR THIS PRODUCT. UPON UNPACKING OF THE FURNACE, INSPECT ALL PARTS FOR DAMAGE PRIOR TO INSTALLATION AND START-UP.

I. SAFETY INFORMATION

WARNING

PROPOSITION 65: THIS FURNACE CONTAINS FIBERGLASS INSULATION. RESPIRABLE PARTICLES OF FIBERGLASS ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXHAUST GAS FROM THIS FURNACE CONTAINS CHEMICALS, INCLUDING CARBON MONOXIDE, KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

WARNING

THE MANUFACTURER'S WARRANTY DOES NOT COVER ANY DAMAGE OR DEFECT TO THE AIR CONDITIONER CAUSED BY THE ATTACHMENT OR USE OF ANY COMPONENTS, ACCESSORIES OR DEVICES (OTHER THAN THOSE AUTHORIZED BY THE MANUFACTURER) INTO, ONTO OR IN CONJUNCTION WITH THE AIR CONDITIONER. YOU SHOULD BE AWARE THAT THE USE OF UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES MAY ADVERSELY AFFECT THE OPERATION OF THE AIR CONDITIONER AND MAY ALSO ENDANGER LIFE AND PROPERTY. THE MANUFACTURER DISCLAIMS ANY RESPONSIBILITY FOR SUCH LOSS OR INJURY RESULTING FROM THE USE OF SUCH UNAUTHORIZED COMPONENTS, ACCESSORIES OR DEVICES.

WARNING

THESE UNITS ARE DESIGNED CERTIFIED FOR OUTDOOR INSTALLATION ONLY. INSTALLATION INSIDE ANY PART OF A STRUCTURE CAN RESULT IN INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE. INSTALLATION INSIDE CAN ALSO CAUSE RECIRCULATION OF FLUE PRODUCTS INTO THE CONDITIONED SPACE RESULTING IN PERSONAL INJURY OR DEATH.

WARNING

THIS UNIT MUST NOT BE INSTALLED DIRECTLY ON WOOD FLOORING, CLASS A, CLASS B OR CLASS C ROOF COVERING MATERIALS, OR ANY OTHER COMBUSTIBLE STRUCTURE EXCEPT AS SPECIFIED IN FIGURE 15. FAILURE TO ADHERE TO THIS WARNING CAN CAUSE A FIRE OR EXPLOSION RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

WARNING

DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT RETURN DUCTWORK TO ANY OTHER HEAT PRODUCING DEVICE SUCH AS FIREPLACE INSERT, STOVE, ETC. UNAUTHORIZED USE OF SUCH DEVICES MAY RESULT IN FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY, OR PROPERTY DAMAGE.

WARNING

NEVER ALLOW PRODUCTS OF COMBUSTION OR THE FLUE PRODUCTS TO ENTER THE RETURN AIR DUCTWORK, OR THE CIRCULATING AIR SUPPLY. ALL RETURN DUCTWORK MUST BE ADEQUATELY SEALED AND SECURED TO THE FURNACE WITH SHEET METAL SCREWS, AND JOINTS TAPED. ALL OTHER DUCT JOINTS MUST BE SECURED WITH APPROVED CONNECTIONS AND SEALED AIRTIGHT.

FAILURE TO PREVENT PRODUCTS OF COMBUSTION FROM BEING CIRCULATED INTO THE LIVING SPACE CAN CREATE POTENTIALLY HAZARDOUS CONDITIONS, INCLUDING CARBON MONOXIDE POISONING THAT COULD RESULT IN PERSONAL INJURY OR DEATH.

WARNING

DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS. THE USE OF AN OPEN FLAME CAN RESULT IN FIRE, EXPLOSION, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

WARNING

THIS UNIT IS EQUIPPED AT THE FACTORY FOR USE ON NATURAL GAS ONLY. CONVERSION TO LP GAS REQUIRES A SPECIAL KIT SUPPLIED BY THE DISTRIBUTOR OR MANUFACTURER. MAILING ADDRESSES ARE LISTED ON THE FURNACE RATING PLATE, PARTS LIST AND WARRANTY. FAILURE TO USE THE PROPER CONVERSION KIT CAN CAUSE FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY, PROPERTY DAMAGE OR DEATH.

WARNING

DISCONNECT ALL POWER TO UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

WARNING

TURN OFF THE MAIN ELECTRICAL POWER AT THE BRANCH CIRCUIT DISCONNECT CLOSEST TO THE UNIT BEFORE ATTEMPTING ANY WIRING. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

WARNING

DO NOT ATTEMPT TO MANUALLY LIGHT THIS FURNACE WITH A MATCH OR ANY OPEN FLAME. ATTEMPTING TO DO SO CAN CAUSE AN EXPLOSION OR FIRE RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

⚠ WARNING

THE SPARK IGNITOR AND IGNITION LEAD FROM THE IGNITION CONTROL ARE HIGH VOLTAGE. KEEP HANDS OR TOOLS AWAY TO PREVENT ELECTRICAL SHOCK. SHUT OFF ELECTRICAL POWER BEFORE SERVICING ANY OF THE CONTROLS. FAILURE TO ADHERE TO THIS WARNING CAN RESULT IN PERSONAL INJURY OR DEATH.

⚠ WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, SHUT OFF THE MANUAL GAS VALVE TO THE APPLIANCE BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY. FAILURE TO DO SO CAN RESULT IN AN EXPLOSION OR FIRE CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH!

⚠ WARNING

DO NOT JUMPER THIS DEVICE! DO NOT reset the overtemperature control without taking corrective action to assure that an adequate supply of combustion air is maintained under all conditions of operation. Failure to do so can result in carbon monoxide poisoning or death. Replace this control only with the identical replacement part.

⚠ WARNING

HOLES IN THE EXHAUST TRANSITION OR HEAT EXCHANGER CAN CAUSE TOXIC FUMES TO ENTER THE HOME. THE EXHAUST TRANSITION OR HEAT EXCHANGER MUST BE REPLACED IF THEY HAVE HOLES OR CRACKS IN THEM. FAILURE TO DO SO CAN CAUSE CARBON MONOXIDE POISONING RESULTING IN PERSONAL INJURY OR DEATH.

⚠ WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING THE UNIT. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.

⚠ WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING TO CHANGE BLOWER SPEEDS. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

⚠ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE SERVICING. CONTACTOR MAY BREAK ONLY ONE SIDE. FAILURE TO SHUT OFF POWER CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

⚠ WARNING

R-410A systems operate at higher pressures than R-22 systems. Do not use R-22 service equipment or components on R-410A equipment.

EFFICIENCY TESTING NOTICE

For purposes of verifying or testing efficiency ratings, the test procedure in Title 10 Part 431 Appendix A to Subpart F (Uniform Test Method for Measuring the Energy Consumption of Small Large and Very Large Commercial Packaged Air Conditioning and Heating Equipment), Title 10 Part 431.76 Subpart D (Uniform Test Method for Measuring Energy Consumption of Commercial Warm Air Furnaces), and the clarifying provisions provided in the AHRI Operations Manuals for Unitary Large Equipment 340/360, 365 and Commercial Furnaces that were applicable at the date of manufacture should be used for test set up and performance.

WARNING

IMPORTANT: ALL MANUFACTURER PRODUCTS MEET CURRENT FEDERAL OSHA GUIDELINES FOR SAFETY. CALIFORNIA PROPOSITION 65 WARNINGS ARE REQUIRED FOR CERTAIN PRODUCTS, WHICH ARE NOT COVERED BY THE OSHA STANDARDS.

CALIFORNIA'S PROPOSITION 65 REQUIRES WARNINGS FOR PRODUCTS SOLD IN CALIFORNIA THAT CONTAIN, OR PRODUCE, ANY OF OVER 600 LISTED CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR BIRTH DEFECTS SUCH AS FIBERGLASS INSULATION, LEAD IN BRASS, AND COMBUSTION PRODUCTS FROM NATURAL GAS.

ALL "NEW EQUIPMENT" SHIPPED FOR SALE IN CALIFORNIA WILL HAVE LABELS STATING THAT THE PRODUCT CONTAINS AND/OR PRODUCES PROPOSITION 65 CHEMICALS. ALTHOUGH WE HAVE NOT CHANGED OUR PROCESSES, HAVING THE SAME LABEL ON ALL OUR PRODUCTS FACILITATES MANUFACTURING AND SHIPPING. WE CANNOT ALWAYS KNOW "WHEN, OR IF" PRODUCTS WILL BE SOLD IN THE CALIFORNIA MARKET.

YOU MAY RECEIVE INQUIRIES FROM CUSTOMERS ABOUT CHEMICALS FOUND IN, OR PRODUCED BY, SOME OF OUR HEATING AND AIR-CONDITIONING EQUIPMENT, OR FOUND IN NATURAL GAS USED WITH SOME OF OUR PRODUCTS. LISTED BELOW ARE THOSE CHEMICALS AND SUBSTANCES COMMONLY ASSOCIATED WITH SIMILAR EQUIPMENT IN OUR INDUSTRY AND OTHER MANUFACTURERS.

- GLASS WOOL (FIBERGLASS) INSULATION
- CARBON MONOXIDE (CO)
- FORMALDEHYDE
- BENZENE

MORE DETAILS ARE AVAILABLE AT THE WEBSITES FOR OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AT WWW.OSHA.GOV AND THE STATE OF CALIFORNIA'S OEHHA (OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT), AT WWW.OEHHA.ORG. CONSUMER EDUCATION IS IMPORTANT SINCE THE CHEMICALS AND SUBSTANCES ON THE LIST ARE FOUND IN OUR DAILY LIVES. MOST CONSUMERS ARE AWARE THAT PRODUCTS PRESENT SAFETY AND HEALTH RISKS, WHEN IMPROPERLY USED, HANDLED AND MAINTAINED.

WARNING

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS, OR OTHER COMBUSTIBLE MATERIALS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WHAT TO DO IF YOU SMELL GAS

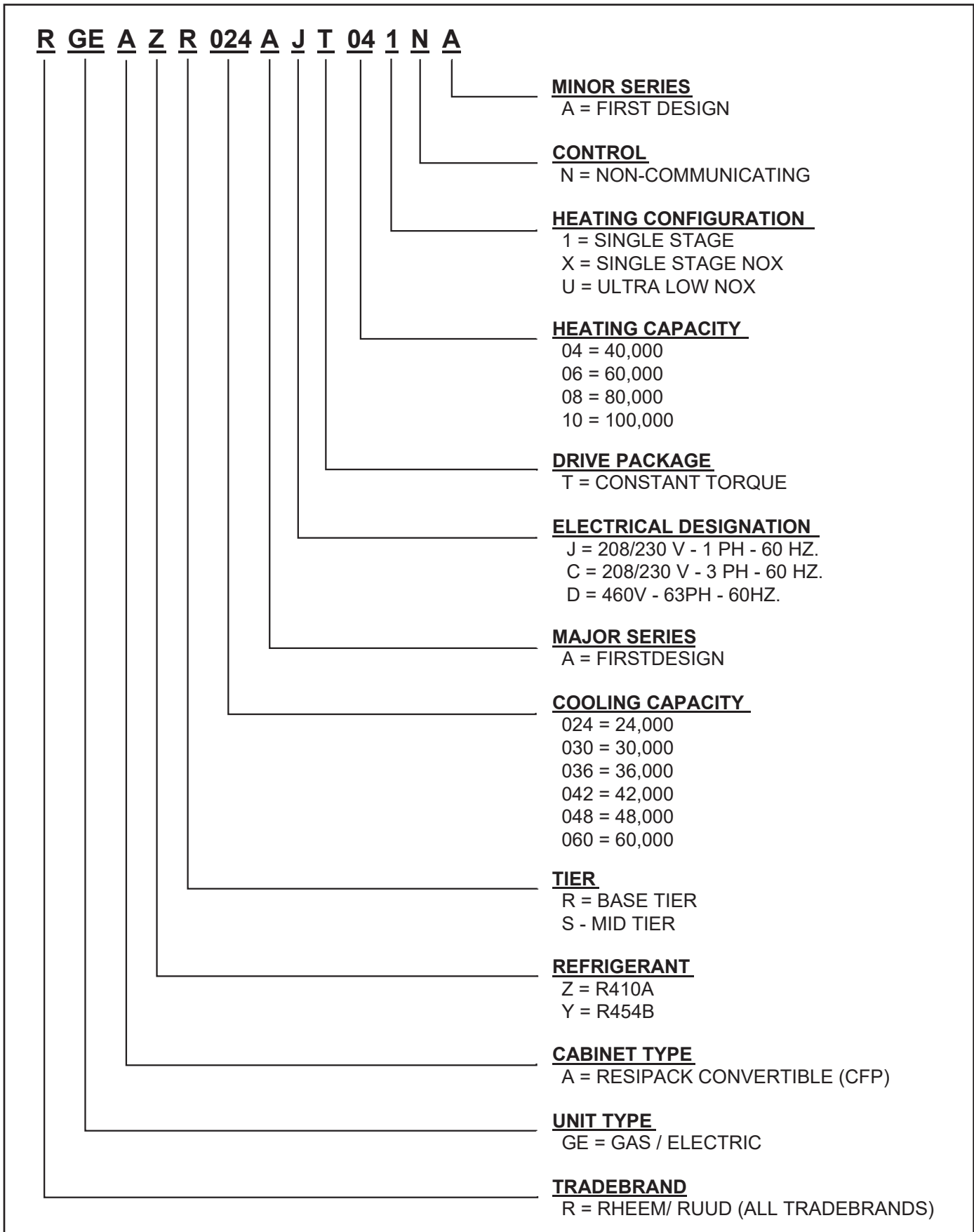
- DO NOT TRY TO LIGHT ANY APPLIANCE.
- DO NOT TOUCH ANY ELECTRICAL SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.
- IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE. FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.
- IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.
- DO NOT RETURN TO YOUR HOME UNTIL AUTHORIZED BY THE GAS SUPPLIER OR FIRE DEPARTMENT.

DO NOT RELY ON SMELL ALONE TO DETECT LEAKS. DUE TO VARIOUS FACTORS, YOU MAY NOT BE ABLE TO SMELL FUEL GASES.

- U.L. RECOGNIZED FUEL GAS AND CO (CARBON MONOXIDE) DETECTORS ARE RECOMMENDED IN ALL APPLICATIONS, AND THEIR INSTALLATION SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND/OR LOCAL LAWS, RULES, REGULATIONS, OR CUSTOMS.

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY, PROPERTY DAMAGE OR DEATH. REFER TO THIS MANUAL. INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER. IN THE COMMONWEALTH OF MASSACHUSETTS, INSTALLATION MUST BE PERFORMED BY A LICENSED PLUMBER OR GAS FITTER FOR APPROPRIATE FUEL.

II. BREAKDOWN PAGE



III. INTRODUCTION

This booklet contains the installation and operating instructions for your combination gas heating/electric cooling unit. There are some precautions that should be taken to derive maximum satisfaction from it. Improper installation can result in unsatisfactory operation or dangerous conditions.

Read this booklet and any instructions packaged with separate equipment required to make up the system prior to installation. Give this booklet to the owner and explain its provisions. The owner should retain this booklet for future reference.

IV. CHECKING PRODUCT RECEIVED

Upon receiving the unit, inspect it for any damage from shipment. Claims for damage, either shipping or concealed, should be filed immediately with the shipping company. **IMPORTANT:** Check the unit model number, heating size, electrical characteristics, and accessories to determine if they are correct.

V. SPECIFICATIONS

A. GENERAL

Units are convertible from end supply and return to bottom supply and return by relocation of supply and return air access panels. See cover installation detail.

The units are weatherized for mounting outside of the building.

WARNING

UNITS ARE NOT DESIGN CERTIFIED TO BE INSTALLED INSIDE THE STRUCTURE. DOING SO CAN CAUSE INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE AND CARBON MONOXIDE POISONING RESULTING IN PERSONAL INJURY OR DEATH.

The information on the rating plate is in compliance with the FTC and DOE rating for single phase units. The following information is for three phase units which **are not** covered under the DOE certification program.

1. The energy consumption of the ignition system used with this unit is 9 watts.
2. The efficiency rating of this unit is a product thermal efficiency rating determined under continuous operating conditions independent of any installed system.

B. MAJOR COMPONENTS

The unit includes a hermetically-sealed refrigerating system (consisting of a compressor, condenser coil, evaporator coil with thermostatic expansion valve), a circulation air blower, a condenser fan, a heat exchanger assembly, gas burner and control assembly, combustion air motor and fan, and all necessary internal electrical wiring. The cooling system of these units is factory-evacuated, charged with R-410A refrigerant and performance tested. Refrigerant amount is indicated on rating plate.

C. R410A REFRIGERANT

All units are factory charged with R-410A refrigerant.

1. Specification of R-410A:

Application: **R-410A is not a drop-in replacement for R-22;** equipment designs must accommodate its higher pressures. It cannot be retrofitted into R-22 units.

Pressure: **The pressure of R-410A is approximately 60% (1.6 times) greater than R-22.** Recovery and recycle equipment, pumps, hoses and the like need to have design pressure ratings appropriate for R-410A. *Manifold sets need to range up to 800 psig high-side and 250 psig low-side with a 550 psig low-side retard. Hoses need to have a service pressure rating of 800 psig. Recovery cylinders need to have a 400 psig service pressure rating. DOT 4BA400 or DOT BW400.*

Combustibility: At pressures above 1 atmosphere, mixture of R-410A and air can become combustible. **R-410A and air should never be mixed in tanks or supply lines, or be allowed to accumulate in storage tanks. Leak checking should never be done with a mixture of R-410A and air.** Leak checking can be performed safely with nitrogen or a mixture of R-410A and nitrogen.

2. Quick Reference Guide For R-410A

- R-410A refrigerant operates at approximately 60% higher pressure (1.6 times) than R-22. Ensure that servicing equipment is designed to operate with R-410A.
- R-410A refrigerant cylinders are pink.
- R-410A, as with other HFC's is only compatible with POE oils.
- Vacuum pumps will not remove moisture from POE oil.
- R-410A systems are to be charged with liquid refrigerants. Prior to March 1999, R-410A refrigerant cylinders had a dip tube. These cylinders should be kept upright for equipment charging. Post March 1999 cylinders do not have a dip tube and should be inverted to ensure liquid charging of the equipment.
- Do not install a suction line filter drier in the liquid line.
- A liquid line filter drier is standard on every unit.
- Desiccant (drying agent) must be compatible for POE oils and R-410A

3. Evaporator Coil / TXV

The thermostatic expansion valve is specifically designed to operate with R-410A. **DO NOT use an R-22 TXV. The existing evaporator must be replaced with the factory specified TXV evaporator specifically designed for R-410A.**

4. Tools Required For Installing & Servicing R-410A Models

Manifold Sets:

- Up to 800 PSIG High side
- Up to 250 PSIG Low Side
- 550 PSIG Low Side Retard

Manifold Hoses:

- Service Pressure Rating of 800 PSIG

Recovery Cylinders:

- 400 PSIG Pressure Rating
- Dept. of Transportation 4BA400 or BW400

CAUTION

R-410A systems operate at higher pressures than R-22 systems. Do not use R-22 service equipment or components on R-410A equipment.

VI. UNIT DIMENSIONS

FIGURE 1

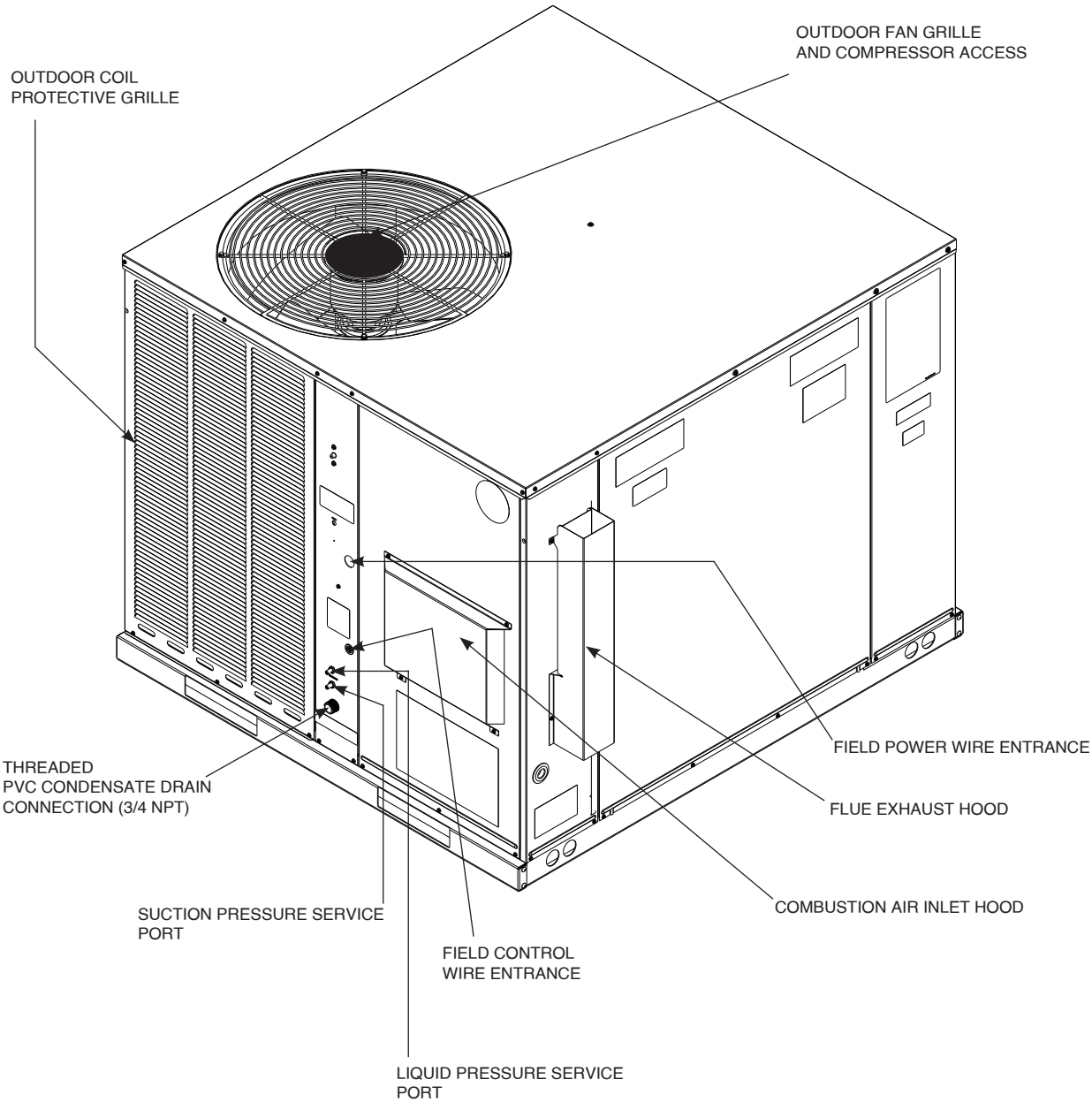
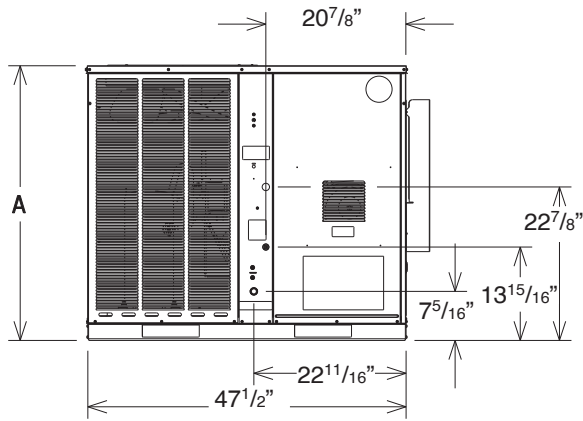
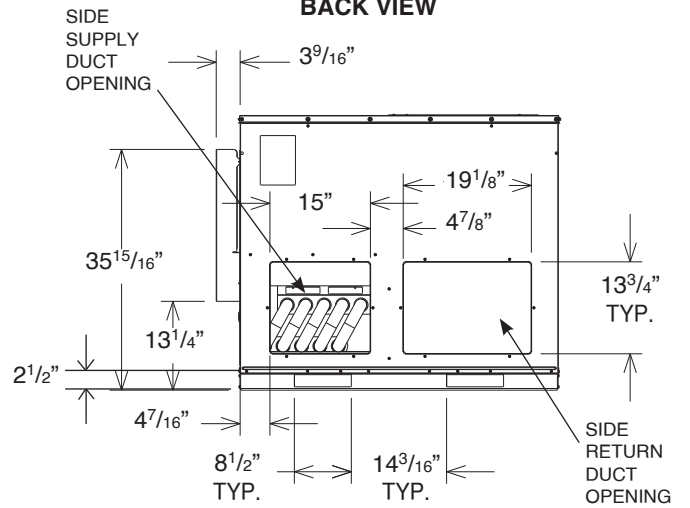


FIGURE 1 (CONTINUED)

FRONT VIEW



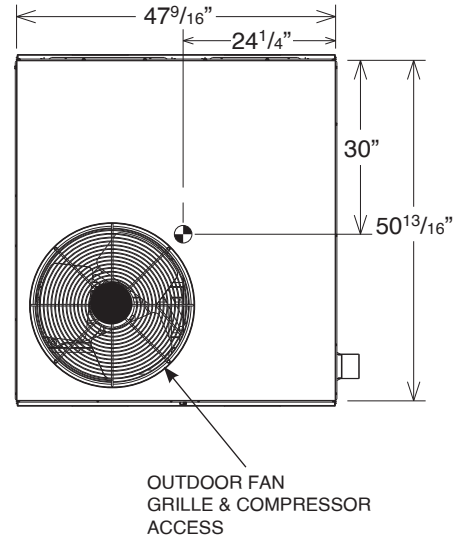
BACK VIEW



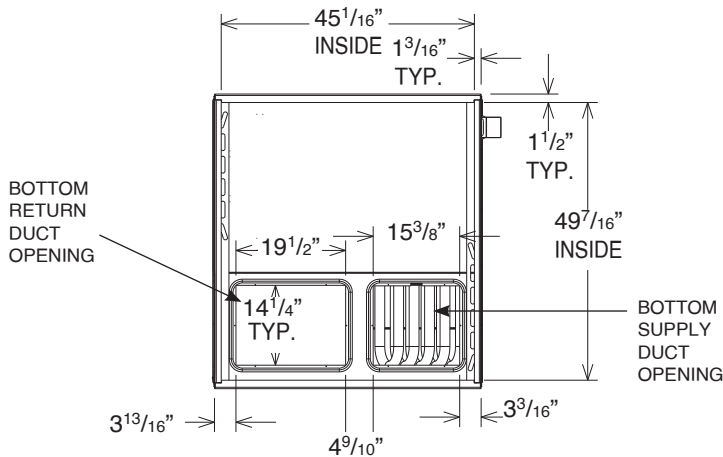
SHOWN WITH DUCT COVERS REMOVED.

MODELS RGEAZR	"A" HEIGHT
024, 030, 036	35 ¹⁵ / ₁₆ "
042, 048, 060	41"

TOP VIEW



BOTTOM VIEW



SIDE VIEW

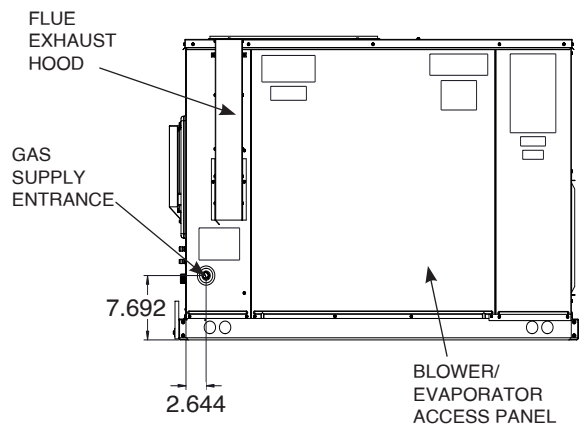
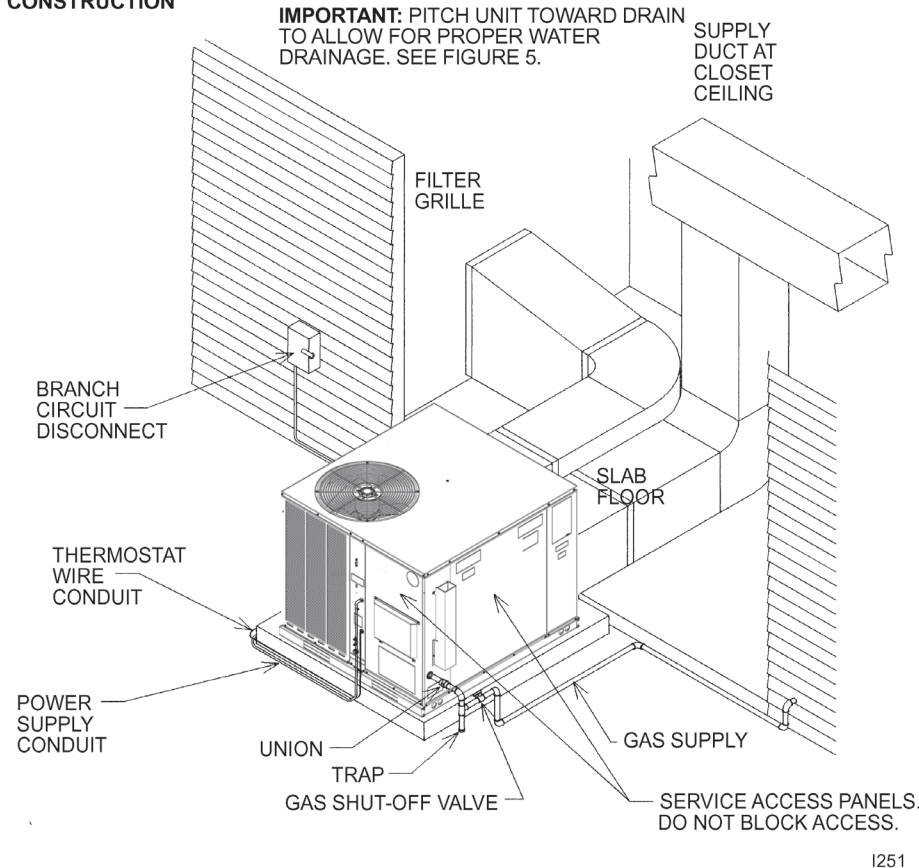


FIGURE 2
OUTSIDE SLAB INSTALLATION. CLOSET DISTRIBUTION SYSTEM. SLAB FLOOR
CONSTRUCTION



***SEE SUPPLEMENT FOR
 ADDITIONAL INFORMATION
 SPECIFIC TO ULTRA LOW NOX
 MODELS (14NG/J).**

VII. INSTALLATION

A. GENERAL

1. PRE-INSTALLATION CHECK-POINTS — Before attempting any installation, carefully consider the following points:

Structural strength of supporting members
 (Rooftop Installation)
 Clearances and provision for servicing
 Power supply and wiring
 Gas supply and piping
 Air duct connections and sizing
 Drain facilities and connections
 Location for minimum noise and vibration

2. LOCATION CONSIDERATIONS (CORROSIVE ENVIRONMENT)

The metal parts of this unit may be subject to rust or deterioration if exposed to a corrosive environment. This oxidation could shorten the equipment's useful life. Corrosive elements include, but are not limited to, salt spray, fog or mist in seacoast areas, sulphur or chlorine from lawn watering systems, and various chemical contaminants from industries such as paper mills and petroleum refineries.

If the unit is to be installed in an area where contaminants are likely to be a problem, give special attention to the equipment location and exposure.

- a. Avoid having lawn sprinkler heads spray directly on the unit cabinet.
- b. In coastal areas locate the unit on the side of the building away from the waterfront.
- c. Shielding by a fence or shrubs may give some protection.
- d. Frequent washing of the cabinet, fan blade and coil with fresh water will remove most of the salt or other contaminants that build up on the unit.
- e. Regular cleaning and waxing of the cabinet with a good automobile polish will provide some protection.
- f. Use a good liquid cleaner several times a year to remove matter that will not wash off with water.

▲ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE STARTING MAINTENANCE. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

Several different types of protective coatings are offered in some areas. These coatings may provide some benefit, but the effectiveness of such coating materials cannot be verified by the equipment manufacturer.

The best protection is frequent cleaning, maintenance and minimal exposure to contaminants.

FIGURE 3
PITCHING UNIT TO INSURE PROPER CONDENSATE DRAINAGE.

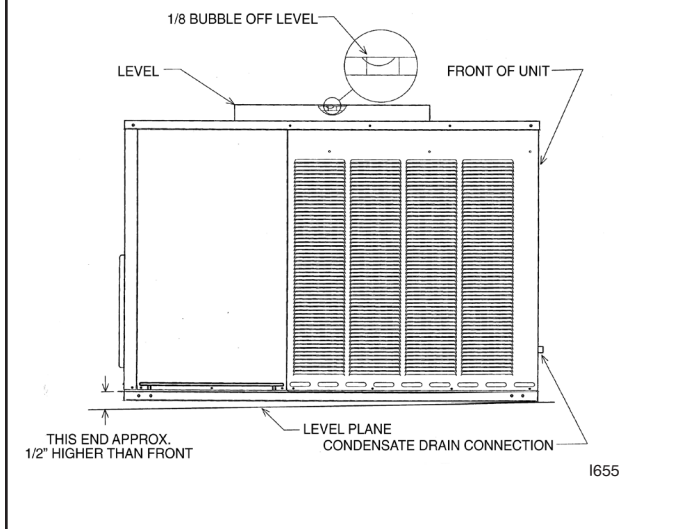
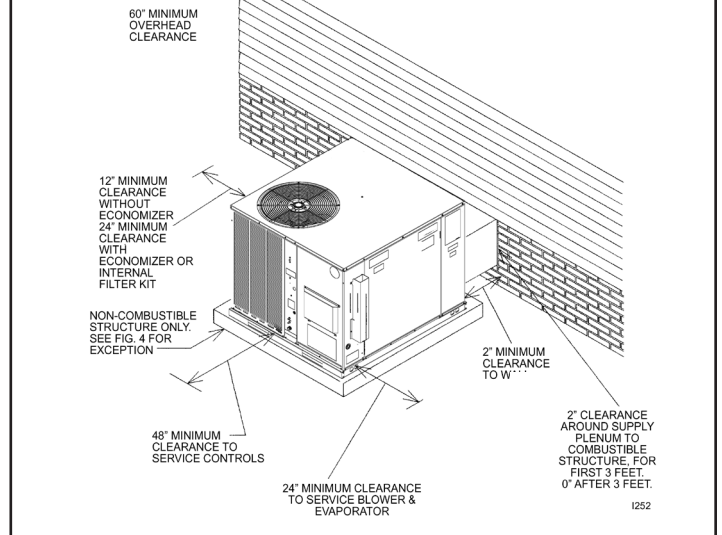


FIGURE 4
CLEARANCES



B. OUTSIDE INSTALLATION

WARNING

THESE UNITS ARE DESIGNED CERTIFIED FOR OUTDOOR INSTALLATION ONLY. INSTALLATION INSIDE ANY PART OF A STRUCTURE CAN RESULT IN INADEQUATE UNIT PERFORMANCE AS WELL AS PROPERTY DAMAGE. INSTALLATION INSIDE CAN ALSO CAUSE RECIRCULATION OF FLUE PRODUCTS INTO THE CONDITIONED SPACE RESULTING IN PERSONAL INJURY OR DEATH.

(Typical outdoor slab installation is shown in Figure 2.)

1. Select a location where external water drainage cannot collect around unit.
2. Provide a slab sufficiently high enough above grade to prevent surface water from entering the unit. Where snowfall is anticipated, mount the unit above the anticipated maximum snow depth for your area. Do not locate unit in an area where excessive snow drifting may block combustion air inlet.
3. Pitch the slab approximately $\frac{1}{2}$ " so that the unit will be pitched toward the drain. See Figure 3.
4. The location of the unit should be such as to provide proper access for inspection and servicing as shown in Figure 4.
5. Locate unit where operating sounds will not disturb owner or neighbors. The slab should be isolated from the foundation wall.
6. Locate unit so roof runoff water does not pour directly on the unit. Provide gutter or other shielding at roof level.

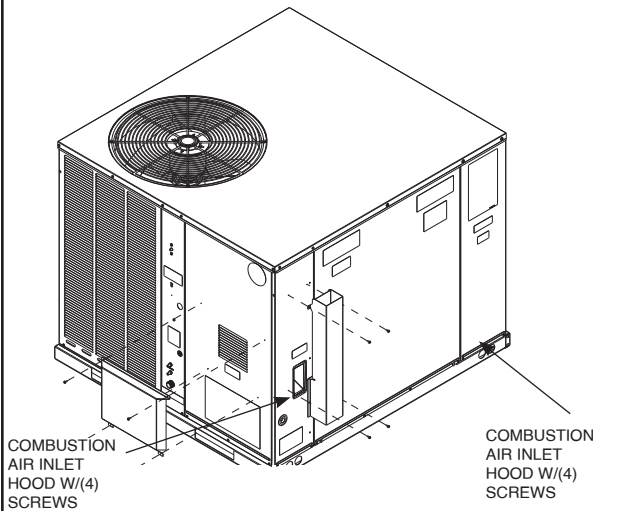
C. ATTACHING EXHAUST AND COMBUSTION AIR INLET HOODS

IMPORTANT: Do not operate this unit without the exhaust and combustion air inlet hood properly installed. These hoods are shipped in a carton in the return air compartment inside the unit and must be attached when the unit is installed. See Figure 5.

To attach exhaust and combustion air inlet hood:

1. Remove 3 screws securing filter access panel and remove filter access panel. For location of filter access panel, see Figure 1 on pages 8 and 9.
2. Remove both exhaust and combustion air inlet hoods from their carton, located inside the return air compartment.
3. Attach filter access panel.
4. Attach the combustion air inlet hood and the exhaust hood each with 4 screws as shown in Figure 5. Screws are in parts bag shipped in the burner compartment.
5. Vent the unit using the flue exhaust hood, as supplied from the factory, without alteration or addition. The only exception is with factory approved additions. Consult your local utility or other authority having jurisdiction for accepted venting techniques.

FIGURE 5
COMBUSTION AIR INLET HOOD & EXHAUST HOOD
INSTALLATION



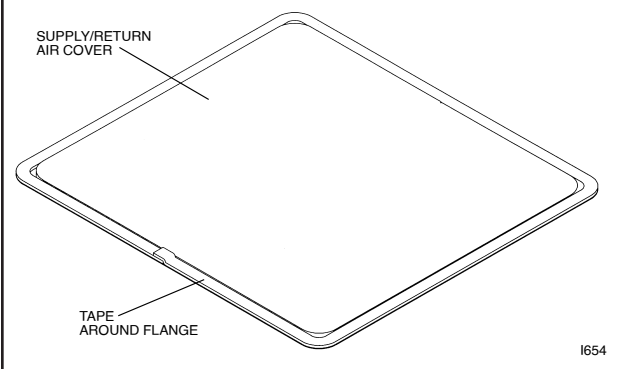
D. COVER PANEL INSTALLATION/CONVERSION PROCEDURE

1. HORIZONTAL TO DOWNFLOW
 - a. Remove screws and covers from the supply and return bottom sections. NOTE: Rotate the supply cover 90° and remove.
 - b. Install gasket (supplied with parts bag) around perimeter of cover on the insulated side. See Figure 6.
 - c. Secure covers to the side of the unit using existing screws and those supplied in the parts bag. See figure 7.

WARNING

THIS UNIT MUST NOT BE INSTALLED DIRECTLY ON WOOD FLOORING, CLASS A, CLASS B OR CLASS C ROOF COVERING MATERIALS, OR ANY OTHER COMBUSTIBLE STRUCTURE EXCEPT AS SPECIFIED IN FIGURE 8. FAILURE TO ADHERE TO THIS WARNING CAN CAUSE A FIRE OR EXPLOSION RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

FIGURE 6
COVER GASKET DETAIL FOR UNITS SHIPPED FOR SIDE DISCHARGE APPLICATION BEING CONVERTED TO DOWNFLOW



E. CLEARANCES

The following minimum clearances must be observed for proper unit performance and serviceability. See Figure 4 on page 11.

1. Provide 48" minimum clearance at front of the unit. Provide 24" minimum clearance on right side of unit. If economizer is used, a 24" minimum clearance is required on left side of unit. (See Figure 4 on page 11.) If no economizer is required, then a 12" clearance is required on left side of unit.
2. Provide 60" minimum clearance between top of unit and maximum 3 foot overhang.
3. Unit is design certified for 2" minimum clearance between supply duct and a combustible structure for the first 3 feet of duct. 0" clearance is allowed after 3 feet.

FIGURE 7
DUCT COVER INSTALLATION SIDE MOUNTING

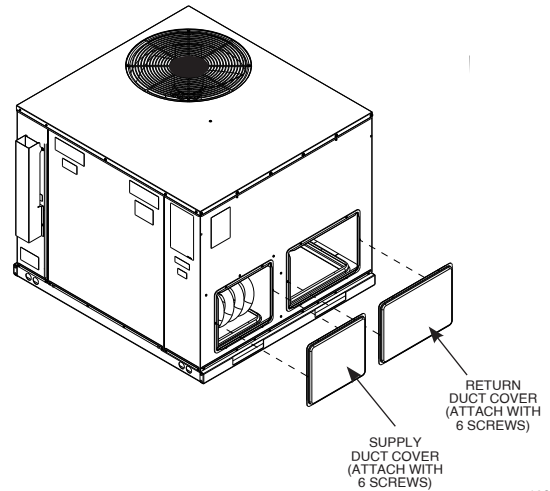
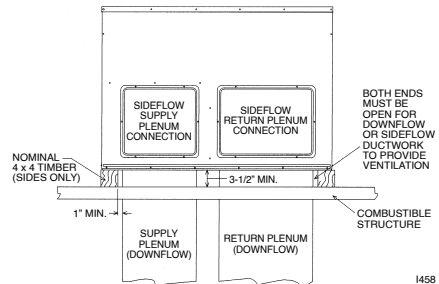


FIGURE 8
EXCEPTION TO NON-COMBUSTIBLE FLOORING REQUIREMENT



F. ROOFTOP INSTALLATION

1. Before locating the unit on the roof, make sure that the roof structure is adequate to support the weight involved. (See electrical & physical tables in this book for weight of unit.) **THIS IS VERY IMPORTANT AND THE INSTALLER'S RESPONSIBILITY.**
2. For rigging and roofcurb details, see Figures 9, 10, 11, 12, 13 and 14.
3. The location of the unit on the roof should be such as to provide proper access for inspection and servicing.

IMPORTANT: If unit will not be put into service immediately, block off supply and return air openings to prevent excessive condensation.

FIGURE 9
LIFTING DETAIL

CAPACITY TONS [KW]	CORNER WEIGHTS BY PERCENTAGE			
	A	B	C	D
2.0-5.0 [7-15.8]	20%	29%	30%	21%

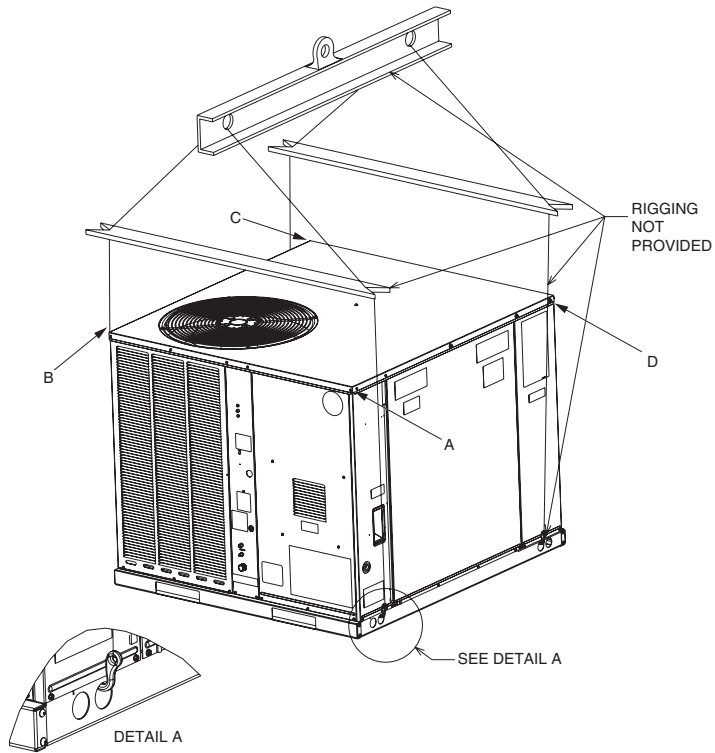
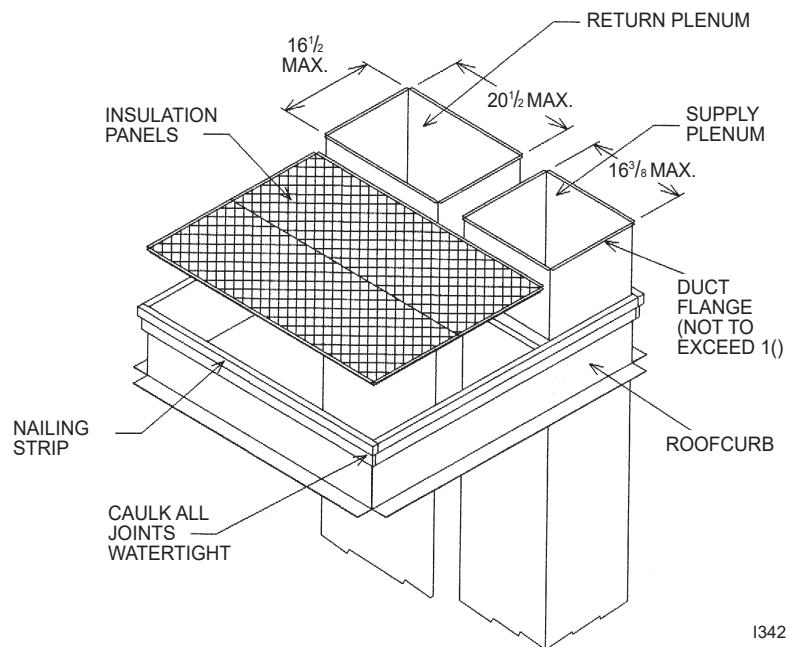
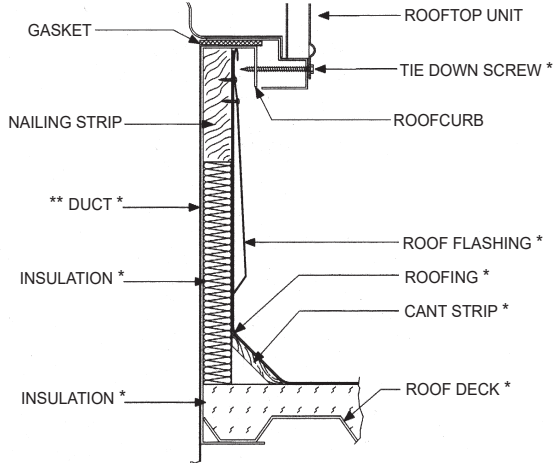


FIGURE 10
ROOFCURB



I342

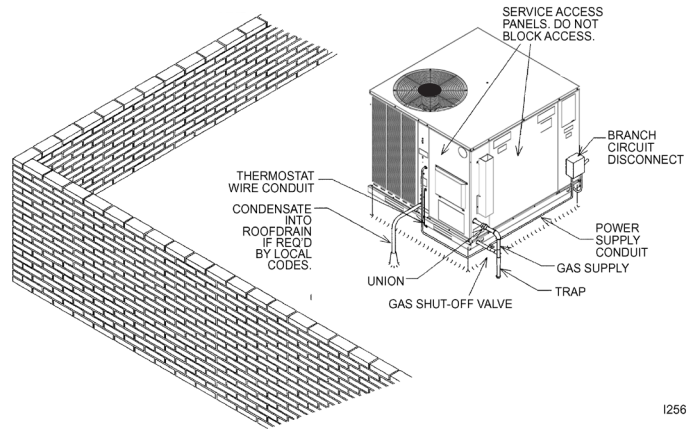
**FIGURE 11
ROOFCURB**



*BY CONTRACTOR
**FOR INSTALLATION OF DUCT AS SHOWN, USE RECOMMENDED DUCT SIZES FROM ROOFCURB INSTALLATION INSTRUCTIONS. FOR DUCT FLANGE ATTACHMENT TO UNIT, SEE UNIT INSTALLATION INSTRUCTIONS (FIGURE 1) FOR SIZE OF DUCT OPENINGS.

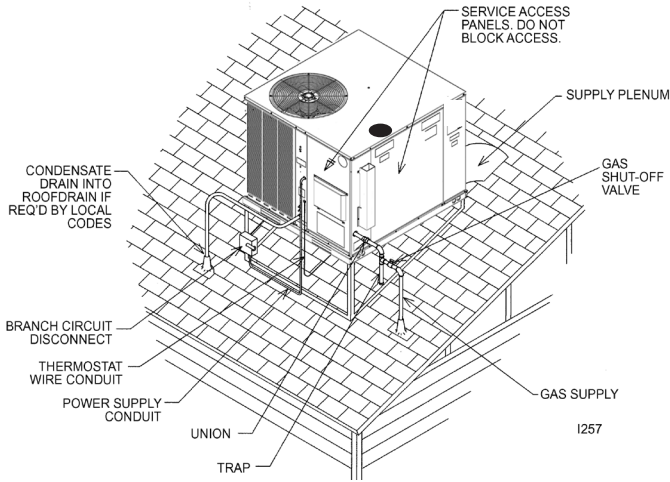
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**FIGURE 12
FLAT ROOFTOP INSTALLATION, ATTIC OR DROP CEILING DISTRIBUTING SYSTEM. MOUNTED ON ROOFCURB, PITCH UNIT TOWARD DRAIN.**



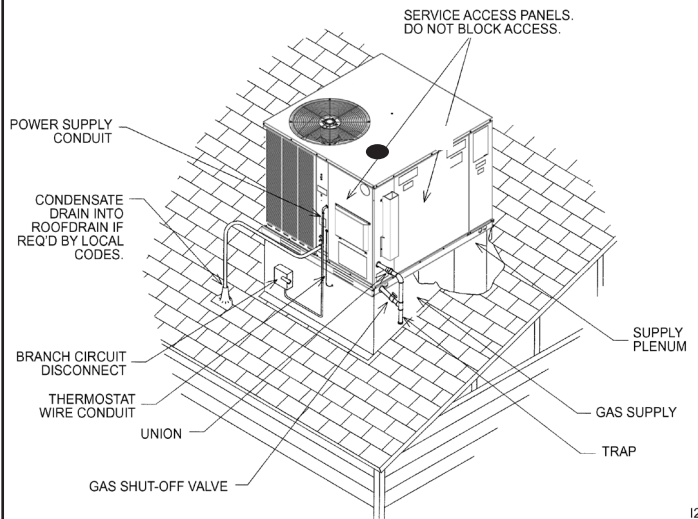
I256

**FIGURE 13
PITCHED ROOFTOP INSTALLATION, ON ANGLE-IRON STAND, SIDE FLOW DUCTWORK, ATTIC OR DROP CEILING DISTRIBUTING SYSTEM. PITCH UNIT TOWARD DRAIN.**



I257

**FIGURE 14
PITCHED ROOFTOP INSTALLATION, ON ROOFJACK, DOWNFLOW DUCTWORK, ATTIC OR DROP CEILING DISTRIBUTING SYSTEM. PITCH UNIT TOWARD DRAIN.**



I257B

FIGURE 15
DUCTWORK COVER INSTALLATION DETAIL

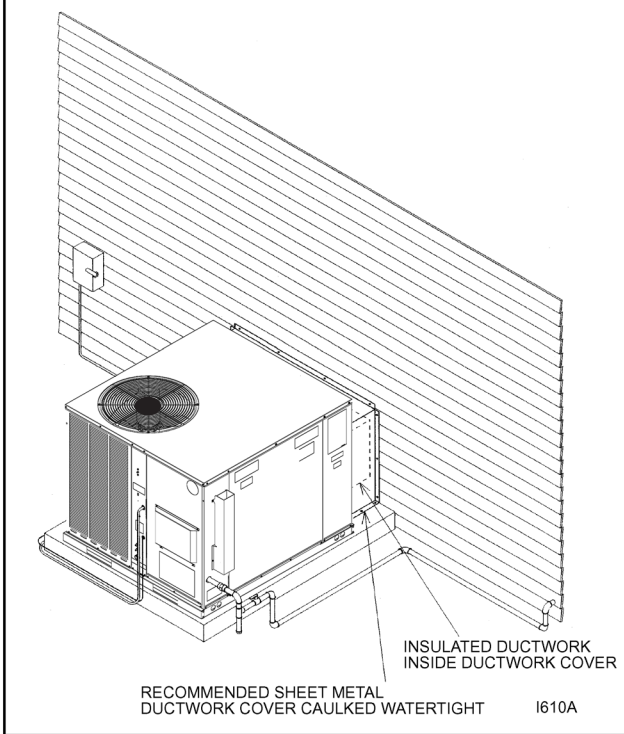
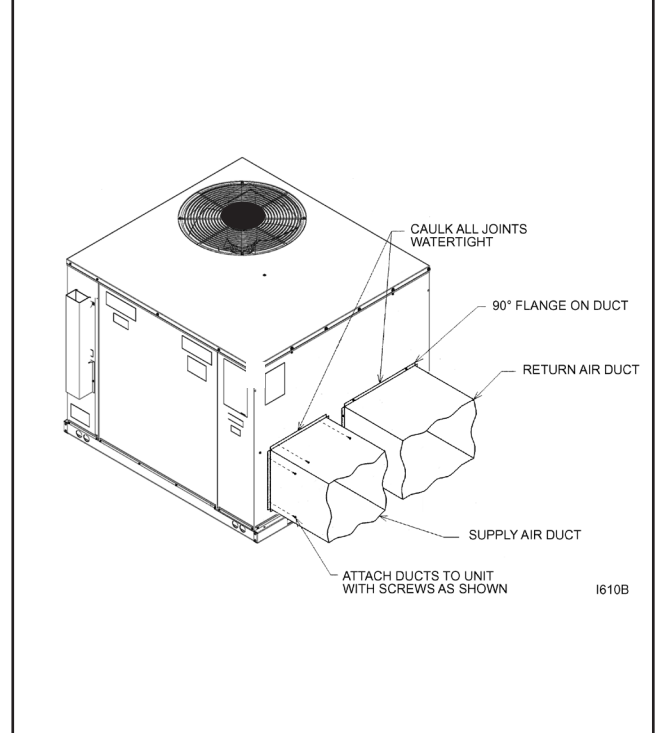


FIGURE 16
RESIDENTIAL ROOFTOP DUCTWORK INSTALLATION DETAIL.



G. DUCTWORK

▲ WARNING

DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT RETURN DUCTWORK TO ANY OTHER HEAT PRODUCING DEVICE SUCH AS FIREPLACE INSERT, STOVE, ETC. UNAUTHORIZED USE OF SUCH DEVICES MAY RESULT IN FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY, OR PROPERTY DAMAGE.

The installing contractor should fabricate ductwork in accordance with local codes. Use industry manuals as a guide when sizing and designing the duct system. Contact Air Conditioning Contractors of America, 1513 16th St. N.W., Washington, D.C. 20036.

Place the unit as close to the conditioned space as possible allowing clearances as indicated. Run ducts as directly as possible to supply and return outlets. Use of non-flammable weatherproof flexible connectors on both supply and return connections at unit to reduce noise transmission is recommended.

On ductwork exposed to outside temperature and humidity, use a minimum of 2" of insulation and a vapor barrier. Distribution system in attic, furred space or crawl space should be insulated with at least 2" of insulation. ½" to 1" thick insulation is usually sufficient for ductwork inside the air conditioned space.

Provide balancing dampers for each branch duct in the supply system. Properly support ductwork from the structure.

IMPORTANT: In the event that the return air ducts must be run through an "unconfined" space containing other fuel burning equipment, it is imperative that the user/homeowner must be informed against future changes in construction which might change this to a "confined space." Also, caution the user/homeowner against any future installation of additional equipment (such as power ventilators, clothes dryers, etc., within the existing unconfined and/or confined space which might create a negative pressure within the vicinity of other solid, liquid, or gas fueled appliances.

H. RETURN AIR

▲ WARNING

NEVER ALLOW PRODUCTS OF COMBUSTION OR THE FLUE PRODUCTS TO ENTER THE RETURN AIR DUCTWORK, OR THE CIRCULATING AIR SUPPLY. ALL RETURN DUCTWORK MUST BE ADEQUATELY SEALED AND SECURED TO THE FURNACE WITH SHEET METAL SCREWS, AND JOINTS TAPED. ALL OTHER DUCT JOINTS MUST BE SECURED WITH APPROVED CONNECTIONS AND SEALED AIRTIGHT.

FAILURE TO PREVENT PRODUCTS OF COMBUSTION FROM BEING CIRCULATED INTO THE LIVING SPACE CAN CREATE POTENTIALLY HAZARDOUS CONDITIONS, INCLUDING CARBON MONOXIDE POISONING THAT COULD RESULT IN PERSONAL INJURY OR DEATH.

I. FILTERS

The installer must install field supplied filters in the return air duct. A field installed filter grille is recommended for easy and convenient access to the filters for periodic inspection and cleaning. Filters must have adequate face area for the rated air quantity of the unit. See air delivery tables for recommended filter size. A field installed internal filter kit RXYR-B01 is available.

***SEE SUPPLEMENT FOR ADDITIONAL INFORMATION SPECIFIC TO ULTRA LOW NOX MODELS (14NG/J).**

VIII. GAS SUPPLY, CONDENSATE DRAIN AND PIPING

A. GAS CONNECTION

IMPORTANT: Connect this unit only to gas supplied by a commercial utility.

1. Install gas piping in accordance with local codes and regulations of the local utility company. In the absence of local codes, the installation must conform to the specifications of the National Fuel Gas Code, ANSI Z223.1 - latest edition.

NOTE: The use of flexible gas connectors is not permitted.

NOTE: The Commonwealth of Massachusetts requires the gas shut-off valve to be a T-handle gas cock.

2. Connect the gas line to the gas pipe inlet opening provided into the 1/2" inlet valve. See Figure 2 on page 10 for typical piping.
3. Size the gas line to the furnace adequate enough to prevent undue pressure drop and never less than 1/2".
4. Install a drip leg or sediment trap in the gas supply line as close to the unit as possible.
5. Install an outside ground joint union to connect the gas supply to the control assembly at the burner tray.
6. Gas valves have been factory installed. Install a manual gas valve where local codes specify a shut-off valve outside the unit casing. (See Figure 17.)
7. Make sure piping is tight. **A pipe compound resistant to the action of liquefied petroleum gases must be used at all threaded pipe connections.**
8. **IMPORTANT:** Any additions, changes or conversions required for the furnace to satisfactorily meet the application should be made by a qualified installer, service agency or the gas supplier, using factory-specified or approved parts. In the commonwealth of Massachusetts, installation must be performed by a licensed plumber or gas fitter for appropriate fuel.

IMPORTANT: Disconnect the furnace and its individual shutoff valve from the gas supply piping during any pressure testing of that system at test pressures in excess of 1/2 psig or isolate the system from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of this gas supply system at pressures equal to or less than 1/2 PSIG.

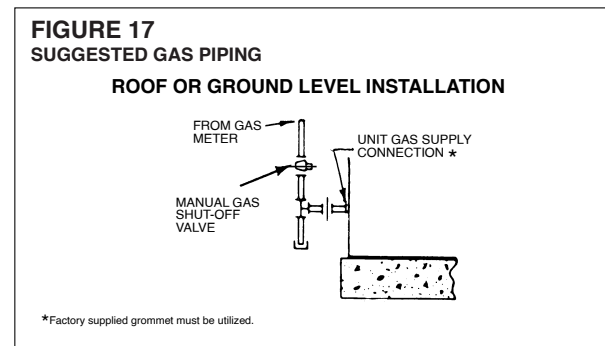


TABLE 1
GAS PIPE CAPACITY TABLE (CU. FT./HR.)

Nominal Iron Pipe Size, Inches	Equivalent Length of Pipe, Feet							
	10	20	30	40	50	60	70	80
1/2	132	92	73	63	56	50	46	43
3/4	278	190	152	130	115	105	96	90
1	520	350	285	245	215	195	180	170
1 1/4	1,050	730	590	500	440	400	370	350
1 1/2	1,600	1,100	890	760	670	610	560	530

WARNING

DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS. THE USE OF AN OPEN FLAME CAN RESULT IN FIRE, EXPLOSION, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

TO CHECK FOR GAS LEAKS, USE A SOAP AND WATER SOLUTION OR OTHER APPROVED METHOD. DO NOT USE AN OPEN FLAME.

IMPORTANT: Check the rating plate to make certain the appliance is equipped to burn the type of gas supplied. Care should be taken after installation of this equipment that the gas control valve not be subjected to high gas supply line pressure.

In making gas connections, avoid strains as they may cause noise and damage the controls. A backup wrench is required to be used on the valve to avoid damage.

The capacities of gas pipe of different diameters and lengths in cu. ft. per hr. with pressure drop of 0.5 in. and specific gravity of 0.60 (natural gas) are shown in Table 2.

After determining the pipe length, select the pipe size which will provide the minimum cubic feet per hour required for the gas input rating of the furnace. By formula:

$$\text{Cu. Ft. Per Hr. Required} = \frac{\text{Gas Input of Furnace (BTU/HR)}}{\text{Heating Value of Gas (BTU/FT}^3\text{)}}$$

The gas input of the furnace is marked on the furnace rating plate. The heating value of the gas (BTU/FT³) may be determined by consulting the local natural gas utility or the L.P. gas supplier.

B. LP CONVERSION SINGLE STAGE GAS HEAT

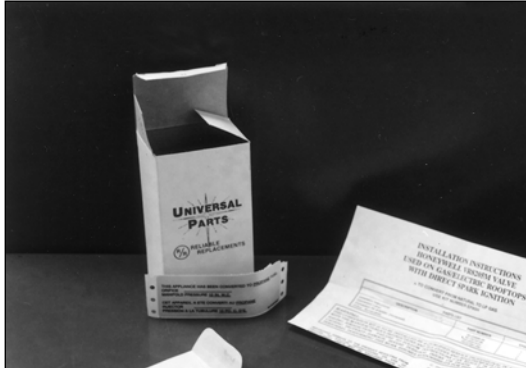
WARNING

THIS UNIT IS EQUIPPED AT THE FACTORY FOR USE ON NATURAL GAS ONLY. CONVERSION TO LP GAS REQUIRES A SPECIAL KIT SUPPLIED BY THE DISTRIBUTOR OR MANUFACTURER. MAILING ADDRESSES ARE LISTED ON THE FURNACE RATING PLATE, PARTS LIST AND WARRANTY. FAILURE TO USE THE PROPER CONVERSION KIT CAN CAUSE FIRE, CARBON MONOXIDE POISONING, EXPLOSION, PERSONAL INJURY, PROPERTY DAMAGE OR DEATH.

Convert the valve to use liquefied petroleum (LP) gas by replacing the pressure regulator spring with the conversion kit spring. This LP kit spring allows the regulator to maintain the proper manifold pressure for LP gas. The correct burner LP orifices are included in the kit. See Figure 18.

NOTE: Order the correct LP conversion kit from the furnace manufacturer. **See Conversion Kit Index shipped with unit for proper LP kit number. Furnace conversion to LP gas must be performed by a qualified technician.**

FIGURE 18



***SEE SUPPLEMENT FOR ADDITIONAL INFORMATION SPECIFIC TO ULTRA LOW NOX MODELS (14NG/J).**

C. Nox MODEL CONVERSION TO LP GAS

NOx units are not designed to operate on LP gas with the NOx inserts in place. When converting units equipped with NOx inserts to LP gas, remove the NOx insert assemblies.

Steps for removal are listed below:

1. Turn off all electrical power and the gas supply to the furnace.
2. Remove the burner door from the furnace.
3. Remove the burner assembly - handle with care.
4. Remove the NOx inserts.
5. Put the two screws back into the holes in the center panel.
6. Follow Lp Conversion Kit Instructions For New Orifice Installation.
7. Re-install the burner assembly.
8. Replace burner door.
9. Turn on electrical power and gas supply to the unit.

NOTE: Some NOx models may have one less NOx insert.

TABLE 2
LP GAS PIPE CAPACITY TABLE (CU. FT./HR.)

Maximum capacity of pipe in thousands of BTU per hour of undiluted liquefied petroleum gases (at 11 inches water column inlet pressure).
(Based on a Pressure Drop of 0.5 Inch Water Column)

Nominal Iron Pipe Size, Inches	Length of Pipe, Feet											
	10	20	30	40	50	60	70	80	90	100	125	150
1/2	275	189	152	129	114	103	96	89	83	78	69	63
3/4	567	393	315	267	237	217	196	182	173	162	146	132
1	1,071	732	590	504	448	409	378	346	322	307	275	252
1-1/4	2,205	1,496	1,212	1,039	913	834	771	724	677	630	567	511
1-1/2	3,307	2,299	1,858	1,559	1,417	1,275	1,181	1,086	1,023	976	866	787
2	6,221	4,331	3,465	2,992	2,646	2,394	2,205	2,047	1,921	1,811	1,606	1,496

Example (LP): Input BTU requirement of unit, 150,000
Equivalent length of pipe, 60 ft. = 3/4" IPS required

D. ADJUSTING OR CHECKING FURNACE INPUT

- Natural Gas Line Pressure 5" - 10.5" W.C.
- LP Gas Line Pressure 11" - 13" W.C.
- Natural Gas Manifold Pressure 3.5" W.C.
- LP Gas Manifold Pressure 10" W.C.

Supply and manifold pressure taps are located on the gas valve body 1/8" N.P.T.

Use a properly calibrated manometer gauge for accurate gas pressure readings.

Only small variations in the gas flow should be made by means of the pressure regulator adjustment. Furnaces functioning on LP gas must be set by means of the tank or branch supply regulators. The furnace manifold pressure should be set at 10" W.C. at the gas control valve.

To adjust the pressure regulator, remove the regulator cap and turn the adjustment screw clockwise to increase pressure or counterclockwise to decrease pressure. **Then replace the regulator cap securely.**

Any necessary major changes in the gas flow rate should be made by changing the size of the burner orifices. To change orifice spuds, shut off the manual main gas valve and remove the gas manifold.

For elevations up to 2,000 feet, rating plate input ratings apply. For high altitudes (elevations over 2,000 ft.), see conversion kit index 92-21519-47 for derating and orifice spud sizes.

Check of input is important to prevent over-firing of the furnace beyond its design-rated input. NEVER SET INPUT ABOVE THAT SHOWN ON THE RATING PLATE. Use the following table or formula to determine input rate.

$$\text{Cu. Ft. Per Hr. Required} = \frac{\text{Heating Value of Gas (BTU/Cu. Ft.)} \times 3600}{\text{Time in Seconds (for 1 Cu. Ft.) of Gas}}$$

TABLE 3

METER TIME IN MINUTES AND SECONDS FOR NORMAL INPUT RATING OF FURNACES EQUIPPED FOR NATURAL OR LP GAS

INPUT BTU/HR	METER SIZE CU. FT.	HEATING VALUE OF GAS BTU PER CU. FT.									
		900		1000		1040		1100		2500	
		MIN.	SEC.	MIN.	SEC.	MIN.	SEC.	MIN.	SEC.	MIN.	SEC.
40,000	ONE	1	21	1	30	1	34	1	39	3	45
	TEN	13	30	15	0	15	36	16	30	37	30
60,000	ONE	0	54	1	0	1	3	1	6	2	30
	TEN	9	0	10	0	10	24	11	0	25	0
80,000	ONE	0	41	0	45	0	47	0	50	1	53
	TEN	6	45	7	30	7	48	8	15	18	45
100,000	ONE	0	33	0	36	0	38	0	40	1	30
	TEN	5	24	6	0	6	15	6	36	15	0

Start the furnace and measure the time required to burn one cubic foot of gas. Prior to checking the furnace input, make certain that all other gas appliances are shut off, with the exception of pilot burners. Time the meter with only the furnace in operation.

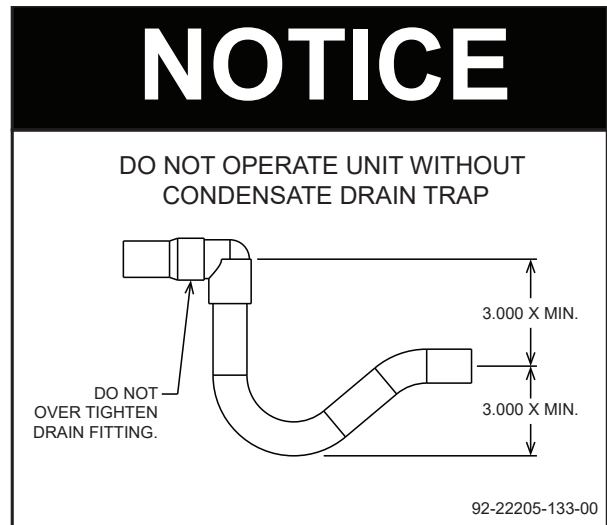
IMPORTANT NOTE FOR ALTITUDES ABOVE 2,000 FEET (610 METERS): The main burner orifices in your furnace and in these kits are sized for the nameplate input and intended for installations at elevations up to 2,000 feet in the USA or Canada, or for elevations of 2,000 - 4,500 feet (610 -1,373 meters) in Canada if the unit has been derated at the factory. For elevations above 2,000 feet (610 meters) **IN THE USA ONLY** (see ANSI-Z223.1), the burner orifices must be sized to reduce the input 4% for each 1,000 feet (305 meters) above sea level.

NOTICE: DERATING OF THE HEATING INPUT FOR HIGH ALTITUDE IN THE FIELD IS UNLAWFUL IN CANADA (REFER TO CAN/CGA 2.17). UNITS INSTALLED IN ALTITUDES GREATER THAN 2,000 FEET (610 METERS) MUST BE SHIPPED FROM THE FACTORY OR FROM A FACTORY AUTHORIZED CONVERSION STATION WITH THE HEATING INPUT DERATED BY 10% SO AS TO OPERATE PROPERLY IN ALTITUDES FROM 2,000 - 4,500 FEET (610 - 1,373 METERS).

E. CONDENSATE DRAIN

IMPORTANT: DO NOT OPERATE THE UNIT WITHOUT A CONDENSATE DRAIN TRAP INSTALLED.

1. The condensate drain tube has a threaded male 3/4" NPT connection.
2. Use a thin layer of Teflon tape or paste on drain pan connections and install only hand tight. It is recommended that a PVC cement not be used so that the drain line can be easily cleaned in the future.
3. Drain line must be no smaller than the drain tube outlet and adequately sized to accommodate the condensate discharge from the unit.
4. Drain line must be routed to an acceptable drain or outdoors in accordance with local codes.
5. Do not connect the condensate drain line to a closed sewer pipe. Connection to a vented sewer line is allowed.
6. Drain line may need insulation or freeze protection in certain applications.
7. The drain line includes a 3/16" hole on top of the line near the bulkhead to relieve negative pressure and allow proper drainage in the event of a dried out trap.
8. If condensate is running out of this hole during cooling operation, check for obstruction in the drain line.



IX. WIRING

A. POWER SUPPLY

WARNING

TURN OFF THE MAIN ELECTRICAL POWER AT THE BRANCH CIRCUIT DISCONNECT CLOSEST TO THE UNIT BEFORE ATTEMPTING ANY WIRING. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

1. **All wiring should be made in accordance with the National Electrical Code.** Consult the local power company to determine the availability of sufficient power to operate the unit. Check the voltage at power supply to make sure it corresponds to the unit's RATED VOLTAGE REQUIREMENT. Install a branch circuit disconnect near the rooftop, in accordance with the N.E.C., C.E.C. or local codes.
2. It is important that proper electrical power is available at the unit. Voltage should not vary more than 10% from that stamped on the unit nameplate. On three phase units, phases must be balanced within 3%.
3. For branch circuit wiring (main power supply to unit disconnect), the minimum wire size for the length of run can be determined from Table 4 using the circuit ampacity found on the unit rating plate. Use the smallest wire size allowable in Table 4 from the unit disconnect to unit. The disconnect must be in sight and readily accessible of the unit.

TABLE 4
BRANCH CIRCUIT COPPER WIRE SIZE
(BASED ON 1% VOLTAGE DROP)*

	200	6	4	4	4	3	3	2	2
SUPPLY WIRE	150	8	6	6	4	4	4	3	3
LENGTH-FEET	100	10	8	8	6	6	6	4	4
	50	14	12	10	10	8	8	6	6
		15	20	25	30	35	40	45	50

BRANCH CIRCUIT AMPACITY

*Taken from National Electric Code

NOTES:

1. Wire size based on 60°C rated wire insulation and 30°C Ambient Temp. (86°F).
2. For more than 3 conductors in a raceway or cable, see the N.E.C. for derating the ampacity of each conductor.

When installed, the unit must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, **ANSI/NFPA 70**, if an external electrical source is utilized.

IMPORTANT: THIS UNIT IS APPROVED FOR USE WITH COPPER CONDUCTORS ONLY CONNECTED TO UNIT CONTACTOR.

WARRANTY MAY BE JEOPARDIZED IF ALUMINUM WIRE IS CONNECTED TO UNIT CONTACTOR.

Special instructions apply for power wiring with aluminum conductors: Warranty is void if connections are not made per instructions.

Attach a length (6" or more) of recommended size copper wire to the unit contactor terminals L1 and L3 for single phase, L1, L2 and L3 for three phase.

Select the equivalent aluminum wire size from the tabulation below:

Splice copper wire pigtails to aluminum wire with U.L. recognized connectors for copper-aluminum splices. Please exercise the following instructions very carefully to obtain a positive and lasting connection:

1. Strip insulation from aluminum conductor.
2. Coat the stripped end of the aluminum wire with the recommended inhibitor, and wire brush the aluminum surface through inhibitor. INHIBITORS: Brundy-Pentex "A"; Alcoa-No. 2EJC; T & B-KPOR Shield.
3. Clean and recoat aluminum conductor with inhibitor.
4. Make the splice using the above listed wire nuts or split bolt connectors.
5. Coat the entire connection with inhibitor and wrap with electrical insulating tape.

TABLE 5

AWG Copper Wire Size	AWG Aluminum Wire Size	Connector Type and Size (or equivalent)
#12	#10	T & B Wire Nut PT2
#10	# 8	T & B Wire Nut PT3
# 8	# 6	Sherman Split Bolt TSP6
# 6	# 4	Sherman Split Bolt TSP4
# 4	# 2	Sherman Split Bolt TSP2

B. HOOK-UP

Refer to Figure 1 on pages 8 and 9 for location of wiring entrances.

Wiring to be done in the field between the unit and devices not attached to the unit, or between separate devices which are field installed and located, shall conform with the temperature limitation for Type T wire [63°F rise (35°C)] when installed in accordance with the manufacturer's instructions.

C. INTERNAL WIRING

IMPORTANT: Some single phase units are equipped with a single pole contactor. Caution must be exercised when servicing as only one leg of the power supply is broken with the contactor.

A diagram of the internal wiring of this unit is located under the electrical box cover and in this manual. If any of the original wire as supplied with the appliance must be replaced, the wire gauge and insulation must be same as original wiring.

Transformer is factory wired for 230 volts on 208/230 volt models and must be changed for 208 volt applications. See unit wiring diagram for 208 volt wiring.

D. THERMOSTAT

The room thermostat must be compatible with the spark ignition control on the unit. Generally, all thermostats that are not of the "current robbing" type are compatible with the integrated furnace control. Two stage units (4 & 5 ton) require use of a thermostat capable of 2 stages of cooling. See chart below for recommendations. The low voltage wiring should be sized as shown in Table 6.

Install the room thermostat in accordance with the instruction sheet packed in the box with the thermostat. Never install the thermostat on an outside wall or where it will be influenced by drafts, concealed hot or cold water pipes or ducts, lighting fixtures, radiation from fireplace, sun rays, lamps, televisions, radios or air streams from registers. Refer to instructions packed with the thermostat for "heater" selection or adjustment.

Refer to the RGEAZR Specification Sheets for a list of recommended thermostats.

TABLE 6

FIELD WIRE SIZE FOR 24 VOLT THERMOSTAT CIRCUITS						
Thermostat Load - Amps	SOLID COPPER WIRE - AWG.					
	3.0	16	14	12	10	10
2.5	16	14	12	12	12	10
2.0	18	16	14	12	12	10
	50	100	150	200	250	300
	Length of Run – Feet (1)					

(1) The total wire length is the distance from the furnace to the thermostat and back to the furnace.

NOTE: DO NOT USE CONTROL WIRING SMALLER THAN NO. 18 AWG.

***SEE SUPPLEMENT FOR ADDITIONAL INFORMATION SPECIFIC TO ULTRA LOW NOX MODELS (14NG/J).**

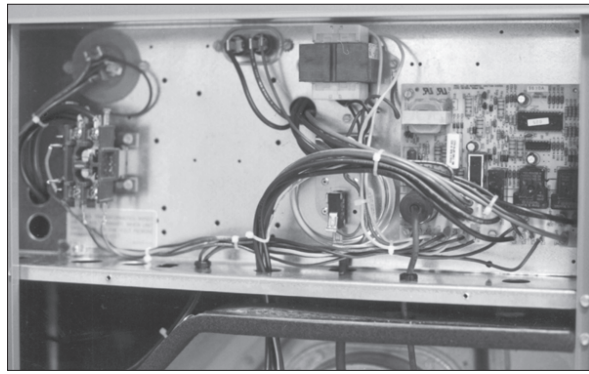
X. FURNACE SECTION CONTROLS AND IGNITION SYSTEM

A. NORMAL FURNACE OPERATING SEQUENCE (SINGLE STAGE GAS HEAT)

This unit is equipped with an integrated direct spark ignition control.

1. The thermostat calls for heat.
 2. The control board will run a self check to verify that the limit control and manual reset overtemperature control are closed and that the pressure switch is open. If so, the induced draft blower (inducer) begins a prepurge cycle.
 3. The air proving negative pressure switch closes.
 4. **15 seconds after the pressure switch closes**, the gas valve opens and the spark is initiated for a 7 second trial for ignition.
 5. Burners ignite and flame sensor proves all burners have lit.
 6. The circulating air blower is energized after 20 seconds.
 7. The control board enters a normal operation loop in which all safety controls are monitored continuously.
 8. Thermostat is satisfied and opens.
 9. The gas valve is de-energized and closes, shutting down the burner flame.
 10. The control board will de-energize the inducer after a five second post purge.
 11. The circulating air blower is de-energized after 180 seconds.
- The integrated control board has a three ignition system.
 - After a total of three trials for ignition without sensing main burner flame, the system goes into a 100% lockout mode.
 - After one hour, the ignition control repeats the prepurge and ignition cycles for 3 tries and then goes into 100% lockout mode again.
 - It continues this sequence of cycles and lockout each hour until ignition is successful or power is interrupted.
 - During the lockout mode, neither the spark ignition control or gas valve will be energized until the system is reset by turning the thermostat to the "OFF" position or interrupting the electrical power to the unit for 3 seconds or longer.
 - The induced draft blower and main burner will shut off when the thermostat is satisfied.
 - The circulating air blower will start and run on the heating speed if the thermostat fan switch is in the "ON" position.

FIGURE 20
INTEGRATED FURNACE CONTROL BOARD



The integrated furnace control is equipped with diagnostic LED. The LED is lit continuously when there is power to the control, with or without a call for heat. If the LED is not lit, there is either no power to the control or there is an internal component failure within the control, and the control should be replaced.

If the control detects the following failures, the LED will flash on for approximately 1/4 second, then off for 3/4 second for designated failure detections.

- 1 Flash: Failed to detect flame within the three tries for ignition.
- 2 Flash: Pressure switch or induced draft blower problem detected.
- 3 Flash: High limit or auxiliary limit open.
- 4 Flash: Flame sensed and gas valve not energized or flame sensed with no "W" signal.
- 5 Flash: Overtemperature switch open.

B. OPERATING INSTRUCTIONS

▲ WARNING

DO NOT ATTEMPT TO MANUALLY LIGHT THIS FURNACE WITH A MATCH OR ANY OPEN FLAME. ATTEMPTING TO DO SO CAN CAUSE AN EXPLOSION OR FIRE RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

This appliance is equipped with a direct spark intermittent ignition device. This device lights the main burners each time the room thermostat (closes) calls for heat. See operating instructions on the back of the furnace/controls access panel.

TO START THE FURNACE

▲ WARNING

IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

1. STOP! Read the safety information on the Operating Instructions Label located on this appliance.
2. Set the thermostat to its lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do **NOT** try to light the burner by hand.
5. Remove control door/access panel.
6. Move switch to the "OFF" position.
7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP!
 - Do not try to light any appliance.
 - Do not touch any electric 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 your gas supplier, call the fire department.If you don't smell gas, go to the next step.
8. Move the switch from "OFF" position to "ON" position.
9. Replace the control door.
10. Turn on all electric power to the appliance.
11. Set the thermostat to the desired setting.

WARNING

THE SPARK IGNITOR AND IGNITION LEAD FROM THE IGNITION CONTROL ARE HIGH VOLTAGE. KEEP HANDS OR TOOLS AWAY TO PREVENT ELECTRICAL SHOCK. SHUT OFF ELECTRICAL POWER BEFORE SERVICING ANY OF THE CONTROLS. FAILURE TO ADHERE TO THIS WARNING CAN RESULT IN PERSONAL INJURY OR DEATH.

12. If the appliance will not operate, follow the instructions below on how to shut down the furnace.

The initial start-up on a new installation may require the control system to be energized for some time until any air has bled through the system and fuel gas is available at the burners.

TO SHUT DOWN FURNACE

1. Set the thermostat to the lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove control door.

WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, SHUT OFF THE MANUAL GAS VALVE TO THE APPLIANCE BEFORE SHUTTING OFF THE ELECTRICAL SUPPLY. FAILURE TO DO SO CAN RESULT IN AN EXPLOSION OR FIRE CAUSING PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH!

4. Move switch to the "OFF" position.
5. Replace control door.

C. BURNERS

Burners for these units have been designed so that field adjustment is not required. Burners are tray-mounted and accessible for easy cleaning when required.

D. MANUAL RESET OVERTEMPERATURE CONTROL

A manual reset overtemperature control is located on the burner shield. This device senses blockage in the heat exchanger or insufficient combustion air. This shuts off the main burners if excessive temperatures occur in the burner compartment.

Operation of this control indicates an abnormal condition. Therefore, the unit should be examined by a qualified installer, service agency, or the gas supplier before being placed back into operation.

WARNING

DO NOT JUMPER THIS DEVICE! DO NOT reset the overtemperature control without taking corrective action to assure that an adequate supply of combustion air is maintained under all conditions of operation. Failure to do so can result in carbon monoxide poisoning or death. Replace this control only with the identical replacement part.

E. PRESSURE SWITCH(ES)

This furnace has pressure switches for sensing a blocked exhaust or a failed induced draft blower. They're normally open and close when the induced draft blower starts, indicating air flow through the combustion chamber.

F. LIMIT CONTROL

The supply air high temperature limit cut-off is set at the factory and cannot be adjusted. It is calibrated to prevent the air temperature leaving the furnace from exceeding the maximum outlet air temperature. **WARNING: DO NOT JUMPER THIS DEVICE! Replace this control only with the identical replacement part.**

XI. SYSTEM OPERATING INFORMATION

A. ADVISE THE CUSTOMER

1. Keep the air filters clean. The heating system operates better, more efficiently and more economically.
2. Arrange the furniture and drapes so that the supply air registers and the return air grilles are unobstructed.
3. Close doors and windows. This reduces the heating load on the system.
4. Avoid excessive use of exhaust fans.
5. Do not permit the heat generated by electronic devices to influence the thermostat operation.
6. Except for the mounting platform, keep all combustible articles three feet from the unit and exhaust system.
7. **IMPORTANT:** *Replace all blower doors and compartment cover after servicing the unit. Do not operate the unit without all panels and doors securely in place.*
8. Do not allow snow or other debris to accumulate in the vicinity of the appliance.

B. FURNACE SECTION MAINTENANCE

The unit's furnace should operate for many years without excessive scale build-up in flue passageways; however, it is recommended that a qualified installer, service agency, or the gas supplier annually inspect the flue passageways, the exhaust system and the burners for continued safe operation, paying particular attention to deterioration from corrosion or other sources.

If during inspection the flue passageways and exhaust system are determined to require cleaning, the following procedures should be followed (**by a qualified installer, service agency, or gas supplier**):

WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

1. Turn off the electrical power to the unit and set the thermostat to the lowest temperature.

2. **Shut off the gas supply to the unit either at the meter or at manual valve in the supply piping.**
3. Remove the furnace controls access panel and the control box cover.
4. Disconnect the gas supply piping from the gas valve.
5. Disconnect the wiring to the induced draft blower motor, gas valve, flame sensor, and flame roll-out control, and ignitor cable. **Mark all wires disconnected for proper reconnection.**
6. Remove the screws (4) connecting the burner tray to the heat exchanger mounting panel.
7. Remove the burner tray and the manifold assembly from the unit.
8. Remove the screws (4) connecting the induced draft blower to the collector box and screws (16) connecting the collector box to the heat exchanger mounting panel. Remove the induced draft blower and the collector box from the unit.
9. Remove the turbulators from inside the heat exchangers by inserting the blade of a screwdriver under the locking tabs. Pop the tabs out of the expanded grooves of the heat exchanger. Slide the turbulators out of the heat exchangers.
10. Direct a water hose into the outlet of the heat exchanger top. Flush the inside of each heat exchanger tube with water. Blow out each tube with air to remove excessive moisture.

WARNING

HOLES IN THE EXHAUST TRANSITION OR HEAT EXCHANGER CAN CAUSE TOXIC FUMES TO ENTER THE HOME. THE EXHAUST TRANSITION OR HEAT EXCHANGER MUST BE REPLACED IF THEY HAVE HOLES OR CRACKS IN THEM. FAILURE TO DO SO CAN CAUSE CARBON MONOXIDE POISONING RESULTING IN PERSONAL INJURY OR DEATH.

11. Reassemble (steps 1 through 10 in reverse order). **Be careful not to strip out the screw holes used to mount the collector box and inducer blower. Replace inducer blower gasket and collector box gasket with factory replacements if damaged.**

WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING MAINTENANCE. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

The manufacturer recommends that a qualified installer, service agency or the gas supplier visually inspect the burner flames for the desired flame appearance at the beginning of the heating season and approximately mid-way in heating season.

The manufacturer also recommends that a qualified installer, service agency or the gas supplier clean the flame sensor with steel wool at the beginning of the heating season.

C. LUBRICATION

IMPORTANT: DO NOT attempt to lubricate the bearings on the blower motor or the induced draft blower motor. Addition of lubricants can reduce the motor life and void the warranty.

The blower motor and induced draft blower motor are prelubricated by the manufacturer and do not require further attention.

A qualified installer, service agency or the gas supplier must periodically clean the motors to prevent the possibility of overheating due to an accumulation of dust and dirt on the windings or on the motor exterior. And, as suggested elsewhere in these instructions, the air filters should be kept clean because dirty filters can restrict air flow and the motor depends upon sufficient air flowing across and through it to prevent overheating.

WARNING

DISCONNECT MAIN ELECTRICAL POWER TO THE UNIT BEFORE ATTEMPTING MAINTENANCE. FAILURE TO DO SO MAY RESULT IN ELECTRICAL SHOCK OR SEVERE PERSONAL INJURY OR DEATH.

D. COOLING SECTION MAINTENANCE

WARNING

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING THE UNIT. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, SEVERE PERSONAL INJURY OR DEATH.

It is recommended that at the beginning of each cooling season a qualified installer or service agency inspect and clean the cooling section of this unit. The following areas should be addressed: evaporator coil, condenser coil, condenser fan motor and venturi area.

To inspect the evaporator coil:

1. Remove the filter access panel and the blower/evaporator coil access panel.
2. Unplug the wires from the circulating air blower and the limit control. Remove the two screws and slide the blower out of the unit sideways.
3. Shine a flashlight on the evaporator coil (both sides) and inspect for accumulation of lint, insulation, etc.
4. If coil requires cleaning, follow the steps shown below.

Cleaning Evaporator Coil

1. Remove screws from condenser fan grille assembly and lay grille over on the unit top panel.
2. Remove the controls access panel and the control box cover.
3. Disconnect the outdoor fan motor wiring from the compressor contactor and capacitor. Remove the strain relief in the bulkhead and pull the fan motor wires through. Set grille assembly to the side.
4. Remove the screws that secure the unit top to the unit. Remove the top and set the unit top to the side.
5. The coil should be cleaned when it is dry. If the coil is coated with dirt or lint, vacuum it with a soft brush attachment. Be careful not to bend the coil fins.
6. If the coil is coated with oil or grease, clean it with water. Rinse the coil thoroughly with water. **IMPORTANT: Do not** use excessive water pressure. Excessive water pressure can bend the fins and tubing of the coil and lead to inadequate unit performance. Be careful not to splash water excessively into unit.
7. Go to next section for cleaning the condenser coil.

Cleaning Condenser Coil, Drain Pan, Condensate Drain, Condenser Fan, Circulation Air Blower and Venturi

1. Remove the screws from the condenser coil protective grille and remove the grille from the unit. Ensure the filter access panel is still removed to access all of the screws securing the grille.
2. The coil should be cleaned when it is dry. If the coil is coated with dirt or lint, vacuum it with a soft brush attachment. Be careful not to bend the coil fins.
3. If the coil is coated with oil or grease, clean it with water. Rinse the coil thoroughly with water.
IMPORTANT: Do not use excessive water pressure. Excessive water pressure can bend the fins and tubing of the coil and lead to inadequate unit performance. Be careful not to splash water excessively into unit.
4. Inspect the drain pan and condensate drain at the same time the condenser coil is checked. Clean the drain pan by flushing with water and removing any matters of obstructions which may be present.
5. Flush the drain tube with water. If the drain tube is blocked, it can usually be cleared with high pressure water.
6. Inspect the circulating air blower wheel and motor for accumulation of lint, dirt or other obstruction and clean if necessary. Inspect the blower motor mounts and the blower housing for loose mounts or other damage. Repair or replace if necessary.

Re-assembly

1. Place the condenser coil protective grille back on unit and replace all screws.
2. Place top panel back on unit and replace all screws.
3. Set condenser fan grille assembly on top of the unit with the fan on top and the motor wires on the venturi side. Run the fan motor wires through the bulkhead and pull wires through the hole on the bottom of the control box on the left side and into the control box. Reconnect fan motor wires per the wiring diagram attached to the back of the control box cover.
4. Replace wire strain relief in bulkhead after the slack is pulled out of the wires on the fan side. This will assure wires will not be damaged by the fan during unit operation.
5. Turn the condenser fan grille assembly over and into the recess in the unit top. Secure the grille to the unit with the four screws removed earlier.
6. Replace the circulating air blower, making sure that all wires are properly reconnected per the unit wiring diagram.
7. Replace the filter and blower/evaporator coil access panels.
8. Replace the control box cover and controls access panel.
9. Restore electrical power to the unit and check for proper operation, especially the condenser fan motor.

E. CHARGING

Refer to the appropriate charge chart included on the unit.

F. BLOWER MOTOR SPEED ADJUSTMENTS

Note: These instructions to be used in conjunction with airflow data tables.

After determining necessary CFM and speed tap, follow the steps below to change speeds.

Units with Constant Torque Motors

1. Remove blower access panel.

2. Locate wire terminals on the motor. Numbered terminals are 24V blower taps (See airflow tables for corresponding speed). The C terminal is 24V common. L, N, and G terminals are high voltage and must remain unchanged.
3. Cooling speeds can be adjusted by moving appropriate wire between taps at the blower (See wiring diagrams to determine which wire needs to be moved. Do not connect wires to unspecified speed taps).
Note: Heat speed is dedicated and should not be changed. The first stage cooling speed on 4 and 5-ton models is dedicated and should not be changed. See airflow tables to determine which speed tap is needed.
4. Replace blower access panel.

XII. GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	024AJT04	024AJT04U	024AJT06	024AJT06U
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	23,600 [6.91]	23,600 [6.91]	23,600 [6.91]	23,600 [6.91]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	800/810 [378/382]	800/810 [378/382]	800/810 [378/382]	800/810 [378/382]
AHRI Net Cooling Capacity Btu [kW]	23,000 [6.74]	23,000 [6.74]	23,000 [6.74]	23,000 [6.74]
Net Sensible Capacity Btu [kW]	16,700 [4.89]	16,700 [4.89]	16,700 [4.89]	16,700 [4.89]
Net Latent Capacity Btu [kW]	6,300 [1.85]	6,300 [1.85]	6,300 [1.85]	6,300 [1.85]
Net System Power kW	2.04	2.04	2.04	2.04
Heating Performance (Gas) ³				
Heating Input Btu [kW]	40,000 [11.72]	40,000 [11.72]	60,000 [17.58]	60,000 [17.58]
Heating Output Btu [kW]	32,000 [9.38]	32,800 [9.61]	48,000 [14.06]	49,200 [14.42]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	30-60 [16.7-33.3]	40-70 [22.2-38.9]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	2	1	3	1
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵	77	77	77	77
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.472 [12]	0.472 [12]	0.472 [12]	0.472 [12]
Face Area sq. ft. [sq. m]	7.19 [0.67]	7.19 [0.67]	7.19 [0.67]	7.19 [0.67]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	2500 [1180]	2500 [1180]	2500 [1180]	2500 [1180]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	825	825	825	825
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1/3	1/3	1/3	1/3
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	45.6 [1293]	45.6 [1293]	45.6 [1293]	45.6 [1293]
Weights				
Net Weight lbs. [kg]	384 [174]	384 [174]	389 [176]	389 [176]
Ship Weight lbs. [kg]	392 [178]	392 [178]	397 [180]	397 [180]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	024AJT08	030AJT04	030AJT04U	030AJT06
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	23,600 [6.91]	29,400 [8.61]	29,400 [8.61]	29,400 [8.61]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	800/810 [378/382]	1000/980 [472/462]	1000/980 [472/462]	1000/980 [472/462]
AHRI Net Cooling Capacity Btu [kW]	23,000 [6.74]	28,400 [8.32]	28,400 [8.32]	28,400 [8.32]
Net Sensible Capacity Btu [kW]	16,700 [4.89]	21,100 [6.18]	21,100 [6.18]	21,100 [6.18]
Net Latent Capacity Btu [kW]	6,300 [1.85]	7,300 [2.14]	7,300 [2.14]	7,300 [2.14]
Net System Power kW	2.04	2.49	2.49	2.49
Heating Performance (Gas) ³				
Heating Input Btu [kW]	80,000 [23.44]	40,000 [11.72]	40,000 [11.72]	60,000 [17.58]
Heating Output Btu [kW]	65,000 [19.04]	32,000 [9.38]	32,800 [9.61]	48,000 [14.06]
Temperature Rise Range °F [°C]	35-65 [19.4-36.1]	25-55 [13.9-30.6]	30-60 [16.7-33.3]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	2	1	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵				
	77	79	79	79
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.472 [12]	0.709 [18]	0.709 [18]	0.709 [18]
Rows / FPI [FPcm]	7.19 [0.67]	7.06 [0.66]	7.06 [0.66]	7.06 [0.66]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]
	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	2500 [1180]	2400 [1133]	2400 [1133]	2400 [1133]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
	825	825	825	825
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]	1/10x9 [254x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1/3	1/2	1/2	1/2
Motor Frame Size	1050	1050	1050	1050
	48	48	48	48
Filter - Type				
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	45.6 [1293]	48 [1361]	48 [1361]	48 [1361]
Weights				
Net Weight lbs. [kg]	394 [179]	384 [174]	384 [174]	389 [176]
Ship Weight lbs. [kg]	402 [182]	392 [178]	392 [178]	397 [180]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	030AJT06U	030AJT08	036ACT06	036ACT06U
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	29,400 [8.61]	29,400 [8.61]	35,200 [10.31]	35,200 [10.31]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1000/980 [472/462]	1000/980 [472/462]	1200/1180 [566/557]	1200/1180 [566/557]
AHRI Net Cooling Capacity Btu [kW]	28,400 [8.32]	28,400 [8.32]	34,200 [10.02]	34,200 [10.02]
Net Sensible Capacity Btu [kW]	21,100 [6.18]	21,100 [6.18]	25,100 [7.35]	25,100 [7.35]
Net Latent Capacity Btu [kW]	7,300 [2.14]	7,300 [2.14]	9,100 [2.67]	9,100 [2.67]
Net System Power kW	2.49	2.49	2.81	2.81
Heating Performance (Gas) ³				
Heating Input Btu [kW]	60,000 [17.58]	80,000 [23.44]	60,000 [17.58]	60,000 [17.58]
Heating Output Btu [kW]	49,200 [14.42]	65,000 [19.04]	48,000 [14.06]	49,200 [14.42]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	40-70 [22.2-38.9]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	1	4	3	1
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵	79	79	75	75
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.709 [18]	0.709 [18]	0.709 [18]	0.709 [18]
Rows / FPI [FPcm]	7.06 [0.66]	7.06 [0.66]	9.78 [0.91]	9.78 [0.91]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	2400 [1133]	2400 [1133]	3250 [1534]	3250 [1534]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	825	825	825	825
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/10x9 [254x229]	1/10x9 [254x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1/2	1/2	1	1
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type				
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	48 [1361]	48 [1361]	49.6 [1406]	49.6 [1406]
Weights				
Net Weight lbs. [kg]	389 [176]	394 [179]	398 [181]	398 [181]
Ship Weight lbs. [kg]	397 [180]	402 [182]	406 [184]	406 [184]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	036ACT08	036ACT08U	036ACT10	036ADT06
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	35,200 [10.31]	35,200 [10.31]	35,200 [10.31]	35,200 [10.31]
EER/SEER ² or EER2/SEER2 ²	11/14	11/14	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1180 [566/557]	1200/1180 [566/557]	1200/1180 [566/557]	1200/1180 [566/557]
AHRI Net Cooling Capacity Btu [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Sensible Capacity Btu [kW]	25,100 [7.35]	25,100 [7.35]	25,100 [7.35]	25,100 [7.35]
Net Latent Capacity Btu [kW]	9,100 [2.67]	9,100 [2.67]	9,100 [2.67]	9,100 [2.67]
Net System Power kW	2.81	2.81	2.81	2.81
Heating Performance (Gas) ³				
Heating Input Btu [kW]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]	60,000 [17.58]
Heating Output Btu [kW]	65,000 [19.04]	65,600 [19.22]	81,000 [23.73]	48,000 [14.06]
Temperature Rise Range °F [°C]	35-65 [19.4-36.1]	40-70 [22.2-38.9]	45-75 [25-41.7]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	1	5	3
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵				
	75	75	75	75
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.709 [18]	0.709 [18]	0.709 [18]	0.709 [18]
Rows / FPI [FPcm]	9.78 [0.91]	9.78 [0.91]	9.78 [0.91]	9.78 [0.91]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]
	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	3250 [1534]	3250 [1534]	3250 [1534]	3250 [1534]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
	825	825	825	825
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1	1	1	1
Motor Frame Size	1050	1050	1050	1050
	48	48	48	48
Filter - Type				
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]				
	49.6 [1406]	49.6 [1406]	49.6 [1406]	49.6 [1406]
Weights				
Net Weight lbs. [kg]				
	403 [183]	403 [183]	408 [185]	398 [181]
Ship Weight lbs. [kg]				
	411 [186]	411 [186]	416 [189]	406 [184]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	036ADT06U	036ADT08	036ADT08U	036ADT10
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	35,200 [10.31]	35,200 [10.31]	35,200 [10.31]	35,200 [10.31]
EER/SEER ² or EER2/SEER2 ²	11/14	11/14	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1180 [566/557]	1200/1180 [566/557]	1200/1180 [566/557]	1200/1180 [566/557]
AHRI Net Cooling Capacity Btu [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Sensible Capacity Btu [kW]	25,100 [7.35]	25,100 [7.35]	25,100 [7.35]	25,100 [7.35]
Net Latent Capacity Btu [kW]	9,100 [2.67]	9,100 [2.67]	9,100 [2.67]	9,100 [2.67]
Net System Power kW	2.81	2.81	2.81	2.81
Heating Performance (Gas) ³				
Heating Input Btu [kW]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]
Heating Output Btu [kW]	49,200 [14.42]	65,000 [19.04]	65,600 [19.22]	81,000 [23.73]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	40-70 [22.2-38.9]	45-75 [25-41.7]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	1	4	1	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵	75	75	75	75
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.709 [18]	0.709 [18]	0.709 [18]	0.709 [18]
Rows / FPI [FPcm]	9.78 [0.91]	9.78 [0.91]	9.78 [0.91]	9.78 [0.91]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]
Refrigerant Control	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Drain Connection No./Size in. [mm]	TX Valves	TX Valves	TX Valves	TX Valves
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	3250 [1534]	3250 [1534]	3250 [1534]	3250 [1534]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1	1	1	1
Motor Frame Size	1050	1050	1050	1050
Filter - Type	48	48	48	48
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
Refrigerant Charge Oz. [g]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	49.6 [1406]	49.6 [1406]	49.6 [1406]	49.6 [1406]
Weights				
Net Weight lbs. [kg]				
Ship Weight lbs. [kg]	398 [181]	403 [183]	403 [183]	408 [185]
	406 [184]	411 [186]	411 [186]	416 [189]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	036AJT06	036AJT06U	036AJT08	036AJT08U
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	35,600 [10.43]	35,600 [10.43]	35,600 [10.43]	35,600 [10.43]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1200/1180 [566/557]	1200/1180 [566/557]	1200/1180 [566/557]	1200/1180 [566/557]
AHRI Net Cooling Capacity Btu [kW]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]	34,200 [10.02]
Net Sensible Capacity Btu [kW]	24,900 [7.3]	24,900 [7.3]	24,900 [7.3]	24,900 [7.3]
Net Latent Capacity Btu [kW]	9,300 [2.72]	9,300 [2.72]	9,300 [2.72]	9,300 [2.72]
Net System Power kW	2.98	2.98	2.98	2.98
Heating Performance (Gas) ³				
Heating Input Btu [kW]	60,000 [17.58]	60,000 [17.58]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	48,000 [14.06]	49,200 [14.42]	65,000 [19.04]	65,600 [19.22]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	3	1	4	1
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵				
	75	75	75	75
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	0.709 [18]	0.709 [18]	0.709 [18]	0.709 [18]
Rows / FPI [FPcm]	9.78 [0.91]	9.78 [0.91]	9.78 [0.91]	9.78 [0.91]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]	3.54 [0.33]
	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	3250 [1534]	3250 [1534]	3250 [1534]	3250 [1534]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
	825	825	825	825
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1	1	1	1
Motor Frame Size	1050	1050	1050	1050
	48	48	48	48
Filter - Type				
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]				
	49.6 [1406]	49.6 [1406]	49.6 [1406]	49.6 [1406]
Weights				
Net Weight lbs. [kg]				
	398 [181]	398 [181]	403 [183]	403 [183]
Ship Weight lbs. [kg]				
	406 [184]	406 [184]	411 [186]	411 [186]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	036AJT10	042ACT08	042ACT08U	042ACT10
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	35,600 [10.43]	42,000 [12.31]	42,000 [12.31]	42,000 [12.31]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	11/14	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1200/1180 [566/557]	1400/1510 [661/713]	1400/1510 [661/713]	1400/1510 [661/713]
AHRI Net Cooling Capacity Btu [kW]	34,200 [10.02]	40,500 [11.87]	40,500 [11.87]	40,500 [11.87]
Net Sensible Capacity Btu [kW]	24,900 [7.3]	30,500 [8.94]	30,500 [8.94]	30,500 [8.94]
Net Latent Capacity Btu [kW]	9,300 [2.72]	10,000 [2.93]	10,000 [2.93]	10,000 [2.93]
Net System Power kW	2.98	3.45	3.45	3.45
Heating Performance (Gas) ³				
Heating Input Btu [kW]	100,000 [29.3]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	65,000 [19.04]	65,600 [19.22]	81,000 [23.73]
Temperature Rise Range °F [°C]	45-75 [25-41.7]	35-65 [19.4-36.1]	40-70 [22.2-38.9]	45-75 [25-41.7]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	5	4	1	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵	75	77	77	77
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.709 [18]	0.709 [18]	0.709 [18]	0.709 [18]
Face Area sq. ft. [sq. m]	9.78 [0.91]	16.18 [1.5]	16.18 [1.5]	16.18 [1.5]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	3.54 [0.33]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	3250 [1534]	4300 [2029]	4300 [2029]	4300 [2029]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	825	1050	1050	1050
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1	3/4	3/4	3/4
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	49.6 [1406]	72 [2041]	72 [2041]	72 [2041]
Weights				
Net Weight lbs. [kg]	408 [185]	468 [212]	468 [212]	473 [215]
Ship Weight lbs. [kg]	416 [189]	476 [216]	476 [216]	481 [218]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	042AJT08	042AJT08U	042AJT10	048ACT08
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	42,500 [12.45]	42,500 [12.45]	42,500 [12.45]	48,000 [14.06]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	10.6/13.4	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1400/1510 [661/713]	1400/1510 [661/713]	1400/1510 [661/713]	1600/1730 [755/816]
AHRI Net Cooling Capacity Btu [kW]	40,500 [11.87]	40,500 [11.87]	40,500 [11.87]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	30,500 [8.94]	30,500 [8.94]	30,500 [8.94]	34,000 [9.96]
Net Latent Capacity Btu [kW]	10,000 [2.93]	10,000 [2.93]	10,000 [2.93]	12,000 [3.52]
Net System Power kW	3.6	3.6	3.6	4.11
Heating Performance (Gas) ³				
Heating Input Btu [kW]	80,000 [23.44]	80,000 [23.44]	100,000 [29.3]	80,000 [23.44]
Heating Output Btu [kW]	65,000 [19.04]	65,600 [19.22]	81,000 [23.73]	65,000 [19.04]
Temperature Rise Range °F [°C]	35-65 [19.4-36.1]	40-70 [22.2-38.9]	45-75 [25-41.7]	35-65 [19.4-36.1]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	4	1	5	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵				
	77	77	77	76
Outdoor Coil - Fin Type				
	Louvered	Louvered	Louvered	Louvered
Tube Type				
	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	0.709 [18]	0.709 [18]	0.709 [18]	1 [25.4]
Face Area sq. ft. [sq. m]	16.18 [1.5]	16.18 [1.5]	16.18 [1.5]	15.37 [1.43]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
	Louvered	Louvered	Louvered	Louvered
Tube Type				
	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	4300 [2029]	4300 [2029]	4300 [2029]	4150 [1958]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1050	1050	1050	1050
Indoor Fan - Type				
	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	3/4	3/4	3/4	1
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type				
	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	72 [2041]	72 [2041]	72 [2041]	88 [2495]
Weights				
Net Weight lbs. [kg]	468 [212]	468 [212]	473 [215]	487 [221]
Ship Weight lbs. [kg]	476 [216]	476 [216]	481 [218]	495 [225]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	048ACT08U	048ACT10	048ACT10U	048ADT08
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	48,000 [14.06]	48,000 [14.06]	48,000 [14.06]	48,000 [14.06]
EER/SEER ² or EER2/SEER2 ²	11/14	11/14	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1600/1730 [755/816]	1600/1730 [755/816]	1600/1730 [755/816]	1600/1730 [755/816]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Latent Capacity Btu [kW]	12,000 [3.52]	12,000 [3.52]	12,000 [3.52]	12,000 [3.52]
Net System Power kW	4.11	4.11	4.11	4.11
Heating Performance (Gas) ³				
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]
Heating Output Btu [kW]	65,600 [19.22]	81,000 [23.73]	82,000 [24.03]	65,000 [19.04]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	45-75 [25-41.7]	40-70 [22.2-38.9]	35-65 [19.4-36.1]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	1	5	1	4
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵	76	76	76	76
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	4150 [1958]	4150 [1958]	4150 [1958]	4150 [1958]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
Motor RPM	1050	1050	1050	1050
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1	1	1	1
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	88 [2495]	88 [2495]	88 [2495]	88 [2495]
Weights				
Net Weight lbs. [kg]	487 [221]	492 [223]	492 [223]	487 [221]
Ship Weight lbs. [kg]	495 [225]	500 [227]	500 [227]	495 [225]

- NOTES:**
- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
 - EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
 - Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
 - AFUE is rated in accordance with DOE test procedures.
 - Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	048ADT10	048ADT10U	048AJT08	048AJT08U
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	48,000 [14.06]	48,000 [14.06]	48,500 [14.21]	48,500 [14.21]
EER/SEER ² or EER2/SEER2 ²	11/14	11/14	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	1600/1730 [755/816]	1600/1730 [755/816]	1600/1730 [755/816]	1600/1730 [755/816]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]	46,000 [13.48]
Net Sensible Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]	34,000 [9.96]
Net Latent Capacity Btu [kW]	12,000 [3.52]	12,000 [3.52]	12,000 [3.52]	12,000 [3.52]
Net System Power kW	4.11	4.11	4.33	4.33
Heating Performance (Gas) ³				
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]	80,000 [23.44]
Heating Output Btu [kW]	81,000 [23.73]	82,000 [24.03]	65,000 [19.04]	65,600 [19.22]
Temperature Rise Range °F [°C]	45-75 [25-41.7]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	5	1	4	1
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵				
	76	76	76	76
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]	3.98 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	4150 [1958]	4150 [1958]	4150 [1958]	4150 [1958]
Motor RPM	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/3 HP
	1050	1050	1050	1050
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1	1	1	1
Motor Frame Size	1050	1050	1050	1050
	48	48	48	48
Filter - Type				
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]				
	88 [2495]	88 [2495]	88 [2495]	88 [2495]
Weights				
Net Weight lbs. [kg]	492 [223]	492 [223]	487 [221]	487 [221]
Ship Weight lbs. [kg]	500 [227]	500 [227]	495 [225]	495 [225]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	048AJT10	048AJT10U	060ACT08	060ACT10
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	48,500 [14.21]	48,500 [14.21]	58,000 [16.99]	58,000 [16.99]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	1600/1730 [755/816]	1600/1730 [755/816]	2000/1700 [944/802]	2000/1700 [944/802]
AHRI Net Cooling Capacity Btu [kW]	46,000 [13.48]	46,000 [13.48]	56,000 [16.41]	56,000 [16.41]
Net Sensible Capacity Btu [kW]	34,000 [9.96]	34,000 [9.96]	40,000 [11.72]	40,000 [11.72]
Net Latent Capacity Btu [kW]	12,000 [3.52]	12,000 [3.52]	16,000 [4.69]	16,000 [4.69]
Net System Power kW	4.33	4.33	5.02	5.02
Heating Performance (Gas) ³				
Heating Input Btu [kW]	100,000 [29.3]	100,000 [29.3]	80,000 [23.44]	100,000 [29.3]
Heating Output Btu [kW]	81,000 [23.73]	82,000 [24.03]	65,000 [19.04]	81,000 [23.73]
Temperature Rise Range °F [°C]	45-75 [25-41.7]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	45-75 [25-41.7]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	5	1	4	5
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵	76	76	77	77
Outdoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type	Louvered	Louvered	Louvered	Louvered
Tube Type	MicroChannel	MicroChannel	MicroChannel	MicroChannel
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	3.98 [0.37]	3.98 [0.37]	3.96 [0.37]	3.96 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter in. [mm]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM [L/s]	4150 [1958]	4150 [1958]	4300 [2029]	4300 [2029]
No. Motors/HP	1 at 1/3 HP	1 at 1/3 HP	1 at 1/2 HP	1 at 1/2 HP
Motor RPM	1050	1050	1050	1050
Indoor Fan - Type	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter in. [mm]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
Drive Type	Direct	Direct	Direct	Direct
No. Speeds	Multiple	Multiple	Multiple	Multiple
No. Motors	1	1	1	1
Motor HP	1	1	1	1
Motor RPM	1050	1050	1050	1050
Motor Frame Size	48	48	48	48
Filter - Type	Field Supplied	Field Supplied	Field Supplied	Field Supplied
Furnished	No	No	No	No
(NO.) Size Recommended in. [mm x mm x mm]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	88 [2495]	88 [2495]	89.6 [2540]	89.6 [2540]
Weights				
Net Weight lbs. [kg]	492 [223]	492 [223]	490 [222]	495 [225]
Ship Weight lbs. [kg]	500 [227]	500 [227]	498 [226]	503 [228]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	060ACT10U	060ADT08	060ADT10	060ADT10U
Cooling Performance ¹				Continued ->
Gross Cooling Capacity Btu [kW]	58,000 [16.99]	58,000 [16.99]	58,000 [16.99]	58,000 [16.99]
EER/SEER ² or EER2/SEER2 ²	11/14	11/14	11/14	11/14
Nominal CFM/AHRI Rated CFM [L/s]	2000/1700 [944/802]	2000/1700 [944/802]	2000/1700 [944/802]	2000/1700 [944/802]
AHRI Net Cooling Capacity Btu [kW]	56,000 [16.41]	56,000 [16.41]	56,000 [16.41]	56,000 [16.41]
Net Sensible Capacity Btu [kW]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]
Net Latent Capacity Btu [kW]	16,000 [4.69]	16,000 [4.69]	16,000 [4.69]	16,000 [4.69]
Net System Power kW	5.02	5.02	5.02	5.02
Heating Performance (Gas) ³				
Heating Input Btu [kW]	100,000 [29.3]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	82,000 [24.03]	65,000 [19.04]	81,000 [23.73]	82,000 [24.03]
Temperature Rise Range °F [°C]	40-70 [22.2-38.9]	35-65 [19.4-36.1]	45-75 [25-41.7]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81	81
Steady State Efficiency (%)	82	82	82	82
No. Burners	1	4	5	1
No. Stages	1	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor				
No./Type	1/Scroll	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB) ⁵				
	77	77	77	77
Outdoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	1 [25.4]	1 [25.4]	1 [25.4]	1 [25.4]
Face Area sq. ft. [sq. m]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]
Rows / FPI [FPcm]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type				
Tube Type	Louvered	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	1.26 [32]	1.26 [32]	1.26 [32]	1.26 [32]
Face Area sq. ft. [sq. m]	3.96 [0.37]	3.96 [0.37]	3.96 [0.37]	3.96 [0.37]
Rows / FPI [FPcm]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type				
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1	Direct/1
No. Motors/HP	4300 [2029]	4300 [2029]	4300 [2029]	4300 [2029]
Motor RPM	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
Indoor Fan - Type				
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple	Multiple
Motor HP	1	1	1	1
Motor RPM	1	1	1	1
Motor Frame Size	1050	1050	1050	1050
Filter - Type	48	48	48	48
Furnished	Field Supplied	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]	89.6 [2540]	89.6 [2540]	89.6 [2540]	89.6 [2540]
Weights				
Net Weight lbs. [kg]	495 [225]	490 [222]	495 [225]	495 [225]
Ship Weight lbs. [kg]	503 [228]	498 [226]	503 [228]	503 [228]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

GENERAL DATA - RGEAZR MODELS

NOMINAL SIZES 2-5 TONS [7-15.8 kW]

Model RGEAZR Series	060AJT08	060AJT10	060AJT10U
Cooling Performance¹			
Gross Cooling Capacity Btu [kW]	58,500 [17.14]	58,500 [17.14]	58,500 [17.14]
EER/SEER ² or EER2/SEER2 ²	10.6/13.4	10.6/13.4	10.6/13.4
Nominal CFM/AHRI Rated CFM [L/s]	2000/1700 [944/802]	2000/1700 [944/802]	2000/1700 [944/802]
AHRI Net Cooling Capacity Btu [kW]	56,000 [16.41]	56,000 [16.41]	56,000 [16.41]
Net Sensible Capacity Btu [kW]	40,000 [11.72]	40,000 [11.72]	40,000 [11.72]
Net Latent Capacity Btu [kW]	16,000 [4.69]	16,000 [4.69]	16,000 [4.69]
Net System Power kW	5.16	5.16	5.16
Heating Performance (Gas)³			
Heating Input Btu [kW]	80,000 [23.44]	100,000 [29.3]	100,000 [29.3]
Heating Output Btu [kW]	65,000 [19.04]	81,000 [23.73]	82,000 [24.03]
Temperature Rise Range °F [°C]	35-65 [19.4-36.1]	45-75 [25-41.7]	40-70 [22.2-38.9]
AFUE % ⁴	81	81	81
Steady State Efficiency (%)	82	82	82
No. Burners	4	5	1
No. Stages	1	1	1
Gas Connection Pipe Size in. [mm]	0.5 [12.7]	0.5 [12.7]	0.5 [12.7]
Compressor			
No./Type	1/Scroll	1/Scroll	1/Scroll
Outdoor Sound Rating (dB)⁵			
	77	77	77
Outdoor Coil - Fin Type			
Tube Type	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1 [25.4]	1 [25.4]	1 [25.4]
Rows / FPI [FPcm]	15.37 [1.43]	15.37 [1.43]	15.37 [1.43]
	1 / 23 [9]	1 / 23 [9]	1 / 23 [9]
Indoor Coil - Fin Type			
Tube Type	Louvered	Louvered	Louvered
MicroChannel Depth in. [mm]	MicroChannel	MicroChannel	MicroChannel
Face Area sq. ft. [sq. m]	1.26 [32]	1.26 [32]	1.26 [32]
Rows / FPI [FPcm]	3.96 [0.37]	3.96 [0.37]	3.96 [0.37]
	1 / 20 [8]	1 / 20 [8]	1 / 20 [8]
Refrigerant Control	TX Valves	TX Valves	TX Valves
Drain Connection No./Size in. [mm]	1/0.75 [19.05]	1/0.75 [19.05]	1/0.75 [19.05]
Outdoor Fan - Type			
No. Used/Diameter in. [mm]	Propeller	Propeller	Propeller
Drive Type/No. Speeds	1/22 [558.8]	1/22 [558.8]	1/22 [558.8]
CFM [L/s]	Direct/1	Direct/1	Direct/1
No. Motors/HP	4300 [2029]	4300 [2029]	4300 [2029]
Motor RPM	1 at 1/2 HP	1 at 1/2 HP	1 at 1/2 HP
	1050	1050	1050
Indoor Fan - Type			
No. Used/Diameter in. [mm]	FC Centrifugal	FC Centrifugal	FC Centrifugal
Drive Type	1/12x9 [305x229]	1/12x9 [305x229]	1/12x9 [305x229]
No. Speeds	Direct	Direct	Direct
No. Motors	Multiple	Multiple	Multiple
Motor HP	1	1	1
Motor RPM	1	1	1
Motor Frame Size	1050	1050	1050
	48	48	48
Filter - Type			
Furnished	Field Supplied	Field Supplied	Field Supplied
(NO.) Size Recommended in. [mm x mm x mm]	No	No	No
	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]	(1)1x24x24 [25x610x610]
Refrigerant Charge Oz. [g]			
	89.6 [2540]	89.6 [2540]	89.6 [2540]
Weights			
Net Weight lbs. [kg]	490 [222]	495 [225]	495 [225]
Ship Weight lbs. [kg]	498 [226]	503 [228]	503 [228]

NOTES:

- Cooling Capacity is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of blower motor heat. ARI capacity is net and includes the effect of blower motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on ARI Standard 210/240 or 360.
- EER2 and/or SEER2 are rated at ARI conditions and in accordance with DOE test procedures for 1-Phase models. EER and/or SEER are rated at ARI conditions and in accordance with DOE test procedures for 3-Phase models.
- Heating Performance limit settings and rating data were established and approved under laboratory test conditions using American National Standard Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level.
- AFUE is rated in accordance with DOE test procedures.
- Outdoor Sound Rating shown is tested in accordance with ARI Standard 270.

XIII. ELECTRICAL DATA

ELECTRICAL DATA - RGEAZR SERIES										
		024AJT04	024AJT04U	024AJT06	024AJT06U	024AJT08	030AJT04	030AJT04U	030AJT06	030AJT06U
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	187-253	187-253	187-253	187-253	187-253	187-253
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	18	18	18	18	18	21	21	21	21
	Minimum Overcurrent Protection Device Size	25	25	25	25	25	25	25	25	25
	Maximum Overcurrent Protection Device Size	25	25	25	25	25	30	30	30	30
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	RPM	3500	3500	3500	3500	3500	3500	3500	3500	3500
	HP, Compressor 1									
	Amps (RLA), Comp. 1	10.8	10.8	10.8	10.8	10.8	12.3	12.3	12.3	12.3
	Amps (LRA), Comp. 1	55	55	55	55	55	63	63	63	63
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
Amps (LRA), Comp. 2										
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	Amps (LRA, each)	3	3	3	3	3	3	3	3	3
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/2	1/2	1/2	1/2
	Amps (FLA, each)	2.8	2.8	2.8	2.8	2.8	4.1	4.1	4.1	4.1
	Amps (LRA, each)									

ELECTRICAL DATA - RGEAZR SERIES										
		030AJT08	036ACT06	036ACT06U	036ACT08	036ACT08U	036ACT10	036ADT06	036ADT06U	036ADT08
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	187-253	187-253	187-253	414-506	414-506	414-506
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	460	460	460
	Phase	1	3	3	3	3	3	3	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	21	20	20	20	20	20	10	10	10
	Minimum Overcurrent Protection Device Size	25	25	25	25	25	25	15	15	15
	Maximum Overcurrent Protection Device Size	30	25	25	25	25	25	15	15	15
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	460	460	460
	Phase	1	3	3	3	3	3	3	3	3
	RPM	3500	3500	3500	3500	3500	3500	3500	3500	3500
	HP, Compressor 1									
	Amps (RLA), Comp. 1	12.3	8.5	8.5	8.5	8.5	8.5	3.8	3.8	3.8
	Amps (LRA), Comp. 1	63	70	70	70	70	70	31	31	31
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
Amps (LRA), Comp. 2										
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8
	Amps (LRA, each)	3	3	3	3	3	3	1.6	1.6	1.6
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	460	460	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/2	1	1	1	1	1	1	1	1
	Amps (FLA, each)	4.1	7.6	7.6	7.6	7.6	7.6	4	4	4
	Amps (LRA, each)									

ELECTRICAL DATA - RGEAZR SERIES										
		036ADT08U	036ADT10	036AJT06	036AJT06U	036AJT08	036AJT08U	036AJT10	042ACT08	042ACT08U
Unit Information	Unit Operating Voltage Range	414-506	414-506	187-253	187-253	187-253	187-253	187-253	187-253	187-253
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	3	3	1	1	1	1	1	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	10	10	28	28	28	28	28	22	22
	Minimum Overcurrent Protection Device Size	15	15	35	35	35	35	35	25	25
	Maximum Overcurrent Protection Device Size	15	15	40	40	40	40	40	30	30
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	3	3	1	1	1	1	1	3	3
	RPM	3500	3500	3500	3500	3500	3500	3500	3500	3500
	HP, Compressor 1									
	Amps (RLA), Comp. 1	3.8	3.8	14.7	14.7	14.7	14.7	14.7	10.6	10.6
	Amps (LRA), Comp. 1	31	31	75	75	75	75	75	118	118
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
Amps (LRA), Comp. 2										
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	0.8	0.8	1.5	1.5	1.5	1.5	1.5	2	2
	Amps (LRA, each)	1.6	1.6	3	3	3	3	3	3.9	3.9
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1	1	1	1	1	1	1	3/4	3/4
	Amps (FLA, each)	4	4	7.6	7.6	7.6	7.6	7.6	6	6
	Amps (LRA, each)									

ELECTRICAL DATA - RGEAZR SERIES										
		042ACT10	042AJT08	042AJT08U	042AJT10	048ACT08	048ACT08U	048ACT10	048ACT10U	048ADT08
Unit Information	Unit Operating Voltage Range	187-253	187-253	187-253	187-253	187-253	187-253	187-253	187-253	414-506
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	460
	Phase	3	1	1	1	3	3	3	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	22	28	28	28	26	26	26	26	13
	Minimum Overcurrent Protection Device Size	25	35	35	35	30	30	30	30	15
	Maximum Overcurrent Protection Device Size	30	40	40	40	35	35	35	35	15
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	460
	Phase	3	1	1	1	3	3	3	3	3
	RPM	3500	3500	3500	3500	3500	3500	3500	3500	3500
	HP, Compressor 1									
	Amps (RLA), Comp. 1	10.6	15.9	15.9	15.9	12.6	12.6	12.6	12.6	6
	Amps (LRA), Comp. 1	118	112.3	112.3	112.3	123	123	123	123	60
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
Amps (LRA), Comp. 2										
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Amps (FLA, each)	2	2	2	2	2	2	2	2	1
	Amps (LRA, each)	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	2.2
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	208/230	208/230	208/230	208/230	208/230	208/230	208/230	208/230	460
	Phase	1	1	1	1	1	1	1	1	1
	HP	3/4	3/4	3/4	3/4	1	1	1	1	1
	Amps (FLA, each)	6	6	6	6	7.6	7.6	7.6	7.6	4
	Amps (LRA, each)									

ELECTRICAL DATA - RGEAZR SERIES										
		048ADT10	048ADT10U	048AJT08	048AJT08U	048AJT10	048AJT10U	060ACT08	060ACT10	060ACT10U
Unit Information	Unit Operating Voltage Range	414-506	414-506	187-253	187-253	187-253	187-253	187-253	187-253	187-253
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	3	3	1	1	1	1	3	3	3
	Hz	60	60	60	60	60	60	60	60	60
	Minimum Circuit Ampacity	13	13	36	36	36	36	29	29	29
	Minimum Overcurrent Protection Device Size	15	15	45	45	45	45	35	35	35
	Maximum Overcurrent Protection Device Size	15	15	50	50	50	50	40	40	40
Compressor Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	3	3	1	1	1	1	3	3	3
	RPM	3500	3500	3500	3500	3500	3500	3500	3500	3500
	HP, Compressor 1									
	Amps (RLA), Comp. 1	6	6	19.9	19.9	19.9	19.9	14	14	14
	Amps (LRA), Comp. 1	60	60	109	109	109	109	93	93	93
	HP, Compressor 2									
	Amps (RLA), Comp. 2									
Amps (LRA), Comp. 2										
Condenser Motor	No.	1	1	1	1	1	1	1	1	1
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/2	1/2
	Amps (FLA, each)	1	1	2	2	2	2	2.3	2.3	2.3
	Amps (LRA, each)	2.2	2.2	3.9	3.9	3.9	3.9	5.5	5.5	5.5
Evaporator Fan	No.	1	1	1	1	1	1	1	1	1
	Volts	460	460	208/230	208/230	208/230	208/230	208/230	208/230	208/230
	Phase	1	1	1	1	1	1	1	1	1
	HP	1	1	1	1	1	1	1	1	1
	Amps (FLA, each)	4	4	8.9	8.9	8.9	8.9	8.9	8.9	8.9
	Amps (LRA, each)									

ELECTRICAL DATA - RGEAZR SERIES							
		060ADT08	060ADT10	060ADT10U	060AJT08	060AJT10	060AJT10U
Unit Information	Unit Operating Voltage Range	414-506	414-506	414-506	187-253	187-253	187-253
	Volts	460	460	460	208/230	208/230	208/230
	Phase	3	3	3	1	1	1
	Hz	60	60	60	60	60	60
	Minimum Circuit Ampacity	14	14	14	41	41	41
	Minimum Overcurrent Protection Device Size	15	15	15	50	50	50
	Maximum Overcurrent Protection Device Size	15	15	15	60	60	60
Compressor Motor	No.	1	1	1	1	1	1
	Volts	460	460	460	208/230	208/230	208/230
	Phase	3	3	3	1	1	1
	RPM	3500	3500	3500	3500	3500	3500
	HP, Compressor 1						
	Amps (RLA), Comp. 1	6.5	6.5	6.5	23.5	23.5	23.5
	Amps (LRA), Comp. 1	60	60	60	118	118	118
	HP, Compressor 2						
	Amps (LRA), Comp. 2						
Condenser Motor	No.	1	1	1	1	1	1
	Volts	460	460	460	208/230	208/230	208/230
	Phase	1	1	1	1	1	1
	HP	1/2	1/2	1/2	1/2	1/2	1/2
	Amps (FLA, each)	1.2	1.2	1.2	2.3	2.3	2.3
	Amps (LRA, each)	3	3	3	5.5	5.5	5.5
Evaporator Fan	No.	1	1	1	1	1	1
	Volts	460	460	460	208/230	208/230	208/230
	Phase	1	1	1	1	1	1
	HP	1	1	1	1	1	1
	Amps (FLA, each)	4	4	4	8.9	8.9	8.9
	Amps (LRA, each)						

XIV. AIRFLOW PERFORMANCE DATA

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGED GAS ELECTRIC UNITS—RGEA—

DIRECT DRIVE WITH CONSTANT TORQUE MOTOR

STANDARD AND LOW NOX APPLICATIONS

*SEE SUPPLEMENT FOR
ADDITIONAL INFORMATION
SPECIFIC TO ULTRA LOW NOX
MODELS (14NG/J).

INDOOR AIRFLOW PERFORMANCE RGEAZR (208/230V, 1-PHASE) CONSTANT TORQUE MOTOR

NOMINAL COOLING CAPACITY TONS(KW)	MOTOR SPEED FROM FACTORY	HEATING INPUT BTU/HR (KW)	MANUFACTURER RECOMMENDED COOLING AIRFLOW (MIN/MAX)	BLOWER SIZE/ MOTOR HP (W) & # OF SPEEDS	MOTOR TAP / USAGE	EXTERNAL STATIC PRESSURE - INCHES W.C. (KPA) (SIDE DISCHARGE-DRY COIL)																		
						0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [1.10]	0.5 [1.12]	0.6 [1.15]	0.7 [1.17]	0.8 [1.20]	0.9 [1.22]	1.0 [1.25]									
2.0 [7.03]	TAP 2	40,000 [11.72]			TAP 1 - FAN	CFM	580	499	440	378	295	246	219	172										
					WATTS	68	64	71	75	80	85	87	92	95										
	TAP 2	60,000 [17.58]			TAP 2 - 40K	CFM	874	825	774	703	590	511	451	398	347									
					WATTS	105	112	119	128	134	138	143	150	156										
	TAP 3	80,000 [23.45]		700 CFM / 900 CFM	TAP 2 - 60K	CFM	971	920	875	826	757	707	667	630	588	550								
					WATTS	134	142	148	156	166	172	177	182	189	197									
	2.5 [8.79]	TAP 2	40,000 [11.72]			TAP 2 - 80K	CFM	1274	1239	1208	1168	1138	1098	1062	1024	986	948	910	872	834	796	758		
						WATTS	882	922	953	989	1027	1066	1101	1131	1161	1191	1221	1251	1281	1311	1341	1371	1401	1431
		TAP 2	60,000 [17.58]			TAP 3 - LOW STATIC COOL	CFM	874	825	774	703	590	511	451	398	347								
						WATTS	671	721	774	842	888	921	959	1016	1057	1092								
TAP 3		80,000 [23.45]			TAP 4 - MED STATIC COOL *	CFM	1037	1000	957	905	838	776	738	701	668	636	604	572	540	508	476	444		
					WATTS	757	796	839	886	949	994	1026	1057	1089	1128									
TAP 2		40,000 [11.72]				TAP 5 - HIGH STATIC COOL	CFM	1274	1239	1208	1168	1138	1098	1062	1024	986	948	910	872	834	796	758	720	
						WATTS	882	922	953	989	1027	1066	1101	1131	1161	1191	1221	1251	1281	1311	1341	1371	1401	1431
TAP 2		60,000 [17.58]				TAP 5 - HIGH STATIC COOL	CFM	268	277	285	295	303	313	321	326	331	336	341	346	351	356	361	366	371
						WATTS	929	889	845	790	719	676	636	589	530	479								
TAP 2	80,000 [23.45]				TAP 1 - FAN	CFM	706	794	850	910	943	977	1010	1076	1109	1159	1185	1215	1245	1275	1305	1335		
					WATTS	123	130	136	145	154	163	171	179	185	191	197	203	209	215	221	227	233	239	245
TAP 2	40,000 [11.72]				TAP 2 - 40K	CFM	885	829	782	844	890	927	961	1017	1065	1091								
					WATTS	111	117	124	134	140	147	157	165	167										
TAP 2	60,000 [17.58]				TAP 2 - 60K	CFM	980	930	891	840	764	717	676	646	620	596	572	548	524	500	476	452		
					WATTS	229	238	246	253	262	266	275	286	289	298	307	316	325	334	343	352	361	370	379
TAP 2	80,000 [23.45]		875 CFM / 1125 CFM		TAP 3 - LOW STATIC COOL	CFM	731	814	866	935	970	1002	1030	1076	1131	1185	1240	1294	1349	1404	1459	1514		
					WATTS	138	144	149	159	171	181	191	202	212	223	234	245	256	267	278	289	300	311	322
TAP 2	40,000 [11.72]				TAP 4 - MED STATIC COOL *	CFM	1197	1160	1130	1091	1052	1011	965	916	876	836	796	756	716	676	636	596		
					WATTS	853	890	923	961	996	1043	1092	1134	1180	1226	1272	1318	1364	1410	1456	1502	1548	1594	1640
TAP 2	60,000 [17.58]				TAP 5 - HIGH STATIC COOL	CFM	1044	1074	1089	1113	1124	1134	1147	1162	1177	1192	1207	1222	1237	1252	1267	1282	1297	
					WATTS	464	472	467	452	432	411	378	325	298	281									
TAP 2	80,000 [23.45]				TAP 1 - FAN	CFM	977	915	833	764	700	645	597	557	517	477	437	397	357	317	277	237		
					WATTS	609	649	709	766	806	846	880	901	911	934	954	974	994	1014	1034	1054	1074	1094	1114
TAP 2	40,000 [11.72]				TAP 2 - 60K	CFM	1058	1020	963	885	831	765	705	645	585	525	465	405	345	285	225	165		
					WATTS	646	680	725	795	832	875	912	953	970	988									
TAP 2	60,000 [17.58]				TAP 2 - 80K	CFM	1347	1314	1279	1245	1198	1151	1104	1057	1010	963	916	869	822	775	728	681	634	
					WATTS	773	809	837	870	899	928	957	986	1015	1044	1073	1102	1131	1160	1189	1218	1247	1276	1305
TAP 2	80,000 [23.45]				TAP 2 - 100K	CFM	1442	1417	1386	1349	1312	1252	1195	1143	1086	1034	982	930	878	826	774	722	670	
					WATTS	828	857	885	918	946	988	1028	1063	1094	1123	1152	1181	1210	1239	1268	1297	1326	1355	1384
TAP 3	100,000 [29.31]		1050 CFM / 1350 CFM		TAP 3 - LOW STATIC COOL	CFM	771	804	837	866	897	952	1022	1056	1083	1110	1137	1164	1191	1218	1245	1272		
					WATTS	249	259	271	278	285	300	315	328	337										
TAP 3	100,000 [29.31]				TAP 4 - MED STATIC COOL *	CFM	1486	1449	1418	1386	1351	1311	1240	1189	1135	1088	1034	980	926	872	818	764		
					WATTS	840	874	902	930	958	988	1036	1069	1100	1130	1160	1190	1220	1250	1280	1310	1340	1370	1400
TAP 3	100,000 [29.31]				TAP 5 - HIGH STATIC COOL	CFM	1517	1493	1465	1429	1401	1364	1294	1249	1203	1148	1093	1038	983	928	873	818		
					WATTS	868	893	922	947	973	1003	1052	1088	1113	1145	1175	1205	1235	1265	1295	1325	1355	1385	1415

NOTES: (1) FOR CONSTANT TORQUE MOTORS; USE MOTOR TAPS 3-5 TO ACHIEVE RATED AIRFLOW AT AHRI MINIMUM EXTERNAL STATIC PRESSURE.

(A) USE * MARKED TAP FOR AHRI 210/240-2023

(B) USE ** MARKED TAP FOR AHRI 210/240-2017

(2) GRAYED OUT PORTIONS NOT RECOMMENDED FOR USE IN FIELD.

DOWN DISCHARGE PRESSURE DROP (ADD TO EXTERNAL STATIC PRESSURE)

CFM [L/S]

800 [378] .02 [0.05]

1000 [472] .05 [0.12]

1200 [566] .07 [0.17]

1400 [661] .1 [0.25]

1600 [755] .12 [0.30]

1800 [849] .15 [0.37]

2000 [944] .17 [0.42]

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGED GAS ELECTRIC UNITS—RGEA— DIRECT DRIVE WITH CONSTANT TORQUE MOTOR STANDARD AND LOW NOX APPLICATIONS

INDOOR AIRFLOW PERFORMANCE RGEAZR (208/230V, 1-PHASE) CONSTANT TORQUE MOTOR

NOMINAL COOLING CAPACITY TONS (KW)	MOTOR SPEED FROM FACTORY COOL	HEATING INPUT BTU/HR [KW]	MANUFACTURER RECOMMENDED COOLING AIRFLOW (MIN/MAX)	BLOWER SIZE/ MOTOR HP (W) & # OF SPEEDS	MOTOR TAP / USAGE	EXTERNAL STATIC PRESSURE - INCHES W.C. [KPA] (SIDE DISCHARGE- DRY COIL)											
						0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [1.0]	0.5 [1.2]	0.6 [1.5]	0.7 [1.7]	0.8 [2.0]	0.9 [2.2]	1.0 [2.5]		
3.5 [12.31]	TAP 3		1225 CFM / 1575 CFM	12XRT BLOWER 3/4 HP (559) 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	982	903	804	723	629	525	455	375	333	296	
					RPM	589	622	680	725	761	814	837	855	883	915		
					WATTS	106	110	119	127	132	141	145	146	152	157		
					CFM	1440	1390	1354	1309	1257	1194	1136	1040	987	923		
					RPM	767	828	861	896	937	977	1021	1047	1073	1103		
					WATTS	266	276	283	292	304	317	327	342	350	360		
	TAP 2			1225 CFM / 1575 CFM	12XRT BLOWER 3/4 HP (559) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 100K	CFM	1465	1414	1370	1334	1290	1228	1164	1100	1032	978
						RPM	775	810	841	869	899	938	974	1011	1048	1074	
						WATTS	277	287	297	305	314	327	337	349	362	371	
						CFM	1557	1517	1475	1436	1398	1352	1306	1245	1178	1119	
						RP	821	849	882	908	936	966	997	1033	1068	1102	
						WATTS	330	339	350	360	370	381	390	403	415	428	
4.0 [14.07]	TAP 3 - LOW STAGE		1400 CFM / 1800 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 3 - LOW STAGE COOL	CFM	1703	1659	1624	1589	1549	1469	1424	1351	1263		
					RPM	870	900	926	952	979	1009	1033	1062	1102	1121		
					WATTS	407	418	430	439	451	462	472	483	497	484		
					CFM	1832	1807	1775	1740	1704	1672	1639	1583	1505	1348		
					RP	940	961	984	1009	1033	1061	1083	1103	1119	1136		
					WATTS	519	530	540	552	562	577	586	583	570	531		
	TAP 2 - 80K			1400 CFM / 1800 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	1013	866	781	695	561	493	427	371	322	268
						RPM	116	104	108	116	120	125	130	134	140	144	
						WATTS	590	597	644	689	720	755	785	816	847	875	
						CFM	1349	1306	1264	1220	1169	1108	1046	990	938	883	
						RP	733	766	791	820	848	882	913	937	964	989	
						WATTS	232	241	248	256	264	273	281	288	296	306	
TAP 2 - 100K			1400 CFM / 1800 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 100K	CFM	1416	1383	1340	1293	1253	1201	1141	1080	1015	977	
					RPM	764	790	819	847	873	902	936	963	990	1012		
					WATTS	266	273	282	291	298	307	317	324	333	340		
					CFM	1354	1316	1273	1229	1179	1121	1062	997	954	891		
					RP	745	773	802	828	856	888	919	945	968	1007		
					WATTS	239	247	255	260	270	280	287	295	301	312		
5.0 [17.59]	TAP 3 - LOW STAGE		1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 4 - HIGH STAGE COOL	CFM	1769	1734	1706	1665	1634	1595	1560	1526	1481	1444	
					RPM	903	931	953	980	999	1028	1048	1071	1094	1117		
					WATTS	468	481	490	500	511	524	532	543	554	566		
					CFM	1966	1938	1916	1882	1855	1822	1803	1778	1759	1700		
					RP	1003	1027	1047	1070	1091	1115	1128	1150	1172	1195		
					WATTS	657	670	682	695	721	730	742	756	769	793		
	TAP 2 - 80K			1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	999	856	786	694	575	502	428	379	331	280
						RPM	590	599	640	681	715	752	789	814	847	871	
						WATTS	116	104	108	114	120	125	131	135	140	145	
						CFM	1373	1328	1291	1244	1197	1144	1088	1032	978	931	
						RP	742	773	804	833	862	895	926	953	977	1001	
						WATTS	247	255	264	273	281	291	300	308	315	323	
TAP 2 - 100K			1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 100K	CFM	1438	1392	1356	1318	1273	1223	1172	1115	1056	1009	
					RPM	772	801	832	856	883	915	945	975	1000	1028		
					WATTS	278	288	297	306	313	324	334	343	351	359		
					CFM	1419	1381	1350	1301	1256	1207	1140	1086	1035	977		
					RP	763	791	817	847	876	909	943	970	995	1020		
					WATTS	268	277	285	295	304	314	323	332	340	348		
TAP 4 - HIGH STAGE COOL			1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 3 - LOW STAGE COOL	CFM	1938	1904	1873	1841	1813	1811	1754	1726	1694	1661	
					RPM	976	1002	1019	1043	1063	1085	1107	1130	1159	1180		
					WATTS	622	638	645	657	669	683	697	707	725	737		
					CFM	2138	2106	2084	2050	2025	1980	1963	1943	1914	1891		
					RP	1057	1075	1094	1117	1134	1162	1186	1206	1229	1245		
					WATTS	823	833	848	860	873	891	908	924	941	953		

NOTES: (1) FOR CONSTANT TORQUE MOTORS: USE MOTOR TAPS 3-5 TO ACHIEVE RATED AIRFLOW AT AHRI MINIMUM EXTERNAL STATIC PRESSURE.

(A) USE * MARKED TAP FOR AHRI 210/240-2023

(B) USE ** MARKED TAP FOR AHRI 210/240-2017

(2) GRAYED OUT PORTIONS NOT RECOMMENDED FOR USE IN FIELD.

DOWN DISCHARGE PRESSURE DROP (ADD TO EXTERNAL STATIC PRESSURE)	
CFM [L/S]	800 [378]
PRESSURE DROP - INCHES W.C. [KPA]	.02 [.005]
	1000 [472]
	.05 [.012]
	1200 [566]
	.07 [.017]
	1400 [661]
	.1 [.025]
	1600 [755]
	.12 [.030]
	1800 [849]
	.15 [.037]
	2000 [944]
	.17 [.042]

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGED GAS ELECTRIC UNITS—RGEA— DIRECT DRIVE WITH CONSTANT TORQUE MOTOR STANDARD AND LOW NOX APPLICATIONS

INDOOR AIRFLOW PERFORMANCE RGEAZR (208/230V, 3-PHASE) CONSTANT TORQUE MOTOR

NOMINAL COOLING CAPACITY TONS [KW]	MOTOR SPEED FROM FACTORY COOL	HEATING INPUT BTU/HR [KW]	MANUFACTURER RECOMMENDED COOLING AIRFLOW (MIN/MAX)	BLOWER SIZE/ MOTOR HP [W] & # OF SPEEDS	MOTOR TAP / USAGE	EXTERNAL STATIC PRESSURE - INCHES W.C. [KPA] (SIDE DISCHARGE- DRY COIL)											
						0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [1.0]	0.5 [1.2]	0.6 [1.5]	0.7 [1.7]	0.8 [2.0]	0.9 [2.2]	1.0 [2.5]		
3.0 [10.55]	TAP 3	60,000 [17.58]	1050 CFM / 1350 CFM	12X9T BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	977	915	833	764	700	557	475	398	338	295	
					RPM	609	649	709	766	806	846	880	901	911	934		
					WATTS	115	118	130	141	147	154	159	164	165	167		
					CFM	1058	1020	963	885	831	765	682	586	526	445		
					RPM	646	680	725	795	832	875	912	953	970	988		
					WATTS	140	145	156	170	176	185	191	201	204	207		
	TAP 2	80,000 [23.45]	100,000 [29.31]	1050 CFM / 1350 CFM	12X9T BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 80K	CFM	1347	1314	1279	1245	1198	1128	1083	1038	985	923
						RPM	773	809	837	870	907	955	1037	1069	1107		
						WATTS	255	270	276	287	313	320	335	344	356		
						CFM	1442	1417	1386	1349	1312	1262	1195	1143	1086		
						RPM	828	857	885	918	946	988	1028	1063	1094		
						WATTS	313	323	332	343	363	367	380	390	402	412	
TAP 1	100,000 [29.31]	100,000 [29.31]	1050 CFM / 1350 CFM	12X9T BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 3 - LOW STAGE COOL **	CFM	1336	1297	1264	1225	1188	1105	1043	984	931	867	
					RPM	771	804	837	866	897	922	988	1022	1056			
					WATTS	249	259	271	278	285	300	315	319	328			
					CFM	1486	1449	1418	1386	1351	1311	1240	1189	1135			
					RPM	840	874	902	930	958	988	1036	1069	1100			
					WATTS	332	344	353	364	374	384	398	412	422			
3.5 [12.31]	TAP 3	80,000 [23.45]	1225 CFM / 1575 CFM	12X9T BLOWER 3/4 HP [559] 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	1065	1016	954	892	830	768	706	644	582	520	
					RPM	589	622	680	725	761	814	837	855	883			
					WATTS	106	110	119	127	132	141	145	152	157			
					CFM	1440	1390	1354	1309	1257	1194	1136	1040	987			
					RPM	767	801	828	861	896	937	973	1021	1047			
					WATTS	266	276	283	292	304	317	327	342	350			
	TAP 2	100,000 [29.31]	100,000 [29.31]	1225 CFM / 1575 CFM	12X9T BLOWER 3/4 HP [559] 5 SPEED (CONSTANT TORQUE)	TAP 2 - 80K	CFM	1465	1414	1370	1334	1290	1228	1164	1100	1032	978
						RPM	868	893	922	947	973	1003	1052	1088	1113		
						WATTS	362	371	380	391	400	411	430	443	453		
						CFM	1557	1517	1475	1436	1398	1352	1306	1245	1178		
						RPM	821	849	882	908	936	966	997	1033	1068		
						WATTS	330	339	350	360	370	381	390	403	415		
TAP 1	100,000 [29.31]	100,000 [29.31]	1225 CFM / 1575 CFM	12X9T BLOWER 3/4 HP [559] 5 SPEED (CONSTANT TORQUE)	TAP 3 - LOW STAGE COOL **	CFM	1557	1517	1475	1436	1398	1352	1306	1245	1178		
					RPM	821	849	882	908	936	966	997	1033	1068			
					WATTS	330	339	350	360	370	381	390	403	415			
					CFM	1703	1659	1624	1589	1549	1508	1469	1424	1351			
					RPM	870	900	926	952	979	1009	1033	1062	1102			
					WATTS	407	418	430	439	451	462	472	483	497			
TAP 3	100,000 [29.31]	100,000 [29.31]	1225 CFM / 1575 CFM	12X9T BLOWER 3/4 HP [559] 5 SPEED (CONSTANT TORQUE)	TAP 4 - MED STAGE COOL **	CFM	1832	1807	1775	1740	1704	1672	1639	1583	1505		
					RPM	940	961	984	1009	1033	1061	1083	1103	1119			
					WATTS	519	530	540	552	562	577	586	593	600			
					CFM	1015	983	905	805	710	628	500	339	310			
					RPM	591	618	671	721	760	805	829	851	873			
					WATTS	110	105	114	120	127	133	136	140	144			
4.0 [14.07]	TAP 3 - LOW STAGE	80,000 [23.45]	1400 CFM / 1800 CFM	12X9T BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 80K	CFM	1398	1357	1314	1269	1218	1159	1092	1014	952	883	
					RPM	751	783	815	844	876	914	953	994	1025			
					WATTS	239	247	255	263	272	282	293	304	313			
					CFM	1467	1429	1382	1337	1301	1246	1171	1120	1047			
					RPM	786	812	847	878	902	936	979	1012	1049			
					WATTS	272	280	291	298	305	316	330	340	351			
	TAP 4 - HIGH STAGE	100,000 [29.31]	100,000 [29.31]	1400 CFM / 1800 CFM	12X9T BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 3 - LOW STAGE COOL **	CFM	1306	1257	1203	1159	1103	1027	953	879	813	
						RPM	716	750	786	817	854	897	937	971	988		
						WATTS	201	209	218	225	235	245	253	263	265		
						CFM	1790	1755	1719	1686	1653	1611	1580	1539	1493		
						RPM	918	944	969	996	1020	1050	1069	1097	1124		
						WATTS	455	466	478	489	499	512	520	530	543		
TAP 5 - HIGH STAGE	100,000 [29.31]	100,000 [29.31]	1400 CFM / 1800 CFM	12X9T BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 5 - HIGH STAGE COOL **	CFM	1869	1835	1800	1768	1729	1692	1653	1605	1538		
					RPM	942	970	992	1018	1044	1076	1101	1120	1144			
					WATTS	506	518	529	541	550	568	578	579	563			

NOTES:(1) FOR CONSTANT TORQUE MOTORS: USE MOTOR TAPS 3-5 TO ACHIEVE RATED AIRFLOW AT AHRI MINIMUM EXTERNAL STATIC PRESSURE.

(A) USE ** MARKED TAP FOR AHRI 210/240-2023

(B) USE * MARKED TAP FOR AHRI 210/240-2017

(2) GRAYED OUT PORTIONS NOT RECOMMENDED FOR USE IN FIELD.

DOWN DISCHARGE PRESSURE DROP (ADD TO EXTERNAL STATIC PRESSURE)	
CFM [L/S]	800 [378]
PRESSURE DROP - INCHES W.C. [KPA]	.02 [0.005]
1000 [472]	.05 [0.012]
1200 [566]	.07 [0.017]
1400 [661]	.1 [0.025]
1600 [755]	.12 [0.030]
1800 [849]	.15 [0.037]
2000 [944]	.17 [0.042]

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGED GAS ELECTRIC UNITS—RGEA— DIRECT DRIVE WITH CONSTANT TORQUE MOTOR STANDARD AND LOW NOX APPLICATIONS

INDOOR AIRFLOW PERFORMANCE RGEAZR (208/230V, 3-PHASE) CONSTANT TORQUE MOTOR

NOMINAL COOLING CAPACITY TONS (KW)	MOTOR SPEED FROM FACTORY COOL	HEATING INPUT BTU/HR [KW]	MANUFACTURER RECOMMENDED COOLING AIRFLOW (MIN/MAX)	BLOWER SIZE/ MOTOR HP (W) & # OF SPEEDS	MOTOR TAP / USAGE	EXTERNAL STATIC PRESSURE - INCHES W.C. [KPA] (SIDE DISCHARGE-DRY COIL)										
						0.1 [0.2]	0.2 [0.5]	0.3 [0.7]	0.4 [1.0]	0.5 [1.2]	0.6 [1.5]	0.7 [1.7]	0.8 [2.0]	0.9 [2.2]	1.0 [2.5]	
5.0 [17.58]	TAP 3 - LOW STAGE		1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	989	856	786	694	575	502	428	379	331	280
						WATTS	590	599	640	681	715	752	789	814	847	871
						CFM	1373	1328	1291	1244	1197	1144	1088	1032	978	931
						WATTS	742	773	804	833	862	895	926	953	977	1001
						CFM	247	255	264	273	281	291	300	308	315	323
						WATTS	1438	1392	1356	1318	1273	1223	1172	1115	1056	1009
	TAP 4 - HIGH STAGE					TAP 2 - 100K	CFM	772	801	832	856	883	915	945	975	1000
							WATTS	278	288	297	306	313	324	334	343	351
							CFM	1355	1316	1276	1227	1165	1111	1041	990	928
							WATTS	735	764	793	826	854	885	914	936	962
							CFM	237	245	253	262	268	277	284	289	296
							WATTS	1845	1812	1779	1749	1711	1681	1654	1624	1581
TAP 5 - HIGH STAGE					TAP 3 - LOW STAGE COOL	CFM	941	963	983	1009	1035	1064	1077	1098	1127	
						WATTS	537	549	559	570	584	593	604	617	632	
						CFM	2138	2106	2084	2050	2025	1990	1963	1943	1891	
						WATTS	1057	1075	1094	1117	1134	1162	1186	1206	1229	
						CFM	823	833	848	860	873	891	908	924	941	
						WATTS	823	833	848	860	873	891	908	924	941	

NOTES: (1) FOR CONSTANT TORQUE MOTORS: USE MOTOR TAPS 3-5 TO ACHIEVE RATED AIRFLOW AT AHRI MINIMUM EXTERNAL STATIC PRESSURE.

(A) USE * MARKED TAP FOR AHRI 210/240-2023

(B) USE ** MARKED TAP FOR AHRI 210/240-2017

(2) GRAYED OUT PORTIONS NOT RECOMMENDED FOR USE IN FIELD.

DOWN DISCHARGE PRESSURE DROP (ADD TO EXTERNAL STATIC PRESSURE)									
CFM [L/S]	800 [378]	1000 [472]	1200 [566]	1400 [661]	1600 [755]	1800 [849]	2000 [944]		
PRESSURE DROP - INCHES W.C. [KPA]	.02 [.005]	.05 [.012]	.07 [.017]	.1 [.025]	.12 [.030]	.15 [.037]	.17 [.042]		

INDOOR AIRFLOW PERFORMANCE FOR 2-5 TON PACKAGED GAS ELECTRIC UNITS—RGEA— DIRECT DRIVE WITH CONSTANT TORQUE MOTOR STANDARD AND LOW NOX APPLICATIONS

INDOOR AIRFLOW PERFORMANCE RGEAZR (460V, 3-PHASE) CONSTANT TORQUE MOTOR

NOMINAL COOLING CAPACITY TONS [KW]	MOTOR SPEED FROM FACTORY COOL	HEATING INPUT BTU/HR [KW]	MANUFACTURER RECOMMENDED COOLING AIRFLOW (MIN/MAX)	BLOWER SIZE/ MOTOR HP [W] & # OF SPEEDS	MOTOR TAP / USAGE	EXTERNAL STATIC PRESSURE - INCHES W.C. [KPA] (SIDE DISCHARGE-DRY COIL)											
						0.1 [0.02]	0.2 [0.05]	0.3 [0.07]	0.4 [1.0]	0.5 [1.2]	0.6 [1.5]	0.7 [1.7]	0.8 [2.0]	0.9 [2.2]	1.0 [2.5]		
3.0 [10.55]	TAP 3	60,000 [17.58]	1050 CFM / 1350 CFM	12XRT BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 1 - FAN	CFM	946	889	810	749	677	581	500	422	354	328	
					RPM	594	633	701	748	800	836	876	901	914	948		
					WATTS	114	120	133	142	151	158	166	170	172	176		
					CFM	1109	1088	1046	962	915	851	787	717	645	577		
					RPM	678	708	742	810	847	896	929	964	1005	1029		
					WATTS	172	179	188	205	212	226	234	243	253	260		
	TAP 2	80,000 [23.45]				TAP 2 - 80K	CFM	1265	1240	1214	1181	1110	1062	1024	957	907	838
						RPM	754	781	811	844	888	935	974	1016	1049	1086	
						WATTS	240	250	259	269	285	297	310	322	333	345	
						CFM	1384	1371	1355	1326	1293	1249	1182	1130	1081	1028	
						RPM	818	838	864	893	924	960	1011	1044	1077	1111	
						WATTS	314	320	331	340	352	365	383	397	408	422	
4.0 [14.07]	TAP 2	100,000 [29.31]	1400 CFM / 1800 CFM	12XRT BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 3 - LOW STAGE COOL **	CFM	770	794	827	857	903	947	986	1019	1050	1080	
					WATTS	259	266	278	287	303	317	330	340	350	360		
					CFM	1425	1417	1398	1373	1343	1307	1248	1188	1135	1092		
					RPM	841	860	884	914	940	970	1018	1060	1093	1122		
					WATTS	342	349	359	370	380	392	410	426	440	452		
					CFM	1470	1464	1444	1419	1390	1361	1323	1252	1196	1134		
	TAP 3 - LOW STAGE COOL	100,000 [29.31]				TAP 4 - MED STAGE COOL	CFM	865	880	905	932	958	985	1016	1068	1108	1138
						RPM	865	880	905	932	958	985	1016	1068	1108	1138	
						WATTS	370	376	388	399	409	420	433	455	470	480	
						CFM	990	987	975	952	924	896	864	835	804	765	
						RPM	586	613	667	714	753	807	829	853	880	909	
						WATTS	111	106	115	123	130	138	142	146	150	155	
5.0 [17.59]	TAP 2	80,000 [23.45]	1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 80K	CFM	1402	1367	1323	1280	1238	1175	1104	1045	982	920	
					RPM	752	786	820	852	884	926	964	998	1032	1060		
					WATTS	252	262	274	284	294	306	319	331	341	351		
					CFM	1492	1453	1409	1376	1336	1290	1232	1162	1100	1047		
					RPM	792	822	858	885	913	945	984	1024	1057	1088		
					WATTS	295	307	318	328	338	349	363	377	389	401		
	TAP 3 - LOW STAGE COOL	100,000 [29.31]				TAP 3 - LOW STAGE COOL	CFM	1295	1254	1212	1163	1107	1030	948	883	812	752
						RPM	710	741	778	810	849	883	935	967	985	1025	
						WATTS	207	216	225	234	246	257	268	277	285	293	
						CFM	1822	1788	1752	1724	1695	1659	1625	1594	1541	1412	
						RPM	921	946	972	997	1020	1050	1074	1097	1125	1143	
						WATTS	491	505	519	530	541	554	565	579	590	565	
5.0 [17.59]	TAP 4 - HIGH STAGE				TAP 4 - HIGH STAGE COOL **	CFM											
					RPM												
					WATTS												
					CFM												
					RPM												
					WATTS												
	TAP 5 - HIGH STAGE					TAP 5 - HIGH STAGE COOL	CFM	984	831	758	674	531	468	409	354	295	258
						RPM	582	595	635	678	720	753	780	810	842	873	
						WATTS	117	104	110	116	123	128	133	137	142	146	
						CFM	1361	1319	1287	1242	1190	1131	1081	1023	973	921	
						RPM	743	771	799	833	865	900	928	953	982	1015	
						WATTS	257	266	276	286	297	308	317	325	333	344	
5.0 [17.59]	TAP 2	100,000 [29.31]	1750 CFM / 2250 CFM	12X9R BLOWER 1 HP (746) 5 SPEED (CONSTANT TORQUE)	TAP 2 - 100K	CFM	1407	1365	1335	1294	1247	1189	1131	1081	1034	981	
					RPM	761	790	817	845	879	912	946	970	984	1031		
					WATTS	278	289	299	308	319	330	342	350	360	369		
					CFM	1346	1306	1270	1228	1179	1120	1051	1004	953	898		
					RPM	729	759	792	820	856	893	926	949	976	1013		
					WATTS	247	256	266	276	287	299	309	316	324	336		
	TAP 3 - LOW STAGE COOL					TAP 4 - HIGH STAGE COOL **	CFM	1840	1807	1781	1751	1722	1680	1666	1630	1593	
						RPM	932	955	979	1004	1027	1049	1073	1097	1122	1150	
						WATTS	561	575	588	600	614	626	637	651	666	683	
						CFM	2137	2104	2078	2051	1983	1954	1926	1894	1855		
						RPM	1067	1083	1097	1122	1138	1164	1182	1198	1215		
						WATTS	876	889	898	912	924	936	947	957	968		

NOTES: (1) FOR CONSTANT TORQUE MOTORS: USE MOTOR TAPS 3-5 TO ACHIEVE RATED AIRFLOW AT AHRI MINIMUM EXTERNAL STATIC PRESSURE.

(A) USE ** MARKED TAP FOR AHRI 210/240-2023

(B) USE * MARKED TAP FOR AHRI 210/240-2017

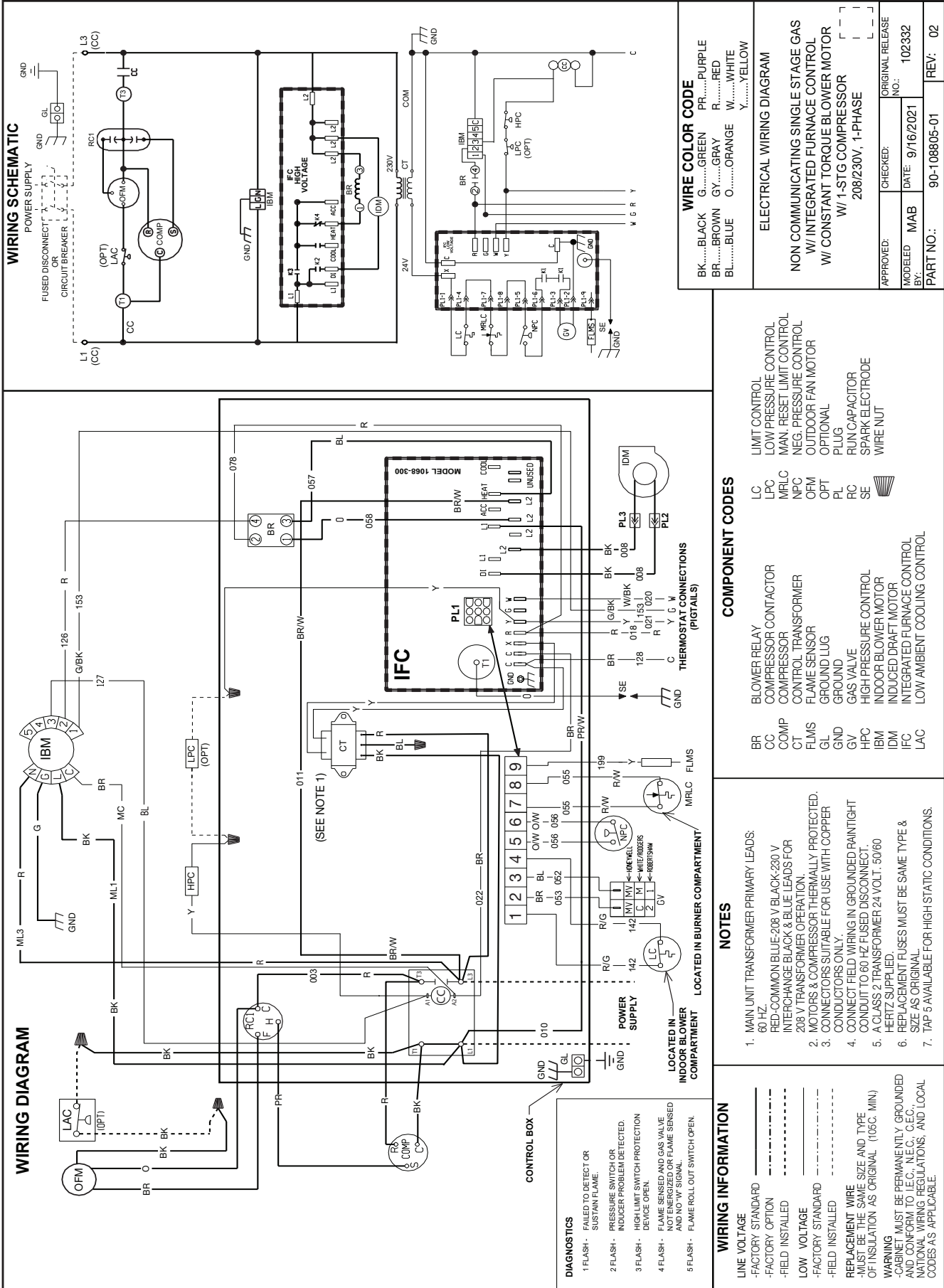
(2) GRAYED OUT PORTIONS NOT RECOMMENDED FOR USE IN FIELD.

DOWN DISCHARGE PRESSURE DROP (ADD TO EXTERNAL STATIC PRESSURE)	
CFM [L/S]	800 [378]
PRESSURE DROP - INCHES W.C. [KPA]	.02 [0.005]
	1000 [472]
	.05 [0.012]
	1200 [566]
	.07 [0.017]
	1400 [661]
	.1 [0.025]
	1600 [755]
	.12 [0.030]
	1800 [849]
	.15 [0.037]
	2000 [944]
	.17 [0.042]

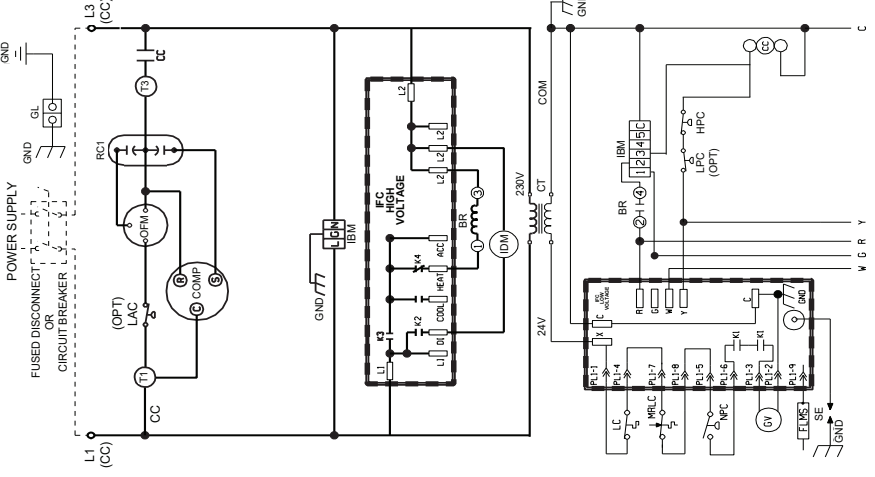
XV. WIRING DIAGRAMS STANDARD AND LOW NOX APPLICATIONS

FIGURE 33
WIRING DIAGRAM

*SEE SUPPLEMENT FOR ADDITIONAL INFORMATION SPECIFIC TO ULTRA LOW NOX MODELS (14NG/J).



WIRING SCHEMATIC



WIRE COLOR CODE

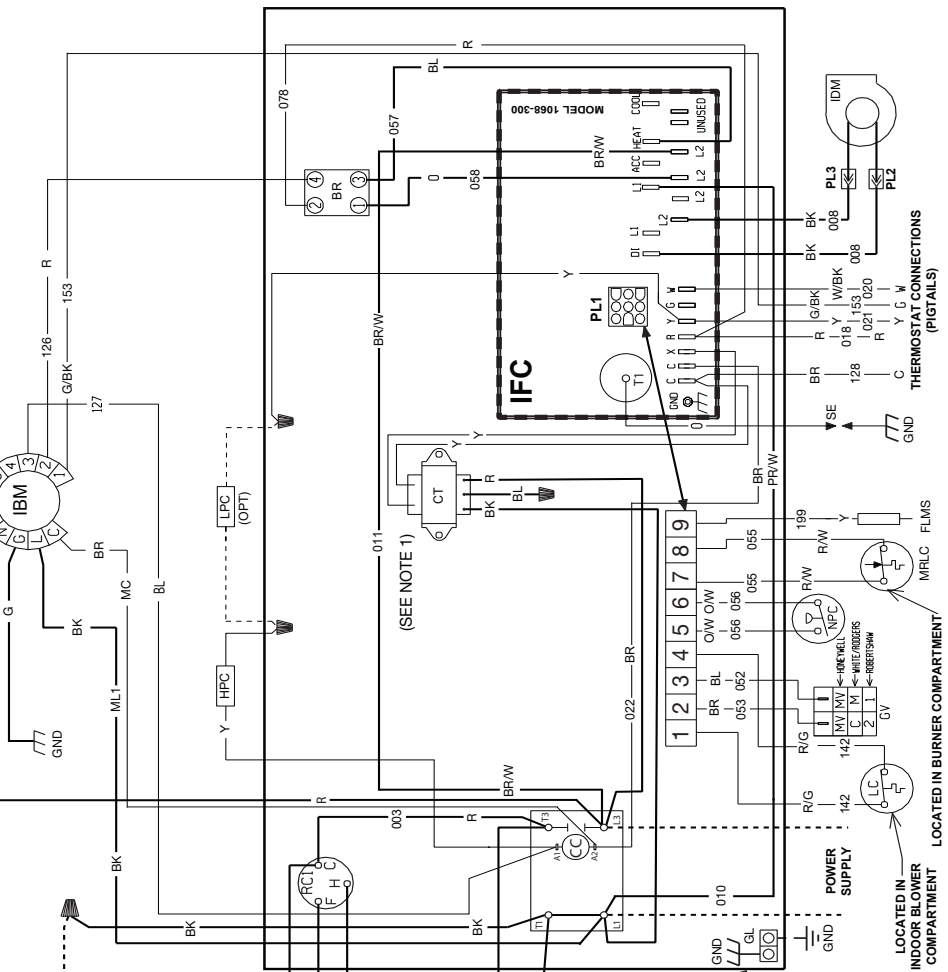
BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

ELECTRICAL WIRING DIAGRAM

NON COMMUNICATING SINGLE STAGE GAS
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 1-STG COMPRESSOR
208/230V, 1-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE
MODELED: MAB	DATE: 9/16/2021	NO.: 102332
BY:		
PART NO.:	90-108805-01	REV: 02

WIRING DIAGRAM



COMPONENT CODES

- LC LIMIT CONTROL
- LPC LOW PRESSURE CONTROL
- MFLC MAN. RESET LIMIT CONTROL
- NPC NEG. PRESSURE CONTROL
- OFM OUTDOOR FAN MOTOR
- OPT OPTIONAL
- PL PLUG
- RC RUN CAPACITOR
- SE SPARK ELECTRODE
- WIRE NUT

NOTES

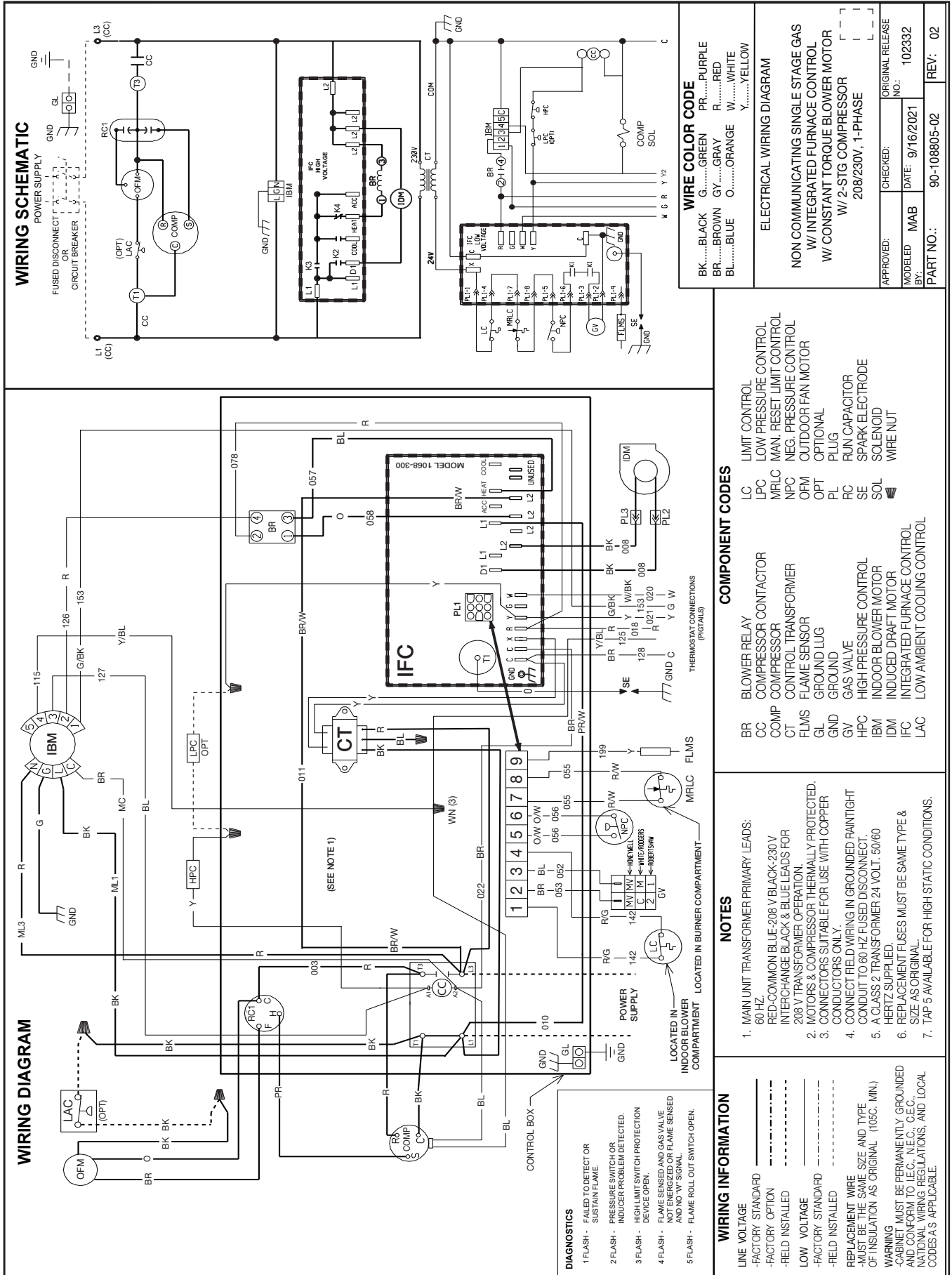
1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ, RED, COMMON BLUE, 208 V BLACK, 230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONDUIT FIELD WIRING IN GROUNDED RAIN TIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. TAP 5 AVAILABLE FOR HIGH STATIC CONDITIONS.

WIRING INFORMATION

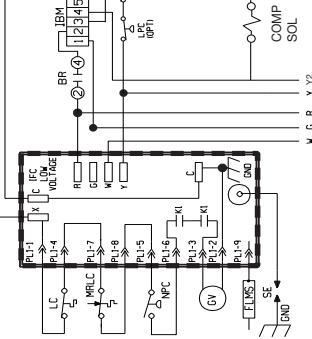
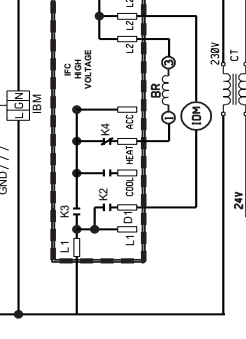
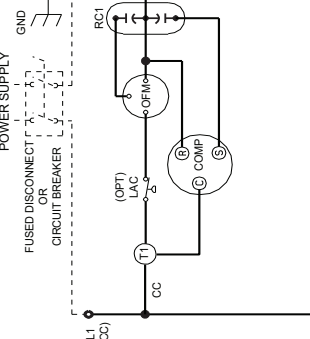
- LINE VOLTAGE**
- FACTORY STANDARD
 - FACTORY OPTION
 - FIELD INSTALLED
- LOW VOLTAGE**
- FACTORY STANDARD
 - FIELD INSTALLED
- REPLACEMENT WIRE**
- MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C, MIN)
- WARNING**
- CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

- DIAGNOSTICS**
- 1 FLASH - FAILED TO DETECT OR SUSTAIN FLAME.
 - 2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
 - 3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
 - 4 FLASH - FLAME SENSED AND GAS VALVE NOT ENERGIZED OR FLAME SENSED AND NO "W" SIGNAL.
 - 5 FLASH - FLAME ROLL OUT SWITCH OPEN.

FIGURE 34
WIRING DIAGRAM



WIRING SCHEMATIC



WIRE COLOR CODE

BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

COMPONENT CODES

BR	BLOWER RELAY	LC	LIMIT CONTROL
CC	COMPRESSOR CONTACTOR	LPC	LOW PRESSURE CONTROL
COMP	COMPRESSOR	MRLC	MAN. RESET LIMIT CONTROL
CT	CONTROL TRANSFORMER	NFC	NEG. PRESSURE CONTROL
FLMS	FLAME SENSOR	OFM	OUTDOOR FAN MOTOR
GL	GROUND LUG	OPT	OPTIONAL
GND	GROUND	PL	PLUG
GV	GAS VALVE	RC	RUN CAPACITOR
HPC	HIGH PRESSURE CONTROL	SE	SPARK ELECTRODE
IBM	INDOOR BLOWER MOTOR	SOL	SOLENOID
IDM	INDUCED DRAFT MOTOR		WIRE NUT
IFC	INTEGRATED FURNACE CONTROL		
LAC	LOW AMBIENT COOLING CONTROL		

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR INTERCHANGE OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
3. CONNECT FIELD WIRING IN GROUND PAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
4. A CLASS 2 TRANSFORMER 24 VOLT: 30/60 HERTZ SUPPLIED.
5. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
6. TAP 5 AVAILABLE FOR HIGH STATIC CONDITIONS.

DIAGNOSTICS

- 1 FLASH - FAILED TO DETECT OR SUSTAIN FLAME.
- 2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
- 3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
- 4 FLASH - FLAME SENSED AND GAS VALVE NOT ENERGIZED OR FLAME SENSED AND NO "W" SIGNAL.
- 5 FLASH - FLAME ROLL OUT SWITCH OPEN.

WIRING INFORMATION

- FACTORY STANDARD
 - FACTORY OPTION
 - FIELD INSTALLED
 - LOW VOLTAGE
 - FACTORY STANDARD
 - FIELD INSTALLED
 - REPLACEMENT WIRE
 - MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (100% MIN.)
- WARNING**
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

APPROVED:

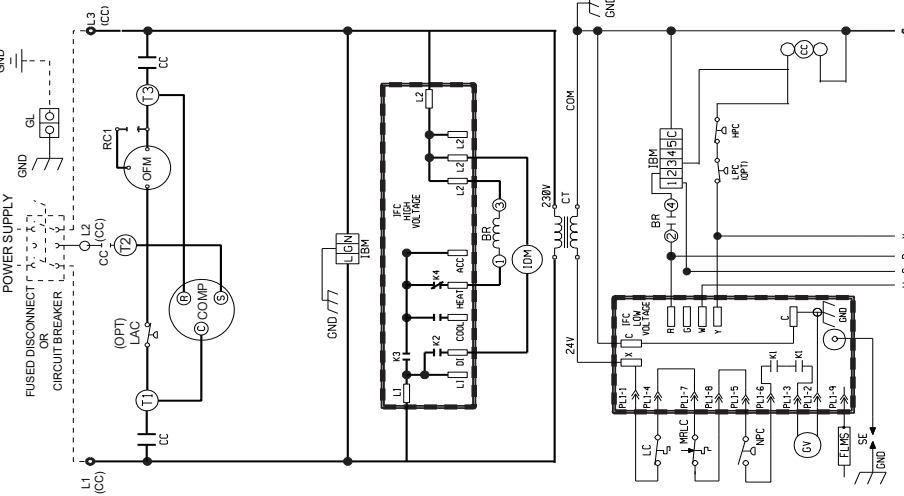
APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED: MAB	DATE: 9/16/2021	102332
BY:		
PART NO.:	90-108805-02	REV: 02

ELECTRICAL WIRING DIAGRAM

NON COMMUNICATING SINGLE STAGE GAS W/ INTEGRATED FURNACE CONTROL W/ CONSTANT TORQUE BLOWER MOTOR W/ 2-STG COMPRESSOR 208/230V, 1-PHASE

FIGURE 35
WIRING DIAGRAM

WIRING SCHEMATIC



WIRE COLOR CODE

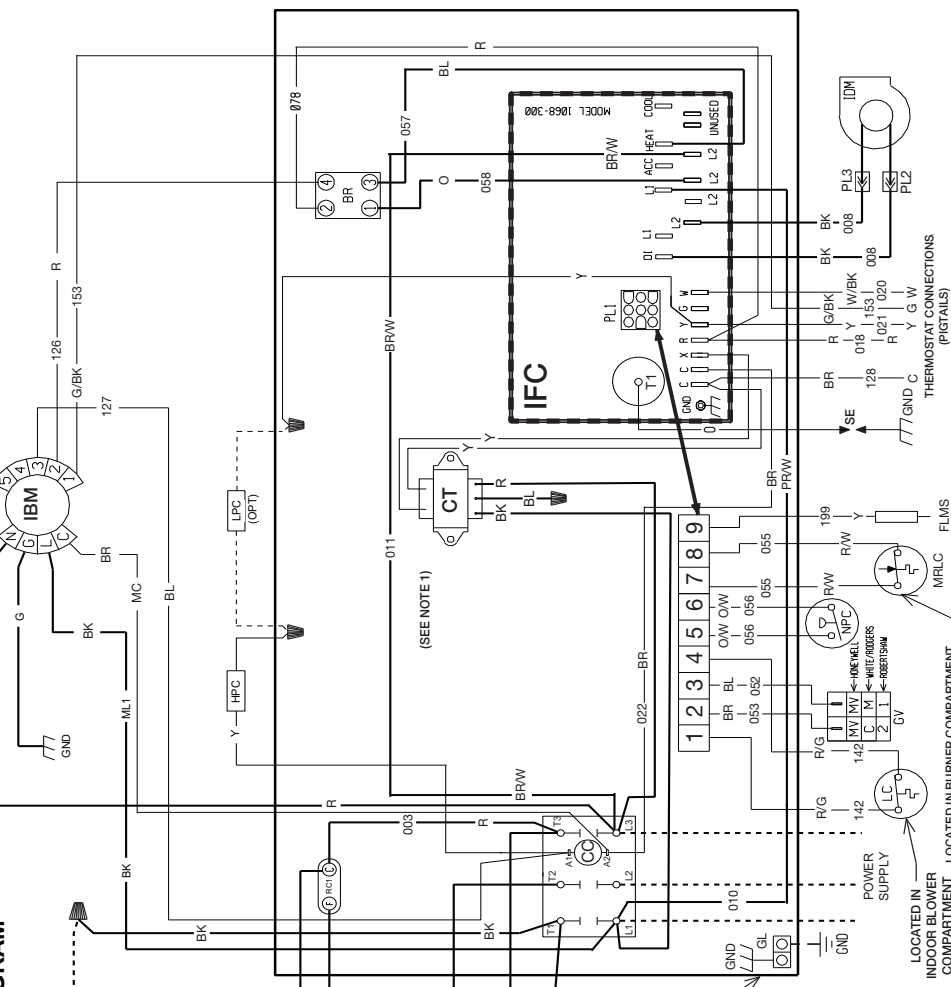
BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

ELECTRICAL WIRING DIAGRAM

NON COMMUNICATING SINGLE STAGE GAS
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 1-STG COMPRESSOR
208/230V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED MAB	DATE: 10/21/2021	NO.: 103053
BY:		
PART NO.:	90-108805-03	REV: 01

WIRING DIAGRAM



COMPONENT CODES

LC	LIMIT CONTROL
LPC	LOW PRESSURE CONTROL
MRLC	MAN. RESET LIMIT CONTROL
NPC	NEG. PRESSURE CONTROL
OFM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
PC	RUN CAPACITOR
SE	SPARK ELECTRODE
W	WIRE NUT

NOTES

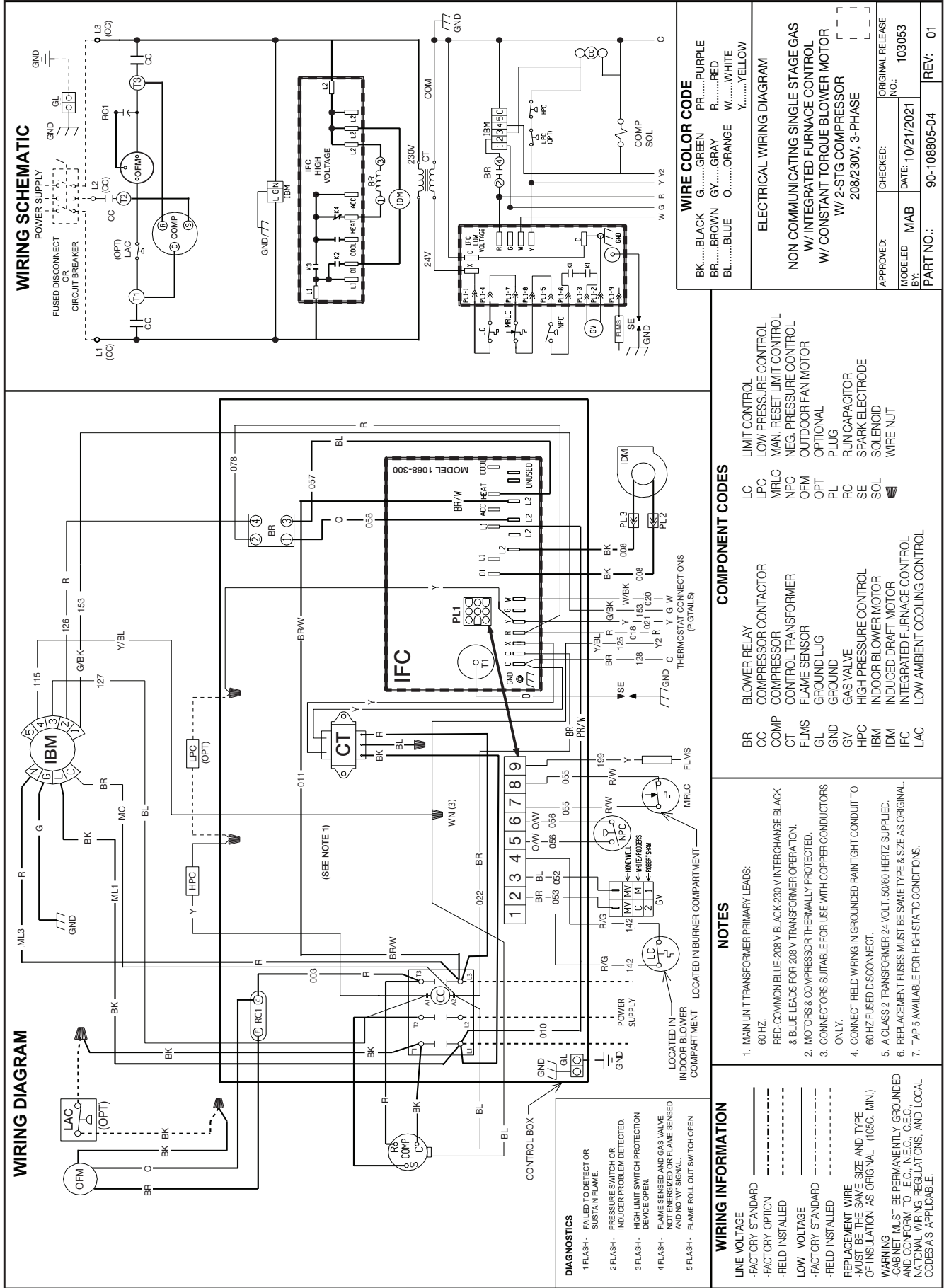
1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ, RED-COMMON BLUE-208 V BLACK-230 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED PAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. TAP 5 AVAILABLE FOR HIGH STATIC CONDITIONS.

WIRING INFORMATION

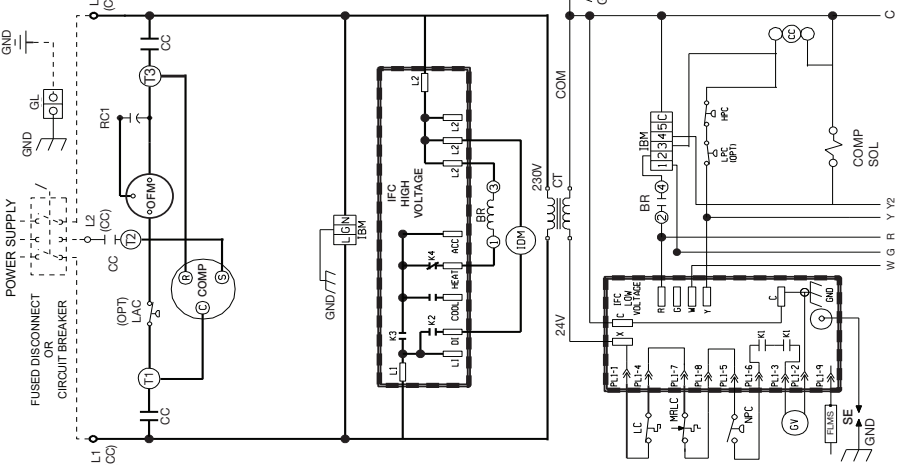
- LINE VOLTAGE**
- FACTORY STANDARD
 - FACTORY OPTION
 - FIELD INSTALLED
- LOW VOLTAGE**
- FACTORY STANDARD
 - FIELD INSTALLED
- REPLACEMENT WIRE**
- MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C. MIN.)
- WARNING**
- CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

- DIAGNOSTICS**
- 1 FLASH - FAILED TO DETECT OR SUSPAINFLAME.
 - 2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
 - 3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
 - 4 FLASH - FLAME SENSED AND GAS VALVE NOT ENERGIZED OR FLAME SENSED AND NO "W" SIGNAL.
 - 5 FLASH - FLAME ROLL OUT SWITCH OPEN.

FIGURE 36
WIRING DIAGRAM



WIRING SCHEMATIC



WIRE COLOR CODE

BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

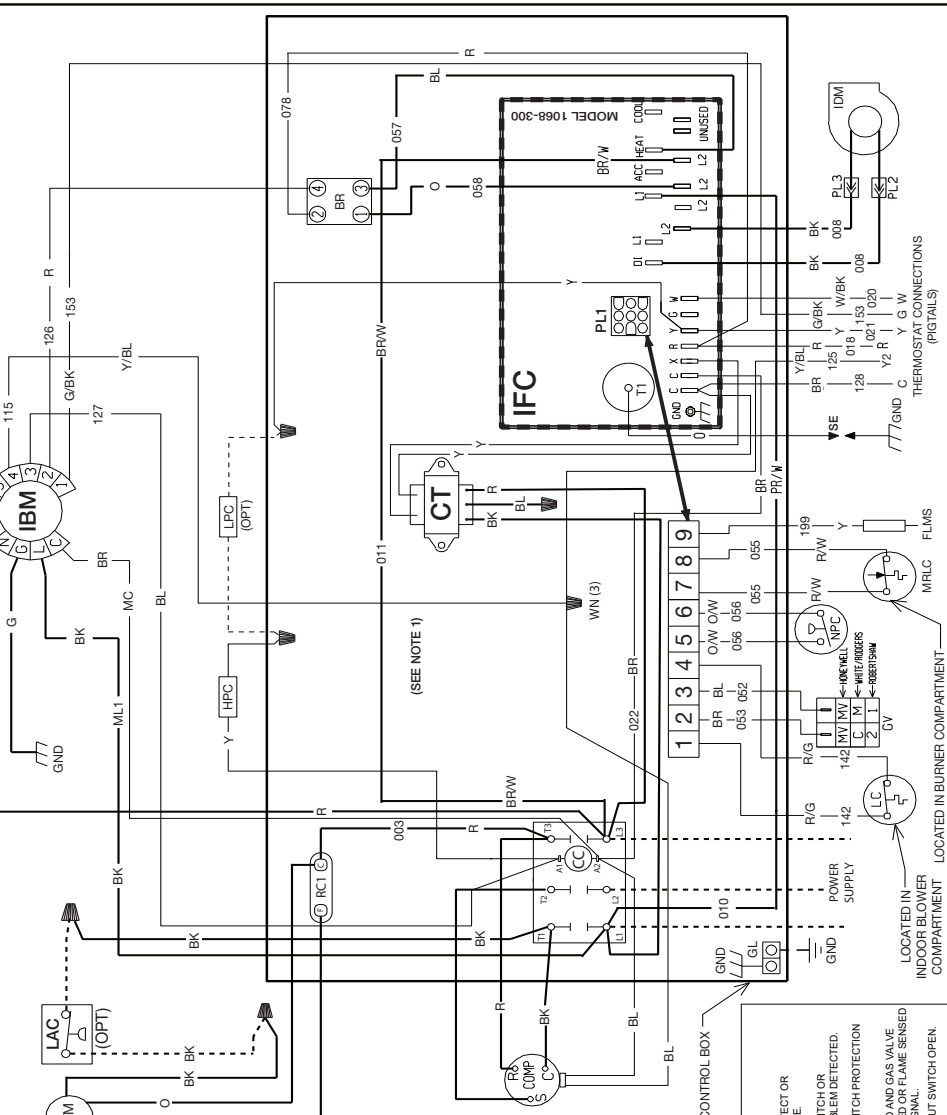
ELECTRICAL WIRING DIAGRAM

NON COMMUNICATING SINGLE STAGE GAS
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 2-STG COMPRESSOR

208/230V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE
MODELED: MAB	DATE: 10/21/2021	NO.: 103063
BY:		
PART NO.:	90-108805-04	REV: 01

WIRING DIAGRAM



COMPONENT CODES

BR	BLOWER RELAY	LC	LIMIT CONTROL
CC	COMPRESSOR CONTACTOR	LFC	LOW PRESSURE CONTROL
COMP	COMPRESSOR	MRLC	MAN. RESET LIMIT CONTROL
CT	CONTROL TRANSFORMER	NPC	NEG. PRESSURE CONTROL
FLMS	FLAME SENSOR	OFM	OUTDOOR FAN MOTOR
GL	GROUND LUG	OPT	OPTIONAL
GND	GROUND	PL	PLUG
GV	GAS VALVE	RC	RUN CAPACITOR
HPC	HIGH PRESSURE CONTROL	SE	SPARK ELECTRODE
IBM	INDOOR BLOWER MOTOR	SOL	SOLENOID
IDM	INDUCED DRAFT MOTOR	W	WIRE NUT
IFC	INTEGRATED FURNACE CONTROL		
LAC	LOW AMBIENT COOLING CONTROL		

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLUE-208 V INTERCHANGE BLACK & BLUE LEADS FOR 208 V TRANSFORMER OPERATION.
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAIN/TIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. A CLASS 2 TRANSFORMER 24 VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. TAP 5 AVAILABLE FOR HIGH-STATIC CONDITIONS.

WIRING INFORMATION

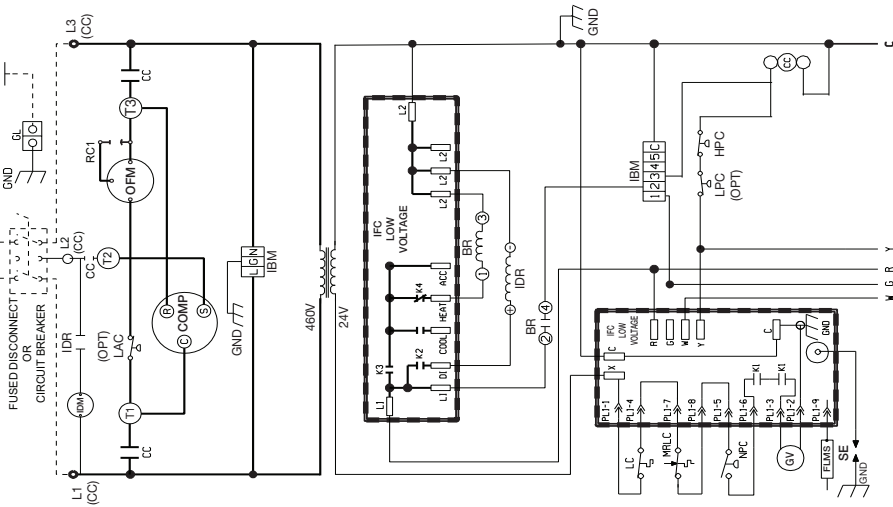
- LINE VOLTAGE**
- FACTORY STANDARD
 - FACTORY OPTION
 - FIELD INSTALLED
- LOW VOLTAGE**
- FACTORY STANDARD
 - FIELD INSTALLED
- REPLACEMENT WIRE**
- MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C. MIN.)
 - CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., AND NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

DIAGNOSTICS

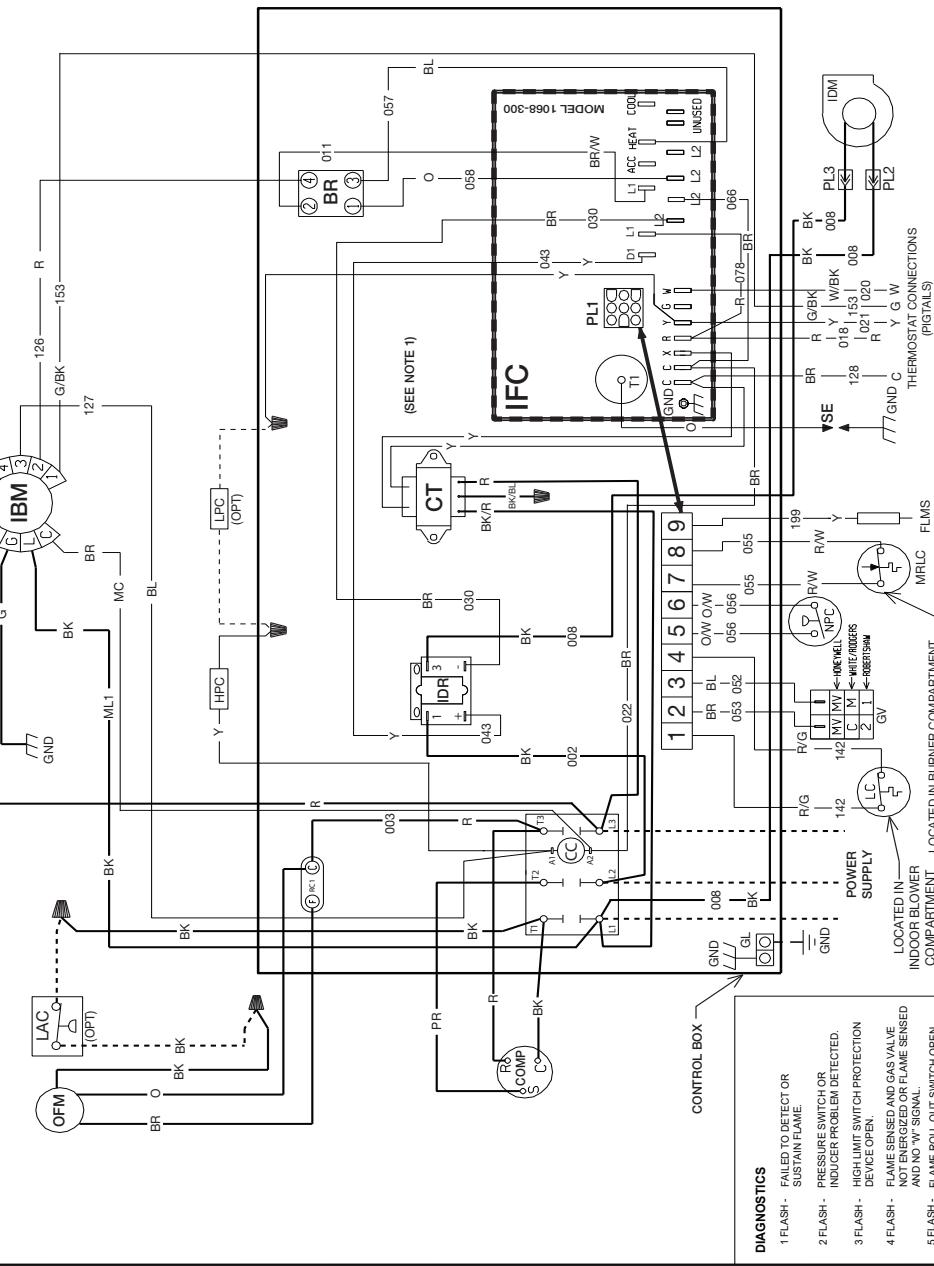
- 1 FLASH - FAILED TO DETECT OR SUSTAIN FLAME.
- 2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
- 3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
- 4 FLASH - FLAME SENSED AND GAS VALVE NOT ENERGIZED OR FLAME SENSED AND NO "Y" SIGNAL.
- 5 FLASH - FLAME ROLL OUT SWITCH OPEN.

FIGURE 37
WIRING DIAGRAM

WIRING SCHEMATIC



WIRING DIAGRAM



WIRE COLOR CODE

BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

ELECTRICAL WIRING DIAGRAM

NON COMMUNICATING SINGLE STAGE GAS W/ INTEGRATED FURNACE CONTROL W/ CONSTANT TORQUE BLOWER MOTOR W/ 1-STG COMPRESSOR 460V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED MAB	DATE: 5/16/2022	NO.: 105935
BY:		
PART NO.:	90-108805-05	REV: 00

COMPONENT CODES

LC	LIMIT CONTROL
LPC	LOW PRESSURE CONTROL
MRLC	MAN. RESET LIMIT CONTROL
NPC	NEG. PRESSURE CONTROL
ORM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
FC	RUN CAPACITOR
SE	SPARK ELECTRODE
WIRE NUT	WIRE NUT
BR	BLOWER RELAY
CC	COMPRESSOR CONTACTOR
COMP	COMPRESSOR
CT	CONTROL TRANSFORMER
FLMS	FLAME SENSOR
GL	GROUND LUG
GND	GROUND
GV	GAS VALVE
HPC	HIGH PRESSURE CONTROL
IBM	INDOOR BLOWER MOTOR
IDM	INDUCED DRAFT MOTOR
IFC	INTEGRATED FURNACE CONTROL
IDR	INDUCED DRAFT RELAY
LAC	LOW AMBIENT COOLING CONTROL

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ, RED-COMMON, BLACK/RED-460V, BLACK/BLUE-575V
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED PAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. A CLASS 2 TRANSFORMER 24-VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. TAP 5-AVAILABLE FOR HIGH STATIC CONDITIONS.

WIRING INFORMATION

DIAGNOSTICS

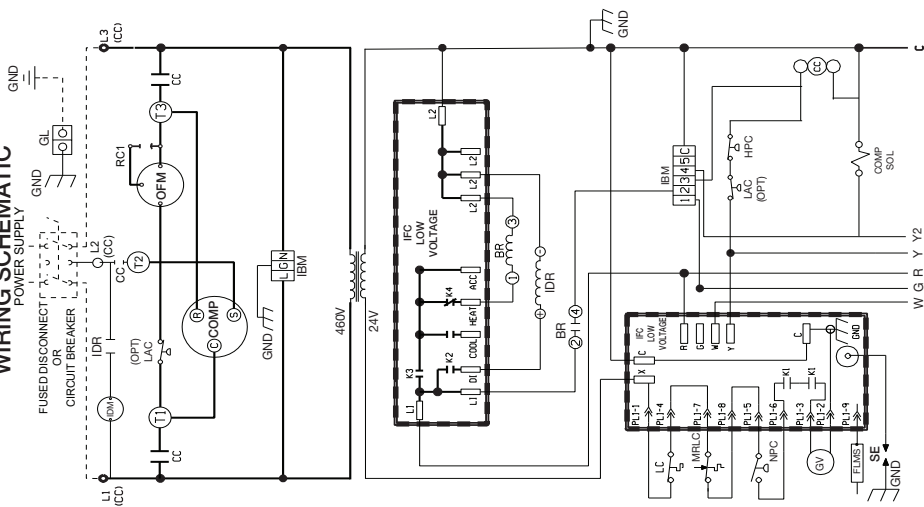
- 1 FLASH - FAILED TO DETECT OR SUSTAIN FLAME.
- 2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
- 3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
- 4 FLASH - FLAME SENSED AND GAS VALVE AND NO "W" SIGNAL.
- 5 FLASH - FLAME ROLL OUT SWITCH OPEN.

REPLACEMENT WIRE
-MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C. MIN.)

WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES A.S. APPLICABLE.

FIGURE 38
WIRING DIAGRAM

WIRING SCHEMATIC



WIRE COLOR CODE

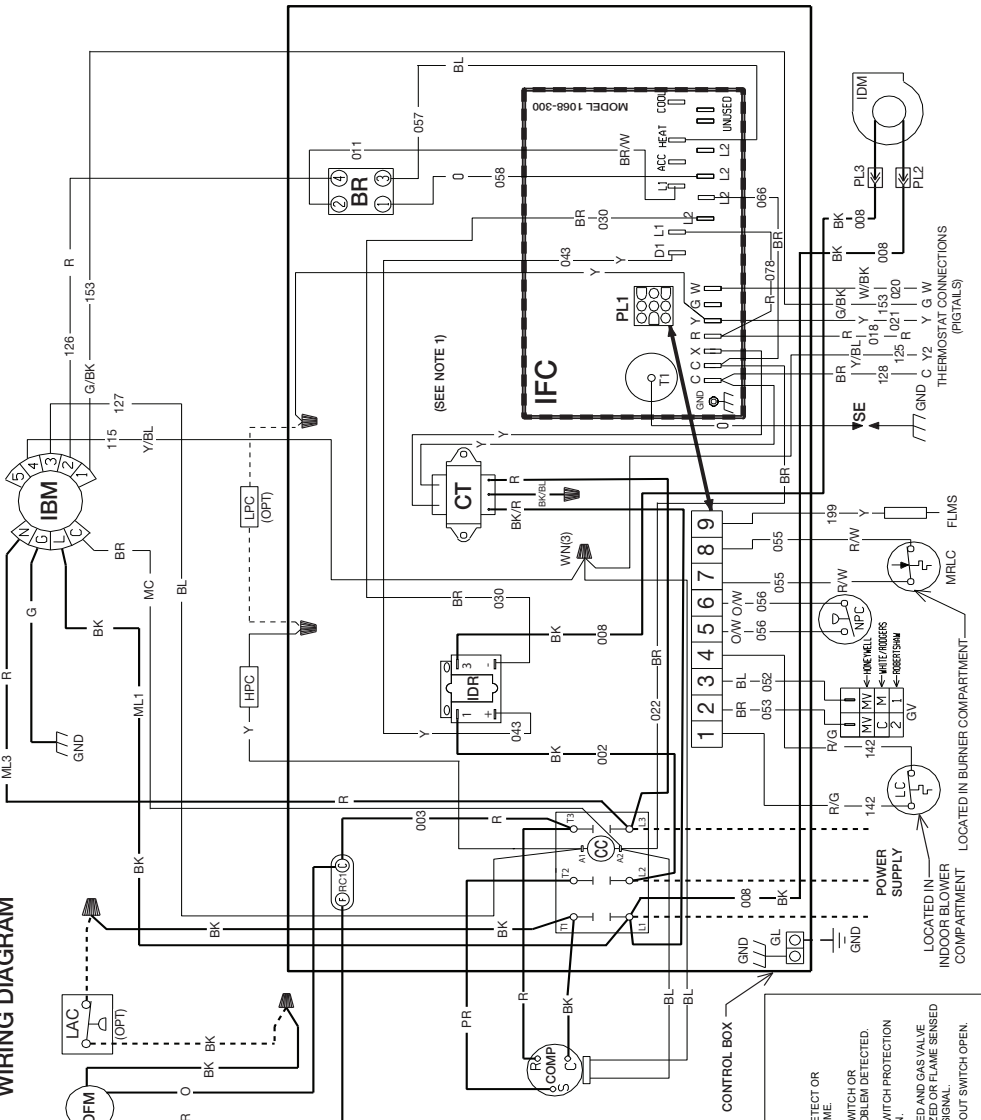
BK.....BLACK	G.....GREEN	PR.....PURPLE
BR.....BROWN	GY.....GRAY	R.....RED
BL.....BLUE	O.....ORANGE	W.....WHITE
	Y.....YELLOW	

ELECTRICAL WIRING DIAGRAM

NON COMMUNICATING SINGLE STAGE GAS
W/ INTEGRATED FURNACE CONTROL
W/ CONSTANT TORQUE BLOWER MOTOR
W/ 2-STG COMPRESSOR
460V, 3-PHASE

APPROVED:	CHECKED:	ORIGINAL RELEASE NO.:
MODELED MAB	DATE: 5/16/2022	105935
BY:		
PART NO.:	90-108805-06	REV: 00

WIRING DIAGRAM



COMPONENT CODES

BR	COMPRESSOR CONTACTOR
CC	COMPRESSOR
CT	CONTROL TRANSFORMER
FLMS	FLAME SENSOR
GL	GROUND LUG
GND	GROUND
GV	GAS VALVE
HPC	HIGH PRESSURE CONTROL
IBM	INDUCED DRAFT MOTOR
IDM	INDUCED DRAFT MOTOR
IFC	INTEGRATED FURNACE CONTROL
IDR	INDUCED DRAFT RELAY
LAC	LOW AMBIENT COOLING CONTROL
LC	LIMIT CONTROL
LPC	LOW PRESSURE CONTROL
MRLC	MAN. RESET LIMIT CONTROL
NPC	NEG. PRESSURE CONTROL
ORM	OUTDOOR FAN MOTOR
OPT	OPTIONAL
PL	PLUG
RC	RUN CAPACITOR
SE	SPARK ELECTRODE
WIRE NUT	WIRE NUT

NOTES

1. MAIN UNIT TRANSFORMER PRIMARY LEADS: 60 HZ. RED-COMMON BLACK/RED-460V BLACK/BLUE-575V
2. MOTORS & COMPRESSOR THERMALLY PROTECTED.
3. CONNECTORS SUITABLE FOR USE WITH COPPER CONDUCTORS ONLY.
4. CONNECT FIELD WIRING IN GROUNDED RAINTIGHT CONDUIT TO 60 HZ FUSED DISCONNECT.
5. A CLASS 2 TRANSFORMER 24-VOLT, 50/60 HERTZ SUPPLIED.
6. REPLACEMENT FUSES MUST BE SAME TYPE & SIZE AS ORIGINAL.
7. TAP 5-AVAILABLE FOR HIGH-STATIC CONDITIONS.

WIRING INFORMATION

- LINE VOLTAGE**
- FACTORY STANDARD
 - FACTORY OPTION
 - FIELD INSTALLED
- LOW VOLTAGE**
- FACTORY STANDARD
 - FIELD INSTALLED
- REPLACEMENT WIRE**
- MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C. MIN.)
- WARNING**
- CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.

DIAGNOSTICS

- 1 FLASH - FAILED TO DETECT OR SUSTAIN FLAME.
- 2 FLASH - PRESSURE SWITCH OR INDUCER PROBLEM DETECTED.
- 3 FLASH - HIGH LIMIT SWITCH PROTECTION DEVICE OPEN.
- 4 FLASH - FLAME SENSING AND GAS VALVE FLAME-SENSED AND NO "W" SIGNAL.
- 5 FLASH - FLAME ROLL OUT SWITCH OPEN.

XVI. TROUBLESHOOTING

FIGURE 39

COOLING TROUBLESHOOTING CHART

▲ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE SERVICING. CONTACTOR MAY BREAK ONLY ONE SIDE. FAILURE TO SHUT OFF POWER CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

SYMPTOM	POSSIBLE CAUSE	REMEDY
Unit will not run	<ul style="list-style-type: none"> Power off or loose electrical connection Thermostat out of calibration-set too high Failed contactor Blown fuses Transformer defective High pressure control open (if provided) Interconnecting low voltage wiring damaged 	<ul style="list-style-type: none"> Check for correct voltage at compressor contactor in control box Reset Check for 24 volts at contactor coil - replace if contacts are open Replace fuses Check wiring-replace transformer Reset-also see high head pressure remedy-The high pressure control opens at 610 PSIG Replace thermostat wiring
Condenser fan runs, compressor doesn't	<ul style="list-style-type: none"> Run or start capacitor failed (single phase only) Start relay defective (single phase only) Loose connection Compressor stuck, grounded or open motor winding open internal overload. Low voltage condition Low voltage condition 	<ul style="list-style-type: none"> Replace Replace Check for correct voltage at compressor - check & tighten all connections Wait at least 2 hours for overload to reset. If still open, replace the compressor. At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating. Add start kit components
Insufficient cooling	<ul style="list-style-type: none"> Improperly sized unit Improper airflow Incorrect refrigerant charge Air, non-condensibles or moisture in system Incorrect voltage 	<ul style="list-style-type: none"> Recalculate load Check - should be approximately 400 CFM per ton. Charge per procedure attached to unit service panel. Recover refrigerant, evacuate & recharge, add filter drier At compressor terminals, voltage must be within 10% of rating plate volts when unit is operating.
Compressor short cycles	<ul style="list-style-type: none"> Incorrect voltage Defective overload protector Refrigerant undercharge 	<ul style="list-style-type: none"> At compressor terminals, voltage must be \pm 10% of nameplate marking when unit is operating. Replace - check for correct voltage Add refrigerant
Registers sweat	<ul style="list-style-type: none"> Low evaporator airflow 	<ul style="list-style-type: none"> Increase speed of blower or reduce restriction - replace air filter
High head-low vapor pressures	<ul style="list-style-type: none"> Restriction in liquid line, expansion device or filter drier Flow check piston size too small Incorrect capillary tubes TXV does not open 	<ul style="list-style-type: none"> Remove or replace defective component Change to correct size piston Change coil assembly Replace TXV
High head-high or normal vapor pressure - Cooling mode	<ul style="list-style-type: none"> Dirty condenser coil Refrigerant overcharge Condenser fan not running Air or non-condensibles in system 	<ul style="list-style-type: none"> Clean coil Correct system charge Repair or replace Recover refrigerant, evacuate & recharge
Low head-high vapor pressures	<ul style="list-style-type: none"> Defective Compressor valves Incorrect capillary tubes 	<ul style="list-style-type: none"> Replace compressor Replace coil assembly
Low vapor - cool compressor - iced evaporator coil	<ul style="list-style-type: none"> Low evaporator airflow Operating below 65°F outdoors Moisture in system 	<ul style="list-style-type: none"> Increase speed of blower or reduce restriction - replace air filter Add Low Ambient Kit Recover refrigerant - evacuate & recharge - add filter drier
High vapor pressure	<ul style="list-style-type: none"> Excessive load Defective compressor 	<ul style="list-style-type: none"> Recheck load calculation Replace
Fluctuating head & vapor pressures	<ul style="list-style-type: none"> TXV hunting Air or non-condensibles in system 	<ul style="list-style-type: none"> Check TXV bulb clamp - check air distribution on coil - replace TXV Recover refrigerant, evacuate & recharge
Gurgle or pulsing noise at expansion device or liquid line	<ul style="list-style-type: none"> Air or non-condensibles in system 	<ul style="list-style-type: none"> Recover refrigerant, evacuate & recharge
Circulating air blower & inducer run continuously, compressor will not start	<ul style="list-style-type: none"> Manual reset overtemperature control tripped Wire loose in limit circuit 	<ul style="list-style-type: none"> Reset or replace Check wiring

FIGURE 40
Standard and low
NOx applications

HEATING TROUBLESHOOTING CHART

▲ WARNING

DISCONNECT ALL POWER TO UNIT BEFORE SERVICING. CONTACTOR MAY BREAK ONLY ONE SIDE. FAILURE TO SHUT OFF POWER CAN CAUSE ELECTRICAL SHOCK RESULTING IN PERSONAL INJURY OR DEATH.

SYMPTOM	POSSIBLE CAUSE	REMEDY
Induced Draft Blower Motor (IDM) Does Not Start	<ul style="list-style-type: none"> • No 208/230 Vac To IDM. • Faulty Low Voltage Transformer. • Wired Incorrectly. • No Line Voltage To Integrate Furnace Control (IFC). • Faulty IDM. 	<ul style="list-style-type: none"> • Check The Wiring From The Board To The Motor - Check For Power At The Motor - Replace The IFC. • Replace Transformer. • Check Wiring Per The Diagram In The I&O. • Check Unit Power Connect - Check Power At L1 And L2 - Replace The IFC. • If IDM Is Receiving Power And Will Not Start, Replace The IDM.
Ignitor Will Not Spark	<ul style="list-style-type: none"> • Bad Wire Or Corroded Ignitor. • Negative Pressure Switch Not Closing. • Open Rollout Limit. • Open Limit Control. • Ignitor Is Not Grounded. • Ignitor Wired Incorrectly. • Faulty IFC. 	<ul style="list-style-type: none"> • Check Wire For Damage - Check The Connection To The High Voltage Spark Tower - Replace Corroded Ignitor. • Check For Blocked Hose – Check For Exhaust Blockage - Check That The Negative Pressure On The IDM Is Enough To Close Pressure Switch - Replace Pressure Switch. • Check For Blockage In The Intake, Heat Exchanger, And Exhaust - Clear Blockage And Reset Limit. • Check Temperature Rise (See General Data In I&O) - Check For Proper Airflow – Check For Proper Gas Pressure - Replace The Limit. • Check That Ignitor Is Firmly Secured To Burner Assembly. • Check Wiring Per The Diagram In The I&O. • Replace IFC.
No ignition/burner will not light	<ul style="list-style-type: none"> • No Inlet Pressure. • Gas Valve Is Not Receiving 24 V. • Gas Valve Is Not Opening. • Orifice Is Blocked. 	<ul style="list-style-type: none"> • Check For Gas Pressure. • Check Wiring From Ifc To Gas Valve - Check For Power At The Gas Valve - Replace IFC. • Replace Valve. • Remove Orifice And Clean - Replace Orifice If It Is Damaged.
Flame Not Sustained	<ul style="list-style-type: none"> • Flame Sense Wired Incorrectly. • Flame Sense Damage Or Not In Correct Position. • Flame Sense Dirty Or Corroded. • Microamps Are Low Or Not Present. • Unit Is Not Properly Grounded. • Faulty IFC. 	<ul style="list-style-type: none"> • Check Wiring Per The Diagram In The I&O. • Check Flame Sense Position - Replace Flame Sense. • Clean Flame Sense With Steel Wool. • Check For 4 Microamps - Replace Flame Sensor. • Check Unit Grounding - Correct Bad Grounding. • Replace IFC.
Indoor Blower Motor (Ibm) Does Not Start After 30 Seconds	<ul style="list-style-type: none"> • No 208/230 Vac Across Ibm Motor Terminals On The IFC. • Dead Capacitor. • Faulty IBM. 	<ul style="list-style-type: none"> • Check The Wiring Per The Diagram In The I&O - Replace IFC. • Replace Capacitor. • Replace IBM.
Heating Does Not Stop After Call For Heat Has Been Satisfied	<ul style="list-style-type: none"> • Thermostat Wired Incorrectly/Faulty Thermostat. • Faulty Valve. 	<ul style="list-style-type: none"> • Check Thermostat Wiring Is Correct - Check That Thermostat Is Operating Correctly - Replace Thermostat. • Remove Gas Valve Lead And Check If Valve Closes - Replace Valve.
After 5 Second Post-Purge, IDM Stops, Or Ibm Does Not Stop Running After Off Delay (Specified In Furnace Section Of I&O)	<ul style="list-style-type: none"> • Open Limit Control. • Open Rollout Limit. 	<ul style="list-style-type: none"> • Check Temperature Rise (See General Data In I&O) - Check For Proper Airflow – Check For Proper Gas Pressure - Replace The Limit. • Check For Blockage In The Intake, Heat Exchanger, And Exhaust - Clear Blockage And Reset Limit.

