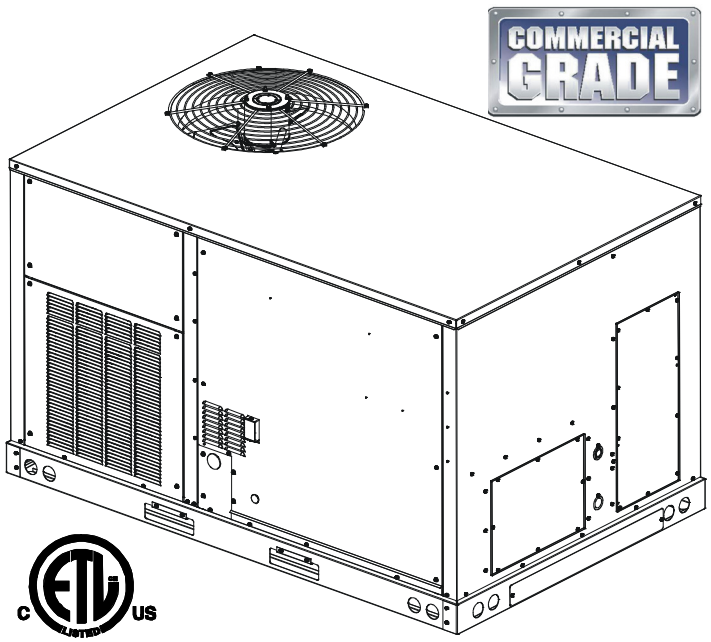
Packaged Gas / Electric Unit 3-6 Ton Direct Drive High Efficiency Light Commercial DHG Models Installation Instructions



Intertek

AHRI CERTIFIED® www.ahridirectory.org
Unitary Small AC
AHRI Standard 210/240
Certification applies only when the complete system is listed with AHRI.

AHRI CERTIFIED® www.ahridirectory.org
Unitary Large AC
AHRI Standard 340/360
Certification applies only when the complete system is listed with AHRI.

This forced air central unit design complies with requirements embodied in The American National Standard / National Standard of Canada **ANSI Z21.47•CSA-2.3 Gas-fired central furnaces.**

NOTE: This equipment is only approved for use with R-32 refrigerant.

WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE, MAINTENANCE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT.

THIS EQUIPMENT IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE EQUIPMENT.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SUPERVISION, SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER SUPERVISION, INSTALLATION, ADJUSTMENT, SERVICING, MAINTENANCE OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER SUPERVISION OR TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

WARNING

DO NOT BYPASS SAFETY DEVICES

19001 Kermier Rd., Waller, TX 77484
www.daikincomfort.com

IOD-1075
08/2024

INDEX

SAFETY INSTRUCTIONS

RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION

These installation instructions cover the **outdoor** installation of single package heating and cooling units. See the Light Commercial Accessories Brochure for information regarding accessories.

***NOTE: Please contact your distributor or visit our website for the Light Commercial Accessories Brochure and the applicable Specification Sheet referred to in this manual.**

To The Installer

Before installing this unit, please read this manual to familiarize yourself on the specific items which must be adhered to, including maximum external static pressure to unit, air temperature rise, minimum or maximum CFM and motor speed connections.

Keep this literature in a safe place for future reference.

WARNING

If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

- WHAT TO DO IF YOU SMELL GAS:

- **Do not try to light any appliance.**
- **Do not touch any electrical switch; do not use any phone in your building.**
- **Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. If you cannot reach your gas supplier, call the fire department.**

- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WARNING

Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater). Do not pierce or burn. Be aware that refrigerants may not contain an odor.

WARNING

To prevent the risk of property damage, personal injury, or death, do not store combustible materials or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

WARNING

Only auxiliary devices approved by the appliance manufacturer or declared suitable with the refrigerant shall be installed in connecting ductwork.

WARNING

Should overheating occur or the gas supply fail to shut off, turn off the manual gas shutoff valve external to the furnace before turning off the electrical supply.

CAUTION

Sheet metal parts, screws, clips and similar items inherently have sharp edges, and it is necessary that the installer and service personnel exercise caution.

WARNING

Do not connect to or use any device that is not design certified by the manufacturer for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.

WARNING

To avoid property damage, personal injury or death, do not use this unit if any part has been under water. Immediately call a qualified service technician to inspect the furnace and to replace any part of the control system and any gas control having been under water.

WARNING

This unit must not be used as a "construction heater" during the finishing phases of construction on a new structure. This type of use may result in premature failure of the unit due to extremely low return air temperature and exposure to corrosive or very dirty atmospheres.

WARNING

HIGH VOLTAGE!
Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

WARNING

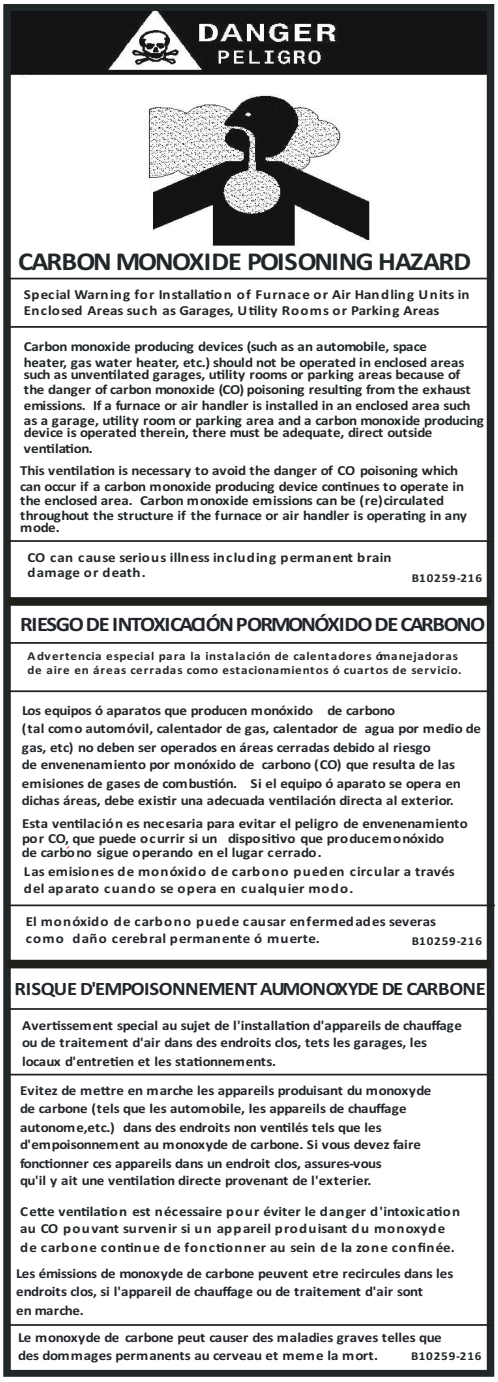
Auxiliary devices which may be a potential ignition source shall not be installed in the duct work. Examples of such potential ignition source are hot surfaces with a temperature exceeding 700°C and electric switching devices.

WARNING

Leak detection system installed. Unit must be powered except for service.

WARNING

This unit is equipped with electrically powered safety measures. To be effective, the unit must be electrically powered at all times after installation, other than when servicing.



REPLACEMENT PARTS

Ordering Parts

For shortages or damages, report to website www.goodmanmfg.com/logistics-feedback. Also, when ordering repair parts, give the complete unit model and serial numbers as stamped on the unit's nameplate.

Replacement parts for this appliance are available through your contractor or local distributor. Location of your local distributor can be found at www.daikincomfort.com or contact:

EQUIPMENT SUPPORT
Daikin Comfort Technologies Manufacturing, L.P.
19001 Kermier Road
Waller, Texas 77484
855-770-5678

GENERAL INFORMATION

WARNING

TO PREVENT PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DUE TO FIRE, EXPLOSIONS, SMOKE, SOOT, CONDENSATION, ELECTRIC SHOCK OR CARBON MONOXIDE, THIS UNIT MUST BE PROPERLY INSTALLED, REPAIRED, OPERATED, AND MAINTAINED.

This unit is approved for outdoor installation ONLY. Rated performance is achieved after 20 hours of operation. Rated performance is delivered at the specified airflow. See product specification sheet for light commercial models. Specification sheets can be found at www.daikincomfort.com for Daikin brand products. Within the website, please select the light commercial products menu and then select the submenu for the type of product to be installed, such as air conditioners or heat pumps, to access a list of product pages that each contain links to that model's specification sheet.

To assure that your unit operates safely and efficiently, it must be installed, operated, and maintained in accordance with these installation and operating instructions, all local building codes and ordinances, or in their absence, with the latest edition of the National Fuel Gas Code NFPA54/ ANSI Z223.1 and National Standard of Canada CAN/CSA B149 Installation Codes. In situations where these conflict, local codes take precedence.

Qualification of workers:

Personnel must be certified to service, work, and/or repair units with FLAMMABLE REFRIGERANTS. A certificate should document the competence and qualification achieved through training that included the substance of the following:

- Information about the explosion potential of FLAMMABLE REFRIGERANTS to show that flammables may be dangerous when handled without care.
- Information about POTENTIAL IGNITION SOURCE, especially those that are not obvious, such as lighters, light switches, vacuum cleaners, electric heaters.
- Information about the different safety concepts, including ventilated and unventilated areas.
- Information about refrigerant detectors, including function, operation, and service measures.
- Information about the concept of sealed components and sealed enclosures according to IEC 60079-15:2010.
- Information about the correct working procedures, including commissioning, maintenance, repair, decommissioning, and disposal procedures.

EPA Regulations

Important: The United States Environmental Protection Agency (EPA) has issued various regulations regarding the introduction and disposal of refrigerants in this unit. Failure to follow these regulations may harm the environment and can lead to the imposition of substantial fines. Because regulations may vary due to passage of new laws, we suggest a certified technician perform any work done on this unit. Should you have any questions please contact the local office of the EPA.

National Codes

This product is designed and manufactured to permit installation in accordance with National Codes. It is the installer's responsibility to install the product in accordance with National Codes and/or prevailing local codes and regulations.

The heating and cooling capacities of the unit should be greater than or equal to the design heating and cooling loads of the area to be conditioned.

The loads should be calculated by an approved method or in accordance with ASHRAE Guide or Manual J - Load Calculations published by the Air Conditioning Contractors of America.

Obtain from:
American National Standards Institute
25 West 43rd Street, 4th Floor
New York, NY 10036

System design and installation should also, where applicable, follow information presented in accepted industry guides such as the ASHRAE Handbooks.

The manufacturer assumes no responsibility for equipment installed in violation of any local codes. The mechanical installation of the packaged roof top units consists of making final connections between the unit and building services; supply and return duct connections; and drain connections (if required). The internal systems of the unit are completely factory-installed and tested prior to shipment.

Units are generally installed on a steel roof mounting curb assembly which has been shipped to the job site for installation on the roof structure prior to the arrival of the unit. The model number shown on the unit's identification plate identifies the various components of the unit such as refrigeration tonnage, heating output and voltage.

Carefully inspect the unit for damage including damage to the cabinetry. Any bolts or screws which may have loosened in transit must be re-tightened.
In the event of damage, the receiver should:

1. Make notation on delivery receipt of any visible damage to shipment or container.
2. Notify the carrier promptly and request an inspection.
3. In case of concealed damage, the carrier should be notified as soon as possible-preferably within 5 days.
4. File the claim with the following supporting documents:
   a. Original Bill of Lading, certified copy, or indemnity bond.
   b. Original paid freight bill or indemnity in lieu thereof.
   c. Original invoice or certified copy thereof, showing trade and other discounts or reductions.
   d. Copy of the inspection report issued by the carrier representative at the time damage is reported to the carrier. The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

NOTE: When inspecting the unit for transportation damage, remove all packaging materials. Recycle or dispose of the packaging material according to local codes.

Pre-Installation Checks

Carefully read all instructions for the installation prior to installing unit. Ensure each step or procedure is understood and any special considerations are taken into account before starting installation. Assemble all tools, hardware and supplies needed to complete the installation. Some items may need to be purchased locally.

Check that cabling/wiring will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

The following leak detection methods are deemed acceptable for all refrigerant systems.

Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need recalibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/ extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system.

NOTE: Verify that the voltage listed on the unit data plate matches the voltage supplied by the building utilities.

WARNING

To prevent possible equipment damage, property damage, personal injury or death, the following bullet points must be observed when installing the unit.

IMPORTANT NOTE: Remove wood shipping rails prior to installation of the unit.

NOTE: Units are designed for outdoor installation only at a max altitude of 8,000 feet above sea level

NOTE: Units may be installed in heavy snow climates. Ensure no snow obstructs or covers the unit, as it may affect performance. Regularly check for snow buildup.

All Installations:
Important Note: *Unit should be energized 24 hours prior to compressor start up to ensure crankcase heater has sufficiently warmed the compressors. Compressor damage may occur if this step is not followed.*

WARNING

The Appliance shall be installed, operated and stored in room with a floor area not less than the minimum room area.

$\geq 20.7\ m^2$
$222.3\ ft^2$

Minimum Room Area Figure

IMPORTANT NOTE: Refer to the altitude adjusted room area calculation referenced later in this manual.

NOTE: Appliance is shipped from factory for vertical duct application.

Proper installation of the unit ensures trouble-free operation. Improper installation can result in problems ranging from noisy operation to property or equipment damages, dangerous conditions that could result in injury or personal property damage and that are not covered by the warranty. Give this booklet to the user and explain it's provisions. The user should retain these instructions for future reference.

- For proper flame pattern within the heat exchanger and proper condensate drainage, the unit must be mounted level.
- The flue outlet must be at least 12 inches from any opening through which flue gases could enter a building, and at least three feet above any forced air inlet located within ten feet. The economizer/ manual fresh air intake/motorized fresh air intake and combustion air inlet mounted on the unit are not affected by this restriction.
- To avoid possible corrosion of the heat exchanger, do not locate the unit in an area where the outdoor air (i.e. combustion air for the unit) will be frequently contaminated by compounds containing chlorine or fluorine. Common sources of such compounds include swimming pool chemicals and chlorine bleaches, paint stripper, adhesives, paints, varnishes, sealers, waxes (which are not yet dried) and solvents used during construction and remodeling. Various commercial and industrial processes may also be sources of chlorine/fluorine compounds.
- To avoid possible illness or death of the building occupants, do NOT locate outside air intake device (economizer, manual fresh air intake, motorized fresh air intake) too close to an exhaust outlet, gas vent termination, or plumbing vent outlet. For specific distances required, consult local codes.
- Allow minimum clearances from the enclosure for fire protection, proper operation, and service access (see unit clearances). These clearances must be permanently maintained.
- The combustion air inlet and flue outlet on the unit must never be obstructed. If used, do not allow the economizer/manual fresh air damper/motorized fresh air damper to become blocked by snow or debris. In some climates or locations, it may be necessary to elevate the unit to avoid these problems.
- When the unit is heating, the temperature of the return air entering the unit must be a minimum of 55° F.

Ground Level Installations Only:

- When the unit is installed on the ground adjacent to the building, a level concrete (or equal) base is recommended. Prepare a base that is 3" larger than the package unit footprint and a minimum of 3" thick.
- The base should also be located where no runoff of water from higher ground can collect in the unit.

Roof top Installations Only:

- To avoid possible property damage or personal injury, the roof must have sufficient structural strength to carry the weight of the unit(s) and snow or water loads as required by local codes. Consult a structural engineer to determine the weight capabilities of the roof.
- The unit may be installed directly on wood floors or on Class A, Class B, or Class C roof covering material.
- To avoid possible personal injury, a safe, flat surface for service personnel should be provided.
- As indicated on the unit data plate, a minimum clearance of 36" to any combustible material is required on the furnace access side of the unit. All combustible materials must be kept out of this area.
- This 36" clearance must also be maintained to insure proper combustion air and flue gas flow. The combustion air intake and furnace flue discharge must not be blocked for any reason, including blockage by snow.
- Adequate clearances from the furnace flue discharge to any adjacent public walkways, adjacent buildings, building openings or openable windows must be maintained in accordance with the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54.
- Minimum horizontal clearance of 48" from the furnace flue discharge to any electric meters, gas meters, regulators and relief equipment is required.

Unit Precautions

- Do not stand or walk on the unit.
- Do not drill holes anywhere in panels or in the base frame of the unit except where indicated. Unit access panels provide structural support.
- Do not remove any access panels until unit has been installed on roof curb or field supplied structure.
- Do not roll unit across finished roof without prior approval of owner or architect.
- Do not skid or slide on any surface as this may damage unit base. The unit must be stored on a flat, level surface. Protect the condenser coil because it is easily damaged.

Roof Curb Installations Only:

Curb installations must comply with local codes and should be done in accordance with the established guidelines of the National Roofing Contractors Association.

Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior to setting the unit on the curb.

Full perimeter roof curbs are available from the factory and are shipped unassembled. Field assembly, squaring, leveling and mounting on the roof structure are the responsibility of the installing contractor. All required hardware necessary for the assembly of the sheet metal curb is included in the curb accessory.

WARNING

To prevent possible equipment damage, property damage, personal injury or death, the following bullet points must be observed when installing the unit.

- Sufficient structural support must be determined prior to locating and mounting the curb and package unit.
- Ductwork must be constructed using industry guidelines. The duct work must be placed into the roof curb before mounting the package unit. Our full perimeter curbs include duct connection frames to be assembled with the curb. Cantilevered type curbs are not available from the factory.
- Curb insulation, cant strips, flashing and general roofing material are furnished by the contractor.
- The curbs must be supported on parallel sides by roof members.
- The roof members must not penetrate supply and return duct opening areas as damage to the unit might occur.

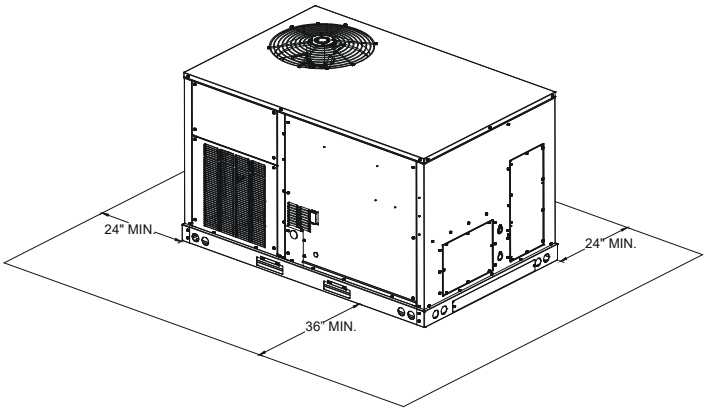
NOTE: The unit and curb accessories are designed to allow vertical duct installation <u>before</u> unit placement. Duct installation <u>after</u> unit placement is not recommended.

CAUTION

All curbs look similar. To avoid incorrect curb positioning, check job plans carefully and verify markings on curb assembly. Instructions may vary in curb styles and supersedes information shown.

See the manual shipped with the roof curb for assembly and installation instructions.

CLEARANCES



Unit Clearances

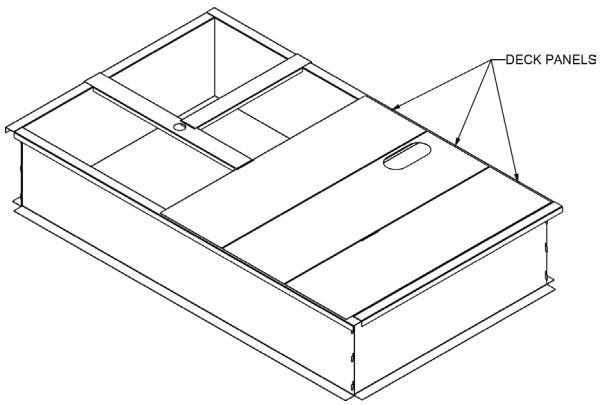
**In situations that have multiple units, a 36" minimum clearance is required between the condenser coils.*

Adequate clearance around the unit should be kept for safety, service, maintenance, and proper unit operation. A clearance of 48" is recommended on all sides of the unit to facilitate possible parts replacement, to allow service access and to insure proper ventilation and condenser airflow. The top of the unit should be completely unobstructed. If units are to be located under an overhang, there should be a minimum of 48" clearance and provisions made to deflect the warm discharge air out from the overhang. The unit should be installed remote from all building exhausts to inhibit ingestion of exhaust air into the unit fresh air intake.

NOTE: If the 36" minimum clearance is used on the control panel side of a DHG unit, a flue extension kit needs to be installed to prevent flue gas recirculation. See table below for the kit selection.

Model size	Kit part number
3 ton	HEFLUE036RH
4 & 5 ton	HEFLUE048060RH
6 ton	HEFLUE072RH

Flue Extension Kits



Roof Curb Installation

ROOF CURB POST-INSTALLATION CHECKS

After installation, check the top of the curb, duct connection frame and duct flanges to make sure gasket has been applied properly. Gasket should be firmly applied to the top of the curb perimeter, duct flanges and any exposed duct connection frame. If gasket is loose, re-apply using strong weather resistant adhesive.

Protrusion

Inspect curb to ensure that none of the utility services (electric) routed through the curb protrude above the curb.

NOTE: If fasteners are used to secure the duct work to the curb, these should be installed horizontally into the flanges of the duct opening of the curb.

⚠ CAUTION

If protrusions exist, do not attempt to set unit on curb.

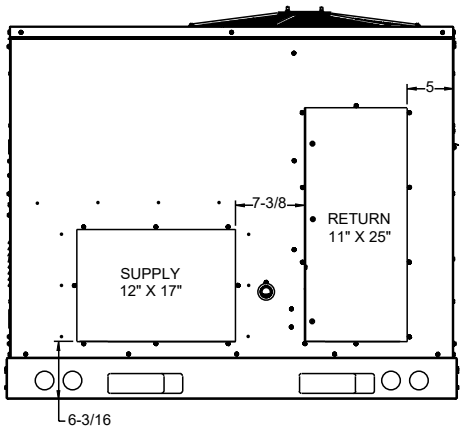
ROOF TOP DUCT CONNECTIONS

Install all duct connections on the unit before placing the unit on rooftop.

Horizontal Discharge

Refer to IOD-7082 included in the literature pack for installing horizontal duct covers.

Flexible duct connectors between the unit and ducts are recommended. Insulate and weatherproof all external ductwork and joints as required and in accordance with local codes.



Horizontal Discharge Duct Connections

RIGGING DETAILS

WARNING

To prevent property damage, the unit should remain in an upright position during all rigging and moving operations. To facilitate lifting and moving when a crane is used, place the unit in an adequate cable sling.

CAUTION

If units are lifted two at a time, the fork holes on the condenser end of the unit must not be used. Minimum fork length is 42" to prevent damage to the unit; however, 48" is recommended.

Provisions for forks have been included in the unit base frame. No other fork locations are approved.

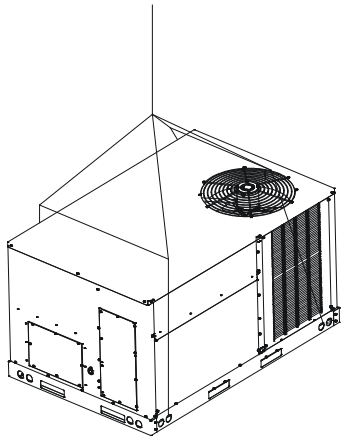
WARNING

To prevent possible equipment damage, property damage, personal injury or death, the following bullet points must be observed when installing the unit.

- Unit must be lifted by the four lifting holes located at the base frame corners.
- Lifting cables should be attached to the unit with shackles.
- The distance between the crane hook and the top of the unit must not be less than 60".
- Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These struts are intended to protect unit base frame from fork lift damage. Removal is accomplished by extracting the sheet metal retainers and pulling the struts through the base of the unit. Refer to rigging label on the unit.

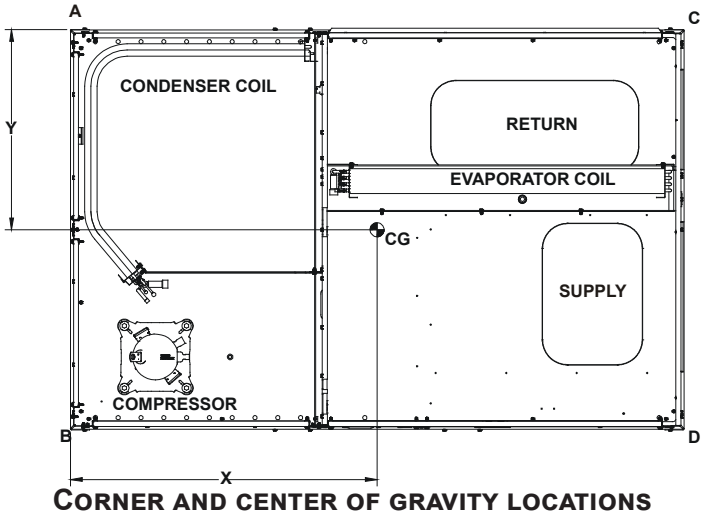
Important: If using bottom discharge with roof curb, ductwork should be attached to the curb prior to installing the unit. Ductwork dimensions are shown in Roof Curb Installation Instructions.

Refer to the Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual.



To assist in determining rigging requirements, unit weights and center of gravity are shown as follows:

WEIGHTS AND CENTER OF GRAVITY



Corner and center of gravity locations

Note: Unit should be lifted at a point above center of gravity.

Model	Shipping Weight	Operating Weight	Corner Weights (lb)				X (in)	Y (in)
			A	B	C	D		
DHG036	630	572	104	141	186	141	36.5	27.7
DHG048	705	647	118	231	180	118	36.3	27.9
DHG060	713	655	148	189	135	183	35.8	27.5
DHG072	763	705	122	246	180	157	35.3	27.7

The numbers may slightly vary depending on installed options.

DHG Weights Table

CAUTION

To prevent severe damage to the bottom of the unit, do not fork lift unit after wood struts have been removed.

Bring condenser end of unit into alignment with the curb first. Lower unit carefully onto roof mounting curb. When a rectangular cantilever curb is used, care should be taken to center the unit. Check for proper alignment and orientation of supply and return openings with duct.

Rigging Removal

CAUTION

To prevent damage to the unit, do not allow crane hooks and spreader bars to rest on the roof of the unit.

Remove spreader bars, lifting cables and other rigging equipment.

ELECTRICAL WIRING

WARNING

HIGH VOLTAGE!

Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

WARNING

HIGH VOLTAGE!

To avoid personal injury or death due to electrical shock, do not tamper with factory wiring. The internal power and control wiring of these units are factory-installed and have been thoroughly tested prior to shipment. Contact your local representative if assistance is required.

WARNING

HIGH VOLTAGE!

Prior to servicing the unit or removing the compressor terminal plug or terminal cover, disconnect all electrical power from the unit. Multiple power sources may be present.

WARNING

Do not operate the compressor(s) without the terminal plug fully engaged or the terminal cover properly installed. Get away if unusual sounds are heard from within the compressor disconnect electrical power from the compressor unit.

WARNING

A tripped circuit breaker or blown fuse may indicate that an electrical problem exists.
Do not reset a circuit breaker or replace fuses without first performing thorough electrical troubleshooting and testing procedures.

WARNING

Hermetic Compressor electrical terminal venting can be dangerous. In certain circumstances, the terminal may be expelled, venting the refrigerant vapor and compressor oil contained within the compressor housing and system. Be alert for sounds of arcing (sizzling, sputtering, or popping) inside the compressor. Immediately get away if you hear these sounds and disconnect electrical power from the compressor/unit.

Never operate the compressor without the terminal cover secured and properly in place or without the electrical plug fully seated and engaged to the terminal posts.

If a terminal is damaged, electrically overloaded, or short circuits to ground, there is a remote possibility that the terminal can be suddenly expelled from the terminal housing thereby venting the refrigerant and compressor oil mixture to atmosphere.

This discharge can be ignited from electrical arcing, or other open sources of ignition, and can cause potentially severe or fatal injury. This event is known as “Terminal Venting.”

To reduce the possibility of external ignition, all open flames or other heat sources must be extinguished, and all electrical power must be turned off prior to opening the terminal cover or removing the electrical plug and servicing the system.

Proper sealed system evacuation is required during servicing to maintain adequate internal system cleanliness while eliminating contaminates.

Be alert for sounds of arcing (sizzling, sputtering, or popping) inside the compressor. IMMEDIATELY GET AWAY from the unit if you hear these sounds and disconnect electrical power.

NOTE: Never operate the compressor in a vacuum or in reverse operation.

CAUTION

To prevent damage to the wiring, protect wiring from sharp edges. follow national electrical code and all local codes and ordinances. Do not route wires through removable access panels.

CAUTION

Conduit and fittings must be weather-tight to prevent water entry into the building.

For unit protection, use a fuse or HACR circuit breaker that is in excess of the circuit ampacity, but less than or equal to the maximum overcurrent protection device. DO NOT EXCEED THE MAXIMUM OVERCURRENT DEVICE SIZE SHOWN ON UNIT DATA PLATE.

All line voltage connections must be made through weatherproof fittings. All exterior power supply and ground wiring must be in approved weatherproof conduit.

The main power supply wiring to the unit and low voltage wiring to accessory controls must be done in accordance with these instructions, the latest edition of the National Electrical Code (ANSI/NFPA 70), and all local codes and ordinances.

The unit is factory wired for the voltage shown on the unit's data plate.

NOTE: If supply voltage is 208V, lead on primary of transformer(s) must be moved from the 230V to the 208V tap. Refer to wiring diagram on unit for details.

Main power wiring should be sized for the minimum circuit ampacity shown on the unit's dataplate. Size wires in accordance with the ampacity tables in Article 310 of the National Electrical Code. If long wires are required, it may be necessary to increase the wire size to prevent excessive voltage drop. Wires should be sized for a maximum of 3% voltage drop.

CAUTION

To avoid risk of property damage, personal injury or fire, use only copper conductors.

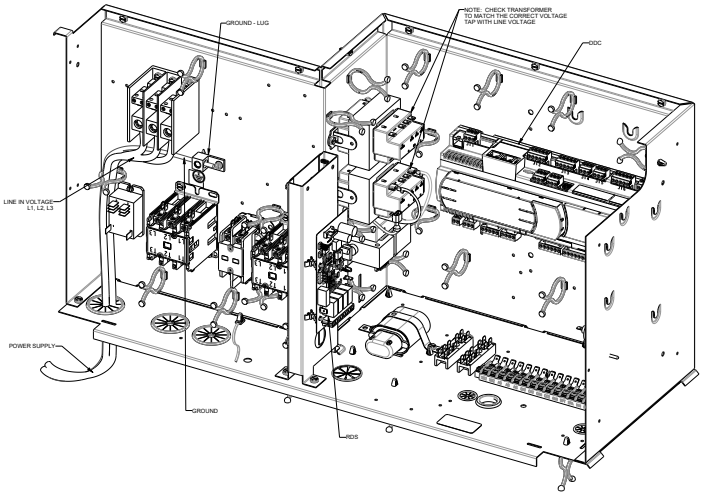
CAUTION

To prevent improper and dangerous operation due to wiring errors, label all wires prior to disconnection when servicing controls. Verify proper operation after servicing.

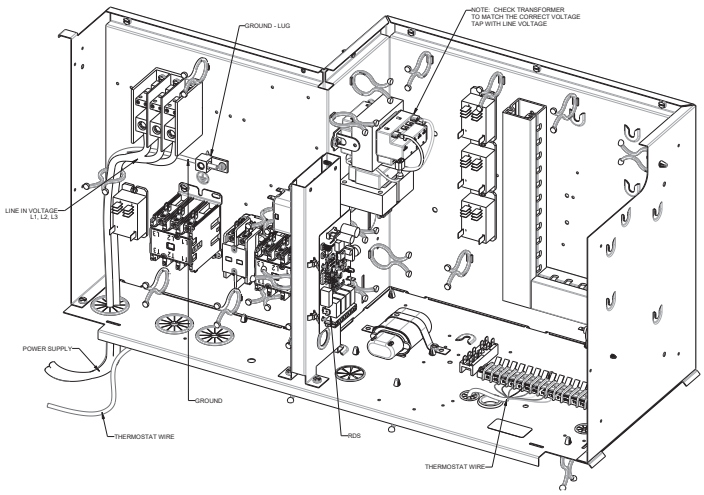
NOTE: A weather-tight disconnect switch, properly sized for the unit total load, must be field or factory installed. An external field supplied disconnect may be mounted on the exterior panel. Switch shall be provided to ensure all-pole disconnection from the supply mains.

Ensure the data plate is not covered by the field-supplied disconnect switch.

- Some disconnect switches are not fused. Protect the power leads at the point of distribution in accordance with the unit data plate.
- The unit must be electrically grounded in accordance with local codes or, in the absence of local codes, with the latest edition of the National Electrical Code ANSI/NFPA 70, and/or the Canadian Electrical Code, CSA C22.1, Part 1. A ground lug is provided for this purpose. Do not use the ground lug for connecting a neutral conductor.
- Connect Power wiring to electrical power block, ground wire ground lug, and thermostat wiring to terminal block within the main control box.



Gas Control box



Gas DDC Control Box

Note: Depending on the options installed, the location of the components may vary in some models.

WARNING

Failure of unit due to operation on improper line voltage or with excessive phase unbalance constitutes product abuse and is not covered by the warranty and may couase severe damage to the unit electrical components.

Areas Without Convenience Outlet

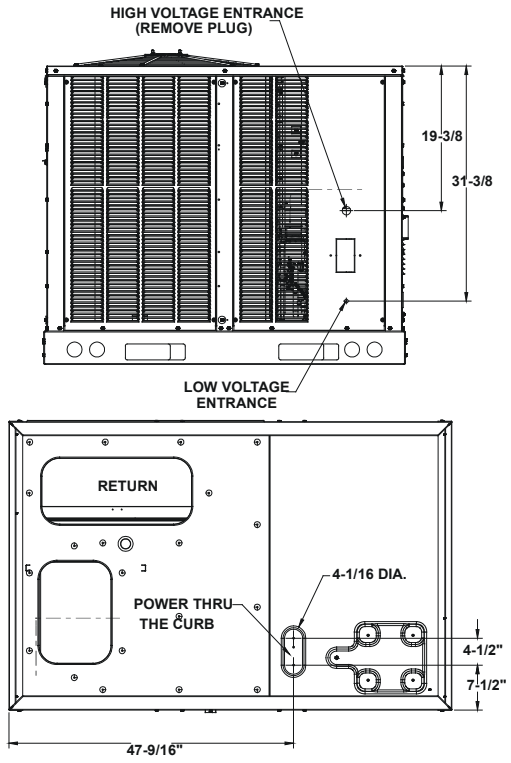
It is recommended that an independent 115V power source be brought to the vicinity of the roof top unit for portable lights and tools used by the service mechanic.

NOTE: Refer to local codes for requirements. These outlets can also be factory installed.

Units installed on Roof Tops

Main power and low voltage wiring may enter the unit through the condenser end of unit or through the roof curb. Install conduit connectors at the designated locations. External connectors must be weatherproof. All holes in the unit base must be sealed (including those around conduit nuts) to prevent water leakage into building. All required conduit and fittings are to be field supplied.

Supply voltage to roof top unit must not vary by more than 10% of the value indicated on the unit data plate. Phase voltage unbalance must not exceed 2%. Contact your local power company for correction of improper voltage or phase unbalance.



Electrical Entrance and Thru Curb (Bottom View of Unit)

Low Voltage Control Wiring

1. A 24V thermostat must be installed for unit operation unless the DDC controls option has been installed. (Refer to the DDC Quickstart Guide)
2. Locate thermostat or remote sensor in the conditioned space where it will sense average temperature. Do not locate the device where it may be directly exposed to supply air, sunlight or other sources of heat. Follow installation instructions packaged with the installed device.
3. Use #18 AWG wire for 24V control wiring runs not exceeding 75 feet. Use #16 AWG wire for 24V control wiring runs not exceeding 125 feet. Use #14 AWG wire for 24V control wiring runs not exceeding 200 feet. Low voltage wiring may be National Electrical Code (NEC) Class 2 where permitted by local codes.
4. Route the low voltage control wires from sub-base terminals to the unit. Control wiring should enter through the condenser panel opening or through curb indicated in “Electrical Entrance” figure. Connect thermostat and any accessory wiring to low voltage terminal block TB1 in the main control box.
5. For two-stage heating operation, remove the factory installed jumper connecting W1 and W2 terminals on terminal block.

NOTE: Field-supplied conduit may need to be installed depending on unit/curb configuration. Use #18 AWG solid conductor wire whenever connecting thermostat wires to terminals on sub-base. DO NOT use larger than #18 AWG wire. A transition to #18 AWG wire may be required before entering thermostat sub-base.

NOTE: Refer to unit wiring diagrams for thermostat or remote sensor connections.

GAS SUPPLY PIPING

WARNING

To prevent personal injury or death due to improper installation, adjustment, alteration, service or maintenance, refer to this manual. For additional assistance or information, consult a qualified installer, servicer agency or the gas supplier.

IMPORTANT NOTE: This unit is factory set to operate on natural gas at the altitudes shown on the rating plate.

WARNING

To avoid property damage, personal injury or death when either using propane gas alone or at higher altitudes, obtain and install the proper conversion kit(s). Failure to do so can result in unsatisfactory operation and/or equipment damage. High altitude kits are for U.S. installations only and are not approved for use in Canada.

The rating plate is stamped with the model number, type of gas and gas input rating. Make sure the unit is equipped to operate on the type of gas available. Conversion to propane (LP) gas is permitted with the use of the factory authorized conversion kit (see the unit Technical Manual for the appropriate kit). For High Altitude derates, refer to the latest edition of the National Fuel Gas Code NFPA 54/ANSI Z223.1 or National Standard of Canada, Natural Gas and Propane Installation Code, CSA B149.1.

INLET GAS PRESSURE	
NATURAL	Min. 5.0" W.C., Max. 10.0" W.C.
PROPANE	Min. 11.0" W.C., Max. 13.0" W.C.

Inlet gas pressure must not exceed maximum value shown in table above.

The minimum supply pressure should not vary from that shown in the table above because this could prevent the unit from having dependable ignition. In addition, gas input to the burners must not exceed the rated input shown on the rating plate. Overfiring of the unit could result in premature heat exchanger failure.

Piping

IMPORTANT NOTE: To avoid possible unsatisfactory operation or equipment damage due to under firing of equipment, do not undersize the natural/ propane gas piping from the meter/tank to the unit. When sizing a trunk line, include all appliances on that line that could be operated simultaneously.

The gas line installation must comply with local codes, or in the absence of local codes, with the latest edition of the National Fuel Gas Code NFPA 54 / ANSI Z223.1.

Natural Gas Connection

Natural Gas Capacity of Pipe in Cubic Feet of Gas Per Hour (CFH)					
Length of Pipe in Feet	Nominal Black Pipe Size (inches)				
	1/2	3/4	1	1 1/4	1 1/2
10	132	278	520	1050	1600
20	92	190	350	730	1100
30	73	152	285	590	980
40	63	130	245	500	760
50	56	115	215	440	670
60	50	105	195	400	610
70	46	96	180	370	560
80	43	90	170	350	530
90	40	84	160	320	490
100	38	79	150	305	460

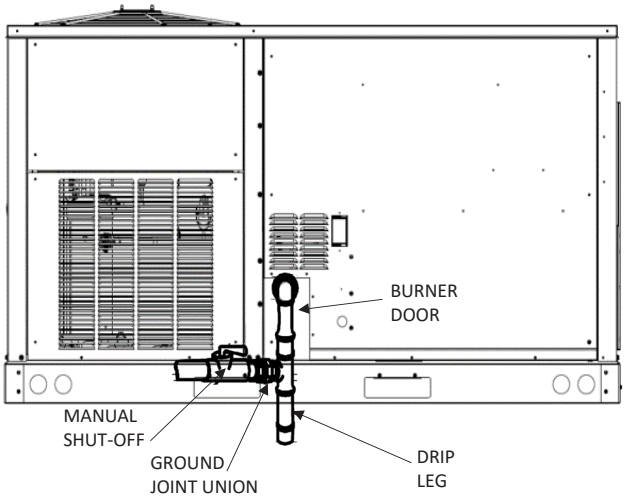
Pressure= .50 PSIG or less and Pressure Drop of 0.3" W.C.
(Based on 0.60 Specific Gravity Gas)

$$CFH = \frac{\text{BTUH Furnace Input}}{\text{Heating Value of Gas (BTU/Cubic Foot}}$$

Refer to the Proper Piping Practice drawing for the general layout at the unit. The following rules apply:

1. Use black iron pipe and fittings for the supply piping. The use of a flex connector and/or copper piping is permitted as long as it is in agreement with local codes.
2. Use pipe joint compound on male threads only. Pipe joint compound must be resistant to the action of the fuel used.
3. Use ground joint unions.
4. Install a drip leg to trap dirt and moisture before it can enter the gas valve. The drip leg must be a minimum of three inches long.
5. Use two pipe wrenches when making connection to the gas valve to keep it from turning.
6. Install a manual shut-off valve in a convenient location (within six feet of unit) between the meter and the unit.
7. Tighten all joints securely.
8. The unit must be connected to the building piping by one of the following methods:
   - Rigid metallic pipe and fittings
   - Semirigid metallic tubing and metallic fittings (Aluminum alloy tubing must not be used in exterior locations).

- Listed gas appliance connectors used in accordance with the terms of their listing that are completely in the same room as the equipment. Always use a new listed connector.
- In the prior two methods above the connector or tubing must be protected from physical and thermal damage. Aluminum alloy tubing and connectors must be coated to protect against external corrosion when in contact with masonry, plaster or insulation or are subject to repeated wettings by liquids (water - not rain water, detergents or sewage).



Proper piping practice

NOTE: The unit gas supply entrance is factory sealed with plugs. Keep plugs in place until gas supply is ready to be installed. Once ready, replace the plugs with the supplied grommets and install gas supply line.

Gas Piping Checks

CAUTION

To prevent property damage or personal injury due to fire, the following instructions must be preformed regarding gas connections and pressure testing:

- **The unit and its gas connections must be leak tested before placing in operation. Because of the danger of explosion or fire, never use a match or open flame to test for leaks. Never exceed specified pressures for testing. Higher pressure may damage gas valve and cause overfiring which may result in premature heat exchange failure.**
- **This unit and its shut-off valve must be disconnected from the gas supply during any pressure testing of that system at test pressures in excess of ½ PSIG (3.48 kPa).**
- **This unit must be isolated from the gas supply system by closing its manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ PSIG (3.48 kPa).**

WARNING

To avoid property damage or personal injury, be sure there is <u>no open flame</u> in the vicinity during air bleeding.

There will be air in the gas supply line after testing for leaks on a new installation. Therefore, the air must be bled from the line by loosening the ground joint union until pure gas is expelled. Tighten union and wait for five minutes until all gas has been dissipated in the air. Be certain there is no open flame in the vicinity during air bleeding procedure. The unit is placed in operation by closing the main electrical disconnect switch for the unit.

PROPANE GAS INSTALLATIONS (NON-ULN ONLY)

WARNING

To avoid property damage, personal injury or death due to fire or explosion caused by a propane gas leak, install a gas detecting warning device. Since rust can reduce the level of odorant in propane gas, a gas detecting warning device is the only reliable way to detect a propane gas leak. Contact a local propane gas supplier about installing a gas detecting warning device.

IMPORTANT NOTE: Propane gas conversion kits must be installed to convert units to propane gas. NOx screens must be removed before converting to LP. Remove burner assembly and pull NOx screens from each burner tube. When all the screens are out, reassemble the burner assembly without the screens.

All propane gas equipment must conform to the safety standards of NFPA 58 - Liquefied Petroleum Gas Code.

For satisfactory operation, propane gas pressure must be within 9.7 - 10.3 inches w.c. for high fire at the manifold with all gas appliances in operation. Maintaining proper gas pressure depends on three main factors:

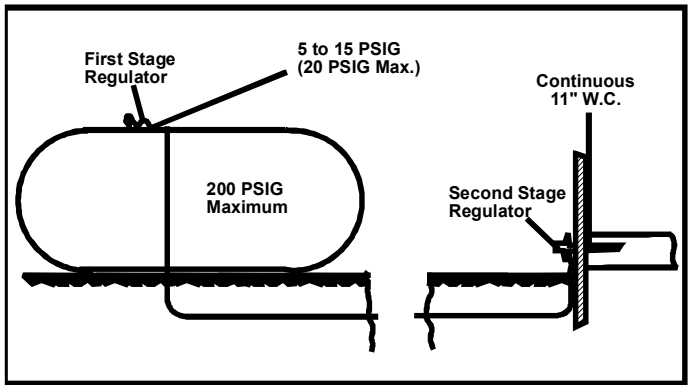
1. Vaporization rate, which depends on (a) temperature of the liquid, and (b) wetted surface area of the container or containers.
2. Proper pressure regulation.
3. Pressure drop in lines between regulators, and between second stage regulator and the appliance. Pipe size required will depend on length of pipe run and total load of all appliances.

Tanks and Piping

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

Since propane gas will quickly dissolve white lead or most standard commercial compounds, special pipe dope must be used. Shellac base compounds resistant to the actions of liquefied petroleum gases such as Gasolac®, Stalactic®, Clyde's® or John Crane® are satisfactory.

See the following figure for typical propane gas piping.



Typical propane gas piping

Roof Top Location and Installation

The gas supply piping location and installation for roof top units must be in accordance with local codes or, in the absence of locals codes, with ordinances of the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54.

A manual gas shut off valve must be field installed external to the roof top unit. In addition, a drip leg must be installed near the inlet connection. A ground joint union connection is required between the external shut off valve and the unit connection to the gas valve to permit removal of the burner assembly for servicing.

1. Route gas piping to unit so that it does not interfere with the removal of access panels. Support and align piping to prevent strains or misalignment of the manifold assembly.
2. All units are furnished with standard female 1/2" NPT pipe connections. The size of the gas supply piping to the unit must be based on length of run, number of units on the system, gas characteristics, BTU requirement and available supply pressure. All piping must be done in accordance with local codes or, in the absence of local codes, with the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54.

NOTE: The gas connection size at the unit does NOT establish the size of the supply line.

3. These units are designed for either natural or propane (LP) gas and are specifically constructed at the factory for only one of these fuels. The fuels are NOT interchangeable. However, the furnace can be converted in the field from natural gas to LP gas with the appropriate factory kit (see unit Technical Manual for the appropriate kit). Only a qualified contractor, experienced with natural and propane gas systems, should attempt conversion. Kit instructions must be followed closely to assure safe and reliable unit operation.
4. With all units on a common line operating under full fire, natural gas main supply pressure should be adjusted to approximately 7.0" w.c., measured at the unit gas valve. If the gas pressure at the unit is greater than 10.0" w.c., the contractor must furnish and install an external type positive shut off service pressure regulator. The unit will not function satisfactorily if supply gas pressure is less than 5.0" w.c. or greater than 10.0" w.c..

NOTE: A minimum horizontal distance of 48" between the regulator and the furnace flue discharge is required.

5. With all units on a common line operating under full LP gas main supply pressure should be at least 11.0" w.c. and must be no greater than 13.0" w.c., measured at the unit gas valve. Unit will not function satisfactorily if supply gas pressure is less than 11.0" w.c. or greater than 13.0" w.c..

6. All pipe connections should be sealed with a pipe thread compound, which is resistant to the fuel used with the furnace. A soapy water solution should be used to check all joints for leaks. A tap is located on the entering side of the gas valve for test gauge connection to measure supply (main) gas pressure. Another tap is provided on the manifold side of the gas valve for checking manifold pressure.

⚠ WARNING

THIS UNIT AND ITS INDIVIDUAL SHUTOFF VALVE MUST BE DISCONNECTED FROM THE GAS SUPPLY SYSTEM DURING ANY PRESSURE TESTING OF THAT SYSTEM AT TEST PRESSURES IN EXCESS OF ½ PSIG (13.8" W.C.).

⚠ CAUTION

THIS UNIT MUST BE ISOLATED FROM THE GAS SUPPLY PIPING SYSTEM BY CLOSING ITS INDIVIDUAL MANUAL SHUTOFF VALVE DURING ANY PRESSURE TESTING EQUAL TO OR LESS THAN ½ PSIG.

7. There must be no obstruction to prevent the flow of combustion and ventilating air. A vent stack is not required and must never be used. The power venter will supply an adequate amount of combustion air as long as the air passageways are kept free of any obstructions and the recommended external unit clearances are maintained.

CIRCULATING AIR AND FILTERS

Ductwork

The supply duct from the unit through a wall may be installed without clearance. However, minimum unit clearances must be maintained (see "Clearances" section). The supply duct should be provided with an access panel large enough to inspect the air chamber downstream of the heat exchanger. A cover should be tightly attached to prevent air leaks. False ceilings or drop ceilings may be used as a return air plenum.

NOTE: ADEQUATE RETURN GRILLS HAVE TO BE SUPPLIED FOR EACH ROOM FOR PROPER RETURN FOR THAT SPACE.

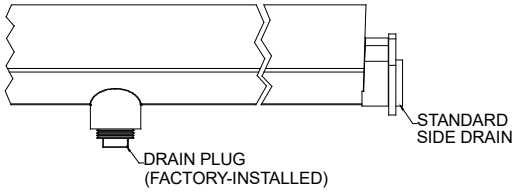
Ductwork dimensions are shown in the roof curb installation manual.

If desired, supply and return duct connections to the unit may be made with flexible connections to reduce possible unit operating sound transmission.

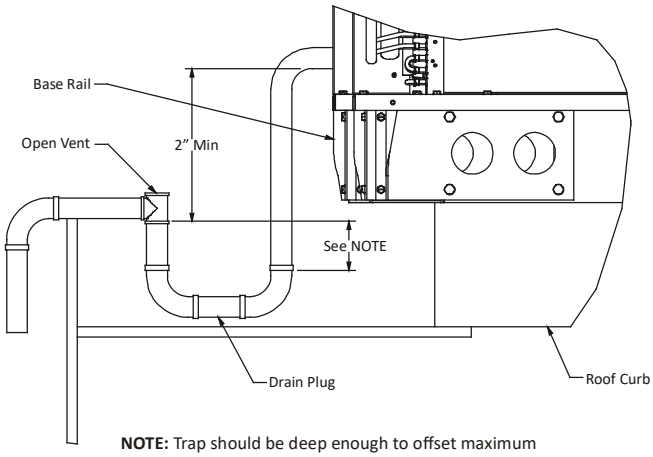
CONDENSATE DRAIN CONNECTION

Condensate Drain Connection

A 3/4" female NPT drain connection is supplied on the end of the unit and bottom of the drain pan for condensate piping. An external trap must be installed for proper condensate drainage. Hand tighten drain fitting to the drain connection.



Drain Pan (Side View)



NOTE: Trap should be deep enough to offset maximum unit static difference. A minimum 4" trap is recommended.

DRAIN CONNECTION

Install condensate drain trap as shown. Use 3/4" drain line and fittings or larger. Do not operate without trap.

NOTE: ALL THREADED CONNECTIONS SHOULD BE SEALED WITH THREAD SEALER TO PREVENT LEAKS.

Horizontal Drain

Drainage of condensate directly onto the roof may be acceptable; refer to local code. It is recommended that a small drip pad of either stone, mortar, wood or metal be provided to prevent any possible damage to the roof.

Vertical Drain

To use the bottom drain connection, remove the drain plug from the bottom connection and install it in the horizontal connection.

Cleaning

Due to the fact that drain pans in any air conditioning unit will have some moisture in them, algae and fungus will grow due to airborne bacteria and spores. Periodic cleaning is necessary to prevent this build-up from plugging the drain.

STARTUP, ADJUSTMENTS, AND CHECKS

WARNING

HIGH VOLTAGE!

To avoid personal injury or death due to electrical shock, bond the frame of this unit to the building electrical ground by use of the grounding terminal provided or other acceptable means. Disconnect all power before servicing or installing this unit.

CAUTION

To prevent property damage or personal injury, do not start the unit until all necessary pre-checks and tests have been performed.

NOTE: Blower motor rotation can not be used to determine proper phasing of the unit.

Place manifold gage sets on the compressor suction and discharge lines and observe pressures. Suction pressure should drop and discharge pressure should increase. If this is not observed, disconnect electrical power to the unit, lock/tag-out, and swap line voltages L1 and L2.

Pre-Startup Instructions

Prior to the beginning of Startup, Adjustments, and Checks procedures, the following steps should be completed in the building.

WARNING

MOVING MACHINERY HAZARD!

To prevent possible personal injury or death, disconnect power to the unit and padlock in the "OFF" position before servicing fans.

This unit is equipped with an electronic ignition device to automatically light the main burners. It also has a power vent blower to exhaust combustion products.

On new installations, or if a major component has been replaced, the operation of the unit must be checked.

Check unit operation as outlined in the following instructions. If any sparking, odors, or unusual sounds are encountered, shut off electrical power and recheck for wiring errors, or obstructions in or near the blower motors. **If horizontal duct is installed, duct covers must be removed before operating unit.**

The Startup, Adjustments, and Checks procedure provides a step-by-step sequence which, if followed, will assure the proper startup of the equipment in the minimum amount of time. Air balancing of duct system is not considered part of this procedure. However, it is an important phase of any air conditioning system startup and should be performed upon completion of the Startup, Adjustments, and Checks procedure. The Startup, Adjustments, and Checks procedure at outside ambients below 55°F should be limited to a readiness check of the refrigeration system with the required final check and calibration left to be completed when the outside ambient rises above 55°F.

Temporary Heating Or Cooling

If the unit is to be used for temporary heating or cooling, a "Startup, Adjustments, and Checks" must first be performed in accordance with this manual. Damage or repairs due to failure to comply with these requirements are not covered under the warranty. **After** the machines are used for temporary heating or cooling, inspect the coils, fans, and motors for unacceptable levels of construction dust and dirt and install new filters.

Contractor Responsibility

The installing contractor must be certain that:

- All supply and return air ductwork is in place, properly sealed, and corresponds with installation instructions.
- All thermostats and sensors are mounted and wired in accordance with installation instructions.
- All electric power, all gas, and the condensate drain installation have been made to each unit on the job. These main supply lines must be functional and capable of operating all units simultaneously.
- Requirements are met for venting and combustion air.
- Air filters are in place.
- Input rate and temperature rise are adjusted per rating plate.

Roof Curb Installation Check

Inspect the roof curb for correct installation. The unit and curb assembly should be level. Inspect the flashing of the roof mounting curb to the roof, especially at the corners, for good workmanship. Also check for leaks around gaskets. Note any deficiencies in a separate report and forward to the contractor.

Obstructions, Fan Clearance and Wiring

Remove any extraneous construction and shipping materials that may be found during this procedure. Rotate all fans manually to check for proper clearances and that they rotate freely. Check for bolts and screws that may have jarred loose during shipment to the job site. Re-tighten if necessary. Re-tighten all electrical connections.

Field Duct Connections

Verify that all duct connections are tight and that there is no air bypass between supply and return.

Filter Section Check
Remove filter section access panels and check that filters are properly installed. Note airflow arrows on filter frames.

Pre-startup Precautions
It is important to your safety that the unit has been properly grounded during installation. Check ground lug connection in main control box for tightness prior to closing circuit breaker or disconnect switch. Verify that supply voltage on line side of disconnect agrees with voltage on unit identification plate and is within the utilization voltage range as indicated in Appendix B Electrical Data.

System Voltage - That nominal voltage value assigned to a circuit or system for the purpose of designating its voltage class.

Nameplate Voltage - That voltage assigned to a piece of equipment for the purpose of designating its voltage class and for the purpose of defining the minimum and maximum voltage at which the equipment will operate.

Utilization Voltage - The voltage of the line terminals of the equipment at which the equipment must give fully satisfactory performance. Once it is established that supply voltage will be maintained within the utilization range under all system conditions, check and calculate if an unbalanced condition exists between phases. Calculate percent voltage unbalance as follows.

Three Phase Models Only

$$\text{3) PERCENT VOLTAGE UNBALANCE} = 100 \times \frac{\text{2) MAXIMUM VOLTAGE DEVIATIONS FROM AVERAGE VOLTAGE}}{\text{1) AVERAGE VOLTAGE}}$$

HOW TO USE THE FORMULA:
EXAMPLE: Line to neutral voltage of 220, 216, and 213

1) Average Voltage = 220 + 216 + 213 = 649 / 3 = 216

2) Maximum Voltage Deviations from Average Voltage = 220 - 216 = 4

3) Percent Voltage Unbalance = $100 \times \frac{4}{216} = \frac{400}{216} = 1.8\%$

Percent voltage unbalance MUST NOT exceed 2%.

AIR FLOW ADJUSTMENTS
When the final adjustments are complete, the current draw of the motor should be checked and compared to the full load current rating of the motor. The amperage must not exceed the service factor stamped on the motor nameplate. The total airflow must not be less than that required for operation of the furnace.

If an economizer is installed, check the unit operating balance with the economizer at full outside air and at minimum outside air.

NOTE: NEVER RUN CFM BELOW 300 CFM PER TON, EVAPORATOR FREEZING OR POOR UNIT PERFORMANCE IS POSSIBLE.

Standard Static Drive Motor
Adjust the CFM for the unit by changing the position of the low voltage leads on the terminal block TB1. Refer to Appendix A for blower performance at each speed tap. Refer to Appendix D for maximum and minimum allowed airflow for heating and cooling.

ALLOWABLE SPEED TAPS 3-6 TON STD STATIC GAS					
ID MOTOR TAPS	T1	T2	T3	T4	T5
FAN (BK)	X*	-	-	-	-
COOLING STG 1 (YL)	X*	X	X	X	X
COOLING STG 2 (PU)	-	X	X	X*	X
HEATING STG 1 (WH)	-	X*	X	X	X
HEATING STG 2 (BR)	-	-	X*	X	X

Speed Taps for Non-ULN Models

NOTE: If more than one lead is energized simultaneously, the motor will run at the higher numerical speed tap.

Purple wire Y2 (High Cool) is connected to TB1-T3. Y1, Y2 and W1 wires can be moved together or seperately. Y2 wire can also be moved to unoccupied terminal T4 or T5.

NOTE: For proper operation Y2 should have a higher speed setting than the G, Y1 and W1 speed setting.

For gas heat units, the airflow must be adjusted so that the air temperature rise falls within the ranges given stated on Data Plate.

Electrical Input Check
Make preliminary check of evaporator fan ampere draw and verify that motor nameplate amps are not exceeded. A final check of amp draw should be made upon completion of air balancing of the duct system (see Appendix B).

Changing Speed Taps
Adjust the CFM for the unit by changing the position of the low voltage leads on the terminal block TB1. Refer to Appendix A for blower performance at each speed tap. The below tables show the allowable speed taps and the factory locations.

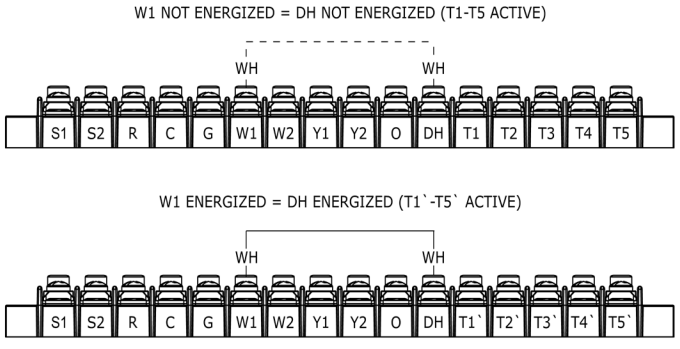
NOTE: X* denotes factory speed tap location. If more than one lead is energized simultaneously, the motor will run at the higher speed. For proper operation, PU cannot share a tap with YL, BR cannot share a tap with WH, and PU/BR should have higher speed settings than YL/WH, respectively.

DHG0XX1 MODELS ALLOW HIGH HEATING ONLY. EVEN IF THE USER SELECTS LOW STAGE HEATING ON THERMOSTAT, THIS OPERATION WILL NOT BE AVAILABLE.

NOTE: For motors with 10 speed taps, DH - 0VAC uses speed taps T1-T5 (for cooling) and DH=24VAC uses T1'-T5' (for heating). In heating mode, W1 automatically energizes DH.

ALLOWABLE SPEED TAPS 3-6 TON HIGH STATIC GAS										
ID MOTOR TAPS	T1	T2	T3	T4	T5	T1'	T2'	T3'	T4'	T5'
FAN (BK)	X*	-	-	-	-	X	-	-	-	-
COOLING STG 1 (YL)	X*	X	X	X	X	-	-	-	-	-
COOLING STG 2 (PU)	-	X	X	X*	X	-	-	-	-	-
HEATING STG 1 (WH)	-	-	-	-	-	X*	X	X	X	X
HEATING STG 2 (BR)	-	-	-	-	-	-	X	X*	X	X

NOTE: On units with DDC controls installed, refer to the DDC user manual for details on making airflow adjustments. Individual settings are available for fan only, low stage cooling, high stage cooling, low stage heating, and high stage heating which can be adjusted as needed to meet airflow requirements.



DHG Model wiring (Standard Static & High Static)

GAS SYSTEM CHECK

Pre-Operation Checks

1. Close the manual gas valve external to the unit.
2. Turn off the electrical power supply to the unit.
3. Change heating setpoint to its lowest possible setting.
4. Remove the heat exchanger door on the side of the unit by removing screws.
5. This unit is equipped with an ignition device which automatically lights the main burner. DO NOT try to light burner by any other method.
6. Move the gas control valve switch to the OFF position.
7. Wait five minutes to clear out any gas.
8. Smell for gas, including near the ground. This is important because some types of gas are heavier than air. If you have waited five minutes and you do smell gas, immediately follow the warning WHAT TO DO IF YOU SMELL GAS on page 2 of this manual. If having waited for five minutes and no gas smell is noted, move the gas control valve switch to the ON position.
9. Replace the heat exchanger door on the side of the unit.
10. Open the manual gas valve external to the unit.
11. Turn on the electrical power supply to the unit.
12. Change heating setpoint to desired setting.

Gas Supply Pressures & Regulator Adjustments

WARNING

Should overheating occur or the gas supply fail to shut off, turn off the manual gas shutoff valve external to the unit before turning off the electrical supply.

WARNING

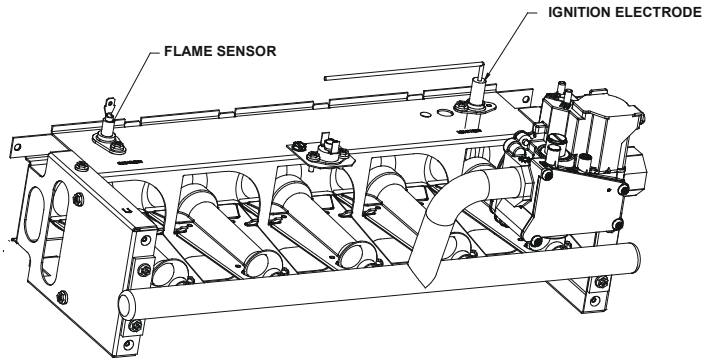
To avoid property damage, personal injury or death, do not fire gas unit with flue box cover removed.

NOTE: Except during brief periods when gas pressures are being measured by qualified service personnel, the furnace access panel must always be secured in place when the furnace is in operation. An inspection port in the access panel is provided to monitor the flame.

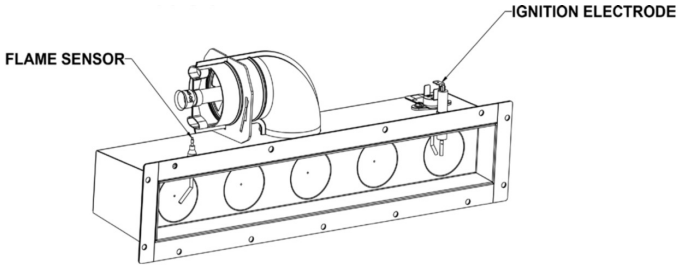
The first step in checking out the gas-fired furnace is to test the gas supply piping to the unit for tightness and purge the system of air using methods outlined in the latest edition of the National Fuel Gas Code ANSI Z223.1 / NFPA 54. Verify that the disconnect switch is in the "OFF" position. A soapy water solution should be used to check for gas leaks. Since the unit is subject to considerable jarring during shipment, it is extremely important that all gas connections and joints be tested for tightness. Gas piping downstream from the unit inlet should be checked for leaks during the subsequent sequence check.

The supply gas pressure should be adjusted to 7.0" w.c. on natural gas and 11" to 13.0" w.c. on LP gas with the gas burners operating. If there is more than one unit on a common gas line, the pressures should be checked with all units under full fire. A supply pressure tap is provided on the upstream side of the gas valve. A manifold pressure tap is provided on the manifold side of the gas valve. The normal manifold pressure for High fire is 3.5" w.c. on natural gas and 10.0" w.c. for propane gas. Low fire natural gas 2.0" w.c., 6.0" w.c. low fire propane gas. Minimum gas supply pressure is 5.0" w.c. for natural gas and 11.0" w.c. for propane gas. For ULN, the normal manifold pressure is 3.0" w.c. **ULN models do not have a low fire setting.**

Do not attempt adjustment of the built-in pressure regulator unless the supply pressure is at least 5.0" w.c. on natural gas or 11.0" w.c. on propane gas.



FLAME SENSOR AND IGNITION ELECTRODE LOCATION



FLAME SENSOR AND IGNITION ELECTRODE LOCATION (ULN ONLY)

Ton	High Fire Rate	Number of Burners	NG Orifice	LP Orifice
3	45,000	2	43	55
	70,000	3	43	55
	115,000	6	45	56
4	70,000	3	43	55
	115,000	5	43	55
	140,000	6	43	55
5	70,000	3	43	55
	115,000	5	43	55
	140,000	6	43	55
6	70,000	3	43	55
	125,000	5	41	54
	150,000	6	41	54

HEAT EXCHANGER AND BURNER ORIFICE SPECIFICATIONS (NON-ULN ONLY)

NOTE: GAS APPLIANCES LOCATED MORE THAN 2000 FEET ABOVE SEA LEVEL MUST BE DERATED 4% PER 1000 FEET OF TOTAL ELEVATION AND THAT VARIANCE IN GAS HEATING VALUE AND SPECIFIC GRAVITY REQUIRE CHANGE IN MANIFOLD PRESSURE TO OBTAIN RATING, IT IS MANDATORY THAT THE INPUT BE ADJUSTED AT THE INSTALLATION SITE. ALL INSTALLATIONS SHOULD BE MADE AS OUTLINED IN THE LATEST EDITION OF THE NATIONAL FUEL GAS CODE ANSI Z223.1,SECTION "PROCEDURES TO BE FOLLOWED TO PLACE AN APPLIANCE IN OPERATION". REFER ALSO TO THE "USER'S INFORMATION MANUAL" SUPPLIED WITH THE UNIT FOR ADDITIONAL INFORMATION ON THE GAS FURNACE.

GAS SUPPLY AND MANIFOLD CHECK

Gas supply pressure and manifold pressure with the burners operating must be as specified on the rating plate.

GAS INLET PRESSURE CHECK

Gas inlet pressure must be checked and adjusted in accordance to the type of fuel being consumed.

WITH POWER AND GAS OFF:

1. Connect a manometer to the inlet pressure tap of the gas valve.

Inlet gas pressure can also be measured by removing the cap from the dripleg and installing a predrilled cap with a hose fitting.

WITH POWER AND GAS ON:

2. Put unit into heating cycle and turn on all other gas consuming appliances.

INLET GAS PRESSURE	
NATURAL	Min. 5.0" W.C., Max. 10.0" W.C.
PROPANE	Min. 11.0" W.C., Max. 13.0" W.C.

NOTE: INLET GAS PRESSURE MUST BE WITHIN LIMITS SHOWN ABOVE.

If operating pressures differ from above, make necessary pressure regulator adjustments, check piping size, etc., and/or consult with local utility.

MANIFOLD PRESSURE CHECK AND ADJUSTMENT

The gas valve has a pressure tap to facilitate measurement of the manifold pressure. The manifold pressure must be measured with the burners operating.

1. With disconnect switch open, remove field connected thermostat wire from terminal R, W1 and W2 on TB1. Place jumper wire between R, W1 and W2 to engage high stage heat.
2. See Figure in gas input check section for gas valve adjustment.

To adjust the pressure regulator, remove the adjustment screw cover on the gas valve. Turn the adjustment screw out (counterclockwise) to decrease pressure, turn in (clockwise) to increase pressure. Only small variations in gas flow should be made by means of the pressure regulator adjustment. Any major changes in flow should be made by changing the size of the burner orifices. The measured input rate to the furnace must not exceed the rating specified on the unit rating plate.

For natural gas, the high stage manifold pressure must be between 3.2 and 3.8 inches water column (3.5 nominal). Low stage manifold pressure must be between 1.7 to 2.3 inches water column (2.0 nominal). For ULN, the high stage manifold pressure must be between 2.7 and 3.3 inches water column (3.0 nominal).

3. To set low fire rate, open disconnect switch and remove jumper from R to W2. To set low fire manifold pressure, repeat steps above. Refer to Figure in gas input check section for location of high and low stage pressure adjustment.

For propane gas, the manifold pressure must be between 9.7 and 10.3 inches water column (10.0 nominal). Low stage manifold must be between 5.7 and 6.3 inches water column (6.0 nominal).

Gas Input (Natural Gas Only) Check

It is the responsibility of the contractor to adjust the gas input to the unit.
To measure the gas input use a gas meter and proceed as follows:

1. Turn off gas supply to all other appliances except the unit.
2. With the unit operating, time the smallest dial on the meter for one complete revolution. If this is a 2 cubic foot dial, divide the seconds by 2; if it is a 1 cubic foot dial, use the seconds as is. This gives the seconds per cubic foot of gas being delivered to the unit.
3. INPUT=GAS HTG VALUE x 3600 / SEC. PER CUBIC FOOT

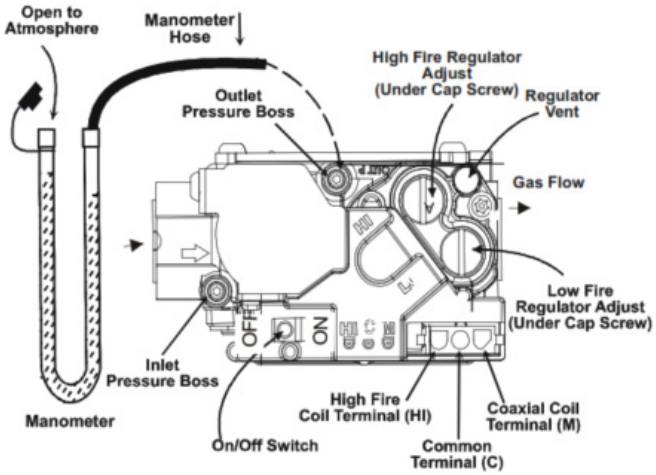
Example: Natural gas with a heating value of 1000 BTU per cubic foot and 34 seconds per cubic foot as determined by Step 2, then:

Input = 1000 x 3600 / 34 = 106,000 BTU per Hour.

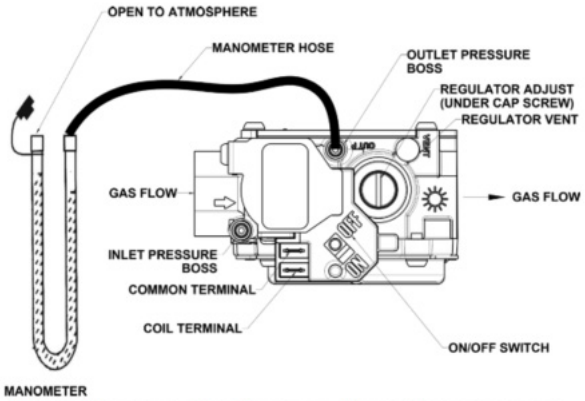
NOTE: BTU content of the gas should be obtained from the gas supplier. This measured input must not be greater than shown on the unit rating plate.

Adjust input rate by varying the adjustment of the gas pressure regulator on the gas valve. All adjustments must be made with furnace operating at high fire and at normal operating temperature. A manometer should be connected to the gas valve to verify pressure is within the specified range (see following figures for manometer connections). Clockwise rotation of the pressure regulator screw increases pressure and gas flow rate. Turn screw counterclockwise to decrease pressure and gas flow rate. After adjustment the furnace temperature rise must be within the range specified on the unit data plate.

NOTE: Thermal efficiency of the furnace is a product efficiency rating determined under continuous operating conditions independent of any installed system.



WHITE-RODGERS (2-STAGE) GAS CONTROL VALVE CONNECTED TO MANOMETER PRESSURE ADJUSTMENTS



White-Rodgers Gas Control Valve Connected to Manometer Pressure Adjustments

To connect manometer to gas valve:

1. Back outlet pressure tap screw (inside inlet pressure boss) out one turn (counterclockwise, not more than one turn).
2. Attach a hose and manometer to the outlet pressure boss of the valve.

To remove manometer from gas valve:

1. Remove manometer hose from outlet pressure boss.
2. Turn outlet pressure tap screw in to seal pressure port (clockwise, 7 in-lb. minimum).
3. Turn on electrical power and gas supply to the system.
4. Turn on system power and energize valve.
5. Using a leak detection solution or soap suds, check for leaks at pressure boss screw. Bubbles forming indicate a leak. SHUT OFF GAS AND FIX ALL LEAKS IMMEDIATELY.

⚠ CAUTION

To prevent unreliable operation or equipment damage, the gas manifold pressure must be as specified on the unit rating plate. Only minor adjustments should be made by adjusting the gas valve pressure regulator.

6. Relight all other appliances turned off in step 1 of gas input check. Be sure all pilot burners are operating.

Main Burner Flame Check

Flames should be stable, soft and blue (dust may cause orange tips but they must not be yellow) and extending directly outward from the burner without curling, floating or lifting off.

NOx Screen Check

Verify that the alignment of the NOx screens is at 6 o' clock. In jurisdictions that do not require low NOx emissions, NOx screens may be removed.

Temperature Rise Check

Check the temperature rise through the unit by placing thermometers in supply and return air registers as close to the unit as possible. Thermometers must not be able to sample temperature directly from the unit heat exchangers, or false readings could be obtained.

1. All registers must be open; all duct dampers must be in their final (fully or partially open) position and the unit operated for 15 minutes before taking readings
2. The temperature rise must be within the range specified on the rating plate.

NOTE: Air temperature rise is the temperature difference between supply and return air.
With a properly designed system, the proper amount of temperature rise will normally be obtained when the unit is operated at rated input with the recommended blower speed.

If the correct amount of temperature rise is not obtained, it may be necessary to change the blower speed. A higher blower speed will lower the temperature rise. A slower blower speed will increase the temperature rise.

NOTE: Blower speed MUST be set to give the correct air temperature rise through the unit as marked on the rating plate.

NORMAL SEQUENCE OF OPERATION

Heating

NOTE: ON UNITS WITH DDC CONTROLS OPTION INSTALLED, REFER TO THE DDC CONTROLLER USER MANUAL FOR SEQUENCE OF OPERATION DETAILS.

This unit has one (RS) Manual Reset Limit Control Switch. Check the limit to make sure it has not tripped. The limit may arrive at the job site tripped as a result of shipping shock.

If the venter motor comes on, but the unit does not attempt ignition, check if the ALS (Auxiliary High Limit Control Switch) requires resetting.

1. With electricity and gas turned on, the system switch in the "HEAT" or "AUTO" position and the fan switch in the "AUTO" position, the thermostat will close the circuit between unit terminals R and W (R-W) when the temperature falls below the thermostat setting.
2. D1 on IIC energizes venter motor contactor.
3. Venter motor contactor energizes the venter motor.
4. Operation of the venter motor closes the pressure switch PS located in the burner compartment. Unless excessive temperatures or shipping shock have opened high limit control ALS, power is fed to the integrated ignition control, which then initiates a 15-second pre-purge time delay. During this period, the venter fan will clear the combustion chamber of any residual gas.
5. After the pre-purge period, the ignition control energizes the WI-C gas valve and simultaneously initiates a "three (3)-try" spark ignition sequence.
6. When the burners are ignited, a minimum one (1) micro-amp DC current will flow through the flame between the sensor electrode and the grounded burner.
7. When the controller proves that the flame has been established, it will keep the gas valve energized and discontinue the ignition spark.
8. If the control is unable to ignite the burners after its initial attempt, it will initiate another purge and spark sequence. A third purge and spark sequence will be initiated if the second attempt is unsuccessful. If the third attempt is unsuccessful, the controller will close the gas valve and lock itself out. It may be reset by momentarily interrupting power. This may be accomplished by briefly lowering the room thermostat set-point below room temperature, or by shutting off the main power to the unit.
9. Integrated ignition control will close its normally open contacts after a delay of approximately 30 seconds. This action energizes the blower motor contactor and starts the supply fan motor. Operation of the supply fan circulates air across the heat exchanger and delivers heated air to the conditioned space.
10. When the space temperature rises, the thermostat will open R-W. Opening R-W will cause the gas valve to close, and the furnace to shut down.
11. The furnace has three high temperature limit controls, which can shut down the burner. They do not shut down the venter motor.

Heating (ULN Only)

This unit is equipped with an ignition control that automatically lights the main burner. DO NOT attempt to light the main burners by any other method.

1. R and W thermostat contacts close, initiating a call for heat.
2. Integrated control module performs safety circuit checks.
3. Inducer draft blower is energized for 30 second prepurge period causing pressure sensor contacts to close.
4. At the end of pre-purge period, integrated control module transitions the induced draft blower to light-off setting.
5. Once the light-off pressure setting is verified by the integrated control module, the spark igniter and gas valve are energized for 4 seconds.

NOTE: The igniter produces a very intense electrical spark that ignites the gas.

6. Integrated control module monitors flame presence. Gas valve will remain open only if the flame is detected.
7. The 30-second HEAT FAN ON delay time begins after main burner lights.
8. The unit delivers heat to the conditioned space until the thermostat is satisfied; integrated control module monitors safety circuits continuously.
9. R and W thermostat contacts open, completing the call for heat; gas valve de-energizes.
10. Induced draft blower keeps operating for 30-second post purge.
11. Ignition control begins timing the HEAT FAN OFF delay. There is an adjustable HEAT FAN OFF delay of approximately 90/120/150/180 seconds (factory set at 150).

NOTE: This delay allows any additional heat in the heat exchanger to be transferred to the conditioned space. After the HEAT FAN OFF delay time has elapsed, the blower will de-energize.

Unit Shutdown

1. Set the room heating setpoint to lowest setting.
2. Turn off the electrical power supply to the unit.
3. Remove the heat exchanger door on the side of the unit by removing screws.
4. Move the gas control valve switch to the OFF position.
5. Close manual gas shut off valve external to the unit.
6. Replace the heat exchanger door on the unit.
7. If cooling and/or air circulation will be desired, turn ON gas control valve switch and the electrical power.

Automatic Reset High Limit Control (LS)

Located in the burner compartment on the heat exchanger, its sensing element projects through the blower section bulkhead and senses the temperature at the rear of the furnace. It will cycle the furnace off if the temperature exceeds 100°F plus maximum rise.

Auxiliary High Limit Control (ALS)

Located in the blower compartment on the blower housing, it senses air temperature within the blower compartment and protects the filters from excessive temperature. It will shut down the furnace if it senses excessive temperatures.

Elevated temperatures at the control are normally caused by blower failure. The reason for the shut down should be determined and repaired.

Manual Reset Flame Rollout Control (RS)

Located in the burner compartment at the top of the burner assembly, it senses high temperature that could occur if the heat exchanger tubes were plugged and the flame was rolling out instead of entering the tubes. It has a manual push-button reset that cannot be actuated until the limit control has cooled.

The reason for elevated temperatures at the control should be determined and repaired prior to resetting this manual reset control.

Blocked Inlet Limit Control (ULN ONLY)

Located in the burner compartment at the top of the burner assembly, it senses high temperature that could occur if the burner inlet is blocked. It is normally closed (electrically), auto-reset sensor. The reason for elevated temperatures at the control should be determined and repaired.

Refrigerant Detection System (RDS)

RDS Function

The mitigation system is a stationary device that detects the presence of R-32 refrigerant above 25% LFL using refrigerant sensors and then initiates mitigation actions. The mitigation system's primary function is to reduce the concentration of leaked R-32 refrigerant to prevent serious safety hazards. The mitigation actions are accomplished by halting HVAC operation and continuing indoor blower operation to provide airflow. Once refrigerant concentration reaches below a safe threshold, the unit will remain in mitigation mode for five minutes to evacuate any remaining R-32 refrigerant within the unit. Upon completion, the unit will resume its normal operation.

RDS Operation

The mitigation system is controlled by a refrigerant sensor(s), which is secured to a designated location(s) for active monitoring. If a leak is detected, HVAC operation is disabled and the indoor blower fan is activated, providing airflow at or above the minimum required airflow to evacuate excess concentration. If a Zone Control system is installed in the ductwork attached to this system, the Zone controller must be powered through a Daikin Zoning/ Accessory PCB to ensure that the Zoning Dampers open during mitigation mode to provide ventilation throughout all ducting. If the unit is installed with a communicating thermostat, the thermostat will display relevant alerts/ information concerning mitigation mode. Once sensors read concentration levels below a safe threshold, a five minute timer will initiate. Once the time is over, the unit will resume its normal operation. If the sensors detect another concentration excess, the unit will go back into mitigation mode and will repeat the same process.

⚠ WARNING

To avoid property damage, personal injury or death due to fire or explosion, a qualified servicer must investigate the reason for the rollout protection device to open before manually resetting the rollout protection device.

TXV Superheat Adjustment

NOTE: Superheat adjustments should not be made until indoor ambient conditions have stabilized and correct airflow (CFM) has been verified. This could take up to 24 hours depending on indoor temperature and humidity. Before checking superheat, run the unit in cooling for 15-20 minutes or until refrigerant pressure stabilizes.

Unscrew the cover from the expansion valve, locate the adjustment screw, and turn in clockwise (in) to increase superheat or counterclockwise (out) to decrease superheat. It is recommended to make small adjustments at a time, 1/8 - 1/4 turn increments. Replace adjustment cap. Wait a minimum of 15 minutes between adjustments to allow time for the TXV and pressures to stabilize.

Refrigerant Charge Check

NOTE: For optimal performance, follow charging instructions below.

Units with TXV

Single Stage Cooling Application: Refer to the Design Superheat & Subcooling table

Two-Stage Cooling Application: Run unit on Low Stage cooling and refer to Design Superheat & Subcooling table.

1. Purge gauge lines. Connect service gauge manifold to access fittings. Run system at least 15 minutes to allow pressure to stabilize.
2. Temporarily install thermometer on liquid (small) line near liquid line access fitting with adequate contact and insulate for best possible reading.
3. Check subcooling and superheat. System should have a subcooling and superheat within the range listed on the Design Superheat and Subcooling table.
   a. If subcooling and superheat are low, adjust TXV superheat, then check subcooling.
      NOTE: To adjust superheat, turn the valve stem clockwise to increase and counterclockwise to decrease. Refer to TXV Superheat Adjustment referenced in this manual.
   b. If subcooling is low and superheat is high, add charge to raise subcooling then check superheat.
   c. If subcooling and superheat are high, adjust TXV valve superheat, then check subcooling.
   d. If subcooling is high and superheat is low, adjust TXV valve superheat and remove charge to lower the subcooling.
      NOTE: Do NOT adjust the charge based on suction pressure unless there is a gross undercharge. If an under charge is suspected, recover the charge, re-evacuate the system, and recharge per data plate. No adjustments should be made if suspecting a charge issue.
4. Disconnect manifold set, installation is complete.

Design Superheat & Subcooling

Model	Superheat (°F)	Subcooling (°F)	Expansion Device	Cooling Stage	Outdoor Ambient
DHG036	15-17	2-4	TXV	Low	82
DHG048	16-17	2-4	TXV	Low	82
DHG060	14-17	5-7	TXV	Low	82
DHG072	14-18	7-11	TXV	Low	82

Start-Up Procedure and Checklist

Begin with power turned off at all disconnects.

1. Turn thermostat system switch to “Cool,” and fan switch to “Auto” and turn temperature setting as high as it will go. On units with DDC controls installed, use Test/Balance Menu to force the unit to OFF MODE.
2. Inspect all registers and set them to the normal open position.
3. Turn on the electrical supply at the disconnect.
4. Turn the fan switch to the “ON” position. The blower should operate after a 7 second delay. On units with DDC controls installed, use Test/Balance Menu to force the unit to OFF MODE. This test bypasses internal delays.
5. Turn the fan switch to “Auto” position. The blower should stop after a 60 second delay. On units with DDC controls installed, use Test/Balance Menu to force the unit to OFF MODE. This test bypasses internal delays.

6. Slowly lower the cooling temperature until the unit starts. The compressor, blower and fan should now be operating. Allow the unit to run 10 minutes, make sure cool air is being supplied by the unit. On units with DDC controls installed, use Test/Balance Menu to force the unit to Low Cool Mode or High Cool Mode. This test bypasses internal delays.
7. Turn the temperature setting to the highest position, stopping the unit. The indoor blower will continue to run for 60 seconds. On units with DDC controls installed, use Test/Balance Menu to force the unit to VENT MODE. This test bypasses internal delays.
8. Turn the thermostat system switch to "OFF" and disconnect all power when servicing the unit. On units with DDC controls installed, use Test/Balance Menu to disable FORCE MODE operation and allow the unit to return to normal operation.

Refrigeration Sequence Check

1. 24VAC control voltage is provided by the control transformer to terminal XS. The control voltage is passed through any installed safety shutdown devices such as the smoke detector before providing 24VAC to terminals ES and R.
2. To simulate a mechanical call for cooling lower the room cooling setpoint to a value below the current room temperature. The cooling is energized when the room temperature is above the setpoint for cooling.
3. **UNIT WITH ECONOMIZER OPTION:** The compressor circuit is interlocked through the economizer module. If the outdoor air enthalpy (temperature and humidity) is not suitable for cooling, the economizer will permit the compressor to be energized.
4. The blower motor is operated to provide cool supply air to the space.
5. Compressor contactor closes its contacts to provide power to the compressor motor. In addition, the condenser fan motor is energized through the compressor contactor.

WARNING

BURN HAZARD!
DO NOT TOUCH! DISCHARGE LINE MAY BE HOT!

6. Check that the compressor is operating correctly. The scroll compressors in these units MUST operate in the proper rotation. To ensure the compressor is operating in the correct direction, check the compressor discharge line pressure or temperature after the compressor is started.

The discharge pressure and discharge line temperature should increase. If this does not occur and the compressor is producing an exceptional amount of noise, perform the following checks.

1. If the compressor is operating backward, disconnect the unit power supply and lock it in the "OFF" position. Switch two leads of the power supply at the unit Single Point Power Block. Reconnect power and check for compressor and condenser fan motor operation.
2. With all safety devices closed, the system will continue cooling operation until the room temperature is satisfied. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. This test bypasses internal delays.
3. Increasing the room cooling setpoint to a value above the current room temperature will simulate a satisfied thermostat. The compressor and the supply fan will cycle off. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. Use Test/Balance Menu to disable Force Mode operation and allow the unit to return to normal operation.
4. After a time delay of approximately 3 minutes, the compressor control circuits will be ready to respond to a subsequent call for cooling.

Refrigeration Performance Check

Check that compressor RLA corresponds to values shown in Appendix B. RLA draw can be much lower than values listed at low load conditions and low ambient condensing temperatures. Values in Appendix B can slightly exceed at high load conditions and high ambient condensing temperatures.

Final System Checks

1. Check to see if all supply and return air grilles are adjusted and the air distribution system is balanced for the best compromise between heating and cooling.
2. Check for air leaks in the ductwork. See Sections on Air Flow Adjustments.
3. Make sure the unit is free of "rattles", and the tubing in the unit is free from excessive vibration. Also make sure tubes or lines are not rubbing against each other or sheet metal surfaces or edges. If so, correct the trouble.
4. Set the thermostat at the appropriate setting for cooling and heating or automatic changeover for normal use.
5. Be sure the Owner is instructed on the unit operation, filter, servicing, correct thermostat operation, etc.

MAINTENANCE

WARNING

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

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

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

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

WARNING

HIGH VOLTAGE!

Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

WARNING

To prevent personal injury or death due to improper installation, adjustment, alteration, service or maintenance, refer to this manual. For additional assistance or information, consult a qualified installer, servicer agency or the gas supplier.

CAUTION

Sheet metal parts, screws, clips and similar items inherently have sharp edges, and it is necessary that the installer and service personnel exercise caution.

Preventive maintenance is the best way to avoid unnecessary expense and inconvenience. Have this system inspected at regular intervals by qualified service personnel, at least twice a year. Routine maintenance should cover the following items:

1. Tighten all set screws, and wire connections.
2. Clean evaporator and condenser coils mechanically or with cold water, if necessary. Usually any fouling is only matted on the entering air face of the coil and can be removed by brushing.
3. Replace filters as needed (see below).
4. Check for blockage of condensate drain.
5. Check power and control voltages.
6. Check running amperage.
7. Check operating temperatures and pressures.
8. Check and adjust temperature and pressure controls.
9. Check and adjust damper linkages.
10. Check operation of all safety controls.
11. Examine gas furnaces (see below and the User's Information Manual).
12. Check condenser fans and tighten set screws.

Filters

CAUTION

To prevent property damage due to fire and loss of equipment efficiency or equipment damage due to dust and lint build up on internal parts, never operate unit without an air filter installed in the return air system.

Every application may require a different frequency of replacement of dirty filters. Filters must be replaced at least every three (3) months during operating seasons.

Dirty filters are the most common cause of inadequate heating or cooling performance. Filter inspection should be made at least every two months; more often if necessary because of local conditions and usage.

Dirty throwaway filters should be discarded and replaced with a new, clean filter.

Disposable return air filters are supplied with this unit. See the unit Specification Sheet or Technical Manual for the correct size and part number. To remove the filters, remove the filter access panel on return side of the unit.

Cabinet Finish Maintenance

Use a fine grade automotive wax on the cabinet finish to maintain the finish's original high luster. This is especially important in installations with extended periods of direct sunlight.

Clean Outside Coil (Qualified Servicer Only)

The coil with the outside air flowing over it should be inspected annually and cleaned as frequently as necessary to keep the finned areas free of lint, hair and debris.

Clean Indoor Coil (Qualified Servicer Only)

Before cleaning the indoor coil, A2L sensor must be removed from the unit to avoid damage and contamination. Air filters should also be removed before performing maintenance. The coil with the filtered air flowing over it should be inspected and cleaned as frequently as necessary to keep the finned areas free of debris. Any air blowing or water rinsing should be performed from inside-out (opposite operating airflow direction) to prevent damage to the tube, fin coil and any other components.

Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of the flammable refrigerant. If in doubt, the manufacturer should be consulted. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition.

The recovered refrigerant shall be processed according to local legislation in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The compressor body shall not be heated by an open flame or other ignition sources to accelerate this process. When oil is drained from a system, it shall be carried out safely.

Charging Procedures

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment.
- Hoses or lines shall be as short as possible to minimize the amount of refrigerant contained in them.
- Cylinders shall be kept in an appropriate position according to the instructions.
- Ensure that the REFRIGERATING SYSTEM is earthed prior to charging the system with refrigerant.
- Extreme care shall be taken not to overfill the REFRIGERATING SYSTEM.

Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

IMPORTANT NOTE: Refer to the standing pressure test/leak detection method referenced later in this manual.

NOTE: "Earthing" is defined as achieving an earth ground by connecting the equipment's supplied grounding lug to the earth. This should be verified by a certified technician.

Condenser And Induced Draft Motors

Bearings on the condenser fan motors and the combustion fan motor are permanently lubricated. No additional oiling is required.

Flame Sensor (Qualified Servicer Only)

A drop in the flame current can be caused by a nearly invisible coating on the flame sensor. This coating, created by the fuel or combustion air supply, can be removed by carefully cleaning the flame sensor with steel wool.

NOTE: After cleaning, the microamp signal should be stable and in the range of 4 - 6 microamps DC.

Flue Passages (Qualified Servicer Only)

At the start of each heating season, inspect and, if necessary, clean the unit flue passage.

Lubrication

The fan shaft bearings, the supply fan motors, the condenser fan motors and compressors are permanently lubricated.

Inspection & Cleaning

All flue product carrying areas of the furnace, its vent system, and main burners should be examined by a qualified service agency, and cleaned if necessary, before the start of each heating season. This examination is necessary for continued safe operation. Particular attention should be given to deterioration from corrosion or other sources. This examination is accomplished in the following manner.

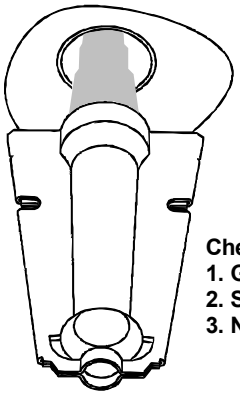
1. Disconnect power to the unit and remove furnace section access panel.
2. Remove burner assembly:
    a. Disconnect the wires from the gas valve after noting which wires are connected to each terminal.
    b. Disconnect wires from the flame rod and ignition electrode.
    c. Disconnect the gas piping at the union.
    d. The entire burner assembly can now be removed from the unit.

NOTE: Use all screws that were removed; they are necessary for safe and proper operation of the unit.

3. Inspect and periodically clean the vent outlet (bird screen) on the access panel.

NOTE: Periodic observation of the flame and a log of $C0_2$ measurements are recommended. This will aid in determining whether the furnace is operating efficiently or if the furnace requires cleaning.

Flames should be stable, soft and blue (dust may cause orange tips but must not be yellow). The flames must extend directly outward from the burner without curling, floating or lifting off.



Check the burner flames for:
1. Good adjustment
2. Stable, soft and blue
3. Not curling, floating, or lifting off.

BURNER FLAME

WARNING

To avoid personal injury or death due to electric shock, do not remove any internal compartment covers or attempt any adjustment. Contact a qualified servicer at once if an abnormal flame should develop.

At least once a year, prior to or during the heating season, make a visual check of the burner flames. Due to enclosed burner in ULN models, flames cannot be observed.

NOTE: This will involve removing and reinstalling the heat exchanger door on the unit, which is held by two screws. If you are uncertain about your ability to do this, contact a qualified servicer.

If a strong wind is blowing, it may alter the airflow pattern within the unit enough that an inspection of the burner flames is not possible.

Functional Parts

Refer to the unit Parts Catalog for a list of functional parts. Parts are available from your distributor.

TROUBLESHOOTING

Ignition Control Error Codes

The following presents probable causes of questionable unit operation. Refer to *Diagnostic Indicator Chart* for an interpretation of the signal and to this section for an explanation.

Remove the control box access panel and note the number of diagnostic LED flashes.

Internal Control Failure

If the integrated ignition control in this unit encounters an internal fault, it will go into a “hard” lockout and turn off the diagnostic LED. If diagnostic LED indicates an internal fault, check power supply to unit for proper voltage, check all fuses, circuit breakers and wiring. Disconnect electric power for five seconds. If LED remains off after restoring power, replace control.

Abnormal Operation - Heating Codes

External Lockout (1 FLASH CODE)

An external lockout occurs if the integrated ignition control determines that a measurable combustion cannot be established within three (3) consecutive ignition attempts. If flame is not established within the seven (7) second trial for ignition, the gas valve is deenergized, 15 second inter-purge cycle is completed, and ignition is reattempted. The control will repeat this routine three times if a measurable combustion is not established. The control will then shut off the induced draft blower and go into a lockout state.

If flame is established but lost, the control will energize the circulator blower at the heat speed and then begin a new ignition sequence. If flame is established then lost on subsequent attempts, the control will recycle for four (4) consecutive ignition attempts (five attempts total) before locking out.

The diagnostic fault code is 1 flash for a lockout due to failed ignition attempts or flame dropouts. The integrated control will automatically reset after one hour, or it can be reset by removing the thermostat signal or disconnecting the electrical power supply for over five seconds. If the diagnostic LED indicates an external lockout, perform the following checks:

- *Check the supply and manifold gas pressures*
- *Check the gas orifices for debris*
- *Check gas valve for proper operation*
- *Check secondary limit*

A dirty filter, excessive duct static, insufficient air flow, a faulty limit, or a failed circulator blower can cause this limit to open. Check filters, total external duct static, circulator blower motor, blower motor speed tap (see wiring diagram) and limit. An interruption in electrical power during a heating cycle may also cause the auxiliary limit to open. The automatic reset secondary limit is located on top of the circulator blower assembly.

- *Check rollout limit*

If the burner flames are not properly drawn into the heat exchanger, the flame rollout protection device will open. Possible causes are restricted or blocked flue passages, blocked or cracked heat exchanger, a failed induced draft blower, or insufficient combustion air. The rollout protection device is a manual reset limit located on the burner bracket. The cause of the flame rollout must be determined and corrected before resetting the limit.

- *Check flame sensor*

A drop in flame signal can be caused by nearly invisible coating on the sensor. Remove the sensor and carefully clean with steel wool.

- *Check wiring*

Check wiring for opens/shorts and miswiring.

IMPORTANT: If you have to frequently reset your gas/electric package unit, it means that a problem exists that should be corrected. Contact a qualified servicer for further information.

Pressure Switch Stuck Open (2 FLASH CODE)

IA pressure switch stuck open can be caused by a faulty pressure switch, faulty wiring, a disconnected or damaged hose, a blocked or restricted flue, or a faulty induced draft blower. If the control senses an open pressure switch during the pre-purge cycle, the induced draft blower only will be energized.

If the pressure switch opens after ignition has begun the gas valve is deenergized, the circulator blower heat off cycle begins, and the induced draft blower remains on. The diagnostic fault code is two flashes.

Pressure Switch Stuck Closed (3 FLASH CODE)

A stuck closed pressure switch can be caused by a faulty pressure switch or faulty wiring. If the control encounters a pressure switch stuck closed, the induced draft blower remains off. The diagnostic LED code for this fault is three (3) flashes.

Open Thermal Protection Device (4 FLASH CODE)

If the primary limit switch opens, the gas valve is immediately deenergized, the induced draft and air circulating blowers are energized. The induced draft and air circulator blowers remain energized until the limit switch recloses. The diagnostic fault code for an open limit is four (4) flashes.

A primary limit will open due to excessive supply air temperatures. This can be caused by a dirty filter, excessive duct static, insufficient air flow, or a faulty limit. Check filters, total external duct static, blower motor, blower motor speed tap (see wiring diagram), and limit. This limit will automatically reset once the temperature falls below a preset level.

Flame Detected with Gas Valve Closed (5 FLASH CODE)

If flame is detected with the gas valve deenergized, the combustion and air circulator blowers are energized. The diagnostic fault code is five (5) flashes for this condition. The control can be reset by removing the power supply to the unit or it will automatically reset after one hour. Miswiring is the probable cause for this fault.

Fault Recall (ULN Only)

The ignition control is equipped with a momentary push-button switch that can be used to display on the diagnostic LED the last five faults detected by the control. Any time the control is powered, the fault code history can be retrieved for display by depressing and releasing the button once (less than 5 seconds); the LED will flash the Fault Code History (up to 5 fault codes from newest to oldest). The Fault Code History is retained between power cycles until cleared. A fault code is added to the history log as it is encountered if it differs from the most recent history log item. If the history log is already full, then the oldest entry is dropped from the log and the remaining entries are moved down in the Fault Code History so that the new fault can be added to the Fault Code History as the most recent fault.

NOTE: Do not hold for longer than 5 seconds. Holding the button for 5 seconds or higher will erase the memory!

Abnormal Operation - Heating Codes
Resetting From Lockout (ULN Only)

An external lockout occurs if the integrated ignition control determines that a measurable combustion cannot be established within three (3) consecutive ignition attempts. If flame is not established within the four (4) second trial for ignition, the gas valve is de-energized, 30 second interpurge cycle is completed, and ignition is re-attempted. The control will repeat this routine three times if a measurable combustion is not established. The control will then shut off the induced draft blower and go into a lockout state. If flame is established but lost, the control will energize the circulator blower at the heat speed and then begin a new ignition sequence. If flame is established then lost on subsequent attempts, the control will recycle the ignition sequence.

The diagnostic fault code is 1 flash for a lockout due to failed ignition attempts. The integrated control will automatically reset after one hour, or it can be reset by removing the thermostat signal or disconnecting the electrical power supply for over five seconds.

IMPORTANT NOTE: If you have to frequently reset your gas/electric package unit, it means that a problem exists that should be corrected. Contact a qualified servicer for further information.

Pressure Sensor (ULN Only)

The pressure sensor is mounted in the control box and connected to the induced draft blower. Its function is to regulate the induced draft blower's speed in order to maintain proper air-fuel ratio for clean and reliable combustion. The electrical output signal from the sensor is expected to be proportional to the magnitude of the differential pressure between the inducer inlet negative pressure and the ambient air pressure. The pressure sensor also guards against insufficient airflow (combustion air and flue products) through the heat exchanger.
At the beginning of a call for heat, the control ensures the inducer is in an off state, then checks the pressure sensor output for the proper null offset value. If the pressure sensor output is outside the acceptable range for the null value, the control enters a five minute lockout. After the lockout timer has expired, the control resumes normal operation.

During inducer operation, including all operating modes except for the null test, the control monitors the pressure sensor output for expected values. The control limits during normal operation are expected to be within certain tolerances of the target pressures. In response to a pressure sensor span error, the control enters a five minute lockout. After the lockout timer has expired, the control resumes normal operation.

Primary Limit (ULN Only)

A primary limit will open due to excessive supply air temperatures. This can be caused by a dirty filter, excessive duct static, insufficient air flow, or a faulty limit. Check filters, total external duct static, blower motor, blower motor speed tap (see wiring diagram), and limit. This limit will automatically reset once the temperature falls below a preset level.

If a limit switch opens, the gas valve is immediately deenergized, the induced draft and air circulating blowers are energized. The induced draft and air circulator blowers remain energized for 5 minutes or until the limit switch recloses, whichever happens first.

NOTE: If the primary limit opens three (3) times within the same call for heat, the ignition control will lock out for one (1) hour with the air circulating blower energized at heating speed.

Flame Detected with Gas Valve Closed (ULN Only)

If flame is detected with the gas valve de-energized, the combustion and air circulator blowers are energized. The control can be reset by removing the power supply to the unit or it will automatically reset after one hour. Miswiring is the probable cause for this fault. The initial lockout period is 5 minutes. After that time, the control continues to monitor the flame sense input and resumes normal operation when flame is no longer sensed.

Low Flame Signal (ULN Only)

Under some conditions, the fuel or air supply can create a nearly invisible coating on the flame sensor. This coating acts as an insulator causing a drop in the flame signal. If the flame signal drops below a predetermined value, the ignition control will display an error code of (1) flash on the amber diagnostic LED. The unit will continue to operate until the control can no longer detect flame.

Burner Switch (ULN Only)

The burner temperature switch is mounted on the burner assembly to monitor the burner box temperature. It is normally closed (electrically), auto-reset sensor. This switch guards against the burner flames not being properly drawn into the heat exchanger.

The control senses an open blocked burner switch, indicating that the burner temperature/pressure has exceeded its set point. The control de-energizes the gas valve, energizes the inducer to the pre-purge setting and energizes the indoor blower. The initial lockout period is five minutes. After this time elapses, the control evaluates the state of the blocked burner switch. If the switch is closed, the control resumes normal operation. The control will enter a one hour lockout state if the blocked burner switch fails to reset before the recovery timer has expired.

ID Plug (ULN Only)

The control operational parameters are stored in ID Plug which connects on the circuit board. The control requires a valid ID plug present to operate in heating mode. If a valid ID plug is not present the control will not respond to a call for heat. However, the control will respond to thermostat inputs "Y" or "G", operating the appropriate fan output. The cooling delays are ignored in this operating mode. The control puts the burner into hard lockout and will not respond to heating requests until the power is cycled with a valid ID plug installed.

The status light on the furnace control may be used as a guide to troubleshooting this appliance. Some more useful status light codes are below:

[1]The fault condition must be cleared for 30 seconds before normal operation can resume. A power cycle will also reset any lockout.

Abnormal Operation - Cooling Codes

SHORT CYCLE COMPRESSOR DELAY (6 FLASH CODE)

The automatic ignition control has a built-in feature that prevents damage to the compressor in short cycling situations. In the event of intermittent power losses or intermittent thermostat operation, the ignition control will delay output to the compressor contactor for three minutes from the time power is restored. (Compressor is off a total of three minutes). The diagnostic LED will flash six (6) times to indicate the compressor contactor output is being delayed.

NOTE: Some electronic thermostats also have a built-in compressor short cycle timer that may be longer than the three minute delay given above. If you are using an electronic thermostat and the compressor has not started after three minutes, wait an additional five minutes to allow the thermostat to complete its short cycle delay time.

PCBBL216 ULN CONTROL ERROR CODES

LED ACTIVITY	DESCRIPTION	COLOR	MINIMUM LOCKOUT PERIOD[1]	LED ACTIVITY	DESCRIPTION	COLOR	MINIMUM LOCKOUT PERIOD[1]	LED ACTIVITY	DESCRIPTION	COLOR	MINIMUM LOCKOUT PERIOD[1]
LED OFF	NO 24 VAC POWER TO CONTROL	-	N/A	6 FLASHES	NORMALLY CLOSED BLOCKED BURNER SWITCH/AUXILLARY SWITCH OPEN	RED	MAXIMUM RECOVERY PERIOD - 1 HOUR IF TIME EXCEEDED	2 FLASHES	ID PLUG FAILURE	AMBER	HARD LOCKOUT HEATING MODE
RED, AMBER, GREEN	POWER-UP VERIFICATION OF LED	-	N/A	7 FLASHES	GAS VALVE CIRCUIT SHORTED	RED	1 HOUR	3 FLASHES	CONTROL FUSE OPEN	AMBER	5 MINUTES
STEADY ON	CONTROL FAULT DETECTED	RED	1 HOUR OR HARD LOCKOUT	8 FLASHES	RESERVED	RED	-	STEADY ON	STANDBY NORMAL OPERATION NO THERMOSTAT REQUESTS	GREEN	N/A
1 FLASH	RETRIES EXCEEDED	RED	1 HOUR FIXED	10 FLASHES	HIGH LIMIT SWITCH RECOVERY TIMER EXPIRED	RED	1 HOUR OR HARD LOCKOUT	RAPID FLASH	CLEAR ERROR HISTORY	GREEN	N/A
2 FLASHES	PRESSURE SENSOR NULL ERROR	RED	5 MINUTES	STEADY ON	OEM FACTORY TEST MODE	AMBER	N/A	1 FLASH	CALL FOR HEATING	GREEN	N/A
3 FLASHES	PRESSURE SENSOR SPAN ERROR	RED	5 MINUTES	RAPID FLASH	FIELD TEST MODE	AMBER	N/A	2 FLASHES	CALL FOR COOLING	GREEN	N/A
4 FLASHES	HIGH LIMIT SWITCH OPEN	RED	MAXIMUM RECOVERY TIME - 1 HOUR AFTER MAX TRIPS EXCEEDED	1 FLASH	LOW FLAME SENSE	AMBER	N/A	3 FLASHES	CONTINUOUS FAN OPERATION	GREEN	N/A
5 FLASHES	FLAME PRESENT WITH GAS VALVE OFF	RED	5 MINUTES	-	-	-	-	-	-	-	-

Servicing Measures for the Refrigerant Detection System:

Before servicing, identify the mode of operation of the system by reading the LED flashing pattern on the PCB within the control box and matching the LED flashing pattern with mode of operation in the REFRIGERANT DETECTION SYSTEM TROUBLESHOOTING GUIDE on the wiring diagram which is attached on the back side of the control box panel (RDS PCB Fault Code table). After identifying the mode of operation, take recommended actions as specified in the Recommended Actions for PCB LED Flashing Codes table.

REFRIGERANT SENSORS for REFRIGERANT DETECTION SYSTEMS shall only be replaced with sensors specified by the manufacturer. If REFRIGERANT SENSOR requires replacement, please replace with Sensata R32 Sensor PN#RGD-00ML12 (Daikin PN#SER2A08011).

LED STATUS	
MODE	**LED FLASHING PATTERN**
NORMAL OPERATION	SLOW LED FLASHING PATTERN (2 SECONDS ON 2 SECONDS OFF)
R-32 LEAK ALARM	FAST LED FLASHING PATTERN
DELAY MODE	LED WILL BE ON CONTINUOUSLY
SYSTEM VERIFICATION MODE	FAST LED FLASHING PATTERN
CONTROL BOARD INTERNAL FAULT	LED WILL FLASH 2 TIMES AND THEN BE OFF FOR 5 SECONDS
R32 SENSOR COMMUNICATION FAULT	LED WILL FLASH 3 TIMES AND THEN BE OFF FOR 5 SECONDS
R32 SENSOR FAULT	LED WILL FLASH 4 TIMES AND THEN BE OFF FOR 5 SECONDS

RDS PCB Fault Code Table

TROUBLESHOOTING CODE

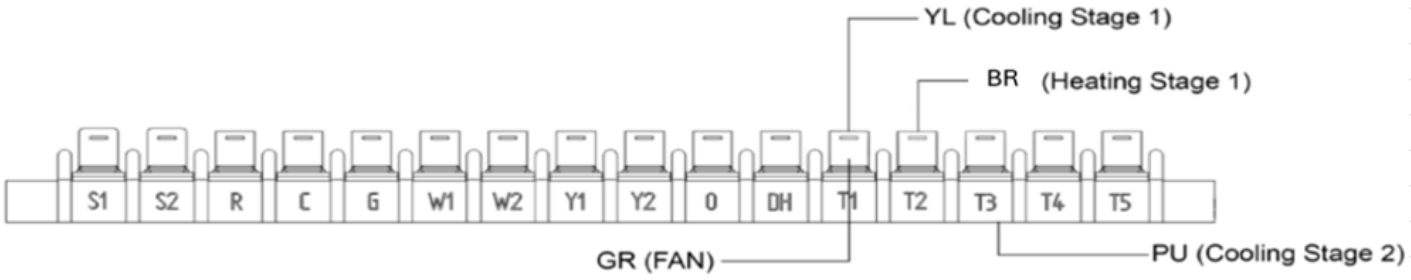
LED TROUBLESHOOT STATUS					
	MODE	DEFINITION	LED FLASHING PATTERN	RECOMMENDED ACTIONS	NOTES
1	Normal Operation	No faults to report.	Slow LED flashing pattern (2 seconds on and 2 seconds off)	No actions needed.	
2	R32 Leak Alarm	R32 leak is currently being detected.	Fast LED Flashing Pattern	A technician will need to find where the refrigerant leak and address it. Unit shall be thawed before servicing.	In terms of the controls, no action is needed. The controls and sensor are working fine.
3	Delay Mode	After R32 leak or alarm has been cleared, the unit will remain in alarm mode for 5 minutes before returning to normal operation.	LED will be on continuously	No action needed - If the system was previously experiencing an actual R32 Leak, the refrigerant can no longer be detected by the sensor meaning it's either gone and the system won't work anymore or there was a false alarm. If the system was experiencing a Fault, the fault is gone and the system will return to normal operation in 5 min.	After any alarm or fault, it is required to remain in R32 mitigation mode for 5 minutes.
4	System Verification Mode	Manual test run by contractor to simulate R32 Leak Alarm (test will last for 5 minutes max).	Fast LED Flashing Pattern	No actions needed.	To enter system verification test mode, press the button on the control 2 times within 5 seconds. The control will enter a simulated R32 Leak Alarm state and remain in that mode for 5 minutes. After 5 minutes, the control will return to Normal Operation automatically. If the contractor wants to end the test early they need to press the button one time.
5	Control Board Internal Fault	Control board has detected an issue with the R32 detection system.	LED will flash 2 times and then be off for 5 seconds, before repeating pattern	1) Unplug and plug the R32 sensor back in. Cycle power to the system. 2) If the control is in "Normal Operation" or "Delay Mode", there is no more issue. If not, continue with diagnostics 3) Unplug R32 sensor and leave unplugged. Cycle power to the system 4) If the control still displays "Control Board Internal Fault" (2 flash pattern), replace the control. If the control now displays "R32 Sensor Communication Fault" (3 flash pattern), replace the sensor.	This error could indicate an on board relay failure or a short with the sensor communications. A sensor communication short could occur on the board itself or external to the board. These steps will determine if the error is on the board or external to the board.
6	R32 Sensor Communication Fault	Control board does not have communications with R32 sensor.	LED will flash 3 times and then be off for 5 seconds, before repeating pattern	1) Unplug and plug the R32 sensor back in. Cycle power to the system. 2) If control is in "Normal Operation" or "Delay Mode", there is no more issue. If not, continue with diagnostics. 3) If the control still displays "R32 Sensor Communication Fault" (3 flash pattern), replace both the sensor and the PCB.	If the control cannot talk to the sensor there could be a problem with the sensor, a problem with the sensor harness or a problem internal to the control. The field will not be able to measure anything to reliably fix this error assuming the connector is properly secured to the control. Replacing both is the only option.
7	R32 Sensor Fault	R32 Sensor has reported an internal issue.	LED will flash 4 times and then be off for 5 seconds, before repeating pattern	Replace R32 sensor.	Communications to the sensor are perfectly fine. The sensor itself is reporting an internal fault.

RECOMMENDED ACTIONS FOR PCB LED FLASHING CODES TABLE

	warning; flammable materials
	service indicator; read technical manual
	operator's manual; operating instructions
	warning; low burning velocity material
	UN GHS flame symbol

MARKING SYMBOL TABLE

DHG ULN MODEL WIRING (STANDARD STATIC)



DHG ULN MODEL WIRING (HIGH STATIC)

DHG ULN OPERATION AND WIRE RANGE CHART (STANDARD STATIC)

DHG OPERATIONS					WIRE RANGE				
GAS	G	Y1	Y2	W1	T1	T2	T3	T4	T5
FAN ONLY	X				GR				
COOLING MODE LO	X	X			●	———	YL	———	→
COOLING MODE HI	X	X	X			———	●	PU	→
HEATING MODE	X			X		●	BR	———	→

DHG ULN OPERATION AND WIRE RANGE CHART (HIGH STATIC)

DHG OPERATIONS						WIRE RANGE									
GAS	G	Y1	Y2	W1	W2	T1	T2	T3	T4	T5	T1'	T2'	T3'	T4'	T5'
FAN ONLY	X					GR					X				
COOLING MODE LO	X	X				●	———	YL	———	→					
COOLING MODE HI	X	X	X				———	●	PU	→					
HEATING MODE	X			X	X							———	●	BR	→

X = 24V SIGNAL

●——→ RANGE OF AVAILABLE TAPS

FOR WIRE COLOR INFORMATION AND PLACEMENT VIEW DRG MODEL WIRING SECTION

THE FOLLOWING INSTRUCTIONS ARE MANDATORY FOR A2L SYSTEMS AND SUPERSEDE OTHER INSTRUCTIONS

WARNING
ONLY BRAZING TECHNIQUES AND APPROVED MECHANICAL JOINTS SHOULD BE USED TO CONNECT REFRIGERANT TUBING CONNECTIONS. NON-APPROVED MECHANICAL CONNECTORS AND OTHER METHODS ARE NOT PERMITTED IN THIS SYSTEM CONTAINING A2L REFRIGERANT. APPROVED MECHANICAL JOINTS WILL BE DETAILED IN THE PRODUCT'S SPECIFICATION SHEETS.

STANDING PRESSURE TEST/ LEAK DETECTION METHOD

Using dry nitrogen or dry helium, pressurize the system to 450 PSIG. Allow the pressure to stabilize and hold for 15 Minutes (minimum). The system is considered leak-free if the pressure does not drop below 450 PSIG. If, after 15 Minutes, the pressure drops below 450 PSIG, it implies a leak in the system. Proceed with identifying and sealing the leak and repeating the Standing Pressure Test. Leak test the system using dry nitrogen or dry helium and soapy water to identify leaks. **No refrigerant shall be used for pressure testing to detect leaks.** Proceed to system evacuation using the Deep Vacuum Method.

DEEP VACUUM METHOD

The Deep Vacuum Method requires a vacuum pump rated for 500 microns or less. This method effectively and efficiently ensures the system is free of non-condensable air and moisture. The Triple Evacuation Method is detailed in the Service Manual for this product model as an alternative. To expedite the evacuation procedure, it is recommended that the Schrader Cores be removed from the service valves using a core-removal tool.

1. Connect the vacuum pump, micron gauge, and vacuum-rated hoses to both service valves. Evacuation must use both service valves to eliminate system mechanical seals.
2. Evacuate the system to less than 500 microns.
3. Isolate the pump from the system and hold the vacuum for 10 minutes (minimum). Typically, pressure will rise slowly during this period. If the pressure rises to less than 1000 microns and remains steady, the system is considered leak-free; proceed to system charging and startup.
4. If pressure rises above 1000 microns but holds steady below 2000 microns, non-condensable air or moisture may remain, or a small leak may be present. Return to step 2: If the same result is achieved, check for leaks and repair. Repeat the evacuation procedure.
5. If pressure rises above 2000 microns, a leak is present. Check for leaks and repair them. Then, repeat the evacuation procedure.

ACCESSORY INSTALLATION

WARNING
ALL ACCESSORIES THAT MAY BECOME A POTENTIAL IGNITION SOURCE IF INSTALLED, SUCH AS ELECTRONIC AIR CLEANERS, MUST ONLY BE POWERED THROUGH OUR ACCESSORY CONTROL BOARD KIT. IF AN ELECTRONIC AIR CLEANER IS ALREADY INSTALLED IN THE DUCT WORK AND NOT CONNECTED TO THE ACCESSORY CONTROL BOARD, IT WILL HAVE TO BE DISABLED OR REMOVED. ENSURE THAT ANY ADDITIONAL WIRING FROM THE INDOOR UNIT TO THE ACCESSORY CONTROL BOARD IS ROUTED AND PROTECTED FROM DAMAGE AND WEAR, AVOIDING THE FLUE PIPE AND ANY JOINTS THAT MAY NEED BRAZED OR DISCONNECTED FOR SERVICE. REFER TO THE PRODUCT SPECIFICATION SHEET FOR THE ACCESSORY CONTROL BOARD KIT PART NUMBER

ALTITUDE ADJUSTMENT FACTOR TO CALCULATE MINIMUM ROOM AREA

The Indoor equipment mitigation requirements are calculated at sea level. For higher altitudes adjust the minimum room area specified on or near the Serial Plate by the corresponding altitude adjustment factor shown below. This table is provided as a reference.

Adjusted room area ($A_{min\ adj}$) is the product of the minimum room area specified in the serial plate and the adjustment factor AF, as shown in below formula

$A_{min\ adj}$ = A_{min} (serial plate) * AF

Height in meters	Height in feet	Altitude Adjustment Factor (AF)
At sea level	At sea level	1.00
1~200	1~660	1.02
200~400	660~1320	1.03
400~600	1320~1970	1.05
600~800	1970~2630	1.07
800~1000	2630~3290	1.09
1000~1200	3290~3940	1.11
1200~1400	3940~4600	1.13
1400~1600	4600~5250	1.15
1600~1800	5250~5910	1.17
1800~2000	5910~6570	1.19
2000~2200	6570~7220	1.21
2200~2400	7220~7880	1.24
2400~2600	7880~8540	1.26
2600~2800	8540~9190	1.29
2800~3000	9190~9850	1.31
3000~3200	9850~10500	1.34

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton
Models: DHG0361D and DHG0363D
Standard Static Drive
Burners High Fire Input: 45,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1000	600	0.15
	0.4	865	685	0.18
	0.6	730	750	0.19
	0.8	600	810	0.21
T2**	0.2	895	570	0.12
	0.4	755	655	0.14
	0.6	610	725	0.16
	0.8	470	780	0.17
T3	0.2	895	570	0.12
	0.4	755	655	0.14
	0.6	610	725	0.16
	0.8	470	780	0.17
T4	0.2	1225	670	0.24
	0.4	1110	745	0.27
	0.6	985	815	0.29
	0.8	880	870	0.31
T5	0.2	1425	730	0.33
	0.4	1325	795	0.36
	0.6	1210	865	0.39
	0.8	1115	920	0.42

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1050	580	0.15
	0.4	910	665	0.17
	0.6	765	730	0.19
	0.8	630	785	0.2
T2**	0.2	940	555	0.12
	0.4	795	635	0.14
	0.6	640	705	0.15
	0.8	495	755	0.16
T3	0.2	940	555	0.12
	0.4	795	635	0.14
	0.6	640	705	0.15
	0.8	495	755	0.16
T4	0.2	1285	650	0.23
	0.4	1165	725	0.26
	0.6	1035	790	0.28
	0.8	925	845	0.3
T5	0.2	1495	710	0.32
	0.4	1390	770	0.35
	0.6	1270	840	0.38
	0.8	1170	890	0.4

3 Ton
Models: DHG0361D and DHG0363D
Standard Static Drive
Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1000	600	0.15
	0.4	865	685	0.18
	0.6	730	750	0.19
	0.8	600	810	0.21
T2**	0.2	895	570	0.12
	0.4	755	655	0.14
	0.6	610	725	0.16
	0.8	470	780	0.17
T3	0.2	895	570	0.12
	0.4	755	655	0.14
	0.6	610	725	0.16
	0.8	470	780	0.17
T4	0.2	1225	670	0.24
	0.4	1110	745	0.27
	0.6	985	815	0.29
	0.8	880	870	0.31
T5	0.2	1425	730	0.33
	0.4	1325	795	0.36
	0.6	1210	865	0.39
	0.8	1115	920	0.42

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1050	580	0.15
	0.4	910	665	0.17
	0.6	765	730	0.19
	0.8	630	785	0.2
T2**	0.2	940	555	0.12
	0.4	795	635	0.14
	0.6	640	705	0.15
	0.8	495	755	0.16
T3	0.2	940	555	0.12
	0.4	795	635	0.14
	0.6	640	705	0.15
	0.8	495	755	0.16
T4	0.2	1285	650	0.23
	0.4	1165	725	0.26
	0.6	1035	790	0.28
	0.8	925	845	0.3
T5	0.2	1495	710	0.32
	0.4	1390	770	0.35
	0.6	1270	840	0.38
	0.8	1170	890	0.4

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

Models: DHG0361D and DHG0363D

Standard Static Drive

Burners High Fire Input: 115,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1000	600	0.15
	0.4	865	685	0.18
	0.6	730	750	0.19
	0.8	600	810	0.21
T2**	0.2	1090	630	0.19
	0.4	970	710	0.21
	0.6	835	775	0.23
	0.8	715	835	0.25
T3	0.2	1300	695	0.27
	0.4	1195	765	0.3
	0.6	1075	835	0.33
	0.8	970	890	0.35
T4	0.2	1225	670	0.24
	0.4	1110	745	0.27
	0.6	985	815	0.29
	0.8	880	870	0.31
T5	0.2	1900	850	0.61
	0.4	1800	910	0.65
	0.6	1695	970	0.69
	0.8	1595	1035	0.74

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1050	580	0.15
	0.4	910	665	0.17
	0.6	765	730	0.19
	0.8	630	785	0.2
T2**	0.2	1145	610	0.18
	0.4	1020	690	0.21
	0.6	875	750	0.22
	0.8	750	810	0.24
T3	0.2	1365	675	0.27
	0.4	1255	740	0.29
	0.6	1130	810	0.32
	0.8	1020	865	0.34
T4	0.2	1285	650	0.23
	0.4	1165	725	0.26
	0.6	1035	790	0.28
	0.8	925	845	0.3
T5	0.2	1995	825	0.59
	0.4	1890	885	0.63
	0.6	1780	940	0.67
	0.8	1675	1005	0.72

4 Ton

Models: DHG0481D and DHG0483D

Standard Static Drive

Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	950	575	0.1
	0.4	780	660	0.12
	0.6	640	730	0.14
	0.8	515	800	0.16
T2**	0.2	1060	600	0.16
	0.4	920	685	0.18
	0.6	780	755	0.2
	0.8	655	825	0.22
T3	0.2	1165	635	0.2
	0.4	1040	710	0.22
	0.6	905	785	0.25
	0.8	785	850	0.27
T4	0.2	1510	740	0.36
	0.4	1410	800	0.39
	0.6	1305	870	0.42
	0.8	1195	925	0.45
T5	0.2	1805	840	0.56
	0.4	1715	890	0.59
	0.6	1630	940	0.63
	0.8	1550	990	0.66

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	975	555	0.15
	0.4	825	640	0.12
	0.6	680	730	0.19
	0.8	525	775	0.15
T2**	0.2	1115	580	0.15
	0.4	965	665	0.18
	0.6	820	730	0.19
	0.8	690	800	0.21
T3	0.2	1225	615	0.19
	0.4	1090	690	0.22
	0.6	950	760	0.24
	0.8	825	825	0.26
T4	0.2	1585	720	0.35
	0.4	1480	775	0.38
	0.6	1370	845	0.41
	0.8	1255	895	0.43
T5	0.2	1895	815	0.54
	0.4	1800	865	0.58
	0.6	1710	910	0.61
	0.8	1630	960	0.64

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton
Models: DHG0481D and DHG0483D
Standard Static Drive
Burners High Fire Input: 115,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	755	515	0.04
	0.4	580	615	0.06
	0.6	430	690	0.08
	0.8	285	755	0.09
T2**	0.2	1405	715	0.31
	0.4	1305	775	0.33
	0.6	1190	840	1.36
	0.8	1075	905	0.39
T3	0.2	1785	845	0.55
	0.4	1700	890	0.58
	0.6	1620	945	0.62
	0.8	1525	995	0.65
T4	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	800	485	0.04
	0.4	610	580	0.06
	0.6	460	650	0.07
	0.8	300	710	0.09
T2**	0.2	1490	670	0.29
	0.4	1385	730	0.31
	0.6	1260	790	0.34
	0.8	1140	850	0.36
T3	0.2	1890	795	0.52
	0.4	1800	835	0.55
	0.6	1715	890	0.58
	0.8	1615	935	0.61
T4	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T5	0.2	1930	805	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

4 Ton
Models: DHG0481D and DHG0483D
Standard Static Drive
Burners High Fire Input: 140,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	930	570	0.12
	0.4	775	660	0.14
	0.6	635	730	0.16
	0.8	495	795	0.18
T2**	0.2	1145	630	0.19
	0.4	1015	710	0.22
	0.6	885	780	0.24
	0.8	755	845	0.26
T3	0.2	1930	900	0.7
	0.4	1830	940	0.73
	0.6	1770	990	0.77
	0.8	1680	1030	0.8
T4	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	980	540	0.11
	0.4	815	625	0.13
	0.6	675	685	0.15
	0.8	525	745	0.17
T2**	0.2	1215	590	0.18
	0.4	1075	665	0.21
	0.6	940	735	0.23
	0.8	800	795	0.25
T3	0.2	2045	845	0.65
	0.4	1940	885	0.68
	0.6	1875	930	0.72
	0.8	1780	970	0.75
T4	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T5	0.2	1930	805	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton
Models: DHG0601D and DHG0603D
Standard Static Drive
Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1100	620	0.21
	0.4	975	700	0.18
	0.6	845	770	0.26
	0.8	730	865	0.23
T2**	0.2	1200	645	0.21
	0.4	1075	725	0.23
	0.6	945	795	0.26
	0.8	830	865	0.28
T3	0.2	1200	645	0.21
	0.4	1075	725	0.23
	0.6	945	795	0.26
	0.8	830	865	0.28
T4	0.2	1895	865	0.62
	0.4	1810	920	0.66
	0.6	1720	965	0.69
	0.8	1640	1020	0.73
T5	0.2	2145	955	0.91
	0.4	2065	990	0.94
	0.6	1980	1035	0.99
	0.8	1900	1075	1.02

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1160	600	0.15
	0.4	1030	680	0.23
	0.6	865	745	0.2
	0.8	745	840	0.22
T2**	0.2	1260	625	0.2
	0.4	1130	705	0.23
	0.6	990	770	0.25
	0.8	870	840	0.27
T3	0.2	1260	625	0.2
	0.4	1130	705	0.23
	0.6	990	770	0.25
	0.8	870	840	0.27
T4	0.2	1990	840	0.6
	0.4	1900	890	0.64
	0.6	1805	935	0.67
	0.8	1720	990	0.71
T5	0.2	2250	925	0.88
	0.4	2170	960	0.91
	0.6	2080	1005	0.96
	0.8	1995	1045	0.99

5 Ton
Models: DHG0601D and DHG0603D
Standard Static Drive
Burners High Fire Input: 115,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1105	620	0.18
	0.4	980	700	0.21
	0.6	835	785	0.23
	0.8	720	850	0.23
T2**	0.2	1185	640	0.2
	0.4	1060	720	0.23
	0.6	925	795	0.25
	0.8	810	860	0.27
T3	0.2	1665	790	0.44
	0.4	1565	850	0.48
	0.6	1465	910	0.51
	0.8	1375	965	0.54
T4	0.2	1895	865	0.62
	0.4	1810	920	0.66
	0.6	1720	965	0.69
	0.8	1640	1020	0.73
T5	0.2	2145	955	0.91
	0.4	2065	990	0.94
	0.6	1980	1035	0.99
	0.8	1900	1075	1.02

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1165	600	0.15
	0.4	1035	680	0.2
	0.6	870	760	0.2
	0.8	750	825	0.22
T2**	0.2	1245	620	0.19
	0.4	1115	700	0.22
	0.6	970	770	0.24
	0.8	850	835	0.26
T3	0.2	1750	765	0.43
	0.4	1645	825	0.46
	0.6	1540	885	0.49
	0.8	1445	935	0.52
T4	0.2	1990	840	0.6
	0.4	1900	890	0.64
	0.6	1805	935	0.67
	0.8	1720	990	0.71
T5	0.2	2250	924	0.88
	0.4	2170	960	0.91
	0.6	2080	1005	..96
	0.8	1995	1045	0.99

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

Models: DHG0601D and DHG0603D

Standard Static Drive

Burners High Fire Input: 140,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1135	620	0.16
	0.4	1000	775	0.19
	0.6	865	780	0.2
	0.8	750	845	0.23
T2**	0.2	1910	870	0.63
	0.4	1825	925	0.67
	0.6	1735	970	0.7
	0.8	1655	1020	0.74
T3	0.2	1910	870	0.63
	0.4	1825	925	0.67
	0.6	1735	970	0.7
	0.8	1655	1020	0.74
T4	0.2	1895	865	0.62
	0.4	1810	920	0.66
	0.6	1720	965	0.69
	0.8	1640	1020	0.73
T5	0.2	2145	955	0.91
	0.4	2065	990	0.94
	0.6	1980	1035	0.99
	0.8	1900	1075	1.02

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1190	605	0.16
	0.4	1055	685	0.18
	0.6	915	755	0.21
	0.8	790	820	0.22
T2**	0.2	2005	845	0.61
	0.4	1915	895	0.65
	0.6	1820	940	0.68
	0.8	1740	990	0.72
T3	0.2	2005	845	0.61
	0.4	1915	895	0.65
	0.6	11820	940	0.68
	0.8	1740	990	0.72
T4	0.2	1990	840	0.6
	0.4	1900	890	0.64
	0.6	1805	935	0.67
	0.8	1720	990	0.71
T5	0.2	2250	925	0.88
	0.4	2170	960	0.91
	0.6	2080	1005	0.96
	0.8	1995	1045	0.99

3 Ton

Models: DHG0364D and DHG0367D

Standard Static Drive

Burners High Fire Input: 45,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	955	575	0.15
	0.4	825	660	0.17
	0.6	685	740	0.19
	0.8	555	805	0.21
T2**	0.2	1130	630	0.22
	0.4	1025	710	0.25
	0.6	900	785	0.27
	0.8	780	850	0.29
T3	0.2	1130	630	0.22
	0.4	1025	710	0.25
	0.6	900	785	0.27
	0.8	780	850	0.29
T4	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T5	0.2	1525	765	0.55
	0.4	1435	820	0.59
	0.6	1350	1205	0.62
	0.8	1250	940	0.67

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1010	540	0.14
	0.4	875	620	0.16
	0.6	725	695	0.18
	0.8	590	755	0.19
T2**	0.2	1200	590	0.2
	0.4	1085	665	0.23
	0.6	955	740	0.26
	0.8	825	800	0.28
T3	0.2	1200	590	0.2
	0.4	1085	665	0.23
	0.6	955	740	0.26
	0.8	825	800	0.28
T4	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T5	0.2	1615	720	0.51
	0.4	1520	770	0.55
	0.6	1430	825	0.59
	0.8	1325	885	0.63

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton
Models: DHG0364D and DHG0367D
Standard Static Drive
Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	955	575	0.15
	0.4	825	660	0.17
	0.6	685	740	0.19
	0.8	555	805	0.21
T2**	0.2	1215	660	0.26
	0.4	1115	730	0.29
	0.6	1000	805	0.32
	0.8	885	870	0.34
T3	0.2	1190	650	0.25
	0.4	1090	725	0.27
	0.6	970	800	0.3
	0.8	855	865	0.33
T4	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T5	0.2	1525	765	0.55
	0.4	1435	820	0.59
	0.6	1350	875	0.62
	0.8	1250	940	0.67

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1010	540	0.14
	0.4	875	620	0.16
	0.6	725	695	0.18
	0.8	590	755	0.19
T2**	0.2	1290	620	0.24
	0.4	1180	685	0.27
	0.6	1060	755	0.3
	0.8	940	820	0.32
T3	0.2	1260	610	0.23
	0.4	1155	680	0.26
	0.6	1030	750	0.28
	0.8	905	915	0.31
T4	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T5	0.2	1615	720	0.51
	0.4	1520	770	0.55
	0.6	1430	825	0.59
	0.8	1325	885	0.63

3 Ton
Models: DHG0364D and DHG0367D
Standard Static Drive
Burners High Fire Input: 115,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	955	575	0.15
	0.4	825	660	0.17
	0.6	685	740	0.19
	0.8	555	805	0.21
T2**	0.2	1040	605	0.18
	0.4	920	685	0.2
	0.6	790	760	0.23
	0.8	665	825	0.25
T3	0.2	1215	660	0.26
	0.4	1115	730	0.29
	0.6	1000	805	0.32
	0.8	885	870	0.34
T4	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T5	0.2	1525	765	0.55
	0.4	1435	820	0.59
	0.6	1350	875	0.62
	0.8	1250	940	0.67

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1010	540	0.14
	0.4	875	620	0.16
	0.6	725	695	0.18
	0.8	590	755	0.19
T2**	0.2	1100	570	0.17
	0.4	975	645	0.19
	0.6	835	715	0.21
	0.8	705	775	0.23
T3	0.2	1290	620	0.24
	0.4	1180	685	0.27
	0.6	1060	755	0.3
	0.8	940	820	0.32
T4	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T5	0.2	1615	720	0.51
	0.4	1520	770	0.55
	0.6	1430	825	0.59
	0.8	1325	885	0.63

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton
Models: DHG0484D and DHG0487D
Standard Static Drive
Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	880	595	0.06
	0.4	735	680	0.08
	0.6	600	750	0.1
	0.8	465	815	0.21
T2**	0.2	1030	595	0.16
	0.4	885	680	0.18
	0.6	750	750	0.2
	0.8	615	815	0.21
T3	0.2	1155	635	0.2
	0.4	1030	710	0.22
	0.6	900	780	0.25
	0.8	770	845	0.27
T4	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	940	560	0.05
	0.4	740	640	0.07
	0.6	645	705	0.18
	0.8	500	765	0.2
T2**	0.2	1090	560	0.15
	0.4	940	640	0.17
	0.6	795	705	0.18
	0.8	650	765	0.2
T3	0.2	1225	595	0.19
	0.4	1090	665	0.21
	0.6	955	735	0.23
	0.8	815	795	0.25
T4	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T5	0.2	1930	805	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

4 Ton
Models: DHG0484D and DHG0487D
Standard Static Drive
Burners High Fire Input: 115,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	920	565	0.11
	0.4	760	655	0.13
	0.6	620	730	0.15
	0.8	480	795	0.16
T2**	0.2	1405	715	0.31
	0.4	1305	775	0.33
	0.6	1190	840	0.36
	0.8	1075	905	0.39
T3	0.2	1785	845	0.55
	0.4	1700	890	0.58
	0.6	1620	945	0.62
	0.8	1525	995	0.65
T4	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	970	535	0.1
	0.4	805	620	0.12
	0.6	660	685	0.14
	0.8	510	745	0.16
T2**	0.2	1490	670	0.29
	0.4	1385	730	0.31
	0.6	1260	790	0.34
	0.8	1140	850	0.36
T3	0.2	1890	795	0.52
	0.4	1800	835	0.55
	0.6	1715	890	0.58
	0.8	1615	935	0.61
T4	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T5	0.2	1930	805	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

Models: DHG0484D and DHG0487D

Standard Static Drive

Burners High Fire Input: 140,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	910	565	0.12
	0.4	750	655	0.13
	0.6	610	725	0.15
	0.8	475	790	0.17
T2**	0.2	1145	630	0.19
	0.4	1015	710	0.22
	0.6	885	780	0.24
	0.8	755	845	0.26
T3	0.2	1930	900	0.7
	0.4	1830	940	0.73
	0.6	1770	990	0.77
	0.8	1680	1030	0.8
T4	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	960	535	0.11
	0.4	795	620	0.12
	0.6	650	680	0.14
	0.8	500	740	0.16
T2**	0.2	1215	590	0.18
	0.4	1075	665	0.21
	0.6	940	735	0.23
	0.8	800	795	0.25
T3	0.2	2045	845	0.65
	0.4	1940	885	0.68
	0.6	1875	930	0.72
	0.8	1780	970	0.75
T4	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T5	0.2	1930	845	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

5 Ton

Models: DHG0604D and DHG0607D

Standard Static Drive

Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1120	625	0.16
	0.4	995	675	0.18
	0.6	845	775	0.21
	0.8	745	835	0.23
T2**	0.2	1300	675	0.24
	0.4	1185	750	0.27
	0.6	1065	820	0.29
	0.8	940	880	0.31
T3	0.2	1220	650	0.21
	0.4	1095	725	0.23
	0.6	970	800	0.26
	0.8	845	860	0.28
T4	0.2	1930	890	0.64
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T5	0.2	2165	960	0.94
	0.4	2085	1000	0.95
	0.6	2005	1035	0.99
	0.8	1935	1080	1.03

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1195	585	0.2
	0.4	1060	630	0.17
	0.6	905	725	0.19
	0.8	795	785	0.21
T2**	0.2	1380	635	0.23
	0.4	1255	705	0.25
	0.6	1130	770	0.27
	0.8	995	825	0.29
T3	0.2	1295	610	0.2
	0.4	1160	680	0.22
	0.6	1030	750	0.24
	0.8	895	810	0.26
T4	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T5	0.2	2295	900	0.86
	0.4	221	940	0.89
	0.6	2125	975	0.93
	0.8	2050	1015	0.97

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton
Models: DHG0604D and DHG0607D
Standard Static Drive
Burners High Fire Input: 115,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1130	620	0.18
	0.4	985	710	0.19
	0.6	865	780	0.23
	0.8	730	840	0.25
T2**	0.2	1300	675	0.24
	0.4	1185	750	0.27
	0.6	1065	820	0.29
	0.8	940	880	0.31
T3	0.2	1695	815	0.46
	0.4	1605	865	0.48
	0.6	1515	925	0.52
	0.8	1414	980	0.55
T4	0.2	1930	890	0.56
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T5	0.2	2165	960	0.91
	0.4	2085	1000	0.95
	0.6	2005	1035	0.99
	0.8	1935	1080	1.03

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1195	580	0.15
	0.4	1045	665	0.19
	0.6	920	730	0.21
	0.8	770	795	0.23
T2**	0.2	1380	635	0.23
	0.4	1255	705	0.25
	0.6	1130	770	0.27
	0.8	995	825	0.29
T3	0.2	1795	765	0.43
	0.4	1700	815	0.46
	0.6	1605	870	0.49
	0.8	1500	920	0.51
T4	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T5	0.2	2295	900	0.86
	0.4	2210	940	0.89
	0.6	2125	975	0.93
	0.8	2050	1015	0.97

5 Ton
Models: DHG0604D and DHG0607D
Standard Static Drive
Burners High Fire Input: 140,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1145	620	0.17
	0.4	1015	705	0.19
	0.6	885	780	0.21
	0.8	750	840	0.23
T2**	0.2	1790	845	0.52
	0.4	1705	895	0.55
	0.6	1625	950	0.59
	0.8	1530	1000	0.62
T3	0.2	1940	895	0.65
	0.4	1865	940	0.68
	0.6	1785	990	0.72
	0.8	1700	1035	0.75
T4	0.2	1930	890	0.64
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T5	0.2	2165	960	0.91
	0.4	2085	1000	0.95
	0.6	2005	1035	0.99
	0.8	1935	1080	1.03

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1215	585	0.15
	0.4	1070	665	0.19
	0.6	940	730	0.2
	0.8	795	795	0.22
T2**	0.2	1895	795	0.49
	0.4	1805	840	0.52
	0.6	1725	895	0.55
	0.8	1620	940	0.58
T3	0.2	2055	840	0.61
	0.4	1975	885	0.64
	0.6	1890	930	0.68
	0.8	1800	975	0.71
T4	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T5	0.2	2295	900	0.86
	0.4	2210	940	0.89
	0.6	2125	975	0.93
	0.8	2050	1015	0.97

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton

Models: DHG0723D, DHG0724D and DHG0727D

Standard Static Drive

Burners High Fire Input: 70,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1342	623	0.22
	0.4	1212	685	0.25
	0.6	1083	773	0.28
	0.8	948	843	0.3
T2**	0.2	1342	623	0.22
	0.4	1212	695	0.25
	0.6	1083	773	0.28
	0.8	948	843	0.3
T3	0.2	1994	811	0.56
	0.4	1890	862	0.59
	0.6	1791	913	0.63
	0.8	1693	965	0.67
T4	0.2	2030	825	0.59
	0.4	1930	875	0.62
	0.6	1830	925	0.66
	0.8	1735	975	0.7
T5	0.2	2370	931	0.89
	0.4	2297	975	0.93
	0.6	2204	1020	0.97
	0.8	2119	1060	1.01

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1369	662	0.24
	0.4	1237	738	0.26
	0.6	1105	821	0.29
	0.8	967	895	0.32
T2**	0.2	1369	662	0.24
	0.4	1237	738	0.26
	0.6	1105	821	0.29
	0.8	967	895	0.32
T3	0.2	2035	861	0.59
	0.4	1929	916	0.63
	0.6	1828	970	0.67
	0.8	1727	1025	0.71
T4	0.2	2075	875	0.62
	0.4	1970	930	0.66
	0.6	1870	980	0.7
	0.8	1770	1035	0.74
T5	0.2	2419	990	0.94
	0.4	2344	1036	0.99
	0.6	2249	1083	1.03
	0.8	2162	1126	1.07

6 Ton

Models: DHG0723D, DHG0724D and DHG0727D

Standard Static Drive

Burners High Fire Input: 125,000 and 150,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1340	625	0.22
	0.4	1210	695	0.25
	0.6	1085	775	0.28
	0.8	950	845	0.3
T2**	0.2	2216	882	0.73
	0.4	2135	929	0.77
	0.6	2037	975	0.81
	0.8	1944	1020	0.85
T3	0.2	2216	882	0.73
	0.4	2135	929	0.77
	0.6	2037	975	0.81
	0.8	1944	1020	0.85
T4	0.2	2293	907	0.81
	0.4	2216	952	0.85
	0.6	2121	997	0.89
	0.8	2032	1040	0.91
T5	0.2	2370	931	0.89
	0.4	2297	975	0.93
	0.6	2204	1020	0.97
	0.8	2119	1060	1.01

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1370	660	0.24
	0.4	1235	740	0.26
	0.6	1105	820	0.29
	0.8	965	895	0.32
T2**	0.2	2261	937	0.78
	0.4	2179	987	0.82
	0.6	2079	1036	0.86
	0.8	1984	1084	0.9
T3	0.2	2261	937	0.78
	0.4	2179	987	0.82
	0.6	2079	1036	0.86
	0.8	1984	1084	0.9
T4	0.2	2340	963	0.86
	0.4	2262	1011	0.9
	0.6	2164	1059	0.95
	0.8	2073	1105	0.99
T5	0.2	2419	990	0.94
	0.4	2344	1036	0.99
	0.6	2249	1083	1.03
	0.8	2162	1126	1.07

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2 VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton - High Static Drive
Models: DHG0363W, DHG0364W, DHG0367W
45,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	495	779	0.17	T1'H*	0.8	848	836	0.22
	1	385	843	0.18		1	735	897	0.23
	1.2					1.2	608	949	0.25
	1.4					1.4	515	1002	0.26
	1.6					1.6	400	1042	0.27
	1.8					1.8			
	2					2			
T2C**	0.8	848	836	0.22	T2'H**	0.8	1119	881	0.35
	1	735	897	23		1	1018	938	0.37
	1.2	608	949	0.25		1.2	910	996	0.39
	1.4	515	1002	0.26		1.4	813	1045	0.41
	1.6	400	1042	0.27		1.6	704	1093	0.43
	1.8					1.8	616	1140	0.45
	2					2	521	1178	0.46
T3C	0.8	1397	934	0.58	T3'H	0.8	1289	917	0.52
	1	1287	998	0.62		1	1179	978	0.56
	1.2	1195	1047	0.65		1.2	1089	1027	0.59
	1.4	1108	1093	0.68		1.4	996	1086	0.62
	1.6	1023	1147	0.71		1.6	913	1129	0.64
	1.8	940	1190	0.74		1.8	820	1174	0.67
	2	841	1233	0.76		2	722	1214	0.69
T4C	0.8	1559	973	0.82	T4'H	0.8	1397	934	0.58
	1	1473	1021	0.85		1	1287	998	0.62
	1.2	1365	1079	0.9		1.2	1195	1047	0.65
	1.4	1277	1125	0.94		1.4	1108	1093	0.68
	1.6	1195	1168	0.97		1.6	1023	1147	0.71
	1.8	1113	1221	1.02		1.8	940	1190	0.74
	2	1044	1263	1.05		2	841	1233	0.76
T5C	0.8				T5'H	0.8			
	1	1550	1055	1.01		1	1550	1055	1.01
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	198	1191	1.13		1.6	198	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2	1139	1280	1.22		2	1139	1280	1.22

3 Ton - High Static Drive
Models: DHG0363W, DHG0364W, DHG0367W
45,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	505	828	0.18	T1'H*	0.8	865	889	0.23
	1	392	897	0.19		1	750	954	0.25
	1.2					1.2	620	1010	0.26
	1.4					1.4	526	1066	0.28
	1.6					1.6	408	1109	0.29
	1.8					1.8			
	2					2			
T2C**	0.8	865	889	0.23	T2'H**	0.8	1372	976	0.56
	1	750	954	0.25		1	1254	1041	0.59
	1.2	620	1010	0.26		1.2	1159	1092	0.62
	1.4	526	1066	0.28		1.4	1060	1155	0.66
	1.6					1.6	972	1201	0.69
	1.8					1.8	872	1249	0.71
	2					2	768	1291	0.74
T3C	0.8	1487	993	0.61	T3'H	0.8	1142	937	0.37
	1	1369	1062	0.66		1	1039	998	0.39
	1.2	1271	1114	0.69		1.2	929	1060	0.42
	1.4	1179	1163	0.72		1.4	829	1112	0.44
	1.6	1088	1220	0.76		1.6	718	1163	0.46
	1.8	1000	1266	0.78		1.8	628	1213	0.48
	2	895	1312	0.81		2	532	1253	0.49
T4C	0.8	1622	1050	0.88	T4'H	0.8	1487	993	0.61
	1	1537	1099	0.92		1	1369	1062	0.66
	1.2	1452	1148	0.96		1.2	1271	1114	0.69
	1.4	1359	1197	1		1.4	1179	1163	0.72
	1.6	1272	1243	1.04		1.6	1088	1220	0.76
	1.8	1184	1299	1.08		1.8	1000	1266	0.78
	2	1111	1344	1.12		2	895	1312	0.81
T5C	0.8				T5'H	0.8			
	1					1			
	1.2	1550	1176	1.12		1.2	1550	1176	1.12
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2	1212	1361	1.3		2	1212	1361	1.3

T1C & T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C & T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton - High Static Drive
Models: DHG0363W, DHG0364W, DHG0367W
70,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	495	779	0.17		0.8	848	836	0.22
	1	385	843	0.18		1	735	897	0.23
	1.2					1.2	608	949	0.25
T1C*	1.4				T1'H*	1.4	515	1002	0.26
	1.6					1.6	400	1042	0.27
	1.8					1.8			
	2					2			
	0.8	848	836	0.22		0.8	1397	934	0.58
	1	735	897	0.23		1	1287	998	0.62
	1.2	608	949	0.25		1.2	1195	1047	0.65
T2C**	1.4	515	1002	0.26	T2'H**	1.4	1108	1093	0.68
	1.6	400	1042	0.27		1.6	1023	1147	0.71
	1.8					1.8	940	1190	0.74
	2					2	841	1233	0.76
	0.8	1397	934	0.58		0.8	1223	901	0.56
	1	1287	998	0.62		1	1119	957	0.59
	1.2	1195	1047	0.65		1.2	1028	1010	0.63
T3C	1.4	1108	1093	0.68	T3'H	1.4	925	1064	0.66
	1.6	1023	1147	0.71		1.6	832	1110	0.69
	1.8	940	1190	0.74		1.8	722	1155	0.71
	2	841	1233	0.76		2	647	1200	0.74
	0.8	1559	973	0.82		0.8	1486	950	0.42
	1	1473	1021	0.85		1	1376	1012	0.45
	1.2	1365	1079	0.9		1.2	1280	1066	0.47
T4C	1.4	1277	1125	0.94	T4'H	1.4	1198	1112	0.49
	1.6	1195	1168	0.97		1.6	1113	158	0.51
	1.8	1113	1221	1.02		1.8	1031	1205	0.53
	2	1044	1263	1.05		2	947	1244	0.55
	0.8	1632	1010	0.96		0.8	1632	1010	0.96
	1	1550	1055	1.01		1	1550	1055	1.01
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
T5C	1.4	1378	1148	1.09	T5'H	1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2	1139	1280	1.22		2	1139	1280	1.22

3 Ton - High Static Drive
Models: DHG0363W, DHG0364W, DHG0367W
70,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	990	909	0.27		0.8	865	889	0.23
	1	876	978	0.29		1	750	954	0.25
	1.2	774	1033	0.31		1.2	620	1010	0.26
T1C*	1.4	647	1087	0.32	T1'H*	1.4	526	1066	0.28
	1.6	562	1140	0.34		1.6	408	1109	0.29
	1.8	460	1182	0.35		1.8			
	2					2			
	0.8	1372	976	0.56		0.8	1487	993	0.61
	1	1254	1041	0.59		1	1369	1062	0.66
	1.2	1159	1092	0.62		1.2	1271	1114	0.69
T2C**	1.4	1060	1155	0.66	T2'H**	1.4	1179	1163	0.72
	1.6	972	1201	0.69		1.6	1088	1220	0.76
	1.8	872	1249	0.71		1.8	1000	1266	0.78
	2	768	1291	0.74		2	895	1312	0.81
	0.8	1487	993	0.61		0.8	1248	958	0.59
	1	1369	1062	0.66		1	1142	1019	0.63
	1.2	1271	1114	0.69		1.2	1049	1075	0.67
T3C	1.4	1179	1163	0.72	T3'H	1.4	944	1132	0.7
	1.6	1088	1220	0.76		1.6	849	1181	0.73
	1.8	1000	1266	0.78		1.8	737	1229	0.76
	2	895	1312	0.81		2	660	1277	0.79
	0.8	1622	1050	0.88		0.8	1373	1028	0.45
	1	1537	1099	0.92		1	1464	1077	0.47
	1.2	1452	1148	0.96		1.2	1362	1134	0.5
T4C	1.4	1359	1197	1	T4'H	1.4	1275	1183	0.52
	1.6	1272	1243	1.04		1.6	1184	1232	0.54
	1.8	1184	1299	1.08		1.8	1096	1282	0.56
	2	1111	1344	1.12		2	1007	1323	0.58
	0.8					0.8			
	1	1635	1129	1.07		1	1635	1129	1.07
	1.2	1550	1176	1.12		1.2	1550	1176	1.12
T5C	1.4	1466	1222	1.16	T5'H	1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2	1212	1361	1.3		2	1212	1361	1.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton - High Static Drive
Models: DHG0363W, DHG0364W, DHG0367W
115,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	495	779	0.17	T1'H*	0.8	1223	901	0.56
	1	385	843	0.18		1	1119	957	0.59
	1.2					1.2	1028	1010	0.63
	1.4					1.4	925	1064	0.66
	1.6					1.6	832	1110	0.69
	1.8					1.8	722	1155	0.71
	2					2	647	1200	0.74
T2C**	0.8	848	836	0.22	T2'H**	0.8	1397	934	0.58
	1	735	897	0.23		1	1287	998	0.62
	1.2	608	949	0.25		1.2	1195	1047	0.65
	1.4	515	1002	0.26		1.4	1108	1093	0.68
	1.6	400	1042	0.27		1.6	1023	1147	0.71
	1.8					1.8	940	1190	0.74
	2					2	841	1233	0.76
T3C	0.8	1397	934	0.58	T3'H	0.8	1486	950	0.68
	1	1287	998	0.62		1	1376	1012	0.72
	1.2	1195	1047	0.65		1.2	1280	1066	0.76
	1.4	1108	1093	0.68		1.4	1198	1112	0.79
	1.6	1023	1147	0.71		1.6	1113	1158	0.83
	1.8	940	1190	0.74		1.8	1031	1205	0.86
	2	841	1233	0.76		2	947	1244	0.89
T4C	0.8	1559	973	0.82	T4'H	0.8	1559	973	0.82
	1	1473	1021	0.85		1	1473	1021	0.85
	1.2	1365	1079	0.9		1.2	1365	1079	0.9
	1.4	1277	1125	0.94		1.4	1277	1125	0.94
	1.6	1195	1168	0.97		1.6	1195	1168	0.97
	1.8	1113	1221	1.02		1.8	1113	1221	1.02
	2	1044	1263	1.05		2	1044	1263	1.05
T5C	0.8	1632	1010	0.96	T5'H	0.8	1632	1010	0.96
	1	1550	1055	1.01		1	1550	1055	1.01
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2	1139	1280	1.22		2	1139	1280	1.22

3 Ton - High Static Drive
Models: DHG0363W, DHG0364W, DHG0367W
115,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	505	828	0.18	T1'H*	0.8	1248	958	0.59
	1	392	897	0.19		1	1142	1019	0.63
	1.2					1.2	1049	1075	0.67
	1.4					1.4	944	1132	0.7
	1.6					1.6	849	1181	0.73
	1.8					1.8	737	1229	0.76
	2					2	660	1277	0.79
T2C**	0.8	865	889	0.23	T2'H**	0.8	1487	993	0.61
	1	750	954	0.25		1	1369	1062	0.66
	1.2	620	1010	0.26		1.2	1271	1114	0.69
	1.4	526	1066	0.28		1.4	1179	1163	0.72
	1.6	408	1109	0.29		1.6	1088	1220	0.76
	1.8					1.8	1000	1266	0.78
	2					2	895	1312	0.81
T3C	0.8	1487	993	0.61	T3'H	0.8			
	1	1369	1062	0.66		1	1464	1077	0.77
	1.2	1271	1114	0.69		1.2	1362	1134	0.81
	1.4	1179	1163	0.72		1.4	1275	1183	0.84
	1.6	1088	1220	0.76		1.6	1184	1232	0.88
	1.8	1000	1266	0.78		1.8	1096	1282	0.92
	2	895	1312	0.81		2	1007	1323	0.94
T4C	0.8	1622	1050	0.88	T4'H	0.8	1622	1050	0.88
	1	1537	1099	0.92		1	1537	1099	0.92
	1.2	1452	1148	0.96		1.2	1452	1148	0.96
	1.4	1359	1197	1		1.4	1359	1197	1
	1.6	1272	1243	1.04		1.6	1272	1243	1.04
	1.8	1184	1299	1.08		1.8	1184	1299	1.08
	2	1111	1344	1.12		2	1111	1344	1.12
T5C	0.8				T5'H	0.8			
	1	1635	1129	1.07		1	1635	1129	1.07
	1.2	1550	1176	1.12		1.2	1550	1176	1.12
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2	1212	1361	1.3		2	1212	1361	1.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton - High Static Drive
Models: DHG0483W, DHH0484W, DHH0487W
70,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1092	875	0.37	T1'H*	0.8	1015	856	0.34
	1	1007	927	0.4		1	924	914	0.36
	1.2	880	991	0.42		1.2	791	978	0.38
	1.4	789	1042	0.45		1.4	700	1028	0.4
	1.6	692	1090	0.47		1.6	600	1079	0.42
	1.8	612	1134	0.49		1.8	492	1139	0.44
	2	509	1191	0.52		2			
T2C**	0.8	1510	928	0.56	T2'H**	0.8	1092	875	0.37
	1	1369	995	0.6		1	1007	927	0.4
	1.2	1285	1040	0.63		1.2	880	991	0.42
	1.4	1202	1085	0.66		1.4	789	1042	0.45
	1.6	1130	1133	0.69		1.6	692	1090	0.47
	1.8	1044	1178	0.71		1.8	612	1134	0.49
	2	918	1233	0.75		2	509	1191	0.52
T3C	0.8	1782	993	0.77	T3'H	0.8	1250	905	0.45
	1	1711	1034	0.8		1	1160	953	0.48
	1.2	1576	1102	0.85		1.2	1081	1001	0.5
	1.4	1494	1143	0.88		1.4	1000	1045	0.52
	1.6	1419	1183	0.91		1.6	909	1099	0.55
	1.8	1349	1225	0.95		1.8	783	1153	0.58
	2	1282	1266	0.98		2	686	1199	0.6
T4C	0.8	1921	1026	0.89	T4'H	0.8	1782	993	0.77
	1	1848	1066	0.91		1	1711	1034	0.8
	1.2	1742	1123	0.98		1.2	1576	1102	0.85
	1.4	1640	1174	1.02		1.4	1494	1143	0.88
	1.6	1580	1214	1.05		1.6	1419	1183	0.91
	1.8	1504	1251	1.09		1.8	1349	1225	0.95
	2	1440	1289	1.12		2	1282	1266	0.98
T5C	0.8	2064	1053	1	T5'H	0.8	2064	1053	1
	1	1978	1096	1.04		1	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2	1550	1311	1.25		2	1550	1311	1.25

4 Ton - High Static Drive
Models: DHG0483W, DHH0484W, DHH0487W
70,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1114	931	0.4	T1'H*	0.8	1036	911	0.36
	1	1028	986	0.42		1	943	972	0.38
	1.2	898	1054	0.45		1.2	807	1040	0.41
	1.4	805	1109	0.48		1.4	714	1094	0.43
	1.6	706	1160	0.5		1.6	612	1148	0.45
	1.8	624	1206	0.52		1.8	502	1212	0.47
	2	519	1266	0.55		2			
T2C**	0.8	1541	987	0.6	T2'H**	0.8	1114	931	0.4
	1	1397	1058	0.64		1	1028	986	0.42
	1.2	1311	1106	0.67		1.2	898	1054	0.45
	1.4	1227	1154	0.7		1.4	805	1109	0.48
	1.6	1153	1205	0.73		1.6	706	1160	0.5
	1.8	1065	1253	0.76		1.8	624	1206	0.52
	2	937	1312	0.8		2	519	1266	0.55
T3C	0.8	1818	1056	0.82	T3'H	0.8	1276	963	0.48
	1	1746	1100	0.85		1	1184	1014	0.51
	1.2	1608	1172	0.91		1.2	1103	1065	0.53
	1.4	1524	1216	0.94		1.4	1020	1112	0.56
	1.6	1448	1258	0.97		1.6	928	1169	0.58
	1.8	1377	1303	1.01		1.8	799	1227	0.61
	2	1308	1347	1.04		2	700	1276	0.64
T4C	0.8	1960	1092	0.95	T4'H	0.8	1818	1056	0.82
	1	1886	1134	0.99		1	1746	1100	0.85
	1.2	1778	1195	1.04		1.2	1608	1172	0.91
	1.4	1673	1249	1.09		1.4	1524	1216	0.94
	1.6	1612	1291	1.12		1.6	1448	1258	0.97
	1.8	1535	1331	1.16		1.8	1377	1303	1.01
	2	1469	1371	1.19		2	1308	1347	1.04
T5C	0.8	2131	1115	1.06	T5'H	0.8	2131	1115	1.06
	1	2040	1161	1.1		1	2040	1161	1.1
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2	1582	1395	1.33		2	1582	1395	1.33

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton - High Static Drive
Models: DHG0483W, DHH0484W, DHH0487W
115,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1092	875	0.37	T1'H*	0.8	1092	875	0.37
	1	1007	927	0.4		1	1007	927	0.4
	1.2	880	991	0.42		1.2	880	991	0.42
	1.4	789	1042	0.45		1.4	789	1042	0.45
	1.6	692	1090	0.47		1.6	692	1090	0.47
	1.8	612	1134	0.49		1.8	612	1134	0.49
	2	509	1191	0.52		2	509	1191	0.52
T2C**	0.8	1510	927	0.56	T2'H**	0.8	1510	927	0.56
	1	1369	995	0.6		1	1369	995	0.6
	1.2	1285	1040	0.63		1.2	1285	1040	0.63
	1.4	1202	1085	0.66		1.4	1202	1085	0.66
	1.6	1130	1133	0.69		1.6	1130	1133	0.69
	1.8	1044	1178	0.71		1.8	1044	1178	0.71
	2	918	1233	0.75		2	918	1233	0.75
T3C	0.8	1782	993	0.77	T3'H	0.8	1782	993	0.77
	1	1711	1034	0.8		1	1711	1034	0.8
	1.2	1576	1102	0.85		1.2	1576	1102	0.85
	1.4	1494	1143	0.88		1.4	1494	1143	0.88
	1.6	1419	1183	0.91		1.6	1419	1183	0.91
	1.8	1349	1225	0.95		1.8	1349	1225	0.95
	2	1282	1266	0.98		2	1282	1266	0.98
T4C	0.8	1921	1026	0.89	T4'H	0.8	1921	1026	0.89
	1	1848	1066	0.93		1	1848	1066	0.93
	1.2	1742	1123	0.98		1.2	1742	1123	0.98
	1.4	1640	1174	1.02		1.4	1640	1174	1.02
	1.6	1580	1214	1.05		1.6	1580	1214	1.05
	1.8	1504	1251	1.09		1.8	1504	1251	1.09
	2	1440	1289	1.12		2	1440	1289	1.12
T5C	0.8	2064	1053	1	T5'H	0.8	2064	1053	1
	1	1978	1096	1.04		1	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2	1550	1311	1.25		2	1550	1311	1.25

4 Ton - High Static Drive
Models: DHG0483W, DHH0484W, DHH0487W
115,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1114	931	0.4	T1'H*	0.8	1114	931	0.4
	1	1028	986	0.42		1	1028	986	0.42
	1.2	898	1054	0.45		1.2	898	1054	0.45
	1.4	805	1109	0.48		1.4	805	1109	0.48
	1.6	706	1160	0.5		1.6	706	1160	0.5
	1.8	624	1206	0.52		1.8	624	1206	0.52
	2	519	1266	0.55		2	519	1266	0.55
T2C**	0.8	1541	987	0.6	T2'H**	0.8	1541	987	0.6
	1	1397	1058	0.64		1	1397	1058	0.64
	1.2	1311	1106	0.67		1.2	1311	1106	0.67
	1.4	1227	1154	0.7		1.4	1227	1154	0.7
	1.6	1153	1205	0.73		1.6	1153	1205	0.73
	1.8	1065	1253	0.76		1.8	1065	1253	0.76
	2	937	1312	0.8		2	937	1312	0.8
T3C	0.8	1818	1056	0.82	T3'H	0.8	1818	1056	0.82
	1	1746	1100	0.85		1	1746	1100	0.85
	1.2	1608	1172	0.91		1.2	1608	1172	0.91
	1.4	1524	1216	0.94		1.4	1524	1216	0.94
	1.6	1448	1258	0.97		1.6	1448	1258	0.97
	1.8	1377	1303	1.01		1.8	1377	1303	1.01
	2	1308	1347	1.04		2	1308	1347	1.04
T4C	0.8	1960	1092	0.95	T4'H	0.8	1960	1092	0.95
	1	1886	1134	0.99		1	1886	1134	0.99
	1.2	1778	1195	1.04		1.2	1778	1195	1.04
	1.4	1673	1249	1.09		1.4	1673	1249	1.09
	1.6	1612	1291	1.12		1.6	1612	1291	1.12
	1.8	1535	1331	1.16		1.8	1535	1331	1.16
	2	1469	1371	1.19		2	1469	1371	1.19
T5C	0.8	2131	1115	1.06	T5'H	0.8	2131	1115	1.06
	1	2040	1161	1.1		1	2040	1161	1.1
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2	1582	1395	1.33		2	1582	1395	1.33

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton - High Static Drive
Models: DHG0483W, DHH0484W, DHH0487W
140,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1092	875	0.37	T1'H*	0.8	1015	856	0.34
	1	1007	927	0.4		1	924	914	0.36
	1.2	880	991	0.42		1.2	791	978	0.38
	1.4	789	1042	0.45		1.4	700	1028	0.4
	1.6	692	1090	0.47		1.6	600	1079	0.42
	1.8	612	1134	0.49		1.8	492	1139	0.44
	2	509	1191	0.52		2			
T2C**	0.8	1510	927	0.56	T2'H**	0.8	1092	875	0.37
	1	1369	995	0.6		1	1007	927	0.4
	1.2	1285	1040	0.63		1.2	880	991	0.42
	1.4	1202	1085	0.66		1.4	789	1042	0.45
	1.6	1130	1133	0.69		1.6	692	1090	0.47
	1.8	1044	1178	0.71		1.8	612	1134	0.49
	2	918	1233	0.75		2	509	1191	0.52
T3C	0.8	1782	993	0.77	T3'H	0.8	1510	927	0.56
	1	1711	1034	0.8		1	1369	995	0.6
	1.2	1576	1102	0.85		1.2	1285	1040	0.63
	1.4	1494	1143	0.88		1.4	1202	1085	0.66
	1.6	1419	1183	0.91		1.6	1130	1133	0.69
	1.8	1349	1225	0.95		1.8	1044	1178	0.71
	2	1282	1266	0.98		2	918	1233	0.75
T4C	0.8	1921	1026	0.89	T4'H	0.8	1921	1026	0.89
	1	1848	1066	0.93		1	1848	1066	0.93
	1.2	1742	1123	0.98		1.2	1742	1123	0.98
	1.4	1640	1174	1.02		1.4	1640	1174	1.02
	1.6	1580	1214	1.05		1.6	1580	1214	1.05
	1.8	1504	1251	1.09		1.8	1504	1251	1.09
	2	1440	1289	1.12		2	1440	1289	1.12
T5C	0.8	2064	1053	1	T5'H	0.8	2064	1053	1
	1	1978	1096	1.04		1	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2	1550	1311	1.25		2	1550	1311	1.25

4 Ton - High Static Drive
Models: DHG0483W, DHH0484W, DHH0487W
140,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1114	931	0.4	T1'H*	0.8	1036	911	0.36
	1	1028	986	0.42		1	943	972	0.38
	1.2	898	1054	0.45		1.2	807	1040	0.41
	1.4	805	1109	0.48		1.4	714	1094	0.43
	1.6	706	1160	0.5		1.6	612	1148	0.45
	1.8	624	1206	0.52		1.8	502	1212	0.47
	2	519	1266	0.55		2			
T2C**	0.8	1541	987	0.6	T2'H**	0.8	1114	931	0.4
	1	1397	1058	0.64		1	1028	986	0.42
	1.2	1311	1106	0.67		1.2	898	1054	0.45
	1.4	1227	1154	0.7		1.4	805	1109	0.48
	1.6	1153	1205	0.73		1.6	706	1160	0.5
	1.8	1065	1253	0.76		1.8	624	1206	0.52
	2	937	1312	0.8		2	519	1266	0.55
T3C	0.8	1818	1056	0.82	T3'H	0.8	1818	1056	0.82
	1	1746	1100	0.85		1	1746	1100	0.85
	1.2	1608	1172	0.91		1.2	1608	1172	0.91
	1.4	1524	1216	0.94		1.4	1524	1216	0.94
	1.6	1448	1258	0.97		1.6	1448	1258	0.97
	1.8	1377	1303	1.01		1.8	1377	1303	1.01
	2	1308	1347	1.04		2	1308	1347	1.04
T4C	0.8	1960	1092	0.95	T4'H	0.8	1960	1092	0.95
	1	1886	1134	0.99		1	1886	1134	0.99
	1.2	1778	1195	1.04		1.2	1778	1195	1.04
	1.4	1673	1249	1.09		1.4	1673	1249	1.09
	1.6	1612	1291	1.12		1.6	1612	1291	1.12
	1.8	1535	1331	1.16		1.8	1535	1331	1.16
	2	1469	1371	1.19		2	1469	1371	1.19
T5C	0.8	2131	1115	1.06	T5'H	0.8	2131	1115	1.06
	1	2040	1161	1.1		1	2040	1161	1.1
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2	1582	1395	1.33		2	1582	1395	1.33

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton - High Static Drive
Models: DHG0603W, DHG0604W, DHG0607W
70,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	819	806	0.23		0.8	819	806	0.23
	1	680	873	0.25		1	680	873	0.25
	1.2	584	929	0.27		1.2	584	929	0.27
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1551	930	1		0.8	1680	957	1.21
	1	1455	980	1.05		1	1591	1006	1.27
	1.2	1367	1033	1.11		1.2	1500	1055	1.33
T2C* *	1.4	1290	1080	1.16	T2'H* *	1.4	1424	1101	1.39
	1.6	1213	1126	1.21		1.6	1348	1147	1.45
	1.8	1136	1172	1.26		1.8	1275	1193	1.5
	2	1079	1205	1.29		2	1208	1231	1.55
	0.8	2098	1052	0.7		0.8	1895	1004	0.29
	1	2036	1095	0.73		1	1829	1047	0.3
	1.2	1971	1136	0.76		1.2	1746	1093	0.31
T3C	1.4	1887	1180	0.79	T3'H	1.4	1654	1140	0.33
	1.6	1805	1221	0.81		1.6	1580	1184	0.34
	1.8	1755	1252	0.83		1.8	1506	1225	0.35
	2	1660	1305	0.87		2	1451	1268	0.36
	0.8	2236	1094	0.89		0.8	2446	1157	1.82
	1	2175	1133	0.92		1	2390	1193	1.87
	1.2	2117	1171	0.95		1.2	2331	1230	1.93
T4C	1.4	2048	1211	0.98	T4'H	1.4	2273	1266	1.99
	1.6	1958	1252	1.01		1.6	2207	1303	2.05
	1.8	1880	1293	1.05		1.8	2116	1351	2.12
	2	1843	1321	1.07		2	2037	1390	2.18
	0.8	2446	1157	1.82		0.8			
	1	2390	1193	1.87		1			
	1.2	2331	1230	1.93		1.2	2581	13339	2.1
T5C	1.4	2273	1266	1.99	T5'H	1.4	2513	1378	2.16
	1.6	2207	1303	2.05		1.6	2460	1417	2.23
	1.8	2116	1351	2.12		1.8	2391	1456	2.29
	2	2037	1390	2.18		2	2328	1500	2.36

5 Ton - High Static Drive
Models: DHG0603W, DHG0604W, DHG0607W
70,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	836	857	0.24		0.8	836	857	0.24
	1	694	929	0.27		1	694	929	0.27
	1.2	596	989	0.28		1.2	596	989	0.28
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1583	989	1.06		0.8	1714	1018	1.28
	1	1485	1043	1.12		1	1623	1070	1.35
	1.2	1395	1099	1.18		1.2	1531	1122	1.42
T2C* *	1.4	1316	1149	1.23	T2'H* *	1.4	1453	1171	1.48
	1.6	1238	1198	1.28		1.6	1375	1220	1.54
	1.8	1159	1247	1.34		1.8	1301	1269	1.6
	2	1101	1282	1.37		2	1233	1310	1.65
	0.8	2141	1119	0.75		0.8	1934	1068	0.31
	1	2078	1165	0.78		1	1866	1114	0.32
	1.2	2011	1208	0.81		1.2	1782	1163	0.33
T3C	1.4	1925	1255	0.84	T3'H	1.4	1688	1213	0.35
	1.6	1842	1299	0.87		1.6	1612	1260	0.36
	1.8	1791	1332	0.89		1.8	1537	1303	0.37
	2	1694	1388	0.92		2	1481	1349	0.39
	0.8	2282	1164	0.94		0.8	2496	1231	1.93
	1	2219	1205	0.98		1	2439	1269	1.99
	1.2	2160	1246	1.01		1.2	2379	1308	2.05
T4C	1.4	2090	1288	1.04	T4'H	1.4	2319	1347	2.12
	1.6	1998	1332	1.08		1.6	2252	1386	2.18
	1.8	1918	1376	1.11		1.8	2159	1437	2.26
	2	1881	1405	1.14		2	2079	1479	2.32
	0.8	2496	1231	1.93		0.8			
	1	2439	1269	1.99		1			
	1.2	2379	1308	2.05		1.2			
T5C	1.4	2319	1347	2.12	T5'H	1.4	2564	1406	2.21
	1.6	2252	1386	2.18		1.6	2511	1446	2.27
	1.8	2159	1437	2.26		1.8	2440	1486	2.33
	2	2079	1479	2.32		2	2375	1531	2.4

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton - High Static Drive
Models: DHG0603W, DHG0604W, DHG0607W
115,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	819	806	0.23		0.8	819	806	0.23
	1	680	873	0.25		1	680	873	0.25
	1.2	584	929	0.27		1.2	584	929	0.27
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1551	930	1		0.8	1475	916	0.51
	1	1455	980	1.05		1	1379	967	0.54
	1.2	1367	1033	1.11		1.2	1293	1021	0.57
T2C* *	1.4	1290	1080	1.16	T2'H* *	1.4	1218	1068	0.6
	1.6	1213	1126	1.21		1.6	1134	1120	0.63
	1.8	1136	1172	1.26		1.8	1017	1173	0.66
	2	1079	1205	1.29		2	938	1218	0.68
	0.8	2098	1052	0.7		0.8	1475	916	0.51
	1	2036	1095	0.73		1	1379	967	0.54
	1.2	1971	1136	0.76		1.2	1293	1021	0.57
T3C	1.4	1887	1180	0.79	T3'H	1.4	1218	1068	0.6
	1.6	1805	1221	0.81		1.6	1134	1120	0.63
	1.8	1755	1252	0.83		1.8	1017	1173	0.66
	2	1660	1305	0.87		2	938	1218	0.68
	0.8	2236	1094	0.89		0.8	1895	1004	0.29
	1	2175	1133	0.92		1	1829	1047	0.3
	1.2	2117	1171	0.95		1.2	1746	1093	0.31
T4C	1.4	2048	1211	0.98	T4'H	1.4	1654	1140	0.33
	1.6	1958	1252	1.01		1.6	1580	1184	0.34
	1.8	1880	1293	1.05		1.8	1506	1225	0.35
	2	1843	1321	1.07		2	1451	1268	0.36
	0.8	2446	1157	1.46		0.8	2446	1157	1.46
	1	2390	1193	1.5		1	2390	1193	1.5
	1.2	2331	1230	1.55		1.2	2331	1230	1.55
T5C	1.4	2273	1266	1.6	T5'H	1.4	2273	1266	1.6
	1.6	2207	1303	1.64		1.6	2207	1303	1.64
	1.8	2116	1351	1.7		1.8	2116	1351	1.7
	2	2037	1390	1.75		2	2037	1390	1.75

5 Ton - High Static Drive
Models: DHG0603W, DHG0604W, DHG0607W
115,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	836	857	0.24		0.8	836	857	0.24
	1	694	929	0.27		1	694	929	0.27
	1.2	596	989	0.28		1.2	596	989	0.28
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1583	989	0.59		0.8	1505	974	0.54
	1	1485	1043	0.62		1	1407	1029	0.58
	1.2	1395	1099	0.65		1.2	1319	1086	0.61
T2C* *	1.4	1316	1149	0.68	T2'H* *	1.4	1243	1136	0.64
	1.6	1238	1198	0.71		1.6	1157	1191	0.67
	1.8	1159	1247	0.74		1.8	1038	1248	0.7
	2	1101	1282	0.76		2	957	1296	0.72
	0.8	2141	1119	1.07		0.8	1505	974	0.54
	1	2078	1165	1.11		1	1407	1029	0.58
	1.2	2011	1208	1.15		1.2	1319	1086	0.61
T3C	1.4	1925	1255	1.19	T3'H	1.4	1243	1136	0.64
	1.6	1842	1299	1.24		1.6	1157	1191	0.67
	1.8	1791	1332	1.27		1.8	1038	1248	0.7
	2	1694	1388	1.32		2	957	1296	0.72
	0.8	2282	1164	1.25		0.8	1934	1068	0.86
	1	2219	1205	1.29		1	1866	1114	0.9
	1.2	2160	1246	1.33		1.2	1782	1163	0.94
T4C	1.4	2090	1288	1.38	T4'H	1.4	1688	1213	0.98
	1.6	1998	1332	1.43		1.6	1612	1260	1.02
	1.8	1918	1376	1.47		1.8	1537	1303	1.05
	2	1881	1405	1.5		2	1481	1349	1.09
	0.8	2496	1231	1.55		0.8	2496	1231	1.55
	1	2439	1269	1.6		1	2439	1269	1.6
	1.2	2379	1308	1.65		1.2	2379	1308	1.65
T5C	1.4	2319	1347	1.7	T5'H	1.4	2319	1347	1.7
	1.6	2252	1386	1.75		1.6	2252	1386	1.75
	1.8	2159	1437	1.81		1.8	2159	1437	1.81
	2	2079	1479	1.87		2	2079	1479	1.87

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton - High Static Drive
Models: DHG0603W, DHG0604W, DHG0607W
140,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	819	806	0.23		0.8	1895	1004	0.29
	1	680	873	0.25		1	1829	1047	0.3
	1.2	584	929	0.27		1.2	1746	1093	0.31
T1C*	1.4				T1'H*	1.4	1654	1140	0.33
	1.6					1.6	1580	1184	0.34
	1.8					1.8	1506	1225	0.35
	2					2	1451	1268	0.36
	0.8	1551	930	1		0.8	2236	1094	0.89
	1	1455	980	1.05		1	2175	1133	0.92
	1.2	1367	1033	1.11		1.2	2117	1171	0.95
T2C**	1.4	1290	1080	1.16	T2'H**	1.4	2048	1211	0.98
	1.6	1213	1126	1.21		1.6	1958	1252	1.01
	1.8	1136	1172	1.26		1.8	1880	1293	1.05
	2	1079	1205	1.29		2	1843	1321	1.07
	0.8	2098	1052	0.7		0.8	2635	1245	1.79
	1	2036	1095	0.73		1	2569	1279	1.84
	1.2	1971	1136	0.76		1.2	2502	1319	1.9
T3C	1.4	1887	1180	0.79	T3'H	1.4	2432	1356	1.95
	1.6	1805	1221	0.81		1.6	2371	1397	2.01
	1.8	1755	1252	0.83		1.8	2293	1446	2.08
	2	1660	1305	0.87		2	2197	1507	2.17
	0.8	2236	1094	0.89		0.8	2446	1157	1.82
	1	2175	1133	0.92		1	2390	1193	1.87
	1.2	2117	1171	0.95		1.2	2331	1230	1.93
T4C	1.4	2048	1211	0.98	T4'H	1.4	2273	1266	1.99
	1.6	1958	1252	1.01		1.6	2207	1303	2.05
	1.8	1880	1293	1.05		1.8	2116	1351	2.12
	2	1843	1321	1.07		2	2037	1390	2.18
	0.8	2446	1157	1.82		0.8	2719	1270	2
	1	2390	1193	1.87		1	2644	1305	2.05
	1.2	2331	1230	1.93		1.2	2581	1339	2.1
T5C	1.4	2273	1266	1.99	T5'H	1.4	2513	1378	2.16
	1.6	2207	1303	2.05		1.6	2460	1417	2.23
	1.8	2116	1351	2.12		1.8	2391	1456	2.29
	2	2037	1390	2.18		2	2328	1500	2.36

5 Ton - High Static Drive
Models: DHG0603W, DHG0604W, DHG0607W
140,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	836	857	0.24		0.8	1934	1068	0.31
	1	694	929	0.27		1	1866	1114	0.32
	1.2	596	989	0.28		1.2	1782	1163	0.33
T1C*	1.4				T1'H*	1.4	1688	1213	0.35
	1.6					1.6	1612	1260	0.36
	1.8					1.8	1537	1303	0.37
	2					2	1481	1349	0.39
	0.8	1583	989	1.06		0.8	2282	1164	0.94
	1	1485	1043	1.12		1	2219	1205	0.98
	1.2	1395	1099	1.18		1.2	2160	1246	1.01
T2C**	1.4	1316	1149	1.23	T2'H**	1.4	2090	1288	1.04
	1.6	1238	1198	1.28		1.6	1998	1332	1.08
	1.8	1159	1247	1.34		1.8	1918	1376	1.11
	2	1101	1282	1.37		2	1881	1405	1.14
	0.8	2141	1119	0.75		0.8	2689	1270	1.82
	1	2078	1165	0.78		1	2622	1305	1.88
	1.2	2011	1208	0.81		1.2	2553	1346	1.94
T3C	1.4	1925	1255	0.84	T3'H	1.4	2482	1384	1.99
	1.6	1842	1299	0.87		1.6	2420	1426	2.05
	1.8	1791	1332	0.89		1.8	2340	1475	2.12
	2	1694	1388	0.92		2	2242	1538	2.21
	0.8	2282	1164	0.94		0.8	2496	1231	1.93
	1	2219	1205	0.98		1	2439	1269	1.99
	1.2	2160	1246	1.01		1.2	2379	1308	2.05
T4C	1.4	2090	1288	1.04	T4'H	1.4	2319	1347	2.12
	1.6	1998	1332	1.08		1.6	2252	1386	2.18
	1.8	1918	1376	1.11		1.8	2159	1437	2.26
	2	1881	1405	1.14		2	2079	1479	2.32
	0.8	2496	1231	1.93		0.8	2774	1296	2.04
	1	2439	1269	1.99		1	2698	1332	2.09
	1.2	2379	1308	2.05		1.2	2633	1366	2.15
T5C	1.4	2319	1347	2.12	T5'H	1.4	2564	1406	2.21
	1.6	2252	1386	2.18		1.6	2511	1446	2.27
	1.8	2159	1437	2.26		1.8	2440	1486	2.33
	2	2079	1479	2.32		2	2375	1531	2.4

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton - High Static Drive
Models: DHG0723W, DHG0724W, DHG0727W
70,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1035	849	0.3	T1'H*	0.8	1035	849	0.3
	1	925	910	0.32		1	925	910	0.32
	1.2	807	978	0.34		1.2	807	978	0.34
	1.4	689	1045	0.36		1.4	689	1045	0.36
	1.6					1.6			
	1.8					1.8			
	2					2			
T2C**	0.8	1796	967	0.68	T2'H**	0.8	1381	921	0.47
	1	1718	1024	0.72		1	1293	968	0.5
	1.2	1578	1090	0.77		1.2	1211	1018	0.52
	1.4	1506	1135	0.8		1.4	1125	1068	0.55
	1.6	1431	1176	0.83		1.6	1030	1125	0.58
	1.8	1360	1220	0.86		1.8	935	1181	0.6
	2	1281	1261	0.89		2	839	1238	0.62
T3C	0.8	2582	1172	1.55	T3'H	0.8	2582	1172	1.55
	1	2528	1207	1.59		1	2528	1207	1.59
	1.2	2479	1240	1.64		1.2	2479	1240	1.64
	1.4	2422	1277	1.69		1.4	2422	1277	1.69
	1.6	2367	1314	1.74		1.6	2367	1314	1.74
	1.8	2305	1355	1.79		1.8	2305	1355	1.79
	2	2224	1402	1.85		2	2224	1402	1.85
T4C	0.8	2661	1191	1.67	T4'H	0.8	2661	1191	1.67
	1	2612	1225	1.72		1	2612	1225	1.72
	1.2	2560	1261	1.77		1.2	2560	1261	1.77
	1.4	2509	1294	1.82		1.4	2509	1294	1.82
	1.6	2454	1331	1.87		1.6	2454	1331	1.87
	1.8	2393	1369	1.92		1.8	2393	1369	1.92
	2	2331	1412	1.98		2	2331	1412	1.98
T5C	0.8	2764	1220	1.84	T5'H	0.8	2764	1220	1.84
	1	2707	1254	1.89		1	2707	1254	1.89
	1.2	2661	1291	1.94		1.2	2661	1291	1.94
	1.4	2616	1322	1.99		1.4	2616	1322	1.99
	1.6	2573	1357	2.04		1.6	2573	1357	2.04
	1.8	2528	1398	2.1		1.8	2528	1398	2.1
	2	2483	1435	2.16		2	2483	1435	2.16

6 Ton - High Static Drive
Models: DHG0723W, DHG0724W, DHG0727W
70,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1056	903	0.32	T1'H*	0.8	1056	903	0.32
	1	944	968	0.35		1	944	968	0.35
	1.2	824	1040	0.38		1.2	824	1040	0.38
	1.4	704	1112	0.42		1.4	704	1112	0.42
	1.6					1.6			
	1.8					1.8			
	2					2			
T2C**	0.8	1833	1029	0.72	T2'H**	0.8	1409	980	0.5
	1	1753	1089	0.76		1	1319	1030	0.53
	1.2	1610	1160	0.81		1.2	1236	1083	0.55
	1.4	1537	1207	0.85		1.4	1148	1136	0.58
	1.6	1460	1251	0.88		1.6	1051	1196	0.62
	1.8	1388	1298	0.91		1.8	954	1257	0.65
	2	1307	1342	0.94		2	856	1317	0.68
T3C	0.8	2635	1247	1.65	T3'H	0.8	2635	1247	1.65
	1	2580	1284	1.7		1	2580	1284	1.7
	1.2	2530	1319	1.74		1.2	2530	1319	1.74
	1.4	2471	1358	1.79		1.4	2471	1358	1.79
	1.6	2415	1398	1.85		1.6	2415	1398	1.85
	1.8	2352	1442	1.9		1.8	2352	1442	1.9
	2	2269	1491	1.97		2	2269	1491	1.97
T4C	0.8	2715	1267	1.78	T4'H	0.8	2715	1267	1.78
	1	2665	1303	1.83		1	2665	1303	1.83
	1.2	2612	1341	1.88		1.2	2612	1341	1.88
	1.4	2560	1377	1.93		1.4	2560	1377	1.93
	1.6	2504	1416	1.99		1.6	2504	1416	1.99
	1.8	2442	1456	2.04		1.8	2442	1456	2.04
	2	2384	1495	2.09		2	2384	1495	2.09
T5C	0.8	2820	1298	1.95	T5'H	0.8	2820	1298	1.95
	1	2762	1334	2.01		1	2762	1334	2.01
	1.2	2715	1373	2.07		1.2	2715	1373	2.07
	1.4	2669	1406	2.21		1.4	2669	1406	2.21
	1.6	2626	1444	2.17		1.6	2626	1444	2.17
	1.8	2580	1487	2.24		1.8	2580	1487	2.24
	2	2528	1525	2.3		2	2528	1525	2.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton - High Static Drive
Models: DHG0723W, DHG0724W, DHG0727W
125,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1035	849	0.3	T1'H*	0.8	1035	849	0.3
	1	925	910	0.32		1	925	910	0.32
	1.2	807	978	0.34		1.2	807	978	0.34
	1.4	689	1045	0.36		1.4	689	1045	0.36
	1.6					1.6			
	1.8					1.8			
	2					2			
T2C* *	0.8	1796	967	0.68	T2'H* *	0.8	1589	944	0.57
	1	1718	1024	0.72		1	1505	996	0.6
	1.2	1578	1090	0.77		1.2	1395	1054	0.64
	1.4	1506	1135	0.8		1.4	1316	1101	0.67
	1.6	1431	1176	0.83		1.6	1215	1155	0.7
	1.8	1360	1220	0.86		1.8	1130	1206	0.73
	2	1281	1261	0.89		2	1041	1255	0.76
T3C	0.8	2582	1172	1.55	T3'H	0.8	1381	921	0.47
	1	2528	1207	1.59		1	1293	968	0.5
	1.2	2479	1240	1.64		1.2	1211	1018	0.52
	1.4	2422	1277	1.69		1.4	1125	1068	0.55
	1.6	2422	1314	1.74		1.6	1030	1125	0.58
	1.8	2367	1355	1.79		1.8	935	1181	0.6
	2	2305	1402	1.85		2	839	1238	0.62
T4C	0.8	2661	1191	1.67	T4'H	0.8	1796	967	0.68
	1	2612	1225	1.72		1	1715	1024	0.72
	1.2	2560	1261	1.77		1.2	1578	1090	0.77
	1.4	2509	1294	1.82		1.4	1506	1135	0.8
	1.6	2454	1331	1.87		1.6	1431	1176	0.83
	1.8	2393	1369	1.92		1.8	1360	1220	0.86
	2	2331	1412	1.98		2	1281	1261	0.89
T5C	0.8	2764	120	1.84	T5'H	0.8	2661	1191	1.67
	1	2707	1254	1.89		1	2612	1225	1.72
	1.2	2661	1291	1.94		1.2	2560	1261	1.77
	1.4	2616	1322	1.99		1.4	2509	1294	1.82
	1.6	2573	1357	2.04		1.6	2454	1331	1.87
	1.8	2528	1398	2.1		1.8	2393	1369	1.92
	2	2483	1435	2.16		2	2331	1412	1.98

6 Ton - High Static Drive
Models: DHG0723W, DHG0724W, DHG0727W
125,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1056	903	0.32	T1'H*	0.8	1409	980	0.5
	1	944	968	0.35		1	1319	1030	0.53
	1.2	824	1040	0.38		1.2	1236	1083	0.55
	1.4	704	1112	0.42		1.4	1148	1136	0.58
	1.6					1.6	1051	1196	0.62
	1.8					1.8	954	1257	0.65
	2					2	856	1317	0.68
T2C* *	0.8	1833	1029	0.72	T2'H* *	0.8	1833	1029	0.72
	1	1753	1089	0.76		1	1753	1089	0.76
	1.2	1610	1160	0.81		1.2	1610	1160	0.81
	1.4	1537	1207	0.85		1.4	1537	1207	0.85
	1.6	1460	1251	0.88		1.6	1460	1251	0.88
	1.8	1388	1298	0.91		1.8	1388	1298	0.91
	2	1307	1342	0.94		2	1307	1342	0.94
T3C	0.8	2635	1247	1.65	T3'H	0.8	2316	1153	1.19
	1	2580	1284	1.7		1	2260	1194	1.24
	1.2	2530	1319	1.74		1.2	2194	1235	1.28
	1.4	2471	1358	1.79		1.4	2126	1280	1.33
	1.6	2415	1398	1.85		1.6	2026	1340	1.39
	1.8	2352	1442	1.9		1.8	1894	1392	1.44
	2	2269	1491	1.97		2	1835	1431	1.48
T4C	0.8	2715	1267	1.78	T4'H	0.8	2715	1267	1.78
	1	2665	1303	1.83		1	2665	1303	1.83
	1.2	2612	1341	1.88		1.2	2612	1341	1.88
	1.4	2560	1377	1.93		1.4	2560	1377	1.93
	1.6	2504	1416	1.99		1.6	2504	1416	1.99
	1.8	2442	1456	2.04		1.8	2442	1456	2.04
	2	2384	1495	2.09		2	2384	1495	2.09
T5C	0.8	2820	1298	1.95	T5'H	0.8	2820	1298	1.95
	1	2762	1334	2.01		1	2762	1334	2.01
	1.2	2715	1373	2.07		1.2	2715	1373	2.07
	1.4	2669	1406	2.12		1.4	2669	1406	2.12
	1.6	2626	1444	2.17		1.6	2626	1444	2.17
	1.8	2580	1487	2.24		1.8	2580	1487	2.24
	2	2528	1525	2.3		2	2528	1525	2.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton - High Static Drive
Models: DHG0723W, DHG0724W, DHG0727W
150,000 BTU
Down Flow

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1035	849	0.3	T1'H*	0.8	1381	921	0.47
	1	925	910	0.32		1	1293	968	0.5
	1.2	807	978	0.34		1.2	1211	1018	0.52
	1.4	689	1045	0.36		1.4	1125	1068	0.55
	1.6					1.6	1030	1125	0.58
	1.8					1.8	935	1181	0.6
	2					2	839	1238	0.62
T2C**	0.8	1796	967	0.68	T2'H**	0.8	2270	1084	1.12
	1	1718	1024	0.72		1	2215	1122	1.16
	1.2	1578	1090	0.77		1.2	2150	1161	1.2
	1.4	1506	1135	0.8		1.4	2083	1203	1.25
	1.6	1431	1176	0.83		1.6	1985	1260	1.3
	1.8	1360	1220	0.86		1.8	1856	1308	1.35
	2	1281	1261	0.89		2	1798	1345	1.39
T3C	0.8	2582	1172	1.55	T3'H	0.8	2270	1084	1.12
	1	2528	1207	1.59		1	2215	1122	1.16
	1.2	2479	1240	1.64		1.2	2150	1161	1.2
	1.4	2422	1277	1.69		1.4	2083	1203	1.25
	1.6	2367	1314	1.74		1.6	1985	1260	1.3
	1.8	2305	1355	1.79		1.8	1856	1308	1.35
	2	2224	1402	1.85		2	1798	1345	1.39
T4C	0.8	2661	11191	1.67	T4'H	0.8	2661	11191	1.67
	1	2612	1225	1.72		1	2612	1225	1.72
	1.2	2560	1261	1.77		1.2	2560	1261	1.77
	1.4	2509	1294	1.82		1.4	2509	1294	1.82
	1.6	2454	1331	1.87		1.6	2454	1331	1.87
	1.8	2393	1369	1.92		1.8	2393	1369	1.92
	2	2331	1412	1.98		2	2331	1412	1.98
T5C	0.8	2764	1220	1.84	T5'H	0.8	2764	1220	1.84
	1	2707	1254	1.89		1	2707	1254	1.89
	1.2	2661	1291	1.94		1.2	2661	1291	1.94
	1.4	2616	1322	1.99		1.4	2616	1322	1.99
	1.6	2573	1357	2.04		1.6	2573	1357	2.04
	1.8	2528	1398	2.1		1.8	2528	1398	2.1
	2	2483	1435	2.16		2	2483	1435	2.16

6 Ton - High Static Drive
Models: DHG0723W, DHG0724W, DHG0727W
150,000 BTU
Horizontal Flow

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1056	903	0.32	T1'H*	0.8	1409	980	0.5
	1	944	968	0.35		1	1319	1030	0.53
	1.2	824	1040	0.38		1.2	1236	1083	0.55
	1.4	704	1112	0.42		1.4	1148	1136	0.58
	1.6					1.6	1051	1196	0.62
	1.8					1.8	954	1257	0.65
	2					2	856	1317	0.68
T2C**	0.8	1833	1029	0.72	T2'H**	0.8	2316	1153	1.19
	1	1753	1089	0.76		1	2260	1194	1.24
	1.2	1610	1160	0.81		1.2	2194	1235	1.28
	1.4	1537	1207	0.85		1.4	2126	1280	1.33
	1.6	1460	1251	0.88		1.6	2026	1340	1.39
	1.8	1388	1298	0.91		1.8	1894	1392	1.44
	2	1307	1342	0.94		2	1835	1431	1.48
T3C	0.8	2635	1247	1.65	T3'H	0.8	2316	1153	1.19
	1	2580	1284	1.7		1	2260	1194	1.24
	1.2	2530	1319	1.74		1.2	2194	1235	1.28
	1.4	2471	1358	1.79		1.4	2126	1280	1.33
	1.6	2415	1398	1.85		1.6	2026	1340	1.39
	1.8	2352	1442	1.9		1.8	1894	1392	1.44
	2	2269	1491	1.97		2	1835	1431	1.48
T4C	0.8	2715	1267	1.78	T4'H	0.8	2715	1267	1.78
	1	2665	1303	1.83		1	2665	1303	1.83
	1.2	2612	1341	1.88		1.2	2612	1341	1.88
	1.4	2560	1377	1.93		1.4	2560	1377	1.93
	1.6	2504	1416	1.99		1.6	2504	1416	1.99
	1.8	2442	1456	2.04		1.8	2442	1456	2.04
	2	2384	1495	2.09		2	2384	1495	2.09
T5C	0.8	2820	1298	1.95	T5'H	0.8	2820	1298	1.95
	1	2762	1334	2.01		1	2762	1334	2.01
	1.2	2715	1373	2.07		1.2	2715	1373	2.07
	1.4	2669	1406	2.12		1.4	2669	1406	2.12
	1.6	2626	1444	2.17		1.6	2626	1444	2.17
	1.8	2580	1487	2.24		1.8	2580	1487	2.24
	2	2528	1525	2.3		2	2528	1525	2.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY. T2C AND T2'H VALUES ARE FOR PART LOAD ONLY

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

Models: DHG0361D1 and DHG0363D1

Standard Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1000	600	0.15
	0.4	865	685	0.18
	0.6	730	750	0.19
	0.8	600	810	0.21
T2	0.2	1655	795	0.45
	0.4	1560	855	0.49
	0.6	1455	920	0.53
	0.8	1360	975	0.56
T3	0.2	1225	670	0.24
	0.4	1110	745	0.27
	0.6	985	815	0.29
	0.8	880	870	0.31
T4	0.2	1425	730	0.33
	0.4	1325	795	0.36
	0.6	1210	865	0.39
	0.8	1115	920	0.42
T5	0.2			
	0.4			
	0.6	1695	970	0.69
	0.8	1595	1035	0.74

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1050	580	0.15
	0.4	910	665	0.17
	0.6	765	730	0.19
	0.8	630	785	0.2
T2	0.2			
	0.4	1640	830	0.47
	0.6	1530	890	0.51
	0.8	1430	945	0.54
T3	0.2	1285	650	0.23
	0.4	1165	725	0.26
	0.6	1035	790	0.28
	0.8	925	845	0.3
T4	0.2	1495	710	0.32
	0.4	1390	770	0.35
	0.6	1270	840	0.38
	0.8	1170	890	0.4
T5	0.2			
	0.4			
	0.6	1780	940	0.67
	0.8	1675	1005	0.72

4 Ton

Models: DHG0481D1 AND DHG0483D1

Standard Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	950	565	0.11
	0.4	795	660	0.13
	0.6	645	725	0.15
	0.8	520	800	0.16
T2	0.2	1405	710	0.3
	0.4	1300	770	0.33
	0.6	1185	845	0.36
	0.8	1070	900	0.39
T3	0.2	1510	740	0.36
	0.4	1410	800	0.39
	0.6	1305	870	0.42
	0.8	1195	925	0.45
T4	0.2	1620	780	0.43
	0.4	1530	830	0.45
	0.6	1425	895	0.49
	0.8	1330	950	0.52
T5	0.2	1805	840	0.56
	0.4	1715	890	0.59
	0.6	1630	940	0.63
	0.8	1550	990	0.66

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	995	545	0.11
	0.4	835	640	0.13
	0.6	685	710	0.15
	0.8	545	775	0.16
T2	0.2	1475	690	0.3
	0.4	1365	745	0.32
	0.6	1245	820	0.35
	0.8	1125	875	0.37
T3	0.2	1585	720	0.35
	0.4	1480	775	0.38
	0.6	1370	845	0.41
	0.8	1255	895	0.43
T4	0.2	1700	755	0.41
	0.4	1605	805	0.44
	0.6	1495	870	0.48
	0.8	1395	920	0.5
T5	0.2	1895	815	0.54
	0.4	1800	865	0.58
	0.6	1710	910	0.61
	0.8	1630	960	0.64

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

Models: DHG0601D1 and DHG0603D1

Standard Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1115	620	0.16
	0.4	985	700	0.19
	0.6	845	775	0.21
	0.8	725	840	0.24
T2	0.2	1400	705	0.29
	0.4	1290	780	0.32
	0.6	1170	845	0.35
	0.8	1065	910	0.38
T3	0.2	1895	865	0.62
	0.4	1810	920	0.66
	0.6	1720	965	0.69
	0.8	1640	1020	0.73
T4	0.2	1910	870	0.63
	0.4	1825	925	0.67
	0.6	1735	970	0.7
	0.8	1655	1020	0.74
T5	0.2	2145	955	0.91
	0.4	2065	990	0.94
	0.6	1980	1035	0.99
	0.8	1900	1075	1.02

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1170	600	0.16
	0.4	1030	685	0.18
	0.6	890	750	0.21
	0.8	765	815	0.23
T2	0.2	1470	685	0.29
	0.4	1355	755	0.31
	0.6	1230	820	0.34
	0.8	1120	885	0.37
T3	0.2	1990	840	0.6
	0.4	1900	890	0.64
	0.6	1805	935	0.67
	0.8	1720	990	0.71
T4	0.2	2005	845	0.61
	0.4	1915	895	0.65
	0.6	1820	940	0.68
	0.8	1740	990	0.72
T5	0.2	2250	925	0.88
	0.4	2170	960	0.91
	0.6	2080	1005	0.96
	0.8	1995	1045	0.99

3 Ton

Models: DHG0361D8 and DHG0363D8

Standard Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1000	600	0.15
	0.4	865	685	0.18
	0.6	730	750	0.19
	0.8	600	810	0.21
T2	0.2	1120	640	0.2
	0.4	1000	715	0.22
	0.6	865	785	0.24
	0.8	750	840	0.26
T3	0.2	1225	670	0.24
	0.4	1110	745	0.27
	0.6	985	815	0.29
	0.8	880	870	0.31
T4	0.2	1425	730	0.33
	0.4	1325	795	0.36
	0.6	1210	865	0.39
	0.8	1115	920	0.42
T5	0.2	1900	850	0.61
	0.4	1800	910	0.65
	0.6	1695	970	0.69
	0.8	1595	1035	0.74

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1050	580	0.15
	0.4	910	665	0.17
	0.6	765	730	0.19
	0.8	630	785	0.2
T2	0.2	1175	620	0.19
	0.4	1050	695	0.22
	0.6	910	760	0.24
	0.8	790	815	0.25
T3	0.2	1285	650	0.23
	0.4	1165	725	0.26
	0.6	1035	790	0.28
	0.8	925	845	0.3
T4	0.2	1495	710	0.32
	0.4	1390	770	0.35
	0.6	1270	840	0.38
	0.8	1170	890	0.4
T5	0.2	1995	825	0.59
	0.4	1890	885	0.63
	0.6	1780	940	0.67
	0.8	1675	1005	0.72

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

Models: DHG0481D8 and DHG0483D8

Standard Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	945	565	0.1
	0.4	790	655	0.13
	0.6	645	725	0.15
	0.8	515	800	0.17
T2	0.2	1260	660	0.24
	0.4	1140	735	0.26
	0.6	1015	805	0.29
	0.8	895	870	0.31
T3	0.2	1510	740	0.36
	0.4	1410	800	0.39
	0.6	1305	870	0.42
	0.8	1195	925	0.45
T4	0.2	1620	780	0.43
	0.4	1530	830	0.45
	0.6	1425	895	0.49
	0.8	1330	950	0.52
T5	0.2	1805	840	0.56
	0.4	1715	890	0.59
	0.6	1630	940	0.63
	0.8	1550	990	0.66

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	990	545	0.12
	0.4	830	635	0.13
	0.6	680	710	0.15
	0.8	540	775	0.16
T2	0.2	1325	640	0.23
	0.4	1195	715	0.26
	0.6	1065	780	0.28
	0.8	940	845	0.3
T3	0.2	1585	720	0.35
	0.4	1480	775	0.38
	0.6	1370	845	0.41
	0.8	1255	895	0.43
T4	0.2	1700	755	0.41
	0.4	1605	805	0.44
	0.6	1495	870	0.48
	0.8	1395	920	0.5
T5	0.2	1895	815	0.54
	0.4	1800	865	0.58
	0.6	1710	910	0.61
	0.8	1630	960	0.64

5 Ton

Models: DHG0601D8 and DHG0603D8

Standard Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1110	615	0.16
	0.4	975	705	0.19
	0.6	845	775	0.21
	0.8	720	840	0.25
T2	0.2	1280	670	0.24
	0.4	1160	745	0.27
	0.6	1030	815	0.29
	0.8	920	880	0.31
T3	0.2	1895	865	0.62
	0.4	1810	920	0.66
	0.6	1720	965	0.69
	0.8	1640	1020	0.73
T4	0.2	1910	870	0.63
	0.4	1825	925	0.67
	0.6	1735	970	0.7
	0.8	1655	1020	0.74
T5	0.2	2145	955	0.91
	0.4	2065	990	0.94
	0.6	1980	1035	0.99
	0.8	1900	1075	1.02

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1160	595	0.17
	0.4	1020	685	0.18
	0.6	895	750	0.22
	0.8	765	815	0.23
T2	0.2	1345	650	0.23
	0.4	1220	725	0.26
	0.6	1080	790	0.28
	0.8	965	855	0.31
T3	0.2	1990	840	0.6
	0.4	1990	890	0.64
	0.6	1805	935	0.67
	0.8	1720	990	0.71
T4	0.2	2005	845	0.61
	0.4	1915	895	0.65
	0.6	1820	940	0.68
	0.8	1740	990	0.72
T5	0.2	2250	925	0.88
	0.4	2170	960	0.91
	0.6	2080	1005	0.96
	0.8	1995	1045	0.99

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton
Models: DHG0361D6 and DHG0363D6
Standard Static Drive
Burners High Fire Input: 60,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1000	600	0.15
	0.4	865	685	0.18
	0.6	730	750	0.19
	0.8	600	810	0.21
T2	0.2	895	570	0.12
	0.4	755	655	0.14
	0.6	610	725	0.16
	0.8	470	780	0.17
T3	0.2	1225	670	0.24
	0.4	1110	745	0.27
	0.6	985	815	0.29
	0.8	880	870	0.31
T4	0.2	1425	730	0.33
	0.4	1325	795	0.36
	0.6	1210	865	0.39
	0.8	1115	920	0.42
T5	0.2			
	0.4			
	0.6	1695	970	0.69
	0.8	1595	1035	0.74

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1050	580	0.15
	0.4	910	665	0.17
	0.6	765	730	0.19
	0.8	630	785	0.2
T2	0.2	940	555	0.12
	0.4	795	635	0.14
	0.6	640	705	0.15
	0.8	495	755	0.16
T3	0.2	1285	650	0.23
	0.4	1165	725	0.26
	0.6	1035	790	0.28
	0.8	925	845	0.3
T4	0.2	1495	710	0.32
	0.4	1390	770	0.35
	0.6	1270	840	0.38
	0.8	1170	890	0.4
T5	0.2			
	0.4			
	0.6	1780	940	0.67
	0.8	1675	1005	0.72

3 Ton
Models: DHG0364D1
Standard Static Drive
Burners High Fire Input: 100,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	955	575	0.15
	0.4	825	660	0.17
	0.6	685	740	0.19
	0.8	555	805	0.21
T2	0.2	1310	695	0.39
	0.4	1205	760	0.42
	0.6	1100	825	0.45
	0.8	990	890	0.48
T3	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T4	0.2	1375	715	0.34
	0.4	1290	770	0.37
	0.6	1200	845	0.43
	0.8	1100	910	0.42
T5	0.2	1525	765	0.55
	0.4	1435	820	0.59
	0.6	1350	875	0.62
	0.8	1250	940	0.67

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1010	540	0.14
	0.4	875	620	0.16
	0.6	725	695	0.18
	0.8	590	755	0.19
T2	0.2	1385	655	0.36
	0.4	1280	715	0.39
	0.6	1165	775	0.42
	0.8	1050	835	0.45
T3	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T4	0.2	1465	675	0.32
	0.4	1355	725	0.35
	0.6	1275	780	0.38
	0.8	1165	860	0.4
T5	0.2	1615	720	0.51
	0.4	1520	770	0.55
	0.6	1430	825	0.59
	0.8	1325	885	0.63

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

Models: DHG0484D1

Standard Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	920	565	0.11
	0.4	760	655	0.13
	0.6	620	730	0.15
	0.8	480	795	0.16
T2	0.2	1405	715	0.31
	0.4	1305	775	0.33
	0.6	1190	840	0.36
	0.8	1075	905	0.39
T3	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T4	0.2	1710	820	0.5
	0.4	1620	865	0.53
	0.6	1535	925	0.56
	0.8	1435	975	0.59
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	970	535	0.1
	0.4	805	620	0.12
	0.6	660	685	0.14
	0.8	510	745	0.16
T2	0.2	1490	670	0.29
	0.4	1385	730	0.31
	0.6	1260	790	0.34
	0.8	1140	850	0.36
T3	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T4	0.2	1810	770	0.47
	0.4	1715	815	0.5
	0.6	1625	870	0.53
	0.8	1520	920	0.56
T5	0.2	1930	805	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

5 Ton

Models: DHG0604D1

Standard Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1130	620	0.18
	0.4	985	710	0.19
	0.6	865	780	0.23
	0.8	730	840	0.25
T2	0.2	1300	675	0.24
	0.4	1185	750	0.27
	0.6	1065	820	0.29
	0.8	940	880	0.31
T3	0.2	1930	890	0.64
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T4	0.2	1930	890	0.64
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T5	0.2	2165	960	0.91
	0.4	2085	1000	0.95
	0.6	2005	1035	0.99
	0.8	1935	1080	1.03

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1195	580	0.15
	0.4	1045	665	0.19
	0.6	920	730	0.21
	0.8	770	795	0.23
T2	0.2	1380	635	0.23
	0.4	1255	705	0.25
	0.6	1130	770	0.27
	0.8	995	825	0.29
T3	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T4	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T5	0.2	2295	900	0.86
	0.4	2210	940	0.89
	0.6	2125	975	0.93
	0.8	2050	1015	0.97

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

Models: DHG0364D8

Standard Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	955	575	0.15
	0.4	825	660	0.17
	0.6	685	740	0.19
	0.8	555	805	0.21
T2	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T3	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T4	0.2	1375	715	0.34
	0.4	1290	770	0.37
	0.6	1200	845	0.43
	0.8	1100	910	0.42
T5	0.2	1525	765	0.55
	0.4	1435	820	0.59
	0.6	1350	875	0.62
	0.8	1250	940	0.67

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1010	540	0.14
	0.4	875	620	0.16
	0.6	725	695	0.18
	0.8	590	755	0.19
T2	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T3	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T4	0.2	1465	675	0.32
	0.4	1355	725	0.35
	0.6	1275	780	0.38
	0.8	1165	860	0.4
T5	0.2	1615	720	0.51
	0.4	1520	770	0.55
	0.6	1430	825	0.59
	0.8	1325	885	0.63

4 Ton

Models: DHG0484D8

Standard Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	920	565	0.11
	0.4	760	655	0.14
	0.6	620	730	0.15
	0.8	480	795	0.16
T2	0.2	1240	665	0.24
	0.4	1135	730	0.24
	0.6	1005	795	0.27
	0.8	880	870	0.3
T3	0.2	1515	750	0.36
	0.4	1420	805	0.39
	0.6	1315	870	0.42
	0.8	1205	930	0.45
T4	0.2	1710	820	0.5
	0.4	1620	865	0.53
	0.6	1535	925	0.56
	0.8	1435	975	0.59
T5	0.2	1820	855	0.58
	0.4	1730	900	0.61
	0.6	1655	955	0.65
	0.8	1560	1005	0.68

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	970	535	0.1
	0.4	805	620	0.12
	0.6	660	685	0.14
	0.8	510	745	0.16
T2	0.2	1320	620	0.22
	0.4	1205	695	0.22
	0.6	1060	745	0.25
	0.8	940	815	0.27
T3	0.2	1605	705	0.34
	0.4	1505	755	0.37
	0.6	1395	820	0.4
	0.8	1275	875	0.42
T4	0.2	1810	770	0.47
	0.4	1715	815	0.5
	0.6	1625	870	0.53
	0.8	1520	920	0.56
T5	0.2	1930	805	0.55
	0.4	1835	845	0.57
	0.6	1755	900	0.61
	0.8	1655	945	0.64

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

Models: DHG0604D8

Standard Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1045	590	0.16
	0.4	890	685	0.14
	0.6	770	755	0.21
	0.8	625	815	0.23
T2	0.2	1275	665	0.23
	0.4	1160	745	0.26
	0.6	1040	815	0.28
	0.8	910	875	0.3
T3	0.2	1930	890	0.64
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T4	0.2	1930	890	0.64
	0.4	1850	935	0.67
	0.6	1770	985	0.7
	0.8	1685	1030	0.74
T5	0.2	2165	960	0.91
	0.4	2085	1000	0.95
	0.6	2005	1035	0.99
	0.8	1935	1080	1.03

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1105	550	0.1
	0.4	940	640	0.17
	0.6	815	705	0.19
	0.8	655	785	0.21
T2	0.2	1355	625	0.22
	0.4	1230	700	0.24
	0.6	1100	765	0.26
	0.8	965	820	0.28
T3	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T4	0.2	2045	835	0.6
	0.4	1960	880	0.63
	0.6	1875	925	0.66
	0.8	1785	970	0.69
T5	0.2	2295	900	0.86
	0.4	2210	940	0.89
	0.6	2125	975	0.93
	0.8	2050	1015	0.97

3 Ton

Models: DHG0364D6

Standard Static Drive

Burners High Fire Input: 60,000 BTU/HR

Downflow				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	955	575	0.15
	0.4	825	660	0.17
	0.6	685	740	0.19
	0.8	555	805	0.21
T2	0.2	940	570	0.15
	0.4	810	655	0.16
	0.6	670	735	0.18
	0.8	540	800	0.2
T3	0.2	1155	640	0.23
	0.4	1050	715	0.26
	0.6	925	790	0.28
	0.8	805	855	0.31
T4	0.2	1575	780	0.44
	0.4	1505	820	0.47
	0.6	1450	895	0.56
	0.8	1365	960	0.52
T5	0.2	1490	755	0.52
	0.4	1400	810	0.56
	0.6	1310	865	0.59
	0.8	1210	930	0.63

Horizontal				
Speed Tap	External Static	SCFM	RPM	BHP
T1*	0.2	1010	540	0.14
	0.4	875	620	0.16
	0.6	725	695	0.18
	0.8	590	755	0.19
T2	0.2	1000	535	0.14
	0.4	860	615	0.16
	0.6	710	690	0.17
	0.8	575	750	0.18
T3	0.2	1225	600	0.21
	0.4	1115	670	0.24
	0.6	980	745	0.27
	0.8	855	805	0.29
T4	0.2	1680	740	0.42
	0.4	1570	775	0.45
	0.6	1540	815	0.48
	0.8	1450	910	0.5
T5	0.2	1575	710	0.48
	0.4	1480	760	0.52
	0.6	1385	815	0.56
	0.8	1280	880	0.6

T1 VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton
Models: DHG0363W1, DHG0364W1 and DHG0367W1
High Static Drive
Burners High Fire Input: 100,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	495	779	0.17	T1'H*	0.8	1223	901	0.56
	1	385	843	0.18		1	1119	957	0.59
	1.2					1.2	1028	1010	0.63
	1.4					1.4	925	1064	0.66
	1.6					1.6	832	1110	0.69
	1.8					1.8	722	1155	0.71
	2					2	647	1200	0.74
T2C	0.8	848	836	0.22	T2'H	0.8	1397	934	0.58
	1	735	897	0.23		1	1287	998	0.62
	1.2	608	949	0.25		1.2	1195	1047	0.65
	1.4	515	1002	0.26		1.4	1108	1093	0.68
	1.6	400	1042	0.27		1.6	1023	1147	0.71
	1.8					1.8	940	1190	0.74
	2					2	841	1233	0.76
T3C	0.8	1397	934	0.58	T3'H	0.8	1486	950	0.68
	1	1287	998	0.62		1	1376	1012	0.72
	1.2	1195	1047	0.65		1.2	1280	1066	0.76
	1.4	1108	1093	0.68		1.4	1198	1112	0.79
	1.6	1023	1147	0.71		1.6	1113	1158	0.83
	1.8	940	1190	0.74		1.8	1031	1205	0.86
	2	841	1233	0.76		2	947	1244	0.89
T4C	0.8	1559	973	0.82	T4'H	0.8	1559	973	0.82
	1	1473	1021	0.85		1	1473	1021	0.85
	1.2	1365	1079	0.9		1.2	1365	1079	0.9
	1.4	1277	1125	0.94		1.4	1277	1125	0.94
	1.6	1195	1168	0.97		1.6	1195	1168	0.97
	1.8	1113	1221	1.02		1.8	1113	1221	1.02
	2	1044	1263	1.05		2	1044	1263	1.05
T5C	0.8	1632	1010	0.96	T5'H	0.8	1632	1010	0.96
	1	1550	1055	1.01		1	1550	1055	1.01
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2	1139	1280	1.22		2	1139	1280	1.22

3 Ton
Models: DHG0363W1, DHG0364W1 and DHG0367W1
High Static Drive
Burners High Fire Input: 100,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	505	828	0.18	T1'H*	0.8	1248	958	0.59
	1	392	897	0.19		1	1142	1019	0.63
	1.2					1.2	1049	1075	0.67
	1.4					1.4	944	1132	0.7
	1.6					1.6	849	1181	0.73
	1.8					1.8	737	1229	0.76
	2					2	660	1277	0.79
T2C	0.8	865	889	0.23	T2'H	0.8	1487	993	0.61
	1	750	954	0.25		1	1369	1062	0.66
	1.2	620	1010	0.26		1.2	1271	1114	0.69
	1.4	526	1066	0.28		1.4	1179	1163	0.72
	1.6	408	1109	0.29		1.6	1088	1220	0.76
	1.8					1.8	1000	1266	0.78
	2					2	895	1312	0.81
T3C	0.8	1487	993	0.61	T3'H	0.8			
	1	1369	1062	0.66		1	1464	1077	0.77
	1.2	1271	1114	0.69		1.2	1362	1134	0.81
	1.4	1179	1163	0.72		1.4	1275	1183	0.84
	1.6	1088	1220	0.76		1.6	1184	1232	0.88
	1.8	1000	1266	0.78		1.8	1096	1282	0.92
	2	895	1312	0.81		2	1007	1323	0.94
T4C	0.8	1622	1050	0.88	T4'H	0.8	1622	1050	0.88
	1	1537	1099	0.92		1	1537	1099	0.92
	1.2	1452	1148	0.96		1.2	1452	1148	0.96
	1.4	1359	1197	1		1.4	1359	1197	1
	1.6	1272	1243	1.04		1.6	1272	1243	1.04
	1.8	1184	1299	1.08		1.8	1184	1299	1.08
	2	1111	1344	1.12		2	1111	1344	1.12
T5C	0.8				T5'H	0.8			
	1	1635	1129	1.07		1	1635	1129	1.07
	1.2	1550	1176	1.12		1.2	1550	1176	1.12
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2	1212	1361	1.3		2	1212	1361	1.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

Models: DHG0483W1, DHG0484W1 and DHG0487W1

High Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1092	875	0.37	T1'H*	0.8	1092	875	0.37
	1	1007	927	0.4		1	1007	927	0.4
	1.2	880	991	0.42		1.2	880	991	0.42
	1.4	789	1042	0.45		1.4	789	1042	0.45
	1.6	692	1090	0.47		1.6	692	1090	0.47
	1.8	612	1134	0.49		1.8	612	1134	0.49
	2	509	1191	0.52		2	509	1191	0.52
T2C	0.8	1510	927	0.56	T2'H	0.8	1335	885	0.43
	1	1369	995	0.6		1	1150	970	0.47
	1.2	1285	1040	0.63		1.2	1100	1000	0.49
	1.4	1202	1085	0.66		1.4	1015	1050	0.52
	1.6	1130	1133	0.69		1.6	945	1100	0.55
	1.8	1044	1178	0.71		1.8	850	1150	0.56
	2	918	1233	0.75		2	685	1210	0.6
T3C	0.8	1782	993	0.77	T3'H	0.8	1365	895	0.41
	1	1711	1034	0.8		1	1300	940	0.41
	1.2	1576	1102	0.85		1.2	1080	1040	0.46
	1.4	1494	1143	0.88		1.4	1055	1050	0.46
	1.6	1419	1183	0.91		1.6	935	1090	0.49
	1.8	1349	1225	0.95		1.8	885	1145	0.53
	2	1282	1266	0.98		2	810	1195	0.56
T4C	0.8	1921	1026	0.89	T4'H	0.8	1921	1026	0.89
	1	1848	1066	0.93		1	1848	1066	0.93
	1.2	1742	1123	0.98		1.2	1742	1123	0.98
	1.4	1640	1174	1.02		1.4	1640	1174	1.02
	1.6	1580	1214	1.05		1.6	1580	1214	1.05
	1.8	1504	1251	1.09		1.8	1504	1251	1.09
	2	1440	1289	1.12		2	1440	1289	1.12
T5C	0.8	2064	1053	1	T5'H	0.8	2064	1053	1
	1	1978	1096	1.04		1	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2	1550	1311	1.25		2	1550	1311	1.25

4 Ton

Models: DHG0483W1, DHG0484W1 and DHG0487W1

High Static Drive

Burners High Fire Input: 100,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1114	931	0.4	T1'H*	0.8	1114	931	0.4
	1	1028	986	0.42		1	1028	986	0.42
	1.2	898	1054	0.45		1.2	898	1054	0.45
	1.4	805	1109	0.48		1.4	805	1109	0.48
	1.6	706	1160	0.5		1.6	706	1160	0.5
	1.8	624	1206	0.52		1.8	624	1206	0.52
	2	519	1266	0.55		2	519	1266	0.55
T2C	0.8	1541	987	0.6	T2'H	0.8	1365	945	0.46
	1	1397	1058	0.64		1	1175	1030	0.51
	1.2	1311	1106	0.67		1.2	1120	1065	0.52
	1.4	1227	1154	0.7		1.4	1035	1115	0.55
	1.6	1153	1205	0.73		1.6	965	1170	0.58
	1.8	1065	1253	0.76		1.8	865	1220	0.6
	2	937	1312	0.8		2	700	1290	0.65
T3C	0.8	1818	1056	0.82	T3'H	0.8	1390	950	0.43
	1	1746	1100	0.85		1	1325	1000	0.43
	1.2	1608	1172	0.91		1.2	1100	1105	0.52
	1.4	1524	1216	0.94		1.4	1075	1115	0.49
	1.6	1448	1258	0.97		1.6	955	1160	0.52
	1.8	1377	1303	1.01		1.8	905	1220	0.56
	2	1308	1347	1.04		2	825	1275	0.59
T4C	0.8	1960	1092	0.95	T4'H	0.8	1960	1092	0.95
	1	1886	1134	0.99		1	1886	1134	0.99
	1.2	1778	1195	1.04		1.2	1778	1195	1.04
	1.4	1673	1249	1.09		1.4	1673	1249	1.09
	1.6	1612	1291	1.12		1.6	1612	1291	1.12
	1.8	1535	1331	1.16		1.8	1535	1331	1.16
	2	1469	1371	1.19		2	1469	1371	1.19
T5C	0.8	2131	1115	1.06	T5'H	0.8	2131	1115	1.06
	1	2040	1161	1.1		1	2040	1161	1.1
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2	1582	1395	1.33		2	1582	1395	1.33

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

Models: DHG0603W1, DHG0604W1 and DHG0607W1

High Static Drive

Burners High Fire Input: 100,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	819	806	0.23		0.8	819	806	0.23
	1	680	873	0.25		1	680	873	0.25
	1.2	584	929	0.27		1.2	584	929	0.27
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1551	930	1		0.8	1475	916	0.51
	1	1455	980	1.05		1	1379	967	0.54
	1.2	1367	1033	1.11		1.2	1293	1021	0.57
T2C	1.4	1290	1080	1.16	T2'H	1.4	1218	1068	0.6
	1.6	1213	1126	1.21		1.6	1134	1120	0.63
	1.8	1136	1172	1.26		1.8	1017	1173	0.66
	2	1079	1205	1.29		2	938	1218	0.68
	0.8	1098	1052	0.7		0.8	1595	940	0.6
	1	2036	1095	0.73		1	1510	990	0.63
	1.2	1971	1136	0.76		1.2	1420	1040	0.66
T3C	1.4	1887	1180	0.79	T3'H	1.4	1345	1090	0.69
	1.6	1805	1221	0.81		1.6	1260	1140	0.72
	1.8	1755	1252	0.83		1.8	1155	1190	0.75
	2	1660	1305	0.87		2	1085	1230	0.78
	0.8	2236	1094	0.89		0.8	1760	970	0.68
	1	2175	1133	0.92		1	1690	1015	0.72
	1.2	2117	1171	0.95		1.2	1595	1065	0.75
T4C	1.4	2048	1211	0.98	T4'H	1.4	1500	1115	0.79
	1.6	1958	1252	1.01		1.6	1430	1160	0.83
	1.8	1880	1293	1.05		1.8	1340	1205	0.86
	2	1843	1321	1.07		2	1310	1245	0.89
	0.8	2446	1157	1.46		0.8	2446	1157	1.46
	1	2390	1193	1.5		1	2390	1193	1.5
	1.2	2331	1230	1.55		1.2	2331	1230	1.55
T5C	1.4	2273	1266	1.6	T5'H	1.4	2273	1266	1.6
	1.6	2207	1303	1.64		1.6	2207	1303	1.64
	1.8	2116	1351	1.7		1.8	2116	1351	1.7
	2	2037	1390	1.75		2	2037	1390	1.75

5 Ton

Models: DHG0603W1, DHG0604W1 and DHG0607W1

High Static Drive

Burners High Fire Input: 100,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	836	857	0.24		0.8	836	857	0.24
	1	694	929	0.27		1	694	929	0.27
	1.2	596	989	0.28		1.2	596	989	0.28
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1583	989	0.59		0.8	1505	974	0.54
	1	1485	1043	0.62		1	1407	1029	0.58
	1.2	1395	1099	0.65		1.2	1319	1086	0.61
T2C	1.4	1316	1149	0.68	T2'H	1.4	1243	1136	0.64
	1.6	1238	1198	0.71		1.6	1157	1191	0.67
	1.8	1159	1247	0.74		1.8	1038	1248	0.7
	2	1101	1282	0.76		2	957	1296	0.72
	0.8	2141	1119	1.07		0.8	1630	1000	0.63
	1	2078	1165	1.11		1	1540	1055	0.67
	1.2	2011	1208	1.15		1.2	1450	1110	0.7
T3C	1.4	1925	1255	1.19	T3'H	1.4	1370	1160	0.74
	1.6	1842	1299	1.24		1.6	1285	1210	0.77
	1.8	1791	1332	1.27		1.8	1180	1265	0.8
	2	1694	1388	1.32		2	1105	1310	0.83
	0.8	2282	1164	1.25		0.8	1795	1035	0.72
	1	2219	1205	1.29		1	1725	1080	0.76
	1.2	2160	1246	1.33		1.2	1630	1135	0.8
T4C	1.4	2090	1288	1.38	T4'H	1.4	1530	1185	0.84
	1.6	1998	1332	1.43		1.6	1460	1235	0.87
	1.8	1918	1376	1.47		1.8	1370	1285	0.9
	2	1881	1405	1.5		2	1340	1325	0.94
	0.8	2496	1231	1.55		0.8	2496	1231	1.55
	1	2439	1269	1.6		1	2439	1269	1.6
	1.2	2379	1308	1.65		1.2	2379	1308	1.65
T5C	1.4	2319	1347	1.7	T5'H	1.4	2319	1347	1.7
	1.6	2252	1386	1.75		1.6	2252	1386	1.75
	1.8	2159	1437	1.81		1.8	2159	1437	1.81
	2	2079	1479	1.87		2	2079	1479	1.87

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

Models: DHG0363W8, DHG0364W8 and DHG0367W8

High Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	495	779	0.17	T1'H*	0.8	1050	870	0.54
	1	385	843	0.18		1	950	915	0.56
	1.2					1.2	860	975	0.61
	1.4					1.4	740	1035	0.64
	1.6					1.6	640	1075	0.67
	1.8					1.8	505	1120	0.68
	2					2	455	1165	0.72
T2C	0.8	848	836	0.22	T2'H	0.8	1275	910	0.44
	1	735	897	0.23		1	1165	980	0.48
	1.2	608	949	0.25		1.2	1080	1020	0.5
	1.4	515	1002	0.26		1.4	985	1065	0.53
	1.6	400	1042	0.27		1.6	900	1130	0.55
	1.8					1.8	815	1170	0.62
	2					2	695	1220	0.58
T3C	0.8	1397	934	0.58	T3'H	0.8	1230	905	0.39
	1	1287	998	0.62		1	1120	970	0.43
	1.2	1195	1047	0.65		1.2	1035	1010	0.44
	1.4	1108	1093	0.68		1.4	1198	1055	0.47
	1.6	1023	1147	0.71		1.6	1113	1125	0.49
	1.8	940	1190	0.74		1.8	1031	1160	0.52
	2	841	1233	0.76		2	947	1210	0.52
T4C	0.8	1559	973	0.82	T4'H	0.8			
	1	1473	1021	0.85		1			
	1.2	1365	1079	0.9		1.2	1270	1060	0.77
	1.4	1277	1125	0.94		1.4	1185	1105	0.81
	1.6	1195	1168	0.97		1.6	1100	1145	0.83
	1.8	1113	1221	1.02		1.8	1020	1210	0.89
	2	1044	1263	1.05		2	960	1250	0.9
T5C	0.8	1632	1010	0.96	T5'H	0.8	1632	1010	0.96
	1	1550	1055	1.01		1	1550	1055	1.01
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2	1139	1280	1.22		2	1139	1280	1.22

3 Ton

Models: DHG0363W8, DHG0364W8 and DHG0367W8

High Static Drive

Burners High Fire Input: 80,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	505	828	0.18	T1'H*	0.8	1010	925	0.57
	1	392	897	0.19		1	915	975	0.6
	1.2					1.2	825	1035	0.65
	1.4					1.4	710	1100	0.68
	1.6					1.6	610	1140	0.7
	1.8					1.8	475	1190	0.74
	2					2	425	1240	0.77
T2C	0.8	865	889	0.23	T2'H	0.8			
	1	750	954	0.25		1	1240	1040	0.51
	1.2	620	1010	0.26		1.2	1145	1085	0.52
	1.4	526	1066	0.28		1.4	1045	1135	0.56
	1.6	408	1109	0.29		1.6	955	1205	0.6
	1.8					1.8	870	1245	0.59
	2					2	740	1295	0.63
T3C	0.8	1487	993	0.61	T3'H	0.8			
	1	1369	1062	0.66		1	1190	1035	0.45
	1.2	1271	1114	0.69		1.2	1100	1075	0.46
	1.4	1179	1163	0.72		1.4	1000	1125	0.5
	1.6	1088	1220	0.76		1.6	910	1200	0.54
	1.8	1000	1266	0.78		1.8	820	1235	0.52
	2	895	1312	0.81		2	685	1290	0.57
T4C	0.8	1622	1050	0.88	T4'H	0.8			
	1	1537	1099	0.92		1			
	1.2	1452	1148	0.96		1.2			
	1.4	1359	1197	1		1.4	1265	1175	0.86
	1.6	1272	1243	1.04		1.6	1175	1220	0.89
	1.8	1184	1299	1.08		1.8	1080	1290	0.93
	2	1111	1344	1.12		2	1020	1330	0.96
T5C	0.8				T5'H	0.8			
	1	1635	1129	1.07		1	1635	1129	1.07
	1.2	1550	1176	1.12		1.2	1550	1176	1.12
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2	1212	1361	1.3		2	1212	1361	1.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

Models: DHG0483W8, DHG0484W8 and DHG0487W8

High Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1092	875	0.37	T1'H*	0.8	1092	875	0.37
	1	1007	927	0.4		1	1007	927	0.4
	1.2	880	991	0.42		1.2	880	991	0.42
	1.4	789	1042	0.45		1.4	789	1042	0.45
	1.6	692	1090	0.47		1.6	692	1090	0.47
	1.8	612	1134	0.49		1.8	612	1134	0.49
	2	509	1191	0.52		2	509	1191	0.52
T2C	0.8	1510	927	0.56	T2'H	0.8	1275	870	0.38
	1	1369	995	0.6		1	1075	960	0.43
	1.2	1285	1040	0.63		1.2	1035	985	0.44
	1.4	1202	1085	0.66		1.4	950	1035	0.47
	1.6	1130	1133	0.69		1.6	885	1090	0.5
	1.8	1044	1178	0.71		1.8	785	1140	0.5
	2	918	1233	0.75		2	605	1205	0.55
T3C	0.8	1782	993	0.77	T3'H	0.8	1365	895	0.41
	1	1711	1034	0.8		1	1300	940	0.41
	1.2	1576	1102	0.85		1.2	1080	1040	0.46
	1.4	1494	1143	0.88		1.4	1055	1050	0.46
	1.6	1419	1183	0.91		1.6	935	1090	0.49
	1.8	1349	1225	0.95		1.8	885	1145	0.53
	2	1282	1266	0.98		2	810	1195	0.56
T4C	0.8	1921	1026	0.89	T4'H	0.8	1921	1026	0.89
	1	1848	1066	0.93		1	1848	1066	0.93
	1.2	1742	1123	0.98		1.2	1742	1123	0.98
	1.4	1640	1174	1.02		1.4	1640	1174	1.02
	1.6	1580	1214	1.05		1.6	1580	1214	1.05
	1.8	1504	1251	1.09		1.8	1504	1251	1.09
	2	1440	1289	1.12		2	1440	1289	1.12
T5C	0.8	2064	1053	1	T5'H	0.8	2064	1053	1
	1	1978	1096	1.04		1	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2	1550	1311	1.25		2	1550	1311	1.25

4 Ton

Models: DHG0483W8, DHG0484W8 and DHG0487W8

High Static Drive

Burners High Fire Input: 80,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	1114	931	0.4	T1'H*	0.8	1114	931	0.4
	1	1028	986	0.42		1	1028	986	0.42
	1.2	898	1054	0.45		1.2	898	1054	0.45
	1.4	805	1109	0.48		1.4	805	1109	0.48
	1.6	706	1160	0.5		1.6	706	1160	0.5
	1.8	624	1206	0.52		1.8	624	1206	0.52
	2	519	1266	0.55		2	519	1266	0.55
T2C	0.8	1541	987	0.6	T2'H	0.8	1305	930	0.41
	1	1397	1058	0.64		1	1100	1020	0.46
	1.2	1311	1106	0.67		1.2	1055	1050	0.46
	1.4	1227	1154	0.7		1.4	970	1100	0.49
	1.6	1153	1205	0.73		1.6	900	1160	0.52
	1.8	1065	1253	0.76		1.8	800	1210	0.55
	2	937	1312	0.8		2	620	1280	0.59
T3C	0.8	1818	1056	0.82	T3'H	0.8	1390	950	0.43
	1	1746	1100	0.85		1	1325	1000	0.43
	1.2	1608	1172	0.91		1.2	1100	1105	0.52
	1.4	1524	1216	0.94		1.4	1075	1115	0.49
	1.6	1448	1258	0.97		1.6	955	1160	0.52
	1.8	1377	1303	1.01		1.8	905	1220	0.56
	2	1308	1347	1.04		2	825	1275	0.59
T4C	0.8	1960	1092	0.95	T4'H	0.8	1960	1092	0.95
	1	1886	1134	0.99		1	1886	1134	0.99
	1.2	1778	1195	1.04		1.2	1778	1195	1.04
	1.4	1673	1249	1.09		1.4	1673	1249	1.09
	1.6	1612	1291	1.12		1.6	1612	1291	1.12
	1.8	1535	1331	1.16		1.8	1535	1331	1.16
	2	1469	1371	1.19		2	1469	1371	1.19
T5C	0.8	2131	1115	1.06	T5'H	0.8	2131	1115	1.06
	1	2040	1161	1.1		1	2040	1161	1.1
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2	1582	1395	1.33		2	1582	1395	1.33

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

Models: DHG0603W8, DHG0604W8 and DHG0607W8

High Static Drive

Burners High Fire Input: 80,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	819	806	0.23		0.8	819	806	0.23
	1	680	873	0.25		1	680	873	0.25
	1.2	584	929	0.27		1.2	584	929	0.27
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1551	930	1		0.8	1495	920	0.52
	1	1455	980	1.05		1	1400	970	0.55
	1.2	1367	1033	1.11		1.2	1315	1025	0.58
T2C	1.4	1290	1080	1.16	T2'H	1.4	1235	1070	0.61
	1.6	1213	1126	1.21		1.6	1155	1120	0.64
	1.8	1136	1172	1.26		1.8	1050	1175	0.67
	2	1079	1205	1.29		2	975	1215	0.69
	0.8	1098	1052	0.7		0.8	1595	940	0.6
	1	2036	1095	0.73		1	1510	990	0.63
	1.2	1971	1136	0.76		1.2	1420	1040	0.66
T3C	1.4	1887	1180	0.79	T3'H	1.4	1345	1090	0.69
	1.6	1805	1221	0.81		1.6	1260	1140	0.72
	1.8	1755	1252	0.83		1.8	1155	1190	0.75
	2	1660	1305	0.87		2	1085	1230	0.78
	0.8	2236	1094	0.89		0.8	1760	970	0.68
	1	2175	1133	0.92		1	1690	1015	0.72
	1.2	2117	1171	0.95		1.2	1595	1065	0.75
T4C	1.4	2048	1211	0.98	T4'H	1.4	1500	1115	0.79
	1.6	1958	1252	1.01		1.6	1430	1160	0.83
	1.8	1880	1293	1.05		1.8	1340	1205	0.86
	2	1843	1321	1.07		2	1310	1245	0.89
	0.8	2446	1157	1.46		0.8	2446	1157	1.46
	1	2390	1193	1.5		1	2390	1193	1.5
	1.2	2331	1230	1.55		1.2	2331	1230	1.55
T5C	1.4	2273	1266	1.6	T5'H	1.4	2273	1266	1.6
	1.6	2207	1303	1.64		1.6	2207	1303	1.64
	1.8	2116	1351	1.7		1.8	2116	1351	1.7
	2	2037	1390	1.75		2	2037	1390	1.75

5 Ton

Models: DHG0603W8, DHG0604W8 and DHG0607W8

High Static Drive

Burners High Fire Input: 80,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
	0.8	836	857	0.24		0.8	836	857	0.24
	1	694	929	0.27		1	694	929	0.27
	1.2	596	989	0.28		1.2	596	989	0.28
T1C*	1.4				T1'H*	1.4			
	1.6					1.6			
	1.8					1.8			
	2					2			
	0.8	1583	989	0.59		0.8	1525	980	0.55
	1	1485	1043	0.62		1	1430	1035	0.59
	1.2	1395	1099	0.65		1.2	1340	1090	0.62
T2C	1.4	1316	1149	0.68	T2'H	1.4	1260	1140	0.65
	1.6	1238	1198	0.71		1.6	1180	1195	0.68
	1.8	1159	1247	0.74		1.8	1070	1250	0.71
	2	1101	1282	0.76		2	995	1290	0.73
	0.8	2141	1119	1.07		0.8	1630	1000	0.63
	1	2078	1165	1.11		1	1540	1055	0.67
	1.2	2011	1208	1.15		1.2	1450	1110	0.7
T3C	1.4	1925	1255	1.19	T3'H	1.4	1370	1160	0.74
	1.6	1842	1299	1.24		1.6	1285	1210	0.77
	1.8	1791	1332	1.27		1.8	1180	1265	0.8
	2	1694	1388	1.32		2	1105	1310	0.83
	0.8	2282	1164	1.25		0.8	1795	1035	0.72
	1	2219	1205	1.29		1	1725	1080	0.76
	1.2	2160	1246	1.33		1.2	1630	1135	0.8
T4C	1.4	2090	1288	1.38	T4'H	1.4	1530	1185	0.84
	1.6	1998	1332	1.43		1.6	1460	1235	0.87
	1.8	1918	1376	1.47		1.8	1370	1285	0.9
	2	1881	1405	1.5		2	1340	1325	0.94
	0.8	2496	1231	1.55		0.8	2496	1231	1.55
	1	2439	1269	1.6		1	2439	1269	1.6
	1.2	2379	1308	1.65		1.2	2379	1308	1.65
T5C	1.4	2319	1347	1.7	T5'H	1.4	2319	1347	1.7
	1.6	2252	1386	1.75		1.6	2252	1386	1.75
	1.8	2159	1437	1.81		1.8	2159	1437	1.81
	2	2079	1479	1.87		2	2079	1479	1.87

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

Models: DHG0363W6, DHG0364W6 and DHG0367W6

High Static Drive

Burners High Fire Input: 60,000 BTU/HR

Downflow									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	495	779	0.17	T1'H*	0.8	848	836	0.22
	1	385	843	0.18		1	735	897	0.23
	1.2					1.2	608	949	0.25
	1.4					1.4	515	1002	0.26
	1.6					1.6	400	1042	0.27
	1.8					1.8			
	2					2			
T2C	0.8	848	836	0.22	T2'H	0.8	1190	895	0.56
	1	735	897	0.23		1	1085	950	0.58
	1.2	608	949	0.25		1.2	995	1005	0.63
	1.4	515	1002	0.26		1.4	890	1060	0.66
	1.6	400	1042	0.27		1.6	795	1105	0.69
	1.8					1.8	680	1150	0.7
	2					2	610	1195	0.74
T3C	0.8	1397	934	0.58	T3'H	0.8	1223	901	0.56
	1	1287	998	0.62		1	1119	957	0.59
	1.2	1195	1047	0.65		1.2	1028	1010	0.63
	1.4	1108	1093	0.68		1.4	925	1064	0.66
	1.6	1023	1147	0.71		1.6	832	1110	0.69
	1.8	940	1190	0.74		1.8	722	1155	0.71
	2	841	1233	0.76		2	647	1200	0.74
T4C	0.8	1559	973	0.82	T4'H	0.8	1495	950	0.4
	1	1473	1021	0.85		1	1385	1015	0.43
	1.2	1365	1079	0.9		1.2	1290	1070	0.45
	1.4	1277	1125	0.94		1.4	1210	1115	0.47
	1.6	1195	1168	0.97		1.6	1125	1160	0.49
	1.8	1113	1221	1.02		1.8	1040	1205	0.5
	2	1044	1263	1.05		2	960	1245	0.52
T5C	0.8	1632	1010	0.96	T5'H	0.8	1632	1010	0.96
	1	1550	1055	1.01		1	1550	1055	1.01
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2	1139	1280	1.22		2	1139	1280	1.22

3 Ton

Models: DHG0363W6, DHG0364W6 and DHG0367W6

High Static Drive

Burners High Fire Input: 60,000 BTU/HR

Horizontal									
Speed Tap	External Static	SCFM	RPM	BHP	Speed Tap	External Static	SCFM	RPM	BHP
T1C*	0.8	990	909	0.27	T1'H*	0.8	865	889	0.23
	1	876	978	0.29		1	750	954	0.25
	1.2	774	1033	0.31		1.2	620	1010	0.26
	1.4	647	1087	0.32		1.4	526	1066	0.28
	1.6	562	1140	0.34		1.6	408	1109	0.29
	1.8	460	1182	0.35		1.8			
	2					2			
T2C	0.8	1372	976	0.56	T2'H	0.8	1200	950	0.59
	1	1254	1041	0.59		1	1095	1010	0.62
	1.2	1159	1092	0.62		1.2	1005	1065	0.67
	1.4	1060	1155	0.66		1.4	895	1125	0.7
	1.6	972	1201	0.69		1.6	800	1175	0.72
	1.8	872	1249	0.71		1.8	685	1220	0.76
	2	768	1291	0.74		2	615	1270	0.79
T3C	0.8	1487	993	0.61	T3'H	0.8	1248	958	0.59
	1	1369	1062	0.66		1	1142	1019	0.63
	1.2	1271	1114	0.69		1.2	1049	1075	0.67
	1.4	1179	1163	0.72		1.4	944	1132	0.7
	1.6	1088	1220	0.76		1.6	849	1181	0.73
	1.8	1000	1266	0.78		1.8	737	1229	0.76
	2	895	1312	0.81		2	660	1277	0.79
T4C	0.8	1622	1050	0.88	T4'H	0.8			
	1	1537	1099	0.92		1	1475	1080	0.45
	1.2	1452	1148	0.96		1.2	1375	1135	0.48
	1.4	1359	1197	1		1.4	1285	1185	0.49
	1.6	1272	1243	1.04		1.6	1195	1235	0.51
	1.8	1184	1299	1.08		1.8	1110	1285	0.53
	2	1111	1344	1.12		2	1020	1325	0.55
T5C	0.8				T5'H	0.8			
	1	1635	1129	1.07		1	1635	1129	1.07
	1.2	1550	1176	1.12		1.2	1550	1176	1.12
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2	1212	1361	1.3		2	1212	1361	1.3

T1C AND T1'H VALUES ARE FOR FAN MODE OR PART LOAD ONLY.

APPENDIX A BLOWER PERFORMANCE DATA

THE FOLLOWING TABLES ARE PROVIDED FOR REFERENCE ONLY TO SHOW DDC CONTROL SETTINGS RELATIONSHIP TO UNIT CFM. BLOWER SPEED SETTINGS MUST BE SET TO MEET THE MINIMUM REQUIRED CFM OF THEIR STAGES.

GAS DDC SMALL

3 TON
MODELS : DHG0363D,DHG0364D & DHG0367D WITH DDC CONTROLS
STANDARD STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600							721	22	0.16	812	26	0.22	886	28	0.27
800	526	22	0.11	656	24	0.16	761	28	0.23	852	31	0.31	924	32	0.37
1000	590	26	0.16	705	30	0.22	802	33	0.32	891	37	0.43	962	35	0.51
1200	653	31	0.24	754	36	0.32	842	39	0.45	930	42	0.59	1000	39	0.70
1400	717	35	0.35	804	42	0.46	883	45	0.64	970	48	0.81	1038	42	0.96
1500	749	38	0.42	828	45	0.55	903	48	0.76	989	51	0.95	1057	44	1.13

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600							763	22	0.17	861	25	0.23	939	28	0.29
800	553	21	0.11	685	23	0.17	806	27	0.24	902	31	0.32	979	34	0.38
1000	619	26	0.17	749	29	0.23	848	33	0.33	943	36	0.43	1018	39	0.50
1200	686	30	0.25	812	35	0.33	890	39	0.46	984	42	0.58	1057	44	0.66
1400	753	35	0.37	875	41	0.46	933	44	0.63	1025	47	0.78	1097	50	0.88
1500	786	37	0.46	907	44	0.55	954	47	0.74	1045	50	0.90	1117	52	1.01

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

3 TON
MODELS : DHG0363W,DHG0364W & DHG0367W WITH DDC CONTROL
HIGH STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600							702	24	0.13	794	28	0.17	876	32	0.21
800	498	22	0.10	628	26	0.12	740	32	0.18	829	36	0.23	910	41	0.28
1000	556	31	0.12	673	34	0.17	778	40	0.25	864	44	0.31	944	50	0.37
1200	613	40	0.15	718	42	0.25	816	49	0.35	899	53	0.42	978	60	0.50
1400	670	49	0.19	764	50	0.34	853	57	0.49	934	61	0.57	1012	69	0.68
1500	699	54	0.21	786	54	0.41	872	61	0.58	951	65	0.66	1029	74	0.79
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600	944	30	0.24	1015	36	0.30	1076	42	0.37	1139	40	0.46	1193	53	0.52
800	980	43	0.33	1049	48	0.43	1109	55	0.51	1169	56	0.63	1225	66	0.71
1000	1016	56	0.47	1082	61	0.60	1141	67	0.70	1200	71	0.87	1258	79	0.96
1200	1052	69	0.66	1116	74	0.84	1174	79	0.97	1231	87	1.20			
1400	1088	82	0.92	1150	87	1.19									
1500	1106	89	1.10												

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600	468	18	0.06	629	23	0.10	752	24	0.13	845	27	0.18	929	32	0.23
800	527	24	0.09	670	28	0.13	786	31	0.17	878	34	0.24	963	40	0.30
1000	585	29	0.12	711	33	0.17	821	38	0.23	912	42	0.31	997	47	0.40
1200	644	35	0.17	752	38	0.22	856	45	0.30	946	49	0.42	1031	55	0.53
1400	702	40	0.23	792	43	0.29	890	52	0.40	979	56	0.55	1065	62	0.70
1500	732	43	0.27	813	45	0.33	908	55	0.46	996	60	0.63	1082	66	0.80
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600	1006	31	0.25	1076	35	0.31	1141	41	0.39	1208	39	0.45	1264	46	0.55
800	1038	41	0.34	1109	46	0.42	1173	52	0.53	1238	53	0.60	1296	60	0.73
1000	1071	51	0.45	1141	58	0.57	1205	64	0.72	1268	67	0.79	1328	74	0.96
1200	1103	62	0.61	1174	70	0.76	1237	75	0.97	1297	81	1.05	1359	87	1.27
1400	1136	72	0.83	1206	81	1.03	1269	86	1.31						
1500	1152	77	0.96	1222	87	1.20									

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

APPENDIX A BLOWER PERFORMANCE DATA

4 TON
MODELS : DHG0483D,DHG0484D & DHG0487D WITH DDC CONTROLS
STANDARD STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	524	24	0.10	658	31	0.16	763	35	0.21	853	40	0.27	931	44	0.33
1000	588	32	0.15	708	38	0.21	807	42	0.28	892	47	0.35	968	50	0.41
1200	652	41	0.20	757	45	0.29	850	50	0.37	930	53	0.46	1005	57	0.53
1400	716	49	0.29	807	53	0.39	893	57	0.48	969	60	0.60	1043	63	0.67
1600	781	57	0.40	857	60	0.52	936	64	0.64	1008	67	0.77	1080	70	0.85
1800	845	65	0.57	906	68	0.71	979	71	0.85	1047	74	1.00	1117	76	1.08
2000	909	73	0.79	956	75	0.96	1023	78	1.12	1086	80	1.30	1154	82	1.38

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	551	24	0.11	695	30	0.16	807	35	0.22	903	39	0.27	986	43	0.34
1000	618	32	0.16	747	37	0.21	853	42	0.29	943	46	0.35	1025	50	0.43
1200	685	40	0.22	798	45	0.27	898	49	0.39	983	53	0.44	1063	56	0.55
1400	752	48	0.31	850	52	0.36	943	56	0.51	1024	59	0.56	1102	62	0.70
1600	819	56	0.44	902	59	0.48	988	63	0.68	1064	66	0.71	1141	69	0.89
1800	885	64	0.61	954	67	0.63	1033	70	0.90	1105	72	0.90	1180	75	1.14
2000	952	72	0.86	1005	74	0.83	1078	76	1.19	1145	79	1.15	1218	81	1.42

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

4 TON
MODELS : DHG0483W,DHG0484W & DHG0487W WITH DDC CONTROLS
HIGH STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800				608	23	0.16	735	29	0.22	820	34	0.28	892	38	0.33
1000	565	28	0.15	658	32	0.21	775	38	0.27	856	43	0.35	926	46	0.40
1200	617	37	0.20	709	41	0.28	815	47	0.34	891	51	0.44	959	55	0.49
1400	669	46	0.26	760	50	0.36	856	55	0.42	926	59	0.55	993	64	0.60
1600	721	54	0.35	811	59	0.47	896	64	0.53	961	68	0.68	1026	72	0.73
1800	772	63	0.46	862	68	0.60	937	73	0.66	997	76	0.85	1059	81	0.90
2000	824	72	0.61	913	77	0.78	977	82	0.82	1032	85	1.06	1093	89	1.09
CFM	**1.2**			**1.4**			**1.6**			**1.8**			**2.0**		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	975	43	0.38	1036	47	0.46	1099	51	0.50	1155	54	0.58	1213	57	0.65
1000	1005	51	0.45	1067	55	0.56	1128	59	0.60	1183	62	0.70	1238	65	0.76
1200	1035	60	0.54	1099	64	0.69	1157	67	0.72	1210	70	0.83	1263	74	0.89
1400	1065	68	0.65	1130	72	0.84	1186	76	0.86	1238	79	1.00	1287	82	1.05
1600	1095	76	0.78	1162	81	1.03	1215	84	1.03	1266	87	1.19			
1800	1125	85	0.93												
2000															

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800				642	23	0.17	783	29	0.23	870	34	0.28	950	38	0.35
1000	595	27	0.16	695	32	0.22	823	38	0.29	907	42	0.34	983	46	0.42
1200	649	36	0.21	748	41	0.29	863	46	0.36	943	50	0.42	1016	54	0.51
1400	704	44	0.28	801	50	0.38	904	54	0.45	980	58	0.51	1049	62	0.63
1600	758	53	0.37	854	59	0.49	944	62	0.56	1017	67	0.62	1082	70	0.77
1800	812	62	0.49	907	69	0.63	984	70	0.70	1053	75	0.76	1115	78	0.94
2000	866	70	0.65	960	78	0.82	1024	79	0.87	1090	83	0.93	1148	86	1.15
CFM	**1.2**			**1.4**			**1.6**			**1.8**			**2.0**		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	1026	40	0.40	1098	46	0.46	1167	50	0.53	1226	53	0.61	1288	56	0.69
1000	1059	49	0.49	1130	54	0.55	1197	58	0.63	1255	61	0.73	1314	64	0.81
1200	1092	57	0.60	1163	62	0.65	1227	66	0.76	1284	70	0.88	1340	73	0.95
1400	1125	66	0.73	1195	71	0.78	1258	74	0.91	1313	78	1.05	1366	81	1.12
1600	1158	75	0.89	1228	79	0.94	1288	83	1.09						
1800	1192	83	1.09	1260	87	1.12									
2000															

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

APPENDIX A BLOWER PERFORMANCE DATA

5 TON
MODELS : DHG0603D,DHG0604D & DHG0607D WITH DDC CONTROLS
STANDARD STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	466	30	0.11	609	34	0.16	721	38	0.22	770	42	0.27	905	45	0.35
1100	541	36	0.15	669	41	0.22	773	44	0.29	831	48	0.34	948	51	0.44
1300	615	43	0.21	730	47	0.30	825	50	0.38	892	53	0.43	990	56	0.56
1500	689	49	0.29	791	53	0.40	877	56	0.51	953	59	0.55	1033	61	0.71
1700	764	56	0.41	852	59	0.55	929	62	0.67	1013	64	0.69	1075	67	0.91
1900	838	62	0.58	913	65	0.74	981	68	0.89	1074	70	0.88	1118	72	1.15
2100	912	69	0.81	973	71	0.99	1033	73	1.18	1135	75	1.12			
2300	987	76	1.14												

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	488	29	0.11	641	34	0.16	761	38	0.21	870	42	0.28	958	45	0.37
1100	566	35	0.16	704	40	0.21	816	44	0.27	917	47	0.36	1002	50	0.47
1300	643	42	0.22	768	46	0.28	870	49	0.35	965	52	0.45	1046	55	0.59
1500	721	48	0.31	831	52	0.37	924	55	0.46	1012	58	0.58	1091	60	0.75
1700	799	55	0.44	894	58	0.49	978	61	0.59	1060	63	0.73	1135	66	0.96
1900	876	61	0.61	958	64	0.65	1032	66	0.77	1107	69	0.93	1179	71	1.22
2100	954	68	0.86	1021	70	0.85	1086	72	1.00	1155	74	1.19			
2300															

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

5 TON
MODELS : DHG0603W,DHG0604W & DHG0607W WITH DDC CONTROLS
HIGH STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900				631	21	0.19	722	26	0.23	806	27	0.28	895	29	0.33
1100	562	23	0.17	680	27	0.24	767	32	0.30	849	32	0.35	932	35	0.40
1300	622	29	0.22	729	32	0.31	813	37	0.39	892	37	0.44	969	41	0.49
1500	683	35	0.30	778	38	0.41	858	43	0.50	935	43	0.54	1006	46	0.60
1700	743	41	0.41	827	43	0.53	903	49	0.65	978	48	0.68	1043	52	0.73
1900	803	47	0.55	877	49	0.68	949	55	0.75	1021	53	0.84	1081	57	0.89
2100	864	53	0.75	926	54	0.88	994	61	1.01	1064	59	1.05	1118	63	1.08
2300	924	59	1.01	975	59	1.15	1040	67	1.22	1107	64	1.31	1155	69	1.32
2500	984	65	1.36	1024	65	1.49	1085	73	1.55	1150	69	1.63	1192	74	1.62
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	967	32	0.41	1006	29	0.47	1075	32	0.54	1142	35	0.63	1197	37	0.69
1100	1001	37	0.50	1043	35	0.56	1109	38	0.65	1174	41	0.76	1228	44	0.83
1300	1035	43	0.61	1080	42	0.68	1143	45	0.78	1206	48	0.91	1259	50	1.00
1500	1069	48	0.75	1117	48	0.81	1177	51	0.93	1238	54	1.08	1290	56	1.19
1700	1103	54	0.92	1154	55	0.97	1211	57	1.12	1270	60	1.30	1321	62	1.43
1900	1137	59	1.12	1191	61	1.16	1245	64	1.34	1302	67	1.55	1352	69	1.71
2100	1170	65	1.27	1228	68	1.39	1279	70	1.60	1334	73	1.86	1383	75	2.05
2300	1204	70	1.57	1265	74	1.66	1313	77	1.92	1366	79	2.23	1414	81	2.40
2500	1238	76	1.84	1302	81	1.99	1348	83	2.29						

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900				661	20	0.17	764	23	0.21	854	25	0.27	949	29	0.40
1100	591	22	0.15	715	26	0.22	811	28	0.27	899	31	0.33	987	34	0.48
1300	654	28	0.21	768	31	0.29	858	34	0.34	943	37	0.42	1026	40	0.57
1500	717	34	0.28	822	37	0.38	906	39	0.44	988	42	0.52	1065	45	0.68
1700	780	40	0.38	875	42	0.49	953	45	0.56	1033	48	0.65	1103	51	0.82
1900	842	46	0.51	929	48	0.63	1000	50	0.71	1078	54	0.80	1142	56	0.98
2100	905	51	0.69	982	54	0.82	1048	55	0.90	1122	60	1.00	1181	62	1.17
2300	968	57	0.93	1036	59	1.06	1095	61	1.14	1167	66	1.25	1219	67	1.40
2500	1031	63	1.25	1089	65	1.38	1142	66	1.45	1212	72	1.56	1258	73	1.68
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	1046	31	0.40	1067	28	0.46	1140	31	0.54	1212	34	0.63	1270	37	0.64
1100	1081	37	0.48	1105	35	0.55	1176	37	0.65	1245	41	0.76	1302	43	0.78
1300	1116	42	0.59	1144	41	0.66	1211	44	0.77	1279	47	0.91	1335	49	0.96
1500	1152	47	0.72	1182	47	0.79	1247	50	0.93	1312	53	1.09	1367	55	1.11
1700	1187	53	0.88	1221	54	0.95	1282	56	1.11	1345	59	1.30	1400	61	1.34
1900	1222	58	1.08	1259	60	1.14	1318	63	1.33	1379	65	1.56	1432	67	1.59
2100	1258	64	1.32	1298	67	1.36	1354	69	1.59	1412	71	1.87	1464	73	1.94
2300	1293	69	1.61	1336	73	1.63	1389	75	1.90	1445	78	2.23	1497	80	2.30
2500	1328	75	1.97	1375	79	1.95	1425	82	2.28						

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

APPENDIX A BLOWER PERFORMANCE DATA

6 TON
MODELS : DHG0723D,DHG0724D & DHG0727D WITH DDC CONTROLS
STANDARD STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	580	34	0.19	691	40	0.24	796	46	0.32	887	51	0.37	971	56	0.50
1400	639	43	0.25	742	49	0.31	839	54	0.40	923	59	0.45	1001	64	0.61
1600	699	53	0.33	793	58	0.39	882	63	0.50	959	67	0.55	1032	71	0.74
1800	758	62	0.44	844	66	0.50	925	71	0.63	995	75	0.68	1062	79	0.91
2000	818	71	0.58	895	75	0.63	968	80	0.78	1031	83	0.83	1093	87	1.11
2200	877	80	0.77	946	84	0.80	1012	88	0.97	1067	90	1.01	1123	95	1.30
2400	937	90	1.01	997	90	1.02	1055	97	1.21	1103	98	1.23	1154	103	1.65

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	609	33	0.19	727	39	0.24	840	45	0.32	937	50	0.40	1028	55	0.47
1400	671	42	0.25	780	48	0.31	885	53	0.40	975	58	0.49	1059	62	0.56
1600	732	51	0.32	834	56	0.40	930	61	0.49	1012	66	0.60	1091	70	0.67
1800	794	60	0.42	887	65	0.50	975	69	0.61	1050	74	0.73	1123	78	0.80
2000	856	69	0.54	940	73	0.64	1019	78	0.77	1088	82	0.89	1154	86	0.96
2200	918	78	0.70	993	82	0.81	1064	86	0.95	1125	90	1.08	1186	93	1.15
2400	980	87	0.91	1047	90	1.03	1109	94	1.18	1168	97	1.32	1217	101	1.38

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

6 TON
MODELS : DHG0723W,DHG0724W & DHG0727W WITH DDC CONTROLS
HIGH STATIC
DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	583	19	0.20	675	22	0.25	777	27	0.31	864	31	0.36	942	34	0.45
1400	643	27	0.25	730	30	0.32	826	34	0.38	908	38	0.43	982	41	0.55
1600	703	35	0.32	786	37	0.40	875	41	0.48	952	44	0.53	1021	47	0.67
1800	764	42	0.40	841	45	0.51	925	48	0.60	996	51	0.65	1061	54	0.81
2000	824	50	0.51	897	52	0.65	974	55	0.74	1041	58	0.79	1101	61	0.99
2200	884	57	0.65	952	60	0.83	1023	62	0.93	1085	65	0.97	1140	67	1.21
2400	944	65	0.83	1007	67	1.05	1073	70	1.16	1129	72	1.18	1180	74	1.48
2600	1005	72	1.05	1063	74	1.33	1122	77	1.44	1173	79	1.44	1220	81	1.81
2800	1065	80	1.34	1118	82	1.70	1171	84	1.80	1217	86	1.76	1259	87	2.21
3000	1125	87	1.70	1174	89	2.16	1220	90	2.24	1261	91	2.15	1299	94	2.70
CFM	**1.2**			**1.4**			**1.6**			**1.8**			**2.0**		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	1015	35	0.55	1079	38	0.57	1139	38	0.70	1199	41	0.81	1252	44	0.81
1400	1051	42	0.66	1112	44	0.67	1170	45	0.82	1228	48	0.95	1280	51	0.93
1600	1088	49	0.79	1145	51	0.79	1201	52	0.97	1258	55	1.12	1309	57	1.07
1800	1124	55	0.94	1178	58	0.93	1232	59	1.14	1287	62	1.31	1338	64	1.23
2000	1160	62	1.13	1211	65	1.09	1263	66	1.33	1316	69	1.54	1367	71	1.42
2200	1197	69	1.35	1245	71	1.28	1294	73	1.56	1346	75	1.81	1395	77	1.63
2400	1233	76	1.61	1278	78	1.50	1325	80	1.84	1375	82	2.12	1424	84	1.88
2600	1269	83	1.93	1311	85	1.76	1356	87	2.15	1404	89	2.20	1453	90	2.30
2800	1305	90	2.31	1344	90	2.06	1387	94	2.53	1434	96	2.97	1482	97	2.98
3000	1342	97	2.77	1377	98	2.42	1418	101	2.97	1463	103	3.42	1511	104	2.85

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	604	18	0.19	711	22	0.24	821	26	0.33	913	30	0.38	993	33	0.43
1400	668	25	0.25	769	29	0.30	872	33	0.41	959	37	0.46	1034	40	0.52
1600	732	33	0.32	827	36	0.38	923	40	0.51	1005	43	0.56	1075	46	0.62
1800	796	40	0.40	884	43	0.47	975	47	0.64	1052	50	0.69	1116	53	0.74
2000	859	48	0.51	942	51	0.58	1026	54	0.80	1098	57	0.84	1157	59	0.88
2200	923	55	0.65	1000	58	0.73	1077	61	1.00	1144	63	1.03	1198	66	1.06
2400	987	63	0.82	1058	65	0.91	1129	68	1.24	1190	70	1.26	1239	72	1.27
2600	1051	70	1.05	1115	73	1.13	1180	75	1.55	1236	77	1.53	1280	79	1.52
2800	1115	78	1.33	1173	80	1.41	1231	82	1.93	1282	84	1.87	1321	85	1.82
3000	1178	85	1.69	1231	87	1.75	1283	89	2.40	1328	90	2.28	1362	92	2.18
CFM	**1.2**			**1.4**			**1.6**			**1.8**			**2.0**		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	1076	34	0.57	1144	37	0.60	1208	37	0.74	1272	40	0.85	1327	43	0.89
1400	1113	41	0.68	1178	43	0.71	1240	44	0.87	1303	47	1.00	1358	50	1.05
1600	1151	47	0.82	1213	50	0.83	1272	51	1.02	1333	54	1.18	1389	56	1.23
1800	1189	54	0.98	1247	57	0.98	1305	58	1.20	1364	61	1.38	1421	63	1.44
2000	1227	61	1.17	1282	63	1.15	1337	65	1.41	1394	67	1.62	1452	69	1.69
2200	1264	68	1.40	1316	70	1.34	1370	72	1.66	1425	74	1.90	1483	75	1.98
2400	1302	74	1.68	1350	76	1.58	1402	78	1.94	1455	81	2.23	1514	82	2.33
2600	1340	81	2.01	1385	83	1.85	1434	85	2.28	1488	87	2.62	1548	88	2.73
2800	1377	88	2.41	1419	90	2.17	1467	92	2.68	1516	94	3.07	1577	95	3.21
3000	1415	95	2.88	1454	96	2.55	1499	99	3.14	1547	101	3.60	1608	101	3.76

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.
Valid motor operating range for DDC% setting is 20 - 90.

APPENDIX B ELECTRICAL DATA

ELECTRICAL DATA

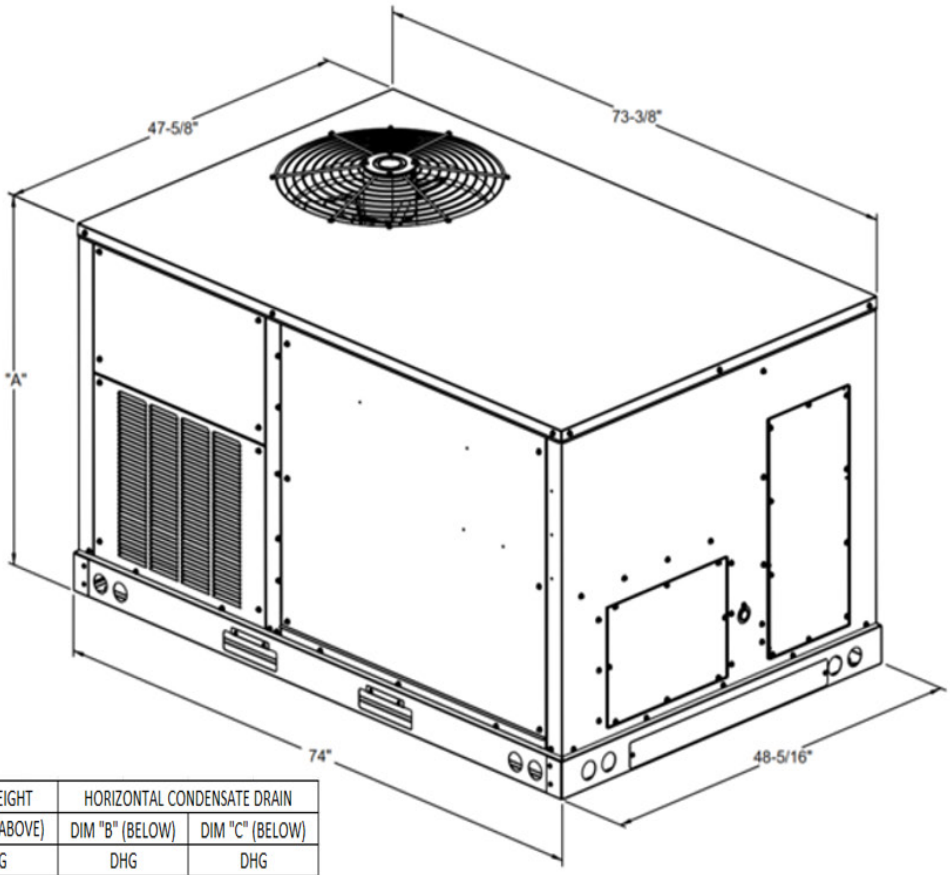
Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHG0361D	208/230/1/60	1	14.5	91.0	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	24.8/24.8	35/35
											-	-	-	9.6/8.7	-	34.4/33.5	45/45
											-	-	-	-	2.2/1.9 (1.7/1.5)	27.0/26.7	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	36.6/35.4	50/45
DHG0363D	208/230/3/60	1	9.2	82.0	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	18.1/18.1	25/25
											-	-	-	9.6/8.7	-	27.7/26.8	35/35
											-	-	-	-	2.2/1.9 (1.7/1.5)	20.3/20.0	25/25
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	29.9/28.7	35/35
DHG0363W	208/230/3/60	1	9.2	82.0	1	0.17	0.95	1	1.2	5.0	-	-	-	-	-	17.4/17.4	25/25
											-	-	-	9.6/8.7	-	27.0/26.1	35/35
											-	-	-	-	2.2/1.9 (1.7/1.5)	19.6/19.3	25/25
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	29.2/28.0	35/35
DHG0364D	460/3/60	1	4.2	44.3	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	8.2	15
											-	-	-	4.3	-	12.5	15
											-	-	-	-	0.9 (0.5)	9.1	15
											-	-	-	4.3	0.9 (0.5)	13.4	15
DHG0364W	460/3/60	1	4.2	44.3	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	8.2	15
											-	-	-	4.3	-	12.5	15
											-	-	-	-	0.9 (0.5)	9.1	15
											-	-	-	4.3	0.9 (0.5)	13.4	15
DHG0367D	575/3/60	1	3.7	28.7	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	7.0	15
											-	-	-	3.5	-	10.5	15
											-	-	-	-	1.0	8.0	15
											-	-	-	3.5	1.0	11.5	15
DHG0367W	575/3/60	1	3.7	28.7	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	7.0	15
											-	-	-	3.5	-	10.5	15
											-	-	-	-	1.0	8.0	15
											-	-	-	3.5	1.0	11.5	15
DHG0481D	208/230/1/60	1	23.2	128	1	0.17	0.95	1	1.0	6.9	-	-	-	-	-	36.9/36.9	60/60
											-	-	-	9.6/8.7	-	46.5/45.6	60/60
											-	-	-	-	2.2/1.9 (1.7/1.5)	39.1/38.8	60/60
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	48.7/47.5	70/70
DHG0483D	208/230/3/60	1	12.0	105	1	0.17	0.95	1	1.0	6.9	-	-	-	-	-	22.8/22.8	30/30
											-	-	-	9.6/8.7	-	32.4/31.5	40/40
											-	-	-	-	2.2/1.9 (1.7/1.5)	25.0/24.7	35/35
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	34.6/33.4	45/40
DHG0483W	208/230/3/60	1	12.0	105	1	0.17	0.95	1	1.2	5.0	-	-	-	-	-	20.9/20.9	30/30
											-	-	-	9.6/8.7	-	30.5/29.6	40/40
											-	-	-	-	2.2/1.9 (1.7/1.5)	23.1/22.8	30/30
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	32.7/31.5	40/40
DHG0484D	460/3/60	1	6.2	61.8	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	10.7	15
											-	-	-	4.3	-	15.0	20
											-	-	-	-	0.9 (0.5)	11.6	15
											-	-	-	4.3	0.9 (0.5)	15.9	20
DHG0484W	460/3/60	1	6.2	61.8	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	10.7	15
											-	-	-	4.3	-	15.0	20
											-	-	-	-	0.9 (0.5)	11.6	15
											-	-	-	4.3	0.9 (0.5)	15.9	20
DHG0487D	575/3/60	1	4.5	39.0	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	8.0	15
											-	-	-	3.5	-	11.5	15
											-	-	-	-	1.0	9.0	15
											-	-	-	3.5	1.0	12.5	15
DHG0487W	575/3/60	1	4.5	39.0	1	0.17	0.39	1	1.2	2.0	-	-	-	-	-	8.0	15
											-	-	-	3.5	-	11.5	15
											-	-	-	-	1.0	9.0	15
											-	-	-	3.5	1.0	12.5	15

APPENDIX B ELECTRICAL DATA

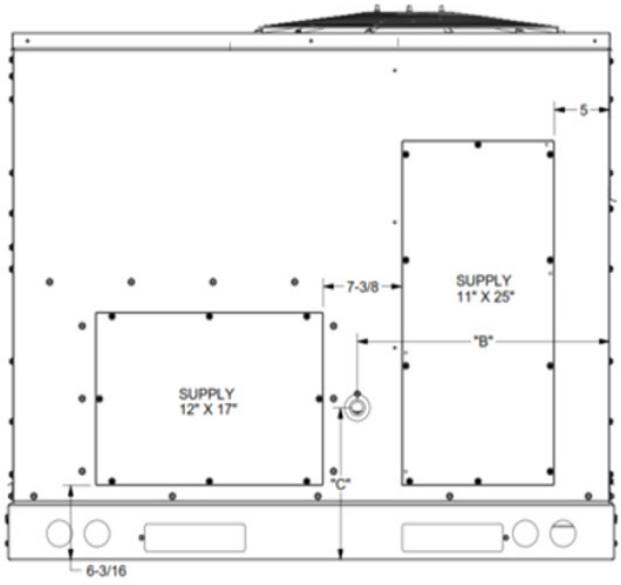
ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DHG0601D	208/230/1/60	1	27.1	178	1	1/3	2.6	1	1.0	6.9	-	-	-	-	-	43.3/43.3	70/70
											-	-	-	9.6/8.7	-	52.9/52.0	80/70
											-	-	-	-	2.2/1.9 (1.7/1.5)	45.5/45.2	70/70
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	55.1/53.9	80/80
DHG0603D	208/230/3/60	1	15.2	140	1	1/3	2.6	1	1.0	6.9	-	-	-	-	-	28.5/28.5	40/40
											-	-	-	9.6/8.7	-	38.1/37.2	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	30.7/30.4	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	40.3/39.1	50/50
DHG0603W	208/230/3/60	1	15.2	140	1	1/3	2.6	1	2.3	7.7	-	-	-	-	-	29.3/29.3	40/40
											-	-	-	9.6/8.7	-	38.9/38.0	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	31.5/31.2	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.1/39.9	50/50
DHG0604D	460/3/60	1	7.4	54.7	1	0.33	1.6	1	1.2	2.5	-	-	-	-	-	13.3	20
											-	-	-	4.3	-	17.6	20
											-	-	-	-	0.9 (0.5)	14.2	20
											-	-	-	4.3	0.9 (0.5)	18.5	25
DHG0604W	460/3/60	1	7.4	54.7	1	0.33	1.6	1	2.3	4.5	-	-	-	-	-	15.3	20
											-	-	-	4.3	-	19.6	25
											-	-	-	-	0.9 (0.5)	16.2	20
											-	-	-	4.3	0.9 (0.5)	20.5	25
DHG0607D	575/3/60	1	5.6	47.8	1	1/3	1.14	1	1.2	2.0	-	-	-	-	-	10.2	15
											-	-	-	3.5	-	13.7	15
											-	-	-	-	1.0	11.2	15
											-	-	-	3.5	1.0	14.7	20
DHG0607W	575/3/60	1	5.6	47.8	1	1/3	1.14	1	2.3	3.8	-	-	-	-	-	12.0	15
											-	-	-	3.5	-	15.5	20
											-	-	-	-	1.0	13.0	15
											-	-	-	3.5	1.0	16.5	20
DHG0723D	208/230/3/60	1	16.1	155	1	0.33	2.0	1	1.2	5.0	-	-	-	-	-	27.2/27.2	40/40
											-	-	-	9.6/8.7	-	36.8/35.9	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	29.4/29.1	40/40
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	39.0/37.8	50/50
DHG0723W	208/230/3/60	1	16.1	155	1	0.33	2.0	1	2.3	7.7	-	-	-	-	-	29.9/29.9	45/45
											-	-	-	9.6/8.7	-	39.5/38.6	50/50
											-	-	-	-	2.2/1.9 (1.7/1.5)	32.1/31.8	45/45
											-	-	-	9.6/8.7	2.2/1.9 (1.7/1.5)	41.7/40.5	50/50
DHG0724D	460/3/60	1	7.0	70.8	1	0.33	0.85	1	1.2	2.5	-	-	-	-	-	12.2	15
											-	-	-	4.3	-	16.5	20
											-	-	-	-	0.9 (0.5)	13.1	15
											-	-	-	4.3	0.9 (0.5)	17.4	20
DHG0724W	460/3/60	1	7.0	70.8	1	0.33	0.85	1	2.3	4.5	-	-	-	-	-	14.2	20
											-	-	-	4.3	-	18.5	25
											-	-	-	-	0.9 (0.5)	15.1	20
											-	-	-	4.3	0.9 (0.5)	19.4	25
DHG0727D	575/3/60	1	6.0	58.2	1	0.33	0.67	1	1.2	2.0	-	-	-	-	-	10.2	15
											-	-	-	3.5	-	13.7	15
											-	-	-	-	1.0	11.2	15
											-	-	-	3.5	1.0	14.7	20
DHG0727W	575/3/60	1	6.0	58.2	1	0.33	0.67	1	2.3	3.8	-	-	-	-	-	12.0	15
											-	-	-	3.5	-	15.5	20
											-	-	-	-	1.0	13.0	15
											-	-	-	3.5	1.0	16.5	20

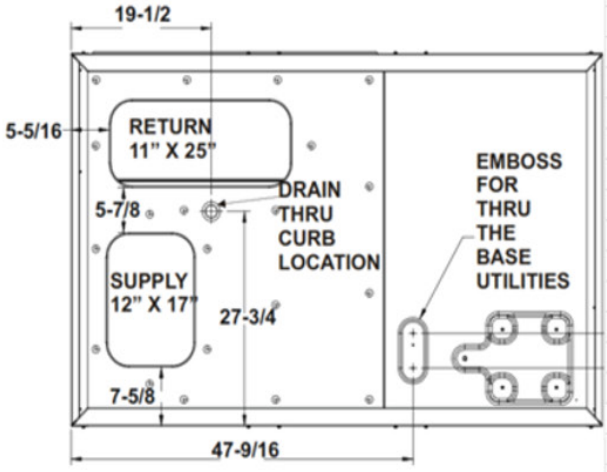
APPENDIX C UNIT DIMENSIONS



Tonnage	UNIT HEIGHT	HORIZONTAL CONDENSATE DRAIN	
	DIM "A" (ABOVE)	DIM "B" (BELOW)	DIM "C" (BELOW)
	DHG	DHG	DHG
3 TON	40"	20"	15"
4 TON	43-1/2"		8-1/8"
5 TON			
6 TON	54"		15"



HORIZONTAL DISCHARGE



BOTTOM VIEW OF UNIT

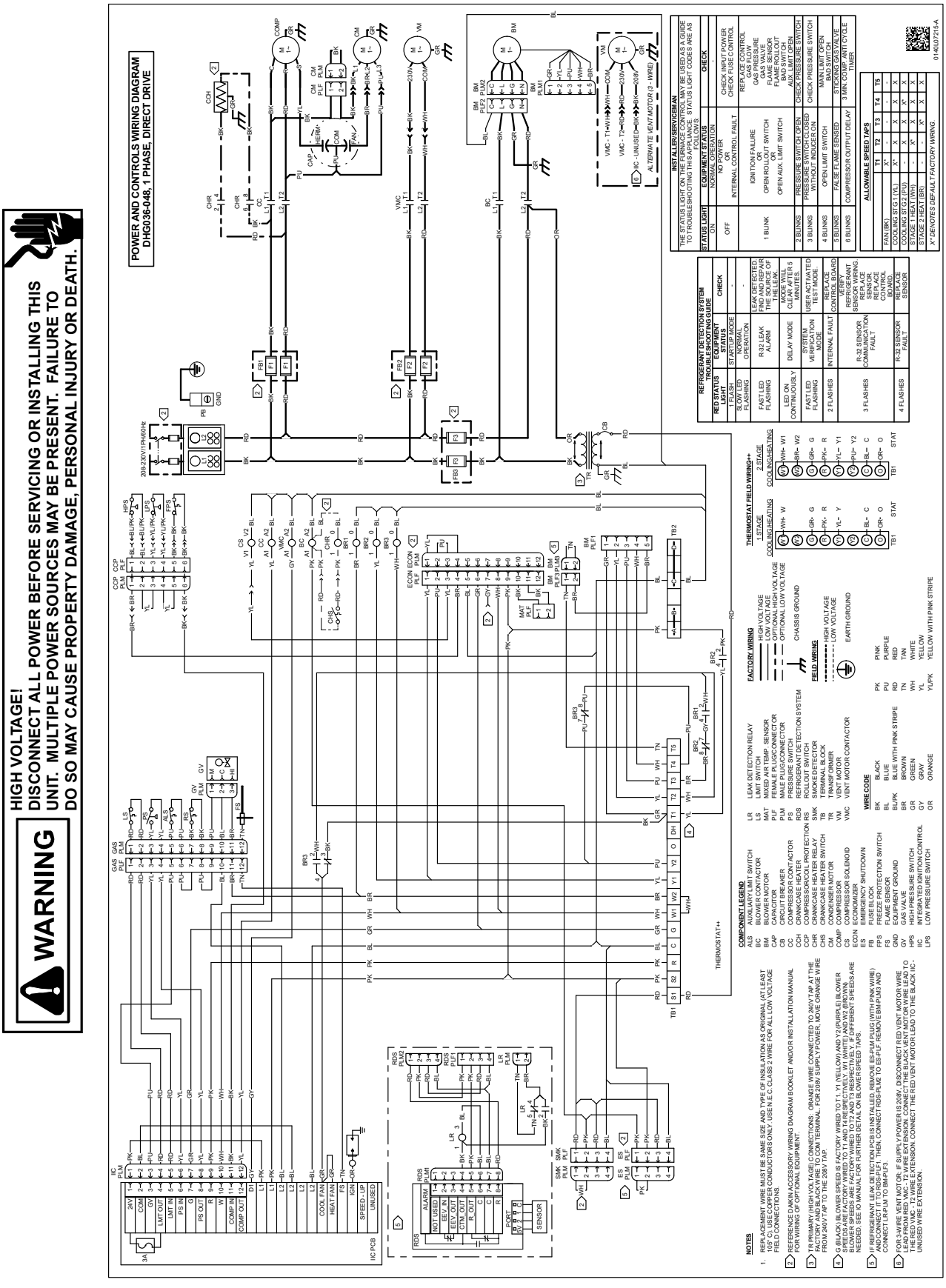
VERTICAL DISCHARGE

NOTE: REFER TO IOD-7082 INCLUDED IN THE LITERATURE PACK FOR INSTALLING HORIZONTAL DUCT COVERS.

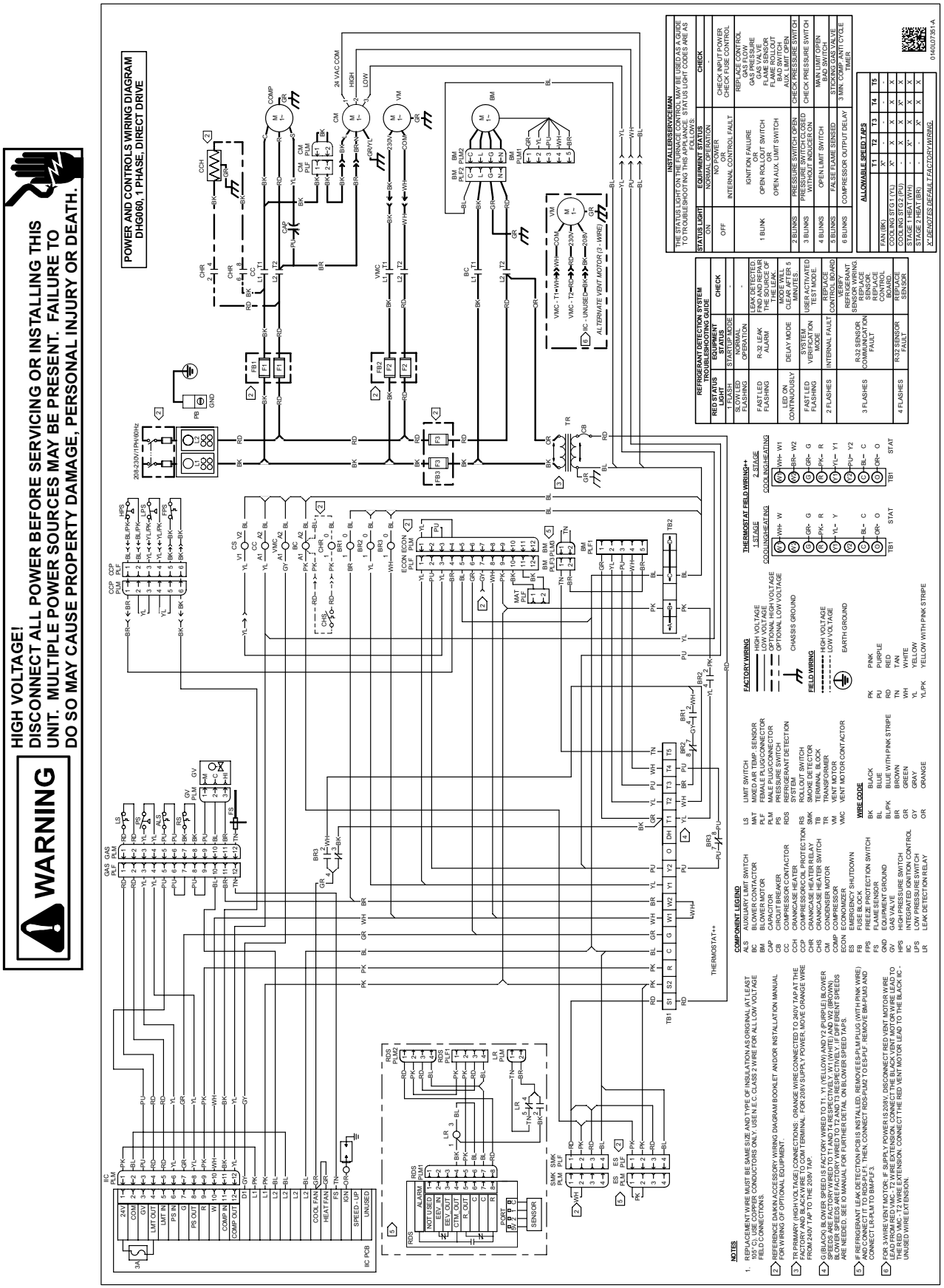
APPENDIX D MIN-MAX AIRFLOW

AIR FLOW RANGE FOR HIGH STAGE

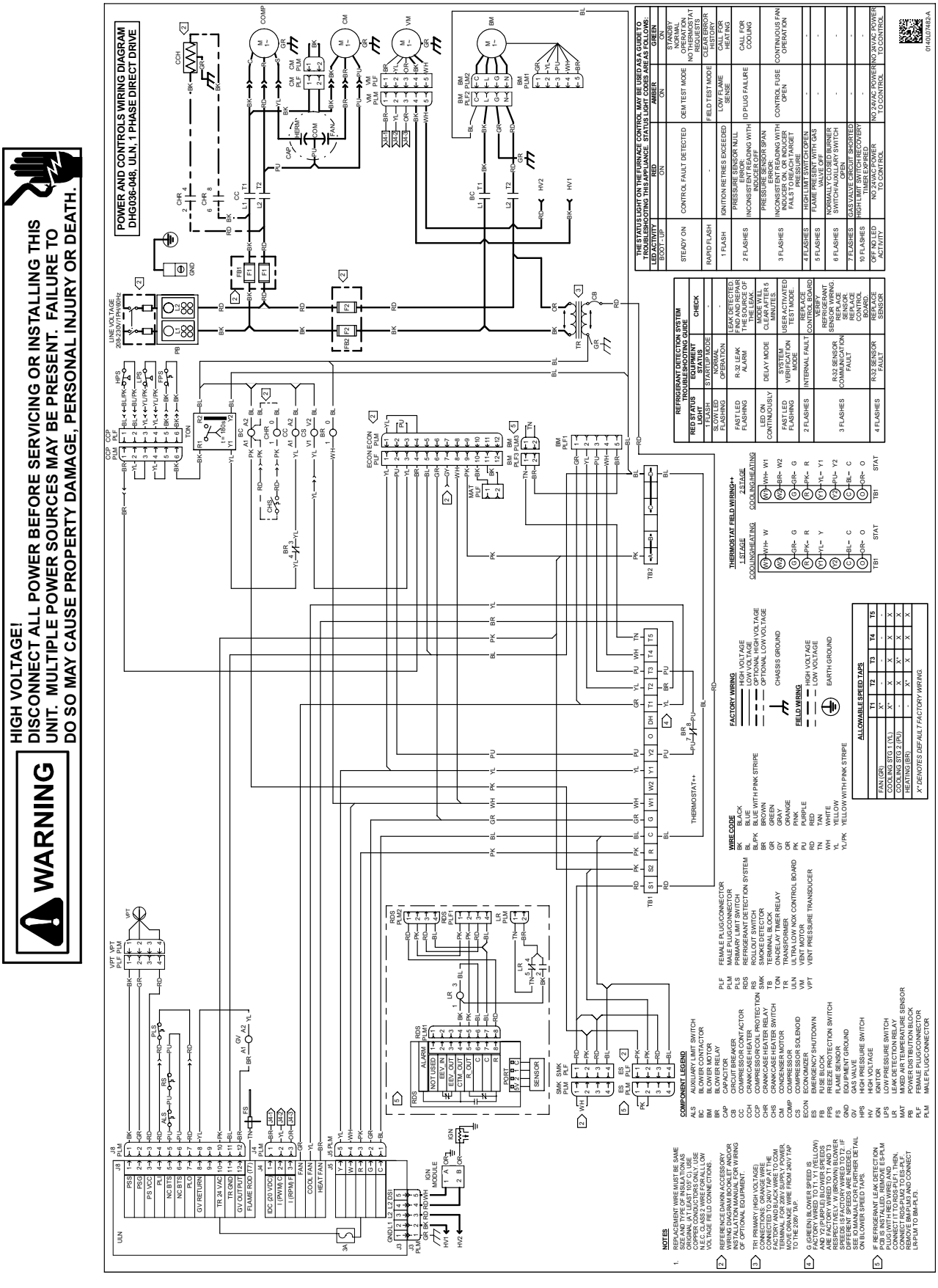
UNIT	HEAT RANGE	HIGH FIRE RATE BTU/HR	HEATING MINIMUM SCFM	COOLING MINIMUM SCFM	MAXIMUM SCFM
DHG036	LOW	45,000	750	900	1500
	MEDIUM	70,000	950		
	HIGH	115,000	1150		
DHG048	LOW	70,000	950	1200	2000
	MEDIUM	115,000	1325		
	HIGH	140,000	1500		
DHG060	LOW	70,000	950	1500	2500
	MEDIUM	115,000	1150		
	HIGH	140,000	1615		
DHG072	LOW	70,000	950	1800	3000
	MEDIUM	125,000	1565		
	HIGH	150,000	1730		



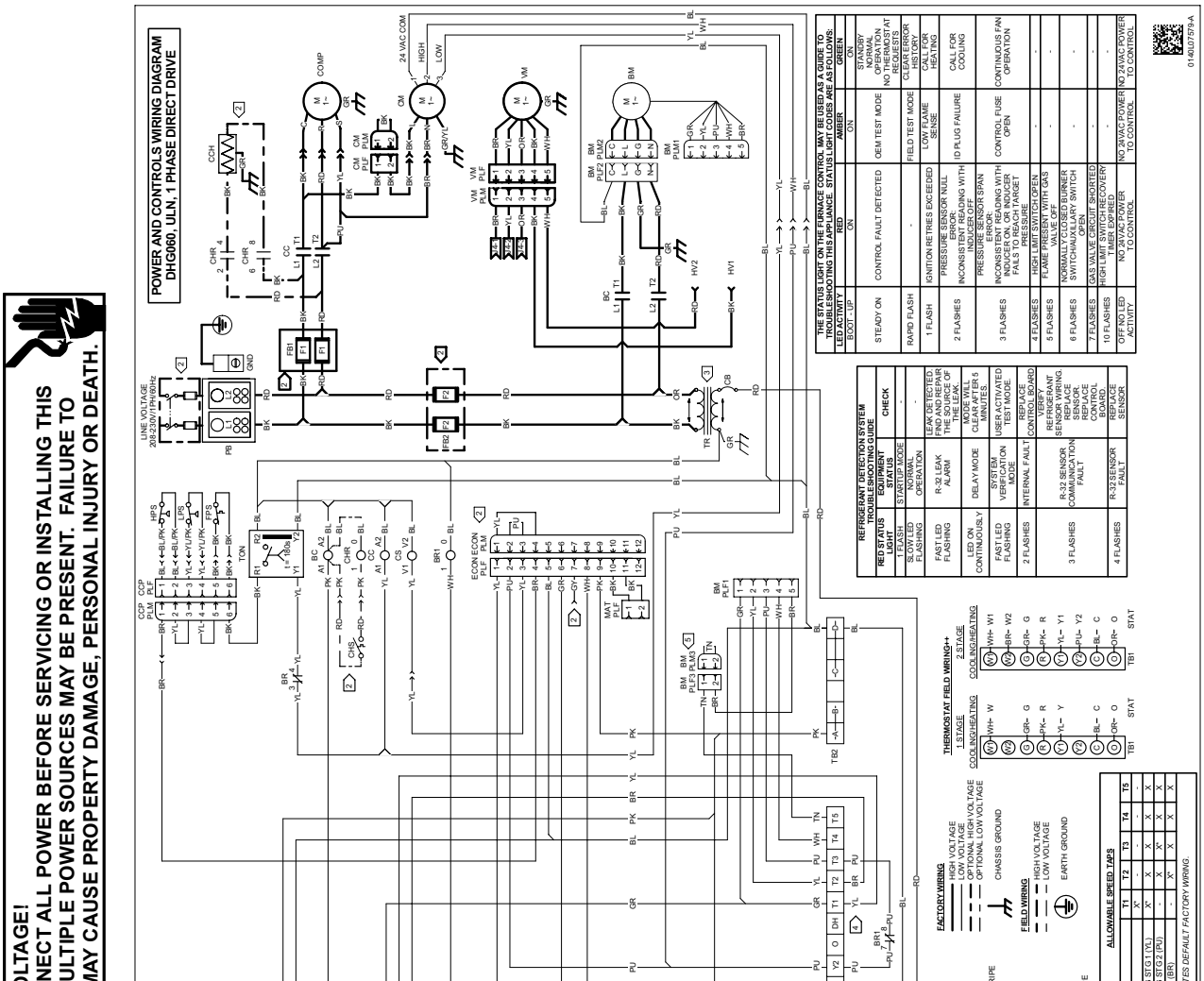
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



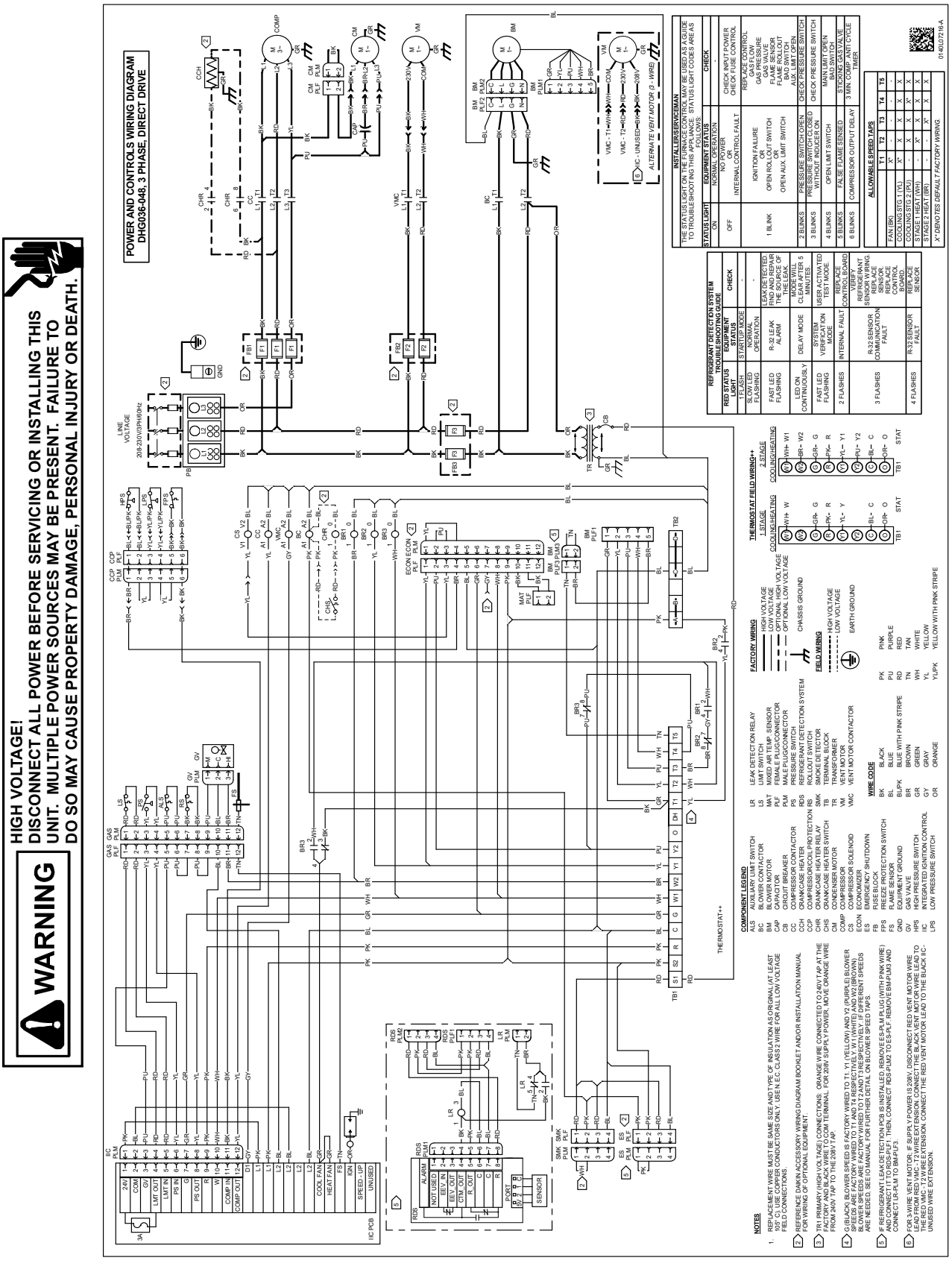
LED ACTIVITY	RED	AMBER	GREEN
BOOT - UP	ON	ON	ON
STEADY ON	CONTROL FAULT DETECTED	OEM TEST MODE	ON - ANY STANDBY NORMAL OPERATION NO THERMOSTAT REQUESTS
RAPID FLASH	-	FIELD TEST MODE	CLEAR ERROR HISTORY
1 FLASH	IGNITION RETRIES EXCEEDED	LOW FLAME SENSE	CALL FOR HEATING
2 FLASHES	PRESSURE SENSOR NULL INCONSISTENT READING WITH INDUCER OFF	ID PLUG FAILURE	CALL FOR COOLING
3 FLASHES	PRESSURE SENSOR SPAN INCONSISTENT READING WITH INDUCER ON, PRESSURE FAILS TO REACH TARGET	CONTROL FUSE OPEN	CONTINUOUS FAN OPERATION
4 FLASHES	HIGH LIMIT SWITCH OPEN	-	-
5 FLASHES	FLAME PRESENT WITH GAS VALVE OFF	-	-
6 FLASHES	NORMALLY CLOSED BURNER SWITCH/MANUAL RESET SWITCH OPEN	-	-
7 FLASHES	GAS VALVE CIRCUIT SHORTED	-	-
10 FLASHES	HIGH LIMIT SWITCH RECOVERY TIMEOUT	-	-
OFF NO LED ACTIVITY	NO 24VAC POWER TO CONTROL	NO 24VAC POWER TO CONTROL	NO 24VAC POWER TO CONTROL

RED STATUS LIGHT	EQUIPMENT STATUS	CHECK
1 FLASH	STANDBY MODE	-
SLOW LED FLASHING	NORMAL OPERATION	-
FAST LED FLASHING	R-32 LEAK ALARM	LEAK DETECTED! FIND AND REPAIR THE SOURCE OF THE LEAK.
LED ON CONTINUOUSLY	DELAY MODE	MUST BE CLEAR AFTER 5 MINUTES.
FAST LED FLASHING	SYSTEM VERIFICATION MODE	USER ACTIVATED TEST MODE
2 FLASHES	INTERNAL FAULT	REPLACE CONTROL BOARD
3 FLASHES	R-32 SENSOR COMMUNICATION FAULT	VERIFY REFRIGERANT SENSOR WIRING. REPLACE SENSOR. REPLACE CONTROL BOARD.
4 FLASHES	R-32 SENSOR FAULT	REPLACE SENSOR

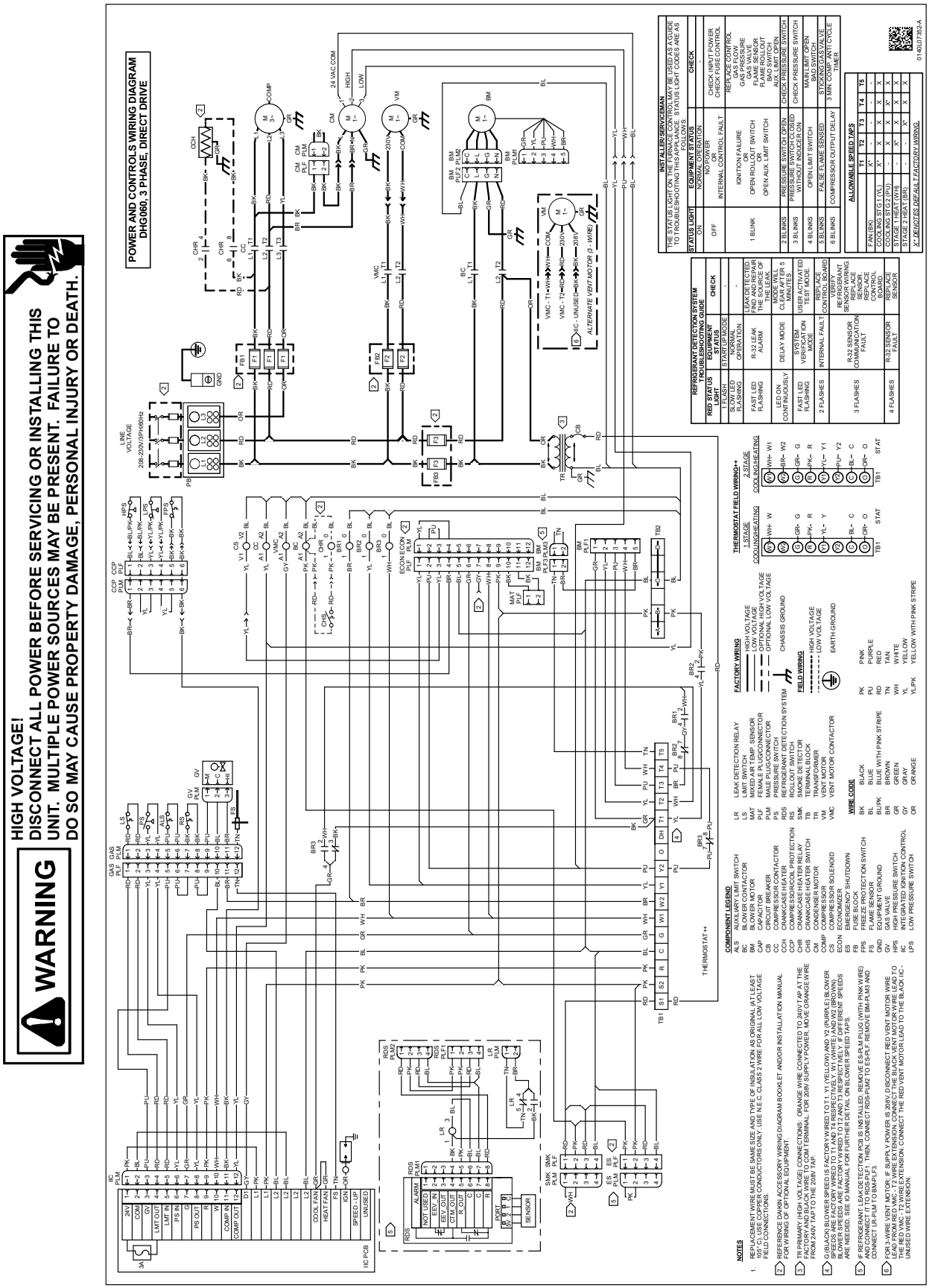
	T1	T2	T3	T4	T5
FAN (GR)	X*	-	-	-	-
COOLING ST G 1 (YL)	X*	X*	X	X	X
COOLING ST G 2 (PU)	-	X	X*	X	X
HEAT ING (BR)	-	X*	X	X	X

X DENOTES DEFAULT FACTORY WIRING.*

Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



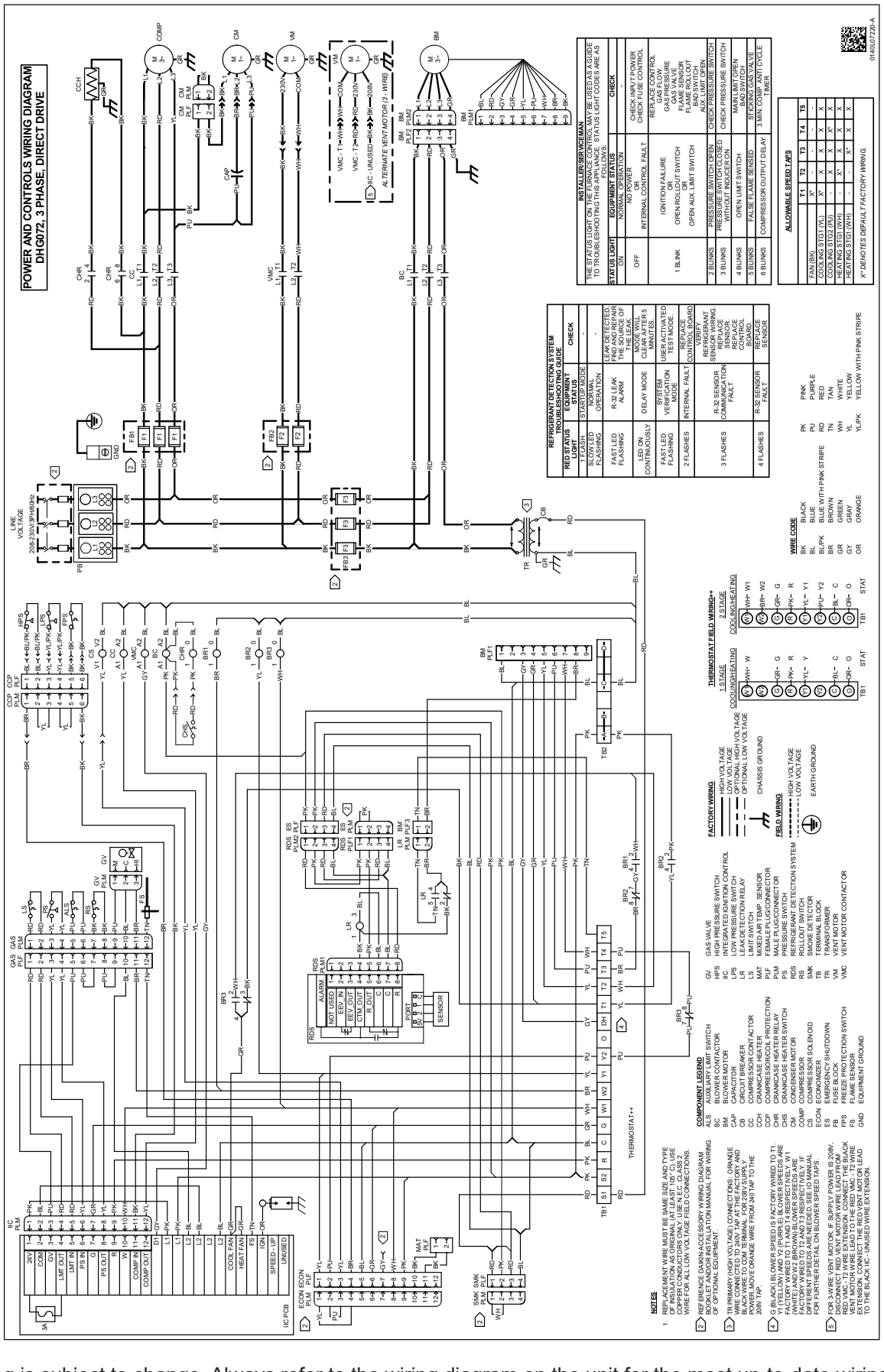
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



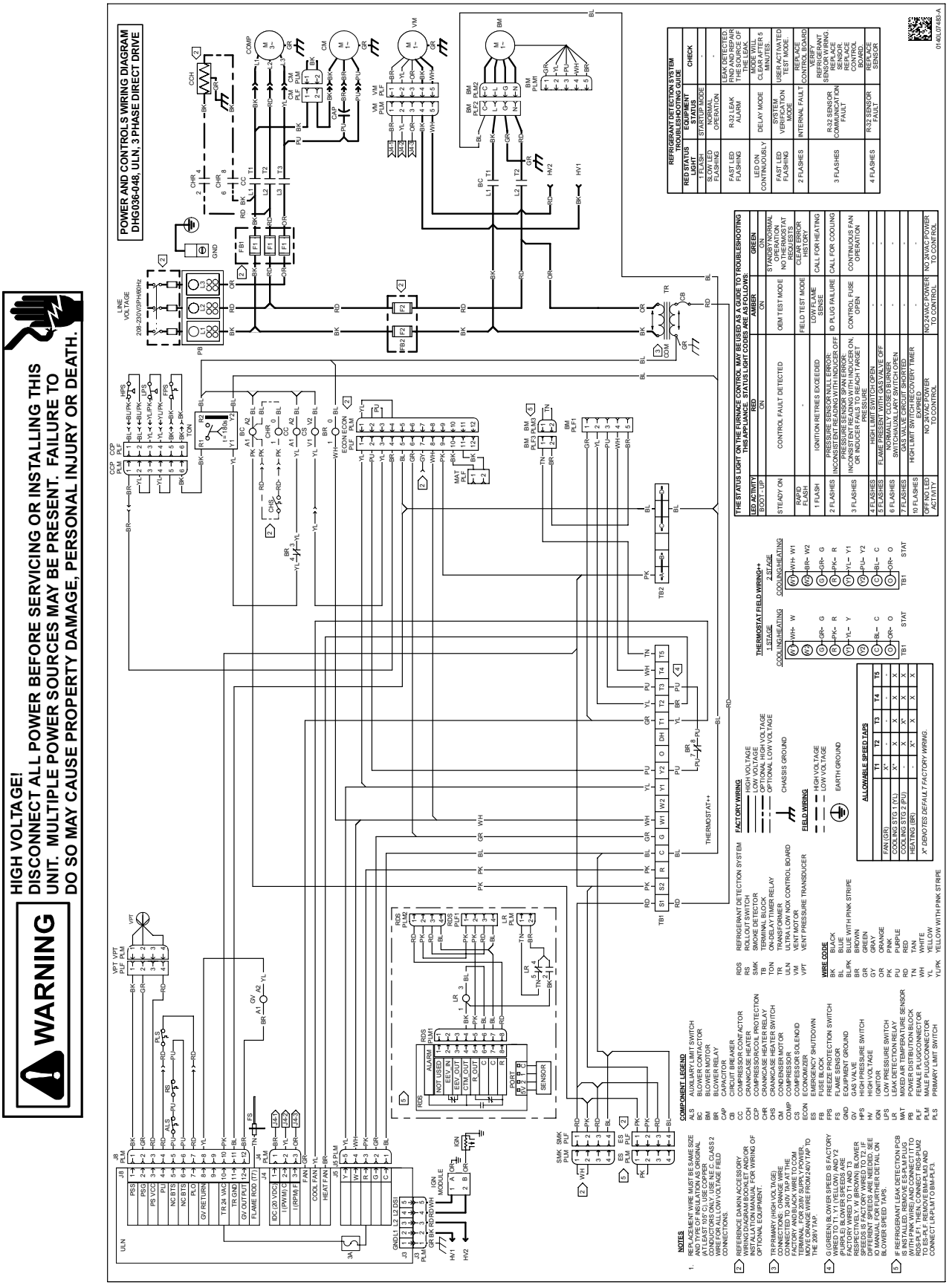
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

WARNING

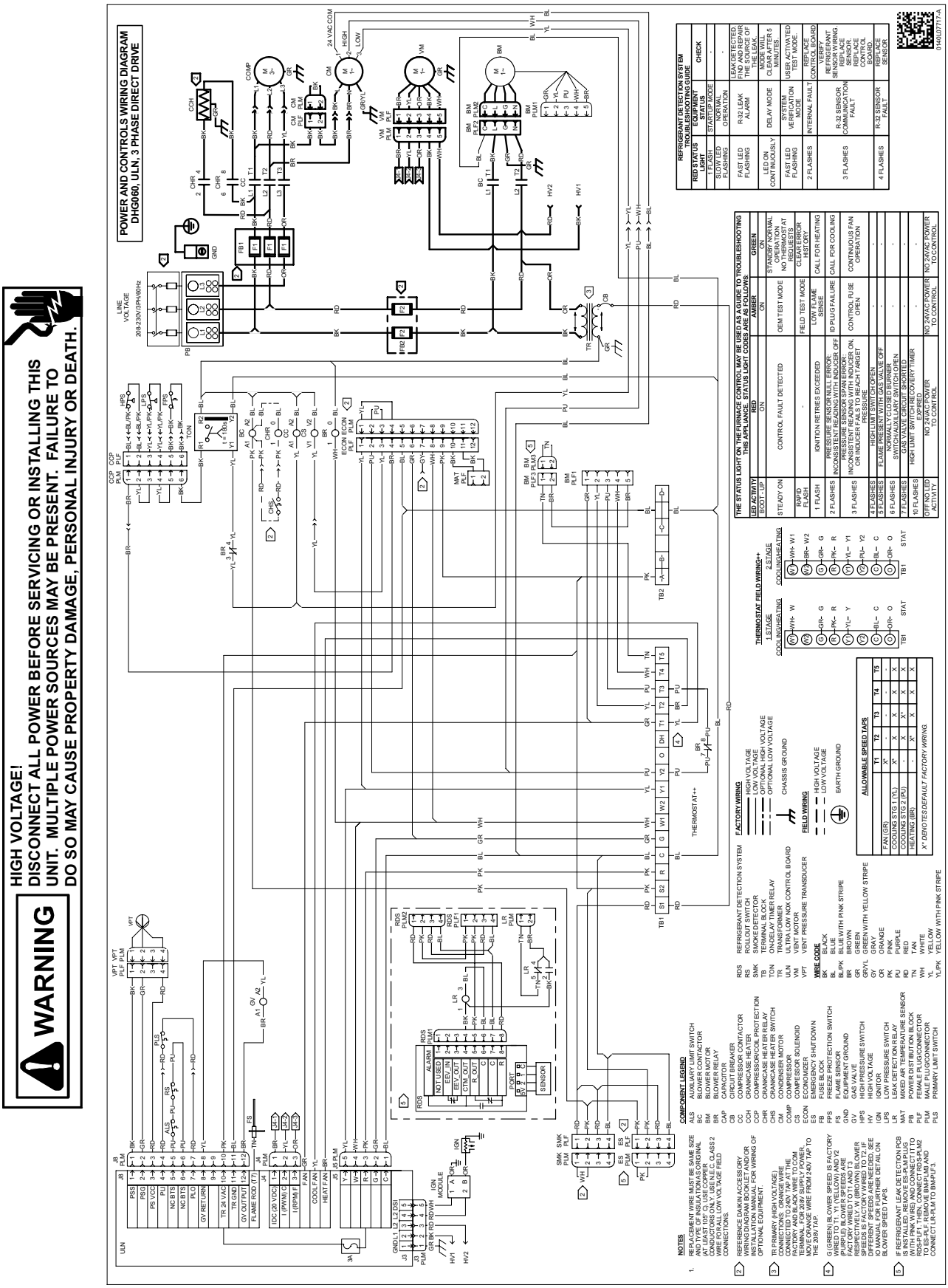
HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



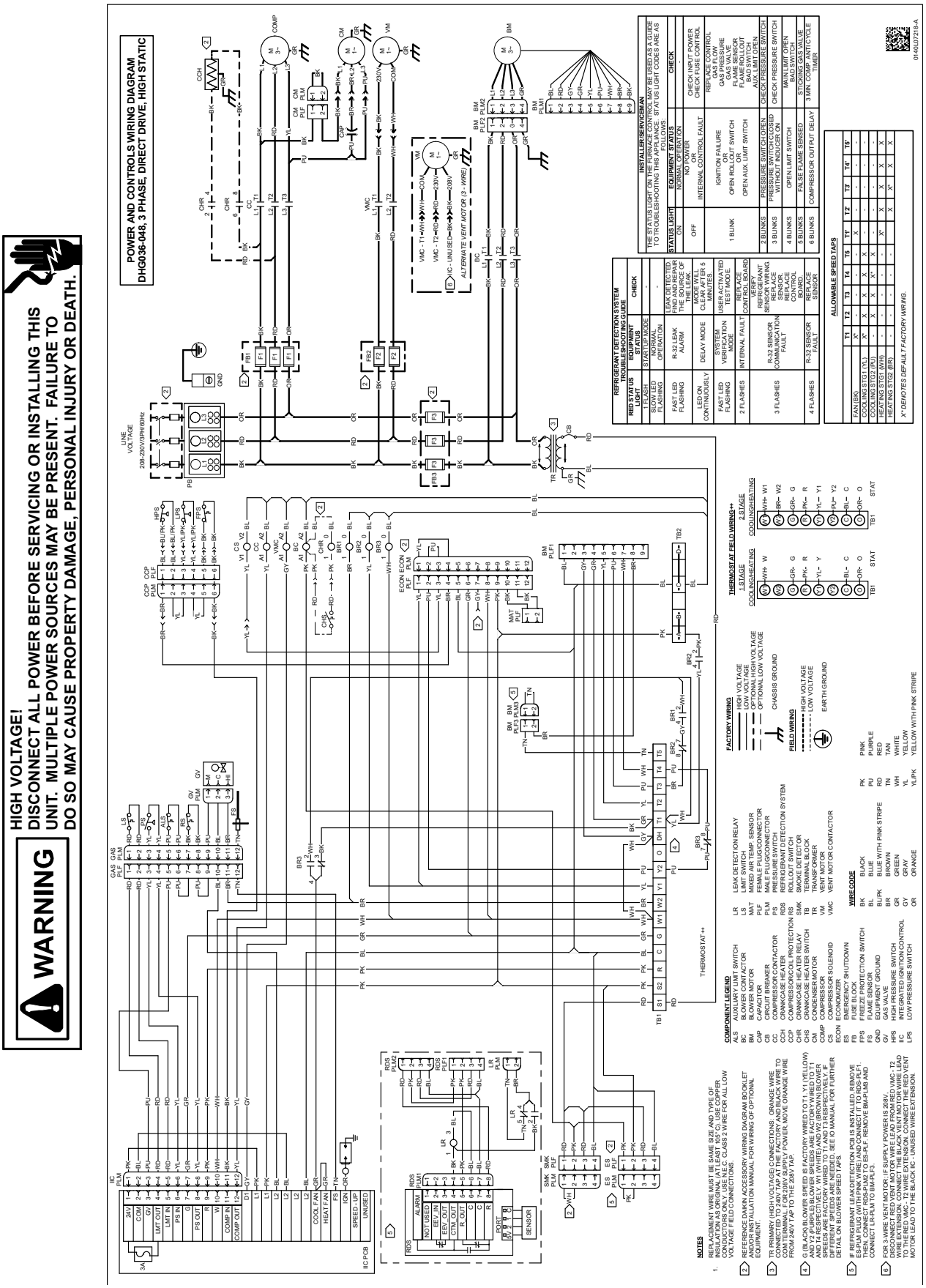
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



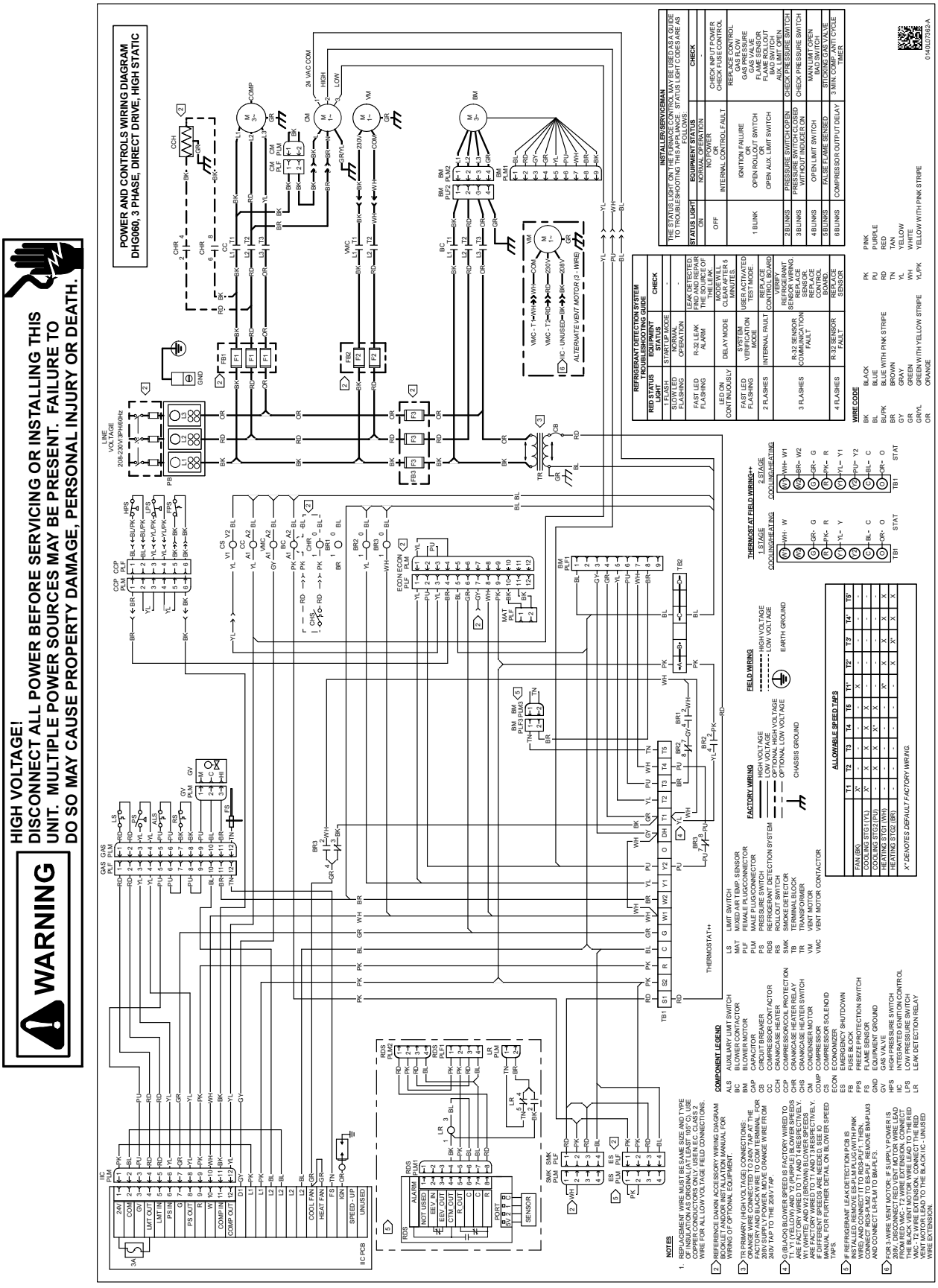
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



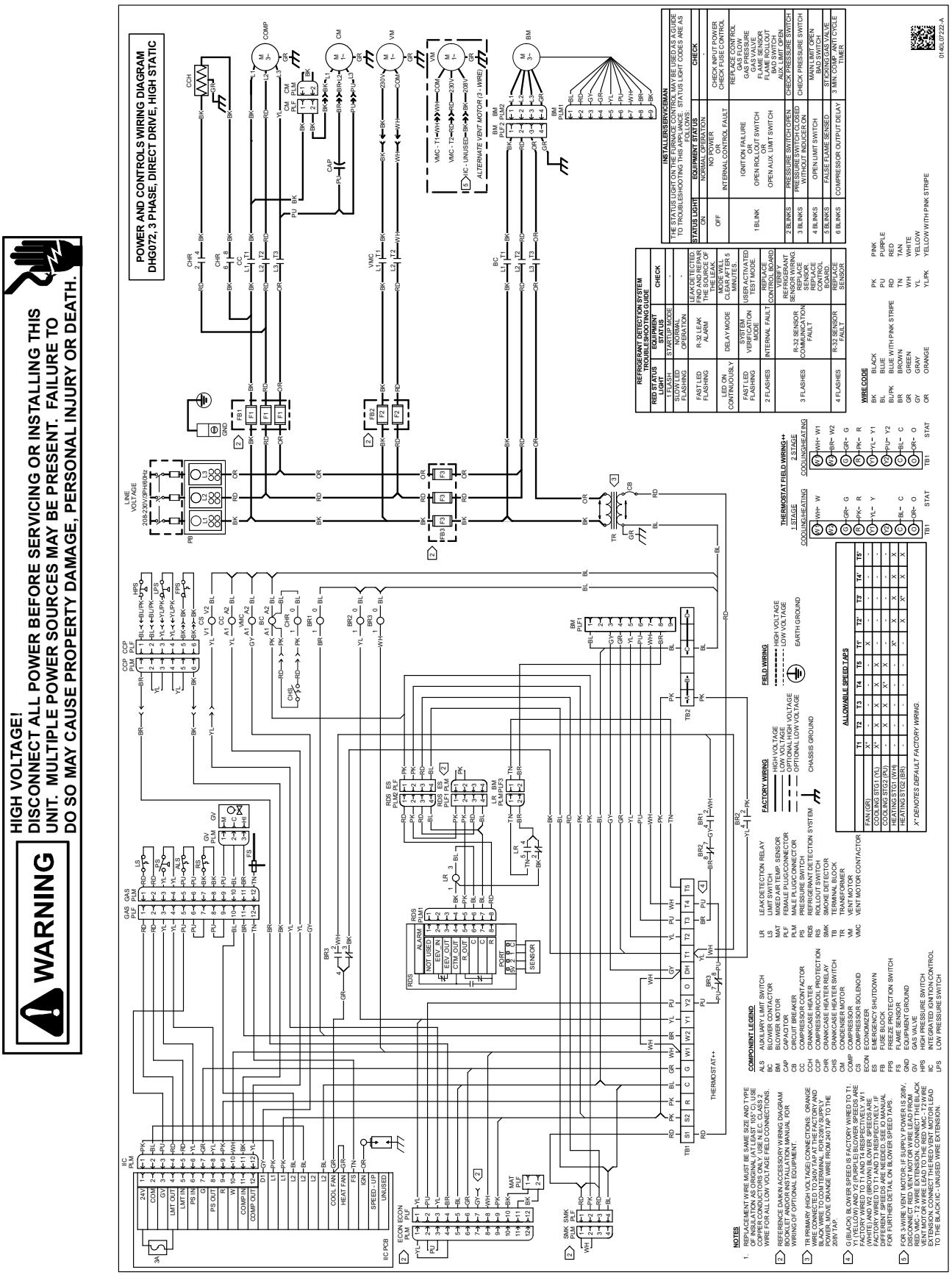
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



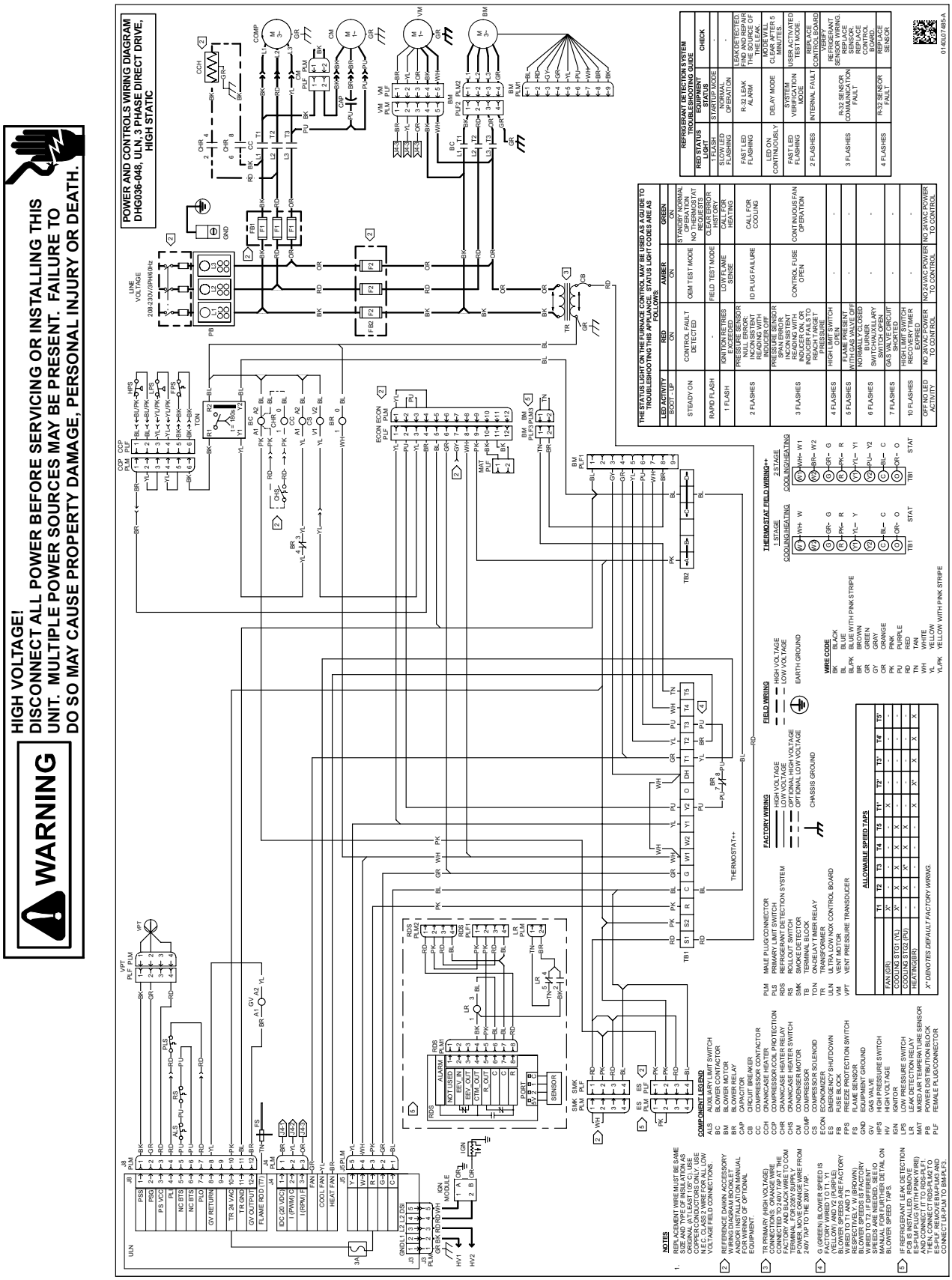
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



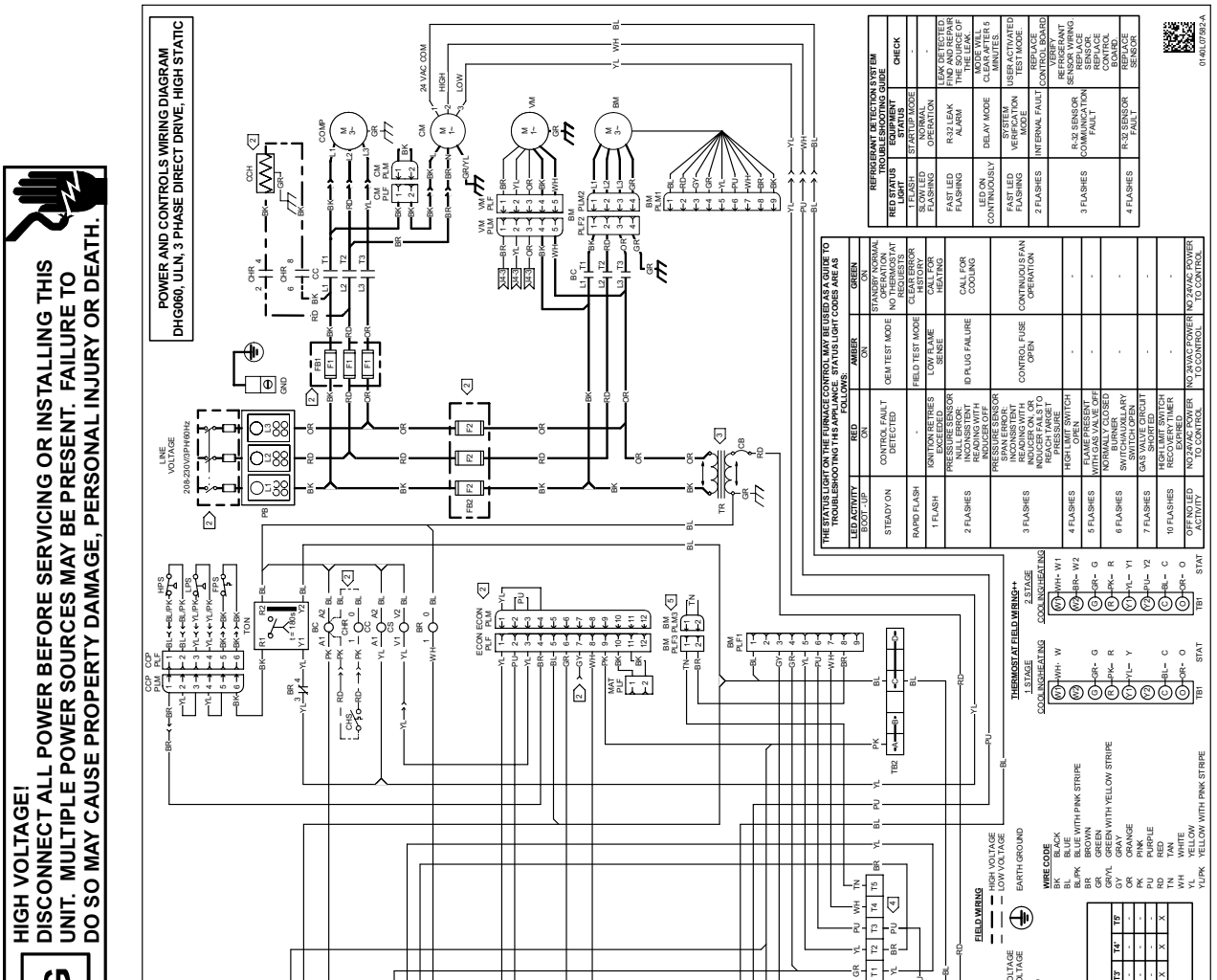
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



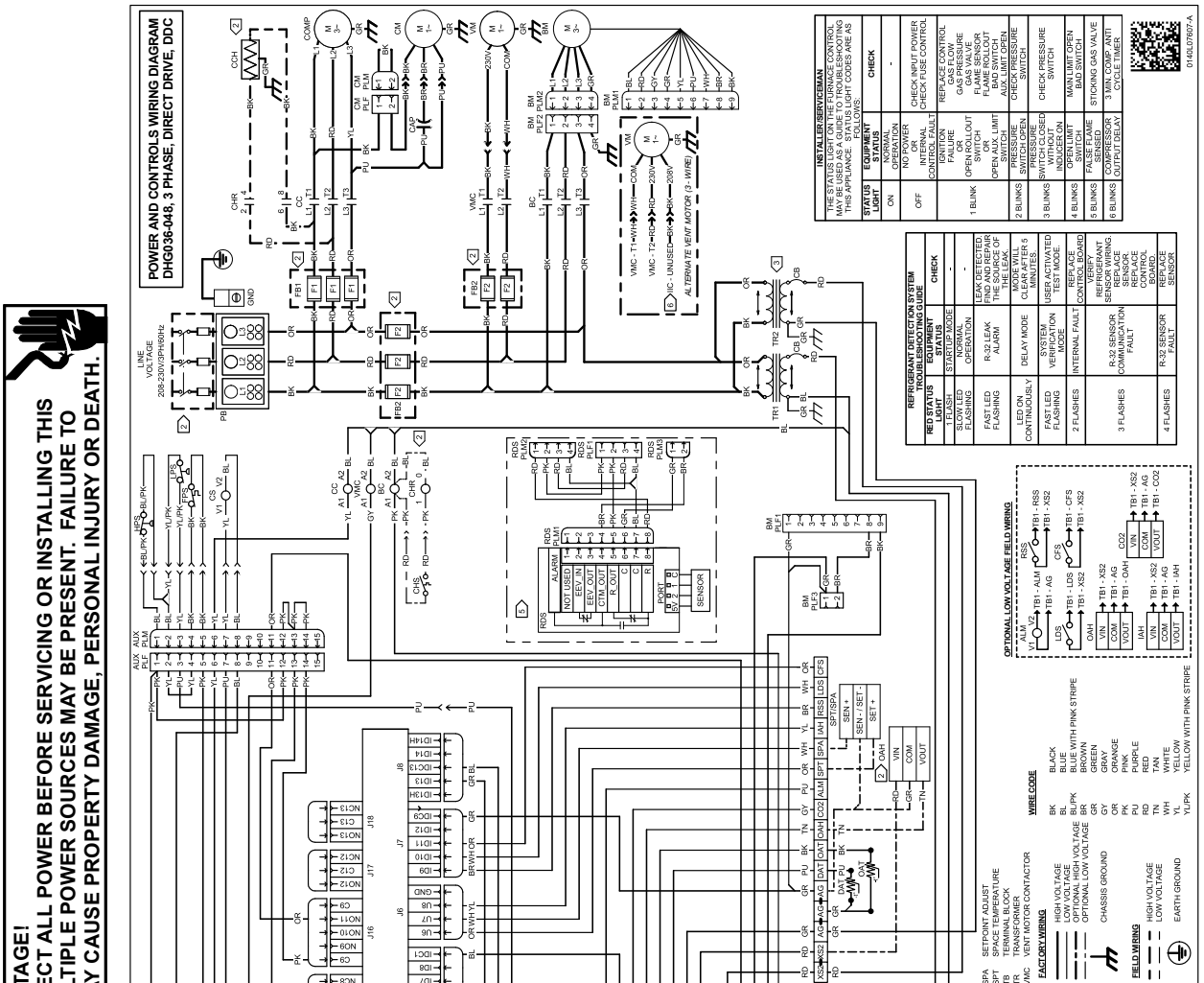
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



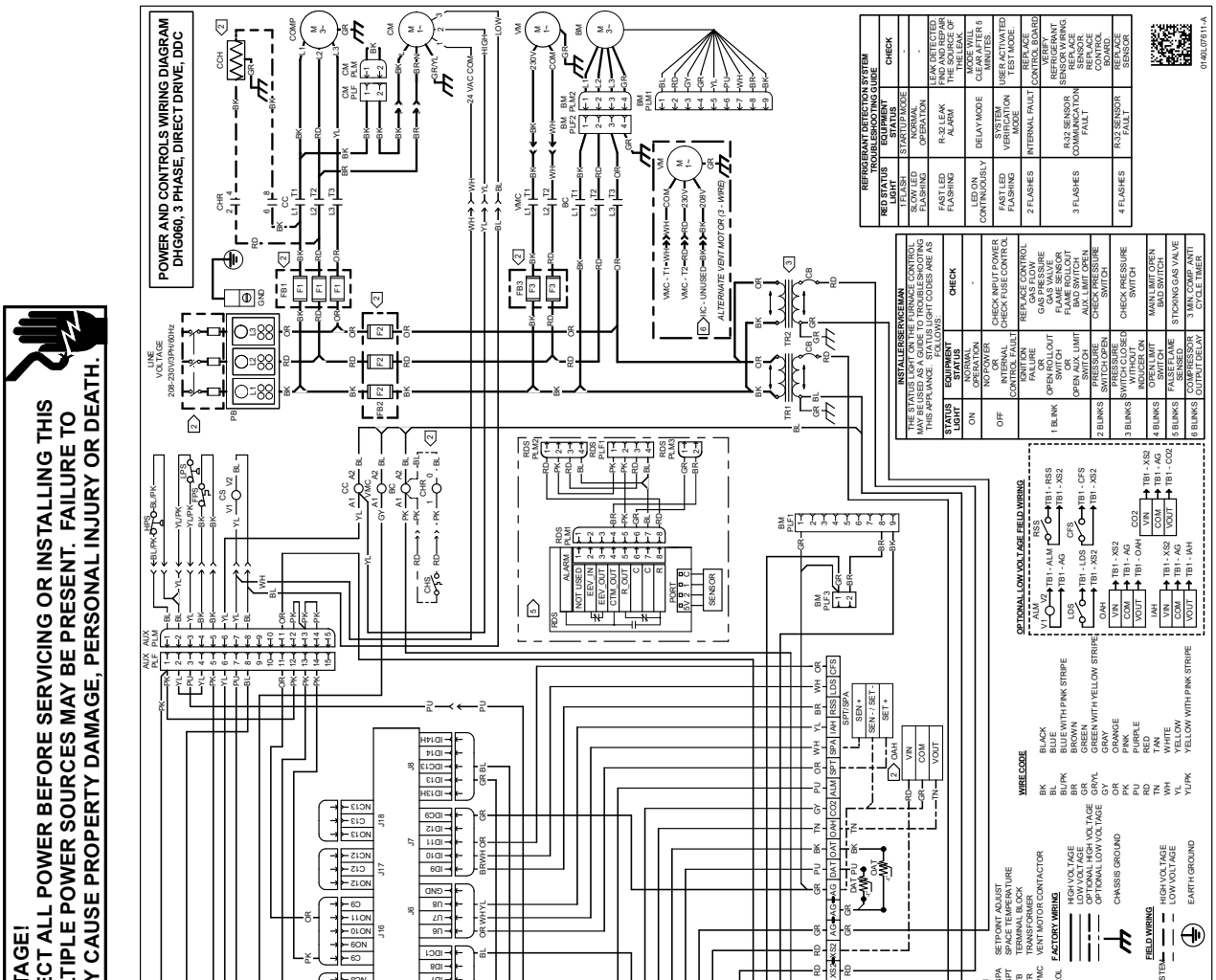
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



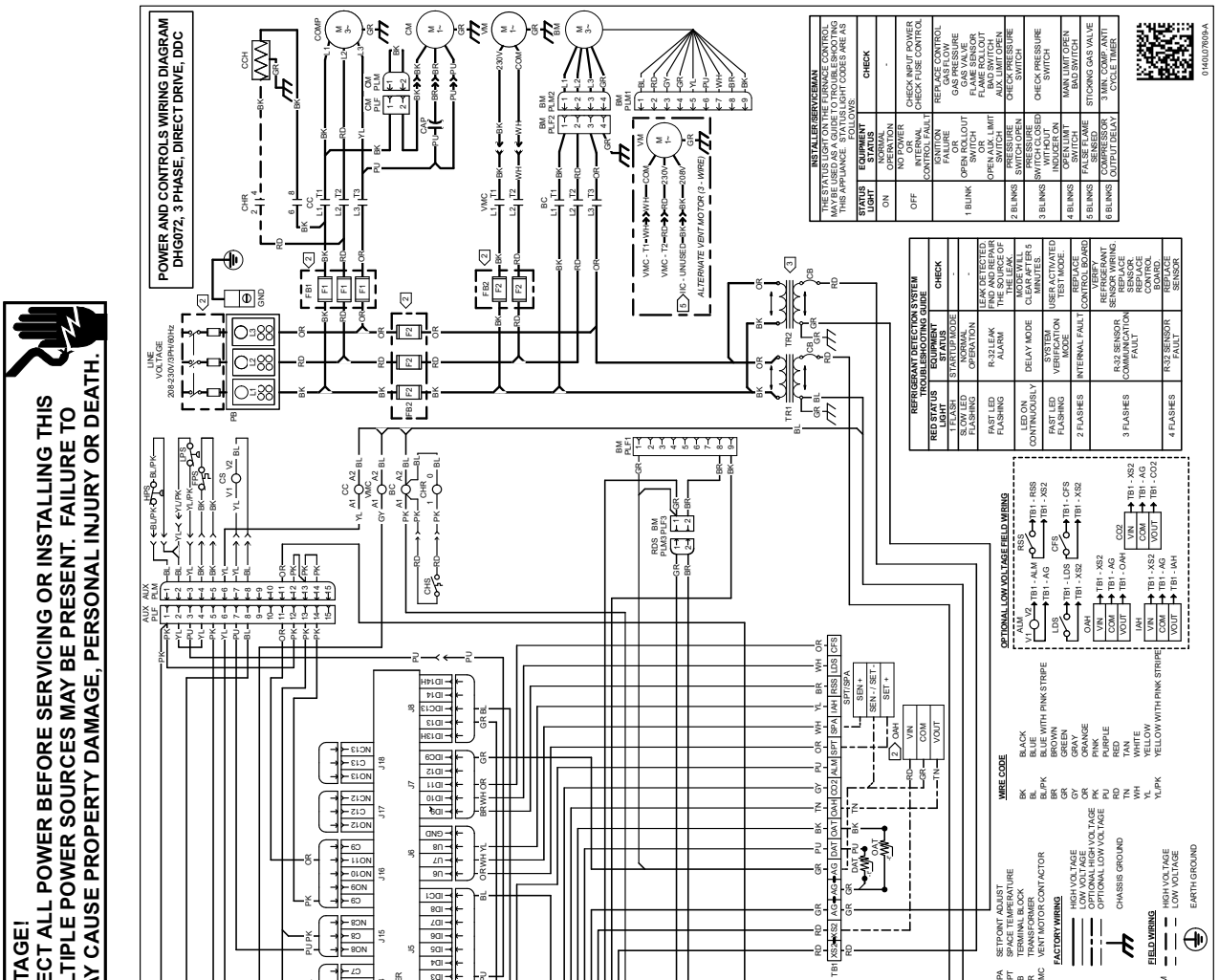
Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

Start-up Checklist

**Store in job file*

Date: _____ Location: _____

Model Number: _____ _____

Serial Number: _____ _____

Technician: _____ Unit #: _____

Pre Start-Up

(Check each item as completed)

- ☐ Verify all packaging material has been removed.
- ☐ Remove all shipping brackets per installation instructions.
- ☐ Verify the job site voltage agrees with the unit serial plate.
- ☐ Verify condensate connection is installed per installation instructions.
- ☐ Verify proper clearance around the unit for safety, service, maintenance and proper unit operation.
- ☐ Verify proper weatherproofing of all ductwork, roof curbs and electrical connections.
- ☐ Check that the flue screen is in place.
- ☐ Check gas piping for leaks.
- ☐ Verify gas pressure to the unit is within the range specified on the serial plate.
- ☐ Check to ensure that all fans, pulleys and wheels are secure.
- ☐ Check for proper belt tension and alignment per installation instructions.
- ☐ Check refrigerant piping for rubbing and leaks. *Repair if necessary.*
- ☐ Check unit wiring to ensure it is not in contact with refrigerant piping or sharp metal edges.
- ☐ Check all electrical connections and terminals. *Tighten as needed.*
- ☐ Verify that the crankcase heaters have been energized for 24 hours.
- ☐ Verify the scroll compressor(s) are rotating in the right direction.
- ☐ Verify all accessories are installed and operating correctly.
- ☐ Check filters and replace if necessary.
- ☐ Verify the installation of the thermostat.

9/2014

Start-up Checklist

Start-Up

(Insert the values as each item is completed.)

ELECTRICAL

Supply Voltage	L1 - L2	_____	L2 - L3	_____	L3 - L1	_____	
Circuit 1 Compressor Amps	L1	_____	L2	_____	L3	_____	
Circuit 2 Compressor Amps	L1	_____	L2	_____	L3	_____	
Blower Amps	L1	_____	L2	_____	L3	_____	
Condenser Fan Amps	Fan 1	_____	Fan 2	_____	Fan 3	_____	

BLOWER EXTERNAL STATIC PRESSURE

Return Air Static Pressure	_____	IN. W.C.
Supply Air Static Pressure	_____	IN. W.C.
Total External Static Pressure	_____	IN. W.C.
Blower Wheel RPM	_____	RPM

TEMPERATURES

Outdoor Air Temperature	_____	DB	_____	WB
Return Air Temperature	_____	DB	_____	WB
Cooling Supply Air Temperature	_____	DB	_____	WB
Heating Supply Air Temperature	_____	DB		

PRESSURES

Gas Inlet Pressure	_____	IN. W.C.		
Gas Manifold Pressure	_____	IN. W.C. (Low Fire)	_____	IN. W.C. (High Fire)
Suction Circuit 1	_____	PSIG	_____	°F
Superheat (Orifice System)			_____	°F
Suction Circuit 2	_____	PSIG	_____	°F
Superheat (Orifice System)			_____	°F
Discharge Circuit 1	_____	PSIG	_____	°F
Subcooling (TXV System)			_____	°F
Discharge Circuit 2	_____	PSIG	_____	°F
Subcooling (TXV System)			_____	°F

(HEAT PUMP ONLY)

Suction Circuit 1	_____	PSIG	_____	°F
Suction Circuit 2	_____	PSIG	_____	°F
Discharge Circuit 1	_____	PSIG	_____	°F
Discharge Circuit 2	_____	PSIG	_____	°F

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

CUSTOMER FEEDBACK
Daikin is very interested in all product comments.
Please fill out the feedback form on the following link:
https://daikincomfort.com/contact-us
You can also scan the QR code on the right to be directed to the feedback page.

19001 Kermier Rd., Waller, TX 77484
www.daikincomfort.com