



Literature Assembly

911-0806-1

BOOK 1 OF 2

Contains the following:

2100-591	User's Information Manual
2100-479	Leak Test, Evacuation, Charging
2110-822(J)	Replacement Parts Manual
2100-367(B)	Trouble Shooting Manual WG
7960-867(D)	Dehum Supplemental Instructions
7960-932	8201-171BX CCM Instructions
4085-171(D)	Wiring Diagram
4085-173(D)	Wiring Diagram
4085-271(F)	Wiring Diagram
4085-273(F)	Wiring Diagram
4085-394(F)	Wiring Diagram
4085-396(F)	Wiring Diagram
7960-420	Warranty



Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
Since 1914...Moving ahead, just as planned.

Manual: 2100-591
Supersedes: **NEW**
File: Vol I, Tab 20
Date: 04-10-13

USER'S INFORMATION MANUAL

WG-Series Combination Gas/Electric Wall-Mount™

We're pleased you've chosen our air conditioner/gas furnace to supply your cooling/heating needs. Please keep this manual in a safe, yet readily available place. It contains important and useful information.

ATTENTION, INSTALLER: After installing air conditioner/gas furnace, give the user:

- User's Information Manual
- Parts List
- Installation Instructions
- Warranty Information

ATTENTION, USER! Your installer should give you the above four important documents relating to your air conditioner/gas furnace. Keep these as long as you do your equipment. Pass these documents on to later purchasers or furnace users. If any of the four documents are missing or damaged, contact your installer or manufacturer for replacement. For efficient service, please give your unit model and serial number, from Section 1 or from your serial rating plate.



WARNING

If the information in this manual 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 or the gas supplier.



WARNING

Read and follow all safety information in this manual, operating instructions and furnace safety labels. Failure to follow safety precautions could result in damage, injury or death.

IMPORTANT SAFETY NOTE: You must know how to turn off gas and electricity to air conditioner/gas furnace. Your qualified installer, service agency or gas supplier can teach you to use controls and switches.



WARNING

Do not use this air conditioner/gas furnace if any part has been under water. Immediately call a qualified service technician to inspect the unit and to replace any part of the control system and any gas control which has been underwater.

Thank you for reading these safety statements. Please read on so you will know how to maintain your air conditioner/gas furnace for years of dependable service.

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BARD MANUFACTURING COMPANY, INC.
BRYAN, OHIO USA 43506

SECTION 1 • RATING PLATE INFORMATION

Record the manufacturer's name, unit model number and serial number below. These are your furnace rating plate. Record installation date which is important for warranty purposes.

YOUR FURNACE INFORMATION

Furnace Type _____

Manufacturer's Name _____

Model Number _____

Serial Number _____

Date Installed _____

Installer/Service _____

Address _____

City/State/Zip Code _____

Telephone Number _____

SECTION 2 • IMPORTANT SAFETY PRECAUTIONS

2.A HAZARD ALERT SYMBOL



An exclamation point surrounded by a triangle.

2.B SIGNAL WORDS

Years of safe, dependable service are assured when you understand and follow all safety precautions.

Signal words "**WARNING**" and "**CAUTION**" alert you to potential hazards.

"**WARNING**" indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

"**CAUTION**" indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. It can also be used to signal property damage only potential.

2.C. SAFETY PRECAUTIONS

These are some of our most important safety precautions; others are throughout this manual. Please read and follow them.

***THIS PRODUCT MUST BE GAS PIPED BY
A LICENSED PLUMBER OR GAS FITTER
IN THE COMMONWEALTH OF
MASSACHUSETTS.***

2.1 GAS AND COMBUSTION PRODUCTS



WARNING

Any condition that will allow gas or combustion products to enter furnace area can cause nausea, asphyxiation or fire resulting in damage, injury or death.

Natural gas and propane (LP) gas have characteristic odors. When your furnace is operating correctly, you should not smell any unfamiliar odor. Normally, burning gas with air produces combustion products which contain carbon dioxide, oxygen and water vapor. Under abnormal conditions, combustion products can contain aldehydes and carbon monoxide.

- Aldehydes have a strong pungent, acrid smell that can cause nausea.
- Carbon monoxide is tasteless, colorless and odorless. It can cause headaches, flu-like symptoms or nausea. We refer to all these symptoms as nausea in this manual. It can also cause death by asphyxiation.

WARNING

Any unfamiliar smell can alert you to presence of gas or aldehydes. If you detect any unfamiliar odor follow instruction in Section 4.B.1. Otherwise, nausea, asphyxiation or fire could occur resulting in damage, injury or death.

WARNING

Do not block or cover combustion openings in the furnace. Blocking or covering these openings could cause nausea, asphyxiation or fire resulting in damage, injury or death.

WARNING

A loud noise may mean faulty burner ignition. If your furnace makes a loud noise, turn it off. Follow instructions in Section 4.B.2. If you don't turn off your furnace, it could cause fire or an explosion resulting in damage, injury or death.

WARNING

Do not operate furnace with blower door open or removed. Do not alter furnace to allow operation with blower door removed. Doing either could allow combustion products to circulate throughout the furnace area causing nausea, asphyxiation or fire resulting in damage, injury or death.

WARNING

Front door must be in place during furnace operation. Hot surfaces behind front door.

2.2 STORAGE AND USE OF FLAMMABLE, CORROSIVE AND COMBUSTIBLE PRODUCTS NEAR YOUR FURNACE

WARNING

Never store or use flammable liquids or vapors near or on your furnace. These include gasoline, kerosene, cigarette lighter fluid, cleaning fluids, solvents, paint thinners or painting compounds. Flammable vapors can travel great distances before igniting.

WARNING

Never store or use anything near or on your furnace that can produce vapors that are corrosive to gas-fired furnaces. Vapors from products containing chlorines, fluorines, bromines and iodines can cause vent system or heat exchanger failure. Examples of such products are spray or aerosol containers, detergents, bleaches, cat litter, waxes, adhesives, solvents and other cleaning compounds. Vent system or heat exchanger failure could cause nausea, asphyxiation or fire resulting in damage, injury or death.

WARNING

Never store anything combustible near or on your unit. A fire could occur resulting in damage, injury or death.

2.3 ALTERATION OF FURNACE CONTROLS



WARNING

Do not alter any gas or electrical controls (gas control or safety controls) in any manner. Altering them could cause furnace to operate unsafely resulting in damage, injury or death.

SECTION 3 • UNDERSTANDING HOW YOUR FURNACE WORKS

Your installer should have given you a detailed explanation of how the furnace operates. Shown below are the basic operation characteristics and sequence of operation. If you have any questions consult your installer and/or service agency.

* * IMPORTANT * *

There are many types of thermostats compatible with this furnace. Make sure you understand the specific type installed. Ask installer for detailed explanation, and retain thermostat instruction manual for reference.

This furnace is equipped with a vent shut-off system which monitors the combustion air into the burners by means of a pressure sensing device. When the vent becomes blocked, this device turns off the gas valve circuit to prevent flue products from entering the structure. In the event that this occurs, shut off furnace and contact a qualified service agency.

3.1 BASIC OPERATION – HEATING CYCLE

This furnace is operated by an Integrated Furnace Control (IFC) and a gas control system which controls all functions of the furnace.

On a call for heat from the thermostat, the IFC first turns on the inducer motor. The pressure switch then closes signaling the ignition control to proceed with ignition function.

The ignition system consists of a direct spark igniter (DSI) and remote sensor. When the thermostat calls for heat the DSI sparks to light main burner gas. Once ignited the remote sensor confirms flame carry over to all burners.

There is a 60-second delay after main burner is on until the comfort air blower starts on heating speed. After the thermostat is satisfied, the burners will go off as gas valve closes. The inducer will continue to run for 30 seconds, and the comfort air blower will continue to run for 2-1/2 minutes.

3.2 BASIC OPERATION – COOLING CYCLE

On a call for cool the compressor and condenser fan will start immediately, and the comfort air blower will start 7 seconds later on cooling speed. Note: Some models may be equipped with optional Low Ambient Control that will cycle the condenser fan motor to maintain proper refrigerant pressures under lower outdoor temperature conditions. When the thermostat is satisfied the compressor and condenser fan will stop and the comfort air blower will continue to operate for 60 seconds.

3.2.1 COMPRESSOR CONTROL MODULE (CCM)

All models are equipped with a compressor control module. This control is an anti-short cycle/lockout timer with high and low pressure switch monitoring and alarm relay output.

Delay on Make Timer and Break Time Delay

- On initial power up, or any time the power is interrupted to the unit, the delay on make period begins. This delay will be 2 minutes plus 10% of the delay on break setting. This feature assures that pressures will be equalized for normal start up if there are brief power interruptions, and can accommodate staggered starts for dual unit installations as long as the off delay periods are set differently for the two units.
- During routine operation of the unit with no power interruptions the compressor will operate on demand with no delay as long as off delay time has been met.
- Adjustable 30-second to 5-minute delay on break timer assures that pressures can equalize if units are short cycled by the operating controls or personnel. Recommended settings would be 2 minutes for unit 1 and 3 minutes for Unit 2.

High Pressure Switch and Lockout Sequence

- If the high pressure switch opens, the compressor contactor will de-energize immediately. The lockout time in the CCM will go into a soft lockout and stay locked out until the high pressure switch closes and the delay on break has expired.
- If the high pressure switch opens again during the same operating cycle the CCM will go into a manual lockout condition.
- Recycling the wall thermostat resets the manual lockout.

Low Pressure Switch, Bypass and Lockout Sequence (Optional)

- If the low pressure switch opens for more than 120 seconds the compressor contactor will de-energize and the CCM will go into soft lockout.
- Regardless of the state of the low pressure switch the compressor contactor will reenergize after the delay on break time has expired.
- If the low pressure switch remains open, or opens again for longer than 120 seconds, the CCM will go into a manual lockout and the alarm relay circuit will energize.
- Recycling the wall thermostat resets the manual lockout.

NOTE: Both high and low pressure switch controls are inherently automatic reset devices. The high pressure switch opens at 425 and closes at 325 psig, and the low pressure switch opens at 14 and closes at 30 psig. The lockout features, both soft and manual, are a function of the Compressor Control Module.

Alarm Relay Output

- Alarm terminal on Compressor Control Module is 24V AC output connection for applications where signal is desired. This terminal is powered whenever compressor is in manual lockout due to high pressure or low pressure sequences as described.

PHASE MONITOR

All units with three phase scroll compressors are equipped with a three phase line monitor to prevent compressor damage due to phase reversal.

The phase monitor in this unit is equipped with two LEDs. If the “&” signal is present at the phase monitor and phases are correct, the green LED will light.

If phases are reversed, the red fault LED will be lit and compressor operation is inhibited.

3.3 MANUAL FAN (CONTINUOUS AIRFLOW) OPERATION

If wall thermostat is set to MANUAL (ON) position to operate comfort air blower continuously to provide air circulation throughout the building, the blower will operate on the heating speed rather than the cooling as is typical with most systems. This permits the air to circulate as desired but helps keep the operating noise level down as well as conserving energy.

During a call for cooling, the blower automatically shifts up to cooling speed, and remains there until 60 seconds after thermostat is satisfied then drops back to heating speed.

SECTION 4 • TURNING OFF FURNACE IN AN EMERGENCY

WARNING

Have a qualified installer, service agency or gas supplier teach you location and operation of gas and electrical shut-off devices. Ask them any questions you have about this section. If you don't turn off your furnace in an emergency damage, injury or death could result.

In an emergency you **must** know how to turn off gas and electricity. Find out how **before** the emergency.

 WARNING
Should overheating occur or the gas supply fail to shut off, shut off the manual gas valve to the furnace before shutting off the electrical supply. Failure to do so can cause a fire or explosion which could result in damage, injury or death.

4.A GAS AND ELECTRICAL SHUT-OFF DEVICES

1. GAS SHUT-OFF DEVICES

In an emergency, you may not be able to reach all the gas shut-off devices. You must know how to turn off gas using any one of the three manual types:

- a. Manual Shut-off Switch on Gas Control
Gas control location is behind the access panel on the right side. See Lighting and Shutdown Instructions in Section 5 for more information.

To turn gas control furnace knob OFF, turn it to "OFF" position. Use this same procedure when you leave a vacation home vacant and do not want the furnace to operate.

- b. Manual In-Line Shut-off Valve in Gas Supply Line.

This valve could be next to furnace. Figure 1 shows a typical installation.

Normally, gas is ON when you turn the shut-off valve handle parallel to gas pipe. Gas is OFF when you turn handle 90° from gas pipe.

- c. Manual Shut-off Valve at Natural Gas Meter or Propane (LP) Gas Tank.

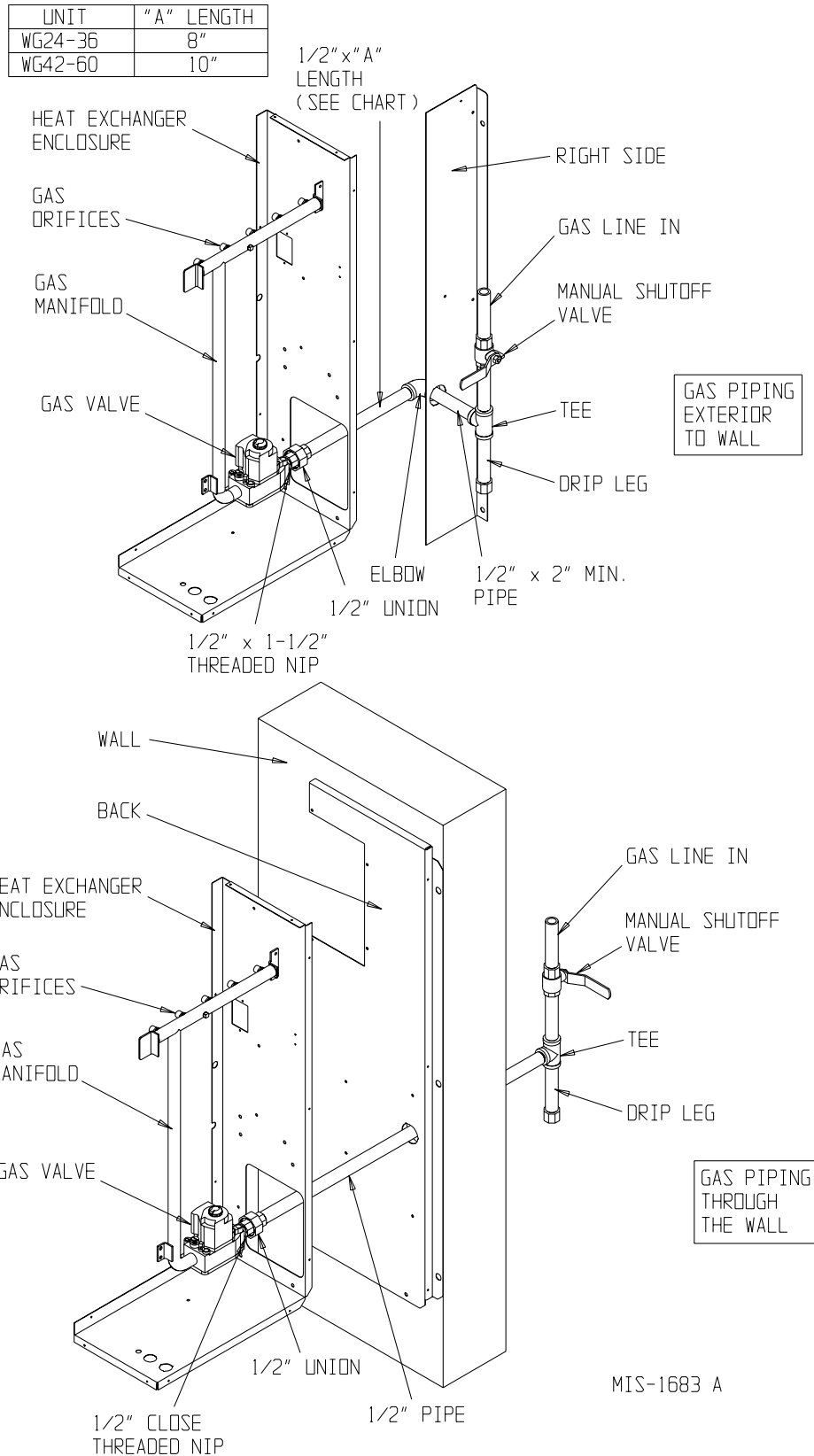
Normally, natural gas is ON when you turn shut-off parallel to gas pipe. Gas is OFF when you turn shut-off 90° from gas pipe. Some valves require a wrench or other tools.

2. ELECTRICAL SHUT-OFF DEVICES

In an emergency, you may not be able to reach both of your electrical shut-off devices. Therefore, you must know how to turn off electricity using either one of them. Here are two types of electrical shut-off devices:

- a. There should be an electrical shut-off device located on or immediately adjacent to the furnace.
- b. There should be a separate circuit breaker or fuse serving only the furnace located in the main circuit breaker or fuse panel. Know its location and make sure this device is clearly identified.

FIGURE 1
TYPICAL GAS PIPING



4.B POSSIBLE EMERGENCIES AND RECOMMENDED ACTIONS



WARNING

If gas or electricity is off due to an emergency, only a qualified installer, service agency or gas supplier should turn it back on. Doing it yourself could result in damage, injury or death.

1. **Possible Emergency:** Smelling gas or other unfamiliar smell; or not knowing what may be wrong or what to do about it.

ACTION: For your safety –

- a. Leave your house or building immediately.
- b. Go to a neighbor's or another building.
- c. Use their telephone.
- d. Call your gas supplier. Tell them you smell gas and give them your name and address.
- e. If you cannot reach gas supplier, call fire department.



WARNING

Three important **things not to do** –

1. Don't try to light any gas appliances.
2. Don't touch any electrical switches
3. Don't use the telephone in your house or building.

Any of the above may cause a spark which could cause a fire or explosion resulting in damage, personal injury or death.

2. **Possible Emergency:** Your thermostat is set below room temperature; yet even though the blower is on, the air coming from your room registers continually gets hotter.

ACTION:

- a. Turn room thermostat to its lowest or OFF setting.
- b. If you can do so safely, turn gas off. Use manual shut-off valve at gas meter or on propane (LP) gas tank. You may need a wrench or tools. If you can safely turn off electricity at the main circuit panel, do so. If you cannot do these things safely, leave your home or building immediately. Call your gas supplier or fire department from a neighbor's phone for help.

3. **Possible Emergency:** Your thermostat is set above room temperature. The blower is on but the air coming from your room registers is hot, then cold, then hot, then cold in a continuing cycle. This condition indicates lack of airflow through furnace.

ACTION:

- a. Make sure air filter is clean and installed correctly.
- b. Check that registers and return air grilles are open and unobstructed.
- c. If condition continues, call your local qualified service technician or gas supplier.

4. **Possible Emergency:** While furnace is operating, you smell unfamiliar odors that go away when furnace is off.



WARNING

Unfamiliar odors may mean gas or aldehydes are present which could result in damage, injury or death.

ACTION:

- a. Turn thermostat to its lowest or OFF setting.
- b. Move gas valve control knob to OFF position.
- c. If blower is not operating, immediately turn off electricity to furnace using shut-off device near furnace or at main circuit panel.
- d. If blower is operating, wait five minutes for furnace to cool down and then turn off electricity to furnace using shut-off device near furnace or at main circuit panel.
- e. Call your local qualified service technician or gas supplier.

5. **Possible Emergency:** Main electrical circuit breaker for furnace cannot be reset without tripping again or new fuses continue to blow.

ACTION:

- a. Move gas valve control knob to OFF.
- b. Call your local qualified service technician or gas supplier.

SECTION 5 • OPERATING YOUR FURNACE

After reading the Safety Information and Precautions follow Operating Instructions on front door of furnace and instructions repeated on Page 11.



WARNING

If you do not follow these instructions exactly a fire or explosion could occur resulting in damage, injury or death.



WARNING

Never use tools to move gas control knob. Only use your hand. If gas control knob will not move by hand, do not force it or try to repair it. Call a qualified installer, service agency or gas supplier. Forcing knob can cause gas to leak which could result in fire or explosion resulting in damage, injury or death.

Properly operating your furnace requires certain abilities, mechanical skills and tools. If you are uncertain about your abilities or if you lack proper skills or tools, do not proceed. Instead, contact a qualified installer, service agency or gas supplier.

An automatic ignition device lights the burners. Do not try to light manually. See Figure 2 on Page 11 for step by step instructions.

SECTION 6 • PROPER MAINTENANCE OF YOUR FURNACE

You need special abilities, mechanical skills and tools to maintain your furnace properly. If you are uncertain about your abilities or if you lack proper skills or tools, do not try to maintain or repair your furnace yourself. Instead, contact a qualified installer, service agency or gas supplier.

6.A IF YOU SMELL GAS OR ANY UNFAMILIAR SMELL WHILE WORKING ON YOUR FURNACE:

1. Do not try to light main burners.
2. Do not touch or turn on any electrical switch.
3. Do not use any phone in your building.
4. Immediately call your gas supplier from a neighbor's phone. Follow gas supplier's instructions.
5. If you cannot reach your gas supplier, call fire department.

6.B LUBRICATION REQUIREMENTS

The main blower motor, outdoor fan motor, and the induced draft blower motor are permanently lubricated, and no maintenance is required.

6.C MAKE SURE AIR FILTER(S) IS IN PLACE

Ask your installer, local qualified service technician or gas supplier to make sure your filter(s) is in place properly. Become familiar with its location and procedures for removing, cleaning and replacing it.

Recommended filter sizes are shown below.

Main System Filter: 20x30x2 throwaway for WG42-60 models, and 20x25x2 throwaway for WG24-36 models.

See Figure 3 on Page 13 for filter locations.



WARNING

Operating furnace without clean air filter(s) can damage blower motor, heat exchanger or air conditioning system components. This can cause system failure which could result in damage or injury.

FIGURE 2
START UP PROCEDURE

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do NOT try to light the burner by hand.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

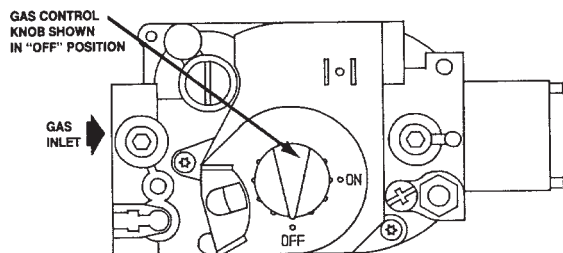
- *Do not try to light any appliance.
- *Do not touch any electric switch; do not use any phone in your building.
- *Immediately call your supplier from a neighbor's phone. Follow the gas supplier's instructions.

*If you cannot reach your gas supplier; call the fire department.

- C. Use only your hand to push in or move the gas control lever. Never use tools. If the lever will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

OPERATING INSTRUCTIONS

1. STOP! Read the safety information above on this label.
2. Set the thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the burner. Do NOT try to light the burner by hand.



5. Remove control access panel.
6. Push in gas control knob slightly and turn clockwise to "OFF".
NOTE: Knob cannot be turned to "OFF" unless knob is pushed in slightly. Do not force.
7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
8. Turn gas control knob counterclockwise to "ON".
9. Replace control access panel.
10. Turn on all electric power to the appliance.
11. Set thermostat to desired setting.
12. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove control access panel.
4. Push in gas control lever slightly and move to "OFF". Do not force.
5. Replace control access panel.

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6.D KEEP AIR FILTER(S) CLEAN

As a user, your personal responsibility is to keep air filter(s) clean.



CAUTION

A dirty air filter(s) reduces system efficiency and can cause erratic control performance. These could result in damage to blower motor or heat exchanger.

1. During the first four weeks after your furnace is installed, inspect your air filter(s) for dirt every week. Then check the filters monthly and replace as necessary.
2. If the filter(s) is of a washable type, clean filter(s) according to the manufacturer's specifications.



WARNING

After cleaning or changing filter(s), filter access must be closed and latched. Failure to do so could cause nausea, asphyxiation, or fire resulting in damage, injury or death.

6.E DO NOT OBSTRUCT DUCT WORK

For proper operation, keep registers and return air grilles open. Do not cover or block them with rugs, carpets, drapes or furniture.

6.F HAVE YOUR FURNACE CHECKED ANNUALLY

The furnace, vent terminal, and the combustion air intake hood should be inspected yearly by a qualified service agency, generally prior to the heating season. Detailed procedures for this inspection are contained in the instructions booklet and should be handled by the qualified service agency only.

A general inspection of the furnace, the furnace area and the vent terminal should be conducted on a regular basis by the owner/occupant. This review should include:

1. Make sure the furnace always has the minimum clearance as detailed on the furnace rating plate. Special attention must be given to these items if any remodeling is done.

2. Make sure the vent terminal is in place and is physically sound.
3. Reviewing that the return air duct connection(s) is physically sound, is sealed to the furnace casing.
4. The physical support of the furnace is sound without sagging, cracks, gaps, etc. around the unit so as to provide a seal between the unit and the structure.
5. Inspect for any obvious signs of deterioration of the furnace.
6. Periodic examinations of the vent terminal should also be conducted by the owner on a regular basis, preferably every month but at least every two months during the heating season.
7. Check the entire vent terminal for any blockage. If any debris is present remove it.
8. If unit is vertically vented, inspect vent system annually including drain tube. Clean or replace if necessary.

6.G THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED FOR THE PERIODIC INSPECTION AS CONDUCTED BY THE OWNER/OCCUPANT.

1. Set the wall thermostat to the OFF position or lower the set point lever to a temperature well below the existing room temperature. Shut off electric power to the furnace. A circuit breaker is located behind the lower, small access panel on the right side.
2. Remove the burner access door. See Figure 4.
3. Use flashlight or trouble light to observe the burner compartment and burners. There should be very minimal scaling or sooting in this area. Any loose debris may be vacuumed out. Also observe the sides of the heat exchanger tubes for "hot spots" due to improper burner alignment or overfiring and give particular attention to any area where it looks like there may be any deterioration from corrosion or rusting. Observe for any corrosion on the burners themselves. Should anything appear questionable, contact your service agency.

**FIGURE 3
FILTER LOCATIONS**

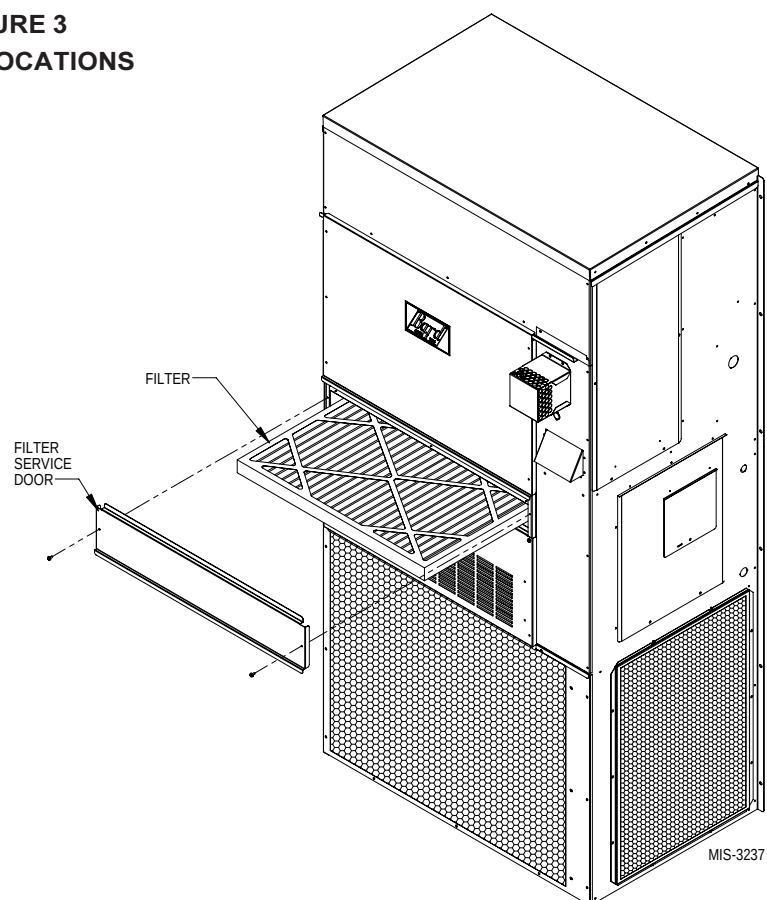
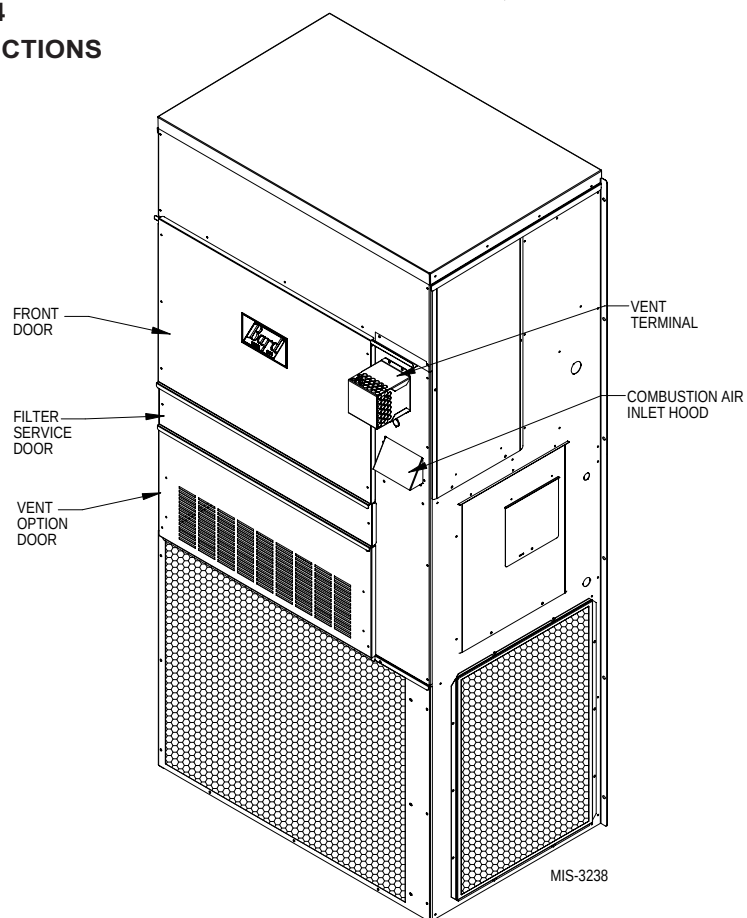


**FIGURE 4
PERIODIC INSPECTIONS**



4. Inspect the vent terminal, or vent system observing for any debris from weather, birds, and the like. Clean if necessary. Also check the combustion air inlet hood to make sure it is clear. See Figure 4.



WARNING

Leakage of products of combustion into the living area may result in asphyxiation resulting in injury or death

5. Restore the electrical power to the furnace by turning the switch back on. Adjust the thermostat to call for heating operation.
6. Observe the main burners flames. The main burners should be mostly “blue” with possibly a little orange (not yellow) at the tips of the flames. The flames should be in the center of the heat exchanger compartments and not impinging on the heat exchanger surfaces.
7. Observe the flames until the blower starts (there is a normal delay 30 second period until the heat exchanger warms up). There should be no change in the size or shape of the flame. If there is any wavering or blowing of the flame on the blower start-up, it is an indication of a possible leak in the heat exchanger. Turn off the gas valve in the gas line leading to the furnace, and then the main electrical switch to the furnace and call your service agency.
8. Replace the burner access door.

SECTION 7 • VENTILATION OPTION ASSEMBLIES

The standard Barometric Fresh Air Damper (BFAD) allows up to 25% outside fresh air to be introduced to the building whenever the main unit comfort air blower is operating.

The optional Blank Off Plate (BOP) is installed on the inside of the vent option door to cover the air inlet openings which eliminates outside air from entering the unit.

The optional Motorized Fresh Air Damper (MFAD) allows up to 25% outside fresh air to be introduced to the building through a two position damper which can be fully open or closed.

The optional Commercial Room Ventilator (CRV) allows up to 50% outside fresh air to be introduced to the building and includes a built-in exhaust damper. The CRV complies with ASHRAE Standard 62.1 “Ventilation for Acceptable Indoor Air Quality”.

SECTION 8 • REPLACEMENT PARTS

Replacement parts for the gas/electric units are available through local distributors.

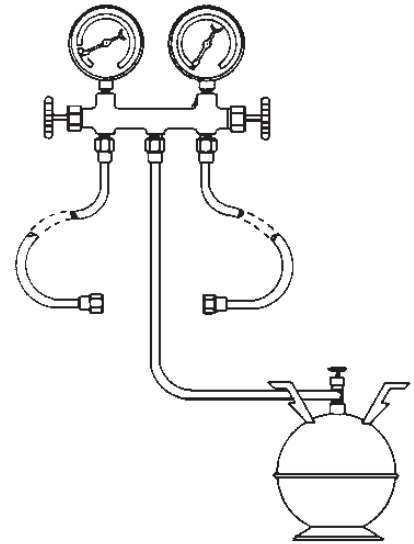
A replacement parts list manual is supplied with each unit. When ordering parts or making inquiries pertaining to any of the units covered by these instructions, it is very important to always supply the complete model number and serial number of the unit. This is necessary to assure that the correct parts (or an approved alternate part) are issued to the service agency.

SECTION 9 • OUTDOOR COIL

Periodic cleaning of the outdoor coil to permit full and unrestricted airflow circulation is essential. Reduced airflow through the outdoor coil can shorten equipment service life as well as increase operating costs.

SERVICING PROCEDURE

R-410A LEAK TEST EVACUATION CHARGING



Climate Control Solutions

Bard Manufacturing Company, Inc.
Bryan, Ohio 43506

Since 1914...Moving ahead, just as planned.

Manual No.: 2100-479
Supersedes: NEW
File: Volume I, Tab 1
Date: 03-08-07

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GENERAL



WARNING

The oils used with R-410A refrigerant are hygroscopic and absorb water from the atmosphere readily. Do not leave systems open to the atmosphere for more than 5 minutes. If the system has been open for more than 5 minutes, change the filter dryer immediately before evacuation. Then recharge the system to the factory specified charge.

Recovery equipment rated for R-410A refrigerant

R-410A has an ozone depletion potential of zero, but must be reclaimed due to its global warming potential.

The gauge manifold set is specially designed to withstand the higher pressure associated with R-410A. Manifold sets are required to range up to 800 psig on the high side and 250 psig on the low side with a 250 psig low side retard.

All hoses must have a service rating of 800 psig. (This information will be indicated on the hoses.)

Vacuum Pump and micron gauge must be used when evacuating a system to 500 microns.

Leak Detectors

An electronic leak detector capable of detecting HFC refrigerant can be used with R-410A refrigerant.

GAUGE MANIFOLD



WARNING

Gauge manifold must be suitable for use with R-410A refrigerant and POE oils.

A necessary instrument in checking and serving air conditioning and heat pump equipment is the gauge manifold. Its purpose is to determine the operating refrigerant pressures in order for the serviceman to analyze the condition of the system.

The valving on the manifold is so arranged that when the valves are closed (front-seated) the center port on the manifold is closed to the gauges and gauge ports. With the valves in the closed position, the gauge ports are still open to the gauges, permitting the gauges to register system pressures. Opening either valve opens the center port to that side of the manifold and system.

ATTACHING GAUGE MANIFOLD

For leak testing, purging, checking charge, charging liquid or evacuating, connect high pressure side of gauge manifold to Schrader valve on liquid or discharge line. Connect suction side of gauge manifold to Schrader valve on suction line. On heat pumps the suction line is between compressor and reversing valve.

ATTACHING MANIFOLD HOSE TO SCHRADER VALVE



WARNING

As a safety measure, it is wise to detach refrigerant hoses at the lowest pressure readings on the system. To do this:

- A. Put high pressure hose "B" on first.
(Unit should not be running.)
- B. Put low pressure hose "A" on second.
(Unit should be running.)

1. Remove cap from valve.
2. Make sure gauge manifold valves are closed.
3. If hose does not have an unseating pin, a number 395 Superior or equivalent unseating coupler must be used.
4. Make sure coupler is lined up straight with Schrader valve. Screw coupler on to valve.
5. Open gauge manifold valve slightly and purge air from hose with refrigerant.
6. Read the suction pressure on compound gauge and heat pressure on pressure gauge.
7. To remove, push end of hose tight against end of Schrader valve and hold in place while quickly unscrewing coupler nut from Schrader valve.
8. Remove coupler from Schrader valve. Replace caps on valve.

Leak Test

1. Remove gauge port cap from suction and liquid service valve ports and attach manifold gauge hoses. Connect an upright R-410A drum to center port of gauge manifold. Open refrigerant drum valve and manifold high pressure gauge valve to pressurize system to a positive pressure with refrigerant vapor. Pressurize the complete system with dry nitrogen, or CO2 until the pressure reaches 200 psig. **Do not** exceed 250 psig.
2. Close manifold high pressure gauge valve. Check all soldered joints, including those on the evaporator coil with an Electronic Leak Detector suitable for use with HFC refrigerants or R-410A. If a leak is found which requires soldering, pressure in the system must be bled off since it is impossible to solder with unit pressurized. Be sure all leaks are located and marked before bleeding pressure from system.

3. Close drum valve and disconnect from center port. Release nitrogen or CO2 into the atmosphere through suction line of gauge manifold.
4. Correct any leaks and recheck. When leaks, if any, have been repaired, system is ready to be evacuated and charged. Relieve all pressure from the system down to 0 psig.
5. Change the filter dryer. When leaks, if any, have been repaired, system is ready to be evacuated and charged. Relieve all pressure from the system down to 0 psig.

EVACUATION

Evacuation

An evacuation to 500 microns is usually sufficient to remove moisture from a system using R-22 and mineral oil lubricant. A 500 micron evacuation, however, will not separate moisture from Polyol Ester oil (POE) in R-410A systems.

In addition to a 500 micron evacuation, the liquid line filter dryer (R-410A compatible) must be replaced any time the system is open. When removing a filter dryer from a system, do not use a torch; use a tubing cutter to avoid releasing moisture back into the system.

Older R-22 leak detectors, as well as halide torch leak detectors, will not detect leaks in R-410A systems. Never use air and R-410A to leak check, as the mixture may become flammable at pressures above 1 atmosphere. A system can be safely leak-checked by using nitrogen or a trace gas of R-410A and nitrogen.

Remember: *Always use a pressure regulator with nitrogen and a safety valve down stream - set at no more than 150 psig.*

1. Evacuate system to less than 500 microns, using a good vacuum pump and an accurate high vacuum gauge. Operate the pump below 500 microns for 60 minutes and then close valve to the vacuum pump. Allow the system to stand for 30 additional minutes to be sure a 500 micron vacuum or less is maintained.



WARNING

At no time use the compressor to evacuate the system or any part of it.

2. Disconnect charging line at vacuum pump and connect to refrigerant supply. Crack the cylinder valve and purge charging line at center on manifold. Then close cylinder valve.
3. The system is now ready for the correct operating charge of Refrigerant R-410A.

R-410A System Charging

Even though R-410A has a very small fractionation potential, it cannot be ignored completely when charging. To avoid fractionation, charging of an air conditioner or heat pump system incorporating R-410A **shall be done with “liquid”** to maintain optimum system performance. To insure that the proper blend composition is charged into the system, it is important that liquid only be removed from the charging cylinder. Some cylinders supplied by manufacturers have dip tubes, which allow liquid refrigerant to be removed from the cylinder when it is in the upright position. Cylinders without dip tubes have to be tipped upside down in order for liquid to be removed. The Service Technician must differentiate between which type of charging cylinder they are using to avoid removing vapor refrigerant instead of liquid refrigerant to avoid fractionation and for safety concerns.

Connect the gauge manifold to the high and low side. Allow liquid to enter the high side only. The high side will hold 80-100% of the total charge. When liquid stops flowing, close high side port. The remainder of the charge will be added to the low side. Keep in mind two issues: first, never start the compressor with less than 55 psig of suction pressure. Secondly, make sure the liquid is throttled, thus vaporized into the low side of the system to avoid compressor damage. A throttling valve can be used to insure that liquid is converted to vapor prior to entering the system. Proper manipulation (restricting) of the manifold gauge set can also act as a throttling device to insure liquid is not entering the compressor.

CHARGING

1. **Single Package Units**—Refer to the unit serial plate for the full operating charge.

PRELIMINARY CHARGING STEPS

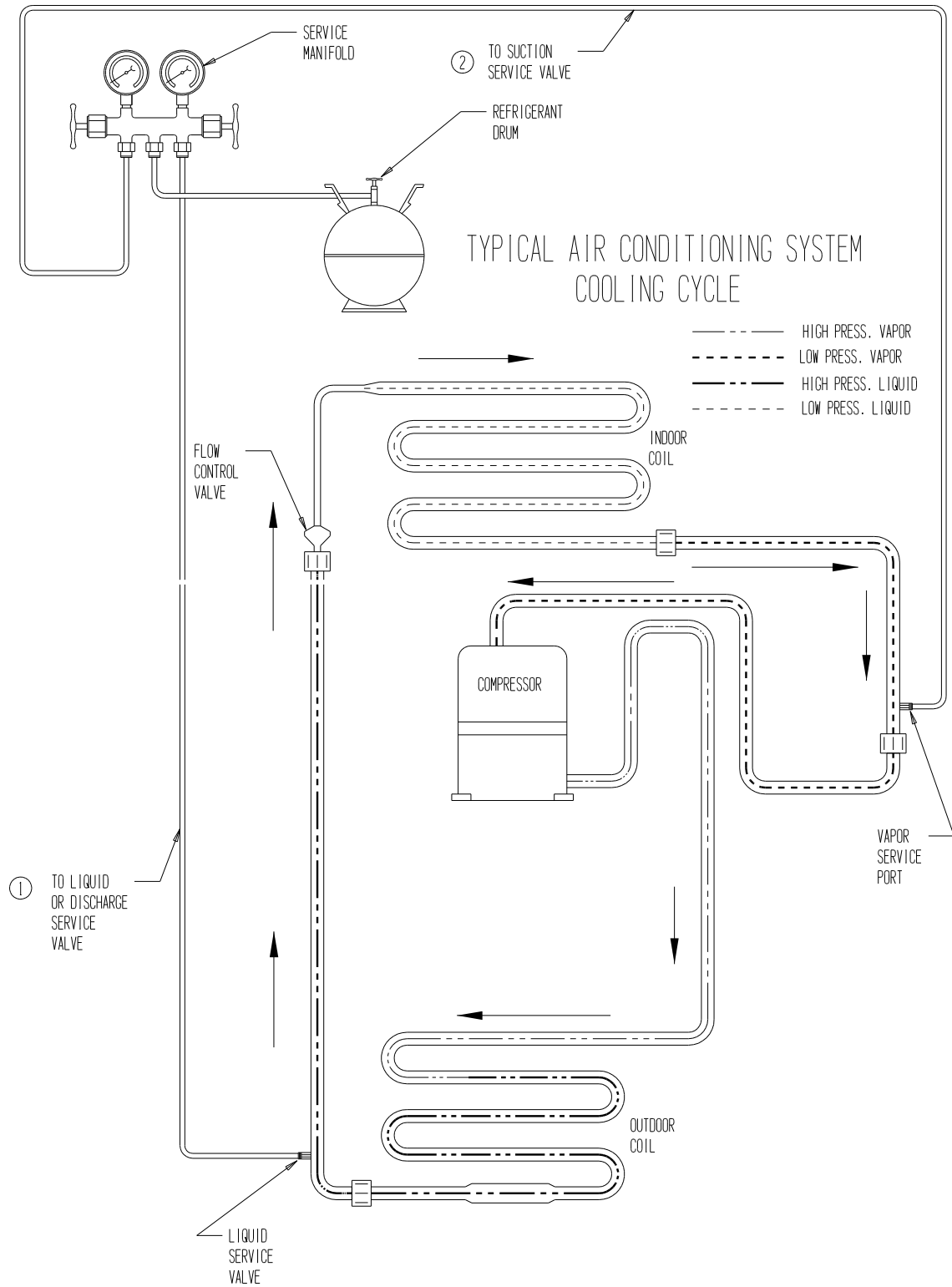
If the system has been open to the atmosphere, the filter dryer should be replaced and then evacuated. Then proceed as follows:

1. Attach a drum of proper, clean refrigerant to the center port of the charging manifold with one of the charging hoses.
2. Attach a second charging hose to the suction gauge (low pressure) side of the gauge manifold.
3. Remove the cap from the suction line valve.
4. Loosely attach the suction gauge hose to the line valve. Open the valve on the refrigerant drum and the suction valve on the charging manifold slightly to purge the air from the manifold and hoses before tightening the fitting.
5. Attach the third hose to the high pressure side of the manifold and the liquid line valve. Repeat steps 3 and 4 above.

CHARGING THE SYSTEM BY WEIGHT

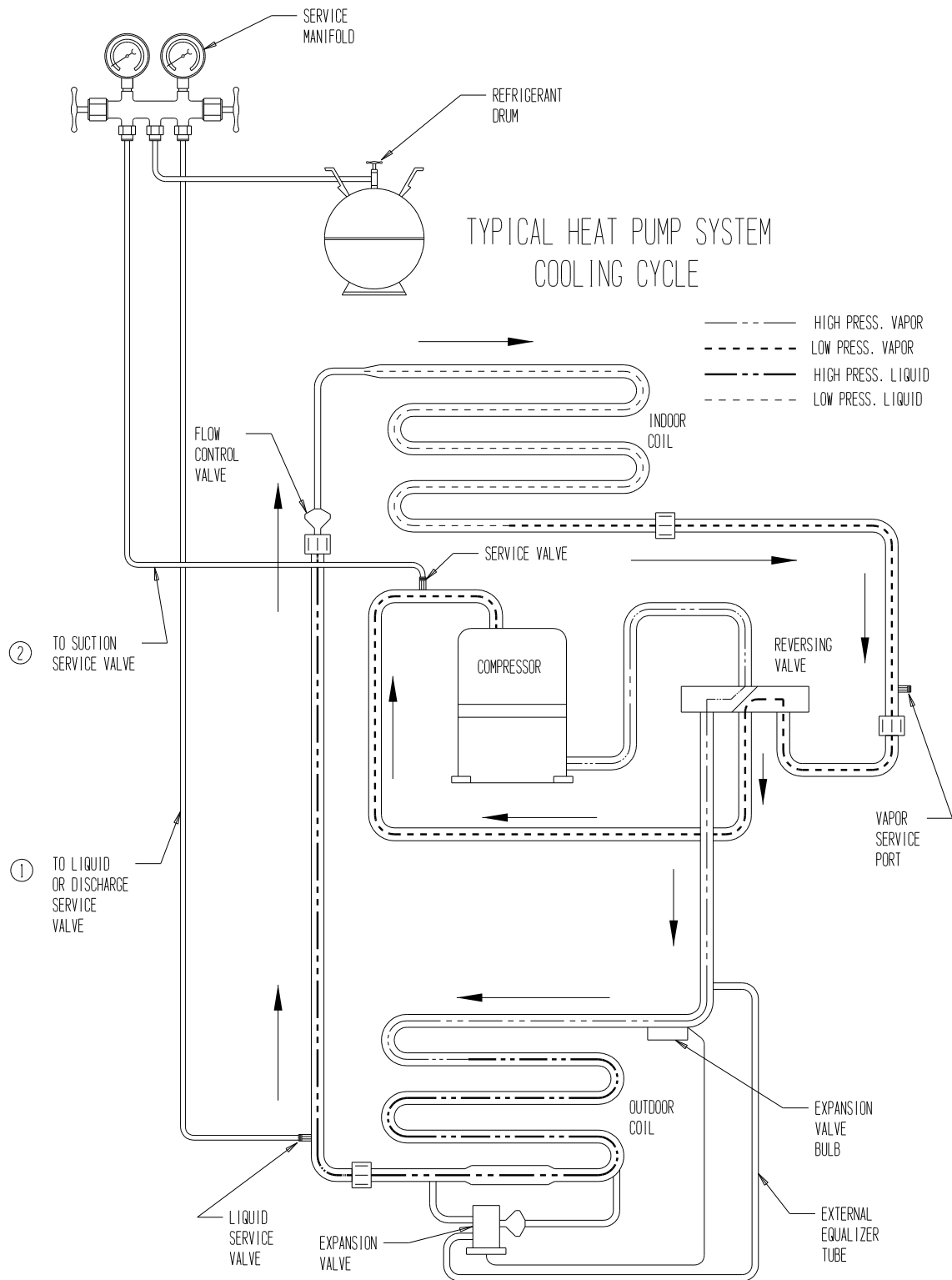
1. Connect manifold as instructed.
2. Place refrigerant drum upright on scale and determine exact weight of the refrigerant and cylinder.
3. With manifold suction valve closed and manifold discharge valve open, open refrigerant cylinder liquid valve and allow pressure in system to balance with pressure of cylinder or 80% of charge is in the unit - whichever comes first.
4. When there is approximately an 80% charge, front seat (close) the discharge manifold valve and let the system stabilize for about five minutes.
5. Start compressor by setting thermostat.
6. Finish charging with liquid by cracking the suction valve. Open the manifold low pressure valve to allow refrigerant to flow into the system. Throttle the manifold valve to keep pressure about 100 psig for R-410A.
7. When the correct weight of refrigerant has been added to the unit, close refrigerant cylinder valve and allow unit to run for 30 minutes. Refer to Start-Up Procedure and Check List for further start-up details.
8. Front seat gauge manifold valves, disconnect charging and gauge hoses and replace all valve caps.

FIGURE 1
TYPICAL AIR CONDITIONING SYSTEM COOLING CYCLE



MIS-369

FIGURE 2
TYPICAL HEAT PUMP SYSTEM COOLING CYCLE



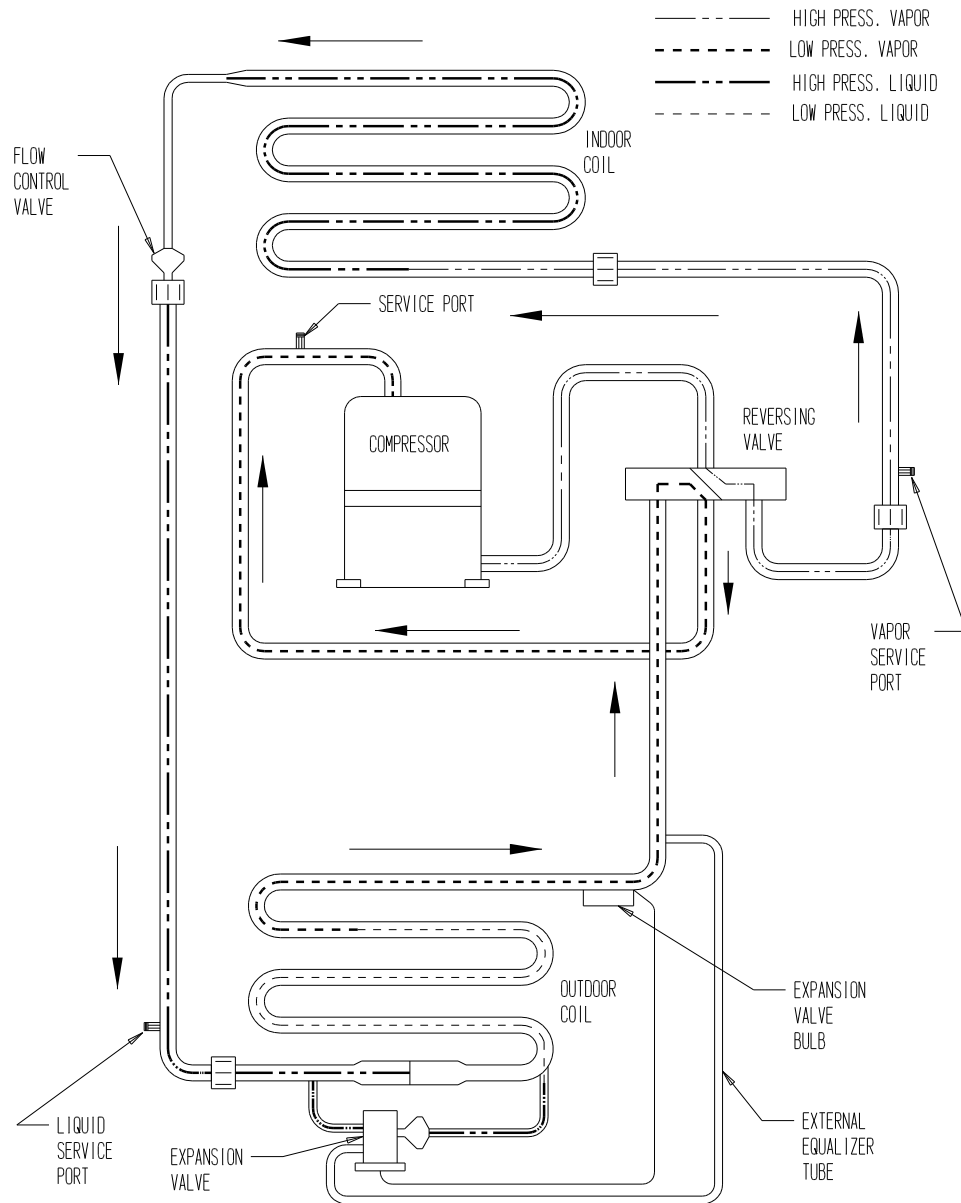
MIS-368



WARNING

To speed refrigerant flow, it may be necessary to place refrigerant drum in a pan of warm water (not greater than 130°F). Remember to either consider the total weight of the pan of water or remove the drum for weighing frequently to keep track of the charging process.

**FIGURE 3
HEATING CYCLE**



MIS-289

TROUBLESHOOTING THE MECHANICAL SYSTEM

AIR CONDITIONING AND HEAT PUMP — COOLING

LOW SUCTION—LOW HEAD PRESSURE

1. Restricted airflow over indoor coil.
2. Defective indoor fan motor.
3. Low indoor temperature
4. Iced indoor coil.
5. Restricted liquid line, dryer, metering device, etc.
6. Low charge.
7. Low ambient entering air temperature. (Low entering water temperature to water coil.①)

HIGH SUCTION—LOW HEAD PRESSURE

1. Defective or broken valves.
2. IPRV valve open.
3. Defective reversing valve.

LOW SUCTION—HIGH HEAD PRESSURE

1. Partial restriction and then overcharged.

HIGH SUCTION—HIGH HEAD PRESSURE

1. High entering outdoor air temperature. (High entering water temperature.①)
2. Low airflow outdoor coil. (Low water flow.①)
3. Overcharged.
4. Air in system.
5. Restricted outdoor coil. (Restricted water coil.①)
6. High indoor air temperature.

① Water source heat pump.

HEAT PUMP — HEATING

LOW SUCTION—LOW HEAD PRESSURE

1. Restricted airflow through outdoor coil. (Restricted water flow through water coil.①)
2. Defective outdoor motor. (Defective water pump.①)
3. Low outdoor air temperature. (Low water temperature.①)
4. Frozen outdoor coil. (Frozen water coil.①)
5. Restricted liquid line, dryer, metering device, etc.
6. Low charge.
7. Low indoor air temperature.

HIGH SUCTION—LOW HEAD PRESSURE

1. Defective or broken valves.
2. IPR valve open.
3. Defective reversing valve.

LOW SUCTION—HIGH HEAD PRESSURE

1. Partial restriction and then overcharged.

HIGH SUCTION—HIGH HEAD PRESSURE

1. High entering outdoor air temperature. (High entering water temperature.①)
2. Low indoor airflow.
3. Overcharged.
4. Air in system.
5. Restricted air coil.
6. High indoor air temperature.

① Water source heat pump.

Manual 2100-479
Page 10 of 11

Manual 2100-479
Page 10 of 11

TROUBLESHOOTING CHART FOR AIR TO AIR HEAT PUMPS

[illegible]

REPLACEMENT PARTS MANUAL

Wall Mounted Gas/Electric

Models:

W42G4-A	W48G4-A	W60G4-A	W42G4DA	W48G4DA	W60G4DA
W42G4-B	W48G4-B	W60G4-B	W42G4DB	W48G4DB	W60G4DB
W42G4-C	W48G4-C	W60G4-C	W42G4DC	W48G4DC	W60G4DC

Contents

<i>Description</i>	<i>Page</i>
Cabinet Components	
♦ Exploded View	2
♦ Usage List	3
♦ Usage List	4
♦ Usage List	5
Functional Components	
♦ Exploded View	6
♦ Usage List	7
♦ Usage List	8
Burner Components	
♦ Exploded View	10
♦ Usage List	11
♦ Usage List	12
♦ Usage List	13
Control Panel	
♦ Exploded View	14
♦ Usage List	15
♦ Usage List	16
Blower Assembly	
♦ Exploded View	17
♦ Usage List	17

General Notes

- Revised and/or additional pages may be issued from time to time.
- A complete and current manual consists of pages shown in the following contents section.

Important

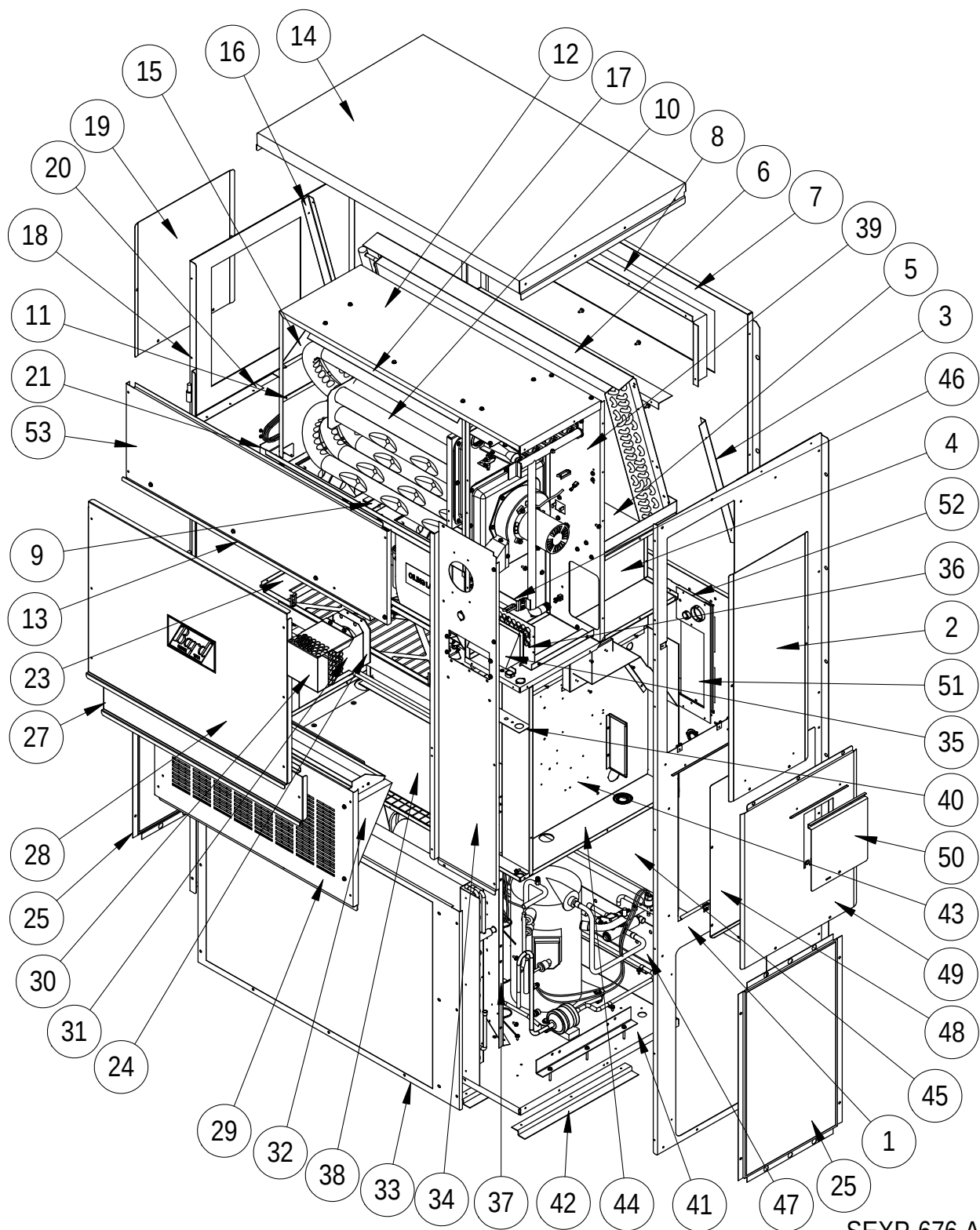
- Contact the installing and/or local Bard distributor for all parts requirements. Make sure to have the complete model and serial number available from the unit rating plates.



Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

Manual: 2110-822J
Supersedes: 2110-822I
Date: 9-13-23

CABINET COMPONENTS - STANDARD & DEHUMIDIFICATION



SEXP-676 A

This drawing to be used for reference for pages 3, 4 and 5

CABINET COMPONENTS – STANDARD & DEHUMIDIFICATION

Drawing No.	Part No.	Description	All Models
1	501-570-*	Right Side Assembly	X
2	S153-326-*	Vestibule Service Door	X
3	105X1073	Right Evaporator Support Angle	X
4	541-266	Right Drain Pan Support Assembly	X
5	S523-123	Drain Pan Assembly	X
6	105-1080	Evaporator Coil Fill Angle	X
7	509-156	Upper Back	X
8	111-063	Supply Air Frame	2
9	103-439	Heat Exchanger Support Offset	X
10	Heat Exch Assy	See Burner Components Diagram	
11	105-1066	Lower Heat Exchanger Deflector	X
12	135-216	Inner Air Baffle	X
13	165-586-*	Top Rain Channel	X
14	507-246-*	Top Assembly	X
15	135-184	Right Heat Exchanger Deflector	X
16	105Y1073	Left Evaporator Support Angle	X
17	105-1076	Top Heat Exchanger Deflector	X
18	501-788-*	Left Side Assembly	X
19	543-070-*	Left Access Cover	X
20	105-1070	Left Support Angle	X
21	S121-484	Blower Partition	X
23	S919-0009	Filter Tray	X
24	1921-051	Vent Terminal Gasket	X
25	118-084-*	Side Grille	2
<i>Continued on page 4 for standard units and on page 5 for dehumidification units</i>			

* Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, include the complete model number and serial number of the unit for which parts are being ordered.

CABINET COMPONENTS – STANDARD

Drawing No.	Part No.	Description	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
<i>Continued from page 3</i>											
27	553-562-*	Filter Access Panel Assembly	X	X	X	X	X	X	X	X	X
28	S553-561-*	Front Door Assembly	X	X	X	X	X	X	X	X	X
29	553-327-*	Vent Option Door Assembly	X	X	X	X	X	X	X	X	X
30	169-119	Outer Vent Hood	X	X	X	X	X	X	X	X	X
31	169-120	Inner Vent Hood	X	X	X	X	X	X	X	X	X
32	WGBFAD-5	Barometric Fresh Air Damper	X	X	X	X	X	X	X	X	X
33	118-048-*	Condenser Grille	X	X	X	X	X	X	X	X	X
34	549-131-*	Right Front Corner Assembly	X	X	X	X	X	X	X	X	X
35	S135-181-*	Air Intake Hood	X	X	X	X	X	X	X	X	X
36	S134-182-*	Air Intake Back	X	X	X	X	X	X	X	X	X
37	125-024	Fan Shroud	X	X	X	X	X	X	X	X	X
38	542-072	Condenser Partition Blank Off Plate	X	X	X	X	X	X	X	X	X
39	541-398	Heat Exchanger Support Assembly	X	X	X	X	X	X	X	X	X
40	142-071	Filter Blank Off Plate	X	X	X	X	X	X	X	X	X
41	127-561	Lower Base	X	X	X	X	X	X	X	X	X
42	103-438	Lower Base Offset	3	3	3	3	3	3	3	3	3
43	517-408	Control Panel Assembly	X	X	X	X	X	X	X	X	X
44	521-420	Condenser Partition Assembly	X	X	X	X	X	X	X	X	X
45	509-157	Lower Back Assembly	X	X	X	X	X	X	X	X	X
46	113-268	Manifold Bracket	X	X	X	X	X	X	X	X	X
47	113-140	Bottom Support Bracket	X	X	X	X	X	X	X	X	X
48	S133-163	Circuit Breaker Inner Door	X	X		X	X		X	X	
48	S133-318	Toggle Disconnect Inner Door			X			X			X
49	S533-162-*	Control Panel Cover Assembly	X	X	X	X	X	X	X	X	X
50	S153-328-*	Disconnect Access Door	X	X	X	X	X	X	X	X	X
51	134-193	Conduit Access Panel	X	X	X	X	X	X	X	X	X
52	156-029	Conduit Entrance Plate	X	X	X	X	X	X	X	X	X
53	553-388-*	Upper Door Assembly	X	X	X	X	X	X	X	X	X
NS	5252-033	Bard Nameplate	X	X	X	X	X	X	X	X	X

* Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, include the complete model number and serial number of the unit for which parts are being ordered.

NS – Not Shown

Refer to drawing on page 2

CABINET COMPONENTS – DEHUMIDIFICATION

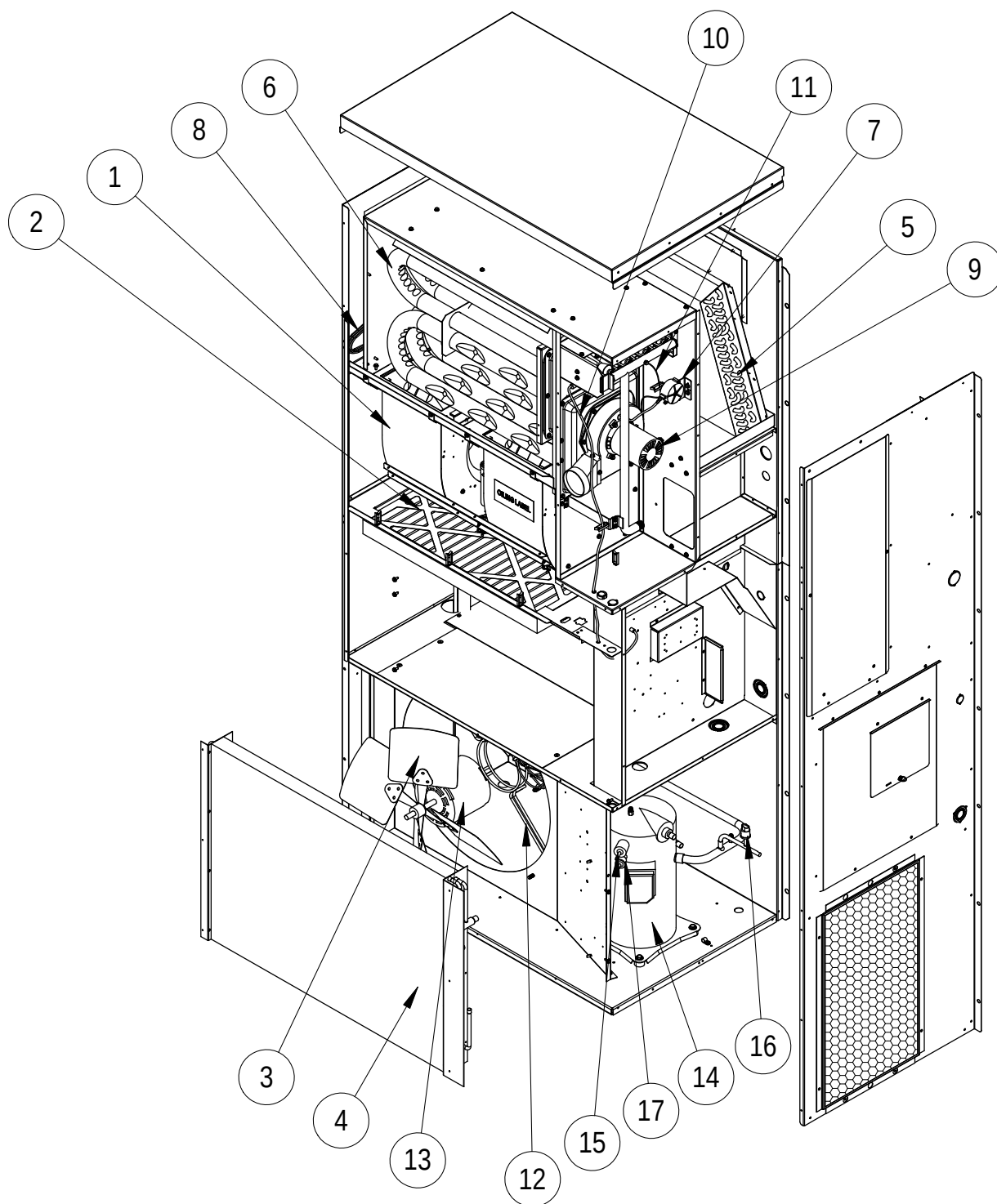
Drawing No.	Part No.	Description	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
<i>Continued from page 3</i>											
27	553-562-*	Filter Access Panel Assembly	X	X	X	X	X	X	X	X	X
28	S553-561-*	Front Door Assembly	X	X	X	X	X	X	X	X	X
29	553-327-*	Vent Option Door Assembly	X	X	X	X	X	X	X	X	X
30	169-119	Outer Vent Hood	X	X	X	X	X	X	X	X	X
31	169-120	Inner Vent Hood	X	X	X	X	X	X	X	X	X
32	WGBFAD-5	Barometric Fresh Air Damper	X	X	X	X	X	X	X	X	X
33	118-048-*	Condenser Grille	X	X	X	X	X	X	X	X	X
34	549-131-*	Right Front Corner Assembly	X	X	X	X	X	X	X	X	X
35	S135-181-*	Air Intake Hood	X	X	X	X	X	X	X	X	X
36	S134-182-*	Air Intake Back	X	X	X	X	X	X	X	X	X
37	125-024	Fan Shroud	X	X	X	X	X	X	X	X	X
38	542-136	Condenser Partition Blank Off Plate	X	X	X	X	X	X	X	X	X
39	541-398	Heat Exchanger Support Assembly	X	X	X	X	X	X	X	X	X
40	142-071	Filter Blank Off Plate	X	X	X	X	X	X	X	X	X
41	127-561	Lower Base	X	X	X	X	X	X	X	X	X
42	103-438	Lower Base Offset	3	3	3	3	3	3	3	3	3
43	517-408	Control Panel Assembly	X	X	X	X	X	X	X	X	X
44	521-447	Condenser Partition Assembly	X	X	X	X	X	X	X	X	X
45	509-157	Lower Back Assembly	X	X	X	X	X	X	X	X	X
46	113-268	Manifold Bracket	X	X	X	X	X	X	X	X	X
47	113-140	Bottom Support Bracket	X	X	X	X	X	X	X	X	X
48	S133-163	Circuit Breaker Inner Door	X	X		X	X		X	X	
48	S133-318	Toggle Disconnect Inner Door			X			X			X
49	S533-162-*	Control Panel Cover Assembly	X	X	X	X	X	X	X	X	X
50	S153-328-*	Disconnect Access Door	X	X	X	X	X	X	X	X	X
51	134-193	Conduit Access Panel	X	X	X	X	X	X	X	X	X
52	156-029	Conduit Entrance Plate	X	X	X	X	X	X	X	X	X
53	553-388-*	Upper Door Assembly	X	X	X	X	X	X	X	X	X
NS	5252-033	Bard Nameplate	X	X	X	X	X	X	X	X	X

* Exterior cabinet parts are manufactured with various paint color options. To ensure the proper paint color is received, include the complete model number and serial number of the unit for which parts are being ordered.

NS – Not Shown

Refer to drawing on page 2

FUNCTIONAL COMPONENTS – STANDARD & DEHUMIDIFICATION



SEXP-677

This drawing to be used for reference for pages 7 and 8

FUNCTIONAL COMPONENTS – STANDARD

Drawing No.	Part No.	Description	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
1	S900-377-001	Complete Blower Assembly 230/208	X	X							
1	S900-378-001	Complete Blower Assembly 460V			X						
1	S900-377-002	Complete Blower Assembly 230/208				X	X				
1	S900-378-002	Complete Blower Assembly 460V						X			
1	S900-377-003	Complete Blower Assembly 230/208							X	X	
1	S900-378-003	Complete Blower Assembly 460V									X
2	7004-027	20 x 30 x 2 MERV 8 Filter (Standard)	X	X	X	X	X	X	X	X	X
2	7003-030	20 x 30 x 1 AF Filter	O	O	O	O	O	O	O	O	O
2	7004-064	20 x 30 x 2 MERV 13 Filter	O	O	O	O	O	O	O	O	O
3	S5151-060	Fan Blade	X	X	X	X	X	X	X	X	X
4	5051-179BX	Condenser Coil	X	X	X						
4	5054-179BX	Coated Condenser Coil	O	O	O						
4	5051-180BX	Condenser Coil				X	X	X			
4	5054-180BX	Coated Condenser Coil				O	O	O			
4	5051-235BX	Condenser Coil							X	X	X
4	5054-235BX	Coated Condenser Coil							O	O	O
5	5060-106BX	Evaporator Coil	X	X	X	X	X	X			
5	5062-106BX	Coated Evaporator Coil	O	O	O	O	O	O			
5	5060-105BX	Evaporator Coil							X	X	X
5	5062-105BX	Coated Evaporator Coil							O	O	O
6	Heat Exch.	See Burner Components Diagram	X	X	X	X	X	X	X	X	X
7	8406-103	.55" + .05" Pressure Switch	X	X	X	X	X	X	X	X	X
8	S800-0448	Distributor/Orifice .070	X	X	X						
8	S800-0491	Distributor/Orifice .075				X	X	X			
8	S800-0490	Distributor/Orifice .084							X	X	X
9	8109-014	Induced Draft Blower 230V w/Transition	X	X		X	X		X	X	
9	8109-015	Induced Draft Blower 460V w/Transition			X			X			X
10	8600-011	Suppression Ignition Cable	X	X	X	X	X	X	X	X	X
11	3000-1615	Wire Assembly	X	X	X	X	X	X	X	X	X
12	8200-004	Fan Motor Mount	X	X	X	X	X	X	X	X	X
13	S8105-068	Motor 230/208V	X	X		X	X				
13	S8105-071	Motor 460V			X			X			
13	S8106-053	Motor 230/208V							X	X	
13	8106-081-0253BX	Motor 460V									X
14	8000-362	Compressor ZP36K5E-PFV-130	X								
14	8000-363	Compressor ZP36K5E-TF5-130		X							
14	8000-364	Compressor ZP36K5E-TFD-130			X						
14	8000-332	Compressor ZP42K5E-PFV-130				X					
14	8000-333	Compressor ZP42K5E-TF5-130					X				
14	8000-334	Compressor ZP42K5E-TFD-130						X			
14	8000-421	Compressor ZP51K6E-PFV-130							X		
14	8000-422	Compressor ZP51K6E-TF5-130								X	
14	8000-423	Compressor ZP51K6E-TFD-130									X
15	8406-142	High Pressure Switch	X	X	X	X	X	X	X	X	X
16	8406-140	Low Pressure Switch	X	X	X	X	X	X	X	X	X
17	S8406-105	Low Ambient Control (Part of CMA-46 LAC Kit)	O	O	O	O	O	O	O	O	O
NS	8408-048	Freeze Stat (Part of CMA-46 LAC Kit)	O	O	O	O	O	O	O	O	O
NS	CMA-46	Complete Low Ambient Kit	O	O	O	O	O	O	O	O	O
NS	6031-009	Coremax Valve Core	X	X	X	X	X	X	X	X	X

NS – Not Shown

X – Standard

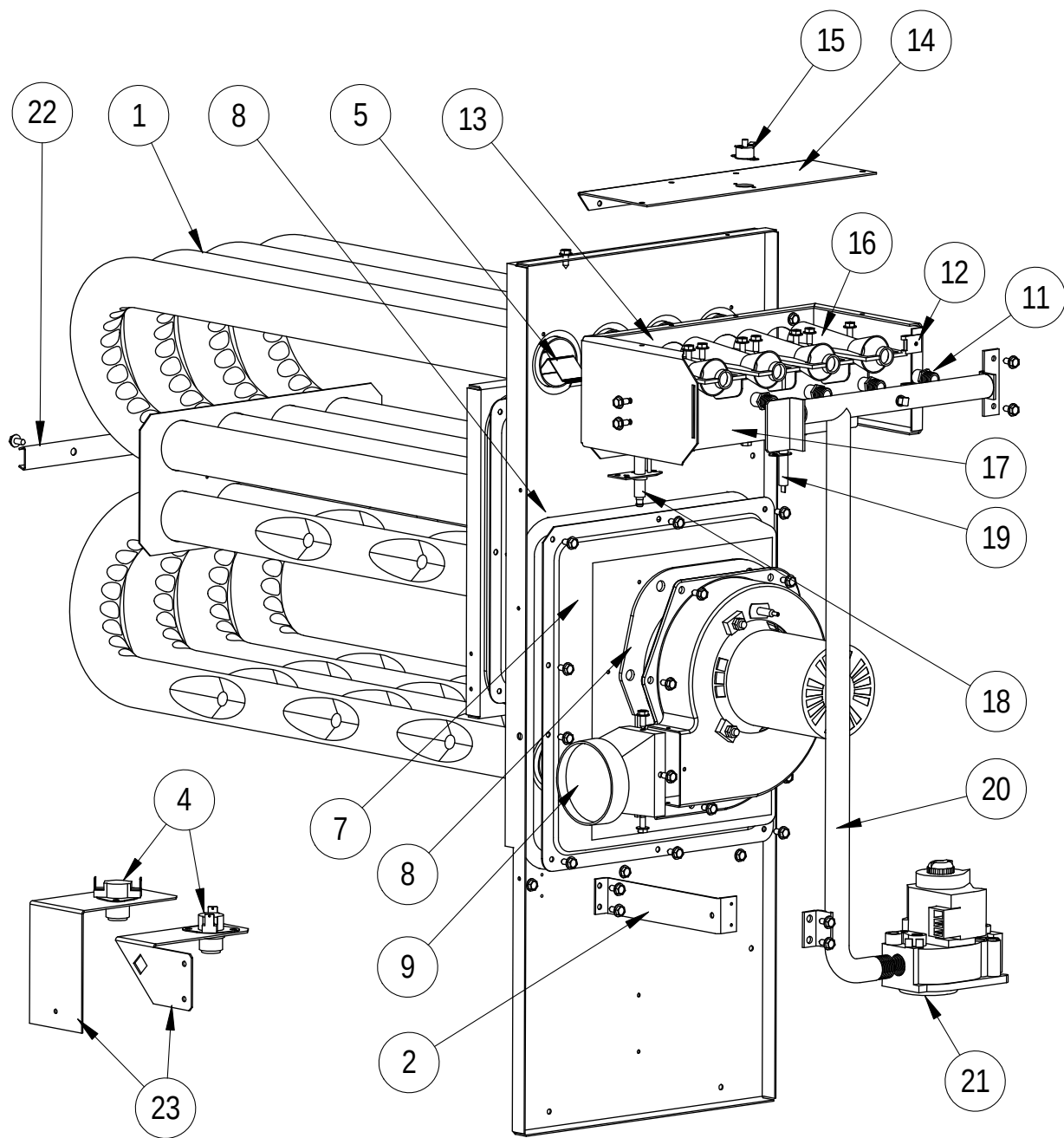
O – Optional

FUNCTIONAL COMPONENTS – DEHUMIDIFICATION

Drawing No.	Part No.	Description	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
1	900-377-001	Complete Blower Assembly 230/208	X	X							
1	900-378-001	Complete Blower Assembly 460V			X						
1	900-377-002	Complete Blower Assembly 230/208				X	X				
1	900-378-002	Complete Blower Assembly 460V						X			
1	900-377-003	Complete Blower Assembly 230/208							X	X	
1	900-378-003	Complete Blower Assembly 460V									X
2	7004-027	20 x 30 x 2 MERV 8 Filter (Standard)	X	X	X	X	X	X	X	X	X
2	7003-030	20 x 30 x 1 AF Filter	O	O	O	O	O	O	O	O	O
2	7004-064	20 x 30 x 2 MERV 13 Filter	O	O	O	O	O	O	O	O	O
3	S5151-060	Fan Blade	X	X	X	X	X	X	X	X	X
4	5051-179BX	Condenser Coil	X	X	X						
4	5054-179BX	Coated Condenser Coil	O	O	O						
4	5051-180BX	Condenser Coil				X	X	X			
4	5054-180BX	Coated Condenser Coil				O	O	O			
4	5051-235BX	Condenser Coil							X	X	X
4	5054-235BX	Coated Condenser Coil							O	O	O
5	917-0059BX	Evaporator Coil w/Reheat Coil	X	X	X	X	X	X			
5	917-0061BX	Coated Evaporator Coil w/Reheat Coil	O	O	O	O	O	O			
5	917-0060BX	Evaporator Coil w/Reheat Coil							X	X	X
5	917-0062BX	Coated Evaporator Coil w/Reheat Coil							O	O	O
6	Heat Exch.	See Burner Components Diagram	X	X	X	X	X	X	X	X	X
7	8406-103	.55" + .05" Pressure Switch	X	X	X	X	X	X	X	X	X
8	5625-008	Distributor	X	X	X	X	X	X			
8	5625-036	Distributor							X	X	X
9	8109-014	Induced Draft Blower 230V w/Transition	X	X		X	X		X	X	
9	8109-015	Induced Draft Blower 460V w/Transition			X			X			X
10	8600-011	Suppression Ignition Cable	X	X	X	X	X	X	X	X	X
11	3000-1615	Wire Assembly	X	X	X	X	X	X	X	X	X
12	8200-004	Fan Motor Mount	X	X	X	X	X	X	X	X	X
13	S8105-066	Motor 230/208V	X	X		X	X				
13	S8105-071	Motor 460V			X			X			
13	S8106-053	Motor 230/208V							X	X	
13	8106-081-0253BX	Motor 460V									X
14	8000-362	Compressor ZP36K5E-PFV-130	X								
14	8000-363	Compressor ZP36K5E-TF5-130		X							
14	8000-364	Compressor ZP36K5E-TFD-130			X						
14	8000-332	Compressor ZP42K5E-PFV-130				X					
14	8000-333	Compressor ZP42K5E-TF5-130					X				
14	8000-334	Compressor ZP42K5E-TFD-130						X			
14	8000-421	Compressor ZP51K6E-PFV-130							X		
14	8000-422	Compressor ZP51K6E-TF5-130								X	
14	8000-423	Compressor ZP51K6E-TFD-130									X
15	8406-142	High Pressure Switch	X	X	X	X	X	X	X	X	X
16	8406-140	Low Pressure Switch	X	X	X	X	X	X	X	X	X
17	S8406-105	Low Ambient Control (Part of CMA-45 LAC Kit)	O	O	O	O	O	O	O	O	O
NS	CMA-45	Low Ambient Control	O	O	O	O	O	O	O	O	O
NS	8408-048	Freeze Thermostat	X	X	X	X	X	X	X	X	X
NS	5651S245	Expansion Valve	X	X	X	X	X	X			
NS	5651S248	Expansion Valve							X	X	X
NS	5651-246	EEV Cable and Stator	X	X	X	X	X	X	X	X	X
NS	3000-1678	Wire Assembly	X	X	X	X	X	X	X	X	X
NS	8408-056	EEV Thermistor	X	X	X	X	X	X	X	X	X
NS	8406-158	Transducer	X	X	X	X	X	X	X	X	X
NS	5651-219	Check Valve	X	X	X	X	X	X	X	X	X
NS	5650-048	Molded Plug	X	X	X	X	X	X	X	X	X
NS	5650-051	Three Way Valve with Solenoid	X	X	X	X	X	X	X	X	X
NS	5201-022	Filter Drier	X	X	X	X	X	X	X	X	X
NS	5650-046	Solenoid Coil 24V	X	X	X	X	X	X	X	X	X
NS	6031-009	Coremax Valve Core	X	X	X	X	X	X	X	X	X

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BURNER COMPONENTS – STANDARD & DEHUMIDIFICATION



SEXP-678 A

This drawing to be used for reference for pages 11, 12 and 13

BURNER COMPONENTS – STANDARD & DEHUMIDIFICATION

Drawing No.	Part No.	Description	W42G4**XB	W42G4**NB	W42G4**XC	W42G4**NC	W42G4**XD
1	S171-315	Heat Exchanger Assembly 75K	X	X			
1	S171-317	Heat Exchanger Assembly 100K			X	X	
1	S171-319	Heat Exchanger Assembly 125K					X
2	113-268	Manifold Bracket	X	X	X	X	X
4	8402-180	Limit Control L140-30	X	X			
4	8402-178	Limit Control L120-30			X	X	
4	8402-177	Limit Control L115-30					X
5	9010-083	NOx Screen		3		4	
6	1921-025-4600	46" Glas-Tak Tape	X	X	X	X	X
7	168-126	Collector Box	X	X			
7	168-127	Collector Box			X	X	
7	168-128	Collector Box					X
8	1921-044	Gasket Set	X	X	X	X	X
9	5809-013	3" Cast Inducer Transition	X	X	X	X	X
10	5809-017	3.031" x 4.625" Transition	X	X	X	X	X
11	9010-079	Orifice 2.40mm (.0960 diameter)	3		4		5
11	9010-082	Orifice 2.30mm (10% derate & .0905 diameter)	3	3	4	4	5
12	1012-314	U Clip Fastener	4	4	4	4	4
13	163-049	Burner Box	X	X			
13	163-052	Burner Box			X	X	
13	163-051	Burner Box					X
14	141-493	Flame Rollout Support	X	X			
14	141-494	Flame Rollout Support			X	X	
14	141-439	Flame Rollout Support					X
15	8402-124	Flame Rollout Switch L270	X	X	X	X	X
16	9010-078	In-Shot Burner 2.5 x 4.5	3	3	4	4	5
17	163-041	Burner Support	X	X			
17	163-043	Burner Support			X	X	
17	163-045	Burner Support					X
18	8554-024	DSI Spark Igniter	X	X	X	X	X
19	8554-025	Flame Sensor	X	X	X	X	X
20	5818-054	3-Hole Gas Manifold - 1/2"	X	X			
20	5818-055	4-Hole Gas Manifold - 1/2"			X	X	
20	5818-056	5-Hole Gas Manifold - 1/2"					X
21	5651-160	Natural Gas Valve 1/2 x 1/2	X	X	X	X	X
22	168-135	Tube Brace 3 Burner	X	X			
22	168-134	Tube Brace 4 Burner			X	X	
22	168-133	Tube Brace 5 Burner					X
23	112-475	Limit Bracket	X	X	X	X	X
NS	S400-0183	Orifice Parts Bag 3 Tube 75K	X	X			
NS	S400-0184	Orifice Parts Bag 4 Tube 100K			X	X	
NS	S400-0185	Orifice Parts Bag 5 Tube 125K					X
NS	8600-011	Ignition Cable	X	X	X	X	X

NS – Not Shown

BURNER COMPONENTS – STANDARD & DEHUMIDIFICATION

Drawing No.	Part No.	Description	W48G4**XB	W48G4**NB	W48G4**XC	W48G4**NC	W48G4**XD
1	S171-315	Heat Exchanger Assembly 75K	X	X			
1	S171-317	Heat Exchanger Assembly 100K			X	X	
1	S171-319	Heat Exchanger Assembly 125K					X
2	113-268	Manifold Bracket	X	X	X	X	X
4	8402-180	Limit Control L140-30	X	X			
4	8402-178	Limit Control L120-30			X	X	
4	8402-177	Limit Control L115-30					X
5	9010-083	NOx Screen		3		4	
6	1921-025-4600	46" Glas-Tak Tape	X	X	X	X	X
7	168-126	Collector Box	X	X			
7	168-127	Collector Box			X	X	
7	168-128	Collector Box					X
8	1921-044	Gasket Set	X	X	X	X	X
9	5809-013	3" Cast Inducer Transition	X	X	X	X	X
10	5809-017	3.031" x 4.625" Transition	X	X	X	X	X
11	9010-079	Orifice 2.40mm (.0960 diameter)	3		4		5
11	9010-082	Orifice 2.30mm (10% derate & .0905 diameter)	3	3	4	4	5
12	1012-314	U Clip Fastener	4	4	4	4	4
13	163-049	Burner Box	X	X			
13	163-052	Burner Box			X	X	
13	163-051	Burner Box					X
14	141-493	Flame Rollout Support	X	X			
14	141-494	Flame Rollout Support			X	X	
14	141-439	Flame Rollout Support					X
15	8402-124	Flame Rollout Switch L270	X	X	X	X	X
16	9010-078	In-Shot Burner 2.5 x 4.5	3	3	4	4	5
17	163-041	Burner Support	X	X			
17	163-043	Burner Support			X	X	
17	163-045	Burner Support					X
18	8554-024	DSI Spark Igniter	X	X	X	X	X
19	8554-025	Flame Sensor	X	X	X	X	X
20	5818-054	3-Hole Gas Manifold - 1/2"	X	X			
20	5818-055	4-Hole Gas Manifold - 1/2"			X	X	
20	5818-056	5-Hole Gas Manifold - 1/2"					X
21	5651-160	Natural Gas Valve 1/2 x 1/2	X	X	X	X	X
22	168-135	Tube Brace 3 Burner	X	X			
22	168-134	Tube Brace 4 Burner			X	X	
22	168-133	Tube Brace 5 Burner					X
23	112-475	Limit Bracket	X	X	X	X	X
NS	S400-0183	Orifice Parts Bag 3 Tube 75K	X	X			
NS	S400-0184	Orifice Parts Bag 4 Tube 100K			X	X	
NS	S400-0185	Orifice Parts Bag 5 Tube 125K					X
NS	8600-011	Ignition Cable	X	X	X	X	X

NS – Not Shown

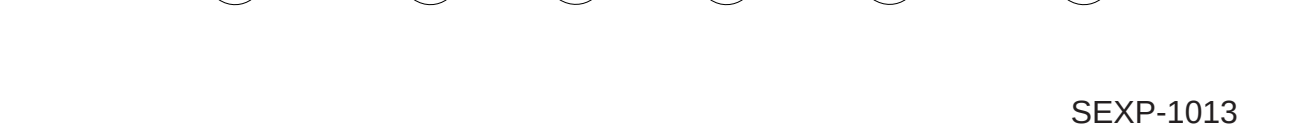
Refer to drawing on page 10

BURNER COMPONENTS – STANDARD & DEHUMIDIFICATION

Drawing No.	Part No.	Description	W60G4**XB	W60G4**NB	W60G4**XC	W60G4**NC	W60G4**XD
1	S171-315	Heat Exchanger Assembly 75K	X	X			
1	S171-317	Heat Exchanger Assembly 100K			X	X	
1	S171-319	Heat Exchanger Assembly 125K					X
2	113-268	Manifold Bracket	X	X	X	X	X
4	8402-180	Limit Control L140-30	X	X			
4	8402-178	Limit Control L120-30			X	X	
4	8402-177	Limit Control L115-30					X
5	9010-083	NOx Screen		3		4	
6	1921-025-4600	46" Glas-Tak Tape	X	X	X	X	X
7	168-126	Collector Box	X	X			
7	168-127	Collector Box			X	X	
7	168-128	Collector Box					X
8	1921-044	Gasket Set	X	X	X	X	X
9	5809-013	3" Cast Inducer Transition	X	X	X	X	X
10	5809-017	3.031" x 4.625" Transition	X	X	X	X	X
11	9010-079	Orifice 2.40mm (.0960 diameter)	3		4		5
11	9010-082	Orifice 2.30mm (10% derate & .0905 diameter)	3	3	4	4	5
12	1012-314	U Clip Fastener	4	4	4	4	4
13	163-049	Burner Box	X	X			
13	163-052	Burner Box			X	X	
13	163-051	Burner Box					X
14	141-493	Flame Rollout Support	X	X			
14	141-494	Flame Rollout Support			X	X	
14	141-439	Flame Rollout Support					X
15	8402-124	Flame Rollout Switch L270	X	X	X	X	X
16	9010-078	In-Shot Burner 2.5 x 4.5	3	3	4	4	5
17	163-041	Burner Support	X	X			
17	163-043	Burner Support			X	X	
17	163-045	Burner Support					X
18	8554-024	DSI Spark Igniter	X	X	X	X	X
19	8554-025	Flame Sensor	X	X	X	X	X
20	5818-054	3-Hole Gas Manifold - 1/2"	X	X			
20	5818-055	4-Hole Gas Manifold - 1/2"			X	X	
20	5818-056	5-Hole Gas Manifold - 1/2"					X
21	5651-160	Natural Gas Valve 1/2 x 1/2	X	X	X	X	X
22	168-135	Tube Brace 3 Burner	X	X			
22	168-134	Tube Brace 4 Burner			X	X	
22	168-133	Tube Brace 5 Burner					X
23	112-475	Limit Bracket	X	X	X	X	X
NS	S400-0183	Orifice Parts Bag 3 Tube 75K	X	X			
NS	S400-0184	Orifice Parts Bag 4 Tube 100K			X	X	
NS	S400-0185	Orifice Parts Bag 5 Tube 125K					X
NS	8600-011	Ignition Cable	X	X	X	X	X

NS – Not Shown

Refer to drawing on page 10



This drawing to be used for reference for pages 15 and 16

CONTROL PANEL - STANDARD

Drawing No.	Part No.	Description	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
1	517-408	Control Panel	X	X	X	X	X	X	X	X	X
2	113-269	Circuit Breaker Mounting Bracket	X	X		X	X		X	X	
2	127-590	460V Disconnect Base			X			X			X
3	117-410	Low Voltage Box	X	X	X	X	X	X	X	X	X
4	117-409	Low Voltage Partition	X	X	X	X	X	X	X	X	X
5	8607-062	Terminal Strip	X	X	X	X	X	X	X	X	X
6	135-130	Wire Shield	X	X	X	X	X	X	X	X	X
7	5651-159	Integrated Furnace Control	X	X	X	X	X	X	X	X	X
8	8611-006	Terminal	X	X	X	X	X	X	X	X	X
9	8201-171BX	Compressor Control Module	X	X	X	X	X	X	X	X	X
10	8407-068	Transformer	X	X		X	X		X	X	
10	8407-069	Transformer			X			X			X
11	S8401-002	Compressor Contactor		X	X		X	X		X	X
11	S8401-025	Compressor Contactor	X			X			X		
12	S8615-095	600V 40A Toggle Disconnect			X			X			X
12	S8615-096	600V Switch Cover Plate			X			X			X
12	S8615-043	230V 40A Circuit Breaker		X						X	
12	S8615-052	230V 30A Circuit Breaker				X					
12	S8615-040	230V 50A Circuit Breaker				X			X		
12	S8615-055	230V 40A Circuit Breaker	X								
13	S8552-004	Outdoor Fan Capacitor			X			X			
13	S8552-005	Outdoor Fan Capacitor		X			X				
13	S8552-081	Outdoor Fan Capacitor							X		
13	S8552-089	Outdoor Fan Capacitor				X					
13	S8552-052	Outdoor Fan Capacitor	X								
14	8550-003	Capacitor Bracket		X	X		X	X			
14	8550-008	Capacitor Bracket	X			X			X		
15	8201-174BX	Phase Monitor		X	X		X	X		X	X
16	8611-209	DIN Rail		X	X		X	X		X	X
16	8611-210	DIN Rail	X			X			X		
17	8201-032	Inducer Relay	X	X	X	X	X	X	X	X	X
18	8201-159	Blower Relay	X	X	X	X	X	X	X	X	X
19	8611-140-0800	Cable Duct - 8" x 1" Wide	2	2	2	2	2	2	2	2	2
20	8611-140-1200	Cable Duct - 12" x 1" Wide	X	X	X	X	X	X	X	X	X
24	135-266	Wire Shield	X	X	X	X	X	X	X	X	X
25	8607-017	Terminal Block	X	X	X	X	X	X	X	X	X
27	8607-017	Terminal Block - LAC Kit	O	O	O	O	O	O	O	O	O
NS	4085-175	Wiring Diagram	X			X			X		
NS	4085-177	Wiring Diagram									
NS	4085-275	Wiring Diagram		X			X			X	
NS	4085-277	Wiring Diagram									
NS	4085-398	Wiring Diagram									X
NS	4085-400	Wiring Diagram			X			X			
NS	3000-1616	Blower Power Plug	X	X	X	X	X	X	X	X	X
NS	3000-1617	Blower Speed Plug	X	X	X	X	X	X	X	X	X
NS	3000-1224	Compressor Plug/Harness	X			X			X		
NS	3000-1231	Compressor Plug/Harness		X	X		X	X		X	X
NS	3003-075	Control Panel Wire Harness		X	X		X	X		X	X
NS	3003-076	Control Panel Wire Harness	X			X			X		
NS	3000-1618	Integrated Furnace Control Plug	X	X	X	X	X	X	X	X	X

NS - Not Shown

X - Standard

O - Optional

CONTROL PANEL – DEHUMIDIFICATION

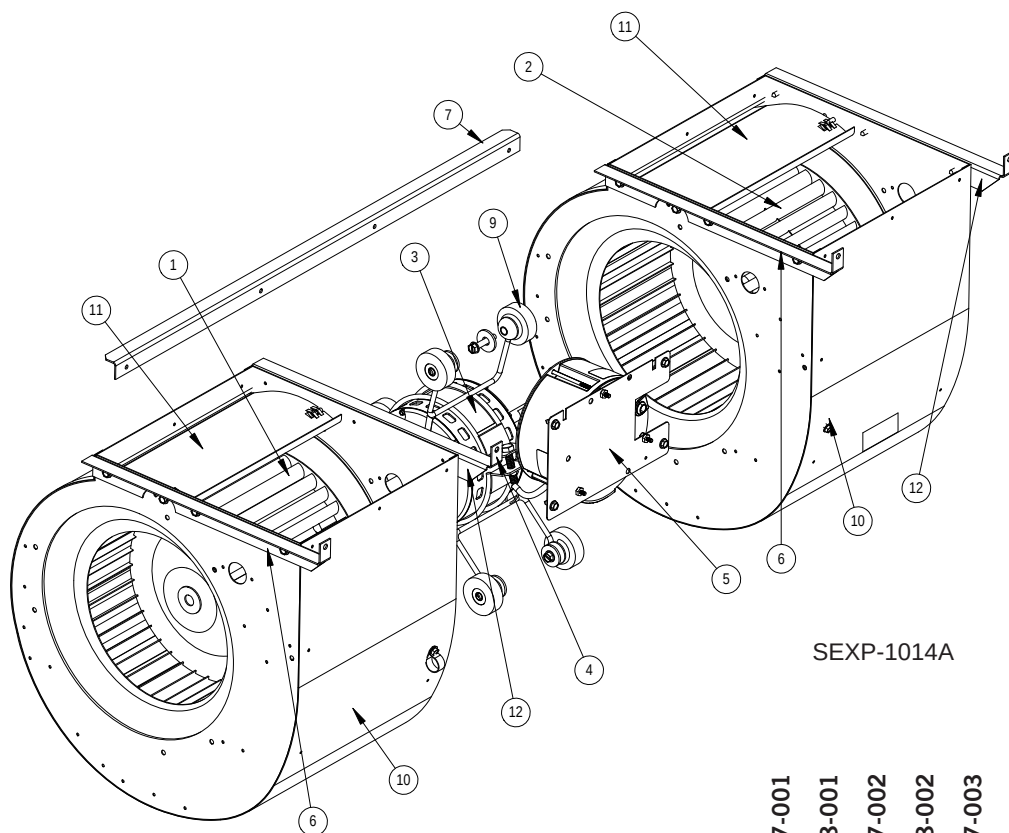
Drawing No.	Part No.	Description	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
1	517-408	Control Panel	X	X	X	X	X	X	X	X	X
2	113-269	Circuit Breaker Mounting Bracket	X	X		X	X		X	X	
2	127-590	460V Disconnect Base			X			X			X
3	117-410	Low Voltage Box	X	X	X	X	X	X	X	X	X
4	117-409	Low Voltage Partition	X	X	X	X	X	X	X	X	X
5	8607-062	Terminal Strip	X	X	X	X	X	X	X	X	X
6	135-130	Wire Shield	X	X	X	X	X	X	X	X	X
7	5651-159	Integrated Furnace Control	X	X	X	X	X	X	X	X	X
8	8611-006	Terminal	X	X	X	X	X	X	X	X	X
9	8201-171BX	Compressor Control Module	X	X	X	X	X	X	X	X	X
10	8407-068	Transformer	X	X		X	X		X	X	
10	8407-069	Transformer			X			X			X
11	S8401-002	Compressor Contactor		X	X		X	X		X	X
11	S8401-025	Compressor Contactor	X			X			X		
12	S8615-095	600V 40A Toggle Disconnect			X			X			X
12	S8615-096	600V Switch Cover Plate			X			X			X
12	S8615-043	230V 40A Circuit Breaker								X	
12	S8615-052	230V 30A Circuit Breaker		X			X				
12	S8615-040	230V 50A Circuit Breaker				X			X		
12	S8615-055	230V 40A Circuit Breaker	X								
13	S8552-004	Outdoor Fan Capacitor			X			X			
13	S8552-005	Outdoor Fan Capacitor		X			X				
13	S8552-081	Outdoor Fan Capacitor							X		
13	S8552-089	Outdoor Fan Capacitor				X					
13	S8552-052	Outdoor Fan Capacitor	X								
14	8550-003	Capacitor Bracket		X	X		X	X			
14	8550-008	Capacitor Bracket	X			X			X		
15	8201-174BX	Phase Monitor		X	X		X	X		X	X
16	8611-209	DIN Rail		X	X		X	X		X	X
16	8611-210	DIN Rail	X			X			X		
17	8201-032	Inducer Relay	X	X	X	X	X	X	X	X	X
18	8201-159	Blower Relay	X	X	X	X	X	X	X	X	X
19	8611-140-0800	Cable Duct - 8" x 1" Wide	2	2	2	2	2	2	2	2	2
20	8611-140-1200	Cable Duct - 12" x 1" Wide	X	X	X	X	X	X	X	X	X
21	8201-159	Lockout Relay	X	X	X	X	X	X	X	X	X
22	8201-130	Dehumidification Control Relay	X	X	X	X	X	X	X	X	X
23	8201-113	Dehumidification Logic Board	X	X	X	X	X	X	X	X	X
24	135-266	Wire Shield	X	X	X	X	X	X	X	X	X
25	8607-017	Terminal Block	X	X	X	X	X	X	X	X	X
26	8301-079-0001	EEV Control Board (see page 8 for other EEV parts)	X	X	X	X	X	X	X	X	X
27	8607-017	Terminal Block - LAC Kit	O	O	O	O	O	O	O	O	O
NS	4085-171	Wiring Diagram	X			X			X		
NS	4085-173	Wiring Diagram								X	
NS	4085-271	Wiring Diagram		X			X				
NS	4085-273	Wiring Diagram									X
NS	4085-394	Wiring Diagram			X			X			
NS	4085-396	Wiring Diagram									
NS	3000-1616	Blower Power Plug	X	X	X	X	X	X	X	X	X
NS	3000-1617	Blower Speed Plug	X	X	X	X	X	X	X	X	X
NS	3000-1224	Compressor Plug/Harness	X			X			X		
NS	3000-1231	Compressor Plug/Harness		X	X		X	X		X	X
NS	3003-070	Control Panel Wire Harness		X	X		X	X		X	X
NS	3003-074	Control Panel Wire Harness	X			X			X		
NS	3000-1618	Integrated Furnace Control Plug	X	X	X	X	X	X	X	X	X
NS	3000-1611	Transducer Wire Assembly - Connects to EEV Board	X	X	X	X	X	X	X	X	X
NS	3000-1603	Transducer Wire Assembly - Connects to Transducer	X	X	X	X	X	X	X	X	X

NS - Not Shown

X - Standard

O - Optional

BLOWER ASSEMBLY



Drawing No.	Part No.	Description	900-377-001	900-378-001	900-377-002	900-378-002	900-377-003	900-378-003
1	5152-012	Blower Wheel - CCW	X	X	X	X	X	X
2	5152-011	Blower Wheel - CW	X	X	X	X	X	X
3	S8107-028-0189	Blower Motor & Control (230/208V)	X		X			
3	S8107-028-0190	Blower Motor & Control (230/208V)					X	
3	S8107-028-0191	Blower Motor & Control (230/208V)						
3	S8107-029-0195	Blower Motor & Control (460V)		X				
3	S8107-029-0196	Blower Motor & Control (460V)				X		
3	S8107-029-0197	Blower Motor & Control (460V)						X
3	C8107-028-0189	Programmed Control Only (230/208V)	X					
3	C8107-028-0190	Programmed Control Only (230/208V)			X			
3	C8107-028-0191	Programmed Control Only (230/208V)					X	
3	C8107-029-0195	Programmed Control Only (460V)		X				
3	C8107-029-0196	Programmed Control Only (460V)				X		
3	C8107-029-0197	Programmed Control Only (460V)						X
4	8200-040	Motor Mount	X	X	X	X	X	X
5	112-775	Motor Control Bracket	X	X	X	X	X	X
6	105Y1075	Angle - Left	2	2	2	2	2	2
7	105-1109	Angle - Back	X	X	X	X	X	X
9	5451-011	Grommet	6	6	6	6	6	6
10	151-117	Blower Housing	2	2	2	2	2	2
11	144-167	Diffuser	2	2	2	2	2	2
12	105X1075	Angle - Right	2	2	2	2	2	2

MANUEL DE PIÈCES DE RECHANGE

GAZ/ÉLECTRIQUE À MONTAGE MURAL

Modèles :

W42G4-A	W48G4-A	W60G4-A	W42G4DA	W48G4DA	W60G4DA
W42G4-B	W48G4-B	W60G4-B	W42G4DB	W48G4DB	W60G4DB
W42G4-C	W48G4-C	W60G4-C	W42G4DC	W48G4DC	W60G4DC

Contenu

<i>Description</i>	<i>Page</i>
Composants de l'armoire	
♦ Vue éclatée.....	2
♦ Liste d'utilisation	3
♦ Liste d'utilisation	4
♦ Liste d'utilisation	5
Composants fonctionnels	
♦ Vue éclatée.....	6
♦ Liste d'utilisation	7
♦ Liste d'utilisation	8
Composants du brûleur	
♦ Vue éclatée.....	10
♦ Liste d'utilisation	11
♦ Liste d'utilisation	12
♦ Liste d'utilisation	13
Panneau de commande	
♦ Vue éclatée	14
♦ Liste d'utilisation	15
♦ Liste d'utilisation	16
Soufflante	
♦ Vue éclatée.....	17
♦ Liste d'utilisation	17

Notes générales

- Des pages révisées et/ou supplémentaires peuvent être émises de temps à autre.
- Un manuel complet et à jour est constitué de pages indiquées dans la section de contenu suivante.

IMPORTANT

- Contacter l'installation et/ou le distributeur local de Bard pour toutes les exigences de pièces. S'assurer d'avoir le modèle et le numéro de série qui se trouvent sur la plaque signalétique de l'appareil.

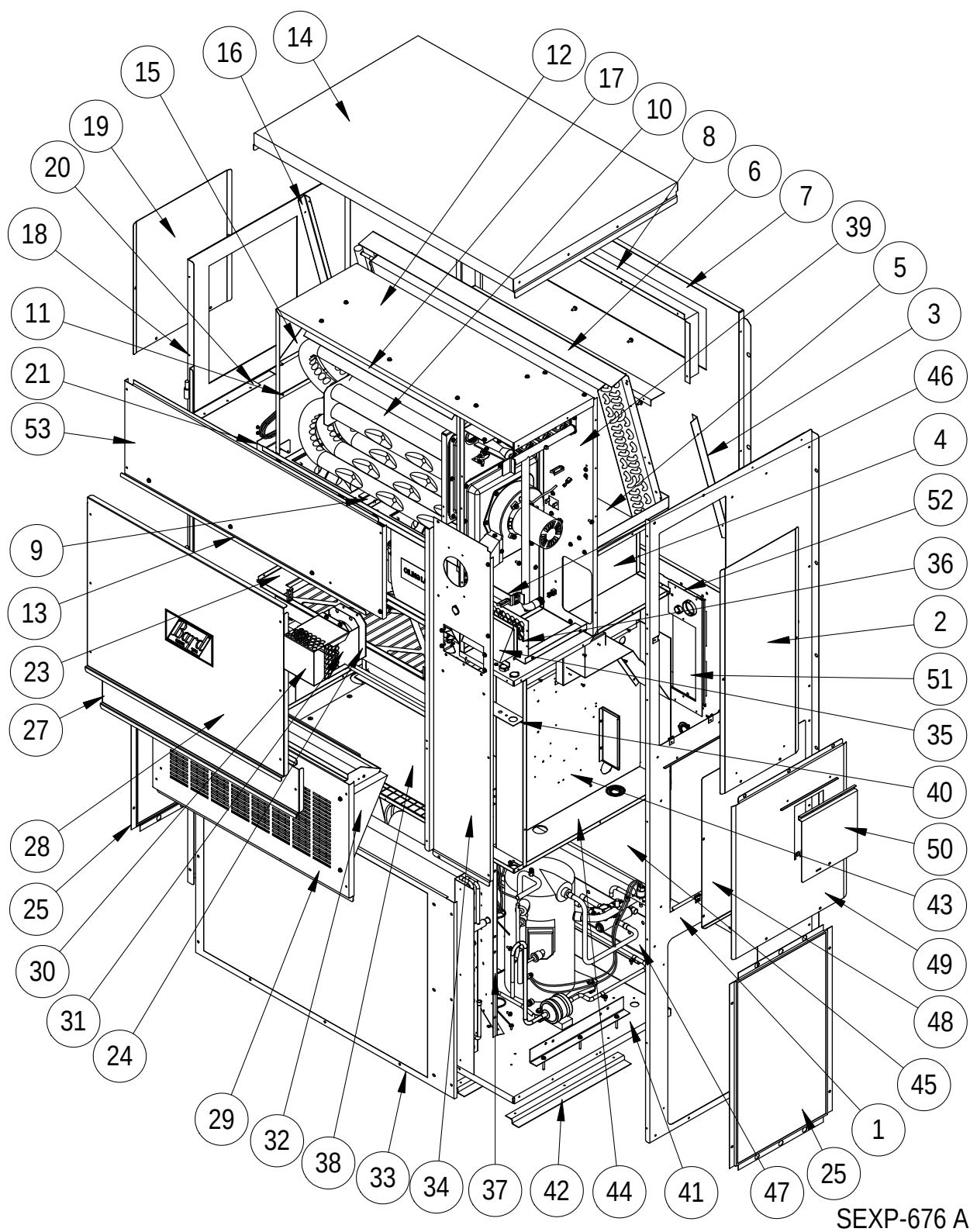


Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

Manuel : 2110F822J
Remplace : 2110F822I
Date : 13-9-23

Climate Control Solutions

COMPOSANTS DE L'ARMOIRE - STANDARD & DÉSHUMIDIFICATION



Utiliser ce dessin comme référence pour les pages 3, 4 et 5

COMPOSANTS DE L'ARMOIRE – STANDARD & DÉSHUMIDIFICATION

Dessin N°	Référence	Description	Tous les modèles
1	501-570-*	Ensemble côté droit	X
2	S153-326-*	Porte de service du vestibule	X
3	105X1073	Cornière de support de l'évaporateur droit	X
4	541-266	Support du bac de vidange droit	X
5	S523-123	Bac de vidange	X
6	105-1080	Cornière de remplissage du serpentin de l'évaporateur	X
7	509-156	Arrière supérieur	X
8	111-063	Cadre d'alimentation en air	2
9	103-439	Décalage du support de l'échangeur de chaleur	X
10	Échangeur de chaleur	Voir Schéma des composants du brûleur	
11	105-1066	Déflexeur de l'échangeur de chaleur inférieur	X
12	135-216	Déflexeur d'air intérieur	X
13	165-586-*	Gouttière supérieure	X
14	507-246-*	Ensemble supérieur	X
15	135-184	Déflexeur de l'échangeur de chaleur droit	X
16	105Y1073	Cornière de support de l'évaporateur gauche	X
17	105-1076	Déflexeur de l'échangeur de chaleur supérieur	X
18	501-788-*	Ensemble côté gauche	X
19	543-070-*	Couvercle d'accès gauche	X
20	105-1070	Cornière de support gauche	X
21	S121-484	Cloison de la soufflante	X
23	S919-0009	Plateau de filtre	X
24	1921-051	Joint de la terminaison de l'évent	X
25	118-084-*	Grille latérale	2
<i>Suite à la page 4 pour les appareils standard et à la page 5 pour les appareils de déshumidification</i>			

* Les pièces de l'armoire extérieure sont fabriquées avec diverses options de couleur de peinture. Pour s'assurer de recevoir la bonne couleur de peinture, inclure le numéro de modèle complet et le numéro de série de l'appareil pour lequel les pièces sont commandées.

COMPOSANTS DE L'ARMOIRE – STANDARD

Dessin N°	Référence	Description	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
<i>Suite de la page 3</i>											
27	553-562-*	Panneau d'accès au filtre	X	X	X	X	X	X	X	X	X
28	S553-561-*	Porte avant	X	X	X	X	X	X	X	X	X
29	553-327-*	Porte de l'évent facultatif	X	X	X	X	X	X	X	X	X
30	169-119	Hotte de l'évent extérieur	X	X	X	X	X	X	X	X	X
31	169-120	Hotte de l'évent intérieur	X	X	X	X	X	X	X	X	X
32	WGBFAD-5	Registre d'air frais barométrique	X	X	X	X	X	X	X	X	X
33	118-048-*	Grille du condenseur	X	X	X	X	X	X	X	X	X
34	549-131-*	Cornière avant droit	X	X	X	X	X	X	X	X	X
35	S135-181-*	Hotte de prise d'air	X	X	X	X	X	X	X	X	X
36	S134-182-*	Arrière de la prise d'air	X	X	X	X	X	X	X	X	X
37	125-024	Capot de ventilateur	X	X	X	X	X	X	X	X	X
38	542-072	Plaque d'obturation de cloison du condenseur	X	X	X	X	X	X	X	X	X
39	541-398	Support de l'échangeur de chaleur	X	X	X	X	X	X	X	X	X
40	142-071	Plaque d'obturation de filtre	X	X	X	X	X	X	X	X	X
41	127-561	Base inférieure	X	X	X	X	X	X	X	X	X
42	103-438	Décalage de la base inférieure	3	3	3	3	3	3	3	3	3
43	517-408	Panneau de commande	X	X	X	X	X	X	X	X	X
44	521-420	Cloison du condenseur	X	X	X	X	X	X	X	X	X
45	509-157	Ensemble inférieur arrière	X	X	X	X	X	X	X	X	X
46	113-268	Support du collecteur	X	X	X	X	X	X	X	X	X
47	113-140	Support inférieur	X	X	X	X	X	X	X	X	X
48	S133-163	Porte intérieure du disjoncteur	X	X		X	X		X	X	
48	S133-318	Levier basculeur de la porte intérieure			X			X			X
49	S533-162-*	Couvercle du panneau de commande	X	X	X	X	X	X	X	X	X
50	S153-328-*	Déconnecter la porte d'accès	X	X	X	X	X	X	X	X	X
51	134-193	Panneau d'accès du conduit	X	X	X	X	X	X	X	X	X
52	156-029	Plaque d'entrée du conduit	X	X	X	X	X	X	X	X	X
53	553-388-*	Porte supérieure	X	X	X	X	X	X	X	X	X
NS	5252-033	Plaque signalétique de Bard	X	X	X	X	X	X	X	X	X

* Les pièces de l'armoire extérieure sont fabriquées avec diverses options de couleur de peinture. Pour s'assurer de recevoir la bonne couleur de peinture, inclure le numéro de modèle complet et le numéro de série de l'appareil pour lequel les pièces sont commandées.

NS – Non illustré

Se reporter au schéma de la page 2

COMPOSANTS DE L'ARMOIRE – DÉSHUMIDIFICATION

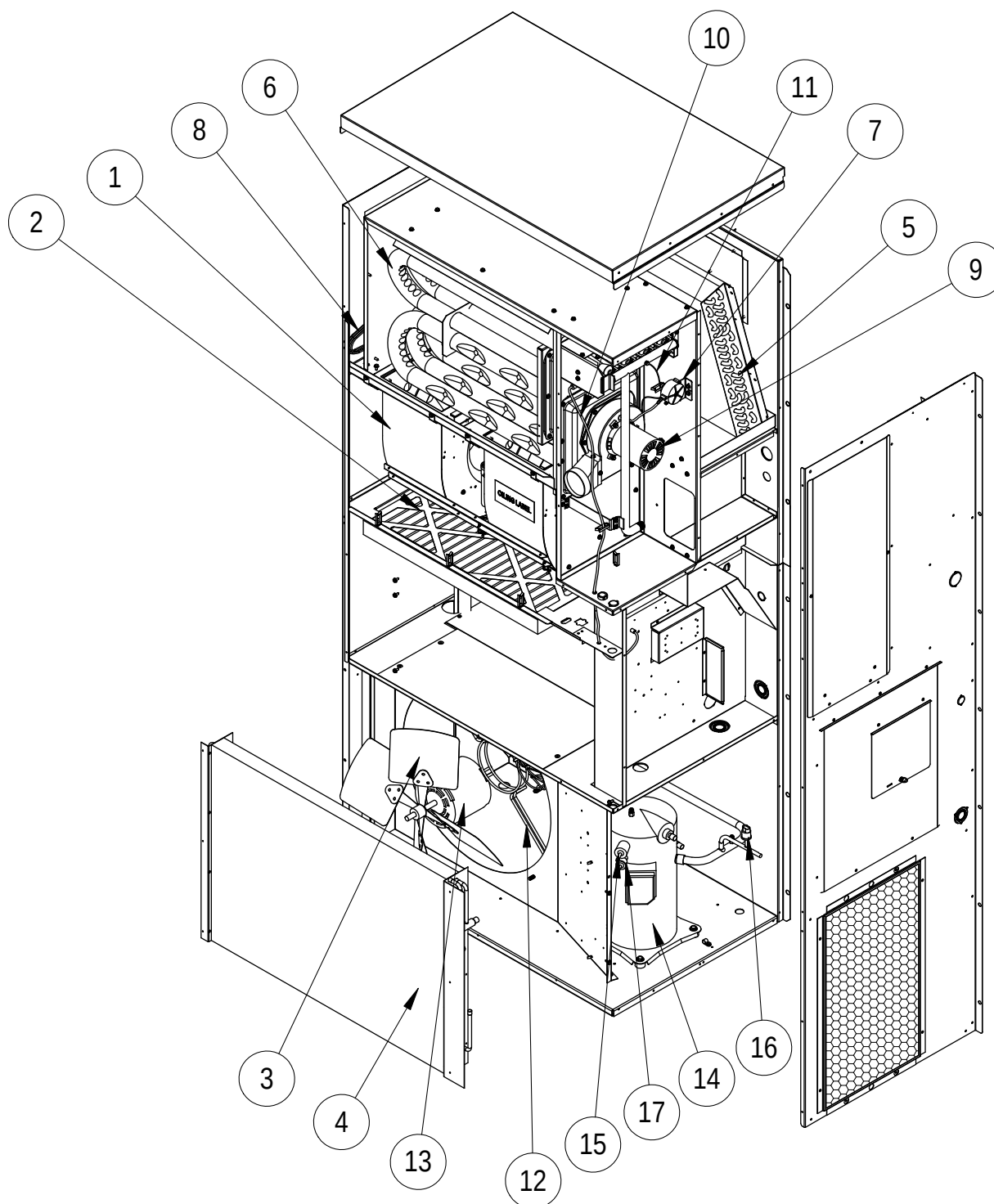
Dessin N°	Référence	Description	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
<i>Suite de la page 3</i>											
27	553-562-*	Panneau d'accès au filtre	X	X	X	X	X	X	X	X	X
28	S553-561-*	Porte avant	X	X	X	X	X	X	X	X	X
29	553-327-*	Porte de l'évent facultatif	X	X	X	X	X	X	X	X	X
30	169-119	Hotte de l'évent extérieur	X	X	X	X	X	X	X	X	X
31	169-120	Hotte de l'évent intérieur	X	X	X	X	X	X	X	X	X
32	WGBFAD-5	Registre d'air frais barométrique	X	X	X	X	X	X	X	X	X
33	118-048-*	Grille du condenseur	X	X	X	X	X	X	X	X	X
34	549-131-*	Cornière avant droit	X	X	X	X	X	X	X	X	X
35	S135-181-*	Hotte de prise d'air	X	X	X	X	X	X	X	X	X
36	S134-182-*	Arrière de la prise d'air	X	X	X	X	X	X	X	X	X
37	125-024	Capot de ventilateur	X	X	X	X	X	X	X	X	X
38	542-136	Plaque d'obturation de cloison du condenseur	X	X	X	X	X	X	X	X	X
39	541-398	Support de l'échangeur de chaleur	X	X	X	X	X	X	X	X	X
40	142-071	Plaque d'obturation de filtre	X	X	X	X	X	X	X	X	X
41	127-561	Base inférieure	X	X	X	X	X	X	X	X	X
42	103-438	Décalage de la base inférieure	3	3	3	3	3	3	3	3	3
43	517-408	Panneau de commande	X	X	X	X	X	X	X	X	X
44	521-447	Cloison du condenseur	X	X	X	X	X	X	X	X	X
45	509-157	Ensemble inférieur arrière	X	X	X	X	X	X	X	X	X
46	113-268	Support du collecteur	X	X	X	X	X	X	X	X	X
47	113-140	Support inférieur	X	X	X	X	X	X	X	X	X
48	S133-163	Porte intérieure du disjoncteur	X	X		X	X		X	X	
48	S133-318	Levier basculeur de la porte intérieure			X			X			X
49	S533-162-*	Couvercle du panneau de commande	X	X	X	X	X	X	X	X	X
50	S153-328-*	Déconnecter la porte d'accès	X	X	X	X	X	X	X	X	X
51	134-193	Panneau d'accès du conduit	X	X	X	X	X	X	X	X	X
52	156-029	Plaque d'entrée du conduit	X	X	X	X	X	X	X	X	X
53	553-388-*	Porte supérieure	X	X	X	X	X	X	X	X	X
NS	5252-033	Plaque signalétique de Bard	X	X	X	X	X	X	X	X	X

* Les pièces de l'armoire extérieure sont fabriquées avec diverses options de couleur de peinture. Pour s'assurer de recevoir la bonne couleur de peinture, inclure le numéro de modèle complet et le numéro de série de l'appareil pour lequel les pièces sont commandées.

NS – Non illustré

Se reporter au schéma de la page 2

COMPOSANTS FONCTIONNELLS – STANDARD & DÉSHUMIDIFICATION



SEXP-677

Utiliser ce dessin comme référence pour les pages 7 et 8

COMPOSANTS FONCTIONNELS – STANDARD

Dessin N°	Référence	Description	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
1	S900-377-001	Ensemble soufflante complet 230/208	X	X							
1	S900-378-001	Ensemble soufflante complet 460 V			X						
1	S900-377-002	Ensemble soufflante complet 230/208				X	X				
1	S900-378-002	Ensemble soufflante complet 460 V						X			
1	S900-377-003	Ensemble soufflante complet 230/208							X	X	
1	S900-378-003	Ensemble soufflante complet 460 V									X
2	7004-027	Filtre plissé 20 x 30 x 2 MERV 8 (standard)	X	X	X	X	X	X	X	X	X
2	7003-030	Filtre AF 20 x 30 x 1	O	O	O	O	O	O	O	O	O
2	7004-064	Filtre plissé 20 x 30 x 2 MERV 13	O	O	O	O	O	O	O	O	O
3	S5151-060	Pale de ventilateur	X	X	X	X	X	X	X	X	X
4	5051-179BX	Serpentin du condenseur	X	X	X						
4	5054-179BX	Serpentin enduit du condenseur	O	O	O						
4	5051-180BX	Serpentin du condenseur				X	X	X			
4	5054-180BX	Serpentin enduit du condenseur				O	O	O			
4	5051-235BX	Serpentin du condenseur							X	X	X
4	5054-235BX	Serpentin enduit du condenseur							O	O	O
5	5060-106BX	Serpentin de l'évaporateur	X	X	X	X	X	X			
5	5062-106BX	Serpentin enduit de l'évaporateur	O	O	O	O	O	O			
5	5060-105BX	Serpentin de l'évaporateur							X	X	X
5	5062-105BX	Serpentin enduit de l'évaporateur							O	O	O
6	Échangeur de chaleur	Voir Schéma des composants du brûleur	X	X	X	X	X	X	X	X	X
7	8406-103	Pressostat 0,55" + 0,05"	X	X	X	X	X	X	X	X	X
8	S800-0448	Distributeur/orifice 0,070	X	X	X						
8	S800-0491	Distributeur/orifice 0,075				X	X	X			
8	S800-0490	Distributeur/orifice 0,084							X	X	X
9	8109-014	Soufflante à tirage induit 230 V avec transition	X	X		X	X		X	X	
9	8109-015	Soufflante à tirage induit 460V avec transition			X			X			X
10	8600-011	Câble d'allumage extinction	X	X	X	X	X	X	X	X	X
11	3000-1615	Ensemble de câblage	X	X	X	X	X	X	X	X	X
12	8200-004	Installation du moteur de ventilateur	X	X	X	X	X	X	X	X	X
13	S8105-068	Moteur 230/208 V	X	X		X	X				
13	S8105-071	Moteur 460 V			X			X			
13	S8106-053	Moteur 230/208 V							X	X	
13	8106-081-0253BX	Moteur 460 V									X
14	8000-362	Compresseur ZP36K5E-PFV-130	X								
14	8000-363	Compresseur ZP36K5E-TF5-130		X							
14	8000-364	Compresseur ZP36K5E-TFD-130			X						
14	8000-332	Compresseur ZP42K5E-PFV-130				X					
14	8000-333	Compresseur ZP42K5E-TF5-130					X				
14	8000-334	Compresseur ZP42K5E-TFD-130						X			
14	8000-421	Compresseur ZP61K6E-PFV-130							X		
14	8000-422	Compresseur ZP61K6E-TF5-130								X	
14	8000-423	Compresseur ZP61K6E-TFD-130									X
15	8406-142	Interrupteur haute pression	X	X	X	X	X	X	X	X	X
16	8406-140	Interrupteur basse pression	X	X	X	X	X	X	X	X	X
17	S8406-105	Contrôle de basse température ambiante (partie du kit LAC CMA-46)	O	O	O	O	O	O	O	O	O
NS	8408-048	Thermostat de gel (partie du kit LAC CMA-46)	O	O	O	O	O	O	O	O	O
NS	CMA-46	Kit complet de basse température ambiante	O	O	O	O	O	O	O	O	O
NS	6031-009	Vanne Coremax	X	X	X	X	X	X	X	X	X

NS – Non illustré

X – Norme

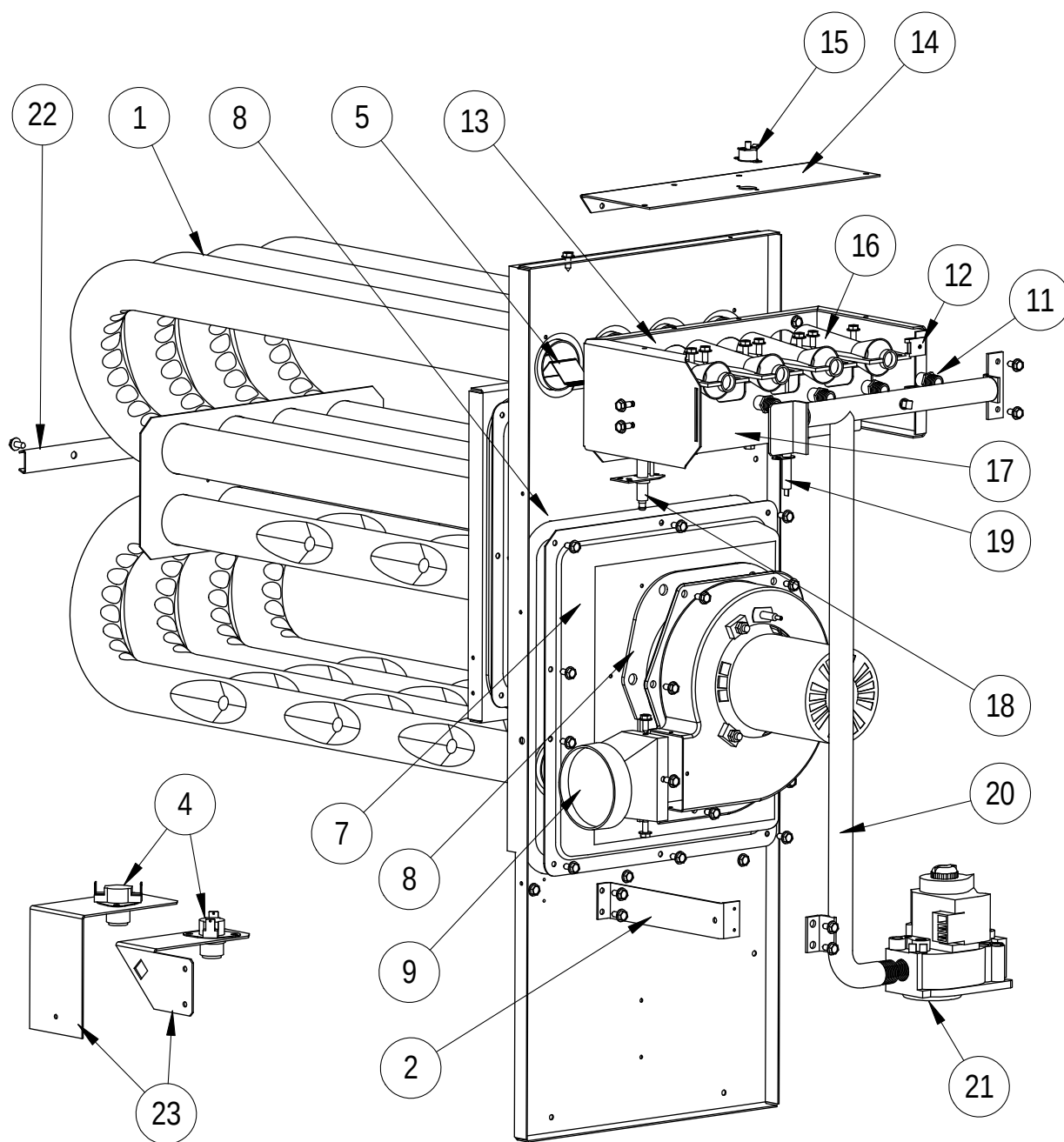
O – Option

COMPOSANTS FONCTIONNELS – DÉSHUMIDIFICATION

Dessin N°	Référence	Description	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
1	900-377-001	Ensemble soufflante complet 230/208	X	X							
1	900-378-001	Ensemble soufflante complet 460 V			X						
1	900-377-002	Ensemble soufflante complet 230/208				X	X				
1	900-378-002	Ensemble soufflante complet 460 V						X			
1	900-377-003	Ensemble soufflante complet 230/208							X	X	
1	900-378-003	Ensemble soufflante complet 460 V									X
2	7004-027	Filtre plissé 20 x 30 x 2 MERV 8 (standard)	X	X	X	X	X	X	X	X	X
2	7003-030	Filtre AF 20 x 30 x 1	O	O	O	O	O	O	O	O	O
2	7004-064	Filtre plissé 20 x 30 x 2 MERV 13	O	O	O	O	O	O	O	O	O
3	S5151-060	Pale de ventilateur	X	X	X	X	X	X	X	X	X
4	5051-179BX	Serpentin du condenseur	X	X	X						
4	5054-179BX	Serpentin enduit du condenseur	O	O	O						
4	5051-180BX	Serpentin du condenseur				X	X	X			
4	5054-180BX	Serpentin enduit du condenseur				O	O	O			
4	5051-235BX	Serpentin du condenseur							X	X	X
4	5054-235BX	Serpentin enduit du condenseur							O	O	O
5	917-0059BX	Serpentin de l'évaporateur avec bobine de réchauffage	X	X	X	X	X	X			
5	917-0061BX	Serpentin de l'évaporateur enduit avec bobine de réchauffage	O	O	O	O	O	O			
5	917-0060BX	Serpentin de l'évaporateur avec bobine de réchauffage							X	X	X
5	917-0062BX	Serpentin de l'évaporateur enduit avec bobine de réchauffage							O	O	O
6	Échangeur de chaleur	Voir Schéma des composants du brûleur	X	X	X	X	X	X	X	X	X
7	8406-103	Pressostat 0,55" + 0,05"	X	X	X	X	X	X	X	X	X
8	5625-008	Distributeur	X	X	X	X	X	X			
8	5625-036	Distributeur							X	X	X
9	8109-014	Soufflante à tirage induit 230 V avec transition	X	X		X	X		X	X	
9	8109-015	Soufflante à tirage induit 460V avec transition			X			X			X
10	8600-011	Câble d'allumage extinction	X	X	X	X	X	X	X	X	X
11	3000-1615	Ensemble de câblage	X	X	X	X	X	X	X	X	X
12	8200-004	Installation du moteur de ventilateur	X	X	X	X	X	X	X	X	X
13	S8105-066	Moteur 230/208 V	X	X		X	X				
13	S8105-071	Moteur 460 V			X			X			
13	S8106-053	Moteur 230/208 V							X	X	
13	8106-081-0253BX	Moteur 460 V									X
14	8000-362	Compresseur ZP36K5E-PFV-130	X								
14	8000-363	Compresseur ZP36K5E-TF5-130		X							
14	8000-364	Compresseur ZP36K5E-TFD-130			X						
14	8000-332	Compresseur ZP42K5E-PFV-130				X					
14	8000-333	Compresseur ZP42K5E-TF5-130					X				
14	8000-334	Compresseur ZP42K5E-TFD-130						X			
14	8000-421	Compresseur ZP61K6E-PFV-130							X		
14	8000-422	Compresseur ZP61K6E-TF5-130								X	
14	8000-423	Compresseur ZP61K6E-TFD-130									X
15	8406-142	Interrupteur haute pression	X	X	X	X	X	X	X	X	X
16	8406-140	Interrupteur basse pression	X	X	X	X	X	X	X	X	X
17	S8406-105	Contrôle de basse température ambiante (partie du kit LAC CMA-45)	O	O	O	O	O	O	O	O	O
NS	CMA-45	Contrôle de basse température ambiante	O	O	O	O	O	O	O	O	O
NS	8408-048	Thermostat antigel	X	X	X	X	X	X	X	X	X
NS	5651S245	Vanne de détente	X	X	X	X	X	X			
NS	5651S248	Vanne de détente							X	X	X
NS	5651-246	EEV cable et stator	X	X	X	X	X	X	X	X	X
NS	3000-1678	Assemblage de fils	X	X	X	X	X	X	X	X	X
NS	8408-056	Thermistance EEV	X	X	X	X	X	X	X	X	X
NS	8406-158	Transducteur	X	X	X	X	X	X	X	X	X
NS	5651-219	Clapet antiretour	X	X	X	X	X	X	X	X	X
NS	5650-048	Connecteur moulé	X	X	X	X	X	X	X	X	X
NS	5650-051	Électrovanne à trois voies	X	X	X	X	X	X	X	X	X
NS	5201-022	Filtre déshydrateur	X	X	X	X	X	X	X	X	X
NS	5650-046	Bobine de solénoïde 24 V	X	X	X	X	X	X	X	X	X
NS	6031-009	Vanne Coremax	X	X	X	X	X	X	X	X	X

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COMPOSANTS DU BRÛLEUR – STANDARD & DÉSHUMIDIFICATION



SEXP-678 A

Utiliser ce dessin comme référence pour les pages 11, 12 et 13

COMPOSANTS DU BRÛLEUR – STANDARD & DÉSHUMIDIFICATION

Dessin N°	Référence	Description	W42G4**XB	W42G4**NB	W42G4**XC	W42G4**NC	W42G4**XD
1	S171-315	Échangeur de chaleur 75K	X	X			
1	S171-317	Échangeur de chaleur 100K			X	X	
1	S171-319	Échangeur de chaleur 125K					X
2	113-268	Support du collecteur	X	X	X	X	X
4	8402-180	Contrôle de limite L140-30	X	X			
4	8402-178	Contrôle de limite L120-30			X	X	
4	8402-177	Contrôle de limite L115-30					X
5	9010-083	Écran NOx		3		4	
6	1921-025-4600	Ruban Glas-Tak 46"	X	X	X	X	X
7	168-126	Boîtier du collecteur	X	X			
7	168-127	Boîtier du collecteur			X	X	
7	168-128	Boîtier du collecteur					X
8	1921-044	Jeu de joints	X	X	X	X	X
9	5809-013	Inducteur de transition moulé 3"	X	X	X	X	X
10	5809-017	Transition 3,031" x 4,625"	X	X	X	X	X
11	9010-079	Orifice 2,40mm (0,0960 de diamètre)	3		4		5
11	9010-082	Orifice 2,30mm (10 % de déclassement & 0,0905 de diamètre)	3	3	4	4	5
12	1012-314	Clip en U de fixation	4	4	4	4	4
13	163-049	Boîtier du brûleur	X	X			
13	163-052	Boîtier du brûleur			X	X	
13	163-051	Boîtier du brûleur					X
14	141-493	Support de retour de flamme	X	X			
14	141-494	Support de retour de flamme			X	X	
14	141-439	Support de retour de flamme					X
15	8402-124	Limiteur de retour de flamme L270	X	X	X	X	X
16	9010-078	Brûleur à flamme horizontale 2,5 x 4,5	3	3	4	4	5
17	163-041	Support de brûleur	X	X			
17	163-043	Support de brûleur			X	X	
17	163-045	Support de brûleur					X
18	8554-024	Allumeur par étincelle DSI	X	X	X	X	X
19	8554-025	Capteur de flamme	X	X	X	X	X
20	5818-054	Collecteur de gaz 3-trous - 1/2"	X	X			
20	5818-055	Collecteur de gaz 4-trous - 1/2"			X	X	
20	5818-056	Collecteur de gaz 5-trous - 1/2"					X
21	5651-160	Vanne de gaz naturel 1/2 x 1/2	X	X	X	X	X
22	168-135	Renfort du tube 3 brûleurs	X	X			
22	168-134	Renfort du tube 4 brûleurs			X	X	
22	168-133	Renfort du tube 5 brûleurs					X
23	112-475	Support de fin de course	X	X	X	X	X
NS	S400-0183	Sac de pièces d'orifice 3 tube 75K	X	X			
NS	S400-0184	Sac de pièces d'orifice 4 tube 100K			X	X	
NS	S400-0185	Sac de pièces d'orifice 5 tube 125K					X
NS	8600-011	Câble d'allumage	X	X	X	X	X

NS – Non illustré

COMPOSANTS DU BRÛLEUR – STANDARD & DÉSHUMIDIFICATION

Dessin N°	Référence	Description	W48G4**XB	W48G4**NB	W48G4**XC	W48G4**NC	W48G4**XD
1	S171-315	Échangeur de chaleur 75K	X	X			
1	S171-317	Échangeur de chaleur 100K			X	X	
1	S171-319	Échangeur de chaleur 125K					X
2	113-268	Support du collecteur	X	X	X	X	X
4	8402-180	Contrôle de limite L140-30	X	X			
4	8402-178	Contrôle de limite L120-30			X	X	
4	8402-177	Contrôle de limite L115-30					X
5	9010-083	Écran NOx		3		4	
6	1921-025-4600	Ruban Glas-Tak 46"	X	X	X	X	X
7	168-126	Boîtier du collecteur	X	X			
7	168-127	Boîtier du collecteur			X	X	
7	168-128	Boîtier du collecteur					X
8	1921-044	Jeu de joints	X	X	X	X	X
9	5809-013	Inducteur de transition moulé 3"	X	X	X	X	X
10	5809-017	Transition 3,031" x 4,625"	X	X	X	X	X
11	9010-079	Orifice 2,40mm (0,0960 de diamètre)	3		4		5
11	9010-082	Orifice 2,30mm (10 % de déclassement & 0,0905 de diamètre)	3	3	4	4	5
12	1012-314	Clip en U de fixation	4	4	4	4	4
13	163-049	Boîtier du brûleur	X	X			
13	163-052	Boîtier du brûleur			X	X	
13	163-051	Boîtier du brûleur					X
14	141-493	Support de retour de flamme	X	X			
14	141-494	Support de retour de flamme			X	X	
14	141-439	Support de retour de flamme					X
15	8402-124	Limiteur de retour de flamme L270	X	X	X	X	X
16	9010-078	Brûleur à flamme horizontale 2,5 x 4,5	3	3	4	4	5
17	163-041	Support de brûleur	X	X			
17	163-043	Support de brûleur			X	X	
17	163-045	Support de brûleur					X
18	8554-024	Allumeur par étincelles DSI	X	X	X	X	X
19	8554-025	Capteur de flamme	X	X	X	X	X
20	5818-054	Collecteur de gaz 3-trous - 1/2"	X	X			
20	5818-055	Collecteur de gaz 4-trous - 1/2"			X	X	
20	5818-056	Collecteur de gaz 5-trous - 1/2"					X
21	5651-160	Vanne de gaz naturel 1/2 x 1/2	X	X	X	X	X
22	168-135	Renfort du tube 3 brûleurs	X	X			
22	168-134	Renfort du tube 4 brûleurs			X	X	
22	168-133	Renfort du tube 5 brûleurs					X
23	112-475	Support de fin de course	X	X	X	X	X
NS	S400-0183	Sac de pièces d'orifice 3 tube 75K	X	X			
NS	S400-0184	Sac de pièces d'orifice 4 tube 100K			X	X	
NS	S400-0185	Sac de pièces d'orifice 5 tube 125K					X
NS	8600-011	Câble d'allumage	X	X	X	X	X

NS – Non illustré

Se reporter au schéma de la page 10

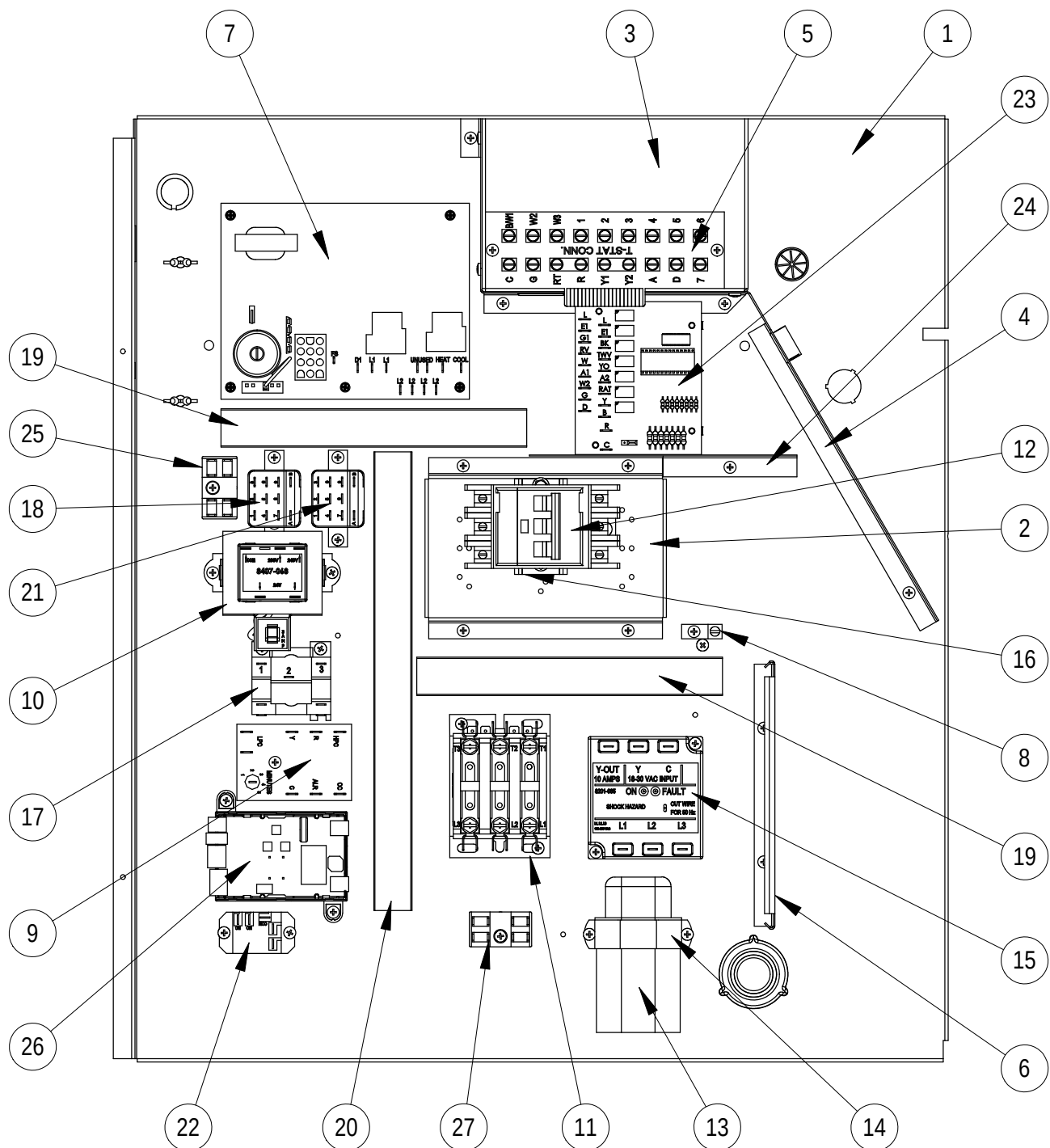
COMPOSANTS DU BRÛLEUR – STANDARD & DÉSHUMIDIFICATION

Dessin N°	Référence	Description	W60G4**XB	W60G4**NB	W60G4**XC	W60G4**NC	W60G4**XD
1	S171-315	Échangeur de chaleur 75K	X	X			
1	S171-317	Échangeur de chaleur 100K			X	X	
1	S171-319	Échangeur de chaleur 125K					X
2	113-268	Support du collecteur	X	X	X	X	X
4	8402-180	Contrôle de limite L140-30	X	X			
4	8402-178	Contrôle de limite L120-30			X	X	
4	8402-177	Contrôle de limite L115-30					X
5	9010-083	Écran NOx		3		4	
6	1921-025-4600	Ruban Glas-Tak 46"	X	X	X	X	X
7	168-126	Boîtier du collecteur	X	X			
7	168-127	Boîtier du collecteur			X	X	
7	168-128	Boîtier du collecteur					X
8	1921-044	Jeu de joints	X	X	X	X	X
9	5809-013	Inducteur de transition moulé 3"	X	X	X	X	X
10	5809-017	Transition 3,031" x 4,625"	X	X	X	X	X
11	9010-079	Orifice 2,40mm (0,0960 de diamètre)	3		4		5
11	9010-082	Orifice 2,30mm (10 % de déclassement & 0,0905 de diamètre)	3	3	4	4	5
12	1012-314	Clip en U de fixation	4	4	4	4	4
13	163-049	Boîtier du brûleur	X	X			
13	163-052	Boîtier du brûleur			X	X	
13	163-051	Boîtier du brûleur					X
14	141-493	Support de retour de flamme	X	X			
14	141-494	Support de retour de flamme			X	X	
14	141-439	Support de retour de flamme					X
15	8402-124	Limiteur de retour de flamme L270	X	X	X	X	X
16	9010-078	Brûleur à flamme horizontale 2,5 x 4,5	3	3	4	4	5
17	163-041	Support de brûleur	X	X			
17	163-043	Support de brûleur			X	X	
17	163-045	Support de brûleur					X
18	8554-024	Allumeur par étincelles DSI	X	X	X	X	X
19	8554-025	Capteur de flamme	X	X	X	X	X
20	5818-054	Collecteur de gaz 3-trous - 1/2"	X	X			
20	5818-055	Collecteur de gaz 4-trous - 1/2"			X	X	
20	5818-056	Collecteur de gaz 5-trous - 1/2"					X
21	5651-160	Vanne de gaz naturel 1/2 x 1/2	X	X	X	X	X
22	168-135	Renfort du tube 3 brûleurs	X	X			
22	168-134	Renfort du tube 4 brûleurs			X	X	
22	168-133	Renfort du tube 5 brûleurs					X
23	112-475	Support de fin de course	X	X	X	X	X
NS	S400-0183	Sac de pièces d'orifice 3 tube 75K	X	X			
NS	S400-0184	Sac de pièces d'orifice 4 tube 100K			X	X	
NS	S400-0185	Sac de pièces d'orifice 5 tube 125K					X
NS	8600-011	Câble d'allumage	X	X	X	X	X

NS – Non illustré

Se reporter au schéma de la page 10

PANNEAU DE COMMANDE - STANDARD & DÉSHUMIDIFICATION



SEXP-1013

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PANNEAU DE COMMANDE – STANDARD

Dessin N°	Référence	Description	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
1	517-408	Panneau de commande	X	X	X	X	X	X	X	X	X
2	113-269	Support de montage du disjoncteur	X	X		X	X		X	X	
2	127-590	Base de déconnexion 460V			X			X			X
3	117-410	Boîtier basse tension	X	X	X	X	X	X	X	X	X
4	117-409	Cloison basse tension	X	X	X	X	X	X	X	X	X
5	8607-062	Barrette de raccordement	X	X	X	X	X	X	X	X	X
6	135-130	Blindage de fil	X	X	X	X	X	X	X	X	X
7	5651-159	Commande de chaudière intégrée	X	X	X	X	X	X	X	X	X
8	8611-006	Borne	X	X	X	X	X	X	X	X	X
9	8201-171BX	Module de commande du compresseur	X	X	X	X	X	X	X	X	X
10	8407-068	Transformateur	X	X		X	X		X	X	
10	8407-069	Transformateur			X			X			X
11	S8401-002	Contacteur du compresseur		X	X		X	X		X	X
11	S8401-025	Contacteur du compresseur	X			X			X		
12	S8615-095	Déconnexion bascule 600 V 40 A			X			X			X
12	S8615-096	Couvercle de l'interrupteur 600 V			X			X			X
12	S8615-043	Disjoncteur 230 V 40A								X	
12	S8615-052	Disjoncteur 230 V 30A		X			X				
12	S8615-040	Disjoncteur 230 V 50A				X			X		
12	S8615-055	Disjoncteur 230 V 40A	X								
13	S8552-004	Condensateur ventilateur extérieur			X			X			
13	S8552-005	Condensateur ventilateur extérieur		X			X				
13	S8552-081	Condensateur ventilateur extérieur							X		
13	S8552-089	Condensateur ventilateur extérieur				X					
13	S8552-052	Condensateur ventilateur extérieur	X								
14	8550-003	Support du condensateur		X	X		X	X			
14	8550-008	Support du condensateur	X			X			X		
15	8201-174BX	Moniteur de phase		X	X		X	X		X	X
16	8611-209	Rail DIN		X	X		X	X		X	X
16	8611-210	Rail DIN	X			X			X		
17	8201-032	Relais d'inducteur	X	X	X	X	X	X	X	X	X
18	8201-159	Relais de soufflante	X	X	X	X	X	X	X	X	X
19	8611-140-0800	Conduit de câbles – 8" x 1" de large	2	2	2	2	2	2	2	2	2
20	8611-140-1200	Conduit de câbles – 12" x 1" de large	X	X	X	X	X	X	X	X	X
24	135-266	Blindage de fil	X	X	X	X	X	X	X	X	X
25	8607-017	Bornier	X	X	X	X	X	X	X	X	X
27	8607-017	Bornier - Kit LAC	O	O	O	O	O	O	O	O	O
NS	4085-175	Schéma de câblage	X			X			X		
NS	4085-177	Schéma de câblage									
NS	4085-275	Schéma de câblage		X			X			X	
NS	4085-277	Schéma de câblage									
NS	4085-398	Schéma de câblage									X
NS	4085-400	Schéma de câblage			X			X			
NS	3000-1616	Fiche secteur de soufflante	X	X	X	X	X	X	X	X	X
NS	3000-1617	Fiche vitesse de soufflante	X	X	X	X	X	X	X	X	X
NS	3000-1224	Fiche/faisceau du compresseur	X			X			X		
NS	3000-1231	Fiche/faisceau du compresseur		X	X		X	X		X	X
NS	3003-075	Faisceau de câbles du panneau de contrôle		X	X		X	X		X	X
NS	3003-076	Faisceau de câbles du panneau de contrôle	X			X			X		
NS	3000-1618	Fiche de commande de chaudière intégrée	X	X	X	X	X	X	X	X	X

NS- Non illustré

X- Norme

O - Option

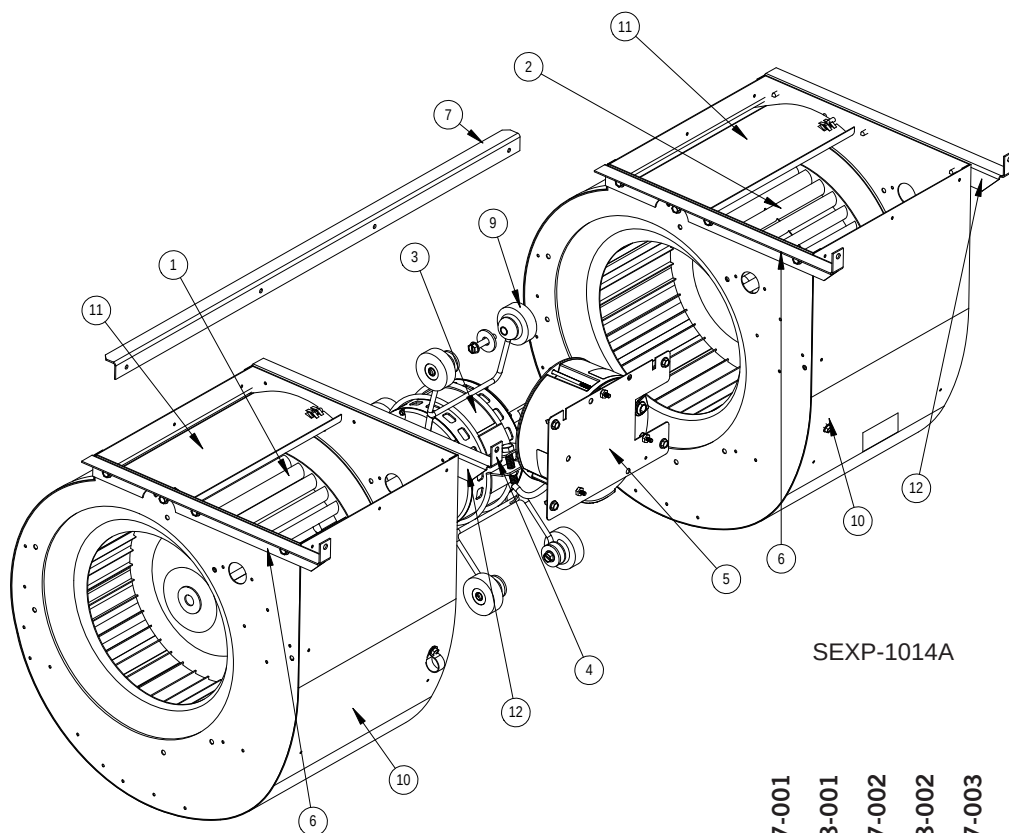
PANNEAU DE COMMANDE – DÉSHUMIDIFICATION

Dessin N°	Référence	Description	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
1	517-408	Panneau de commande	X	X	X	X	X	X	X	X	X
2	113-269	Support de montage du disjoncteur	X	X		X	X		X	X	
2	127-590	Base de déconnexion 460V			X			X			X
3	117-410	Boîtier basse tension	X	X	X	X	X	X	X	X	X
4	117-409	Cloison basse tension	X	X	X	X	X	X	X	X	X
5	8607-062	Barrette de raccordement	X	X	X	X	X	X	X	X	X
6	135-130	Blindage de fil	X	X	X	X	X	X	X	X	X
7	5651-159	Commande de chaudière intégrée	X	X	X	X	X	X	X	X	X
8	8611-006	Borne	X	X	X	X	X	X	X	X	X
9	8201-171BX	Module de commande du compresseur	X	X	X	X	X	X	X	X	X
10	8407-068	Transformateur	X	X		X	X		X	X	
10	8407-069	Transformateur			X			X			X
11	S8401-002	Contacteur du compresseur		X	X		X	X		X	X
11	S8401-025	Contacteur du compresseur	X			X			X		
12	S8615-095	Déconnexion bascule 600 V 40 A			X			X			X
12	S8615-096	Couvercle de l'interrupteur 600 V			X			X			X
12	S8615-043	Disjoncteur 230 V 40A								X	
12	S8615-052	Disjoncteur 230 V 30A		X			X				
12	S8615-040	Disjoncteur 230 V 50A				X			X		
12	S8615-055	Disjoncteur 230 V 40A	X								
13	S8552-004	Condensateur ventilateur extérieur			X			X			
13	S8552-005	Condensateur ventilateur extérieur		X			X				
13	S8552-081	Condensateur ventilateur extérieur							X		
13	S8552-089	Condensateur ventilateur extérieur				X					
13	S8552-052	Condensateur ventilateur extérieur	X								
14	8550-003	Support du condensateur		X	X		X	X			
14	8550-008	Support du condensateur	X			X			X		
15	8201-174BX	Moniteur de phase		X	X		X	X		X	X
16	8611-209	Rail DIN		X	X		X	X		X	X
16	8611-210	Rail DIN	X			X			X		
17	8201-032	Relais d'inducteur	X	X	X	X	X	X	X	X	X
18	8201-159	Relais de soufflante	X	X	X	X	X	X	X	X	X
19	8611-140-0800	Conduit de câbles – 8" x 1" de large	2	2	2	2	2	2	2	2	2
20	8611-140-1200	Conduit de câbles – 12" x 1" de large	X	X	X	X	X	X	X	X	X
21	8201-159	Relais de verrouillage	X	X	X	X	X	X	X	X	X
22	8201-130	Relais de commande de déshumidification	X	X	X	X	X	X	X	X	X
23	8201-113	Carte logique de déshumidification	X	X	X	X	X	X	X	X	X
24	135-266	Blindage de fil	X	X	X	X	X	X	X	X	X
25	8607-017	Bornier	X	X	X	X	X	X	X	X	X
26	8301-079-0001	Panneau de contrôle de l'EEV (voir page 8 pour les autres pièces EEV)	X	X	X	X	X	X	X	X	X
27	8607-017	Bornier - Kit LAC	O	O	O	O	O	O	O	O	O
NS	4085-171	Schéma de câblage	X			X			X		
NS	4085-173	Schéma de câblage								X	
NS	4085-271	Schéma de câblage		X			X				X
NS	4085-273	Schéma de câblage									
NS	4085-394	Schéma de câblage			X			X			
NS	4085-396	Schéma de câblage									
NS	3000-1616	Fiche secteur de soufflante	X	X	X	X	X	X	X	X	X
NS	3000-1617	Fiche vitesse de soufflante	X	X	X	X	X	X	X	X	X
NS	3000-1224	Fiche/faisceau du compresseur	X			X			X		
NS	3000-1231	Fiche/faisceau du compresseur		X	X		X	X		X	X
NS	3003-070	Faisceau de câbles du panneau de contrôle		X	X		X	X		X	X
NS	3003-074	Faisceau de câbles du panneau de contrôle	X			X			X		
NS	3000-1618	Fiche de commande de chaudière intégrée	X	X	X	X	X	X	X	X	X
NS	3000-1611	Assemblage de fils transducteurs - se connecte à la carte EEV	X	X	X	X	X	X	X	X	X
NS	3000-1603	Assemblage de fils transducteurs - se connecte au transducteur	X	X	X	X	X	X	X	X	X

NS- Non illustré

X- Norme

O - Option



Dessin N°	Référence	Description	900-377-001	900-378-001	900-377-002	900-378-002	900-377-003	900-378-003
1	5152-012	Roue de soufflante	X	X	X	X	X	X
2	5152-011	Roue de soufflante	X	X	X	X	X	X
3	S8107-028-0189	Moteur et contrôle de la soufflante (230/208 V)	X		X			
3	S8107-028-0190	Moteur et contrôle de la soufflante (230/208 V)					X	
3	S8107-028-0191	Moteur et contrôle de la soufflante (230/208 V)						
3	S8107-029-0195	Moteur et contrôle de la soufflante (46 V)		X				
3	S8107-029-0196	Moteur et contrôle de la soufflante (46 V)				X		
3	S8107-029-0197	Moteur et contrôle de la soufflante (46 V)						X
3	C8107-028-0189	Commande programmée seulement (230/208 V)	X					
3	C8107-028-0190	Commande programmée seulement (230/208 V)			X			
3	C8107-028-0191	Commande programmée seulement (230/208 V)					X	
3	C8107-029-0195	Commande programmée seulement (460 V)		X				
3	C8107-029-0196	Commande programmée seulement (460 V)				X		
3	C8107-029-0197	Commande programmée seulement (460 V)						X
4	8200-040	Installation du moteur	X	X	X	X	X	X
5	112-775	Support de commande du moteur	X	X	X	X	X	X
6	105Y1075	Cornière – Gauche	2	2	2	2	2	2
7	105-1109	Cornière – Arrière	X	X	X	X	X	X
9	5451-011	Passe-câble	6	6	6	6	6	6
10	151-117	Boîtier de soufflante	2	2	2	2	2	2
11	144-167	Diffuseur	2	2	2	2	2	2
12	105X1075	Cornière – Droite	2	2	2	2	2	2

Supplemental Instructions

Models:

W24G4D W30G4D W36G4D W42G4D W48G4D W60G4D

This model provides a unique dehumidification circuit for periods of low outdoor ambient temperature and high indoor humidity conditions.

Refer to Specification Sheet S3588 for the standard features of the base units and this manual for electrical data.

Dehumidification Circuit

The dehumidification refrigerant reheat circuit is controlled by a dehumidification valve directing the refrigerant gas to the normal condenser during periods when standard air conditioning is required. During periods of high indoor humidity, a humidistat senses the need for mechanical dehumidification. It then energizes both the compressor circuit and the dehumidification valve, thus directing the hot refrigerant discharge gas into a separate desuperheating condenser circuit, which reheats the conditioned air before it is delivered to the room. The refrigerant gas is then routed from the desuperheating condenser to the system condenser for further heat transfer. When the humidistat is satisfied, the system automatically switches back to normal A/C mode and either continues to operate or turns off based on the signal from the wall thermostat. The result is separate humidity control at minimum operating cost.

See Figure 1 on page 2.

Dehumidification Sequence of Operation

Dehumidification is controlled through the thermostat (if capable) or through a separate humidistat. On a call for dehumidification mode of operation, the compressor and dehumidification valve of the unit are energized through circuit R - D to provide dehumidification. Dehumidification will continue until the humidistat is satisfied.

Any time there is a call for circuit R - Y1, the dehumidification mode will cancel and the system will return to cooling operation.

Balanced Climate™ Mode

It is recommended to enable Balanced Climate mode and utilize a 2-stage thermostat to enhance the dehumidification performance and comfort.

NOTE: To activate this mode, the jumper between Y1 and Y2 on the low voltage terminal strip needs to be removed.

In units with an economizer vent, balance climate mode should not be used. The Y1 and Y2 jumper must remain installed.

This mode will allow the indoor blower to run at a reduced airflow on the first stage of cooling. A 2-stage thermostat connected to Y2 will then allow the airflow to return to normal rated speed if the call for dehumidification or cooling is not satisfied within the allotted time frame specified by the thermostat. See latest revision of unit installation instructions 2100-

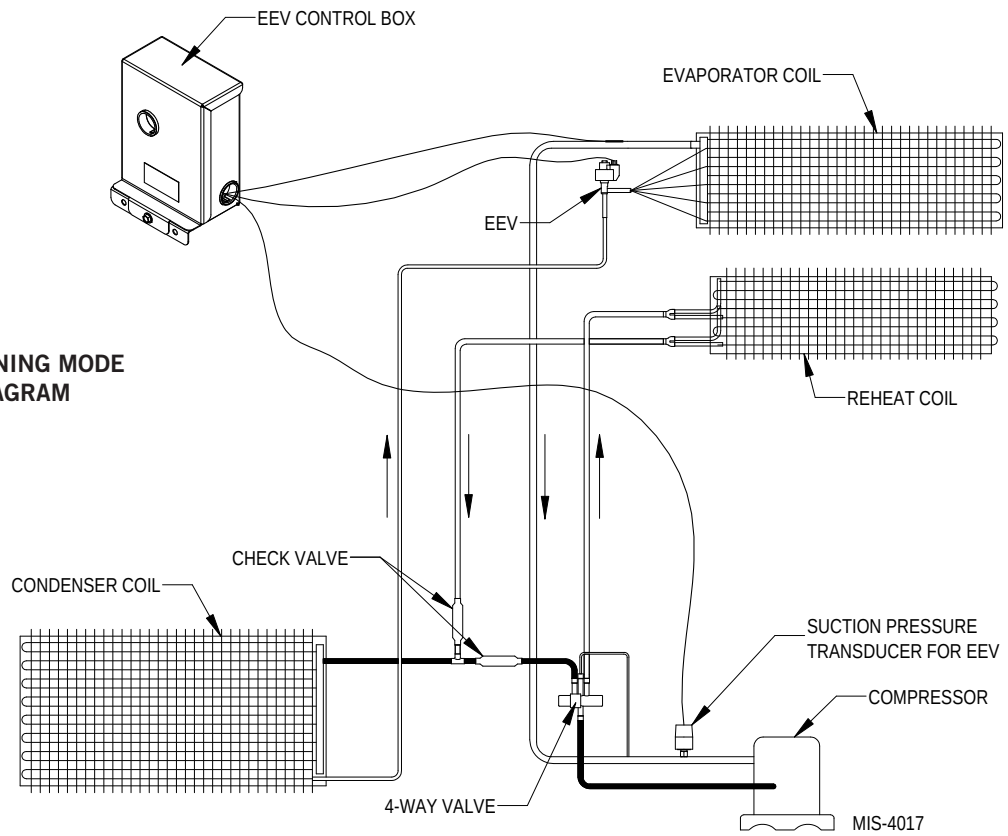


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Bryan, Ohio 43506
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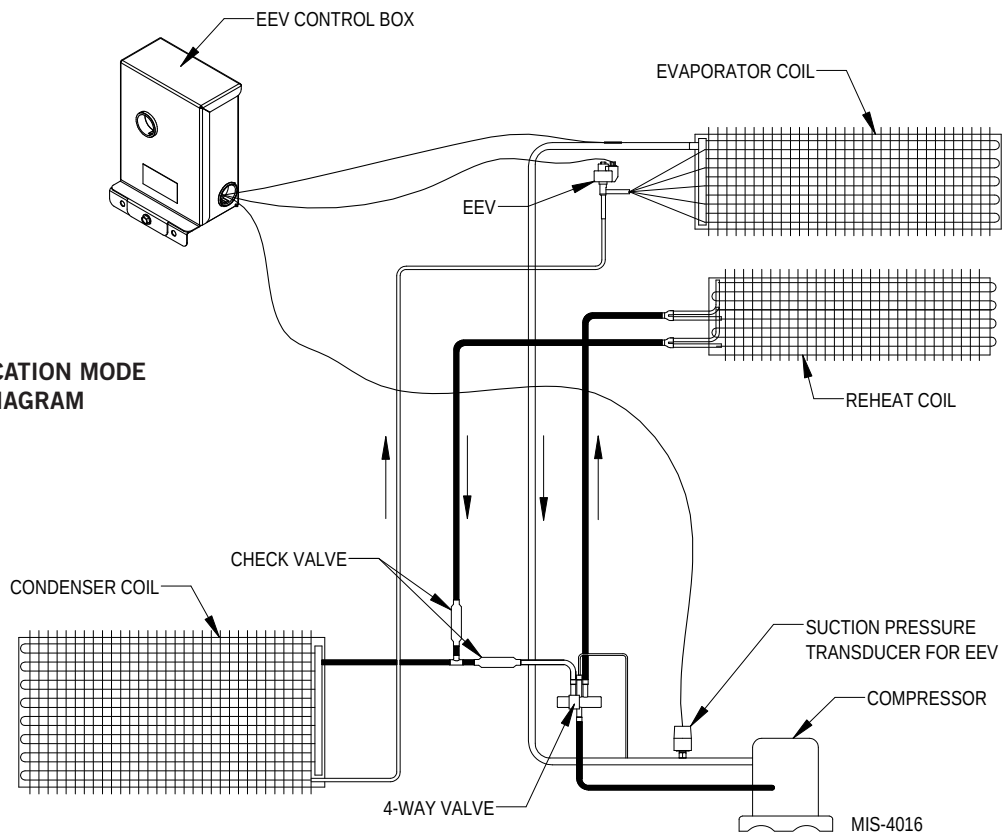
Manual: 7960-867D
Supersedes: 7960-867C
Date: 4-4-23

FIGURE 1
Circuit Diagrams

**AIR CONDITIONING MODE
CIRCUIT DIAGRAM**



**DEHUMIDIFICATION MODE
CIRCUIT DIAGRAM**



721 for more information regarding the Balanced Climate operation.

Electronic Expansion Valve

Operation

This model employs an electronic expansion valve (EEV) which meters the refrigerant to the evaporator. The EEV is made of a stepper motor that is controlled with a step output from the controller. The valve is capable of 480 steps which drives a needle valve that in turn regulates the flow of refrigerant. The EEV allows for tighter control and better capacity management in varying operating conditions than a standard TXV. The EEV system consists of the electronic valve and stator, control board, relay, suction temperature sensor and suction pressure transducer. The pressure transducer and temperature sensor monitor the suction line to provide real time data to the control board so that a real time superheat can be calculated. This then determines the EEV position. The controller is sent to maintain around 13° superheat. The relay is used to activate the EEV system's controller anytime that the compressor is energized.

! WARNING/AVERTISSEMENT

- Exposure to high pressure refrigerant hazard.
- This unit is equipped with an electronic expansion valve. In order to fully recover refrigerant or evacuate the system during repairs, be sure to use service tool 2151-021 to manually open the electronic expansion valve or be sure to recover and evacuate from all service ports; suction, liquid, and discharge.
- Failure to do so could result in eye injuries and/or refrigerant burns.
- Exposition à un risque de réfrigérant à haute pression.
- Cet appareil est équipé d'un détendeur électronique. Afin de récupérer complètement le réfrigérant ou d'évacuer le système pendant les réparations, assurez-vous d'utiliser l'outil de service 2151-021 pour ouvrir manuellement le détendeur électronique ou assurez-vous de récupérer et d'évacuer de tous les ports de service: aspiration, liquide et refoulement.
- Ne pas le faire pourrait entraîner des blessures aux yeux et / ou des brûlures de réfrigérant.


7961-953

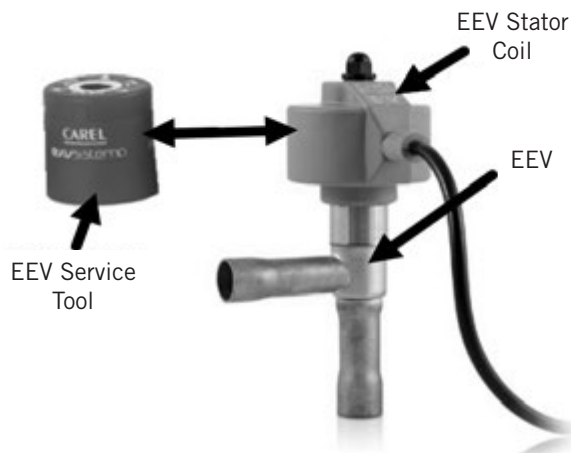
EEV Instructions for Vacuuming, Reclaiming and Charging Unit

The electronic expansion valve moves to a closed position when there is no call to control. In order to pull a complete vacuum, fully reclaim the system or charge the unit, connections to both the suction and discharge service ports need to be utilized or the valve needs to be manually opened first. The valve can be opened manually using the magnetic EEV service tool (Bard Part # 2151-021) shown in Figure 2. To do this, remove the EEV stator coil (red color with retaining nut on top), slide the magnetic tool over the shaft where the stator was removed and turn in a clockwise direction to open the valve to the full open position (directional arrows are provided on the tool).

Reapply the EEV stator coil and retaining nut once complete. Upon powering the unit back up, the control board will automatically drive the EEV back to the fully

shut position. Once the compressor starts, the control board will again modulate the EEV position to control the system superheat.

FIGURE 2
Electronic Expansion Valve (EEV) and Service Tool



Troubleshooting the Electronic Expansion Valve

The control board has two status LEDs.

- The green LED should be lit anytime that the board has power and the control is functioning.
- The red LED is to show that an alarm is present.

See Table 1 on page 4 for a guide to know where to start troubleshooting the EEV. Refer to the appropriate unit replacement parts manual for any parts that are needed.

Control Board

Check that the controller is getting 24VAC signal (GO 24VAC Hot and G 24VAC common). Reference unit wiring diagram for proper connections. If 24V is present but the green LED is not lit, replace the controller. If the green LED is now lit but the superheat is still not being maintained, troubleshoot the relay to check that the DI is connected to G; refer to **Relay in EEV Control Box** below.

Electronic Expansion Valve

Check to see if valve can be moved by manually moving the stepper motor using the EEV service tool shown in Figure 1 (Bard Part # 2151-021). If valve still does not control, check the transducer and thermistor sensors as described on page 5. If sensors are good, replace the valve.

Relay in EEV Control Box

Contacts NO to DI and COM to G must be closed for EEV control to start controlling superheat. Check that the relay is getting 24VAC. Reference unit wiring diagram for proper connections. If 24V is present, measure the resistance between COM and NO; it

TABLE 1
Electronic Expansion Valve Troubleshooting

Problem	Probable Cause	Troubleshoot
The green LED is not lit.	Controller not receiving 24VAC signal.	Control Board
The green LED is lit, but superheat is not being maintained.	The relay is not closing the controller's DI connection to ground.	Relay
The red LED is flashing and EEV is not controlling superheat properly (13° superheat). One of the following is likely the fault:		
1. Low superheat is detected and the controller is taking steps to protect the system by closing the valve.	Stator is broken or connected incorrectly.	Stator
	Valve is stuck open.	EEV Valve
2. Suction temperature sensor error.	Poor connection of sensor or faulty sensor.	Thermistor
3. Suction pressure transducer error.	Pressure transducer wiring incorrect or faulty transducer.	Transducer
The red LED is on steady.	The operating parameters have been damaged.	Replace Control Board

should be 0 ohms when the relay is getting 24V. If the resistance is out of range, replace the relay.

Stator Coil

Disconnect the stator from the valve and the control and measure the resistance of the windings using an electrical tester. The resistance of both windings should be around 40 ohms +/- 10%. The four wire sets that will have resistance between them are: White and red, green and red, yellow and purple, blue and purple. If the resistance falls outside these values, replace the stator.

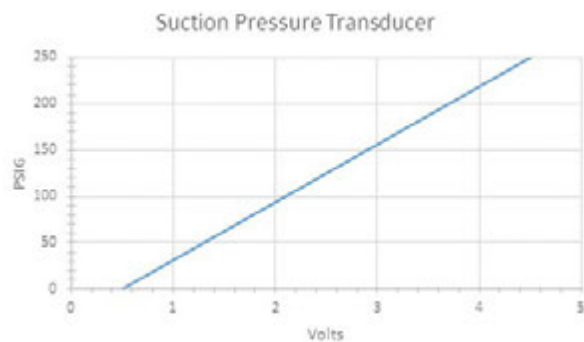
Transducer Sensor

1. Check continuity of all three wires from transducer plug to controller plug. Replace wires if poor connection in any wire.
2. Check to ensure wires are correctly connected as follows:
 Blue wire = pin 1 of controller plug to pin C on transducer plug
 Red wire = pin 2 of controller plug to pin B on transducer plug
 Black wire = pin 3 of controller plug to pin A on transducer plug
3. Check that there is 5VDC Nominal between the red and black wires going to the transducer.
4. Check the signal voltage between the blue and black wires (0.5-4.5VDC Actual). The following formula and Figure 3 can be used to determine if the transducer's voltage to pressure ratio is within range. Replace transducer if out of range.

Formula for Tech:

$(\text{Measured Pressure} \times .016) + .5 =$
Expected Transducer Signal Voltage (see Figure 3)

FIGURE 3
Voltage to Pressure: Suction Pressure Transducer



Thermistor Sensor

1. Make a visual check for broken wire insulation, broken wires or cracked epoxy material.
2. Disconnect 10k ohm NTC thermistor from the EEV control box.
3. Use an ohmmeter to measure the resistance between the two connectors. Also use ohmmeter to check for short or open.
4. Compare the resistance reading to Table 2. Use sensor ambient temperature. (Tolerance of part is $\pm 10\%$.)
5. If sensor is out of tolerance, shorted, open or reads very low ohms, it should be replaced.

TABLE 2
10K Ohm NTC Sensor: Temperature/Resistance

Temperature		Resistance	Temperature		Resistance	Temperature		Resistance	Temperature		Resistance
F	C	Ω	F	C	Ω	F	C	Ω	F	C	Ω
-40	-40	188,500	28.4	-2	29,730	96.8	36	6,700	165.2	74	1,980
-38.2	-39	178,500	30.2	-1	28,480	98.6	37	6,470	167	75	1,920
-36.4	-38	169,000	32	0	27,280	100.4	38	6,250	168.8	76	1,870
-34.6	-37	160,200	33.8	1	26,130	102.2	39	6,030	170.6	77	1,820
-32.8	-36	151,900	35.6	2	25,030	104	40	5,830	172.4	78	1,770
-31	-35	144,100	37.4	3	23,990	105.8	41	5,630	174.2	79	1,920
-29.2	-34	136,700	39.2	4	23,000	107.6	42	5,440	176	80	1,670
-27.4	-33	129,800	41	5	22,050	109.4	43	5,260	177.8	81	1,620
-25.6	-32	123,300	42.8	6	21,150	111.2	44	5,080	179.6	82	1,580
-23.8	-31	117,100	44.6	7	20,300	113	45	4,910	181.4	83	1,530
-22	-30	111,300	46.4	8	19,480	114.8	46	4,750	183.2	84	1,490
-20.2	-29	105,700	48.2	9	18,700	116.6	47	4,590	185	85	1,450
-18.4	-28	100,500	50	10	17,960	118.4	48	4,440	186.8	86	1,441
-16.6	-27	95,520	51.8	11	17,240	120.2	49	4,300	188.6	87	1,370
-14.8	-26	90,840	53.6	12	16,560	122	50	4,160	190.4	88	1,340
-13	-25	86,430	55.4	13	15,900	123.8	51	4,030	192.2	89	1,300
-11.2	-24	82,260	57.2	14	15,280	125.6	52	3,900	194	90	1,270
-9.4	-23	78,330	59	15	14,690	127.4	53	3,770	195.8	91	1,230
-7.6	-22	74,610	60.8	16	14,120	129.2	54	3,650	197.6	92	1,200
-5.8	-21	71,100	62.6	17	13,580	131	55	3,540	199.4	93	1,170
-4	-20	67,770	64.4	18	13,060	132.8	56	3,430	201.2	94	1,140
-2.2	-19	64,570	66.2	19	12,560	134.6	57	3,320	203	95	1,110
-0.4	-18	61,540	68	20	12,090	136.4	58	3,220	204.8	96	1,080
1.4	-17	58,680	69.8	21	11,630	138.2	59	3,120	206.6	97	1,050
3.2	-16	55,970	71.6	22	11,200	140	60	3,020	208.4	98	1,020
5	-15	53,410	73.4	23	10,780	141.8	61	2,930	210.2	99	1,000
6.8	-14	50,980	75.2	24	10,380	143.6	62	2,840	212	100	970
8.6	-13	48,680	77	25	10,000	145.4	63	2,750			
10.4	-12	46,500	78.8	26	9,630	147.2	64	2,670			
12.2	-11	44,430	80.6	27	9,280	149	65	2,590			
14	-10	42,470	82.4	28	8,940	150.8	66	2,510			
15.8	-9	40,570	84.2	29	8,620	152.6	67	2,440			
17.6	-8	38,770	86	30	8,310	154.4	68	2,360			
19.4	-7	37,060	87.8	31	8,010	156.2	69	2,300			
21.2	-6	35,440	89.6	32	7,730	158	70	2,230			
23	-5	33,900	91.4	33	7,450	159.8	71	2,160			
24.8	-4	32,440	93.2	34	7,190	161.6	72	2,100			
26.6	-3	31,050	95	35	6,940	163.4	73	2,040			

W24G4D Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
		A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	26,700	13,300	26,100	11,500	25,500	10,300	24,700	7,900	23,900	6,000	23,100	4,000	22,200	2,000	21,200		20,100	
	Sensible Btuh	19,700	5,700	19,400	4,300	19,700	3,300	18,800	1,400	18,400	-	18,000	(1,500)	17,600	(3,000)	17,100	(4,400)	16,700	(6,000)
	S/F	0.738	0.429	0.743	0.374	0.773	0.320	0.761	0.177	0.770	0.000	0.779	0	0.793	0	0.807	0	0.831	0
	Latent Btuh	7,000	7,600	6,700	7,200	5,800	7,000	5,900	6,500	5,500	6,000	5,100	5,500	4,600	5,000	4,100	4,300	3,400	3,800
	Lbs. H2O/hr.	6.6	7.2	6.3	6.8	5.5	6.6	5.6	6.1	5.2	5.7	4.8	5.2	4.3	4.7	3.9	4.1	3.2	3.6
	Supply Air DB	52.5	66.5	52.8	68.6	53.1	70.2	53.5	72.9	53.9	75.0	54.3	77.2	54.9	79.5	55.4	81.7	56.0	83.9
	Supply Air WB	51.1	55.6	51.4	56.6	51.6	57.0	51.9	58.6	52.3	59.6	52.7	60.6	53.1	61.7	53.5	62.7	54.0	63.8
	Suction PSIG ⁴	123	116	124	118	124	119	126	121	127	123	128	125	130	127	131	128	133	130
	Discharge PSIG ⁴	273	240	292	253	308	263	333	282	356	298	379	314	404	331	430	348	457	367
	Total Cooling Btuh	27,500	14,100	26,900	12,400	26,200	10,600	25,500	8,700	24,700	6,800	23,900	4,900	23,000	2,900	22,000	800	20,900	
75/64.1 (55% RH)	Sensible Btuh	18,700	5,100	18,400	3,700	18,100	2,300	17,800	800	17,400	(600)	17,000	(2,100)	16,600	(3,600)	16,100	(5,100)	15,700	(6,600)
	S/F	0.680	0.36	0.684	0.30	0.691	0.22	0.698	0.09	0.704	0	0.711	0	0.722	0	0.732	0	0.751	0
	Latent Btuh	8,800	9,000	8,500	8,700	8,100	8,300	7,700	7,900	7,300	7,400	6,900	7,000	6,400	6,500	5,900	5,200	5,300	
	Lbs. H2O/hr.	8.3	8.5	8.0	8.2	7.6	7.8	7.3	7.5	6.9	7.0	6.5	6.6	6.0	6.1	5.6	5.6	4.9	5.0
	Supply Air DB	53.6	67.3	53.9	69.5	54.3	71.6	54.6	73.8	55.0	75.9	55.5	78.1	56.0	80.4	56.6	82.6	57.2	84.8
	Supply Air WB	52.5	56.7	52.8	57.7	53.0	58.7	53.3	59.7	53.7	60.7	54.1	61.8	54.5	62.8	55.0	63.8	55.5	64.9
	Suction PSIG ⁴	125	119	126	120	127	122	129	124	130	126	131	127	133	129	134	131	135	133
	Discharge PSIG ⁴	273	240	292	254	312	268	334	283	356	299	380	315	404	332	430	349	457	367
	Total Cooling Btuh	28,300	15,000	27,700	13,200	27,100	12,000	26,300	9,600	25,500	7,700	24,700	5,700	23,800	3,700	22,800	1,600	21,700	
	Sensible Btuh	17,700	4,500	17,400	3,100	17,700	2,100	16,800	200	16,400	(1,200)	16,000	(2,700)	15,600	(4,200)	15,100	(5,700)	14,700	(7,200)
75/65.5 (60% RH)	S/F	0.625	0.300	0.628	0.235	0.663	0.175	0.639	0.021	0.643	0	0.648	0	0.655	0	0.662	0	0.677	0
	Latent Btuh	10,600	10,500	10,300	10,100	9,400	9,900	9,500	9,400	9,100	8,900	8,700	8,400	8,200	7,900	7,700	7,300	6,700	
	Lbs. H2O/hr.	10.0	9.9	9.7	9.5	8.9	9.3	9.0	8.9	8.6	8.4	8.2	7.9	7.7	7.5	7.3	6.9	6.6	6.3
	Supply Air DB	54.8	68.2	55.1	70.4	55.4	72.0	55.8	74.7	56.2	76.8	56.7	79.0	57.2	81.3	57.7	83.5	58.3	85.7
	Supply Air WB	53.9	57.8	54.2	59.3	54.7	59.3	54.7	60.8	55.1	61.8	55.5	62.9	55.9	63.9	56.4	64.9	56.9	66.0
	Suction PSIG ⁴	128	121	129	123	129	124	131	126	133	128	134	130	135	132	137	134	138	135
	Discharge PSIG ⁴	274	241	293	255	309	265	334	284	356	299	380	316	405	332	431	350	458	368
	Total Cooling Btuh	29,100	15,800	28,500	14,100	27,900	12,800	27,100	10,400	26,300	8,500	25,500	6,600	24,500	4,500	23,600	2,500	400	
	Sensible Btuh	16,700	3,900	16,400	2,500	16,700	1,500	15,800	(400)	15,400	(1,800)	15,000	(3,300)	14,600	(4,800)	14,100	(6,300)	13,700	(7,800)
	S/F	0.574	0.25	0.575	0.18	0.599	0.12	0.583	0	0.586	0	0.588	0	0.596	0	0.597	0	0.609	0
75/66.7 (65% RH)	Latent Btuh	12,400	11,900	12,100	11,600	11,200	11,300	11,300	10,800	10,900	10,300	10,500	9,900	9,900	9,300	9,500	8,800	8,200	
	Lbs. H2O/hr.	11.7	11.2	11.4	10.9	10.6	10.7	10.7	10.2	10.3	9.7	9.9	9.3	9.3	8.8	9.0	8.3	8.3	7.7
	Supply Air DB	56.0	69.1	56.3	71.3	56.6	72.8	57.0	75.6	57.4	77.7	57.8	79.9	58.3	82.1	58.9	84.4	59.5	86.6
	Supply Air WB	55.3	58.9	55.6	59.9	55.8	60.4	56.1	61.9	56.5	63.0	56.9	64.0	57.3	65.0	57.8	66.1	58.3	67.1
	Suction PSIG ⁴	131	124	132	126	132	127	134	129	135	131	137	133	138	134	140	136	141	138
	Discharge PSIG ⁴	274	242	293	256	309	265	334	285	357	300	380	316	405	333	431	351	458	369
	Total Cooling Btuh	29,800	16,700	29,300	14,900	28,700	13,700	27,900	11,300	27,100	9,400	26,200	7,400	25,300	5,400	24,300	3,300	2,200	
	Sensible Btuh	15,700	3,300	15,400	1,900	15,700	900	14,800	(1,000)	14,400	(2,400)	14,000	(3,900)	13,600	(5,400)	13,200	(6,900)	12,700	(8,400)
	S/F	0.527	0.198	0.526	0.128	0.547	0.066	0.530	0	0.531	0	0.534	0	0.538	0	0.543	0	0.545	0
	Latent Btuh	14,100	13,400	13,900	13,000	13,000	12,800	13,100	12,300	12,700	11,800	12,200	11,300	11,700	10,800	11,100	10,200	10,600	9,600
75/68 (70% RH)	Lbs. H2O/hr.	13.3	12.6	13.1	12.3	12.3	12.1	12.4	11.6	12.0	11.1	11.5	10.7	11.0	10.2	10.5	9.6	10.0	9.1
	Supply Air DB	57.1	70.0	57.4	72.2	57.7	73.7	58.1	76.5	58.5	78.6	59.0	80.8	59.5	83.0	60.1	85.3	60.7	87.5
	Supply Air WB	56.8	60.0	57.0	61.0	57.2	61.5	57.6	63.0	57.9	64.1	58.3	65.1	58.7	66.1	59.2	67.2	59.7	87.5
	Suction PSIG ⁴	134	126	135	128	135	130	137	132	138	133	140	135	141	137	142	139	144	141
	Discharge PSIG ⁴	274	243	293	256	309	266	334	285	357	301	380	317	405	334	431	352	458	370
	Total Cooling Btuh	30,000	16,700	29,400	15,000	28,800	13,700	28,100	11,300	27,300	9,400	26,400	7,400	25,500	5,400	24,500	3,400	2,500	1,200
	Sensible Btuh	19,000	5,900	18,700	4,500	18,900	3,500	18,000	1,600	17,600	200	17,200	(1,300)	16,800	(2,800)	16,400	(4,300)	15,900	(5,800)
	S/F	0.633	0.35	0.636	0.30	0.656	0.26	0.641	0.14	0.645	0.02	0.652	0	0.659	0	0.669	0	0.677	0
	Latent Btuh	11,000	10,800	10,700	10,500	9,900	10,200	10,100	9,700	9,700	9,200	9,200	8,700	8,700	8,200	8,100	7,700	7,000	7,000
	Lbs. H2O/hr.	10.4	10.2	10.1	9.9	9.3	9.6	9.5	9.2	9.2	8.7	8.7	8.2	8.2	7.7	7.6	7.3	7.2	6.6
80/68.3 (55% RH)	Supply Air DB	58.0	71.0	58.2	73.2	58.6	74.7	58.9	77.5	59.4	79.6	59.8	81.8	60.3	84.0	60.9	86.3	61.5	88.5
	Supply Air WB	56.8	60.2	57.0	61.2	57.2	61.7	57.6	63.3	57.9	64.3	58.3	65.3	58.7	66.4	59.2	67.4	59.7	68.5
	Suction PSIG ⁴	136	127	137	129	137	131	139	133	140	134	141	136	143	138	144	140	146	142
	Discharge PSIG ⁴	278	247	297	260	313	270	338	289	360	305	384	321	409	338	435	356	462	370
	Total Cooling Btuh	31,700	17,700	31,200	15,700	30,600	16,200	30,000	12,700	29,400	10,900	28,100	9,700	26,800	8,900	25,500	3,400	2,500	1,200
	Sensible Btuh	19,700	6,700	19,400	5,700	19,100	4,700	18,800	2,700	18,400	(100)	18,000	(1,700)	17,600	(3,700)	17,100	(5,700)	16,700	(6,000)
	S/F	0.677	0.40	0.680	0.34	0.693	0.28	0.696	0.11	0.700	0.01	0.704	0	0.709	0	0.714	0	0.721	0
	Latent Btuh	12,000	11,000	11,800	10,000	11,500	11,500	11,200	10,000	11,000	11,200	11,100	10,400	11,100	10,800	10,400	9,500	8,800	7,800
	Lbs. H2O/hr.	10.9	10.0	10.7	9.1	10.4	10.4	10.1	9.1	10.0	10.0	10.0	9.5	10.0	9.7	9.3	8.5	7.7	6.6
	Supply Air DB	60.0	73.0	60.3	75.0	60.6	75.7	61.0	78.0	61.3	76.0	61.6	78.6	61.9	77.0	62.2	79.0	62.5	89.5

¹ Values listed are with ventilation package disabled

² Return air temperature °F @ Rated CFM

³ Below 50°F, unit requires a factory or field installed low ambient control.

⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W30G4D Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
		A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	31,800	15,400	30,800	13,400	29,900	10,900	29,000	9,200	28,100	7,100	27,100	4,900	26,200	2,600	25,200	300	24,200	
	Sensible Btuh	22,800	6,500	22,300	4,800	21,800	3,300	21,300	1,600	20,800	(100)	20,300	(1,700)	19,800	(3,300)	19,400	(4,900)	18,900	(6,500)
	S/R	0.717	0.422	0.724	0.358	0.729	0.303	0.734	0.174	0.740	0	0.749	0	0.756	0	0.770	0	0.781	0
	Latent Btuh	9,000	8,900	8,500	8,600	8,100	7,600	7,700	7,600	7,300	7,200	6,900	6,600	6,400	5,900	5,800	5,200	5,300	4,500
	Lbs. H ₂ O/hr.	8.5	8.4	8.0	8.1	7.6	7.2	7.3	7.2	6.9	6.8	6.4	6.2	6.0	5.6	5.5	4.9	5.0	4.2
	Supply Air DB	52.2	66.6	52.7	68.7	53.2	70.8	53.7	73.0	54.2	75.1	54.7	77.2	54.5	79.3	55.6	81.4	56.1	83.5
	Supply Air WB	50.5	55.4	50.9	56.4	51.1	57.4	51.7	58.4	52.0	59.5	52.4	60.5	52.8	61.5	53.2	62.5	53.6	63.6
	Suction PSIG ⁴	123	115	124	116	124	118	125	119	127	121	128	123	129	125	130	127	132	130
	Discharge PSIG ⁴	264	238	283	251	307	265	324	280	346	296	370	312	394	329	420	347	447	366
	Total Cooling Btuh	32,600	16,500	31,700	14,400	30,800	12,400	29,900	10,200	28,900	8,100	28,000	5,900	27,000	3,600	26,000	1,400	25,100	
75/64.1 (55% RH)	Sensible Btuh	21,700	5,800	21,200	4,100	20,700	2,500	20,200	900	19,700	(700)	19,200	(2,400)	18,700	(4,000)	18,200	(5,600)	17,800	(7,100)
	S/R	0.666	0.35	0.669	0.28	0.672	0.20	0.676	0.09	0.682	0	0.686	0	0.693	0	0.700	0	0.709	0
	Latent Btuh	10,900	10,700	10,500	10,300	10,100	9,900	9,700	9,300	9,200	8,800	8,800	8,300	8,300	7,600	7,000	7,000	6,100	
	Lbs. H ₂ O/hr.	10.3	10.1	9.9	9.7	9.5	9.3	9.2	8.8	8.7	8.3	8.3	7.8	7.8	7.2	7.4	6.6	6.9	5.8
	Supply Air DB	53.2	67.4	53.8	69.6	54.3	71.7	54.8	73.9	55.3	76.0	55.8	78.1	56.2	80.2	56.7	82.3	57.1	84.3
	Supply Air WB	51.9	56.4	52.2	57.5	52.6	58.5	53.0	59.5	53.4	60.5	53.8	61.5	54.1	62.6	54.5	63.6	54.9	64.6
	Suction PSIG ⁴	126	118	127	119	128	121	129	122	130	124	131	126	132	128	134	131	135	133
	Discharge PSIG ⁴	266	241	284	254	304	268	326	283	348	299	372	315	396	332	422	350	449	368
	Total Cooling Btuh	33,500	17,500	32,600	15,500	31,600	13,000	30,700	11,300	29,800	9,100	28,800	6,900	27,900	4,700	26,900	2,400	25,900	100
	Sensible Btuh	20,600	5,100	20,100	3,500	19,600	1,900	19,100	200	18,600	(1,400)	18,100	(3,000)	17,600	(4,600)	17,100	(6,200)	16,600	(7,800)
75/65.5 (60% RH)	S/R	0.615	0.291	0.617	0.226	0.620	0.146	0.622	0.018	0.624	0	0.628	0	0.631	0	0.636	0	0.641	0
	Latent Btuh	12,900	12,400	12,500	12,000	12,000	11,100	11,600	11,100	11,200	10,500	10,700	9,900	10,300	9,300	8,600	8,600	7,900	
	Lbs. H ₂ O/hr.	12.2	11.7	11.8	11.3	11.3	10.5	10.9	10.5	10.6	9.9	10.1	9.3	9.7	8.8	9.2	8.1	8.8	7.5
	Supply Air DB	54.3	68.3	54.8	70.5	55.3	72.5	55.9	74.7	56.3	76.9	56.8	79.0	57.3	81.1	57.8	83.1	58.2	85.2
	Supply Air WB	53.2	57.5	53.6	58.5	53.8	59.5	54.3	60.6	54.7	61.6	55.1	62.6	55.5	63.6	55.9	64.7	56.2	65.7
	Suction PSIG ⁴	129	122	130	123	131	124	132	126	133	128	134	130	136	132	137	134	138	136
	Discharge PSIG ⁴	267	244	286	257	310	271	327	286	350	301	373	318	398	335	424	353	451	371
	Total Cooling Btuh	34,300	18,500	33,400	16,500	32,500	14,000	31,600	12,300	30,600	10,200	29,700	8,000	28,700	5,700	27,800	3,400	26,800	1,100
	Sensible Btuh	19,400	4,400	19,000	2,800	18,500	1,200	18,000	(500)	17,500	(2,100)	17,000	(3,700)	16,500	(5,300)	16,000	(6,900)	15,500	(8,500)
	S/R	0.566	0.24	0.569	0.17	0.569	0.09	0.570	0	0.572	0	0.572	0	0.575	0	0.576	0	0.578	0
75/66.7 (65% RH)	Latent Btuh	14,900	14,100	14,400	13,700	14,000	12,800	13,600	12,800	13,100	12,300	12,700	11,700	12,200	11,000	11,800	10,300	11,300	9,600
	Lbs. H ₂ O/hr.	14.1	13.3	13.6	12.9	13.2	12.1	12.8	12.1	12.4	11.6	12.0	11.0	11.5	10.4	11.1	9.7	10.7	9.1
	Supply Air DB	55.4	69.2	55.9	71.3	56.4	73.4	56.9	75.6	57.4	77.7	57.9	79.8	58.4	81.9	58.8	84.0	59.3	86.1
	Supply Air WB	54.5	58.6	54.9	59.6	55.1	60.6	55.7	61.6	56.1	62.6	56.4	63.7	56.8	64.7	57.2	65.7	57.6	66.7
	Suction PSIG ⁴	133	125	134	126	134	128	135	129	137	131	138	133	139	135	140	137	142	140
	Discharge PSIG ⁴	269	246	288	260	312	274	329	289	351	304	375	321	400	338	425	356	452	374
	Total Cooling Btuh	35,200	19,600	34,300	17,500	33,300	15,100	32,400	13,300	31,500	11,200	30,500	9,000	29,600	6,700	28,600	4,500	27,600	2,100
	Sensible Btuh	18,300	3,700	17,900	2,100	17,300	500	16,900	(1,200)	16,400	(2,800)	15,900	(4,400)	15,400	(6,000)	14,900	(7,600)	14,400	(9,200)
	S/R	0.520	0.189	0.522	0.120	0.520	0.033	0.522	0	0.521	0	0.521	0	0.520	0	0.521	0	0.522	0
	Latent Btuh	16,900	15,900	16,400	15,400	16,000	14,600	15,500	14,500	15,100	14,000	14,600	13,400	14,200	12,700	13,700	12,100	13,200	11,300
75/68 (70% RH)	Lbs. H ₂ O/hr.	15.9	15.0	15.5	14.5	15.1	13.8	14.6	13.7	14.2	13.2	13.8	12.6	13.4	12.0	12.9	11.4	12.5	10.7
	Supply Air DB	56.4	70.0	57.0	72.2	57.5	74.2	58.0	76.5	58.5	78.6	59.0	80.7	59.4	82.8	59.9	84.9	60.3	86.9
	Supply Air WB	55.9	59.6	56.2	60.6	56.4	61.7	57.0	62.7	57.4	63.7	57.8	64.7	58.2	65.7	58.5	66.8	58.9	67.8
	Suction PSIG ⁴	136	129	137	130	138	131	139	133	140	134	141	136	142	139	144	141	145	143
	Discharge PSIG ⁴	271	249	289	263	313	276	331	292	353	307	377	323	401	341	427	358	454	377
	Total Cooling Btuh	35,300	20,100	34,400	18,100	33,500	15,600	32,600	13,900	31,700	11,700	30,700	9,500	29,700	7,300	28,800	5,000	27,800	2,700
	Sensible Btuh	22,500	7,100	22,000	5,400	21,500	3,900	21,000	2,100	20,600	500	20,100	(1,100)	19,600	(2,700)	19,100	(4,300)	18,600	(5,900)
	S/R	0.637	0.35	0.640	0.30	0.642	0.25	0.647	0.15	0.650	0.04	0.655	0	0.660	0	0.663	0	0.669	0
	Latent Btuh	12,800	13,000	12,400	12,700	12,000	11,700	11,500	11,800	11,100	11,200	10,600	10,600	10,100	10,000	9,700	9,300	9,200	8,600
	Lbs. H ₂ O/hr.	12.1	12.3	11.7	12.0	11.3	11.0	10.8	11.1	10.5	10.6	10.0	10.0	9.5	9.4	9.2	8.8	8.7	8.1
80/68.3 (55% RH)	Supply Air DB	57.3	70.6	57.8	72.8	58.3	74.8	58.8	77.1	59.3	79.2	59.8	81.3	60.2	83.4	60.7	85.5	61.2	87.5
	Supply Air WB	56.3	59.7	56.6	60.7	56.8	61.7	57.4	62.7	57.8	63.7	58.2	64.8	58.6	65.8	58.9	66.8	59.3	67.8
	Suction PSIG ⁴	138	129	138	130	139	132	140	133	141	135	143	137	144	139	145	141	146	144
	Discharge PSIG ⁴	269	250	288	263	312	277	329	292	351	308	375	324	400	341	425	359	452	378

¹ Values listed are with ventilation package disabled

² Return air temperature °F @ Rated CFM

³ Below 50°F, unit requires a factory or field installed low ambient control.

⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W36G4D Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
		A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	38,500	18,300	37,400	16,100	36,400	13,700	35,200	11,400	34,000	9,000	32,900	6,600	31,800	4,100	30,600	1,600	29,500	
	Sensible Btuh	28,700	8,200	28,300	6,500	27,800	4,900	27,200	3,100	26,700	1,400	26,100	(400)	25,600	(2,100)	25,000	(3,900)	24,400	(5,700)
	S/T	0.745	0.448	0.757	0.404	0.764	0.358	0.773	0.272	0.785	0.156	0.793	0	0.805	0	0.817	0	0.827	0
	Latent Btuh	9,800	10,100	9,100	9,600	8,600	8,800	8,000	8,300	7,300	7,600	7,000	6,200	6,200	6,200	5,600	5,500	5,100	4,700
	Lbs. H ₂ O/hr.	9.2	9.5	8.6	9.1	8.1	8.3	7.5	7.8	6.9	7.2	6.4	6.6	5.8	5.8	5.3	5.2	4.8	4.4
	Supply Air DB	51.4	66.0	51.9	67.9	52.4	69.8	52.9	71.8	53.3	73.7	53.8	75.7	54.3	77.7	54.7	79.7	55.1	81.7
	Supply Air WB	50.3	55.0	50.8	56.0	51.2	56.9	51.7	58.0	52.1	59.0	52.5	60.1	52.9	61.1	53.2	62.1	53.6	63.1
	Suction PSIG ⁴	123	114	124	115	124	116	126	117	127	118	128	120	129	121	130	123	132	125
	Discharge PSIG ⁴	287	251	307	265	328	279	350	294	373	310	396	326	421	342	447	359	474	377
	Total Cooling Btuh	39,500	19,500	38,400	17,200	37,200	14,900	36,100	12,600	35,000	10,200	33,800	7,700	32,700	5,200	31,600	2,700	30,400	100
75/64.1 (55% RH)	Sensible Btuh	27,300	7,300	26,800	5,600	26,300	3,900	25,700	2,200	25,200	500	24,600	(1,200)	24,100	(3,000)	23,500	(4,800)	22,900	(6,600)
	S/T	0.691	0.37	0.698	0.33	0.707	0.26	0.712	0.17	0.720	0.05	0.728	0	0.737	0	0.744	0	0.753	0
	Latent Btuh	12,200	11,600	11,600	10,900	10,900	11,000	10,400	9,800	9,800	9,700	9,200	8,900	8,600	8,200	8,100	7,500	7,000	6,700
	Lbs. H ₂ O/hr.	11.5	11.5	10.9	10.9	10.3	10.4	9.8	9.8	9.2	9.2	8.7	8.4	8.1	7.7	7.6	7.1	6.3	6.3
	Supply Air DB	52.6	67.1	53.1	69.0	53.6	70.9	54.1	72.9	54.5	74.8	55.0	76.8	55.5	78.8	55.9	80.8	56.4	82.7
	Supply Air WB	51.7	56.1	52.2	57.1	52.6	58.1	53.0	59.1	53.4	60.1	53.8	61.1	54.2	62.1	54.6	63.1	54.9	64.1
	Suction PSIG ⁴	126	118	126	118	127	119	128	120	130	121	131	123	132	124	133	126	135	128
	Discharge PSIG ⁴	289	254	309	268	330	282	352	297	374	313	398	329	423	345	449	362	476	380
	Total Cooling Btuh	40,400	20,700	39,300	18,400	38,300	16,000	37,100	13,700	35,900	11,300	34,800	8,900	33,700	6,400	32,500	3,900	31,400	1,300
	Sensible Btuh	25,800	6,400	25,300	4,700	24,800	3,100	24,300	1,300	23,700	(400)	23,200	(2,100)	22,600	(3,900)	22,000	(5,700)	21,400	(7,400)
75/65.5 (60% RH)	S/T	0.639	0.309	0.644	0.255	0.648	0.194	0.655	0.095	0.660	0	0.667	0	0.671	0	0.677	0	0.682	0
	Latent Btuh	14,600	14,300	14,000	13,700	13,500	12,900	12,800	12,400	12,200	11,700	11,600	11,000	11,000	10,300	10,500	9,600	10,000	8,700
	Lbs. H ₂ O/hr.	13.8	13.5	13.2	12.9	12.7	12.2	12.1	11.7	11.5	11.0	10.9	10.4	10.5	9.7	9.9	9.1	9.4	8.2
	Supply Air DB	53.8	68.2	54.3	70.1	54.8	71.9	55.3	74.0	55.8	75.9	56.2	77.9	56.7	79.8	57.1	81.8	57.6	83.8
	Supply Air WB	53.1	57.1	53.5	58.2	53.9	59.1	54.4	60.2	54.8	61.2	55.2	62.2	55.6	63.2	55.9	64.2	56.3	65.2
	Suction PSIG ⁴	128	121	129	121	130	122	131	123	132	125	134	126	135	128	136	129	137	131
	Discharge PSIG ⁴	291	257	311	271	331	285	353	300	376	316	400	332	425	348	451	365	478	383
	Total Cooling Btuh	41,400	21,800	40,300	19,600	39,200	17,200	38,000	14,900	36,900	12,500	35,700	10,100	34,600	7,600	33,500	5,000	32,300	2,500
	Sensible Btuh	24,300	5,500	23,800	3,900	23,400	2,200	22,800	500	22,200	(1,300)	21,700	(3,000)	21,100	(4,800)	20,500	(6,500)	19,900	(8,300)
	S/T	0.587	0.25	0.591	0.20	0.597	0.13	0.600	0.03	0.602	0	0.608	0	0.610	0	0.612	0	0.616	0
75/66.7 (65% RH)	Latent Btuh	17,100	16,300	16,500	15,700	15,800	15,000	15,200	14,400	14,700	13,800	14,000	13,100	13,500	12,400	13,000	11,500	12,400	10,800
	Lbs. H ₂ O/hr.	16.1	15.4	15.6	14.8	14.9	14.2	14.3	13.6	13.9	13.0	13.2	12.4	12.7	11.7	12.3	10.8	11.7	10.2
	Supply Air DB	55.0	69.2	55.5	71.2	56.0	73.0	56.5	75.0	57.0	77.0	57.4	78.9	57.9	80.9	58.4	82.9	58.8	84.9
	Supply Air WB	54.4	58.2	54.9	59.2	55.3	60.1	55.7	61.3	56.1	62.3	56.5	63.3	56.9	64.3	57.3	65.3	57.6	66.3
	Suction PSIG ⁴	131	124	132	125	133	125	134	126	135	128	136	129	138	131	139	132	140	134
	Discharge PSIG ⁴	293	260	313	274	333	288	355	303	378	319	402	335	427	351	453	368	480	386
	Total Cooling Btuh	42,300	23,000	41,200	20,700	40,200	18,300	39,000	16,100	37,800	13,700	36,700	11,200	35,600	8,700	34,400	6,200	33,300	3,600
	Sensible Btuh	22,800	4,700	22,300	3,000	21,900	1,400	21,300	(400)	20,800	(2,100)	20,200	(3,900)	19,600	(5,600)	19,000	(7,400)	18,500	(9,200)
	S/T	0.539	0.204	0.541	0.145	0.545	0.077	0.546	0	0.550	0	0.550	0	0.551	0	0.552	0	0.556	0
	Latent Btuh	19,500	18,300	18,900	17,700	18,300	16,900	17,700	16,500	17,000	15,800	16,500	15,100	16,000	14,300	15,400	13,600	14,800	12,800
75/68 (70% RH)	Lbs. H ₂ O/hr.	18.4	17.3	17.8	16.7	17.3	15.9	16.7	15.6	16.0	14.9	15.6	14.2	15.1	13.5	14.5	12.8	14.0	12.1
	Supply Air DB	56.3	70.3	56.8	72.2	57.2	74.1	57.7	76.1	58.2	78.1	58.7	80.0	59.1	82.0	59.6	84.0	60.0	86.0
	Supply Air WB	55.8	59.3	56.2	60.3	56.7	61.2	57.1	62.3	57.5	63.4	57.9	64.4	58.3	65.4	58.6	66.4	59.0	67.4
	Suction PSIG ⁴	134	127	135	128	136	128	137	130	138	131	139	132	141	134	142	136	143	138
	Discharge PSIG ⁴	295	263	314	277	335	291	357	306	380	322	404	338	429	354	455	371	482	389
	Total Cooling Btuh	42,700	23,200	41,600	21,000	40,500	18,500	39,300	16,300	38,200	13,900	37,000	11,400	35,900	9,000	34,800	6,400	33,600	3,800
	Sensible Btuh	28,100	8,600	27,600	6,900	27,200	5,300	26,600	3,500	26,100	1,800	25,500	(-)	24,900	(1,700)	24,400	(3,500)	23,800	(5,300)
	S/T	0.658	0.37	0.663	0.33	0.672	0.29	0.677	0.21	0.683	0.13	0.689	0.00	0.694	0	0.701	0	0.708	0
	Latent Btuh	14,600	14,600	14,000	14,100	13,300	13,200	12,700	12,800	12,100	12,100	11,500	11,400	11,000	10,700	10,400	9,900	9,800	9,100
	Lbs. H ₂ O/hr.	13.8	13.8	13.2	13.3	12.5	12.5	12.0	12.1	11.4	11.4	10.8	10.8	10.4	10.1	9.8	9.3	9.2	8.6
80/68.3 (55% RH)	Supply Air DB	56.6	70.7	57.1	72.6	57.6	74.4	58.1	76.5	58.5	78.4	59.0	80.4	59.5	82.3	59.9	84.3	60.4	86.3
	Supply Air WB	55.7	59.4	56.2	60.4	56.6	61.3	57.0	62.4	57.5	63.4	57.9	64.4	58.2	65.4	58.6	66.4	59.0	67.4
	Suction PSIG ⁴	137	128	137	129	138	130	139	131	141	132	142	133	143	135	144	137	146	139
	Discharge PSIG ⁴	294	263	314	276	335	290	357	306	379	321	403	337	428	354	454	371	481	389

¹ Values listed are with ventilation package disabled

² Return air temperature °F @ Rated CFM

³ Below 50°F, unit requires a factory or field installed low ambient control.

⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W42G4D Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
		A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	43,800	21,200	43,400	18,300	42,800	15,400	41,900	12,400	40,800	9,500	39,600	6,600	38,100	3,700	36,400	800	34,500	
	Sensible Btuh	32,800	9,300	32,600	7,000	32,400	4,800	31,800	2,400	31,300	200	30,600	(1,900)	29,900	(3,900)	29,000	(5,900)	28,000	(7,700)
	S/T	0.749	0.439	0.751	0.383	0.757	0.312	0.759	0.194	0.767	0.021	0.773	0	0.785	0	0.797	0	0.812	0
	Latent Btuh	11,000	11,900	10,800	11,300	10,400	10,600	10,100	10,000	9,500	9,300	9,000	8,500	8,200	7,600	7,400	6,700	6,500	5,600
	Lbs. H2O/hr.	10.4	11.2	10.2	10.7	9.8	10.0	9.5	9.4	9.0	8.8	8.5	8.0	7.7	7.2	7.0	6.3	6.1	5.3
	Supply Air DB	51.8	67.0	52.2	68.9	52.7	70.8	53.2	72.9	53.7	74.9	54.3	76.9	54.8	79.0	55.3	81.1	55.9	83.2
	Supply Air WB	50.6	55.7	50.9	56.8	51.2	57.7	51.6	58.7	52.0	59.7	52.4	60.6	52.8	61.6	53.2	62.5	53.7	63.4
	Suction PSIG ⁴	124	116	126	118	126	119	128	121	129	122	130	122	131	123	131	123	132	123
	Discharge PSIG ⁴	282	249	300	263	319	277	340	291	363	307	387	323	413	339	441	356	471	374
	Total Cooling Btuh	44,800	22,600	44,400	19,600	43,800	16,700	43,000	13,800	41,900	10,900	40,600	7,900	39,200	5,000	37,400	2,100	35,500	
75/64.1 (55% RH)	Sensible Btuh	31,200	8,400	31,000	6,000	30,600	3,700	30,200	1,400	29,600	(700)	29,000	(2,800)	28,200	(4,900)	27,300	(6,800)	26,400	(8,700)
	S/T	0.696	0.37	0.698	0.31	0.699	0.22	0.702	0.10	0.706	0	0.714	0	0.719	0	0.730	0	0.744	0
	Latent Btuh	13,600	14,200	13,400	13,600	13,000	13,000	12,800	12,400	12,300	11,600	11,600	10,700	11,000	9,900	10,100	8,900	9,100	7,900
	Lbs. H2O/hr.	12.8	13.4	12.6	12.8	12.5	12.3	12.1	11.7	11.6	10.9	10.9	10.1	10.4	9.3	9.5	8.4	8.6	7.5
	Supply Air DB	52.9	68.0	53.4	69.9	53.9	71.8	54.4	73.8	54.9	75.8	55.4	77.8	56.0	79.9	56.5	82.0	57.0	84.1
	Supply Air WB	52.0	56.8	52.3	57.8	52.7	58.8	53.0	59.8	53.4	60.8	53.8	61.7	54.2	62.7	54.6	63.6	55.1	64.5
	Suction PSIG ⁴	127	119	129	121	130	123	131	124	132	125	133	126	134	126	134	126	135	126
	Discharge PSIG ⁴	284	253	302	266	321	280	342	295	365	310	389	329	417	345	444	359	472	377
	Total Cooling Btuh	45,900	23,900	45,500	21,000	44,900	18,100	44,000	15,100	43,000	12,200	41,700	9,300	40,200	6,400	38,500	3,500	36,600	600
	Sensible Btuh	29,500	7,400	29,300	5,000	29,100	2,900	28,500	500	28,000	(1,700)	27,300	(3,800)	26,600	(5,800)	25,700	(7,800)	24,700	(9,700)
75/65.5 (60% RH)	S/T	0.643	0.310	0.644	0.238	0.648	0.160	0.648	0.033	0.651	0	0.655	0	0.662	0	0.668	0	0.675	0
	Latent Btuh	16,400	16,500	16,200	16,000	15,800	15,200	15,500	14,600	15,000	13,900	14,400	13,100	13,600	12,200	12,800	11,300	11,900	10,300
	Lbs. H2O/hr.	15.5	15.6	15.3	15.1	14.9	14.3	14.6	13.8	14.2	13.1	13.6	12.4	12.8	11.5	12.1	10.7	11.2	9.7
	Supply Air DB	54.1	68.9	54.6	70.8	55.1	72.6	55.6	74.7	56.1	76.8	56.6	78.8	57.1	80.8	57.7	82.9	58.2	85.0
	Supply Air WB	53.4	57.9	53.7	58.9	54.0	59.9	54.4	60.9	54.8	61.9	55.2	62.8	55.6	63.7	56.0	64.6	56.5	65.5
	Suction PSIG ⁴	130	123	132	124	132	125	134	127	135	128	136	129	137	129	137	129	138	129
	Discharge PSIG ⁴	286	256	303	269	322	283	344	298	366	313	391	329	417	345	444	362	474	380
	Total Cooling Btuh	47,000	25,300	46,600	22,400	46,000	19,400	45,100	16,500	44,000	13,600	42,800	10,700	41,300	7,700	39,600	4,800	37,700	1,900
	Sensible Btuh	25,800	6,400	27,600	4,100	27,400	1,900	26,800	(500)	26,300	(2,700)	25,600	(4,800)	24,000	(6,800)	23,000	(8,800)	23,000	(10,600)
	S/T	0.591	0.25	0.592	0.18	0.596	0.10	0.594	0	0.598	0	0.598	0	0.603	0	0.606	0	0.610	0
75/66.7 (65% RH)	Latent Btuh	19,200	18,900	19,000	18,300	18,600	17,500	18,300	17,000	17,700	16,300	17,200	15,500	16,400	14,500	15,600	13,600	14,700	12,500
	Lbs. H2O/hr.	18.1	17.8	17.9	17.3	17.5	16.5	17.3	16.0	16.7	15.4	16.2	14.6	15.5	13.7	14.7	12.8	13.9	11.8
	Supply Air DB	55.3	69.8	55.8	71.7	56.3	73.6	56.8	75.7	57.3	77.7	57.8	79.7	58.3	81.8	58.8	83.9	59.4	86.0
	Supply Air WB	54.8	59.0	55.1	60.0	55.4	61.0	55.8	62.0	56.2	62.9	56.6	63.9	57.0	64.8	57.4	65.7	57.9	66.6
	Suction PSIG ⁴	133	126	135	127	135	128	137	130	138	131	139	132	140	132	141	132	141	132
	Discharge PSIG ⁴	287	259	305	272	324	286	345	301	368	316	392	329	418	348	446	365	476	383
	Total Cooling Btuh	48,000	26,600	47,600	23,700	47,000	20,800	46,200	17,900	45,100	14,900	43,800	12,000	42,400	9,100	40,600	6,200	38,700	3,300
	Sensible Btuh	26,200	5,500	26,000	3,100	25,800	1,000	25,200	(1,500)	24,600	(3,600)	24,000	(5,700)	23,200	(7,800)	22,300	(9,700)	21,400	(11,600)
	S/T	0.546	0.207	0.546	0.131	0.549	0.048	0.545	0	0.545	0	0.548	0	0.547	0	0.549	0	0.553	0
	Latent Btuh	21,800	21,100	21,600	20,600	21,200	19,800	21,000	19,400	20,500	18,500	19,800	17,700	19,200	16,900	18,300	15,900	17,300	14,900
75/68 (70% RH)	Lbs. H2O/hr.	20.6	19.9	20.4	19.4	20.0	18.7	19.8	18.3	19.3	17.5	18.7	16.7	18.1	15.9	17.3	15.0	16.3	14.1
	Supply Air DB	56.5	70.8	56.9	72.7	57.4	74.5	57.9	76.6	58.4	78.6	59.0	80.7	59.5	82.7	60.0	84.8	60.6	86.9
	Supply Air WB	56.2	60.1	56.5	61.1	56.8	62.1	57.2	63.1	57.6	64.0	58.0	65.0	58.4	65.9	58.8	66.8	59.3	67.7
	Suction PSIG ⁴	136	129	138	131	138	131	140	133	141	134	142	135	143	135	144	136	144	136
	Discharge PSIG ⁴	289	262	306	275	325	289	347	304	369	319	394	335	420	351	448	368	477	386
	Total Cooling Btuh	48,500	27,200	48,100	24,200	47,500	21,300	46,700	18,400	45,600	15,400	44,400	12,500	42,900	9,600	41,200	6,700	39,200	3,800
	Sensible Btuh	32,300	10,200	32,100	7,900	31,900	5,700	31,300	3,300	30,800	1,100	30,100	(1,000)	29,300	(3,000)	28,500	(5,000)	27,500	(6,800)
	S/T	0.666	0.38	0.667	0.33	0.672	0.27	0.670	0.18	0.675	0.07	0.678	0	0.683	0	0.692	0	0.702	0
	Latent Btuh	16,200	17,000	16,000	16,300	15,600	15,600	15,400	15,100	14,800	14,300	14,300	13,500	13,600	12,600	12,700	11,700	11,700	10,600
	Lbs. H2O/hr.	15.3	16.0	15.1	15.4	14.7	14.7	14.5	14.2	14.1	13.5	13.5	12.7	12.8	11.9	12.0	11.0	11.0	10.0
	Supply Air DB	57.2	71.6	57.6	73.5	58.1	75.3	58.6	77.4	59.1	79.4	59.7	81.4	60.2	83.5	60.7	85.6	61.2	87.7
	Supply Air WB	56.2	60.0	56.5	61.0	56.8	62.0	57.2	63.0	57.6	64.0	58.0	64.9	58.4	65.9	58.8	66.8	59.3	67.7
	Suction PSIG ⁴	139	129	140	131	140	132	143	134	144	135	145	135	145	136	146	136	146	136
	Discharge PSIG ⁴	287	261	304	274	323	288	345	303	367	318	392	334	418	350	446	368	475	385

¹ Values listed are with ventilation package disabled

² Return air temperature °F @ Rated CFM

³ Below 50°F, unit requires a factory or field installed low ambient control.

⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W48G4D Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
		A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh	51,700	21,800	50,300	21,800	48,900	18,700	47,500	15,500	46,000	12,200	44,600	8,900	43,100	5,400	41,600	1,900	40,200	
	Sensible Btuh	38,600	11,500	37,300	6,800	36,300	2,000	35,000	2,000	33,600	2,000	32,300	2,000	31,000	2,000	29,700	2,000	28,400	(7,700)
	S/T	0.747	0.464	0.757	0.417	0.763	0.364	0.777	0.284	0.789	0.164	0.800	0	0.812	0	0.825	0	0.836	0
	Latent Btuh	13,100	13,300	12,200	12,700	11,600	11,900	10,600	11,100	9,700	10,200	8,900	9,300	8,100	8,200	7,300	7,100	6,600	5,900
	Lbs. H ₂ O/hr.	12.4	12.5	11.5	12.0	10.9	11.2	10.0	10.5	9.2	9.6	8.4	8.8	7.6	7.7	6.9	6.7	6.2	5.6
	Supply Air DB	51.8	66.0	52.3	67.9	52.5	69.7	53.2	71.7	53.6	73.6	54.0	75.5	54.4	77.5	54.8	79.4	55.2	81.4
	Supply Air WB	50.7	55.3	51.1	56.3	51.3	57.2	51.9	58.2	52.3	59.2	52.6	60.2	53.0	61.2	53.3	62.2	53.7	63.2
	Suction PSIG ⁴	119	109	120	110	120	112	121	113	122	115	123	116	124	118	126	119	127	121
	Discharge PSIG ⁴	282	252	301	265	325	279	343	294	366	309	390	324	415	340	442	357	470	375
	Total Cooling Btuh	52,900	26,300	51,600	23,300	50,200	20,200	48,700	17,000	47,300	13,700	45,900	10,400	44,400	6,900	42,900	3,400	41,400	
75/64.1 (55% RH)	Sensible Btuh	36,600	10,300	36,000	8,000	35,500	5,600	34,900	3,300	34,200	900	33,600	1,500	32,900	4,000	32,200	6,400	31,500	(8,900)
	S/T	0.692	0.39	0.698	0.34	0.707	0.28	0.717	0.19	0.723	0.07	0.732	0	0.741	0	0.751	0	0.761	0
	Latent Btuh	16,300	16,000	15,300	14,700	14,600	14,600	13,800	13,700	13,100	12,800	12,300	11,900	11,500	10,900	10,700	9,800	9,900	8,600
	Lbs. H ₂ O/hr.	15.4	15.1	14.7	14.4	13.9	13.8	13.0	12.9	12.4	12.1	11.6	11.2	10.8	10.3	10.1	9.2	9.3	8.1
	Supply Air DB	53.1	67.0	53.5	68.9	54.0	70.8	54.4	72.7	54.8	74.6	55.2	76.6	55.6	78.5	56.0	80.5	56.4	82.4
	Supply Air WB	52.1	56.4	52.5	57.4	52.9	58.3	53.3	59.3	53.6	60.3	54.0	61.3	54.4	62.3	54.7	63.3	55.1	64.3
	Suction PSIG ⁴	122	112	123	113	123	115	124	116	125	117	126	119	127	120	129	122	130	123
	Discharge PSIG ⁴	284	256	303	269	324	282	345	297	368	312	392	327	417	344	444	360	472	378
	Total Cooling Btuh	54,200	27,900	52,800	24,800	51,400	21,700	50,000	18,500	48,600	15,300	47,200	11,900	45,700	8,400	44,200	4,900	42,700	1,300
	Sensible Btuh	34,500	9,200	34,000	6,800	33,200	4,500	32,800	2,100	32,200	300	31,500	2,700	30,900	5,100	30,200	7,600	29,400	(10,000)
75/65.5 (60% RH)	S/T	0.637	0.330	0.644	0.274	0.646	0.207	0.656	0.114	0.663	0	0.667	0	0.676	0	0.683	0	0.689	0
	Latent Btuh	19,700	18,700	18,800	18,000	18,200	17,200	17,200	16,400	16,400	15,600	15,700	14,600	14,800	13,500	14,000	12,500	13,300	11,300
	Lbs. H ₂ O/hr.	18.6	17.6	17.7	17.0	17.2	16.2	16.2	15.5	15.5	14.7	14.8	13.8	14.0	12.7	13.2	11.8	12.5	10.7
	Supply Air DB	54.3	68.0	54.8	69.9	55.0	71.8	55.6	73.7	56.0	75.7	56.5	77.6	56.9	79.5	57.3	81.5	57.7	83.4
	Supply Air WB	53.5	57.5	53.9	58.5	54.0	59.4	54.6	60.4	55.0	61.4	55.4	62.4	55.7	63.4	56.1	64.4	56.4	65.4
	Suction PSIG ⁴	125	115	126	116	126	118	127	119	128	120	129	122	130	123	132	125	133	126
	Discharge PSIG ⁴	287	259	305	272	329	285	347	300	370	315	394	330	419	347	446	364	474	381
	Total Cooling Btuh	55,500	29,400	54,100	26,400	52,700	23,200	51,300	20,100	49,900	16,800	48,400	13,400	47,000	10,000	45,500	6,400	44,000	2,800
	Sensible Btuh	32,500	8,000	31,900	5,700	31,100	3,400	30,700	1,000	30,100	1,400	29,500	3,800	28,800	6,300	28,100	8,700	27,400	(11,200)
	S/T	0.586	0.27	0.590	0.22	0.590	0.15	0.598	0.05	0.603	0	0.610	0	0.613	0	0.618	0	0.623	0
75/66.7 (65% RH)	Latent Btuh	23,000	21,400	22,200	20,700	21,600	19,800	20,600	19,100	19,800	18,200	18,900	17,200	18,200	16,300	17,400	15,100	16,600	14,000
	Lbs. H ₂ O/hr.	21.7	20.2	20.9	19.5	20.4	18.7	19.4	18.0	18.7	17.2	17.8	16.2	17.2	15.4	16.4	14.2	15.7	13.2
	Supply Air DB	55.6	69.1	56.0	70.9	56.3	72.8	56.9	74.8	57.3	76.7	57.7	78.6	58.1	80.5	58.5	82.5	58.9	84.5
	Supply Air WB	54.9	58.6	55.3	59.6	55.4	60.5	56.0	61.5	56.4	62.5	56.8	63.5	57.1	64.5	57.5	65.5	57.8	66.5
	Suction PSIG ⁴	128	118	129	119	129	121	130	122	131	123	132	124	133	126	135	128	136	129
	Discharge PSIG ⁴	289	262	307	275	331	288	349	303	372	318	396	333	421	350	448	367	476	384
	Total Cooling Btuh	56,800	30,900	55,400	27,900	54,000	24,800	52,600	21,600	51,200	18,300	49,700	14,900	48,300	11,500	46,800	7,900	45,300	4,300
	Sensible Btuh	30,400	6,900	29,900	4,500	29,100	2,200	28,700	200	28,100	2,600	27,400	5,000	26,700	7,400	26,000	9,900	25,300	(12,300)
	S/T	0.535	0.223	0.540	0.161	0.539	0.089	0.546	0	0.549	0	0.551	0	0.553	0	0.556	0	0.558	0
	Latent Btuh	26,400	24,000	25,500	23,400	24,900	22,600	23,900	21,800	23,100	20,900	22,300	19,900	21,600	18,900	20,800	17,800	20,000	16,600
80/68.3 (55% RH)	Lbs. H ₂ O/hr.	24.9	22.6	24.1	22.1	23.5	21.3	22.5	20.6	21.8	19.7	21.0	18.8	20.4	17.8	19.6	16.8	18.9	15.7
	Supply Air DB	56.8	70.1	57.2	72.0	57.5	73.8	58.1	75.8	58.5	77.7	58.9	79.6	59.3	81.6	59.7	83.5	60.1	85.5
	Supply Air WB	56.2	59.7	56.6	60.7	56.8	61.6	57.4	62.6	57.8	63.6	58.1	64.6	58.5	65.6	58.9	66.6	59.2	67.6
	Suction PSIG ⁴	131	120	132	122	132	123	133	124	134	126	135	127	136	129	138	130	139	132
	Discharge PSIG ⁴	291	265	309	278	333	291	351	306	374	321	398	337	423	353	450	370	478	387
	Total Cooling Btuh	56,900	31,200	55,600	28,200	54,200	25,100	52,700	21,900	51,300	18,600	49,900	15,300	48,400	11,800	46,900	8,300	45,400	4,600
	Sensible Btuh	37,700	12,000	37,100	9,700	36,300	7,400	35,900	5,000	35,300	2,600	34,700	200	34,000	2,300	33,300	4,700	32,600	(7,200)
	S/T	0.663	0.38	0.667	0.34	0.670	0.29	0.681	0.23	0.688	0.14	0.695	0.01	0.702	0	0.710	0	0.718	0
	Latent Btuh	19,200	19,200	18,500	18,500	17,900	17,700	16,800	16,900	16,000	15,000	15,200	15,100	14,400	14,100	13,600	13,000	12,800	11,800
	Lbs. H ₂ O/hr.	18.1	18.1	17.5	17.5	16.9	16.7	15.8	15.9	15.1	15.1	14.3	14.2	13.6	13.3	12.8	12.3	12.1	11.1
	Supply Air DB	57.4	70.7	57.9	72.6	58.1	74.4	58.7	76.4	59.2	78.3	59.6	80.2	60.0	82.2	60.4	84.1	60.8	86.1
	Supply Air WB	56.5	59.7	56.9	60.7	57.0	61.6	57.6	62.6	58.0	63.6	58.4	64.6	58.7	65.6	59.1	66.6	59.4	67.6
	Suction PSIG ⁴	132	121	133	122	133	124	134	125	135	126	136	128	137	129	139	131	140	132
	Discharge PSIG ⁴	286	264	305	277	328	291	347	305	369	320	393	336	419	352	445	369	473	386

¹ Values listed are with ventilation package disabled

² Return air temperature °F @ Rated CFM

³ Below 50°F, unit requires a factory or field installed low ambient control.

⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W60G4D Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp.		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F	
	Mode		A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum
75/62.5 (50% RH)	Total Cooling Btuh		61,600	31,700	59,800	28,400	58,000	25,000	56,200	21,600	52,600	14,600	50,900	11,000	49,100	7,300	47,400	3,600
	Sensible Btuh		45,400	14,000	44,700	11,600	44,200	9,200	43,100	6,500	41,500	1,300	40,600	(1,300)	39,800	(4,100)	39,000	(6,800)
	S/T		0.737	0.442	0.747	0.408	0.762	0.368	0.767	0.301	0.789	0.089	0.798	0	0.811	0	0.823	0
	Latent Btuh		16,200	17,700	15,100	16,800	15,800	13,100	13,100	15,100	11,100	13,300	10,300	12,300	9,300	11,400	8,400	10,400
	Lbs. H ₂ O/hr.		15.3	16.7	14.2	15.8	13.0	14.9	12.4	14.2	10.5	12.5	9.7	11.6	8.8	10.8	7.9	9.8
	Supply Air DB		50.1	64.8	50.6	66.6	50.9	68.4	51.6	70.4	52.0	72.4	52.9	76.3	53.4	78.4	53.8	80.4
	Supply Air WB		49.4	53.9	49.9	54.9	50.1	55.8	50.8	56.8	51.2	56.8	52.0	59.8	52.4	60.8	52.8	61.7
	Suction PSIG ⁴		122	114	123	115	124	116	125	118	127	121	128	122	130	124	131	125
	Discharge PSIG ⁴		284	267	304	280	293	347	308	323	394	339	419	355	445	372	473	390
	Total Cooling Btuh		63,100	33,200	61,300	29,900	59,500	26,500	57,700	23,100	54,200	16,100	52,400	12,500	50,600	8,800	48,900	5,100
75/64.1 (55% RH)	Sensible Btuh		43,100	12,600	42,400	10,200	41,600	7,700	40,800	5,100	39,200	(100)	38,300	(2,700)	37,500	(5,400)	36,700	(8,200)
	S/T		0.683	0.38	0.692	0.34	0.699	0.29	0.707	0.22	0.723	0	0.731	0	0.741	0	0.751	0
	Latent Btuh		20,000	20,600	18,900	19,700	18,800	16,900	16,900	18,000	15,000	16,200	14,900	15,200	13,100	14,200	12,200	13,300
	Lbs. H ₂ O/hr.		18.9	19.4	17.8	18.6	16.9	17.7	15.9	17.0	14.2	15.3	13.3	14.3	12.4	13.4	11.5	12.5
	Supply Air DB		51.5	65.9	51.9	67.8	52.4	69.6	52.9	71.5	53.3	73.5	54.2	77.5	54.7	79.5	55.1	81.6
	Supply Air WB		50.8	55.0	51.3	56.0	51.7	57.0	52.2	58.0	53.0	60.0	53.4	61.0	53.8	61.9	54.2	62.9
	Suction PSIG ⁴		126	117	126	119	127	120	128	121	130	124	132	126	133	127	134	128
	Discharge PSIG ⁴		286	270	306	283	327	297	349	311	396	342	421	359	447	376	475	394
	Total Cooling Btuh		64,600	34,600	62,800	31,400	61,000	28,000	59,200	24,600	55,700	17,600	53,900	14,000	52,200	10,300	50,400	6,600
	Sensible Btuh		40,900	11,300	40,100	8,800	39,600	6,400	38,500	3,700	36,900	(1,500)	36,000	(4,100)	35,200	(6,800)	34,400	(9,600)
75/65.5 (60% RH)	S/T		0.633	0.327	0.639	0.280	0.649	0.229	0.650	0.150	0.662	0	0.668	0	0.674	0	0.683	0
	Latent Btuh		23,700	23,300	22,700	22,600	21,400	21,600	20,700	20,900	18,800	19,100	17,900	18,100	17,000	17,100	16,000	16,200
	Lbs. H ₂ O/hr.		22.4	22.0	21.4	21.3	20.2	20.4	19.5	19.7	18.7	18.8	17.7	18.0	16.9	16.1	15.1	15.3
	Supply Air DB		52.8	67.0	53.3	68.9	53.5	70.6	54.2	72.7	54.7	74.6	55.1	76.6	56.0	80.6	56.4	82.7
	Supply Air WB		52.2	56.2	52.7	57.2	52.9	58.2	53.6	59.2	54.0	60.2	54.4	61.1	54.8	62.1	55.6	64.1
	Suction PSIG ⁴		129	120	130	122	130	123	131	124	132	126	133	129	133	130	137	131
	Discharge PSIG ⁴		287	274	308	287	329	300	351	315	398	346	423	362	449	379	476	397
	Total Cooling Btuh		66,200	36,100	64,400	32,800	62,500	29,500	60,800	26,100	57,200	19,100	55,400	15,500	53,700	11,800	51,900	8,100
	Sensible Btuh		38,600	9,900	37,800	7,400	37,300	5,100	36,200	2,400	34,600	(2,800)	33,900	(5,500)	32,100	(8,200)	32,100	(11,000)
	S/T		0.583	0.27	0.587	0.23	0.597	0.17	0.595	0.09	0.605	0	0.608	0	0.613	0	0.618	0
75/66.7 (65% RH)	Latent Btuh		27,600	26,200	26,600	25,400	25,200	24,400	24,600	23,700	22,600	21,900	21,700	21,000	20,800	20,000	19,800	19,100
	Lbs. H ₂ O/hr.		26.0	24.7	25.1	24.0	23.8	23.0	23.2	22.4	21.3	20.7	20.5	19.8	19.6	18.9	18.7	18.0
	Supply Air DB		54.1	68.1	54.6	70.0	54.8	71.8	55.5	73.8	56.0	75.7	56.9	79.7	57.3	81.7	57.7	83.8
	Supply Air WB		53.6	57.4	54.1	58.4	54.3	59.3	55.0	60.4	55.4	61.3	55.8	62.3	56.2	64.3	57.0	65.3
	Suction PSIG ⁴		132	123	133	125	134	126	135	128	137	130	138	132	139	133	141	135
	Discharge PSIG ⁴		289	277	310	290	331	304	353	318	398	340	425	366	451	383	478	401
	Total Cooling Btuh		67,700	37,600	65,900	34,300	64,100	30,900	62,300	27,600	58,700	20,500	57,000	16,900	55,200	13,300	53,500	9,500
	Sensible Btuh		36,300	8,500	35,500	6,000	35,000	3,700	33,900	1,000	32,300	(4,200)	31,400	(6,900)	30,600	(9,600)	29,800	(12,400)
	S/T		0.536	0.226	0.539	0.175	0.546	0.120	0.544	0.036	0.547	0	0.551	0	0.554	0	0.557	0
	Latent Btuh		31,400	29,100	30,400	28,300	29,100	27,200	28,400	26,600	26,400	24,700	25,600	23,800	24,600	22,900	23,700	21,900
75/68 (70% RH)	Lbs. H ₂ O/hr.		29.6	27.5	28.7	26.7	27.5	25.7	26.8	25.1	24.9	23.3	24.2	22.5	23.2	21.6	22.4	20.7
	Supply Air DB		55.4	69.3	55.9	71.1	56.2	72.9	56.8	74.9	57.3	78.8	58.2	80.8	58.6	82.8	59.1	84.9
	Supply Air WB		55.0	58.6	55.5	59.5	55.7	60.5	56.4	61.5	56.8	62.5	57.2	64.5	58.0	65.5	58.4	66.4
	Suction PSIG ⁴		135	126	136	128	137	129	138	131	140	134	141	135	142	136	144	138
	Discharge PSIG ⁴		291	281	311	294	332	307	355	322	402	353	427	369	453	386	480	404
	Total Cooling Btuh		67,900	37,800	66,100	34,500	64,300	31,100	62,500	27,700	58,900	20,700	57,200	17,100	55,400	13,400	53,700	9,700
	Sensible Btuh		43,900	14,400	43,100	11,900	42,700	9,600	41,500	6,900	39,900	1,700	39,100	(1,000)	38,300	(3,700)	37,400	(6,400)
	S/T		0.647	0.38	0.652	0.34	0.664	0.31	0.664	0.25	0.677	0.08	0.684	0	0.691	0	0.696	0
	Latent Btuh		24,000	23,400	23,000	22,600	21,600	21,500	21,000	20,800	19,000	19,000	18,100	18,100	17,100	17,100	16,300	16,100
	Lbs. H ₂ O/hr.		22.6	22.1	21.7	21.3	20.6	20.3	19.8	19.6	18.9	17.9	17.9	17.1	16.1	15.4	15.2	14.5
80/68.3 (55% RH)	Supply Air DB		55.9	69.6	56.4	71.5	56.6	73.3	57.3	75.3	58.2	79.2	58.7	81.2	59.1	83.2	59.5	85.3
	Supply Air WB		55.3	58.6	55.7	59.6	55.9	60.6	56.6	61.6	57.4	63.6	57.9	64.6	58.3	65.5	58.6	66.5
	Suction PSIG ⁴		136	127	136	128	137	129	138	131	140	134	142	135	143	137	144	138
	Discharge PSIG ⁴		291	280	311	293	332	306	354	321	401	352	426	368	452	385	480	403

¹ Values listed are with ventilation package disabled

² Return air temperature °F @ Rated CFM

³ Below 50°F, unit requires a factory or field installed low ambient control.

⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

TABLE 3A
Specifications
W24G4D, W30G4D and W36G4D Models

Models	W24G4DA	W24G4DB	W24G4DC	W30G4DA	W30G4DB	W30G4DC	W36G4DA	W36G4DB	W36G4DC
<i>Electrical Rating – 60 Hz</i>	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
<i>Operating Voltage Range</i>	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
<i>Minimum Circuit Ampacity</i>	20.8	12.8	7.8	22.5	16	7.8	26.4	18.7	10.6
<i>* Field Wire Size</i>	10	14	14	10	12	14	8	10	14
<i>Ground Wire Size</i>	10	14	14	10	12	14	10	10	14
<i>** Delay Fuse or Circuit Breaker Max.</i>	30	15	10	30	20	10	35	25	15
<i>Compressor</i>									
<i>Voltage</i>	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
<i>Rated Load Amps</i>	7.9/9.2	4.8/5.6	2.6	9.3/10.6	6/6.8	3.2	12.6/14.3	8.2/9.3	5.1
<i>Branch Circuit Selection Current</i>	12.9	6.5	3.6	14.2	9	4.2	16.7	10.5	5.8
<i>Lock Rotor Amps</i>	58.3	55.4	28	73	58	28	79	73	38
<i>Compressor Type</i>	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<i>Fan Motor and Condenser</i>									
<i>Fan Motor – HP/RPM/SPD</i>	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1
<i>Fan Motor – Amps</i>	1.4	1.4	0.8	1.4	1.4	0.8	1.4	1.4	0.8
<i>Fan – DIA/CFM</i>	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2000	20" - 2000	20" - 2000
<i>Blower Motor and Evaporator</i>									
<i>Blower Motor – HP/RPM/SPD</i>	1/2-670-5	1/2-670-5	1/2-670-5	1/2-750-5	1/2-750-5	1/2-750-5	1/2-870-5	1/2-870-5	1/2-870-5
<i>Blower Motor – Amps</i>	1	1	1.2	1.1	1.1	0.6	1.9	1.9	1.2
<i>CFM Cooling and E.S.P.</i>	800 - 0.15	800 - 0.15	800 - 0.15	900 - 0.15	900 - 0.15	900 - 0.15	1100 - 0.15	1100 - 0.15	1100 - 0.15
<i>Filter Size</i>	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2
<i>Shipping Weight – LBS.</i>	500	500	500	530	530	530	540	540	540
<i>Unit Charge (R-410A lb.)</i>	5.750	5.750	5.750	6.125	6.125	6.125	7.125	7.125	7.125

* 75° C Copper wire size

** Maximum time delay fuse or circuit breaker

TABLE 3B
Specifications
W42G4D, W48G4D and W60G4D Models

Models	W42G4DA	W42G4DB	W42G4DC	W48G4DA	W48G4DB	W48G4DC	W60G4DA	W60G4DB	W60G4DC
<i>Electrical Rating – 60 Hz</i>	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
<i>Operating Voltage Range</i>	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
<i>Minimum Circuit Ampacity</i>	31.3	23.4	11.6	34.8	25	12	40.6	30.1	15.2
<i>* Field Wire Size</i>	8	10	14	8	10	14	8	8	12
<i>Ground Wire Size</i>	10	10	14	10	10	14	10	10	12
<i>** Delay Fuse or Circuit Breaker Max.</i>	40	30	15	50	30	15	50	40	20
<i>Compressor</i>									
<i>Voltage</i>	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
<i>Rated Load Amps</i>	14.3/16.2	9.8/11.1	5.9	16.2/18.6	10.2/11.8	6.2	20/22.6	13.2/14.9	7.2
<i>Branch Circuit Selection Current</i>	19.9	13.6	6.1	21.8	13.8	6.3	24.4	16	7.8
<i>Lock Rotor Amps</i>	112	88	44	117	83.1	41	144.2	110	52
<i>Compressor Type</i>	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<i>Fan Motor and Condenser</i>									
<i>Fan Motor – HP/RPM/SPD</i>	1/3-850-1	1/3-850-1	1/3-850-1	1/3-830-1	1/3-830-1	1/3-830-1	1/2-1000-1	1/2-1000-1	1/2-1000-1
<i>Fan Motor – Amps</i>	1.9	1.9	1	1.9	1.9	1	3.8	3.8	2.5
<i>Fan – DIA/CFM</i>	24" - 2900	24" - 2900	24" - 2900	24" - 2700	24" - 2700	24" - 2700	24" - 3400	24" - 3400	24" - 3400
<i>Blower Motor and Evaporator</i>									
<i>Blower Motor – HP/RPM/SPD</i>	3/4-850-5	3/4-850-5	3/4-850-5	3/4-940-5	3/4-940-5	3/4-940-5	3/4-1040-5	3/4-1040-5	3/4-1040-5
<i>Blower Motor – Amps</i>	2.3	2.3	1.7	3.4	3.4	1.7	4.1	4.1	1.7
<i>CFM Cooling and E.S.P.</i>	1300 - 0.15	1300 - 0.15	1300 - 0.15	1450 - 0.20	1450 - 0.20	1450 - 0.20	1650 - 0.20	1650 - 0.20	1650 - 0.20
<i>Filter Size</i>	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2
<i>Shipping Weight – LBS.</i>	500	500	500	530	530	530	550	550	550
<i>Unit Charge (R-410A lb.)</i>	6.375	6.375	6.375	7.500	7.500	7.500	10.250	10.250	10.250

* 75° C Copper wire size
 ** Maximum time delay fuse or circuit breaker

TABLE 4
Wiring Diagram Index

Unit Model No.	Basic Wiring Diagram
W24G4DA	4085-173
W24G4DB	4085-273
W24G4DC	4085-396
W30G4DA	4085-173
W30G4DB	4085-273
W30G4DC	4085-396
W36G4DA	4085-173
W36G4DB	4085-273
W36G4DC	4085-396
W42G4DA	4085-173
W42G4DB	4085-273
W42G4DC	4085-396
W48G4DA	4085-173
W48G4DB	4085-273
W48G4DC	4085-396
W60G4DA	4085-171
W60G4DB	4085-271
W60G4DC	4085-394

TABLE 5
Thermostat Wire Size

Transformer VA	FLA	Wire Gauge	Maximum Distance in Feet
55	2.3	18 gauge 16 gauge 14 gauge 12 gauge	60 100 160 250

TABLE 6
Wall Thermostat

Thermostat	Predominant Features
8403-060* (1120-445)	3 Stage Cool; 3 Stage Heat Programmable/Non-Programmable Electronic HP or Conventional Auto or Manual changeover
8403-082 (VT8600U5500B)	2 stage Cool; 2 stage Heat Programmable/Non-Programmable Electronic HP or Conventional, Auto or Manual changeover with Occupancy Sensor, BACnet
8403-084 (VT8600U5000B)	2 stage Cool; 2 stage Heat Programmable/Non-Programmable Electronic HP or Conventional, Auto or Manual changeover with BACnet
8403-089 (T4 Pro)	1 stage Cool; 1 stage Heat – Heat Pump 1 stage Cool; 1 stage Heat – Conventional Programmable/Non-Programmable Electronic Auto or Manual changeover
8403-090 (T6 Pro)	2 stage Cool; 3 stage Heat – Heat Pump 2 stage Cool; 2 stage Heat – Conventional Programmable/Non-Programmable Electronic Auto or Manual changeover
8403-091 (T701-FEMA)	1 stage Cool, 1 stage Heat Non-Programmable FEMA use
8403-092 (T6 Pro Wi-Fi)	2 stage Cool, 3 stage Heat – Heat Pump 2 stage Cool, 2 stage Heat – Conventional Programmable/Non-Programmable Electronic Auto or Manual changeover Wi-Fi

* Integrated thermostat and humidistat in one

TABLE 7
Humidistat

Thermostat	Predominant Features
8403-060 ¹ (1120-445)	Programmable Thermostat (above) with Integral Humidistat
8403-100 ² (H6062A1000)	Electronic humidistat DPST Humidity range 10-90% with adjustable stops
8403-047 (H200 10-21-10)	Dehumidistat – Electronic (range 10% to 90% with adjustable stops, 3.6% differential)

¹ Integrated thermostat and humidistat in one

² If using Honeywell HumidiPRO (H6062A1000) 8403-100 humidistat, it must be configured for dehumidification in the menu.

TABLE 8
Dehumidification Relay Logic Board

24V Terminal Block Connections		G	Y	3	W1	Outputs from Board		
Inputs to Board		G	Y	D	W2	G1	TWV	YO
Cooling Mode	Unoccupied	X	X			X		X
Cooling Mode	Occupied	X	X			X		X
Cooling Mode ①	With Dehum	X	X	X		X		X
1st Stage Heating	Unoccupied				X	X		
1st Stage Heating	Occupied				X	X		
1st Stage Heating	With Dehum			X	X	X		
2nd Stage Heating	Unoccupied				X	X		
2nd Stage Heating	Occupied				X	X		
2nd Stage Heating ②	With Dehum			X	X	X		
Dehumidification	Unoccupied			X		③	③	③
Dehumidification	Occupied			X		X	X	X

① Cooling takes precedence over dehumidification. A cooling call cancels dehumidification.

② First stage heating cancels dehumidification.

③ If jumper on RLB is set to “1-2 full-time dehumidification”, outputs will energize. This is the factory default setting. If jumper is set to “2-3 occupied dehumidification only”, outputs will be off.

Refrigerant Charge

The correct system R-410A charge is shown on the unit rating plate.

Reference Table 9 to validate proper system operation (± 2 psig suction, ± 5 psig discharge) in cooling mode, not dehumidification mode. However, it is recommended that if incorrect charge is suspected, the system refrigerant be reclaimed, evacuated and charged to the nameplate charge quantity and type.

The nameplate charge quantity is optimized for thermal performance and efficiency of this self-contained package system.

The system operating pressures in Table 9 are based upon rated airflow across the evaporator during cooling cycle.

Total system charge for these models can be found in Tables 3A and 3B on pages 12 and 13.

TABLE 9
Cooling Pressure Table

Model	Return Air Temperature	Pressure	75°	80°	85°	90°	95°	100°	105°	110°	115°	120°	125°
W24G4D	75° DB 62° WB	Low Side High Side	126.3 301.3	127.3 322.1	128.4 344.2	129.6 367.4	130.8 391.9	132.2 417.6	133.7 444.4	135.2 472.5	136.9 501.8	138.6 532.4	140.4 564.1
	80° DB 67° WB	Low Side High Side	135.1 309.0	136.2 330.4	137.3 353.0	138.6 376.8	139.9 401.9	141.4 428.3	143.0 455.8	144.6 484.6	146.4 514.7	148.2 546.0	150.2 578.6
	85° DB 72° WB	Low Side High Side	139.8 319.8	141.0 342.0	142.1 365.4	143.5 390.0	144.8 416.0	146.3 443.3	148.0 471.8	149.7 501.6	151.5 532.7	153.4 565.1	155.5 598.9
W30G4D	75° DB 62° WB	Low Side High Side	127.0 304.5	127.9 325.5	128.8 347.5	130.0 370.6	131.1 394.8	132.4 419.9	133.8 446.3	135.3 473.7	136.9 502.0	138.7 531.6	140.4 562.1
	80° DB 67° WB	Low Side High Side	135.8 312.3	136.8 333.8	137.8 356.4	139.0 380.1	140.2 404.9	141.6 430.7	143.1 457.7	144.7 485.8	146.4 514.9	148.3 545.2	150.2 576.5
	85° DB 72° WB	Low Side High Side	140.6 323.2	141.6 345.5	142.6 368.9	143.9 393.4	145.1 419.1	146.6 445.8	148.1 473.7	149.8 502.8	151.5 532.9	153.5 564.3	155.5 596.7
W36G4D	75° DB 62° WB	Low Side High Side	126.1 324.8	127.2 345.4	128.2 367.4	129.3 390.5	130.5 414.8	131.6 440.2	133.0 466.9	134.3 494.7	135.7 523.9	137.1 554.1	138.6 585.6
	80° DB 67° WB	Low Side High Side	134.9 333.1	136.0 354.3	137.1 376.8	138.3 400.5	139.6 425.4	140.8 451.5	142.2 478.9	143.6 507.4	145.1 537.3	146.6 568.3	148.2 600.6
	85° DB 72° WB	Low Side High Side	139.6 344.8	140.8 366.7	141.9 390.0	143.1 414.5	144.5 440.3	145.7 467.3	147.2 495.7	148.6 525.2	150.2 556.1	151.7 588.2	153.4 621.6
W42G4D	75° DB 62° WB	Low Side High Side	126.8 318.2	127.8 338.8	128.8 360.9	129.9 384.5	130.9 409.7	132.0 436.3	133.1 464.5	134.2 494.1	135.3 525.3	136.4 558.0	137.5 592.2
	80° DB 67° WB	Low Side High Side	135.6 326.4	136.7 347.5	137.8 370.2	138.9 394.4	140.0 420.2	141.2 447.5	142.3 479.4	143.5 506.8	144.7 538.8	145.9 572.3	147.1 607.4
	85° DB 72° WB	Low Side High Side	140.3 337.8	141.5 359.7	142.6 383.2	143.8 408.2	144.9 434.9	146.1 463.2	147.3 493.1	148.5 524.5	149.8 557.7	151.0 592.3	
W48G4D	75° DB 62° WB	Low Side High Side	124.0 320.3	124.5 341.3	125.3 363.6	126.1 387.0	127.1 411.7	128.2 437.7	129.4 464.9	130.8 493.3	132.3 523.0	133.9 553.8	135.7 586.0
	80° DB 67° WB	Low Side High Side	132.6 328.5	133.2 350.1	134.0 372.9	134.9 396.9	135.9 422.3	137.1 448.9	138.4 476.8	139.9 505.9	141.5 536.4	143.2 568.0	145.1 601.0
	85° DB 72° WB	Low Side High Side	137.2 340.0	137.9 362.4	138.7 386.0	139.6 410.8	140.7 437.1	141.9 464.6	143.2 493.5	144.8 523.6	146.5 555.2	148.2 587.9	150.2 622.0
W60G4D	75° DB 62° WB	Low Side High Side	124.8 326.7	125.9 347.6	127.0 369.9	128.1 393.7	129.2 419.0	130.3 445.6	131.5 473.8	132.7 503.3	133.9 534.3	135.1 566.8	136.3 600.6
	80° DB 67° WB	Low Side High Side	133.5 335.1	134.6 356.5	135.8 379.4	137.0 403.8	138.2 429.7	139.4 457.0	140.6 485.9	141.9 516.2	143.2 548.0	144.5 581.3	145.8 616.0
	85° DB 72° WB	Low Side High Side	138.2 346.8	139.3 369.0	140.6 392.7	141.8 417.9	143.0 444.7	144.3 473.0	145.5 502.9	146.9 534.3	148.2 567.2	149.6 601.6	

Low side pressure ± 4 PSIG High side pressure ± 10 PSIG

Tables based upon rated CFM (airflow) across the evaporator coil.

If there is any doubt as to correct operating charge being in the system, the charge should be reclaimed, and the system evacuated and recharged to serial plate instruction.



Literature Assembly

911-0806-2

BOOK 2 OF 2

Contains the following:

2100-721(G) W**G4 Gas/Electric Manual

INSTALLATION INSTRUCTIONS

Wall Mounted Gas/Electric

Models:

W24G4	W30G4	W36G4	W42G4	W48G4	W60G4
W24G4D	W30G4D	W36G4D	W42G4D	W48G4D	W60G4D



WARNING

READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION.

THE INSTALLATION MUST COMPLY WITH THESE INSTRUCTIONS AND THE REQUIREMENTS OF ALL GOVERNING CODES AND ORDINANCES FOR THE INSTALLATION LOCATION.

IT IS THE RESPONSIBILITY OF INSTALLER TO KNOW AND UNDERSTAND ALL OF THESE REQUIREMENTS.

FAILURE TO DO SO COULD CREATE A HAZARD RESULTING IN PROPERTY DAMAGE, BODILY INJURY, OR DEATH.



Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

Manual No.: 2100-721G
Supersedes: 2100-721F
Date: 9-1-23

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Getting Other Information and Publications

These publications can help when installing the furnace. They can usually be found at the local library or purchased directly from the publisher. Be sure to consult the current edition of each standard.

National Fuel Gas Code.....ANSI Z223.1/NFPA 54

National Electrical Code.....ANSI/NFPA 70

Standard for the Installation of Air Conditioning and Ventilating System.....ANSI/NFPA 90A

Standard for Warm Air Heating and Air Conditioning Systems..... ANSI/NFPA 90B

Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances NFPA 211

Load Calculation for Residential Winter and Summer Air Conditioning ACCA Manual J

Duct Design for Residential Winter and Winter Air Conditioning and Equipment Selection
..... ACCA Manual D

Canadian Electrical Code.....CSA C22.1

Canadian Installation Code CAN/CGA B149

For more information, contact these publishers:

ACCA **Air Conditioning Contractors of America**
1712 New Hampshire Avenue, NW
Washington, DC 20009
Telephone: (202) 483-9370

ANSI **American National Standards Institute**
11 West Street, 13th Floor
New York, NY 10036
Telephone: (212) 642-4900
Fax: (212) 302-1286

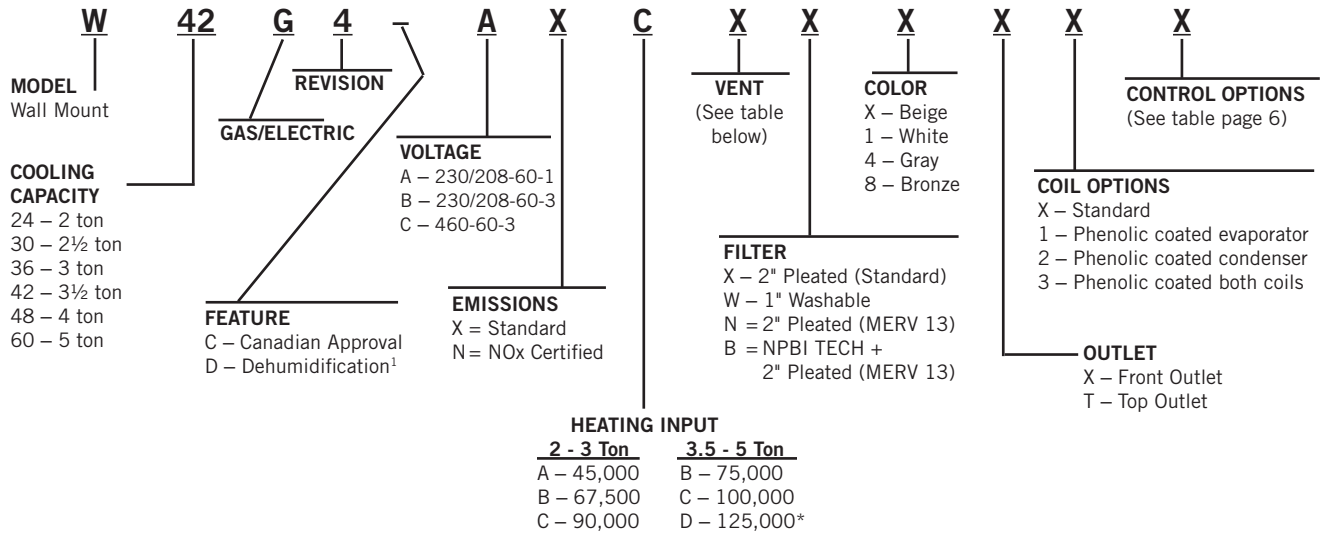
ASHRAE **American Society of Heating Refrigerating, and Air Conditioning Engineers, Inc.**
1791 Tullie Circle, NE.
Atlanta, GA 30329-2305
Telephone: (404) 636-8400
Fax: (404) 321-5478

NFPA **National Fire Protection Association**
Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9901
Telephone: (800) 344-3555
Fax: (617) 984-7057

CSA **Canadian Standards Association**
178 Rexdale Boulevard
Rexdale, Ontario
Canada. M9W 1R3
Telephone: (416) 447-4044

WALL MOUNT GAS/ELECTRIC GENERAL INFORMATION

Model Number Nomenclature



*125,000 BTU input model is not NOx certified.

¹ Reference Supplemental Instructions 7960-867 for dehumidification unit information.

Ventilation Options

		Models	
		W24G, W30G, W36G	W42G, W48G, W60G
Description	Factory Installed Code No.	Field Installed Part No.	Field Installed Part No.
Barometric Fresh Air Damper	X	WGBFAD-3	WGBFAD-5
Blank-Off Plate	B	WGBOP-3	WGBOP-5
Motorized Fresh Air Damper	M	WGMFAD-3A	WGMFAD-5A
Commercial Ventilator – Spring Return	V	WGCRVS-3A	WGCRVS-5A
Commercial Ventilator – Power Return	P	WGCRVP-3A	WGCRVP-5A
Economizer - Fully Modulating ①	E	WGJIFM-3	WGJIFM-5
Energy Recovery Ventilator – 230 Volt	R	WGERV-A3B	WGERV-A5B
Energy Recovery Ventilator – 460 Volt	R	WGERV-C3C	WGERV-C5C

① Low ambient control is required with economizer for low temperature compressor operation.

Air Conditioning Module Options

CCM ①	HPC ②	LPC ③	LAC ④	SK ⑤	Factory Installed Code	Field Installed Part
STD	STD	STD	•		H	CMA-45 (WG4D Units) CMA-46 (WG4 Units)
				•	Field Only	SK111 or CMC-15

STD – Standard equipment.

- ① CCM Compressor control module has adjustable 30 second to 5 minute delay-on-break timer. On initial power up, or any time the power is interrupted, the delay-on-make will be 2 minutes plus 10% of the delay-on-break setting. There is no delay-on-make during routine operation of the unit. The module also provides the lockout feature (with 1 retry) for high and/or low pressure controls, and a 2-minute timed bypass for low pressure control.
- ② HPC High pressure control is auto reset. Always used with compressor control module (CCM) which is included. See Note ①.
- ③ LPC Low pressure control is auto reset. Always used with compressor control module (CCM) which is included. See Note ①.
- ④ LAC Low ambient control permits cooling operation down to 0°F. (Includes fan cycling control + Freeze Stat)
- ⑤ SK CMC-15 is PTCR Start Kit can be used with all -A single phase models. Increases starting torque 2-3X. Not used for -B or -C 3-phase models. Do not use if SK111 is used.
- ⑤ SK SK111 Start Capacitor and Potential Relay Start Kit can be used with all -A single phase models. Increases starting torque 9x. Not used for -B or -C 3-phase models. Do not use if CMC-15 is used.

TABLE 1A

Specifications

W24G4, W30G4 and W36G4 Models

Models	W24G4-A	W24G4-B	W24G4-C	W30G4-A	W30G4-B	W30G4-C	W36G4-A	W36G4-B	W36G4-C
<i>Electrical Rating – 60 Hz</i>	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
<i>Operating Voltage Range</i>	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
<i>Minimum Circuit Ampacity</i>	20.6	12.6	8	22.6	16.1	8.6	26.4	19	10.6
<i>* Field Wire Size</i>	10	14	14	10	12	14	8	10	14
<i>Ground Wire Size</i>	10	14	14	10	12	14	10	10	14
<i>** Delay Fuse or Circuit Breaker Max.</i>	30	15	10	30	20	10	35	25	15
<i>Compressor</i>									
<i>Voltage</i>	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
<i>Rated Load Amps</i>	7.6/8.7	4.6/5.3	2.5	9.4/10.7	6/6.9	3.2	12/13.5	7.8/8.7	4.8
<i>Branch Circuit Selection Current</i>	12.9	6.5	3.6	14.2	9	4.2	16.7	10.5	5.8
<i>Lock Rotor Amps</i>	58.3	55.4	28	73	58	28	79	73	38
<i>Compressor Type</i>	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<i>Fan Motor and Condenser</i>									
<i>Fan Motor – HP/RPM/SPD</i>	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1	1/5-1100-1
<i>Fan Motor – Amps</i>	1.4	1.4	0.8	1.4	1.4	0.8	1.4	1.4	0.8
<i>Fan – DIA/CFM</i>	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2100	20" - 2000	20" - 2000	20" - 2000
<i>Blower Motor and Evaporator</i>									
<i>Blower Motor – HP/RPM/SPD</i>	1/2-670-5	1/2-670-5	1/2-670-5	1/2-750-5	1/2-750-5	1/2-750-5	1/2-870-5	1/2-870-5	1/2-870-5
<i>Blower Motor – Amps</i>	0.9	0.9	1.2	1.2	1.2	1.2	1.9	1.9	1.2
<i>CFM Cooling and E.S.P.</i>	800 - 0.15	800 - 0.15	800 - 0.15	900 - 0.15	900 - 0.15	900 - 0.15	1100 - 0.15	1100 - 0.15	1100 - 0.15
<i>Filter Size</i>	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2	20 x 25 x 2
<i>Shipping Weight – LBS.</i>	500	500	500	530	530	530	540	540	540
<i>Unit Charge (R-410A lb.)</i>	5.750	5.750	5.750	5.750	5.750	5.750	6.625	6.625	6.625

* 75° C Copper wire size

** Maximum time delay fuse or circuit breaker

TABLE 1B
Specifications
W42G, W48G and W60G Models

Models	W42G4-A	W42G4-B	W42G4-C	W48G4-A	W48G4-B	W48G4-C	W60G4-A	W60G4-B	W60G4-C
<i>Electrical Rating – 60 Hz</i>	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3	230/208-1	230/208-3	460-3
<i>Operating Voltage Range</i>	197-253	187-253	414-506	197-253	187-253	414-506	197-253	187-253	414-506
<i>Minimum Circuit Ampacity</i>	29	23.4	11.5	34.4	24.4	12	40.2	29.7	13.6
<i>* Field Wire Size</i>	8	10	14	8	10	14	8	8	12
<i>Ground Wire Size</i>	10	10	14	10	10	14	10	10	12
<i>** Delay Fuse or Circuit Breaker Max.</i>	40	30	15	50	30	15	50	40	20
<i>Compressor</i>									
<i>Voltage</i>	230/208	230/208	460	230/208	230/208	460	230/208	230/208	460
<i>Rated Load Amps</i>	15.5/17.4	11.7/13.2	5.9	16.7/19.5	10.6/12.3	6.5	19.5/21.9	12.9/14.4	7
<i>Branch Circuit Selection Current</i>	18	13.6	6	21.8	13.8	6.5	24.4	16	7.8
<i>Lock Rotor Amps</i>	112	88	44	117	83.1	41	144.2	110	52
<i>Compressor Type</i>	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<i>Fan Motor and Condenser</i>									
<i>Fan Motor – HP/RPM/SPD</i>	1/3-850-1	1/3-850-1	1/3-850-1	1/3-830-1	1/3-830-1	1/3-830-1	1/2-1000-1	1/2-1000-1	1/2-1000-1
<i>Fan Motor – Amps</i>	1.8	1.8	1	1.8	1.8	1	3.8	3.8	2.5
<i>Fan – DIA/CFM</i>	24" - 2900	24" - 2900	24" - 2900	24" - 2700	24" - 2700	24" - 2700	24" - 3400	24" - 3400	24" - 3400
<i>Blower Motor and Evaporator</i>									
<i>Blower Motor – HP/RPM/SPD</i>	3/4-850-5	3/4-850-5	3/4-850-5	3/4-940-5	3/4-940-5	3/4-940-5	3/4-1040-5	3/4-1040-5	3/4-1040-5
<i>Blower Motor – Amps</i>	2.4	2.4	1.7	3.1	3.1	1.7	3.7	3.7	1.7
<i>CFM Cooling and E.S.P.</i>	1300 - 0.15	1300 - 0.15	1300 - 0.15	1450 - 0.20	1450 - 0.20	1450 - 0.20	1650 - 0.20	1650 - 0.20	1650 - 0.20
<i>Filter Size</i>	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2	20 x 30 x 2
<i>Shipping Weight – LBS.</i>	500	500	500	530	530	530	550	550	550
<i>Unit Charge (R-410A lb.)</i>	6.500	6.500	6.500	7.125	7.125	7.125	9.625	9.625	9.625

* 75° C Copper wire size

** Maximum time delay fuse or circuit breaker



CAUTION

During the initial firing of the burners there will probably be some amount of smoke issued to the circulating air stream as the result of residual oil burning off of the heat exchanger tubes. This oil is required during the forming process of the stainless steel heat exchanger tubes to facilitate the bending. OSHA or the National Toxicology Program does not list the oil as a carcinogen. In vapor form this may be irritating to the eyes or could cause headaches. This is a one-time occurrence, and ventilation of the space may be required depending upon the space being conditioned.

1. Transportation Damage

All units are packed securely in shipping containers. All units should be carefully inspected upon arrival for damage. In the event of damage, the consignee should:

1. Note on delivery receipt of any damage to container.
2. Notify carrier promptly, and request an inspection.
3. In case of concealed damage, the carrier must be notified as soon as possible within 15 days after delivery.
4. Claims for any damage, apparent or concealed, should be filed with the carrier, using the following supporting documents:
 - A. Original Bill of Lading, certified copy or indemnity bond.
 - B. Original paid freight bill of indemnity in lieu thereof.
 - C. Original invoice or certified copy thereof showing trade and other discounts or deductions.
 - D. Copy of the inspection report issued by carrier's representative at the time damage is reported to carrier.

2. Important

The equipment covered in this manual is to be installed by trained, experienced service and installation technicians. All duct work or portions thereof not in the conditioned space should be properly insulated in order to both conserve energy and prevent condensation or moisture damage.

3. General Information

This appliance 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 appliance.

These instructions explain the recommended method to install the air cooled self-contained electric air conditioning and gas heating unit and the electrical

wiring connections and gas piping to the unit. The refrigerant system is completely assembled and charged. All internal wiring is complete.

These instructions and any instructions packaged with any separate equipment required to make up the entire heating/cooling system should be carefully read before beginning the installation.

While these instructions are intended as a general recommended guide, they do not supersede any national and/or local codes in any way. Authorities having jurisdiction should be consulted before the installation is made. See page 4 for information on codes and standards.

Size of unit for proposed installation should be based on heat loss/heat gain calculations made according to methods of Air Conditioning Contractors of America (ACCA). The air duct should be installed in accordance with the Standards of the National Fire Protection Association for the Installation of Air Conditioning and Ventilating Systems of Other Than Residence Type, NFPA No. 90A, and Residence Type Warm Air Heating and Air Conditioning Systems, NFPA No. 90B. Where local regulations are at a variance with instructions, installer should adhere to local codes.

4. Application

This is a fan-assisted forced air gas furnace with electric air conditioning for outdoor installation. A fan-assisted furnace is equipped with an integral mechanical means to draw products of combustion through the combustion chamber and heat exchanger. The furnace installation must conform with local building codes and ordinances or, in their absence, with the National Fuel Gas Code ANSI Z223.1 or CAN/CGA-B149.1, latest edition, and the National Electrical Code ANSI/NFPA-7 or CSA C22.1, latest edition. It is the personal responsibility and obligation of the purchaser to contact a qualified installer to assure that installation is adequate and is in conformance with governing codes and ordinances.

5. Duct Work

The unit is designed for use with or without duct work (see **WARNING**). Flanges are provided for attaching the supply and return ducts. All duct work, supply and return, must be properly sized for the design

airflow requirement of the equipment. Air Conditioning Contractors of America (ACCA) is an excellent guide to proper sizing.



WARNING

In all cases, there must be a metal duct connection made to the supply air flange, and a 1" clearance to combustibles must be maintained to this duct connection.

For free blow applications, a metal sleeve must be used in the wall opening itself, again maintaining a 1" clearance to combustibles.

Failure to use the sheet metal can cause fire resulting in property damage, injury, or death.

Refer to Tables 12, 13, 14, 15, 16 and 17 for maximum static pressure available for duct design.

See Figures 3A and 3B and clearance information in Section 9 and Table 2 for additional information.

Design the duct work according to methods given by the Air Conditioning Contractors of America (ACCA). When duct runs through unheated spaces, it should be insulated with a minimum of 1" of insulation. Use insulation with a vapor barrier on the outside of the insulation. Flexible joints should be used to connect the duct work to the equipment in order to keep the noise transmission to a minimum.

A 1" clearance to combustible material for the first 3' of duct attached to the outlet air frame is required. See wall mounting instructions and Figures 2A, 2B, 3A and 3B for further details.

Ducts through the walls must be insulated and all joints taped or sealed to prevent air or moisture entering the wall cavity.

Some installations may not require any return air duct. A metallic return air grille is required with installations not requiring a return air duct. The spacing between louvers on the grille shall not be larger than 5/8".

Any grille that meets with the 5/8" louver criteria may be used. It is recommended that Bard Return Air Grille or Return Filter Grille be installed when no return duct is used. Contact distributor or factory for ordering information. If using a return air filter grille, filters must be of sufficient size to allow a maximum velocity of 400 fpm.

NOTE: If no return air duct is used, applicable installation codes may limit this cabinet to installation only in a single story structure.

6. High Altitude Applications

Ratings of gas utilization equipment are based on sea level operation and need not be changed for operation at elevations up to 6000'. For operation at elevations above 6000' and in the absence of specific recommendations from the local authority having jurisdiction, equipment ratings shall be reduced as specified in Section 21.

7. Wall Mounting Information

1. Two holes for the supply and return air openings must be cut through the wall as detailed in Figure 4.
2. On wood-frame walls, the wall construction must be strong and rigid enough to carry the weight of the unit without transmitting any unit vibration.
3. Concrete block walls must be thoroughly inspected to ensure that they are capable of carrying the weight of the installed unit.

8. Mounting the Unit

1. These units are secured by wall mounting brackets which secure the unit to the outside wall surface at both sides. A bottom mounting bracket is provided for ease of installation but is not required.



CAUTION

If the bottom bracket is used, be certain the bracket is secured to the outside wall surface in a way sufficient to support the entire weight of the unit during installation until side mounting brackets are secured.

2. The W42G, W48G and W60G models are suitable for 0 clearance on the installation mounting wall and to the top. For all models, the supply air duct flange and the first 3' of supply air duct require a minimum of 1" clearance to combustible material. The W24G, W30G and W36G models are suitable for 0 clearance on the installation mounting wall, but require 1" clearance to the top if combustible material overhang projects above the unit (see Figures 3A and 3B). If a combustible wall, use a minimum of Figure 1 "A" dimension plus 2" and "B" dimension plus 2". See Figures 4 and 5 for details.



WARNING

Failure to provide the 1" clearance between the supply duct and a combustible surface for the first 3' of duct can result in fire causing damage, injury or death.

3. Locate and mark lag bolt locations and bottom mounting bracket location.
4. Mount bottom mounting bracket.
5. Hook top rain flashing under back bend of top. Top rain flashing is shipped secured to the right side of the back.
6. Position unit in opening and secure with 5/16" lag bolts; use 7/8" diameter flat washers on the lag bolts. Use lag bolts long enough to support the unit's weight when mounted to the structure. This length may be dependent on the type of construction.
7. Secure rain flashing to wall and caulk across entire length of top (see Figures 2A and 2B).
8. On side-by-side installations, maintain a minimum of 20" clearance on right side to allow access to control panel and burner compartment, and to allow proper airflow to the outdoor coil. Additional clearance may be required to meet local or national codes.

FRONT VIEW

Labels: SEAL WITH BEAD OF CAULKING ALONG ENTIRE LENGTH OF TOP, TOP, FOAM AIR SEAL, (12) FLANGE SCREWS, OUTSIDE WALL WITH UNIT REMOVED, SUPPLY AIR DUCT, Ø2 3/4" GAS OPENING (OPTIONAL), Ø2" LOW VOLTAGE (OPTIONAL), RETURN AIR DUCT, Ø2 3/4" HIGH VOLTAGE (OPTIONAL), UNIT SUPPORT, WALL, CONTROL PANEL, VESTIBULE DOOR, WALL STRUCTURE (OUTSIDE), 1" MIN., NO CLEARANCE NECESSARY, SUPPLY AIR DUCT, RETURN AIR DUCT, RIGHT SIDE VIEW WITH UNIT.

RIGHT SIDE VIEW WITH UNIT

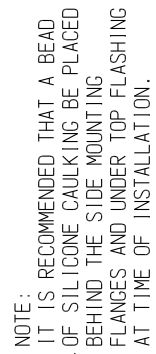
Labels: RAIN FLASHING SUPPLIED, 1" CLEARANCE ON ALL FOUR SIDES OF SUPPLY AIR DUCT IS REQUIRED FROM COMBUSTIBLE MATERIALS, WALL STRUCTURE (OUTSIDE), VESTIBULE DOOR, 1" MIN., NO CLEARANCE NECESSARY, SUPPLY AIR DUCT, RETURN AIR DUCT, CONTROL PANEL, WALL, NOTE: IT IS RECOMMENDED THAT A BEAD OF SILICONE CAULKING BE PLACED BEHIND THE SIDE MOUNTING FLANGES AND UNDER TOP FLASHING AT TIME OF INSTALLATION.

Dimensions:

- Top: 30", 4 9/16"
- Left: 4 9/16", 12", 12", 12", 12", 12", 12", 12"
- Supply Air Duct: 2 1/4", 2 15/16"
- Gas Opening: 29", 5 1/16"
- Low Voltage: 2 15/16"
- Return Air Duct: 2 15/16"
- High Voltage: 4 1/2", 8 5/8"
- Unit Support: 5 9/16", 2 1/4", 7/16"
- Right Side: 4 11/16", 29 3/4", 39 3/16"
- Internal: 10", 18 15/16", 28 5/16", 17 15/16", 15", 11 5/16", 27"

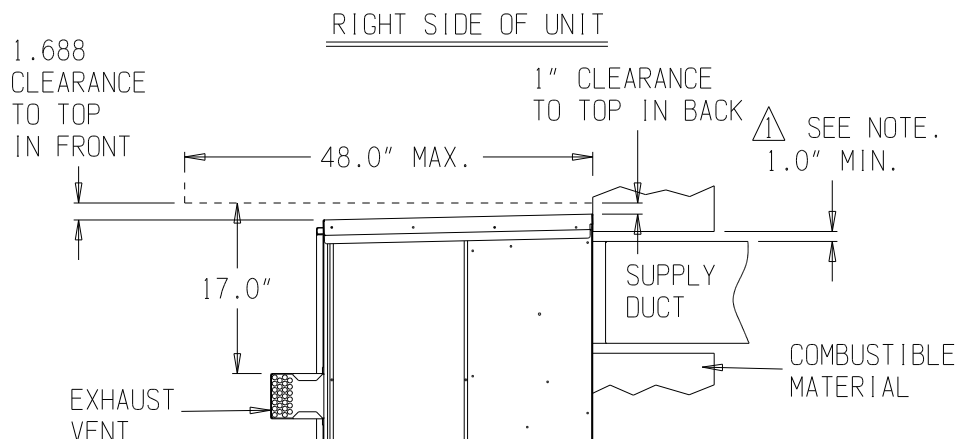
MIS-1681

FIGURE 2B



MIS-1472 A

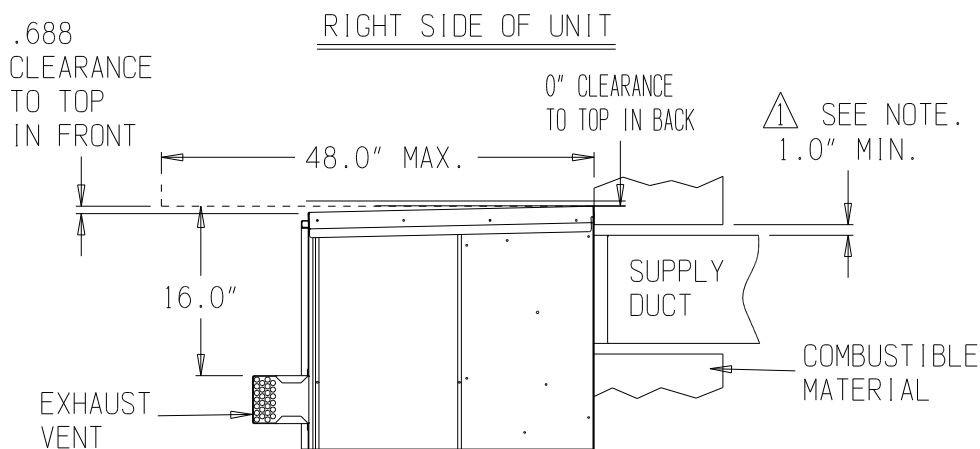
FIGURE 3A
Combustible Clearance
for W24G, W30G and W36G Models



⚠ SIDE SECTION VIEW OF SUPPLY AIR DUCT
FOR WALL MOUNTED UNIT SHOWING 1.0"
CLEARANCE TO ALL COMBUSTIBLE SURFACES.

MIS-1682

FIGURE 3B
Combustible Clearance
for W42G, W48G and W60G Models



⚠ SIDE SECTION VIEW OF SUPPLY AIR DUCT
FOR WALL MOUNTED UNIT SHOWING 1.0"
CLEARANCE TO ALL COMBUSTIBLE SURFACES.

MIS-1714



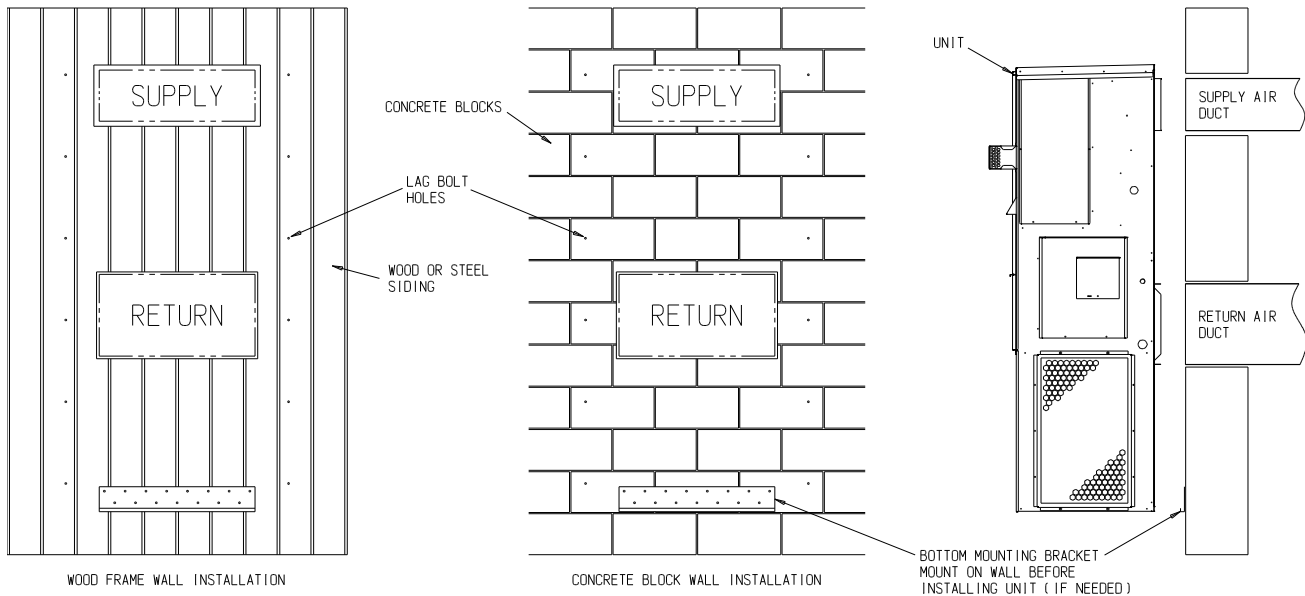
WARNING

A **minimum** of 1" clearance must be maintained between the supply air duct and combustible materials. This is required for the first 3' of ducting.

It is important to insure that the one 1" minimum spacing is maintained at all points.

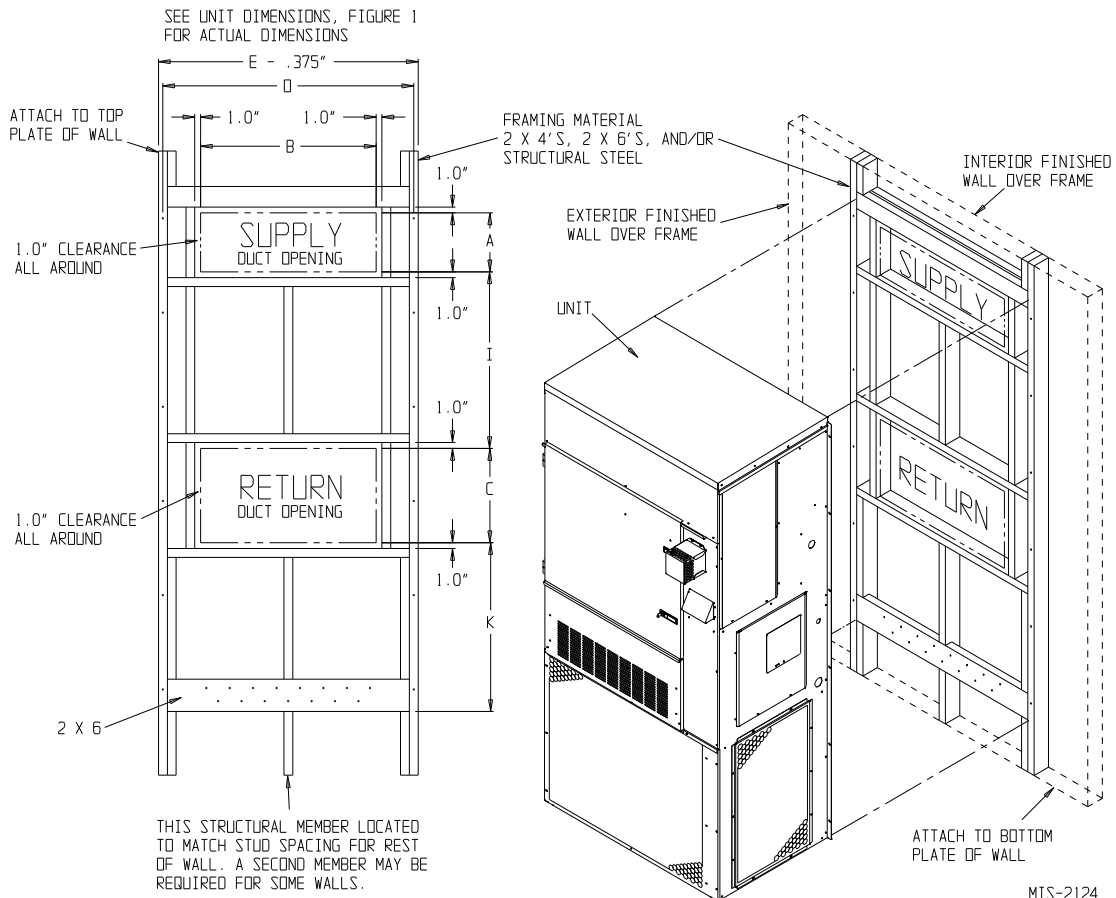
Failure to do this could result in overheating the combustible material and may result in a fire causing damage, injury or death.

FIGURE 4
Wall Mounting Instructions



MIS-1475

FIGURE 5
Wall Mounting Instructions



MIS-2124