



### INSTALLATION INSTRUCTIONS

# **EWC V-Series™ Models**

This manual must be left with the homeowner for future reference.



This is a safety alert symbol and should never be ignored. When you see this symbol on labels or in manuals, be alert to the potential for personal injury or death.

## **A** WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional installer (or equivalent), service agency or the gas supplier.

## **A** WARNING

Installation and servicing of air conditioning equipment can be hazardous due to internal refrigerant pressure and live electrical components. Only trained and qualified service personnel should install or service this equipment. Installation and service performed by unqualified persons can result in property damage, personal injury or death.

## **A** WARNING

For your safety, do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance. Such actions could result in property damage, personal injury, or death.

### **A** CAUTION

Service must be performed only as recommended by the manufacturer.

### **A** WARNING

All safety-related tasks must be performed only by qualified individuals. This device should not be used by anyone, including children, who have limited physical, sensory, or mental abilities, or who lack experience and knowledge, unless they are supervised or instructed by someone responsible for their safety. Examples of these tasks include accessing the refrigerating circuit, opening sealed parts, and accessing ventilated areas.

Manufactured By
Allied Air Enterprises LLC
A Lennox International, Inc. Company
215 Metropolitan Drive
West Columbia, SC 29170

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## **A** IMPORTANT

Check that the cables are protected from wear, rust, excessive pressure, vibrations, sharp edges, and other harmful environmental factors.

### **A** CAUTION

Installation shall be made in accordance with the requirements of the local utility and other authorities having jurisdiction, or with the National Fuel Gas Code, ANSI Z223.1 (latest edition) and the National Electrical Code. Any alteration of internal wiring will void certification and warranties.

### **A** WARNING

These units are not approved for mobile home applications. Such use could result in property damage, personal injury, or death.



(P) 508681-01

Check that equipment complies with all applicable building codes, laws, and regulations for its intended use prior to installation.

## **A WARNING**

Ducts connected to an appliance shall not contain a potential ignition source

# **A WARNING**

Auxiliary devices which may be a potential ignition source shall not be installed in the duct work. Examples of such potential ignition sources are hot surfaces with a temperature exceeding 1,000 F (538 C) and electric switching devices.

### **A** WARNING

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

## WARNING

For appliances using A2L refrigerants connected via an air duct system to one or more rooms, only auxiliary devices approved by the appliance manufacturer or declared suitable with the refrigerant shall be installed in connecting ductwork.

## **A** CAUTION

Any service personnel installing, decommissioning, or performing maintenance on the unit must be properly trained with A2L refrigerants

## **WARNING**

For duct connected appliances, false ceilings or drop ceilings may be used as a return air plenum if a REFRIGERANT DETECTION SYSTEM is provided in the appliance and any external connections are also provided with a sensor immediately below the return air plenum duct joint.

## WARNING

If this appliance is conditioning a space with an area smaller than TA<sub>min</sub>, then that space must be without continuously operating open flames (e.g. an operating gas appliance) or other potential ignition sources (e.g. an operating electric heater or similar hot surface). A flame-producing device may be installed in the same space if the device is provided with an effective flame arrest system.

**NOTE** — R454B is an A2L refrigerant. The system installation must meet the following parameters based upon total refrigerant charge (line set included). TAmin (Total minimum conditioned area) is the minimum allowable conditioned area based upon the total system charge at sea level. Values must be multiplied by altitude adjustment factor at installed altitude.

See tables below.

**TAmin Table** 

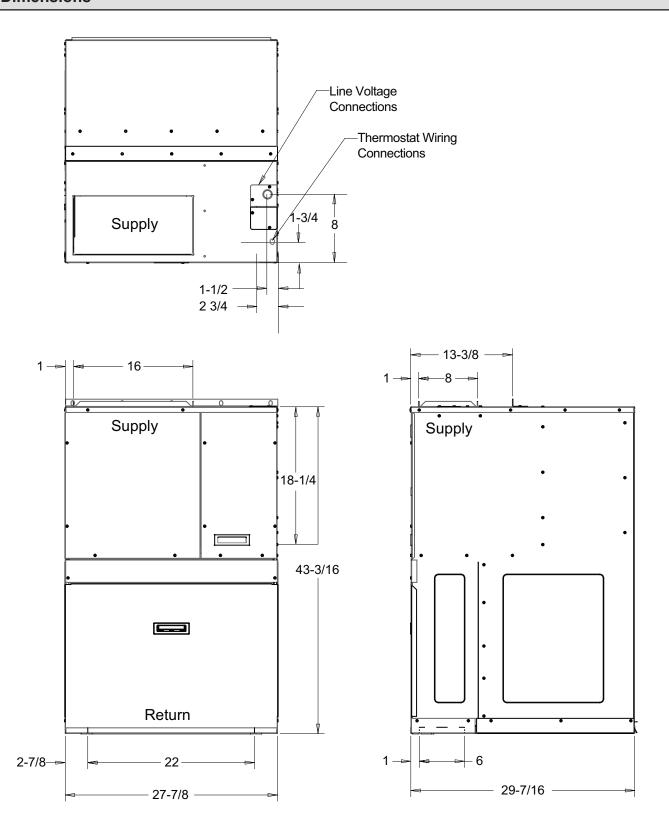
ETIPR	Charge (lb)	< 4	4	6	8	10
108173-02	Charge (kg)	< 1.8	1.8	2.7	3.6	4.5
Minimum Conditioned Area (ft²)		N/A*	60	90	120	150
Minimum Condition	N/A*	5.6	8.4	11.2	14.0	

"Units with refrigerant charge below 4 lb. (18 kg) do not require a minimum conditioned room area. -Unit's supplyduct must be connected via air duct system to one or more rooms, totaling minimum conditioned area

NOTE – Multiply values in TAmin table by the Altitude Adjustment Factors to correct TAmin based on installed altitude.

### **Altitude Adjustment Factor**

Altitude (m)	0	200	400	600	800	1000	1200	1400	1600
Altitude (ft)	0	660	1310	1970	2620	3280	3940	4590	5250
Adj. Factor	1	1	1	1	1.02	1.05	1.04	1.1	1.12
Altitude (m)	1600	1800	2000	2200	2400	2600	2800	3000	3200
Altitude (ft)	5250	5910	6560	7220	7870	8530	9190	9840	10500
Adj. Factor	1.12	1.15	1.18	1.21	1.25	1.28	1.32	1.36	1.4



#### Installation

Installation shall be made in accordance with local utility requirements and any other authorities having jurisdiction.

#### General

This unit is designed for use with R-454B refrigerant only. The MagicPak All-In-One™ HVAC system model EWC V-Series™ unit is a self-contained electric heating and cooling unit. This unit has been examined for compliance with Canadian Standards Association CAN/CSA-C22.2 No. 236 (latest edition) and Underwriters Laboratories UL 1995. This unit is also in compliance with AHRI Performance Standard 210/240. Any alterations of internal wiring will void these listings and warranties.

### Inspection

This unit is shipped in one package, completely assembled and wired. The drain tubing is in the cooling compartment behind the filter access panel.

If any damage is found, proper notation should be made on the carrier's freight bill. Damage claims should be filed with the carrier at once. Check the rating plate to confirm heating and cooling capacities. **NOTE:** Be sure to remove the chassis hold down brackets from the outdoor side of unit before installation. These brackets are located below the louver panels.

#### Location

The unit is approved for indoor installation only. It must not be installed completely outside. Duct connections as well as service access must be inside the building. The interior portions of the unit may be surrounded by a closet with clearances to combustible material held to 0" at sides, 2" top, and 0" front and plenum. The floor may be combustible.

The grille side of the unit may be flush with, or extend beyond, the face of the exterior wall, but should not be recessed more than 2" from the face of the building and should not be obstructed with trees, landscape materials, or building structure.

If the unit is to be enclosed, provisions should be made allowing access to the indoor side of the unit for changing filters and for inspection. At least 29" of unobstructed space should be provided in front of the indoor side, whether enclosed or not, to permit removal of the cooling chassis should repairs or inspection be required.

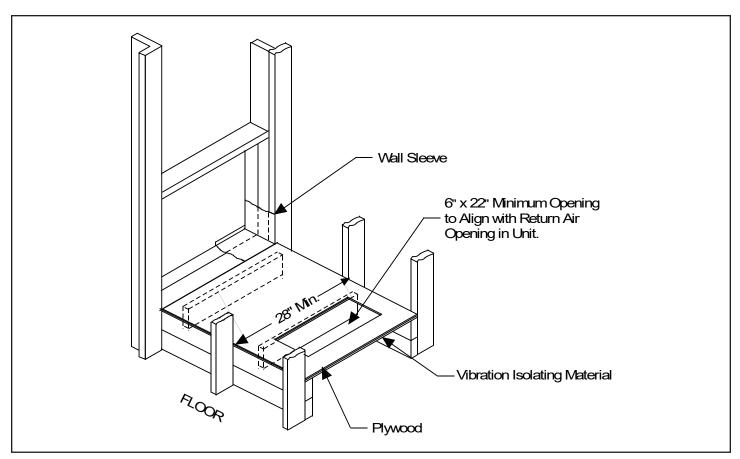


Figure 1. EWC Installation

#### Installing with a Wall Sleeve

Refer to the installation instructions packed with the wall sleeve and Figure 1 for guidance in assembly and mounting using a wall sleeve.

- Make sure that the gaskets attached to the sleeve are not damaged.
- Seal the space between the wall sleeve and the building opening using non-hardening caulking compound. This seal must be watertight.
- Assure that the unit is completely seated against the gaskets on the wall sleeve.
- Slide the unit into the sleeve. When properly nested, the angle on top of the unit should line up with the top flange of the sleeve and should almost touch. Fasten the unit to the sleeve with five screws furnished with the sleeve.

## **A** CAUTION

The sleeve is not intended as the sole support for the unit. An additional support must be provided near the return opening on the unit for adequate support. The use of vibration isolation material between the unit and the support is recommended.

#### **Condensate Drain**

To install the condensate line, connect one end of the plastic tube over the 5/8" O.D. fitting in the center of the condensate pan. Connect the other end to the drain tube running to the open trap (see Figure 2).

The drain line should pitch gradually downward at least 1" per 10 feet of horizontal run to the open drain trap.

Be certain that the plastic drain tube has free drainage and is not crimped or flattened at any bend.

Test drainage by pouring water into the drain pan under the evaporator and see that it is removed rapidly through the drain tubing.

The plastic drain connection is provided so that it may be disconnected from the permanent drain tubing in the building without unsoldering in the event it become necessary to remove the refrigeration chassis assembly.

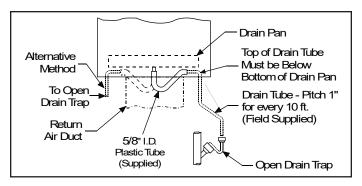


Figure 2. EWC Drain Installation

### **Electrical Connections**

All supply wiring should be done in accordance with the National Electric Code, or with local codes, where they prevail. Any alternation of internal wiring will void certification and warranty.

**NOTE:** Units are factory wired for a 230-volt power supply. If power supply is 208 volts, it will be necessary to change a wire connection on unit transformer from 240V terminal to 208V terminal as shown on the wiring diagram.

The rating plate indicates the operating voltage, phase, ampacity, and maximum circuit protection. Minimum operating voltage of the 208-230 volt model is 197 volts. Units must never be installed where voltage exceeds 10% of voltage indicated on the rating plate.

Failure of the compressor as a result of operation on improper voltage voids the compressor replacement warranty.

A separate electric line for each circuit should be run through a separate fused disconnect, from the main house panel to the supply terminal block located in the unit.

### **Thermostat**

Install the thermostat according to directions furnished with it. Select a location which will measure true air temperature. The thermostat must be located on an inside wall where it will not be affected by drafts, sunlight, or any other heat producing appliances. Connect the wires to the terminal block on the unit following the wiring diagram attached to the unit.

**NOTE**: For EWC\*30 models, a two-stage thermostat is recommended for reaching highest efficiency and full use of two-stage compressor.

#### Air Filter

All indoor return air must be filtered before it passes through the evaporator coil. A permanent-type filter is furnished with the unit, located directly in front of evaporator coil. Removing the front panel permits access to the filter.

The filter should be cleaned at least once during each of the heating and cooling seasons and more frequently if unusual dusty conditions are encountered. To clean the permanent filter, shake the filter to remove excess dirt and/or use a vacuum cleaner. Wash the filter in soap or detergent water and re-install after filter is dry.

The filter supplied need not be oiled after washing.

If an installation is made in which it is more desirable to mount the filter exterior to the unit, in the return duct work or otherwise, the permanent filter supplied can be used or a disposable filter may be used. If a disposable filter is used, the minimum area required is as shown in Table 1.

Cooling Chassis Model Number	Filter Area (sq. in.)
EWC*12	300
EWC*18	480
EWC*24	480
EWC*30	480

Table 1. Minimum Required Surface Area for Disposable Filters

#### **Ductwork**

Provide ductwork sufficiently large to handle the larger of the air volumes for heating or cooling provided by this model.

Connect supply duct to top of unit using canvas connection or other flexible connection to prevent noise transmission into the duct system.

To connect the return duct to the unit, use a straight piece of duct 22" wide by 6" deep.

Insert the duct into the opening in the bottom of the unit and flange the duct over the existing flanges around the opening inside the unit. Make sure that all sides of the duct are flanged over to permit removal of the cooling chassis if required. Use a flexible connection to attach the remainder of the return ductwork.

### **Adjustments**

No adjustments are required or should be attempted regarding any of the components of the cooling chassis and electric heating section.

The unit should be checked to see that none of the wiring is loose or missing. The plug-in electrical connector between the cooling chassis and the main control compartment should be checked to make sure that the plug is firmly seated and none of the wires are loose.

### Operation

Operation of this unit is automatic and will provide heating or cooling depending on the setting of the thermostat.

### Heating

- 1. Turn on the main power supply.
- 2. Set the thermostat system switch to "HEAT".
- Set the thermostat heating scale to the temperature desired.

#### Cooling

- 1. Set the thermostat system to "COOL".
- 2. Set the thermostat cooling scale to the temperature desired.

### **Blower Operation**

Continuous operation of the air handling blower will be obtained if the thermostat fan switch is set to "ON".

With the thermostat switch set to "AUTO", the air handling blower will cycle corresponding with the thermostat cycling.

#### **To Shut Down Unit**

For temporary or short periods of shutdown, set the thermostat system switch to "OFF". For a prolonged period of shutdown, set the thermostat system switch to "OFF" and turn off the electrical power supply.

#### **Blower**

The unit contains a direct drive, multi-speed blower motor. The proper speed has been set at the factory. Refer to the wiring diagram on the unit for proper wiring connections.

### **Maintenance**

### **Cooling Chassis**

The refrigeration system contained in the cooling chassis normally requires no maintenance since it is a closed selfcontained system. Periodic maintenance is limited to:

Every working procedure that affects safety means shall only be carried out by competent persons. This appliance is not to be used 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. Examples of such working procedures are breaking into the refrigerating circuit, opening of sealed components, and opening of ventilated enclosures.

### Cooling Chassis is charged with R-454B refrigerant.

- Cleaning the evaporator air filter. Follow the directions noted on the filter and label attached to the access panel.
- Cleaning the condenser coil if covered with foreign material such as lint, leaves, or other obstructions.
- Motors are permanently lubricated and do not normally require re-oiling.
- Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.
- The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially toxic or flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with all applicable refrigerants, i. e. non-sparking, adequately sealed or intrinsically safe.
- If any hot work is to be conducted on the refrigerating equipment or any associated parts, the appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.
- No person carrying out work in relation to a refrigerating system which involves exposing any pipe work shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out.
- Pipe-work including piping material, pipe routing, and installation shall include protection from physical damage in operation and service, and be in compliance with national and local codes and standards
- All field joints shall be accessible for inspection prior to being covered or enclosed
- Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance. The following checks shall be applied to installations using FLAMMABLE REFRIGERANTS as applicable:
- The actual refrigerant charge is in accordance with the room size within which the refrigerant containing parts are installed.
- The ventilation machinery and outlets are operating adequately and are not obstructed.
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant.
- Markings on the equipment should be visible and legible. Markings and signs that are illegible shall be corrected.
- 5. Refrigerating pipe or components are installed in aposition where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.
- For systems containing refrigerant, all repair and maintenance to electrical components shall include initial safety checks and component inspection procedures such as that capacitors are discharged in a safe manner to avoid possibility of sparking, that no live electrical components and wiring are exposed while charging, recovering, or purging the system, and that there is continuity of earth bonding. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with.

 If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used that is reported to the owner of the equipment, so all parties are advised.

**NOTE** –Sealed electrical components shall be replaced, not repaired.

**NOTE** – Intrinsically safe components must be replaced, not repaired.

**NOTE** – All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out with work in confined spaces being avoided.

- Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used. The following leak detection methods are deemed acceptable for all refrigerant systems. Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and that 12.5 % refrigerant is confirmed. Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work. If a leak is suspected, all naked flames shall be removed/extinguished. If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system, or isolated (by means of shut off valves) in a part of the system remote from the leak.
- When breaking into the refrigerant circuit to make repairs or for any other purpose - conventional procedures shall be used. However, for flammable refrigerants it is important that best practice be followed and, since flammability is a consideration, procedures such as safely remove refrigerant following local and national regulations, purging the circuit with inert gas, evacuating (optional for A2L), purging with inert gas (optional for A2L), or opening the circuit by cutting or brazing be adhered to. The refrigerant charge shall be recovered into the correct recovery cylinders if venting is not allowed by local and national codes. For appliances containing flammable refrigerants, the system shall be purged with oxygen-free nitrogen to render the appliance safe for flammable refrigerants. This process might need to be repeated several times. Compressed air or oxygen shall not be used for purging refrigerant systems. For appliances containing flammable refrigerants, refrigerants purging shall be achieved

• by breaking the vacuum in the system with oxygen-free nitrogen and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum (optional for A2L). This process shall be repeated until no refrigerant is within the system (optional for A2L). When the final oxygen-free nitrogen charge is used, the system shall be vented down to atmospheric pressure to be able to perform the required work. Ensure that the outlet for the vacuum pump is not close to any potential ignition sources and working area is well ventilated.

If servicing or major repairs are required, the complete cooling chassis can be removed from the unit. Proceed as follows:

- 1. Shut off the main power supply.
- 2. Remove the filter access panel and the panel covering the cooling controls.
- 3. Remove the drain hose from the drain pan.
- 4. Disconnect the plug-in electrical connectors. Do not separate the connector by pulling on the wires; instead, grasp the connector handle.
- 5. Disconnect the two power leads from the contactor. (Leads come from the Grommet in the unit partition.)
- Remove the screws from the panel directly in front of the blower and remove the panel. Also remove the additional screws located near the top edge of the control panel.
- 7. Drape power wires and wire harnesses out of cabinet and tape to upper panel.
- 8. Slide out the chassis, being careful not to damage any seals or parts. Particular care should be taken to insure wiring is not damaged during removal/reinstallation process.

**NOTE:** Tubing is not to be used as a handle.

To re-install the chassis, reverse the procedure outlined above. Be sure that the chassis is inserted as far back as it will go before replacing the screws. Side flanges on the chassis must be engaged with the sealing strips on the unit sides to prevent water and air leakage. Reconnect the plug-in connector, reconnect the power and four leads, and replace both access panels before turning on the main electric power supply.

#### **Heating Section**

No maintenance is necessary on the electric heating elements.

- Make sure to carry out the necessary safety checks before the service to minimize the risk of ignition.
- Make sure that the service is carried out under a controlled procedure to minimize risk of flammable gas or vapor is present during maintenance.

### **Decommissioning**

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely.

Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before starting decommissioning.

- a) Become familiar with the equipment and its operation.
- b) Isolate system electrically.
- c) Before attempting the procedure, ensure that:
- mechanical handling equipment is available, if required, for handling refrigerant cylinders;
- all personal protective equipment is available and being used correctly;
- the recovery process is supervised at all times by a competent person;
- recovery equipment and cylinders conform to the appropriate standards.
- d) Pump down refrigerant system, if possible.
- e) If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- f) Make sure that cylinder is situated on the scales before recovery takes place.
- g) Start the recovery machine and operate in accordance with instructions.
- h) Do not overfill cylinders (no more than 80% volume liquid charge).
- i) Do not exceed the maximum working pressure of the cylinder, even temporarily.
- j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- k) Recovered refrigerant shall not be charged into another REFRIGERATING SYSTEM unless it has been cleaned and checked.

Model	Indoor Blower Speed	Unit Voltage (V)	0.1 " w.c.	0.2 " w.c.	0.3 " w.c.	0.4 " w.c.	0.5 " w.c.
EWC05 7 11 12P	TAP 1 (COOL)†	208 OR 230	480	460	440	415	390
	TAP 2 (COOL)	208 OR 230	530	505	485	460	430
EWC05-7-11-12P	TAP 3 (HEAT)*	208 OR 230	615	590	570	545	525
EWC05-7-12-12P	TAP 4 (HEAT)	208 OR 230	655	630	610	590	570
	TAP 5 (HEAT)	208 OR 230	795	780	760	745	725
	TAP 1 (COOL)†	208 OR 230	480	460	440	415	390
EWC07-7-11-12P	TAP 2 (COOL)	208 OR 230	530	505	485	460	430
EWC07-7-11-12P	TAP 3 (HEAT)	208 OR 230	615	590	570	545	525
EVVC07-7-12-12P	TAP 4 (HEAT)*	208 OR 230	655	630	610	590	570
	TAP 5 (HEAT)	208 OR 230	798	780	760	745	725
EWC05 7 44 49D	TAP 1 (COOL)†	208 OR 230	635	610	600	570	550
EWC05-7-11-18P	TAP 2 (COOL)	208 OR 230	670	645	625	605	585
	TAP 3 (HEAT)	208 OR 230	805	785	770	750	730
EWC05-7-12-18P	TAP 4 (HEAT)*	208 OR 230	825	805	785	770	750
EWC07-7-12-18P	TAP 5 (HEAT)	208 OR 230	910	890	875	860	845
	TAP 1 (COOL)†	208 OR 230	635	610	600	570	550
EWC10-7-11-18P	TAP 2 (COOL)	208 OR 230	670	645	625	605	585
EWC10-7-11-18P	TAP 3 (HEAT)	208 OR 230	805	785	770	750	730
EVVC10-7-12-10P	TAP 4 (HEAT)	208 OR 230	825	805	785	770	750
	TAP 5 (HEAT)*	208 OR 230	910	890	875	860	845
	TAP 1 (COOL)†	208 OR 230	770	750	730	710	690
	TAP 2 (COOL)	208 OR 230	820	790	770	750	730
EWC10-7-11-24P	TAP 3 (HEAT)	208 OR 230	805	785	770	750	730
	TAP 4 (HEAT)	208 OR 230	825	805	785	770	750
	TAP 5 (HEAT)*	208 OR 230	910	890	875	860	845
	TAP 1 (COOL)†	208 OR 230	770	750	730	710	690
	TAP 2 (COOL)	208 OR 230	820	790	770	750	730
EWC15-7-11-24P	TAP 3 (HEAT)	208 OR 230	805	785	770	750	730
	TAP 4 (HEAT)	208 OR 230	825	805	785	770	750
	TAP 5 (HEAT)*	208 OR 230	910	890	875	860	845
	TAP 1 (COOL)†	208 OR 230	530	510	490	465	440
EWC10-7-11-30P	TAP 2 (COOL)	208 OR 230	570	545	530	505	480
	TAP 3 (COOL)†	208 OR 230	950	920	900	885	865
	TAP 4 (HEAT)	208 OR 230	825	805	785	770	750
	TAP 5 (HEAT)*	208 OR 230	910	890	875	860	845
	TAP 1 (COOL)†	208 OR 230	530	510	490	465	440
	TAP 2 (COOL)	208 OR 230	570	545	530	505	480
EWC15-7-11-30P	TAP 3 (COOL)†	208 OR 230	950	920	900	885	865
	TAP 4 (HEAT)	208 OR 230	825	805	785	770	750
	TAP 5 (HEAT)*	208 OR 230	910	890	875	860	845

NOTE: EWC\*\*30B models shipped with Low and High stage Cooling taps connected for use of the two-stage system.

\* As shipped speed for Heating operation

† As shipped speed for Cooling operation

Table 2. Supply Airflow Performance (SCFM) as a Function of External Static Pressure

#### Wiring Diagrams В REV ЕС <u>8</u> MODEL HEATING SPEED TAP #3 COOLING SPEED LINE VOLTAGE-FACTORY - - - LINE VOLTAGE-FIELD LOW VOLTAGE-FACTORY - - - LOW VOLTAGE-FIELD CIRCUITS ENERGIZED FWC05-7-11-12P TAP #1 CIRCUIT R-W R-G-Y R-G OPERATING MODE HEATING COOLING FAN DATE EWC07-7-11-12P TAP #1 TAP #4 EWC05-7-11-18P TAP #1 TAP #4 208/230V-1Ø-60Hz POWER SUPPLY COPPER CONDUCTORS ONLY. EWC07-7-11-18P TAP #1 TAP #4 В NOTE: IF ANY OF THE ORIGINAL WIRES ARE REPLACED THE SAME SIZE AND TYPE WIRE MUST BE USED. EWC10-7-11-18P TAP #1 TAP #5 THERMOSTAT APVD φφφ<sub>®</sub> φ ORIGINATED AT ALLIED AIR ENTERPRI 4.5 **1** REVISION NOTE **⊕**#® **⊕**+•⑤ $\odot$ YELLOW RED RED BLUE SEE HEATING CABINET COOLING CHASSIS REV HERM ®, ЕС 8 208 V 240 V BLK/WHT DATE .00 247 RED NGL В OPTIONAL FLOAT WHITE HEATING BLOWER MOTOR APVD COOLING ← SEE CHART FOR WIRING CONNECTION DIAGRAM THERMOSTAT ◉ 9 REVISION % € φ NOTE COOL ING HEAT I NO BLOWER TOLERANCES UNLESS 2 PL 4.03 L 3P 4.005 ARGES 2 P 2 .005 ARGES 2 P 4.005 ARGES 2 P 5.005 ARGES 2 P 6.005 ARGES 2 P 6.005 DIRESSONS ARE IN MCHES. TOLERANCES MORULATIVE. DO MOT SCALE DRAWING. DRAWING IS THE ROPERIY. OF LI I WHICE DIGHTERING. 품 CONTACTOR COIL 0-000000-0 THIRD ANGLE PROJECTION SEQUENCER \\ \frac{1}{2} \\ \fr SEQUENCER 0 $\cap$ 538572-01 DESCRIPTION FMEA NO. ⊑ WORLDWIDE HEATING AND COOLING ENGINEERING NO. 3. MATERIAL: 46019-002 ALT. MATERIAL: WHITE PAPER FACE STOCK OR EQULY. WITH FERMANENT ADMESTVE BACKING. LABEL TO BE PRIMED BLACK ON WHITE BACKGROUND. PRINTER TO DELETE BLOCKS WITH AFTER THE WIRE COLOR WHEN MAKI PROOF AND THE FINAL COPIES OF DIAGRAMS. THIS DRAWING IS FOR PRINTING INFORMATION ONLY-LABEL IS NOT TO BE REPRODUCED OR DUPLICATED FROM THIS DRAWING. 유 DRAWING NO. WIRING DIAGRAM 538572-01 DB REVISION 538572-01 WIRING A В 0

Figure 3. Wiring Diagram - EWC\*\*-7-11-12P, EWC\*\*-7-11-18P

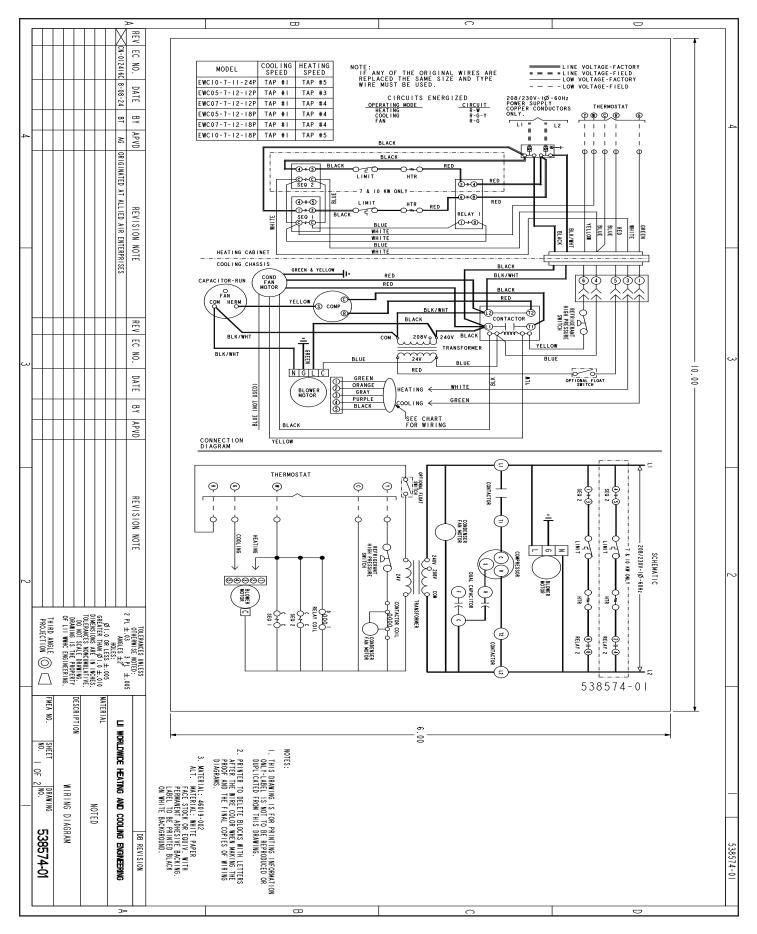


Figure 4. Wiring Diagram - EWC10-7-11-24P, EWC\*\*-7-12\*

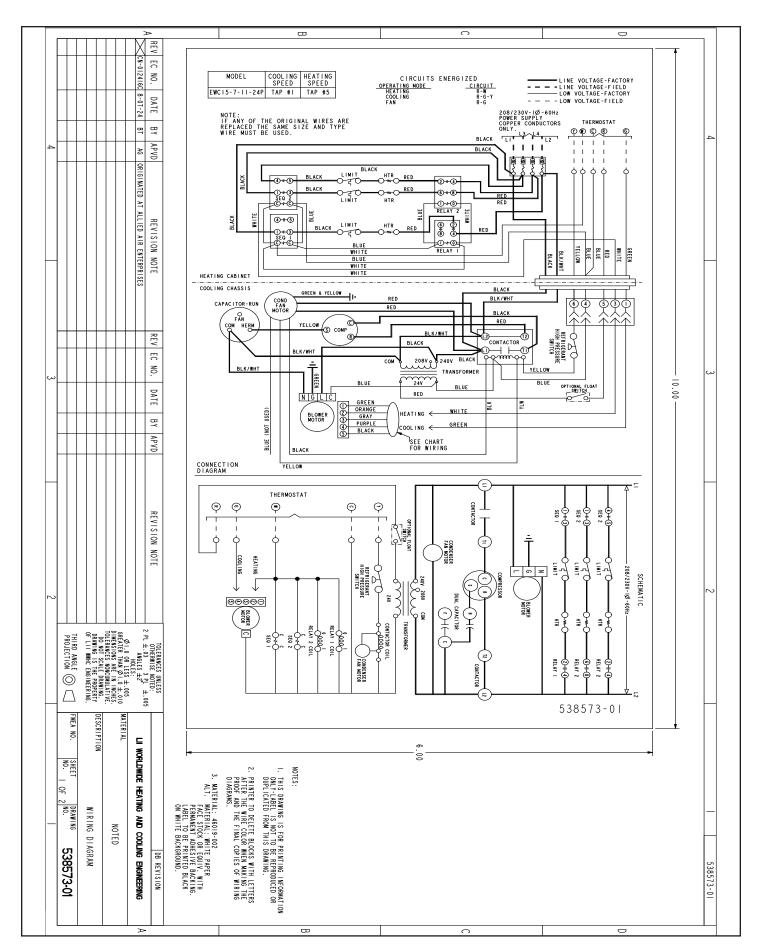


Figure 5. Wiring Diagram - EWC15-7-11-24P

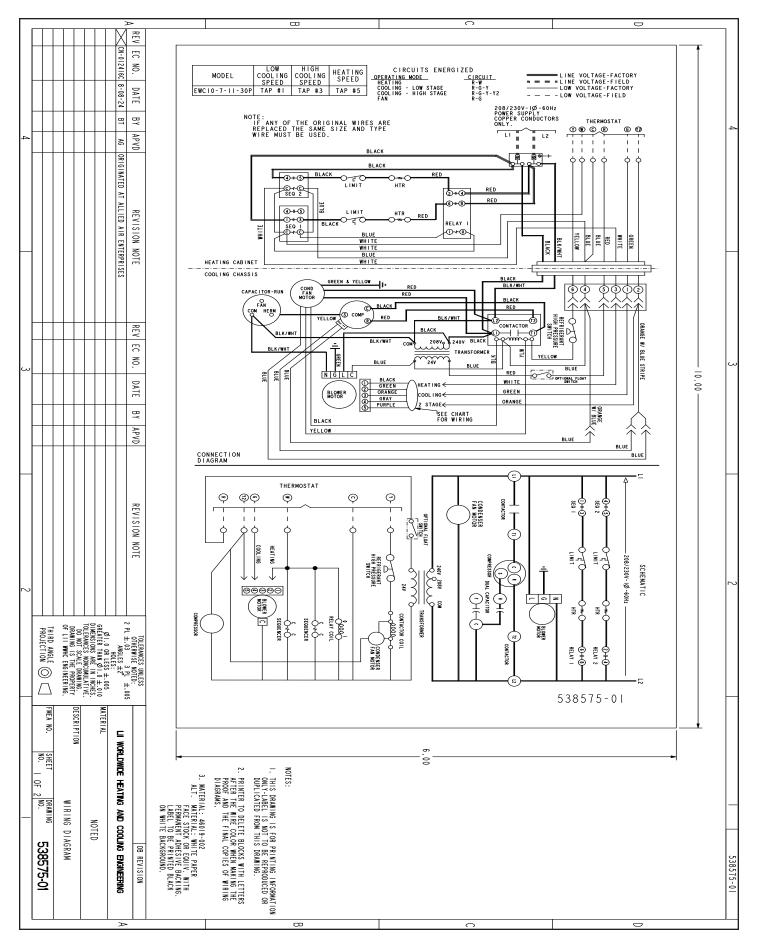


Figure 6. Wiring Diagram - EWC10-7-11-30P

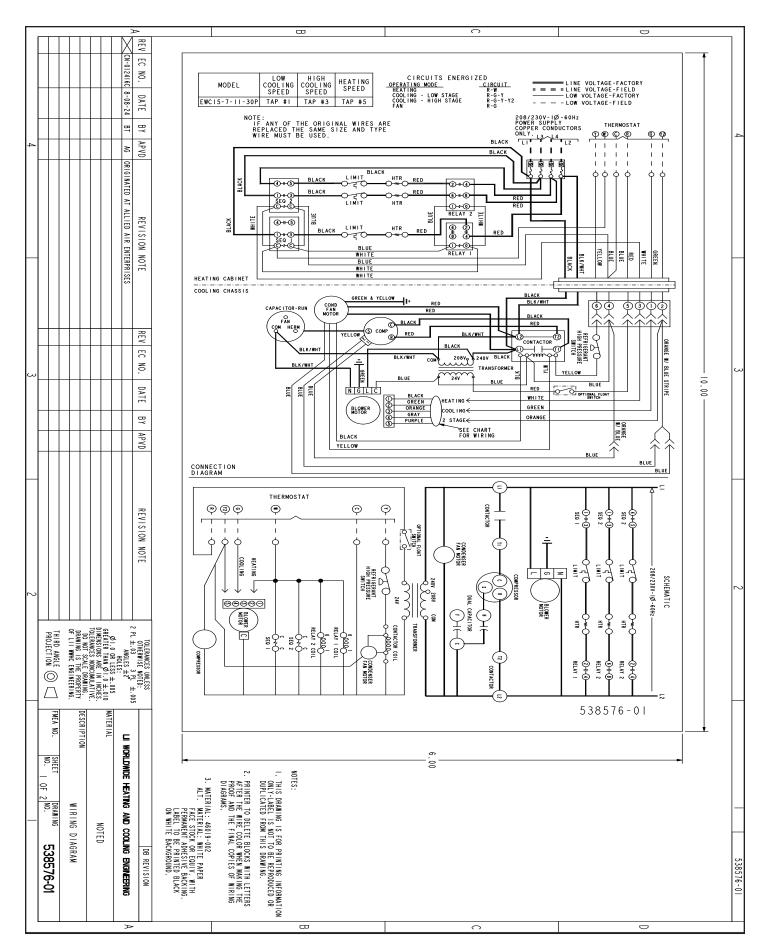


Figure 7. Wiring Diagram - EWC15-7-11-30P