

INSTALLATION INSTRUCTIONS

WMSL, WMBL, WTSL, & WTBL Series Air Handlers

The air handlers are designed for installation in a closet, utility room, alcove, basement, crawlspace or attic. These versatile units are applicable to floor or expansion valve DX cooling, or check and expansion valve heat pump applications. Several models are available to meet the specific requirements of the outdoor equipment. Factory installed electric resistance heaters are available as a factory installed option.

Installation Instructions

Installation of this unit shall be made in strict accordance with the National Electrical Code, NFPA No. 90A and 90B, and any other code authorities having jurisdiction.

Warning

Due to possible damage to equipment or personal injury, installation, service, and maintenance should be performed by a trained, qualified person. Consumer service is recommended for air filter replacement only.

Warning

Insure all power is disconnected to the unit before installing or servicing this unit. More than one disconnect device may be required to de-energize the electrical power to the equipment. Hazardous voltage can cause personal injury or even death. Make certain all access panels and covers are in place before placing the unit into operation.

Important

It is not necessary to remove the coil during installation. The units may be installed in the up flow position, or either the left hand or right hand horizontal position. No other installation position is allowed. The unit may not be placed into service while lying on its back.

If your air handler is equipped with a thermal expansion valve, make sure to loosen the sensing bulb from the line before brazing to keep the valve from being damaged.

Important WMSL and WTSL Series Unit Instructions

The horizontal water shield installed at the factory is in the left hand position. If the air handler needs to be installed in the horizontal right position, the horizontal water shield must be moved from the left hand to the right hand side of the air handler. In vertical installations, the water shield may be removed and discarded. This will enhance air flow through the air handler.

WMBL and WTBL series units have both left and right hand water shields for horizontal installations and no repositioning of these water shields is required. There is also a drain pan installed for up flow installations.



Unpacking

Carefully unpack the unit and inspect the contents for damage. If any damage is found at the time of delivery, proper notification and claim should be made with the delivering carrier.

Check the rating plate to assure the model number and voltage, plus any accessory kits, are consistent with your order. The manufacturer should be notified within 5 days of receipt of any shortage or discrepancy.

Location

The air handler should be centrally located. It may be installed in a closet, alcove, utility room, basement, crawlspace or attic with zero clearance from sides or back. Front clearance must comply with applicable governing codes having authority, but should be at least 24 inches.

The unit must be installed in a level position to ensure correct condensate drainage.

If you are installing the air handler in an unconditioned space such as an attic or crawlspace, you must ensure the area provides sufficient air circulation to prevent moisture collection on the cabinet during high dew point conditions. A drain pan must be installed under the entire unit when it is installed above a finished ceiling, or any location where a condensate leak could cause damage or a health hazard. Check your governing local codes for their regulations in regards to auxiliary safety condensate pans and drains.

Ductwork

The air distribution system should be installed in accordance with the NFPA No. 90A, "Installation of Air Conditioning and Ventilating Systems" and No. 90B, "Residential Type Warm Air Heating and Air Conditioning Installations". The air distribution system should be insulated to avoid condensate on duct work, and consistent with generally accepted installation practices, and in compliance with governing codes and regulatory authorities.

Refrigerant Piping

Refrigerant connections are located on the front of the air handler. Refrigerant piping should comply with all aspects of the outside unit manufacturer's installation instructions. Make sure to pressure test any lines where connections will be inaccessible.

Condensate Drain

Air handlers have 3/4 in. MPT drain connections. There is a primary and a secondary drain. Both drains must be trapped in order for the drains to work. Pipe the drains in accordance with applicable mechanical codes. Do not reduce the size of the drain line from the unit. All drains must have a minimum 1/8 in. fall for each 1 ft. of horizontal run. In some installations it may be necessary to insulate the drain lines to avoid condensate forming on the lines.

Metering Device

Air handlers are shipped with either an expansion valve (TXV) or fixed orifice (cap-florator) for metering refrigerant. The fixed orifice must be removed from the system if you change to a TXV. Make sure to follow directions supplied in the TXV kit. DX coils are approved for either R-22 or R-410a. Orifices and TXVs between different refrigerants will probably not be the same.

Blower

The air handler has a multi-speed direct drive blower. Units are usually shipped from the factory set for "High" speed. If a different speed is desired, disconnect electricity, and attach the wire for the desired speed to the fan relay. Cap the unused wire. Be sure to measure the temperature drop across the DX coil. It should not be more than 20° Fahrenheit.

Electrical Wiring

Make sure the unit is properly grounded! Electrical wiring of the unit should always comply with applicable sections of the National Electrical Code, and other codes having jurisdiction. The unit rating plate will give necessary electrical data. Use only copper conductors, and insulation should be at least 75° Centigrade rated. Air handlers are most commonly shipped for 230 volt 60 Hertz 1-phase operation. For 208 volt 1-phase operation, with electricity off, change the connections to the control transformer for 208 volts. If your unit is special ordered for 115 volt 1-phase operation, consult the wiring diagram supplied with the unit.

Class 2 low voltage wiring should not be run in conduit with power wiring and must be separated from power wiring, unless class 1 wire of proper voltage rating is used. Low voltage control wiring should be a minimum of #18 AWG, color coded, and have a temperature rating of at least 105° C. Any run of longer than 100 ft. should be run in #16 AWG wire. Make sure the separation of control and line voltage wiring is maintained.

WMSL, WTSL, WMBL & WTBL Series Air Handlers Installation Instructions

Thermostat

Install a thermostat to control the heating and/or cooling system. This thermostat should be for single stage systems, should have an electric heat sub-base, and must energize the relay controlling the unit blower on a call for either heating or cooling. Mount the thermostat on an interior wall where it will not be affected by drafts or internal heat sources, and where it can sense an average temperature of the space being heated and/or cooled.

The control circuit board of the air handler has an internal delay for timing the blower on and the blower off.

Air Filter

An air filter must be installed in the system prior to the air handler. The air handler does not contain internal space for an air filter. Make sure to turn the system off any time you are changing the system air filter.

Warnings

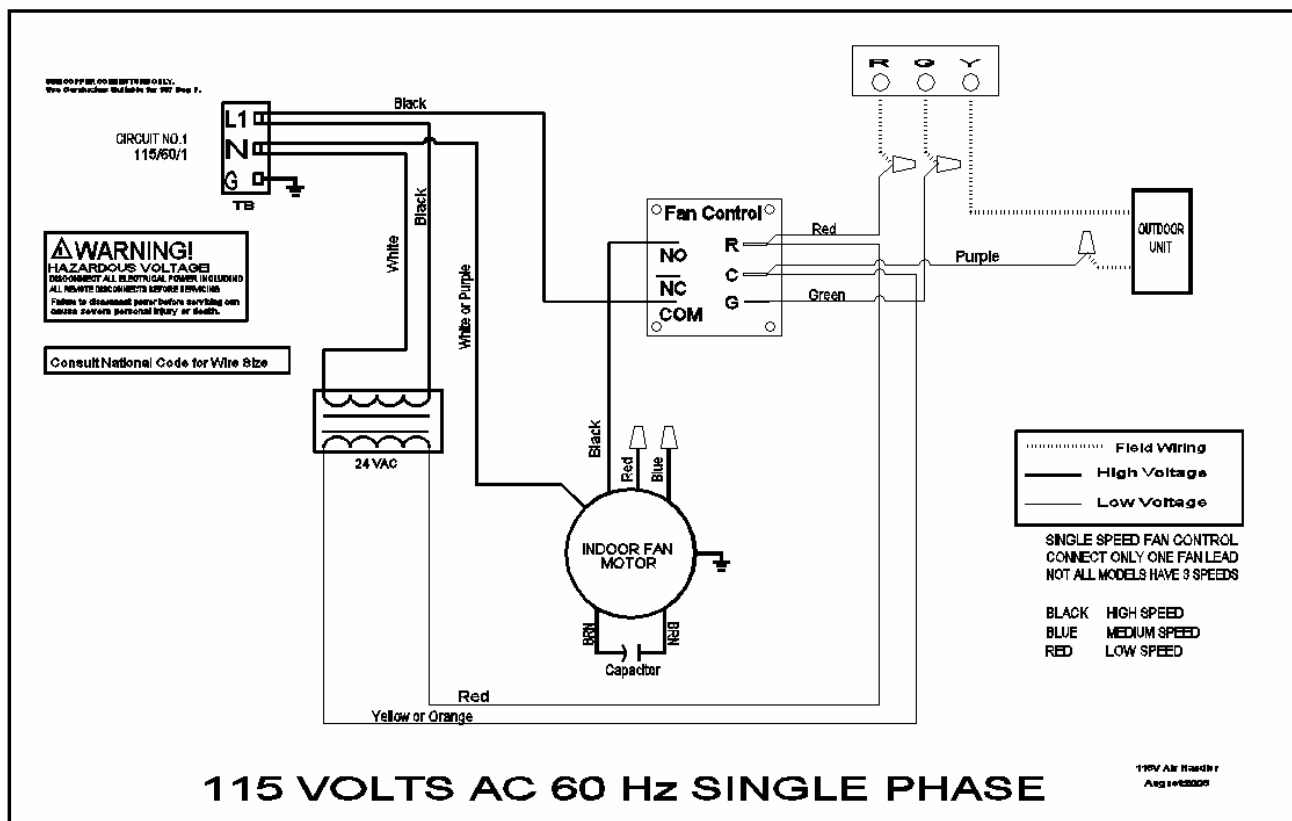
Never place any item such that it would restrict the air flow entering or leaving the system.

Do not store or use any corrosives or combustibles in the vicinity of this unit. All panels must be in place and properly secured before operating this equipment.

All electrical power connected to this unit must be disconnected prior to removal of any panels for service, repair, or maintenance. Service of this unit must be performed by qualified and trained professional personnel only.

Maintenance

The system air filter should be inspected monthly, and cleaned or replaced if needed. Always make sure to disconnect the system power supply when any service or maintenance is performed. Never operate the unit with any access panels not securely fastened in its proper position. We strongly recommend the complete system be serviced by a qualified technician at least once annually, in addition to filter maintenance.



LIMITED PRODUCT WARRANTY

The manufacturer makes the following limited warranty for products manufactured for residential applications and installed in the United States and Canada. Products installed in commercial applications are provided a limited one year warranty as outlined below. These limited warranties extend to the original purchaser and any subsequent transferees as long as the product remains at the site of the original installation.

Limited One Year Warranty

Manufacturer warrants to the purchaser, that should this product prove defective within 18 months from the date of manufacture or one year from the installation date (whichever is the shorter of the two periods), due to improper workmanship and/or material and not due to improper installation, Manufacturer will repair or replace, at its option, any defective part without charge for the part. Any replacement parts provided under this limited warranty is warranted only for the remainder of the original warranty period.

This warranty does not include labor or other costs incurred for the servicing, maintenance, replacing, removing, shipping or handling of either defective or replacement parts, or complete unit, except as stated above. These costs may be covered by a separate warranty provided by the selling dealer or contractor. If the manufacturer's serial number is removed from the unit or is not available, then the warranty is null and void.

Limited Additional Second thru Fifth Year Indoor Coil and Drain Pan Warranty

During the period from 18 months through 66 months from the date of manufacture, or 13 through 60 months from the date of installation (whichever is the shorter period), should the indoor coil or drain pan prove defective due to improper workmanship and/or material, Manufacturer will furnish a replacement coil or drain pan at no charge, FOB Houston, Texas. The owner will be responsible for any freight, installation, or handling charges of the installing contractor and/or wholesale distributor. The replacement is warranted for the remainder of the original warranty period.

The Above Warranties are Subject to the Following Conditions:

You must retain your bill of sale or provide other proof of purchase. This limited warranty applies only while the product remains at the site of the original installation (except for mobile home installations) and only to products installed by licensed dealers or contractors as determined by local licensing requirements. This limited warranty applies only if the product is installed and operated in accordance with the manufacturer's instructions and in compliance with applicable local installation and building codes and good trade practices.

This Warranty Does Not Cover Damages Caused By: (A) Accident, negligence, or abuse; (B) operating the product in a corrosive atmosphere containing chlorine, fluorine, or any other damaging chemicals; (C) modification, alteration, repair or service by anyone not properly qualified to perform such service (D) modification, alteration or repair; (E) improper matching or application of the product or components; (F) failure to provide proper maintenance and service to the product according to the manufacturer's instructions; (G) installation or operating the product in a manner contrary to the instructions of the manufacturer; (H) lightning, fluctuations in electrical current or other acts of Nature. This limited warranty also excludes all costs of installation, disconnection, or dismantling the product, parts used in connection with normal maintenance such as filters, and owner required maintenance. Consult the instructions enclosed with the product for information regarding recommended maintenance and service.

Coils which are diagnosed as restricted in the refrigeration circuit are warranted only for a period of 90 days from the date of installation. Refrigeration circuit restrictions caused by a manufacturing defect are evident at start up of the equipment, and for certain in the first 90 days of operation. Restrictions beyond this time period are virtually always caused by installation and charging problems and not manufacturing defects.

To obtain warranty service and/or parts replacement you must notify your selling dealer or contractor of any defect within the applicable warranty period. If you have any questions about service or parts that your selling dealer or contractor cannot answer, please contact Manufacturer.

All Warranties implied by state law, including any implied warranty of merchantability and fitness for a particular purpose, are expressly limited to the duration of the limited warranty set forth above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. With the exception of any warranty implied by state law as hereby limited, the foregoing express warranty is exclusive and in lieu of all other warranties, guarantee, agreement and similar obligations of manufacturer or seller with respect to the repair or replacement of any product or part.

In no event shall Manufacturer be liable for consequential or incidental damages. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you. No person, agent, distributor, dealer or company is authorized to change, modify or extend terms of this warranty in any manner whatsoever. The time within which an action must be commenced to enforce any obligation of Manufacturer arising under this warranty or under any statute, or law of the United States or any states thereof, is hereby limited to one year from the date you discover or should have discovered, the defect. This limitation does not apply to implied warranties arising under state law so the above provision may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Any controversy or claim arising out of or relating to this warranty, or the breach thereof, shall be settled through binding arbitration administered by the American Arbitration Association in accordance with its Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. This is the exclusive and sole remedy of Buyer, for any breach of warranty. Pursuit of any legal remedy must occur in state and county of the manufacturer.