



YMGI, Engineered Comfort Products for A Sustainable and Efficient Green World!

**INSTALLER'S INSTRUCTION & USER'S MANUAL
DC INVERTER AIR HANDLER (55)5
Variable Refrigerant Flow (VRF)
DUCTED VERTICAL OR HORIZONTAL VENTING UNIVERSAL
CABINET AIR HANDLER INDOOR UNIT (UC)**

- VRFI-24UC-M2B(55)5
- VRFI-30UC-M2B(55)5
- VRFI-36UC-M2B(55)5
- VRFI-42UC-M2B(55)5
- VRFI-48UC-M2B(55)5
- VRFI-54UC-M2B(55)5



Thank you for choosing this YMGI product. Please read the user's manual carefully before installation and operation, retain for your records and future reference. If you need a replacement copy, please contact your local agent or visit www.ymgigroup.com to download a current electronic version.

NOTICE

This product is designed and manufactured to be free from any defects in material and workmanship during normal use and maintenance. Installation, operation, maintenance and repairs must follow all standards and professional practices for regular cooling and heating equipment, such as NEC, State, or Local Codes and all related documents/manuals provided by YMGI. Failure to follow and adhere to all codes and documentation can cause damage to equipment, property or even personal injury.

Installer: Must be currently licensed/certified HVAC technicians only. Must Read the manual and all provided documents prior to installation. Complete and fill out all required information on the **Warranty Registration Card**.

User: Retain this manual and all supplied documents for your records and future reference.

Service: Use this manual for information concerning servicing and maintenance of this product.

SAFETY WARNING

Only qualified technicians should install and service this equipment. The installation, startup, operation and servicing of this equipment can be hazardous and requires a HVAC professional who has been trained, licensed and certified. Installations, adjustments or any equipment alterations done by an unqualified person could result in serious injury and even death. When working on the equipment, observe all precautions in the provided documents, on the tags, stickers, and labels that are attached to or placed on the equipment.

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Introduction

Read this manual carefully, making sure you understand all the instructions, practices and procedures contained in this manual. Be sure you are familiar with all the safety advisories that appear throughout this manual. Your personal safety depends upon your observance of all precautions contained in this manual.

The 3 types of advisories are defined in the following table:

⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in serious injury or even death.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It is also used to alert against unsafe practices.
NOTICE	Indicates a situation that could result in equipment or property-damage only. It can also be used to call attention to important details within this manual.

Important Environmental Concerns

Studies have shown that certain man-made chemicals can affect the earth's stratospheric ozone layer when released into the atmosphere. Refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs), may affect the ozone layer. Not all refrigerants have the same potential impact on the environment. YMGI Group advocates for the responsible handling of all refrigerants including industry replacements for CFCs such as HCFCs and HFCs.

Responsible Refrigerant Practices

YMGI Group believes that responsible refrigerant practices are important to our customers, the HVAC/R industry and the environment. All HVAC/R technicians who handle refrigerants must be certified. The Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants, the equipment and tools necessary to perform these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. HVAC/R technicians must know the applicable laws and follow them.

Disposal Notice

Do not dispose of this product or its components as unsorted municipal waste, as they contain items that may require special treatment. Contact your local waste management company for details.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow established electrical codes can result in death, serious personal injury and property damage. All field wiring **MUST** be performed by qualified personnel, such as a currently licensed electrician. Improperly installed and grounded field wiring poses **FIRE** and **ELECTROCUTION** hazards. To avoid these hazards, you **MUST** follow the requirements for field wiring installation and grounding as described in this manual, by NEC and your state/local electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in serious injury or even death. Technicians must take the necessary precautions to protect themselves from potential electrical, mechanical, and chemical hazards and **MUST** follow all precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing or servicing this unit, technicians **MUST** put on all PPE recommended for the work being undertaken. **ALWAYS** refer to appropriate Material Safety Data Sheets (MSDS) and Occupational Safety and Health Administration (OSHA) guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate MSDS sheets and OSHA guidelines for information on allowable personal exposure levels, proper respiratory protection, and handling recommendations.

If there is a risk of arc or flash, technicians **MUST** put on all PPE in accordance with NFPA 70E or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit.

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This document and the information contained therein are the sole property of YMGI Group and shall not be used or reproduced in whole or in part, without the written permission of YMGI Group. YMGI Group reserves the right to revise this manual at any time and to make changes to its content without obligation to notify anyone about any modifications, revisions or changes.

⚠WARNING

- Instructions for installation and use of this product are provided by the manufacturer.
- Installation must be performed by authorized and licensed personnel only and in accordance with all the requirements of this manual, the NEC, CEC and any state/local codes.
- For safe operation of this unit, please read and follow all instructions carefully.
- The total operation capacity of the indoor units should not exceed 120% of the total capacity of the outdoor units if all indoor units must operate at their peak capacities all the time. Otherwise, the heating and cooling operation will be diminished and less efficient which could damage the units.
- Any person responsible for system operation or system maintenance should retain this manual for reference.
- If the unit fails to operate normally, please contact your authorized system installer or HVAC professional as soon as possible and provide the following information:
 - Data on the unit (model number, serial number and owner's name).
 - A detailed description of the unit's problem before and after the problem occurred.
- To avoid personal injury or property damage, do not disassemble the unit yourself. If disassembly is required to check the unit, contact your authorized system installer or HVAC professional as they have the experience and training necessary to perform this task.

Note: Each unit has been thoroughly tested to ensure it operates correctly before leaving the factory.

Basic Cautions and Warnings

⚠CAUTION

All units shall be installed by an experienced HVAC licensed contractor or technician. Read all manuals before installation, startup and operation.

⚠CAUTION

All NEC, state, local codes and installation instructions must be followed for all units, otherwise, the unit warranty will be void and could result in serious damage to people or property.

⚠WARNING

YMGI Group is not responsible for any damage or loss due to Do-It-Yourself(DIY), self-installation or any improper installation, operation, service or natural disasters of any kind.

⚠WARNING

Do not connect power to the unit until all wiring, tubing and all unit inspections and testing have been completed. Ground the unit according to the instructions and adhering to NEC, state and local codes.

⚠WARNING

All wiring connections must be correct and secure. Loose wire(s) or improper contacts may cause arcs or overheating which can result in a fire hazard.

Note From YMGI – Must Read

Dear Customers, Installers, and Contractors

Thank you for choosing a YMGI product.

All YMGI's products are fully tested and have passed rigorous safety, performance and manufacturing standards before being packed and shipped. YMGI only uses suppliers that meet our strict standards for high quality and performance for all parts. YMGI also recognizes a quality installation is equally important therefore your system must be installed by a licensed HVAC professional. A quality installation ensures your unit will operate at its highest efficiency and peak performance for many years of worry free comfort; while a poor installation can result in unit failure and cause the unit to operate inefficiently, either immediately or over time, resulting in costly repairs.

Because a quality installation is so critical, YMGI provides detailed information in our manuals which will aid the installing technician and the owner of the unit(s).

At YMGI our goal is to ensure that your YMGI units are installed properly and correctly from the beginning.

The YMGI equipment you purchased is either a split-type or a self-contained cooling/heating system. These types of systems require a certified and licensed HVAC professional technician for proper installation. Only a certified and licensed HVAC professional technician will have the knowledge, experience, and attention for all required details to perform a complete and successful installation. This equipment is different from a window or portable type air conditioners you can purchase from local big box and retail stores which the manufacturer may not require certified and licensed personnel to install.

Reading and following YMGI Group recommendations and requirements contained in the following pages and other documents, is the first step to help ensure a smooth installation and proper operation of your unit for many years.

⚠WARNING

YMGI doesn't recommend nor allow any Do-It-Yourself (DIY) installation (partially or fully). Due to the complexity of the installation of this product most DIY installations usually have problems, either immediate or near future. These problems can cost more to fix than any upfront savings. **YMGI warranty doesn't cover any DIY units.**

If you have any questions about your unit or if the unit has a problem, you should first check the manual. If you can't find a solution, then contact your local installer or service technician to schedule a service appointment. The technician can physically inspect the unit. If at the time of inspection, the installer or service technician has any questions about the unit, they can contact YMGI technical support division directly at:

Toll Free Number: (866)833-3138 or Email: techsp@ymgigroup.com

IMPORTANT: YMGI Group is the MEDIA AUTHORITY:

YMGI Group, located in O'Fallon, MO 63366 is the author of all media produced for its products and is the only party able to give any additional explanation for any data, definitions and or descriptions found within any of its media, including but not limited to YMGI product brochures, manuals, pamphlets, catalogs, and videos. YMGI's distributors, installers, dealers, agents, customers or any other third parties will not supersede YMGI in anyway concerning YMGI-published materials and their meaning. Any concerns or questions arising from YMGI distributors, installers, dealers, agents, customers or any other third parties, should be presented directly to YMGI. YMGI will respond to any concerns or questions, if necessary, about any of its media in writing.

NOTICE

- Be sure to only hire a certified and currently licensed HVAC Company to complete 100% of the installation so that all details of the installation are performed correctly and completely.
- Be sure to have ONLY the licensed HVAC professional perform all aspects of the installation. Factory Warranty will be void if any portion of the installation is not performed by a licensed HVAC contractor/technician. DIY or partial DIY will also void ALL factory warranties.
- When hiring an HVAC technician that is offering their services as a "side job" and not hiring a licensed HVAC company may pose possible risk. This may result in an incomplete or unsatisfactory installation, no guarantee for workmanship and lack of maintenance and further service to your unit.
- Have the installation technician read in full the installation manual and all supplied documents for the product model you purchased. Details within the provided documentation contributes greatly to the success and quality of the installation. Experience with other manufacturers may not be applied fully to another manufacturer, although there will be similarities there will also be differences. Ignoring the provided installation procedures is an act of negligence and may cause unit failure or damage which could be permanent.
- It is possible for a licensed contractor/technician to make a mistake during the installation. YMGI doesn't supervise nor is able to control the contractor/technician's installation. It is critical that the installer take each variable into account during the initial installation. This will ensure a complete and professional installation and that all units work properly.

⚠WARNING

The following will damage the unit and its key components resulting in loss of factory warranty:

1. Any foreign substances introduced into the system because of failure to seal the ends of the refrigeration piping before pulling the piping through any structures at time of installation.
2. Not installing an oil P-trap in the copper suction line where the indoor unit is located 18 feet or more below the outdoor unit.
3. Cross piping and/or cross wiring of any units including more than one single zone or a multi zone system.
4. Not conducting a positive leak check by charging the system with dry-nitrogen and performing soap bubble testing.
5. Not conducting a negative leak check by evacuating the copper lines for 30 minutes. The vacuum must be held at 500 microns or better for at least 5 minutes, starting a 5-minute timer after the vacuum pump is turned off.
6. Not conducting a positive leak check prior to the negative leak check.
7. Not selecting the correct size wire or circuit breaker.
8. Not answering ALL questions in the technician's checklist located inside the warranty registration form.

⚠WARNING

The following may be overlooked, ignored, or considered unimportant during your installer's installation, but will cause your unit to underperform and may cause unit failure.

1. Any kinks in or improper bending of the copper piping.
2. Any poorly formed flares, not centering the flare with the flare nut, or not tightening all connections.
3. Not testing each indoor unit individually.
4. Not reading technical data (temp/time/pressure/current) after the system is stabilized (normally the compressor needs to run at least 10 minutes before reading the data). If the data is read too early, it may lead to inaccurate assessments about the unit.

In an effort to help protect our customers from possible faulty installations that can lead to premature unit failure, YMGI provides the above information for you (the owner) and the technician. You can observe while your system is being installed, even though your observation is not a guarantee your system is being or has been installed properly and professionally. With the information provided above, you will know some things to look for and questions you can ask. If at any time you feel there may be an issue with the installation, please have your technician contact YMGI at (866)833-3138 x 703 with any questions, issues or concerns you may have.

INSTALLING TECHNICIAN/CONTRACTOR'S RESPONSIBILITIES

1. Discuss with the customer detailed information about the structure to be conditioned, local weather (typical design, extreme temperature/humidity conditions, cooling and heating hours), previous and existing HVAC equipment (if any), usage and dependence on new HVAC equipment or YMGI products.
2. Performing a cooling/heating load calculation by using commercially available professional programs/methods such as Right-J (Manual J) for residential HVAC applications and Right-CommLoad (ASHRAE RTS/CLTD) for light commercial and commercial HVAC applications.
3. Contact your YMGI distributor/sales department or contact YMGI directly to obtain additional information to fully understand your YMGI products, including but not limited to product features, cooling/heating performance at standard ratings/conditions and extreme conditions, allowed indoor and outdoor temperature and humidity ranges, installation, operation, maintenance, service, warranty, parts and any other issues pertaining to YMGI products.
4. Select the correct (most suitable) YMGI product unit models and accessories necessary for your HVAC applications and list them in the proposal/quote, in writing, on company's quotation form or letter head, based upon the information you collected from 1, 2 and 3 listed above.
5. List your currently valid HVAC license number and EPA number in your proposal/quote.
6. Make sure you are the only party to perform the entire installation and you will not sub-contract any part of the installation to any non-licensed parties or persons. You will be solely responsible for the entire installation that you have been contracted.
7. Make sure you have all the materials you need to properly, completely and correctly finish the installation. The YMGI units and accessories may be just a portion of what you will need for the project. When support issues arise, remember YMGI employees and YMGI distributors/sales, dealers and agents are not installers and may only provide suggestions. You are the only one qualified to determine what other materials you need to complete the installation.
8. When connecting electrical wires, follow all NEC, state and local codes and ensure the installation of all YMGI units and accessories meet these requirements.
9. Connect the unit to a correctly sized electrical power source. If the unit is installed in an area where lightning or storms occur frequently, a correctly sized and type of power surge protector must be installed between the outdoor unit and the power source.
10. Select the correct types and sizes of HVAC circuit breakers, disconnect switch boxes, wires and conduit from circuit breaker to disconnect box and then from disconnect box to outdoor unit.
11. Select the proper location for installing indoor units and outdoor units with all factory requirements being followed (cooling/heating air inlets and outlets are not blocked, or restricted, mounting structure is secure, installation for convenience is considered, allow adequate clearance for maintenance/service and all applicable codes are met).
12. Cap/tape the two ends of every copper line before running them through any structure to keep any foreign substances from entering the copper line causing contamination. Label the copper lines A-A, B-B, C-C, D-D, or any other identifying marks on each pair of copper lines and wiring cable sets to keep from cross-piping or cross-wiring in multiple zone installations or where pipes for different single zone systems are close to one another.
13. Secure the wiring cables that connect between the indoor unit and outdoor unit, following all applicable NEC, state and local codes for your installation. If there are no special NEC, state or local codes to govern how these wires are to be installed, you can tape/cable tie them along with insulated copper line.
14. Tighten all pipe and wire connections ensuring there is no leakage or false/loose connections.
15. Conduct a positive pressure leakage test, checking each of the inter-connecting copper lines between each indoor unit and outdoor unit by charging with dry-nitrogen at the outdoor unit's service port (**NOTE: do not back-seat stopping valve**). A liquid soap solution shall be applied at all pipe connections to check for leakage. A 1/4" - 5/16" hose/valve adaptor may be needed if you have a 1/4" traditional manifold hose connection.
16. If there is no positive leaking, then conduct a negative pressure leakage test, checking all inter-connecting copper lines between each indoor unit and outdoor unit by pulling vacuum at the outdoor unit's service port (**NOTE: do not back-seat stopping valve**) and checking that a vacuum level of 500 Microns can be held for at least 20 minutes.
17. If there is no leakage found at any of the refrigeration pipe connections, flip up the indoor unit's face panel and remove its filter, carefully pour some clear water onto the up-right aluminum coil surface to test if the water can drain freely out of each of the indoor unit's without finding any leakage.
18. If there is water leakage found, locate the source of the leak and correct it. Only after everything is clear and all the necessary inspections made, engage the correct electrical power to the system.
19. Then back-seat stopping valves of the outdoor unit to release refrigerant from the outdoor unit into the inter-connecting pipes and the indoor unit.
20. Make sure both the indoor unit and outdoor unit are powered on correctly, operating the indoor unit in fan mode first. Then move on to test cooling, dehumidifying/drying, heating and other modes.
21. Read refrigerant pressures and pipe/valve temperatures only after the system is stabilized (normally 10 minutes after cooling/heating mode is started successfully). Record this data into the technician checklist in the lower half section of the Limited Product Warranty Registration Card/Form.
22. Adjust refrigerant charging level (remove refrigerant if pipe is shorter, the temperature is colder; add refrigerant if pipe is longer the temperature is warmer), following the manufacturer's instructions. If the average pipe length is shorter or longer than 25' and pressure/temperature readings at the outdoor unit service valves are not falling into normal ranges.
23. Explain to the user/owner about proper unit operation and maintenance. Leave your contact information to allow them to reach you. If the customer finds the unit doesn't work properly and cannot resolve the issue themselves, check the customer's units/parts/accessories and correct the issue if there is one. Communicate with YMGI-technical support line at (866)833-3138 x 703, if further help necessary.

Following these requirements will aid in ensuring that the units to be installed meet general HVAC practicing standards and necessary factory requirements. Finding any possible problems early and preventing any further damage to the unit will help to ensure a properly working unit for many years.

LIMITED PRODUCT WARRANTY

Once the installation and successful testing of the system has been completely performed by a qualified licensed/certified HVAC technician/contractor, the registration card/form is filled out completely and correctly, and filed along with a valid installation invoice from the contractor within 7 days of the original installation, the following standard **Limited Product Warranty** is qualified: **10-years** on the **compressor** and **5-year** on **PARTS ONLY**. There is **no labor coverage**.

YMGI products are designed and manufactured free from defects in workmanship, and materials for normal use. However, if for any reason, including occasionally transporting between YMGI factories/warehouses and your delivery location, you discover the unit has issues, YMGI Group will help field a solution by following YMGI's established warranty procedures:

Compressor: YMGI will warrant the compressor of a YMGI-validated and approved warranty filing, for a period of 5 years from the date of successful installation at its original installation location.

Parts: YMGI will warrant parts of a YMGI-validated and approved warranty filing, for one year from the date of successful installation at original installation location.

All warranty compressors and parts replaced will become the sole property of YMGI Group and must be returned to YMGI Group upon request. Warranty parts may be new or refurbished. All parts are tested and approved before shipping.

At no time does YMGI Group warrant labor cost of any type. Warranty will start from the date of a successful installation at the original installation location, or 90 days as of original shipping date from YMGI Group, whichever comes first.

This is a standard limited liability warranty and DOES NOT cover the following:

- Any damage or repairs to properties, or persons as an incident of or consequence of improper faulty transportation, installation, operation, maintenance or service.
- Any damage caused by frozen or broken water hoses or refrigeration pipes in the event of equipment failure.
- Any damage due to floods, fire, wind, lightening, accidents, corrosive atmosphere or any other conditions beyond the control of YMGI Group.
- Any damage due to interruption or inadequate electrical service to equipment.
- Any products that are installed outside the US or Canada.
- Any unit that has been moved from its original installation address.
- Any labor costs associated with the installation or service of the unit.
- Poor unit performance due to improper unit selection (SEER, Unit size).


To validate the above warranties, ALL of the following conditions must all be fulfilled:

1. The unit was fully (100%) and successfully installed by a licensed or certified HVAC technician.
2. The unit was installed following all NEC, state and local codes.
3. The unit was installed following all the information within the Instructions and User Manuals provided by YMGI Group.
4. ALL fields, especially the technician-checklist, of the **Limited Warranty Registration Card/Form** were filled out completely by the installing technician and signed by both the installing company's technician and the unit owner.
5. The **Limited Warranty Registration Card/Form** and a copy of the original installing company's invoice have been received by YMGI Group-Warranty Dept., POB 1559, O'Fallon, MO 63366, within 7 days of successful installation.

**No warranty filing will be validated or approved, if any one of the above conditions are not met.
Product registration doesn't guarantee the validity of this limited warranty statement.**

Steps to follow for warranty part replacement:

1. The installing or service technician must contact YMGI tech support at 1-866-833-3138 ext. 703 from the installation location to check and confirm with YMGI Technical support the exact part(s) needed to fix the problem(s).
2. YMGI will check the customer's warranty filing. There will be no charge for Parts with a validated and approved warranty. Any Parts that have not been validated and approved or have an invalid warranty filing resulting in an unapproved warranty request, will be charged accordingly.
3. **YMGI will ground ship the parts ASAP. Expedited shipping is available at the customer's expense.**
4. Replacement parts that have an approved warranty registration are to be warranted for the remainder of the 1-year on parts and a 5-year compressor warranty. Purchasing of replacement parts without a valid warranty filing or unapproved warranty request, will be sold as is and are not covered by any warranty. YMGI is continually improving products with various engineering changes and these changes are made without prior notice. Such improvements or changes include but are not limited to product specification, appearance, functionality, size, packaging, etc. These improvements or changes will not void the limited warranty stated herein. YMGI is the final authority concerning this warranty policy.

		LIMITED PRODUCT WARRANTY REGISTRATION CARD / FORM	
<small>YMGI to Fill Top Portion, at Shipping, and Keep Copy A; Center Copy B for Installer to Fill and Mail back to YMGI; Bottom Copy C for Customer to Fill and Keep</small>			
For YMGI Use Only	The Company the Unit Was Sold Through: _____	Shipping Packing List Number: _____	Registration Card Serial No. _____
	Did the Company Pay to YMGI: _____	HVAC Contractor/Technician-Name _____	Date the Filled Registration Card YMGI Received: _____
	Installation Invoice Attached to the Registration Card _____	Heard YMGI Recommended HVAC Contractor/Technician? _____	Unit(s) Work Successfully (Yes/No): _____
		Warranty Approved _____	Warranty Denied _____
Outdoor Serial Number (One Outdoor Unit, One Registration Card/Form): _____	Indoor Serial Number: _____	For Multi Zone Units: _____	Unit #1 _____ Unit #2 _____ Unit #3 _____ Unit #4 _____ Unit #5 _____ Unit #6 _____ Unit #7 _____ Unit #8 _____
Contact Where the Units are Installed: Name: _____ Phone: _____ Fax: _____ Address: _____ Email: _____ City: _____ State (Province): _____ Country: _____			
Contact of the Installing HVAC Contractor/Technician: Technician Full Name (Print): _____ HVAC Technician's Company Name: _____ Address: _____ Currently Licensed or Certified HVAC Technician License or Certification Number: _____ License Approved or Certified by: _____ Official Phone # to Check the License Validity: _____		YMGI-Recommended Contractor/Technician: Phone/Fax: _____ Email: _____ City/State (Province): _____	
<small>List for Installing HVAC Technician to Double Check Installation Quality, and Warranty Processing Purpose (if not filled by technician, or not filled fully, warranty will void)</small>			
1) Are you the only one to install whole system? If not, % of installation done by you (HVAC technician). 3) Did you read the User Manual and Installation Instruction, before you started the installation? 5) Supply electrical power V/Ph/Hz measured at wiring terminal block of outdoor unit: 7) Wire gauge, length and terminal colors between circuit breaker/disconnect switch to outdoor unit: 9) The size of HVAC circuit breaker/fuse or disconnect switch to the outdoor unit: 11) What is the refrigerant pipe length between each indoor unit and the outdoor unit? Unit A Unit B Unit C Unit D... 13) What is the elevation difference between each indoor unit and the outdoor unit? Unit A Unit B Unit C (indoor unit above outdoor unit +, below -) 15) Where is the outdoor unit located? Is the outdoor unit anchored to Ground wall balcony roof other location or pad? Is ground or secured onto wall bracket? 17) Were the refrigerant pipe ends capped or taped seal, prior to running them through structures to keep debris from entering the copper lines? 19) Did you charge the inter-connection copper pipes and indoor unit with nitrogen to check for positive leakage (pressures 150-200PSI), before conducting vacuuming leakage check? 21) Did you check if the compressor can be started and stopped in a correct (design) manner? 23) Measured refrigerant pressures at outdoor service suction valve, when unit was st. Heat pump (PSI): Cooling (PSI): Outdoor Ambient Temp. (F): 25) Have you checked all unit functions, with customer's witness, and all functions are correct? 27) Do you provide regular one-year free technical service for this installation?		2) What had been done, prior to your arrival? 4) Who unpacked the unit and accessory boxes to check for damage? 6) Incoming electrical power V/Ph/Hz measured at terminal blocks of indoor unit: 8) Wire gauge, length and terminal colors between each indoor and outdoor unit: Unit A Unit B Unit C Unit D... 10) Are the inter-connecting wires and copper lines between indoor and outdoor units installed/covered/protected by line set covers, or anything else? 12) Where is/are the indoor unit(s) located? Unit A Unit B Unit C Unit D... 14) Did you check the indoor unit for condensate leakage and refrigerant leakage, before and after connecting them? 16) Have you checked to make sure there is no cross-piping and no cross-wiring between any two indoor units (zones)? How did you do it, who was with you? 18) Have you checked and run cooling or heating, one unit by one unit, all working fine? 20) Did you vacuum correctly to check the connecting pipes and indoor unit for leakage, what was the micron gauge reading, for how many minutes? 22) If copper length were not made to the supplied or recommended refrigerant pipe length, how much refrigerant added or deducted? 24) What were the measured temperatures (probe not touching any metal): At cooling: indoor return air °F, discharge air °F, and outdoor °F At heating: indoor return air °F, discharge air °F, and outdoor °F 26) Did you show the user how to operate the unit? Did he/she understand you? 28) Do you list the working details in the invoice and leave a copy to the customer?	
Installation Finished and Unit Works Successfully. Print Name of Installation HVAC Technician: _____ Signature: _____ Date and time: _____		Installation Finished and Unit Works Successfully. Print Name of Owner: _____ Signature: _____ Date and time: _____	
<small>By signing above, I acknowledge the liability and responsibility for any false statement or not telling all the facts, and I authorize YMGI to check the details of the filed above, and make its decision on warranty. I understand our filing or filing the warranty card/form DOES NOT mean automatic warranty approval, because warranty is approved only to those qualified and successful installations by qualified HVAC technician. I know the warranty, if approved, is a standard 5-year compressor and 1-year other parts only, without any labor coverage. I agree to and will follow all the contents contained in the Limited Product Warranty Policy that YMGI, not other entity, stated in public, including but not limited to manual, web site, email, etc.</small>			
<small>Important Note: A copy of the installing HVAC company's invoice to show all their work details, your payment proof, center copy B of this registration card filed after a successful installation, all three (3) MUST be mailed together to Warranty Dept., YMGI Group, POB 1559, O'Fallon, MO 63366, for warranty processing. Customer keeps bottom copy C. YMGI will check against copy A that was kept at YMGI.</small>			

WHY DOES YMGI GROUP REQUIRE INSTALLATION AND SERVICE TO BE PERFORMED 100% BY CURRENTLY LICENSED OR CERTIFIED HVAC TECHNICIANS/CONTRACTORS?

1. **Expertise and Safety:**

They have the training and experience to accurately and safely install and service your equipment. The equipment runs with high-pressure refrigerant, oil and electrical current. The copper lines must be installed properly to prevent leakage and foreign substances from contaminating the refrigerant system.

2. **You will save money in the long run:**

If any problem occurs with the unit that has been fully installed by a currently licensed or certified technician/contractor, contact the original licensed or certified HVAC technician to evaluate the unit as they have the training and experience to correct the problem quickly and efficiently. A technician may be unwilling to repair an issue on a unit that they did not install. If you do find a technician willing to perform this service, there is an increased possibility of higher service fees, increased service visits, or delayed service from that technician.

3. **It's the law!**

The federal, state and/or local government and authorities have various governing laws or regulations, guidelines, ordinances, etc. These laws may require only licensed or certified professionals can install and service this type of high pressure HVAC equipment.

SUGGESTIONS TO AID YOU IN HIRING AN HVAC CONTRACTOR:

1. Hire a currently practicing, licensed/certified HVAC professional technician/contractor. Technicians, who are no longer practicing (retired, etc.) in this field, may not have current technical knowledge or may lack experience on the equipment you have purchased.
2. Hiring a licensed technician to install your unit as a "side job" and not hiring a licensed HVAC company may pose possible risk. This may result in an incomplete or unsatisfactory installation, no guarantee for workmanship and lack of maintenance and further service to your unit.
3. Hire a technician/contractor who services customers in your local area and one you are familiar with. Local contractors have a faster response time and it will be easier for you to determine if they are reputable.
4. Use only a reputable licensed/certified HVAC installation professional to prevent any unexpected charges because of unethical business practices.
5. Check their references, verify they provide professional service for their customers. N.A.T.E or A.C.C.A certified technicians are strongly recommended.
6. Some contractors/technicians may not feel comfortable about installing equipment that has been purchased by someone other than themselves. They prefer to purchase and install the equipment themselves. You can contact YMGI directly to check and see if there are contractors in your area who have installed our products or any similar products.
7. Ask for a detailed quote for the complete installation project. A flat rate quote is the safest contract for both you and the contractor.
8. Local HVAC technicians may charge you on a project basis or on an hourly basis. It has been our general experience; **a full single head installation normally can cost \$800 to \$1500**. These costs are estimates, and your actual costs may differ due to your specific job requirements and installation location.
9. Number of hours can vary depending upon each individual situation, some factors are, but not limited to:
 - Difficulty or complexity of securely installing the indoor unit.
 - Difficulty or length of the inter-connecting pipes and wires to be installed.
10. A successful installation is dependent on all these suggestions and all the necessary steps are followed.
11. If the contractor(s)/technician(s) are experienced with the systems/brands you purchased. **You might save on the installation cost, but remember to always ask for and verify references.**
12. The contracts should list and detail all work to be performed and the standards they will follow. Some contractors are willing to include a 1-year installation/service warranty at no extra charge. Check to see if this is an available option. If available, make sure it is included in the contract.
13. Verify and confirm the installation is completed and all the unit functions have been tested and working properly. All items on the checklist should be checked and clearly marked in the warranty registration card/form, prior to paying the contractor in full.

The cost of not having your unit professionally installed can be more expensive than the additional cost of hiring a certified contractor. Protect your investment and warranty eligibility by doing it right the first time.

⚠WARNING

Safety Precautions

1. Follow these instructions to complete the necessary installation process. Carefully read this manual before installation and unit startup or servicing.
2. Wire size of power cord should be properly sized to meet the required electrical loads. Should the power cord get damaged, the power cord should be replaced with a manufacturer approved cable.
3. After connecting the power cord, attach the electric box cover and secure properly.
4. Always meet the nitrogen charge requirements when welding pipes.
5. Never short-circuit or cancel the pressure switch as this will result in damage to the unit.
6. Connect the wired controller before energizing, otherwise the wired controller cannot be used.
7. Before using the unit, verify the piping and wiring are correct. This will avoid water leakage, refrigerant leakage, electric shock, fire, etc.
8. Do not insert fingers or objects into the air outlet or inlet grille.
9. Open a door or window for ventilation for allowing fresh air to enter the room to avoid depleting the oxygen while gas/oil supplied heating equipment is used during the installation.
10. Never start up or shut off the unit by means of directly plugging into or unplugging the power cord from the power outlet.
11. Turn off the unit after it runs at least five minutes, otherwise it will influence the oil return of the compressor.
12. Do not allow children to operate this unit.
13. Do not operate this unit with wet hands.
14. Turn off the unit or disconnect the power supply before cleaning the unit. This will avoid possible electric shock or personnel injury.
15. Never spray or splash water towards the unit. This can cause a malfunction in the unit or can result in electric shock.
16. Do not expose the unit to moist or corrosive environments.
17. While operating in cooling mode, do not set the indoor units room temperature too low. Keeping the temperature difference between indoor and outdoor unit within 41°F (5°C).
18. YMGI Group recommends that only properly trained and authorized personnel be allowed to repair or service the unit. Improper repairs or servicing can result in electric shock or fire hazards. Please contact YMGI Group if you need help locating a qualified repair or service technician.
19. Before installation, check the power supply to ensure it is sufficient to meet and is in accordance with the requirements specified on the nameplate of the unit. Ensure the power overload is functioning correctly and make sure it is properly maintained.
20. Installation must be performed only by an authorized installer or HVAC professional in accordance with the requirements set by the NEC and CEC. Do not attempt to install the unit yourself. Improper handling may result in water leakage, electric shock, fire, and voiding of the warranty.
21. Be sure to use only approved accessories and parts to prevent water leakage, electric shock and fire.
22. Make sure the unit is grounded properly prior to connecting to power source, to avoid electric shock. Do not connect the ground wire to a gas pipe, water pipe, lightning rod or telephone line.
23. Energize the unit for 8 hours before operation. Turn off or disconnect the power within 24 hours to prevent short-cycling (to protect the compressor).
24. If refrigerant leakage happens in a confined space during installation, ventilate immediately. Poisonous gases can occur if the refrigerant gas is exposed to fire.
25. Volatile liquids, such as paint thinners or solvents if exposed to the unit's surface will cause damage to the surface finish. Only use a soft cloth along with a mild non-abrasive detergent to clean the outer casing of the unit.
26. If the unit does not operate normally or if you notice any type of burning odor, power off the unit and turn off the main power supply, then immediately contact your YMGI authorized repair service center or HVAC professional.

NOTICE

YMGI Group will not be responsible for any personal injury or any property damage caused by improper or incorrect installation, improper service or maintenance or by not following the instructions listed in this manual.

DO NOT pull on the power supply cords or refrigeration lines that are connected to the indoor and outdoor units. Install the power supply cords and secure them into position. PVC line set cover is recommended for the outdoor unit to protect against rain, sunlight and accidental damage.

DO NOT allow cold air to blow directly onto people for a prolonged period, as this could make people cold and uncomfortable.

DO NOT undersize any of the power supply wires.

DO NOT connect several units to a single breaker. Don't undersize or oversize the circuit breaker. A poorly sized circuit breaker can cause unit failure and even fire.

DO NOT wire or open a unit while the unit is running. Make sure to disconnect the power supply and switch off all circuits prior to inspecting or servicing the unit. Inspecting and servicing the unit while the power supply is connected, and the circuits are switched on could cause an electrical shock or fire.

DO NOT install the indoor unit near any cooking surfaces, in direct sunlight or any ventilation systems. Poor placement could decrease efficiency and waste energy.

DO NOT install the unit in places where there is exposure to flammable materials or gas.

DO NOT apply chemical solvents, flammable insecticides, or abrasive materials directly on the unit. Clean the unit only with a soft dry cloth.

DO NOT install the unit in a damp laundry room or near flammable gas. All units must be protected by a certified electrical circuit breaker in accordance with all safety and electrical codes.

DO NOT use the system for anything other than what it was designed.

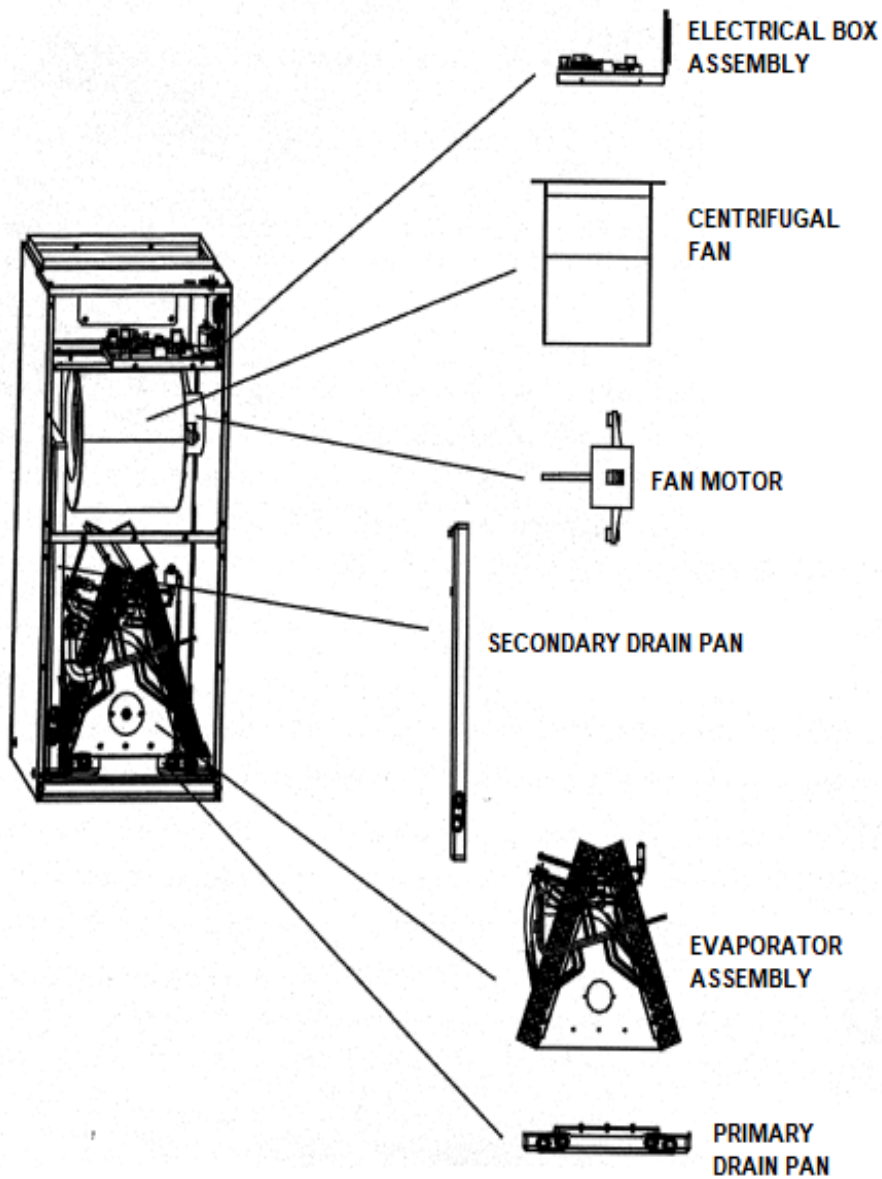
DO NOT store or install the units near food, paint, or other chemicals.

DO NOT use the unit in cool or dry mode for prolonged periods where humidity is higher than 90%.

DO NOT operate the unit for prolonged periods without refreshing ambient air. Open a door or window periodically to allow in fresh air.

Product Introduction

Component Names of Each Major Part of the Indoor Unit



Indoor Unit Working Temperature Range: 16°(60.8°F) ~32°C(89.6°F)

Rated Working Condition

	Indoor Side State		Outdoor Side State	
	Dry Bulb Temp C°(F°)	Wet Bulb Temp C°(F°)	Dry Bulb Temp C°(F°)	Wet Bulb Temp C°(F°)
Rated Cooling	27(80.6)	19(66.2)	35(95)	24(75.2)
Rated Heating	20(68)	15(59)	7(44.6)	(42.8)

Installation of the Indoor Unit

Selecting the Installation location

- Select a location that will allow the cool air produced by the unit to be distributed throughout the entire room.
- Select a location where the condensation water can be easily drained.
- Select a mounting location that can adequately support the weight of unit.
- Select a location that will allow easy access to the unit for maintenance.
- The unit should not be installed in a laundry room or any other damp/wet location.

Indoor Unit

The indoor unit should be mounted in a location where:

- The specifications for the unit installation specified in the drawings are met.
- Both the air intake and the exhaust must have clear paths and are not obstructed.
- The unit is not mounted/installed in direct sunlight.
- The unit is mounted/installed away from any heat sources or steam.
- The unit is not mounted/installed in an environment where machine oil vapor is present.
- The unit is mounted/installed away from any type of electrical devices that could cause interference with the unit's remote controls range, such as fluorescent lamps (inverter or rapid start type).
- The unit is mounted/installed at least 1 meter or 3 feet 3 inches away from any television or radio as the unit may cause interference with the picture or sound quality.

⚠WARNING

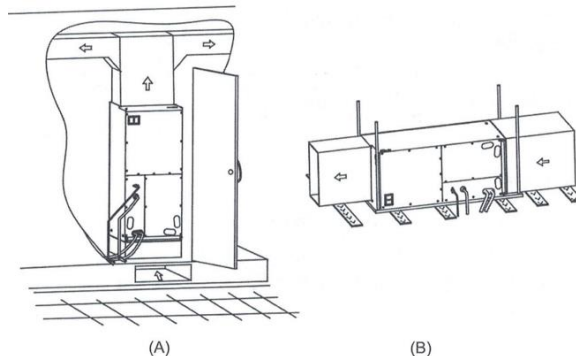
This air handler is designed for indoor installations only.

When installing the air handler, try to minimize the length of the refrigerant tubing as much as possible. install the air handler in a location that conforms to the requirements of the condenser following all instructions provided with the condensing unit. Service clearance is to take precedence. Allow a minimum of 24 inches in front of the unit for servicing. When installing in an area directly over a finished ceiling (such as an attic), an emergency drain pan is required and must be installed directly under the unit. See your local and state codes for the exact requirements. When installing this unit in an area that may become wet (i.e. a garage), elevate the unit enough to ensure the unit will always remain dry and safely out of the water. Additionally, it is advised to install a protective barrier around the unit to prevent water from entering and damaging the unit.

The air handler is designed for a complete supply and return ductwork system. Do not operate this product without all ductwork attached.

Based upon actual conditions, if the air handler is installed as shown below (A), the air handler should be concealed in a specific room or space and not accessible to the public.

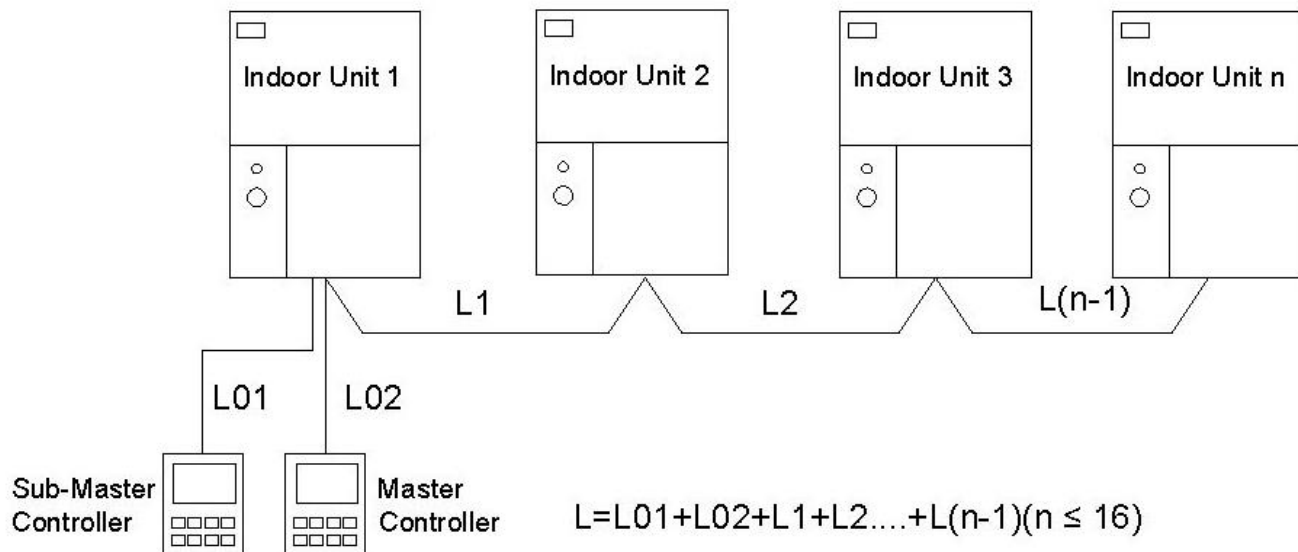
Based upon actual conditions, if the air handler is installed as shown below (B), make sure there is enough space for care and maintenance. The height between the air handler and ground is above 98-1/2 inches or 2500mm and not accessible to the public.



Requirements for Communication Line

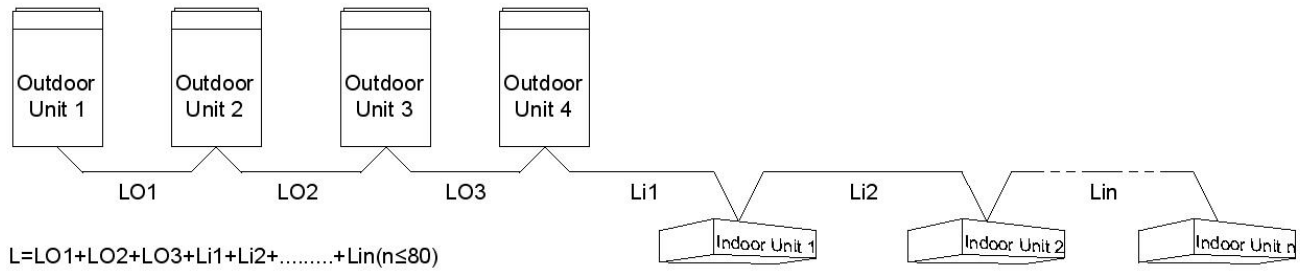
NOTICE

If the unit is installed in a place where there is strong electromagnetic interference, shielded wire must be used for the communication wire between the indoor unit and the wired controller. A twisted pair line with shielding must be used for the communication wire between the indoor units and between the indoor unit and the outdoor unit.



Wire Type	Total Length of Communication Wire Between Indoor Unit and Wired Controller (m/feet)	Wire Diameter (AWG)	Wire Standard	Remarks
Light/Ordinary polyvinylchloride sheathed cord (UL60335-2011)	$L \leq 250(850)$	2 x 18 ~ 2 x 16	(UL60335-2011)	<ol style="list-style-type: none"> Total length of communication cable can't exceed 250m (850 feet). The cord shall be circular cord (the cores shall be twisted together). If the unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.

Selection of Communication Line for Indoor and Outdoor Unit



Wire Type	Total Length of Communication Wire Between Indoor Unit and Indoor Unit (Outdoor Unit) (m/feet)	Wire Diameter (AWG)	Wire Standard	Remarks
(Communication Line for Indoor Unit) Light/Ordinary polyvinylchloride sheathed cord (UL60335-2011)	$L \leq 1000(3280)$	$\geq 2 \times 18$	(UL60335-2011)	1. If the wire diameter is enlarged to 18AWG, the total communication cable length can reach 1500m (4920 feet). 2. The cord shall be circular cord (the cores shall be twisted together). 3. If the unit is installed in places with intense magnetic field or strong interference, it is necessary to use shielded wire.
(Communication Line for Outdoor Unit) Light/Ordinary polyvinylchloride sheathed cord (UL60335-2011)	$L \leq 1000(3280)$	$\geq 2 \times 18$	(UL60335-2011)	

Wiring Requirements

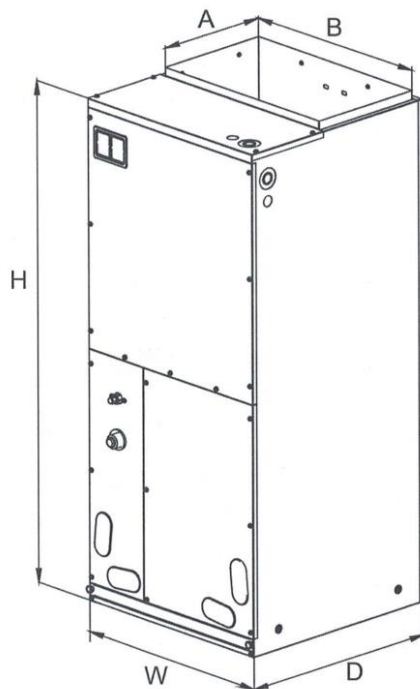
Power Cord Size and Breaker Switch Capacity

Model	Power Requirements	Breaker Switch Capacity (A)	Minimum Sectional Area of Ground Wire (AWG)	Minimum Sectional Area of Power Cord (AWG)
VRFI-24UC-M2B(55)5	208/230V-1Ph-60HZ	15	18	18
VRFI-30UC-M2B(55)5		15	18	18
VRFI-36UC-M2B(55)5		15	18	18
VRFI-42UC-M2B(55)5		15	18	18
VRFI-48UC-M2B(55)5		15	18	18
VRFI-54UC-M2B(55)5		15	18	18

NOTICE

- Use copper wire only as unit's power cord. Operating temperature should be within its rated value.
- If the power cord is more than 15m (49-1/4 feet) long, correctly increase the sectional area of the power cord to avoid overloading, which may cause an accident.
- Above selection requirements: Power cord size is based on BV single-core wire (2~4pc) at 40°C (104°F) ambient temperature when laying across plastic pipe. Breaker switch is D type and used at 40°C (104°F). If the actual installation condition varies, please lower the capacity appropriately according to the specifications of the power cord and breaker switch provided by the manufacturer.
- Install a shut-off device near the unit. The minimum distance between each stage of the shut-off device should be 3 mm (1/8 inch) (The same for both indoor unit and outdoor unit).

Indoor Unit Dimensions



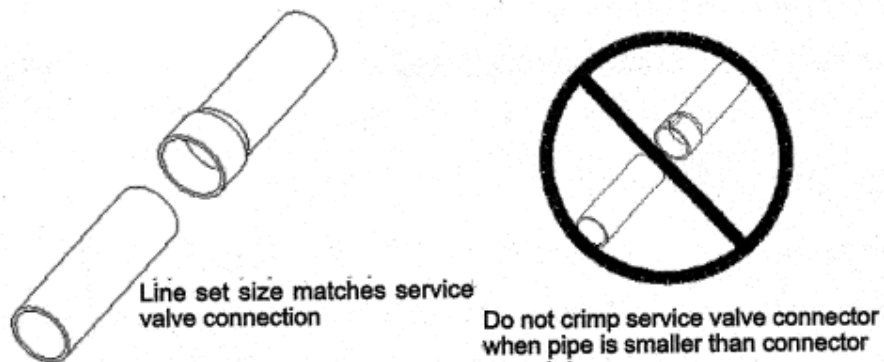
MODEL	DIMENSIONS inches(mm)				
	W	D	H	A	B
VRFI-24UC-M2B(55)5	18-1/8(460)	21-1/4(540)	43-1/2(1105)	11-5/8(295)	16-3/4(426)
VRFI-30UC-M2B(55)5	18-1/8(460)	21-1/4(540)	43-1/2(1105)	11-5/8(295)	16-3/4(426)
VRFI-36UC-M2B(55)5	21-1/4(540)	21-1/4(540)	48-1/4(1224)	11-5/8(295)	20(508)
VRFI-42UC-M2B(55)5	21-1/4(540)	21-1/4(540)	48-1/4(1224)	11-5/8(295)	20(508)
VRFI-48UC-M2B(55)5	24-7/8(630)	21-1/4(540)	48-1/4(1224)	11-5/8(295)	20(508)
VRFI-54UC-M2B(55)5	24-7/8(630)	21-1/4(540)	48-1/4(1224)	11-5/8(295)	20(508)

Refrigerant Piping

MODEL	EXTERNAL DIAMETER (inch)	
	Gas Pipe	Liquid Pipe
VRFI-24UC-M2B(55)5	5/8	3/8
VRFI-30UC-M2B(55)5	5/8	3/8
VRFI-36UC-M2B(55)5	5/8	3/8
VRFI-42UC-M2B(55)5	5/8	3/8
VRFI-48UC-M2B(55)5	5/8	3/8
VRFI-54UC-M2B(55)5	5/8	3/8

Preparing the Pipe

1. Cut the pipe end with a pipe cutter.
2. Remove all burrs with the cut surface facing downward so the chips can't enter the pipe.
3. Clean pipe end thoroughly.

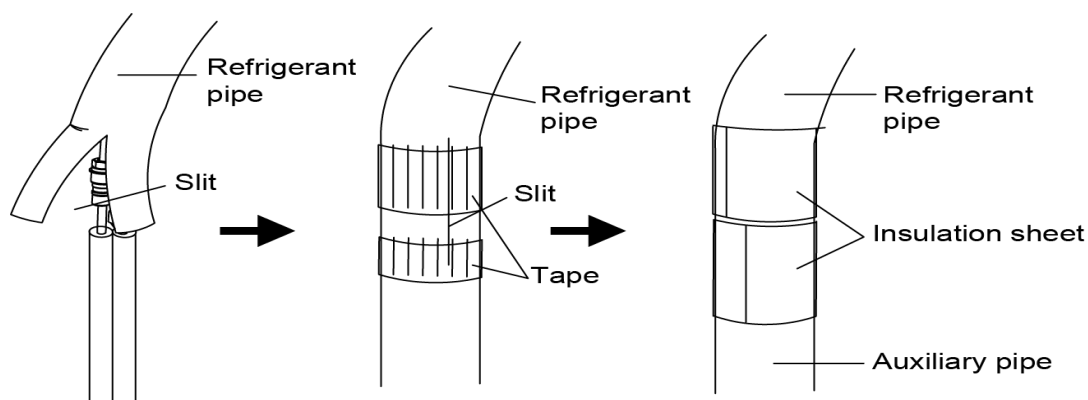


Attaching the Connection Pipe

- Attach the pipe after checking for gas leakage, described above.
- Cut the insulated portion of the on-site piping, then match it up with the connecting portion.
- Secure the slit on the refrigerant piping side with the butt joint on the auxiliary piping using tape, making sure there are no gaps.
- Wrap the slit and butt joint with the included insulation sheet, making sure there are no gaps.

Checking for Gas Leakage

- Check for gas leakage after air purging.
- See the sections on air purges and gas leak checks in the installation manual for the outdoor unit.

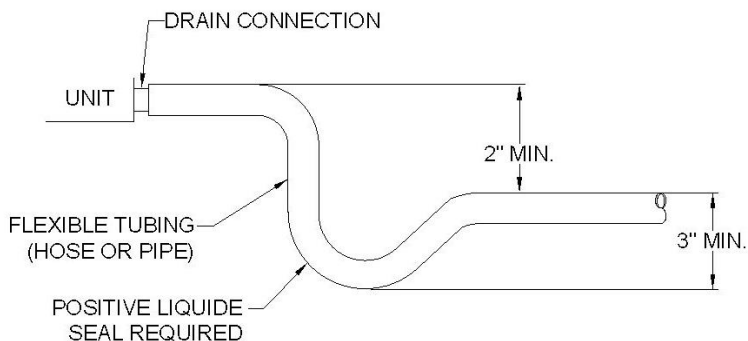


NOTICE

- Insulate the pipe joints securely. Incomplete insulation may lead to condensate buildup and can result in water leakage.
- Push the pipe inside so it does not place undue force on the front grille.

Drain Piping for Condensate Removal

The drain pan has primary and secondary drain connections. Condensate removal is performed by attaching a 3/4 inch (20mm) PVC (polyvinyl chloride pipe) to the evaporator coil pan and terminated in accordance with state and local Plumbing/HVAC codes. The installation must include a “P” style trap that is located closely to the evaporator coil. Do not over tighten the drain connection(s) in order to prevent possible damage to the evaporator drain pan. (See figure below for details of a typical condensate drain line with “P” trap).



Ductwork

This air handler is designed for a complete supply and return ductwork system.

⚠WARNING

Do not operate the air handler until all ductwork is completed including attachment to the air handler. All ductwork must be sized correctly and without any restrictions. Ductwork that restricts airflow can result in poor performance and can cause the compressor or heater to fail. Ductwork must be constructed in a manner that limits restrictions and allows for and maintains suitable air velocity. Ductwork is to be sealed to the unit preventing air leakage.

Return Ductwork

Do not terminate the return ductwork in an area that can introduce toxic or objectional fumes/odors into the ductwork. The return ductwork is to be introduced into the air handler bottom (upflow configuration).

Return Air Filters

Each installation must include a return air filter. Filtering of the air may be performed at the air handler or externally, such as at the return air filter grille.

Installation of the Wired Controller

Refer to User Manual of the Wired Controller for installation details.

NOTICE

When installation is complete, the air handler must be tested. Any issues with the unit must be corrected before operation. Refer to the Instruction Manual of the Outdoor Unit for auto addressing and debugging information and details.

⚠WARNING

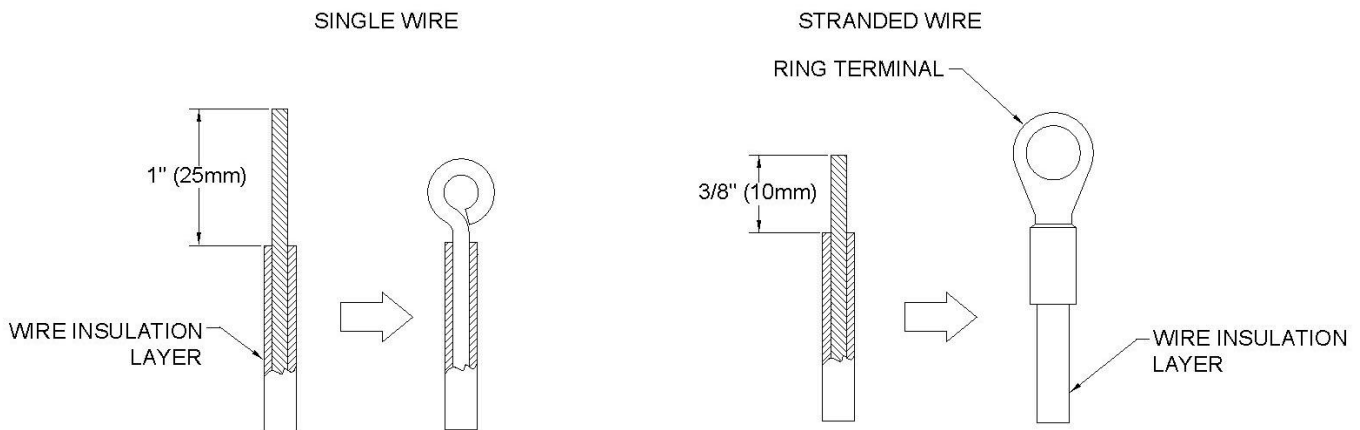
Before obtaining access to terminals, all supply circuits must be disconnected.

NOTICE

- Units must be securely grounded.
- Carefully read and understand the wiring diagram before wiring the unit.
- The unit should be connected to and powered by an independent circuit and dedicated outlet.
- All wiring should be in accordance with state/local regulations and codes.
- Install circuit breaker for a branch circuit in accordance with state/local regulations and codes.
- Keep cable away from refrigerant pipes, compressor and fan motor.
- The communication wires should be separated from the power cord and connection wire between the indoor unit and outdoor unit.
- Adjust the static pressure via wired controller according to site requirements.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons.

Connection of Wire and Patch Board Terminals

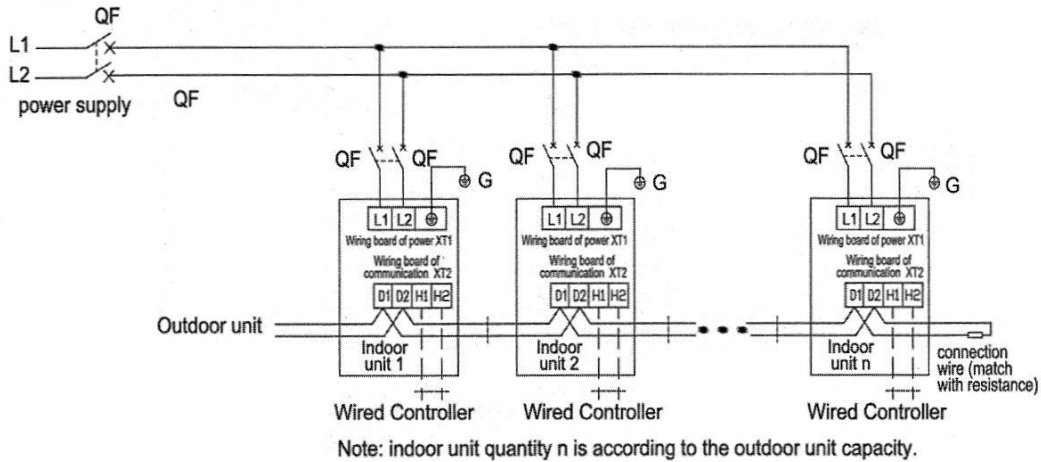
1. Preparation of the connection wires (See Illustration)
 - a. Strip approximately 1 inch (25mm) of insulation from the end of wire.
 - b. Remove the appropriate screws from the terminal board.
 - c. Shape the stripped end of the wire into a loop as shown in the illustration. The loop should be large enough for the body screw to pass through while allowing the head of the screw to seat against the wire.
 - d. Secure the wire to the appropriate terminal.
2. Preparation of the connection for stranded wire (See Illustration)
 - a. Strip about 3/8 inch (10mm) of insulation from the end of wire.
 - b. Remove the appropriate screws from the terminal board.
 - c. Insert the wire into the ring tongue terminal and crimp the terminal securely onto the wire.
 - d. Secure the wire to the appropriate terminal.



Power Cord Connection

NOTICE

All indoor units must be unified of power supply so that they can be powered ON/OFF at the same time.

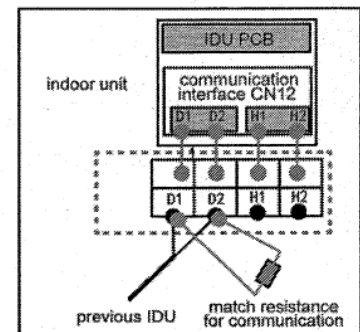
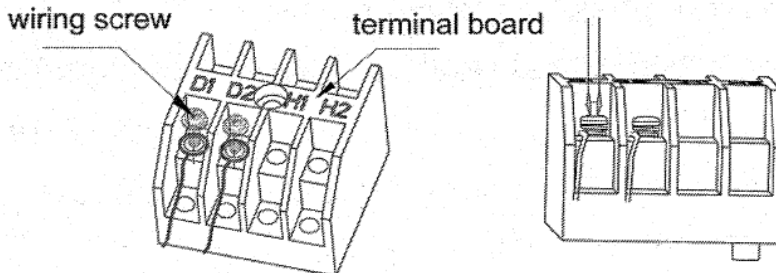


For Units with Single Phase Power Supply

1. Removed the lid of electrical box.
2. Route the power cord through the wiring through-holes.
3. Connect the power cord to terminal “L”, “N” and “⊕”.
4. Attach the power cord with the wire clamp.

Connection of Communication Wire Between Indoor and Outdoor Units (or Indoor Units)

1. Removed the lid of electrical box.
2. Route the power cord through the wiring through-holes.
3. Connect the communication wire to terminal D1 and D2 of the indoor 4-bit wiring board as shown in the illustration below.
4. Attach the communication cable using the clamp of the electrical box.
5. For more reliable communication, connect the terminal resistor to the most downstream indoor unit of the communication bus (terminal D1 and D2) as shown in the illustration below. The terminal resistor is provided with each outdoor unit.



Connect Communication Wire of Wired Controller

1. Open the electrical box cover of the indoor unit.
2. Route the communications wire through the rubber ring.
3. Connect the communication wire to terminals H1 and H2 of the indoor 4-bit wiring board.
4. Attach the communication wire with the wire clip on the electrical box.
5. Wiring instructions of the remote receiving light board and wired controller shows the installation of wired controller (see illustration below).
6. Wired controller and receiving light board can be installed at the same time. When operating through a remote controller, both wired controller and the receiving light board can receive signals.

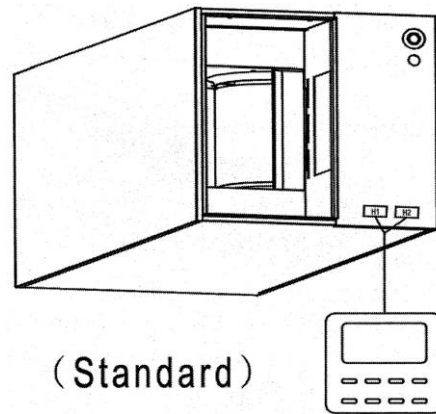


Fig 5.4.1

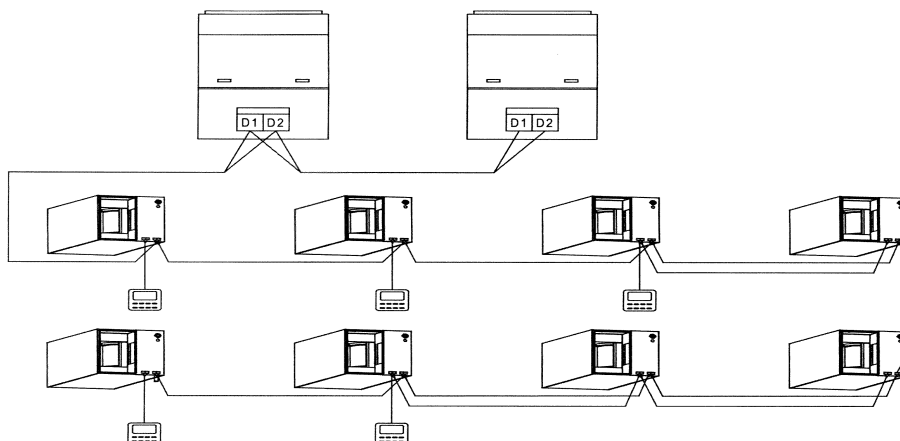
Illuminate for Connection of Wired Controller and Indoor Units

Network

1. Communication wire of the indoor unit and outdoor unit (or indoor unit) is connected to D1, D2.
2. Wired controller is connected to H1, H2.
3. One indoor unit can connect two wired controllers, but one must be set as the master and the other the slave.
4. One wired controller can control up to 16 indoor units at the same time. (see illustration).

NOTICE

- If all indoor units are to be controlled with one controller, all units must be the same type.
- When the indoor unit is controlled by two wired controllers, the address of the two wired controllers must be different and can be set through the address setting. Address 1 is for the main controller and Address 2 is for the slave controller. Details on setting the Address can be found in the instruction manual for the wired controller.



Routine Maintenance

NOTICE

- Turn off the unit and shut off the main power supply when cleaning the air conditioner.
- Use a sturdy and stable ladder if need to reach the top of the unit when cleaning.
- Do not clean the unit with hot water which has a temperature more than 113°F (45°C) to prevent fading or deformation of the unit.
- Do not dry the filters near open flames as the filters might catch fire or deform.
- Clean the filter with a wet cloth dipped in a neutral detergent.
- If there are any issues, contact the support service staff.

Cleaning the Filter

1. Remove the filters from the inlet of the indoor unit. Use a vacuum to remove the collected dust. If the filters are still dirty, wash them with warm water and a mild detergent and let them air dry in an area not exposed to direct sun light.
2. If the unit is used in an environment with excessive dust, clean the filter regularly (usually once every two weeks).

Maintenance Before Seasonal Use

- Ensure the air inlet and the air outlet of both the indoor and outdoor units are not blocked.
- Ensure the unit is securely grounded.
- Ensure both the power cord and the communication cable are securely connected.
- Check each unit for any error codes after each unit has been turned on.

Maintenance After Seasonal Use

- Set the unit in FAN MODE for 4 hours on a mild dry day to allow the inner parts of the unit to dry completely.
- When the unit will not be used for an extended period, disconnect the unit from the power supply. The display on the unit will turn dark as soon as the power supply is disconnected.

Table of Error Codes

Error Code	Content	Error Code	Content	Error Code	Content
L0	Indoor Unit Error	L9	Quantity of Group Control Indoor Units Setting Error	d8	Water Temperature Sensor Error
L1	Indoor Fan Protection	LA	Indoor Units Incompatibility Error	d9	Jumper Cap Error
L2	E-heater Protection	LH	Low Air Quality Warning	da	Indoor Unit Hardware Address Error
L3	Water Full Protection	LC	Outdoor-Indoor Incompatibility Error	dH	Wired Controller PC-Board Error
L4	Wired Controller Power Supply Error	d1	Indoor Unit PC-Board Error	dC	Capacity DIP Switch Setting Error.
L5	Anti-Frosting Protection	d3	Ambient Temperature Sensor Error	dL	Outlet Air Temperature Sensor Error
L7	No Master Indoor Unit Error	d4	Inlet Pipe Temperature Sensor Error	dE	Indoor Unit CO2 Sensor Error
L8	Power Insufficiency Protection	d6	Outlet Pipe Temperature Sensor Error	db	Special Code: Field Debugging Code

Troubleshooting

NOTICE

The air conditioner is not expected to be serviced by its users. An incorrect repair may cause electric shock or fire. Contact an authorized service technician for a professional repair.

The following checks should be performed prior to contacting a professional service technician.

Phenomenon	Troubleshooting
The unit will not start	<ul style="list-style-type: none">• Power supply is not connected.• Circuit breaker tripping caused by leakage of electricity.• Input voltage is too low.• Defect of main PC-board.
The unit stops after running for a while	<ul style="list-style-type: none">• The inlet or outlet of ODIJ or IDU are blocked by obstacle.
Poor cooling effect	<ul style="list-style-type: none">• The filter is dirty.• Too heavy a heat load on the room (e.g. too many people)• Door or windows is open.• Inlet and outlet of the indoor unit is blocked.• Set temperature is too high.• Refrigerant is insufficient (e.g. refrigerant leakage)
Poor heating effect	<ul style="list-style-type: none">• The filter is dirty.• Door or window is open.• Set temperature is too low.• Refrigerant is insufficient (e.g. refrigerant leakage)
Indoor fan doesn't start up during heating	<ul style="list-style-type: none">• When starting, the indoor unit fan will not operate until the heat exchange becomes hot. This is for preventing the unit delivering cool air.• When defrosting, the indoor unit fan stopped due to the system switch to cooling mode. This is for preventing the delivery of cool air, and will resume normal operation after defrosting.

RECOMMENDED TOOLS FOR INSTALLATION

1. Mounting Indoor & Outdoor Units and Running Piping/Wiring

Ruler
Stud-Finder
Dry-Wall Saw
Electric Drill
3" Hole Saw
Drill Extension
Hammer Drill and Bit
Measuring Tape
Level
Flash Light
Screw Driver (Phillips and Flat)
Hammer
Knife
Scissors
Goggled Glasses
Mask
Gloves
Ladder

2. Refrigeration Related Work

- Flat Surface Wrench (Two)
- Flare-Nut Tool Set
- Hex Head Key Set
- Torch for AC Application
- Heat Absorption Flux
- Nitrogen
- Soap Bubble
- Vacuum Pump
- Helium Leakage Check
- Manifold

3. Electrical Related Installation

- Wire Cutter
- Wire Stripper
- Sharp Plier
- Cable Ties
- Black Tape for Electrical Use
- Electrical Meter

4. Trial Running Units and Inspection

- Clamp Meter
- Manifold
- Infrared Thermometer

USER NOTES AND INSTALLATION/SERVICE/MAINTENANCE NOTES

INSTALLATION NOTES

Please list any questions or issues you may have with this unit:

No.	Date	Noes	Asked Your Technician for Help?	Did You Ask YMGI Tech. for Help?

USER NOTES

Please list any questions or issues you may have with this unit:

No.	Date	Installation Company Name, Technician Name, Phone & HCAC License #	Job Not Performed by Technician	Technician Checklist Completed Fully?

SERVICE / MAINTENANVE NOTES

Please list any questions or issues you may have with this unit:

No.	Date	Contents of Service / Maintenance	Technician's Company Name, Technician Name, Phone & HCAC License #