



YMGI: Engineered Comfort Products for An Efficient and Sustainable Green World!

INSTALLATION INSTRUCTIONS & USER'S MANUAL

DC INVERTER MULTIPLE ZONE (59)2 EL SYMPHONY CHOIR Console Indoor Unit

For Model Numbers:

- WMMS-09EL-V2B(59)2
- WMMS-12EL-V2B(59)2
- WMMS-18EL-V2B(59)2



Thank you for choosing this YMGI product. Please read the user's manual carefully before installation/operation and 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.

Safety advisories appear throughout this manual and your personal safety and the proper operation of this appliance depend upon the strict observance of these precautions.

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 could also be 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 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. 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 and by NEC and your state and 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 and 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, improper operation, improper 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, Purchasers, 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 retail stores such as Home Depot, Lowe's, Sears, etc. 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 installed 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 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 irrevocable and 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 prior to the negative leak check.
5. Not conducting a positive leak check by charging the system with dry-nitrogen 350 PSI to hold for 3+ hours, and performing soap bubble testing.
6. Not conducting a negative leak check by evacuating the copper lines for 30 minutes for each zone. Vacuum must be held at 500 microns or better for at least 60 minutes, starting 60-minute timer after the vacuum pump is turned off.
7. Not selecting the correct size of 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 or 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 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 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 the manufacturer 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).
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 decision maker 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 pipe causing contamination. Label them 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 is 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 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 the vacuum level of 500 Microns can be held for at least 60 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 filter, carefully pour some clear water onto the up-right aluminum coil surface to test if the water can drain out of each the indoor unit's freely 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, 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 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, 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: **7-years** on the **compressor** and **2-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 an YMGI-validated and approved warranty filing, for a period of 7 years from the date of successful installation at its original installation location.

Parts: YMGI will warrant parts of an YMGI-validated and approved warranty filing, for two years 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 successful installation at 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 completely by the installing technician and signed by both the installing company 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 out 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 2-year on parts and a 7-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.





YMGI GROUP

Innovative, Competitive, Efficient & Convenient

LIMITED PRODUCT WARRANTY REGISTRATION CARD / FORM

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

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 _____	Hired YMGI-Recommended HVAC Contractor/Technician? _____	Unit(s) Work Successfully (Yes/No): _____
Outdoor Serial Number (One Outdoor Unit, One Registration Card/Form): _____		Indoor Serial Number: _____	For Multi Zone Units _____
		Unit #1 _____	Unit #5 _____
		Unit #2 _____	Unit #6 _____
		Unit #3 _____	Unit #7 _____
		Unit #4 _____	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: _____ Official Phone # to Check the License Validity: _____	YMGI-Recommended Contractor/Technician: Phone/Fax: _____ Email: _____ City/State (Province): _____ License Approved or Certified by: _____
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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)

- | | |
|---|---|
| 1) Are you the only one to install whole system? If not, _____ % of installation done by you (HVAC technician). | 2) What had been done, prior to your arrival? |
| 3) Did you read the User Manual and Installation Instruction, before you started the installation? | 4) Who unpacked the unit and accessory boxes to check for damage? |
| 5) Supply electrical power V/Ph/Hz measured at wiring terminal block of indoor unit: _____ outdoor unit: _____ | 6) Incoming electrical power V/Ph/Hz measured at terminal blocks of indoor unit: _____ outdoor unit: _____ |
| 7) Wire gauge, length and terminal colors between circuit breaker/disconnect switch to outdoor unit: _____ | 8) Wire gauge, length and terminal colors between each indoor and outdoor unit: Unit A _____ Unit B _____ Unit C _____ Unit D... |
| 9) The size of HVAC circuit breaker/fuse or disconnect switch to the outdoor unit: _____ | 10) Are the inter-connecting wires and copper lines between indoor and outdoor units installed/covered/protected by line set covers, or anything else? |
| 11) What is the refrigerant pipe length between each indoor unit and the outdoor unit? Unit A _____ Unit B _____ Unit C _____ Unit D... | 12) Where is/are the indoor unit(s) located? 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 _____ Unit D... (indoor unit above outdoor unit +, below -) | 14) Did you check the indoor unit for condensate leakage and refrigerant leakage, before and after connecting them? |
| 15) Where is the outdoor unit located? Ground wall balcony roof other _____ Is the outdoor unit anchored to ground or secured onto wall bracket? _____ | 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? |
| 17) Were the refrigerant pipe ends capped or taped seal, prior to running them through structures to keep debris from entering the copper lines? | 18) Have you checked and run cooling or heating, one unit by one unit, all working fine? |
| 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? | 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? |
| 21) Did you check if the compressor can be started and stopped in a correct (design) manner? | 22) If copper length were not made to the supplied or recommended refrigerant pipe length, how much refrigerant added or deducted? |
| 23) Measured refrigerant pressures at outdoor service suction valve, when unit was st. Heat pump (PSI): _____ Cooling (PSI): _____ Outdoor Ambient Temp. (°F): _____ | 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 |
| 25) Have you checked all unit functions, with customer's witness, and all functions are correct? | 26) Did you show the user how to operate the unit? Did he/she understand you? |
| 27) Do you provide regular one-year free technical service for this installation? | 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: _____
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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 filled above, and make its decision on warranty. I understand our filing or filling the warranty card/form DOESN'T 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 manuals, web site, email, etc.

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 filled 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.



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, or 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 unit's room temperature too low. Keeping the temperature difference between indoor and outdoor unit within 41°F.
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.

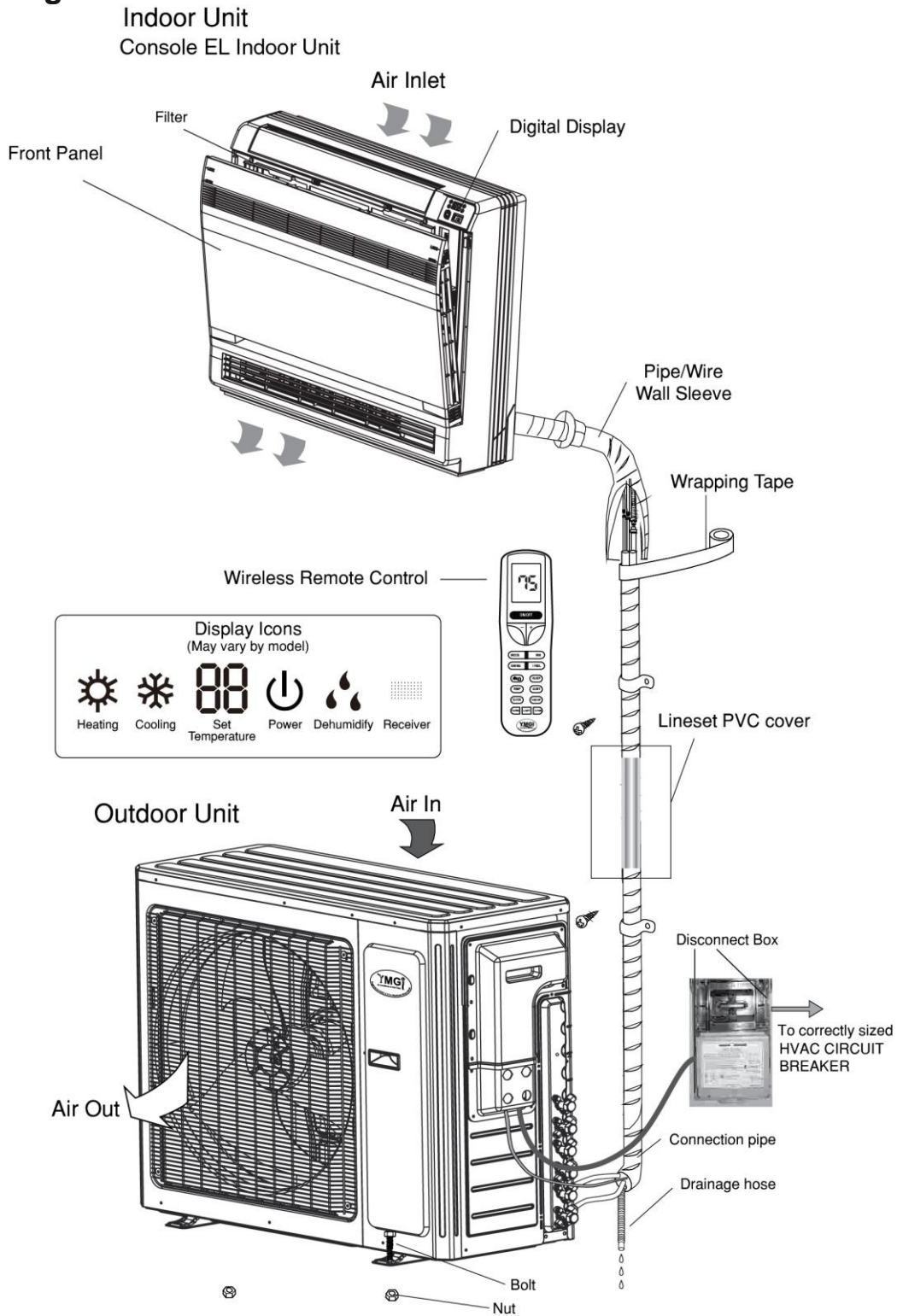
DO NOT use the system for anything other than what it was designed.

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.

System Diagram



Notes: Actual unit or part appearance and installation may vary from illustration. Subject to continuous improvement and change without notice.

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

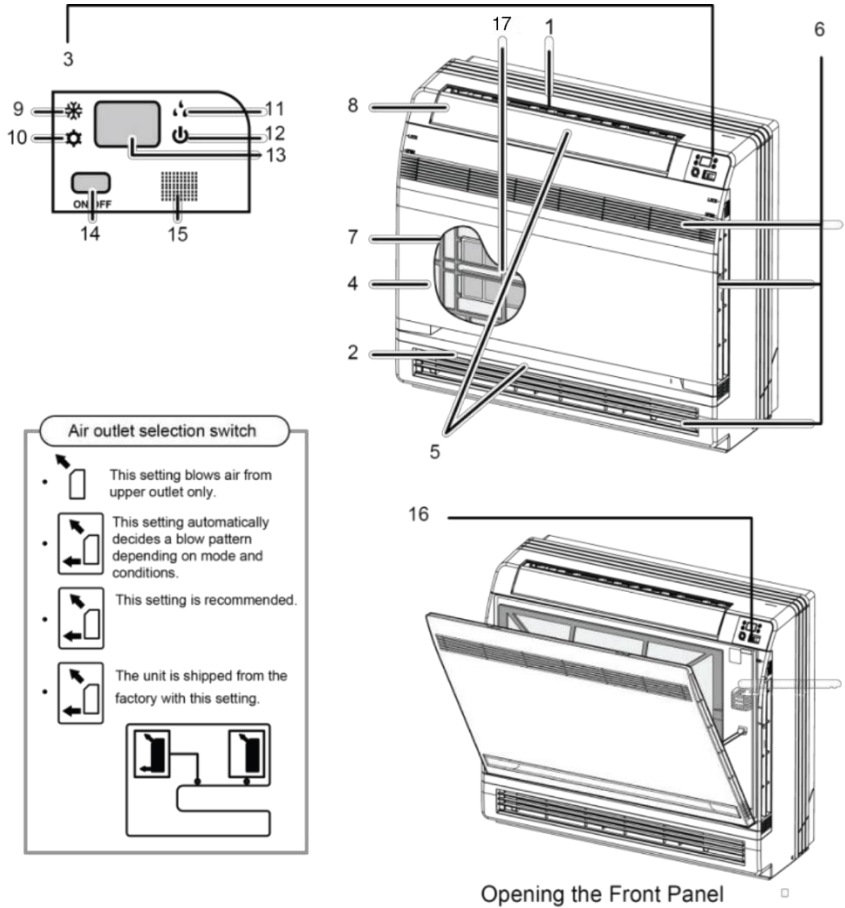


4. Trial Running Units and Inspection

- Clamp Meter
- Manifold
- Infrared Thermometer

Component Identification

1. Air outlet
2. Air outlet
3. Display
4. Front panel
5. Louvers (vertical blades)
These louvers are inside of the air outlet.
6. Air inlet
7. Air filter
8. Louver (horizontal blade)
9. Cool mode lamp
10. Heat mode lamp
11. Dry mode lamp
12. Run lamp
13. LED display
14. Indoor Unit ON/OFF switch:
 - Push this switch once to start operation.
 - Push once again to stop it.
 - The operation mode refers to the following table.



Opening the Front Panel

Model	Mode	Temperature setting	Air flow rate
HEAT PUMP	AUTO	26°C (78.8°F)	AUTO

- This switch is useful when the remote controller is missing.

15. Signal receiver:
 - a. It receives signals from the remote controller.
 - b. When the unit receives a signal, you will hear a short beep.
 - c. Settings change the beep.
16. Air outlet selection switch.
17. Titanium Apatite Photocatalytic Air-Purifying Filter.
These filters are attached to the inside of the unit.

⚠WARNING

- Before opening the front panel, be sure to stop unit operation and turn the breaker OFF.
- Do not touch the metal parts on the inside of the indoor unit, as an injury may occur.
- If the power supply cord is damaged, it must be replaced by the manufacturer or an approved equivalent and be installed by a qualified technician. This will help to prevent or avoid an electrical shock.
- The unit must be installed in accordance with national and local wiring codes.
- An all-pole disconnection switch, having a contact separation of at least 3mm in all poles, should be connected in the fixed wiring.

Installation of the Indoor Unit

Selection of the Installation Location

- Select a location where cool air can be distributed throughout the room.
- Select a location where condensation can be easily drained.
- Select a location on the wall or floor that can support the weight of the indoor unit.
- Select a location which will allow for easy access when maintenance is required.
- This appliance must not be installed in the laundry or anywhere it can be exposed to excessive moisture.

There are 2 Types of Installation

- Wall mounted
- Floor mounted

Indoor Unit

Locate the indoor unit in a place where:

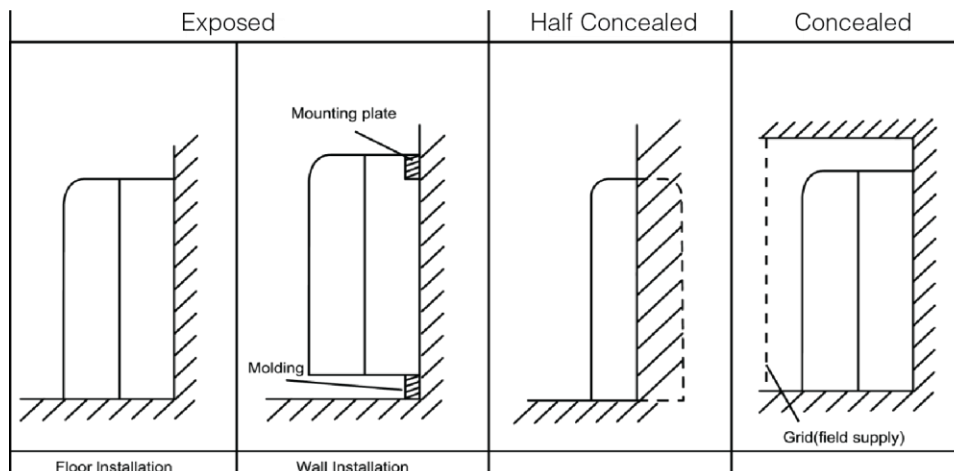
- All the specifications listed in this manual and on the indoor unit installation drawings are met.
- Both the air intake and exhaust are unobstructed.
- The unit will not be exposed to direct sunlight.
- The unit is located away from an additional heat source(s).
- There is no machine oil vapor.
- Cool/Warm air can be circulated throughout the room.
- The unit is located away from fluorescent lamps manufactured with an electronic ignition. This includes both inverter and rapid start types. Locations close to these types of lamps may shorten the range of the remote controller.
- The unit is at least 39.4 inches or 1 meter away from any television or radio. If located too close to a radio or television, the unit may cause interference with the picture or sound.

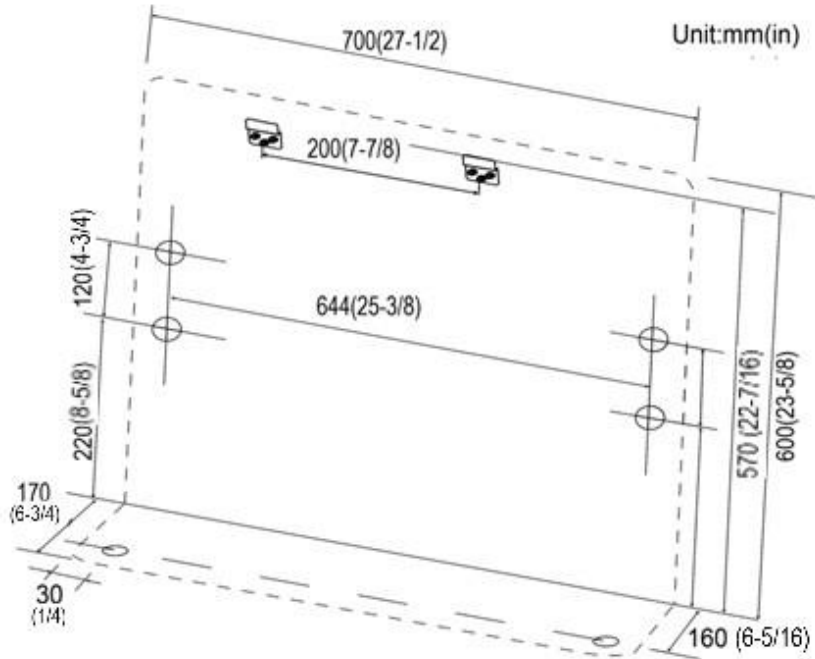
⚠ CAUTION

- Do not install the indoor unit where there is excessive oil in the area.
- Do not install the indoor unit where there is acid in the environment.
- Do not install the indoor unit where there is irregular electrical power supply.

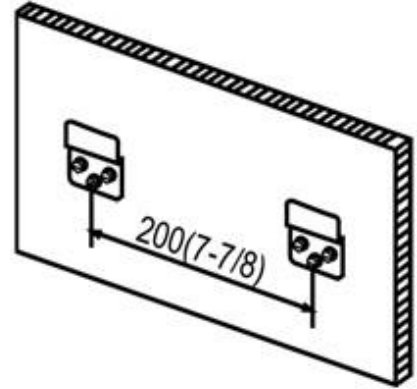
Indoor Unit Installation Drawings

The indoor unit may be mounted in any of the three ways illustrated below.

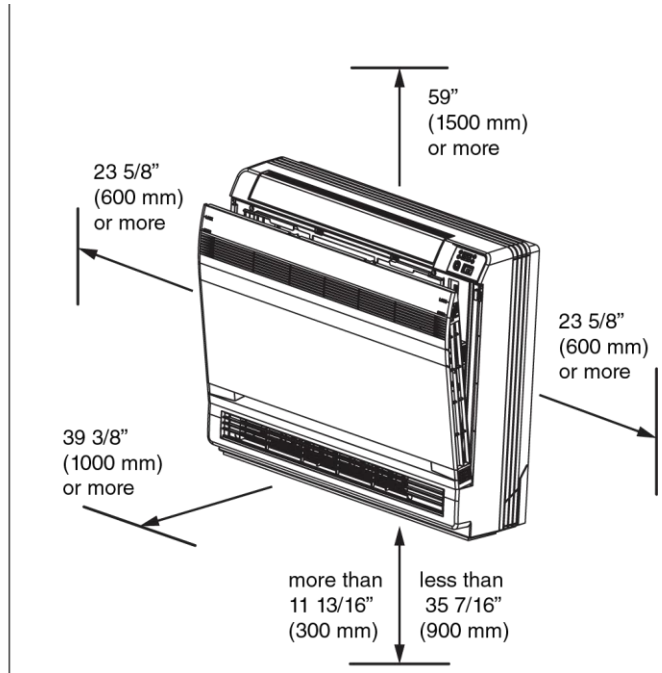
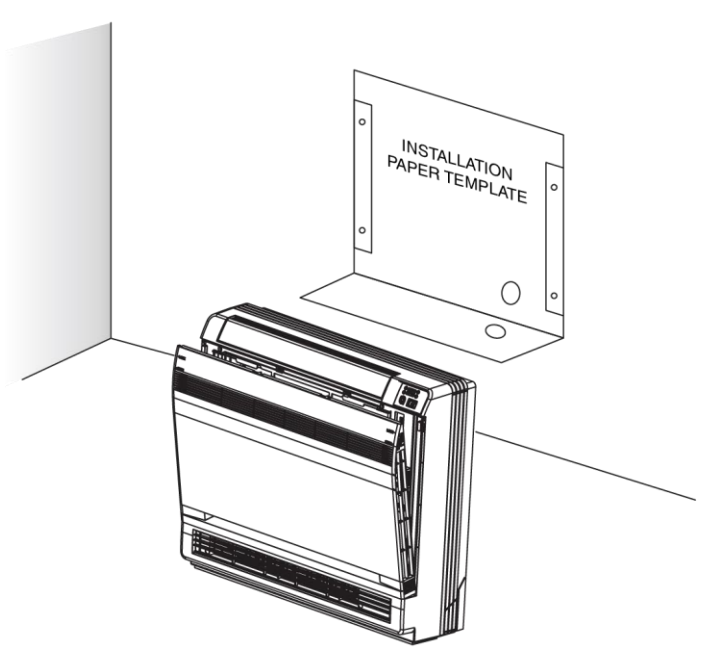




Location for securing the installation pane.

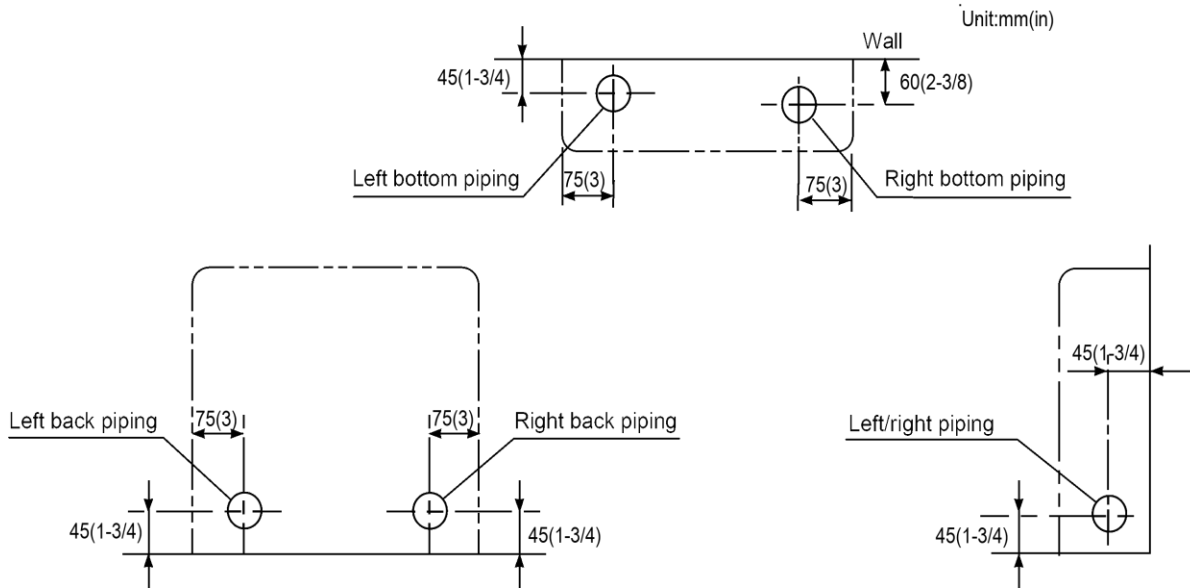


Schematic drawing of hooks.



Refrigerant Piping

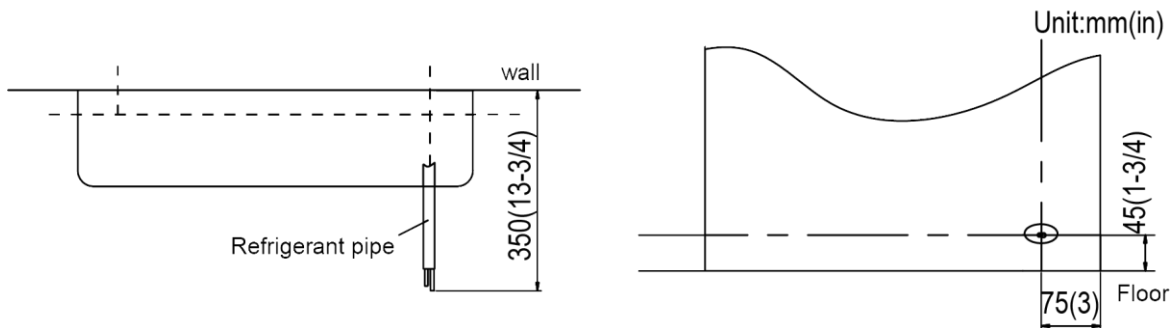
- Drill a hole (65mm or 2-9/16 inches in diameter) in the spot indicated in the illustration below.
- The location of the hole is different depending on which side of the unit the pipe is taken out.
- For piping, see connecting the refrigerant pipe.
- Allow adequate space around the pipe of the indoor unit for easier connection.



NOTICE

The suggested shortest pipe length is 2.5m or 98 5/16 inches. This is to prevent noise and vibration from the outdoor unit when the system is running.

Some mechanical noise and vibration may occur depending on how the unit is installed and the environment in which it is used.



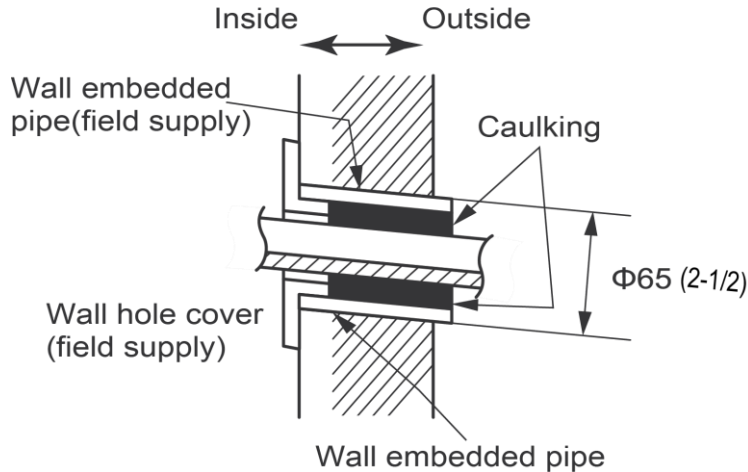
Boring a Wall Hole and Installing the Wall Embedded Pipe

For metal walls, or walls containing metal studs, be sure to use a wall embedded pipe and wall cover in the feedthrough hole.

Be sure to seal all the gaps around the pipes with caulking material to prevent water leakage.

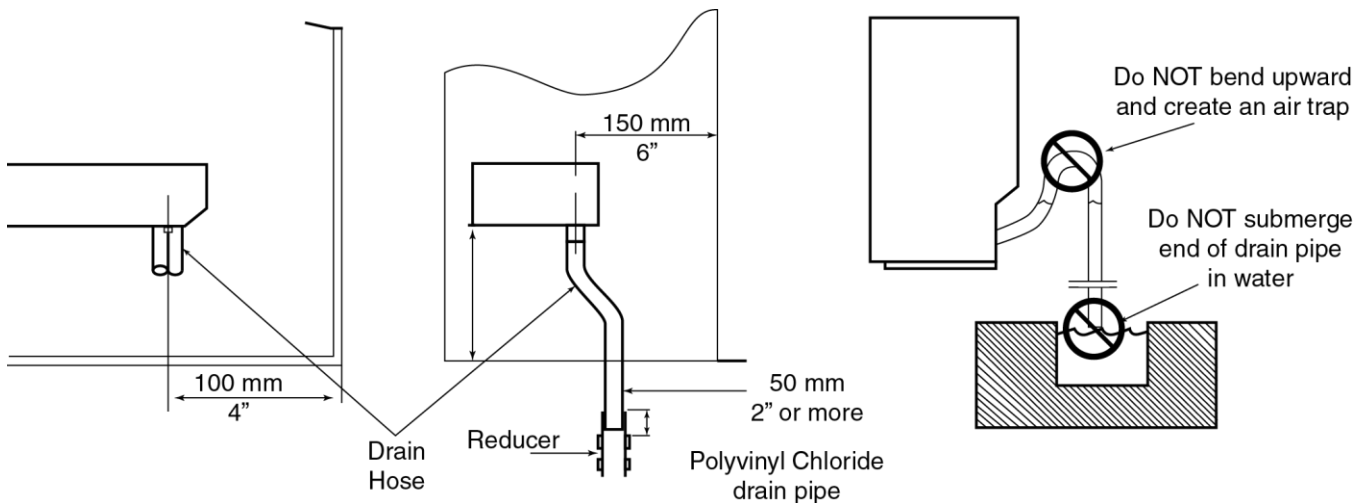
- Bore a feed-through hole of (65mm or 2-9/16 inches in diameter) in the wall in such a manner that it has a downward slope toward the outside.
- Insert a wall pipe into the hole.
- Insert a wall cover into wall pipe.
- After completing refrigerant piping, wiring, and drain piping installation, seal the pipe hole gap with putty.

Unit:mm(in)



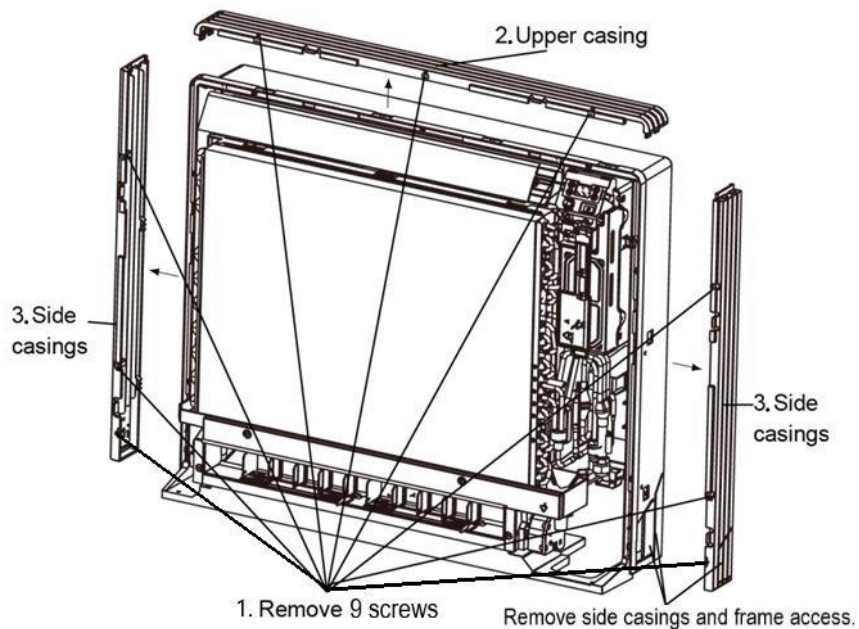
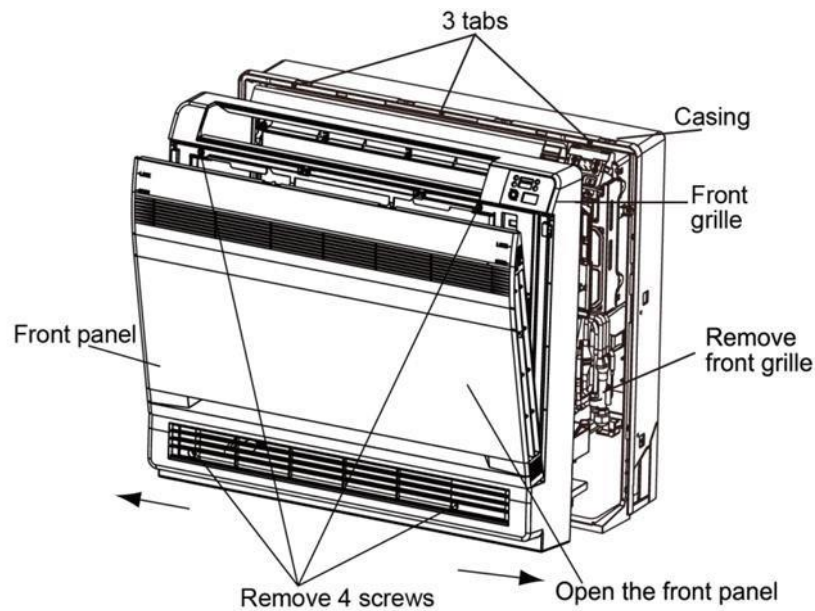
Drain Piping

- For the drain pipe, use commercially available rigid polyvinyl chloride general VP 20 pipe with an outer diameter of 26mm or 1 inch and an inner diameter of 20mm or 13/16 inches.
- The drain hose with an outer diameter 18mm or 3/4 inches at connecting end, and is 220mm or 8-11/16 inches long, is supplied with the indoor unit. Install the drain pipe as pictured below.
- The drain pipe should be installed in an inclined downward position, to allow the water to drain and flow freely without any backup of water. (There must not be any type of trap in the drain hose.)
- Insert the drain hose to the depth show below, so it will not be pulled out of the drain pipe.
- Insulate the indoor drain pipe with 10mm or 5/16 inch or more of insulation material to prevent condensation.
- Remove the air filters and pour a small amount of water into the drain pan to make sure that the water flows freely and drains completely.



Unit Preparation

1. Open the front panel.
2. Remove the 4 screws.
3. Remove the front grille while pulling it forward.
4. Follow the arrows to disengage the clasps on the front case to remove it.
5. Follow the procedure shown when removing the slit portions.



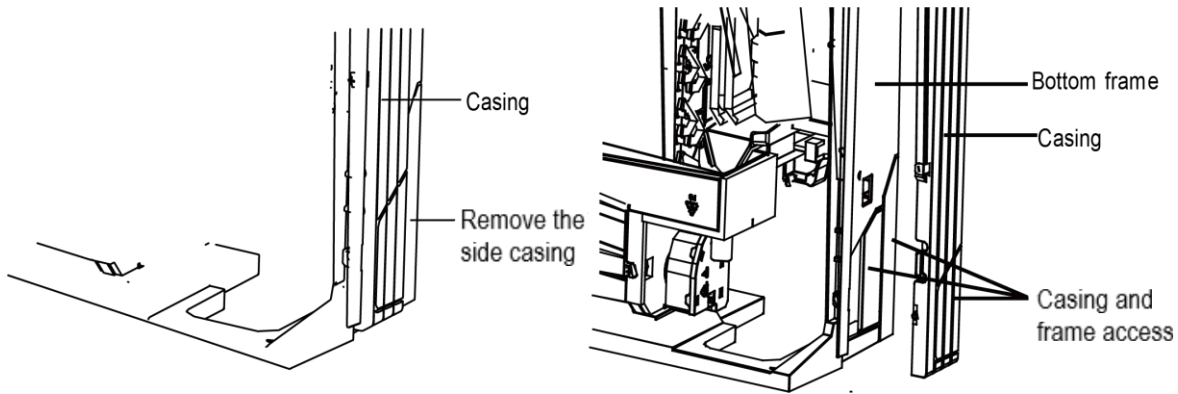
For Moldings

Remove the Side and Top Casings. (Remove the slit portions on the bottom frame, if necessary, using nippers.)

For Side Piping

Remove the Side and Top Casings.

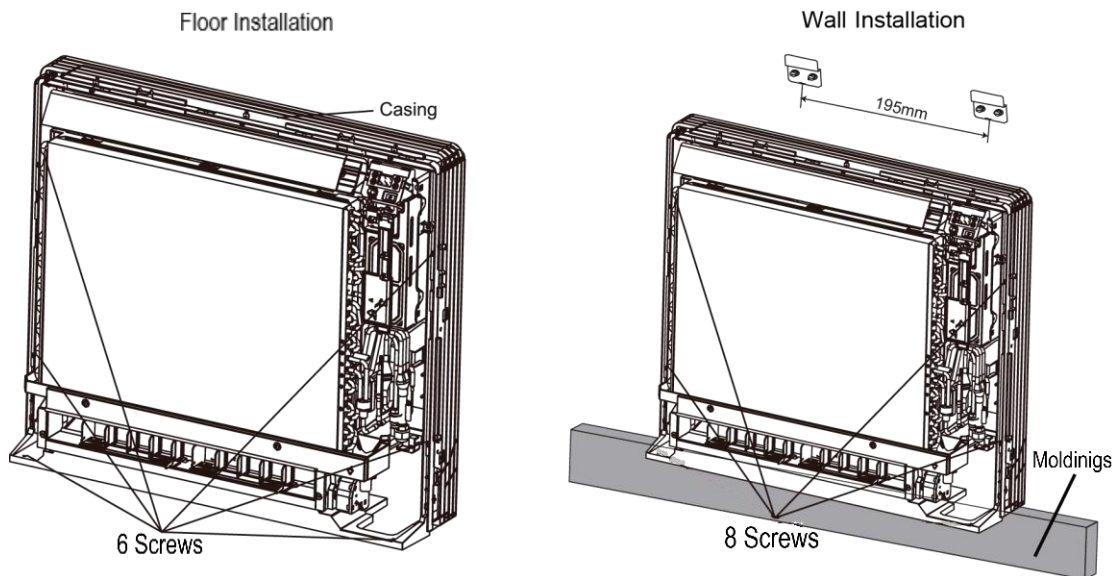
1. Remove the 9 screws securing the casings.
2. Remove the upper casing by depressing the 2 tabs.
3. Remove the left and right casings by depressing the 2 tabs on each side.
4. Remove the slit portions on the bottom frame, if necessary, and the appropriate casing using nippers.
5. Reassemble by following the above steps in reverse order (4>3>2>1).



Installation

For floor installations, secure the unit to the floor using 6 screws. (Do not forget to secure the unit to the wall.) For wall installations, secure the mounting plates using 4 screws and the indoor unit using 4 screws. The mounting plates must be installed on a wall capable of supporting the entire weight of the indoor unit.

1. Temporarily secure the mounting plate to the wall, making sure the panel is completely level, and mark the drilling points on the wall.
2. Secure the mounting plates to the wall with screws.



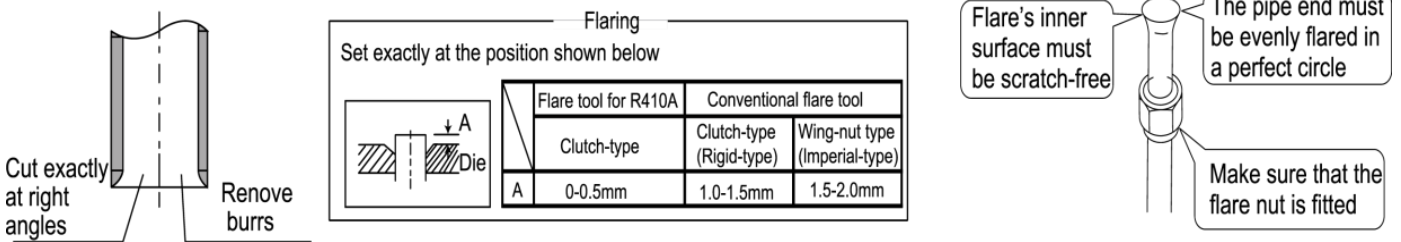
3. After refrigerant piping and drain piping connections are completed, fill in the gap of the through hole with putty. A gap can lead to condensation on the refrigerant pipe and drain pipe, or allow insects to enter the building.
4. Attach the front panel and front grille in their original positions once all connections are complete.

Flaring the Pipe End

1. Cut the pipe end with a pipe cutter while ensuring no debris enters the pipe.
2. Remove burrs from the cut end with the cut surface facing downward to keep chips from entering the pipe.
3. Fit the flare nut onto the pipe.
4. Flare the pipe.
5. Check the flaring and ensure it is made correctly.

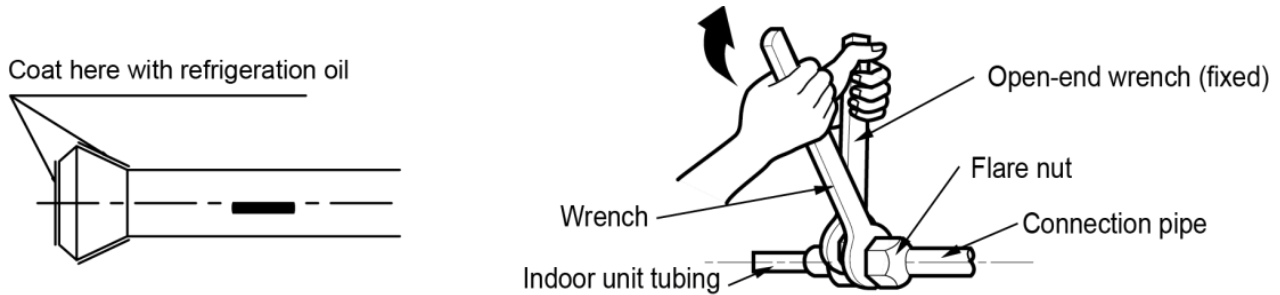
⚠WARNING

- Do not use mineral oil on the flared part.
- Prevent mineral oil from getting into the system as this would reduce the life expectancy of the units.
- Never use piping that has been used for previous installations. Only use parts which are delivered with the unit.
- Never install a drier into this R410A unit, as the drying material may dissolve and damage the system and decrease the life expectancy of the unit.
- Poor flaring may cause a refrigerant gas to leak.



Connecting the refrigerant pipe

1. Use torque wrenches when tightening the flare nuts. This will prevent damage to the flare nuts and gas leaks.



2. Align the centers of both flares and tighten the flares. Tighten the flare nuts 3 or 4 turns by hand. Then full tighten them with the torque wrenches.
3. To prevent gas leakage, apply refrigeration oil on both inner and outer surfaces of the flare. (Use refrigeration oil for R410A.)

Flare Nut Tightening Torque		
Gas side		Liquid side
07/09 class	12/18 class	07/09/12/18 class
3/8 inch	1/2 inch	1/4 inch
32.7-39.9 Nm (24.1-29.4 ft.. lbs.)	49.5-60.3 Nm (36.5-44.5 ft.. lbs.)	14.2-17.2 Nm (10.5-12.7 ft.. lbs.)

⚠ CAUTION

Piping Handling

- Protect the open end of the pipe from dust and moisture.
- All pipe bends should be as gentle as possible. Always use a pipe bender for bending. (Bending radius should be 30 to 40mm or 1-1/4 to 1-9/16 inches or larger.)

Selection of Copper and Heat Insulation Materials

When using commercial copper pipes and fittings, observe the following:

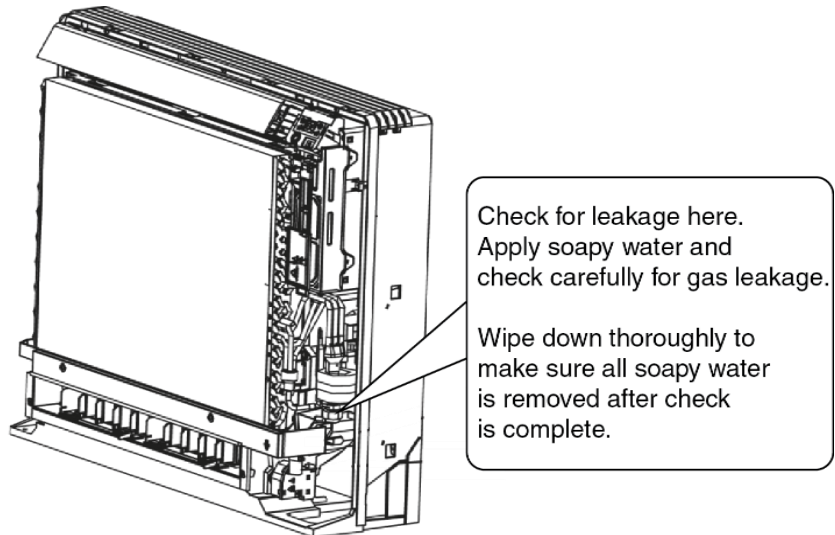
- Insulation material: Polyethylene foam: heat transfer rate: 0.041 to 0.052 W/mK (0.035 to 0.045 kca/(mh°C) Refrigerant gas pipe’s surface temperature can reach maximum temperatures of 110 °C (230 °F). Choose heat insulation materials that will withstand this temperature.
- Be sure to insulate both the gas and liquid piping lines and to provide adequate insulation. The table below shows the recommended dimensions.

Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
07/09 class	12/18 class	-	07/09 class	12/18 class	-
O.D.9.52mm (3/8 in)	O.D.12.7mm (1/2 in)	O.D.6.4mm (1/4 in)	I.D.12-15mm (1/2 – 5/8 in)	I.D.14-16mm (9/16 -5/8 in)	I.D.8-10mm (5/16 - 7/16 in)
Thickness 0.8mm (1/32 in)			Thickness 10mm (3/8 in) Min.		

- Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

Checking for Gas Leakage

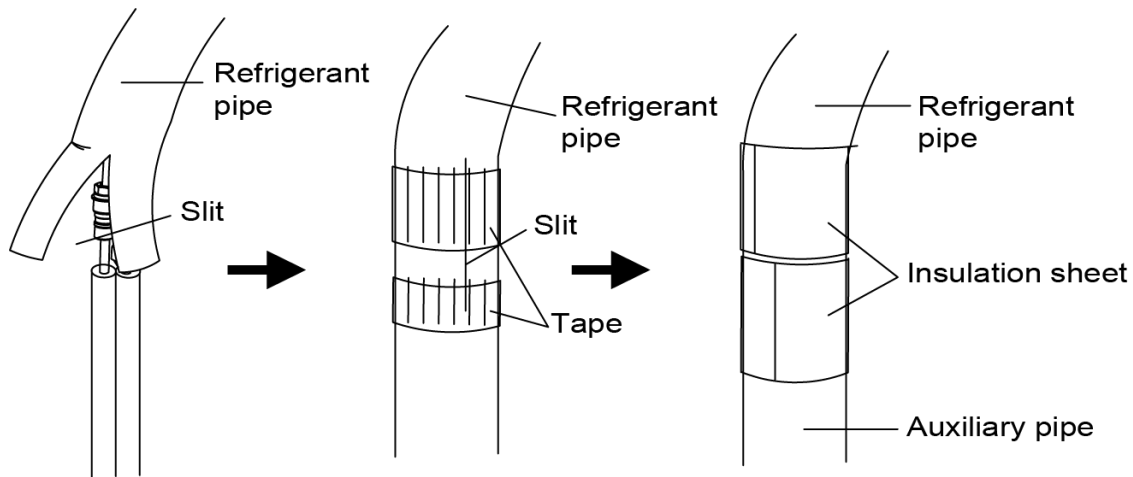
- Check for gas leaks after purging the air.
- See the sections on air purges and gas leak checks in the installation manual for the outdoor unit.



Attaching the Connection Pipe

Attach the pipe after checking for gas leaks, described above.

1. Cut the insulated portion on the side of the piping, matching it up with the connecting portion.
2. Secure the slit on the refrigerant piping side with the butt joint on the auxiliary piping using tape, making sure there are no gaps.
3. Wrap the slit and butt joint with the included insulation sheet, making sure there are no gaps.

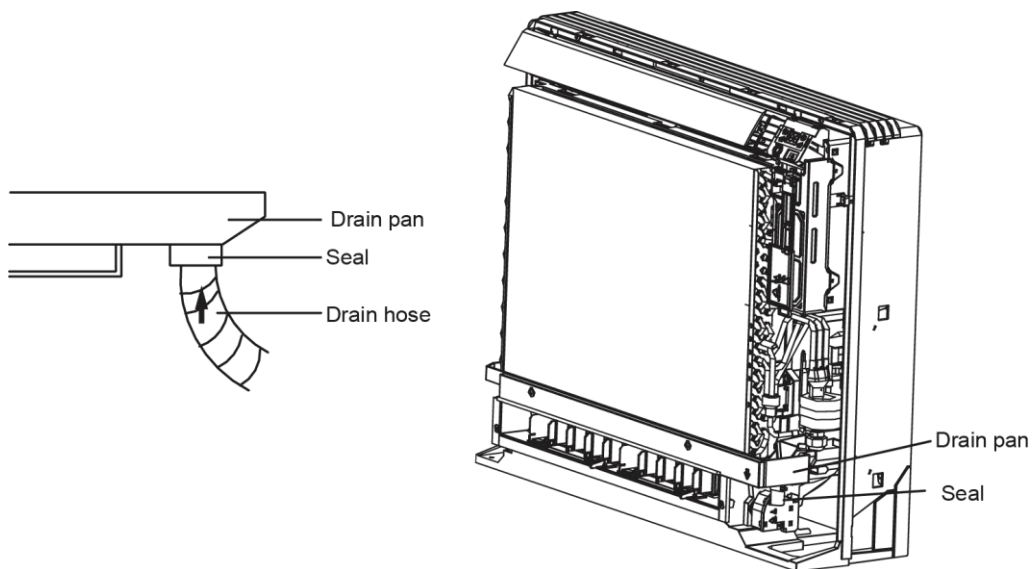


NOTICE

- Insulate the joint of the pipes and secure. Incomplete or improper insulation may lead to condensate leakage.
- Push the pipe inside to prevent it from placing undue force on the front grille.

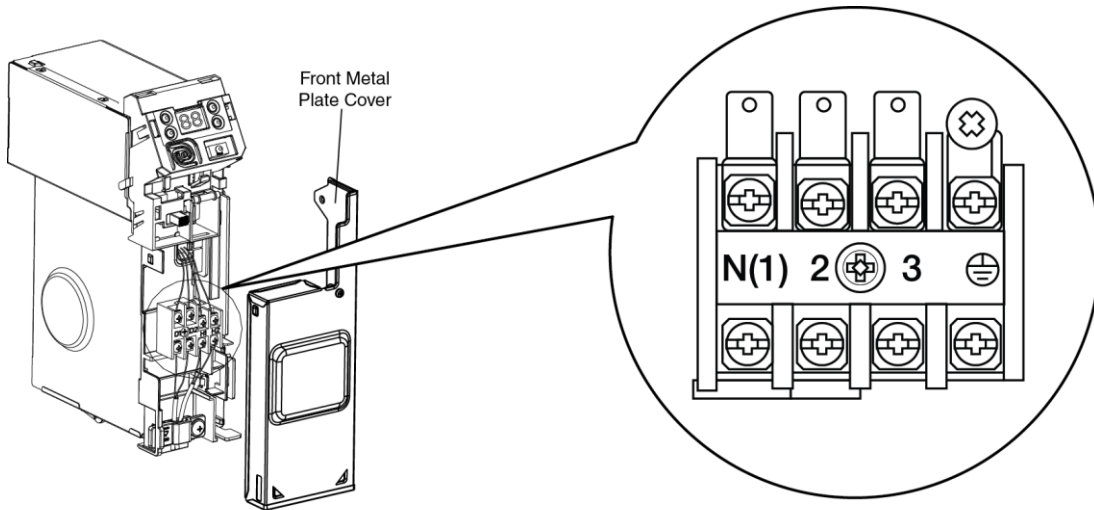
Connecting the Drain Hose

- Insert the supplied drain hose into the socket of the drain pan.
- Fully insert the drain hose into the socket until it adheres and seals.



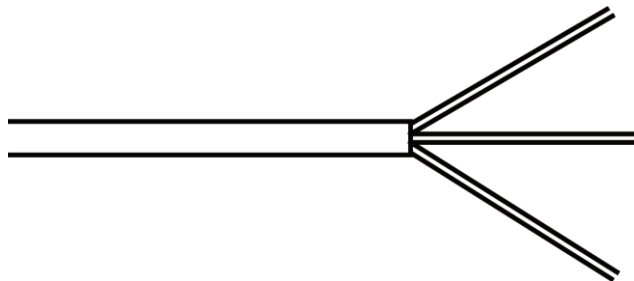
With a Multi indoor unit, install as described in the installation manual supplied with the outdoor unit. Lift the sensor securing plate, remove the front metal plate cover, and connect the wire to the terminal board.

1. Open the cover of the electric box of the indoor unit.
2. Route the communication line across the rubber ring.
3. Connect the communication line to terminal D1 and D2 on the wiring board of the indoor unit.
4. Secure the communication line with the wire clamp on the electric box. Tug on the wires to make sure that they are attached securely, then secure the wires with a wire retainer.



⚠WARNING

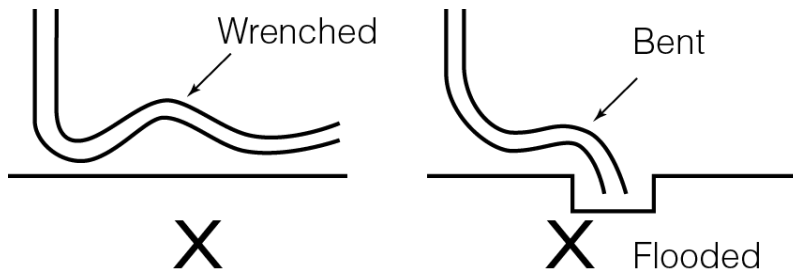
- The power of every indoor unit should be on its own circuit/power supply.
 - Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.
 - Do not use locally purchased electrical parts inside the unit. (Do not branch the power for the drain pump, etc., from the terminal block.) Doing so may cause electric shock or fire.)
1. The power connection cord has been inserted on the mainboard through the piping hole of the chassis. Please connect the power connection cord with the breaker. If the power cord is not long enough, please lengthen the power cord using a terminal block.



2. Reinstall the wire cover to its original place and tighten.
3. Recover the surface panel.

Install the drainage pipe

1. For correct draining, the drain hose should be slanted downward.
2. Do not wrench or bend the drain hose or place the open end into water.
3. Wrap with heat resistant material when connecting the longer drainage tube through to the indoor unit.



Install the Refrigeration Pipes

Connect the refrigeration pipes with the two relative leading pipes, tighten the nut on the refrigeration pipes securely.

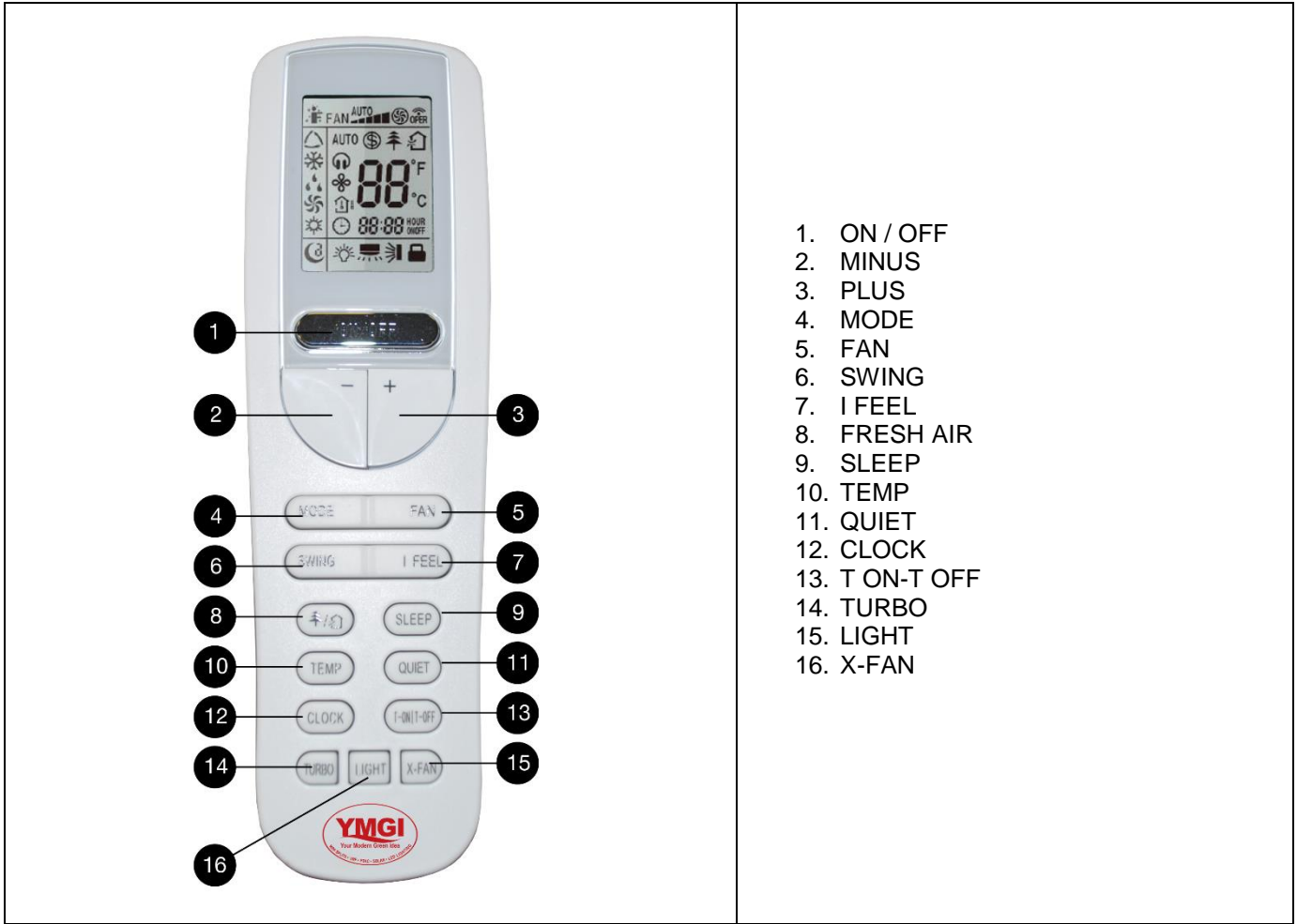
⚠WARNING

- Be careful when bending the connecting pipes and avoid creating flats and wrinkles within the bend radius as this will damage the pipes.
- Do not over tighten/torque the flare nut. Over tightening/torqueing can cause the flare nut to leak.

Working Temperature Range

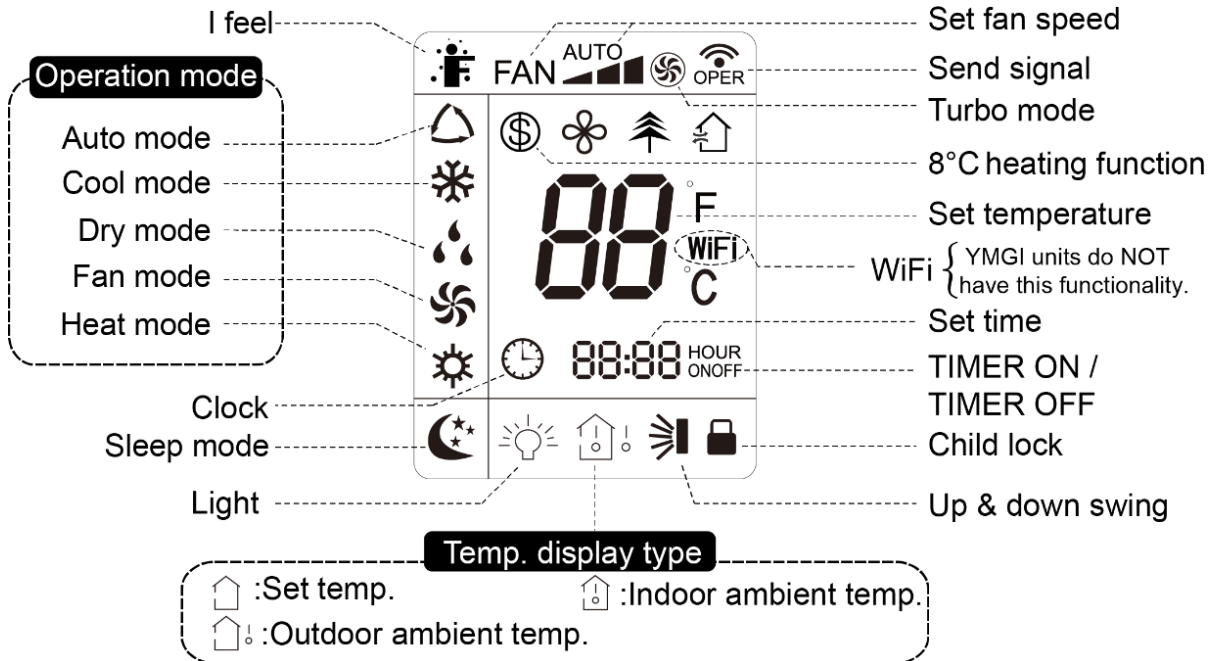
	Indoor side state		Outdoor side state	
	Dry bulb temp °C (°F)	Wet bulb temp °C (°F)	Dry bulb temp °C (°F)	Wet bulb temp °C (°F)
Rated Cooling	27 (80.6)	19 (66.2)	35 (95)	24 (75.2)
Max. cooling	32 (89.6)	23 (73.4)	43 (109.4)	26 (78.8)
Min. cooling	21 (69.8)	15 (59)	18 (59)	—
Rated Heating	20 (68)	15 (59)	7 (44.6)	6 (42.8)
Max. heating	27 (80.6)	—	24 (75.2)	18 (64.4)
Min. heating	20 (68)	15 (59)	-15 (5)	-16 (3.2)

Buttons on Remote Controller



1. ON / OFF
2. MINUS
3. PLUS
4. MODE
5. FAN
6. SWING
7. I FEEL
8. FRESH AIR
9. SLEEP
10. TEMP
11. QUIET
12. CLOCK
13. T ON-T OFF
14. TURBO
15. LIGHT
16. X-FAN

Introduction for icons on display screen



Introduction for buttons on remote controller

Note:

- Be sure that there are no obstructions between the receiver and the remote controller
- Do not drop or throw the remote controller
- Do not let any liquid into the remote controller or expose the remote controller to direct sunlight or any place where is very hot.
- It is only use for U-Cool and Console type indoor units. If press some button which is not available for the corresponding function, the unit will keep the original running status.

Function of Press Buttons

1. ON/OFF

Press this button to turn on the unit. Press this button again to turn off the unit.

2. -

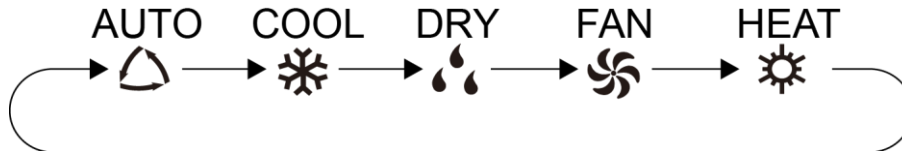
Press this button to decrease set temperature. Holding it down above 2 seconds rapidly decreases set temperature. In AUTO mode, set temperature is not adjustable.

3. +

Press this button to increase set temperature. Holding it down above 2 seconds rapidly increases set temperature. In AUTO mode, set temperature is not adjustable.

4. MODE

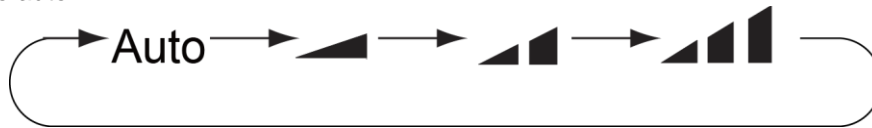
Each time you press this button, a mode is selected COOL, DRY, FAN, and HEAT, as the following:



After energization, AUTO mode is defaulted. In AUTO mode, the set temperature will not be displayed on the LED of the indoor, and the unit will automatically select the suitable operation mode in accordance with the room temperature to make indoor room comfortable.

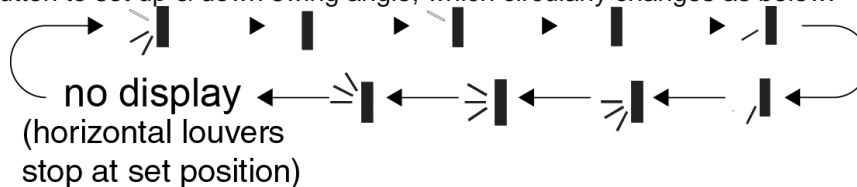
5. FAN





This button is used for setting Fan Speed in the sequence that goes from AUTO, then back to auto.




6. SWING

Press this button to set up & down swing angle, which circularly changes as below:



This remote controller is universal. If any command , ,  is sent out, the unit will carry out the command as 


 indicates the guide louvered swings as: 

7. I FEEL

Press this button to turn on I FEEL function. The units automatically adjust temperature according to the sensed temperature. Press this button again to cancel I FEEL function.

8.


Press this button to turn on and off the health and recirculation functions in operation status.

Press this button for the first time to start recirculation function; LCD displays “”.

Press the button for the second time to start health and recirculation functions simultaneously;




LCD displays “ ” and “ ”.

Press this button for the third time to quit health and recirculation functions simultaneously.

Press the button for the fourth time to start health function; LCD display “”.

Press this button again to repeat the operation above.

9. SLEEP

Press this button, can select Sleep 1 (), Sleep 2 (), Sleep 3 () and cancel the Sleep, circulate between these, after electrified, Sleep Cancel is defaulted.

- Sleep Mode 1

In Cool or dry mode: sleep status begins after running for one hour. The main unit setting temperature will increase 1.8°F. After 2 hours the setting temperature will increase 2.6°F. The maximum unit setting temperature is 86°F. If the desired temperature exceeds this maximum allowed setting, then the unit will run at this maximum allowed temperature.

In Heat mode: sleep status after run for one hour, the setting temperature will decrease 1.8°F, after 2 hours the setting temperature will decrease 2.6°F. If the minimal setting temperature is less than 60.8°F, then the unit will run at the minimum allowed temperature.

- Sleep Mode 2

that is air conditioner will run according to the preset sleep temperature curve.

- Sleep Mode 3


the sleep curve setting under Sleep mode by DIY:

1. Adjust “+” and “-” button, could change the corresponding setting temperature. After they have been adjusted, press “Turbo” button for confirmation.
2. At this time, 1 hour will be automatically increased at the timer position on the remote control, (that are “2 hours “ or “3 hours “ or “8 hours “), the place of setting temperature “88” will display the corresponding temperature of last setting sleep curve and blink.
3. Repeat the above step (2) ~ (3) operation, until 8 hours temperature setting finished, sleep, curve setting finished, at this time, the remote control will resume the original timer display; Temperature display will resume to original setting temperature.
4. The user can rest the sleep curve setting method to check or adjust the presetting sleep curve. Enter into user individuation sleep setting status, but do not change the temperature, press “Turbo” button directly for confirmation.


Note:

In the above presetting or enquiry procedure, if no button is pressed for 10 seconds, the sleep curve setting status will be automatically quit and default to the original display. In the presetting or enquiry procedure, press “ON/OFF” button, “Mode” button, “Timer” button or “Sleep” button, the sleep curve setting or enquiry status to quit.

10. TEMP


Press this button, to select the displayed indoor temperature setting for indoor ambient temperature or set temperature. When the indoor unit firstly power on it will display the set temperature, if the temperature's displaying status is changed from normal status to "  ", the indoor unit will display the ambient temperature, after 5 seconds the indoor unit will resume showing the set temperature.

11. QUIET

Press this button, the unit will start the Auto Quiet mode. The remote will display the "  " icon. Press QUIET again to turn off mode (Quiet OFF the icon of is not displayed on the remote screen). When the unit is powered on, the Quiet OFF is defaulted.


Note: the Quiet function cannot be used in Fan or Dry mode. Under the Quiet mode the fan speed cannot be adjusted.

12. CLOCK

Press CLOCK button. The  icon will begin blinking. Within 5 seconds, press + or – button to adjust the current time. Holding down either button longer than 2 seconds increases or decreases the time by 1 minute every 0.5 second and then by 10 minutes every 0.5 second. Once time is set, press the CLOCK button again to confirm the settings. The time will be constantly displayed on the remote.

13. T-ON/ T-OFF


Press T-ON button to initiate the auto-ON timer. To cancel the auto-timer program, simply press this button again.

After pressing this button, the  icon will disappear, and "ON" blinks. 00:00 is displayed for ON time setting. Within 5 seconds, press + or - button to adjust the time value. Each press of either the "+" or "-" button will change the time setting by 1 minute. Holding down either button rapidly changes the time setting by 1 minute and then 10 minutes. Within 5 Seconds after setting, press TIMER ON button to confirm. Press T-OFF button to initiate the auto-off timer. To cancel the auto-timer program, simply press the button again. TIMER OFF setting is the same as TIMER ON.


14. TURBO

15. Press this button to activate / deactivate the Turbo function. Turbo enables the unit to reach the preset temperature in the shortest time. In COOL mode, the unit will blow strong cooling air at super high fan speed. In HEAT mode, the unit will blow strong heating air at super high fan speed.




16. LIGHT

17. Press LIGHT button to turn on the display's light. Press this button again to turn off the display light. If the light is turned on, the  icon is displayed. If the light is turned off the icon is not shown.

18. X-FAN

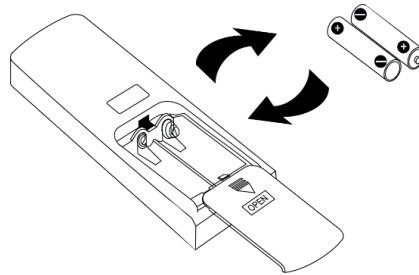
Pressing X-FAN button in COOL or DRY mode, the  icon is displayed and the indoor fan will continue operation for 10 minutes in order to dry the indoor unit after you have turned off the unit. After energization, X-FAN OFF is defaulted. X-FAN is not available in AUTO, FAN or HEAT mode.

Guide for General Operation

1. Combination of “+” and “-” buttons: About lock
2. Press “+” and “-” buttons simultaneously to lock or unlock the keypad. If the remote controller is locked,  is displayed. In this case, pressing any button caused the  icon to blink three times.
3. Combination of “MODE “ and “-” buttons switch between Fahrenheit and Celsius. With the unit OFF, press “MODE” and “-” buttons simultaneously to switch between C and F.
4. Combination of “TEMP “ and “CLOCK” buttons : About Energy-saving Function
5. Press “TEMP” and “CLOCK” simultaneously in COOL mode to start energy-saving function.
6. Nixie tube on the remote controller displays “SE”. Repeat the operation to quit the function. 4)
7. Combination of “TEMP “ and “CLOCK” buttons: About 46F Heating Function
8. Press “TEMP” and “CLOCK” simultaneously in HEAT mode to start 46F Heating Function Nixie tube on the remote controller displays “ ” and a ected temperature of “46F”.
9. (46F if Fahrenheit is adopted). Repeat the operation to quit the function. 5)
10. About Back-lighting Function
11. The unit lights for 4s when energizing for the first time, and 3s for later press.

CHANGING BATTERIES AND NOTICES

- 1) Press slightly along the arrowhead direction to push the back cover open on the remote control.
- 2) Take out the old batteries. (As show in figure)
- 3) Insert two new AAA1.5V dry batteries, and pay attention to the polarity. (As show in figure)
- 4) Attach the back cover of wireless remote control. (As show in figure)



NOTE:

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be experience interference in rooms where there are fluorescent lamps or wireless telephones. The remote controller should be kept close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.

NOTES:

- When changing the batteries, do not use old or different batteries that could cause the remote control to malfunction.
- Use the remote in its receiving range. Remote should be used 36 inches away from a TV set or stereo.
- If the wireless remote control cannot operate normally, please take the batteries out, wait 30 seconds and reinsert them. If the remote still doesn't operate normally, please replace the batteries.
- If the wireless remote control will not be used for an extended period, it is recommended to remove the batteries. Leaving the batteries in could cause them to leak. This can cause damage to the remote control.
- The operation of the remote controller must be performed within its receiving range.
- To control the main unit, point the remote controller at the signal receiving window on the main unit to improve the receiving sensitivity of main unit.
- If the remote control does not operate normally, take the batteries out for 30 seconds, and then reinsert them. If it still does not operate properly, replace the batteries.

Maintenance

⚠ WARNING

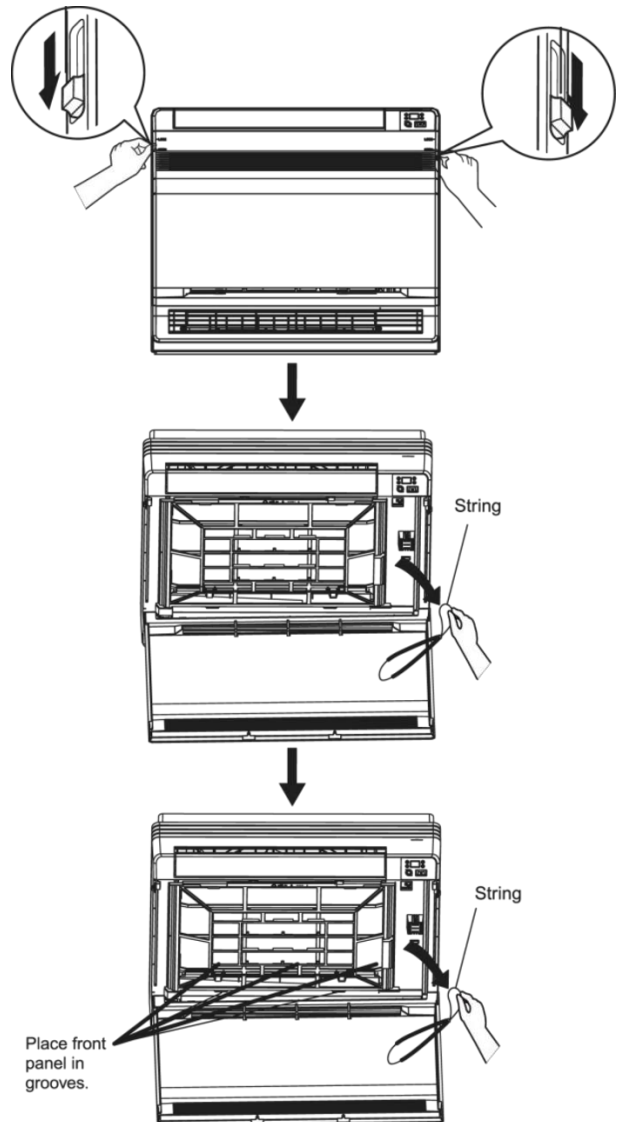
Before inspection and maintenance of the unit, please set power switch to “OFF” to turn off the power supply.

Units

To clean Indoor units, Outdoor unit and Remote Control, wipe them with dry soft cloth.

Front Panel

1. Open the front panel.
2. Remove the air filter.
3. Slide the two stoppers on the left and right sides inward until they click.
4. Remove the front panel. (see illustration)
 - Remove the string.
 - Allow the front panel to fall forward and then remove it.
5. Cleaning the front panel.
 - Wipe clean with a soft cloth soaked in warm water.
 - Only neutral detergents should be used.
 - After washing the front panel with water, dry it with a soft, clean cloth.
6. Attach the front panel.
 - Insert the front panel into the grooves of the unit (3 places).
 - Attach the string to the right, inner-side of the front grille.
 - Close the panel slowly.

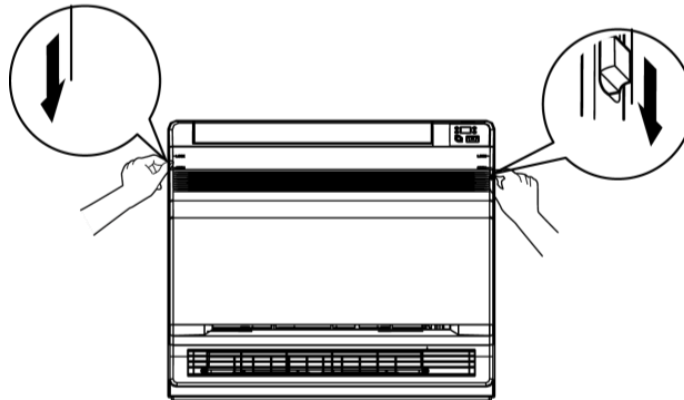


⚠ CAUTION

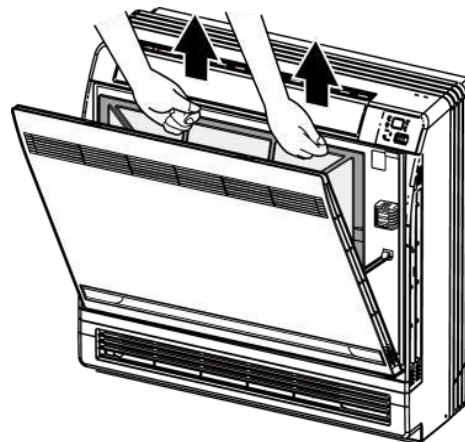
- Do NOT touch the metal parts of the indoor unit. Some of the edges may be sharp and could cause injury.
- When removing or attaching the front panel, if the unit is mounted on the ceiling, use a ladder if necessary.
- When removing or attaching the front panel, support the panel securely with hands to prevent it from falling.
- For cleaning, do not use: water above 40°C (104°F), benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, or any other abrasives.
- After cleaning, make sure the front panel is secured.

Filters

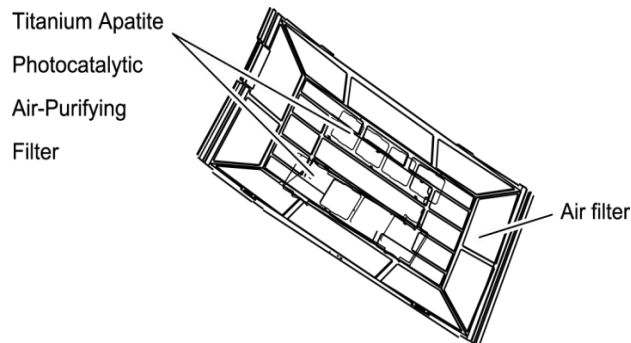
1. Open the front panel.



2. Remove the air filter.
 - Press down the tabs located on the right and left of the air filter frame, gently, while pulling air filter away from the unit.
3. Remove the Titanium Apatite Photocatalytic Air-Purifying Filter.
 - Hold the tabs of the air filter frame and remove from the 4 retaining tabs. 2 of the 4 tabs are larger and located at the top of the air filter frame and 2 of the 4 are smaller and are located near the middle of the air filter frame.

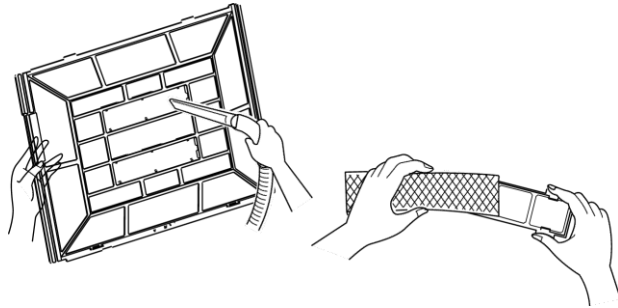


4. Clean or replace the filter.



5. After you have replaced or cleaned the filter, attach the air filter and Titanium Apatite Photocatalytic Air-Purifying Filter in its original location and close the front panel.
 - Operating the unit without air filters can result in clogged coils, and reduce the unit's efficiency. It can also have a negative impact on other components inside the unit, reducing its life span.

6. Wash the air filters with water or clean them with vacuum cleaner
 - If the dust does not come off easily, wash them with a neutral detergent and lukewarm water, then allow the filter to air dry thoroughly in a place not exposed to direct sunlight. It is recommended to clean the air filter every week.



Titanium Apatite Photocatalytic Air-Purifying Filter

The Titanium Apatite Photocatalytic Air-Purifying Filter can be reused several times before requiring replacement. By washing it with water once every 6 months, you can improve indoor air quality. YMGI recommends replacing the filter once every 3 years.

- Vacuum off dust, and soak in warm water for about 10 to 15 minutes if the filter is very dirty.
- Do not remove filter from frame when washing with water.
- After washing, shake off remaining water and allow it to dry in a place where it is not exposed to direct sunlight.
- The filter material is made of paper. Do NOT wring out the filter after washing or soaking.

Filter Replacement

When disposing of the old filter, treat as flammable waste.

Issues caused by dirty filters.

1. Cannot deodorize the air effectively.
2. Cannot effectively remove dust or debris from the air.
3. Results in poor heating or cooling.
4. May cause odor.

Additional Maintenance

⚠WARNING

1. If water ever drains from the Indoor Unit, the drain hose may be damaged, blocked, or installed improperly. Stop unit operation and contact a qualified service technician.
2. Check that the base/stand and other fittings of the outdoor unit are not corroded or incorrectly installed.
3. Ensure there is nothing blocking the air inlets or outlets of the indoor unit and the outdoor unit.
4. Ensure the condensate drains smoothly out of the drain hose during COOL or DRY operations.

Before a Long Idle Period

1. Operate the unit in “FAN only” mode for several hours on a dry day to ensure the inside is completely dry.
2. After operation stops, shut off the breaker for the air conditioner.
3. Clean the air filters and reinstall them.
4. Remove batteries from the remote control.

⚠WARNING

When a multi outdoor unit is connected, make sure the Heat operation is not used in another room while running the fan operation.

Function Description of Functional Dial Switch S7

1. The 3-bit dial switch determines running state of indoor unit, and must be set before energizing the main board.
2. Function of 3-bit dial switch is as follow:

Dial switch Silk screen	Function	Dial ON	Dial OFF
1(S / R)	Selection of the memory mode: <ul style="list-style-type: none"> • Selection between reset mode and standby mode after energizing. • This function is available without wired controller. 	Standby after energizing	Reset after energizing
2(L / I)	Selection between the manual controller and receiver: <ul style="list-style-type: none"> • If the manual controller is selected, the remote-control function of the receiver will be shielded. • If the receiver is selected, wired controller will be ineffective. 	Selecting wired controller	Selecting receiver joint
3(M / S)	Setting of the main and slave indoor units: <ul style="list-style-type: none"> • For resolution of conflict among the modes. • This function is available without the wired controller. 	Main indoor unit	Slave indoor unit

PROTECTION AND ERROR CODES

If an error occurs, the error code will be displayed on the indoor unit display, wall mounted controller, or the main board of the outdoor unit.

Error & Status Display List						Indoor Unit (Floor/Ceiling) 88 Display	Wired Controller Display	Indoor and/or Outdoor Unit Error
Errors of Residential Air Conditioners	Errors of Commercial Air Conditioners	Outdoor Unit 88 Display	Indicating LED Flashing Times					
			Running LED	Cooling LED	Heating LED			
/	Defrosting Mode 1	08	/	/	/	/	/	Outdoor
/	Defrosting Mode 2	0A	/	/	/	/	/	Outdoor
/	Whole Unit Running Normally	ON	/	/	/	/	/	Outdoor
Short/open circuit of the liquid valve temperature sensor	(Liquid Valve) Inlet Tube Temp Sensor Error	See Table 16	/	Flash 19 times	/	b5	b5	Outdoor
Short/open circuit of the gas valve temperature sensor	(Air Valve) Outlet Tube Temp Sensor Error	See Table 16	/	Flash 22 times	/	b7	b7	Outdoor
Refrigerant insufficiency or blockage protection (available for the residential outdoor unit)	/	F0	/	Flash 10 times	/	F0	F0	Outdoor
Short/open circuit of the indoor ambient temperature sensor	Indoor Ambient Temp. Sensor Short/Open-Circuit	See Table 16	/	Flash once	/	F1	F1	Indoor
Short/open circuit of the indoor evaporator	Indoor Evaporator Temp Sensor Short/Open-Circuit	See Table 16	/	Flash twice	/	F2	F2	Indoor
Short/open circuit of the of the outdoor ambient temperature sensor	Outdoor Ambient Temp Sensor Error	F3	/	Flash 3 times	/	F3	F3	Outdoor
Short/open circuit of the temperature sensor at the midway of the condenser coil (for the commercial unit)	Outdoor Mid-Coil Temp Sensor Error	F4	/	Flash 4 times	/	F4	F4	Outdoor
Short/open circuit of the outdoor discharge temperature sensor	Outdoor Discharge Air Temp Sensor Error	F5	/	Flash 5 times	/	F5	F5	Outdoor
Oil returning in cooling	Oil Return for Cooling	F7	/	/	/	/	/	Outdoor
System high pressure protection	High Pressure Protection	E1	Flash once	/	/	E1	E1	Outdoor
Anti-freezing protection	Shutdown for Whole Unit Anti-Freeze Protection	E2	Flash twice	/	/	E2	E2	Indoor
System low pressure protection (reserved)	Low Pressure Protection	E3	Flash 3 times	/	/	E3	E3	Outdoor
Compressor discharge high temperature protection	High Discharge Temp Protection	E4	Flash 4 times	/	/	E4	E4	Outdoor
Communication error between the indoor and outdoor units	Communication Error	See Table 16	Flash 6 times	/	/	E6	E6	Outdoor & Indoor
Mode conflict	Mode Conflict	See Table 16	Flash 7 times	/	/	E7	E7	Indoor
Overload protection	Overload Protection	E8	Flash 8 times	/	/	E8	E8	Outdoor
Anti cold blow protection	/	E9	/	/	/	/	/	Indoor
	Indoor Unit Water Full Error		/	Flashing	Flashing	E9	E9	Indoor
Trial run/trial operation	Trial Run	dd	Quick Flashing	Quick Flashing	Quick Flashing	dd	dd	Outdoor
Refrigerant recovery mode	Refrigerant Recovery Mode	Fo	Quick Flashing	Quick Flashing	/	Fo	Fo	Outdoor
Drive module resetting(for the commercial unit)	IPM Reset	Lc	Flash 3 times	Flash 3 times	Flash 3 times	Lc	Lc	Outdoor

Phase over-current protection	Compressor Current Protection	P5	/	/	Flash 15 times	P5	P5	Outdoor
Drive board communication error(for the commercial unit)	Communication Error between the Inverter Drive and the Main Controller	P6	Flash 16 times	/	/	P6	P6	Outdoor
Short/open circuit of the of the module temperature sensor	Radiator Temp Sensor Error	P7	/	/	Flash 18 times	P7	P7	Outdoor
Module temperature protection	Radiator Overheat Protection	P8	/	/	Flash 19 times	P8	P8	Outdoor
AC contact protection (for the commercial unit)	AC Contactor Protection	P9	Flash 3 times	Flash 3 times	Flash 3 times	P9	P9	Outdoor
Circuit sensor error	Current Sensor Error	Pc	Flash 3 times	Flash 3 times	Flash 3 times	Pc	Pc	Outdoor
Transducer connection protection (for the commercial unit)	Sensor Connection Protection	Pd	Flash 3 times	Flash 3 times	Flash 3 times	Pd	Pd	Outdoor
AC current protection(input side)	AC Current Protection (Input Side)	E5	Flash 3 times	Flash 3 times	Flash 3 times	E5	E5	Outdoor
Temperature drift protection (for the commercial unit)	Temp Drift Protection	PE	Flash 3 times	Flash 3 times	Flash 3 times	PE	PE	Outdoor
Drive board ambient temperature sensor error (for the commercial unit)	Drive Board Ambient Temp Sensor Error	PF	Flash 3 times	Flash 3 times	Flash 3 times	PF	PF	Outdoor
DC link high voltage protection	Low Voltage Protection	PL	Flash 3 times	Flash 3 times	Flash 3 times	PL	PL	Outdoor
DC link low voltage protection	Over Voltage Protection	PH	Flash 3 times	Flash 3 times	Flash 3 times	PH	PH	Outdoor
/	AC Input Voltage Anomaly	PP	Flash 3 times	Flash 3 times	Flash 3 times	PP	PP	Outdoor
Capacitor charging error	Charging Circuit Error	PU	/	/	Flash 17 times	PU	PU	Outdoor
Defrosting or oil returning in heating	Oil Return for Heating or Defrosting	H1	/	/	Flash once	H1		Outdoor
/	Forced Defrosting	H1	Quick Flashing	/	/	H1	H1	Outdoor
Compressor thermal overload protection.	Compressor Overheat Protection	H3	/	/	Flash 3 times	H3	H3	Outdoor
Modulecurrent protection(namely IPM protection)	IPM Protection	H5	/	/	Flash 5 times	H5	H5	Outdoor
Compressor desynchronizing	Motor Desynchronizing	H7	/	/	Flash 7 times	H7	H7	Outdoor
PFC Protection	PFC Error	Hc	/	/	Flash 6 times	Hc	Hc	Outdoor
Too high power protection (available for the residential outdoor unit)	/	L9	Flash 20 times	/	/	L9	L9	Outdoor
Compressor startup failure	Startup Failure	Lc	/	/	Flash 11 times	Lc	Lc	Outdoor
Compressor phase failure/reverse protection	Phase Loss	Ld	Flash 3 times	Flash 3 times	Flash 3 times	Ld	Ld	Outdoor
Compressor rotation failure(for the commercial unit)	Compressor Stalling	LE	Flash 3 times	Flash 3 times	Flash 3 times	LE	LE	Outdoor
Over speed (for the commercial unit)	Over-Speed	LF	Flash 3 times	Flash 3 times	Flash 3 times	LF	LF	Outdoor
Short/open circuit of the temperature sensor at the inlet of the condenser coil (for the commercial unit)	/	A5	Flash 3 times	Flash 3 times	Flash 3 times	oE	A5	Outdoor

Short/open circuit of the temperature sensor at the outlet of the condenser coil (for the commercial unit)	/	A7	Flash 3 times	Flash 3 times	Flash 3 times	oE	A7	Outdoor
Memory card error	/	EE	/	/	/	/	/	Outdoor
Frequency limitation/ degradation for module circuit protection (for phase circuit)	/	En	Flash 3 times	Flash 3 times	Flash 3 times	En	En	Outdoor
Frequency limitation/ degradation for module temperature protection	/	EU	/	Flash 6 times	Flash 6 times	EU	EU	Outdoor
Frequency limitation/ degradation for overload	/	F6	/	Flash 6 times	/	F6	F6	Outdoor
Frequency limitation / degradation for circuit protection of the whole unit	/	F8	/	Flash 8 times	/	F8	F8	Outdoor
Frequency limitation/ degradation for module circuit protection (for phase circuit)	/	F9	/	Flash 9 times	/	F9	F9	Outdoor
Frequency limitation/ degradation for anti-freezing protection	/	FH	/	Flash twice	Flash twice	FH	FH	Outdoor
Compressor demagnetizing protection	/	HE	/	/	Flash 14 times	HE	HE	Outdoor
Indoor and outdoor units unmatched	/	LP	Flash 19 times	/	/	LP	LP	Outdoor & Indoor
Compressor phase circuit detection error	/	U1	/	/	Flash 12 times	U1	U1	Outdoor
DC link voltage drop error	/	U3	/	/	Flash 20 times	/	/	Outdoor
Communication Line Misconnected or Expansion Valve Error	Communication Line Misconnected or Expansion Valve Error	dn	Flash 3 times	Flash 3 times	Flash 3 times	dn	dn	Outdoor

The words in gray means the corresponding function is unavailable.

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 Network Address Error
L3	Water Full Protection	LC	Outdoor-Indoor Incompatibility Error	dH	Wired Controller Circuit Board Error
L4	Wired Controller Power Supply Error	D1	Indoor Unit Circuit Board Error	dC	Capacity DIP Switch Setting Error
L5	Anti-freezing Protection	D3	Ambient Temperature Sensor Error	dE	Indoor Unit CO ₂ Sensor Error
L7	No Master Indoor Unit Error	D4	Inlet Pipe Temperature Sensor Error	C0	Communication Error
L8	Power Insufficiency Protection	D6	Outlet Pipe Temperature Sensor Error	AJ	Filter Cleaning Reminder
db	Special Code: Project Debugging Code	dL	Outlet Air Temperature Sensor Error		

CHECKING UNITS PRIOR TO CONTACTING YOUR TECHNICIAN

⚠ WARNING

Do not attempt to repair the air conditioner yourself. An Incorrect repair may cause electric shock or fire, so please contact an authorized service center for professional repair.

Problem Handling

The conditions listed below are not classified into errors.

Conditions		Causes
The unit does not run	After restarting the unit after it has stopped.	The overload protection switch of the unit has delayed unit startup for three minutes.
	As soon as power is turned on	The unit will be on standby for approximately one minute
The unit blows out mist	When the cooling operation starts.	The high humidity indoor air is cooled quickly causing condensation
The unit generates noise	The unit "clatters" on start up.	This sound is generated during the initialization of the electronic expansion valve.
	The unit "swishes" during cooling operation.	The sound is generated when refrigerant gas runs inside the unit.
	The unit "swishes" when it is on or after running.	The sound is generated when refrigerant gas stops flowing.
	The unit "swishes" when it is on or after running.	The sound is generated when the drainage system operates.
	The unit "squeaks" when it is on or after running.	The sound is produced by friction generated by the skin plates that can swell and contract due to temperature changes.
The unit blows out dust.	When the unit is restarted after not being used for prolonged period.	Dust that has settled inside the unit is being blown out.
The units emits odor.	When the unit is running.	Odors absorbed in the filters are blown out again. Check the filters.

Following checks prior to contacting an authorized service center may save you time and costs.

Phenomenon	Normal or Abnormal
The unit doesn't deliver cooling or heating, immediately after the unit is restarted (remote control or power resuming).	If the unit is powered off, and then restored, it will not run the compressor until 3 minutes later. This is normal 3-minutes restarting protection due to high internal refrigerant pressure.
The unit emits a smell.	For a new unit, some of the odor is normal. For any bad or abnormal odor, shut off the unit and check the unit and the area around the unit for anything visible that could cause the odor. Call a technician if necessary.
Hearing the sound of "water flow" inside the unit.	Normally this is due to refrigerant flowing through the coils.
Mist is blowing out of the unit.	Normally this happens during cooling startup period, when the indoor air is hot and humid.
Hearing creaking noise during unit starting or shutting off.	Normally this is caused by the expansion or contraction of components due to temperature changes.
The unit doesn't operate at all.	<ol style="list-style-type: none"> 1) Is power shut off or lost? 2) Is the TIMER set up? 3) Is the circuit breaker engaged, or tripped? 4) Is the fuse connected, or blown? 5) Is the voltage too high or low? 6) Is the flow control or other switches breaking the circuit? 7) Is the unit under the 3-minute restarting protection period? 8) Does the remote control have power?
Unit doesn't respond to remote control.	<ol style="list-style-type: none"> 1) Dose the remote control have battery power? 2) Is the remote control pointing at sunshine or bright lights? 3) Is the remote control signal blocked? 4) Is the remote control too far away from indoor unit? 5) Is the fuse on indoor unit blown? 6) Is the indoor unit powered on? 7) Is the indoor unit transformer good? 8) Is the indoor unit control board good?
Cooling (heating) is weak.	<ol style="list-style-type: none"> 1) Is the set temperature too high or too low? 2) Is the filter dirty? 3) Is the air vent blocked? 4) Is the unit undersized? 5) Is there a window or door opened? 6) Is the unit refrigerant at a lower level? 7) Is the outdoor temperature too hot or cold? 8) Is fan speed set at a low speed?



Indoor unit doesn't blow air.	<ol style="list-style-type: none"> 1) Is the unit in 3-minutes restarting protection period? 2) In heating mode, the indoor fan motor will not rotate before the indoor coil is hot enough. This is a normal anti-cold air blowing function. 3) Is the outdoor unit defrosting? 4) Is the unit in fan-pausing period for dehumidification mode? 5) Is the filter dirty? 6) Is the fan motor setting screw loose? 7) Is the fan capacitor bad? 8) Is the fan motor bad?
Condensate forms at air discharge louver.	This is normal when the conditioned cool air is mixed with the warm/hot and humid indoor air. Condensate may go away gradually once the indoor air is dehumidified and cooled down.
Water drips out of the indoor unit.	<ol style="list-style-type: none"> 1. Is indoor air too warm and humid? 2. Is the condensate drain hose/connection leaking? 3. Is the condensate drain hose clogged or restricted? 4. Is the condensate drain hose insulated? 5. Is the 3" hole at exterior wall staffed or sealed?
Phenomenon	Normal or Abnormal
Noise is heard at the indoor unit.	<ol style="list-style-type: none"> 1. Is the fan motor or compressor relay energized? 2. Is it due to temperature change that causes part expansion or contraction?

Stop all unit operations, disconnect power and contact your service technician in the following situations:

1. Harsh sound is heard
2. Bad odor is detected;
3. Water is leaking out of the indoor unit;
4. Circuit breaker trips or fuse is blown a few times;
5. Wires or connections are very hot;
6. Oil or refrigerant leakage is found;
7. Unit vibrates abnormally;
8. Any other abnormal situations.

Check before Contacting Service Center

Please check the following items before contacting the maintenance serviceman.

Condition	Cause	Corrective Actions
Unit does not run	Broken fuse or open breaker	Change the fuse or close the breaker
	Power off	Restart the unit with main power on
	Insufficient battery voltage in remote control	Change with new batteries
	Remote control out of range	Use remote within 8 meters of unit
Unit stops shortly after starting	Clogged inlet/outlet of indoor or outdoor unit	Clear blockage
Cooling or Heating is abnormal	Clogged inlet/outlet of indoor or outdoor unit	Clear blockage
	Improperly set temperature	Adjust settings using the remote or wired controller
	Fan speed is too low	
	Improper airflow direction	
	Opened door or window	Make sure room is closed up
	Direct sunlight	Curtains or blinds over windows are recommended.
	Too many people in the room	
	Too many heat sources in the room	Turn off or remove any electronics or heat generating devices
Dirty filter screen	Clean filters	

Note: If the air conditioner still runs abnormally after the above check and handling, please contact the maintenance serviceman at the local appointed service center and also give a description of the error occurred as well as the model of the unit.



Analyzing Malfunctions

⚠WARNING

DO NOT ATTEMPT TO REPAIR the air conditioner yourself.

An incorrect repair could lead to electric shock or fire. Contact a certified service center or technician and have the unit repaired by qualified HVAC professional.

Save time and money by checking the following items before contacting a service technician to repair your unit.

Malfunction	Possible Cause
The air conditioner will not start right after being turned off.	The overload protection switch of the unit places the unit in a 3 minute delay, after which the unit will start normally.
There is an odor when the unit is turned on.	This is because when air conditioning, odors or cigarette smoke from the room that were pulled into the unit are being discharged into the room again.
Slight bicker was heard when the unit is running.	This is the sound refrigerant flowing.
Mist comes from the air outlet vent when cooling.	Indoor air is being cooled rapidly in a room with high humidity.
Creaking sound is heard when unit is running or after running.	The sound is caused by the expansion of panels and other metal parts in the unit due to a change in temperature within the unit.
The air conditioner will not run.	Is the power off? Is the power supply connected? Is the circuit protector tripped? Is the voltage too high or too low? Was the OFF TIMER set on the wireless remote controller?
The cooling/heating effect of the air conditioner is not as expected.	Is the temperature set too high or too low? Is the inlet or outlet vent of outdoor unit blocked? Is the air filter dirty causing a blockage? Are all the windows and doors closed? Is the fan set to Low speed? Are there other heating sources in the room?
Wireless remote controller will not control the unit.	Change the batteries. The wireless remote controller sometimes will appear as though it can't control. Take off the back cover and press the ACL button to reset it. The air conditioner is operating abnormally or changing functions too frequently, making the wireless remote controller ineffective. Reset the breaker supplying power to the unit and the unit should resume normal operation. Is the remote control in range of the unit? Is there something blocking the signal? Check batteries in the remote control and ensure they are the correct type and size recommended for the remote controller. If not, replace the batteries.

Service Center

When the following phenomena occur, stop unit operating immediately. Turn off the main power supply of unit and contact a qualified service center or technician to inspect the unit.

- Harsh sound heard when running.
- The fuse or protector trips frequently.
- Moisture has been pulled into the unit involuntarily.
- Water leakage in the room.
- Overheating of the power cord.
- Odor is noticed when unit is running.



USER NOTES AND INSTALLATION/SERVICE/MAINTENANCE NOTES

INSTALLATION NOTES

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

No.	Date	Notes	Asked Technician for Help?	Contact YMGI Tech. for Help?

USER NOTES

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

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

SERVICE / MAINTENANCE 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 & HVAC License #





YMGI is dedicated to designing, manufacturing and distributing the highest quality, energy saving and environmentally friendly air conditioner and heat pump products, while providing the best service and support to all of our customers. Our mission is to help build a sustainable, efficient and green world.

YMGI Symphony-Ductless & Ducted Heat Pump & Heat Recovery:

- **Symphony SOLAR DC Inverter**
(56) Single PV, (79) Single PH 12-18K Btu/h
(86) Single Zone All DC 09-24K Btu/h
(55) Multi Zone Solar VRF 3, 4, 8, 16, and 24 Ton.
- **Symphony SOLO DC Inverter**
(57)2,3 Single Zone 16 SEER, 09-36K Btu/h
(58)4, (78)1-Single Zone 18-23 SEER, 09-36K Btu/h
- **Symphony CHOIR DC Inverter**
(46)2 DC Inverter Multiple Zone 15 SEER, 2x09K and 2x12K Btu/h
(59)2S-DC Inverter Multiple Zone 16 SEER 6x09K to 9x09K Btu/h
(59)4-DC Inverter Multiple Zone 21 SEER 2x09K to 5x12K Btu/h
- **Symphony VRF - DC Inverter HP, Heat Recovery, and Solar. Up to 64 zones.**
- **Symphony HARMONY-Packaged Self-Contained**
42"x16" PTAC/PTHP Electric Heater or Hot Water Coil, and VPAK
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